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THE GUITTAR

IN THE BRITISH ISLES, 1750-1810

A thesis submitted

for the degree of Doctor of Philosophy

by Panagiotis Poulopoulos

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DECLARATION

I do hereby declare that this thesis has been composed by me and that the work described within is my own except where explicitly stated otherwise. I further declare that this work has not been submitted for any other degree or professional qualification except as specified.

Panagiotis Poulopoulos

ABSTRACT

The guittar, now commonly known as the 'English guittar', is a small plucked instrument which was widely used in the British Isles from the middle of the 18th to the beginning of the 19th centuries. Appearing in a variety of shapes and sizes, and having essentially wire strings and an open major tuning, it was more related to the cittern, and quite different from the Spanish guitar. Being cheap, elegant, and relatively easy to play, the guittar quickly became popular among amateur musicians, especially upper-class ladies. In addition, the guittar was at the forefront of mechanical and technical invention, and especially the later types of the instrument were often fitted with several innovative devices that found use on other contemporary or successor instruments.

This thesis refines the results of past research concerning the guittar by undertaking a critical review of the relevant literature, and by introducing new data collected during the detailed examination and comparison of numerous surviving guittars in museums and private collections. The results are supported by the investigation of a wide variety of primary sources, including literary references, newspaper advertisements, patent records, legal documents, music scores, and iconographical evidence. The research has led to the establishment of a methodology for the documentation and classification of extant guittars using a prototype template, and to the creation of various reference databases for the future study of the instrument.

This thesis is the first complete study of the guittar in the British Isles during the second half of the 18th century. It presents the most important facts and figures related to the origins and development of the instrument, while documenting and highlighting its main historical, musical and technical features, with emphasis on aspects of design, construction and decoration. Additionally, this thesis examines the guittar's social and cultural role as a predominantly domestic female instrument, and also brings to light new interesting details about the establishment of a guittar trade within and outside the British Isles. Finally, it accounts the main reasons for the decline of the guittar and also identifies its significance in the wider fields of musicology and organology, indicating possible relations and influences with other contemporary musical instruments across Europe.

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I would also like to thank the following public museums and collections, presented alphabetically below, as well as their members of staff, listed in brackets, for allowing me to examine and photograph surviving instruments, and for providing catalogue information and other useful details: Ashmolean Museum, Oxford (Jon Whiteley); Bate Collection of Musical Instruments, Oxford (Andrew Lamb); Blair Castle, Blair Atholl, Perthsire (Jane Anderson); Burns Birthplace Museum, Alloway, Ayrshire (David Hopes and Sylvia Krauss); Conservatorio 'Luighi Cherubini' Collection, Galleria dell' Academia, Florence (Gabrielle Rossi-Rognoni, Gerardina Santorsola and Arianna Soldani); Charles Wesley House, Bristol (David Worthington); Czech Museum of Music, Prague (Emanuele Gadaleta and Peter Balog); Danish Music Museum, Carl Claudius Collection, Copenhagen (Marie Martens); Dean Castle, Kilmarnock (Linda Fairlie and Bruce Morgan); Deutsches Museum Muenchen, Munich (Silke Berdux and Christian Lang); Edinburgh University Collection of Historic Musical Instruments (John Raymond), Gemeentemuseum, Hague (Michael Latcham); Germanisches Nationalmuseum, Nuremberg (Frank Bär and Klaus Martius); Händel-Haus Museum, Halle (Christiane Rieche and Achim Haufe); Historisches Museum Frankfurt, Frankfurt (Jürgen Steen, Oliver Morr and Gabriela Betz); Horniman Museum, London (Louise Bacon, Bradley Strauchen and Tom Miles); Metropolitan Museum of Art, New York (Jayson Dobney and Michael Suing); Musée des

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1 INTRODUCTION

'As a relic of an historic past the English Guitar would repay study and practice; unfortunately the instruction books issued in the halcyon days of its popularity are out of print and unattainable.'

Francis William Galpin, *Old English Instruments of Music*, **1910**

'On reflection […] it does seem somewhat academically lax to continue to refer to the instrument (of German origin) as the 'English Guitar'-a term unheard of in Scotland until the second half of the twentieth century…'

Rob MacKillop, *The Guitar, Cittern and Guittar in Scotland*, **2004**

The late 18th century saw the development of a musical instrument particularly favoured among female performers:

> The great Progress the Cetra or Guittar has made in these Kingdoms within the space of a few years seems a sufficient Recommendation of it; more especially when we consider the disadvantages under which it has hitherto laboured, no less than a total Ignorance of the Power of the Instrument.[1]

> THE GUITAR (or CITRA) is an instrument which from its delicacy of Tone & grace- / full manner of holding for Performance, has ever recommended itself to the use of the / Ladies - it is esteemed a complete Accompanyment to the Female Voice.[2]

The guittar, now commonly known as the 'English guittar', is a small plucked instrument which was widely used in the British Isles from the middle of the 18th to the beginning of the 19th centuries. Appearing in a variety of shapes and sizes, and having essentially wire strings and an open major tuning, it was more related to the cittern, and quite different from the Spanish guitar, and the adjective 'English' has been generally established in order to distinguish the two types. Being cheap, elegant, and relatively easy to play, the guittar quickly became popular among amateur musicians, especially upper-class ladies. In addition, the guittar was in the forefront of mechanical and technical invention, and especially the later types of the instrument were often fitted with several innovative devices that found use on other contemporary or successor instruments.

The basic technical characteristics of the guittar as developed during the late 18th century are presented briefly below, although it has to be pointed out that the manufacture features of surviving instruments vary considerably, thus preventing a clear standardisation between the different types. In terms of design and construction, there is a wide range of body shapes, body sizes and overall dimensions[3], but as a rule most guittars have a more or less rounded or oval

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[1] Marella, Giovanni Battista (1757) *Sixty Six Lessons for the Cetra or Guittar* (London: G. B. Marella).
[2] Preston, John (c.1789) *Complete Instructions for the GUITAR* (London: J. Preston).
[3] For example, a typical guittar by Preston has a teardrop-shaped flat-back body of approximately 350 mm length, 290 mm width and 75 mm depth; a typical guittar by Hintz has a bell S-top-shaped flat-back body of approximately 335 mm length, 305 mm width and 85 mm depth, while a typical guittar by Zumpe has an almond-shaped bowl-back body of approximately 370 mm length, 275 mm width and 120 mm depth. For more details of these features see Chapter 6.

body, the upper or lower parts of which may be festooned or pointed. The typically flat or slightly convex back and the sides are usually made of maple, while the flat soundboard is usually made of spruce or other coniferous wood, and has a movable arched bridge towards the bottom and a circular wooden or brass rose in the centre. On most guittars the neck has a wide arched fingerboard with a radius of 6'' (152.4 mm), equipped with 12 or more, in some cases up to 19, chromatic metal frets. In addition, the fingerboard on many guittars has holes drilled through the neck, usually between the first four frets, for the use of a capotasto, a movable bridge which, when fixed on the fingerboard, allows a performer to raise the pitch of the instrument. The scaling of several examined guittars varies between 378 mm to 530 mm, although the typical figures range from 410 mm to 440 mm.

The stringing arrangement of the guittar can be equally diverse. Most guittars have ten wire strings fastened on endpins at the bottom of the body and arranged in six courses, the four treble usually having pairs of plain strings and the two bass having single overwound strings. However, guittars with nine, eleven or twelve strings have survived, the latter often having triple strings for the two highest treble courses. Several types of tuning devices were used or developed especially for the guittar, including wooden pegs, watch-key machines, worm-and-pinion tuners and machine heads. Depending on their design these tuning mechanisms are mounted on one of three main head styles including a viol-style pegbox, a sickle-shaped head or a spear-shaped flat head, all of which terminate with a characteristic square finial.

Although it was mainly advertised as an affordable domestic instrument for vocal accompaniment, the guittar was usually made with the finest materials and craftsmanship, often with a finishing of the highest quality and bearing elaborate decoration. The purfling typically consists of one or more pairs of inked lines on the soundboard and back, and occasionally on the sides. Additionally, many surviving guittars are ornamented with intricate inlays or veneers of precious materials, such as ebony, ivory, tortoiseshell, or mother-of-pearl, used mainly on the roses, fingerboards and finials, and less often, on parts of the body. The decoration motives include a broad range of geometrical and floral patterns as well as depictions of biblical or allegorical themes.

The guittar was normally tuned in open C major, and more rarely, in open G or A (for long-scale instruments), following the triadic note pattern of root-third-fifth, and then again, at an octave higher, root-third-fifth: c-e-g-c′-e′-g′. Although the instrument was mainly plucked with fingers, in the early 1780s two piano-key mechanisms to strike the strings were invented; one built internally, the other mounted externally on the soundboard. A significant amount of music was published for the guittar including simple arrangements of popular songs and airs, lessons and sonatas for solo guittar, duets, sonatas with thoroughbass and trios with violin and cello, with many surviving works written by renowned 18th-century composers.

It is interesting, however, that although a large number of guittars, as well as a large quantity of published music, literary references and iconographical sources related to the instrument, have survived in public museums, academic institutions and private collections, no serious study of the instrument has been conducted so far. The limited research and consequent lack of substantial information regarding the instrument have raised many issues worth investigating and discussing. Therefore, this thesis aims to be the first complete account of the guittar in the British Isles during the second half of the 18th century, presented mainly in **Chapters 2** to **7**, after a brief introductory section listing the basic research aims, sources, and methodology.

To begin with, the organological classification and nomenclature of the instrument has been a point of controversy among modern researchers, players, and makers, while there is still much confusion between scholars concerning the instrument's origins, provenance, and date of invention. **Chapter 2** intends to clarify these issues by providing a critical review of the relevant literature and by considering new pieces of evidence in order to confirm, contradict, or refine the results of past research concerning the guittar. This chapter also provides a brief overview of wire-strung plucked instruments in Britain prior to the arrival of the guittar, and highlights the influence of earlier instruments, such as the cittern, the bandora, the orpharion, or the lute, on the development of the instrument, pointing out any similarities or differences.

In addition, the guittar is an instrument that deserves further research as a result of its popularity among 18th-century performers; however, the reasons the guittar became so popular at that particular historical period have not been fully investigated. Although much research has

been carried out, for instance, on the stringed instruments of the orchestra, many domestic instruments, such as the guittar, which were played by thousands of amateurs at home, have been considerably neglected. The guittar belongs to these instruments that were equally important for shaping the musical education of the masses and for creating a new audience for music as were the instruments made for professional use in concert halls. Nevertheless, the role of the guittar in the social and musical life of Georgian Britain has been examined only superficially, while the instrument's influence in the creation and sustaining of a market for plucked instruments in Britain has been largely ignored.

Chapter 3 attempts to shed more light on these issues firstly by presenting the historical background under which the guittar appeared and developed, providing a brief account of the political, economic, social, and cultural conditions in the British Isles in the second half of the 18th century. Furthermore, it analyses the main facts and figures pertaining to the creation and establishment of a guittar culture in London. It also addresses class and gender issues surrounding the instrument, while describing in detail the social context and cultural identity of the guittar as a predominantly female instrument.

In addition, this chapter lists several facts about guittar players, teachers, and composers, while discussing the instrument's distinctive tuning, playing techniques, repertoire and musical role, as evidenced in the wealth of surviving tutors, music scores and literary references. However, it does not attempt to offer a musicological analysis of surviving music for the guittar or to provide detailed comments on performance practices and ornamentation, as this would be a research project of its own, requiring an entirely different approach. This chapter also examines the expanding of guittar culture to the British provinces and the role of the guittar in Scotland and Ireland, and, finally, it investigates the reasons for the guittar's decline and eventual disappearance around the beginning of the 19th century.

The guittar also had a strong presence in many countries outside the British Isles; the exporting of a guittar culture in several continental countries and in the British colonies is discussed in length in **Chapter 4**. Any similarities or differences between guittars made in the British Isles and those made in other countries are highlighted, while the musical, cultural and social aspects

of the instrument in the local communities, as evidenced in contemporary sources, are also described.

Besides, there is presently little sufficient and systematic information about the guittar trade to justify the impressive number and variety of surviving instruments. Moreover, even though some writers have provided facts and numbers for a few renowned guittar makers and their work, the majority of the professionals involved in the guittar trade are much less documented, despite the numerous surviving instruments bearing inscriptions and stamps that provide names, dates, addresses and other significant details.

Chapter 5 intends to fill this gap by providing a comprehensive overview of the guittar trade and illuminating several aspects of the guittar manufacture and marketing. Moreover, this chapter lists the typical manufacturing characteristics of the three main groups of guittar makers and dealers, comprising professionals of German, British, and Irish origin, describing the production methods of the most significant and influential manufacturers, along with other, less known names.[4] The presented information is based on the examination of surviving instruments and the investigation of contemporary archives and the relevant literature.

Moreover, information on the various body shapes and sizes, scaling, stringing, building and finishing techniques, maker's identification features, and other important aspects of the guittar's manufacture is, at present, quite limited. These subjects are covered methodically in **Chapter 6**, which includes an in-depth breakdown of the design, construction and decoration features of the guittar, listing the most typical characteristics of the instrument as well as any exceptional or noteworthy features, while bringing to light common practices of modification or alteration that occurred during the instrument's historical use. In cases of notable and prolific guittar manufacturers and dealers, such as Liessem, Hintz, Rauche, Preston, Gibson, Claus, or Longman

[4] A directory of guittar makers and dealers, including brief biographical information and business details, along with a provisional list of surviving instruments for each name, is provided in Appendix I.

& Broderip, the individual characteristics of their work are presented in detail using examples of extant instruments.

Additionally, a great amount of speculation but little accurate evidence has been so far offered regarding some of the guittar's innovations, especially those pioneering features related to the patents and inventions applied to the instrument. For this purpose **Chapter 7** extensively explores the mechanical and technical aspects of the guittar, including the invention of two patent fingerboards and the development of various tuning mechanisms for the instrument in the 1760s and 1770s, as well as the invention and use of the two different piano-key mechanisms for the guittar, internal and external, and their variations, during the 1780s. These features are described and compared at length, taking into consideration the relative surviving patents and other archival documents, which have been rather overlooked in the past.

Finally, a brief **Epilogue** reviews the significance and influence of the guittar in the wider field of organology emphasising on its role as a museum artefact over the last two centuries and its recent resurrection as part of the early music revival movement. This chapter also summarises and evaluates the methods and results of this project, suggesting areas of potential research for the instrument. The **Appendices** include additional supportive material that would be too large to be incorporated in the main text, while an alphabetical list of references is presented in the **Bibliography** at the end of the thesis.

Some results of the research for this thesis have so far been presented by the author in the following studies: 'The Rise and Decline of the Guittar in Britain, 1750-1810' and 'Guittar Design and Aspects of Guittar Stringing and Tuning'[5]; 'A Comparison of Two Surviving Guittars by Zumpe and New Details Concerning the Involvement of Square Piano Makers in the Guittar Trade'[6]; 'Guittar Manufacture and Marketing in late 18th-century London'[7]; 'Historical Use and

[5] Both papers were presented at the 'First Cambridge Colloquium on the Guitar in the Early Nineteenth-century', Sidney Sussex College, University of Cambridge, 4-6 April 2011.
[6] Article published in the *Galpin Society Journal*, Vol. 64, (2011), p. 49-59, 180-83.
[7] Paper presented at the Galpin Society & Historic Brass Society Joint Conference: 'Making the British Sound', London & Edinburgh, 7-11 July 2009.

the Preservation of Authenticity: The Case of the English Guittar'[8]; and 'The Piano-key Mechanism of the English guittar'[9]. These studies have all been recently revised and updated, and any new relevant material resulting from additional research has been incorporated in this thesis.[10]

[8] Paper presented at the '2nd International Conference for PhD Music Students', Thessaloniki, Greece, 11-13 February 2009; a revised version of the paper was included in the conference proceedings published in 2010.
[9] Paper presented at the '37th Annual Meeting of the American Musical Instrument Society', Calgary, Canada, 28 May-1 June 2008.
[10] However, instead of repeating some arguments presented in detail in the articles, the details have been footnoted, referring the reader to the original text.

1.1 TERMINOLOGY

For reasons of consistency and clarity a standard technical terminology was developed and used throughout this thesis when referring to guittars and similar instruments. Many of the employed terms have been long established and used in the relevant literature, while some new terms were invented to describe various distinctive features of the guittar design.

The terms used to describe the main parts on the front, sides and back of a typical guittar are presented below (**Figure**).

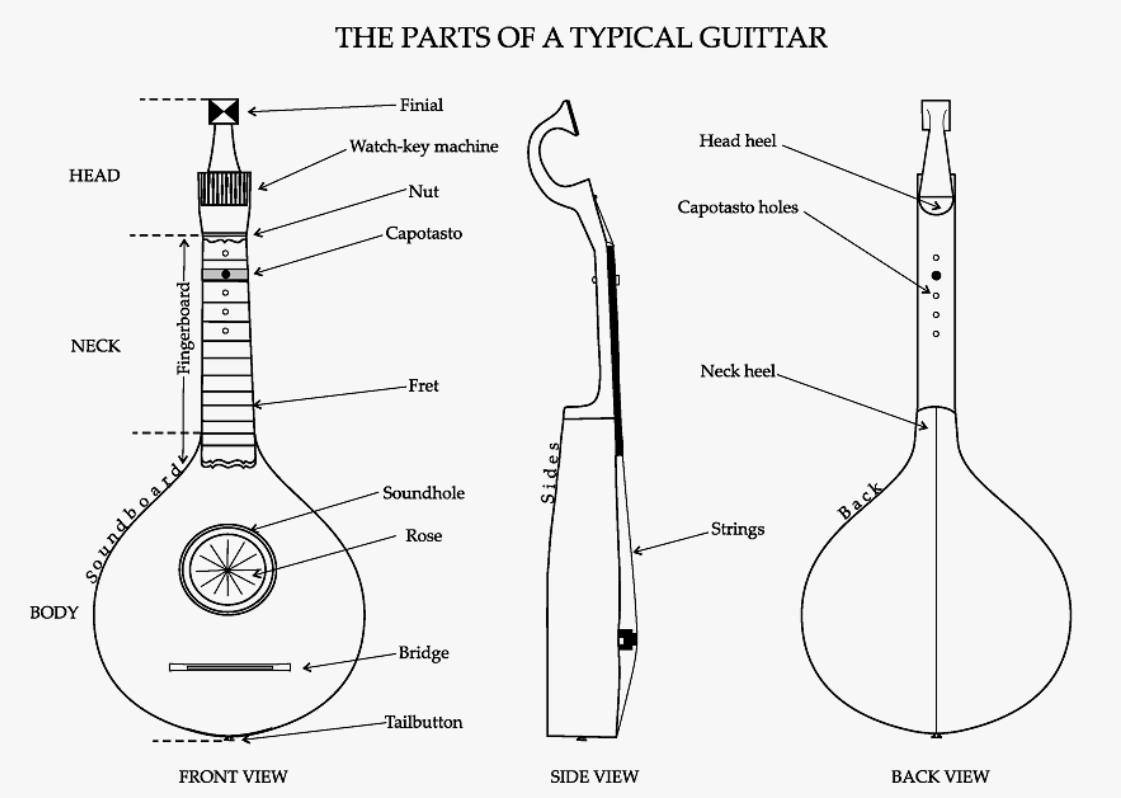

Figure 1.1: Technical drawing showing the terms used to describe the main parts on the front, sides and back of a typical guittar.

The terms used to describe the eight most common guittar body shapes are presented below (**Figure**).

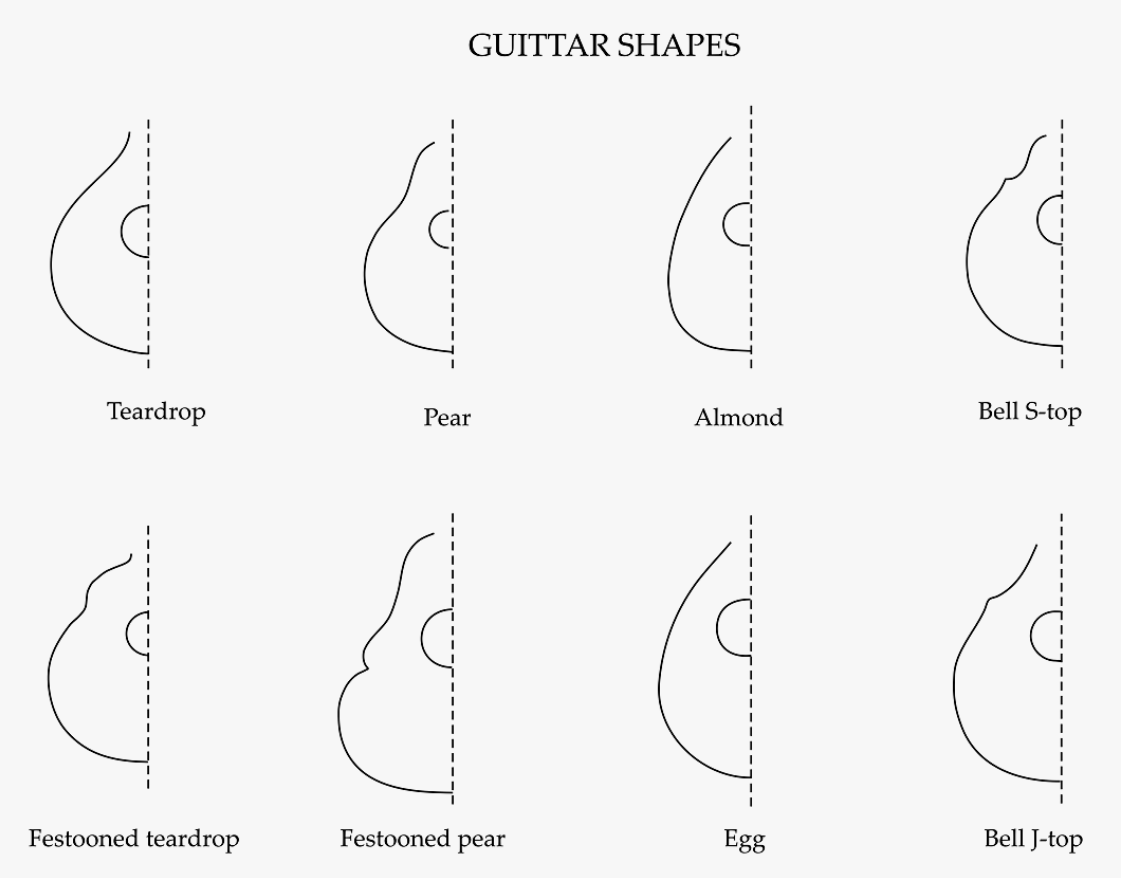

Figure 1.2: Technical drawing showing the terms used to describe the eight most common guittar body shapes.

The terms used to describe guittars equipped with piano-key-mechanisms are presented below (**Figure**).

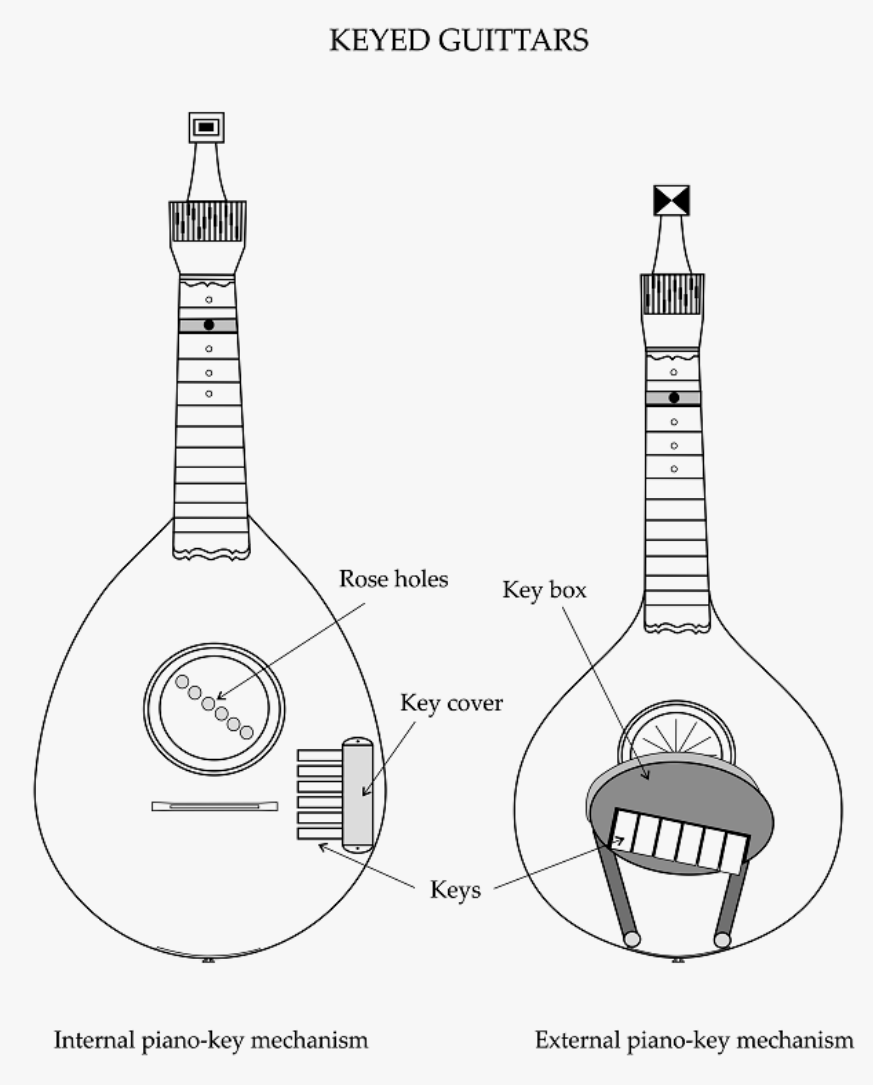

Figure 1.3: Technical drawing showing the terms used to describe guittars equipped with piano-key mechanisms.

1.2 CONVENTIONS

The several conventions[11] used throughout the thesis are presented below:

Names: Throughout the thesis the names of people or places are given using the spelling found in contemporary documents or on signed extant instruments; however, in the case of instrument makers' names priority has been given to the spellings found on extant instruments rather than in contemporary documents.

In general, the maker's name is given directly if the actual maker or workman can be confidently identified. In case of doubt, the following conventions are used:

'By': the instrument is in the author's opinion the work of the named maker. This category also includes instruments made especially for a dealer and originally sold under his name, and where the actual maker is unknown or unidentifiable.

'Ascribed to': a traditional attribution with which the author does not necessarily agree.

'Attributed to': the instrument is believed to be by the named maker in the opinion of the author(s) or the authority(ies) whose literature or certificates are referred to in the text where the specific item is mentioned.

'School of', '...school': the instrument is, in the opinion of the author, by a follower of the maker indicated, or is in the style of instruments associated with the area indicated.

'Workshop of': in the author's opinion, the instrument is executed in the basic style of the maker and possibly under his direct supervision.

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[11] Many of these conventions are adapted from the guidelines presented by Myers (1990: 15), Martin (2003: xii-xx) and Wells and Nobbs (2007: xi).

'Labelled', 'stamped', 'inscribed', etc.: the instrument is not, in the author's opinion, by the maker indicated but merely bears his name. In some cases the instrument may be a later copy or be modelled after the maker indicated.

Geographic borders: For all the locations mentioned in the thesis the contemporary geographical borders and states are considered. For example, an instrument may be described as made in Prussia, which was the common 18th-century term for this region, and not Germany, the modern state of which Prussia is now part.

Dates: When known the exact dates for surviving instruments and contemporary sources are given. In cases where the dates are not certain, an approximate estimation with a margin of ±5 years is given. An estimated date may be indicated by dates in brackets (i.e. 1785-98) if known; otherwise, the terms mid-18th century (1740-1760), late-18th century (1760-1790), end of 18th century (1790-1800), 3rd quarter of 18th century (1750-1775), and last quarter of 18th century (1775-1800) are used.

Organological nomenclature: The instrument that is the subject of this thesis had many different names and spellings during its historical use. However, for reasons of consistency and clarity throughout the text it was decided to refer to it as the 'guittar', the name most commonly used in contemporary sources to describe the instrument. For guittars with additional open strings the term 'arch-guittar' has been favoured over the term 'theorbo guittar', which indicates the use of a re-entrant tuning of the strings placed over the fingerboard, as well as the addition of open bass strings to extend the lower range.

Instrument shorthand designation: Throughout the thesis when an instrument is presented for the first time its full reference details are usually given. These include, when known, the maker's name, the place and date of manufacture, and the present ownership, location and inventory number of the instrument; unless otherwise stated the first references to examined instruments typically follow this order. However, for reasons of simplicity and brevity in any following references to the instrument a shorthand designation system has been used, especially for instruments belonging to public collections. According to this system each instrument

mentioned in the text is referred to using a nominal abbreviation of three capital initials signifying the present owner and location of the instrument (as presented later in the table of abbreviations for collections of musical instruments in 'ABBREVIATIONS'), followed by a space and the instrument's inventory number, given in square brackets. For instance, GNN [MIR 857] refers to a guittar by Longman & Broderip in the Germanisches Nationalmuseum, Nuremberg (abbreviated as GNN), with inventory number [MIR 857].

Descriptions and Measurements: In most descriptions the instruments are regarded as seen vertically, with the bottom down and the head up, just like humans. Where appropriate, 'treble' and 'bass' are used to specify the sides of the instruments. All measurements are given in millimetres unless otherwise stated. Most of the smaller measurements are given to the nearest millimetre. Overall length includes any protruding parts, such as tailbuttons, endpins, etc. Body length is the distance from the instrument's bottom to the point where the sides meet the neck, while body depth includes the soundboard and back wood. The term 'scaling' refers to the distance from the nut to the twelfth fret multiplied by two, as opposed to 'vibrating string length', implying the distance from the nut to the bridge, which on the guittar is movable rather than fixed to a standard position.

Materials: Unless explicitly stated, all material identifications are by the author and have been made only on the basis of macroscopic visual examination. Several wood species are mentioned in the thesis using their common, rather than their scientific, names. These mainly include spruce, plain and figured maple or sycamore, fir, beech, walnut, and ebony.[12] However, since woods are often discoloured and/or could only be observed in less-than-ideal conditions with low lighting, some identifications may be less reliable; the same issues apply to materials such as ivory, bone, shell, metal, pigments, etc. Therefore, for materials that are uncertain identifications are followed by a question mark (?).

[12] For more details on these wood species and their scientific names see Siminoff (2008: 175-206).

Quotations: All quotations are given exactly as they appear in the original text, without any attempt to change spelling or syntax, or note errors found in the quoted passage, unless otherwise stated. Most quotations have been separated from the text and are printed in a smaller font size, indented at the left and right sides. Quotations from historic sources are typically presented using the solidus / to indicate new line of text or sentence separation in the original text. Square brackets [] indicate editorial comments and additions, while those including three full stops […] indicate additional text, which would be irrelevant or too long to be presented in full.

Pitch and note designation: Pitch designation is given in normal type using the Helmholtz system C (where c′ is middle C): C,, - C, - C – c – c′ - c′′ - c′′′ – c′′′′.

Currency: Unless otherwise stated, in all quotations including prices or accounts, the 18th-century British currency system of pence (d), shillings (s), pounds (£) and guineas is used. According to this system 12d=1s, 20s=£1, and £1 1s 0d=1 guinea.[13] No attempt has been made to convert the contemporary sums in modern values.

Bibliographic references: The 'author-date' or Harvard reference system[14] has been used for all bibliographic references. This system provides the author's name and year of publication within brackets in the text. If the page number is included as well, a colon and then the page number follow the year of publication. The 'author-date' system is also used in the bibliography which lists all the works mentioned in this thesis, as well as other sources of information. For example, Coggin (1987: 205) refers to page 205 of the item listed in the bibliography as: Coggin, Phillip (1987), 'This Easy and Agreeable Instrument: A History of the English Guittar', *Early Music*, Vol. 15, 204-18.

[13] See Sheldrick (1992: xxix).
[14] For more details on the 'author-date' system see Ritter (2003: 566-72).

Foreign terms, quotations or text: In most cases a word-to-word translation of terms, quotations or text in languages other than British is given. However, in some cases only a summary of the original text has been used. The original foreign text is typically provided in the relevant footnote.

Font and size: The thesis has been printed using the Palatino Linotype typeface with a 10-point font size. Quotations and footnotes are in Palatino linotype 8-point. Occasionally an altered font size is used in tables in order to retain clarity of the table and its information.

Bold font: The use of bold font indicates the author's personal emphasis on specific parts of the text or other important phrases and details as opposed to the original text form.

Italics: Italics are used in the thesis to indicate foreign words, to point out words or phrases that require special emphasis in the text, or for titles of books or journals.

Illustrations: All photographs, drawings, graphs and other illustrations included in this thesis have been produced by the author unless otherwise indicated. Several photographs, drawings, scanned documents, tables and maps were taken from a variety of sources, including books, journals, archives and websites listed in the bibliography. These are used by permission of the owners, who are appropriately acknowledged in the relevant captions.

Captions: Captions usually include basic details and brief comments. As in the text, when an instrument is presented for the first time its full reference details are typically given, while in any following captions the shorthand designation system described above is used.

1.3 ABBREVIATIONS

For reasons of convenience and clarity several abbreviations were used throughout the text to refer to collections of musical instruments, which are listed alphabetically below (**Table 1.1**). As a rule, three capital letters were used to abbreviate each collection, the first two letters implying the most common name of the collection and the third the location of the collection. In some cases the abbreviation most widely established and used in the relevant literature for a collection has been used, as in the cases of National Music Museum, The University of South Dakota, Vermillion (NMM), the Royal College of Music, London (RCM), or the Victoria and Albert Museum (V&A).

ABBREVIATIONS FOR COLLECTIONS OF MUSICAL INSTRUMENTS

Abbreviation	Collection	Location
AMO	Ashmolean Museum	Oxford
BCO	Bate Collection of Musical Instruments	Oxford
BNM	Bayerisches Nationalmuseum	Munich
BCB	Birmingham Conservatoire	Birmingham
BCP	Blair Castle	Perthshire
BMA	Robert Burns Birthplace Museum	Alloway, Ayrshire
LCF	Conservatorio 'Luighi Cherubini' Collection, Galleria dell' Academia	Florence
GVT	Conservatorio Statale 'Giuseppe Verdi', Gallery of Musical Instruments	Turin
CWB	Charles Wesley House	Bristol
CMP	Czech Museum of Music	Prague
DMC	Danish Music Museum, Carl Claudius Collection	Copenhagen
DCK	Dean Castle	Kilmarnock
DMM	Deutsches Museum München	Munich
EUC	Edinburgh University Collection of Historic Musical Instruments	Edinburgh
GMH	Gemeentemuseum	Hague
GNN	Germanisches Nationalmuseum	Nuremberg
HMS	Hamamatsu Museum of Musical Instruments	Sizuoka
HMH	Händel-Haus Museum	Halle
HMF	Historisches Museum	Frankfurt
HML	Horniman Museum	London
KCT	Kunitachi College of Music, Collection for Organology	Tokyo
KMV	Kunsthistorisches Museum	Vienna
MMA	Metropolitan Museum of Art	New York

MAM	Montreal Museum of Fine Arts	Montreal
MAT	Musashino Academia Musicae, Museum of Musical Instruments	Tokyo
MBR	Musée des Instruments de Musique	Brussels
MMP	Musée de la Musique	Paris
PLN	Musée de Palais Lascaris	Nice
MSR	Museo degli Strumenti Musicali di Roma	Rome
MIL	Museu Instrumental	Lisbon
MUL	Museum für Musikinstrumente der Universität Leipzig	Leipzig
MFA	Museum of Fine Arts	Boston
MOL	Museum of London	London
MBE	Musikinstrumenten-Museum	Berlin
MMS	Musikmuseet	Stockholm
NMI	National Museum of Ireland	Dublin
NMM	National Music Museum, The University of South Dakota	Vermillion
NMS	National Museums Scotland	Edinburgh
NTE	National Trust for England	England
NFM	Norsk Folkemuseum	Oslo
OCO	Osaka College of Music, Museum of the Osaka College of Music	Osaka
PMS	Powerhouse Museum	Sydney
RHL	Rangers' House	London
RMT	Ringve Museum	Trondheim
RAM	Royal Academy of Music	London
RCM	Royal College of Music	London
RNM	Royal Northern College of Music	Manchester
RPB	Royal Pavilion, Brighton Museum and Art Gallery	Brighton
SAM	Saco Museum	Maine
SIW	Smithsonian Institution	Washington DC
SMM	Stadtmuseum München	Munich
SAA	Stearns Collection of Musical Instruments, University of Michigan	Ann Arbor
V&A	Victoria and Albert Museum	London
YNH	Yale University Collection of Musical Instruments	New Haven
YCM	York Castle Museum	York

Table 1.1: The abbreviations used in the thesis for collections of musical instruments.

In addition, the abbreviations for special words, terms and symbols used in the thesis are listed below (**Table 1.2**).

ABBREVIATIONS FOR SPECIAL WORDS, TERMS AND SYMBOLS	
Abbreviation	**Word/Term/Symbol**
a	Ante: prior to
act.	Active
AMIS	American Musical Instrument Society
b.	Born
c.	Circa: about
cf.	Confer
d.	Died
ed.	Editor (in Bibliography)
edn.	Edition (in Bibliography)
e.g.	*Exempli gratia*: for example
EM	Early Music
EUCHMI	Edinburgh University Collection of Historic Musical Instruments
Etc.	*Etcetera*: and other things
ex.	Formerly in the collection of
ff.	And the following pages
Fig.	Figure
fl.	*Floruit*: flourished, was active
FoMHRI	Fellowship of Makers and Researchers of Historic Instruments
gr.	Grammes
GSJ	Galpin Society Journal
Hz	Hertz (preceded by the number and then a space)
ibid.	*Ibidem*: In the same place
i.e.	*Id est*: that is or as in the case of
Illus	Illustration
in	inches
Kg.	Kilograms
LSJ	Lute Society Journal
mm	Millimetres (preceded by the number of millimetres and then a space)
NG	Narrowest grain
No.	Number
PC	Private communication
p., pp.	Page, pages
R/	Reprint
rev.	Revised (in Bibliography)

sic.	Thus, so
viz.	*Videlicet*: namely
Vol.	Volume
WG	Widest grain
1st	First (preceding ed. in Bibliography)
2nd	Second (preceding ed. in Bibliography)
3rd	Third (preceding ed. in Bibliography)
‘’	Inch/inches
%	Percent
@	At
+	Plus
-	Minus
±	Plus or minus
=	Equals
&	Ampersand: And

Table 1.2: **The abbreviations used in the thesis for special words, terms and symbols.**

1.4 RESEARCH SOURCES

The breadth and complexity of the research topic required the investigation of a wide variety of sources, presented below in six main groups:

A) PRIMARY SOURCES: Primary sources consisted of contemporary documents and archives which provided important details about the expanding of a guittar culture and the development of a guittar trade in the British Isles. These included trade cards, manuscript lists, bills and accounts, legal documents, insurance records, bankruptcy records, wills and inventories, and various quotations and references in contemporary literature. Another important source was the many advertisements in newspapers from London and the provinces (e.g. *London Gazzette, Public Advertiser, York Courant, Dublin Journal*, etc), as well as various colonial newspapers. Furthermore, directories like Mortimer's *London Universal Directory* (1763) or Doane's *A Musical Directory for the Year 1794* (1794/1993) listed many names involved in the guittar trade.

Additionally, contemporary encyclopaedias provided useful entries, definitions and descriptions related to the guittar, while surviving patent records and technical drawings were essential for the study and interpretation of the various inventions applied for the instrument. Moreover, several 18th-century maps of the British Isles, including maps of major cities like London or Dublin, were also used to locate the addresses of guittar makers. Last but not least was the large amount of published guittar music, since quite often guittar tutors and scores revealed interesting details about the development of the instrument along with information on stringing and tuning, and on holding and playing techniques.

B) SECONDARY SOURCES: These comprised modern publications covering a broad range of topics. To begin with, various publications on 18th-century British history were consulted to provide the background of the political, economic, social and cultural conditions under which the guittar developed. Secondly, general publications in organology with emphasis on plucked instruments supplied the details surrounding the origins and development of the guittar, particularly in relation with other instruments, indicating possible influences. In addition,

publications on keyboard, woodwind and violin instrument-making proved a quite important source of information, since many names involved in the guittar trade were also manufacturers and dealers of keyboard or woodwind instruments or instruments of the violin family; especially publications on piano-making contained useful technical details related to the development of the keyed guittar. Additionally, publications on 18th-century music publishing contained valuable information since a number of professionals involved in the guittar trade were also music publishers.

Equally important were articles related to the guittar in academic journals for the study of music and musical instruments published by the Galpin Society (GSJ), the American Musical Instrument Society (JAMIS), the Lute Society (LSJ), the Fellowship of Makers and Researchers of Historic Musical Instruments (FoMHRI Newsletter), etc., as well as conference papers and presentations organised by the above societies and other associations and institutions. Useful information was also retrieved in several Ph.D. dissertation theses, which were also used as reference for establishing a research methodology and adopting an appropriate writing style.

Dictionaries and glossaries relating, among other subjects, to music, organology and musical–instrument making (e.g. The New Grove Dictionary of Musical Instruments, Siminoff's Luthier Glossary) were also consulted for general definitions and technical terminology. Finally, catalogues published by public museums, private collections, auction houses, and special exhibitions often contained important reference details, descriptions, measurements, photographs and drawings of extant instruments. To these sources should be added unpublished material resulting from interviews and personal communication with various scholars and researchers.[15]

C) ICONOGRAPHY: Iconographic sources included a wide selection of guittar images in paintings, art drawings, engravings, relieves and sculptures, and in some cases, photographs.

[15] For a complete list of all sources see the relative Bibliography section at the end of the thesis.

Although not always accurate, these images usually depict various guittar features in detail and often illustrate suggested holding and playing techniques.

D) MULTIMEDIA SOURCES: Multimedia sources included audio (CD/MP3) and video recordings of the guittar which provided valuable, but rather subjective, references to the sound and playing techniques of the instrument.[16]

E) ONLINE SOURCES: Most of the online sources used for this project consist of internet websites designed by scholars and enthusiasts for the promotion and study of historical wire–strung plucked instruments, like 'Renovata Cythara' (<www.cittern.theaterofmusic.com>) by Andrew Hartig, 'Tunings in thirds' (<www.tuningsinthirds.com>) by Stuart Walsh, or the more recent 'The cittern group' (<www.cittern.ning.com>) by Doc Rossi. Some of these websites have recently initiated online discussion forums and, thus, have enabled the quick exchange of information and knowledge among researchers. However, the information shared in these websites is not always reliable, and their content is frequently changed or updated; more trustworthy and consistent are websites designed by academic institutions and museums, which often include useful online catalogues of surviving instruments and associated archives.

F) SURVIVING INSTRUMENTS: Finally, the large number of surviving guittars and related instruments in museums and collections were the main source of information, providing the raw data for the analysis of the various technical characteristics concerning the design, construction and decoration of the guittar. Moreover, many surviving instruments bear signatures, stamps and other inscriptions or marks, which in many cases revealed noteworthy details about the guittar trade.

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[16] A list of guittar recordings is presented in Appendix VII.

1.5 RESEARCH METHODOLOGY

The research for this project was carried out in three main stages. The first stage required a comprehensive literature review in order to define the research questions and aims, and to establish the appropriate research methodology. During this stage also began the development of the necessary research skills and equipment, and the creation of a research network with various museums, academic institutions, and individual scholars and researchers.

The second stage involved the data collection, which included the examination and documentation of surviving guittars in museums and collections using a prototype template.[17] From the beginning of this project the research was focused on the guittar and its makers in the British Isles, which comprise England, Scotland and Ireland, from the middle of the 1750s, when the guittar first appeared in Britain, until the 1810s, when the instrument and its music had already started to decline. At present there are 346 known signed guittars, as well as about 200 unsigned guittars, surviving in public collections or in private ownership. In addition, there are at least 34 musical instrument makers and dealers working across the British Isles who were involved in the guittar trade and by whom signed guittars have survived, as well as many others who advertised the manufacture and sale of guittars, although no surviving guittars bear their names.[18]

For the purpose of this research an indicative number of guittars (i.e. two to four instruments) by the most prolific and influential guittar makers (approximately ten names), as well as guittars by less known or significant makers (approximately five names), along with several unsigned guittars, were selected for examination. Since these instruments belonged to various public and private collections dispersed across the world, and due to the time and budget limits of this project, the major factors in selecting the instruments to be examined were accessibility, condition of preservation, and originality of features.

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[17] The template, presented in Appendix VIII, was based on similar cataloguing forms, such as those used by Michel (1999: 159-61) and Martin (2003: 354-63).
[18] For more details see Appendix I.

Additionally, in order to obtain a broader view of the guittar trade, guittars made in the British Isles and then exported and sold in countries of continental Europe or in the British Colonies, like America or India, were also included as part of the research, as well as guittars made outside the British Isles by makers of British origin or by makers having trained and/or worked in Britain. On the other hand, similar instruments made outside the British Isles by non-British makers were occasionally taken into consideration to allow useful observations and comparisons.

Eventually, during this project over seventy guittars and related instruments and parts were examined in detail, along with numerous historical documents, in order to have a reliable and representative view of the instrument. The guittars examined during this study represent approximately 10% of the known surviving guittars. Two tables including all the examined instruments are presented in the following section (see 'CHECKLIST OF EXAMINED INSTRUMENTS'). Most of these instruments were examined in detail, with many having been viewed twice or more times in different days and conditions, while others were examined only briefly, sometimes behind museum glass. Inevitably, it was impossible to examine surviving instruments by all known makers, but in many cases the details presented in museum catalogues and websites provided sufficient information about the instruments and names in question. The results were supplemented by the investigation of various archival sources linked to the development of the instrument in the British Isles during the second half of the 18th century.

The third stage concerned the analysis of the data and the interpretation of results using qualitative observations as well as quantitative comparisons. At this stage several reference lists and databases were created in spreadsheets to allow the easier use and future study of the collected data. The results have been further enriched by experimental research through the simulation of historical guittar-making, which involved the construction of technical drawings and copies of various parts from guittars in EUCHMI. In addition, the instrument's stringing and tuning, and its holding and playing techniques, have been extensively tested on an appropriately modified and tuned Hamburger waldzither, owned by the author.

1.6 CHECKLIST OF EXAMINED INSTRUMENTS

The 64 surviving guittars that were examined during this project are presented below (**Table 1.3**). Most of these instruments were observed, measured and photographed in detail, while some were inspected only briefly due to limited access and time. The guittars are listed firstly in alphabetically and then chronologically according to the maker's name and the date of manufacture respectively. The details include, wherever known, the maker's full name, the place and date of manufacture, and the collection, location, and inventory number of the instrument.

LIST OF EXAMINED GUITTARS
Clagget Charles, London, Händel Haus Museum, Halle, [M129]
Claus Christian, London, c.1785. Blair Castle, Perthshire, [8051]
Claus Christian, London, c.1785, Victoria & Albert Museum, London, [240-1881]
Claus Christian, London, c.1785, Museo Nazionale degli Strument Musicali, Rome, [1874]
Dickinson Edward, London, 1759, Victoria & Albert Museum, London, [222-1882]
Dodds & Claus, New York, 1791-93, Luigi Cherubini Collection, Florence, [1988/76]
Elschleger J. C., London, Royal College of Music, London, [21]
Gibson William, Dublin, 1765, Victoria & Albert Museum, London, [W.7-1919]
Gibson William, Dublin, 1772, EUCHMI, Edinburgh, [309]
Hintz John Frederick, London, 1757, EUCHMI, Edinburgh, [1066]
Hintz John Frederick, London, Horniman Museum, London, [M3-1983]
Hintz John Frederick, London, 1766 (?), Ashmolean Museum, Oxford, [D.1:5]
Hintz John Frederick, London, Dean Castle Museum, Kilmarnock, [MI/A10]
Hintz John Frederick, London, Luigi Cherubini Collection, Florence, [1988/89]
Hintz John Frederick, London, EUCHMI, Edinburgh, [310]
Hintz John Frederick, London, EUCHMI, Edinburgh, [1114]
Hintz John Frederick, London,Victoria & Albert Museum, London, [37-1870]
Hoffmann, London, 1758, Taro Takeuchi collection, London
Liessem Remerus, London, 1756, Victoria & Albert Museum, London, [230-1882]
Liessem Remerus, London, 1758, EUCHMI, Edinburgh, [1070]
Liessem Remerus, London, 1758, Dean Castle Museum, Kilmarnock, [MI/A11]
Longman & Broderip, London, Rob MacKillop collection, Edinburgh
Longman & Broderip, London, Museo Nazionale degli Strument Musicali, Rome, [2582]
Longman & Broderip, London, Germanisches Nationalmuseum, Nuremberg, [MIR 854]
Longman & Broderip, London, Germanisches Nationalmuseum, Nuremberg, [MIR 857]
Longman & Broderip, London, Museum für Musikinstrumente der Universität, Leipzig, [627]
Longman & Broderip, London, Museum für Musikinstrumente der Universität, Leipzig, [628]
Lucas George, London, Ashmolean Museum, Oxford, [D.1:4]
Perry Thomas, Dublin, Victoria & Albert Museum, London, [223-1882]
Perry Thomas, Dublin, Taro Takeuchi collection, London
Preston John, London, Bate Collection of Musical Instruments, Oxford, [957]

Preston John, London, Horniman Museum, London, [1976. 135]
Preston John, London, Horniman Museum, London, [1976. 136]
Preston, London, Ashmolean Museum, Oxford, [D.1:1]
Preston, London, Ashmolean Museum, Oxford, [D.1:2]
Preston John, London, Museum für Musikinstrumente der Universität, Leipzig, [5005]
Preston John, London, Museo Nazionale degli Strument Musicali, Rome, [766]
Preston John, London, Museo Nazionale degli Strument Musicali, Rome, [767]
Preston John, London, Royal College of Music, London, [161]
Preston John, London, EUCHMI, Edinburgh, [1076]
Preston John, London, Taro Takeuchi collection, London
Preston/Thompsons, London, Taro Takeuchi collection, London
Preston John, London, National Museums Scotland, Edinburgh, [A.1908.251]
Preston John, London, Stadtmuseum München, Munich, [43-307]
Rauche & Hoffman, London, 1757, Burns Birthplace Museum, Ayrshire, [3.4565]
Rauche Michael, London, 1762, Blair Castle, Perthshire, [8050]
Rauche Michael, London, 1762, Dean Castle Museum, Kilmarnock, [MI/A9]
Rauche Michael, London, 1764, National Museums Scotland, Edinburgh, [1905.842]
Rauche Michael, London, 1767, Horniman Museum, London, [216-1906]
Rauche Michael, London, 1770, Ashmolean Museum, Oxford, [D.1:3]
Ruddiman Joseph, Aberdeen, Victoria & Albert Museum, London, [375-1882]
Thompsons, London, Taro Takeuchi collection, London
Zumpe John Frederick, London, 1762, Historisches Museum, Frankfurt, [X16650]
Zumpe John Frederick, London, 1764, EUCHMI, Edinburgh, [1731]
Unsigned, England, Dean Castle Museum, Kilmarnock, [MI/A12]
Unsigned, London, Dean Castle Museum, Kilmarnock, [MI/A8] (with 'Smith's Patent Box')
Unsigned, England, EUCHMI, Edinburgh, [1592]
Unsigned, England, c.1785, EUCHMI, Edinburgh, [308]
Unsigned, England, EUCHMI, Edinburgh, [1068]
Unsigned, England, Händel Haus Museum, Halle, [M130]
Unsigned (?), London, Historisches Museum, Frankfurt, [X4336]
Unsigned, England, Royal College of Music, London, [241]
Unsigned, England, Taro Takeuchi collection, London
Unsigned, England, Victoria & Albert Museum, London, [219-1882]

Table 1.3: List of the 64 examined guittars.

The 11 similar instruments and parts which were also examined for the purpose of this thesis are presented below (**Table 1.4**).

LIST OF EXAMINED SIMILAR INSTRUMENTS AND PARTS
French cistre: Unsigned, France, Deutsches Museum München, Munich, [10205]
Hamburger bell cittern (cithrinchen): Kopp Hinrich, Hamburg, 1686, Bayerisches Nationalmuseum, Munich, [Mu 13]
German archzister: Vogel Johann Christian, Eppendorf, Saxony, c.1743, Bayerisches Nationalmuseum, Munich, [Mu 4]
German bowl-back zister: Bachmann Anton, Berlin, 1782, Deutsches Museum München, Munich, [5442]
Hamburger Waldzither: C. H. Böhm, Hamburg, early 20th century, Panagiotis Poulopoulos collection
Dutch cister: Swartson, Amsterdam, 1792, Taro Takeuchi collection, London
Harp-lute: Buchinger Joseph, London, c.1800, EUCHMI, Edinburgh, [307]
Polish guittar: Kwiatowsky Joseph, Warsaw, 1814, Germanisches Nationalmuseum, Nuremberg, [MIR 855]
Portuguese guitar (guitarra Portuguesa): Duarte Antonio, Oporto, early 20th century, EUCHMI, Edinburgh, [2765]
Copy of a guittar with external piano-key mechanism: Neuner & Hornsteiner, Mittenwald, 1908, Deutsches Museum München, Munich, [15214]
Watch-key machine: Robert Wornum, London, EUCHMI, Edinburgh, [3709]

Table 1.4: List of the 11 examined similar instruments and parts.

2 THE ORIGINS OF THE GUITTAR

'We see that even in the Open Air, the Wire String is sweeter, than the String of Guts.'

Francis Bacon, *Sylva Sylvarum*, 1627

'In the fourth yere of Queen Elizabeth John Rose, dwelling in Bridewell, devised and made an instrument with wyer strings, commonly called the Bandora, and left a son, far excelling himselfe in making Bandoraes, Voyall de Gamboes and other instruments.'

John Stowe, *Annales, or a General Chronicle Of England*, 1631

'Be so good and take up your citterns and present the congregation with a Gloria to the Lamb'

Moravian hymn, 1754

'Mace says, that this Grace, well executed, will occasion the Lute (and the GUITAR is the same Thing) to say, Tut, like a living Creature speakable'

Ann Ford, *Lessons and Instructions for Playing on the Guitar*, c.1761

2.1 LITERATURE REVIEW

Apart from a number of entries in music dictionaries, a few brief sections in museum catalogues, and even fewer journal articles, the literature regarding the guittar and its makers is virtually blank. This actually reflects a current general lacuna in the systematic research and documentation of plucked stringed instruments. As will be shown later, this knowledge gap has caused significant controversy in the past among researchers and scholars over the guittar's origin, identity, and etymology. Therefore, the first task of this project was to revise, cross-reference, and correct the information included in the older sources, and to update the existing knowledge on the basis of new evidence.

One of the earliest sources that contain information on the guittar and its music is Armstrong's (1908) *English Musical Instruments, Part II: English and Irish Instruments*. According to Armstrong (1908: 5) the 'English guitar' is

> An instrument in common use during the eighteenth and at the commencement of the nineteenth century. In form it somewhat resembles a pear or heart. The head at the end of the neck is bent backwards, and the strings, of which there are twelve, ten, or eight […], are attached to small ivory knobs at the lower end of the body and stretched over a bridge; the finger-board, which is frequently covered with ivory, being furnished with brass frets. The back of the instrument is very slightly curved, and the neck is terminated by a machine or other head, with twelve, ten, or eight keys or pegs. The finger-board is pierced with as many as seven holes, through any one of which a metal rod with screw may be passed, by which a piece of ivory "capo-tasto" is drawn tight to the finger-board and fastened in front, the fret below the "capo-tasto" taking the place of the nut, the pitch thereby raised one or more semitones.

Armstrong later presents a summary of the guittar and its use, including interesting details on the stringing, tuning, and playing techniques, while providing a number of musical examples. Although some of the facts presented in Armstrong's book may now seem rather simplistic or inaccurate, they clearly document the instrument's status at the beginning of the 20th century. For the next 80 years few sources contained any new information on the guittar; the instrument is mentioned only scarcely in encyclopaedias, music dictionaries, and museum and auction

catalogues. The major problem with these early sources, especially those published before the 1960s, is that they provide limited references, while the results and conclusions are often based on subjective and superficial observations, with many writers using inappropriate nomenclature and terminology to describe the instrument. For example, the drawings of two guittars are included in Pyne (1888: drawings 39 and 43), with both instruments being labelled as citterns.

Moreover, in some cases the provided definitions, descriptions and illustrations of surviving guittars have led to a series of common misunderstandings, false classifications, and erroneous attributions, many of which have been repeated extensively. For example, Baines (1966) has provided a brief overview of the guittar's features in his *European and American Musical Instruments*, as part of his entry for the cittern. Baines includes useful descriptions and photographs of surviving instruments, although some of the details are inaccurate. For instance, the guittar depicted in plate 254, which should correspond to a guittar by Hintz in the Victoria & Albert Museum, London, [37-1870], presented in page 43, is almost certainly the product of another maker, most likely Preston. This detail has passed undiscovered by Wackernagel (1997: 64), when describing a similar guittar by Neuner & Hornsteiner of Mittenwald dated 1908, in the Deutsches Museum, Munich, [15214]. In addition, the similarities with the Portuguese guitar have wrongly led Baines (1966: 43) to indicate Portugal as a possible country of the guittar's invention and development, stating that 'a credible conjecture would be that the whole genus was derived from or suggested by some obscure Portuguese instrument related to the bandurria', although it is now certain that the guittar was imported to Portugal from Britain by the end of the 18th century.

Similar misconceptions, like the fact that the piano key mechanism for the guittar was invented in order to protect the fingernails of female performers[19], have been frequently copied by various writers without being questioned. Another typical error is the attribution to Smith of the patent external piano-key mechanism. Most scholars have argued that no patent has been recorded for this device, despite the fact that a surviving patent granted in 1784 to William Jackson for his

[19] See, for example, Kinsky (1912: 190), Baines (1968: 48), Michel (1999: 61), or Tyler and Sparks (2002: 214).

'British lyre' includes the description of a quite similar mechanism. Besides, although Claus has been almost unanimously credited with the invention of the keyed guitar, often inaccurately[20], most writers have ignored Goldworth's 1785 patent of a removable internal mechanism as found on a large number of surviving keyed guittars. These facts clearly show that few scholars actually examined the surviving patent records relating to the instrument.

During the 1970s and 1980s many guittars began to appear at auctions, creating a new interest for the instrument among collectors and organologists. However, it was not until 1987 that the first substantial article concerning the guittar and its music appeared. More than twenty years after its publication 'This easy and agreeable Instrument: A history of the English guittar' by Coggin still remains the most significant work on the history of the guittar. Coggin presents the main historical, social, and musical aspects of the instrument, giving, however, only partial details about the guittar's technical features. For example, describing the instrument in his article Coggin (1987: 205) writes

> Although the guittar came in a variety of designs, most of the surviving examples share the following features: a pear-shaped body with a flat back and a string length of 42 cm; six courses of metal strings, the bottom two being single-strung and the upper four tuned in unison pairs; watch–key tuning, which replaced peg tuning; twelve chromatically placed brass frets; and as a means of transposing song accompaniments, holes drilled through the fingerboard between the first four frets, through which a capo tasto could be fixed.

A similar description had been given earlier in *The New Grove Dictionary of Musical Instruments* where the entry for the 'English guitar' by Spencer and Harwood (1984: 706-07) reads

> The instrument has a flat or slightly convex back and metal strings. Its six courses are tuned *c–e–g–c'–e'–g'*, the bottom two being single-strung and the upper four double, a total of ten strings. The lower three courses are overspun. There are normally 12 brass frets (spanning one octave) on the fingerboard, and the most common size of the instrument has a sounding string length of 42 cm.

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[20] Baines (1968: 48) has given 1787 as the date of Claus's patent, a mistake that has been repeated by other writers, like Jahnel (1981: 35).

Descriptions of the instrument such as the ones presented above have become fairly standard in the relevant literature. Nevertheless, although they may fit very well with numerous extant guittars by Preston, an important London manufacturer (**Figure 2.1**), they largely ignore the large number of surviving guittars by other makers with quite different features. This basically highlights the fact that no systematic study has been carried out to produce a more detailed and defined account of the instrument's varied design, construction and decoration characteristics.

Figure 2.1: Front, side, and back views of a guittar by Preston, c.1770. Royal Academy of Music, London, [2006.2962] (former R. Spencer collection) (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 22/9/2010). This is a typical example of guittar fitting with the descriptions given by Spencer and Harwood (1984), and Coggin (1987).

Several later publications regarding the guittar concurred with a recent resurrection of the instrument around the late 1990s, which saw restored instruments, as well as music originally composed for the guittar, featuring in concerts and recordings[21], although in some cases with historically inaccurate results.[22] Additionally, various museum catalogues, journal articles, and papers in organological conferences presented some new evidence, although still covering only specific aspects of the instrument. For example, Segerman's (1999) 'A Short History of the Cittern' focuses only on the stringing and tuning of the guittar, highlighting similarities and differences with other contemporary instruments. Moreover, in his PhD thesis *The History of the Guitar in Ireland 1760-1866* Lawrence (1999) includes details about guittar makers, composers, and players in Ireland, without describing any surviving instruments in depth and with much of his information largely based on earlier sources, especially Armstrong (1908) and Spencer and Harwood (1984).[23]

Furthermore, the catalogue *Zistern: Europäische Zupfinstrumente von der Renaissance bis zum Historismus* by Michel (1999) contains a short section on the guittar and, more importantly, it is presently the only source to have included new facts about keyed guittars. Additionally, Badley (2001) in his article 'The English Guitar' attempts to expand the descriptions by Coggin (1987), and Spencer and Harwood (1984), but does so only ostensibly, offering little new evidence apart from that included in Michel's (1999) catalogue.

More recently a few writers have thoroughly investigated aspects of the guittar's history outside England, producing significant articles. For example, in his article 'The Guitar, Cittern and

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[21] Rob MacKillop and Gregory Doc Rossi are both well-known guittar players and scholars who have given concerts and recorded albums with guittar music. Other modern guittar players include, among others, James Tyler, Andy Rutherford, Taro Takeuchi, Stuart Walsh and Robert Mouland. In addition, MacKillop, Rossi and Walsh currently provide various online sources about the guittar and its music. For more details see Appendix VII.

[22] See, for instance, the recording by Miglierini, Carlo Mascilli and Clemente, Anna (1996), *Geminiani - The Art of Playing the Guitar or Cittra; Marella - Compositions for the Cetra or Guitar with Accompaniament* (Koch/Schwann: 3-1359-2 H1). This recording of music originally written for the wire-strung guittar on a modern classical six-string guitar with nylon strings is an example of a historically inaccurate practice, which could be compared to performing music originally written for the harpsichord or clavichord on a modern grand piano.

[23] Likewise, although La Rue (1980: 139-56) has devoted separate sections for the cittern, gittern, lute and guitar in her PhD thesis *English Popular Musical Instruments from the Middle Ages until 1800*, she barely mentions any details for the guittar, which was arguably one of the most popular instruments in Britain throughout the second half of the 18th century.

Guittar in Scotland-an historical introduction up to 1800' MacKillop (2004) examines the role of the guittar in Scotland, while in 'Citterns and Guitars in Colonial America' Rossi (2004) concentrates on guittar makers, teachers and players in late 18th-century America.[24] Besides, Rossi's (2005) modern guittar tutor *Compleat Instructions for the Cittern or Guittar* includes a brief but sufficient introduction to the instrument's history and music, while his article (2008) 'Thoughts on Geminiani, Straube, and performance practice on the baroque cittern' offers an in-depth analysis on the guittar's sound, playing techniques, and repertoire.

Two more notable recent articles are Holman's (2007) 'The Lute family in Britain in the Eighteenth and Nineteenth Centuries' and Graf's (2008) 'John Frederick Hintz, Eighteenth-Century Moravian Instrument Maker, and the Use of the Cittern in Moravian Worship'. The first article includes brief accounts of several makers, composers, and players involved in the guittar trade, like Hintz, Rauche, Clagget, Buchinger, Ford, Straube, and Merchi, while the second focuses on the life and work of Hintz, one of the most important guittar makers, and the role of the cittern in 18th-century Moravian communities.

Finally, a number of short articles relating to the guittar and its makers have been included over the last 30 years in the newsletter of FoMRHI, the latest and perhaps most interesting being a preliminary list of known guittar makers and surviving guittars compiled and presented by Tyler (2009) in his article 'English Guittar Makers in 18th-century Britain: A Directory'.

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[24] Both articles had been earlier presented as papers at the international conference '*Gitarre und Zister-Bauweise, Spieltechnik und Geschichte bis 1800*' at the Kloster Michaelstein, Germany, 16-18 November 2001, which was one of the first conferences dedicated especially to the guitar and cittern. Another international conference relating to the cittern and guittar, with focus on the Portuguese guitar, was organised by the Università di Evora, Portugal, 7-9 September 2001 where Rossi presented the similar paper 'The Cittern or English Guitar in Colonial America'.

2.2 ISSUES OF ETYMOLOGY

The guittar's etymology has caused a considerable debate in the musical and organological circles over the years. It actually seems that the level of inconsistency regarding the instrument's nominal name among 18th-century makers and dealers, composers, publishers and musicians is probably responsible for the present confusion among modern scholars and researchers. As it will be described in detail in Chapter 3 during the late 18th century the instrument's most common name was 'guittar', although for many years after it had been established in Britain several names were used interchangeably to describe the same instrument.

If the motivations behind the instrument's invention and development are uncertain, the reasons for choosing to name the instrument 'guittar' are equally unclear. Walsh (1987: 47), highlighting the problem that the instrument has many differences from either a guitar or a cittern, states that it is 'both a cittern and a guitar and yet neither a cittern nor a guitar'. According to Segerman (1999: 100) the instrument was named 'guitar' either as reminiscent of the earlier gittern, which had 'similar size, shape and string materials', or as a substitute of the baroque guitar after its decline as a 'primary domestic hand-plucked instrument' in the early 18th century. Discussing the guittar's ambiguous character between the guitar and the cittern MacKillop (20004: 128) maintains that the instrument is 'a cross between the two', suggesting that the guittar's secondary 't' was possibly adopted to link the instrument to the earlier double-teed cittern, with which it shared several similarities. Furthermore, Rossi (2008: 1) attempts to clarify the issue pointing out that the words 'guitar' and 'cittern', and their various spellings in other languages and dialects, commonly 'derive from the classical Greek word "kithara"'.

Nevertheless, the instrument has been widely known as 'English guittar' since the beginning of the 19th century, when it became necessary to distinguish it from the then emerging 'Spanish' or 'French' guitars. As several contemporary sources show, this term, used especially in countries outside Britain to differentiate between the wire-strung guittar, which was mostly popular in Britain, and the gut-strung guitar, which was mainly preferred in other European countries, remained standard until the beginning of the 20th century. For instance, Armstrong (1908: 5)

refers to the instrument as the 'English guitar' noting that 'there can be no question as to the correct name of the instrument' listing a few contemporary sources to confirm his statement.

The terms 'English guittar' or 'English guitar' have been extensively employed by most scholars over the last decades, even though its use has created a number of problems. One problem arises from the fact that since the terminology of the various citterns, guitars, and related plucked instruments is still underdeveloped and vague the term 'English guitar' has often been inappropriately applied to instruments that cannot fit under any other classification. For instance, a small, six-string, flat-back instrument by Anton Wainert of Warsaw, 1806, in the Museum für Musikinstrumente der Universität, Leipzig, [577], has been listed as 'English guitar' by Michel (1999: 58), although it has minor similarities with the majority of the instruments commonly known as 'English guitars'. Likewise, a guittar by Joseph Kwiatowsky of Warsaw, 1814, in the Germanisches Nationalmuseum, Nuremberg, [MIR 855], is currently displayed as 'English guitar' although made in Poland, while in various museum catalogues French cistres, which are typically different from guittars made in the British Isles, have been labelled as 'English guitars'.[25]

A similar problem has been observed in many auction catalogue entries. Older auction catalogues from the 1970s and 1980s contain ambiguous descriptions such as 'ENGLISH GUITAR, labelled R. & W. Davies, […], second quarter of the 19th Century'.[26] Likewise, instruments auctioned as 'A FINE ENGLISH GUITAR, by George Louis Panormo, London, […], 1830'[27] or 'English Guitar of the PANORMO school, circa 1830'[28], which definitely refer to figure-of-eight, gut-strung guitars that Panormo is known for, and not to wire-strung guittars, can make things confusing for the wider public as well as for the unsuspecting researcher.

The second main problem lies in the fact that the term 'English guitar' rules out the significant influence of Scotland and Ireland in the instrument's development. Although Walsh (1987: 47)

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[25] See, for example, Leeuwen Boomkamp and Meer (1971: 43) or Haine (1989: 88-9).
[26] See Sotheby's auction catalogue, 24 June 1980, lot 32, p. 9.
[27] See Sotheby's auction catalogue, 16 March 1971, lot 19, p. 9.
[28] See Phillips auction catalogue, 17 January 1980, lot 26, p. 8.

has strongly advocated the use of the term 'English guitar' arguing that 'most of the instruments were made and most of the music was published in England', he has acknowledged the instrument's popularity in Scotland and Ireland, further stating that 'The use of the word "English" in English guitar is probably intended to indicate the place where the instrument flourished rather than its place of origin'.

On the other hand, MacKillop (2004: 128) has argued that in Scotland the instrument was 'never referred to as the English Guitar, but rather as either the Guitar, or Guittar' further adding that 'when Scots published music for it in London they referred to it as the Guittar (Oswald) and the Guitar (Bremner)'. In MacKillop's words (2004: 148) 'it does seem somewhat academically lax to continue to refer to the instrument (of German origin) as the "English Guitar"-a term unheard of in Scotland until the second half of the twentieth century'. Besides, if the use of the adjective 'English' is slightly biased, then the use of the term 'British guittar' would also be a limiting option, since the instrument was probably imported from Europe and a large number of makers, composers, teachers, and players of the guittar were of non-British origin. Both Walsh (1987: 47) and Rossi (2008: 2) have noted this fact, with Rossi further suggesting that it was probably 'England's dominance as a cultural and commercial centre' that led the instrument to become widely known as the 'English guittar'.

Various solutions have been recently offered in order to solve (or further perplex) this matter. Gill (1987: 38) has claimed that 'English guitar seems to be the best name' as it is 'unambiguous and keeps the distinction from Continental versions clear'. Coggin (1987: 205) has favoured the term 'guittar' underlining that 'At the time it was usually spelt either 'guitar' or 'guittar''. Segerman (1999: 101) has preferred the term 'late 18th-century cittern' as this 'is what so many musicians then called it'. Rossi (2008: 3), who has previously referred to the guittar as the '18th-century cittern' to distinguish it from the Renaissance cittern, has recently used the term 'cetra' because 'it was a term often used in the 18th century'. MacKillop (2004: 128) has lately proposed to refer to the instrument 'as the Guittar, and to the Spanish guitar simply as the Guitar', while using the term '18th-century wire-stung guittar' and '19th-century gut-strung guitar' respectively in oral descriptions of the two instruments.

For the purpose of this project it has been considered more appropriate to refer to the instrument as the 'guittar', since this was the most common name used in contemporary sources[29], and, at least in its written form, it can easily be distinguished from the figure-of-eight, gut-strung guitar.

2.3 THE ANCESTORS OF THE GUITTAR

2.3.1 AN OVERVIEW OF WIRE-STRUNG PLUCKED INSTRUMENTS

The guittar belongs to a large family of wire-strung plucked instruments that have a long tradition in Europe. The earliest types of wire-strung plucked instruments appeared in Europe around the 14th and 15th century, when metal wire firstly started to be used for musical purposes.[30] Birch (1961: 152) has claimed that wire-strung plucked instruments probably developed as alternatives to the relatively fragile, and often prone to tuning difficulties, gut-strung instruments; wire-strung plucked instruments offered advantages that could meet the musical and performing demands the gut-strung lute or mandolin were too delicate for.

These advantages generally included a more robust construction, a slimmer shape due to the, usually, flat back, and a small size, which made these instruments more convenient for players. Also, as Birch (1961: 152) points out 'simpler tunings, fewer courses, metal strings less temperamental than gut or silk, and a less exacting technique of playing' made these instruments more appealing to amateur performers; this was further assisted by the relatively cheap prices of these instruments, due to their fast and easy construction. In addition, wire-strung plucked instruments had a rich and piercing sound, more suitable for performing outdoors or in noisy spaces than the softer and quieter lute.

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[29] For more details on the various names used in contemporary sources to describe the instrument see 'IN SEARCH OF A NAME', Chapter 3.

[30] For instance, an early reference to the use of wire strings is included in a passage in the *De Inventione et Usu Musicae* of Tinctoris of c.1487, where he proposes the addition of sympathetic wire strings to improve the sound quality of stringed instruments. For more details see Pamplin (2000: 223).

Through the years the manufacture of wire-strung plucked instruments became more advanced with improvements and changes which mainly aimed to the convenience of handling, tuning and playing, the increase of volume, the enhancement of sound, and the variety of tone. The performance of wire-strung plucked instruments also evolved technically and musically, with the development of new repertoire and new playing methods. As a result, wire-strung plucked instruments gradually became popular, occupying an important role within various musical settings and providing their own, distinctive voice to several musical styles.

2.3.2 PLUCKED INSTRUMENTS IN BRITAIN BEFORE THE GUITTAR

In the British Isles before the arrival of the guittar in the 1750s several wire-strung plucked instruments had been developed and used, enjoying a considerable popularity especially during the 16th and 17th centuries. Ward (1979-81: 25, note 97) mentions that wire-strung instruments were quite fashionable during the Elizabethan and Jacobean period, quoting Francis Bacon, who claimed that 'the Wire String is sweeter, than the String of Guts'.

The most important wire-strung plucked instruments that developed in the British Isles from the 16th to the 18th centuries, before the arrival of the guittar, are the cittern, the bell cittern, the bandora and the orpharion. These instruments, to which one should add the gut-strung lute, influenced the guittar in various ways. What still remains to be answered are how and why a wire-strung plucked instrument became popular in Britain almost a century after the cittern and other similar instruments had become obsolete.

Several theories have emerged over the last few years regarding the guittar's origin and invention, all agreeing that the instrument, at least in its earlier form, was imported to Britain from a foreign country during the mid-18th century. According to Tyler and Sparks (2002: 206, footnote 34) the guittar was 'probably imported to Britain from Germany', while MacKillop (2004: 128) consents with Tyler's argument that the instrument is 'of German origin and entered Britain with the Hanoverian accession' after which many of German fashions prevailed in Britain. However, the possibility of the guittar having been imported to Britain from another

country, like France[31] or Italy[32], where similar wire-strung instruments had been developed and used, cannot be entirely excluded. In addition, Tyler and Sparks (2002: 206, footnote 34) claim that the guittar 'first became popular among Scottish musicians such as James Oswald, who then introduced it to England in the 1750s'. Similarly, MacKillop (2004: 128) has argued that the guittar travelled from Germany to England via Scotland although, as will be shown in Chapter 3, the earliest extant instruments, printed music, and historical references indicate London as the guittar's birthplace.

2.3.3 DESIGNING A NEW INSTRUMENT

The guittar is a hybrid instrument that grew out of the combination of features from several earlier instruments, but gradually developed its individual characteristics and unique style after a great deal of experimentation and innovation. As already mentioned it is quite remarkable that although from the very beginning the new instrument was widely referred to as the guittar, a name that remained common throughout its historical use, it was a quite different instrument from the earlier baroque guitar.[33] It is important to point out that the baroque guittar was popular in various continental countries, like France, Germany, or Italy, in the 16th and 17th centuries, but never really became fashionable in the British Isles, probably because it was overshadowed by the lute or the various wire-strung instruments, like the cittern, the bandora, and the orpharion. Therefore, although the wire-strung guittar essentially adopted the same name as the gut-strung guitar, it was very little influenced by its design. In fact, apart from both instruments typically having a flat back and being plucked with fingers, they share few other similar characteristics, even though some guittars have a body shape and size somewhat similar to that of the figure-of-eight baroque guitar (**Figure 2.2**).[34]

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[31] See Segerman (1999: 99).
[32] See Montagu (1979: 117).
[33] The baroque guitar, the precursor of the modern six-string guitar, was a gut-strung instrument with a figure-of-eight body shape that had typically five double courses of strings and a re-entrant tuning. For more details on the baroque guittar see Tyler, J., 'Guitar: 4. The five-course guitar' in Grove Music Online ed. L. Macy <http://www.grovemusic.com> (accessed 5/3/2010).
[34] In addition, the practice of converting gut-strung baroque guitars into wire-strung instruments was not uncommon, as it has been pointed out by Martin (2006: 123-37).

Figure 2.2: ***Top*****: Front, side, and back views of a baroque guitar by Antoine Aubry, Mirecourt, 1779. National Music Museum, University of South Dakota, Vermillion, [5581] (<http://orgs.usd.edu/nmm/Exhibitions/BeethovenBerlioz/BBAubry.html>, accessed 6/3/2010).** ***Bottom*****: Front, side, and back views of a large unsigned twelve-string guittar. Dean Castle, Kilmarnock, [MI/A12].**

Many scholars have stated that the guittar is a direct descendant of the Renaissance cittern, a wire-strung plucked instrument that became very popular across Britain during the 16th and 17th centuries.[35] The guittar may have borrowed many elements of the cittern's design and form, but has some notable differences. To begin with, the guittar has a much larger and deeper body than the cittern[36], possibly to give more volume and resonance, often with a bowl rather than a flat back. Moreover, the body depth on flat-back guittars is rather uniform with a slight tapering from the bottom to the neck, as opposed to the cittern, whose body tapers towards the bottom.[37]

In addition, the guittar has a shorter and wider neck, without the cittern's characteristic 'step' from the treble to the bass side.[38] Also the guittar's neck is usually drilled on the first few frets in order to receive a capotasto. Furthermore, the guittar fingerboard, which is typically arched and not flat as on the cittern, has fewer frets, usually 12, although several guittars by makers like Liessem, Hintz, or Gibson, have 16 to 19 frets. Another main difference concerns the number of strings; the cittern in Britain had usually nine strings, arranged in four courses (treble to bass: 2x2x3x2), whereas the guittar had typically ten strings arranged in six courses (4 double, tuned in unison, for the treble and 2 single for the bass). Additionally, the guittar had an open tuning in C major c–e–g–c'–e'–g', far different from the re-entrant tuning of the cittern b-g-d'-e' or a-g-d'-e'.[39] Finally, the common guittar playing style involved the use of fingers rather than plectrum, which was the norm for the cittern. The differences mentioned above are evident when the only known English cittern[40], possibly by Petrus Raitta and dated 1579, now in the National Music Museum, University of South Dakota, Vermillion, [13500], is compared to a guittar by Liessem dated 1758 in the Dean Castle Museum, Kilmarnock, [MI/A11] (**Figure 2.3**).

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[35] The cittern is thought to have descended from the medieval citole or cytole, a similar gut-strung instrument, and according to Winternitz (1961: 222-29) was regarded as a revival of the ancient Greek 'kithara'. For more details on the cittern see Tyler, J., 'Cittern' in Grove Music Online ed. L. Macy <http://www.grovemusic.com> (accessed 5/3/2010).

[36] Interestingly, Galpin (1937: 98 and plate VI.1) shows an instrument by Peter Wisser, dated 1708, that looks like a cross between a cittern and a guittar. It is a four-course instrument having the cittern's typical 'wings' at the neck-body joint, but with a bigger and deeper body characteristic of the guittar.

[37] However, on several guittars by Perry the body tapers toward the bottom similarly to the cittern.

[38] Only guittars by Irish makers seem to have retained this distinctive feature on the back of the neck.

[39] In a 're-entrant' tuning what would normally be the lowest sounding string is actually tuned higher than another string. On the cittern's third course in g two of the three strings are tuned higher than the second course in d'.

[40] For more details see <http://orgs.usd.edu/nmm/PluckedStrings/Citterns/English/13500/Cittern13500.html> (accessed 12/3/2010). It is important to note that this cittern does not have the typical stringing of English citterns as recorded in contemporary sources.

Figure 2.3: ***Top*****: Front, side, and back views of the only known 16th-centrury English cittern, possibly by Petrus Raitta dated 1579. National Music Museum, University of South Dakota, Vermillion, [13500] (<http://orgs.usd.edu/nmm/Pluckedstrings.html#cittern>, accessed 15/3/2010).** ***Bottom*****: Front, side, and back views of an early guittar by Liessem dated 1758. Dean Castle, Kilmarnock [MI/A11].**

A variation of the cittern that had some influence on the guittar is the bell cittern, which appeared during the second half of the 17th century in northern Germany.[41] Unlike the earlier Renaissance cittern, the bell cittern had ten strings, arranged in five double courses and normally tuned f-a-c′-e′-a′. Nevertheless, the most obvious relation between the two instruments can be observed on bell-top guittars with pointed shoulders, like those by Hintz, Lucas, or Gibson, whose top body part is very similar to the body shape of the bell-cittern (**Figure 2.4**).

Figure 2.4: ***Left*****: A highly decorated bell cittern by Joachim Tielke of Hamburg, c. 1700. Victoria & Albert Museum, London, [1122-1869] (<http://www.vam.ac.uk/collections/>, accessed 17/12/09).** ***Middle*****: A plain bell cittern by Hinrich Kopp, Hamburg, 1686, Bayerisches Nationalmuseum, Munich, [Mu 13].** ***Right*****: A bell-top guittar by Hintz, late 1760s. Luighi Cherubini Collection, Florence, [1988/89].**

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[41] The bell cittern or 'cithrinchen' is mostly associated with Hamburg maker Joachim Tielke who was active during the second half of the 17th century. For more details on the bell cittern see Tyler, J., 'Cithrinchen' in Grove Music Online ed. L. Macy <http://www.grovemusic.com> (accessed 13/2/2010).

Additionally, Coggin (1987: 217-18) has noted that a four-course German cittern tuned g-c'-e'-g', similarly to the open C tuning of the guittar, is mentioned by Wolfgang Boetticher in his essay 'On vulgar music and poetry found in unexplored minor sources of eighteenth century lute tablatures'.[42]

Two other instruments that possibly influenced the guittar, at least at an early stage, are the bandora[43] and the orpharion[44]. These two closely related wire-strung plucked instruments developed around the late 16th century and remained popular in Britain until the end of the 17th century. It is, actually, noteworthy that several early guittars by Liessem, Hintz, or Rauche have undulated or festooned body shapes resembling a cloud or shell[45], reminiscent of the body shapes of the bandora or orpharion (**Figure 2.5**).

Besides, both the bandora and the orpharion were plucked mainly with fingers, like the guittar, although they have different tunings. However, one of the main differences between the guittar and these two instruments concerns the bridge design; both the bandora and orpharion have fixed flat bridges in contrast to the guittar's movable arched bridge.[46]

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[42] Essay in *Studies in Eighteenth-century Music*, ed. H. C. Robbins Landon (London, 1970) (as quoted in Coggin 1987: 218).
[43] The bandora was invented by John Rose in London in 1562 as mentioned in the sixth edition of John Stowe's *Annales, or a General Chronicle Of England* from 1631: 'In the fourth yere of Queen Elizabeth John Rose, dwelling in Bridewell, devised and made an instrument with wyer strings, commonly called the Bandora, and left a son, far excelling himselfe in making Bandoraes, Voyall de Gamboes and other instruments' (as quoted in Gill 1960: 23). For more details on the bandora see Harwood, I., and Nordstrom L., 'Bandora' in Grove Music Online ed. L. Macy <http://www.grovemusic.com> (accessed 15/3/2010).
[44] According to Wells (1982: 427) the orpharion was named after Orpheus and Arion, the two celebrated promoters of the art of accompanied song in ancient Greece, probably with the intention to link the instrument to the classical traditions and ideals. For more details on the orpharion see Harwood, I. and Nordstrom L., 'Orpharion' in Grove Music Online ed. L. Macy, <http://www.grovemusic.com> (accessed 15/32010).
[45] According to Wells (1982: 427-40) this unorthodox design as a stylized shell is rather symbolic, partly referring to the classical lyre of the Orpheus, but also resembling the myth of the birth of Venus from the sea inside a shell. Wells (1982: 439-40) further supports that the cittern was commonly associated with the earthly pleasures of Venus Vulgaris and was often depicted in art as an 'aid and accompaniment to seduction', whereas the nobler orpharion symbolized the higher pleasures of Venus Coelestis, 'the music of the world'.
[46] The orpharion is further characterised by its distinctive slanted bridge, frets and nut.

Figure 2.5: ***Left:*** **The only known surviving bandora, made by John Rose in 1580. Tollemache Collection, Helmingham Hall, Suffolk (Pringle 1978: 504).** ***Middle:*** **Nine-course orpharion by Francis Palmer dated 1617, Danish Music Museum, Copenhagen, [CL139], (http://www.cittern.theaterofmusic.com/old/palmer.html>, accessed 9/3/2010), and eight-course orpharion, unsigned, possibly early 17th century, Historisches Museum, Frankfurt, [X 18508].** ***Right*****: A festooned guittar by Liessem dated 1756. Victoria & Albert Museum, London, [230-1882] (<http://collections.vam.ac.uk/>, accessed 8/1/2010).**

It is also important to point out that the guittar has a strong relationship with instruments of the violin family. As it will be described in Chapter 5 this can be attributed to the fact that a large number of guittar makers had a background or early training in violin-making and many of them were primarily violin makers. This probably explains similarities in the choice of materials and methods of construction between guittars and instruments of the violin family, such as the use of figured maple for the back and sides, the carved single-piece neck, the viol-style pegbox with ebony pegs and a decorative finial, the moveable bridge, the arched fingerboard, the use of inked purfling, and the high quality of varnish and finishing (**Figure 2.6**).

Figure 2.6: ***Top*****: Front, side, and back views of the '*Harrison*' violin by Antonio Stradivari of Cremona dated 1693. National Music Museum, University of South Dakota, Vermillion, [3598] (<http://orgs.usd.edu/nmm/Violins/Stradivari3598/3598StradViolin.html>, accessed 21/2 /2010).** ***Bottom*****: Front, side, and back views of a guittar by Beck dated 1765. Musée de la Musique, Paris, [E.2081] (<http://mediatheque.cite-musique.fr/>, accessed 29/11/2009). Note the similarities in the choice of materials and construction methods between the two instruments.**

Guittar-making had also roots in the tradition of the lute or the mandolin[47] adopting the body shapes and construction techniques of the two instruments. In fact, bowl-back guittars are especially common among several German guittar makers, like Hintz, Rauche, Hoffmann, Lucas, Zumpe, and Beck, probably as a result of the long lute-making tradition in German-speaking regions, and numerous early bowl-back examples have survived to date (**Figure 2.7**).[48] However, unlike the guittar, the lute and, to a lesser extent, the mandolin were usually gut-strung instruments having a fixed bridge, tied frets on a flat fingerboard flush with the soundboard, and a typically angled headstock.

In addition, the triadic open tuning of the guittar in C major most likely derived from the baroque lute which was commonly tuned in open D minor. This tuning had been established by the late 17th century and became widely used until the early 18th century in most countries across Europe. The open D tuning offered to the lute the advantages of 'increased resonance and ease of left-hand fingering, though only within a very limited range of keys'[49] and, thus, it may as well have influenced the guittar's tuning in open C. Like the baroque lute, the open tuning of the guittar in C major, in combination with its wire strings, made it 'capable of holding a long sustain and of creating a lot of sympathetic vibrations' as Rossi (2008: 11) has pointed out, rendering the guittar suitable for song accompaniment, and, for that reason, quite attractive to the crowds of amateur performers it was largely aimed for.

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[47] For more details on the history and development of the lute and the mandolin see Harwood, I., Poulton, D., and Van Edwards D., 'Lute: 3. History', and Sparks, P., 'Mandolin', both in Grove Music Online ed. L. Macy, <http://www.grove music.com> (accessed 26/22010).

[48] Interestingly, one of the earliest surviving guittars by Preston, signed 'J. N. Preston, Maker, Banbury Court, Long Acre', is a bowl-back instrument, possibly made around the late 1760s. For more details see Sotheby's auction catalogue, 16 March 1971, lot 23, p. 10.

[49] See Sayce, L., 'Lute: 5. Technique-5. Tunings' in Grove Music Online ed. L. Macy, <http://www.grovemusic.com> (accessed 26/22010). Chordal tunings, which exploited the effects of sympathetic string resonance, were also used on other contemporary instruments such as the viola d'amore and the baryton.

Figure 2.7: *Top*: **Front, side, and back views of the '*Cutler-Challen*' mandolin by Antonio Stradivari of Cremona dated 1680. National Music Museum, University of South Dakota, Vermillion, [6045] (<http://orgs.usd.edu/nmm/Pluckedstrings.html#mandolins>, accessed 23/1/2010). *Bottom*: Front, side, and back views of the earliest known guittar by Zumpe dated 1762. Historisches Museum, Frankfurt, [X 16650].**

The lute also had an important influence on the playing techniques of the guittar. For instance, in her *Lessons and Instructions for Playing on the Guitar* Ann Ford (c.1761: 5-8), presents various ornamentation techniques for the guittar, referring to 'MUSICK'S MONUMENT', a popular lute tutor in Britain written by the 'great Lutenist, *Mace*' in 1676, further stating that 'the GUITAR is the same Thing' as the lute. In fact, Coggin (1987: 215-16) has pointed out several striking similarities between Mace's and Ford's tutors. Additionally, Rossi (2008: 11) mentions that the well-known 18th century lutenist Rudolf Straube has composed a rondeau arranged for both the guittar and the lute.

The missing link between the cittern, the lute, and the guittar can be found in the Moravian cittern, most likely the guittar's closest ancestor (**Figure 2.8**).

Figure 2.8: ***Left:*** **Front and back views of an unsigned twelve-string Moravian cittern, c.1750. Moravian Historical Society, Nazareth, Pennsylvania (Graf 2008: fig. 5).** ***Right*****: Front and back views of a ten-string guittar by Rauche dated 1762. Blair Castle, Perthshire, [8050].**

As already mentioned, it has recently been suggested that the guittar, at least in its earliest incarnation, was imported to Britain from Germany around the mid-18th century. According to this theory the development of the guittar closely followed the widespread use of the Moravian cittern in Saxony and other German-speaking regions during the late 1740s and early 1750s, and the subsequent immigration of many German instrument makers to Britain around the same time. For example, Frederick Hintz, one of the most prominent guittar makers who in an announcement in the *Public Advertiser* of 17 November 1755 advertised himself as 'the Original Maker of that Instrument call'd The Guittar or Zittern', while in later advertisement from 1766 similarly claimed to be the 'first Inventor' of the guittar[50], had started his career as a cabinet- and instrument-maker in the circles of the Moravian Church before settling in England, a fact underlined by Holman (2007: 13) and Graf (2008: 8-9). Consequently, Hintz was certainly quite familiar with the Moravian cittern when he started making guittars in London in the mid-1750s.[51]

Additionally, Graf (2008: 22-38) has noted the frequent use of citterns in the Moravian worship, particularly being played by women[52] in combination with wire-strung harps. The role of the cittern among the Moravians has been confirmed in several extant documents related to the Moravian Church and is also evident in Moravian paintings, many of which depict the female family members of Zinzendorf, leader of the Moravian Church, and other Moravian women performing on citterns (**Figures 2.9, 2.10**). Given the fact that, apart from Germany, the Moravian Church was also active in England during the 1750s, the Moravian cittern is the closest candidate as the guittar's predecessor.

It is, therefore, quite possible that German makers emigrating to Britain took the idea of the Moravian cittern, used mostly in the rather restricted context of Moravian worship, and turned

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[50] *The Public Advertiser*, 13, 17 and 22 March, and 9 May 1766 (as quoted in Graf 2008: 20).

[51] This fact has been pointed out by Rutherford (2010: 38), who has also noted some connections between the guittar and the German 'Lautenzister' (lute-cittern), an instrument which was popular in German-speaking regions during the first half of the 18th century.

[52] For instance, according to Graf (2008: 23, footnote 74), the final verse of a contemporary Moravian hymn from 1754 asks the single sisters of the congregation to 'Be so good and take up your citterns and present the congregation with a Gloria to the Lamb'.

it into a fashionable instrument for song accompaniment among the polite society. The fact that many of the earliest surviving guittars by makers of German origin, such as Hintz, Rauche, Hoffmann, Zumpe, Beck, and Lucas share similar construction features with Moravian citterns further confirms the strong relationship between the two instruments.

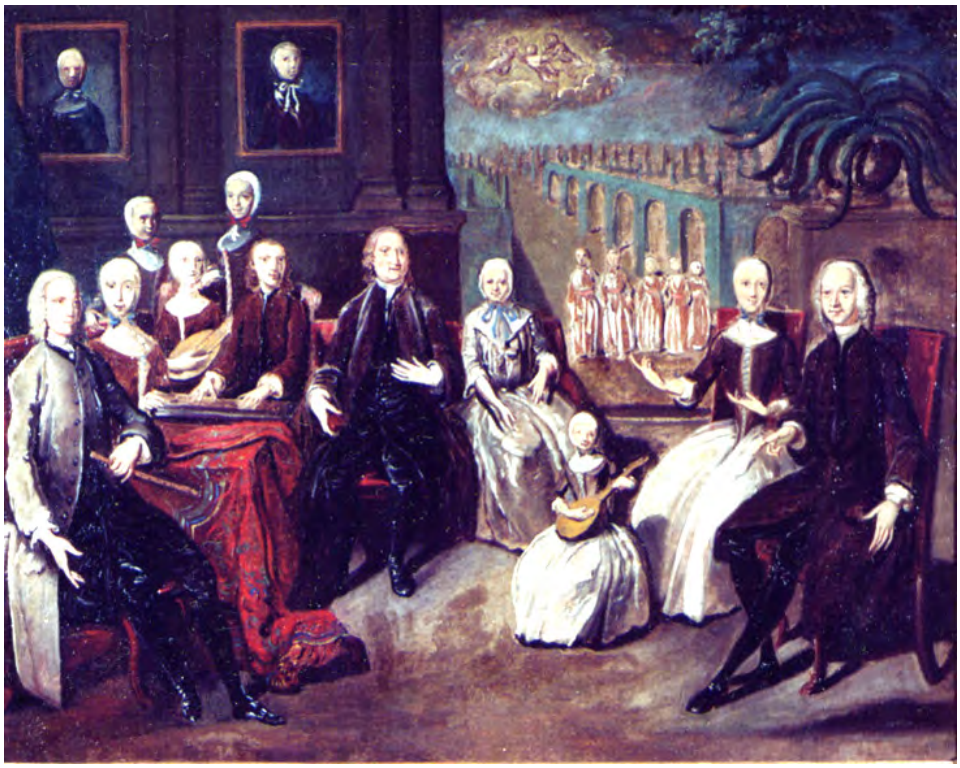

Figure 2.9: The Zinzendorf-Reuss family portrayed in 1746. Marie Agnes, in the centre, and Elisabeth von Zinzendorf, in the back left, are depicted playing citterns (<http://cittern.ning.com/photo/2107976:Photo:6308?context=user>, accessed 19/3/2010).

Figure 2.10: ***Left*****: 'The 24 Sisters' Choirs' by Johann Valentin Haidt, 1751. Unity Archives, Herrnhut (Graf 2008: 25, fig. 4). Henriette Benigna Justine von Zizendorf, in the centre is playing the cittern, while another Moravian girl in the right corner is playing the harp.** ***Right*****: Zinzendorf's coffin in the salon of the Herrnhut Manor House, by Albrecht Hieronymus Dietrich, 1760. Moravian Archives, Bethlehem (Graf 2008: 24, fig. 3). A Moravian woman on the right is playing the cittern while another on the left is playing the harp.**

Although the above paintings show typical bowl-back Moravian citterns, two following paintings from around the same time suggest that citterns with a deep body and a flat back, design features which became established on guittars, were also common among Moravians (**Figure 2.11**).

Figure 2.11: ***Left*****: Marie Agnes von Zinzendorf, unknown artist, c.1760. Unity Archives, Herrnhut, Nr. 101, BA 1025 (Michel 1999: 25).** ***Right*****: Henriette Benigna Justine von Zinzendorf, unknown artist, c.1760. Unity Archives, Herrnhut, Nr. BA 1099 (Michel 1999: 22). Both citterns are flat-back, while the cittern in the left painting has a bell-shaped body resembling a large bell cittern. Note also the right- and left-hand fingering positions, which are similar to those suggested in guittar tutors from the late 1750s.**

Besides, referring to the guittar's origins both Coggin (1987: 217-18) and Tyler (2009: 11) have pointed out a German instrument illustrated in Joseph Friedrich Bernhard Caspar Majer's *Neueroffneter Theoretischer und Praktischer Musick Saal*, published in Nuremberg in 1741. This instrument, which Majer calls 'guittarre', is a large wire-strung instrument with twelve chromatic frets, a movable bridge, and six double courses of strings tuned in open D; these features are quite similar to those of the guittar (**Figure 2.12**).

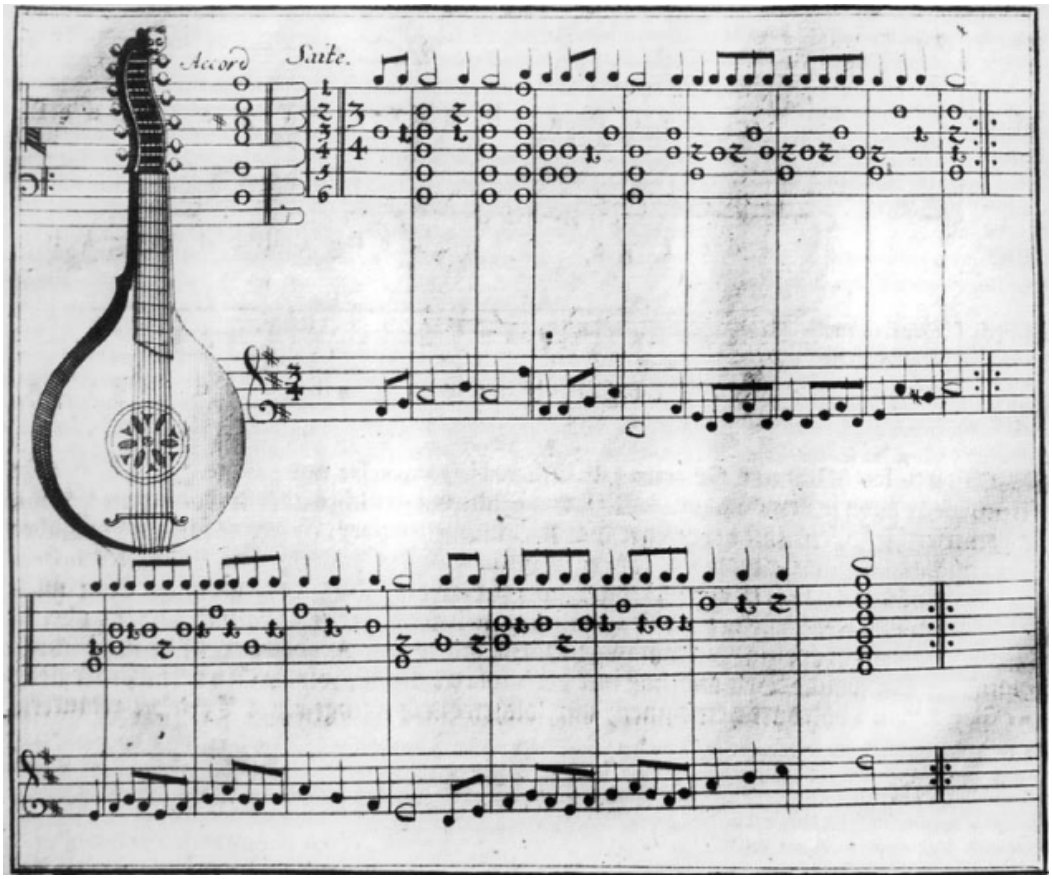

Figure 2.12: The stringed instrument ('guittarre') depicted in J. F. B. C. Majer's *Neueroffneter T heoretischer und Praktischer Musick Saal* published in Nuremberg in 1741 (<http://www.studia-instrumentorum.de/MUSEUM/zistern.htm>, accessed 28/9/2010).

In any case, wherever the guittar's real origins lie, it is important to remember that with so much population movement, and the subsequent social and cultural exchanges that resulted in Europe especially around the time of Seven Years' War (1756-63), it was not difficult for new music styles and musical instruments to enter new territories. This was probably the case with the instrument that arrived in Britain around the mid-1750s to become soon known as the guittar.

3 A HISTORY OF THE GUITTAR IN THE BRITISH ISLES

'The Harpsichord, an Instrument of Power and Compass, is now going out of Use. The Guitar, a trifling Instrument in itself, and generally taught in the most ignorant and trifling Manner, is adopted in its Place [...] What is the Reason of this? Because the Guitar is a plaything for a child, the Harpsichord and Lute require Application.'

John Brown, *An Estimate of Manners and Principles of the Times*, **1757**

'The great Progress the Cetra or Guittar has made in these Kingdoms within the space of a few years seems a sufficient Recommendation of it; more especially when we consider the disadvantages under which it has hitherto laboured, no less than a total Ignorance of the Power of the Instrument.'

Giovanni Battista Marella, *Sixty Six Lessons for the Cetra or Guittar*, **1757**

'The sweetness and brilliancy of sound peculiar to the Guitar, together with its convenient shape and size, and the easyness of performing on it, has already render'd it exstreamly fashionable in the polite world.'

Francesco Geminiani, *The Art of Playing the Guitar or Cittra*, **1760**

3.1 BRITAIN IN THE GEORGIAN ERA

Before presenting in detail the arrival and development of the guittar in the British Isles it is necessary to provide a brief account of the political, economic, social, and cultural conditions of Britain during second half of the 18th century.

3.1.1 THE POLITICS AND ECONOMY OF GEORGIAN BRITAIN

The guittar appeared at a time when Britain was becoming a strong and expanding empire with London as its major centre. In addition, Britain was developing into an advanced state where, in contrast to most continental countries, a kind of parliamentary democracy, the primary stages of the Industrial Revolution, and an early form of a capitalist economy had already been well-established.[53]

Politically this period, known as the Georgian era, was marked by the reign of the Hanoverian kings George II and George III.[54] When the guittar arrived in Britain around the mid 1750s, the king was George II, the second Hanoverian monarch. George II died in 1760 and, since his son Frederick, Prince of Wales, had died nine years earlier, the throne was passed to the young George III, grandson of George II. The years under the leadership of the two Georges would witness Britain's ascending role as the new global authority.

Britain's rising political power and economic wealth during the 18th century are reflected in technological development and progress, which enabled a vast expanding of sciences and industry at a fast rate.[55] The working and living conditions were largely improved by the beneficial effects of the Industrial Revolution, which led to the invention of new tools and

[53] For more details see Zaslaw (1989: 2).
[54] George II (1683-1760) reigned for 33 years from 1727 to 1760, whereas George III (1738-1820) reigned for 60 years from 1760 to 1820. However, after 1811 his son, another George, took over his father's duties, because George III was thought to be mad. For more details see Picard (2000: 286).
[55] See Black (2005: xvi).

machines, the introduction and use of steam power[56], improvements in agricultural production, and the easier transport of goods and materials on land and water. Moreover, the creation of new road networks between major cities reduced traveling time significantly[57], while local newspapers were influential in widening and accelerating the diffusion of news and tastes.[58] In addition, explorations in the east and west opened new horizons and created new profitable markets for trade.

Furthermore, as Zaslaw (1989: 9) underlines 'improvements in sanitation, medicine and nutrition' led to a gradual rise of population throughout Britain; in 1750 the population of England alone was estimated at 6,140,000.[59] Zaslaw (1989: 9) further adds that the new forms of employment created by the Industrial Revolution urged the growing population to concentrate especially in urban centers, which resulted in the expansion of building and construction within cities, radically transforming the urban landscape.

3.1.2 THE SOCIAL AND CULTURAL CONDITIONS OF GEORGIAN BRITAIN

This progress would bring major social changes. Commerce, industry and trade had created a new class of urban rich with aspiring expectations and ambitions.[60] Although the nobility largely continued to retain their wealth and power, they were now joined by a steadily increasing upper middle class.[61] The evolution of the middle class, with money to spend, played an important role in the control and expansion of the country's economy. This major consuming force could sustain the production and distribution of luxury items and fashionable accessories, which included, among others, printed music and musical instruments. Furthermore, the growth of a consumer market, aiming at the middle and upper classes, brought a heightened awareness of fashion, especially among ladies. This situation was strengthened by a competitive attitude of the middle class for upgrading their social status and public image with the endorsement of the

[56] Although steam power played an important role in industrial production, there is no evidence for its use in musical instrument-making.
[57] See Black (2005: 78-9).
[58] See Weber (1989: 301).
[59] See the figures provided by Picard (2000: 3).
[60] See Black (2005: 40).
[61] See Zaslaw (1989: 9).

latest novelties in art and technology. In Black's (2005: 109) words 'Economic expansion, consumerism and material culture were interrelated'.

Moreover, there was now more time for leisure activities and social interactions among a large part of the population. The growing need of the middle class for entertainment[62] supported a thriving artistic scene, attracting artists and craftsmen from all across Europe to immigrate and work in Britain. This movement was assisted by the fact that the livery companies, which until now had largely controlled the arts and crafts, had already been losing their power in Britain, and by the early 18th century regulations were relatively loose compared to other countries.[63] It is interesting that although not much music was composed by English musicians, Britain's musical input was strong, mostly as a result of the numerous foreign artists that could attract large audiences and were responsible for maintaining a high level of performance and professionalism among music practitioners.

Thus, the involvement of the middle class in the purchase of art items, and the consumption of art in general, created an unprecedented urge for artistic variety. In the visual arts, the 18th century was characterized by the discovery and re-evaluation of the principles and ideals associated with ancient Greece and Rome, which strongly influenced art and architecture, leading to the establishment of the Neo-classical style.[64] In addition, the interest in nature and the outer world, which was typified by the observation and methodical documentation of natural phenomena, was elevated to an art form with the construction of extraordinary landscapes and parks or pleasure gardens[65] where several public amusements, like open concerts and music festivals, took place regularly. In the fields of applied arts and crafts the styles were also dominated by the elegance of Palladianism, the revival of 'Gothick', and the

[62] Music and the arts played an essential part in the middle class's entertainment. Picard (2000: 123-32) list various other, less sophisticated, forms of amusement that included drinking gin, animal baiting, boxing, ball games, lottery clubs, horse racing, hunting, gambling, fireworks and public executions.
[63] See Picard (2003: 59).
[64] For more details see Zaslaw (1989: 12) and Black (2005: 51-2,181-83).
[65] These include, for example, the Vauxhall and Marylebone Gardens, the Ranelagh Pleasure Grounds in Chelsea, and several smaller parks and spa resorts in or around London. In most of these places music was a constant feature of the entertainment; visitors could enjoy their walk in the gardens, look at paintings and sculpture, find spouses or whores, play cards, or dine and drink, while listening to an orchestra. In her novel 'Evelina' Frances Burney (1778/1994) describes an amusing account of a young lady's introduction to the capital's attractions.

introduction of exotic motifs from the Far East and the British colonies.[66] New patterns and designs were constantly brought in to cover the increasing customers' demands and requests, and, as Weber (1989: 297-98) notes, quite frequently popular topics would become absorbed in the new trends. Black (2005: 122) mentions that science became 'a matter of cultural status', while there was also 'a fascination with mechanisms', the details of which were depicted in technical drawings. In music the classical tendencies appeared with the pursuit of formal clarity and balance, and the avoidance of excessive ornamentation, exemplified in the form of sonata.[67] Musically, the 18th century saw the transition from the late baroque style to the classical era, with the introduction of new performance standards and ethos.

The resulting economic prosperity, social restructuring and emphasis on personal cultivation eventually led to a cultural transformation. This was largely assisted by the growth of literature and philosophy, and the decline of strict religious prejudice and political authoritarianism. Knowledge and experience was now easy to record and exchange with the improvement of scientific instruments and printing methods, leading to the arrival of the first encyclopaedias, which initiated a general intellectual awakening. This refinement of aesthetic and moral values was further advocated by the movement of Enlightenment, which placed central emphasis on liberty, individual rights, reason, and the principles of deism, leading to the establishment of new concepts about man and society. Inevitably, these alterations resulted in strong conflicts and social instability, and, consequently, the late 18th century was a time of revolution and war. The fire of revolution was ignited by the American War of Independence in 1776 against the British dominance[68], and it peaked with the French Revolution in 1789, which gave a strong shake to the constitution of monarchy across Europe and paved the way for significant changes in the lives of millions for the years to come.

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[66] For more details see Black (2005: 49-50); for a thorough analysis of 18th-century art see also Ettlinger (1969: 217-58).
[67] According to Zaslaw (1989: 12), the sonata created order and symmetry, balancing the tension and resolution, while, at the same time, working as an independent musical object.
[68] The United States Declaration of Independence was issued by the Continental Congress on 4 July 1776.

3.2 THE MUSIC SCENE OF GEORGIAN BRITAIN

3.2.1 THE DEVELOPMENT OF A MUSIC INDUSTRY IN BRITAIN

As already mentioned, the economic progress, social modifications and cultural changes caused a massive explosion in entertainment and leisure activities. This in turn had a great impact on the music scene of 18th-century Britain, creating a musical landscape of broad diversity and leading to the development of a powerful music industry.

This development, essentially motivated by the increase of public interest and delight in music-making and music-associated events, is evident in the wide variety of festivals, clubs, and subscription concerts that took place regularly in most major cities.[69] Also during the 18th century the size and number of venues expanded, balls became a regular fare in assembly rooms, theatres and opera houses supported ambitious productions, and the first music societies were formed in Britain.[70] In addition, music performance and teaching, music publishing, and musical instrument-making spread across the country.[71] Black (2005: 57-8) notes that 'Music was a major requirement for the stately homes of the period' and that in such households 'Music-making, both communal and private, was an important activity'.

According to Weber (1989: 293) an important reason for the rapid development of the music industry in Britain was that by the late 18th century the state had already adopted a more liberal and less totalitarian administrative system. Consequently, the royal influence on arts and music was relatively minor compared to other countries, like France or Germany. Black (2005: 38) claims that in England taste 'came from outside the royal court'. In addition, apart from the growing demand for music among the middle class, public concerts in Britain were more

[69] See Plumb (1980: 31).
[70] See Weber (1989: 301-02).
[71] See Plumb (1980: 31).

possible because of the lack of government control, which allowed the easier organization, promotion and support of such events.[72]

As a result, artists and musicians began to search for new audiences in the wealthy homes and public places, especially since public events promised to provide a more steady income than performing exclusively for the royal court or the rather restricted circles of nobility, as Weber (1989: 294) has remarked. This also led to the gradual replacement of small concert halls and court-sponsored opera houses by larger venues, supported essentially by ticket receipts.[73] In addition, with the increasing prosperity of the middle class in the late 18th century, artists, who had traditionally been dependent on court patronage and recommendations by satisfied customers, began to use public performances and advertising in order to reach a wider market.[74]

Accordingly, the development of musical life in Britain was the result of entrepreneurship, rather than state or local authority, which was the case in most continental countries. The music business was largely supported by the work of individuals, with strong commercial skills and the ability to sense developing markets, who invested in music performance and teaching, music publishing, and musical instrument-making. In fact, many musicians were businessmen as much as performers and their entrepreneurial spirit motivated a burgeoning market for printed music, concert tickets, music lessons, and musical instruments.[75]

As in the visual arts all aspects of the music industry were largely affected by entrepreneurial activity which coincided with a larger development and sustain of a consumer market.[76] Picard (2000: 239) refers to the late 18th century as 'the era of purpose-made objects' and as manufacturers recognized potential markets among both middle- and upper-class homes the purchase of household items, which included music scores and musical instruments, expanded

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[72] See Weber (1989: 294).
[73] See Zaslaw (1989: 9).
[74] See Picard (2000: 258).
[75] See Weber (1989: 295).
[76] See Plumb (1980: 10).

rapidly, as Weber (1989: 295) has pointed out. Weber (1989: 298) also mentions that music publishers invented a profitable method of selling editions of printed music using monthly subscription packets. Likewise, they benefited from the production of arrangements of well–known pieces for an increasing variety of instruments, especially those popular among amateur performers.

In a similar way, radical changes occurred in musical instrument-making. The need for cheap musical instruments for the numerous amateur performers led to the introduction of mass-production methods in the construction of musical instruments. Musical instruments were now accessible to a large audience and could be bought or hired at a relatively low cost.[77] Thus, along with various other household objects, musical instruments belonged to the list of customary items of furniture to be found in a prosperous home, as Weber (1989: 296) notes, while Black (2005: 109) claims that 'Instruments were displayed and played in the fine rooms' of many rich houses.[78] In addition, the rising competition among musical instrument manufacturers stimulated innovation and experimentation, resulting in various novelties, improvements and patents related to musical instruments.[79]

The promising music market allowed higher investments in the production and stockpile of printed music and musical instruments, which consequently secured higher profits. However, as already mentioned, the political and economic conditions in Britain were rather unstable during the late 18th century and music entrepreneurs had to be flexible and able to predict possible fluctuations in the market in order to avoid costly risks. This was necessary especially during financially hard times when potential customers were reluctant to spend money on

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[77] See Plumb (1980: 82).

[78] Other typical household items that reflected power and wealth were portraits, which very often depicted the household owners playing musical instruments.

[79] It is noteworthy that in the 1760s and 1770s several artists and craftsmen who had an interest in music were also 'drawn to instrument making', as mentioned in Milnes (2000: 50); among them were the eminent painters Thomas Gainsborough (1727-88) and George Romney (1734-1802), as well as the eccentric inventor John Joseph Merlin (1735-1803).

entertainment or luxury items, and on many occasions music publishers and musical instrument manufactures had to face the danger of bankruptcy. [80]

Another main reason for the development of the music industry in 18th-century Britain was the arrival of a new, mainly urban, audience for music, which was the driving force behind the flourishing of public concerts and the appearance of a market for cheap sheet music, self-tutors, and musical instruments.[81] Due to the introduction of low-priced music scores and musical instruments it was now easier for the middle class to afford a basic music education and enjoy music at home; music-making was not anymore the privilege of the royal court and the aristocracy, but an essential leisure activity for the middle class.

The commercial success of the music business is actually connected directly to the expansion of domestic music-making among the middle and upper classes.[82] According to Black (2005: 116), by the early 18th century singing and mastering an instrument had become a common domestic activity, and a basic part of growing up, especially for girls. Weber (1989: 297) additionally maintains that domestic music-making was quite important in family formation, since musical gatherings, such as concerts, dances and parties, were fine occasions for social networking, family meetings, flirting and planning marriages. This large number of amateur performers who booked concerts tickets, took music lessons, and purchased or hired printed music and musical instruments for domestic use strongly enforced the growing music market.[83]

These changes had profound implications in the evolution of musical styles. The preferences of a middle-class audience manipulated the composers' output, leading to the appearance of commercial genres that dominated the market. As Zaslaw (1989: 9) points out, 'a new class of amateur performers required technically and conceptually easy music to play and sing', but at the same time, 'an increased professionalism among musicians…gave rise to new levels of

[80] See Nex (2004: 23).
[81] See Zaslaw (1989: 9).
[82] See Weber (1989: 295).
[83] According to Fildes et al (2011: 28) in 1750 only 12 music shops in London were listed in directories, while 30 music shops were listed in 1794.

virtuosity among orchestras and soloists, leading in turn to both new artistic possibilities and excesses of vulgar exhibitionism'.

Zaslaw (1989: 9) further adds that gradually professionals and amateurs stopped performing together, whereas the roles of composer and performer became separated. As a result, composers had to write music that corresponded to the different tastes and performance levels of the players. On one hand, the rising standards of the few, but significant, virtuoso players demanded more complex or adventurous music, while the thousands of amateurs sought easy and simple pieces, less sophisticated in harmony or counterpoint.[84]

3.2.2 MUSICAL LIFE IN LONDON

As a result of the circumstances mentioned so far Britain sustained a quite active musical industry throughout the 18th century, which was principally epitomised in the prosperous and varied musical life of London. By the mid and late 18th century the English capital encompassed all the characteristics of a thriving musical city and there are a number of reasons for that. First of all, London was the heart of the expanding British Empire. Around 1750s London was already the biggest city in the world, with a population of about 650,000 (plus or minus 50,000), over 10% of the population of England.[85] According to Weber (1989: 301), London being the biggest city meant 'an extraordinary concentration of the nation's wealthy families' which stimulated artistic production. In fact, most crafts involved in the production and distribution of fashionable art items, including musical instruments, emerging from Britain in the mid and late 18th century, were based in and directed from London. In addition, London was a major transport centre to the East and West, allowing the import and export of the latest fashions from and to the rest of continental Europe and the British colonies. As a result, during the mid 18th

[84] See Weber (1989: 297). This quest for simpler music pieces consisting of short, regular phrases of flowing melody, and devoid of complex counterpoint, led to the development of the 'Gallant' style, which according to Sadie and Latham (1985: 220) implied 'the idea of pleasure, of a fairly straightforward, undemanding kind: sensuous pleasure, quite apart from moral uplift or deeper artistic satisfaction'; it also implied 'a certain elegance and worldliness'.
[85] See Picard (2003: 3).

century London had become a major political, economic, and cultural centre, representing Britain's worldwide supremacy.[86]

On the other hand, the presence of the Hanoverian kings on the throne had a significant effect in London's cultural life. Especially after the Hanoverian accession there was a strong fashion for German trends and styles, encouraging many distinguished German artists and musicians to follow the royal family moving to London.[87] Thus, by the mid and late 18th century the capital enjoyed a flourishing musical life, which had been enriched by the arrival of figures such as G. F. Handel, J. C. Bach, C. F. Abel, W. A. Mozart, and F. J. Haydn.[88] Along with them came a wave of German instrument makers, who settled in London, bringing with them the skills and experience of a long instrument-making tradition.

Apart from German newcomers, London was the final destination of immigrants from other continental countries, as well as from regions within British Isles. Thus, many Italian, French, Dutch, but also Irish and Scottish musicians, music teachers, composers, music publishers, and musical instrument makers and inventors came to test their luck in the British metropolis. Therefore, during the mid 18th century the capital was an international melting pot where artists and craftsmen of various origins and backgrounds were working together, competing against each other and influencing one another. It was under these conditions that the guittar arrived in London around the second half of the 1750s.

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[86] For a fascinating presentation of 18th-century London see Picard (2000: 3-51).
[87] For the role of the crown in the patronage of art and music see Black (2005: 25-40).
[88] See Plumb (1980: 32).

3.3 THE CREATION OF A GUITTAR CULTURE

3.3.1 THE ARRIVAL OF THE GUITTAR IN LONDON

The exact details of the guittar's arrival in Britain are unknown. Nevertheless, it is certain that the guittar first appeared in London during the 1750s before it reached provincial cities around Britain. On the basis of the earliest extant instruments and primary sources, the guittar's introduction to the fashionable London society may have occurred around 1754. The earliest known published reference to the guittar comes from an advertisement in the *Public Advertiser* of 2 March 1754, Issue 6036, (**Figure 3.1**), which reads:

> Ladies or Gentlemen desirous to learn to play on the Citter, otherwise Guittar, may hear of a Person who teaches that Instrument […].[89]

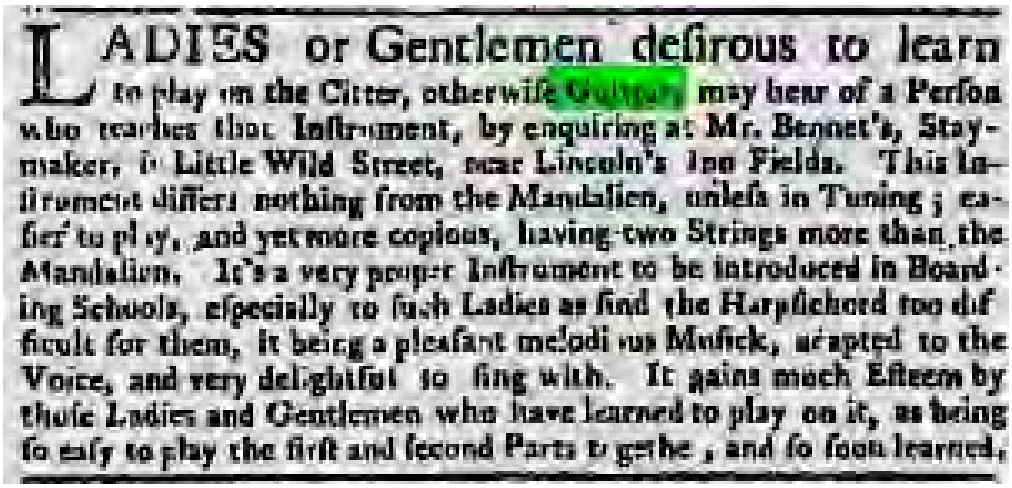
LADIES or Gentlemen desirous to learn to play on the Citter, otherwise Guittar, may hear of a Perſon who teaches that Inſtrument, by enquiring at Mr. Bennet's, Stay-maker, in Little Wild Street, near Lincoln's Inn Fields. This Inſtrument differs nothing from the Mandalien, unleſs in Tuning; eaſier to play, and yet more copious, having two Strings more than the Mandalien. It's a very proper Inſtrument to be introduced in Boarding Schools, eſpecially to ſuch Ladies as find the Harpſichord too difficult for them, it being a pleaſant melodious Muſick, adapted to the Voice, and very delightful to ſing with. It gains much Eſteem by thoſe Ladies and Gentlemen who have learned to play on it, as being ſo eaſy to play the firſt and ſecond Parts together, and ſo ſoon learned,

Figure 3.1: The advertisement in the *Public Advertiser* of 2 March 1754. This is the earliest known published reference to the guittar (<http://find.galegroup.com.ezproxy.webfeat.lib.ed.ac.uk/>, accessed 21/5/2011).

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[89] A similar advertisement appeared in the *Public Advertiser* of 15 May 1754. Both advertisements predate the advertisement in the *Public Advertiser* of 2 November 1756, presented in Coggin (1987: 205), which reads 'A Book of Airs and Songs principally designed for the Viol, other wise Cuter or Guitter, composed by Mr CALL, teacher of that Instrument […]', and which was until now considered as the earliest known published reference to the guittar.

This advertisement also provides some clues to the guittar's invention, as it mentions that the instrument is not different from the 'Mandalien' (most likely mandolin) 'unless in Tuning', being 'easier to play, and yet more copious', and 'having two Strings more than the Mandalien', indicating the two single bass courses which are a typical feature of the guittar. In addition, the rather ambiguous description of the instrument using two different names ('Cittter' and 'Guittar') suggests it had only recently been developed. Likewise, in 1757 Dr Clephane used three different names ('guitarre', 'mandolino' and 'mandola') for the same instrument in his letter to his niece Elizabeth Rose:

> The spinet, too, has its merits, and has more than instrument I propose for you-the guitarre, or mandolino, as it is called here by our London ladies. What induces me to recommend it is its portableness, and that it methinks music is well an amusement, but not a study. However, if you have once made progress on the spinet or harpsichord, the mandola will be an easy acquisition.[90]

Further evidence comes from Thomas Green, a music teacher and tuner of musical instruments. In his accounts from 1742 to 1790, regarding mainly the maintenance and tuning of various keyboard instruments, the record of 'mending and Stringing a citron', which is almost certainly an early name for the guittar, appears for the first time on 29 January 1756.[91] Then for the next two years Green refers to the instrument as a 'citron', 'citern', 'guitar' or 'guittar', while after 1758 he exclusively uses the terms 'guittar' or 'guitar'. Moreover, after this date the instrument is mentioned repeatedly in Green's accounts.[92] This is another proof that around 1756 the guittar was new and that within a few years it had already become widely established among musicians. Another clue comes from the following quote in Ann Ford's *Lessons and Instructions for Playing on the Guitar* (c.1761):

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[90] C. Innes, *A Genealogical Deduction of the Family of Rose in Kilravock*, (Edinburgh, 1848), p. 461 (as quoted in Coggin 1987: 207). Apparently Miss Rose followed her uncle's suggestions as she later became an 'excellent performer' on the guittar.
[91] See Sheldrick (1992: 17).
[92] The instrument is mentioned in total 47 times in 30 years (from 1756 to 1786) in Green's accounts. Green refers to the instrument once as a 'citern', seven times as a 'citron', and 39 times as the 'guittar' or 'guitar'. For more details see Appendix II.

> It has been often wondered at, that an Instrument of this Kind, should, in so short a Time, have become so universal; but had it been in Fashion, when the inimitable *Hogarth* wrote his ingenious *Analysis of Beauty*, I doubt not but he would have shewn, […] this Instrument […].[93]

Since Hogarth's *Analysis of Beauty* was published in 1753 it can be assumed that the guittar had not appeared in London's music life before that date. Moreover, one of the earliest tutors for the instrument is David Rutherford's *The Ladies' Pocket Guide or the Compleat Tutor for the Guittar*[94], published in London around 1756, while there are also numerous undated scores of guittar music that could have been published around the same time.

However, the earliest dated guittar book is G. B. Marella's *Sixty Six Lessons for the Cetra or Guittar*, published in London in 1757.[95] In addition, a year later, in his *Instructions for the Guitar* from 1758, Robert Bremner mentioned that the guittar 'was but lately introduced in Britain', whereas the same year John Brown, in his *An Estimate of Manners and Principles of the Times* documented the replacement of the harpsichord from the recently arrived guittar:

> The Harpsichord, an Instrument of Power and Compass, is now going out of Use. The Guitar […] is adopted in its Place […].[96]

The earliest reference to the manufacture of guittars comes from an advertisement by F. Hintz, appearing in the *London Evening Post* of 6, 7, and 8 August 1754, Issue 4172, which reads: 'Frederick Hintz, At the Golden Guittar, in Little Newport-Street, facing Newport Market, Makes and Sells all sorts of the Completest Guittar; as also the Æolian Harp, an Instrument play'd by the Wind [...]'. A similar announcement by Hintz in the *Public Advertiser* of 17 November 1755, Issue 6567, reads: 'Frederick Hintz, at the Golden Guittar, the Corner of Ryder's

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[93] See Ford (c.1761: 3-4).

[94] See Coggin (1987: 210). The rather primitive playing techniques illustrated in Rutherford's tutor date it definitely before 1758, when Bremner's more advanced and comprehensive tutor appeared.

[95] It is noteworthy that simultaneously with the appearance of the guittar in London, a revived interest for the gut-strung guitar started around the late 1750s in Paris, as mentioned by Erik Stenstadvold in his paper ''Paris' Role in the Rise of the Guitar 1750-1820', presented at the 'First Cambridge Colloquium on the Guitar in the Early Nineteenth-century', Sidney Sussex College, University of Cambridge, 4-6 April 2011. Interestingly, according to Stenstadvold the first method for the gut-strung guitar using staff notation was published in Paris in 1757 by G. Merchi, who later came to London and published music for both the wire-struing guittar and gut-strung guitar.

[96] As quoted in Coggin (1987: 206).

Court, Leicester Fields is the Original Maker of that Instrument call'd The Guittar or Zittern, who has for many Years made and taught that Instrument, and has lately made a great Improvement on it, so that it may in a Moment be set to any Instrument or Voice […]'. Additionally, in an advertisement from 1766 regarding a new tuning mechanism for 'this favourite Instrument the Guittar' Hintz also claims to be 'the first Inventor' of this instrument:

> after many Years Study and Application in endeavouring to bring this favourite Instrument the Guittar (being the first Inventor) still to a greater perfection in regard to tuning and keeping the same in Tune, which has always been a principal Defect as well as inconvenient, has now found out, on a Principal entirely new, several Methods, whereby it is much easier and exacter tuned, and also remains much longer in Tune than by any Method hitherto known.[97]

Moreover, an earlier advertisement in the *British Evening Post* of 27 October 1763 (**Figure 3.2**) shows that around 1760 Hintz had invented a type of arch-guittar, which is described as 'a new-invented Guitar with eight Strings more in the Bass'. The advertisement mentions that 'Mr. Hintz, Guittar Maker to Her Majesty and the Royal Family, invented and made this Kind of Guittars 3 Years ago; but, as he found that the Ladies were not at that Time disposed for them, from some Circumstances of Inconvenience which they thought attended the additional Number of Strings, he did not make them publick: But has, nevertheless, found it necessary always to keep by him a certain Quantity ready-made, and finished in the best Manner'.[98] In this advertisement Hintz also mentions three more guittar types in stock, namely a 'Guitar called the Tremulant', a 'De L'Amour Guittar, with a Lute Stop', and 'a Guittar to be played with a Bow, as well as with the Fingers'[99] all of which 'were invented by him'.

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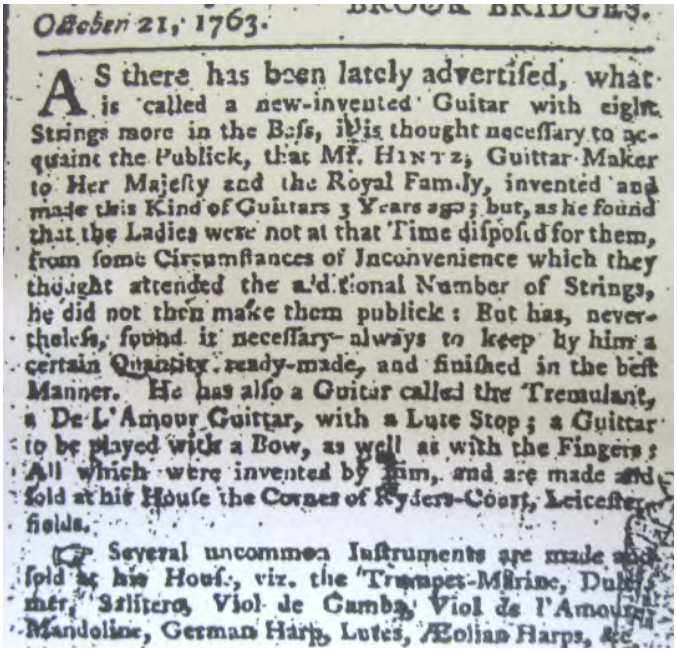
[97] *The Public Advertiser*, 13, 17 and 22 March, and 9 May 1766 (as quoted in Graf 2008: 20).
[98] *British Evening Post*, London, 27 October 1763, Issue 414. I am grateful to J. Westbrook for bringing this source to my attention.
[99] This description most likely refers to a cither viol or 'sultana', a bowed instrument with wire strings similar to the guittar.


October 21, 1763.

AS there has been lately advertised, what is called a new-invented Guitar with eight Strings more in the Bass, it is thought necessary to acquaint the Publick, that Mr. HINTZ, Guittar-Maker to Her Majesty and the Royal Family, invented and made this Kind of Guittars 3 Years ago; but, as he found that the Ladies were not at that Time disposed for them, from some Circumstances of Inconvenience which they thought attended the additional Number of Strings, he did not then make them publick: But has, nevertheless, found it necessary always to keep by him a certain Quantity, ready-made, and finished in the best Manner. He has also a Guitar called the Tremulant, a De L'Amour Guittar, with a Lute Stop; a Guittar to be played with a Bow, as well as with the Fingers; All which were invented by him, and are made and sold at his House the Corner of Ryders-Court, Leicester-fields.

☞ Several uncommon Instruments are made and sold at his House, viz. the Trumpet-Marine, Dulcimer, Zithera, Viol de Gamba, Viol de l'Amour, Mandoline, German Harp, Lutes, Æolian Harps, &c.

Figure 3.2: The advertisement by Hintz in the *British Evening Post* of 27 October 1763.

Regarding extant instruments, the earliest reported date for a guittar is 1740, which seems rather too early.[100] Unfortunately the whereabouts of this instrument are currently unknown[101] and the date cannot be verified.[102] Nevertheless, the earliest known guittars are two instruments by Liessem both dated 1756 (**Figure 3.3**).[103]

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[100] The instrument is listed in the *Illustrated Catalogue of Music Loan Exhibition by the Worshipful Company of Musicians at Fishmongers' Hall*, June & July 1904 (London: Novello & Co Ltd, 1909), p. 138. This reference is also mentioned by Baines (1966: 42), without any further information about the location of the instrument. Interestingly, this instrument has been attributed to Hintz who, as mentioned earlier, claimed to be the 'Original Maker' and 'first Inventor' of the guittar.

[101] In the 1909 catalogue mentioned above this instrument is listed as belonging to 'Miss E. A. Willmott'. However, according to Halfpenny (1946: 106): 'The fine collection, formerly at Warley Place, Essex, in the possession of Miss Willmott was dispersed piecemeal at her death […]'. The author has been unable so far to confirm the existence or current location of this instrument.

[102] According to Graf (PC, 12/2007), who has extensively investigated Hintz's life and career, if correct, this date would suggest the guittar was made while Hintz was living in Moravian communities in Germany. Therefore, this guittar would be the earliest known instrument by Hintz, if not the earliest signed guittar, and perhaps the missing link between German citterns and guittars.

[103] The second earliest guittar, made by Liessem and dated 1756, is included in Sotheby's auction catalogue of 9 October 1981, lot 156, p. 50, the present whereabouts of which is unknown. In addition, two guittars by Hintz, one in EUCHMI, Edinburgh, [1066], the other in John Wesley's Chapel, Bristol, and a guittar co-signed by Rauche and Hoffmann in the Burns Birthplace Museum, Alloway, Ayrshire [3.4565], are dated 1757. Additionally, according to Wells and Nobbs

Figure 3.3: Front view of one of the two earliest known guittars, made by Liessem and dated 1756. Victoria & Albert Museum, London, [230-1882] (<http://collections.vam.ac.uk/>, accessed 8/1/2010). This instrument, which has a festooned body shape reminiscent of the bandora or orpharion, is signed 'Remerius Liessem/ f. Londini 1756', written in ink on a paper label pasted on the middle of the back inside the body.

Additionally, the numerous extant guittars and scores dating from the late 1750s suggest that by that time the guittar and its music were already known to London's society.

(2007: 94), a guittar by J. C. Elschleger in the Royal College of Music, London, [21], was probably also made around the mid-1750s although the last two digits of the date '17[..]' are indecipherable, thus preventing an accurate dating of this instrument.

3.3.2 IN SEARCH OF A NAME

During the first years of its use the guittar faced a period of experimentation. Therefore, the recently introduced instrument was characterised by a wide diversity of design, construction and decoration features. In fact, the earliest surviving instruments do not share uniform characteristics, but are rather quite individual regarding their body shapes and sizes, construction materials and decorative patterns, fretting and stringing arrangements, etc., which suggests that both makers and performers were trying to test, improve, and extend the capabilities of this new instrument.

This lack of standardization was also reflected in the guittar's contemporary nomenclature, and, as a result, during the early period of its historical use the instrument would adopt a variety of names and spellings. As Picard (2000: 70) points out, spelling in the 18th century was somewhat inconsistent, and in surviving documents the guittar appears with as many different names and spellings as an 18th-century writer could imagine. The most common names found in contemporary historical references are guittar and guitar. However, the following names and spellings have also been used occasionally during the 18th century to describe the same instrument: 'citron', 'cuter', 'citter', 'zittern','cittern', 'cetra', 'citra', 'citera', 'guitarr', 'guitarra' 'guitarre', 'guitter' 'gytar', 'gutthor', 'kitara', 'chitara', 'chitarra', and possibly many others.

Different names and spellings for the instrument are found even in the same publication. For instance, in the introductory comments to his *The Art of Playing the Guitar or Cittra*, Francesco Geminiani referred to the instrument as 'the lesser Guitar or Citera' (even though in his *Example 1*, page 2, the second line is for 'Chitara o Cetra'), while David Rutherford's instructions in his *The Ladies' Pocket Guide or The Compleat Tutor for the Guittar* are for 'Cittern or Guittar'.[104] Santo Lapis composed *Il Passa tempo della guitarra in twelve Italian Airs for the Voice, accompanied by the Guitar or Harpsichord*.[105] Other indicative examples include works by Frederick Hintz and

[104] See Rossi (2008: 2).
[105] See Humphries and Smith (1970: 212).

Giovanni Battista Marella, who both wrote for the 'Cetra or Guittar'; Pasqualini Demarzi, who composed *Six Sonatas for the Cetra or Kitara*; and Charles Clagget, who published *Forty Lessons and Twelve songs for the Citra or Guitarr*. Besides, Henry Thompson's tutor *New and Compleat Instructions for the GUITTAR* mentions the instrument as 'the GUITAR, or CITRA'. Additionally, Giacomo Merchi's op. XV is for 'Chitarra', whereas Giovanni Battista Noferi uses 'Guittar' for op. 3, 'Cetre' for op. 4 (these are duets so he uses the plural form of *cetra*), and 'Guitar' for op. 12. Likewise, John Preston's tutor[106] from around 1789 is entitled *Complete Instructions for the GUITAR*, although later in the same front page he states that at his shop 'may be had Guittars of all Prices'.

3.3.3 ESTABLISHING A GUITTAR CULTURE IN LONDON

After its arrival in the late 1750s the guittar soon became well-established in London's musical life, reaching a first summit during the early 1760s. The instrument's success in the polite society urged several renowned composers to write tutors and music for the guittar. Moreover, around the same time instrument makers and publishers probably recognised a potential profitable market for the instrument. The numerous signed guittars and the amount of published tutors and music for the instrument that survive from the early 1760s confirm this intention among music entrepreneurs to invest in the expanding guittar fashion.[107]

The guittar's ascending fame is noted, for instance, in *The Art of Playing the Guitar or Cittra* (1760), where the famous violinist and composer Francesco Geminiani writes:

> The sweetness and brilliancy of sound peculiar to the Guitar, together with its convenient shape and size, and the easyness of performing on it, has already rendered it extremely fashionable in the polite world: But still it is more deserving of regard, even from good Judges of Music, than is generally

[106] I am grateful to J. Westbrook for allowing me to examine this original guittar tutor published by Preston.
[107] For more details on guittar tutors see 'PLAYING, TEACHING AND COMPOSING FOR THE GUITTAR', Chapter 3; while for an indicative list of guittar music see Appendix VI.

> apprehended, For the disposition and number of its Strings render it capable of a very full and compleat Harmony.[108]

Earlier in his introduction Geminiani notes: 'The use of the Lesser Guitar or Citera, being lately revived amongst us', obviously referring to the popularity of the cittern in Britain during 16th and 17th centuries. Moreover, in his 'advertisement' to *Sixty Six Lessons for the Cetra or Guittar* (1757) Giovanni Battista Marella writes:

> The great Progress the Cetra or Guittar has made in these Kingdoms within the space of a few years seems a sufficient Recommendation of it; more especially when we consider the disadvantages under which it has hitherto laboured, no less than a total Ignorance of the Power of the Instrument.[109]

Likewise, in her tutor *Lessons and Instructions for Playing on the Guitar* (c.1761), Ann Ford indicates the guittar's quick public acceptance, while highlighting the instrument's elegance:

> It has been often wondered at, that an Instrument of this Kind, should, in so short a Time, have become so universal; but had it been in Fashion, when the inimitable *Hogarth* wrote his ingenious *Analysis of Beauty*, I doubt not but he would have shewn, that the Attitude this Instrument almost naturally throws the Performer in, is very graceful, and forms the Line of Beauty he so justly has exemplified; not to mention the Advantage which the Hands and Arms are seen in, &c. &c. for, I will venture to affirm, a graceful Person cannot, sitting down, be placed in a more becoming Attitude.[110]

3.3.4 PROMOTING A GUITTAR FASHION IN LONDON

Ford's tutor simply testified her avid passion for the guittar and its music. Being probably the biggest guittar 'celebrity' in the early 1760s, Ann Ford was one of the renowned performers that were influential in popularizing the instrument and promoting a guittar fashion in London.

Ford was an accomplished musician who, apart from singing and playing the guittar, also performed on various, rather unusual or unconventional for that time, instruments like the viola

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[108] See Geminiani (1760: 1).
[109] As quoted in Coggin (1987: 216-17).
[110] See Ford (c.1761: 3-4).

da gamba, the glass harmonica, the violin and the lute. In addition, she must have been a notorious personality, since she attempted to give public concerts at a time when it was considered as a socially inappropriate and even condemned activity for ladies. Her father, Thomas Ford, allowed her to present Sunday concerts at their home, but strongly refused to allow her to perform in public.[111]

Ford must have created great shock and scandal to the polite society with her rebellious attitude when she escaped from her father's control for the second time in order to perform on the guittar and other instruments in public. The amusing story is illustrated in detail in the following quote from the Dictionary of National Biography:

> The 'town' frequented her Sunday concerts, where Dr. Arne, Teducci, and other professors were heard, besides all the fashionable amateurs, the hostess playing the viola da gamba and singing to the guitar […]. Her father's objections to her singing in public were so strong that by a magistrate's warrant, he secured her capture at the house of a lady friend. Not until she had escaped the paternal roof for the second time was she able to make arrangements for the first of her five subscription concerts […] but Miss Ford's troubles were not yet over, for at her father's instance the streets around the theatre were occupied by Bow Street runners, only dispersed by Lord Tankerville's threats to send for a detachment of the guards. Such sensational incidents added to the success of the concerts. These generally included Handelian and Italian arias, sung by Miss Ford, and soli for her on the viola da gamba and guitar. [112]

During March and April 1760 Ford gave five subscription concerts.[113] Apart from her first subscription concert, in which Ford sang and played the viola da gamba, all four subsequent concerts included pieces for the guittar. For instance, Ford's second subscription concert on 25 March 1760 included 'a Concerto on the Guittar':

> MISS FORD's second Subscription Concert will be This Day the 25th Instant, at the Little Theatre in the Haymarket. The Vocal Parts by Miss FORD, who will play a Solo on the Viol di Gambo, and a Concerto on the Guittar. Pit and Boxes are laid together, at Half a Guinea each Ticket; Gallery 5s. / Tickets to be

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[111] For more details on the life and career of Ann Ford see Holman (2004: 157-81).
[112] Stephen (1898) *A Dictionary of National Biography*, Ivi, pp. 130 ff (as quoted in Coggin 1987: 210).
[113] The advertisement details of Ford's concerts are presented hereafter as quoted in Zeitler, W., 'The Glass Harmonica: Benjamin Franklin's Magical Musical Invention', <http://www.glassarmonica.com/armonica/anneford.php> (accessed 19/12/2009). The advertisements of Ford's concerts are also included in Holman (2004: 179-80, Appendix 1).

> had at Mr. Deard's Toy-shop, at Mr. Garden's in Saint Paul's Church-yard; and at Mr. Walsh's in Catharine-street. / To begin at Seven o' Clock.[114]

Ford's third subscription concert on 8 April 1760 included 'a Lesson and a Song accompanied with the Guittar':

> MISS FORD's Third Subscription Concert will be This Evening at the Little Theatre in the Haymarket. The vocal Parts by Miss FORD, who will play a Solo on the VIOL DI GAMBO; and a Lesson and Song accompanied with the Guittar. […].[115]

Ford's fourth subscription concert on 14 April 1760 similarly included a 'Lesson on the Guittar, and 'the 104th Psalm':

> MISS FORD's Fourth Subscription Concert will be This Day the 14th Instant, at the Little Theatre in the Haymarket. / The vocal Parts by Miss Ford, who will play a Solo on the VIOL DI GAMBO. […]. Lesson on the Guittar, and (by particular Desire) the 104th Psalm. / FULL PIECE. […].[116]

Ford's fifth subscription concert on 22 April 1760 included 'a Lesson on the Guittar, and 'a Hymn set by herself':

> MISS FORD's fifth and last Subscription CONCERT, will be This Day the 22d instant, at the Little Theatre in the Haymarket. The Vocal Parts by Miss Ford, who will play a Solo, and accompany a Song, (Oh Liberty, thou choicest Treasure) on the Viol di Gambo; a Lesson on the Guittar, and sing a Hymn set by herself. […].[117]

On 23 January 1761 Ford gave another public concert which included pieces for the guittar and the arch-lute (**Figure 3.4**):

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[114] *The Public Advertiser*, 25 March 1760; also 20, 22 and 24 March 1760.
[115] *The Public Advertiser*, 8 April 1760; also 3, 4, 5 and 7 April 1760.
[116] *The Public Advertiser*, 14 April 1760; also 11 and 12 April 1760.
[117] *The Public Advertiser*, 22 April 1760; also 17, 18, 19 and 21 April 1760.

MISS FORD's Subscription Concert will be at the Little Theatre in the Haymarket, on Friday the 23d instant. The Vocal Part by Miss Ford, who will also play a Solo on the Viol di Gambo, and a Lesson on the Arch-Lute and Guittar. […].[118]

MISS FORD's Subscription Concert will be THIS DAY, the 23d Instant, (being the last Time of her appearing in Public) at the Little Theatre in the Haymarket. The vocal Part by Miss Ford who will play a Solo on the Viol di Gambo; a Lesson on the Guittar; and sing the 104th Psalm, accompanied by herself on the Arch Lute. […].[119]

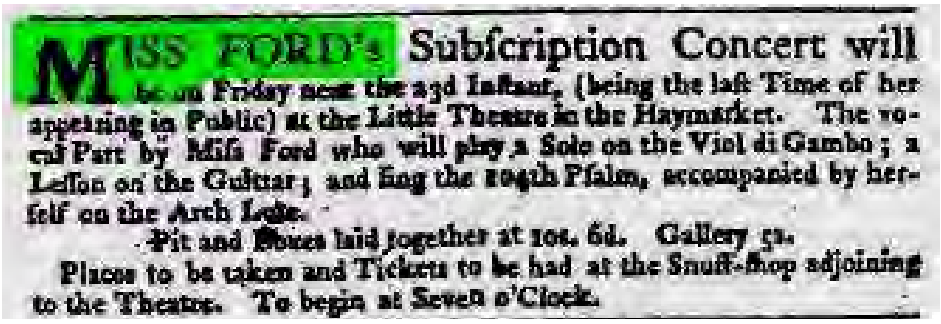
MISS FORD's Subscription Concert will
be on Friday next the 23d Instant, (being the last Time of her
appearing in Public) at the Little Theatre in the Haymarket. The vo-
cal Part by Miss Ford who will play a Solo on the Viol di Gambo; a
Lesson on the Guittar; and sing the 104th Pfalm, accompanied by her-
felf on the Arch Lute.
Pit and Boxes laid together at 10s. 6d. Gallery 5s.
Places to be taken and Tickets to be had at the Snuff-shop adjoining
to the Theatre. To begin at Seven o'Clock.

Figure 3.4: The advertisement of Ann Ford's concert in the *Public Advertiser* of 21 January 1761 (Fildes et al 2011: 41).

Ford gave her last series of concerts in October and November 1761:

MISS FORD having engaged the large Room late COX's Auction Room, over the great China-shop near Spring-Garden, (which will be fitted up in a proper Manner for the Reception of genteel Company) proposes To-morrow, the 15th Instant, between the Hours of One and Three, to sing some favourite English Songs, and accompany herself on the Musical Glasses; she will also play a Lesson on the Guittar, and a Solo on the Viol di Gambo. / The Room will be opened at Twelve o'Clock, which is well aired, and a constant Fire kept in it. / Admittance Two Shillings and Sixpence.[120]

MISS FORD having engaged the large Room, late Cock's Auction-Room, over the great China-Warehouse, Spring-Gardens, (which is fitted up for the Reception of genteel Company) proposes singing

[118] *The Public Advertiser*, 10 January 1761; also 13, 15 and 17 January 1761.
[119] *The Public Advertiser*, 23 January 1761; also 19, 20 and 22 January 1761.
[120] *The Public Advertiser*, 14 October 1761; also 15 October 1761.

> a few English Airs, and accompanying herself on the Musical Glasses; she will also (if desired) play a Solo on the Viol di Gambo, and a Lesson on the Guittar.[121]

A contemporary account of Ford's last concert on 7 November 1761 indicates that she was a pupil of Frederic Theodor Schumann:

> In the morning of the 7th of November I went to hear Miss Four's [Ford's] concert. She is a pupil of Schumann, and has performed here for some time on musical glasses. She plays entire concerts with one finger, on a row of tuned wine-glases, and is accompanied by a violoncello; she sings well, and has a good voice, accompanying herself on the 'viola di Gamba' and guitar, and gives her audience a varied entertainment. [122]

Schumann was a famous music master and composer who, like Ford, had published an early method for the guittar and taught the instrument as well. Moreover, Schumann had earlier promoted his own concerts from 6 August to 7 October 1761, also held in Cox's Room, and the advertisements show that Ford was largely imitating her teacher's performances, suggesting some sort of competition between them.

Nevertheless, Ford's achievement cannot be underestimated since she was the first female musician to give subscription concerts in London. Actually, according to Rosenthal (1998: 652), Ford's concerts were 'the only subscription concerts to be held in London between 1756 and 1763, which were […] "quite outside the mainstream," with "fashionable and sizeable" audiences "perhaps more attracted by the scandal than her music". Furthermore, the inclusion of the guittar in Ford's public concerts suggests that, at least in its early years, the guittar was not considered strictly as a domestic instrument.[123]

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[121] *The Public Advertiser*, 17 October 1761; also 19-24 and 26-31 October 1761, 2-7 November 1761.
[122] Kielmansegge, Friedrich (1902) *Diary of a Journey to England in the Years 1761-1762* (London: Longmans) (as quoted in Zeitler, W., <http://www.glassarmonica.com/armonica/anneford.php>, accessed 19/12/2009).
[123] McVeigh (1993: 91) has stated that the guittar made 'some rather lowly public apperances' in the 1760s, mainly among 'obscure performers' specialising in 'obsure instruments', mentioning the case of Gonetti, who played the guittar, as well as the mandolin, psaltery and musical glasses. McVeigh (1993: 85) has also noted that that the Polish dwarf 'Count' Boruwlaski performed on the guittar during his benefit concert on 13 June 1783. Moreover, in the *Public Advertiser* of 23

According to Holman (2007: 12) Ford 'personifies the cult of sensibility' which 'involved the direct and sincere expression of emotion' mentioning that that 'there are descriptions of her performances moving audiences to tears'. Ford has often been listed as one of the most famous performers of the guittar[124] and her association with the instrument is well-illustrated in contemporary iconography. For instance, in a drawing by Giovanni Cipriani Ford is depicted stroking a guittar (**Figure 3.5**).

Figure 3.5: 'Ann Ford' by Giovanni Cipriani. Ashmolean Museum, Oxford (Rosenthal 1998: 658, fig. 11).

February 1778 (and in similar advertisements until 1780) Signor Noferi announced that he would play the 'guitar' in various theatrical productions, as quoted in Page (2011: 3).

[124] See Coggin (1987: 207) and Holman (2007: 12).

However, the image of Ann Ford as a guittar player survives more vividly in Thomas Gainsborough's well-known painting of the performer (**Figure 3.6**).[125] This portrait depicts Ford holding a guittar with many features similar to extant guittars by Liessem.[126]

[125] The painting was one of the main attractions of the recent exhibition 'Thomas Gainsborough and the Modern Woman', 18 September 2010-2 January 2011, Cincinnati Art Museum, Cincinnati, which according to the museum's website, coincided with the restoration of Ann Ford's 'iconic portrait'. For more details see <http://www.cincinnatiartmuseum.org/absolutenm/templates/ArtTempExhibitions.aspx?articleid=993&zoneid=65> (accessed 19/12/2010).

[126]However, in her tutor Ford (c.1761: 9) praised the guittars of Rauche, whose instruments she may have also played.

Figure 3.6: 'Ann Ford (later Mrs. Philip Thicknesse)' by Thomas Gainsborough, 1760. Cincinnati Art Museum, Cincinnati, [1927.396] (Leca 2010: 19).

Before delivering Ford's portrait Gainsborough must have produced some preparatory drawings of her, two of which have survived to date (**Figure 3.7**).

Figure 3.7: Two studies for Ann Ford's portrait by Gainsborough, c.1760. *Left*: Private collection (Rosenthal 1998: 656, fig. 8). *Right*: British Museum, London, [1894, 0612.11] (Rosenthal 1998: 657, fig. 10).

It is noteworthy that in the left study Ford is depicted playing a small figure-of-eight gut-strung guitar, whereas the right study, which is similar to the final portrait, she seems to hold a teardrop-shaped wire-strung guittar. That Gainsborough eventually chose to depict Ford with a wire-strung guittar instead of a gut-strung guitar is another indication of the guittar's popularity around that time. A later caricature image of Ford holding a guittar (**Figure 3.8**) suggests that

her portrait by Gainsborough, as well as Ford's mastery on the instrument, had quickly become recognized among London's fashionable society.[127]

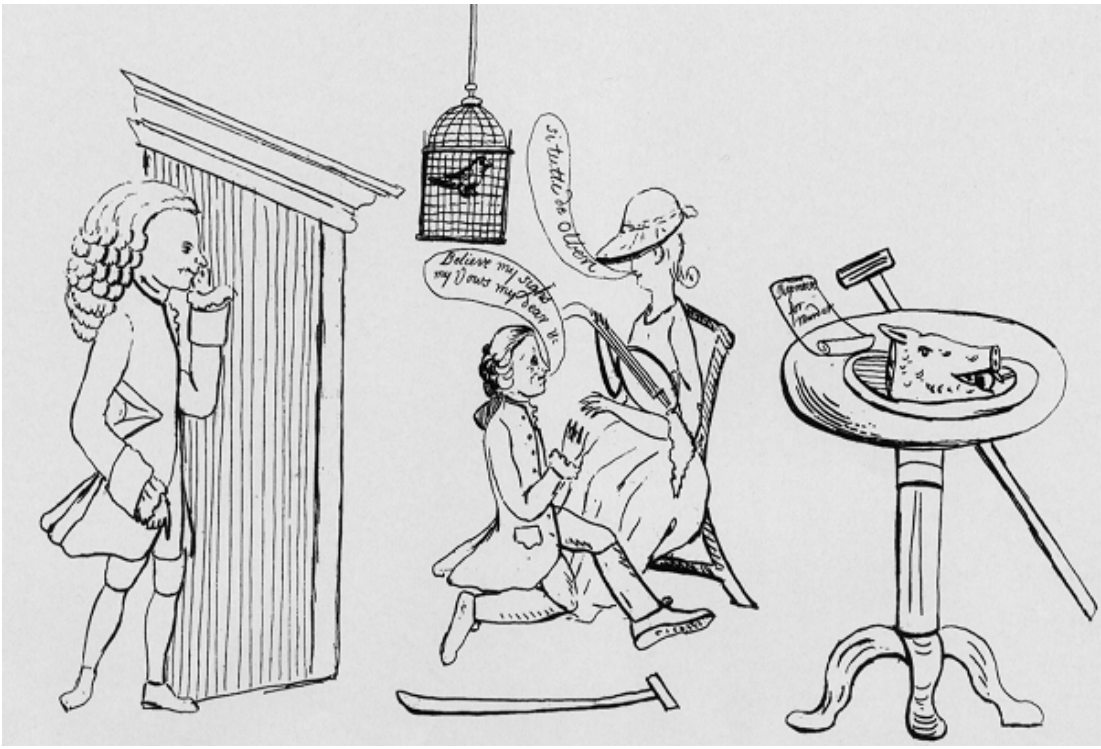

Figure 3.8: Print, from A Letter from Miss F-d to a Person of Distinction, 2d ed., London, 1761. Bodleian Library, University of Oxford (G. Pamph. 824[5]) (Rosenthal 1998: 652, fig. 3). The caricature image of Ford holding a guittar suggests that her portrait by Gainsborough, as well as Ford's mastery on the instrument, had become well-known among London's fashionable society.

[127] In contrast to Ford's achievements on the guittar, an announcement in *the Morning Chronicle and London Advertiser* of 11 September 1778, quoted in Page (2011: 3) reports that the actress and singer Elizabeth Bannister (née Harper/Harpur) played the 'guittar' on stage, but 'from the blunder of some person whose business it was to have the guittar ready, she was much disconcerted when she was to sing the song, and was obliged, after sitting some time, to leave the stage while the instrument was put in tune behind the scene'. Interestingly, a contemporary coloured mezzotint of Banister depicts a guittar in the lower border.

3.3.5 THE GUITTAR'S CHARACTER IN THE GEORGIAN LIFESTYLE

Ann Ford must have been a rare exception among the many respectable young ladies who rushed to join the guittar culture early on. Their musical life evolved under a different context which can be traced down to the values of Georgian society. Therefore, in order to understand and evaluate the way the guittar and its music developed it is necessary to get a wider perspective of gender issues in 18th-century Britain.

Regardless of class and age, men and women had distinctively different roles within Georgian society. A man could pursue a professional career or undertake business working in public, and was responsible for providing a sufficient income for himself and his family. On the other hand, the main role for a woman in Georgian society was to have a successful marriage and to be able to fulfil her expectations as wife and a mother in the restricted family environment, being dependent financially on her family or her husband.

As a result, although for men music was mostly a social activity which, in some cases, promised future job prospects, for women it was a strictly domestic occupation that had no professional expectations or rewards. Nevertheless, music was still important in a woman's life for many other reasons.

To start with, in order to arrange a prosperous marriage, girls often needed to display the appropriate social manners and level of education, a major part of which was the ability to demonstrate musical skills. Thus, taking music lessons in playing an instrument, singing and dancing were essential for aspiring young ladies.[128] According to the author of the contemporary conduct manual *The Polite Lady: or, A Course of Female Education*, playing on the harpsichord, spinet and guitar was 'a most agreeable amusement' for ladies.[129] Daughters of the upper class were usually educated at home by governesses and tutors. For instance, Picard (2000: 176) mentions that little Lady Caroline Russell had 56 singing lessons which cost over £22, she had

[128] See Plumb (1980: 82).
[129] *The Polite Lady: or, A Course of Female Education. In a Series of Letters form a Mother to her Daughter* (London: Printed for J. Newberry, 1760, p. 21) (as quoted by Aileen Ribeiro in Leca 2010: 118).

three and a half months of dancing lessons, and she also learned to play the harpsichord and the guittar. The following reference provides a similar example:

> SOPHIA is the daughter of an eminent merchant, on the wrong side of Temple-bar. She has received what is called a genteel education, that is, she can strum a tune on a guitar [...].[130]

The knowledge of music was even seen as a genteel accomplishment that not only could help a woman win a husband but, according to some contemporary writers, could keep a husband faithful.[131] The following song 'Sung in the Way to Keep Him' gives suggestions to married ladies to treat their husbands like their 'fav'rite guittar':

> SONG 37. Sung in the Way to Keep Him. / […] Use the man that you wed like your fav'rite guittar; / Tho' music in both, they are both apt to jar! / How tuneful and soft from a delicate touch, / Not handled too roughly, nor play'd on too much![132]

However, as Tawa (1989: 372) points out 'unless they had an independent fortune' most of these young ladies would have 'neither the time nor the opportunity to continue their music-making in later life', being absorbed in several other household activities.

Moreover, physical appearance, character and personality aside, money was the main attraction for a good marriage, so ladies had to have or, at least, give the impression that they had a secure financial state, as Picard (2000: 187) has noted. In terms of musical instruments this meant having at least a hired harpsichord or spinet, or the latest type of guittar in their drawing room to impress the casual visitors as well as potential husbands. Besides, as already mentioned, the role of musical instruments in the domestic environment was quite significant. Tawa (1989: 372) claims that as public amusements were limited entertainment was inevitably confined to the family circle, usually in the form of dancing, singing and performing on instruments such as the harpsichord, piano, violin, flute and guittar; when visiting each other, people often took music

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[130] *The New Spectator; with the Sage Opinions of John Bull*, London, 1 June 1784 (see <www.18thcjournals.amdigital.co.uk>, accessed 13/11/07).
[131] See Tawa (1989: 372).
[132] *The Vocal Magazine; Or, British Songster's Miscellany. Containing all the English, Scotch and Irish Songs, Cantatas, Glees, Catches, Airs, Ballads, &c.*, London, c.1778 (see <www.18thcjournals.amdigital.co.uk>, accessed 13/11/07).

with them as a contribution to an evening's entertainment. In addition, performance in the drawing room was seen more as an occasion for a social interaction rather than a strictly musical event. For families of the lower and middle classes participating in music gatherings was a way to elevate their public status, while for their daughters the purpose of these events was often to demonstrate the skills necessary to make a young lady an accomplished wife and mother.

Therefore, the commercial success of the guittar can be linked to its ability to correspond to the aforementioned musical demands of the Georgian society. The guittar could fulfill the ambition of a large number of female amateurs to play a simple musical instrument at home and this was due to a number of facts worth mentioning. To begin with, the guittar was quite cheap compared to other instruments addressed to ladies, like the harpsichord or the square piano[133], while, at the same time, being portable and elegant. In addition, the combination of the deep body and wire strings, tuned in open C, produced a resonant, loud, ringing sound, with a pleasant sonority that probably had a strong appeal to 18th-century performers. Furthermore, due to its construction it was quite robust and easy to tune and maintain, while, due to the wire strings, and the advanced tuning systems it was usually equipped with, it stayed in tune better than similar gut-strung plucked instruments, like the lute or mandolin.

Moreover, due to its small size, convenient shape, and the open C tuning, it was relatively easy to hold and play, at least for beginners, making it suitable for song accompaniment. It was also not too difficult to master a good level with relatively little practice, and this quickly made it a favourite choice among amateur performers. For example, Marella promoting his *Sixty Six Lessons for the Cetra or Guittar* (1757) declared that 'there are many Ladies (some of whom began this Instrument without knowing the first Rudiments of Musick) who, with a few Months Instruction, were able to execute the most difficult of them'. In addition, the variety of fancy design and decoration features that the guittar gradually adopted probably attracted many

[133] A guittar usually cost one fifth of the price of a harpsichord or one third of a square piano, as it will be described later.

fashion-conscious ladies who saw the guittar as much as a musical instrument as a new toy or fashion item.

3.3.6 THE GUITTAR'S EARLY AUDIENCE

It is interesting, however, that in its early days the guittar was addressed to both men and women. For instance, an advertisement of a book for the guittar from 1756 reads:

> The design of these Pieces being chiefly to promote a nice clean Finger, that Ladies and Gentlemen who have learnt the true method of using them and have been rightly taught the groundwork of the Instrument [guittar] will find no difficulty in the Execution of these or any other pieces.[134]

Another advertisement from 1758 shows that initially the guittar was taught to men and women:

> Walter Claggett, Musician and Dancing-master, […] Waits on Ladies and Gentlemen at their Lodgings, To Instruct them in DANCING, And the Use of the following Instruments, viz. The Violin, Violoncello, Guitar, German flute.[135]

Moreover, a humoristic extract from the diary of the Reverend William Cooper, curate of Thaxted, written in 1759, reads:

> Here, by way of anecdote, let me observe that if any Person at any time should take it into their heads to say 'You play very well upon the Guitar, Billy', such a person, making such and so very judicious an observation, must immediately be informed that it is by no manner of means to be wonder'd at, as ye Player had ye honour of receiving his first Instructions from ye pretty mouth, and fair Hand of Lady Maynard, one of ye Hansomest Women he ever beheld.[136]

Additionally, in 1763 John Simcock, 'inventor and maker of the English Harp in King's-mead Street Bath' announced that 'he has by great industry and application much improved and brought to great perfection the said instrument […] on which he teaches Ladies and Gentlemen to play with great Ease and Expedition: But those who have practis'd the Harpsichord, Violin,

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[134] *The Public Advertiser*, 2 November 1756 (as quoted in Coggin 1987: 206).
[135] *Bath Advertiser*, 28 October 1758, Issue no. 159, p. 3, col. 2 (as quoted in Leppert 1988: 56 and 227, footnote 14).
[136] As quoted in Coggin (1987: 206).

German-flute, Guitar etc. may with great facility learn the English Harp without the help of a Master.[137]

Furthermore, in their *Pocket book for the Guittar* (c.1770) Longman, Lukey & Co provide instructions 'whereby every Lady and Gentleman may become their own tuners'.[138] Moreover in their 1789 catalogue Longman & Broderip advertised a 'PATENT TUNING MACHINE,-So particularly constructed, that Ladies and Gentlemen may tune their Harpsichords, Piano Fortes, Organs, Guitars, &c. with great Facility'.[139]

Additionally, in the novel *The Vicar of Wakefield* Goldsmith, describing a romantic incident between the vicar's eldest daughter and Mr Thornhill, writes:

> Mr Thornhill seemed highly delighted with their performance and choice, and then took up the guitar himself. He played but very indifferently; however, my eldest daughter repaid his former applause with interest, and assured him that his tones were even louder than even those of her master.[140]

while the same daughter would later confess:

> '[...] he is well enough for a man; but for my part, I don't much like him, he is so extremely impudent and familiar; but on the guitar he is shocking'.[141]

Moreover, 'John Parker's playing of the guitar' for the amusement of a lady's company has been mentioned in Vickery (1998: 210). Besides, although not very musical himself, the literary giant Dr Johnson stated in 1773 that 'he knew a drum from a trumpet and a bagpipe from a guittar,

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[137] *Bath Journal*, 3 October 1763 (as quoted in Halfpenny 1978: 30). The instrument which Simcock calls 'English' harp is a small stringed instrument of trapezoidal shape commonly known as 'bell' harp. Interestingly, an undated bell harp by Zumpe survives in the Kunitachi College of Music, Tachikawa-shi, Tokyo [1401], while another bell harp with 12 strings (possibly the same instrument) has been listed in Phillips auction catalogue, 25 June 1987, lot 27, p. 7.
[138] See Coggin (1987: 206).
[139] I am grateful to A. Rice for providing me with a copy of this document.
[140] See Goldsmith (1766/1982: 54).
[141] See Goldsmith (1766/1982: 55).

which was about the extent of his knowledge of musick'[142], suggesting that the guittar had already well permeated into the public culture.

Further evidence regarding male guittar players comes from a case of housebreaking on 22nd October, 1788, when someone named James Season was playing the guittar and singing when his house was broken into (!):

> JAMES SEASON sworn. / I am of no trade or employment; I live / in the lane leading from Newington-green / to Kingsland turnpike, in the parish of / Hornsey; I was in the house at the time / it was broke open; and Frances Chapman, / and Hannah Season; the house was broke / open on the 26th of September last, at / twelve at noon; the street-door was fasten- / ed; we have two parlours; I was in / the parlour / on the left-hand, playing on a / guittar, and singing, while they broke / open the other parlour […].[143]

In fact, a few contemporary depictions of men playing the guittar have survived to date (**Figures 3.9-3.11**):

[142] See Boswell (1785/1958: 393).
[143] *The Proceedings of the Old Bailey*, 22 October 1788, p. 12 (<http://www.oldbaileyonline.org/browse.jsp?id=t17881022-13&div=t17881022-13&terms=guittar#highlight>, accessed 14/2/2008.)

Figure 3.9: 'The Duchess of Devonshire and her Sister, the Countess of Bessborough'. Thomas Rowlandson (1756-1827). Yale Center for British Art, Paul Mellon Collection, USA/ The Bridgeman Art Gallery, [YBA 146395] (<http://www.bridgeman.co.uk>, accessed 11/2/2009). This detail shows the gentleman on the right playing a festooned guittar similar to a surviving instrument by Rauche in the Ashmolean Museum, Oxford.

Figure 3.10: 'Grown Ladies Taught to Dance', engraved by P. Crotchet (after Daniel Dodd, 1768). Yale Center for British Art, Paul Mellon Collection, New Haven, CT (Leppert 1988: 87, fig. 23). As it can be seen in this engraving the guittar, played by the gentleman on the right, was used to accompany dancing lessons.

Figure 3.11: Colour drawing of a male street performer serenading a lady by playing the guittar. Detail from a manuscript book entitled *Tunes for the Guittar & Harpsichord*, 1767, in the Blair Castle, Perthshire.

However, some other depictions of men with guittars were definitely made during the 19th century when the guittar and its music were already out of fashion (**Figures 3.12, 3.13**). Besides, considering the descriptions in various 18th-century advertisements and other documents, most guittar teachers and composers were male.

Figure 3.12: Stereo card of blacked-up minstrel playing a guittar, England, c.1860. (<http://www.oldmusicalinstruments.co.uk>, accessed 14/11/2007). The guittar looks similar to surviving instruments by Gibson.

Figure 3.13: Painting of a joker playing the guittar, England, late 19th century. Private collection, Oxford. The guittar looks similar to surviving instruments by Hintz.

3.3.7 ACQUIRING A FEMALE IDENTITY

After a certain point, possibly around the 1770s, the guittar and its music started to be almost exclusively addressed to female performers. Even as early as 1757 a contemporary writer would observe:

> The spinet, too, has its merits, and has more than instrument I propose for you-the guitarre, or mandolino, as it is called here by our London ladies. What induces me to recommend it is its portableness, and that it methinks music is well an amusement, but not a study. However, if you have once made progress on the spinet or harpsichord, the mandola will be an easy acquisition.[144]

Some similar indicative quotes from contemporary sources are listed below:

> Guittar or Guittara, a String Instrument […] much in use among the Ladies of Great Britain.[145]

> The Guitar is […] mostly used by young Ladies to play in Concert, or sing with &c. it being in Effect only a small Lute.[146]

> THE GUITAR (or CITRA) is an instrument which from its delicacy of Tone & grace- / full manner of holding for Performance, has ever recommended itself to the use of the / Ladies - it is esteemed a complete Accompanyment to the Female Voice […][147]

> The GUITAR, or CITRA, is an Instrument whose delicacy is most suitable for the / Ladies, being esteemed a very compleat accompaniment to the Female Voice, and is capable of pro- / ducing all the desired beauties of Harmony.[148]

> Lastly, by way of observation, many attempts have been made to introduce portable instruments for the Ladies accommodation such as the English guitar […][149]

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[144] Dr Clephane's letter to his niece Elizabeth Rose, included in Innes, C., *A Genealogical Deduction of the Family of Rose in Kilravock*, (Edinburgh, 1848), p. 461 (as quoted in Coggin 1987: 207).
[145] Hoyle (1770) *A Complete Dictionary of Music* (as quoted in Coggin 1987: 206).
[146] Tans'ur, Willam (London, 1772) *The Elements of Musick* (as quoted in Coggin 1987: 206).
[147] Preston, John (c.1789) *Complete Instructions for the GUITAR* (London: J. Preston).
[148] Thompson, Henry (c.1799) *New and Compleat Instructions for the GUITTAR* (London: H. Thompson).
[149] Light, Edward (1805) *A short account of the newly invented harp-lute-guitar* (as quoted in Armstrong 1908: 53-4).

Moreover, Mackenzie[150] observed that the guittar 'bounded the progress of such ladies as did not aspire to great attainments in music' and that the 'ease of acquiring a certain degree of power in performing on it recommended its use'. Additionally, Kidson considered the guittar as 'the feminine substitute for the German flute'[151], while Sir John Dalyell claimed that the guittar 'was a regular branch of female accomplishment'.[152] In addition, by analysing the clients' details in the accounts of Thomas Green, already mentioned above, the predominance of women who played the guittar is quite evident, estimated at 90%.[153] The female role of the guittar is also evident in contemporary literature. For example, in *The Vicar of Wakefield* Goldsmith (1766/1982: 52-3) describes a typical family activity:

> Sometimes, to give a variety to our amusements the girls sung to the guitar; and while they thus formed a little concert, my wife and I would stroll down the sloping field […].

Later in the same novel (Goldsmith 1766/1982: 104) the vicar asks his youngest daughter to accompany her brother's storytelling, providing some evening entertainment by the fire-side:

> '[…] and Sophy, love, take your guitar, and thrum in with the boy a little'

Similarly, in Mackenzie's popular novel *The Man of Feeling* (1771/2001: 46) the hero listens to the story of a prostitute recalling her first meeting with her evil landlady mentioning that

> A girl, who she told us was her niece, sat by her, playing on a guitar, while herself was at work […].

As it can be noticed in most of the above descriptions and references the guittar was advertised essentially as a female instrument, with a strong emphasis on its practical and aesthetic aspects (i.e. small size, portability, ease of performance, elegance of features) rather than on its musical qualities, with its main role being to provide accompaniment to the female voice.

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[150] Mackenzie, Henry, *The Anecdotes and Egotisms of Henry Mackenzie (1745-1831)*, (ed. H. W. Thompson, London, 1927), p. 80 (as quoted in Coggin 1987: 206).
[151] As quoted in Farmer (1947: 286).
[152] As quoted in Coggin (1987: 207).
[153] In Green's accounts there are in total 30 clients' names connected to the guittar, 27 of who being female and only 3 male. For more details see Appendix II.

3.3.8 THE GUITTAR'S IMAGE IN GEORGIAN PORTRAITURE

Apart from the numerous contemporary references the guittar's popularity among female performers is also well-documented in 18th-century portraiture, where the view of middle- and upper-class ladies with guittars is quite common. As early as 1757, only shortly after it had appeared, the guittar was becoming a popular accessory in female portraits (**Figure 3.14**).

Figure 3.14: 'Portrait of a Lady' (1757) by Arthur Devis. Tate Gallery, London (Leppert 1988: 167, fig. 69, and <http://www.klassiskgitar.net/1700-1750-9.html>, accessed 3/5/2011). Considering the date of the painting (1757) this is the earliest known depiction of a guittar.

In addition, the countless depictions of the guittar in late 18th-century female portraiture, either being held and played, or simply resting aside as part of the background in an indoor or outdoor setting, suggest it was often employed as an artistic prop used to portray ladies in a fashionable way (**Figures 3.15-3.22**).[154]

Figure 3.15: 'The Hon. Mrs. Charles Yorke' by Joshua Reynolds, 1760s (?), stolen in 1907 from the collection of Mr Charles Wertheimer (Fry 1907: 374). The guittar, which according to the description of the stolen painting is of a red-brown colour, has 16 frets and seven capotasto holes and looks similar to the bell S-top guittar by Hintz, DCK [MI/A10].

[154] Apart from the paintings presented below, additional examples of guittar iconography are included in Appendix VIII.

Figure 3.16: 'Miss Fordyce'. Mezzotint by Philip Corbutt after a portrait by Sir Joshua Reynolds, printed for 'Robt. Sayer, Map & Printseller at No 53 in Fleet Street, London'. Royal Academy of Music, London, [2003.2280] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 14/11/2009). Miss Fordyce is playing a bell-top guittar similar to several surviving instruments by Hintz.

Figure 3.17: Portrait of Elizabeth Chancellor playing a ten-string bowl-back guittar with wooden pegs (<http://www.rmguitar.info/>, accessed 12/3/2010).

Figure 3.18: Portrait of a lady playing a bell-top guittar similar to several extant instruments by Hintz (<http://www.kitchenmusician.net/smoke/guitar.html>, accessed 19/7/2009).

Figure 3.19: 'Seated Woman Playing the Guitar' by William Hoare. Metropolitan Museum of Art, New York, [20.155.1] (Leca 2010: 58). The ten-string bowl-back guittar depicted in the portrait is similar to surviving guittars by Rauche, Hintz, Zumpe or Beck.

Figure 3.20: 'Miss Harriot Powell'. Mezzotint by R. Houston after a portrait by C. Read, printed for 'Robt. Sayer. No 53 in Fleet Street. Published as the Art directs. Octor.1st. 1769'. St. Cecilia's Hall Museum of Instruments, Edinburgh (photo by A. Sotiropoulos). Mrs Powell is tuning a guittar with wooden pegs that looks similar to numerous surviving instruments by Preston.

Figure 3.21: 'Her Royal Highness the Duchess of Cumberland' holding and tuning a guittar. Engraving by John Hall after a painting by Miss Catherine Read, published 'according to Act of Parliament, June 1, 1772'. Royal Academy of Music, London, [2003.2574] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 14/11/2009).

Figure 3.22: 'The Armstrong Sisters, Mary and Priscilla', Johan Zoffany, late 1760s. Private collection (Leppert 1993: 72, fig. 23). The guittar looks similar to surviving instruments by Rauche or Preston.

According to Leppert (1988: 162-68), the guittar served as 'an icon of the domestic female', 'an ideal emblem for the representation of the perfect woman, acquiescent and deferential', being essentially an item that epitomised the strictly domestic character of a woman's life in the late 18th century (**Figure 3.23**).

Figure 3.23: 'Col. Ralph Bates and his Wife' by John Thomas Seaton (act.1761-1806). Photo © Christies (Leppert 1988: 181, fig. 76). The guittar in this painting looks similar to instruments by Longman & Broderip. Note the typical right- and left-hand finger positions.

Leppert (1988: 163) further points out that in contrast to keyboard instruments, which were usually depicted indoors, the guittar is often included in paintings of outdoor settings (**Figures 3.24, 3.25**). In such occasions, the guittar is mainly used to underline the social significance of the home and family an 18th-century woman belonged to. In Leppert's words (1988: 165) a lady 'may venture from the house […] but only with her domestic, self-limiting baggage in tow', referring to the guittar.

Figure 3.24: 'Mrs Gwillym' by Joseph Wright of Derby, 1766. Saint Louis Art Museum, Saint Louis (Rosenthal 1998: 655, Fig. 6). The guittar looks very similar to surviving instruments by Hintz, but curiously has only nine tuning pegs, a feature uncommon for this maker.

Figure 3.25: Portrait of a young lady, said to be Miss Kettle, playing a bowl-back guittar in an outdoor setting. Mezzotint by Valentine Green from a painting by Tilly Kettle, printed for 'Robert Sayer, No 53 Fleet Street, as the Act directs, 1st June 1772'. Royal Academy of Music, London, [2003.2554] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 14/11/ 2009).

Moreover, the numerous depictions of young ladies with guittars confirm the instrument's role in the music education of girls during the late 18th century (**Figures 3.26-3.28**). For them learning the guittar was part of their general cultivation and preparation for the role of wife and mother they would be called to represent at a later stage of their lives.

Figure 3.26: 'The Three Miss Walpoles as Children' by George James, 1768. Courtesy of Sotheby's (Leppert 1988: 163, fig. 66). The guittar portrayed in this painting seems to be of a smaller size probably designed for children, similar to extant guittars by Rauche.

Figure 3.27: 'Family Group' by Francis Wheatley, c.1775-6. National Gallery of Art, Paul Mellon Collection, Washington DC (Leppert 1988: 164, fig. 67). The guittar looks similar to extant instruments by Preston and is equipped with a watch-key tuning machine.

Figure 3.28: 'An Elegant Concert' by Sir George Hayter (1792-1871). Private Collection/Photo © Bonhams, London, UK/ The Bridgeman Art Library, [PFA114874]. The guittar looks similar to extant instruments by Preston and is equipped with a watch-key tuning machine.

The guittar's integration into female fashion is further evident in the depiction of guittars in fashion plates, which exemplified a lady's lifestyle in the late 18th century (**Figures 3.29, 3.30**).

Figure 3.29: 'Fashion Plate for Autumn' from the series 'The Four Seasons' by Robert Dighton (c.1752-1814). The Minneapolis Institute of Arts, The Minnich Collection, Minneapolis, MN (Leppert 1988: 31, fig. 5). The guittar looks similar to numerous extant instruments by Preston and is equipped with a watch-key tuning machine.

Figure 3.30: 'Fashion Plate for February' from the series 'The Twelve Months' by Michael Dighton (c.1752-1814). The Minneapolis Institute of Arts, The Minnich Collection, Minneapolis, MN (Leppert 1993: 72, fig. 22). The depicted guittar, which has large frets, rather disproportionate to its neck and body size, is equipped with a watch-key tuning machine.

Besides, the image of the guittar is also found in contemporary depictions of allegoric or humorous scenes, like the one presented in the following engraving, in which the guittar has a musical purpose, accompanying singing for domestic entertainment, as well as a decorative role, hanging on the wall among other household objects (**Figure 3.31**).

Figure 3.31: 'High Life Below Stairs', engraved by Caldwell and published in 1772 (after John Collet). Private Collection/The Bridgeman Art Library, [XJF106614]. Two guittars are depicted in this engraving, one being played by a lady in the left, the other hanging on the wall with a string on the top right corner.

The decorative role of the guittar, depicted among other musical instruments, is also evident in the following painting (**Figure 3.32**).

Figure 3.32: 'With her sweet fingers...Susie Bolton' by Edith Hipkins, 1883 (Colour photograph reproduced on canvas, 2002). Royal Academy of Music, London, [2007.740] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 14/11/2009). Painting of a young lady playing a two-manual harpsichord, with a guittar hanging from a ribbon on the back of her chair, and a recorder, music books, and music case lying on the floor. The guittar, which in this painting has a rather decorative role, looks very similar to surviving instruments by Preston.

The guittar gradually began to symbolise an instrument of female identity for domestic use[155], its music providing, according to Leppert (1988: 180), 'a metaphor not only of familiar calm and stability but also of domestic harmony'.

[155] In contrast to the cittern, which was often hanging in barbers' shops to entertain the waiting customers, the guittar was probably not used much in public spaces.

3.3.9 RECEIVING ROYAL ENDORSEMENT

The guittar's already established fame among polite society expanded quickly once it attained royal approval. It is known that Duchess Sophia Charlotte of Mecklenberg-Strelitz, who became the new Queen of the United Kingdom of Great Britain in 1761, was keen in the fine arts, and played the guittar and the harpsichord. In fact, it has been reported that while she was travelling to England for her marriage the channel crossing was quite rough due to bad weather and Charlotte performed 'God Save the Queen' on her guittar to amuse her fellow passengers.[156] In addition, after Charlotte's coronation a number of renowned musicians became associated to the royal court, including J. C. Bach and Fredric Schuman, both of whom composed music for the guittar. Actually, J. C. Bach had possibly met Charlotte at court in Strelitz and became music tutor[157] to the royal family when he came to London in 1762.

The guittar's reputation among the royal family must have already been high when in 1763, at the peak of the guittar vogue, Frederick Hintz was listed as the 'Guittar-maker to her Majesty and the Royal Family' in Mortimer's *London Universal Directory* from 1763[158], as well as in an advertisement in *British Evening Post* of the same year.[159] This connection is also evident in a painting from 1767, where young Princess Louisa is portrayed holding a guittar (**Figure 3.33**). The guittar depicted in this painting looks very similar to numerous surviving guittars made by Hintz, which confirms Hintz's above description as the exclusive supplier of guittars to the royal court. With such esteemed patronage and promotion it is not surprising that the guittar quickly became so popular in London's fashionable circles.

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[156] See Rossi (2008: 11).
[157] See Rossi (2008: 11). Rossi also claims that J. C. Bach probably composed his *Sonata for the Guitar with an Accompaniment for a Violin* (1775) for Charlotte, but there is no dedication (see Rossi, D., '*La Cetra Galante*' album notes, <http://cdbaby.com/cd/docrossi2>, accessed 25/9/2009).
[158] See Dart (1949: 30) and Langwill (1949: 42).
[159] *British Evening Post*, London, 27 October 1763, Issue 414. I am grateful to J. Westbrook for bringing this source to my attention.

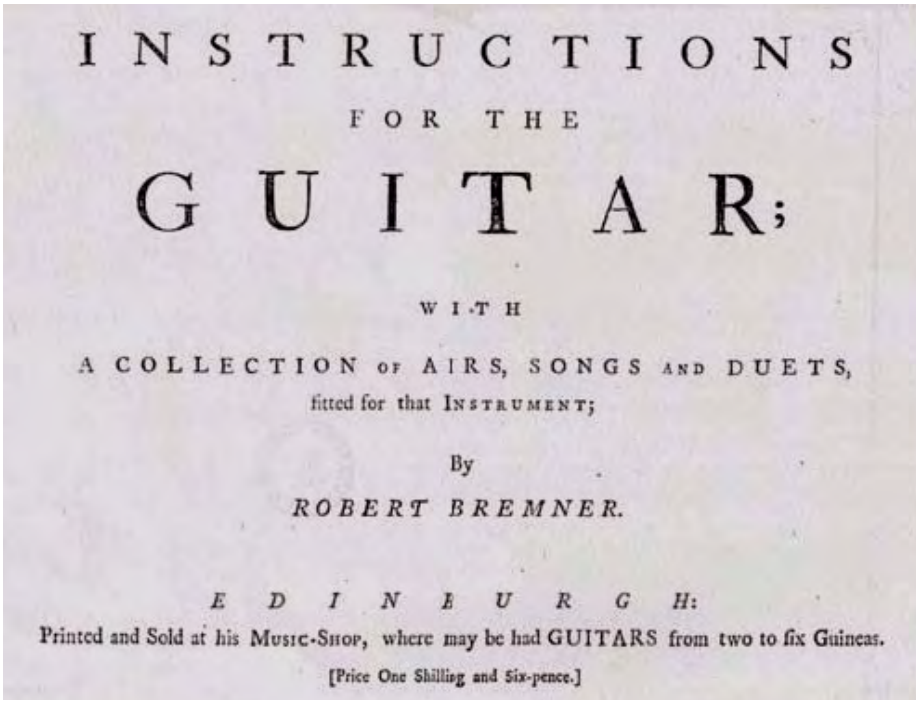
Figure 3.33: Detail of the painting 'Princess Louisa and Princess Caroline' by Francis Cotes, 1767. H. M. The Queen, Buckingham Palace, London. (Roberts 2004: 29, plate 6). Note that the guittar held by the seated Princess Louisa looks very similar to many surviving instruments by Hintz.

3.3.10 A GUITTAR FOR EVERY BUDGET

The guittar's connection to the royal court obviously reinforced its image and increased its esteem. On the other hand, one of the main reasons for the guittar's popularity, as already mentioned, was its attractive price, which meant that ladies of almost all budgets could equally enjoy the new favourite instrument of the nobility.

Guittars were relatively cheap and were sold at various prices depending on their construction and decoration features. Around the late 1750s the average guittar price would be between two and six guineas, as described in Robert Bremner's tutor *Instructions for the Guitar* (1758) in which Bremner mentions that at his Edinburgh shop 'may be had GUITARS from two to six Guineas' (**Figure 3.34**).[160]

[160] It is interesting to compare these prices with the costs of everyday life in late 18th-century Britain as provided by Picard (2000: 296-97). For instance, one guinea (equal to £ 1 1s) was a journeyman silversmith's weekly pay or the cost of a fine beaver hat. With one guinea someone could also book a ticket to the grand jubilee at Ranelagh, have twelve French lessons, or buy a dozen bottles of 'Methuen' wine. Two guineas (£2 2s), the minimum price of a guittar, was the approximate cost of a load of hay, an annual shaving and wig-dressing contract, a ticket for a ball at Mrs Cornelys', or a month's dancing lessons. With five guineas (£5 5s) one could have a silver watch or a transplant of a live tooth, whereas six guineas (£6 6s), which was the maximum cost of a guittar according to Bremner's tutor, was the average annual wage of a housemaid, the cost of a 'full dressed' suit, or the expenses of a night out including supper, a bath and a fashionable courtesan.



INSTRUCTIONS

FOR THE

GUITAR;

WITH

A COLLECTION OF AIRS, SONGS AND DUETS,

fitted for that INSTRUMENT;

By

ROBERT BREMNER.

EDINBURGH:

Printed and Sold at his MUSIC-SHOP, where may be had GUITARS from two to six Guineas.

[Price One Shilling and Six-pence.]

Figure 3.34: The front page of Robert Bremner's *Instructions for the Guitar* (Edinburgh, 1758) (<http://www.rmguitar.info/>, accessed 5/11/2010).

In addition, Galpin (1910/1965: 26) has mentioned that in 1760 guittar prices 'varied from 1 ½ guineas to 6 or 7 guineas' without, however, revealing his sources for these figures. The different prices are often indicated in manufacturer's catalogues or, more often, in guittar tutors (which usually cost 2 shillings). For example, Longman, Lukey & Co advertised in their 1772 catalogue[161] that they have for sale 'Guittars, all sorts and Prices'. Likewise, a note in John Preston's tutor *Complete Instructions for the GUITAR* (c.1789) reads 'Where may be had Guittars of all Prices', while the front page of Henry Thompson's tutor[162] *New and Compleat Instructions for the GUITTAR* (c.1799) mentions his address 'Where may be had great Choice of Guittars at the most reasonable Prices and upon the newest Construction', possibly indicating the then recently invented keyed guittars (**Figure 3.35**).

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[161] I am thankful to A. Rice for bringing this document to my attention and providing me with a copy.
[162] I am grateful to J. Westbrook for allowing me to examine Preston's and Thompson's tutors in his private collection.

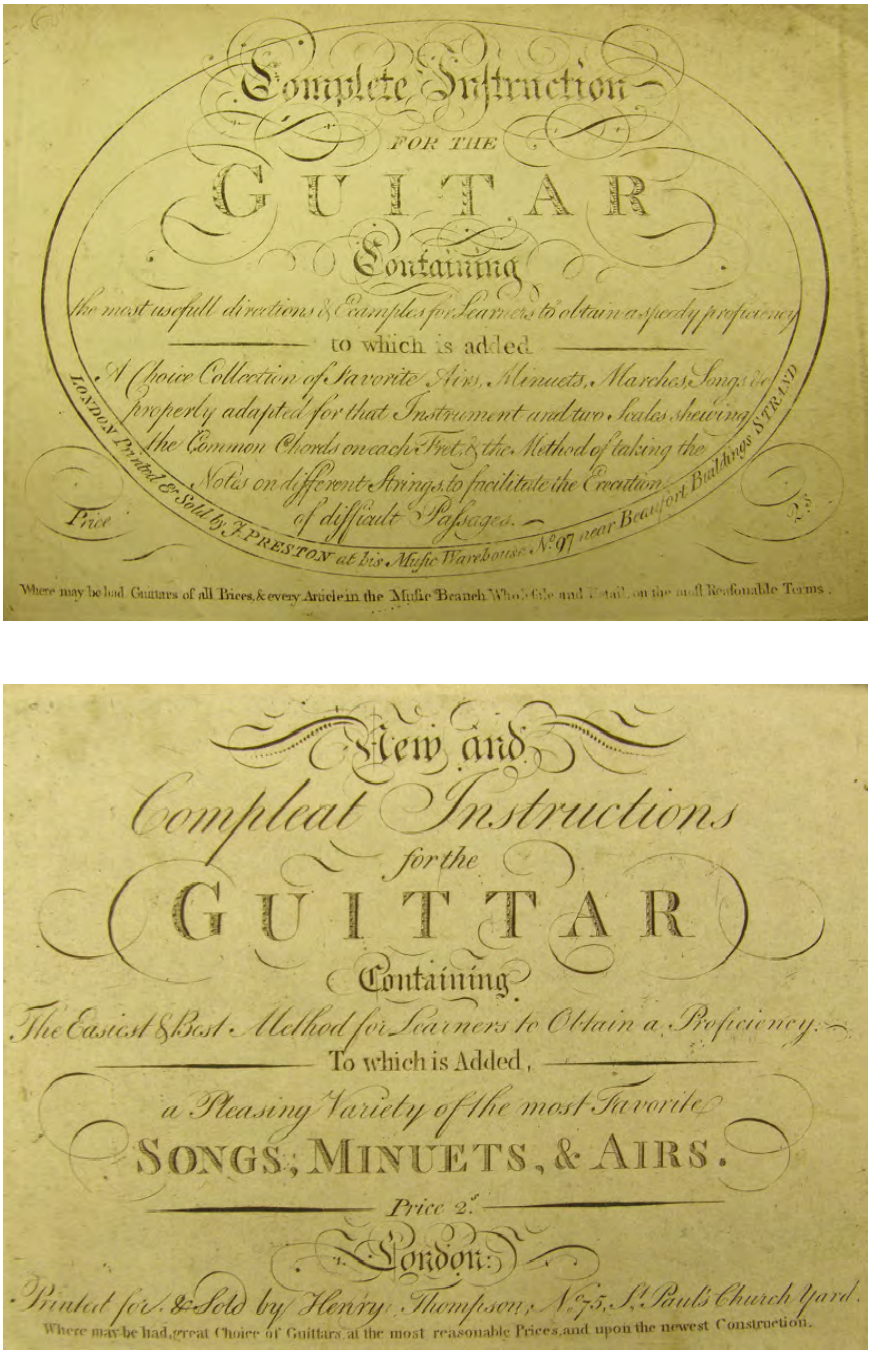

Figure 3.35: The front pages of John Preston's *Complete Instructions for the GUITAR*, c.1789 (*top*), and Henry Thompson's *New and Compleat Instructions for the GUITTAR*, c.1799 (*bottom*) (courtesy of J. Westbrook).

These prices apparently corresponded to various guittar models, and to various kinds of wallets. The cheaper guittars were rather plain and had minimal decoration or extra gadgets, whereas the more expensive would have pricey construction materials, elaborate decoration with veneers and inlays, and possibly other features, like the watch-key machine, the capotasto, or the piano-key mechanism. Keyed guittars came at a higher cost than the non-keyed instruments, but still much less than a harpsichord or a piano.[163]

The following price list, included in a catalogue by Clemeneti, Collard & Collard from 1823 (**Figure 3.36**), is indicative of the variety of guittar prices. Given the connection between Clementi and Collard with John Longman, the catalogue may possibly reflect the prices of guittars sold by Longman & Broderip in the 1790s.[164] As it can be noticed there are four guittar types on offer, listed under the term 'English Guitar', along with 'Cases for English Guitar', sold separately.[165] The first two guittar types have different roses, one being equipped 'with Star Hole', referring to a typical wooden rose decorated with a star, and being the cheapest at four guineas, the other being equipped 'with Gilt Hole', referring to a brass rose, and being slightly more expensive. The third type, equipped 'with Tortoiseshell Finger Board, & c.' is priced over five guineas, while the last type is listed as 'best, with Box and Keys', referring to a guittar equipped with an external piano-key mechanism, and being the most expensive, costing over six guineas.

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[163] In comparison to a guittar, in 1771 Haxby sold his patent harpsichord 'to which is added a swell in the lid' for 35 guineas as Haxby and Malden (1978: 50) have reported. Halfpenny (1946: 181) has mentioned that in the late 1760s a single-manual harpsichord would normally cost about 35 guineas, while Boalch (1995: 175) has similarly stated that around 1770 a single-manual harpsichord by Shudi with two 8' stops would cost 35 guineas. On the other hand, in 1774 a square piano by Pohlmann could cost up to 16 or 18 guineas, as mentioned Cole (1986: 563).

[164] I am grateful to James Westbrook for drawing my attention to this source. According to Westbrook (PC, 15/4/2011), the price list for guittars in this catalogue may have been reprinted from an earlier catalogue by Longman & Broderip, especially given the fact that Clementi and Collard had worked briefly in partnership with John Longman in the late 1790s, and taking into account that in 1823, the year this catalogue was published, the guittar was already out of fashion.

[165] It is interesting to note that the prices for the Spanish guitars in this catalogue include their cases, while the cases for guittars are sold separately. James Westbrook (PC, 17/4/2011) has argued that this may explain the fact that although many Spanish guittars survive along with their cases, only few original guittar cases have survived.

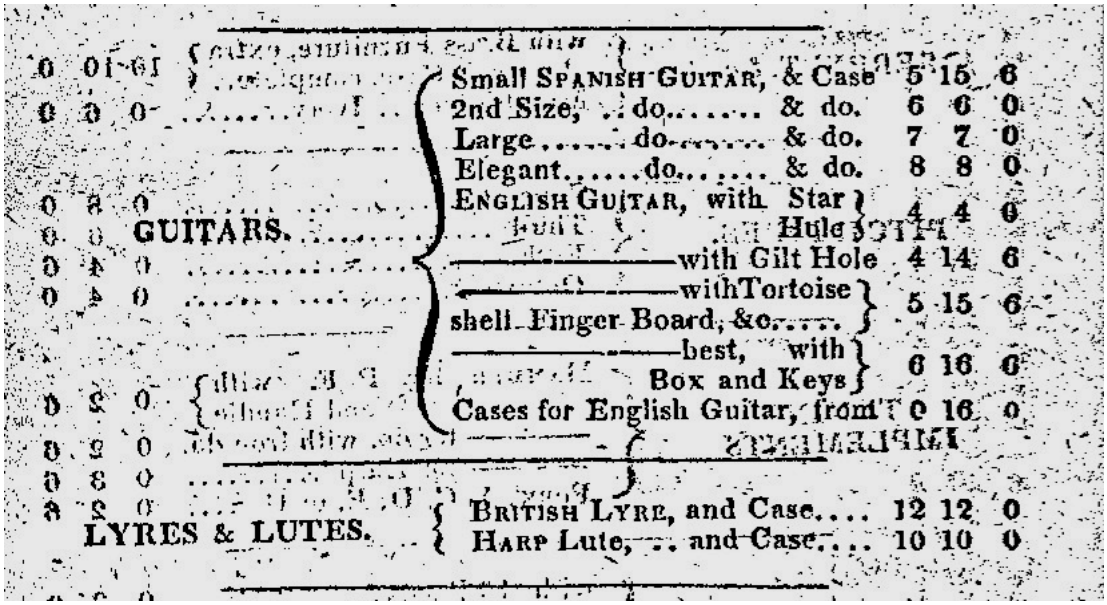

Figure 3.36: The catalogue by Clementi, Collard & Collard from 1823 listing guittars of different prices (courtesy of J. Westbrook).

Further evidence regarding guittar prices comes from a surviving letter written on 31 April 1813 by the Edinburgh violin maker Matthew Hardie.[166] In this letter Hardie mentions that a guittar he repaired for Mr Innes 'is worth of 2 Prestons in London' suggesting that even as late as 1813 guittars by Preston were probably of a rather average cost and were used a standard of comparison.

As can be seen in the front pages of guittar tutors and in various contemporary advertisements, guittars were sold both wholesale and retail, and, of course, like other musical instruments, they were often bought and sold second-hand, usually at a half of their value. For example, in his *Memorandums of Variety of things Bought by me from the Year 1744 to the Year 1787* Thomas Green lists the purchase of a guittar from a certain Mr Wild for one guinea in 1780.[167] Actually, Green's

[166] See Rattray (2006: 25).

[167] See Sheldrick (1990: 81). Also, in an inventory list of musical instruments belonging to Sir Samuel Hellier, compiled in 1788, as mentioned in Frew and Myers (2003: 19), a serpent was valued two guineas, a violin three guineas, a French horn five guineas, a double bass ten guineas, while a double manual harpsichord fifteen guineas, illustrating the

accounts illustrate that, apart from the occasional repairing and re-stringing, the sole tuning of the guittar was a profitable activity on its own for makers and musicians; Green would charge his, mainly female, clients one shilling for the tuning of a guittar, while in a few cases he made extra money out of teaching them to tune the instrument themselves.[168]

3.3.11 TUNING THE GUITTAR

As already mentioned the guittar was normally tuned to an open major chord following the triadic note pattern of root-third-fifth, and then again, at an octave higher, root-third-fifth. The most common tuning suggested in many guittar tutors was in C (c-e-g-c'-e'-g') [169]; in fact, on many surviving guittars this tuning is engraved on the top of the watch-key tuning machine. However, tunings in G[170] and A[171] for long-scale instruments were also used, although more rarely[172]; in all three tunings the highest four double courses were tuned in unison.[173] As Bremner wrote in 1758 tuning the guittar required an 'adjusted Ear':

> This [tuning the guittar] is to be done only by an adjusted Ear, and therefore is not to be attempted by those who are unaquainted with Music. But as there is scarce a Place destitute of one that can tune a Violin, any such may easily tune a Guitar.[174]

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proportional value of second-hand instruments at that time. Moreover, a contemporary advertisement in the *Morning Advertiser* of 15 March 1796 announces the sale of second-hand square pianos from nine to thirteen guineas, along with a 'handsome and fine toned Guittar, very cheap'.

[168] For more details on Green's activities see Appendix II.

[169] The tuning in C is indicated, for instance, in early tutors such as Bremner's *Instructions for the Guitar* (1758) and Geminiani's *The Art of Playing the Guittar or Cittra* (1760).

[170] The tuning in G major (g-b-d-g′-b′-d′) has been used by Oswald, who has composed guittar music for two guittars, the one tuned in C, the other tuned in G; apparently the tuning in G would suit better to a guittar of longer scaling, similar to many surviving instruments by Liessem, Rauche, Perry or Gibson.

[171] The tuning in A major (a-c#-e-a′-c#′-e′) has been found only in the 1757 and 1762 publications of Marella.

[172] Stuart Walsh has noted that the title page of Ritter's *Lessons for the Guittar* mentions that 'the GUITTAR may be played in an easier & more compleat manner when the second string in the BASS is Tuned in D instead of E', although Walsh doubts that this tuning must have been widely used. For more details see Walsh, S., 'D. Ritter and other English guitar things' (<cittern@cs.dartmouth.edu>, accessed 13/11/2010). In addition, according to MacKillop (PC, 1/3/2008) the open C tuning with e as the second open note is more convenient, as it facilitates the easy fingering of the f note on the 2nd string, and also of the g chord; otherwise, the closest f note fingering would be on the fifth fret of the bottom c string, requiring a rather uncomfortable and awkward finger stretching.

[173] In his tutor *Complete Instructions for the GUITAR* Preston (c.1789: 5) mentions that 'Such Strings as are close to each other are Unisons, or the same Sound, and therefore considered as one'.

[174] For the entire content of Bremner's tutor *Instructions for the Guitar* (1758) see Appendix IV.

Bremner then described tuning the guittar with the notes provided by a violin. Another method for tuning the guittar, as advertised by Thorowgood in 1765, employed the aid of the Æolian harp:

> Where may be had, price one guinea, in a compleat case, that most pleasing and harmonious instrument, called the HARP of ÆOLUS, which plays of itself when placed in a window; on which is fixed a scale for tuning Guitars, by which any person, not knowing how to tune that instrument, may tune it immediately, without the assistance of a master; and in order to facilitate the tuning of both instruments, printed directions, adapted to the meanest capacity, will be delivered to the purchases gratis.[175]

Curiously, in some occasions the guittar itself was used to tune other instruments, as evidenced in the following excerpt from around 1767, included in a letter from Laurence Sterne to Mrs Elizabeth Draper:

> I have been with Zump[e]; and your Piano Forte must be tuned from the brass middle string of your Guittar, which is C. I have got you a Hammer too, and a pair of Pliers to twist your Wire with […].[176]

This quotation, written shortly after the appearance of Zumpe's square piano, shows that the guittar was already a familiar instrument among performers and that some used it to help tune their new square pianos.

In addition, in 1787 Wardaugh Thompson received a patent for his 'Apparatus for tuning musical instruments' (15 January 1787, Patent No. 1583), which was a device consisting of a monochord with movable bridges for the accurate tuning of various instruments, including the guittar. Notably, in their 1789 catalogue Longman & Broderip advertised a 'PATENT TUNING MACHINE,-So particularly constructed, that Ladies and Gentlemen may tune their Harpsichords, Piano Fortes, Organs, Guitars, &c. with great Facility'[177], quite possibly referring to Thompson's invention. On the other hand, the 1781 catalogue of Longman & Broderip

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[175] *Gazetteer and New Daily Advertiser*, 23 May 1765 (as quoted in Lasocki 2010: 101).
[176] As quoted in Cole (1998: 60-1). The same account is included in Halfpenny (1946: 181). It seems that apart from her pianoforte Mrs Draper had also purchased a guittar by Zumpe.
[177] This advertisement has been mentioned earlier in 'THE GUITTAR'S EARLY AUDIENCE', Chapter 3. I am grateful to A. Rice for providing me with a copy of this document.

includes 'Steel Forks for tuning Harpsichords, Spinnets, Violins, Guitars, &c.'[178], while in his tutor *Complete Instructions for the GUITAR* Preston (c.1789: 11) also mentions the use of a 'Steel Pitch Fork' to tune the guittar.

Regardless of how easily performers could tune their guittars, it seems that the suggested open major tunings corresponded well with the guittar's wire strings and scaling, providing a full and rich sound, with a pleasant sonority and sustain[179], rendering the guittar an attractive and convenient instrument for beginners, who could quickly learn to perform simple tunes and songs without much effort.[180]

3.3.12 PLAYING, TEACHING AND COMPOSING FOR THE GUITTAR

The guittar was primarily a solo instrument[181] and the most common way of learning how to play on it was through 'self tutors'. These books usually contained original music written for the guittar as well as popular pieces arranged for the instrument. The most detailed tutors also offered instructions for beginners regarding tuning, holding and playing the guittar, with details on the left and right hand positions and fingerings, plucking points, the use of ornamentation, etc. The following reference mentions the motivating case of a self-taught blind lady:

> Letter from M. de la Sauvagere, Chief Engineer of the Isle of Rhe, to Mr Freron, concerning a blind young Lady. […] She has learnt, and almost by herself, to play on the guittar sufficiently for her little companions to dance by, and had even contrived a way of pricking down her tunes, as an adjustment to her memory […].[182]

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[178] See Nex and Whitehead (2009: 134, footnote 37).
[179] As a result of its light construction and stringing, and its open tuning, the guittar is a quite resonant and responsive instrument, with a full and bright tone, although much deeper and darker than the Renaissance cittern.
[180] It is noteworthy, as Sadie and Latham (1985: 234) have pointed out, that 'A large proportion- of the order of 95%- of works composed in the third quarter of the eighteenth century were in major keys', a fact strongly reflected in the guittar's characteristic tuning and repertoire.
[181] As already shown in the majority of late 18th-century iconography the guittar is depicted as a solo instrument.
[182] *The Uni*versal Museum. Or, Gentleman's and Ladies Polite Magazine of History, Politicks and Literature for 1763. London Volume 1, p. 270 (<http://www.18thcjournals.amdigital.co.uk/>, accessed 7/11/2007).

One of the earliest and most comprehensive guittar tutors is Robert Bremner's *Instructions for the Guitar* (Edinburgh, 1758).[183] Bremner's tutor begins with quite detailed instructions on holding and playing the guittar:

> ~The manner of holding the Guitar~
>
> Place it across the Body, with the Neck inclined upwards; then apply the Little-finger of the Right-hand to the End of the Bridge next the first or smallest String, by which the instrument will rest upon it; the Left-hand holding the Neck between the Ball of the Thumb and Root of the Fore-finger. The best Way to hold it with Ease in this Position, is to sling it over the left Shoulder, with a Ribband fixed to both Ends of the Instrument, so that the Hands, particularly the Left-hand, may be free to move up and down without Interruption; the Necessity of which will be found in the Course of Practice.

Bremner gives accurate descriptions of the right- and left-hand fingering techniques. He starts by suggesting different plucking points for tone variations:

> The true Fort of the Instrument is best produced by touching the Strings between the Sound-hole and the Bridge, tho' it will occasion a pleasing Variety to play some Times near the Bridge, and afterwards as far up as the Little-finger will allow the others to reach; the Tone of the one representing the Lute, and the other the Pipe or Organ.

It is noteworthy that some early tutors, such as *The Ladies' Pocket Guide or the Compleat Tutor for the Guittar* published by Rutherford around 1756 and considered as the earliest guittar tutor, or the *Compleat Tutor for the Guitar*, published in 1763 by Thorowgood and Horne, suggest only the use of the thumb and index for plucking. However, in Bremner's tutor the right hand technique

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[183] For the entire content of Bremner's tutor see Appendix IV. Bremner's tutor was arguably one the most influential tutors for the guittar, which is confirmed by the fact that it was republished with only minor alterations, as noted by Armstrong (1908: 8), by Longman and Broderip (c.1782), Preston (c.1789), and Thompson (c.1793). Preston's edition (c.1789: 52) included drawings of the guittar fingerboard illustrating 'Two Scales of the Natural, Flat, and Sharp Notes, on the Guitar. Shewing how each Note may be played on three or four different Strings for the better convenience of executing difficult Passages & Double Stops, & what Chord is produced by placing the Finger across the Finger Board at any of the Frets'.

is extended to include the middle and ring fingers. The right-hand finger plucking position follows that of the lute, with the little finger resting on the soundboard close to the first string.[184]

> ~Of the Right-hand Fingers~
>
> When the Instrument is thus placed, hold up the Wrist so as it may, together with the Fingers, form a Roundness […] Hitherto two Fingers, viz. the Thumb and Fore-finger, have only been recommended for Use, tho', in the Course of Performance, it will be shewn, that four are requisite. There are some that only recommend these two for all. But this renders even easy Passages difficult, and must often marr the Performance; as it is impossible to move the Fore-finger (which by this method must execute the whole, except some occasional low Notes) so quick, as most Music will require, without sometimes touching the wrong Strings […]
>
> ~Of the Left-hand Fingers~
>
> Their Business is to apply the Strings to the Frets or Brass-bars across the Finger-board, so as to produce a good Tone, and this is best done by pressing the Finger on the String a little above the Fret from which the tone is received; each of these Frets is in reallity a Bridge, which, if the String is made to rest firmly upon, must undoubtedly give a Sound little inferior to the open Note […]

Bremner also mentions the use of *barre* fretting for playing a chord:

> The easiest Method of playing those [notes] [...] is by placing the first or second Finger across all the Strings, so as to make them bear upon the fifth Fret. After this manner may any common Chord be played, as every Fret is one or other of them.

Bremner also includes a chart with fingering positions depicting the fingerboard of a nine-string guittar (**Figure 3.37**).

[184] According to Spencer and Harwood (1984: 706) this detail was omitted from later editions.

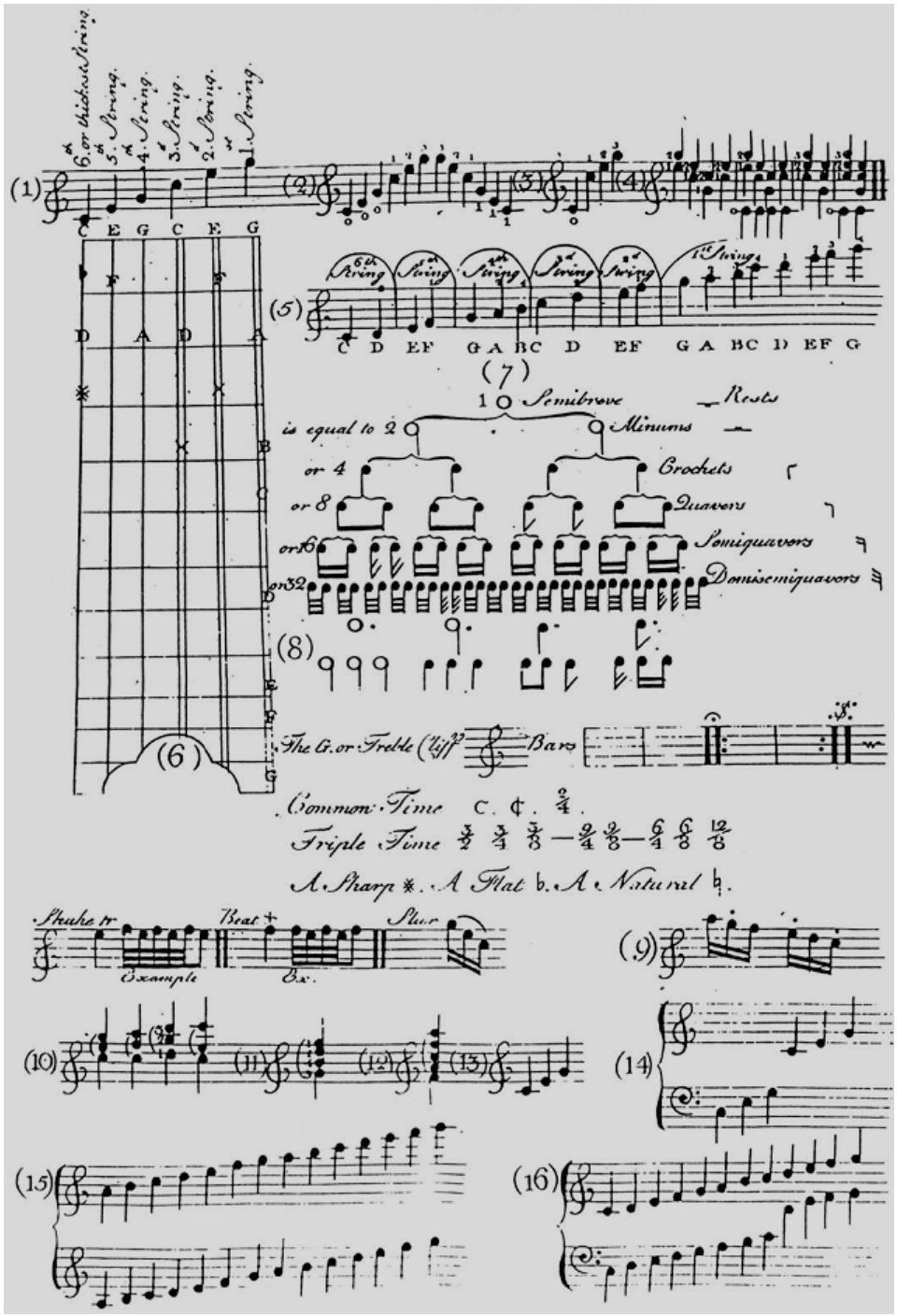

Figure 3.37: Detail from Bremner's tutor (Coggin 1987: 211). Note that Bremner depicts the fingerboard of a nine-string guittar to illustrate the open and fretted note positions.

The holding positions and playing techniques advocated by Bremner[185], portrayed also in a drawing in his tutor (**Figure 3.38**), have been depicted in numerous examples of 18th-century portraiture, as shown earlier.

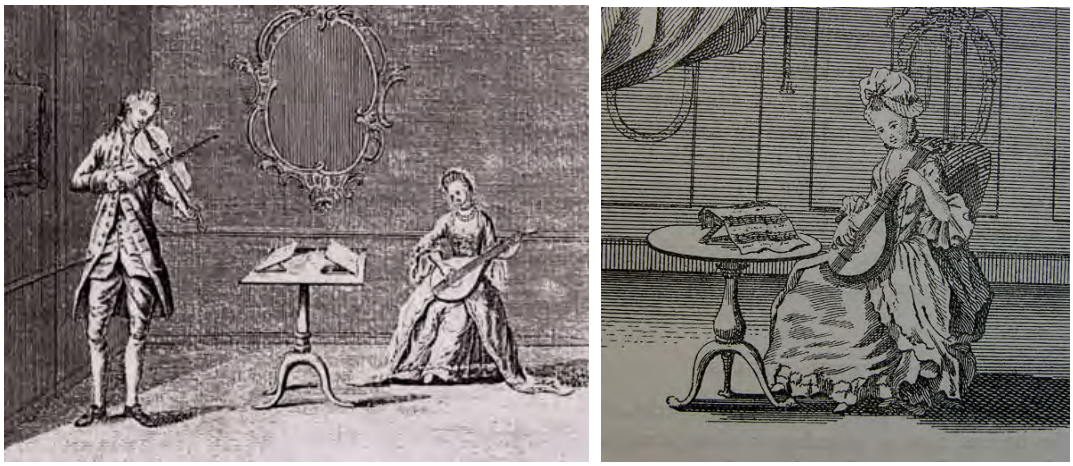

Figure 3.38: ***Left*****: Detail from Bremner's tutor showing a lady playing the guittar along with a gentleman playing the violin (<http://www.rmguitar.info/>, accessed 5/11/2010).** ***Right*****: Detail from Preston's edition of Bremner's tutor (Armstrong 1908: 7). Interestingly, the lady plays on a guittar equipped with a watch-key machine, developed by Preston and featuring on many of his guittars.**

Guittar music was usually written in standard musical notation on one staff in the treble clef, sounding an octave lower than written, as Bremner highlights:

> The Notes appearing so high, makes it seem impossible for the Human voice to accompany this Instrument; but when it is considered, that the Music is set an Octave above it, to prevent too many Ledger-lines or unaccustomed Cliffs, the Difficulty will be removed.

[185] In his tutor Bremner also provides detailed descriptions of various ornamentation techniques, such as the two kinds of 'shake', the 'beat,' and the 'slur', with emphasis on good tone production. For more details on Bremner's tutor see Coggin (1987: 210-12); see also MacKillop, R., '18th-century 'Wire-Strung 'Guittar'' (<http://www.rmguitar.info/>, accessed 5/11/2010).

In addition, Bremner indicated that the most common and 'proper' tuning for the guittar around 1758, when his tutor was published, was in C (**Figure 3.39**):

> Those who transpose for this Instrument, must observe, that the proper Compass on it for the Generality of Voices, if pitched at C, (which seems to be the most proper Pitch for the most of the Guitars that have yet appeared) are those Notes at (Example 15) which are Unison, or the same Sound on this Instrument, with these below them, on either Violin or Harpsichord.

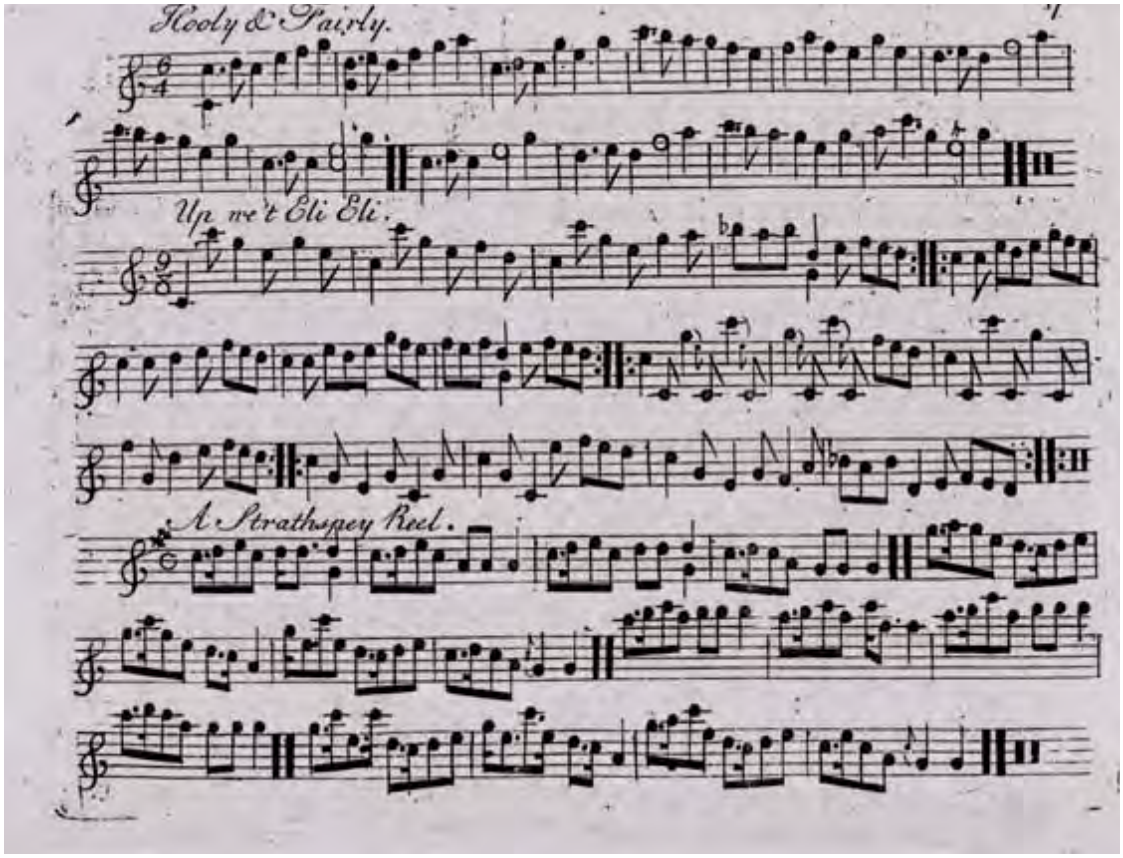

Figure 3.39: Detail from Bremner's tutor. Note that the lowest notes in the first and second pieces are C, while the music in the all three tunes is in the key of C, corresponding to the guittar's distinctive tuning (<http://www.rmguitar.info/>, accessed 5/11/2010).

Another important tutor for the guittar is Francesco Geminiani's *The Art of Playing the Guitar or Cittra* (Edinburgh: R. Bremner, 1760) (**Figure 3.40**).[186]

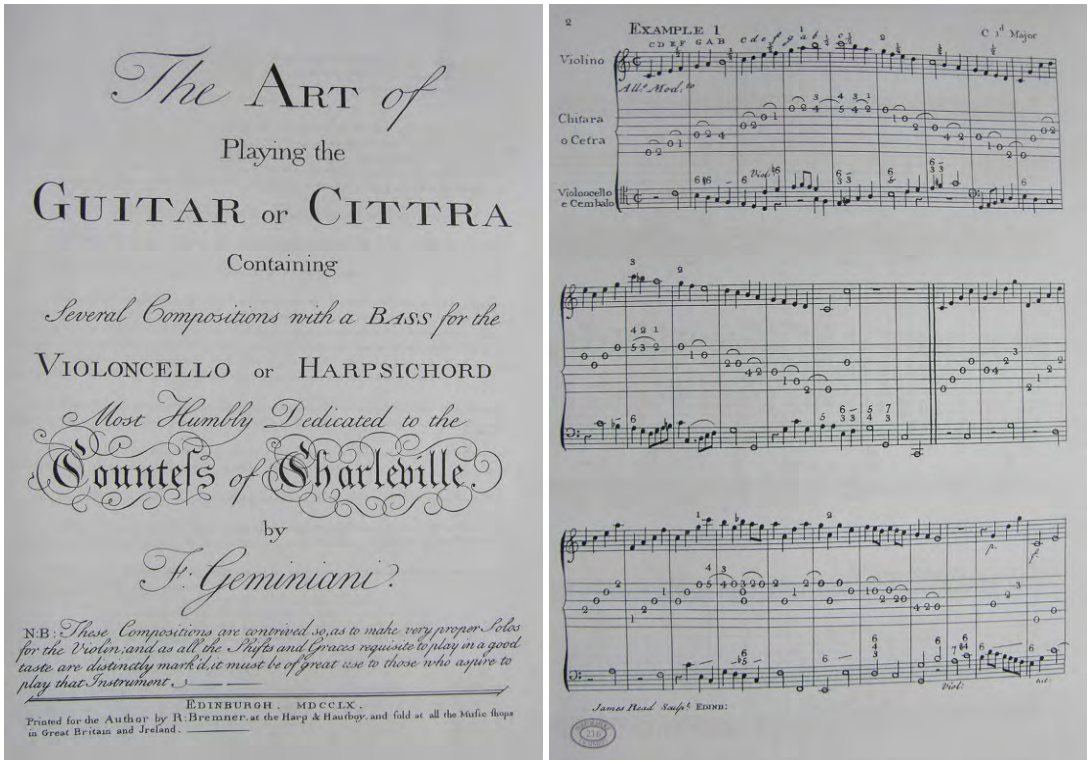

Figure 3.40: The front page (*left*) and *Example I* (*right*) in Francesco Geminiani's *The Art of Playing the Guitar or Cittra* (1760) (Performers' Facsimiles 216). Note that the guittar part in the middle staff is written in tablature.

In his introduction Geminiani points out the 'sweetness and brilliancy of sound peculiar to the Guitar', its 'convenient shape and size', the 'easyness of performing on it' and its capability of offering 'a very full and compleat Harmony', which Geminiani tried to achieve by composing 'a collection of miniature sonatas in several movements, each (except the final one) in both major and minor keys', as Coggin (1987: 212) has underlined. Although Geminiani does not

[186] For the complete text of Geminiani's tutor see Appendix V.

recommend anything new in terms of playing techniques his tutor is particularly unique in that it uses both tablature and staff notation, thus offering a valuable insight on left-hand fingering.[187]

A third tutor worth mentioning is Ann Ford's *Lessons and Instructions for Playing on the Guitar* (London, c.1761) (**Figure 3.41**).[188]

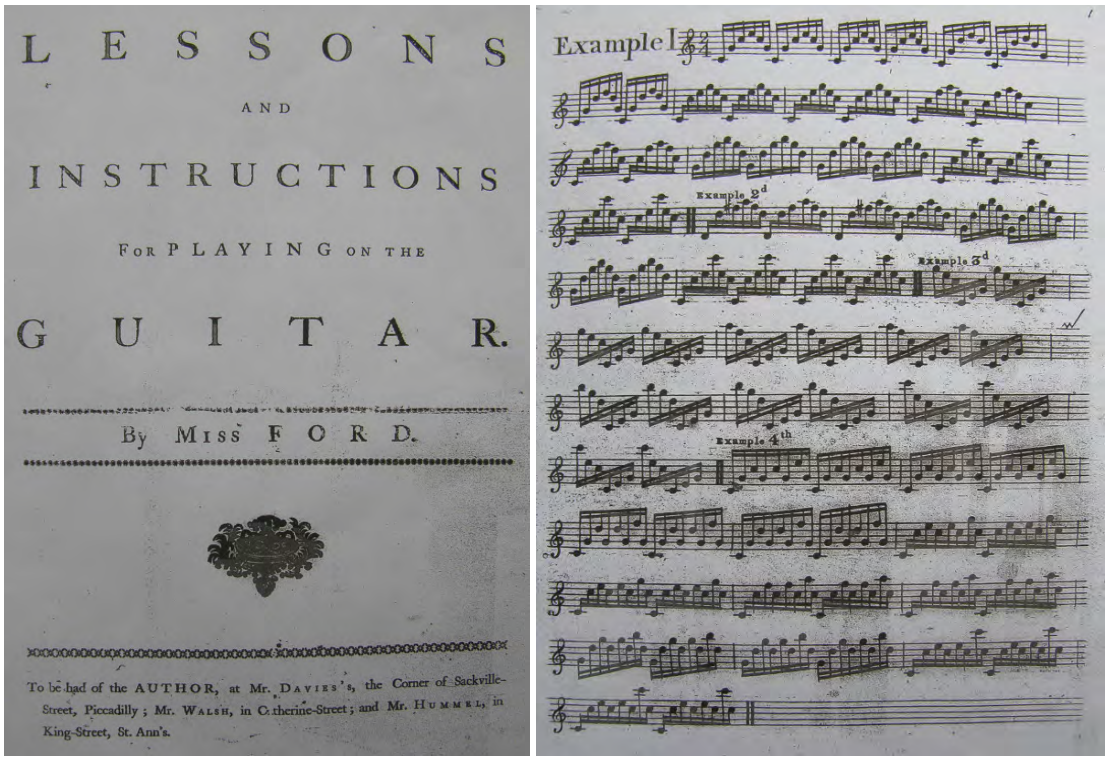

Figure 3.41: The front page (*left*) and *Example I* (*right*) in Ann Ford's *Lessons and Instructions for Playing on the Guitar* (c.1761) (courtesy of T. Takeuchi). Note that the lowest notes in *Example I* are C, while the music is also written in the key of C.

[187] Geminiani's tutor contains the only known guittar music written in tablature, including pieces for violin, guittar and cello, with the violin mainly doubling the top notes played by the guittar and the cello providing the bass. For more details on Geminiani's tutor see Coggin (1987: 212-15) and Rossi (2008: 11).

[188] I am grateful to Taro Takeuchi for providing me with a copy of this tutor.

In her tutor Ford attempted to refine and expand the guittar's musical potentials by introducing new playing techniques and ornamentation. In order to explore the subtler aspects of guittar playing she introduced a method for damping unwanted notes and advocated the use of the flesh of the fingertips than the nails for plucking the strings; she also presented several ornamenting 'graces' borrowed from lute technique, while stressing the importance of left-hand slurs and the efficiency of the *Arpegio*, which she called 'the Genius of the Instrument'.[189] Additionally, Ford (c.1761: 9) stated that 'a good toned GUITAR with the Frets accurately divided, and the Strings well laid, do not a little contribute to the Ease, as well as Pleasure of the Practitioner', adding that 'The neatest Work, and the best toned GUITARS I have hitherto seen, have been made by *Rauche*.'

Nevertheless, despite the sophisticated techniques and repertoire provided for the instrument by such skilled masters as Bremner, Geminiani or Ford,[190] most amateur performers of the guittar probably began and, in most cases, continued their education playing only simple melodies and songs which did not require an advanced level of technique; young ladies were informed that 'three chords are all you need to know to play most songs on the guitar. They are ''E'', ''A'', and another one called a ''seventh chord'' which is too difficult to bother with. When you come to the part of the song that needs that chord, just buzz the strings lightly'.[191] Beginners were often advised to play only the melody line; in his adaptation of the *Songs in The Gentle Shepherd* (Edinburgh, 1758) for the guittar Bremner notes that: 'If any such passeges as have chords or double notes are found difficult, let the Performer play only the highest note, as it compleats the Air of the Tune without the others'.[192]

Learning through tutors was often combined with guittar tuition by music teachers, who advertised lessons for the guittar, highly recommending and promoting its use by ladies, as it

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[189] For more details on Ford's tutor see Coggin (1987: 215-16) and Rossi (2008: 11, 15).
[190] For a comprehensive analysis of guittar performance see Rossi's (2005) modern guittar tutor *Compleat Instructions for the Cittern or Guittar.*
[191] See Johnson, S. 'Musical Instruments: Guitars' (<http://www.kitchenmusician.net/smoke/guitar.html.>, accessed 3/11/2010). This quotation refers either to a long-scale, wire-strung guittar tuned to open A, or to a Spanish gut-strung guitar, which is usually tuned to E.
[192] NLS Glen104, as quoted in MacKillop, R., '18th-century Wire-Strung 'Guittar'' (<http://www.rmguitar.info/>, accessed 5/11/2010).

has been presented earlier. In order to attract new customers guittar teachers often promised quick results:

> MUSIC. THE Guittar, Harpsichord, and Singing taught in a most easy and elegant manner, by an eminent master of undoubted character and abilities, who engages to teach any person unacquainted with music to play ten tunes the first month, and in three months to be so far accomplished on the guittar as to be able to play any common piece of music at sight.[193]

> HARP, Double or Single Action, TAUCHT by a Lady […]. Also the Spanish and English Guitars, in Twelve Lessons, and to accompany them all with the voice.[194]

The guittar was taught even by musical instrument makers or inventors, such as Hintz, who in his trade card advertised that he 'Makes & Teaches ye Guittar in the Completest Manner', or Clagget, who apart from receiving a patent related to the guittar (7 December 1776, Patent No. 1140), also composed 'FORTY LESSONS and TWELVE SONGS for the CITRA OR GUITARR' (**Figure 3.42**).

[193] *Gazetteer* and *New Daily Advertiser* (London), 9 December 1768, Issue No. 12409 (as quoted in Leppert 1988: 60, 228).
[194] *The Morning Post*, 25 May 1816, Issue 14149. At least eight similar advertisements by the same lady had appeared between 1814 and 1816.

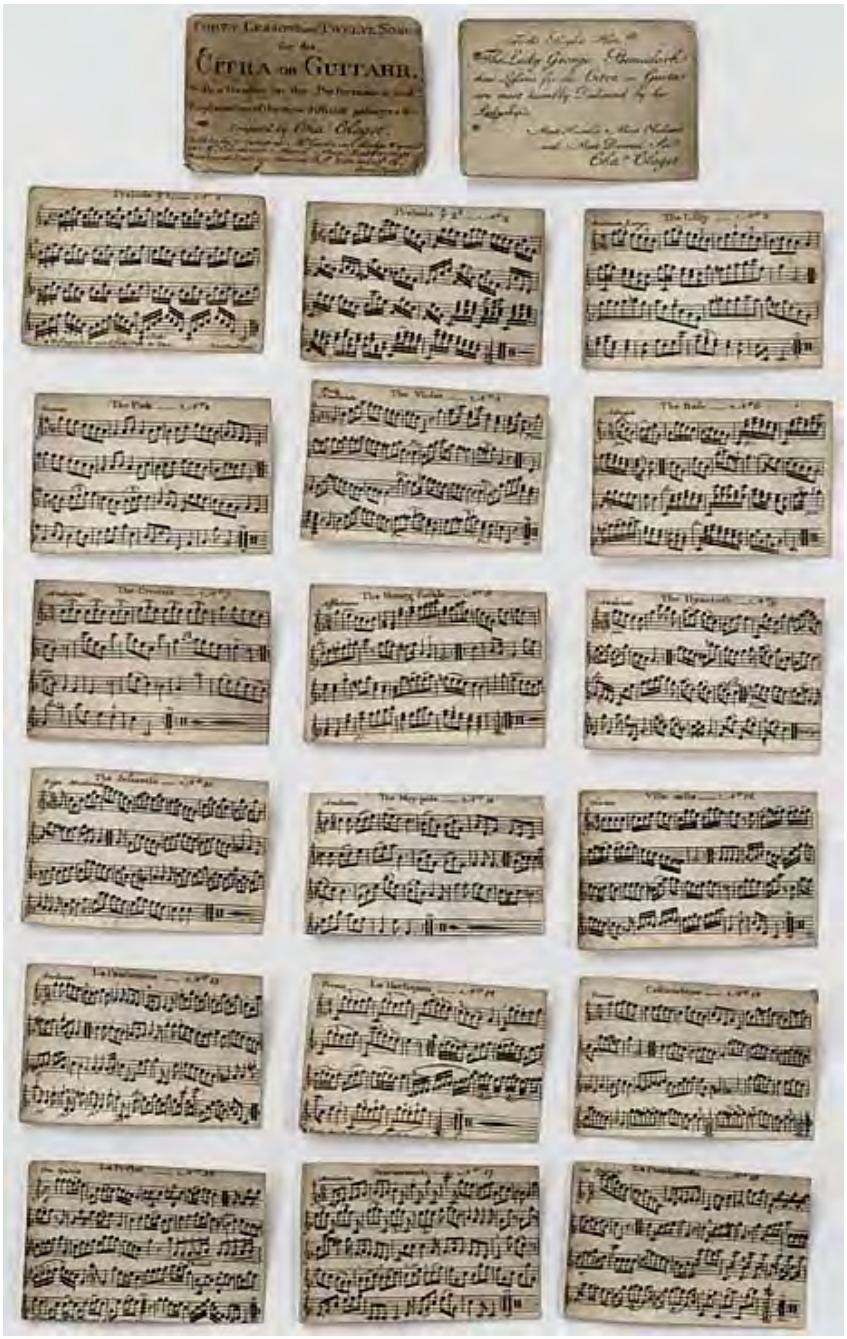

Figure 3.42: Images of printed cards from 'FORTY LESSONS and TWELVE SONGS for the CITRA OR GUITARR' by C. Clagget. Royal Academy of Music, London, [2004.723] (<http://www.ram.ac.uk/emuweb/pages/ram/Display.php?irn=3421&QueryPage=Query.php>, accessed 7/11/2010).

Among the numerous teachers of the guittar were several renowned musicians who also played and composed music for the instrument. Remarkably, most of them were of Scottish, Irish, German and Italian origin[195], such as Bremner[196], Oswald, Stewart, Parry, J. C. Bach, Straube[197], Schumann, Geminiani, Demarzi, Merchi, Noferi, Lapis, Giardini, Giordani and Marella.[198] Although each composer may have had a different approach when writing music for the instrument[199], as already shown the main characteristics of guittar music were the predominant use of the key of C, easily indentified by the lowest notes as middle C on the staff, the abundance of parallel thirds, the typical chord patterns, and the frequent use of open strings, first-position fingerings[200] and slurring, which exploited the sympathetic resonance, sustain, clarity and varied dynamics that the instrument could offer.

The guittar gradually developed its own distinctive repertoire, which included lessons and sonatas for solo guittar, duets, sonatas with basso continuo and trios with violin and cello, with the finest examples written by some of the above-mentioned composers, as well as a wide variety of simple solo arrangements of contemporary pieces, ranging from popular airs, theatre songs and dance-tunes to works by Handel, Mozart and Haydn.[201] Contemporary catalogues of musical instrument makers and dealers can give an idea of the variety of published music for the guittar (**Figures 3.43, 3.44**).

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[195] Paradoxically, although the instrument was quite popular in England and became known as the 'English guittar', relatively little music for the guittar was written by English composers.

[196] According to Lawrence (1999: 10) Robert Bremner junior had studied the guittar in London with Geminiani before becoming a master himself.

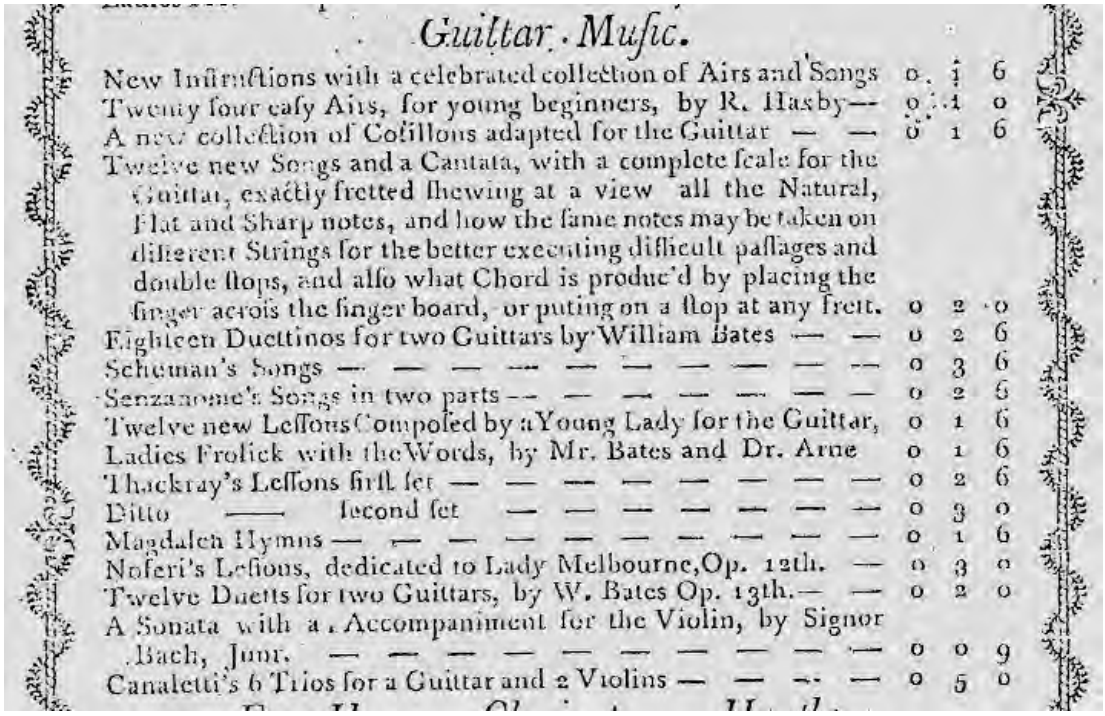
[197] Straube's music for the guittar is largely based on the style and playing techniques of the lute, of which he was an accomplished master; however, Straube's use of a consistent bass line makes his music rather difficult to execute on such a short-scaled instrument as the guittar. For more details on Straube's guittar music see Coggin (1987: 217) and Rossi (2008: 10-3).

[198] Giovanni Battista Marella is listed as 'MORELLA, -, teaches the Guitar. *Great Pultney-street*, *Golden-square*' in Mortimer's *London Universal Directory* (1763) (as quoted in Dart 1949: 29). Marella had previously composed *Sixty Six Lessons for the Cetra or Guittar* (1757) and *Compositions for the Cetra or Guittar* (1762).

[199] The different characteristic or idiomatic styles used by several composers who wrote music for the guittar, such as F. Geminiani, P. Demarzi, J. C. Bach, F. Shuman, G. B. Marella, R. Bremner, J. Oswald, T. Thackray, D. Rutheford, A. Ford and R. Straube, have been mentioned in Rossi (2010: 46-7).

[200] Several extant guittars have playing marks on the first frets of fingerboard, indicating the use of first position fingering. For example, on a keyed guittar by Claus, now in the Blair Castle, Perthshire, [8051], the first three frets have deep playing marks; additionally, the notes of the C scale are written in white ink on the treble side of the fingerboard possibly to enable the performer find the right frets. For more details see 'THE FINGERBOARD AND FRETS', Chapter 6.

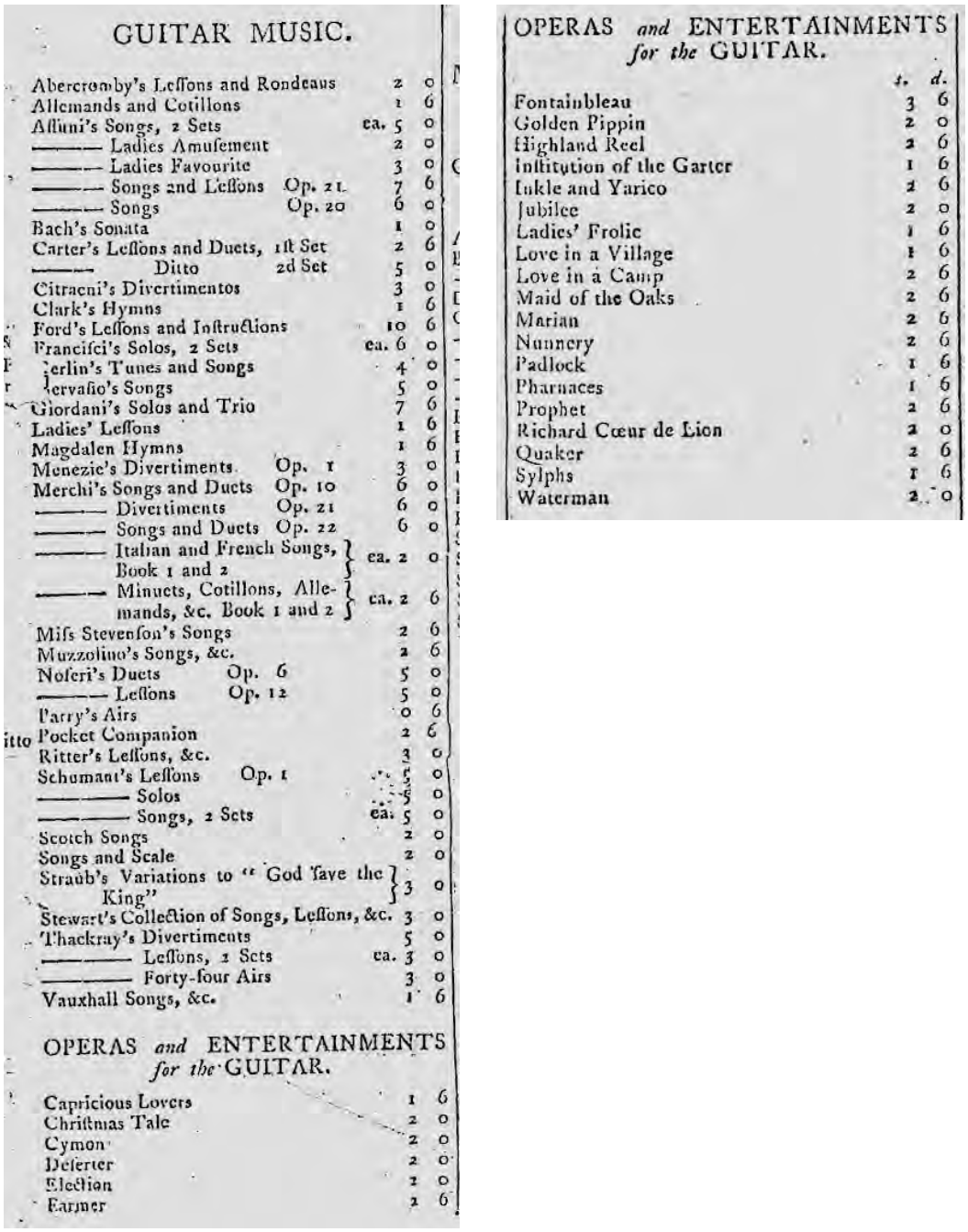
[201] For an indicative list of music for the guittar see Appendix VI.



Guittar . Muſic.

New Inſtructions with a celebrated collection of Airs and Songs	0	1	6
Twenty four eaſy Airs, for young beginners, by R. Hasby —	0	1	0
A new collection of Cotillons adapted for the Guittar — —	0	1	6
Twelve new Songs and a Cantata, with a complete ſcale for the Guittar, exactly fretted ſhewing at a view all the Natural, Flat and Sharp notes, and how the ſame notes may be taken on different Strings for the better executing difficult paſſages and double ſtops, and alſo what Chord is produc'd by placing the finger acroſs the finger board, or puting on a ſtop at any freit.	0	2	0
Eighteen Duettinos for two Guittars by William Bates — —	0	2	6
Scheiman's Songs — — — — — — — — — —	0	3	6
Senzanome's Songs in two parts — — — — — — —	0	2	6
Twelve new Leſſons Compoſed by a Young Lady for the Guittar,	0	1	6
Ladies Frolick with the Words, by Mr. Bates and Dr. Arne	0	1	6
Thackray's Leſſons firſt ſet — — — — — — — —	0	2	6
Ditto —— ſecond ſet — — — — — — — —	0	3	0
Magdalen Hymns — — — — — — — — — —	0	1	6
Noferi's Leſſons, dedicated to Lady Melbourne, Op. 12th. —	0	3	0
Twelve Duetts for two Guittars, by W. Bates Op. 13th. — —	0	2	0
A Sonata with an Accompaniment for the Violin, by Signor Bach, Junr. — — — — — — — — — —	0	0	9
Canaletti's 6 Trios for a Guittar and 2 Violins — — — —	0	5	0

Figure 3.43: List of guittar music from the 1772 catalogue of Longman, Lukey & Co (courtesy of A. Rice). Note that among the variety of listed works are included 'Eighteen Duettinos' and 'Twelve Duetts' for 'two Guittars' by William Bates, '6 Trios for a Guittar and 2 Violins' by Canaletti, as well as 'A Sonata with an Accompaniment for the Violin, by Signor Bach, Junr.' for the price of 9 pence.



GUITAR MUSIC.

Abercromby's Leſſons and Rondeaus		2	0
Allemands and Cotillons		1	6
Affiani's Songs, 2 Sets		ea. 5	0
——— Ladies Amuſement		2	0
——— Ladies Favourite		3	0
——— Songs and Leſſons	Op. 21	7	6
——— Songs	Op. 20	6	0
Bach's Sonata		1	0
Carter's Leſſons and Duets,	1ſt Set	2	6
——— Ditto	2d Set	5	0
Citraeni's Divertimentos		3	0
Clark's Hymns		1	6
Ford's Leſſons and Inſtructions		10	6
Franciſci's Solos, 2 Sets		ea. 6	0
Berlin's Tunes and Songs		4	0
Hervaſio's Songs		5	0
Giordani's Solos and Trio		7	6
Ladies' Leſſons		1	6
Magdalen Hymns		1	6
Menezie's Divertiments	Op. 1	3	0
Merchi's Songs and Duets	Op. 10	6	0
——— Divertiments	Op. 21	6	0
——— Songs and Duets	Op. 22	6	0
——— Italian and French Songs, Book 1 and 2		ea. 2	0
——— Minuets, Cotillons, Allemands, &c. Book 1 and 2		ea. 2	6
Miſs Stevenſon's Songs		2	6
Muzzolino's Songs, &c.		2	6
Noferi's Duets	Op. 6	5	0
——— Leſſons	Op. 12	5	0
Parry's Airs		0	6
itto Pocket Companion		2	6
Ritter's Leſſons, &c.		3	0
Schumant's Leſſons	Op. 1	5	0
——— Solos		5	0
——— Songs, 2 Sets		ea. 5	0
Scotch Songs		2	0
Songs and Scale		2	0
Straub's Variations to "God ſave the King"		3	0
Stewart's Collection of Songs, Leſſons, &c.		3	0
Thackray's Divertiments		5	0
——— Leſſons, 2 Sets		ea. 3	0
——— Forty-four Airs		3	0
Vauxhall Songs, &c.		1	6

OPERAS *and* ENTERTAINMENTS *for the* GUITAR.

Capricious Lovers	1	6
Chriſtmas Tale	2	0
Cymon	2	0
Deſerter	2	0
Election	2	0
Farmer	2	6

OPERAS *and* ENTERTAINMENTS *for the* GUITAR.

	s.	*d.*
Fontainbleau	3	6
Golden Pippin	2	0
Highland Reel	2	6
Inſtitution of the Garter	1	6
Inkle and Yarico	2	6
Jubilee	2	0
Ladies' Frolic	1	6
Love in a Village	1	6
Love in a Camp	2	6
Maid of the Oaks	2	6
Marian	2	6
Nunnery	2	6
Padlock	1	6
Pharnaces	1	6
Prophet	2	6
Richard Cœur de Lion	2	0
Quaker	2	6
Sylphs	1	6
Waterman	2	0

Figure 3.44: The lists of 'GUITAR MUSIC' and 'OPERAS and ENTERTAINMENTS for the GUITAR' included in the 1789 catalogue of Longman & Broderip, p. 4, columns 1 and 2 (courtesy of A. Rice). The first list includes works by various well-known composers of English, Scottish, Irish, German and Italian origin.

Armstrong (1908: 5) remarked that 'while the Guitar paroxysm lasted, scarcely a song or ballad was printed without its being transposed or set for the instrument'. As a result of its low cost, portability, attractive sound and simplicity of performance, the guittar had definitely created a profitable market for many professionals in the music business.

3.3.13 THE GUITTAR'S OPPONENTS AND CRITICS

Nevertheless, although the guittar opened new lucrative job opportunities for many, as already mentioned, not everyone welcomed the new instrument with enthusiasm. There were several cases of devoted guittar critics who considered the guittar musically and artistically worthless. For instance, as early as 1757 the Reverend Dr John Brown in his *An Estimate of Manners and Principles of the Times* wrote:

> The Harpsichord, an Instrument of Power and Compass, is now going out of Use. The Guitar, a trifling Instrument in itself, and generally taught in the most ignorant and trifling Manner, is adopted in its Place [...] What is the Reason of this? Because the Guitar is a plaything for a child, the Harpsichord and Lute require Application.[202]

Similarly, in 1757 Dr Clephane wrote to his niece Elizabeth Rose:

> The spinet, too, has its merits, and has more than instrument I propose for you-the guitarre, or mandolino, as it is called here by our London ladies. What induces me to recommend it is its portableness, and that it methinks music is well an amusement, but not a study. However, if you have once made progress on the spinet or harpsichord, the mandola will be an easy acquisition.[203]

A less aggressive statement comes from the Reverend Cooper, a player himself:

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[202] As quoted in Coggin (1987: 206).
[203] Innes, C., *A Genealogical Deduction of the Family of Rose in Kilravock*, (Edinburgh, 1848), p. 461 (as quoted in Coggin 1987: 207).

> Musick is very much neglected in ye County of Essex: Guittars may flourish, but ye more noble Instruments are almost entirely forsaken.[204]

Perhaps comments like these forced Bremner to defend the guittar stating that he wished to 'alter the opinion of those who at present think meanly of this easy and agreeable Instrument' in his *Twelve Scots Songs for a Voice or Guitar* (1760: 2).[205]

On the other hand, the guittar's success was probably not seen with good intentions by makers of other instruments. It is reported that for a short time around the late-1760s and early-1770s the guittar's popularity even equalled that of the harpsichord, urging harpsichord makers to take action in order to revert this situation. Of particular interest is the case of Jacob Kirkman, the famous harpsichord maker, who reportedly gifted guittars to street performers and low-class girls in an attempt to harm the guittar's reputation and reclaim the harpsichord's lost popularity among the upper-class ladies. The account of this entertaining story reads:

> The common guitar used in England has frequently had its fits of favour in this country; about fifty years ago its vogue was so great among all ranks of people, as nearly to break all the harpsichord and spinet makers, and indeed the harpsichord masters themselves. All the ladies disposed of their harpsichords at auctions for one third of their price, or exchanged them for guitars; till old Kirkman, the harpsichord maker, after almost ruining himself with buying in his instruments, for better times, purchased likewise some cheap guitars and made a present of several to girls in milliners' shops, and to ballad singers, in the streets, whom he taught to accompany themselves, with a few chords and triplets, which soon made the ladies ashamed of their frivolous and vulgar taste, and return to the harpsichord.[206]

This humorous legend has been repeated extensively in the past, without, however, any other supporting evidence to confirm it; in fact, recent research has proven that several well-known square-piano manufacturers such as Zumpe, Beck, Lucas and Haxby had joined the profitable

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[204] As quoted in Coggin (1987: 206).
[205] As quoted in Coggin (1987: 207).
[206] As quoted in Rimbault (1860: 91, footnote). The account is included in the entry for 'Guitar' in Rees's *Cyclopaedia* (London, 1819).

guittar-making market during the 1760s[207], while there are no contemporary references indicating that the guittar became associated with the margin, which would decrease its status among the polite society. Moreover, Boalch (1995: 175) has mentioned that Shudi, the known keyboard instrument manufacturer, also sold guittars, as recorded in his account-books for 13 January 1776. Nevertheless, several advertisements of the 'Piano Forte Guittar' from the mid-1780s describing the keyed instrument patented by Claus as having properties and capabilities enough to 'even rival the Piano Forte itself' may have caused some hostility from the side of piano manufacturers.

3.4 THE GUITTAR ACROSS THE BRITISH ISLES

3.4.1 THE EXPANDING OF A GUITTAR CULTURE TO THE PROVINCES

Regardless of any negative comments, however, and having made its name in the capital, the guittar was very soon spreading over the country by the 1760s, rather like the craze for drinking gin that dominated Britain around the same time.[208] As Weber (1989: 301) points out by the mid and late 18th century provincial cities were closely linked to London, due to the improvement in transport and communications, reinforcing the integration of society and musical life in Britain. Thus, in most major cities music dealers supplied the local music scene with the latest types of musical instruments and printed music, usually arrangements of the popular tunes performed in the capital, while provincial newspapers could immediately inform the public about the new London trends.[209] Being portable, cheap, elegant, and relatively easy to play, it was fairly easy for the guittar and its music to reach a new audience in the provinces early on.

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[207] For more details on the involvement of square-piano makers in the guittar trade see Poulopoulos (2011: 49-59). In addition, Grattan Flood (1909: 141) has mentioned William Gibson, the known guittar manufacturer, among harpsichord makers working in Dublin c.1765-75, although he notes that Gibson 'devoted more attention to the guitar, which was then all the rage'. Moreover, Doyle (1978: 21) has listed Alexander McDonnell, Gibson's successor and also a guittar maker, as a 'harpsichord and piano maker'.

[208] Picard (2000: 124-25) mentions that around 1750s drinking gin had reached the scale of a mania across Britain.

[209] See Black (2005: 147).

For instance, in Bath as early as 1758 Walter Claggett was teaching the guittar among other instruments:

> Walter Claggett, Musician and Dancing-master, […] Waits on Ladies and Gentlemen at their Lodgings, To Instruct them in DANCING, And the Use of the following Instruments, viz. The Violin, Violoncello, Guitar, German flute. Likewise Tunes Harpsichords and Spinetts.[210]

Also in Bath Straube, the famous lutenist, gave his only public concert in England, when on 3 January 1759 in Wiltshire's Rooms he performed 'several Lessons upon the Arch-lute and Guittar in a singular and masterly Manner'.[211] In Exeter guittars were advertised in the stock of Abel Sweetland, 'Bookseller Stationer & Print Seller', as evidenced in his trade card, presented below (**Figure 3.45**).[212]

Figure 3.45: The trade card of Abel Sweetland, 'Bookseller Stationer & Print Seller' (John Johnson collection, Bodleian Library). 'Guittars &c. &c.' is the sixth item listed in the middle column.

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[210] *Bath Advertiser*, 28 October 1758, Issue no. 159, p. 3, col. 2 (as quoted in Leppert 1988: 56 and 227, footnote 14).
[211] As quoted in Holman (2007: 14).
[212] I am thankful to C. Page for bringing this trade card to my attention.

In Norwich one James Hook advertised 'teaching the guitar, harpsichord, spinet, violin and flute'[213], while in Wheatley Richard Herschel noted in his diary in 1766 that 'Lady Cook loved music and I gave her lessons on the guitar, which was then a fashionable instrument'.[214] In Liverpool William Sibbald was a music seller and teacher of the guittar who published c.1773-4 'A Choice Collection of XII of the most favourite Songs for the Guittar […] printed for Wm. Sibbald, teacher of the Guittar […] and sold at his music shop, Temple Bar, in New Market'.[215]

One of the large provincial cities that embraced the guittar culture is York. Here the known keyboard instrument maker Thomas Haxby must have also been involved in the guittar trade, a fact confirmed by two extant guittars bearing his name.[216] Moreover, Haxby's brother, Robert, composed *Twenty–four Easy Airs for the Guittar made on Purpose for Young beginners* which was published in 1769 by J. Longman & Co. in London.[217] In addition, Thomas Thackray, also of York, composed music for the guittar, including his *Six Lessons for the Guittar* (**Figure 3.46**) published around 1770 by Haxby. Interestingly, the list of subscribers for his guittar lessons includes musicians, music teachers and music dealers in London and several other provincial cities, like Leeds, Durham, Nottingham, etc.[218]

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[213] Fawcett, T., (1979) *Music in Eighteenth-Century Norwich and Norfolk* (Norwich), p. 10 (as quoted in Coggin 1987: 207).
[214] Lubbrock, C. A., (1933) *The Herschel Chronicle* (Cambridge), p. 4 (as quoted in Coggin 1987: 207).
[215] See Kidson (1900: 169).
[216] For more details on the two surviving guittars by Haxby see Appendix I.
[217] The only recorded example is in the Library of Congress, Washington, M1385G7H (as quoted in Haxby and Malden 1984: 44-5, footnote 14).
[218] For more details on the list of subscribers in Thackray's *Lessons* see 'THE DEVELOPMENT OF A GUITTAR TRADE' Chapter 5.

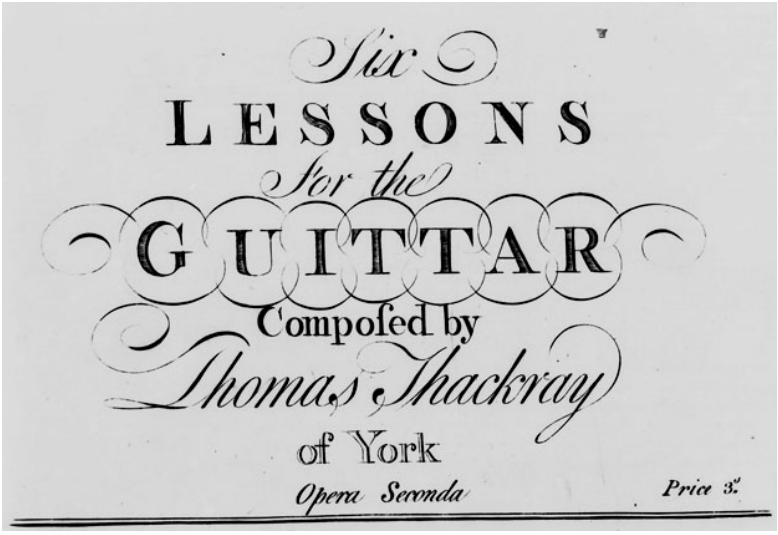

Figure 3.46: The front page of Thomas Thackray's *Six Lessons for the Guittar*, York, c.1770, published by Haxby (courtesy of A. Rutherford).

Additionally a bill dated 18 February 1761 suggests that Haxby was in Temple Newsam House, Leeds, where he tuned a harpsichord and put a new set of guittar strings in 1760: 'T. Haxby for tuning the Harpsichord twice in 1760 £2.2.0 Set of Guitar strings 2/6'.[219] Furthermore, in his accounts Thomas Green of Hertford reported the tuning of guittars for several clients, most of whom were living in Hertfordshire.[220] A guittar by Hintz dated 1757, currently in John Wesley's Chapel, Bristol, is known as 'Sarah Wesley's guittar' and is thought to have belonged to Sarah Wesley of Bristol, who was married to John Wesley's brother, Charles, the hymnist.[221] Moreover, a small number of guittars have survived by makers working in other provincial cities. For instance, a guittar made by William Prior[222], a violin maker working in Newcastle, survives in the NMM, Vermillion, [1515]. Another guittar[223] has been attributed to Benjamin Banks of

[219] Leeds City Archives, Pawson MSS, Box 39 (as quoted in Haxby and Malden 1984: 48, footnote 26).
[220] See Sheldrick (1992: xix).
[221] See Robb, A., '*English Guittar Restoration*', <http://www.art-robb.co.uk/EG.html> (accessed 23/6/2008.)
[222] The guittar is dated 1777, when William (1690-1759) was already dead, so is quite possible that the instrument was labelled by his son Matthew, who continued the family business. For more details on Prior see Appendix I.
[223] This instrument is mentioned in the *Illustrated Catalogue of Music Loan Exhibition by the Worshipful Company of Musicians at Fishmongers' Hall*, June & July 1904 (London: Novello & Co Ltd, 1909), p. 138, but its present whereabouts are unknown.

Salisbury, also a violin maker, who early in his career advertised[224] himself as a maker of citterns (probably referring to guittars) and keyboard instruments.

Apart from the big cities, the guittar and its music must have been played and heard in rural areas all over Britain. The image of the guittar was often 'inserted' into pastoral scenes illustrated in contemporary literature, like in the following extract from *The Vicar of Wakefield*:

> At a small distance from the house my predecessor had made a seat, overshaded by an hedge of hawthorn and honeysuckle. Here, when the weather was fine, and our labour soon finished, we usually sate together, to enjoy an extensive lanschape, in the calm of the evening. Here too we drank tea, which now was become an occasional banquet; […] Sometimes, to give a variety to our amusements the girls sung to the guitar; and while they thus formed a little concert, my wife and I would stroll down the sloping field [...].[225]

Besides, due to its small size and portability, the guittar was a practical substitute for other, less transportable instruments, enabling the continuation of music education and musical activities of the young ladies when they had to move seasonally to their country houses. The presence of guittars in the countryside is evident in the countless paintings of middle- and upper-class ladies playing guittars in outdoor settings, usually sitting in stylish gardens or parks situated close to their country houses. According to Leppert (1988: 177) 'the leading painter to typical wealthy (bourgeois) landowners in the century's middle decades was Arthur Devis, who from his London studio produced numerous group portraits of Lancashire, Cheshire and Derbyshire families, many prominently featuring musical props', among which the guittar is quite common, as evident in the following paintings (**Figures 3.47-3.50**).

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[224] *Salisbury Journal*, 18 March 1757 (as quoted in Milnes 2000: 47).
[225] See Goldsmith (1766/1982: 52-3).

Figure 3.47: 'The Maynard Family in the Park at Waltons, Essex' by Arthur Devis, c.1759-61. National Gallery of Art, Paul Mellon Collection, Washington DC (Leppert 1988: 179, fig. 75). The lady on the left is playing a guittar that looks similar to surviving instruments by Hintz. Note the right- and left-hand finger positions and the ribbon attached on the headstock and tailbutton to support the guittar, as advised in Bremner's guittar tutor from 1758.

Figure 3.48: 'Edward Rookes-Leeds and his Family, of Royds Hall, Low Moor, Yorkshire' by Arthur Devis, c.1763-5. Cottesbrooke Hall, Collection Macdonald-Buchanan, Northampton (Leppert 1988: 178, fig. 74). The lady playing the guittar on the far right provides a side view of the typical holding and playing techniques.

Figure 3.49: Portrait of a young lady, said to be Miss Conyers of Copped Hall estate, Essex, seated in a wooded glade playing a teardrop-shaped guittar with wooden pegs. Engraving by Thomas Chambars after a portrait by Arthur Devis, published by Tone & Co, 20 July 1787. Royal Academy of Music, London, [2003.2556] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 24/9/2010).

Figure 3.50: 'Colonel James Clitherow and His Wife, Anne, at Boston House, Brentford, Middlesex' by Arthur Devis, 1789. Private collection, London (Leppert 1993: 103, fig. 38). Note the typical right- and left-hand finger positions, as mentioned in guittar tutors.

3.4.2 THE ROLE OF THE GUITTAR IN SCOTLAND

Apart from England, the guittar and its music must have been particularly favoured in Scotland. As mentioned earlier in his 'Advertisement' to *Sixty Six Lessons for the Cetra or Guittar* (1757) Giovanni Battista Marella, writes:

> The great Progress the Cetra or Guittar has made in these Kingdoms within the space of a few years seems a sufficient Recommendation of it; more especially when we consider the disadvantages under which it has hitherto laboured, no less than a total Ignorance of the Power of the Instrument.[226]

In his first sentence Marella obviously points to the rapid success of the guittar all over the British Isles, when he refers to 'these Kingdoms', which comprise England, Scotland and Ireland.

It is noteworthy that, although London was the most important guittar centre, the most comprehensive and influential tutor for the instrument, *Instructions for the Guitar*, was published in Edinburgh as early as 1758 by Robert Bremner, working in Blackfriars Wynd[227]; this fact possibly indicates that already by that time the guittar had built up an audience in Scotland. The Scottish guittar player and scholar Rob MacKillop has recently suggested that the guittar was first imported in Scotland from Germany before it was then introduced to England and the rest of Britain.[228] However, as already noted, Bremner's statement that the guittar 'was but lately introduced in Britain', quoted in his tutor from 1758, does not clarify whether the instrument developed firstly in England or, as MacKillop suggests, in Scotland.

The same year (1758) the following advertisement appeared in an Aberdeen newspaper:

> Mr. Roche, Music Master, just arrived from Germany…proposes to teach the following instruments, vis., the Fiddle, the German Flute, Hautboy, Bassoon, Violincello, French Horn, etc. He likewise teaches Singing and the Guittar. [229]

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[226] See Coggin (1987: 216-17).
[227] See Farmer (1947: 293-94).
[228] See Tyler and Sparks (2002: 206, footnote 34).
[229] See Farmer (1947: 325).

Other references confirm the guittar's popularity in Scotland. In Edinburgh a guittar craze must have exploded around 1759 when Bremner's son, also named Robert, was too busy teaching the guittar as to have very little time for anything else:

> Taste for Singing and playing upon the Guitar is very great at present and young Bremner has given up every thing Else to teach that Instrument and had not an hour to spare this eleven months and people wanting Masters and could not get them all Depends on his being obliging and Diligent […].[230]

The young Bremner had earlier moved to London and studied the guittar with Geminiani before returning to Edinburgh as a popular guittar teacher himself.[231] The Bremners also published *The Songs in the Gentle Shepherd* (1758), *Twelve Scots Songs* (c.1760), *The Tunes in the Beggars Opera adapted for the Guittar* (c.1760)[232], and Geminiani's *The Art of Playing the Guitar or Cittra* (1760).

Apart from the Bremners, a few other Edinburgh-based music entrepreneurs were involved in the guittar trade, like Robert Ross who published a 'Select Collection of Lessons':

> Select Collection of Lessons, Airs, Marches, Minuets, Reels, Jiggs, &c With the most favourite Songs for the Guittar To which are Added some excellent Songs, with a thorough Bass adapted To that Instrument, by an Eminent Master. Printed and Sold by Robert Ross at his Music Shop, Fountain Well, High Street, Edinburgh […] With Great Variety of Articles in the Musical Way. NB Piano Fortes, Spinets, Guittars, Violins &c Lent out pr Month, Quarter or Year.[233]

Neil Stewart was another Edinburgh music publisher, musical instrument maker and music seller, working 'at the Violin and Guitar' around 1765.[234] Around 1766 Stewart published:

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[230] *Edinburgh Musical Society minute-books*, letter of 19 July 1759.
[231] See Lawrence (1999: 10). Bremner must have studied with Geminiani sometime before 1759, possibly around 1758, the year of publication of *Instructions for the Guitar*, in which the young Bremner may have contributed the experience and knowledge of the instrument gained during his studies with Geminiani.
[232] See Lawrence (1999: 41).
[233] See MacKillop (2004: 140).
[234] See Humphries and Smith (1970: 301). Kidson (1900: 194) mentions that the earliest reference to Stewart's activities comes from 1759; Kidson further adds that an advertisement of Stewart from 24 January 1761 in the 'Edinburgh Evening Courant' contains 'a woodcut of a lady playing a guitar'.

> A New Collection of Scots and English Tunes Adapted to the Guittar […] Printed & Sold by Neil Steuart at his Music Shop Opposite the head of Black fryers Wynd, Edinburgh, where may be had the following Instruments: Violins, Flutes, Spinits, Guittars at all Prices. Instruments taken in to mend.[235]

Besides, James Oswald from Crail, Fife, on the east side of Scotland, was a quite significant composer for the guittar during its early days.[236] Oswald left Scotland to work in London, opening a music shop 'on the Pavement St Martin's Church Yard', from where he published *Eighteen Divertimento's For two Guittars or two Mandelins* (c.1757), *The Pocket Companion for the Guittar* (c.1758), *Twelve Divertimentis for the Guittar* (c.1759), *The Musical Magazine* (c.1759), and *A Compleat Tutor for the Guittar* (c.1760).[237] Interestingly, Oswald often published his own music either anonymously or under the name of other composers (**Figure 3.51**).[238]

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[235] See MacKillop (2004: 142).

[236] MacKillop has noted that Oswald (1711-69) was a 'master guittarist who accepted and worked within the limitations of the instrument'. Oswald's music, based around the guittar's open tuning, which also fits well with the distinct 'drone' style of Scottish music, indeed projects the guittar's warm, ringing sound. Unlike other composers who wrote more harmonically challenging music for the guittar, Oswald 'allows his music to grow out of the instrument rather than descending from some great height on to it'. For more details see 'The Guittar Music of James Oswald (1710-1769)' in MacKillop, R., '18th-century 'Wire-Strung 'Guittar'' (<http://www.rmguitar.info/>, accessed 5/11/2010).

[237] For a comprehensive analysis of Oswald's guittar music see MacKillop (2004: 133-39).

[238] Purser (1992: 179) has noted Oswald's skill in deceiving even the composer Francesco Geminiani by publishing some of Oswald's own work under the name of David Riccio, while serving as Geminiani's own London printer. Purser (1992: 187) has also mentioned that Oswald's *Twelve Divertimentis for the Guittar* (c.1759) 'were bound to sell well among the ladies of leisure whose latest instrumental craze was the English Guitar – a sort of cittern more like a lute in appearance than the traditional guitar.'

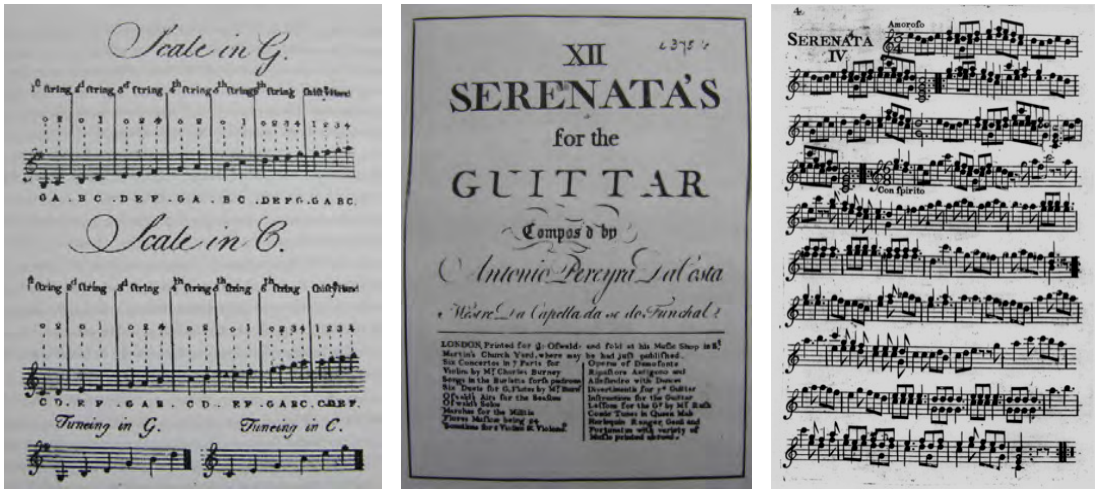

Figure 3.51: ***Left*****: Scales in G and C from James Oswald's** ***A Compleat Tutor for the Guittar, with Two Scales shewing the Method of Playing in the keys of C and G*** **(London, 1760) (Rossi 2005: iv).** ***Middle and right*****: The front page and** ***Serenata IV*** **in** ***XII Serenata's for the guittar*** **by Antonio Pereyra Da Costa, published by J. Oswald. It is quite possible that this work was composed by Oswald himself.**

In Scotland musical instruments, including guittars, were imported from England as well as constructed by local manufacturers. For instance, in 1759 Stewart informed the public that in his shop he offered:

> Lately arrived from London and brought down from the best makers a large assortment of […] musical instruments.[239]

However, in an advertisement from a later date Stewart and his partners suggest that they had established their own musical instrument-making business, announcing that they:

> Make all kinds of Harpsichords, Piano Fortes, Spinets, Guitars, etc., which they sell 25% cheaper than any importer.[240]

[239] See Farmer (1947: 275-76).

Apart from Edinburgh, other cities in Scotland also embraced the guittar culture. In Glasgow, Joshua Campbell was a guittar teacher who had himself studied the instrument in Edinburgh, as evident in the following advertisement from 1762:

> Joshua Campbell, Musician, proposes to teach the guitar having been at some expense at Edinburgh in perfecting himself with the best masters there. Ladies and gentlemen that want to be taught the above instrument shall be carefully attended by the above person who will be found in the third close above Bell's Wynd Glasgow.[241]

The guittar masters that Campbell refers to could have been Robert Bremner, mentioned above, or Daniel Dow, another known guittar teacher working in Edinburgh[242], although none of Dow's advertisements survive from as early as 1762. Another Campbell teaching the guittar in Glasgow is mentioned in an advertisement from the 1780s:

> James Campbell […] continues, as usual, to teach the Violin, Harpsichord, German Flute, and Guitar […].[243]

Besides, in Aberdeen Joseph Ruddiman, the well-known violin maker, also made guittars, a fine example of which belongs to the V&A[244], while around 1766 William Wilson published there *A New Selection of the Most Admired Songs for the Guittar*.[245]

It has also been recently identified that around the late 1750s James Watt, the famous steam engine pioneer from Greenock, was occupied with the construction and development of mechanical parts used on musical instruments.[246] The entry for a charge in Watt's Waste Book for 'perpetual screws, keys and adjusting screws' possibly indicates the manufacture, supply or fitting of parts for the worm-and-pinion tuners or the machine heads used on guittars. In

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[240] See Farmer (1947: 276).
[241] See Farmer (1947: 325).
[242] See MacKillop (2004: 139).
[243] See Farmer (1947: 325-26).
[244] See Baines (1968: 51, and fig. 73). Another guittar by Ruddiman was auctioned by Philips on 24 January 1974, lot 20; for more details on this maker see Appendix I.
[245] See MacKillop (2004: 143).
[246] See Wright (2002: 107).

addition, during the early 1760s Watt employed craftsmen for the construction and repair of guittars and other instruments. For instance, in 1761 Watt was employing Robert Allen to make and repair fiddles and guittars, while by 1762 John Gardner was working for him making 'plates' for guittars and keys for flutes.[247]

In addition, an early guittar by Rauche & Hoffmann, made in London and dated 1757, now in the Burns Birthplace Museum in Alloway, Ayrshire [3.4565], is thought to have belonged to the great Scottish poet Robert Burns, who was reportedly a competent musician, playing the fiddle and the guittar. William Tytler, a colleague of Burns, in his 'Dissertation on the Scottish Musick', written in the late 1770s, stated that 'The proper accompaniment of a Scots song is a plain thin, dropping bass, on the harpsichord or guitar'.[248]

Regarding players of the guittar in Scotland, it is reported that one Miss Elizabeth Rose of Kilravock had achieved a reputation as an 'excellent performer' on the guittar by 1763, leading Lord Kames to admit that her guittar 'has the power of David's harp to soften me down to mildness'; he also claimed that one of the reasons for him to dine in Kilravock was 'to be enchanted with good music upon the guittar' of Miss Rose.[249] Moreover, Gibbons et al (1827: 268) mentioned that the Ann Agnes Erskine, a Lady of Scottish origin, owned 'a guittar, which she preserved to the day of her death, and which sometimes amused her, though she was far from a proficient'.

The guittar is also mentioned twice in Boswell's accounts of his trip with Dr Johnson to the Hebrides, the West Coast islands of Scotland, in 1773. Boswell (1785/1958: 327-28) recalls how Miss Isabel MacPherson, the sister of the Reverend Martin MacPherson of Slate, on the Isle of Skye, entertained Dr Johnson 'by singing Erse songs, and playing on the guittar'. Similarly, on the Isle of Raasay, the daughter of the house amused the guests performing on the guittar.[250]

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[247] See Wright (2002: 108).
[248] See Nelson (2000: 607).
[249] See Coggin (1987: 207-09).
[250] See MacKillop (2004: 128).

Additionally, a surviving letter by the Edinburgh violin maker Matthew Hardie reveals that as late as 1813 he repaired a guittar for Mr Innes.[251]

Furthermore, there are several 18th-century Scottish paintings, like these presented below, showing ladies with guittars (**Figures 3.52, 3.53**).

Figure 3.52: A Scottish family portrait showing a lady playing the guittar among her husband and two children (<www.scotchmusic.com/guitar.htm>, accessed 12/3/2010). The guittar seems to be equipped with a watch-key machine.

[251] See Rattray (2006: 25).

Figure 3.53: Two 18th-century Scottish paintings in the National Portrait Gallery of Scotland, Edinburgh. The lady on the left painting by David Allan 'The Halkett Family Group', 1781, [2157] (Plumb 1980: 91), is playing a guittar-like instrument with a long neck, while the lady on the right (MacKillop 2004: 125, fig. 3) is playing a ten-string guittar with wooden pegs.

Farmer (1947: 286) has noted that the guittar sustained its popularity in Scotland during the early 19th century, which is evident from the fact that 'almost every piece of sheet music published in Scotland from about 1780 to 1810 had appended an arrangement for the guittar' while Sir John Dalyell claimed that in Scotland the guittar 'long continued in repute [and] was a regular branch of female accomplishment'.[252] Additionally, Walsh (1987: 47) mentions that one of the few extant manuscripts of guittar music in Britain 'comes from Scotland and it is full of Scottish tunes'.[253]

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[252] As quoted in Coggin (1987: 207).
[253] National Library of Scotland, MS 5449 (as quoted in Walsh 1987: 47). For more details on this and other surviving Scottish publications and manuscripts of guittar music see MacKillop (2004: 139-47).

3.4.3 THE GUITTAR TREND IN IRELAND

Interest in the guittar developed rapidly also in Ireland, especially in Dublin, where in the 1760s:

> Instruments of the guitar order were now all the rage among the Dublin ladies, who had forsaken their harpsichords, and much music was published locally at this period.[254]

That the guittar was becoming popular in Dublin is confirmed by the following contemporary advertisement which reads:

> Dennis Conner of South Christ Church Yard makes and sells Fiddles and Flutes and has brought Guitars to as great proportions as they make in London.[255]

According to Lawrence (1999: 13) 'the first literary evidence of both the guitar's use in performance and its tuition in Ireland' is recorded in the following concert announcement of Miss Schmeling from 1762:

> Grand Concert of Vocal and Instrumental Music for the benefit of Miss Schmeling from Hesse-Cassel in Germany, at the Great Musick-Hall in Fishamble-Street, on Monday 15 February 1762. Miss Schmeling will sing some select Italian and English Songs, and perform on the Violin and Guitar. After the concert a Ball. To begin exactly at seven o'clock. Price 5s 5 d. Tickets to be had at her Lodgings at the Nave of Clubs in Eustace-Street. N.B. She purposes teaching Ladies to play on the Guitar.[256]

The fact that both Miss Schmeling and Mr Roche, a guittar teacher in Aberdeen already mentioned above, were German provides further evidence that the guittar possibly originated from Germany and spread across the British Isles after the Hanoverian accession to the throne.

The guittar trend reached other Irish cities, like Belfast, where according to the following advertisement:

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[254] Lawrence, W. J., 'The Woffingtons of Dublin: Some records of an old musical family', The Musical Antiquary, iii, p. 217 (as quoted in Coggin 1987: 207).
[255] *Dublin Journal*, 14-17 July 1759 (as quoted in Lawrence 1999: 28).
[256] *Faulkner's Dublin Journal*, 9-13 February 1762 (as quoted in Lawrence 1999: 13).

> WILLIAM WARE, who has been employed these two Years by many Families of the first Distinction in the County of Down, is now returned from Dublin, where he has been a considerable Time for his Improvement. / He begs Leave to present his most respectful Compliments to the Ladies and Gentleman of Belfast, where he wishes to make his principal Residence, if he is so happy to meet with sufficient Encouragement, in teaching the Harpsichord, Spinnet, Piano Forte, and Guittar, in the most approved Taste and Methods now in Use. His Terms are: for the Harpsichord, a Guinea Entrance, and a Guinea the twelve Lessons; Guittar, Half a Guinea Entrance, and Half a Guinea the twelve Lessons. […] An elegant Guittar, by an eminent Maker in Dublin, to be disposed of […].[257]

A large amount of music for the guittar was composed and published in Ireland by composers of various origins; for instance, Walsh (1987: 47) mentions that 'the harpist John Parry of Ruabon wrote some simple airs for the instrument', while other composers include Charles Thomas Carter, Francesco Bianchi, Henry Mountain, Richard Gaudry, Charles Clagget and William Jackson[258]; the last two were also involved in the guittar trade receiving patents for the instrument.

In addition, the numerous surviving instruments signed by Dublin makers suggest that from the 1760s to the end of the 18th century the Irish capital was a major guittar manufacture centre. Among the several guittar makers working in Dublin probably the most known and prolific was William Gibson[259], who was listed in the Dublin Directories from 1770 to 1773 as a 'teacher and musical instrument maker' and thereafter as a 'music instrument maker'.[260] Numerous guittars survive by Gibson, most of them signed and dated. The earliest extant guittar[261] by Gibson is dated 1761 suggesting that Gibson was probably the first Irish maker to produce guittars already in the early 1760s. In fact, it is very probable that Gibson was the 'eminent Maker in Dublin' mentioned in the above advertisement. Gibson was succeeded by Alexander

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[257] *Belfast News-Letter*, 28 June-2 July 1776 (as quoted in Johnston 2003: 17).
[258] For more details on these names see Lawrence (1999: 15-22, 32-36).
[259] For more details on the life and work of Gibson see Appendix I.
[260] See Lawrence (1999: 26).
[261] See Phillips auction catalogue, 29 March 1984, lot 30, p. 6. This guittar is now owned by Paul Doyle, a musical instrument maker in Galway, Ireland.

McDonnell, who was also listed in the Dublin Directory of 1787 as a 'musical instrument maker' and made guittars in the style of Gibson.[262]

Apart from Gibson and McDonnell, there are three more Irish makers involved in the guittar trade, all sharing the same surname, Perry. The first, Thomas Perry, was a well-known maker of the violin family who also made guittars, while the second, James, also a violin maker, was Thomas's younger brother and apprentice. The third Perry, John, was a violin and guittar maker working in Belfast. John Perry is mentioned in a local advertisement[263] from 1768 in which he notes that he was 'regularly bred to the making of guitars and violins, High Street, Belfast', before appearing in Dublin in 1769. To the above names one can add Charles Clagget, an Irish musician and inventor rather than a musical instrument maker, who in 1766 received a patent for his improvements on instruments with a fingerboard, including the guittar.

The guittar trend in Ireland lasted until the beginning of the 19th century. In 1801 'Joseph and James Corbett advertised their music warehouse, 9 Patrick St. Limerick, as the finest collection of Musical Instruments for sale in any part of the Kingdom, which include new patent grand and square pianofortes, pedal harps, the much admired harp-guitars, patent pianofortes and common guitars, […], Eolian lutes, tambourines, etc'.[264]

3.4.4 ADOPTING A NATIONALITY

As already described, the guittar started as an imported invention which emerged from London in the late 1750s to expand across the British Isles, gradually shaping its own original character and voice, and developing into a particularly British instrument. The major guittar centres within the British Isles (comprising England, Scotland, and Ireland) during the late 18th century are shown in a contemporary map presented below (**Figure 3.54**). The coloured circles on the map indicate the cities or areas in where the guittar was being manufactured, sold, taught, and

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[262] Doyle (1978: 21) has mentioned that around 1775 Alexander McDonnell, Gibson's successor, was known as a 'harpsichord and piano maker'.
[263] *Belfast News-Letter*, 5 August 1768 (as quoted in Lawrence 1999: 27).
[264] Hogan, Ita (1966) *Anglo Irish Music 1780-1830* (Cork: Cork University Press) (as quoted in Lawrence 1999: 21, footnote 45). The term 'Eolian lutes' possibly referred to Æolian harps.

played, considering the contemporary references and surviving instruments. Nevertheless, as already mentioned above, it is possible that the guittar culture had reached many other places across the British Isles during that time.[265]

Moreover, by the 1770s the guittar had become a typical British phenomenon that was quickly reaching new grounds on the Continent and in the Colonies. The need to provide the new instrument with some sort of national identity arose when the guittar started to become popular in many European countries and America, where other types of guitar were already known. Consequently, the adjective 'English'[266] was widely applied firstly outside England, possibly around the 1770s, when it became necessary to distinguish the wire-strung instrument from the 'Spanish' or 'French' guitars, which typically had gut stings and a larger, figure-of-eight body shape. The earliest known reference to the instrument as the 'English guittar' comes from colonial America, when in 1764 the German-born maker Jacob Trippell[267] announced that he

> makes and repairs […] English and Spanish Guittars […] having work't at the business nine years, with the best hands in London since I left Germany.[268]

Various national adjectives, like Spanish, French, Italian, German, and English, were used in colonial America to describe guitars. Rossi (2008: 2) has suggested that, apart from differentiating between the wire-strung and the gut-strung instruments, these names were possibly also used by makers and sellers in order 'to call attention to the variety on offer' in their stock-in-trade.

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[265] A thorough investigation of archival sources and historical documents concerning the music life and music activities in many British cities could shed more light on this matter, but this was out of the scope of this research.
[266] Apart from musical instrument-making, national adjectives were frequently used in the decorative arts, whenever craftsmen wanted to suggest that their products had a style or quality equivalent to those made in a specific country. For instance, Thornton (1998: 175) claims that continental cabinetmakers from Scandinavia or Germany who specialised in English-style furniture often called themselves 'English cabinetmakers'.
[267] A guittar by Tripell, made in London and dated 1761, survives in the Gemeentemuseum, Hague.
[268] *The New York Gazette*, 12 November 1764 and 3 August 1767 (as quoted in Rossi 2004: 157).

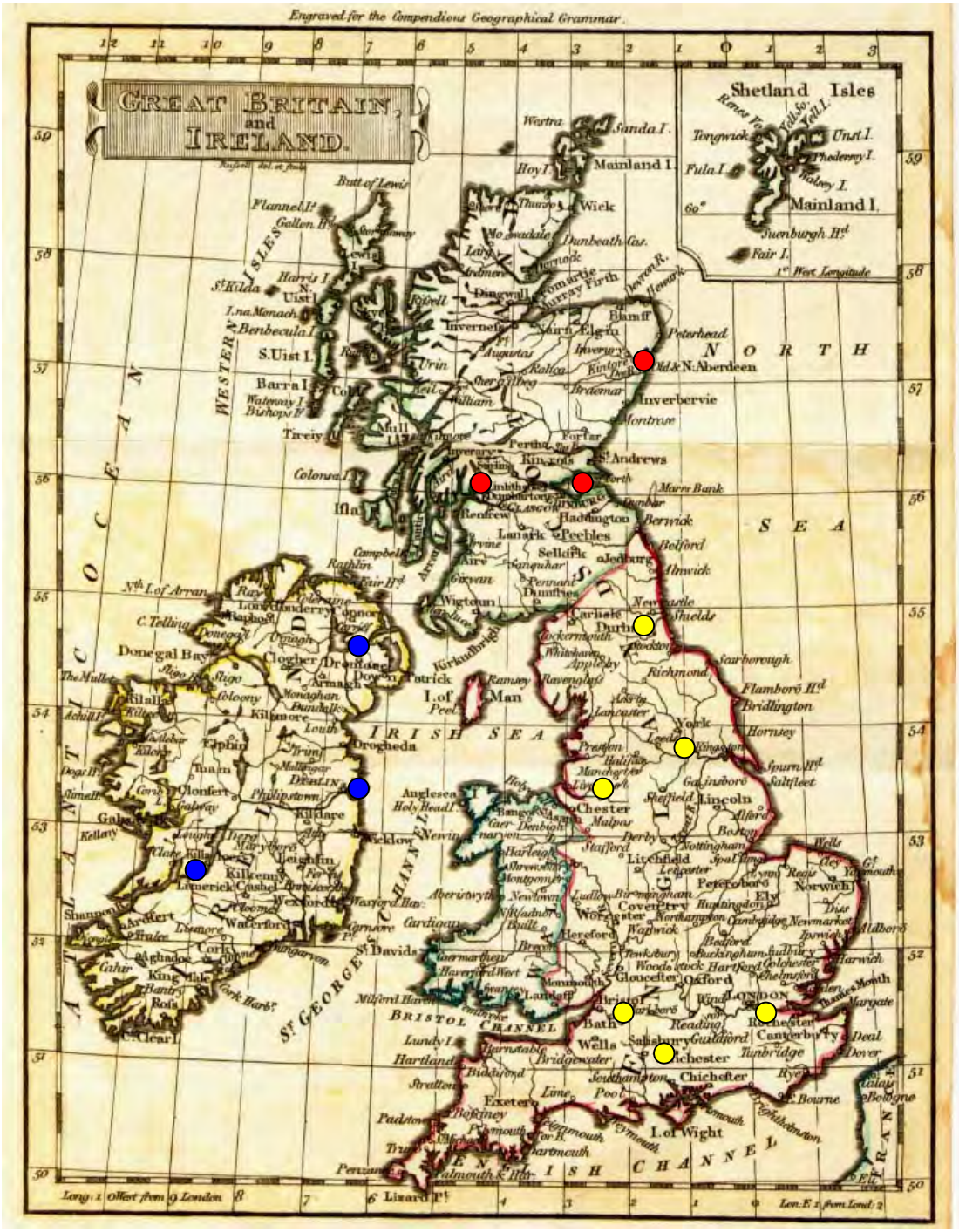

Figure 3.54: Guittar centres across the British Isles during the late 18th century, indicated with coloured dots on a map by W. Peacock (1792) in the *Compendious Geographical Grammar* (<http://freepages.genealogy.rootsweb.ancestry.com/~genmaps/>, accessed 19/11/2009).

Similarly, music teachers advertised teaching several instruments probably to impress potential students. For example, in the 1770s Lewis Vidal gave a concert performing on 'the guitarre Italian', while he advertised that he taught 'English and French guitars'.[269] Rossi (2004: 168) further claims that 'With so many instruments and accessories, music and instruction books pouring out of London into the colonies, as well as the number of makers, teachers and players who came to the colonies through England, it is no wonder that this […] instrument became known as the English guitar in the American colonies. '

In France the earliest reference of the instrument as the 'English' guittar is in Abbot Carpentier's tutor from 1770's where he mentions the instrument as 'guitare Angloise', while according to Tyler (2009: 11) the French publisher Le Duc in his *Journal de Harpe, No. 21* (c.1780) offered for sale music for 'Guitares Angloises, Allemandes & Espagnoles'. However, in Britain the guittar did not widely adopt its present 'nationality' until the mid- and late-1780s.

In England the term 'English guittar' must have been applied at least as early as 1781 because in March of that year the London music seller Bielefeld advertised 'Six New English Songs for the Harpsichord, the English Guittar and the Italian Pocket Guittar, the words and music by Cesare Mussolini. Book Second', while in April 1781 he offered 'Twenty four New Tunes for the English and Italian Pocket-Guitar, composed by Sig. Cesare Mussolini. Book Third.'[270] By the end of the 18th century, the instrument was being known as the 'English' guittar, especially outside the British Isles, suggesting that this name was already established by that time. For instance, even as far as Moscow the music teacher Ignatz von Held advertised in 1798 'An easy method to learn to play in a short time the English guitar with six or seven wire strings, or Spanish guitar with six or seven so-called Roman strings'.[271]

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[269] See Rossi (2008: 2).
[270] See Humphries and Smith (1970: 72). The term 'Italian Pocket Guittar' mentioned by Mussolini possibly refers to a small instrument similar to the guittar.
[271] *Moscow Chronicle* 100 (1798) (as quoted in Timofeyev 2004: 238).

3.5 THE FINAL YEARS OF THE GUITTAR

3.5.1 THE REPLACEMENT OF THE GUITTAR BY NEW INSTRUMENTS

The guittar started to decline around the beginning of the 19th century. Regarding surviving instruments, the latest signed guittar presently known is a keyed instrument dated 1805 in the Danish Music Museum, Copenhagen, [CL150], signed 'Harley maker...Wych Street London 1805' (**Figure 3.55**).

Figure 3.55: Front view of an egg-shaped keyed guittar by Harley dated 1805. Danish Music Museum, Copenhagen, [CL150] (photo by kind permission of DMC). This guittar is signed 'Harley maker...Wych Street London 1805', and it is the latest known signed guittar.

The main reason for the guittar's decline was the arrival of several other instruments that gradually replaced the role of the guittar as a domestic instrument for ladies. Thus, the first strong shock to the guittar's popularity occurred when around the end of the 18th century a series of rival novel plucked instruments were invented and developed in Britain.

The earliest of these new instruments was the harp-guitar, invented around 1798 by Edward Light (1747-1832)[272] and, shortly after, the harp-lute-guitar (also referred to as 'harp-theorbo'), possibly another of Light's inventions. These two instruments, mainly manufactured by London makers such as Phipps, Barry, Buchinger, or Harley, were typically distinguished by having a body construction similar to the harp and a fretted fingerboard and fixed bridge similar to the guitar (**Figure 3.56**).

[272] Light is listed as 'Light, Edward, *Alto, Violin, Harpsichord*' by Doane (1794/1993: 41).

Figure 3.56: ***Left:*** **Harp-guitar by Phipps of London, c.1800. EUCMHI, Edinburgh, [1072].** ***Middle, left to right*****: Two harp-lute guitars, the first made by Harley, c.1805 (<http://www.harpguitars.net/history/org/org-harp-lutes.htm>, accessed 28/3/2010), the second by Barry, inscribed 'LIGHT INVR. BARRY MAKER', c.1810. Museum of Fine Arts, Boston, [17.1770].** ***Right*****: Harp-lute-guitar by Buchinger, c.1800. Danish Music Museum, Copenhagen, [C 22] (photo by kind permission of the DMC). In contrast to the other three instruments this instrument has a flat-back body similar to that of the guittar.**

Another new instrument competing with the guittar was the Apollo lyre. The earliest reference to this instrument is included in an advertisement in *The Morning Post* of 16 November 1803, which mentions 'a fine Apollo Lyre' being offered for sale, among various other instruments, by 'Mr. T. Light'.[273] Several Apollo lyres have survived by London manufacturers such as Wornum, Barry & Buchinger, or Clementi & Co (**Figure 3.57**).

[273] *The Morning Post*, 16 November 1803, Issue 10956, p. 1.

Figure 3.57: ***Left*****: Apollo lyre by Wornum, c.1810, bearing the inscription 'R. Wornum, Inventor & Maker'. Victoria & Albert Museum, London, [891-1875] (<http://www.harpguitars.net/history/org/org-harp-lutes.htm>, accessed 28/3/2010).** ***Right*****: Apollo lyre by Barry & Buchinger, c.1810. Danish Music Museum, Copenhagen, [C 173] (photo by kind permission of the DMC).**

The common characteristic of all these instruments was that, in contrast to the guittar, they were mainly gut-strung. However, they all essentially shared the same guittar tuning in open C, with the addition of one or more extra open bass courses to extend the lower range. Thus, despite the fact that musically they did not offer something entirely new, these instruments became highly

popular among ladies[274], probably because they were made in various stylish shapes, often being decorated with neoclassical motives, which started to become fashionable at the end of the 18th century. In fact, when compared to the guittar, these instruments seem to have been designed mainly for decorative purposes, more to match the Regency architecture and furniture style, and less as competent musical instruments on which to perform music. For instance, an interesting account of the new invented harp guitar is given in the following contemporary encyclopaedia description:

> There has been a late invention of what is called a Harp Guitar, but it does not seem to merit the name of an improvement. The compass of the instrument is increased by some long strings; but it appears to us, that the simplicity, which is the characteristic of the guitar, is thus unnecessarily violated. We have few, if any, makers or performers of note in this branch; though some ladies sweep the notes with considerable grace and effect. The plectrum is out of use; the thumb and fingers of the right hand touching the strings while the fingers of the left move among the frets. [275]

Two more instruments invented by Light are the harp lute, advertised around 1810-15, and the dital harp, patented in 1816 (**Figure 3.58**). These instruments had at least a complete octave of open bass strings to provide them with a greater bass range, retaining, however, the C tuning in thirds (c'-e'-g'), like the guittar, for the top three fretted strings over the fingerboard. Light's intention for this feature was perhaps to enable players accustomed to the guittar tuning to perform on his new instruments using the same fingering patterns.[276]

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[274] To these plucked instruments one should also add the improved pedal harp by Erard which found a new market among ladies during the early 19th century.

[275] Entry for 'guitar' in the Third American Edition of W. Nicholson's *British Encyclopedia: Or Dictionary of Arts and Sciences*, 1819 (Philadelphia: Mitchell Ames White) (as quoted in Rossi, Doc <http://www.cetrapublishing.com/citterncafe/?cat=13>, accessed 17/3/2009).

[276] For a more thorough account of the inventions of the harp-guitar, the harp-lute-guitar, the Apollo lyre, the harp lute, and the dital harp, and the development of their tunings, playing techniques and repertoire see Armstrong (1908: 25-128) and Baines (1966: 51-5).

Figure 3.58: ***Left*****: Harp-lute inscribed 'LIGHT LONDON / Foley Place', c.1815.** ***Right*****: Dital harp inscribed 'Light, / Foley Place, / London, / Patent No. 167', c.1820. Museum of Fine Arts, Boston, [17.1769] and [2007.327] respectively (<http://www.mfa.org/, accessed 12/3/2011).**

It is interesting to note that several makers, such as Buchinger, Harley, and Wornum, and musicians, such as Light, Bolton, or Chabran, who had previously been occupied in the guittar trade teaching and composing music for the instrument, mainly at its latest stage during the 1790s, soon started promoting these new instruments. On the other hand, manufacturers that had traditionally focused on the construction of guittars, like Preston or Longman & Broderip, and all the Irish makers, did not join this new trend. Another possible reason for the success of these instruments was that the sound of gut strings started to become preferred for vocal accompaniment, fitting musically better with the deep, mellow sound of the newly introduced pianoforte, rather than the trebly, metallic sound of the also declining harpsichord with which

the wire-strung guittar was more relative. In Aberdeen one Mr Byrne advertised in 1800 that he continues to teach various instruments including 'the plain or keyed Guitar' further noting that 'The Guitar though an instrument not much in vogue at present is an easy elegant accompaniment to the voice, a competent knowledge of which may be acquired with very little practice'.[277] In any case, during the first decade of the 19th century these instruments co-existed with the guittar, sharing basically the same repertoire due to the similar tuning. Not surprisingly, like the guittar a few years earlier, these new instruments were often advertised and depicted as fashionable instruments for ladies, as evident in the following portraits (**Figure 3.59**).

Figure 3.59: Portraits of ladies playing a harp-guitar (*left*) and a dital harp (*right*) depicted in contemporary tutors for the two instruments (Armstrong 1908: 27 and 100 respectively).

[277] *The Aberdeen Journal*, 21 July 1800, Issue 2741.

However, things changed with the appearance of the figure-of-eight, six-string guitar, referred to as 'Spanish' or 'French' guitar in contemporary sources, which was also evolving and improving radically at that time (**Figure 3.60**).

Figure 3.60: Front, side and back views of a six-string guitar by Blaise le Jeune, France, c.1830. EUCHMI, Edinburgh, [283]. It is interesting to compare the simplicity and elegance of this instrument with the instruments presented above.

Having a non-chordal, more flexible tuning of E-A-d-g-b-e', the guitar was more capable of performing harmonic as well as melodic music, offering a loud, clear sound due to the large

body and the improved overwound single bass strings, thus making it appropriate for both vocal accompaniment and solo performance. In addition, being less decorated with ornaments and having a more ergonomic design, the guittar was easier to handle and play, and looked more like a musical instrument than a piece of furniture. Moreover, in the hands of continental virtuosi, such as Sor, Aguado, Huerta and Carcassi, the Spanish guitar attracted a new, wide audience in Britain in the first half of the 19th century.

For these reasons the guitar gradually rendered the wire-strung guittar, and most of the other novel gut-strung instruments described above, unfashionable and musically worthless. As early as 1774 Signor Merchi 'being just come from the West Indies' advertised lessons in singing and accompaniment with both the Spanish guitar and English guittar, recommending, however, the Spanish guitar 'for though it be a more difficult Instrument than the English Guitar, yet it is more harmonious and pleasing'.[278] In 1809 a contemporary author claimed that 'the Spanish guitar is very superior to the common, simple, instrument of that name […] and is now the favourite accompaniment to a lady's voice in all the politer circles of Paris. We believe they have erroneously given the name of the lute to this instrument, in England. Its tones so perfectly resemble that of the harp, that a listener, not seeing the performer, would imagine it to be one; while the art of playing on it is learnt in as few lessons as is requisite to teach the common guitar'.[279] In 1812-13 another writer referring to the Spanish guitar stated that 'you must not confound it with that twangling thing of wires which is often seen in England; the Spanish guitar is strung with catgut, and being struck with a quill, an imitation of the antient plectrum, gives out a full and rich note'.[280]

It is interesting, however, that by the end of the 18th or the beginning of the 19th centuries music was published for both the wire-strung guittar (common and keyed) and the 'new invented

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[278] *Public Advertiser*, 8 January 1774, as quoted in Page (2011: 2).
[279] Sir Barnaby Sketchwell (pseudonym) (1809), *London Characters, or, Fashions and Customs of the Present Century*, p. 294-5, as quoted in Page (2011: 9).
[280] *Personal Narrative of adventures in the Peninsula during the war in 1812-1813, by an Officer* (London, 1827), p. 228, as quoted in Page (2011: 11).

Spanish guittar', showing that the two instruments co-existed for some time. For example, Lawrence (1999: 217, Appendix 1) has listed *A Collection of Songs, Rondeaus, Waltzes, Marches and Dances, for the guitar, pianoforte guitar, or the new invented Spanish guitar […]* by T. Bolton (c.1800)[281], while Page (2011: 8) has listed a method titled *Instructions for the Harp, Lute, Lyre, Spanish and English Guittar* (anonymous, c.1805-10), indicating that these instruments most likely shared the same tuning and playing techniques.[282]

Likewise, several immigrant musicians and music teachers from France, coming to England shortly after the Revolution, advertised lessons on the Spanish guitar or English guittar in London newspapers. For instance, an announcement of 1789, mentions Mr. Grumaille, a 'Professor of the Cistre, Spanish guitar and English guittar', residing in Soho;[283]; in 1793 Monsieur Brillaud de Lonjac, residing in Marylebone, taught the 'guittare Angloise'[284], while in 1796 J. A. Stevenson advertised as 'Professor of the French and English Guitar […] (formerly a Pupil to the celebrated RITTER […])'.[285]

Furthermore, as mentioned above, the pianoforte had already taken its place among the polite society already by the 1770s, overshadowing other keyboard instruments like the harpsichord or the spinet. The addition of piano keys on the guittar, which intended to rival the pianoforte[286],

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[281] Book 1, (London: Goulding, Phipps & D' Almaine, c.1800) in the Additional Music Collections (Reference number: 10, 871), National Library of Ireland.

[282] I am grateful to James Westbrook, who, as part of his Ph.D. research at the University of Cambridge regarding guitar-making in 19th-century London, was keen to exchange a great amount of information and indicate a number of important sources relating to the decline of the guittar by the end of the 18th and the beginning of the 19th centuries. According to Westbrook (PC, 5/4/2011), many extant small-sized gut-strung Spanish guitars made in London in the late 1790s have seven or eight courses and were probably tuned to open C, like the wire-strung guittar, the harp-guitar or the Apollo lyre. In addition, in his paper 'Who made the first Spanish guitars in London?', presented at the 'First Cambridge Colloquium on the Guitar in the Early Nineteenth-century', Sidney Sussex College, University of Cambridge, 4-6 April 2011, Westbrook noted that one surviving gut-strung guitar made around the end of the 18th century has capotasto holes, drilled on the neck but now blocked, similar to those on guittars. This is another indication that the instrument was possibly tuned and played like the wire-strung guittar, the harp-guitar or the Apollo lyre, and was altered later, when the tuning in C was abandoned in the early 19th century. Futher evidence comes from the *Instructions for the Harp-Guitar and Apollo Lyre* by T. Bolton, in which he states that 'small Spanish Guitars can be tuned in a similar manner', meaning in open C, as quoted in Armstrong (1908: 31, footnote 2).

[283] *World*, 3 June 1789, as quoted in Page (2011: 4).

[284] *Courier de Londres*, 17 May 1793, as quoted in Page (2011: 5).

[285] *Morning Post*, 21 January 1796, as quoted in Page (2011: 5).

[286] Apart from the keyed guittar, another short-lived novel keyboard instrument which aimed to compete with the pianoforte was the 'Orphica', invented by Carl Leopold Röllig in Vienna around 1794 (patented in 1795). The orphica

probably only made the guittar look more like a toy than a serious instrument, as Tyler and Sparks (2002: 227) have observed, further emphasised by the fact that in many cases the piano-key mechanisms were prone to go quickly out of order, as indicated in several contemporary advertisements. Moreover, the development of complex orchestral music around the end of the 18th century created a need for extra volume and lower bass ranges for harmonic accompaniment. The guittar was unable to meet the new musical demands, as it was a relatively quiet, mid-range instrument that was difficult to perform harmonically intricate pieces due to its rather limiting tuning.

3.5.2 THE DECLINE OF THE GUITTAR

As early as 1800 the guittar started to appear in auctions suggesting that the instrument was beginning to lose its public appeal and was regarded old-fashioned. For example, in 1800 in Derby 'a Guitar (by Broderip)'[287] and in 1801 in Oxford 'a Guittar with Patent Keys by *Preston*'[288] were mentioned in auction announcements. Likewise, in 1818 in London 'an elegant English Guitar with elastic springs; 3 guineas'[289], in 1826 in Liverpool a 'Keyed Guitar'[290] and in Portsmouth an 'English Guitar'[291], and finally, in 1828 in Hull 'a ten-string Lute Guitar' and 'one small English Guitar'[292] were advertised for sale in auction rooms.

However, several contemporary dictionaries published during the early 19th century described the wire-strung guittar rather than the Spanish gut-strung guitar in their entries for 'guitar'; this is how the 'guitar' was described in a dictionary of 1811 (**Figure 3.61**):

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was probably influenced by the concept of the keyed guittar, since it was principally designed and advertised as a new portable instrument for ladies. The orphica apparently had the same fate as the keyed guittar, gradually disappearing during the early 19th century. For more details on the invention and development of the orphica see Vogel (2004: 20-28).

[287] *The Derby Mercury*, 6 November, 1800, Issue 3581. I am thankful to H. Sugimoto for bringing this and the following 19th-century newspaper advertisements to my attention.

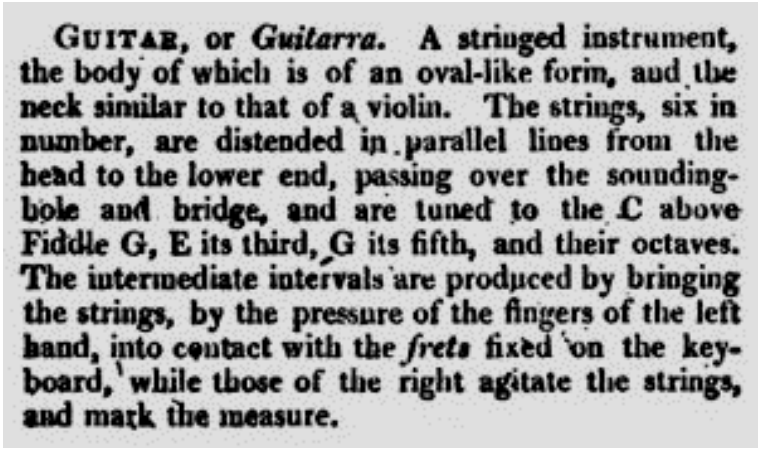
[288] *Jackson's Oxford Journal*, 25 July 1801, Issue 2517.

[289] *The Morning Chronicle*, 1 January 1818, Issue 15185.

[290] *Liverpool Mercury etc*, 25 August 1826, Issue 796.

[291] *Hampshire Telegraph and Sussex Chronicle etc*, 27 March 1826, Issue 1381.

[292] *The Hull Packet and Humber Mercury*, 9 December 1828, Issue 2299.



GUITAR, or *Guitarra*. A stringed instrument, the body of which is of an oval-like form, and the neck similar to that of a violin. The strings, six in number, are distended in parallel lines from the head to the lower end, passing over the sounding-hole and bridge, and are tuned to the C above Fiddle G, E its third, G its fifth, and their octaves. The intermediate intervals are produced by bringing the strings, by the pressure of the fingers of the left hand, into contact with the *frets* fixed on the key-board, while those of the right agitate the strings, and mark the measure.

Figure 3.61: Excerpt from Thomas Busby (1811) ***A Complete Dictionary of Music*****, Third Edition, London (<http://www.studia-instrumentorum.de/MUSEUM/zist_engl_guit.htm>, accessed 29/10/2010).**

A longer and more interesting description of the guittar is given in the following encyclopaedia from 1819, which provides many details on design, construction and stringing:

> The Guitar, or Cittern, is much in use among the Spaniards, and their neighbours; it was also in vogue with us many years back; when some improvements were made, particularly the addition of six keys, corresponding with the six wires; these were called boxed guitars, and by some, piano-forte-guitars. The instrument, as we see it in England, has a broad neck, on which are various frets, made of wires, fixed into the fingerboard, at right angles with the wires; these being the guides for the fingers to make the several notes, by pressing between the frets; the bridge is very low, and stands behind a circular sound-hole, covered with an ornamented and perforated plate; the body of the guitar is of an oval form, the sides perpendicular to the belly and back. This instrument is strung peculiarly: the upper open note, G, is of double steel wires, about No. 4; the second, E, is also double, No. 5; the third is of brass, double, and gives C; the fourth is double, of brass, and gives G, an octave below the upper wires; the fifth is E, an octave below the second wires; and the sixth is C, the octave below the third. The two last are single wires, covered with very fine wire as closely as possible, like the fourth strings of violins. The wires loop at the bottom to little ivory studs, and at the top to small steel studs, moving in grooves, each of them winding up with a watch-key, so as to put them in tune respectively. The Spanish guitar is strung with

> cat-gut partly; but the lower notes are, like those of the harp, made of floss silk, covered very closely with fine wire.[293]

Nevertheless, by the 1810s the popularity of the guittar and its music had already started to diminish significantly, although lessons for the instrument were advertised until the mid-1810s. For instance, as late as 1816 in London a lady promised to teach 'the Spanish and English Guitars, in Twelve Lessons.'[294]

The guittar is mentioned in contemporary sources as late as the mid-1820s. For instance, in 1820 J. Siegling published in Charleston, South Carolina, a 'Complete Instructor for the Spanish and the English guitar, Harp Lute, and Lyre'[295], while 'Blake's Preceptor for the Spanish Guitar and Lyre' (c.1825) by George E. Blake contains an advertisement announcing 'A great variety of Spanish and English guitars, Harp Lutes, Harp Guitars, &c. &c. for sale as above.'[296] After this date the instrument is largely forgotten and mentioned only occasionally as a relic of the past.[297]

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[293] Entry for 'Guitar' in the Third American Edition of W. Nicholson's *British Encyclopedia: Or Dictionary of Arts and Sciences*, 1819 (Philadelphia: Mitchell Ames White) (as quoted in Rossi, D., <http://www.cetrapublishing.com/citternca fe/?cat=13>, accessed 17/3/2009).

[294] *The Morning Post*, 25 May 1816, Issue 14149. At least eight similar advertisements by the same lady had appeared between 1814 and 1816.

[295] See Libin (1985: 128).

[296] See Rossi (2004: 158).

[297] For example, the Wheatstone Factory Archives, presented in Wayne (1991: 144-45, Appendix 2), record the payment of '£1.0.0d' to 'Chidley for repair of Old English Guitar' on 12 April 1845. The use of the term 'Old English Guitar' suggests that by 1845 the instrument had become obsolete. Interestingly, the firm of C. Wheatstone, uncle of Charles Wheatstone, who later became known as the inventor and manufacturer of concertinas and other musical instruments, had been advertising the manufacture and sale of harp guitars, harp lutes and Apollo lyres in the early 19th century.

4 THE GUITTAR OUTSIDE THE BRITISH ISLES

'I believe it will not, in the present Age, be thought necessary for me to say anything in favour of the Instrument for which these pieces were chiefly designed. The vogue it has acquired in England is no more than what It had long since obtained in other parts of Europe.'

Giovanni Battista Marella, ***Compositions for the Cetra or Guittar*****, 1762**

'Royal Patent Forte Piano Guitars. MESS. Clauss and Co. the original and only Inventors and Patentees of the inimitable and beautiful new-invented Forte Piano Guitar[…]. Orders from the East and West Indies, America, and every Part of Europe, as well as in Great Britain and Ireland, addressed as above, are executed with all possible Punctuality and Dispatch.'

Christian Claus, advertisement in the ***London Gazette*****, 5 April 1785**

4.1 THE GUITTAR IN THE CONTINENT

By the time the guittar had become popular in the British Isles many variations of the guittar appeared and developed simultaneously in several countries across the European continent. Of course, in many countries, like Germany, France or Italy, strong local traditions related to the manufacture and use of wire-strung plucked instruments existed already from the 16th century. For example, as early as 1762 in his *Compositions for the Cetra or Guittar* (1762) Giovanni Battista Marella writes:

> I believe it will not, in the present Age, be thought necessary for me to say anything in favour of the Instrument for which these pieces were chiefly designed. The vogue it has acquired in England is no more than what It had long since obtained in other parts of Europe.[298]

However, it seems that the popularity of the guittar in Britain further promoted and influenced the instrument and its music in other continental countries. Thus, by the late 18th century the guittar fashion that had started in Britain had crossed the borders and was invading continental Europe, a fact confirmed by various contemporary sources and surviving instruments.[299] Nevertheless, it should be pointed out that in many of these countries the guittar gradually adopted different names and musical roles, with the development of new playing techniques and new repertoire.

4.1.1 THE GUITTAR IN CENTRAL AND EASTERN EUROPE

As already mentioned in Chapter 2 the guittar was probably developed from various wire-strung plucked instruments that had appeared before the 18th century in German-speaking regions, essentially comprising modern Germany, Austria and Switzerland. These regions had a long tradition in stringed instrument-making, being near to the Alps and, thus, close to good quality tone woods. Therefore, plucked instruments like the cittern (called 'zister') were quite

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[298] See Rossi, D., '*La Cetra Galante*' album notes, <http://www.cdbaby.com/cd/docrossi2> (accessed 25/9/2009).
[299] Hipkins (1891: 9) has mentioned that 'the wire-strung English guitar is one of the cithers once very common in France and Italy, as well in this country'.

popular among local amateur musicians. As a result the acceptance of the guittar in London's fashionable society possibly created a similar vogue among upper-class amateur female performers in Germany, as evident in several contemporary paintings (**Figure 4.1**).

Figure 4.1: ***Left*****: 'Ein falscher Ton' by G. Mantegazza, late 18th century. Private collection, Munich. This detail shows a German lady performing on a guittar using holding and playing techniques similar to those advocated in guittar tutors published in Britain.** ***Right*****: 'Kleine Figurenszene' by Johann Elias Zeissig (1737-1806). Dresden, Gemäldegalerie Alte Meister [Ma 46/03] (Michel 1999: 52). Note the bowl-back guittar and the music book resting in front of the two German ladies.**

This was also assisted by the fact that, as already mentioned, many instrument makers, music teachers, and composers of German origin living in Britain had a great input towards the instrument's success, with some probably carrying the instrument's reputation back home. On the other hand, the guittar in reverse possibly influenced some later folk instruments that developed in these countries, like the Toggenburger or the Emmentaler halszither in Switzerland, and the Thüringer Zister, the Harzzither, and the Thüringer and Hamburger

waldzither in Germany.[300] Most of these instruments have nine wire strings tuned c-g-c'-e'-g', similarly to the tuning of the guittar minus the second e string, while the Hamburger waldzither is distinguished by being equipped with a fan-shaped tuning machine influenced by the watch-key machine used on the guittar.[301]

The guittar also became quite popular in several areas of Eastern Europe, especially Bohemia and Poland. For example, Timofeyev (2004: 245) mentions that Johann Theobald Held, a medical doctor working in Prague and brother of the guittar teacher Ignatz von Held (see below), was a 'Meister im Spiel der englischen Guitarre'. In addition, three guittars by Johannes Michael Willer of Prague survive in the National Museum of Prague (**Figure 4.2**).

Figure 4.2: Three guittars by Johannes Michael Willer of Prague. The guittar on the left is dated 1799. National Museum of Prague, Prague (<http://tuningsinthirds.com/Zacher/>, accessed 28/3/2010). Note that all three guittars follow the style of bell-top guittars by Hintz, although the purfling resembles French cistres. Moreover, all three instruments are equipped with watch-key machines.

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[300] For more information on the different versions of the guittar and cittern in various German-speaking regions see Michel (1999: 71-147).

[301] It is also noteworthy that in 1908 Neuner & Hornsteiner of Mittenwald made a copy of a keyed guittar equipped with a watch-key machine and an external piano-key mechanism, now in the Deutsches Museum, Munich, [15214].

An interesting description of the English and Polish guitars is contained in the following entry for the guitar in a contemporary encyclopaedia:

> *Guitar*. There are many kinds of it such as: Spanish, French, English, Italian, and others […] The English guitar that mainly is used in Poland has wire strings. […] The Polish guitar has wire strings, and sometimes it is played like a mandolin – with a quill.[302]

In Poland Joseph Kwiatowsky of Warscaw was a guittar maker a ten-string guittar by whom, dated 1814, survives in the Germanisches Nationalmuseum, Nuremberg, [MIR 855] (**Figure 4.3**).

Figure 4.3: Front, side, and back views of a ten-string bell-top guittar by Joseph Kwiatowsky of Warsaw dated 1814. Germanisches Nationalmuseum, Nuremberg, [MIR 855].

[302] Hess de Calve, Gustave (1818) *Teoriia Muzyki ili rassuzhdenie o sem issustve*, Vol. 2, Kharkov, pp. 18-20 (as quoted in Timofeyev 2004: 241).

Like the three guittars by Willer presented above, the body shape of this guittar is also similar to bell-top guittars by Hintz, but the arched back is constructed of ten ribs. The headstock is fitted with a watch-key machine and terminates with a violin-like scroll finial. The sunken rose is decorated with a simple geometrical pattern, while the headstock, fingerboard, and body are decorated with mother-of-pearl inlays.[303] Moreover, a rather unusual arch-guittar by Woyciech Pilichowsky of Krakow dated 1799 survives in the Kunsthistorisches Museum, Vienna, [SAM 76] (**Figure 4.4**).

Figure 4.4: Front view of an unusual arch-guittar by Woyciech Pilichowsky of Krakow, dated 1799. Kunsthistorisches Museum, Vienna, [SAM 76].

[303]As already mentioned, a six-string instrument with features similar to the guittar, signed 'Fecit Antoni WAINERT / INSTRUMENT-MACHER / in Warschau 1806', survives in the Musikinstrumenten-Museum der Universität Museum für Musikinstrumente der Universität Leipzig, Leipzig, [577]. For more details and photos of this instrument see Michel (1999) and also <http://www.studia instrumentorum.de/MUSEUM/zistern.htm> (accessed 4/12/2010).

Around the 1790s the guittar also travelled to Russia, probably by Polish or Czech immigrants, like Ignatz von Held[304], who played and taught both the English and the Spanish guitar in Moscow's polite society, as evidenced in the following advertisement:

> A foreigner who recently arrived and who plays pianoforte, English and Spanish guitar and who also sings, [hereby] informs the local High Society that he offers lessons on the mentioned instruments. He lives on Polianka [st.], in the Likhoniny house, under the No.160.[305]

Furthermore, in 1798 von Held advertised 'An easy method to learn to play in a short time the English guitar with six or seven wire strings, or Spanish guitar with six or seven so-called Roman strings'.[306] Apart from Moscow[307], the guittar must have been equally popular in other major cities, like St Petersburg, where several guittars, most likely imported from Britain, have survived in the Museum of Music in the Sheremetev Palace.[308]

Besides, in Russia the guittar had a great input in the design of the Russian seven-string guitar, a gut-strung, figure-of-eight instrument with seven strings tuned in open G major D-G-B-d-g-b-d'. Apart from essentially borrowing the concept of the open chordal tuning of the guittar, the Russian guitar had an arched bridge, and an arched and raised fingerboard with convex frets, features linked directly to the design of the wire-strung guittar rather than the gut-strung guitar (**Figure 4.5**).

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[304] Oleg Timofeyev (PC, 13/1/2011) has pointed out the following description of Ignatz von Held by Gottfried Johann Dlabacz in *Allgemeines historisches Künstler-Lexikon für Böhmen und zum Theil auch für Mähren und Schlesien* (Prague, 1815), p. 601: 'Der Zauber seiner köstlichen Tenorstimme, welche verbunden mit seinem meisterhaften Spiele der englischen Guittare sowohl, als auch des Pianoforte, ihn zu einem wahren Orpheus machte, verschaffte ihm bald Eintritt, entgegenkommende Liebe und sehr einträgliche Unterrichtsstunden in vielen der ansehnlichsten Häuser in Moskau.' which translates: 'The magic of his delicious tenor voice, which combined with is great playing of the English guittar, as well as the pianoforte, turned him into a real Orpheus, soon provided him entrance, love and well-paid lessons in many of the respectable houses in Moscow'. The translation of the German text was kindly provided by L. Fixl.

[305] *Moscow Chronicle* 27 (1795) p. 667 (as quoted in Timofeyev 2004: 245).

[306] *Moscow Chronicle* 100 (1798) (as quoted in Timofeyev 2004: 238). Apart from Von Held, another musician that was influential for the development of the Russian guitar was the Czech guitarist-composer Andrei Sychra (1773-1850), who according to O. Timofeyev (2008: 245) probably became familiar with the guittar while living in Vilnius, Lithuania, where he was born.

[307] According to O. Timofeyev (PC, 13/1/2011) there are several extant guittars in the Glinka Museum of Musical Culture in Moscow.

[308] The Museum of Music in the Sheremetev Palace owns a keyed guittar equipped with a removable piano-key mechanism; for more details see <http://art.1september.ru/2004/11/no11_1.htm> (accessed 16/1/2011). I am thankful to O. Timofeyev for bringing this information to my attention.

Figure 4.5: *Left*: **Front view of a seven-string Russian guitar possibly from the early 19th century (<http://www.iarmac.org/Seven-String%20Guitar.html>, accessed 26/3/2010). Note the distinctive features, highlighted in Russian and English, of the instrument that is strongly influenced by the guittar.** *Right*: **A 19th-century drawing of a typical seven-string Russian guittar depicted along with examples of printed music (<http://www.junkguitars.com/stories/vintage_guitars_rus.html>, accessed 26/3/2010).**

4.1.2 THE GUITTAR IN SCANDINAVIA

The guittar was also very popular in Scandinavian countries, and numerous guittars survive by Scandinavian makers. For example, a guittar by Gotfred Jespersen of Copenhagen dated 1787 survives in the Musikmuseet, Stockholm, [F438] (**Figure 4.6**).

Figure 4.6: A nine-string guittar by Gotfred Jespersen of Copenhagen dated 1787. Musikmuseet, Stockholm, [F438] (<http://www.musikmuseet.se/samlingar/inst.php?l=en&niv=3&saml_open=1&typ=1>, accessed 29/3/2010).

Additionally, a keyed guittar by Johann Nicolai Scherr of Copenhagen (c.1751-1804) dated 1796 survives in the Danish Music Museum, Copenhagen, [C 138] (**Figure 4.7**).

Figure 4.7: Keyed guittar by Johann Nicolai Scherr of Copenhagen dated 1796. Danish Music Museum, Copenhagen, [C 138] (photo by kind permission of the DMC).

This instrument, which, according to the catalogue description[309], is signed 'Johann Nicolai Scherr. Orgelbauer und Instrumentmacher i Copenhagen, 1796', looks very similar to guittars made in London by Preston, suggesting that such instruments were well-known in Denmark by the end of the 18th century.

Around the late 18th century the guittar was also popular in Sweden, especially in Stockholm, where several guittar makers were active, a fact confirmed by numerous extant instruments.[310] For example, a figure-of-eight twelve-string guittar by Sveno Beckman of Stockholm, dated 1757, survives in the Royal College of Music, London, [23] (**Figure 4.8**), while a guittar by Johann Öhberg of Stockholm survives in the Musikmuseet, Stockholm (**Figure 4.9**).

[309] I am thankful to M. Martens for providing me with catalogue information of this and other instruments in the DMC.
[310] For a detailed account of guittar makers in Sweden see Sparr (2009: 214).

Figure 4.8: Front view of a figure-of-eight twelve-string guittar by Sveno Beckman of Stockholm dated 1757. Royal College of Music, London, [23] (Wells and Nobbs 2007: 127).

Figure 4.9: Front and back views of an eleven-string guittar by Johann Öhberg of Stockholm dated 1778. Musikmuseet, Stockholm, [N66421] (<http://www.musikmuseet.se/samlingar/inst.php?l=en&niv=3&saml_open=1&typ=1>, accessed 29/3/2010).

However, the most prolific guittar maker in Stockholm was probably Petter Mathias Kraft, several examples of who survive in the Musikmuseet, Stockholm (**Figure 4.10**). As it can be noticed the Swedish instruments are similar to guittars made in Britain, although they usually have a longer string length and other distinctive features, like the 'stepped' neck and the hollow headstock, which is also common on French cistres and Dutch cisters.

Figure 4.10: Front and back views of three eleven-string guittars by Petter Mathias Kraft of Stockholm, dated 1780 (*top*), 1781 (*middle*), and 1782 (*bottom*). Musikmuseet, Stockholm, [N34289], [N26874.2], and [M1460] respectively (<http://www.musikmuseet.se/samlingar/inst.php?l=en&niv=3&saml_open=1&typ=1>, accessed 29/3/2010). All three guittars are equipped with watch-key machines and have a distinctive hollow headstock. Note the longitudinal 'step' on the back of the neck, reminiscent of the renaissance cittern, on the top two instruments.

Additionally, in Stockholm lived Carl Michael Bellman, the most famous exponent of the guittar culture in Sweden. According to Johnson (1989: 343), Bellman was 'a supreme performer of his own songs improvising the accompaniment on his cittern [guittar], imitating voices and instruments-cello, flute, fiddle, horn–''indeed every instrument, to perfection'''. Moreover, a contemporary reference from December 1769 describing an evening with Bellman and his friends mentions that Bellman 'sings himself and plays the zither [guittar]'[311], while his portrait from 1779 depicts Bellman playing an egg-shaped guittar with twelve stings arranged in six double courses (**Figure 4.11**).

Figure 4.11: 'Carl Michael Bellman' by Ellis Chiewitz, after a portrait by Per Kraft the elder, 1779. Royal Academy of Music, London, [2003.2355] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 23/9/2010).

[311] See Johnson (1989: 343).

Besides, in Sweden the guittar took a different form in the shape of the Swedish lute. Probably influenced from the guittar, from the mid-1770s until the 1790s the Swedish lute had 11 or 15 wire strings, some of which were diapasons, and was normally tuned in open A major. Moreover, it was usually equipped with a watch-key mechanism and a capotasto. [312]

In Norway the sister probably also developed around the late 18th century under the guittar's influence, having, nevertheless, a quite distinctive bell-shaped body mostly associated with the maker Amund Hansen of Halden, who was active from c.1784.[313] However, several examples by other makers in the Norsk Folkemuseum, Oslo, have body shapes and other construction features similar to guittars, while they are often equipped with watch-key machines (**Figure 4.12**). Interestingly, the Norsk Folkemuseum also owns a keyed guittar with an internal piano-key mechanism. According to Morten Bing[314] this instrument, which was not made in Norway but had probably been imported from England around the end of the 18th century, belonged to Inger Aall (1774-1856), the daughter at Ulefos Manor, a singer and guittar player for whom one of her admirers remarked 'the grace which surrounded her, whether in intimate conversation with her arms leaning on the table or singing to her guitar'.[315]

[312] For a comprehensive overview of the Swedish lute or *Svensklutan* see Sparr (2009: 213-34).
[313] A sister by Hansen dated 1784 survives in the in the Danish Music Museum, Copenhagen, [C 30].
[314] I am thankful to Morten Bing (PC, 3/12/2009) for providing me with details about this instrument.
[315] In addition, Nordberg (2010: 43-5) has argued that the music included in the 'Storm Manuscript', a manuscript in the Norwegian Academy of Music, written by Edvard Storm (1749-94), a famous Norwegian poet and school teacher, may have been played on the guittar.

Figure 4.12: Examples of Norwegian sisters in the Norsk Folkemuseum, Oslo. *Top*: Three sisters by Amund Hansen, Halden. *Left to right*: 1799, [NF.1917-0197], 1802, [NF.1895-0134], and undated [NF.1904-0208]. *Bottom*: Three sisters equipped with watch-key machines. *Left to right*: Georg Daniel Schøne, Christiania, c.1800, [NF.1956-0568]; Anders Kleive, Bergen, 1798, [NF.1905-0025]; and unsigned, [NF.1904-0285]. Note that the left and right sisters have body shapes and other construction features very similar to guittars made in Britain. (<http://cittern.ning.com/photo/photo/listForContributor?screenName=0o71nc1mmtv8i>, accessed 24/3/2010).

4.1.3 THE GUITTAR IN SOUTHERN EUROPE

Variations of the guittar were equally favoured in the southern countries of Europe. In France the equivalent of the guittar was the cistre, also called 'guittare allemande' possibly indicating its German origin, which became quite popular around the 1770s. French cistres are similar to guittars made in the British Isles but also have several notable differences. In general, many construction and decoration feature of cistres resemble closely those of gut-strung baroque guitars that were popular in France at that time.

Most extant cistres typically have a pear or oval body shape with a flat-back (**Figure 4.13**), although several bowl-back examples have survived as well. Moreover, they usually have eleven strings arranged in seven courses, and a different tuning from the guittar. Like several guittars, cistres often had extra bass courses mounted on an additional headstock; these instruments are known as arch-cistres. Another common characteristic of cistres is the elaborate decoration with tortoiseshell, ivory, and mother-of-pearl on the soundboard, fingerboard and finial, and the distinctive half-herringbone purfling on the sides, similar to several baroque guitars or hurdy-gurdies. Moreover, like baroque guitars, cistres typically have a sunken rose in a 'reverse cake' pattern, although some have brass roses like those used on guittars. The circular or square finial is usually decorated with inlays of mother-of-pearl, ivory, or tortoiseshell.

Baines (1966: 43) mentions that early cistres are similar to guittars, with some 'having identical rose and finial patterns'. In addition, similarly to guittars made in Britain, cistres are usually equipped with watch-key tuning machines and piano-key mechanisms. Spencer and Harwood (1984: 707) mention that the most common cistre tuning was in A major, E–A–d–e–a–c#'–e', as described in Charles Pollet's tutor for the cistre from c.1775. A similar tuning in A had also been used earlier in England, but only in the 1757 and 1762 editions of *Sixty Six Lessons for the Cetra or Guittar* by G. B. Marella.

Figure 4.13: Front, side, and back views of an unsigned cistre, France, last quarter of 18th century. Deutsches Museum, Munich, [10205].

The majority of cistre makers, including Cousineau[316], Renault[317], Hénocq[318], Saunier, Laurent, Pique and Lambert[319], were located in Paris. However, several makers were working in other

[316] Adelson et al (2010: 160) have reported that, according to a label inside a surviving instrument, around 1773 Cousineau was producing various stringed instruments including 'harps, lyras, violins, 'cellos, double basses, violas, guitars, violas d'amore, mandolins and citterns' in his workshop in the rue des Poulies in St. Germain d'Auxerrois, Paris, while Tyler and Sparks (2002: 204) have mentioned that in his shop Cousineau also sold guittars made in England.
[317] There are several instruments signed 'Renault et Chatelain', suggesting a partnership between the two makers.
[318] An eleven-string bowl-back cistre by Jean Hénocq dated 1769 survives in the Musée de la Musique, Paris, [E.537].
[319] An arch-cistre by Pique in the Kunitachi College of Music, Tachikawa-shi, Tokyo, [922], is listed by Gunji et al (1996: 323), while an arch-cistre by Lambert in the Royal Northern College of Music, Manchester, [S 29], has been presented by Wright (2010: 199).

cities outside the French capital; for instance, Deleplanque and Fievet worked in Lille[320], Le Blond in Dunkerque[321], Paquet in Marseille, and Mast in Toulouse.[322] Some of these makers have left numerous examples of cistres, many of fine workmanship and elaborate decoration (**Figure 4.14**).

Figure 4.14: Six cistres in the Musée de la Musique, Paris. *Left to right*: Georges Cousineau, Paris, late 18th century, [E.1507]; Renault & Châtelain, Paris, 1778, [E.2078]; Jean Hénocq, Paris, 1769, [E.537]; Gérard J. Deleplanque, Lille, 1768, [E.172], and 1790, [E.980.3.1]; and Guillaume Le Blond, Dunkerque, 1774, [D.AD.32033] (<http://mediatheque.cite-musique.fr>,accessed 4/2/2011).

Most music for the cistre is written after the 1760s. For example, around 1770 Abbot Carpentier published a tutor for the 'cythre' (**Figure 4.15**), in which he also refers to the 'guitare Angloise' (English guittar) mentioning two teachers of the instrument in Paris, namely Mr Reithre and Mr Guerrier.

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[320] Cistres of various designs have survived by Deleplanque, with at least four different examples belonging to the Musée de la Musique, Paris, while an eleven-string cistre by François Fievet of Lille dated 1769 has been listed in the Phillip's auction catalogue of 19 March 1992, lot 11, p. 5.

[321] According to Baines (1966: 43) Guillaume Le Blond, one of the first cistre makers, is said 'to have had early business connections with London', where he probably became familiar with the guittar.

[322] For a list of French cistre makers see <http://www.mail-archive.com/cittern@cs.dartmouth.edu/msg01303.html> (accessed 13/11/2010). Doc Rossi has also noted that a variation of the guittar became popular in Corsica. For more details see Rossi, D., 'A Brief Overview of the Cittern' (<http://www.cetrapublishing.com/artists/rossi/>, accessed 14/11/2010).

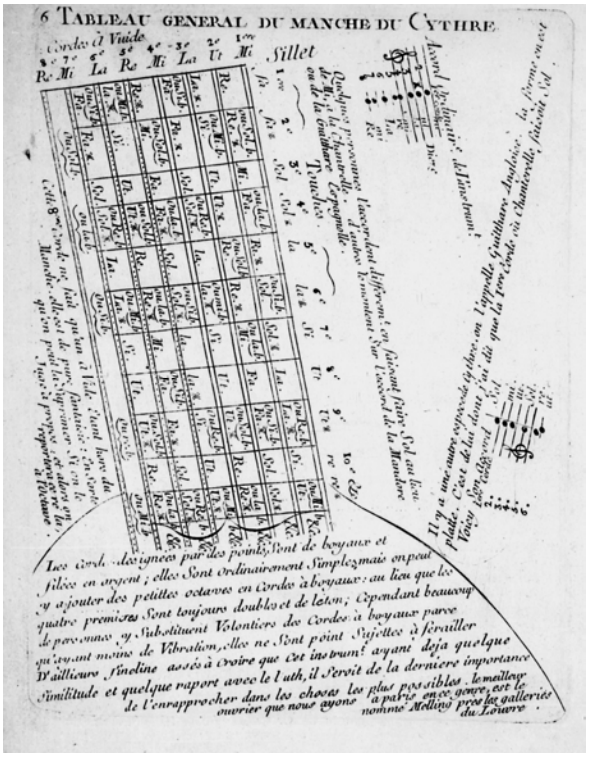

Figure 4.15: A drawing in Abbot Carpentier's tutor (c.1770) showing the cythre tuning and the fretted notes on the fingerboard; the stringing comprises four double courses for the treble and four single for the bass (http://cittern.ning.com/forum/topics/2107976:Topic:3303).

Additionally, in 1772 Corrette referring to the cistre stated that that 'Presently in Paris one plays it like the guitar, that is to say one plucks the strings with the right hand…the cistre is mounted with strings of white and yellow brass, and the basses with wound silk strings, which one plucks with the thumb'.[323] Corrette also mentions three tunings for three types of cistre, with seven, six, or five double courses of strings, all essentially in A major. These descriptions suggest that the cistre was a new instrument that had developed around the early 1770s possibly under the influence of the guittar.

[323] Corrette (1772) *Nouvelle méthode de mandoline*, p. 42 (as quoted in Tyler and Sparks 2002: 207).

In the Low Countries a variation of the guittar was the cister, which had similar construction features and the same tuning as the guittar. In Tournay, in present-day Belgium, a cister maker was Ambroise de Comble, an instrument by whom dated 1762 is currently owned by Enzo Ferrara in Lincon.[324] In The Hague a well-known and prolific stringed instrument maker was Johannes Theodorus Cuypers (1724-1808) who made cisters in various shapes, including figure-of-eight instruments.[325] Additionally, in Amsterdam Boussu and Swartson were making cisters during the late 18th-century, as evidenced by an extant flat-back cister signed 'Boussu à / Amsterdam / 1771'[326] and a cister by Swartson of Amsterdam dated 1792, presently owned by Taro Takeuchi in London (**Figure 4.16**).

Figure 4.16: A cister by Swartson of Amsterdam dated 1792. T. Takeuchi collection, London.

It has also been reported that as a young businessman in Amsterdam in the 1770s Adamantios Korais, one of the main figures of the Greek Enlightenment, was having lessons on the guittar. In various letters sent by his assistant to his business partners complaining about his behaviour, it is mentioned that 'he's got a teacher teaching him the guitar, an English instrument, and at the

[324] Another extant cister by Ambroise de Comble of Tournay is signed 'Fait a Tournay par Ambroise de Comble 1761'. See Phillip's auction catalogue, 1 April 1982, lot 64, p. 13.
[325] A figure-of-eight cister by Cuypers, dated 1764, survives in the Gemeentemuseum, Hague, [Ec 7-1958]. A similar unsigned instrument in the V&A, London, mentioned by Baines (1968: 51, instrument 11/9 and fig. 75), could have been made by Cuypers or another maker from the Low Countries.
[326] See Christie's auction catalogue, 21 June 1983, lot 16, p. 6.

same time he is teaching him French songs [together] with the music'.[327] The description of 'an English instrument' suggests that Korais played the wire-strung guittar rather than the gut-strung guitar.

In Italy the guittar was typically called 'cetera' or 'cetra', two terms that had been used in Britain during the early years of the instrument, especially by guittar composers of Italian origin, like Geminiani, Marella, Demarzi, Noferi, Merchi, etc. It is possible that these composers brought the guittar and its music to Italy but because the gut-strung guitar and the mandolin were dominant the wire-strung guittar never became popular. A guittar by Ignatius Martini of Turin, labelled as 'cittern (cistre allemand) with 11 strings (4 double courses, 3 singles)', survives in the Gallery of Musical Instruments, Conservatorio Statale 'Giuseppe Verdi', Torino, [7]. According to Caviglia et al. (2006: 27) this instrument, dated 178 (?), has 'a rather deep sound box, wide fingerboard with holes for a moveable capotasto and screwed rods ("Preston machine") for tuning'.[328] Moreover, an unsigned pear-shaped guittar with 10 strings, labelled as 'cetera', survives in the Museo degli Strumenti Musicali, Milan, [288].[329]

In Spain the guittar enjoyed a short vogue before the complete dominance of the gut-strung figure-of-eight guitar, which became known as the 'Spanish guitar' across Europe. For example, around the end of the 18th century 'English guittars', especially those equipped with keys, were well-known in Madrid as evidenced in the following advertisements[330]:

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[327] See Christodoulou, S., 'English guitar in Amsterdam in 1770' (<http://www.mailarchive.com/cittern@cs.dartmouth.edu/msg01294.html>, accessed 29/3/2010). The guittar may have also been known in the Greek islands of the Ionian Sea, which during the late 18th century were under British and Italian occupation and were consequently introduced to the latest European fashions, although no obvious relations between Greek wire-strung plucked instruments and the guittar have been so far identified.

[328] Caviglia et al. (2006: 27) claim that this guittar 'presents many analogies with the model preferred by French makers […] especially for the number of strings, ordered in four double and three single courses, and for the pear-shaped sound box.' However, this stringing arrangement and body shape was also used in Britain by makers such as Rauche.

[329] See Amighetti and Gatti (1998: 257-8 and plate 327). The construction and decoration features of this guittar look quite similar to guittars made in Britain; for example, the fingerboard has fifteen frets and four capotasto holes, while the viol-style pegbox houses ten wooden pegs and terminates in a finial decorated with an inlaid star.

[330] The following excerpts come from the *Diario de Madrid*, an 18th-century daily newspaper in Madrid. The text is presented as translated and quoted by Kenyon de Pascual (1983: 299-308) in her article dealing with sales and makers of non-bowed stringed instruments in Madrid during second half of the 18th-century. According to Kenyon de Pascual (PC,

In calle de Montera, in don Pedro Ursuequia's shop, newly invented English fortepiano guitars are for sale as well as various pieces of music for the instrument by the best composers... The inventor of this instrument is in Madrid lodging at 10, calle del Lobo and offers to teach any type of person to play the instrument within one month, either in his own home or at the houses of those who send for him.[331]

In the store at 24 calle Urosas various musical instruments are for sale […] English guitars (guitarras inglesas) [...].[332]

[…] there is for sale an English string instrument that is played with keys and quill and is tuned with a clock key [...].[333]

At 14-2 calle San Bartolome there are for sale 2 English piano-guitars, made in London, one with a damper (sordina).[334]

In 14 calle de San Bartolome an English piano guitar is for sale.[335]

Similar advertisements show that 'English guittars' were used along with gut-strung Spanish guitars:

.[..] in that store (calle de Relatores, ground floor) there are English guitars, whose pleasant shape and ease of learning to play, without need of a teacher (but with a little knowledge of music), are the most agreeable to have been found so far. There are also some arranged in the Spanish fashion for those who do not wish to follow the English method.[336]

The Frenchman Juan Puyol, a master builder of organs and other types of instruments, who has arrived from London, announces that he is living in Madrid at 5 calle de la Ballesta on the ground floor... he

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30/9/09), to whom I am grateful to for bringing this important source to my attention, there are no more such advertisements in the *Diario de Madrid* between 1795 and 1799.

[331] *Diario de Madrid*, 21 July 1789.

[332] *Diario de Madrid*, 3 September 1789.

[333] *Diario de Madrid*, 19 September 1794.

[334] *Diario de Madrid*, 10 October 1794.

[335] *Diario de Madrid*, 23 April 1795.

[336] *Diario de Madrid*, 20 March 1795.

> makes English-style guitars that are played with keys. He makes Spanish guitars that are played with keys, like the English ones, and can also be played in the Spanish style.[337]

What is worth noting in the above advertisement is that both 'English-style' keyed guittars and 'Spanish' keyed guitars were built in Madrid by an instrument maker of French origin who mentioned that he had arrived from London, where he had apparently trained in the construction of these instruments. This is a further indication that of the guittar's international appeal outside the British Isles.

However, the most interesting case among the countries that embraced the guittar culture was that of Portugal. According to Tyler and Sparks (2002: 238) and Gándara (2004: 152) the guittar was introduced to Portugal by the end of the 18th century through the wine and cork trade with Britain; accordingly, the first guittars must have travelled from England to Oporto, where many wealthy British merchants had established business associations and had bought houses and land. The earliest surviving tutor for the guittar in Portugal is António da Silva Leite's[338] *Estudo de Guitarra*[339], which was firstly published in 1795 in Oporto and republished there in 1796 (**Figure 4.17**).

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[337] *Diario de Madrid*, 18 November 1790.
[338] António da Silva Leite (1759-1833) was a renowned musician and music teacher in Oporto.
[339] I am grateful to P. Bento for providing me with the facsimile edition of this tutor, which was published in 1983 in commemoration of the 150th anniversary of Leite's death. The facsimile edition is based on a copy of the second edition of Leite's tutor, published in 1796, belonging to the Biblioteca Nacional in Lisbon, [M 7 A].

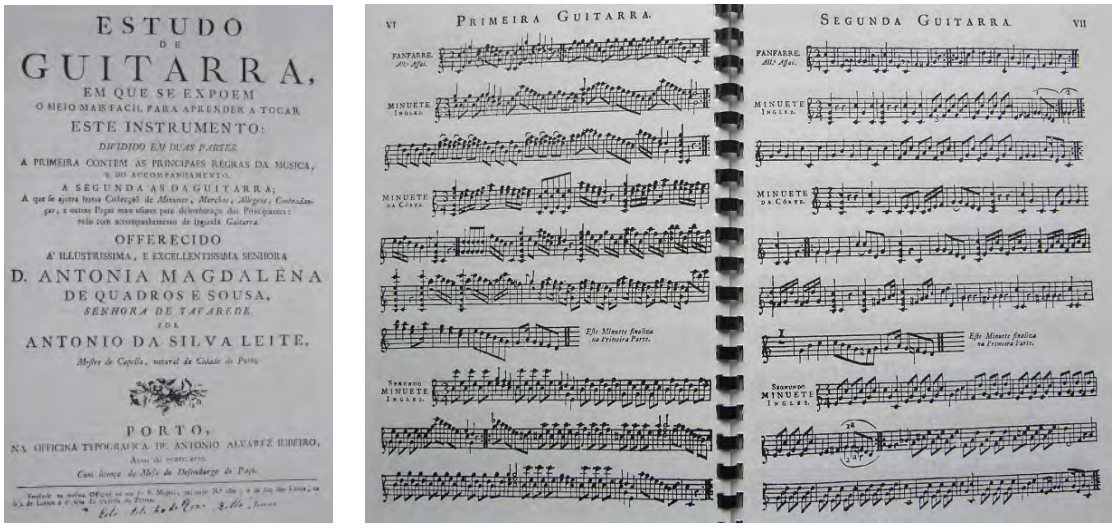

Figure 4.17: The front page (*left*) and music examples (*right*) in the second edition of António da Silva Leite's *Estudo de Guitarra* (1796). Leite's tutor contained pieces for two guittars mainly in the key of C; pages VI and VII, shown above, include two pieces titled 'Minuete Inglez' (English minuet).

It is noteworthy that in the second edition of his tutor Leite (1796: 25-6) mentions that the guittar originated from Britain and indicates Simpson, the known London manufacturer and music seller, as the best maker of guittars. In fact, the guittar depicted in Leite's tutor is identical to surviving guittars made by London makers such as Rauche or Preston (**Figure 4.18**).[340] This is another confirmation that the first guittars made in Portugal were strongly influenced by the guittars imported from Britain, with the Portuguese makers essentially copying the common styles emerging from London.

[340] Leite (1796: 29) mentions that guittars typically have twelve frets, corresponding to the drawing in his tutor.

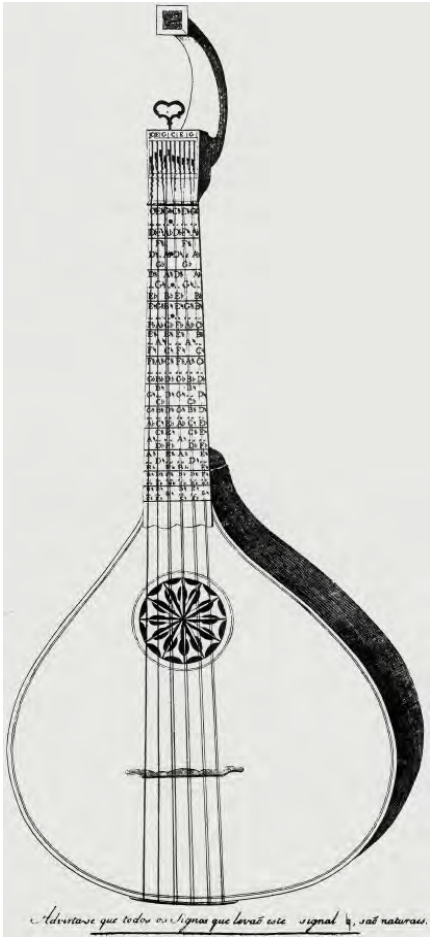

Figure 4.18: The guittar depicted in Leite's tutor (1796: 30). Note the similarities with surviving guittars made in London by Rauche or Preston.

Nevertheless, the Portuguese instruments gradually developed their own features. For instance, Portuguese makers altered the design of the watch-key tuning machine, converting it in to fan shape with individual keys for each string, making it one of the significant characteristics of the Portuguese guittar, along with the typical violin-like scroll on the finial. Moreover, the tuning of the instrument, as well as the playing techniques, changed considerably over the years; the modern Portuguese guittar has twelve strings in six double courses normally tuned dD-aA-bB-

ee-bb-aa in Lisbon (or a whole tone lower in Coimbra), and usually played with fingerpicks.[341] The guittar in Portugal eventually transformed into a folk instrument of national appeal, adopting the name 'guitarra portuguesa' and still occupying an important role in the popular style of *Fados*.

4.2 THE GUITTAR IN THE BRITISH COLONIES

The British colonies in the East and West followed the latest London trends closely; especially during the late 18th century the colonies were major importers of printed music and musical instruments from Britain. Tawa (1989: 371) mentions that in America 'the majority of music, like songs and dances or variations on popular airs, was imported from England', while Woodfield (2000: 21) claims that in India one could find instruments of the variety offered in London with 'novelty and fashionability as the key marketing concepts'. As a result, the exporting of a guittar culture to these areas started very soon after its appearance in the British capital, probably around the early 1760s. The following advertisement by Claus and Co provides an indicative quotation of the places where keyed guittars were exported around the mid-1780s:

> Royal Patent Forte Piano Guitars. MESS. Clauss and Co. the original and only Inventors and Patentees of the inimitable and beautiful new-invented Forte Piano Guitar [...]. Orders from the East and West Indies, America, and every Part of Europe, as well as in Great Britain and Ireland, addressed as above, are executed with all possible Punctuality and Dispatch. [..][342]

Similar contemporary advertisements announcing the exportation of guittars suggest that the instrument had created a profitable new market in the expanding British colonies.

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[341] Regarding playing techniques and ornamentation, Leite (1796: 28-9) advocates plucking with the flesh of the fingertips rather than with the nails of the right hand to obtain a softer sound, although he states that plucking using the fingernails is also common. He also describes a muting technique to stop the resounding string vibration, as well as a muted *staccato* technique, in which the strings have to be plucked fast with the right hand. Leite (1796: 34-5) further notes that the flesh side of the index can be used for a soft upstroke strumming on the last three bass strings, while the back of the nails can be used for a hard downstroke strumming from the bass to the treble courses; Leite also refers briefly to the *appoggiatura* technique. I am grateful to P. Bento for the translation of Leite's tutor.

[342] *London Gazette*, 5 April 1785, 12636, p. 173. The same advertisement also appeared on 12 and 26 April 1785.

4.2.1 THE GUITTAR SCENE IN AMERICA

In America the wire-strung guittar developed in parallel with the gut-strung guitar; America was the final destination of crowds of immigrants from all across Europe, with each national group bringing over their music and musical instrument-making traditions, and so both instruments were represented in the local music scene. However, according to Rossi (2004: 168) the popularity of the wire-strung guittar over the gut-strung guitar is strongly confirmed by the large quantity of music available for the instrument and the great number of advertisements for wire guittar strings.[343]

The manufacture of guittars in America started around the mid-1760s by makers of various origins who had emigrated from Europe. Many of these makers built and repaired both wire-strung guittars and gut-strung guitars to cover the demands of the developing music market and to satisfy the needs of the multinational audiences, a fact confirmed by the numerous contemporary advertisements.[344] In New York, as already mentioned, the German-born Jacob Tripell in 1764 advertised that he

> makes and repairs […] English and Spanish Guittars […] at reasonable rates, as neat as in Europe, having work't at the business nine years, with the best hands in London since I left Germany.[345]

thus providing the earliest reference for an 'English' guittar in America. Likewise, in 1767 Robert Horne, 'Musical Instrument-Maker, from London, at Mr Francis Colley's, on Golden-Hill', announced that he

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[343] Rossi (2004: 155-68) has drawn upon an extensive array of contemporary sources (newspaper advertisements, concert programmes, printed music, etc.) that refer to both the wire-strung guittar and the gut-strung guitar in colonial and post-colonial America. In many of these sources various national adjectives such as Italian, French, German, Spanish and English have been used to denote different instruments. Rossi (2004: 159) claims that 'In some cases these adjectives could be indicating the music being played rather than the instrument itself, even the country where the instrument had been manufactured or imported from, and it seems likely that both types of guitar were current in colonial America' noting, however, that the 'cittern-type guitar' was the most common.

[344] Nevertheless, as Rossi (2004: 157-58) points out many of these advertisements are rather ambiguous as to the type of instrument mentioned.

[345] *The New York Gazette*, 12 November 1764, p. 3, and 3-10 August 1767, p. 2 (as quoted in Rossi 2004: 157). As already mentioned, a guittar by Tripell made in London and dated 1761 survives in the Gemeentemuseum, Hague.

> Makes and repairs violins, bass viols, tenor viols, Æolian harps, gauiters, German flutes, kitts, violin bows, &c. [...].[346]

Apparently by 'gauiters' Horne meant guittars, for in 1771 he advertised the manufacture and repair of 'Violins, tennors, violoncellos, guittars, kitts, aeolus harps, spinnets, and spinnet jacks, violin bows, tail-pieces, pins, bridges […]'.[347] In 1785 Jacob Astor, a dealer of German origin working at No.81 Queen Street, announced that he has

> just imported, in the ship Triumph, an elegant assortment of musical instruments, such as Piannaforte's, German-flutes, Violins , Clarinets, Hautboy's, Guitar's, &c.[348]

while in a similar advertisement of 1786 he included both 'pianoforte guittars' and 'guittars' among a variety of instruments imported from London.[349] In 1793 Christian Claus, another German, informed 'the ladies that he intends to manufacture piano-fortes and common guitars the same as he used to do in London'.[350]

In Boston James Juhan, who taught and performed on the guittar, in 1771 informed the public that he 'makes and sells neat violins, bows and cases, bass viols, guittars, &c. and mends those

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[346] *New-York Mercury*, 15 September 1767 (as quoted in Lasocki 2010: 101). According to Lasocki (2010: 96-102) Horne had previously been a partner of Henry Thorowgood, another guittar manufacturer, working at 'the Sign of the Violin and Guitar' in London, and had probably emigrated to America sometime before May 1767.

[347] *New York Gazette; and the Weekly Mercury*, 9 December 1771, repeated up to 23 December 1772 (as quoted in Lasocki 2010: 101; see also Rossi 2004: 162).

[348] *Daily Advertiser; Political, Historical, and Commercial*, 19 November 1785, repeated 24 and 26 November (as quoted in Lasocki 2010: 114).

[349] *Loudon's New-York Packet*, 25 May 1786, repeated 8 June (as quoted in Lasocki 2010: 115).

[350] *The Diary: or Loudon's Register,* New York, 10 June 1793 (as quoted in Groce 1991: 31-2). While in New York Claus, who had previously worked as a guittar maker in London, formed a partnership with the keyboard instrument manufacturer Thomas Dodds between 1791 and 1793. Two guittars stamped 'Dodds. / &. / Claus. / N-York.' have survived, the first in the Saco Museum, Maine, [2001.124.1], the second in the Luigi Cherubini Collection, Florence, [1988/76]. Claus is mostly known for receiving in 1783 the earliest patent for the invention of a piano-key mechanism for the guittar; for more details see 'THE PATENT INTERNAL PIANO-KEY MECHANISM BY CLAUS', Chapter 7. Interestingly, according to Rossi (2004: 158-59) in South Carolina in 1766 and in New York in 1776 were advertised for sale 'Guittars with stops' and 'a lady's guittar with stop keys.' Rossi (2004: 159) has argued that these are most likely keyed guitars, but this is rather impossible since the dates given (1766, 1776) predate Claus's invention of 1783. The two descriptions most probably refer to guittars equipped with a capotasto, or, in the case of the second only, to Clagget's patent fingerboard for the guittar invented in 1776; for more details see 'THE PATENT FINGERBOARDS OF CLAGGET AND GOLDSWORTH', Chapter 7.

instruments in the neatest manner.'[351] In Philadelphia Michael Hillegas was a music entrepreneur who in 1759 opened the first documented music store in the Colonies[352] from which he offered for sale guittars 'imported in the last Ships from London' among a wide variety of instruments.[353] In a later advertisement from 1764 Hillegas continued to list guittars, this time along with guitar tutors and guittar wire, among the items in stock[354], although he most likely still imported rather than made them. On the other hand, Peter Young, 'joyner and musical instrument Maker' announced in 1770 that he made guittars 'in the neatest and newest fashion, the strings toned with a watch key'[355], while in 1783 one Mr. Harrison, from London, also advertised himself as a guittar maker.[356] In South Carolina Frederick Fopel as early as 1763 announced that he makes 'Violins, Basses, Guittars, Harps, &c. and likewise mends all sorts of musical instruments in the neatest manner'[357]; twenty years later the organ builder John Speissagger notified the public and his friends

> both in this metropolis and also in the country in particular, acquainting them, that he still carries on the business of repairing all manner of musical instruments, viz. organs, harpsichords, spinnets, forte pianos, guittars, &c.[358]

Equally plentiful are the references to teachers and performers of the guittar, showing that guittar tuition and performances were regularly offered in most major East Coast cities, with many music professionals moving frequently between different cities possibly in search of new pupils and audiences. In New York the music teacher Alexander Van Dienval in 1763 informed the public that 'he would apply himself even [to] the Guitar [...] if he was sure of meeting with any encouragement'[359], announcing at a later advertisement that he would 'continue to teach the violin, German flute, guittar, hautboy, tenor and bass viol, in the shortest and easiest method.[360]

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[351] *Massachusetts Spy-Boston*, 14 March 1771, p. 8 (as quoted in Rossi 2004: 162).
[352] See Taricani (1979: 193).
[353] *Pensylvania Gazette*, 13 December 1759 (as quoted in Taricani 1979: 193).
[354] *Pensylvania Gazette*, 5 January 1764 (as quoted in Taricani 1979: 194).
[355] *Pennsylvania Gazette-Philadelphia*, 23 August 1770, p. 3 (as quoted in Rossi 2004: 162).
[356] *Pennsylvania Journal*, 1 October 1783, p. 2 (as quoted in Rossi 2004: 162).
[357] *South Carolina Gazette*, 12-19 February 1763 (as quoted in Rossi 2004: 162).
[358] *South Carolina Gazette*, 9 August 1783 (as quoted in Rossi 2004: 162).
[359] *New York Gazette*, 14 February 1763, p. 2 (as quoted in Rossi 2004: 163).
[360] *New York Mercury*, 25 April 1763, p. 2 (as quoted in Rossi 2004: 163).

Also in New York Thomas Wall, a comedian and musician from London, who in 1766 intended to continue 'teaching ladies and gentlemen the guittar' in Charleston[361], was performing in 1768 with the American Company At the Theatre in John Street, accompanying the featured actress Miss Wainwright with his guitar in act three of a production called 'The Country Lasses'.[362] By 1772 Wall had settled in Baltimore, where he taught the guitar and the mandolin.[363]

In Boston David Propert, who was previously performing and teaching of the 'organ, harpsichord, forte piano, guittar, German flute, &c' in New York, in 1771 continued teaching the aforementioned instruments and offering some for sale, as well as performing 'some select pieces on the forte piano and guittar'[364] in collaboration with James Juhan, already mentioned. William Selby, another Boston music teacher, who around 1773 had been teaching the violin, flute, harpsichord, and guitar in Newport, Rhode Island[365], in 1782 offered a monthly subscription music system, as he had in London, 'each number to consist of at least one composition for the harpsichord, piano forte or spinnett, one for the guittar, and one for the German flute; also one song in French and two songs in the English language.'[366]

In Williamsburg, Virginia, Mrs. Ann Neill advertised guittar lessons in 1775 stating that 'Ladies who are inclined to learn the Guittar may be instructed on that instrument by a lady lately arrived'[367], while in 1777 she proposed 'teaching the guitar at one guinea entrance and one guinea for eight lessons.'[368] That year Neill became more interested in the guittar market when she opened a store selling 'all kinds of European goods on commission' including German flutes and guittars.[369]

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[361] *South Carolina Gazette*, 8 April 1766, p. 3 (as quoted in Rossi 2004: 164).
[362] *New York Gazette & Weekly Post Boy*, 18 April 1768, p. 3 (as quoted in Rossi 2004: 164).
[363] See Rossi (2004: 164).
[364] *Boston Gazette*, 25 February 1771, p. 4 (as quoted in Rossi 2004: 164).
[365] See Rossi (2004: 166).
[366] *Boston Evening Post*, 2 February 1782, p. 1 (as quoted in Rossi 2004: 166).
[367] *Virginia Gazette-Williamsburg*, 1 April 1775, p. 3 (as quoted in Rossi 2004: 167).
[368] *Virginia Gazette-Williamsburg*, 4 July 1777, p. 7 (as quoted in Rossi 2004: 167).
[369] *Virginia Gazette-Williamsburg*, 14 November 1777, p. 3 (as quoted in Rossi 2004: 167).

In Philadelphia, James Bremner started a music school where 'young ladies may be taught the harpsecord or guitter' Mondays, Wednesdays, and Fridays from 10 to 12, while 'young gentlemen may be taught the violin, German flute, harpsecord or guitter' from 6 to 8 in the evening'.[370] Similarly, H. B. Victor, a German who had previously been an organist in London, stated in 1777 that 'he continues to give instruction in Music, viz. on the harpsichord, violin, German flute, guittar and singing'[371], while the following year he announced the publication of a set of four separate books called 'The Compleat Instruction for the Violin, Flute, Guitar and Harpsichord.'[372] Likewise, Henri Capron in 1787 in one of his concert programmes informed 'the public that he instructs ladies and gentlemen in the art of singing and of playing on the Spanish and English guitars, recording the most approved method of the first masters in Europe.'[373] Capron also mentions that 'The guitar, from the late improvement which it has received, being so portable and so easily kept in order, is now considered not only as a desirable but as a fashionable instrument.'[374]

The guittar's portability, stability of tuning and easy maintenance apparently made it a favourable instrument among dancing masters. In New York William Charles Hulett offered in the early 1770s private guittar and dancing lessons for ladies, with his advertisement beginning 'The guittar, taught by W.C. Hulett, dancing, master'[375], while another dancing master, Martin Foy, who had previously taught violin and guittar in Philadelphia around 1768-9, in 1779 advised that 'Ladies who chuse to play on the guitar will be duly waited on.'[376] In Charleston, South Carolina, John Abercromby around 1775 established a dancing school where he also taught various instruments including the guittar.[377] Interestingly, in 1777 Abercromby

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[370] Sonneck, O. G, *Early Concert-Life in America (1731-1800)* (New York, 1949), p. 66, note 2 (as quoted in Rossi 2004: 164). Bremner was a relative of the well-known Edinburgh music publisher Bremner and his son (both named Robert) who were greatly involved in the guittar trade publishing *Instructions for the Guitar* (Edinburgh, 1758), one of the most important tutors for the instrument.
[371] *Pevnsylvania Ledger*, 3 December1777, p. 3 (as quoted in Rossi 2004: 167).
[372] *Pevnsylvania Ledger*, 31 January 1778, p. 1 (as quoted in Rossi 2004: 167).
[373] Sonneck, *Early Concert-Life in America (1731-1800)* (New York, 1949), p. 130 (as quoted in Rossi 2004: 158; see also Noonan 2008: 9).
[374] Sonneck, *Early Concert-Life in America (1731-1800)* (New York, 1949), p. 130 (as quoted in Rossi 2004: 158). The improvement mentioned by Capron may refer to the piano-key mechanism which was invented in 1783.
[375] *New York Journal*, 17 October 1771, p. 3 (as quoted in Rossi 2004: 163).
[376] *Rivington's New York Gazette*, 18 September 1779, p. 3 (as quoted in Rossi 2004: 163).
[377] See Rossi (2004: 166).

announced that 'As he is greatly in want of guitar for the accommodation of his scholars, he would gladly give a good price for those instruments to such persons as may have them to dispose of.'[378] Also in Charleston, Lewis Vidal, who had a music shop selling guittars among other instruments, advertised himself in 1774 as a teacher of 'several instruments in the Italian taste, such as mandoline, psaltery, English and French guitars, instruments well adapted for the use of the ladies'[379], notably using the guittar method of M. Merchi which he found 'perfectly harmonious'. The last two references suggest that both the wire-strung guittar and the gut-strung guittar were already known and quite popular among local performers.

As in Britain, the guittar in America was a favourite pastime for young ladies. According to Brookes (2005: 32) a contemporary visitor describing the young ladies of Charleston as early as 1763 stated that 'they are fond of dancing, an exercise they perform very gracefully; and many sing well, and play upon the harpsichord and guitar with great skill'. In Annapolis Rebecca Dulany in a letter to her sisters from 1764 refers to an evening gathering mentioning that '[…] After the tea young ladies played on the guitar, and sung for us, and then we took a long walk in the garden, and after that, we had the guitar again […]'.[380] In 1779 the musician John Ross informed 'the musical gentry of Philadelphia' that he would 'be happy to furnish the ladies and gentlemen […] with the most favorite Airs, Songs, Marches, Minuets, and Country Dances now performed in the European beau monde, set either for the Guittar, German Flute or Hautboy'.[381]

By the 1770s the guittar was a household item among many prosperous American families; a 'Guittar £7.10 'is included in the 1779 inventory of John Hesselius, a known portrait painter from Philadelphia[382], while Philip Fithian, tutor for Councillor Robert Carter of Nomini Hall in Westmoreland County, reported in 1773 that 'Mr Carter is practicing this evening on the guittar'.[383] Furthermore, it has been reported that several members of Thomas Jefferson's family

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[378] *South Carolina American Gentleman's Gazette*, 27 February 1777, p. 3 (as quoted in Rossi 2004: 166).
[379] *South Carolina American Gentleman's Gazette*, 23-30 September 1774, p. 3 (as quoted in Rossi 2004: 166).
[380] See Brookes (2005: 33).
[381] *Pennsylvania Packet*, 21 October 1779 (as quoted in Rossi 2004: 161).
[382] See Doud (1969: 141, 152).
[383] See Darling and Wiggins (1974: 58).

owned and played wire-strung guittars as well as gut-strung guitars[384], whereas Benjamin Franklin, the inventor of the glass harmonica, played and taught the guittar or 'English Lyre'.[385]

4.2.2 EXPORTING THE GUITTAR TO INDIA

The guittar was also exported to India along with a variety of instruments travelling with the East India Company.[386] By the 1780s the guittar was well-known in Calcutta, where in 1784 a Mr Bondfield advertised for sale 'Harpsichord, Forte-Pianos, Organs, Guitars, French and Spanish Violins, Violincello, Flutes, Florios, and common Aeolian Harps, Horns and Bassoons, Haut-Boys and Clarinets and all the new music'[387]; a year later, in 1785, a certain Mr Stone had in stock 'Violins, tenors, Violoncellos, Piano Forte, Guittars, German Flutes, […]'[388] in his music warehouse. Additionally, as Woodfield (2000: 68) has mentioned, in 1786 Mr Oehme advertised for sale 'a Harpsichord, some Forte Pianos, and Forte Piano Guittars', while in 1788 the aforementioned Stone received payments for 'mending a guitar'.

Moreover, according to the details presented by Woodfield (2000: 22-4, Tables 1 and 2) several guittars, including keyed guittars, were imported on ships in 1786 whilst others were advertised as second-hand instruments in the Calcutta newspapers in 1787. Furthermore, Head (1985: 551) notes that 'sales and auctions were regularly advertised [...] at which the effects of the deceased or those who had returned to England could be bought', mentioning one particular sale in which 'Piano-forte guitars' were included among other instruments.[389] Additionally, twelve guittars are listed among musical instruments mentioned in the Bengal Inventories 1760-1785, with the earliest recorded in the 1757/60 inventory of George Dundas.[390]

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[384] See Stanton, Lucia 'Guitars' (<http://www.monticello.org/site/research-and-collections/guitars>, accessed 4/2/2011).
[385] See Rossi (2004: 156).
[386] According to Woodfield (2000: 19-20) it was a common practice for London manufacturers to sell musical instruments in bulk to officers of various ranks working for the East India Company; after the ships had reached Calcutta, the instruments were sold again in bazaars, auction houses, commission warehouses, public buildings or private homes.
[387] As quoted in Head (1985: 551).
[388] *India Gazette*, 21 February 1785 (as quoted in Woodfield 2000: 67).
[389] *Calcutta Gazette*, 15 July 1784 (as quoted in Head 1985: 551).
[390] See Woodfield (2000: 27, 242-47).

The guittar in India had the same role as in Britain, being an instrument mainly addressed to female amateur performers. For instance, in her letter to her brother Francis Margaret Fowke wrote from Calcutta in April 1783:

> Last night at the William's we met Mrs Tolly, who played and sung to her guittar. [...] She excels in those little tunes which are performed without striking the string twice; they have really a pretty effect.[391]

In another occasion she would comment about her own practice on the instrument:

> I now and then take up the Guittar. Whenever I only give half an hour's attention to this instrument I am almost surprised at my own progress.[392]

Interestingly, Head (1985: 552) has mentioned that *The Oriental Miscellany: being a collection of the most favourite Airs of Hindoostan, compiled and adapted for the harpsichord, &c*, compiled and arranged by William Hamilton Bird, a local musician, and published in Calcutta in 1789, includes arrangements of Indian music for the guittar.

By the 1790s the guittar had certainly become a well-recognizable instrument across the British Empire.

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[391] As quoted in Woodfield (2000: 90).
[392] As quoted in Woodfield (2000: 90).

5 THE GUITTAR TRADE

'FREDERICK HINTZ / At the Golden Guittar in Little Newport Street / the Corner of Ryders Court Leicesterfields / Makes & Teaches ye Guittar in the Completest Manner.'

John Frederick Hintz's tradecard, mid-1760s

'PRESTON/MUSICAL INSTRUMENT MAKER, /And Original Inventor of the Machine/For tuning the Guittar, with a Watch Key.'

John Preston's tradecard, 3rd quarter of 18th century

'PATENT PIANO FORTE GUITARS,-On an entire new Principle, different from any others, and divested of that aukward Appearance which the temporary Key-Box forms on the Belly of the Instrument: The Machinery is also so curiously contrived, that it acts with amazing Facility, and produces a Tone far beyond Conception, and nearly equal to that of a Piano Forte.'

Longman & Broderip, ***A Complete Catalogue of Instrumental and Vocal Music*****, 1789**

5.1 AN OVERVIEW OF THE GUITTAR TRADE

5.1.1 THE DEVELOPMENT OF A GUITTAR TRADE

Concurrently with the growing success of the guittar and its music among polite society during the late 1750s started a burgeoning of the guittar trade in London, before soon expanding across the British Isles. The guittar trade included a variety of professionals, such as musical instrument manufacturers, repairers and tuners, musical instrument dealers and retailers, inventors and patentees, and music teachers, publishers, composers and performers, all of whom could profit in several ways from the rapidly developing guittar culture. The social and economic aspects of this trade are well-exemplified in the wealth of extant contemporary documents and in the number of surviving instruments, although little information has been brought to light or presented systematically.

During the first years of the guittar's arrival and development, the construction of guittars must have probably been more of a profitable side project for instrument makers rather than their main activity. In the pre-industrialised economy of the late 18th century specialization of work was uncommon and musical instrument makers tried to be flexible, producing more than one type of instrument, especially those in great demand. In fact, as evidenced in various contemporary advertisements, trade cards and other documents, a large number of the early guittar makers, such as Liessem, Hintz, Rauche, Hoffman or Dickinson, seem to have been occupied primarily in the manufacture of various fretted or unfretted plucked stringed instruments, such as mandolins, mandores, lutes[393], Æolian- and bell-harps, and dulcimers, and also in the manufacture of bowed string musical instruments, especially those of the violin family, including violins, violoncellos, viols, double basses, kits and cither viols. Given this fact

[393] For example, a bowl-back mandolin by Liessem dated 1754 has been listed in Christie's auction catalogue of 12 June 1974, lot 15, p. 8, while three extant arch-lutes by Rauche have survived: the first, dated 1762, in the Victoria & Albert Museum, London, [9/1871], the second dated 1767, currently owned by Anthony Bailes (as mentioned in Holman 2007: 13), and the third, also dated 1767, in a private collection in Basel, Switzerland (information from Lynda Sayce, to whom I am thankful for providing me with details of this instrument).

it is not surprising that guittars share many similar construction and decoration characteristics with some of the aforementioned instruments. Interestingly, among these early makers were various artisans previously trained in related woodworking crafts, like cabinet- and furniture-making, such as Hintz or Zumpe, who, due to the relaxed guild regulations in late 18th-century Britain, were allowed to construct musical instruments, including guittars.

However, as guittars became more popular the guittar trade began to attract craftsmen, businessmen and inventors from various backgrounds. These professionals started to appear around the early 1760s once a critical mass appeal for the instrument had been reached and, recognising a potential in the guittar trade, began to invest money and time into this new establishing market. This was also facilitated by the fact that the guittar was relatively cheap and easy to build, even by non-specialised makers, when compared to other stringed instruments. For example, numerous keyboard instrument makers must have had an eye on the guittar's popularity; it is notable that well-known names such as Zumpe, Beck, Lucas, or Haxby, became involved in the guittar trade around the early 1760s, at the peak of the guittar culture, before concentrating on the production of expressive keyboard instruments, especially square pianos.[394]

Furthermore, several woodwind instrument manufacturers and dealers, such as Thorowgood, Astor, or Goulding, Phipps and D'Almaine, advertised the manufacture and selling of guittars, as well as strings and tutors for the instrument in their shops.[395] Moreover, apart from manufacturing and selling instruments, for some makers the guittar offered additional business opportunities in the forms of composing, teaching, playing, and publishing music for the instrument, as in the cases of Hintz or Rauche, and later Preston or Claus, all who were involved in one or more of the above mentioned activities.

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[394] For more details on the involvement of square piano makers in the guittar trade see Poulopoulos (2011: 49-59). In addition, Grattan Flood (1909: 141) has mentioned William Gibson, the known guittar manufacturer, among harpsichord makers working in Dublin c.1765-75, although he notes that Gibson 'devoted more attention to the guitar, which was then all the rage'. Moreover, Doyle (1978: 21) has listed Alexander McDonnell, Gibson's successor and also a guittar maker, as a 'harpsichord and piano maker'.

[395] For more details see the relative advertisements and catalogues presented by Lasocki (2010: 73-142).

The strong interest of some renowned music entrepreneurs, such as Preston, Longman, Haxby or Bremner, in the guittar trade is further evidenced in Thomas Thackray's *Six Lessons for the Guittar* (c.1770), the front page of which contains a list of subscribers[396] (**Figures 5.1, 5.2**).

A
LIST
OF THE
SUBSCRIBERS.

MISS Amions
Miſs Maynard
Miſs Meridith
Mrs. Allen, 2 Books
Duke Adams, Eſq;
Mr. Ayrton, Organiſt of Ripon, 20 Books.

B

Mrs. Blake
Miſs M. Birt, Miſs J. Birt, Miſs B. Birt } Armin
Mrs. Brown, Eſſex-ſtreet
The Rev. Mr. Blake
The Rev. Mr. Bridges
Mr. Bulkley, Mrs. Bulkley, Mr. Beamont } Theatre Royal Covent Garden.
Mr. Bulkley, Hay-market, London
Mr. Bremner, Strand, London, 12 B.
Mr. Beilby, Organiſt of Scarbo
Mr. Brown, Kingſton upon Hull, 2 B.
Mr. Brown, Kingſton upon Hull, 6 B.
Mr. Barnet
Mr. Bride, Exeter Change, 6 Books

C

Mrs. Chitty
Miſs Caley
Miſs Calverley, Leeds
Miſs Coſtabidie, Whernſley
Mr. Ald. Carr
Mr. Cockerill, Surgeon, South Shields
Mr. Carter, Darlington
Mr. Carr, Muſician, London
Mr. Chauſac, Muſical Inſtrument-maker, Strand, London, 6 Books
Mr. Crompton, Organiſt of Leeds
Mr. Clementſhaw

D

Miſs Daviſon Scruton
Miſs Dodſworth
Miſs D. Dale
Miſs Deniſon
Miſs Charlotte Deniſon

E

The Right Hon. Lord Viſ. Erwin
The Rt. Hon. Lady Erwin 20 Books
Miſs Everand
Miſs Evelin
Mr. Ebden, Organiſt of the Cathedral at Durham
Wm. Edwards, Eſq;

F

Miſs Foord
Miſs Forſter of Morrick in Northumberland
Mr. Fiſher
Mr. Fentum, Muſic Seller, Strand, London
Mr. Farrer
Mr. Ferran

G

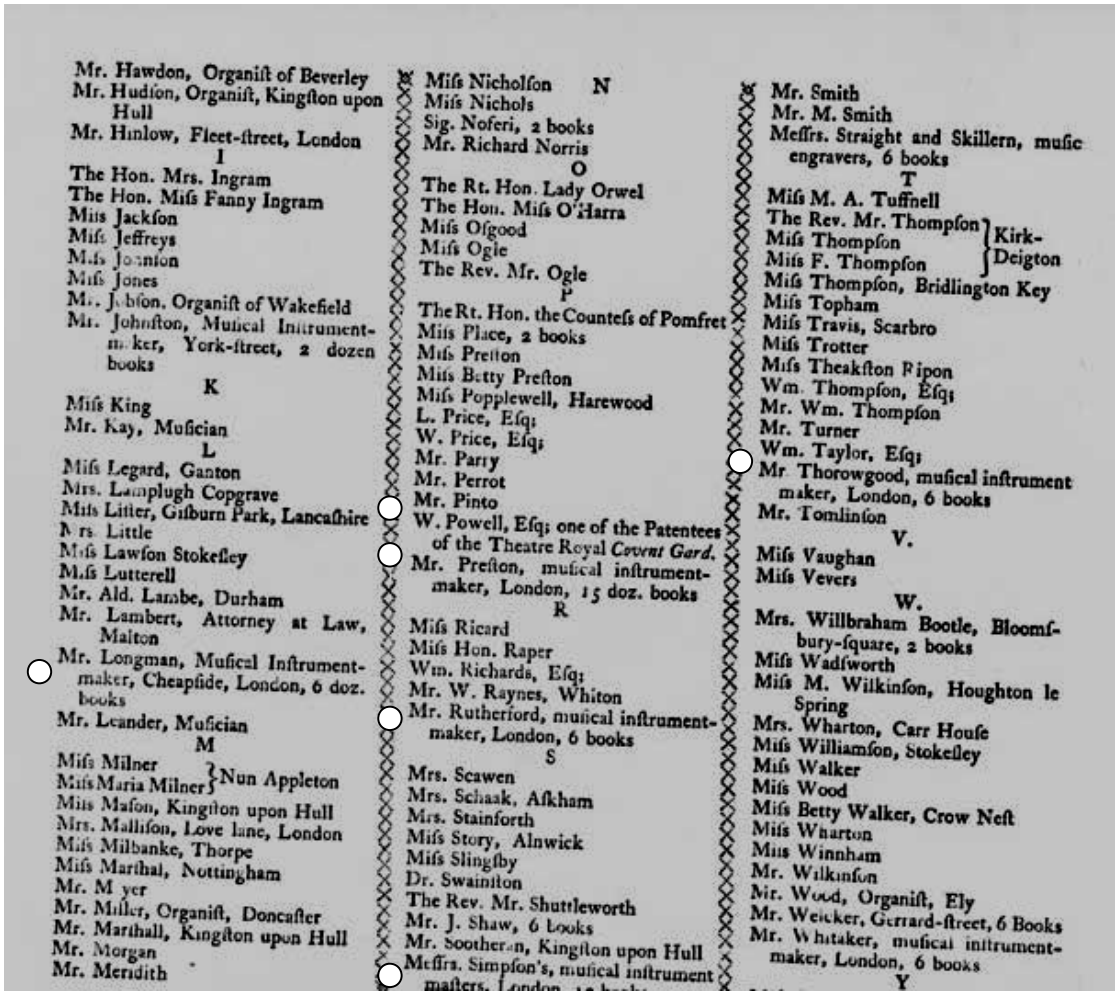
Miſs Gunning
Miſs Geranceires, Scarbo
Mrs. Goring
Phillip Gell, Eſq; Hopton Hall, Derbyſhire
Mr. Gerrard

H

Mrs. Hudſon, Bezenby
Miſs Hammerton
Mrs. Hall
Miſs Hinſliffe
Miſs Herring
Miſs Hardcaſtle, Maſham
Miſs Nanny Hammerſley, Doncaſter
Charles Holland, Eſq;
Mr. Haxby, Muſical Inſtrument-maker, 6 dozen books
Mr. Robert Haxby
Mr. Wm. Harriſon, 2 books

Figure 5.1: The list of subscribers A-H in Thomas Thackray's, '*Six Lessons for the Guittar*', c.1770 (courtesy of A. Rutherford). The large white dots indicate the names involved in the guittar trade.

[396] I am grateful to Andy Rutherford for providing me with a copy of this document.



Mr. Hawdon, Organiſt of Beverley
Mr. Hudſon, Organiſt, Kingſton upon Hull
Mr. Hinlow, Fleet-ſtreet, London

I

The Hon. Mrs. Ingram
The Hon. Miſs Fanny Ingram
Miſs Jackſon
Miſs Jeffreys
Miſs Johnſon
Miſs Jones
Mr. Jobſon, Organiſt of Wakefield
Mr. Johnſton, Muſical Inſtrument-maker, York-ſtreet, 2 dozen books

K

Miſs King
Mr. Kay, Muſician

L

Miſs Legard, Ganton
Mrs. Lamplugh Copgrave
Miſs Litler, Giſburn Park, Lancaſhire
Mrs. Little
Miſs Lawſon Stokeſley
Miſs Lutterell
Mr. Ald. Lambe, Durham
Mr. Lambert, Attorney at Law, Malton
Mr. Longman, Muſical Inſtrument-maker, Cheapſide, London, 6 doz. books
Mr. Leander, Muſician

M

Miſs Milner } Nun Appleton
Miſs Maria Milner }
Miſs Maſon, Kingſton upon Hull
Mrs. Malliſon, Love lane, London
Miſs Milbanke, Thorpe
Miſs Marthal, Nottingham
Mr. Myer
Mr. Miller, Organiſt, Doncaſter
Mr. Marthall, Kingſton upon Hull
Mr. Morgan
Mr. Meridith

Miſs Nicholſon
Miſs Nichols
Sig. Noferi, 2 books
Mr. Richard Norris

N

O

The Rt. Hon. Lady Orwel
The Hon. Miſs O'Harra
Miſs Oſgood
Miſs Ogle
The Rev. Mr. Ogle

P

The Rt. Hon. the Counteſs of Pomfret
Miſs Place, 2 books
Miſs Preſton
Miſs Betty Preſton
Miſs Popplewell, Harewood
L. Price, Eſq;
W. Price, Eſq;
Mr. Parry
Mr. Perrot
Mr. Pinto
W. Powell, Eſq; one of the Patentees of the Theatre Royal *Covent Gard.*
Mr. Preſton, muſical inſtrument-maker, London, 15 doz. books

R

Miſs Ricard
Miſs Hon. Raper
Wm. Richards, Eſq;
Mr. W. Raynes, Whiton
Mr. Rutherford, muſical inſtrument-maker, London, 6 books

S

Mrs. Scawen
Mrs. Schaak, Aſkham
Mrs. Stainforth
Miſs Story, Alnwick
Miſs Slingſby
Dr. Swainſton
The Rev. Mr. Shuttleworth
Mr. J. Shaw, 6 books
Mr. Southeran, Kingſton upon Hull
Meſſrs. Simpſon's, muſical inſtrument maſters, London

Mr. Smith
Mr. M. Smith
Meſſrs. Straight and Skillern, muſic engravers, 6 books

T

Miſs M. A. Tuffnell
The Rev. Mr. Thompſon } Kirk-
Miſs Thompſon } Deigton
Miſs F. Thompſon }
Miſs Thompſon, Bridlington Key
Miſs Topham
Miſs Travis, Scarbro
Miſs Trotter
Miſs Theakſton Ripon
Wm. Thompſon, Eſq;
Mr. Wm. Thompſon
Mr. Turner
Wm. Taylor, Eſq;
Mr Thorowgood, muſical inſtrument maker, London, 6 books
Mr. Tomlinſon

V.

Miſs Vaughan
Miſs Vevers

W.

Mrs. Willbraham Bootle, Bloomſbury-ſquare, 2 books
Miſs Wadſworth
Miſs M. Wilkinſon, Houghton le Spring
Mrs. Wharton, Carr Houſe
Miſs Williamſon, Stokeſley
Miſs Walker
Miſs Wood
Miſs Betty Walker, Crow Neſt
Miſs Wharton
Miſs Winnham
Mr. Wilkinſon
Mr. Wood, Organiſt, Ely
Mr. Weicker, Gerrard-ſtreet, 6 Books
Mr. Whitaker, muſical inſtrument-maker, London, 6 books

Y

Figure 5.2: The list of subscribers H-Y in Thomas Thackray's, '*Six Lessons for the Guittar*', c.1770 (courtesy of A. Rutherford). The large white dots indicate the names involved in the guittar trade.

This list includes the names of many known guittar manufacturers and dealers. What is remarkable is the number of copies of Thackray's tutor that each of them ordered. For instance, Preston ordered 15 dozen copies, Longman and Haxby each ordered 6 dozen copies, while Bremner ordered 1 dozen and Simpson 10 books; Rutherford and Thorowgood each ordered just half a dozen and Pinto just one copy. Apparently Preston was aiming at a quite large clientele interested in the guittar and its music, followed only distantly by Longman and Haxby.

Preston's interest in guittar music is further confirmed by the fact that he edited and re-published Bremner's important tutor *Instructions for the Guitar* after purchasing his stock in 1789.

It can also be noticed that Thackray's guittar tutor was ordered by many provincial organists, who probably taught the guittar in their spare time. Moreover, it is noteworthy that the tutor was ordered from various cities and areas across England, suggesting that the instrument had become equally popular in the provinces as in the capital. Another important detail is that none of the known guittar makers of German or Irish origin are included among the subscribers.[397]

5.1.2 PRODUCTION NUMBERS AND STATISTICS

The examination of various surviving musical instruments in the past has shown that there is a proportional relationship between the contemporary production of instrument makers and the number of instruments that have survived to date by them.[398] It is also accepted that instruments which survive in larger quantities are usually those with elaborate decoration, as they are considered more valuable and thus useful to keep once they become unfashionable. In a few cases instruments with good sound properties or instruments associated with famous performers have also survived, although since the guittar was an amateur's instrument, this is highly unlikely.[399]

It is, therefore, surprising that 346 signed surviving guittars in public museums and private collections are now known.[400] If to these one adds an approximate number of about 200

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[397] Some of these details have been discussed by the author in the paper 'Guittar Manufacture and Marketing in late 18th-century London' presented at the Galpin Society & Historic Brass Society Joint Conference: 'Making the British Sound', London & Edinburgh, 7-11 July 2009.

[398] See, for example, the analysis by Heyde (2007: 46-54) concerning the relation between workshop practices, production methods and numbers of surviving instruments by Stradivarius and Joachim Tielke, two of the most renowned and prolific makers of stringed instruments.

[399] However, guittars that have reportedly belonged to such diverse 18th-century 'celebrities' such as Robert Burns, Lady Emma Hamilton, Lord Nelson's mistress, or Sarah Wesley have survived.

[400] For comprehensive lists of surviving guittars for each maker see Appendix I. Some of these instruments, especially those recorded in auction catalogues, may have ended in public or private collections, and thus may have been duplicated in the lists; however, the figures presented below allow a good estimation of the total number of surviving guittars.

unsigned extant guittars, as well as a large number of still unclassified instruments belonging to private owners, and also instruments that have appeared in auction or exhibition catalogues in the past, and whose present location remains unknown, then this already impressive number of surviving guittars could be roughly estimated around 600 or more. These figures suggest that around the late 18th-century guittar manufacture was a well-established and thriving trade. There are at least 52 musical instrument manufacturers, dealers and inventors who are known to have been involved in the guittar trade, by 34 of whom there are surviving guittars[401]; these are listed alphabetically below (**Table 5.1**).

No	NAME	SURVIVING GUITTARS	PLACE OF MANUFACTURE
1	**Banks**	**2**	**Salisbury**
2	**Beck**	**6***	**London**
3	**Bremner**	**2**	**Edinburgh or London**
4	**Broderip & Wilkinson**	**1**	**London**
5	**Buchinger**	**2**	**London**
6	**Clagget**	**3****	**London**
7	**Claus**	**11*****	**London (9) and New York (2)**
8	**Dickinson**	**1**	**London**
9	**Elschleger**	**1**	**London (?)**
10	**Everdell**	**1**	**(?)**
11	**Gibson**	**29********	**Dublin**
12	**Harley**	**1**	**London**
13	**Haxby**	**2**	**York**
14	**Hintz**	**37**	**London**
15	**Hoffmann**	**3*****	**London**
16	**Liessem**	**16**	**London**
17	**Longman & Broderip**	**44**	**London**
18	**Longman, Lukey & Co**	**7 (also stamped by Preston)**	**London**
19	**Lucas**	**3**	**London**
20	**McDonnell**	**1**	**Dublin**
21	**Mason**	**2**	**London**
22	**Perry**	**7**	**Dublin**

[401] There are several makers and dealers, such as Duke, Betts, Thorowgood, Stewart, Connor, Culliford & Co, or Goulding, Phipps and D'Almaine, who advertised the manufacture and selling of guittars, although no surviving guittars bear their signatures. For more details see Appendix I.

23	**Pinto**	**1 (with Beck)**	**London**
24	**Preston**	**123 (3 also stamped by Thompsons, 6 also stamped by Longman, Lukey & Co)**	**London**
25	**Prior**	**1**	**Newcastle**
26	**Rauche**	**32**	**London**
27	**Ruddiman**	**2**	**Aberdeen**
28	**Rutherford**	**1**	**London**
29	**Simpson**	**2**	**London**
30	**Thompsons**	**13 (3 also stamped by Preston)**	**London**
31	**Tripell**	**1**	**London**
32	**Vogler J. & G.**	**3**	**London**
33	**Wood H. & E.**	**1**	**London**
34	**Zumpe**	**2**	**London**

Table 5.1: Table including the names of the thirty four known guittar manufacturers and dealers (Key: *one with Pinto; **two with Gibson; ***two with Dodds; ****two with Clagget and two with Woffington; *****two with Rauche).

As it can be noticed only about one fifth of these names (seven out of thirty four) were working outside London. Looking closer at the numbers of surviving guittars, apart from Preston, who comes first with 123 extant guittars[402], the names with the most surviving guittars are Hintz, Longman & Broderip, Rauche, Gibson, Claus, Liessem and the Thompsons. The three first manufacturers, Hintz, Longman & Broderip and Rauche, who were also quite influential for the development of the guittar, have more than 30 surviving guittars, while the rest are represented by 10 or more surviving instruments. Next down the line are seven names with three or more surviving guittars, namely Beck, Clagget, Hoffmann, Longman, Lukey & Co, Lucas, Perry, and the Voglers. These are followed by eight makers with two surviving guittars, including Banks,

[402] Heyde (2007: 41-54) has presented important details relating to the production of stringed instrument makers of the 16th and 17th centuries. In comparison to Preston's output, according to Heyde (2007: 46-7) there are 136 surviving instruments by Joachim Tielke of Hamburg, a quite prolific manufacturer of lutes, bell citterns and guitars; Heyde also mentions 650 surviving instruments by Stradivarius, the famous violin maker, 147 by Guarneri del Gesù and about 100 by Jacob Stainer, also well-known violin makers. Additionally, according to the estimations of Haxby and Malden (1978: 53) between 1772 and 1794 the keyboard and guittar manufacturer Thomas Haxby of York produced more than 380 square pianos, as well as numerous organs, harpsichords and spinets.

Bremner, Buchinger, Haxby, Mason, Ruddiman, Simpson and Zumpe, and finally eleven minor makers with only one known surviving guittar.[403]

The following graph (**Figure 5.3**) illustrates the proportional production numbers between the known guittar manufacturers in the British Isles relative to the number of surviving guittars. Only the names with three or more surviving guittars are included in the graph. What is important to notice is that apart from Gibson and Perry, both working in Dublin, all other manufacturers with three or more surviving guittars were based in London.

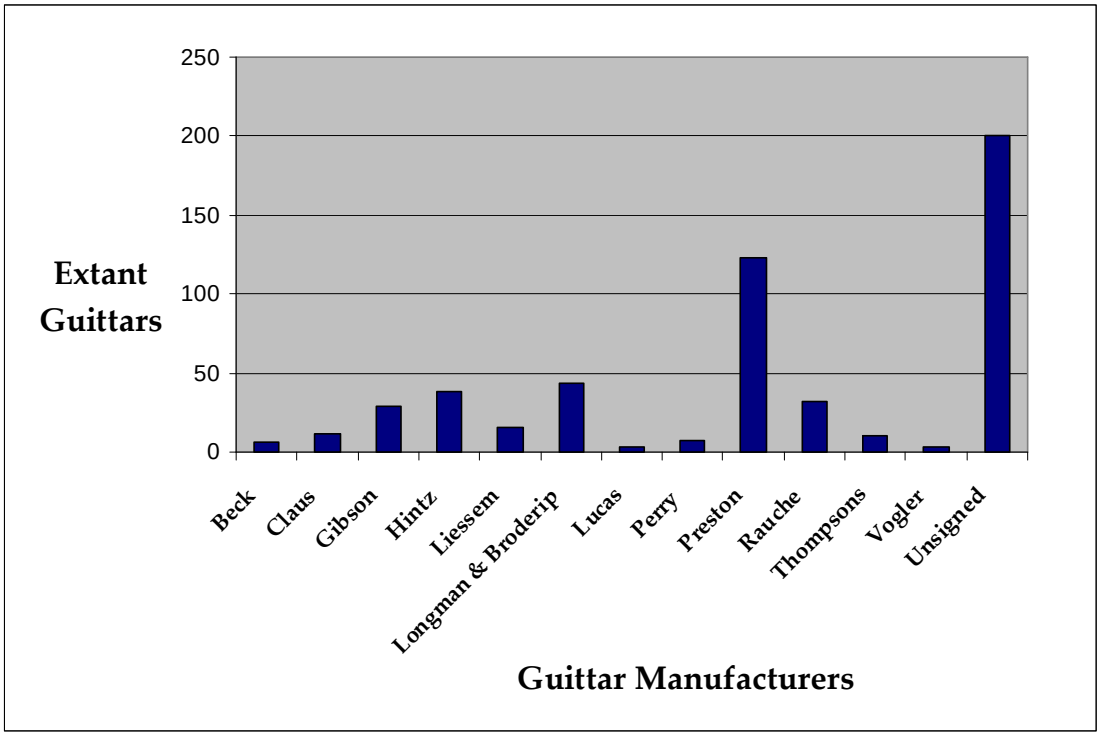

Figure 5.3: The proportional production numbers of guittar manufacturers relating to the number of surviving guittars. Apart from Gibson and Perry, both working in Dublin, all other manufacturers with three or more surviving guittars were based in London.

[403] Unfortunately, history is unfair with those working in the background, so there were probably numerous makers working individually, the names or details of whom will never been known.

Although the guittar was being made, taught and played in many major cities across the British Isles, like York, Edinburgh and Dublin, the examination of surviving instruments and the investigation of archival sources have proved that London was by far the most important and influential centre of guittar manufacture and distribution. Out of the 346 presently known signed guittars, 300 of them, representing more than three quarters of the total number (86.7%), have been produced by makers working in London, while only 46 are by makers working outside London. In addition, most unsigned guittars have features similar to guittars made in the English capital. Besides, almost three quarters of the known manufacturers, dealers, publishers, teachers, composers, patentees and other professionals involved in the guittar trade were working in London.[404] Among them Preston was the most prolific; it is noteworthy that the unsigned surviving guittars outnumber the extant guittars by Preston by a relatively small degree when compared to the other manufacturers.

It is interesting to compare these figures with surviving instruments by Burkat Shudi, one of the most prolific keyboard instrument manufacturers working in Georgian London.[405] Boalch (1995: 613-26) has listed 53 surviving keyboard instruments produced by Shudi (including those co-signed by Shudi and Broadwood until 1791).[406] In addition, the latest surviving harpsichord produced by the workshop of Shudi, signed only by Broadwood and dated 1793, is numbered '1155', as mentioned in Boalch (1995: 256). Therefore, the 54 surviving instruments by the workshop of Shudi represent a survival rate of 4.675% of the firm's total production.

If the same survival rate of 4.675% is applied to the 123 surviving guittars by Preston, the result of the calculation suggests that he produced at least 2,631 guittars during his lifetime. Likewise, if this rate is applied to the total number of the 346 presently known signed guittars then at least 7,401 guittars were produced by the 34 known makers mentioned above. Finally, if the same rate is applied to the estimated 600 surviving guittars, then at least 12,834 guittars must have

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[404] A comprehensive directory of the names involved in the guittar trade is included in Appendix I.
[405] Interestingly, apart from his keyboard making activities, Shudi may have had some involvement in the guittar trade since he sold guittars, as recorded in his account-books for 13 January 1776. For more details see Boalch (1995: 175).
[406] In comparison, according to Boalch (1995: 108), there are as many as 170 surviving keyboard instruments by Jacob Kirkman, another important keyboard instrument maker working in Georgian London.

been produced in the British Isles in the course of 50 years, between 1756 and 1805 (the dates for the earliest and latest extant guittars). However, given the fact that guittars were more fragile and less valuable to keep once their fashion was over compared to keyboard instruments, they have probably survived in a relatively lower rate, thus indicating that the total production of guittars in the British Isles during the second half of the 18th century must have reached much higher figures.

5.1.3 PRODUCTION SYSTEMS AND ENTERPRENEURSHIP

The way the guittar trade developed in late 18th-century Britain reflects the radical changes that occurred in music making and the music industry at that time. On one hand, the social changes, which led to the evolution of a middle class and its involvement in the arts and entertainment, and on the other, the technological progress, which enabled faster and more effective production methods, generated a revolution in instrument making, with the introduction of mass-produced, cheap instruments and printed music for a new genre of amateur performers.

These facts had a significant impact on the industry itself. In the late-18th century the instrument-making business was changing rapidly from a relatively controlled cottage trade to a pyramidal proto-industrial system which was based in entrepreneurship and division of labour.[407] Accordingly, like most trades specialising in the production of art objects and luxury artefacts, musical instrument-making began to be dominated by entrepreneurs who relied on a network of outworkers for the production and distribution of instruments.[408]

In this system the entrepreneur or business proprietor, who was at the head of the pyramidal business model, usually had an administrative role. Thus, he negotiated the orders with the customers, developed the designs, provided the materials and equipment, planned the distribution and construction of the various components, oversaw the production, controlled the

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[407] For a thorough analysis of the various entrepreneurship models in the pre-industrial instrument-making business see Heyde (2007: 25-63).

[408] According to Heyde (2007: 61) the entrepreneurial system, which developed under the growing demand of a middle-class audience for musical instruments, required 'investment funds, the expertise of a musician and craftsman, artistic and entrepreneurial talent, and ambition to set up a successful enterprise.'

connections with other artisans and tradesmen, and undertook any financial responsibilities.[409] Heyde (2007: 29-30) claims that an entrepreneur in the musical instrument-making business ideally needed to have a strong background in musical instrument design and construction, and the ability to play the instruments in demand, as well as a good knowledge of the market, creativity and managerial skills. Heyde (2007: 61) also notes that an entrepreneur usually 'organised and supervised the work, determined the quality of the product, possibly reserved the musically decisive work cycles for himself, depending on the size of the enterprise'.

These entrepreneurs, many of whom were often businessmen rather than craftsmen, would direct and control the market, by developing and establishing new designs and styles, according to the customers' needs and the current trends.[410] In many cases the actual instrument-making would be usually contracted to individual skilled craftsmen or pieceworkers[411] working inside or outside of the shop to produce finished instrument parts or even whole instruments using the templates and raw materials provided by the contractors.[412] With the right connections among music teachers and musicians, and with additional promotion through public circulation and advertising, very often the leading names could monopolise the market introducing and establishing a new popular design, often of superior quality and uniformity of features due to specialisation of work.[413] For instance, Buchinger, who was Rauche's successor, announced that he continues to make guittars 'of the same pattern' as his predecessor, possibly referring to a fashionable model that had been earlier established by Rauche:

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[409] See Heyde (2007: 60).

[410] According to Picard (2000: 236) the furniture trade was similarly dominated by large contactors who supplied the market 'in whatever taste, or tastes, the customer wanted'. There would be some examples to see, in their showrooms, but much of the trade was by commissions from pictures in their catalogues, the actual making being sub-contracted to craftsmen'.

[411] Heyde (2007: 31) points out that not all who had passed an apprenticeship could open their own businesses; thus they 'remained anonymous and ended up as low paid contactors and journeymen' working for an independent proprietor.

[412] That was the case in the fine and applied arts where large-scale manufacturers employed similar forms of division of labour, relying on smaller independent or semi-independent practitioners whom they supplied with raw materials and models. In that way they sustained a 'centralized control of the design and finance, whilst allowing core parts of the business to be managed independently' as Craske (1999: 207) has noted.

[413] Heyde (2007: 61) has argued that the division of labour often resulted in stylistically consistent instruments of refined workmanship, provided that the musically and artistically important stages of work are carried out by an experienced artist and craftsman. Heyde (2007: 32) has also claimed that in order to increase efficiency and reduce the costs each contractor and the entrepreneur aimed to rationalize the production stages and, at the same time, to improve the available technology.

> Buchinger No. 443 Strand […] being the only successor to the late Mr. Rauche, whose Guittars ever justly bore the preference, he continues to make them of the same pattern, having purchased his stock and utensils.[414]

From the number of signed surviving guittars and other instruments one can safely assume that the workshops of several guittar manufacturers and dealers were organized under a similar pyramidal model for large-scale production and stockpile, following a system which involved a mix of production methods and division of labour. Thus, they would depend on outworkers, who took part in the initial stages of construction, usually rough-cutting, carving and assembling parts, working outside the main workshop, and on specialised workers, who undertook the fine shaping, gluing and finishing of the instruments working inside the workshop. For instance, the announcement of the sale of Liessem's 'Stock of Instruments that are now finished' after his death in 1760 suggests that the finishing work was done probably by his co-workers:

> REINERUS LEISSENS Musical Instrument Maker, being dead, his Widow gives this Notice to the Publick, that she intends reducing his Stock of Instruments that are now finished, by an immediate Hand Sale of them, consisting of Violins, Tenors, Violoncellos, Violin d'Amour, Guitars, Mandalins, Lutes, Basses &c. The Tone and Neatness of his Work are too well known to need Recommendation in a Publick Paper; as Proof of which she has an open Mahogany Case for the Exhibition of fine China, and a Dressing-Table, of his Work, which she intends likewise to dispose of. To be view'd at his late Dwelling House in Compton Street, St Ann's.[415]

Likewise, the number and variety of instruments, including guittars, lutes, violins, mandolins, etc., listed in the announcement of Hintz's stock-in-trade for auction[416] after his death in 1772 (**Figure 5.4**) suggest that he employed numerous craftsmen occupied in the construction of stringed instruments. It is also notable that the sale by auction was 'unavoidably postponed on account of some of the said instruments being not quite finished' suggesting that members of his

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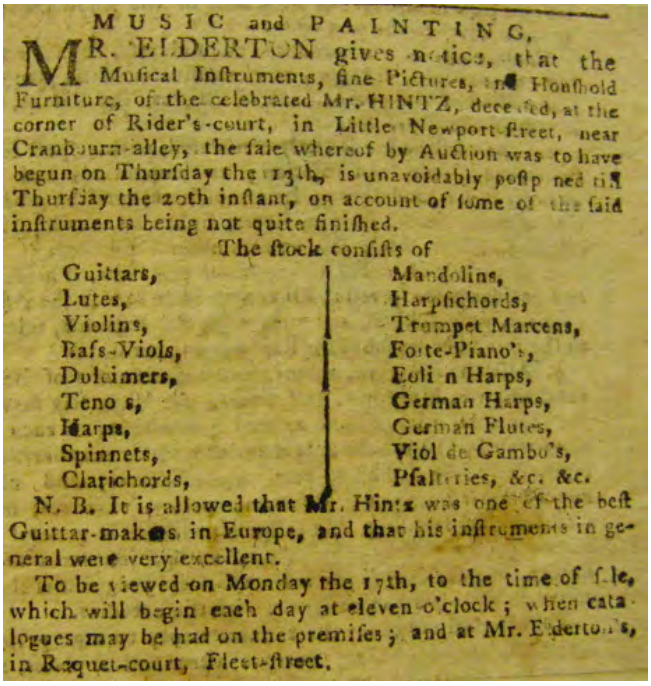
[414] *The Morning Herald*, 20 January 1785 (as quoted in Humphries and Smith 1970: 91).
[415] *Daily Advertiser*, 23 April 1760 (as quoted in the Hill Archives, WA 1992.643.2, p. 7).
[416] Announcement in the *Daily Advertiser*, 1772, (included in Hill Archives, WA 1992.643.1, p. 163).

workshop probably had to finish the instruments before the auction possibly in order to raise the total value of the stock.



MUSIC and PAINTING,

MR. EDERTON gives notice, that the Muſical Inſtruments, fine Pictures, and Houſhold Furniture, of the celebrated Mr. HINTZ, deceaſed, at the corner of Rider's-court, in Little Newport-ſtreet, near Cranbourn-alley, the ſale whereof by Auction was to have begun on Thurſday the 13th, is unavoidably poſtponed till Thurſday the 20th inſtant, on account of ſome of the ſaid inſtruments being not quite finiſhed.

The ſtock conſiſts of

Guittars,	Mandolins,
Lutes,	Harpſichords,
Violins,	Trumpet Marcens,
Baſs-Viols,	Forte-Piano's,
Dulcimers,	Eolian Harps,
Tenors,	German Harps,
Harps,	German Flutes,
Spinnets,	Viol de Gambo's,
Clarichords,	Pſalteries, &c. &c.

N. B. It is allowed that Mr. Hintz was one of the beſt Guittar-makers in Europe, and that his inſtruments in general were very excellent.

To be viewed on Monday the 17th, to the time of ſale, which will begin each day at eleven o'clock; when catalogues may be had on the premiſes; and at Mr. Ederton's, in Raquet-court, Fleet-ſtreet.

Figure 5.4: The announcement of Hintz's stock for auction after his death in 1772 (Hill Archives, WA 1992.643.1, p. 163). Note that Hintz is proclaimed as 'one of the best Guittar-makers in Europe'.

Similarly, when Haxby's brother-in-law Edward Tomlinson, and his son Thomas, took over Haxby's business after his death in 1796 they announced that they had 'been employed by Mr Haxby for many years past, in assisting him and executing his business, and particularly in finishing all his new Instruments […]', which have probably included guittars.[417] In addition,

[417] *York Courant*, 7 November 1796 (as quoted in Haxby and Malden 1978: 47, footnote 23). Haxby's involvement in the guittar trade is confirmed by two surviving guittars. The first of the two guittars is included in the *Illustrated Catalogue of Music Loan Exhibition by the Worshipful Company of Musicians at Fishmongers' Hall, June & July 1904* (London: Novello & Co Ltd, 1909), p. 139, where it is listed as a cittern in the possession of A. F. Hill with the description 'Made for King George III. In its original leather case, with the Royal crown and initials G. R. stamped upon it'. This guittar is possibly the instrument lot 56 auctioned by Phillips on 14 December 1978. The second guittar is an undated bell-top instrument in a private collection in Germany. This guittar was auctioned by Sotheby's on 27 March 1981, lot 84, and also on 4

Doyle (1978: 21) has claimed that according to the serial numbers on extant instruments by Thomas Perry of Dublin, this maker must have produced 2,008 instruments in 24 years, constructing an average of 83 instruments per year. This rather large annual production could have been achieved by Perry alone, although it is most likely that he employed at least one or two more assistants in his workshop.[418] In addition, in the 1792 inventory of Charles Pinto[419], a partner of Beck[420], and later, of Longman & Broderip[421], are listed 'Twenty one Guitars with / leather cover'd Cases Thirty one Guitar six do / A Patent Guitar by Longman & Co' stored in a room on the first floor; the descriptions of these and numerous other instruments and components, along with tools, equipment and raw materials in the other rooms suggest that various stages of construction and finishing were taking place inside Pinto's premises by a significant number of workers.

Towards the end of the 18th century the business sizes of many music entrepreneurs grew considerably. As a result much of the musical instrument production in London and other major cities was carried out in large workshops or 'manufactories', which usually employed several unskilled workers and apprentices, who did the rough, preparatory tasks and probably worked on the inexpensive or plainer, less decorated models, while the experienced personnel, and

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November 1998, lot 297. I am thankful to Wolfgang Emmerich for providing me with details and photographs of this instrument. For more details on Haxby see Appendix I.

[418] A comparison between 20th-century guitar makers, such as D' Angelico or Romanillos, might give an idea of the annual production of late 18th-century guittar-making workshops. For example, Schmidt (1991: 84-93) provides lists showing the annual production of the New York-based guitar maker D' Angelico as recorded in his ledger book, which covers the years from 1936 to 1961. The figures in these lists reveal that D' Angelico built an average of 30 to 40 instruments per year with his assistant DiSerio, working mostly with hand tools, although in some of these years he produced up to 60 or even 80 guitars. Moreover, according to Evans (1977: 88) during the 1970s guitar maker Jose Romanillos produced a relatively small number of fourteen to seventeen classical guitars a year working alone in his traditionally equipped workshop. It can be safely assumed that a guittar could be built in half the time needed for a more technically demanding archtop guitar of the D' Angelico style or a classical guitar of the Romanillos style; therefore a guittar maker working alone could, in theory, produce a maximum of 30 to 40 guittars per year. In comparison, Heyde (2007: 43, footnote 66 and 47, footnote 84) mentions that Günter Mark, a modern lute maker, needs about 80 hours to construct a simple six to eight course lute, which would result in a number of 20-25 instruments per year, depending on the style of the produced instruments, while he also notes that the violin maker Carleen Hutchins built 350 instrument in 46 years, an average of 7.6 instrument per year, although she devoted much of her time to additional research for the 'violin octet'.

[419] See Probate Inventory for Charles Pinto (TNA: PRO PROB31/821/151), in the National Archives. I am grateful to J. Nex for providing me with her transcription of this document. For the complete content of Pinto's inventory see Appendix III.

[420] A guittar signed 'Beck & Pinto / London 1764.' survives in the private collection of Ulrich Wedemeier, Laatzen, who was kind enough to send me details and photographs of this instrument.

[421] I am grateful to J. Nex for bringing this detail to my attention.

probably the owners themselves, would oversee the construction and finishing of the expensive or custom-order instruments for the more discerning customers. In many cases the business proprietors may have not actively participated in the construction of instruments but rather only supervised the overall production, ensuring a uniform high standard of manufacture. The 1789 catalogue of Longman & Broderip[422] provides an insight of the organization of this big firm:

> To the PUBLIC. / The Manufactories of LONGMAN and BRODERIP are on such an extensive Plan, that every Instrument, from the most trifling to the most superb / and expensive, is finished under their immediate inspection; and their large Stock of Timber and other Materials enables them to warrant their / Instruments thoroughly seasoned to stand in any Climate.

The finished instruments would then be marked with the signature or stamp of the firm[423] and would be stored in the company's warehouses for sale or prepared for exportation to the continent or the British colonies, as the last comment about 'Instruments thoroughly seasoned to stand in any Climate' indicates. The company's 'large Stock of Timber and other Materials' is also indicative of the firm's high investment in musical instrument-making.[424]

Likewise, John Preston's enterprising skills are confirmed in the growing size of his business, of which the guittar and its music played a quite important part. The earliest reference to Preston's business activities comes from a directory for 1765 which includes his address at '9, Banbury Court, Long Acre'.[425] While working in this address Preston must have been making guittars, since an extant guittar is signed 'J. N. Preston, Maker, Banbury Court, Long Acre' on the back of the pegbox.[426] In an advertisement of 1766 Preston describes the invention of the watch-key machine for tuning the guittar, which, judging by its use on numerous extant guittars, must have been commercially successful:

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[422] I am thankful to A. Rice for providing me with a copy of this document.
[423] Heyde (2007: 31) mentions that usually none of the apprentices or journeymen in a workshop was allowed to mark the instruments with their names; instead, usually only the workshop owner or dealer could put his name on a finished instrument.
[424] In 1788 the firm of Longman & Broderip employed 'several hundred workmen of different denominations' as reported in *The Times* on 31 January 1788, p. 3 (quoted in Nex 2004: 18).
[425] See Hill Archives, WA 1992.643.2, p. 67.
[426] See Sotheby's auction catalogue, 16 March 1971, lot 23, p. 10.

> JOHN PRESTON, Of Banbury-Court, Long-Acre, London, GUITTAR and VIOLIN-MAKER, BEGS Leave to acquaint the Nobility, Gentry, and others, That he has lately found out and invented a new Improvement, or Instrument , for Tuning of Guittars […] The Manner of Tuning the above Guittars is by a small Watch Key, which is done Instantly, and will keep the tune in that Order for a Month together, unless altered. […].[427]

Preston's address at Banbury Court is also mentioned in a directory of 1774.[428] However, by 1776 Preston had moved his business to a more central location, working at 'No.105, Strand, near Beaufort Buildings', from where, according to Kidson (1900: 106), he published 'books of Lessons for the guitar'. In an advertisement of 1778 Preston described himself as 'Guittar and Violin-maker, and the original Inventor for tuning the guitar with a watch key'.[429] In 1785 Preston had already established a 'Manufactory' at No. 97 Strand, as well as a 'commodious Second-Hand Musical Instrument warehouse' at Exeter-Change nearby.[430] Around this time his trade card announced:

> PRESTON / MUSICAL INSTRUMENT MAKER, / And Original Inventor of the Machine / For Tuning the Guitar, with a Watch Key, / AT HIS MUSIC SHOP / Sells all sorts of Musical Instruments, Finest Quality, Roman / and Violoncello Strings & every Article in the Musical Branch / wholesale Retail & for Exportation on the most Reasonable Terms. / NB. INSTRUMENTS REPAIRED & TUN'D.[431]

As late as 1786 Preston continued advertising as 'Guittar-maker and original Inventor of the machine for tuning with a watch-key', while additionally referring to his 'new patent piano forte guittars'.[432]

The details presented above suggest that within 20 years, from the mid-1760s to the mid-1780s, Preston had expanded his business considerably, not least because of his involvement in the

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[427] *London Evening Post*, 7 January 1766, and *Gazetteer and New Daily Advertiser*, 3 February 1766 (as quoted in Lasocki 2010: 130-31).
[428] See Kidson (1900: 106).
[429] *Gazetteer and New Daily Advertiser*, 9 April 1778 (as quoted in Lasocki 2010: 131); see also Humphries and Smith (1970: 263).
[430] *General Evening Post*, 13 December 1785 (as quoted in Lasocki (2010: 131).
[431] See Hill Archives, WA 1992.643.2, p. 67.
[432] *Morning Post and Daily Advertiser*, 25 July 1786 (as quoted in Lasocki 2010: 131).

profitable guittar trade.[433] From his will it is known that by the time of his death in 1798 Preston had accumulated the quite impressive amount of £20,000 in 3% annuities.[434] Preston's stock-in-trade and copyrights were inherited by his son, Thomas, who continued the family business. Apart from his family members and relatives, Preston also left money to the wife of William Ward from the Sun Fire Office, from whom Preston had presumably bought insurance policies or had other financial dealings, while it is also clear that he employed at least two clerks. These facts give an idea of Preston's company size and organisation, implying that he was the proprietor of a very successful and wealthy business. In comparison, when he died in 1770, David Rutherford, a less important guittar manufacturer[435], who, nevertheless, around 1756 had published *The Ladies' Pocket Guide or the Compleat tutor for the Guittar*, one of the earliest guittar tutors, left only his stock-in-trade and £1,300 in 4% annuities to his wife and five children.[436]

5.1.4 BUSINESS ASSOCIATIONS, PARTNERS AND SUPPLIERS

Under these new circumstances in instrument-making guittar makers often found it useful to form partnerships with other musical instrument manufacturers or dealers. A few indicative cases of partnerships within the guittar trade are those of Beck & Pinto, Jackson & Smith, Dodds & Claus, Rauche & Hoffmann or Rauche & Dickinson (**Figure 5.5**). Moreover, as already

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[433] From the information included in the advertisements and trade card, presented above, it can be assumed that Preston was a large manufacturer, seller and exporter of 'all sorts of instruments', while he undertook repairs and tunings as well. Referring to Preston's activities Lasocki (2010: 131) reports that 'the most lucrative part of his business was keyboard and stringed instruments', mostly guittars and instruments of the violin family, along with woodwind instruments, printed music, and other music equipment and accessories. In addition, Preston was supplying guittars or guittar parts to other music dealers, such as Longman, Lukey & Co, Rauche, Hintz and the Thompsons, since there are several extant guittars bearing Preston's stamp as well as the stamps of the above mentioned retailers; for more details see ' MAKERS' IDENTIFICATION FEATURES', Chapter 6. Since Longman, Lukey & Co were active from 1767 to 1775, it can be assumed that between these dates Preston had already established himself as a major guittar manufacturer in London; a legal document from a court case of 1786 between Christian Claus and Joseph Levy (TNA: PRO C12/154/35) at the National Archives mentions that Claus had purchased strings from one 'Mr Preston'. On the other hand, Preston himself was supplied with instruments; for instance, Milnes (2000: 41) mentions that John Barton, a violin maker, supplied 'the firm of Preston as well as the Thompsons', while Lasocki (2010: 131) claims that 'As far as woodwind instruments are concerned, Preston seems to have been a dealer rather than a maker'.

[434] See 'Will of John Preston, Music Seller of Strand, Middlesex', 8 January 1798, (TNA: PROB 11/1301), in the National Archives. I am thankful to J. Nex for bringing these details to my attention and for urging me to investigate the original document.

[435] A guittar by Rutherford, with features similar to instruments by Preston, has been listed in Phillips auction catalogue of 19 November 1996, lot 15, p. 7.

[436] See 'Will of David Rutherford, Musical Instrument Maker of Saint Martin in the Fields, Middlesex', 3 November 1770, (TNA: PROB 11/961), in the National Archives.

mentioned, several extant guittars bear the stamps of more than one name; such cases have revealed that Preston supplied guittars to the Thompsons and Longman, Lukey & Co, while similarly Longman & Broderip had developed a partnership with Goldsworth for the manufacture and distribution of his patent keyed guittars.[437]

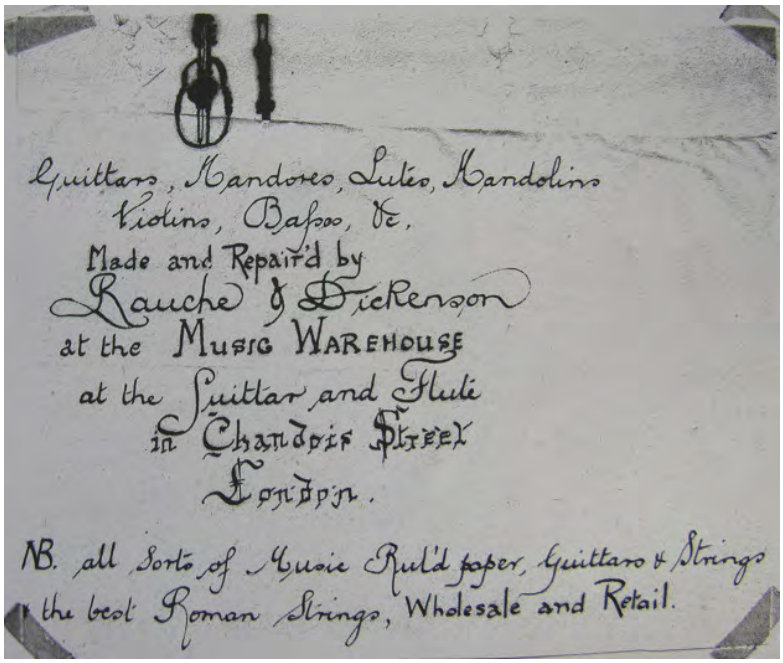

Figure 5.5: The trade card of Rauche & Dickenson (Hill Archives, WA 1992.643.2, p. 73). Note that apart from guittars, which are first on the list, several other stringed instruments, including mandores, lutes, mandolins, violins, and basses, are mentioned.

Like other professionals in the music business, guittar manufacturers and dealers usually sold and hired various types of musical instruments and accessories, along with printed music and scores.[438] They also did repairs and tuned instruments, and in many cases, they were also second-hand instrument sellers. For instance, in 1785 Preston announced that instruments can be

[437] For more details see 'THE 'PATENT PIANO FORTE' GUITAR BY LONGMAN & BRODERIP', Chapter 7.
[438] It is noteworthy that several renowned guittars makers, such as Hintz, Rauche or Preston, published music for the guittar, indicating the guittar's marketing potential; in contrast, Kirkman and Shudi, both contemporary well-known harpsichord makers, did not publish music for the harpsichord.

'Sold by Commission, taken in Exchange, Lett out, Repaired and Tuned, in town and Country'.[439] Similarly, in their 1789 catalogue Longman & Broderip advertised that they sold, hired, bought, exchanged, repaired, and tuned several instruments, including guittars, and offered a 'Variety of Second-hand Instruments and Music Books to be sold cheap'; they also recommended 'Music Masters of established Reputation'.[440]

Moreover, it is almost certain that guittar makers had connections or partnerships with other craftsmen occupied in related woodworking and metalworking professions, like carpenters, joiners, cabinetmakers, wood and ivory turners, painters, guilders, blacksmiths, clockmakers, and scientific instrument-makers. Some of these craftsmen probably assisted instrument makers in different stages of construction or decoration, while others provided ready-made parts in large quantities for guittars and other instruments, like tuning machines, roses, screws, springs or other wire parts for piano-key mechanisms, etc. For example, it is known from a court case of 1786 that Christian Claus and his partner Joseph Levy were buying in 'roses, machines and various other bits' for guittars.[441] The same document mentions a 'Mr Preston' from whom they purchased strings at one occasion, as well as a 'Mr Foglar' (most likely Vogler) who was regularly paid 'for guittars', suggesting that he supplied Claus and Levy with finished instruments.

Similarities between ephemeral hardware parts, like endpins, nuts, tailbuttons, tuning pegs or bridges, among extant guittars by different makers suggest that they were most likely supplied by the same wood- and ivory-turning workshops. The same principle applies to guittar roses; in fact, the similarities between roses found on extant guittars and harpsichords[442] suggest that

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[439] *General Evening Post*, 13 December 1785 (as quoted in Lasocki (2010: 131).

[440] Similar advertisements appeared frequently in contemporary newspapers, and as guittars became less popular in the beginning of the 19th century, they were added to the variety of second-hand instruments for sale.

[441] See TNA PRO C12/154/35, in the National Archives. According to J. Nex (PC, 3/2010), who has examined this document, Joseph Levy, a 'Goldsmith and Jeweller', who may have also made metal components for Claus's guittars, was supposed 'to bring money in to the business but seems not to have done so according to Claus's statements'. Moreover, 'Claus objected to having to do the work of a common journeyman, and indeed some of the accounts include wages to a journeyman'. I am thankful to J. Nex for this interesting piece of information.

[442] The rose of a harpsichord dated 1777 by Thomas Haxby, shown in Haxby and Malden (1978: 50, plate 4), having a central theme with King David playing the harp, surrounded by musical instruments and flanked by the makers initials 'TH', is almost identical to roses used by the harpsichord maker Jacob Kirkman; notably, the same central theme is found

makers of these instruments had common suppliers for such parts.[443] However, some manufacturers may have been producing small wooden, ivory or metal accessories in their premises. As Nex (2004: 16) points out, Culliford and Company, which included John Goldsworth, who probably produced keyed guittars, had a 'smiths shop', indicating that at least some small metal components were constructed within the firm's premises, instead of being supplied by other manufacturers. Moreover, in his will of 1792 Haxby of York bequeathed to his successors, the Tomlisons 'all my Harpsichords Piano Forte Spinnets Stock of Wood Metal Tools Working Utensils and other Materials used in my Workshops [...]'[444] suggesting he had more than one workshop and stored wood and metal for the construction of various instrument parts.

Gradually, as business sizes became bigger towards the end of the 18th century, many large-scale manufacturers and dealers involved in the guittar traded separated their workshops and showrooms. For instance, in London Longman & Broderip and Preston had warehouses and showrooms located in different areas than their manufactories, while Bremner had established branches in both Edinburgh and London. These entrepreneurs relied on a network of retailers to distribute their production, since their instruments were often advertised for sale in many provincial cities and also exported to the British colonies.

In addition, in large musical instrument-making workshops storing much timber and other fire-attracting materials, such as paper, cloth, adhesives and varnishing materials, etc., the danger of fire was high and the results of a fire accident would be catastrophic for the owners. As a result, several instrument makers, including guittars manufacturers such as Zumpe, Preston, Thompsons, Goldsworth, or Longman & Broderip were insured in the Sun Fire Office, whose

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on extant guittars by Rauche, while the surrounding pattern with musical instruments is quite common on many extant guittars by Hintz, Ruddiman, Preston and Gibson; for more details see 'THE FRONT', Chapter 6.

[443] Cole (1998: 282) has noted that the details in the inventory of Backers, the known piano maker, indicate that he purchased ready-made 'Cyphers', most likely metal roses for soundboards, similar to those used on guittars. Moreover, two extant guittars, one by Hintz, EUC [310], the other by Gibson, EUC [309], have almost identical rose patterns, although on the second guittar the rose is larger and less well executed, suggesting that the most popular designs were copied by various makers.

[444] See Haxby and Malden (1978: 53).

archives provide useful information on the business sizes and financial states of some of these names.[445]

The supply of timber and decorative materials is another issue worth mentioning. Timber for musical instruments, usually referred to as 'musical wood', could be bought from dealers such as Jacob Hansler, who is listed in the Sun Fire Office records of 1798 as 'a dealer in mahogany and musical wood; wine and brandy merchant' living in New Round Court, London.[446] Some of these special dealers also provided various decorative materials, such ivory, tortoiseshell, mother-of-pearl and exotic woods for veneering, mainly imported from the British colonies. For instance, Nex (2004: 19) mentions that Thomas Fauntleroy of Potter's Fields was a 'dealer in hard wood and ivory' from whom Culliford & Co bought its ivory. Likewise, Boalch (1995: 175) has mentioned William Drane, working at No. 25 Aldgate Street, a comb maker who 'makes and sells all sorts of Ivory, tortoiseshell, horn and Boxcombs, wholesale and retail sells also Ivory, Bone and Hard-wood Turn', as evidenced on a printed label on a harpsichord by Shudi. Furthermore, in their 1789 catalogue Longman & Broderip advertise that 'Mahogany and every Kind of Wood bought and sold at their Timber-Yard and Manufactory in Tottenham Court Road.'

It is also important to note that apart from the manufacture of whole instruments, some guittar manufacturers profited from the production of separate parts, accessories and gadgets; in some cases these devices became popular 'trademarks' for a maker, regardless of whether they were patented or not. Preston, for instance, obviously employed specialised craftsmen solely to build his 'invented' watch-key machines, which he then sold to other makers, while Smith similarly supplied the guittar market with his 'Patent Box', an external piano-key mechanism invented in 1784 by Jackson.[447]

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[445] For a penetrating investigation of the Sun Fire Office, the first organised fire insurance company in London, see Whitehead and Nex (2002: 4-25).
[446] See Milnes (2000: 408).
[447] For more details see 'THE 'BRITISH LYRE' BY JACKSON', Chapter 7.

5.1.5 GUITTAR ADVERTISING AND MARKETING

Like other craftsmen and tradesmen, in the late 18th century instrument makers used several ways to advertise and promote their work. The first and most obvious way was the shop sign[448], which usually represented the shopkeeper's trade and could draw potential customers. Accordingly, guittar makers typically used musical instruments on their shop signs, the guittar often being among them. For instance, Hintz, Zumpe, and Lucas, were located in different addresses in London but shared the same sign working 'at the Golden Guittar'. As already shown, Rauche & Dickinson worked 'at the Guittar and Flute', whereas Henry Thorowgood in London and Neil Stewart in Edinburgh both worked 'at the Violin and Guitar'.[449]

Another way to attract customers was by using trade cards, which initially resembled the shop sign. Later, as shop signs were removed, trade cards gradually became more ornamented and were usually illustrated with images of the various musical instruments and other wares in stock, while providing the makers' business details. For example, the trade cards of Frederick Hintz, which are decorated with various musical instruments he apparently stocked, read: 'Frederick Hintz / At the Golden Guittar in Little Newport Street / the Corner of Ryders Court Leicesterfields / Makes & Teaches ye Guittar in the Completest Manner' (**Figures 5.6-5.8**).

[448] Picard (2000: 13) mentions that hanging shop signs were used in Britain up to 1760, when they were declared illegal. Heal (1953: 15) has further noted that after 1762 houses began to be numbered and the shop signs were usually fixed flat on the façade of the building, although for many years the shop sign continued to be used on a maker's tradecard, supplementing the house number.

[449] See Humphries and Smith (1970: 301, 310).

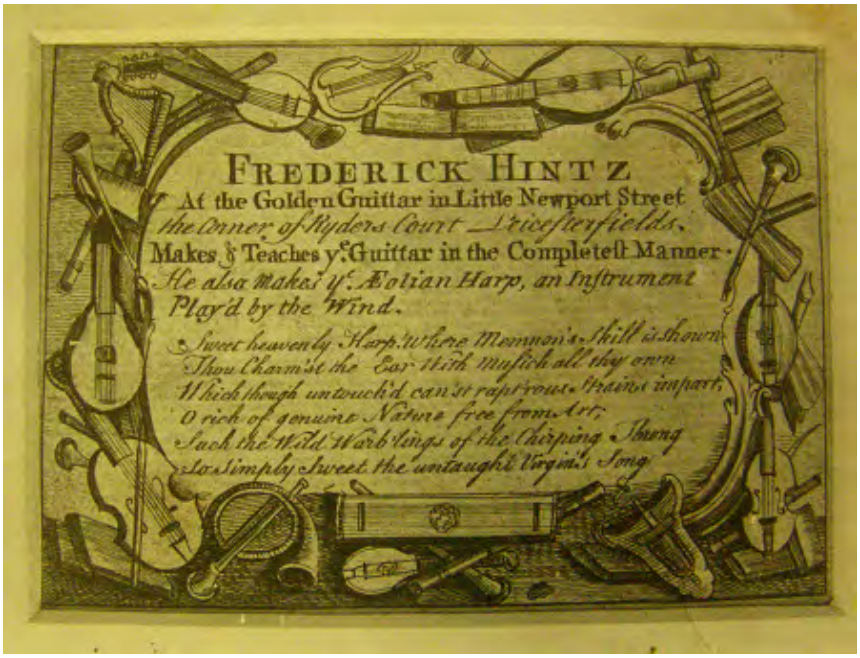

Figure 5.6: The trade card of Hintz showing a variety of musical instruments including guittars (Hill Archives, WA 1992.643.1, p. 164).

Figure 5.7: The trade card of Hintz from the mid-1760s (Hill Archives, WA 1992.643.1, p. 164).

Figure 5.8: Detail of the above trade card showing three guittars of different shapes and sizes. The presence of the lady playing the guittar in the centre, with the boy holding the smaller instrument on the left, and the gentleman, which could be either the teacher or the husband, holding a guittar on the right, indicate that Hintz tried to advertise the guittar as an instrument suitable for the whole family (Hill Archives, WA 1992.643.1, p. 164).

It is interesting that, although in both trade cards presented above Hintz claims to make only the guittar and the Æolian harp, the cards show many other musical instruments, indicating that in the 1760s Hintz was a large-scale dealer of a wide variety of musical instruments. Additionally, the presence of keyboard and wind instruments in his trade cards and stock-in-trade list[450] suggest that Hintz either employed makers specialised in the construction of these instruments or most likely acted as a retailer, buying these instruments from other manufacturers and selling them in his warehouse. The fact that no surviving keyboard or wind instruments bear his signature rather confirms the second hypothesis. Moreover, the fact that Hintz found enough time to teach and compose music for the guittar is a further suggestion that he must have employed a number of specialised craftsmen to assist him with the construction of his instruments, while Hintz himself possibly only supervised the construction and finishing of the

[450] After Hintz's death his stock-in-trade was sold by auction as evident in an announcement in the *Daily Advertiser* of 1772 (Hill Archives, WA 1992.643.1, p. 163), presented earlier, in which Hintz was proclaimed 'one of the best Guittar-makers in Europe' noting that his instruments 'in general were very excellent'.

instruments to ensure a high manufacturing standard, while promoting his production and securing orders from new customers through teaching and advertising.

Further insight into the manufacture and marketing methods of Hintz comes from an advertisement of 1763 regarding 'a new-invented Guitar with eight Strings more in the Bass'. The advertisement mentions that 'Mr. Hintz, Guittar Maker to Her Majesty and the Royal Family, invented and made this Kind of Guittars 3 Years ago; but, as he found that the Ladies were not at that Time disposed for them, from some Circumstances of Inconvenience which they thought attended the additional Number of Strings, he did not make them publick: But has, nevertheless, found it necessary always to keep by him a certain Quantity ready-made, and finished in the best Manner'.[451] This is another indication that although Hintz, and probably other guittar makers, experimented with new designs, they mainly produced instruments that would be appealing to their female customers.

It is also important to note that in this advertisement Hintz mentions three more guittar types in stock, namely a 'Guitar called the Tremulant', a 'De L'Amour Guittar, with a Lute Stop', and 'a Guittar to be played with a Bow, as well as with the Fingers'[452] all of which 'were invented by him', adding that 'Several uncommon Instruments are made and sold at his House, viz. the Trumpet-Marine, Dulcimer, Salitero, Viol de Gamba, Viol de l' Amour, Mandoline, German Harp, Lutes, Æolian harps, &c.' These details are indicative of the variety of guittars and other plucked and bowed instruments available by Hintz in 1763.

Similar examples of trade cards used by Duke, Longman & Broderip and Betts are presented below (**Figures 5.9-5.11**).

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[451] *British Evening Post*, London, 27 October 1763, Issue 414. I am grateful to J. Westbrook for bringing this source to my attention.
[452] This description most likely refers to a cither viol or 'sultana', a bowed instrument with wire strings similar to the guittar.


RICHARD DUKE,
Muſical Inſtrument Maker,
To his Royal Highneſs the Duke of GLOUCESTER,
No. 53, nearly oppoſite Great-Turnſtile, High-Holborn, LONDON,
MAKES and SELLS
ALL Sorts of Muſical Inſtruments, Violins; Violincellos; Tenor Violins and Panthicords; Violi[illegible]ors; Guittars; Harpſichords; Spinets; Piano Fortes; Hautboys; German and Engliſh Flutes, &c. Books of Inſtructions, and all the Works of the moſt eminent Authors; both antient and modern. Ruled Book-paper, Songs, Reeds and Wires; the beſt Roman Strings, and every Article in the Muſical Branch, Wholeſale and Retail.
N. B. Old Inſtruments carefully repaired, tuned and lent out by the Month, Quarter, or Year.

Figure 5.9: The trade card of Richard Duke when he was working at No. 53 opposite Great Turnstile, High Holborn (Milnes 2000: 43). Guittars are mentioned in the second line among the various listed musical instruments.

Figure 5.10: The trade card of Longman & Broderip (Milnes 2000: 36). Guitars are mentioned in the first line among other instruments.

Figure 5.11: Betts's trade card (Milnes 2000: 60). Guittars are listed fourth in the second column from the left.

In addition, like other tradesmen, guittar makers realised the power of advertising, which became easier with the advent and development of the press. Thus, most of them embraced publicity whole heartedly, advertising their work in local newspapers. Of course, as Dr Johnson noted, 'Promise, large promise is the soul of an advertisement'[453] and makers often exaggerated

[453] As quoted in Picard (2000: 249).

about the quality or reliability of their products, as illustrated in the following advertisements by Preston or Claus and Co:

> JOHN PRESTON, Of Banbury-Court, Long-Acre, London, GUITTAR and VIOLIN-MAKER, […] has lately found out and invented a new Improvement, or Instrument, for Tuning of Guittars; […] The Manner of Tuning the above Guittars is by a small Watch Key, which is done Instantly, and will keep the tune in that Order for a Month together, unless altered […].[454]

> Royal Patent Forte Piano Guitars. MESS. Clauss and Co. the original and only Inventors and Patentees of the inimitable and beautiful new-invented Forte Piano Guitar, which, for Richness and Strength of Tone, Facility of Execution, and Delicacy of Expression, may be justly said even to rival the Piano Forte itself. […]. It having been maliciously reported that the Patent Internal Improvements are liable to speedy Disorder, the Patentees hereby warrant their Wear for Twenty Years. [455]

Besides, as happens nowadays, quite often makers tried to promote their products by accusing their imitators or by suggesting their superiority over competitors. For instance, this was the case with the patented keyed guittars, which became the subject of strong conflict between Claus and Longman & Broderip, vividly illustrated in the following two advertisements:

> […] PIANO FORTE GUITTAR. / CHRISTIAN CLAUSS [states] that it is not wonderful to find the trade attempting to impose / an imitation of the Patent Instrument upon the public, and / even attempting, by public advertisement, to call in question / the solemn decision of the High Court of Chancery […].[456]

> Patent Piano Forte Guitars. Longman and Broderip [...] have obtained his Majesty's Royal Letters Patent for their great improvement of those instruments, being made to play with keys; an invention which gives them a decided superiority over every instrument of the kind […].[457]

Many musical instrument manufacturers also published catalogues, in which guittars and guittar music are often listed among other instruments and wares in stock. Halfpenny (1964: 99-100) provides an extensive list of Bremner's stock from c.1765 which includes a large variety of

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[454] *London Evening Post*, 7 January 1766, and *Gazetteer and New Daily Advertiser*, 3 February 1766 (as quoted in Lasocki 2010: 130-1).
[455] *The London Gazette*, 5 April 1785, 12636, p. 173. The same advertisement also appeared on 12 and 26 April 1785.
[456] *Morning Herald and Daily Advertiser*, 1 May 1784, 1096.
[457] *Morning Chronicle*, 5 March 1787 (as quoted in Girdham 1997: 98).

musical instruments and accessories, among which are 'Guittars several sorts'. Likewise, guittars of 'all sorts and Prices' and 'Wire Strings, Silver'd in the compleatest manner and well proportioned for Violins, Basses, Guittars [...]' are listed in the catalogue of Longman, Lukey & Co from 1772, sold 'Wholesale and Retail, and for Exportation', among numerous other instruments and music accessories (**Figure 5.12**).

LONGMAN, LUKEY, & Co. Musical Instrument Makers, &c.
At No. 26, *Cheapside*, *LONDON*.
Manufacture and Sell, Wholesale and Retail, and for Exportation,
the following Articles.

CHAMBER and Hand Organs
Piano Forte's
Harpsichords and Spinnets
Violins of all Prices
Kitts and small Violins
Tenor Violins and Violoncellos
Double Basses
French Horns, Ear Horns, Clove Horns, and Hunting Horns
Trumpets and Kettle Drums
Dulcimers, Æolian and English Harps
Balloons, Tenoroons or Vauxhumanes,
Bagpipes. Scotch or Irish
German Flutes, Ivory, Ebony, Cocoa, and Box, Tip'd or Plain
Small German Flutes, Tip'd or Plain
Hautboys and Clarinets ditto
English Flutes, of all sizes ditto
Bird Flutes and Flageolets ditto
Fifes of all sorts ditto
Pipes and Tabors

Staccado Pastorallis
Guittars, all sorts and Prices
Pitch Pipes of all sizes
Steel Forks for Tuneing Harpsichords, Violins, &c.
Harpsichord and Spinnet Hammers
Crow and Raven Quills
Rosin Boxes, Wood and Ivory
Mutes, Brass, Box and Ivory
French Horn mouth-pieces Brass or Ivory
Pens to rule Music Paper
Ruled Books of all sizes
Ruled Paper of all sorts
Violin Bows pillar'd or plain
Ditto with Screws
Bridges for Kits, Violins, Tenors, Viol de Gambo's and Basses
Pegs or Pins and Tail-pieces for ditto
Harpsichord and Spinnet Hinges and Locks
Bassoon, Hautboy, Clarinet, Bagpipe and Vauxhumane Reeds

Reed Cases of all sorts
Desks for Harpsichords or Spinners
Violin, Tenor, Violoncello, and Guittar Cases.
New Invented Portable Music Desks, Ditto Flute and Hautboy Cases

Imports Monthly the best Italian Strings, for Violins, Tenors, Violoncellos, Double Basses, Welch Harps. &c.
Also genuine German Wire for Harpsichords, Spinnets, Piano Fortes, Guittars, Irish Harps, Dulcimers, &c.
Italian Cat-gut and Wire Strings, Silver'd in the compleatest manner, and well proportioned for Violins, Basses, Guittars and Piano Fortes, &c

Instrument's Repair'd, Tun'd and Set out by the Month, Quarter or Year.

Good Allowance to Merchants, Captains of Ships, Shopkeepers, Dealers, &c. Orders fro[m]
the Country punctually Answer'd.

Figure 5.12: Excerpt from the catalogue of Longman, Lukey & Co from 1772 (courtesy of A. Rice). Guittars of 'all sorts and Prices' are listed second in the middle column.

Similarly, the catalogue of Longman & Broderip from 1789 advertises 'Patent Piano Forte Guitars' and 'Guitars', along with a variety of guittar music[458], while in 1795 Culliford, Rolfe & Barrow announced that they have opened 'a Warehouse at No. 112, Cheapside' from where they offered for sale various instruments, including 'Guittars of every description', having 'twenty years experience in manufacturing the above-mentioned instruments'.[459]

[458] I am thankful to A. Rice for providing me with a copy of this document.
[459] *The Times*, 13 June 1795, No. 950613, p. 1, col. a (as quoted in Nex 2004: 27).

Likewise, in an advertisement of 1798 Astor and Co announced that they manufacture and sell 'Guitars' at their 'Music and Instrument Warehouse, No. 79 Cornhill, London'.[460] In addition, the 'CATALOGUE OF MUSICAL INSTRUMENTS MANUFACTURED AND SOLD BY GEORGE ASTOR' from 1799 lists 'Piano-Forte Guitars' and 'Cover'd Guitar Strings'[461], while that of Goulding, Phipps and D'Almaine from 1800 includes 'Common' as well as 'Piano Forte Guitars' and 'Guitar Strings'.[462] Around the same time Monzani and Cimador offered for sale 'new Pattern Anglo and Spanish Guitars' (**Figure 5.13**).

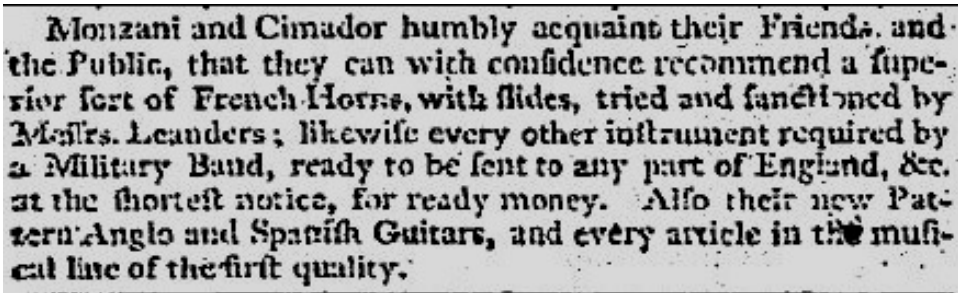
Monzani and Cimador humbly acquaint their Friends and the Public, that they can with confidence recommend a ſuperior ſort of French Horns, with ſlides, tried and ſanctioned by Meſſrs. Leanders; likewiſe every other inſtrument required by a Military Band, ready to be ſent to any part of England, &c. at the ſhorteſt notice, for ready money. Alſo their new Pattern Anglo and Spaniſh Guitars, and every article in the muſical line of the firſt quality.

Figure 5.13: Monzani and Cimador advertisement from c.1800 including 'new Pattern Anglo and Spanish Guitars' (courtesy of J. Westbrook).

Guittar manufacturers are also mentioned in contemporary directories. For instance, Mortimer's *London Universal Directory*[463] from 1763 lists three guittar manufacturers and dealers, namely Hintz, Rauche, and the Thompsons. In addition, Joseph Doane's *A Musical Directory for the Year 1794* (1794/1993) includes details of various musical instrument manufacturers and dealers, musicians, music teachers and publishers involved in the guittar trade, such as Beck, Betts, Buchinger, Chabran, Jackson, Light, Longman & Broderip, Preston & Son, Simpson & Son, the Thompsons, and Wornum.

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[460] *The Times*, 12 January 1798, Issue 4091 (as quoted in O'Brien 2009: 193).
[461] As presented by Lasocki (2010: 119).
[462] As presented by Lasocki (2010: 129). Likewise, the organ and pianoforte maker Henry Holland, nephew and successor to the organ maker George Pyke, offered 'Guittar' wire for strings, as quoted in Dawe (1974: 69).
[463] See Dart (1949: 30-1).

5.1.6 INVENTIONS AND PATENTS FOR THE GUITTAR

The guittar trade remained evidently profitable enough in the 1770s to urge makers and inventors experiment further with the instrument. This in turn led to several new ideas and inventions applied to the guittar, creating novel designs and types. After all, the late 18th century was a time of experimentation and novelty among instrument makers and the guittar was no exception. As a result several inventions relating to the guittar were patented, especially during the 1780s, all by professionals working in London.[464] It was probably due to the contribution of inventors such as Clagget, Preston, Claus, Jackson and Goldsworth, that the guittar managed to sustain a considerable public interest even when other domestic instruments, such as the pianoforte, started becoming popular in the late 18th century.

The earliest surviving patent relating to the guittar was granted in 1776 to Charles Clagget for his 'Improvements on the violin and other instruments played on finger boards' (7 December 1776, Patent No. 1140); among Clagget's improvements described in the patent was the invention of a 'stepped' fingerboard for the guittar.[465] Three more patents relating to the guittar were granted during the first half of the 1780s. In 1783 Christian Claus patented, 'An improvement upon the musical instrument commonly called the guitar' (2 October 1783, No. 1394); Claus's patent mainly concerned the invention of an internal piano-key mechanism for the guittar. A year after, in 1784, William Jackson was granted a patent for 'The British Lyre' (20 August 1784, No. 1449), a new instrument with many similar features to the guittar, which was equipped with an external piano-key mechanism later used on guittars and known as 'Smith's Patent Box'. Finally, in 1785 John Goldsworth patented an 'Entire new improvement upon the musical instrument called the guittar' (23 July 1785, No. 1491); Goldsworth's specifications concerned a removable internal piano-key mechanism for the guittar, equipped with dampers and sound stops, a fingerboard 'fretted agreeably to the diatonic scale' and a tuning mechanism

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[464] MacLeod (1988: 154) mentions that the patents for musical instruments increased gradually during the last three decades of the 18th century, with 9 patents granted in the 1770s (3% of the total number of patents), 13 in the 1780s (3%), and 14 in the 1790s (2%).

[465] For more details on Clagget's patent see 'THE PATENT FINGERBOARDS OF CLAGGET AND GOLDSWORTH', Chapter 7.

with a spring barrel system.[466] Apart from Jackson's 'British Lyre', no specimens of which are presently known, there are several extant instruments bearing the patented inventions of Clagget, Claus, and Goldsworth mentioned above.

Additionally, in 1787 Wardaugh Thompson was granted a patent for his 'Apparatus for tuning musical instruments' (15 January 1787, No. 1583):

> TO ALL TO WHOM THESE PRESENTS SHALL COME I, WARDAUGH THOMPSON, of Clipstone Street, in the Parish of Saint Mary-le-bone, in the county of Middlesex, Gentleman […] should and lawfully might make, use, exercise and vend […] my invention of ''A PERFECT AND COMPLEAT MACHINE OR INSTRUMENT UPON AN ENTIRE NEW CONSTRUCTION FOR THE MORE EASY AND EXPEDITIOUS TUNING OF HARPSICHORDS, PIANOFORTS, SPINNETS, ORGANS, GUITTARS, AND VARIOUS OTHER INSTRUMENTS WHICH HATH NEVER BEFORE BEEN DISCOVERED'' […].[467]

Thompson's patent device essentially employed a system of a monochord with movable bridges for the accurate tuning of various instruments, including guittars; it is noteworthy that in his patent Thompson is described as 'Gentleman' rather than as musical instrument maker. The same year John Landreth received a patent for his 'Improvement upon various instruments' (31 March 1787, No. 1596):

> TO ALL TO WHOM THESE PRESENTS SHALL COME I, JOHN LANDRETH, of Tabernacle Walk, Old Street, in the County of Middlesex, Musical Instrument Maker […] should and lawfully might make, use, exercise and vend […] my Invention of "AN INTIRE NEW IMPROVEMENT UPON THE SEVERAL MUSICAL INSTRUMENTS CALLED THE PIANOFORTE, HARPSICHORD, ORGAN, AND GUITAR, AND UPON VARIOUS OTHER MUSICAL INSTRUMENTS, BY WHICH THE SAME CAN BE MORE EASILY KEPT IN ORDER AND PLAYED UPON, AND BY WHICH THE SAME WILL BECOME PERFECT AND COMPLEAT INSTRUMENTS OF THEIR KIND'' […].[468]

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[466] For more details on the patents by Claus, Jackson and Goldsworth see 'THE INTERNAL PIANO-KEY MECHANISM' and 'THE EXTERNAL PIANO-KEY MECHANISM', Chapter 7.
[467] Thompson's patent is accompanied by a detailed drawing showing the patent specifications.
[468] Landreth's patent is accompanied by a detailed drawing showing the patent specifications.

Landreth's patent mainly aimed to prevent the sticking or rattling of keys upon keyed instruments, among which he included the guittar, apparently considering the then newly developed keyed or 'pianoforte' guittar.

It is important to point out that the patent system in the late 18th-century Britain was critical for the evolution and protection of inventions, yet it was neither effectively organised nor fully established. As the patent system was still quite complex, the task of obtaining a patent was difficult and the purchase of a patent was usually an expensive and time-consuming process, which could ruin the patentees[469]; in fact, the acquisition of a patent often reflected the economic state or output of an inventor or manufacturer.

Thus, those who wanted to patent an invention were ready to take a big risk in terms of time, effort and money, and had to be, at least to some degree, confident for the potential effectiveness and popularity of their idea. Simultaneously, they had to invest a substantial capital in experimenting, constructing, and testing, before eventually commercialising their invention and getting any profits. Moreover, they had to protect their patent from imitators[470], and such cases often reached the court, as evident, for instance, in the legal conflict of Claus against Charles Pinto and James Longman over the imitation of Claus's patented keyed guittar by the other two.[471] For these reasons, patenting an invention was usually the exception, rather than the rule, and as a result, some ingenious inventions relating to the guittar, like the watch-key machine, commonly attributed to Preston, apparently never got patented.

5.1.7 LITIGATION, BANKRUPTCY AND IMPRISONMENT

With a growing public interest in the guittar culture and the subsequent profits to be made in the promising guittar trade there were several cases of innovators and imitators, and arguments between them were inevitable. Consequently, around the late 18th century there were several

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[469] See MacLeod (1988: 76).
[470] The exclusive use of a patented invention in Britain in the late 18th century usually lasted for fourteen years, as mentioned in surviving patent records.
[471] See *Morning Herald and Daily Advertiser*, 1 May 1784, 1096. I am grateful to J. Nex for drawing this document to my attention.

court cases involving various professionals within the guittar trade, such as instrument makers, inventors, and dealers[472], as well as music publishers, composers and musicians[473], as evidenced in various surviving court documents.

Most of these cases usually concerned financial disputes, business agreements, or copyright issues. In some cases, the surviving legal documents provide interesting details about the professional or social relations among guittar makers and dealers. For instance, in a case from 1784 which concerned music copyright involving Longman & Broderip against the music seller and publisher Samuel Babb, Peter Thompson and John Preston were called as witnesses.[474] Among other facts, the court document reveals that Thompson knew Longman for fourteen years, Broderip for about eight, and Babb for six; likewise, Preston knew Longman for twenty years, Broderip for about eight, and Babb for five or six.

As already described in Chapter 3, during the last quarter of the 18th century Britain was in a period of political unsteadiness and economic recession largely due to the loss of power over the American colonies and the constant fear of revolution and threat of war in most of Europe after the Revolutionary Wars in France.[475] These changes led to trade problems with other European countries and caused a serious halt to artistic production and distribution, which in turn had a negative effect on the music market, as potential customers were hesitant to spend money on music and musical instruments.

Another reason for the financial problems that music manufacturers and dealers had to face is described by Picard (2000: 248) who mentions that ladies would 'set out to make a tour through the most fashionable shops and to look at all the most fashionable goods', usually without any intention of buying anything. Picard adds that 'even if they did buy something, they might insist

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[472] See, for example, the court case of 1784 between Claus, Pinto and Longman, mentioned above, or the court case of 1786 between Christian Claus and Joseph Levy, (TNA: PRO C12/154/35), in the National Archives. I am grateful to J. Nex for bringing these sources to my attention.
[473] For instance, Girdham (1997: 88) mentions that 'in 1773 Johann Christian Bach brought a lawsuit against the publisher James Longman for the unauthorised publication of two of his compositions'.
[474] See TNA: PRO E133/82/26 in the National Archives.
[475] See Nex (2004: 23).

on having it on trial'; additionally, paying in cash was not the norm, and 'the long credit expected by customers could bankrupt shopkeepers' such as music makers and sellers.

Therefore, cases of bankruptcy were common among the names involved in the guittar trade especially towards the end of the 18th century. Among the guittar manufacturers and dealers who went bankrupt[476] were Rauche (1778), Claus (1787)[477], Clagget (1793)[478], Goldsworth (1793)[479], Longman & Broderip (1795)[480], and Culliford & Barrow (1798)[481]; those that reportedly ended in the Fleet or King's Bench Prison, which were the main prisons for debtors, and spent some time there, were Longman & Broderip, and Rauche.[482] It is noteworthy that three of the above mentioned manufacturers, namely Clagget, Claus and Goldsworth, had earlier been granted patents for the guittar indicating that musical innovation often came at a high cost.

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[476] Nex (2004: 32) mentions that 'to be declared bankrupt in late eighteenth-century London, a person or business had to be involved with trade, and creditors were required to prove that the debtor owed at least £100 to one creditor, £150 to two creditors, or £200 to three or more'. Moreover, according to Picard (2000: 74-5) if the debt was 'for less than £100-a considerable amount in the case of a small trader-he could declare himself bankrupt and be discharged from his debts', also noting that 'No one could be arrested on a Sunday'.

[477] Claus's bankruptcy is reported in the *London Gazette*, 1787, 31 July, Issue 12908, p. 7.

[478] Clagget's bankruptcy is reported in the *London Gazette*, 25 May 1793, Issue 13532, p. 8, and 26 March 1793, Issue 13514, p. 8-9.

[479] Goldsworth's bankruptcy is reported in the *London Gazette*, 30 March 1793, Issue 13515, p. 6; 2 April 1793, Issue 13516, p. 5; 23 April 1793, Issue 13522, p. 5; and 21 May 1793, Issue 13530, p.12

[480] Longman and Broderip's bankruptcy is reported in TNA: PRO Copy B4/24, 84, in the National Archives (as quoted in Nex 2004: 24, footnote 63).

[481] Culliford & Barrow's bankruptcy is reported in the *London Gazette*, 16 May 1801, Issue 15366, p. 8.

[482] The following announcement is included in *The London Gazette*, 6 June 1778, 11881, p. 8: 'Prisoners in the KING's BENCH Prison. in the County of Surry. […] First Notice […]. Michael Rauche, formerly of Chandos-street St. Martin's in/in the Fields; late of Tufton-street Lumley-street in the / City of Westminster, both in the County of Middlesex, / Musical Instrument-maker'. Rauche is also mentioned as a prisoner in King's Bench Prison on 9 June 1778, 11882, p. 11 ('second notice') and on 16 June 1778, 11884, p. 12 ('third notice').

5.2 THE ORGANISATION OF THE GUITTAR TRADE

5.2.1 WORKING CONDITIONS

According to Picard (2000: 156) the life expectation at birth in England in the mid-18th century was 36.6 years for both men and women[483] noting, however, that 'in smoky, crowded, disease-ridden London the figure was probably much lower, perhaps in the mid-twenties'. Moreover, the living and working conditions of the majority of people were unenviable and wages were low.[484] Nevertheless, along with most woodworking professions and crafts specialized in small objects, guittar makers operated under relatively good conditions. They usually worked in enclosed, warmer and cleaner spaces using smaller, lighter and less dangerous tools than other craftsmen. The details presented in Appendix I show that the majority of guittar makers lived for more that 60 years. However, like similar woodworking craftsmen, as Gaynor and Hagedorn (1993: 43) have pointed out, due to the repetitive, close work they tended to suffer from eye strain and, additionally, they were exposed to carcinogenic wood dust and toxic fumes from finishing materials.

Regarding daily time schedules, the working hours in 18th-century Britain, long before the wide use of artificial lighting, were quite long and coincided with daylight. Picard (2000: 109-10) mentions that for a skilled or unskilled worker working hours were by law 'from five in the morning till seven at night from mid-March to mid-September, otherwise dawn to twilight, with one and a half hours off for meals for a six-day week'. As far as calendar and tax systems are concerned Picard (2000: 182) claims that Lord Chesterfield who as ambassador to France had to live by two different calendar systems, 'brought in a carefully drafted bill to synchronise the continental/Catholic calendar and the English/Protestant one […] by simply deleting the eleven

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[483] The average life expectancy at birth was 36.6 years but many of the people born died in childhood. Probably about 25% of people died before they were 5 years old, and possibly as many as 40% died before they reached adulthood. However if people could survive childhood and their teenage years they had a good chance of living to their 50s or early 60s, or even more.

[484] According to Picard (2000: 55) tradesmen, builders and manufacturers earned about £40 a year. Those in 'liberal arts' earned £50-100, while a few successful manufacturers, merchants and tradesmen earned £200 a year. Most instrument makers apparently belonged to the first two categories, and only few were lucky enough to join the third.

days 3-13 September 1752 from that year's calendar'. Picard (2000: 334, note 31) further argues that Lord Chesterfield's bill 'not only rerouted English calendars on to Gregorian rails, but restarted the year on 1 January instead of 25 March' noting however that 'the tax system still used the old dates so that the last day of the financial year was 25 March'.

Regarding vacations according to Picard (2000: 110) the only official holidays were Christmas, Easter and Whitsun, plus 'the eight "hanging days" a year when the London journeymen went to watch the executions at Tyburn', while she also highlights the common custom of 'Saint Monday', which gave an excuse to many workers to absent from their work on Mondays. It can be assumed that most guittar makers generally worked under similar rules.

5.2.2 TRAINING

Like other similar crafts instrument-making in Britain up to the 18th century was organised in guilds. These guilds were based on an apprenticeship system, which involved three types of craftsmen: the apprentice, the journeyman and the master.[485] According to Picard (2000: 59) in Britain the apprenticeship system had been established in the Middle Ages, 'to provide vocational training as part of a carefully regulated system of labour relations, dependent on guilds for enforcement'.

Apprentices were usually young boys who would be bound to a master to learn a trade. During the training period, which usually started at the age of fourteen or fifteen and lasted for seven years[486], apprentices would develop their knowledge and experience of a trade or profession working under the master's directions. Apart from the basic living standards (like feeding, clothing and housing) and any necessary equipment, apprentices usually received no payment. According to Milnes (2000: 6) apprentices were expected to 'serve their master faithfully, to keep

[485] For a comprehensive account of the apprenticeship system in stringed instrument making see Harvey (1995: 82-5); for more details on the apprenticeship system see also Hubbard (1967: 194-200) and Heyde (2007: 26-31).
[486] Picard (2000: 59) mentions that Hanway's 1767 Act decreed that no apprenticeship should last for more than seven years.

his secrets and to obey his lawful commands', while, at the same time, they were 'forbidden to marry, gamble or set up their own businesses until the completion of the training'.

After successfully practising his skills and having created a network of useful contacts, an apprentice became a journeyman, who was basically a travelling workman that could hire himself to any master.[487] As journeymen usually worked for many years under several masters in order to perfect their trade, they were essential for the support of the guild system. In some occasions journeymen could become masters themselves although in certain places it was only masters' sons that became masters.

A master was essentially the owner of the workshop and was usually involved only at the last stages of construction and finishing, supervising his apprentices and journeymen. As Smith (2002: 66) notes masters and workers in many workshops were often related, as marriage was rather an efficient way for inheriting a workshop or ensuring loyal help. Harvey (1995: 84) has pointed out that the major advantage of the apprenticeship system was that it enabled the constant and controlled production of skilled craftsmen, thus ensuring the continuation of the tradition and increasing the status of both the craft and town.

There are several cases of apprentice-master relations among the known guittar makers; a few indicative examples are those of Buchinger, Thomas Perry and McDonnell, who had been apprentices to Rauche, Duke and Gibson respectively. To these one can include the more natural cases of training between father and son, like David and John Rutherford, John and Thomas Preston, and James and John Simpson, or between relatives, like Thomas Haxby, who trained his nephew Thomas Tomlison for seven years from 1782 to 1789.[488]

However, Heyde (2007: 25) claims that in Britain 'the traditional craft and guild system with its rigid control mechanism' began to collapse during the late 17th century, while Picard (2000: 59)

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[487] According to Heyde (2007: 27) journeyman travel was not compulsory in England.
[488] See YCA D14 Register of Apprentices 1756-1787 (as quoted in Haxby and Malden 1984: 47 and footnote 22). Moreover, it is possible that Thomas Perry trained his younger brother (in some sources given as nephew or cousin) James. For more details on Perry see Milnes (2000: 68-9) and Harvey (1995: 374).

similarly mentions that by the 18th century 'the guilds were losing their power […] and the system no longer functioned efficiently'.[489] Picard (2000: 104) further notes that the 'concept of employees combining together to negotiate with their employers was beginning to emerge' mentioning that as early as 1761

> a number of bills of indictment [prosecution] were preferred […] against the rebellious journeymen cabinet-makers, who have lately combined together to raise their wages and lessen their hours of working, etc. The combination among journeymen peruke-makers, shoemakers, taylors, cabinet-makers, etc. is a growing evil and wants to be remedied […].[490]

Such actions gradually led to the formation of trade unions, initially known as 'combinations', for the protection of workers' rights, although they remained illegal for many years.

5.2.3 WORKSHOP LOCATIONS

As most other musical instrument makers, guittar makers were located in urban centres close to market areas and trade spots. Their workshops needed to provide adequate working spaces and to allow the necessary supply of raw materials from nearby timber yards, while at the same time facilitating the easy distribution and selling of their products.

In London, which was the centre of the guittar trade, the majority of guittar makers were concentrated in Westminster and the City (**Figure 5.14**) working in close proximity to each other. On one hand, this dense concentration of makers enabled the formation of partnerships, associations and firm relations, enabling the fast dissemination of ideas and the copying of new styles and designs by makers; on the other hand, it created competition and rivalry within the guittar-making profession.

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[489] However, according to Milnes (2000: 6) 'the Statute of Apprentices of 1563, which forbade anyone to enter a trade without serving an apprenticeship, remained on the statute book until 1814'.
[490] *London Chronicle*, 12 December 1761 (as quoted in Picard 2000: 104).

Figure 5.14: Detail from *A Plan of the Cities of London and Westminster, and Borough of Southwark with the New Buildings 1767* (by kind permission of D. Hale, MAPCO: Map & Plan Collection Online). Most guittar makers were concentrated in Westminster and the City, on commercial spots around Oxford Street, Soho, Covent Garden, the Strand, Cheapside, etc.

5.2.4 WORKSHOP LAYOUT, EQUIPMENT AND TOOLS

In general, a stringed instrument-maker's workshop, where guittars would be normally manufactured, would not be very different from a joiner's or a cabinetmaker's. During the late 18th century there was usually no separation of home and work for most musical instrument makers; most of the workmen, normally three to six people, lived inside the house or very nearby.[491] Accordingly, most guittar makers probably lived and worked on the premises, having their workshop inside their house.

There is very little evidence on the sizes and layouts of stringed instrument-making workshops of the late 18th century, allowing only broad assumptions and observations. Nevertheless, as in

[491] See Cole (1998: 281).

related crafts, the design of a stringed instrument-making workshop would largely depend upon the available space and number of personnel. The main concern, especially in the absence of artificial light would be, above all, the provision of a good natural daylight over the day to enable close inspection of wood surfaces and other small details.[492] Barclay (1992: 9) notes that large high windows facing south would be necessary; also windows placed on several walls than just one would allow a more balanced light, and would provide proper ventilation and protection from wood dust.

Ideally, the workshop layout would facilitate the easy transport and movement of instrument parts and allow sufficient spaces for working and drying, and for the storage of materials and instruments; additionally, the doors would preferably allow easy entrance and unobstructed transport of materials and instruments, while the ceiling would be high enough to enable moving long pieces of wood.[493] The walls would have toolboards and hinges over the workbenches to hang tools and moulds, while a number of finished or partly finished instruments would probably be hanging from the ceiling. In general, the placement of equipment was mainly influenced by workshop layouts, work routines and daily schedules. As Gaynor and Hagedorn (1993: 44) have pointed out, workshops were organized so that work could be done repetitively, reducing the time wasted in constantly changing tools, set-ups, and the workers' focus.

A contemporary drawing, included in Diderot's *Encyclopédie* (**Figure 5.15**), depicts a luthier's workshop. The drawing shows several interesting details of the equipment and tools used by the various craftsmen, while providing a representative view of the workshop layout. Although, as in many other contemporary iconographic sources, many of the depicted details may not be accurate, this drawing can give a general idea of how a guittar-making workshop may have looked like in the late 18th century.

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[492] See Johnson and Courtnall (1999: 55).
[493] See Hubbard (1967: 195-97).

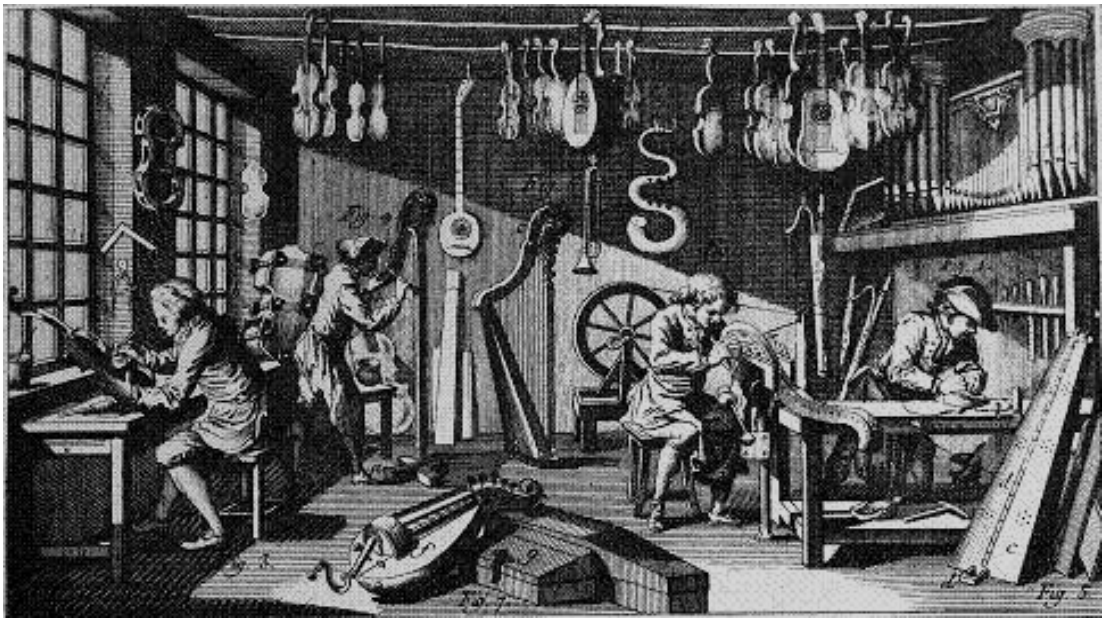

Figure 5.15: A luthier's workshop in late 18th-century France included in Diderot's *Encyclopédie* (Hubbard 1967: Plate XLI). The drawing illustrates the construction stages of several stringed instruments, showing interesting details of the equipment and tools used by the various craftsmen, while providing a representative view of the workshop layout.

Barclay (1992: 78-9) has provided a description of a trumpet maker's workshop, but the general arrangement of equipment would probably be similar in a guittar-making workshop. Thus, the benches and lathes for fine work would be as close as possible to the light, and the layout table for marking and cutting would be along this side. According to Gaynor and Hagedorn (1993: 44) a carving bench might have been located by a window to take advantage of good light, while one for rough planing could have been be placed anywhere (**Figure 5.16**). A number of stools or chairs, usually matching the number of the workmen, would be placed close to the benches.

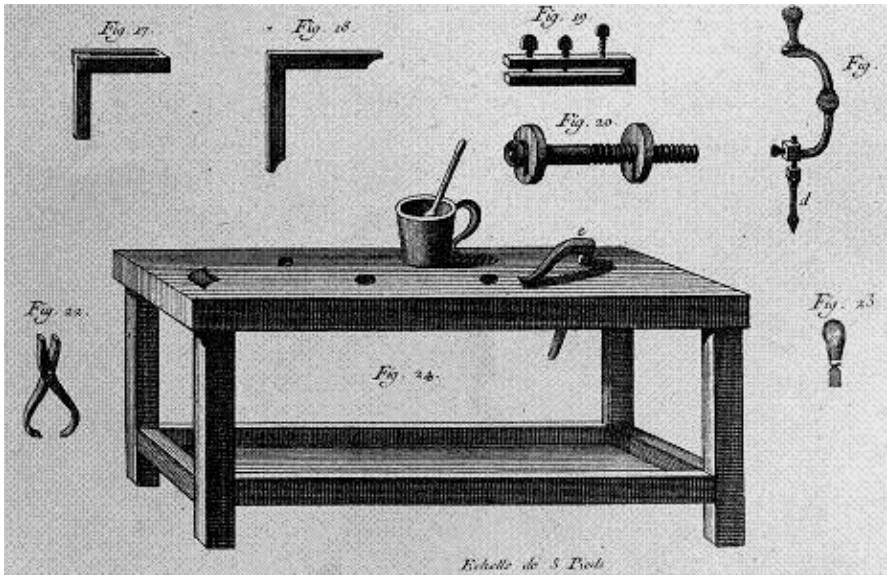

Figure 5.16: Detail of a typical bench with holdfast and other tools from a luthier's workshop in 18th-century France included in Diderot's *Encyclopédie* (Hubbard 1967: Plate XLI).

Next to the benches and within easy reach, would be racks for various tools, patterns and templates. Over them there would be shelves to place tools and boxes with parts and accessories and to store timber. Behind these benches, in the centre of the room, would be work sites, usually boards resting on trestles, for the more rough work. On the opposite wall from the windows, in the darker area, there would be the fireplace and close to it the bending iron. Heat would also be provided by means of wood-burning stoves and pipes, where wood shavings and chippings could be disposed. These were used for heating the animal glue and also to keep the workshop warm and dry during the wintertime to avoid problems of wood shrinkage.[494]

Parts like necks, ribs, or soundboards were often stored in barrels or boxes, or were just simply lying on the floor, while strings and smaller accessories were usually stored in cloth or leather bags. The finished instruments were often stored inside the workshop and in additional rooms,

[494] See Buchanan (1989: 11-2).

in chests or boxes, to prevent any marking and to keep them clean from dust and humidity.[495] Large workshops probably had additional rooms for storing timber; Olmert (1985: 105-06) notes that, as in cabinetmakers' shops, musical instrument-making workshops usually had a 'wareroom', a combination of showroom and warehouse facing the street, in which the maker would more comfortably meet his clients and store completed instruments available for sale or delivery.

The equipment and tools of guittar makers must have been similar to those generally used by stringed instrument makers. These consisted of heavy and specialized tools, usually provided by the master, and smaller tools or 'shop-tools', which individual workmen should own and use within a workshop.[496] In the 18th century the availability of ready-made, specialised handtools was little and the standardisation of designs uncommon; thus, makers often had to make some of their own tools, like shaping knives or moulding planes.[497]

Several woodworking equipment and tools used by related craftsmen, such as joiners and cabinetmakers, were necessary for the various stages of guittar construction, along with specialized or auxiliary tools used for certain instrument types and parts. These would be employed for a variety of tasks including measuring and marking, cutting, paring, planing, shaping and abrading wood or other materials, drilling and boring holes, and holding instrument parts. Additionally, jigs and templates must have been used to facilitate the construction of small uniform instrument parts and accessories.[498] The following images (**Figures 5.17-5.19**) illustrate tools and equipment that could have been used in guittar-making workshops during the late 18th century.

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[495] See Buchanan (1989: 11-2).
[496] See Hardouin (1957: 11).
[497] See Atkinson (2004: 8).
[498] See Cole (1998: 289-90).

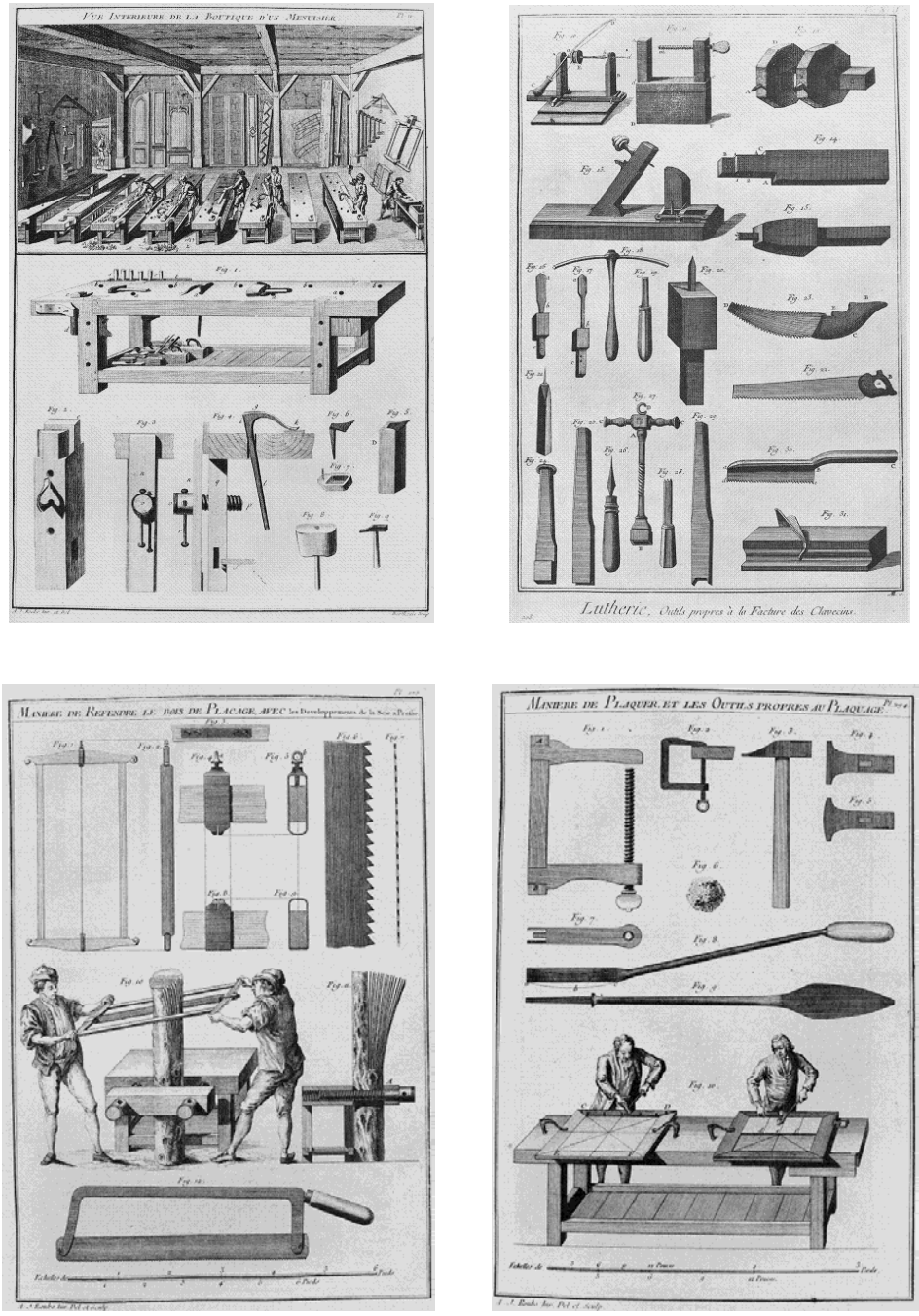

Figure 5.17: Various woodworking tools and workshop equipment used in musical instrument-making, as depicted in Roubo's *L'art du menuisier* (*top left, bottom left and right*) and in Diderot's *Encyclopédie* (*top right*) (Hubbard 1967: Plates XXXI, XXXII, XXXVI, XXXVII).

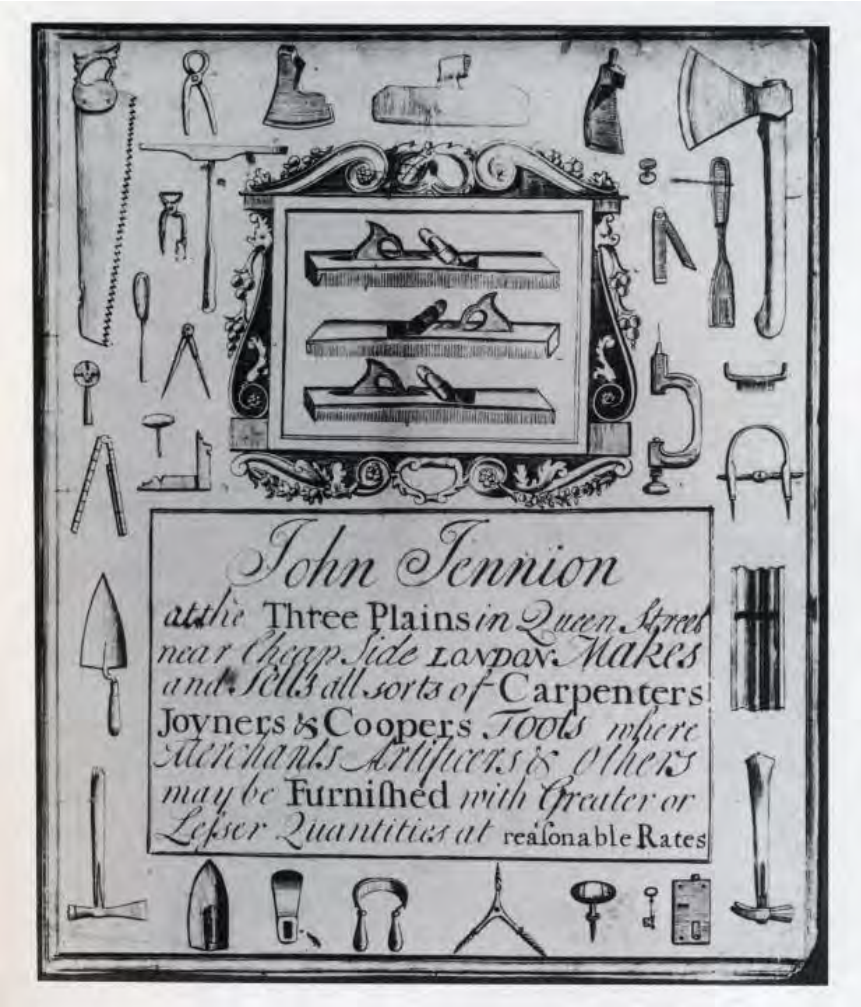

Figure 5.18: Various woodworking tools and equipment depicted in the trade card of plane maker and tool merchant John Jennion, London, c.1740 (Gaynor and Hagedorn 1993: 3, Fig. 4). Similar tools and equipment were used in stringed musical instrument-making.

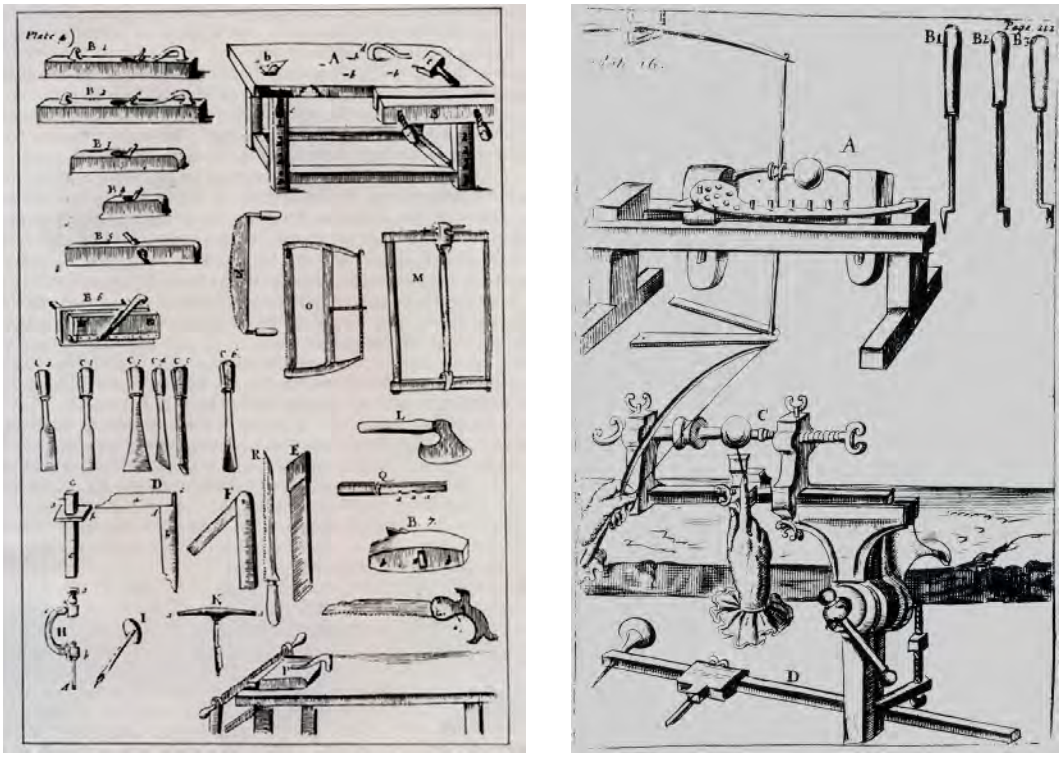

Figure 5.19: Drawings of various woodworking tools and workshop equipment (*left*) (Goodman 1964: 69) and of various lathes (*right*) (Barclay 1992: 92) included in Joseph Moxon's *Mechanick Exersises or the Doctrine of Handy-Works,* published in London in 1703. Similar tools and equipment were used in stringed musical instrument-making.

As already mentioned, much of the information presented above is based on a limited number of contemporary sources, allowing rather general assumptions; however, many hypotheses correspond surprisingly well with the details described in the 1792 inventory of Charles Pinto, a stringed and keyboard musical instrument manufacturer. Pinto's inventory is one of the few surviving documents that provide an interesting view of a guittar-making business during the late 18th century. The description of room No. 10 reads:

> No 10 front Room 1ft r / A bath stove a painting over the chimney / eighteen Prints framed and Glased A pier Glass in / carv'd and gilt frame Twenty one Guitars with / leather cover'd Cases Thirty one Guitar six do / A Patent Guitar by Longman & Co Sixty five violin / various two small do eleven base Viols and / violoncellos one base viol with a case A harp A do // An eight day clock in Japann'd case An arm / chair

six loose seat chairs Six violins and twelve / cases various About seventy violin bows various / two base viol cases A Mahogany dressing Table A / Mahogany Table sundry parts of violin and other / wood four pictures six small paintings six pier and / chimney Glasses four frames for pictures Six small / paintings some Mahogany boards A finger organ / A Cistern lined with lead a Case containing four / violins a Case and Violin A Case and violin – / two Cases A walnuttree Chest of Draws / A bird organ A Mahogany Pembroke table – / and parcel of sundry Articles. /[499]

The first remarkable detail of what seems to be essentially a stringed instrument-making workshop and storeroom, is that it is housed in the front room of first floor in Pinto's premises, most likely to allow good daylight, with a 'bath stove' to provide heat for warming and drying of the materials.[500] The second important detail to be noticed is the presence of 'six loose seat chairs' and right after 'six violins', followed a little later by an equal number of 'small paintings' and 'pier and chimney Glasses'[501]; previously, in the beginning of the description, six guittars ('six do') are also mentioned. These figures clearly indicate a working force of six workers[502], possibly seating around the three mahogany tables mentioned in the room and being mainly occupied in the assembling or finishing of guittars and instruments of the violin family.[503] There are also 'some Mahogany boards' as well as 'sundry parts of violin and other wood', an 'eight day clock', a 'Cistern lined with lead', probably for washing and storing water or other liquids, a 'Chest of draws', probably for storing tools and instrument parts, and a 'parcel of sundry Articles'.

However, the most striking fact concerns the number of instruments in the room. There are totally 59 guittars of various types, including 21 with leathered covered cases, suggesting finished instruments, plus 31, possibly unfinished, and six more, most likely in early stages of construction. The 'Patent Guitar by Longman & Co', apparently referring to a keyed guittar,

[499] TNA: PRO PROB31/821/151, Probate Inventory for Charles Pinto. I am grateful to J. Nex for providing me with her transcription of this document. For the entire content of Pinto's inventory see Appendix III.
[500] The placement of this room on the front side of first floor makes it unlikely that it was used only as a storeroom, as the large number of stored instruments would suggest.
[501] These were almost certainly framed mirrors to allow a better inspection of the instruments under construction. In addition, some of the prints and paintings mentioned inside the room could have depicted various designs and styles of instruments that the workers had to copy.
[502] Similarly, Heyde (2007: 44) has suggested that the workshop of Laux Maler, the known lute maker in Venice, may have been set up for six workers.
[503] The master would probably be seated in the listed 'arm chair', providing instructions and supervising the staff.

could have been a 'demonstration' instrument to enable the workers to study and imitate the patent design.[504] Furthermore, there are over 90 instruments of the violin family, probably in various stages of construction and finishing, along with about seventy bows, numerous cases, and two harps.

In addition, among the tools described in one of the neighbouring rooms ('No 11. Back Parlour') is 'a Machine for twisting of instrument Strings'. Furthermore, aside from personal belongings and common household objects, in many of the other rooms are mentioned various pieces of furniture, tools and equipment, as well as large quantities of materials, mainly wood and metal, along with numerous keyboard instruments and parts. These details suggest that Pinto's workshop was organised for large-scale production of stringed and keyboard instruments and possibly supplied other musical instrument manufacturers and dealers, since there are only few surviving instruments bearing his signature.[505]

5.3 GUITTAR MAKERS AND DEALERS

The guittar trade comprised three main groups of makers and dealers of different national origins. The first and earliest group consisted of makers and dealers of German origin, all of whom were based in London. The second and largest group included makers and dealers of British origin, the majority of whom worked in London, the rest being dispersed across the British provinces in England and Scotland. The members belonging to the third, latest, and smallest group were makers and dealers of Irish origin, most of whom were based in Dublin. Despite, however, their different ethnic, social, professional and economic perspectives, after a certain point these three groups developed simultaneously, interacting and influencing one another.

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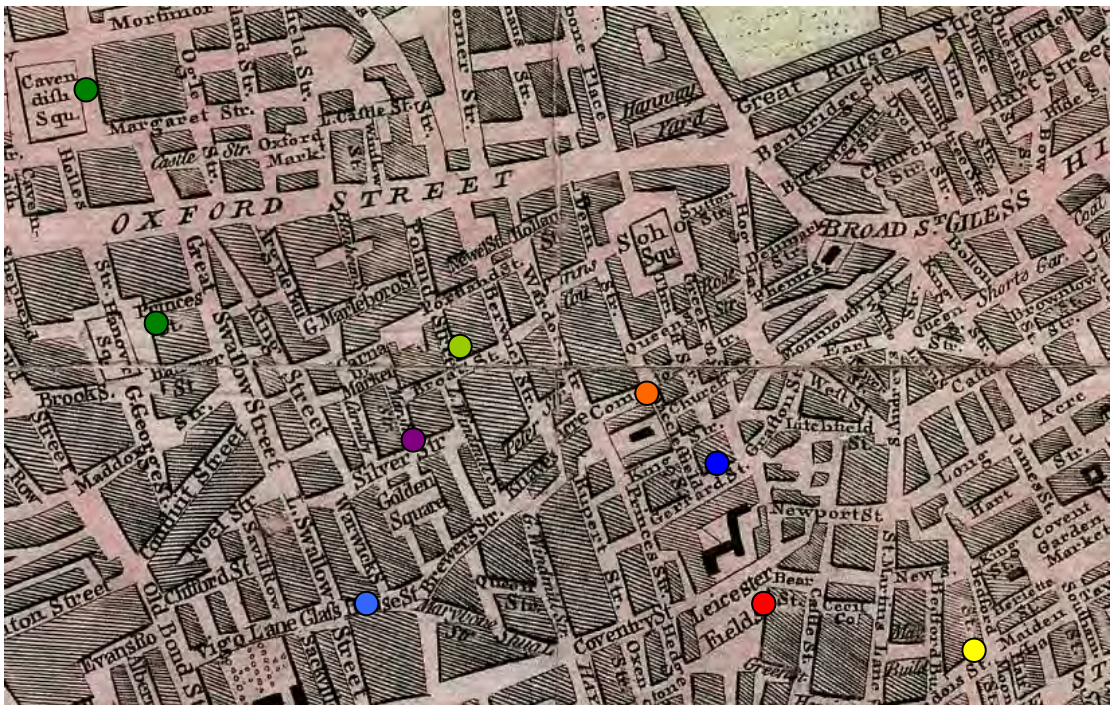
[504] In a similar way, Heyde (2007: 49) has argued that the 'Messiah' violin by Stardivari, which has survived in pristine condition and is now displayed in the Ashmolean Museum, Oxford, was intended as a model to demonstrate the high level of Stradivari's workmanship to both his staff and his potential clients.

[505] Since Pinto was a partner of Longman it can be assumed that several extant guittars by Longman & Broderip could have been made in Pinto's workshop. The details in his inventory also clearly suggest that Pinto, like Zumpe, Beck or Haxby, was mainly a keyboard instrument manufacturer who also produced guittars.

5.4 MAKERS AND DEALERS OF GERMAN ORIGIN

The first group of guittar-making consists of a number of instrument makers who, emigrating from Germany, settled in London during the 1750s. These craftsmen came from various professional backgrounds and trainings, but apparently found strong reasons to focus on guittar manufacture during its infancy. For instance, Hintz had started his career initially as a cabinet maker before becoming a guittar maker in the mid-1750s; Rauche and Hoffmann were known lute makers, Liessem was mainly a violin maker, whereas Zumpe, Beck, and Lucas built guittars in the early 1760s before eventually abandoning the guittar trade to become known as square piano makers. These craftsmen were responsible for the development of the guittar at an early stage and helped create a mass appeal for the instrument. Actually, the earliest signed guittars that have survived to date have been built by makers of German origin, such as Liessem, Hintz and Rauche. In addition, some important and popular inventions for the instrument have been accredited to German makers, like Hintz and Claus.

The workshops of most German guittar makers were concentrated in the west end of London, which in the late 18th century was the fashionable choice of residence among the royal circle and the aristocracy. It is noteworthy that most of these makers worked in close distances from each other. For instance, Hintz worked at Leicester Fields, not far from Rauche in Chandois Street, near Covent Garden. Liessem worked in Compton Street, near St. Ann's, very close to Claus at Gerrard Street. Beck's workshop was in Broad Street, near Carnaby Market, a few minutes walk from Zumpe's workshop in Princes Street, Hanover Square, while Lucas's business was in Silver Street, Golden Square, close to the Voglers in Glasshouse Street, near Swallow Street. The following map presents the business locations of German guittar makers in late 18th-century London (**Figure 5.20**).



Beck **Claus** **Hintz** **Liessem**

Lucas **Rauche** **Vogler** **Zumpe**

Figure 5.20: The business locations of German guittar makers in late 18th-century London. Detail from the *A Plan of the Cities of London and Westminster, and Borough of Southwark with the New Buildings 1767* (by kind permission of D. Hale, MAPCO: Map & Plan Collection Online).

The German makers built guittars in a wide variety of shapes and sizes, often using ornate decoration with veneers and inlays, while the choice of materials, and the construction and finishing are, in most cases, of a very high quality. It is also noteworthy that most of these makers built bowl-back guittars, probably as a result of the long lute-making tradition in German-speaking regions. Moreover, their earlier instruments are characterised by quite different and individual styles, less standardised than later examples, suggesting some kind of

experimentation with the instrument. In addition, their work has given many unique examples of guittars, where creative imagination has been combined with excellent craftsmanship.

5.5 MAKERS AND DEALERS OF BRITISH ORIGIN

The second group of guittar–making consists of instrument makers of British origin. These makers, most of whom worked in London, apparently started to become involved in the guittar trade once the instrument had been introduced and integrated in the capital's musical life. Very soon though the guittar culture expanded to the British provinces, and already in the 1760s the guittar manufacture was taking place in other major cities across England and Scotland, such as Salisbury, York, Newcastle, Edinburgh, Glasgow and Aberdeen.

The earliest of the British guittar makers, like Dickinson, Haxby, or Ruddiman, built instruments that followed the designs and styles established by the major German makers, such as Rauche or Hintz, with only minor exceptions. However, the work of the later British manufacturers, especially Preston, Longman & Broderip, the Thompsons, or Simpson, is characterised by a uniformity of features and a standardisation of production not typical in the work of German makers. In terms of construction, it is noteworthy that British makers almost exclusively built flat-back guittars[506], often using a combination of horizontal and diagonal bracing for the soundboard and back. It is also remarkable that in some cases the neck is joined to the body using a screw, the neck and head are made of many parts glued or screwed together than carved from a single piece of wood, and the wooden parts on the body and neck have often been stained before varnishing. Moreover, the decoration of their instruments is usually minimal, more standardised, and less opulent compared to the German makers. These practices indicate that British makers intended to accelerate construction and finishing, and to diminish the overall production costs, which in turn enabled them to offer their guittars at cheaper prices in order to attract middle-class customers. It is also interesting that in contrast to the earlier German

[506] There is, however, one surviving bowl-back guittar by Preston, signed 'J. N. Preston, Maker, Banbury Court, Long Acre', possibly made around the late 1760s. For more details see Sotheby's auction catalogue, 16 March 1971, lot 23, p. 10.

makers, like Liessem, Hintz, or Rauche, most British makers, such as Preston, Longman & Broderip, the Thompsons, Mason, Simpson, Haxby, or Ruddiman, did not date their guittars, perhaps because in that way they could sell their stocked instruments as new.

The majority of British guittar manufacturers working in London had established their businesses in the east side of Westminster and in the City of London, both in the county of Middlesex. This area was the commercial heart of the capital and the hub for most trades specialised in the production of art objects and luxury artefacts. The various merchants and artisans working in this area were close to market centres and main shopping streets, such as the Strand or Cheapside,[507] which allowed the easier distribution of their products. British guittar makers were thus aiming at middle-class customers, in contrast to German makers who were working in the more aristocratic West End. For instance, in Westminster, Mason worked in King Street, close to Rutherford at St. Martin's Court near Leicesterfields. Dickinson, Preston, and Bremner all had shops at the Strand, whereas Harley worked nearby at Wych Street. In the City, Thompsons worked at the Churchyard of St Paul's cathedral, like Oswald, who published music for the guittar in his shop 'on the Pavement St Martin's Church Yard' and probably sold guittars as well. Longman & Broderip had warehouses in No. 26 Cheapside and No. 13 Haymarket, and a manufactory in Tottenham Court Road, where their partner Goldsworth was probably producing Longman & Broderip's 'Patent Piano Forte Guittars'. Simpson's business was in Sweeting's Alley, near the East door of the Royal Exchange. The following map presents the business locations of some of the most important British guittar manufacturers in late 18th-century London (**Figure 5.21**).

[507] According to Picard (2000: 17) the Strand was 'a shopping mall as famous, and rather newer, than Cheapside in the City'. Picard (2000: 248) also mentions that the shops in the City 'were built on long narrow sites with back showrooms toplit from a skylight'.

Figure 5.21: The business locations of British guittar makers in late 18th-century London. Detail from the *A Plan of the Cities of London and Westminster, and Borough of Southwark with the New Buildings 1767* (by kind permission of D. Hale, MAPCO: Map & Plan Collection Online).

If the German makers created and established a market for the guittar in the 1750s and 1760s, the British makers and dealers, especially those working in London, were largely responsible for the development and sustain of the guitar trade in the 1770s and 1780s. Among them Preston was the most prolific guittar manufacturer, a fact evidenced in the number of surviving instruments bearing his stamp. Besides, some British manufacturers were especially influential in developing and popularising several important innovations, such as the watch-key tuning machine and the various piano-key mechanisms applied to the guittar.

In addition, many of these manufacturers, including Rutherford, Bremner, Preston, Longman & Broderip, and the Thompsons, published a significant quantity of music for the guittar, further promoting the instrument's appeal during the last quarter of the 18th century. The

entrepreneurial spirit of these makers transformed the guittar culture from an imported fashion into a well-organised and profitable trade, producing affordable instruments and scores for the average musician. These manufacturers, and, of course, the numerous unknown craftsmen who worked with them, managed to support a guittar culture across Britain and set the standards for a tradition in plucked stringed instrument-making which continued and expanded during the 19th century.

5.6 MAKERS AND DEALERS OF IRISH ORIGIN

The third group of guittar-making comprises instrument makers of Irish origin who started building guittars in the 1760s. Most of these makers, like Gibson, the Perrys, or McDonnell, were based in Dublin, although some were trained and worked in various places even outside Ireland, like Thomas Perry or Charles Clagget, who spent a considerable time of their lives and careers in London. As it can be noticed in the following map the business locations of Irish guittar makers in late 18th-century Dublin were concentrated around College Green (**Figure 5.22**).

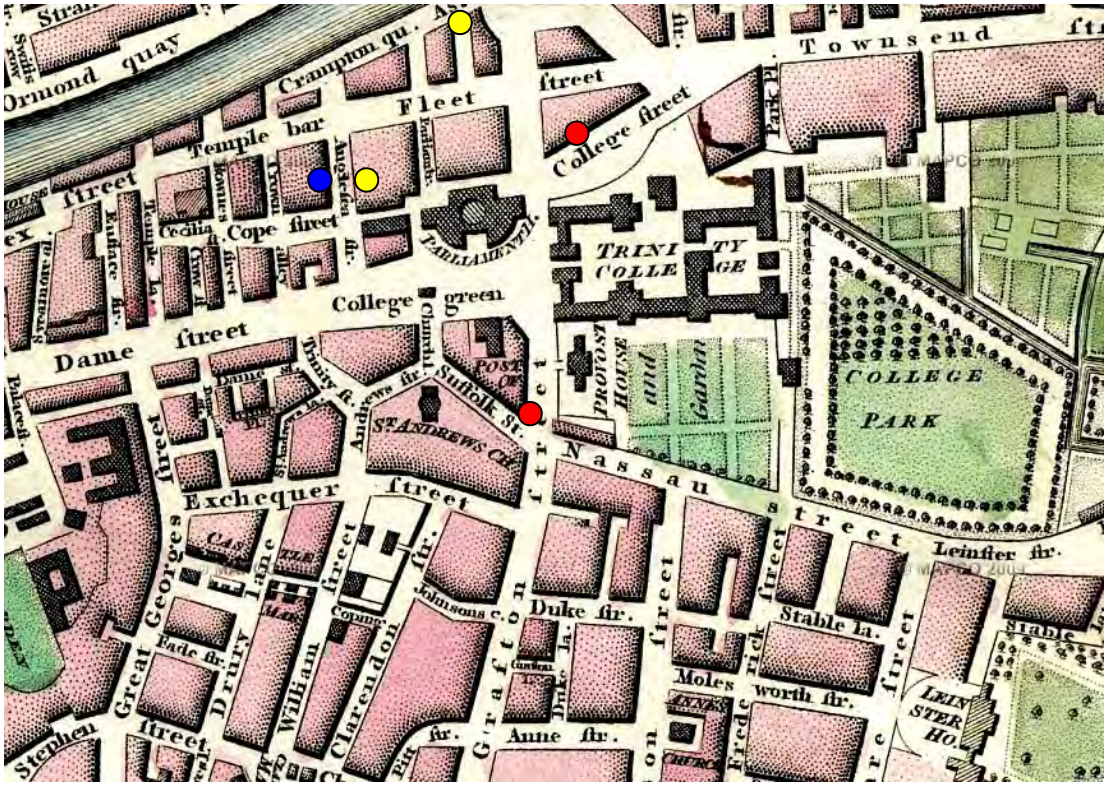


Figure 5.22: The business locations of Irish guittar makers in late 18th-century Dublin. Detail from the *Modern Plan of the City and Environs of Dublin*, by William Wilson, 1798 (by kind permission of D. Hale, MAPCO: Map & Plan Collection Online).

Gibson **Perry** **McDonnell**

As a result of Dublin being far away from London, which was the main guittar manufacture centre, the Irish makers developed their own styles, largely independent from the prevailing German or British influences. It is interesting that guittars by Irish makers share many common features between them, being at the same time quite different from the styles that became popular across Britain. Although their designs may have not been as dominant as those established in London, the input of the Irish makers in the development of the guittar is fairly significant and should not in any case be underestimated.

In general, the work of the Irish guittar makers is characterised by the high quality of manufacture, with some unique construction and decoration features not to be found elsewhere. To begin with, the majority of guittars by Irish makers have a larger body size, compared to the guittars made in Britain. This also implies that these guittars were tuned at a lower pitch of G or A, rather than that of C, which was more commonly used in Britain. The body shapes of guittars by Irish makers, like Gibson or Perry, are also quite exceptional and deserve further attention. Another important feature among Irish makers is the almost exclusive use of brass machine heads for tuning, instead of the more typical wooden pegs or watch-key machines.

Other typical characteristics of the work of Irish makers are the use of ivory veneer on the fingerboard, the varnishing of the body with a dark brown colour, and the purfling with a single inked line on the soundboard and back, as opposed to the more common purfling with two inked lines found on most guittars produced in Britain. It is also worth noting that Irish makers usually carved a long groove in the back of the neck of their guittars, which links them to the tradition of the Renaissance cittern; another connection to the earlier cittern is found especially on guittars by Perry, where the body tapers towards the bottom instead towards the neck, as on most other guittars.

6 GUITTAR DESIGN, CONSTRUCTION AND DECORATION

'Those Guitars that have moving Bridges on the Neck have the Advantage of the others; as by such, the Instrument is enabled to suit the voice with any Pitch of Song.'

Robert Bremner, *Instructions for the Guitar*, **1758**

'I shall therefore only add, that a good toned GUITAR with the Frets accurately divided, and the Strings well laid, do not a little contribute to the Ease, as well Pleasure of the Practitioner. The neatest Work, and the best toned GUITARS I have hitherto seen, have been made by **Rauche.'**

Ann Ford, *Lessons and Instructions for Playing on the Guitar*, **c.1761**

'Guittars, all sorts and Prices […] Guittar Cases […] genuine German Wire for […] Guittars […] Wire Strings, Silver'd in the compleatest manner and well proportioned for [...], Guittars [...].'

Longman, Lukey & Co, Catalogue of stock-in-trade, 1772

6.1 GUITTAR DESIGN

In terms of design the guittar could be placed along with several 'experimental' or 'exotic' instruments that were developed during the late 18th century.[508] It is important to note that around that time there was an increasing need for novelties among various trades[509], including the musical instrument-making business, and coming up with new designs and styles to attract potential customers was a major part of marketing.[510] Thus, although, as already described in Chapter 2, the guittar was strongly influenced by earlier instruments such as the cittern, bandora, orpharion and lute, its design gradually diverted from these precursor instruments to develop a wide array of original and distinctive features.

The guittar design, at least in its early stages, was characterised by the large variety of forms and dimensions.[511] Guittars by the same or by different makers from the 1750s and 1760s may vary considerably in body shape and size, scaling, number of frets, string arrangement, etc., preventing an unambiguous definition of a single guittar type.[512]

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[508] Holman (2007: 11) claims that from the 1740s there was a growing focus on what he refers to as 'exotic novelty instruments' in London concerts. Holman adds that this trend 'reached a rather bizarre peak in the 1760s', reflecting 'an increasing desire for novelty generally in fashionable society at this period' as well as 'increasing competition among performers', since exotic instruments 'could help performers in London establish a niche'. These instruments included, for example, the cither viol or 'sultana', the baryton, the colascione, the Æolian harp, the bell harp, the glass harmonica, and the orphica, as well as earlier instruments, such as the viola d'amore, the viola da gamba, the trumpet marine, or the hurdy gurdy, which sustained their popularity throughout the 18th century before disappearing in the early 19th century. The same period also witnessed the invention and establishment of expressive keyboard instruments, popularised in the form of the square piano.

[509] According to Craske (1999: 190-96) the manufacturers and retailers involved in the production and distribution of luxury items, especially in applied arts, had placed a central emphasis on the introduction of new materials and designs and also on the availability of a wide variety of commodities on offer in order to increase their fashion-conscious clientele.

[510] Given the social character of the guittar as a predominantly domestic instrument for female musicians, the importance of producing new fashionable styles was even higher, since women were becoming a significant consuming force particularly of luxury items, which included musical instruments.

[511] As an indication of the variety of guittar designs it can be noted that as early as 1758 Santo Lapis composed the *Guittar in Fashion; containing twelve double Sonatas for all Sorts of Guittars, with Minuets, and six Duettos and two Guittars […]*, while in 1760 he wrote *A libro aperto. Light Airs with Minuets for the Harpsichord and for all sorts of Guittars [...]*, as mentioned in Humpries and Smith (1970: 212); notably both works were published by R. Liessem, who produced nine-string and ten-string guittars of at least two different body shapes and scalings, as confirmed by several extant instruments.

[512] For example, a typical guittar by Preston has a flat-back teardrop-shaped body of approximately 350 mm length, 290 mm width and 75 mm depth; a typical guittar by Hintz has a flat-back bell S-top-shaped body of approximately 335 mm length, 305 mm width and 85 mm depth, while a typical guittar by Zumpe has a bowl-back almond-shaped body of approximately 370 mm length, 275 mm width and 120 mm depth.

However, after a certain point, probably during the 1770s, some popular guittar types prevailed over others leading to some sort of standardisation in guittar production which became more evident throughout the 1780s and 1790s, when there appeared a tendency among guittar manufacturers for producing instruments of a uniform design.[513] In fact, as it will be shown later, the similarities in dimensions and other constructional features among many surviving instruments indicate that different guittar makers may have used the same moulds and templates to construct their instruments.

6.1.1 GUITTAR SHAPES AND SIZES

The guittar body has eight basic shapes, one of which is used on instruments with a bowl back and seven used on instruments with a flat back. As it will be shown below all shapes have a round or oval form, with the upper or bottom parts often being undulated or pointed.

1. 'ALMOND' SHAPE: This oval shape, resembling an almond, is one of the earliest guittar shapes (**Figure 6.1**). This shape is used only on bowl-back guittars and is typically found on guitars by makers of German origin, such as Rauche, Hoffmann, Hintz, Zumpe, Lucas and Beck.[514] Almond-shaped guittars typically have wooden tuning pegs.[515]

[513] This is confirmed by the fact that a large number of surviving unsigned guitars have almost identical features with guittars by well known manufacturers such as Hintz, Rauche, Preston or Longman & Broderip.
[514] Interestingly, a bowl-back guittar by Preston is listed in Sotheby's auction catalogue of 16 March 1971, lot 23, p. 10. Accirding to the catalogue description this instrument is signed 'J. N. Preston, Maker, Banbury Court, Long Acre' on the back of the pegbox.
[515] Notably, two almond-shaped guittars, the first by Rauche in the Horniman Museum, London, [15.10.48/54], presented by Thibault et al (1973: 96), the second by Hoffmann, dated 1758, owned by Taro Takeuchi, London, are equipped with watch-key tuning machines.

Figure 6.1: 'Almond' body shape on a bowl-back guittar by Zumpe, 1764, EUC [1731].

2. 'TEARDROP' SHAPE: This essentially round shape, resembling a teardrop or a fig, is the one of the earliest and most common guittar shapes (**Figure 6.2**). This shape, mostly found on guittars by Rauche and Preston, is also very common among many unsigned guittars.

Figure 6.2: 'Teardrop' body shape on a flat-back guittar by Preston, c.1770, RAM [2006.2962] (<http://www.ram.ac.uk/emuweb//pages/ram/Query.php>, accessed 22/9/2010).

3. 'FESTOONED TEARDROP' SHAPE: This shape, resembling a festooned teardrop, or a wavy shell or cloud, is found on guittars by Liessem and Hintz, as well as on a few unsigned instruments (**Figure 6.3**). This shape was probably used only during the late 1750s and later abandoned.

Figure 6.3: 'Festooned teardrop' body shape on an unsigned flat-back guittar, late 1750s, HMH [MS130].

4. 'PEAR' SHAPE: This shape, resembling a pear, is typically found on guitars by Rauche and several unsigned guittars (**Figure 6.4**).[516]

[516] Two extant signed guittars, one by Elschleger, RCM [21], the other by Prior, NMM [1515], have similar pear body shapes; this shape is also very common on French cistres.

Figure 6.4: 'Pear' body shape on an unsigned flat-back guittar, c.1770, DCK [MI/A12].

5. 'FESTOONED PEAR' SHAPE: This shape, resembling a festooned pear, is found on guittars by Rauche and Buchinger, as well as on a few unsigned guittars (**Figure 6.5**).[517] Guittars of this shape are usually large long-scale instruments.

[517] Interestingly, three surviving guittars, the first by Preston, MMP [E.2079], the second and third by Longman & Broderip, in private ownership (information by J. Westbrook, PC, 19/2/2011) and in the Hamamatsu Museum of Musical Instruments, Sizuoka, [C-0034R] (information from H. Sugimoto, PC, 27/3/2011) respectively, have similar festooned pear body shapes.

Figure 6.5: 'Festooned pear' body shape on a flat-back guittar by Rauche, 1770, AMO [D.1:3].

6. 'BELL S-TOP' SHAPE: This essentially round shape has two 'S'-shaped convex pointed shoulders on the body top, forming a characteristic bell shape, and a round lower body part. This shape is mainly found on guittars by Hintz, Lucas and Haxby (**Figure 6.6**).

Figure 6.6: 'Bell S-top' body shape on a flat-back guittar by Hintz, late 1760s, DCK [MI/A10].

7. 'BELL J-TOP' SHAPE: This essentially round shape has two 'J'-shaped concave pointed shoulders on the body top, forming a distinctive bell shape, and a round lower body part. This shape is mostly associated with the Dublin makers Gibson and McDonnell (**Figure 6.7**). Guittars of this shape were normally equipped with machine heads.[518]

Figure 6.7: 'Bell J-top' body shape on a flat-back guittar by Gibson, 1782, NMM [2627] (photo by kind permission of NMM).

8. 'EGG' SHAPE: This oval shape, resembling an egg, is found on keyed guittars[519] by Claus or Longman & Broderip (**Figure 6.8**).[520] Most egg-shaped guittars are equipped with watch-key

[518] However, according to Doyle (1978: 24) a similarly shaped small guittar by Gibson in the National Museum of Ireland, Dublin, is equipped with 'small boxwood pegs running through the back with a small brass insert in the end to take the strings'.
[519] This shape was extensively used for keyed guittars with internal piano-key mechanisms, probably because the large and deep form of the body was convenient for housing the various mechanism components. However, several common egg-shaped guittars have also survived; these instruments have a much thinner body compared to the keyed type. Some of these thinner instruments are equipped with external, rather than internal, piano-key mechanisms.
[520] This shape is also common on several extant guittars ascribed to Simpson.

machines, rather than with wooden pegs or machine heads, suggesting that this shape was almost certainly established after the development of the watch-key machine in the late 1760s.

Figure 6.8: 'Egg' body shape on a flat-back keyed guittar by Claus, c.1785, BCP [8051].

The eight common body shapes used by guittar manufacturers are presented below (**Table 6.1** and **Figure 6.9**).

Guittar body shape	Guittar manufacturers
Almond	Hintz, Rauche, Hoffmann, Zumpe, Lucas, Beck, Preston
Teardrop	Liessem, Rauche, Dickinson, Preston, Perry, Longman & Broderip, Ruddiman, Simpson
Festooned teardrop	Liessem, Hintz
Pear	Rauche, Elschleger, Prior
Festooned pear	Rauche, Buchinger, Preston, Longman & Broderip
Bell S-top	Hintz, Lucas, Haxby
Bell J-top	Gibson, McDonnell
Egg	Claus, Longman & Broderip

Table 6.1: The eight common body shapes used by guittar manufacturers.

Figure 6.9: Examples of the eight common guittar body shapes. *Left to right, top*: **'Teardrop', 'Pear', 'Almond', and 'Bell S-top'. *Bottom*: 'Festooned teardrop','Festooned pear', 'Egg', and 'Bell J-top'.**

Apart from the wide range of body shapes presented above guittars were also made in various body sizes. Armstrong (1908: 6) has claimed that the guittar 'was made in at least three sizes', adding that 'those of the largest size […] were made in Ireland'. Galpin (1910: 26) has also mentioned that the guittar was made in different sizes, two of the smaller 'to be managed by young ladies from seven to ten years of age, the other by ladies of ten and upwards', without, however, citing his references. Among the examined guittars the total length ranges from 657

mm[521] to 915 mm[522]; however, the total length of the smallest specimens generally varies from about 680 mm to 720 mm, while that of the larger ones from about 740 to 770 mm. Considering their body length rather than their total length, and excluding minor deviations that can be found among otherwise similar instruments, the majority of surviving guittars can be clearly divided into six different body sizes, some of which are presented below (**Figure 6.10**).[523]

Figure 6.10: Guittars of various body sizes. *Left*: Preston (1), Longman & Broderip (2, 3), in the Museum für Musikinstrumente der Universität Leipzig, Leipzig. *Right*: Unsigned (1), Hintz (2), and unsigned (3) in the Dean Castle, Kilmarnock.

It is important to point out that some small guittars, such as two extant guittars by Rauche and one by Mason (**Figure 6.11**), were probably made for children, a fact evidenced in several late 18th-century paintings which show children playing similar small instruments.[524]

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[521] This is the total length of a guittar by Lissem dated 1758, EUC [1070].
[522] This is the total length of a guittar by Gibson dated 1772, EUC [309].
[523] For more details on the relation between body shapes and sizes see 'THE BODY', Chapter 6.
[524] See, for example, 'The Three Miss Walpoles as Children' and 'Family Group', presented in 'THE GUITTAR'S IMAGE IN GEORGIAN PORTRAITURE', Chapter 3; notably, each of the two paintings depicts a guittar of small body size with a proportionally wider neck, which would be necessary for a shorter instrument to allow proper spacing between the strings.

Figure 6.11: ***Left*****: Front view of a small teardrop-shaped guittar by Rauche dated 1763. Horniman Museum, London, [241] (Thibault et al 1973: 95).** ***Middle*****: Front view of a small pear-shaped guittar by Rauche dated 1764. Kunitachi College of Music, Tokyo, [265] (Gunji et al 1996: 337).** ***Right*****: Front view of an undated small teardrop-shaped guittar by Mason. Vintage Instruments, Philadelphia, [#27455] (<http://www.vintage-instruments.com>, accessed 14/11/2008). These guittars were probably made for children; note that the two guittars by Rauche have a proportionally wider neck than the larger guittars presented above; this feature is necessary for a shorter instrument to allow proper spacing between the strings.**

In addition, a small unsigned teardrop-shaped ten-string guittar, owned by Damien Delgrossi, has a quite short scaling of 320 mm, suggesting it was probably made for a child (**Figure 6.12**).[525]

[525] See <http://cittern.ning.com/photo/albums/a-very-small-guittar-or-cetra> (accessed 17/12/2010).

Figure 6.12: Front view of a small unsigned teardrop-shaped ten-string guittar owned by Damien Delgrossi (*bottom*), placed for comparison next to Gibson mandolin, owned by Ian Chisholm (*top*) (photo by Ian Chisholm, <http://cittern.ning.com/photo/albums/a-very-small-guittar-or-cetra>, accessed 17/12/2010).

Regarding weight, a crucial factor in musical instrument ergonomics, playability and portability, most surviving guittars are quite light as a result of their materials and construction methods. Bowl-back guittars are perhaps the lightest, followed by flat-back instruments with wooden pegs, while guittars equipped with watch-key machines or machines heads generally tend to be heavier due to the metal components of the tuning devices. In addition, instruments with a wooden rose and pegs are lighter compared to those with a metal rose and tuners. The heaviest of all are keyed guittars due to the added weight of the piano-key mechanism and the watch-key

machine with which they were normally furnished[526]; these instruments are also less balanced concerning holding and playing.

6.1.2 SYMMETRY AND PROPORTION

The guittar is a symmetrical instrument; thus, the two halves, left and right, typically mirror each other.[527] Accordingly, the guittar's symetrical design enable both right-handed and left-handed musicians to perform on the instrument. No guittars specifically made for left-handed performers are presently known, but a player could easily convert a right-handed instrument to a left-handed by modifying the movable bridge and nut by cutting new slots, or by entirely replacing these parts with new ones appropriately designed for a left-handed instrument, and then simply reversing the string order.[528]

Regarding proportion, on most examined guittars the three main parts, namely the body, neck, and head, have a ratio of more or less 2: 1: 1. Thus, in most cases the body typically assumes 45% to 55% of the total length; the neck and head are then set in a proportion of about 55% to 45% of the body length, being approximately equal to each other.[529]

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[526] These conclusions are based only on personal observations during the examination and handling of surviving instruments; no guittars have been weighed precisely using a scale.

[527] Keyed guittars are, of course, an exception to this rule, due to the piano-key mechanism. It has also been observed that several guittars seem to have a slightly asymmetrical body, which may be explained by the distortion of the wood on the body sides rather than by an intentional design by the makers.

[528] However, on surviving guittars where the watch-key tuning machine has the typical tuning order C-E-G-C-E-G engraved on the top, it is always indicated for right-hand players. The same situation is evident on keyed guittars with internal mechanisms, where the keys can only be played conveniently by a right-handed player.

[529] It has been assumed that before the standardisation of measurement units musical instrument makers used proportions rather than actual measurements when designing and constructing instruments, as it has been described in Coates (1985: 15-22). However, it is uncertain whether guittars makers used a certain system of proportions for the design of their instruments.

6.1.3 GUITTAR SCALING

The scaling of examined guittars ranges from 378 mm[530] to 530 mm [531], with the typical figures varying between approximately 410 mm and 440 mm.[532] The typical scaling used by several guittar manufacturers are listed below (**Table 6.2**).[533]

Guittar Manufacturers	Typical scaling [Nut to twelfth fret x 2] (mm)
Beck	456*
Buchinger	475*
Clagget	472
Claus	434 (± 1)
Dickinson	400*
Elschleger	454*
Gibson	470* (short), 530 (long)
Hintz	416 (± 8)
Liessem	378 (short), 448 (long)
Longman & Broderip	424
Lucas	426
Mason	360*
Perry	460*
Preston	424 (± 6)
Rauche	428 (short), 456 (medium), 484 (long)
Ruddiman	425*
Simpson	425*
Vogler	450*
Zumpe	441

Table 6.2: The typical scaling used by several guittar manufacturers (Key: *These figures come from descriptions provided by museum catalogues and private owners and may not correspond to the scaling but rather to the string length of the examined instruments).

[530] This is the scaling of a teardrop-shaped guittar by Lissem dated 1758, EUC [1070].
[531] This is the scaling of a guittar of a bell J-top guittar by Gibson dated 1772, EUC [309].
[532] Guittars with an average scaling between 410 mm and 440 mm were normally pitched at C. Larger instruments with a longer scaling ranging from 450 mm to 530 mm would have been pitched at G or A. Some smaller instruments with a quite short scaling of about 330 mm have also survived; these would have been tuned at a higher pitch, probably E or F. For more details see Rossi, D., 'A Brief Overview of the Cittern' (<http://www.cetrapublishing.com/artists/rossi/>, accessed 14/11/2010).
[533] The scaling on examined guittars was calculated by measuring the distance from the nut to the twelfth (octave) fret and then multiplying it by two, in contrast to the string length, which is the distance from the nut to the bridge. Since the guittar bridge is movable the present bridge position may not correspond to the scaling of a guittar.

6.2 GUITTAR PARTS

The three main parts of the guittar are the body, which consists of the front, sides and back, the neck, which accommodates the fingerboard, and the head, which holds the tuning mechanism; these parts are presented in detail below.

6.3 THE BODY

The body of the guittar acts as a resonator, reinforcing the sound of the vibrating strings; for this reason it needed to have significant volume and depth, especially since the guittar was normally plucked with fingers rather than a plectrum. As mentioned earlier, there is a wide variety of guittar body shapes and sizes. Regarding dimensions, the maximum body length[534] among examined guittars varies between 295[535] and 418 mm[536], with the typical figures ranging from about 335 mm to 385 mm. The maximum body width[537] among examined guittars varies between 265 mm[538] and 360 mm[539], with the typical figures ranging from about 290 mm to 310 mm. Finally, the maximum body depth[540] among examined guittars varies between 56 mm[541] and 120 mm[542], with the typical figures ranging from about 70 mm to 98 mm[543]. It is important to note that on most flat-back guittars the body depth is rather uniform with a slight tapering from the bottom to the neck.[544]

The following charts (**Figures 6.13, 6.14**) show the arrangement of guittars according to the body length and body width, which can help identifying the number of possible body sizes, and their

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[534] The maximum body length is the distance measured from the bottom of the guittar to the body-neck joint.
[535] This is the maximum body length of a teardrop-shaped guittar by Lissem dated 1758, EUC [1070].
[536] This is the maximum body length of a bell J-top guittar by Gibson dated 1772, EUC [309].
[537] The widest point on most guittars is usually situated between the rose and the bridge.
[538] This is the maximum body width of a pear-shaped guittar by Rauche & Hoffmann dated 1757, BMA [3.4565].
[539] This is the maximum body width of a bell J-top guittar by Gibson dated 1772, EUC [309].
[540] The deepest point on most flat-back guittars is usually at the bottom, although in some cases it is situated at the widest body point, somewhere between the rose and the bridge.
[541] This is the maximum body depth of a flat-back egg-shaped guittar by Clagget, c.1790, HMH [MS 129].
[542] This is the maximum body depth of a bowl-back almond-shaped guittar by Zumpe dated 1762, HMF [X16650]. Among the examined guittars bowl-back instruments have the largest body depth due to the vaulted body shape.
[543] This is the typical maximum depth of keyed guittars with internal piano-key mechanisms; these guittars need to have a deep body in order to accommodate the parts of mechanism. Keyed instruments of this type have the biggest body depth among flat-back guittars.
[544] However, on several guittars by Perry the body tapers towards the bottom, similarly to the Renaissance cittern.

relation to the different body shapes. The figures were taken from a sample of 40 examined guittars, including signed and unsigned instruments of at least one of the eight different shapes mentioned earlier.

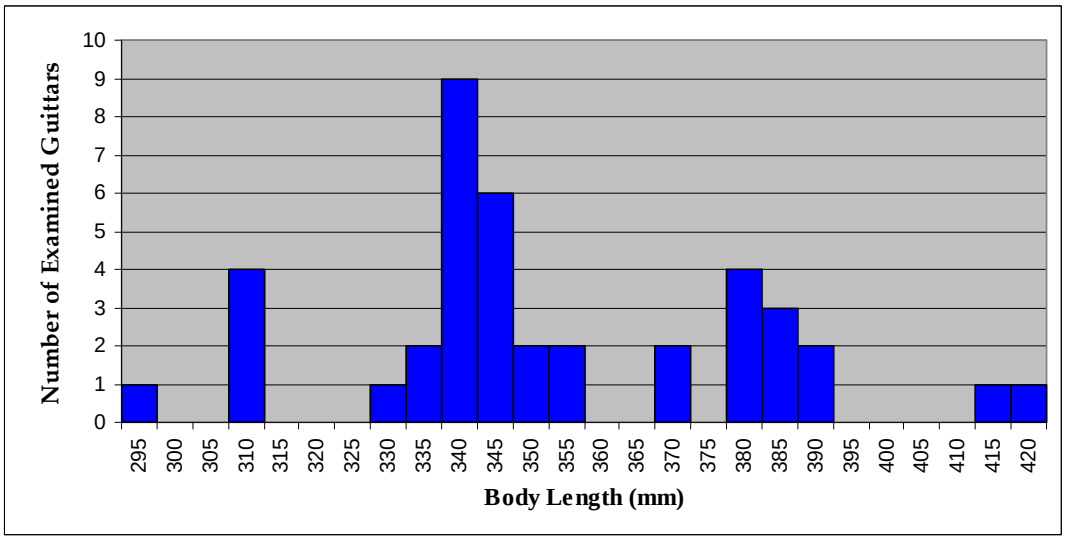

Figure 6.13: The arrangement of 40 examined guittars of different shapes according to the body length.

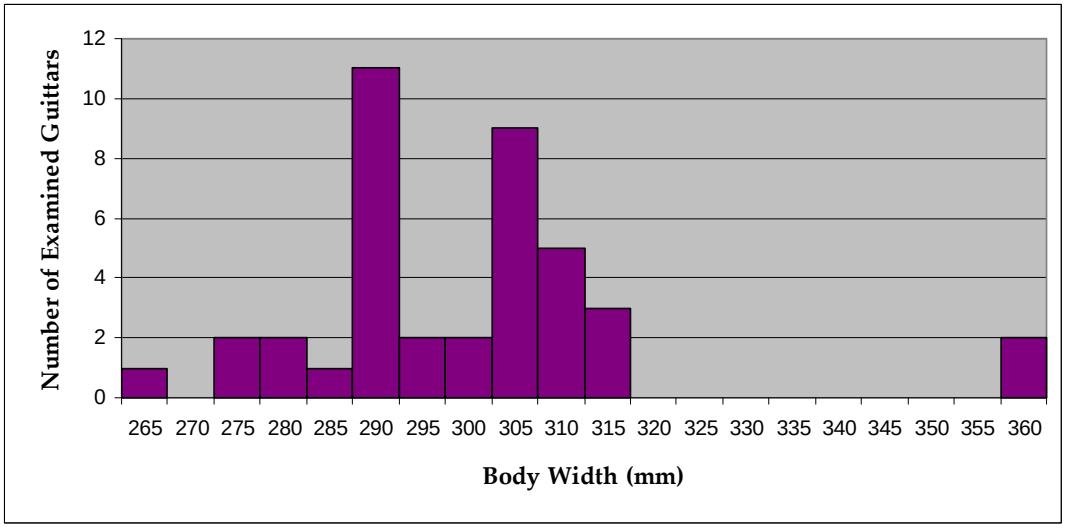

Figure 6.14: The arrangement of 40 examined guittars of different shapes according to the body width.

As can be noticed from the charts presented above, the 40 examined guittars form six distinct groups depending on the body length and four groups depending on the body width. The following chart (**Figure 6.15**) shows the dispersion the 40 examined guittars according to both the body length and body width, providing a clearer view of the separation between each group.

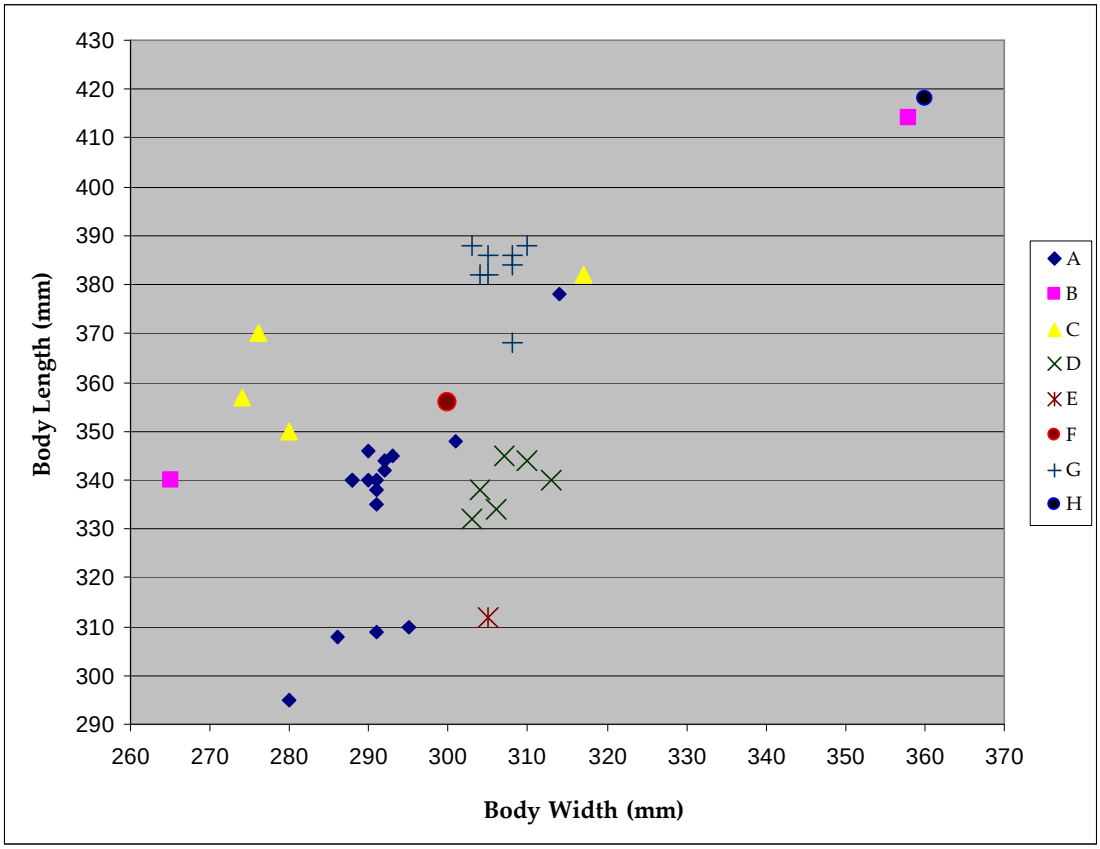

Figure 6.15: The dispersion of 40 examined guittars of different shapes according to the body length and body width (Key for body shapes: A: Teardrop, B: Pear, C: Almond, D: Bell S-top, E: Festooned teardrop, F: Festooned pear, G: Egg, H: Bell J-top).

Considering the details in the above chart, the 40 instruments can be divided into three distinct groups according to their body length, which also essentially determines their body size:

a) Instruments of small body length (between 290 mm and 320 mm), representing guittars with body shapes A (Teardrop) and E (Festooned teadrop).

b) Instruments of medium body length (between 330 mm and 390 mm), reperesenting guittars with body shapes A (Teardrop), B (Pear), C (Almond), D (Bell-S-top), F (Festrooned pear) and G (Egg).

c) Instruments of large body length (between 410 mm and 430 mm), representing guittars with body shapes B (Pear) and H (Bell J-top).

However, if guittars of shape A (Teardrop), such as those typically produced by Preston and several other makers, and which represent the majority of surviving guittars, are considered as a point of reference, the group of guittars with a medium body length can be sub-divided into three smaller groups:

1) Guittars of shape C (Almond), such as those typically produced by Rauche, Hintz or Zumpe, which have a more elongated but narrower body than shape A guittars.

2) Guittars of shape D (Bell S-top), such as those typically produced by Hintz, which have a similar body length but a wider body than shape A guittars.

3) Guittars of shape G (Egg), such as those typically produced by Claus or Longman & Broderip, which have a more elongated and wider body than shape A guittars.

Moreover, as can be noticed in the chart, guittars with body shape B (Pear) have either a small or large body length, while guittars with body shape E (Festooned teardrop) have a shorter but wider body than the majority of guittars with shape A (Teardrop). In addition, guittars of shape H (Bell J-top), such as those typically produced by Gibson, have the longest and widest body among all the different shapes. However, it is certain that the examination of a larger sample of guittars, especially those with body shapes B, E, F and H, could provide more accurate details regarding the relation between the different guittar body shapes and sizes.

6.3.1 THE FRONT

The front of the guittar body mainly consists of the soundboard, the bridge, and the soundhole and rose; these parts play a quite important part in the instrument's acoustics and sound. The soundboard on most guittars is made from two thin flat pieces of conifer wood of relatively narrow grain[545], usually alpine spruce, fir or pine, joined together in the middle and then cut and planed to the appropriate shape and thickness of approximately 1.5 mm to2 mm.[546]

The bridge of the guittar is normally placed towards the bottom of the soundboard. The bridge is typically movable, similar to that of the violin, remaining in place only by the vertical force of the strings; as a result only few guittars have retained their original bridges. On many examined guittars the bridge is made of ebony with an ivory saddle fixed on the top, where the strings rest.[547] The most common bridge shape resembles an arch with two long 'feet' on each side (**Figure 6.16**).

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[545] The dendrochronological analysis of the soundboard wood of four guittars in the Ashmolean Museum, Oxford, has shown several interesting facts. The instruments examined by John Topham in 1998 included two undated guittars by Preston, AMO [D.1:1] and AMO [D.1:2], a guittar by Rauche dated 1770, AMO [D.1:3], and a guittar by Hintz dated 1766, AMO [D.1:5]. According to the figures presented by Topham (2002: 257-8, 266) and Whiteley (2008: 92-97) the first three guittars have soundboard woods on which the latest annual ring is dated 1719, 1692 and 1750, respectively. More precisely, the youngest year-ring dates of the bass and treble sides of AMO [D.1:1] are 1694 and 1719, those of AMO [D.1:2] are 1676 and 1692, while those of AMO [D.1:3] are 1750 and 1733, respectively. Topham (2002: 248) claims that this difference in the dendrochronological dates between the bass and treble sides suggests not only that the two soundboard pieces were not adjacent but may also have been prepared separately. Moreover, with the exception of [D.1:1], on each of the other three instruments the two sequences from the soundboard cross-matched each other very well suggesting the pieces came from the same tree. Topham (2002: 257) also mentions that on AMO [D.1:1] the two sequences from the soundboard cross-matched a type of wood which he refers to as 'main stream' wood, typically used on instruments made after c.1730 in London by makers such as Thomas Smith, Peter Wamsley, John Johnson, William Forster Jnr. and Richard Duke, suggesting 'a very organised distribution of wood among the makers from what appears to be a very small regional tree growing area'. Topham further notes that although AMO [D.1:3] was made in 1770 'the characteristics of the wood appear to be similar to wood used by a particular group of makers in London in the 17th and early 18th century', including names such as Barak Norman, Nathaniel Cross, Edward Pamphilon and Thomas Urquhart.

[546] Topham (2002: 247) has mentioned that 'it is traditionally assumed that the best acoustically performing fronts of instruments are those where the two sides are taken from a single wedge or plank of wood which is split and joined, with the youngest rings coinciding at the centre join'. The macroscopic examination of the soundboard wood on many surviving guittars has shown that there is no standardisation among makers concerning the width or direction of the wood grain; thus, on some guittars the wide-grained part of the wood is placed towards the soundboard centre and the narrow-grained towards the sides, or vice versa.

[547] Notably, a guittar co-signed by Clagget and Gibson and dated 1763, SAA [1086], has a split bridge saddle between the bass and the treble courses, possibly in order to improve intonation. In addition, a bowl-back guittar by Zumpe dated 1762, HMF [X16650], has a rather uncommon fixed 'mustachio' bridge, which is most likely the result of an alteration in order to convert the guittar to a gut-strung instrument.

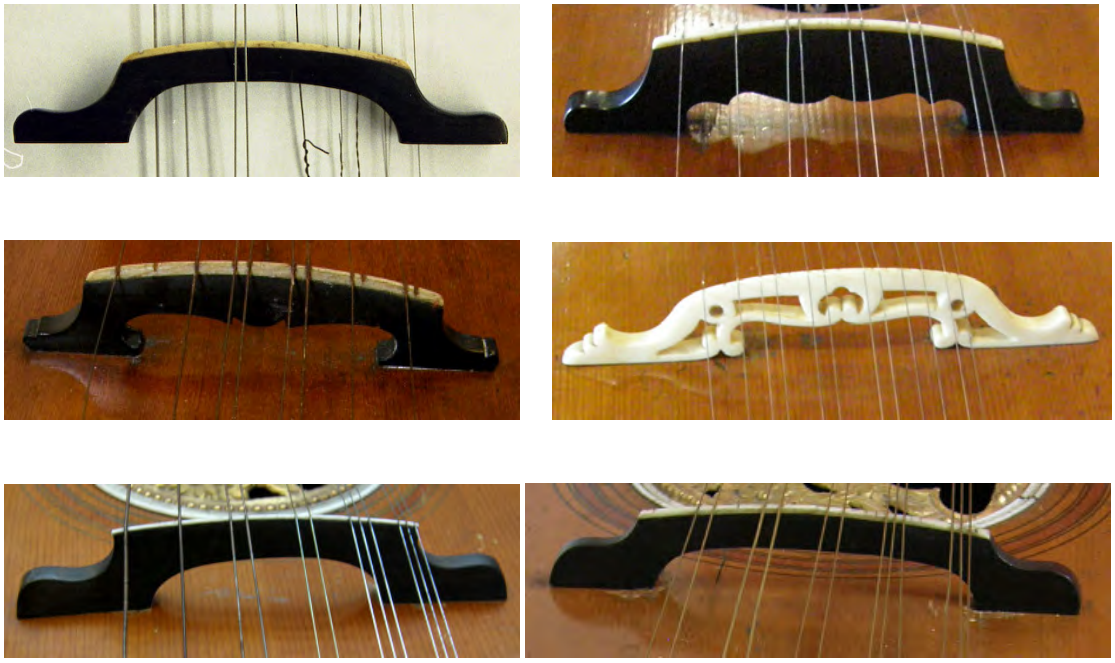

Figure 6.16: Six examples of typical guittar bridges. ***Left to right, top*****: Bridges for ten-string guittars by Preston, RAM [2006.2962] and AMO [D.1:2].** ***Middle*****: Bridges for eleven- and twelve-string guittars by Rauche, DCK [MI/A9] and AMO [D.1:3]; the ivory bridge may not be original.** ***Bottom*****: Bridges for twelve-string keyed guittars by Longman & Broderip, GNN [MIR 857] and MUL [628].**

In the centre of the soundboard, above the bridge, there is normally a soundhole that receives the rose. On most guittars the rose, which is one of the most characteristic features of the instrument, is flat or slightly domed and has a circular shape.[548] The roses on some early guittars are carved directly in the soundboard wood, while on later guittars the wooden roses have been made separately and then inserted into the soundhole, often having a surrounding ivory ring.[549]

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[548] In contrast to guittars, many French cistres or Dutch cisters typically have a sunken rose in a 'reverse cake' pattern, although some have brass roses like those used on guittars.
[549] As a result of their delicate construction on many surviving guittars the roses are broken or missing.

However, most guittars typically have inset roses made of cast brass or ormolou[550], similar to those used on harpsichords (**Figure 6.17**).[551]

Figure 6.17: ***Left to right*****: The rose on a harpsichord by Jacob Kirkman dated 1766, showing King David playing the harp, flanked by the maker's initials 'I' and 'K'. A. Beurmann collection, [2000.40] (Beurmann et al 2010: 229, fig. 2). Next to it is a rose with a similar central theme on a bowl-back guittar by Rauche dated 1764, NMS [1905.842]. The fact that this guittar has been altered to a gut-strung instrument and that the rose bears the initials 'B' and 'H' on its sides indicate that the rose may have been made originally for the harpsichord maker Backer Harris, mentioned in Boalch (1995: 80), and was added later during the alteration of the guittar; a similar rose is attached on a bell S-top guittar by Hintz, DCK [MI/A10]; the last rose, on an undated teardrop-shaped guittar by Preston, MSR [766], is similar to the rose on the Kirkman harpsichord but has a different central theme.**

The guittar is probably the only plucked stringed instrument to have been equipped with a metal rose; it seems that, apart from the obvious advantage of saving construction time, the metal roses may have been deliberately designed to provide different sound characteristics.[552]

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[550] According to Johnson (1984: 162) ormolou is a type of 'golden' brass cast into mounts and gilded with pure gold. Ormolou was used extensively for the decorative mountings of furniture, clocks, lighting devices, and porcelain.

[551] Ironically, Kirkman's harpsichords have similar roses as many extant guittars, even though, according to legend, Kirkman had attempted to harm the guittar's rising popularity in the 1770s in order to save his harpsichord-making business. Additionally, J. Nex (PC, 9/2007) has noted similarities in roses used on harpsichords and guittars by Longman & Broderip.

[552] Guittar player Taro Takeuchi (PC, 6/7/2009) has observed that a metal rose adds extra weight on the soundboard, thus dampening the resulting resonance and reducing the sympathetic vibrations, which are a typical feature of the guittar sound. He also argues that guittars with wooden pegs and rose have a louder but less articulated sound compared to guittars having a metal rose, on which the notes produced are less loud but more defined, with a rather metallic tone.

Guittar roses were decorated with various themes. The wooden roses are usually decorated with intersecting geometrical patterns or floral motives; a quite common pattern is a 12-pointed star of ebony and ivory, usually surrounded by a geometrical or floral motif.[553] On the other hand, due to their construction the cast brass or ormolou roses offered the chance for more elaborate depictions. These include geometrical and floral motives, as well as various intersecting stringed and wind musical instruments in symmetrical arrangements, which usually surround the central rose theme; a common theme typically includes four guittars, horns and recorders.

The central rose theme on brass roses may include intersecting geometrical or floral motives; natural images, such as a sun or star; a female musician, possibly Saint Cecilia, performing on the cittern, lute or guittar; or a duet of male and female musicians playing the flute and the hurdy-gurdy, respectively.[554] As shown above, biblical themes, such as King David playing the harp[555], as well as symbolic or allegorical images from mythology, such as a Cupid[556] or a cherub holding a banner, are also common. In addition, the roses of keyed guittars equipped with internal piano-key mechanisms usually have a line of six holes[557] to allow the hammers strike the strings.[558] It is important to point out that several guittars by different makers have identical roses, suggesting that they were supplied by the same manufacturer (**Figure 6.18**).

Takeuchi also claims that guittars without roses seem to produce a louder sound. Metal roses have also been used on various surviving examples of the viola da gamba.

[553] As Fildes et al (2011: 11) have noted, this design, known as 'compass rose', was 'a popular 18th-century motif linked to the maritime tradition and world trade'.

[554] Rueger (1982: 16) has claimed that the depiction of musical instruments and musical scenes were 'supposed to arouse and focus the listener's attention on the act of musical creation visually as well as aurally, while acting as an additional visual stimulus on the player himself.'

[555] Rueger (1982: 59) argues that King David was a popular subject of musical instrument decoration 'not only in his guise of psalmist and musician', being a known master of the harp, 'but also because of his dramatic rise from shepherd boy to become a respected and even feared ruler'.

[556] According to Rueger (1982: 62-3) Cupid, a common mythological figure depicted on musical instruments, was 'the little god of love and general mischief-maker'.

[557] Keyed guittars equipped with Goldsworth's patent internal mechanism usually have two lines of six holes on the rose, on for the hammers, the other for the dampers. For more details see 'THE 'PATENT PIANO FORTE GUITAR' BY LONGMAN & BRODERIP', Chapter 7.

[558] Notably, there are two keyed guittars with simulated roses. The first is a keyed guittar by Claus, c.1785, V&A, [240-1881]; this instrument has a simulated rose with six holes drilled diagonally on the soundboard wood to allow the hammers strike the strings. Likewise, a keyed guittar by Dodds & Claus in New York, c.1791-93, SAM [2001.124.1], has a simulated rose with six holes surrounded by an unusual elliptical shape painted directly on the soundboard wood. For more details of the two instruments see 'THE PATENT INTERNAL PIANO-KEY MECHANISM BY CLAUS', Chapter 7.

Figure 6.18: Examples of typical guittar roses. *Left to right, first line*: Liessem (1, 2), Rauche (3-5). *Second line*: Zumpe (1), Beck (2), unsigned guittars (3, 4), Gibson (5). *Third line*: Hintz (1-5). *Fourth line*: Preston (1-4), Ruddiman (5). *Fifth line*: Longman & Broderip (1- 4), Claus (5). Note the similarities between the roses used by different makers suggesting that they were supplied by the same manufacturer.

6.3.2 THE SIDES AND BACK

On most guittars the sides and back are typically made of plain or figured maple.[559] The sides and back of bowl-back guittars are typically constructed of an odd number of maple ribs separated by thin ebony spacers, similarly to the lute. The sides on flat-back guittars with a teardrop, egg or pear body shape were made by bending two thin pieces of maple about 1.5 mm to 2 mm thick , which were then joined at the middle of the bottom. On some guittars, however, the sides are made using a single piece of maple bent and formed to the appropriate shape.[560] On the other hand, on guittars with bell-top or festooned body shapes the sides usually consist of four pieces of maple which were formed and joined together.

The parts would be then assembled probably using an internal mould on which they would be secured in place with clamps to add sufficient pressure for good adhesion and to ensure symmetry and accuracy of the joints. The main advantage of an internal mould, typically used in violin construction, is that it allows the outer side joints to be visible during construction, thus eliminating any mistakes, especially around areas of complex curves and edges. As already mentioned the sides on flat-back guittars have a slight tapering taper from the bottom to the neck.

Although, as it has been shown earlier, there are several extant guittars with a bowl back, the majority of surviving guittars have a flat back, which is slightly convex towards the centre. The gradual abandonment of the bowl-back design in favour of the flat-back can be explained on the basis of their diverse construction methods[561], as well as their different acoustic characteristics.[562]

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[559] Maple is a quite strong and resistant wood, while, at the same time, being relatively light, flexible, and easy to carve or bend, usually holding its shape once bent. Maple is also subject to several growth effects that provide it with attractive figure variations of different width and depth. For these properties it has been traditionally used to a great extent in stringed instrument-making, especially for the necks, sides and backs of violins and guitars. For more details see Siminoff (2008: 80).

[560] As on other stringed instruments, the sides of the guittar are softened and shaped using a hot iron bar.

[561] Most bowl-back guittars were built in London during the late 1750s and early 1760s by makers of German origin. Bowl-back guittars are also commonly depicted in Georgian portraiture. However, it seems that the bowl-back design was gradually abandoned, perhaps because it was more difficult and time-consuming to construct compared to flat-back instruments. The latest known bowl-back guittar is a nine-string instrument by Rauche dated 1779 and now preserved in the Birmingham Conservatoire, Birmingham, [11.2].

On flat-back guittars the back usually consists of two pieces of figured maple about 1.5 mm to 2 mm thick, which in many cases are bookmatched, glued in the middle and then cut to the desired shape. However, on several examined guittars the back is constructed of a single piece of maple, whereas in few cases the back comprises three pieces of maple.[563]

The bottom side of the guittar accommodates the soundboard protector, endpins and tailbutton. The soundboard protector on most guittars is usually a thin strip of about 2 mm of ivory or bone appropriately shaped and inlaid on the bottom edge of the soundboard. Some guittars have no soundboard protector and consequently the strings rest directly on the soundboard wood, which in many cases has created deep grooves and longitudinal cracks. In some cases, a piece of felt or leather has been used to protect the soundboard wood and probably to dampen the unwanted resonance of the wire stings. Below the soundboard protector most guittars have a number of ivory or bone round endpins with a head diameter of 4 mm to 6 mm, where the strings are attached. On ten-string guittars the ten endpins are inserted on the bottom below the soundboard protector, typically arranged in two rows; guittars with more or less than ten strings may have different endpin arrangements (**Figure 6.19**).[564]

Beneath the endpins most guittars have a tailbutton in order to attach a ribbon for strapping the instrument around the player's shoulder in order to improve balance and support when performing. The tailbutton is usually made of ivory or bone, often consisting of two parts joined or screwed together, and is usually inserted where the two sides join on the middle of the bottom. The typical head diameter of a guittar tailbutton ranges from 8 mm to 12 mm, while its design and materials may vary between different makers. Since the endpins and tailbutton are

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[562] For example, guittar player Taro Takeuchi (PC, 6/7/2009) has noted that bowl-back guittars have a deeper and darker sound, compared to flat-back guittars, which have a brighter sound with a quicker response and better projection.
[563] Notably, on two extant bell S-top guittars by Hintz, EUC [1114], and LCF, [1988/89], the back has been veneered with burr walnut.
[564] Some extant guittars have ten strings, but only nine endpins, suggesting that one endpin, usually the first on the treble side, would hold two strings.

small movable parts, on many examined guittars they are broken, missing, or replaced with new components which may be historically inaccurate.[565]

As can be noticed in the following photos, the purfling on the soundboard, back, and, occasionally, on the sides of most guittars typically consists of one or more pairs of black inked lines, although on guittars by Irish makers the purfling usually comprises a single inked line on the soundboard and back. Additionally, on some guittars the edges of the soundboard and back are inlaid with dark and light woods in a characteristic half-herringbone pattern surrounded by thick red inked lines.

[565] For example, on several examined guittars the missing ivory endpins have been replaced with iron nails or screws.

Figure 6.19: Six examples showing the position and arrangement of the soundboard protector, endpins and tailbutton on the guittar bottom. *Left to right*, *top*: Ten-string guittars by Preston, NMS [1908.251], and Zumpe, EUC [1731]; the ivory tailbutton of NMS [1908.251] is broken, while that of EUC [1731] is missing. *Middle*: Eleven- and twelve-string guittars by Rauche, DCK [MI/A9] and AMO [D.1:3]. *Bottom*: Twelve-string keyed guittars by Longman & Broderip, GNN [MIR 857] and MUL [628]. The piece of red felt attached over the soundboard protector on GNN [MIR 857], possibly to dampen the string resonance, may not be original.

6.3.3 INTERIOR BRACING AND BODY-NECK JOIN

The soundboard and back of flat-back guittars are strengthened by interior bracing of various styles. The placement of these bars, which are typically at least twice as thick as the soundboard wood, is important to the sound of the guittar, as it affects the direction of the resulting vibrations on the soundboard when a string is plucked.

The most common bracing on consists of a row of three to six horizontal bars of spruce or pine, being approximately 12 mm to 16 mm high and 6 mm to 8 mm wide and usually tapered at the ends, which are glued on the soundboard and back.[566] This horizontal bracing style has been commonly used [redacted] on bell-top guittars by Hintz[567] and Gibson (**Figures 6.20-6.22**).

[redacted]

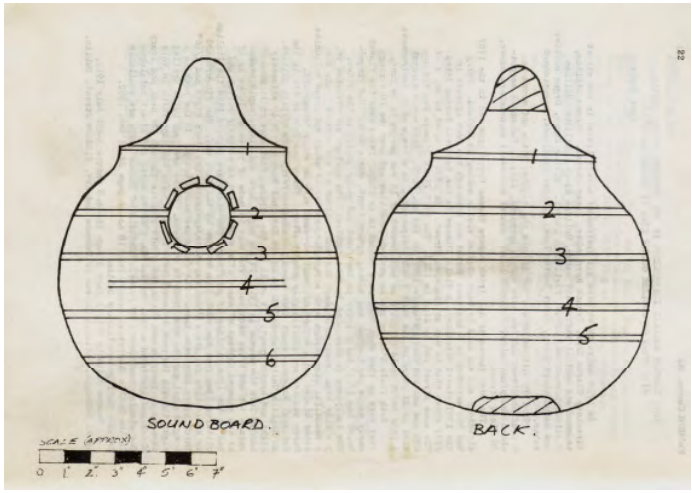

Figure 6.20: [redacted] *Right*: **Technical drawing showing the horizontal bracing, which comprises six bars on the soundboard and five bars on the back, on a bell J-top guittar by Gibson dated 1764, NMI [1913.396] (Doyle 1978: 22).**

[566] A similar bracing style with a number of horizontal bars glued on the soundboard is also used on bowl-back guittars.
[567] The interior bracing of several examined guittars by Hintz typically consists of a number of horizontal bars on the soundboard and back.

Figure 6.21: Horizontal bracing comprising six bars on the soundboard and six bars on the back, on a bell J-top guittar by Gibson (photo by A. Robb, <http://www.art-robb.co.uk/EG.html>, accessed 27/11/10).

Figure 6.22: A large crack on the bass side of a bell S-top guittar by Hintz, EUC [1114], reveals the interior bracing comprising five horizontal bars on the soundboard and six horizontal bars on the back. Note that the top bar is fixed exactly at the pointed joint of the sides.

Interestingly, the soundboard bracing of a bell S-top guittar by Lucas, in the Museum of Fine Arts, Boston, [17.1746], comprises two horizontal bars and a third diagonal bar placed below the rose; the back bracing consists of three horizontal braces on back (**Figure 6.23**).

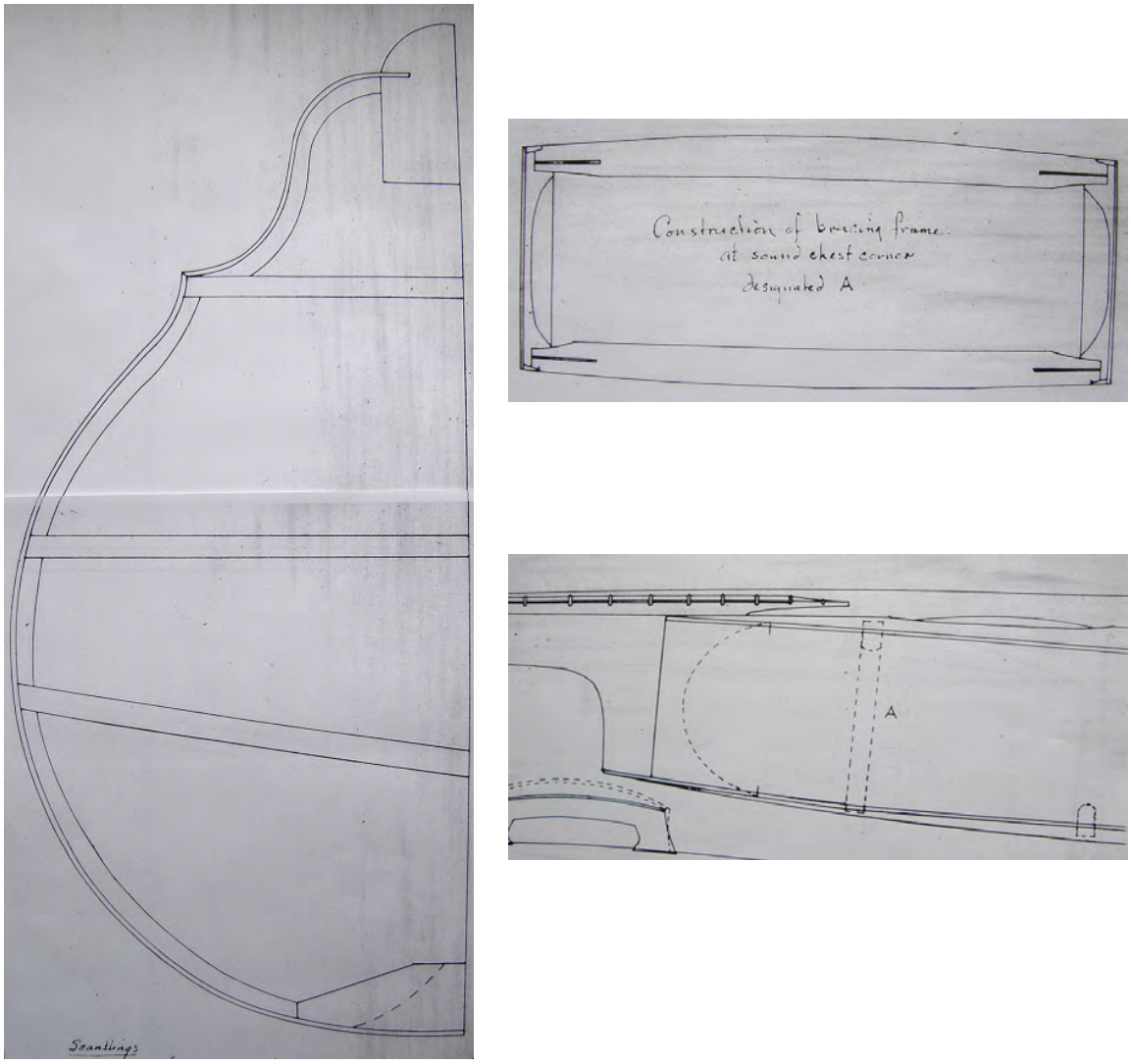

Figure 6.23: Details of a technical drawing by J. Donald Warnock (1970) of a bell S-top guittar by Lucas, MFA [17.1746] (by kind permission of the MFA). Note the unusual soundboard bracing (*left*) and the structure of the bars in the two cross-section views of the body above the rose (*right*).

The soundboard and back of guittars are usually supported on the sides by a thin lining across the edges to provide extra surface area for gluing the parts together.[568]

The bracing structure using a number of three to five horizontal bars on the soundboard and back is also quite common on pear-shaped guittars and cistres (**Figure 6.25**).[569]

[568] Baines (1965: 44) has noted that the 'normal flat-backed instruments have internal side-linings in the manner of violin making and the backs are often pressed to curve inwards to the neck as seen from the side'.

[569] The interior bracing of a small pear-shaped guittar by Rauche and Hoffmann dated 1757, in the Burns Birthplace Museum, Alloway, Ayrshire, [3.4565], consists of five horizontal bars on the soundboard and four horizontal bars on the back, while that of an examined cistre in the Deutsches Museum, Munich, [10205], comprises four horizontal bars on the soundboard and three horizontal bars on the back.

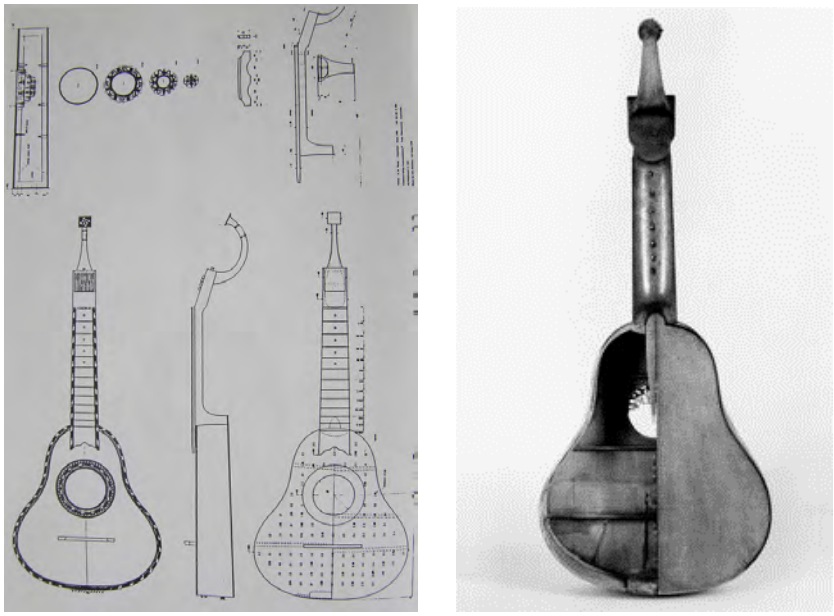

Figure 6.25: ***Left*****: Technical drawing of a pear-shaped cistre by G. Le Blond of Dunkirk, c.1780, Gemeentemuseum, Hague, [Ec 116-X-1952], drawn by Arie Doelman, 1986 (Van Acht 1992: 158). Note the bracing with three horizontal bars on the soundboard and back.** ***Right*****: Back view of a pear-shaped cistre by Deleplanque of Lille dated 1773, Musikinstrumenten-Museum der Universität Leipzig, Leipzig, [620] (Michel 1999: 47); the broken part of the back reveals the horizontal bracing on the soundboard.**

However, many surviving teardrop-shaped guittars by Preston have a quite distinctive horizontal and diagonal soundboard bracing. This consists of two short horizontal bars placed above the rose, a long horizontal bar below the rose, and two long diagonal bars, fixed on the sides around the middle of the rose, which meet roughly underneath the middle of the bridge forming a characteristic 'V' shape. Four additional bars of smaller length are fixed on the lower part of the body at a sharp angle to the long horizontal bar, while a short thin horizontal bar is also fixed just below the rose. The bracing on the back typically comprises four horizontal bars. Moreover, there are typically four side braces attached at the side ends of the two diagonal and the long horizontal bar; these line up with the back bars, creating a kind of rectangular 'box' in the middle of the body. It is noteworthy that the soundboard and back bars are usually not set into the lining but just butt against it (**Figures 6.26-6.30**).

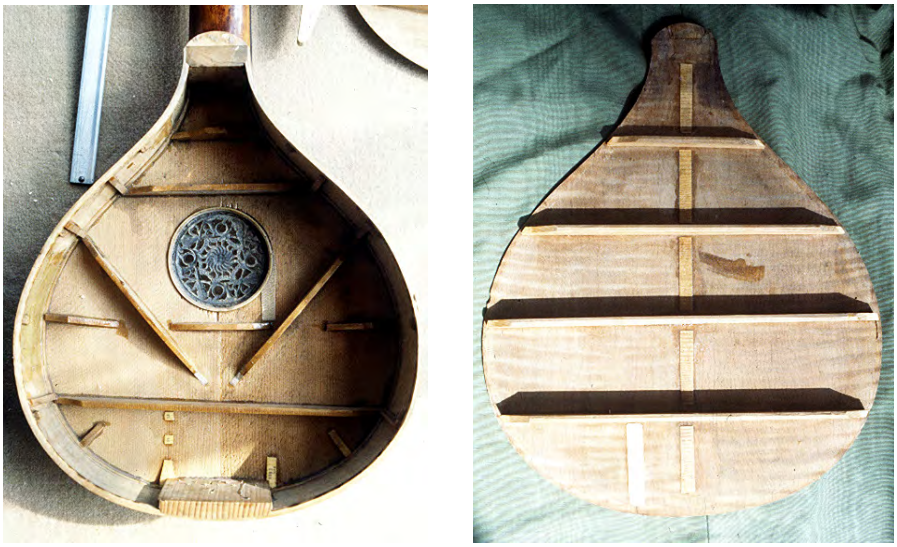

Figure 6.26: ***Left*****: The distinctive soundboard bracing, with two diagonal bars forming a characteristic 'V' shape below the rose, on a guittar by Preston, PLN [C101].** ***Right*****: The bracing of the back consisting of four horizontal bars (photos by kind permission of PLN).**

Figure 6.27: ***Left*****: The distinctive soundboard bracing, with two diagonal bars forming a characteristic 'V' shape below the rose, on a guittar by Preston, private collection, UK.** ***Right*****: The bracing of the back consisting of four horizontal bars, which have been removed during restoration (photos by A. Robb, <http://www.art-robb.co.uk/EG.html>, accessed 27/11/10).**

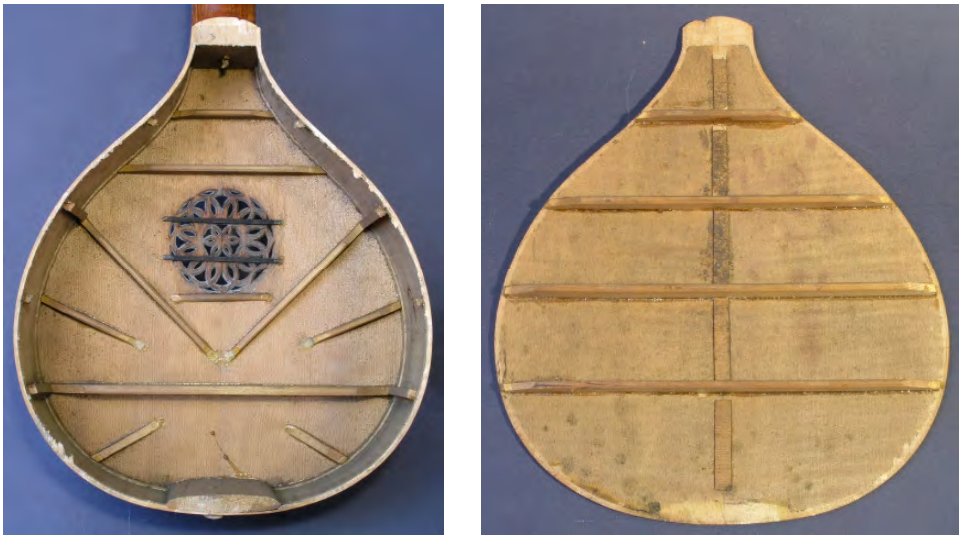

Figure 6.28: The soundboard (*left*) and back (*right*) bracing on a guittar by Preston in a private collection (photos courtesy of J. Westbrook). Note that the side braces line up with the soundboard and back bars, creating a kind of rectangular box in the middle of the body.

Figure 6.29: The soundboard bracing [redacted] on a guittar by Preston/Thompsons owned by A. Rutherford (r*ight*) (photo courtesy of A. Rutherford). Note that the bracing is slightly asymmetrical (even considering any photographic distortion).

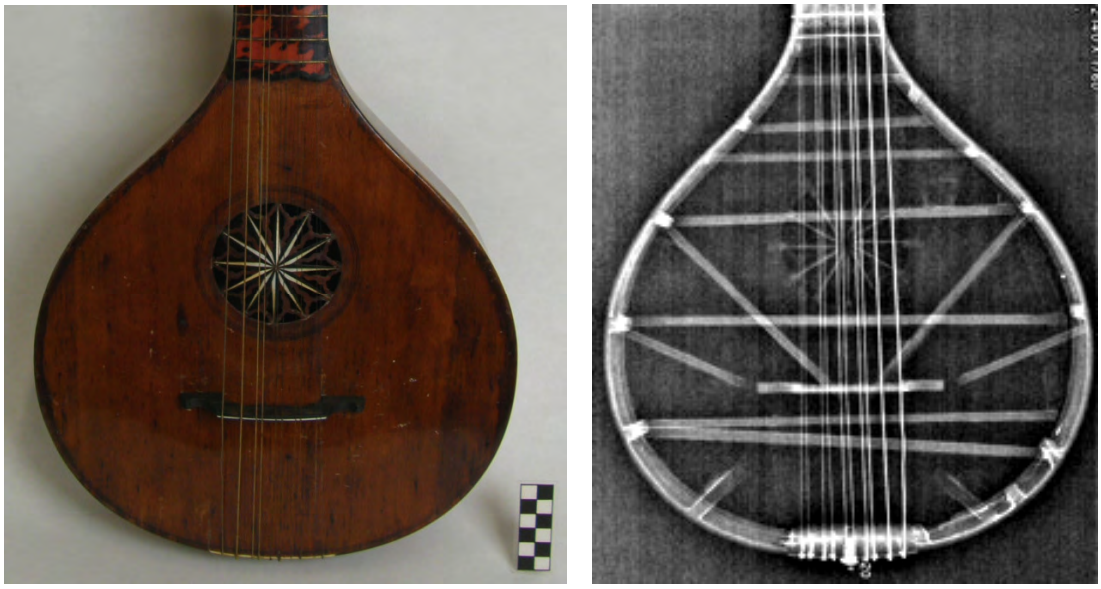

Figure 6.30: Front view of a guittar by Preston in the Museum für Musikinstrumente der Universität, Leipzig, [5005] (*left)* and X-ray photograph of the interior bracing (*right)* (<http://www.studia-instrumentorum.de/MUSEUM/zistern.htm>, accessed 4/2/11).

Interestingly, a teardrop-shaped guitar by Longman & Broderip dated 1782, owned by Paul Doyle, Galway, has an unusual combination of horizontal and 'X'-shaped bracing on the soundboard. This consists of a horizontal bar above the rose and a long thick diagonal bar separating two shorter and thinner diagonal bars placed at a different angle, thus forming an 'X'-shape; an additional short horizontal bar is fixed on the treble side. The bracing on the back is rather typical, comprising four horizontal bars (**Figure 6.31**).

Figure 6.31: View of the unusual horizontal and 'X'-shaped bracing on a teardrop-shaped guittar by Longman & Broderip dated 1782. P. Doyle collection, Dublin (photo courtesy of P. Doyle).

A similar horizontal and 'X'-shaped bracing has been used on the soundboard of an unsigned egg-shaped keyed guittar, in the Museum of Fine Arts, Boston, [17.1748][570], as well as on an unsigned egg-shaped guittar, possibly by Longman & Broderip, in the Germanisches Nationalmuseum, Nuremberg, [MIR 854] (**Figure 6.32**).

[570] The back bracing of this instrument, which is equipped with an external piano-key mechanism, comprises six horizontal bars. For more details of this instrument see <http://www.mfa.org/collections/object/keyed-cittern-english-guitar--50285> (accessed 29/11/2010).

Figure 6.32: ***Left*****: Front view of an unsigned egg-shaped guittar, possibly by Longman & Broderip, Germanisches Nationalmuseum, Nuremberg, [MIR 854].** ***Right*****: X-ray photograph of GNN [MIR 854] showing the interior bracing of the soundboard and back. The soundboard bracing consists of a horizontal bar above rose towards neck and two long diagonal bars placed at an 'X'-shape intersecting under the bridge, with two asymmetrical diagonal bars placed on the bass and treble sides. The bracing of the back consists of six horizontal bars. A number of short and thin rectangular bars, with their wood grain perpendicular to the strings, have been used along on the middle joint on the back for extra support.**

An unsigned egg-shaped guittar owned by A. Rutherford, New York, has a similar horizontal and 'X'-shaped bracing on the soundboard (**Figure 6.33**).[571]

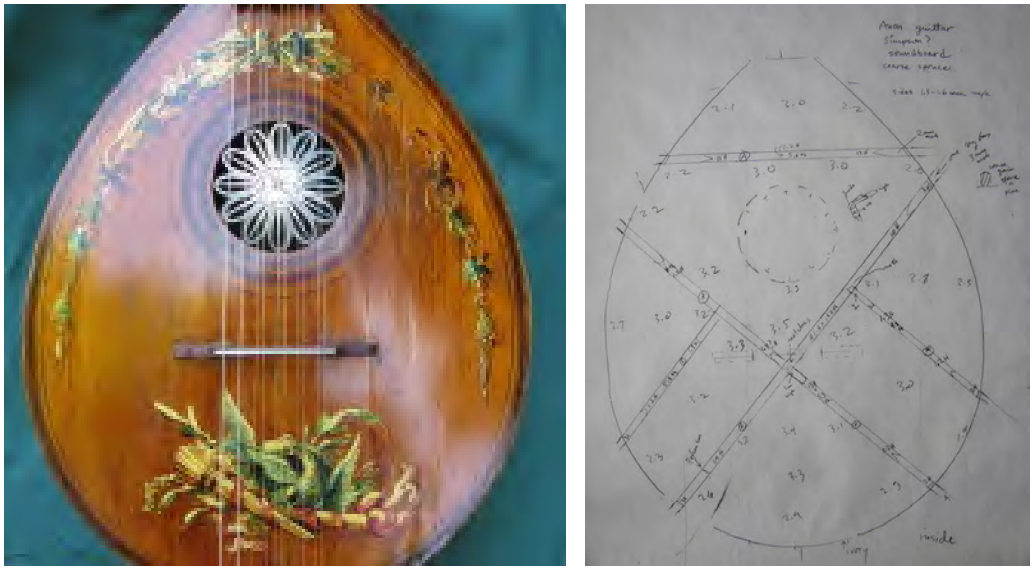

Figure 6.33: ***Left*****: Front view of an unsigned egg-shaped guittar. A. Rutherford collection, New York. The painted decoration on the soundboard may be a later addition.** ***Right*****: Technical drawing showing the horizontal and 'X'-shaped bracing on the soundboard of this instrument (photo and drawing courtesy of A. Rutherford).**

It is important to note that the 'X'-bracing style on the soundboard, firstly used on guittars, was later adopted by several gut-strung guitar makers, being mainly popularised by C. F. Martin[572] around the mid-19th century, and is now a standard feature on flat-top wire-strung acoustic guitars.

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[571] An egg-shaped guittar owned by D. Kilpatrick has a similar 'X'-shaped soundboard bracing. For more details of this instrument see <http://www.maxwellplace.demon.co.uk/pandemonium/guittar.html> (accessed 23/11/2010).

[572] The development of the X-bracing style has generally been attributed to Christian Frederick Martin (1796-1873), a German-born guitar maker working in America, although other makers had been using similar bracing methods around the mid-19th century. C. F. Martin, who was a member of the Moravian church and may have been familiar with the guittar, had been an apprentice of the renowned Viennese guitar and violin maker Johann Georg Stauffer (1778-1853), but had to immigrate to America in 1833 as a result of the strong conflict between violin makers' and cabinetmakers' guilds in his hometown, Markneukirchen. Martin is now widely considered as one of the most famous and influential guitar makers of all time. For more details see Gura (2003: 36-7).

On the other hand, egg-shaped keyed guittars by Claus typically have diagonal bracing with four oblique bars on the soundboard and four oblique bars, fixed at an opposite angle, on the back (**Figure 6.34**).

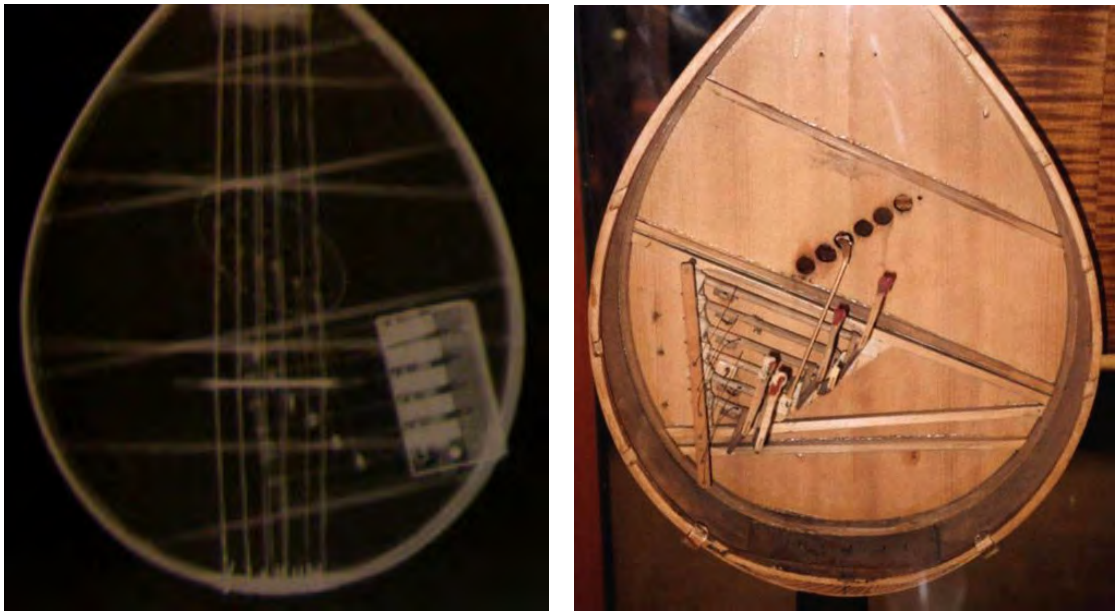

Figure 6.34: The diagonal bracing styles of two keyed guittars by Claus. *Left*: LFC [1988/76] (Falletti et al 2001: 187). *Right*: V&A [240-1881].

The soundboard bracing styles used by guittar manufacturers on a number of examined guitars are presented below (**Table 6.3**).

Soundboard bracing style	**Guittar manufacturers**
Horizontal	Liessem, Hintz, Rauche, Zumpe, Gibson, Perry
Diagonal	Claus
Horizontal and diagonal	Lucas
Horizontal and diagonal 'V'-shape	Preston
Horizontal and diagonal 'X'-shape	Longman & Broderip

Table 6.3: The bracing styles used by guittar manufacturers on a number of examined guittars.

As can be noticed in the photos presented above, most guittars have a supportive rectangular wooden block on the middle of the body bottom where the sides meet; this is also the area where the endpins for holding the strings are attached. In addition, at the top of the body just below the neck most guittars have a rectangular block of wood which provides reinforcement for the upper part of the body as well as support for the neck. Several methods of joining the neck with the body have been used on guittars. The most common, used by makers such as Preston, Perry or Gibson, involves gluing the body and the neck together with a butt joint and securing them with one or more wooden dowels (**Figure 6.35**).

Figure 6.35: ***Left to right*****: Details of the body-neck butt joint with [redacted] wooden dowels [redacted] guitars by Preston in private collections (photos [redacted] 2 courtesy of J. Westbrook, photo 3 by A. Robb, <http://www.art-robb.co.uk/EG.html>, accessed 27/11/10); [redacted]**

However, on several extant guittars the neck is joined with the body with the support of a metal screw on the neck block; this joining method must have coincided with the improvement of the

metal wood screw around the late 18th century[573] and its consequent wide use on various mechanical and scientific devices, including musical instruments (**Figure 6.36**).[574]

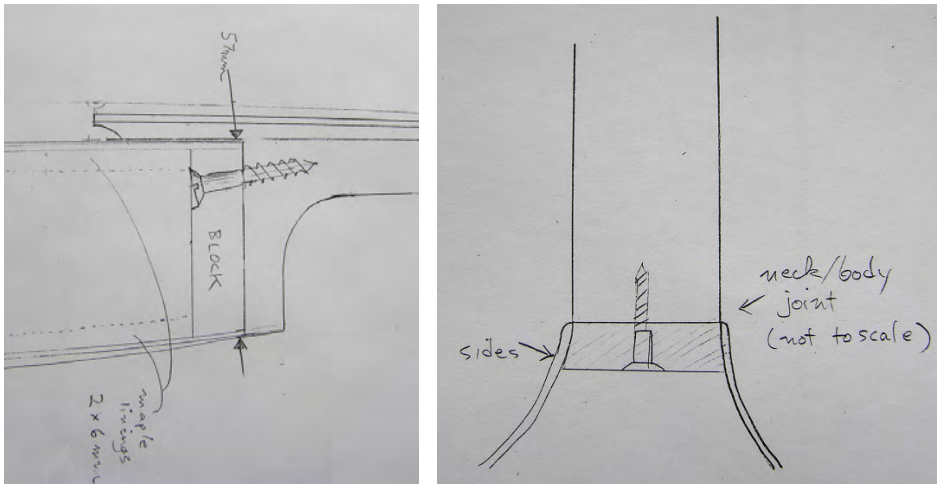

Figure 6.36: Side (*left*) and top (*right*) views of the body-neck joint with a metal screw as illustrated in the technical drawing of a guittar by Preston/Thompsons. A. Rutherford collection, New York (drawing by A. Rutherford).

[573] The screw is an important mechanical device known from the ancient times and used on several applications. One of the first forms of the screw was used to pump water, an idea conceived by the Greek mathematician Archimedes of Syracuse (c.287-c.212 BC). However, the widespread use of the screw as a fastener is associated with development of the lathe machine in the early 18th century. The design of screws was improved when in the 1770s, the English instrument maker Jesse Ramsden (1735-1800), invented the first satisfactory screw-cutting lathe. For more details on the evolution and history of the metal wood screws see Jenkinson (1999).

[574] The concept of using a screw on musical instruments is quite useful for a number of tasks, and has certain advantages over other methods. For instance, a screw is strong enough to hold large parts together, while it occupies a relatively small space and can be accurately fixed in a narrow position. In addition, a screw can secure loose or delicate parts, while it can be barely visible from the outside surfaces; a screw can also turn or rotate parts, and, unlike nails or glue, it can be easily removed and replaced or reused without much damage to surfaces. Many innovative parts and devices of the guittar are strongly connected with the use of screws; apart from their supportive role in the body-neck joint, screws have also been commonly used on the capotasto, the watch-key tuning machine, and in various components of the two piano-key mechanisms of the guittar.

Apart from guittars by Preston, several extant guittars by Longman & Broderip have also a screw on the body-neck joint (**Figure 6.37**).

Figure 6.37: Detail of the neck block showing the screw used to support the body-neck joint on a guittar by Longman & Broderip dated 1782. P. Doyle collection, Dublin (photo courtesy of P. Doyle).

The use of a metal screw to support the body-neck joint is especially common on keyed guittars by Longman & Broderip (**Figure 6.38**).

Figure 6.38: Examples of body-neck joints with a screw fixed on the neck block on three keyed guittars by Longman & Broderip. *Left to right*: GNN [857], MUL [627] and MUL [628].

The examination and X-ray photography of two similar egg-shaped guittars, the first an unsigned instrument, [MIR 854], the second a keyed guittar by Longman & Broderip, [MIR 857],

in the Germanisches Nationalmuseum, Nuremberg, (**Figure 6.39**) revealed similar construction methods especially concerning the use of a metal screw on the body-neck joint (**Figures 6.40, 6.41**).

Figure 6.39: Two egg-shaped guitars in the Germanisches Nationalmuseum, Nuremberg. *Left*: Unsigned guittar [MIR 854]. *Right*: Keyed guittar by Longman & Broderip [MIR 857] (the piano-key mechanism has been removed during photography).

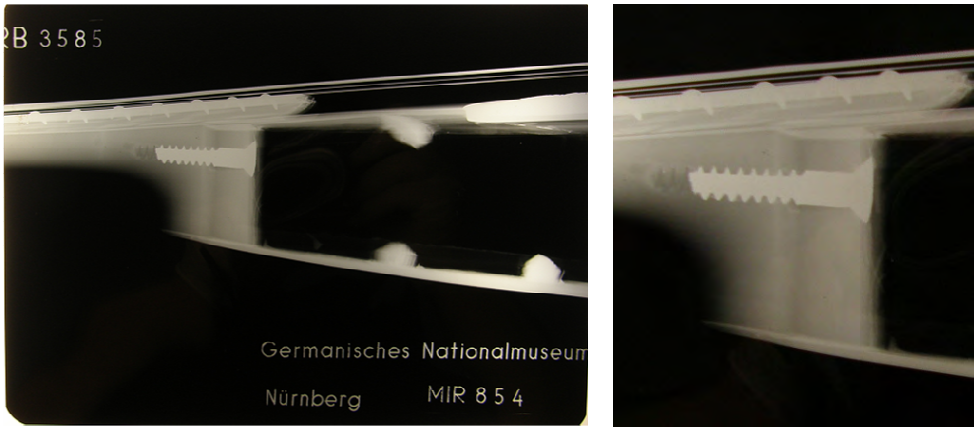

Figure 6.40: ***Left*****: X-ray photograph of GNN [MIR 854] showing the horizontal bars on the soundboard and back and the screw on the body-neck joint.** ***Right*****: Detail of the screw (photos by kind permission of the GNN).**

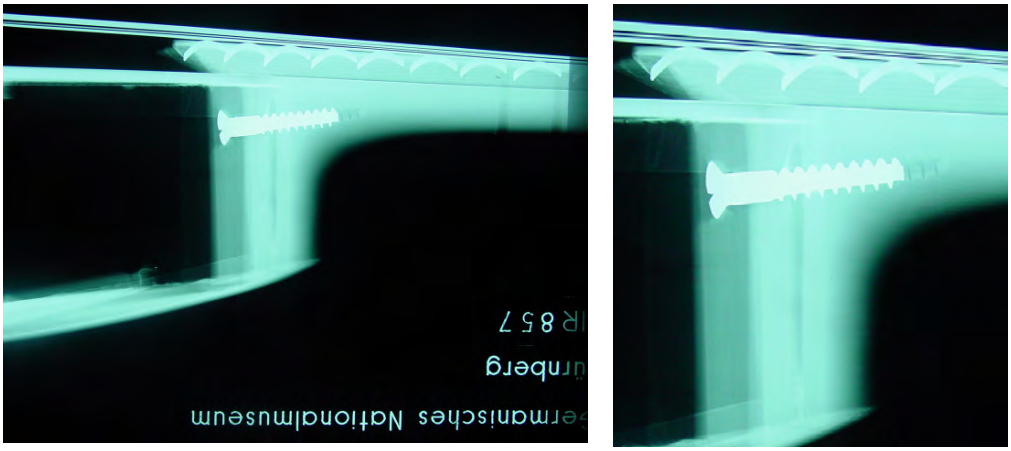

Figure 6.41: ***Left*****: X-ray photograph of GNN [MIR 857] showing the screw on the body-neck joint.** ***Right*****: Detail of the screw (photos by kind permission of the GNN).**

The two X-rays also highlighted a common screw design without a pointed end[575]; similar screws have also been used on square pianos and harpsichords.[576] Interestingly, a guittar with a screw on the body-neck joint, similar to the two guittars presented above, is depicted in John Goldsworth's patent (23 July 1785, Patent No. 1491) (**Figure 6.42**), suggesting 1785 as a possible starting date for the use of metal screws on the body-neck joint of guittars.

[575] Both guittars were X-rayed in January 2009 at the Germanisches Nationalmuseum, Nuremberg with the kind assistance of Klaus Martius. The unsigned guittar GNN [MIR 854] was X-rayed first, during the examination of the two instruments by the author on 8 and 9 January 2009. After the X-ray photography of the second guittar [MIR 857] by Longman & Broderip Martius (PC, 2/2009) made the following observations: 'Discussing the screw in [MIR 854] again I have made a second X-ray of the keyed guittar [MIR 857] and found exactly the same feature of a 'modern' iron screw with a missing tip. This means that both screws are original. They must have been screwed into the neck (after drilling a smaller hole), afterwards they were removed, the tip was cut off and so they were attached again during gluing the neck to the top block. This is the reason why the last two or three turns of the screw seem empty.'

[576] Christopher Nobbs (PC, 2/2009) who examined the two X-rays argued that 'this was probably the first time screws were used for that job rather than the earlier nails'. Nobbs further commented: 'The end is not cut off as far as I know. They were made that way in the lathe, often a special lathe or 'turn bench', and probably with a hand held cutting tool while a mandrel with a thread of its own 'traversed' the screw past the cutter. This meant the thinner unsupported end could not be too thin – it would bend away or ride up on the tool. And it is important to remember that wood screws come last – complex joinery, nails, treenails/dowels, or glue could do most joining in woodwork. Screw technology begins with metal to metal – locksmiths, armourers, clockmakers – and wood screws usually remained much more cylindrical until quite late. The pointed type were developed more for convenience of fitting and starting - they have no superiority in strength. Indeed, most modern wood screws made by pressure rolling or casting have a much less deep thread and have no superiority in holding properties. Thinking of metal work, your X-rays seem to show a thread cut beyond the screw so perhaps some kind of tap was used before the screw was finally inserted. I don't know when the type in these guitars started - I get the impression that there were specialist wood screw makers in the early 18th century in Britain - a little earlier than elsewhere and a sort of standardised product was available. In French instruments, until mid-century, the screws still often look homemade. There are very few screws in either a square piano or even an English harpsichord. But screws like the one in the X-ray would have formed the pivots in the hand-stop levers of square pianos from the beginnings with Zumpe in the mid-1760s. English harpsichords have similar screws holding the spine plug in that retains the registers, but the stop levers usually use a specialist screw with a head that fits a tuning hammer. The outbreak of screws really comes with the English grand piano action in the Stodart/Broadwood version in the 1780s - about 100 at a rough count. The modern pointed-form wood screw, called gimlet-headed, seems to arrive in the 1840s with Nettlefield's screw cutting machine.'

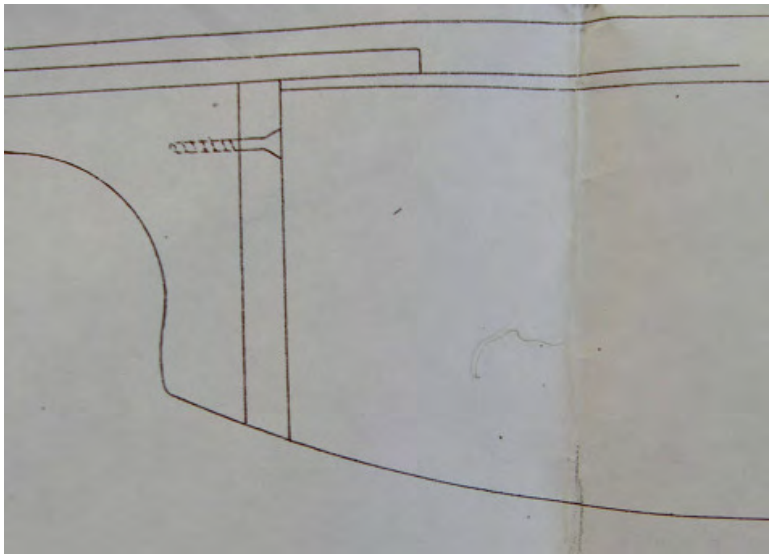

Figure 6.42: Detail of a drawing included in Goldsworth's 1785 patent showing the body-neck joint supported with a screw. Note that the screw is similar to the screws in the X-rays presented above, but has a pointed end.

6.4 THE NECK

On most guittars the neck is typically made of a carved piece of beech or maple (plain or figured). On early guittars by makers such as Liessem, Hintz or Zumpe the neck and head are usually carved together of a single long block of wood. However, on later guittars by makers such as Preston, Claus or Longman & Broderip, the neck and head are usually constructed separately and joined together above the nut.

On numerous guittars the neck is drilled on the first few frets to accommodate the screw that secures the capotasto, as will be described below. Moreover, a significant feature of guittars by Irish makers such as Gibson, McDonnell, Perry or Clagget is that the back of the neck has a groove carved along the bass side, similar to the cittern, to allow easier moving and sliding of the left hand and also probably to reduce the neck weight (**Figure 6.43**).

Figure 6.43: Examples of typical guittar necks. ***Left to right, top*****: Liessem EUC [1070], Hintz EUC [1066]. The neck and head on EUC [1070] are carved of a single piece of figured maple; the neck has no capotasto holes.** ***Middle*****: Preston MUL [5005], Longman & Broderip GNN [MIR 857]. Note that on both instruments the fingerboard overlaps the neck at the sides.** ***Bottom*****: Gibson EUC [309], Clagget HMH [MS129]. Note the distinctive groove carved along the bass side on both guittars.**

On most examined guittars the neck profile is typically semi-circular, increasing slightly towards the body-neck joint and ending with a smooth curve on the neck heel; the thickness ranges from about 20mm at the nut to about to 25 mm at the neck heel. However, on some guittars by Rauche the neck is very thin and wide, with a uniform thickness of about 20 mm from the nut to the body-neck joint, meeting the neck heel almost at a right angle (**Figure 6.44, 6.45**).

Figure 6.44: The different neck side profiles on a teardrop-shaped guittar by Preston, NMS [1908.251] (left) and on a pear-shaped guittar by Rauche, BMA [3.4565] (*right*).

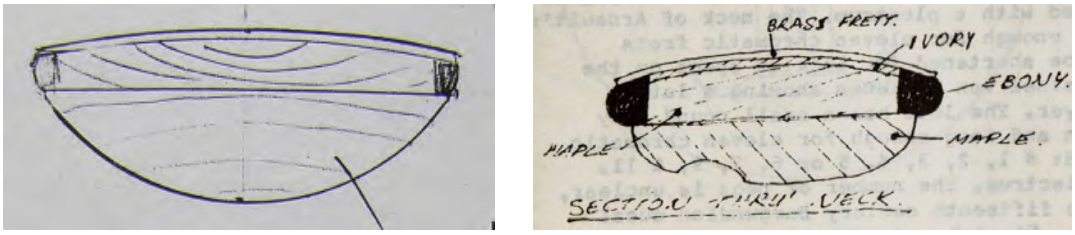

Figure 6.45: The different neck profiles on a guittar by Preston/Thompsons, owned by A. Rutherford, New York (drawing by A. Rutherford) (*left*) and on a guittar by Gibson, dated 1764, NMI [1913.396] (Doyle 1978: 23) (*right*).

Notably, on a bell S-top guittar by Lucas in the Ashmolean Museum, Oxford, [D.1:4] the neck has been cut on the second fret and joined in an unusual 'V'-shape, while the varnish around this point is worn-off, suggesting a modification or repair (**Figure 6.46**). Moreover, a number of extant guittars have their necks cut near to the first fret and joined with a new head in order to be equipped with a watch-key machine.[577]

[577] For more details on these modifications see 'THE WATCH-KEY TUNING MACHINE BY PRESTON', Chapter 7.

Figure 6.46: Detail of the neck of AMO [D.1:4], showing the unusual 'V'-shape joint on the second fret.

On several guittars the neck heel is carved separately and then joined with the neck. The neck heel may be round, coned or 'V'-shaped (**Figure 6.47**).

Figure 6.47: Details showing the neck heel shapes on a guittar by Rauche, DCK [MI/A9] (*left*), on an unsigned guittar, DCK [MI/A12] (*middle*), and on a keyed guittar by Longman & Broderip, GNN [MIR857] (*right*). The neck heel on DCK [MI/A9] is round, on DCK [MI/A12] it resembles an 'ice cream' cone, a style commonly used on gut-strung guitars, while that of GNN [MIR857] has a 'V'-shape.

On guittars equipped with watch-key machines the neck usually joins the sickle-shaped head above the nut in a straight or, less frequently, pointed joint (**Figure 6.48**).

Figure 6.48: Details of the straight neck-head joint on a keyed guittar by Longman & Broderip, GNN [MIR857] (*left*), and of the pointed neck-head joint on a keyed guittar by Claus, BCP [8051] (*middle and right*).

6.4.1 THE FINGERBOARD AND FRETS

Most guittars have a wide arched fingerboard with a flat bottom part which is glued on the neck. The most common guittar fingerboard is made of a long rectangular piece of maple, spruce or pine, which is usually veneered on the sides with ebony about 3 mm thick, and the top with ebony or tortoiseshell about 1 mm thick; the fingerboards on guittars by Irish makers, such as Gibson, McDonnell, Perry and Clagget are typically veneered in ivory (**Figure 6.49**).[578]

[578] However, plain fingerboards made of a carved single piece of ebony are also common, while on some extant guittars the fingerboard has been made of maple or similar hardwood which is dyed black to imitate ebony in order to reduce the cost of materials, since ebony is an expensive wood. Moreover, guittar player Taro Takeuchi (PC, 6/7/2009) has pointed out that a fingerboard made of light wood produces a louder sound. Interestingly, on a guittar by Preston in the Horniman Museum, London, [1976.135], the neck has been hollowed underneath the middle of the fingerboard probably in order to reduce weight.

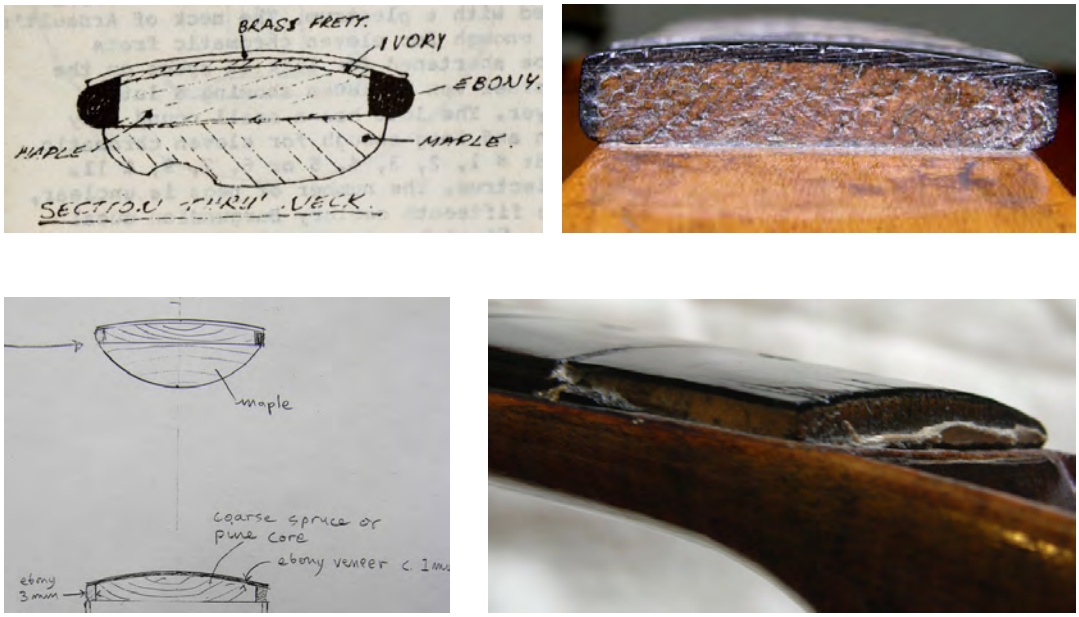

Figure 6.49: ***Left*****: Cross-section views of the neck and fingerboard on two guittars.** ***Top*****: Gibson, 1764, NMI [1913.396] (Doyle 1978: 23).** ***Bottom*****: Preston/Thompsons, owned by A. Rutherford (drawing by A. Rutherford).** ***Right:*** **The missing nuts on two guittars by Claus, BCP [8051] (*top*), and Rauche, BCP [8050] (*bottom*), revealing the fingerboard structure.**

On most examined guittars the fingerboard has a typical radius[579] of 6'' (152.4 mm) which allows the easier forming of chords and vertical 'barre' fretting, following the natural curve of the fingers; however, guittars with flatter fingerboards with a radius of to 7.25'' (184.1 mm) have also survived.[580] On many extant guittars the fingerboard has a 'floating' part after the body-neck join, probably to prevent dampening the soundboard wood (**Figure 6.50**). In addition, as shown earlier, on many guittars the fingerboard overlaps the neck at the sides. It is important to mention that two patented inventions were related to guittar fingerboards, the first by Charles

[579] In classical geometry, a radius of a circle or sphere is any line segment from its center or axis of symmetry to its perimeter. If the object does not have an obvious center, as in the case of a guittar fingerboard, the term may refer to its circumradius, the radius of its circumscribed circle or circumscribed sphere.

[580] The arched fingerboard of the guittar may also have some origins in the instruments of the violin family since, as it has been mentioned, a number of early guittar makers had a violin-making background and would have been familiar with the design and construction of arched fingerboards.

Clagget (7 December 1776, Patent No. 1140), and the second by John Goldsworth (23 July 1785, No. 1491).[581]

Figure 6.50: Details of the 'floating' fingerboard end on three examined guittars. ***Left to right*****: Liessem, EUC [1070]; Hintz, DCK [MI/A10]; unsigned, EUC [1592].**

The guittar's wide fingerboard offered a suitable surface for additional decoration with veneered and inlaid patterns. The fingerboards on guittars by makers such as Hintz, Rauche or Vogler are often decorated with mother-of-pearl inlays of flowers and other floral motives especially on the top and sides.[582] Some extant guittars have inlaid dots of mother-of-pearl on some of the frets probably as an aid to the performer; apparently for the same purpose, on a keyed guittar by Claus, BCP [8051], the fingerboard has the notes of the C scale written on some of the frets. On fingerboards veneered with tortoiseshell the neck underneath the fingerboard is usually painted in red or green, with the colour showing through the transparent tortoiseshell veneer.

On most surviving guittars the fingerboard end is typically shaped in symmetrical wavy or pointed patterns, which are often inlaid or veneered with mother-of-pearl or ivory. The end shapes may resemble a crescent or arch; a reverse 'V'-shape; or a smooth and shallow 'M'-shaped curve; these basic shapes are often ornamented with protruding undulated relieves and

[581] Both patents are described in detail in 'THE PATENT FINGERBOARDS OF CLAGGET AND GOLDSWORTH', Chapter 7.
[582] As a result of their fragility the veneered or inlaid parts on the fingerboards of many surviving guittars are often missing or broken.

pointed or round edges. Some typical guittar fingerboards illustrating the variety of decoration patterns, along with some of the aforementioned features, are presented below (**Figure 6.51**).

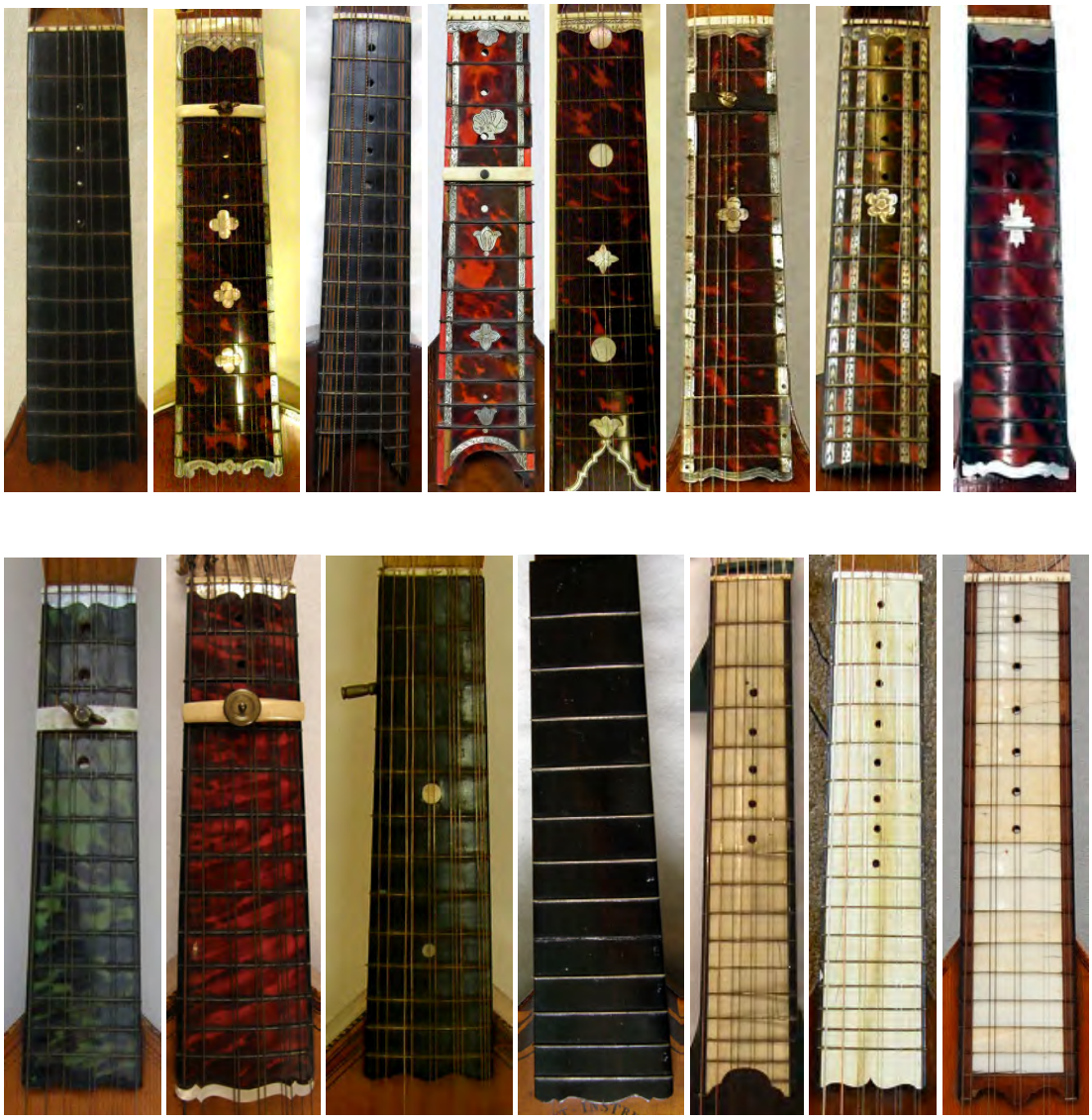

Figure 6.51: Fifteen examples of typical guittar fingerboards. ***Left to right, top*****: Rauche (1, 2), Hintz (3, 4), Lucas (5), Vogler (6), unsigned (7), Preston (8).** ***Bottom*****: Unsigned (1, 2), Longman & Broderip (3), Claus (4), Gibson (5), Perry (6), Clagget (7).**

Guittar frets were typically made of thin brass bars[583] about 0.6 mm to 0.8 mm thick and 2mm high.[584] These were cut appropriately and inserted firmly into cut slots by hammering softly into position with a mallet, and then finally had their edges finished with a file.[585] Most guittars have very shallow frets[586], which also provide a relatively low action.[587] The fret arrangement is chromatic[588], with the most common fingerboard having 12 frets, spanning one full octave. However, the number of frets on surviving guittars varies between 12 and 19 frets, spanning an octave and a fifth. Notably, on some guittars by Liessem, Hintz, Lucas, Mason, Gibson or McDonnell the last one, two or three frets are short, allowing the fretting of notes only on the first and second treble courses. The numbers of frets commonly used by guittar manufacturers are presented below (**Table 6.4**).

Number of frets	**Guittar manufacturers**
12	Rauche, Zumpe, Beck, Tripell, Elschleger, Hoffmann, Buchinger, Vogler, Claus, Dickinson, Rutherford, Ruddiman, Simpson, Thompson, Haxby, Preston, Longman & Broderip, Broderip & Wilkinson, Harley
13	Rauche, Lucas, Bremner
14	Preston, Prior, Clagget
15 (13+2 short)	Lucas, Gibson, Perry
16 (15+1 short)	Gibson, McDonnell, Perry
17 (15+2 short)	Hintz, Mason, Longman & Broderip
18 (15+3 short)	Liessem
19 (16+3 short)	Liessem

Table 6.4: The numbers of frets commonly used by guittar manufacturers.

[583] In his tutor *Instructions for the Guitar* (Edinburgh, 1758) Bremner describes the guittar frets as 'Brass-bars', suggesting that they were made of brass. The fret material on most examined guittars has been identified, by macroscopic observation only, as brass or ferrous alloy.

[584] The fret thickness and height was measured on several examined guittars on the first, seventh and twelfth frets respectively.

[585] A common situation observed on surviving guittars is that the edges of the frets protrude from the fingerboard sides, probably due to the shrinkage of the fingerboard wood; another common problem, especially on veneered fingerboards, is that some frets are lifted off the fingerboard, probably due to shrinkage of the veneering materials.

[586] Guittar player Taro Takeuchi (PC, 6/7/2009) argues that guittars need to have shallow frets in order to compensate for the bending of the wire strings, which is more significant than that of gut or silk.

[587] In her *Lessons and Instructions for Playing on the Guitar* Ann Ford (c.1761: 9) has noted the importance of fingerboard design, stating that 'I shall therefore only add, that a good toned GUITAR with the Frets accurately divided, and the Strings well laid, do not a little contribute to the Ease, as well Pleasure of the Practitioner. The neatest Work, and the best toned GUITARS I have hitherto seen, have been made by *Rauche*.'

[588] On some guittars the fret arrangement is slightly unequal; however, as guittar player Rob MacKillop (PC, 1/3/2008) has pointed out, instruments with open tunings, such as the guittar, do not require accurate intonation over the whole fingerboard, since their music does not employ many harmonic changes.

A fingerboard with 12 frets on a typical ten-string guittar has an average length of 230 mm; the width is approximately 45 mm at the nut and 53 mm at the body-neck join, while the thickness of the edge varies between 4.5 mm at the nut and 5.5 mm at the body-neck join. It is noteworthy that guittar fingerboards are often depicted in contemporary tutors for the instrument, often showing the notes on each fret as an aid to the performer (**Figure 6.52**).

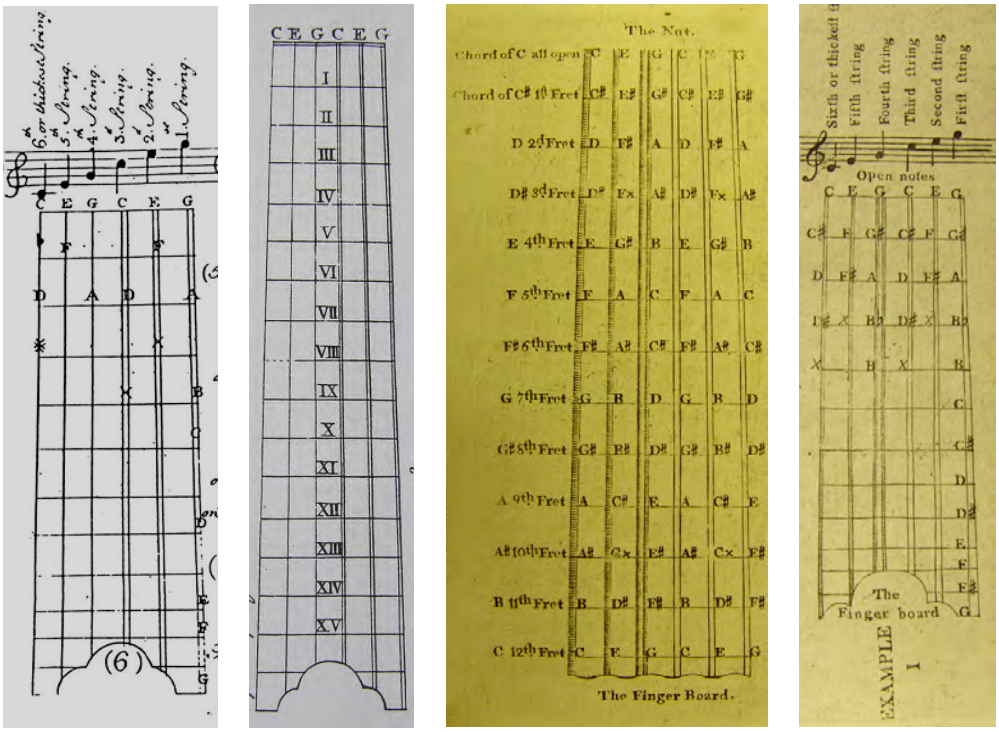

Figure 6.52: Guittar fingerboards depicted in contemporary tutors. *Left to right*: R. Bremner, *Instructions for the Guitar* (1758); F. Geminiani, *The Art of Playing the Guitar or Cittra* (1760); J. Preston, *Complete Instructions for the GUITAR*, (c.1789); and H. Thompson, *New and Compleat Instructions for the GUITTAR*, (c.1799). Interestingly, the fingerboards depicted in Bremner's and Geminiani's tutors have nine strings arranged in six courses, with single strings for the three bass courses and double strings for the three treble courses, whereas those by Preston and Thompson show ten strings, with the three bass courses having overwound strings. Moreover, Bremner's, Preston's and Thompson's tutors show fingerboards with 12 frets, while Geminiani's tutor shows a fingerboard with 17 frets. In all tutors the suggested tuning is C major.

6.4.2 THE CAPOTASTO

A quite distinctive feature of the guittar is the capotasto, a movable 'bridge' typically consisting of a rectangular arched bar, to match the radius of the fingerboard, made of ebony or ivory and padded with leather, a wing-nut and a long screw. The capotasto is secured on the fingerboard through circular holes[589] drilled in the neck, usually between the first four frets (**Figure 6.53**).

Figure 6.53: The capotasto parts (*left*) and detail of the capotasto attached on the fingerboard (*right*) of an unsigned guittar in the Historisches Museum, Frankfurt, [X4336].

This device enables a performer to raise the pitch of the instrument by a semitone per fret, thus allowing the easy transposition to other keys and facilitating song accompaniment at a more convenient pitch.[590] The exact details of the capotasto's invention and use on plucked instruments are unknown; however, the earliest reference to the use of a capotasto on the guittar is included in Bremner's 1758 tutor *Instructions for the Guitar* in which Bremner claims that

[589] The holes on the back of the neck can be circular or square depending on the shape of the screw end. The screw was usually hand-made from a rectangular thick nail which was cut and filed to shape, with a fine thread added on its upper part to receive the wing-nut.
[590] See Spencer and Hardwood (1984: 706).

> Those Guitars that have moving Bridges on the Neck have the Advantage of the others; as by such, the Instrument is enabled to suit the voice with any Pitch of Song.[591]

suggesting that it must have been developed and used before that date. The capotasto was also often referred to as a 'stop'; for example, the 1772 catalogue of Longman, Lukey & Co mentions a 'complete Scale of the Guittar' showing 'what Chord is produc'ed by placing the finger across the fingerboard, or putting on a stop at any fret'.[592]

Most surviving guittars have three to five capotasto holes drilled on adjacent frets[593]; to prevent the capotasto screw from interfering with the strings these holes are placed slightly off the middle of the fingerboard, between the third and fourth courses (**Figure 6.54**).

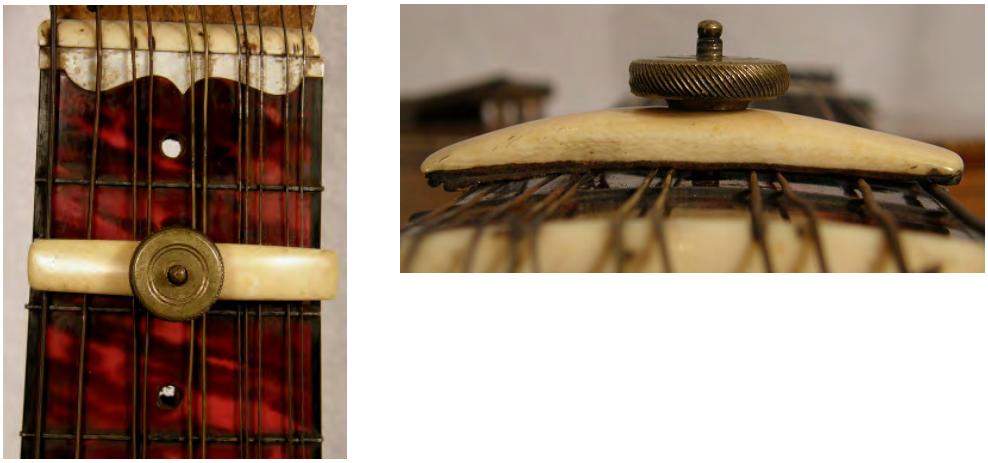

Figure 6.54: Top (*left*) and side (*right*) views of a capotasto attached on the fingerboard of EUC [308]. Note the placement of the capotasto holes on the first three frets.

[591] See also Appendix IV. Another reference to the capotasto is mentioned by Leite (1796: 32) in his tutor *Estudo de Guitarra*, in which he describes that the capotasto has a top part of ivory or bone and a bottom part of leather or soft skin.
[592] I am thankful to A. Rice for providing me with a copy of this catalogue.
[593] Interestingly, a keyed guittar by Longman & Broderip has four capotasto holes drilled on the second, third, fourth and seventh frets. I am obliged to T. Bingham for providing me with photos of this instrument. In addition, a guittar by Perry owned by T. Takeuchi, has eight capotasto holes on the first eight frets.

Notably, the neck of a guittar in the Händel-Haus Museum, Halle, [M130], has two lines of capotasto holes, one of which is blocked off with wood. The marks on the fingerboard suggest that the guittar was at some point re-fretted and, accordingly, new holes were drilled slightly off the original positions (**Figure 6.55**).

Figure 6.55: Detail of the back of the neck (*left*) and the fingerboard (*right*) on HMH [M130] revealing two rows of capotasto holes; the bottom line of four holes has been blocked off with wood.

6.5 THE HEAD

The bottom of the guittar head accommodates the nut. On most guittars the nut is typically made of a rectangular or trapezoid bar of ivory or bone of approximately 8 mm high, 4 mm thick and 45 mm wide; however, its dimensions and design vary according to the fingerboard width, the head angle and the number of strings. The nut is usually glued in a slot cut near the fingerboard end (**Figure 6.56**).

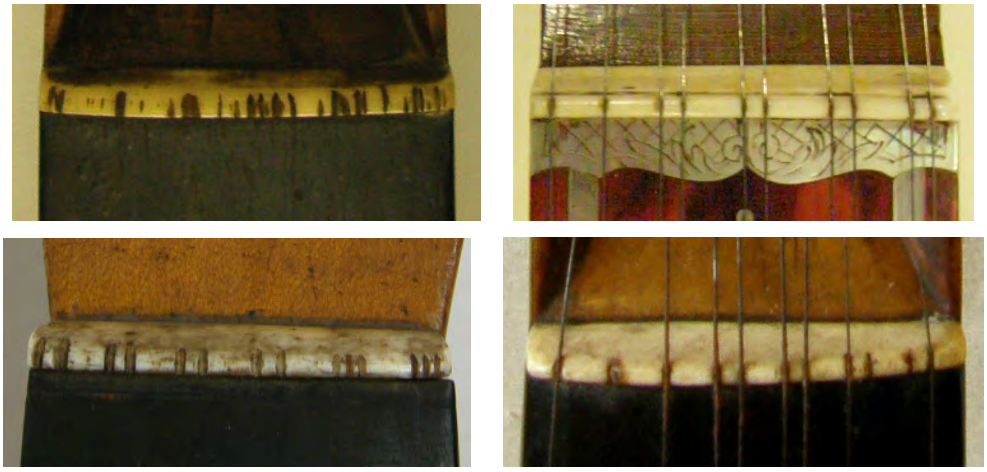

Figure 6.56: Examples of typical guittar nuts. *Clockwise from top left*: Nine-string guittar by Liessem EUC [1070]; ten-string guittar by Hintz, AMO [D.1:5]; eleven-string by Rauche DCK [MI/A9]; and twelve-string keyed guittar by Longman & Broderip, MUL [627].

Interestingly, on a bell S-top guittar by Hintz in the Dean Castle Museum, Kilmarnock, [MI/A10], the ebony nut is secured in place with a rectangular plate of mother-of-pearl, fixed with three nails on the wooden head (**Figure 6.57**).

Figure 6.57: Detail of the plate securing the nut on DCK [MI/A10].

The part of the head above the nut typically houses the guittar's tuning mechanism. Several types of tuning mechanisms were developed and used on guittars, including wooden pegs, watch-key machines, worm-and-pinion tuners and machine heads. The development of these tuning devices is presented in detail in Chapter 7 as part of the mechanical and technical aspects of the guittar. Depending on the type of tuning device used, guittars heads can be categorised in three main styles. The earliest of the three head styles, resembling a viol-style pexbox, is used on guittars with wooden pegs or worm-and-pinion tuners. Guittars equipped with watch-key tuning machines have a quite distinctive head resembling the shape of a sickle[594], with a small heel on its bottom, whereas guittars equipped with machine heads have a flat head resembling the shape of a spear (**Figure 6.58**).

Figure 6.58: Examples of head styles and tuning devices commonly used on guittars. *Left to right*: Two viol-style pegboxes, housing wooden tuning pegs on a guittar by Zumpe, EUC [1731], and worm-and-pinion tuners on an unsigned guittar, DCK [MI/A12]; a sickle-shaped head housing a watch-key machine on a guittar by Preston, MUL [5005]; and a spear-shaped flat head housing brass machine heads on a guittar by Gibson, EUC [309].

[594] On many extant guitars the sickle-shaped head is made of two or three parts joined together, rather than carved of a single piece of wood, probably in order to save materials and construction time.

It is noteworthy that in the first and third styles the head has a relatively shallow angle of about 6° to 8° at the nut, while on the second style the angle is much sharper, about 14° to 16°, in order to prevent the 'buzzing' of the strings on the frets.

The top of the head on most surviving guittars typically terminates with a characteristic flat or slightly convex square[595] finial of about 28 mm to 32 mm.[596] The finial is usually veneered or inlaid with ebony, ivory, tortoiseshell, mother-of-pearl, or various types of light and dark wood in geometrical or floral patterns. As in the cases of guittar roses and fingerboards, similar decorative motives may be found on the finials of guittars by different makers, indicating either common influences among makers or a single manufacturer that supplied several makers (**Figure 6.59**). Due to their delicateness on many extant guittars the finials are broken or are missing parts of their decoration, while in some cases the original finials have been replaced, often with unusual parts.[597]

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[595] It is noteworthy that on guittars made in Poland and Portugal the finial is shaped like a violin scroll, while many French cistres have a round finial.

[596] The finial sides on some extant guittars are not exactly symmetrical.

[597] For instance, on two extant guittars, the first by Perry in the V&A, [223-1882], the second by Haxby in a private collection in Germany, the original finials have been replaced with a carved head of a child. Likewise, a guittar by Hintz, EUC [1066], has an uncommonly large and crudely-made finial, certainly a later addition, while on a guittar owned by D. Kilpatrick the original finial has been replaced with a scroll resembling a guittara Portuguesa (see <http://www.maxwellplace.demon.co.uk/pandemonium/guittar.html>, accessed 23/11/2010).

Figure 6.59: Examples of finial decoration patterns used by various guittar manufacturers. ***Left to right, top*****: Liessem (1), Rauche (2, 3), Zumpe (4, 5), Lucas (6), Claus (7, 8).** ***Middle*****: Eight different finial patterns used by Hintz.** ***Bottom*****: Preston (1, 2, 3), Longman & Broderip (4, 5, 6), Gibson (7), Perry (8). Note the similarities of the decorative motives between different makers, indicating either common influences among makers or a single manufacturer that supplied several makers; note also that some finials are broken or are missing parts of their decoration.**

It is also noteworthy that many surviving guittars have remains of thin ribbons usually attached on the head above the nut and on the tailbutton on the guittar's bottom (**Figure 6.60**).[598]

[598] On several extant guittars short ribbons are also attached on the head to hold the small watch-key for the watch-key tuning machine. For more details see 'THE INVENTION OF THE WATCH-KEY MACHINE', Chapter 7.

Figure 6.60: A green ribbon attached on the head (*left*) and tailbutton (*right*) of a guittar by Gibson dated 1772, EUC [309].

These ribbons were used to hold the guittar over the shoulder for better balance as advocated in Bremner's tutor *Instructions for the Guitar* (1758):

> The best Way to hold it with Ease [...] is to sling it over the left Shoulder, with a Ribband fixed to both Ends of the Instrument […].[599]

As already shown in several images in Chapter 3, this common holding practice is illustrated in several examples of 18th-century portraiture.

6.6 THE CHOICE OF MATERIALS AND FINISHING

The choice of materials and finishing had an important part in the guittar's manufacture and marketing. Thus, although it was mainly advertised as an affordable domestic instrument for vocal accompaniment, the guittar was often made with the finest materials and craftsmanship. Various types of wood were used in guittar construction, including spruce, pine, fir, beech, maple (plain and figured), burr walnut, fruitwood, boxwood, and ebony. Hide glue, which would have been 'steeped in water for several hours and then heated in a copper glue pot', as Cole (1998: 283) has described, would be applied with a brush on the wooden parts to be joined.

[599] See also Appendix IV.

Other construction materials included ivory, tortoiseshell, and mother-of-pearl, mostly used for decorative veneers and inlays, or for small parts and accessories, such as endpins, tailbuttons, capotastos, keys for piano-key mechanisms, etc. In addition, various textiles such as leather, felt and cloth were used as soundboard protectors, for the underside of the capotasto, or for parts of the piano-key mechanism, while paper was used to support joined parts or for labels. Furthermore, guittars often had metal parts; for example, brass or other copper alloys, sometimes gold-plated, as well as silver or ferrous alloys, were used to make frets, roses, tuning devices, wire springs on piano-key mechanisms, screws, nuts, and, of course, wire strings.

In addition, since guittars were mainly addressed to fashion-conscious ladies, they had to be elegant and attractive. In the emerging consumerist society of late 18th-century Britain the importance of introducing new decorative patterns and producing items of a marketable standard was strong, and, as a result, many guittars are elaborately decorated and have a finishing of the highest quality.[600] As already mentioned above, a large number of surviving guittars are ornamented with intricate inlays or veneers of precious materials, such as ebony, ivory, tortoiseshell, or mother-of-pearl, applied mainly on eye-catching areas of the instrument such as the rose, fingerboard and finial, and less often, on the sides or back of the body.[601] It is important to note that a plain guittar could easily be transformed with such additional decoration in order to meet the taste and budget of different customers.[602] Moreover, devices like the watch-key tuning machine or the piano-key mechanism would also add to the value of an instrument. Therefore, otherwise identical guittars in terms of constructional and acoustic properties could be priced differently depending on the extra decoration or accessories.

As shown earlier, on most examined guittars the soundboard and back are decorated with inked or painted purfling on the edges, which was normally done before the instrument was

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[600] Baines (1968: 47) claims that guittars were often instruments of fine quality, made to fit with contemporary indoor furnishings, a fact confirmed by the variety of decoration styles of many surviving instruments.
[601] According to Ben Hebbert (PC, 9/2008) veneering, which is as much a construction as a decoration technique, became widely used on English furniture from 1670. It is also noteworthy that before becoming an instrument maker, Hintz was a cabinet maker specializing in small pieces of furniture, inlaid with brass and mother-of-pearl, as Heal (1953: 82) has noted.
[602] In fact, on some guittars the decorative parts could be more expensive than the actual instrument.

varnished.[603] The varnish on surviving guittars is typically quite thin and transparent, allowing the wood grain to be visible.[604] Harvey (2000: 44-5) has stated that the varnish has the dual role of 'preserving the wood and presenting it to the eye in the most aesthetically satisfactory manner', adding that it 'is the first thing that catches the eye' of potential buyers. However, as a result of methods used to achieve a quick drying, on many surviving guittars the varnish has developed a distinctive uniform cracking (**Figure 6.61**).

Figure 6.61: Detail of the inked and painted purfling on the soundboard and the cracked varnish on a keyed guittar by Dodds & Claus, c.1791-93, LCF [1988/76].

Interestingly, Andy Rutherford has remarked that the finish on his Preston/Thompsons guittar seems 'to consist of a red stain in the wood, which was then covered with a clear varnish,

[603] The purfling was probably done using a pointed quill to apply a thick line of ink or oil paint after the outline of the desired purfling had been sketched by inserting thin pins on the wood.
[604] According to Constantinescu et al (2009: 2) the varnishes of historic musical instruments are 'mixtures of natural organic substances (such as resin, oil, spirit, waxes, organic colorants) and, in lesser proportion, of inorganic substances added mainly to influence the colour, the transparency, other physical properties and the drying time for the oil-based varnishes'. Constantinescu et al (2009: 3) further state that three different types of varnishes were used for musical instruments from the 17th century up to the middle of 19th century in Europe, including drying oil- based varnishes, essential oil-based varnishes and spirit varnishes.

probably shellac'[605]; the red stain is visible in the back of the rose, where the stain has dripped through (**Figure 6.62**). Alexander Batov has similarly noted that on several guitars by Preston the wood on the soundboard and back 'is often stained before it was varnished' indicating 'a clear sign to achieve quick finishing job'.[606]

Figure 6.62: Detail showing the red stain that has dripped through the back of the rose on a guittar by Preston/Thompsons owned by A. Rutherford (photo courtesy of A. Rutherford).

The typical varnish colours on extant guittars are dark amber-orange, preferred by makers such as Preston, Rauche, Zumpe or Beck, dark yellow, common on guittars by Claus or Longman & Broderip, and light or dark red-brown, favoured by makers such as Liessem, Hintz, Lucas, Gibson or Perry.[607]

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[605] For more details on this topic see <http://cittern.ning.com/photo/2107976:Photo:3962?context=user> and <http://cittern.ning.com/forum/topics/ox-blood-english-guitar-finish> (accessed 8/12/2010).

[606] In contrast, on a bowl-back guittar by Hoffmann dated 1758, which Batov has repaired recently, 'the varnish is of much better quality (transparent but intensive in colour at the same time) which makes you think of more like violin maker's work'. For more details see <http://www.mail-archive.com/cittern@cs.dartmouth.edu/msg01030.html> (accessed 9/12/2010).

[607] Harvey (1995: 48) mentions that in violin-making the colouring materials 'were traditionally powdered and put in the turpentine to dissolve sometime before it was wanted for making the varnish' adding that yellows 'could be obtained by the use of aloes, gamboge, turmeric, or saffron' while reds 'could be obtained by the use of madder or logwood'.

6.7 MAKERS' IDENTIFICATION FEATURES

Like other stringed instruments, many surviving guittars bear makers' identification features. These typically include the name of maker[608], and the address and date of manufacture, often along with other details. Hellwig (1971: 22-4) has claimed that makers' marks on plucked instruments 'appear to have been used from during the second half of the 16th century' and 'doubtless originated as a visible guarantee of authenticity and value', while, as mentioned in Heal (1953: 218), a craftsman would mark his products 'as a means of identification and in order to ''prevent abuses'''. However, it needs to be pointed out that a large number of surviving guittars is unsigned.[609]

A wide variety of branding methods have been used by guittar manufacturers, including inscriptions or prints on paper labels, inscriptions in ink written directly on the instrument, marks on wood with a branding iron, inked stamps, and engravings on metal components. The earliest branding method on guittars involved the use of paper labels pasted inside the body, a practice probably influenced by violin-making, where this technique is quite common.

Several early guittars by Liessem, Hintz and Lucas have the maker's signature, address and date of manufacture written or printed on a small paper label pasted on the inside of the back, usually opposite the rose and visible through it.[610] Interestingly, a surviving guittar by Clagget from c.1790 has a printed paper label pasted on the front of the head above the nut (**Figure 6.63**).

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[608] Picard (2000: 70) has noted that spelling during the 18th century was fairly inconsistent and, as a result, the names of some instrument makers may appear with different spellings on signed instruments and contemporary documents. For example, Claus or Clagget signed their instruments as 'Claus' or 'Clagget' but are usually mentioned as 'Clauss' or 'Claggett' in surviving documents. In addition, makers of non-British origin often tried to anglicise their names for social and commercial purposes; for instance, Hintz signed his earlier instruments as 'Hinz', while his later instruments as 'Hintz'.

[609] In comparison to musical instrument-makers, several well-known cabinet-makers and upholsterers working in 18th-century London never used labels on their products, because 'being patronised by the best of English society they had no reason to advertise themselves in this way', while in some cases a maker would label products selected for exportation 'in order that his foreign customers should know his name and address', as it has been noted in Heal (1953: 215-6).

[610] As it will be mentioned later, early guittars by Liessem and Hintz bearing papers labels are also often stamped on the top of the back and on the back of the head with the maker's name.

Figure 6.63: The inscribed paper label on a guittar by Liessem dated 1759, MMS [F441] (*left*), and the printed paper label on a guittar by Clagget, c.1790, HMH [MS 129] (*right*).

On the majority of bowl-back guittars, by makers such as Rauche, Hoffmann or Zumpe, the maker's name, address and date of manufacture are usually written in ink on the endclasp, below the endpins and the tailbutton (**Figure 6.64**).

Figure 6.64: Details of the inscriptions on the endclasps of four bowl-back guittars. ***Left to right, top*****: Rauche, BCP [8050], dated 1762, and NMS [1905.842], dated 1764.** ***Bottom*****: Hoffmann, (T. Takeuchi collection, London), dated 1758, and Zumpe, EUC [1731], dated 1764.**

However, on most flat-back guittars the maker's name, address and date of manufacture are typically inscribed in ink or stamped with a metal tool on the top of the back, on the neck, and on the front or the back of the head (**Figure 6.65**). For this type of branding Hellwig (1971: 23) has mentioned that 'a steel stamp, appropriately tooled, is heated and then burnt into the wood. For making a clearer mark, it is warmed over a sooty flame and then punched onto the wood, thus depositing the soot in accordance with the stamp'.

Figure 6.65: Typical makers' marks on several flat-back guittars, including inscriptions on the top of the back, and stamps on the top of the back, on the neck, and on the front or the back of the head. ***Left to right, top line*****: Rauche, DCK [MI/A9], and AMO [D.1:3]; and Gibson, EUC [309].** ***Middle line*****: Hintz, DCK [MI/A10]; Liessem, EUC [1070]; Dodds & Claus, LCF [1988/76]; and Thompsons, T. Takeuchi collection.** ***Bottom line*****: Longman & Broderip, MUL [627]; and Preston, T. Takeuchi collection, and MUL [5005].**

Athough makers such as Rauche or Gibson continued to sign their instruments in ink throughout the 1770s, it seems that the branding method using stamps had been widely established among the majority of guittar manufacturers already from the early 1760s as a faster, easier and more consistent way to sign instruments, offering a uniform and easily recognisable 'production-line' marking. It is important to note that some manufacturers or dealers who were involved directly or indirectly in various inventions for the guittar, such as Preston, Claus or

Longman & Broderip, used stamps as an easy and inexpensive way of advertising their work[611] and, at the same time, as a method of protecting their designs against imitators. For example, in an advertisement from 1766 Preston, announcing his invention of the watch-key machine, asked the public to 'beware of Counterfeits, as the Proprietor signs his Name on the Belly of the above Guittars'.[612]

Likewise, in an advertisement from 1785 Claus promoting his new-invented 'Royal Patent Forte Piano Guitars' advised the public 'to observe, that the Patent Instrument is distinguished from all others, by being stamped on the Front with His Majesty's Arms, surrounded with the Words Clauss and Co. Inventors, London, Patent Instrument; and also stamped below the Bridge with the Address of the Patentees, No. 7, Gerard-street, Soho'.[613] Moreover, in an advertisement from 1787 regarding their 'Patent Piano Forte Guitars' Longman & Broderip mentions that they 'have obtained his Majesty's Royal Letters Patent for their great improvement of those instruments, being made to play with keys'.[614] Indeed, there are many surviving guittars by the aforementioned manufacturers with stamps on the soundboard corresponding to the descriptions given in the above advertisements (**Figure 6.66**).

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[611] Many extant guittars by Preston bear his name on three different areas, usually on the front and back of the head and on the front of the watch-key machine, with the clear intention to be easily visible and detectable. In addition, the initials '*JR*' or '*PR*' under the crown, stamped on the back of the head on numerous Preston guittars, may have been a clever marketing trick; as will be shown later, the letters look quite similar to '*GR*' which stands for 'George Rex' meaning 'George the King', thus indicating Preston's association or endorsement by the royal court, which would increase his reputation and sales among potential customers. Apparently for similar marketing reasons, Liessem and Hintz often marked their guittars with two stamps, one on the top of the back and the other on the back of the head.

[612] *London Evening Post*, 7 January 1766, and *Gazetteer and New Daily Advertiser*, 3 February 1766 (as quoted in Lasocki 2010: 130-31).

[613] *The London Gazette*, 5 April 1785, 12636, p. 173. The same advertisement also appeared on 12 and 26 April 1785. Many extant keyed guittars by Claus are stamped below the bridge with his address.

[614] *Morning Chronicle*, 5 March 1787 (as quoted in Girdham 1997: 98).

Figure 6.66: The stamps on the top of the soundboard of three guittars as mentioned in the above advertisements. ***Left to right*: Preston, MSR [767], Claus, BCP [8051], and Longman & Broderip, MUL [627]. Note that the guittars by Claus and Longman & Broderip bear characteristic stamps with the coat of arms, indicating the exclusive use of a patent.**

In addition, many surviving keyed guittars equipped with an external piano-key mechanism, commonly known as 'Smith's Patent Box', but actually patented in 1784 by William Jackson, were typically stamped with the manufacturer's distinctive mark on the top of the key box (**Figure 6.67**).

Figure 6.67: Typical stamps on the external piano-key mechanisms of three keyed guittars. ***Left to right*: Unsigned, DCK [MI/A8]; Preston, SMM [43-307], and NMS [A.1908.251]. Note the characteristic design with the coat of arms in the centre denoting a patented invention; the arrangement of the word 'London' is different on the first two stamps, while on the last stamp this word has been omitted.**

Apart from marks on wood, guittars are often marked on separate metal parts or movable accessories, like the rose, the watch-key tuning machine, or components of the piano-key mechanism. For example, two guittars by Hintz, the first a bowl-back guittar dated 1761, NMM [1286], the other an undated bell S-top-shaped guittar, AMO [D.1:5], bear the maker's name 'F. HINTZ' in the centre of the rose, on a banner above a cupid or cherub's head; the first rose also bears the date '1761'. Likewise, the rose of a keyed guittar by Longman & Broderip in the Royal Northern College of Music, Manchester, [S 13], mentioned in Wright (2010: 203), bears the words 'LONGMAN / BRODERIP / LONDON' (**Figure 6.68**).

Figure 6.68: ***Left and middle*****: Details of the brass roses on NMM [1286], dated 1761 (photo by kind permission of NMM), and AMO [D.1:5], undated. Both roses bear Hintz's name on the banner above the cupid or cherub's head in the centre of the rose; the left rose also bears the date '1761', while there is no date on the middle rose.** ***Right*****: The rose of a keyed guittar by Longman & Broderip, RCNM [S 13], bearing the words 'LONGMAN / BRODERIP / LONDON' (photo by H. Sugimoto).**

Similarly, on many guittars the words 'PRESTON*INVENTOR' are often engraved on the front of the watch-key machine[615], while several watch-key machines have small initials stamped or engraved on the top, possibly indicating the name of the maker or supplier.[616] Additionally, the names and address of Longman & Broderip are often engraved on the brass key cover of keyed

[615] Interestingly, a festooned pear-shaped guittar by Buchinger, RNM [S1], is equipped with a watch-key machine bearing the words 'BUCHINGER MAKER'. For more details see Wright (2010: 201).
[616] For more details see 'THE WATCH-KEY TUNING MACHINE BY PRESTON', Chapter 7.

guittars with internal piano-key mechanisms, as evident on two instruments, one in private ownership, the other in the Royal Northern College of Music, Manchester, [S 13], mentioned in Wright (2010: 203) (**Figure 6.69**).

Figure 6.69: The engravings on the top of the watch-key machine on a guittar by Preston, MUL [5005] (*left*), and on the brass key cover of two keyed guittars by Longman & Broderip, in private ownership (*top right*) (photo courtesy of T. Bingham), and RCNM [S 13] (*bottom right*) (photo by H. Sugimoto).

Interestingly, some extant guittars are stamped with more than one name. For example, two teardrop-shaped guittars in the collections of A. Rutherford and T. Takeuchi respectively, are stamped with the name 'THOMPSONS' on the top of the back and, additionally, with the name 'THOMPSONS' stamped over 'PRESTON' on the back of the head (**Figure 6.70**).[617]

[617] Rutherford claims that the neck of his guittar 'probably came off Preston's wall, and the Thompsons restamped it'. Rutherford further adds that 'the body of this instrument has just the 'Thompsons' stamp on the heel, which either means that the Thompsons made the body and put their stamp on it, or the whole instrument came from Preston and

Figure 6.70: The name 'THOMPSONS' stamped over 'PRESTON' on the back of the head on two teardrop-shaped guittars in the collections of A. Rutherford, New York, and T. Takeuchi, London.

Likewise, a number of extant guittars bear the stamps of both Preston and Longman, Lukey & Co[618], or Preston and Rauche[619], suggesting that Preston supplied finished instruments or instrument parts, most likely necks equipped with watch-key machines stamped with his name, to other manufacturers who then added their own stamps.[620]

It is also noteworthy that most signed guittars from the 1750s and early 1760s usually bear the date of manufacture. However, after the 1770s only few signed guittars bear dates of manufacture[621] although, as already described, they sometimes bear two or three stamps with the maker's name. This practice may have been introduced by large-scale manufacturers, who

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had a blank space at the heel for the Thompsons to put a clearer mark on'. For more details see <http://cittern.ning.com/photo/2107976:Photo:4096?context=user> (accessed 5/12/2010). Another guittar stamped by both Preston and Thompsons is SIW [#096475].

[618] These include RCM [315], RPB [100605], DMC [1973-23], and SAA [1087].

[619] A guittar by Rauche dated 1761 is inscribed 'Rauche / Chandos Street / London 1761' on the top of the back, while the back of the head is inscribed 'PRESTON MAKER LONDON' and the watch-key machine 'PRESTON INVENTOR'. For more details see Sotheby's auction catalogue, 22-23 November 1989, lot 145, p. 45.

[620] This practice was quite common in violin making. For instance, a photo of a violin bearing the stamp of Betts superimposed over the stamp of Duke, both well-known manufacturers and dealers of violins and other musical instruments, including guittars, in 18th-century London, is illustrated in Milnes (2000: 58). A similar practice involving dual stamps was also common in furniture making. As highlighted by Symonds in Heal (1953: 218, footnote) 'Sometimes cane and joined chairs are found with two sets of initials, the second set being […] either that of the carver or the turner who added the decoration'.

[621] A notable exception is the Dublin maker William Gibson, the guittars of whom are typically dated.

produced instruments for stockpile, in order to prevent their instruments from getting dated or unfashionable; by concealing the date of manufacture stocked guittars could easily be sold as new.[622]

In addition, Preston's stamp with the initials 'PR' under the crown, found on many extant guittars, looks very similar to the royal cypher 'GR'; this fact suggests that Preston's use of this stamp was most likely a marketing trick in order to provide his guittars with royal credentials (**Figure 6.71**).

Figure 6.71: *Left*: Preston's stamp with the initials '*PR*' under the crown on the back of the head of a guittar in the Ashmolean Museum, Oxford, [D.1:1]. *Centre, middle and right*: Images of the Royal cypher '*GR*' on a coin; on a guittar case from the late 18th century; and on a snuff box for George III (© Royal Collection).

Another issue worth mentioning is the presence of production numbers on several extant guittars, suggesting a system of serial numbering. For instance, Smith (1977: 324) mentions that a guittar by Clagget and Gibson dated 1763, in the Stearns Collection, University of Michigan, Ann Arbor, [1086], bears the inscription 'Constructed by Me/s. Clagget G. Gibson, 1763' and also has the symbols 'C564' inscribed in ink on the right shoulder side, while according to Doyle (1978: 23) another guittar by Clagget and Gibson bears the inscription 'Clagget and Gibson no

[622] Christopher Nobbs (PC, 2/2009) argues that 'with any fashionable and novel instrument there is a good reason to avoid dating - you can sell/resell something as up to date more easily. Antiquity had no virtue at all in that field. On the fashionable and evolving piano, if there was an original date, it's not uncommon to find it falsified later.' It is notable that although several bowed instruments by Hintz made in the early 1760s are dated, his guittars from that period bear no dates.

100 1790' inked on the back. These numbers indicate that Clagget and Gibson must have used a kind of serial numbering on their instruments.[623] In addition, a guittar by Gibson dated 1770 in the National Museum of Ireland, Dublin, [1995.105], bears the number '685' on it.[624]

Similarly, most keyed guittars by Longman & Broderip are usually stamped on the back of the head with a serial number (**Figure 6.72**).

Figure 6.72: Details of the stamped numbers on the back of the head on five keyed guittars by Longman & Broderip. ***Left to right*****: '115' on MUL [627]; '144' (stamped over '136') on MUL [628]; '178' on GNN [MIR 857]; '188' on MMS [F439]; and '257' on MMS [N36483] (the last two photos by D. Johansson, by kind permission of MMS).**

In addition, the examination of some of these instruments revealed several manufacture marks, including small paper labels, bearing letters and numbers, pasted inside the body, as well as inscriptions of letters and numbers in pencil or ink on parts of the piano-key mechanism.[625] These multiple marks indicate production methods involving division of labour; the numbering obviously assisted the arrangement of tasks so that the mechanism could be easily assembled by a skilled worker once all the various components had been built separately by other craftsmen.

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[623] Apart from Gibson, Thomas Perry was another maker in Dublin who typically used serial numbers on many of his instruments, although it is not certain whether he numbered his guittars. For more details see Milnes (2000: 68) and Doyle (1978: 21).
[624] I am thankful to Jennifer Goff at NMI for providing me with details of this instrument.
[625] For more details see 'THE 'PATENT PIANO FORTE GUITAR' BY LONGMAN & BRODERIP', Chapter 7. A similar practice has been mentioned by Cole (1998: 291) in the manufacture of square pianos.

6.8 GUITTAR STRINGING

The typical stringing of the guittar comprises ten wire strings arranged in six courses, with two single strings for the bass and four pairs of strings for the treble courses.[626] Although the earliest surviving guittars dating from the late 1750s, by Liessem, Hintz, and Rauche and Hoffmann, respectively[627], have ten strings in six courses, it seems that this arrangement did not become standardised until around the 1770s, while, as it will be shown later, guittars with nine, eleven or twelve strings were also common.[628]

One of the earliest tutors for the guittar, David Rutherford's (c.1756) *The Ladies' Pocket Guide or the Compleat Tutor for the Guittar*, depicts a guittar fingerboard with ten strings arranged in six courses (**Figure 6.73**).

[626] The choice of single, rather than double, strings for the bass courses can be explained on the basis of improvements in string technology during the late 18th century; around that time overwound strings of good quality, which offered a full sound and facilitated a more distinct bass accompaniment than pairs of plain or twined strings, had become widely available. Hipkins (1891: 9) has argued that 'the wire strings were always in pairs' and that the transition from the double bass strings to single ones on the bass courses occurred with the introduction of 'spun strings'. The guittar was one of the first plucked instruments to be strung extensively with overwound strings.

[627] As already mentioned in 'THE ARRIVAL OF THE GUITTAR IN LONDON', Chapter 3, the earliest known guittars are two instruments by Remerus Liessem both dated 1756, the first in the Victoria and Albert Museum, London, [230-1882], the second having been auctioned by Sotheby's on 9 October 1981 (lot 156), the present whereabouts of which is unknown. In addition, two guittars by Hintz, one in EUCHMI, Edinburgh, [1066], the other in John Wesley's Chapel, Bristol, and a guittar co-signed by Rauche and Hoffmann in the Burns Birthplace Museum, Alloway, Ayrshire, [3.4565], are dated 1757.

[628] In comparison, as already described in 'THE GUITTAR IN THE CONTINENT', Chapter 4, German zisters usually have nine courses, with three single strings for the bass courses and three double strings for the treble courses, while French cistres typically have eleven strings, with three single strings for the bass courses and four double strings for the treble courses.

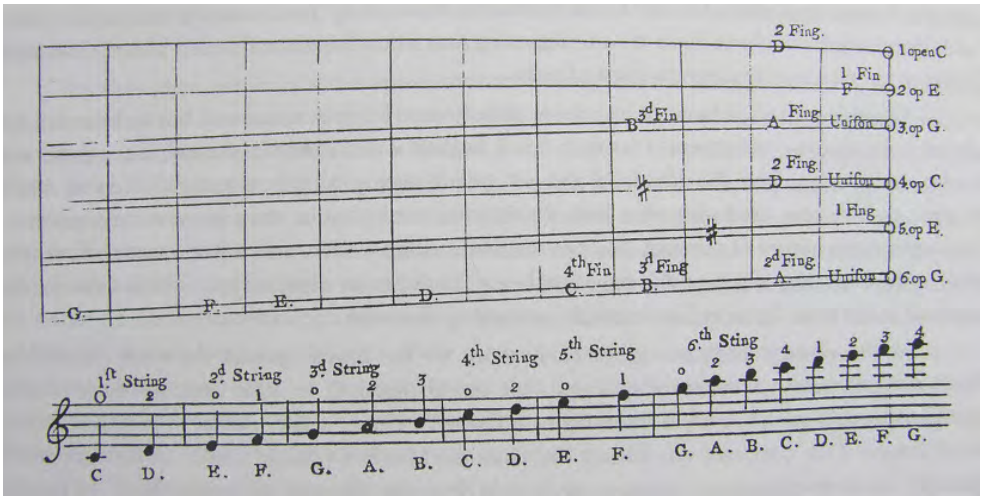

Figure 6.73: The guittar fingerboard with ten strings arranged in six courses as depicted in Rutherford's tutor (Rossi 2005: iv).

However, as shown earlier, 1758 Bremner's tutor *Instructions for the Guitar* depicts a guittar fingerboard with nine strings, with three single strings for the bass and three double strings for the treble courses. In fact, a guittar by Liessem, EUC [1070], dated 1758, the same year that Bremner's tutor was published, has pegs for nine strings, corresponding to Bremner's depiction. Moreover, as already shown, Geminiani's tutor from 1760 also depicts a guittar fingerboard with nine strings, while in her portrait by Thomas Gainsborough, painted around the same time, Ann Ford is depicted holding a nine-string guittar.[629] Likewise, the guittar in the portrait of 'Mrs Robert Gwillym'[630] from 1766 has nine pegs, suggesting an equal number of strings, similar to the guittars shown by Bremner and Geminiani.[631] Nine-string guittars must have been produced throughout the 1760s and 1770s, since a small pear-shaped guittar dated 1764, KCT [265],

[629] See 'PROMOTING A GUITTAR FASHION IN LONDON', Chapter 3. Detailed views of Ford's guittar are included in Leca (2010: 59, 109).
[630] See 'THE GUITTAR'S IMAGE IN GEORGIAN PORTRAITURE', Chapter 3.
[631] It is noteworthy that around the late 18th century there was a transition from double to single strings on the bass courses of gut-strung guitars in order to get a clearer and more defined sound, whereas on wire-strung guittars the transition was from a singe to a double string on the fourth course, possibly to produce a fuller sound.

presented earlier, and a bowl-back guittar dated 1779, BCB [11.2][632], both by Rauche, have pegs for nine strings.[633]

Furthermore, there are several extant eleven-string guittars by makers such as Rauche, Prior, and Preston (**Figure 6.74**).[634] These guittars typically have seven courses, with three single strings for the bass courses and four double strings for the two highest treble courses [635]; the lowest course on these guittars would have been tuned to G.[636] Interestingly, Stuart Walsh has pointed out that in the *First Collection of Twenty-four Airs, Marches, &c. Twelve for One, and Twelve for Two Guittars, or a Guitar and Violin, Composed by the Best Masters* by John Bland (London, c.1785) there are duets for a six-course guittar and seven-course guittar or a violin, with the lowest note in the music being G below C.[637] The seven-course guittar may correspond to the eleven-string instruments mentioned above.

[632] This instrument by Rauche, in the Birmingham Conservatoire, Birmingham, [11.2], is the latest known bowl-back guittar.
[633] In addition, an undated small nine-string teardrop-shaped guittar by Mason, is currently owned by Vintage Instruments, Philadelphia, [#27455] (<http://www.vintage-instruments.com>, accessed 14/11/2008).
[634] These include a bowl-back guittar by Rauche dated 1761 (Bonham's auction catalogue, 23 June 2009, lot 24, p. 10); a teardrop-shaped guittar by Rauche dated 1762, DCK [MI/A9]; a pear-shaped guittar by Prior dated 1777, NMM [1515]; and an undated teardrop-shaped keyed guittar by Preston, SMM [43-307]. Moreover, an undated keyed guittar with eleven strings in seven courses is listed in Christie's auction catalogue of 16 June 1999, lot 13, p. 42.
[635] However, an egg-shaped keyed guittar by Dodds & Claus, made c.1791-93, LCF [1988/76], has eleven strings arranged in six courses, with two single strings for the bass courses, three double strings for the middle, and one triple string for the highest treble course.
[636] Notably, the watch-key machine on SMM [43-307] by Preston bears the tuning 'G-C-E-G-C-E-G' engraved on its front.
[637] See <http://www.mail-archive.com/cittern@cs.dartmouth.edu/msg01415.html> (accessed 28/11/2010).

Figure 6.74: Front, side, and back views of an eleven-string teardrop-shaped guittar by Rauche dated 1762. Dean Castle Museum, Kilmarnock, [MI/A9].

Moreover, two guittars, one by Gibson dated 1764, in the National Museum of Ireland, Dublin, [1913.396], the other by Rauche dated 1770, in the Ashmolean Museum, Oxford, [D.1:3], have twelve strings arranged in in six pairs. In addition, most keyed guittars with internal piano-key mechanisms by Claus and Longman & Broderip usually have twelve strings, with two single strings for the bass courses, two double strings for the middle, and two triple strings for the two highest treble courses, probably in order to produce a fuller sound. The number and arrangement of strings commonly used by guittar manufacturers are presented below (**Figure 6.75** and **Table 6.5**).

Figure 6.75: Four guittars showing the different string numbers used by guittar manufacturers. *Left to right*: Nine-string guittar by Liessem dated 1758, EUC [1070]; ten-string guittar by Hintz, HML [M3-1983]; eleven-string guittar by Rauche dated 1762, DCK [MI/A10]; and twelve-string guittar by Claus, c.1785, BCP [8051].

Number and arrangement of strings (bass to treble)	Guittar manufacturers
9 (3x1, 3x2)	Liessem, Rauche, Mason
10 (2x1, 4x2)	Liessem, Hintz, Rauche, Zumpe, Beck, Lucas, Tripell, Elschleger, Hoffmann, Buchinger, Vogler, Claus, Dickinson, Rutherford, Ruddiman, Simpson, Thompson, Haxby, Preston, Longman & Broderip, Broderip & Wilkinson, Harley, Gibson, McDonnell, Perry, Clagget
11 (3x1, 4x2)	Rauche, Prior, Preston
11 (2x1, 3x2, 1x3)	Dodds & Claus
12 (6x2)	Rauche, Gibson
12 (2x1, 2x2, 2x3)	Claus, Longman & Broderip

Table 6.5: The number and arrangement of strings commonly used by guittar manufacturers.

Since few guittars may have retained their original strings[638], the most consistent information regarding string materials and gauges comes from contemporary literary references. As shown earlier, the tutors of Preston (c.1789) and Thompson (c.1799) show guittars with overwound strings on the three bass courses. Additionally, in his tutor Preston (c.1789: 11-2) mentions that the third string (middle C) is 'commonly Brass Wire', the second string (middle E) 'has also two Steel Strings' and refers to the bass courses as 'The other three Silvered Strings', noting that the lower G has 'two Silver strings'.

Moreover, in his tutor *Estudo de Guitarra* Leite (1796: 27) suggests that the strings on the first course of the guittar should be in white metal (iron) No. 8 or No. 9, and not No. 7.[639] The second course should also be in iron No. 6, the third course in plain yellow brass No. 4, while the fourth, fifth and six courses should have overwound strings.[640] Leite (1796: 28) also mentions that a good technique to stretch a fresh string is by using the 1st finger (index) and moving it upwards and downwards over the entire fingerboard playing each fret on both ways.

In addition, several contemporary advertisements by musical instrument makers and sellers in London specify the types of guittar strings. For example, 'Wire Strings, Silver'd in the compleatest manner and well proportioned for Violins, Basses, Guittars [...]' are listed in the catalogue of Longman, Lukey & Co from 1772.[641] Moreover, the catalogue of musical instruments manufactured and sold by George Astor from 1799 lists 'Cover'd Guitar Strings'[642], while that of Goulding, Phipps and D'Almaine from 1800 includes simply 'Guitar Strings'.[643]

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[638] Strings are ephemeral parts of an instrument, usually having a brief lifetime. As a result, the present stringing of surviving guittars cannot provide accurate or reliable details about the original stringing materials and gauges, since, even in cases of instruments that have not been restored, the original strings cannot be easily distinguished from later replacements. Some of the issues surrounding the determination of original stringing on historic musical instruments have been discussed by O'Brien (2009: 155-226).

[639] These figures refer to Continental (Nuremberg) rather than English gauge numbers. Apparently, strings of iron No. 7 would be too thick for the first course to be tuned to pitch without breaking.

[640] Notably, Leite (1796: 27) mentions that the wire strings were sold in *carinhos* (rods).

[641] I am thankful to A. Rice for providing me with a copy of this document.

[642] As presented by Lasocki (2010: 119).

[643] As presented by Lasocki (2010: 129).

Similar advertisements indicating the materials used on wire strings were also common in colonial America. For instance, Frederick Hoff, Organist at the Dutch Church in Timothy S. C., offered 'a large assortment of wires, both brass and steel, fit for harpsichords, spinets, and guitars'[644], while string maker Theorore Memminger, sold 'the best kind of fresh fiddle strings, guittar and spinnet brass and steel wire', while noting that he spins 'all sort of bass strings with silver wire.'[645] Other advertisements mention 'silver, brass and steel'[646], 'silver basses and guittar strings'[647] or 'silver bass guitar and violin strings'[648], which suggest overwound strings, or 'The best Italian strings for violins, Violincellos, Genuine German wire for Harpsichords, Spinnets Piano Fortes, Guittars; Also silk strings for guittars'.[649] Further evidence on guittar strings comes from a contemporary encyclopaedia entry for the guitar which reads:

> This instrument is strung peculiarly: the upper open note, G, is of double steel wires, about No. 4; the second, E, is also double, No. 5; the third is of brass, double, and gives C; the fourth is double, of brass, and gives G, an octave below the upper wires; the fifth is E, an octave below the second wires; and the sixth is C, the octave below the third. The two last are single wires, covered with very fine wire as closely as possible, like the fourth strings of violins. The wires loop at the bottom to little ivory studs, and at the top to small steel studs, moving in grooves, each of them winding up with a watch-key, so as to put them in tune respectively. The Spanish guitar is strung with cat-gut partly; but the lower notes are, like those of the harp, made of floss silk, covered very closely with fine wire.[650]

From the above descriptions it can be assumed that on a ten-string guittar the first two treble courses were typically strung in iron, the first of gauge No. 4 with approximate diameter of 0.23

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[644] *South Carolina Gazette*, 19-31 October 1765, p. 1 (as quoted in Rossi 2004: 159).
[645] *Pennsylvania Chronicle*, 7-14 November 1768, p. 36 (as quoted in Rossi 2004: 159).
[646] *South Carolina American Gentleman's Gazette*, 20-27 November 1767, p. 3 (as quoted in Rossi 2004: 159).
[647] *New York Mercury*, 26 June 1769, p. 3 (as quoted in Rossi 2004: 160).
[648] *South Carolina American Gentleman's Gazette*, 28 May 1778, p. 3 (as quoted in Rossi 2004: 160).
[649] *Rivington's New York Gazette*, 14 October 1773 (as quoted in Rossi 2004:160). Rossi argues that these silk strings are 'most likely over-spun strings with a silk core' further noting that 'over-spun silk-core strings could only be used on guitars with tuning pegs; the Preston watch-key system does not allow enough length for silk-core strings to reach the appropriate pitch, especially when new, so these silk-core strings could be used on cittern-type guitars fitted with tuning pegs'.
[650] Entry for 'Guitar' in the Third American Edition of W. Nicholson's *British Encyclopedia: Or Dictionary of Arts and Sciences*, 1819 (Philadelphia: Mitchell Ames White) (as quoted in Rossi, D., <http://www.cetrapublishing.com/citterncafe/?cat=13>, accessed 17/3/2009). Interestingly, Armstrong (1908: 6) has provided the details of the strings for a small guittar 'that measures from the nut to the lower end 223/8 inches [568.3 mm], and from the nut to the bridge 161/2 inches [419.1 mm]', although the figures and descriptions he has presented are rather unclear.

mm, the second of gauge No. 5 with diameter of 0.27 mm.[651] The third course would be strung in plain yellow brass No. 4 with diameter of 0.36 mm. The fourth course would be strung in plain or overwound yellow brass, while the two single bass courses would probably be strung in yellow brass overwound with a copper or silver alloy.[652] The basic properties of guittar strings, including the string material, diameter, pitch, and tension[653], are presented below (**Table 6.6**).[654]

Note	String material	String diameter (in/mm)	Pitch (Hz)	Tension (kg)
g'	Iron	0.009 in / 0.23 mm	401	3.62
e'	Iron	0.010 in / 0.27 mm	337.2	3.53
c'	Yellow brass	0.014 in / 0.36 mm	267.3	4.22
g	Plain or overwound yellow brass	-	-	-
e	Yellow brass overwound with copper or silver alloy	-	-	-
c	Yellow brass overwound with copper or silver alloy	-	-	-

Table 6.6: The basic properties of guittar strings.

[651] The gauge numbers and diameters for the treble strings have been calculated according to the details presented by Martin (2009: 79, Table 19), which concern the relationship of gauge numbers and diameters between 18th-century Nuremberg and English wire strings on keyboard instruments.

[652] Rossi (2005: 3) advocates the use of plain iron for the two highest courses and plain brass for the two middle courses, stating that these materials 'feel much softer under the fingers than steel, or wound strings with a steel core'. Rossi also claims that the guittar, which he refers to as 'cetra' is quite light 'not only in terms of overall weight, but in terms of stringing and tension', further noting that 'whereas a modern guitar will carry somewhere in the range of 6 to 8 kg (13-17 lbs) of tension per string […] the cetra carries only 3.5 to 5 kg (8-12 lbs), thus producing a much softer sound and action'.

[653] String tension [T] has been calculated using the formula: $T = (fld)^2 \pi z / (9.81 \times 10^{12})$ (kg). In this formula [f] is the fundamental frequency of the note (Hz); [l] is the vibrating string length or scaling (m); [d] is the string diameter (m); and [z] the density of string material (kg/m³), which for iron is 7769 kg/m³, while for brass is 8536 kg/m³ (the results of the division $\pi z / (9.81 \times 10^{12})$ are 2463 for iron and 2639 for yellow brass). For more details see Martin (2006: 133, footnote 36).

[654] The string tensions have been calculated on a ten-string guittar by Hintz, EUC [310], with a scaling of 416 mm, assuming that the instrument pitch is 450 Hz for a' and that all the strings should have an equal tension of approximately 4 kg (by taking into account that lower string tensions would result in slack strings that could cause intonation problems and would produce a sound of low volume and poor quality, especially on the bass courses, while higher tensions would be rather uncomfortable for the player). The pitch in Britain during the mid and late 18th centrury may have varied between 410 and 440 Hz, while it is known that the pitch of the tuning fork reportedly left by Handel at the Foundling Hospital, when the *Messiah* was performed there in 1751, is at 422.5 Hz; however, for the reasons descibed above, such a low pitch would be rather inappropriate for the guittar. Since the string properties of the bass courses are not certain, only the tensions of the first three courses of strings could be accurately calculated. The results of these calculations have also been included by the author in his unpublished Masters dissertation 'Historical Wire-strung Plucked Instruments: Literature Review and Experimental Research on Stringing, Tuning and Bridge Design' (University of Edinburgh, 2007).

The examination of surviving guittars has also revealed several interesting cases of conversion of wire-strung guittars to gut-strung instruments. This practice must have been used in the early 19th century when a series of new gut-strung instruments started becoming popular among amateur performers.[655] Examples of converted instruments include a flat-back guittar by Liessem dated 1758, EUC [1070], a bowl-back guittar by Zumpe dated 1762, HMF [X16650], and a bowl-back guittar by Rauche dated 1764, NMS [1905.842].[656] It is also noteworthy that many extant guittars have been listed in museum catalogues as having five double courses of strings, but this is usually the result of previous repairs or restoration treatments, which involved replacing the original nut and bridge.[657]

Interestingly, a similar case of conversion is described in the following letter, written on 31 April 1813 by the Edinburgh violin maker Matthew Hardie, which reads:

> Edin April 31 1813
>
> Sir, what you object about the bridge is of no / consequence it can be either set back or forward as the / lady or gentlemen find it please them it can be made / higher or lower at any time. The strings thicker or smaller / as the performer finds answer best. The tone is / uncommonly good and as for the voice you talk of every / lady sings to concert pitch What you allege will not stand / reason there is no fault but can be rectified It is one of the / finest in the country and such Antiont [sic] thing is / perhaps not to be got It is worth 2 of Prestons in London / I think the price of one is very cheap Mr Innes will let me / know tomorrow morning what he intends to give for it / I am you humble servant
>
> Matthew Hardie.

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[655] As already described in 'THE REPLACEMENT OF THE GUITTAR BY NEW INSTRUMENTS', Chapter 3, gut-strung instruments such as the harp-guitar, harp-lute-guitar, Apollo lyre, harp lute and dital harp, and probably small-sized Spanish guitars, shared the same tuning in open C as the guittar, with extra open bass courses to extend the lower range, thus enabling players accustomed to the guittar to play them using essentially the same fingering patterns.

[656] Two of these guittars, EUC [1070] and NMS [1905.842], are not presently strung, but have remains of old gut strings on their endpins, while HMF [X16650], is strung entirely in gut. It is important to note that the conversion of these instruments usually involved the replacement of the nut, bridge and endpins with new parts.

[657] Several cases of alterations and modifications on guittars have been discussed by the author in his paper 'Historical Use and the Preservation of Authenticity: The Case of the English Guittar' presented at the '2nd International Conference for PhD Music Students', Thessaloniki, Greece, 11-13 February 2009; a revised version of the paper was included the conference proceedings published in 2010.

> Receipt for £2 stg. part of the price of 2 guineas for a / guitar which I oblige myself to alter into its original state/ with a proper bridge and nut of 10 strings and to put / frets on the finger board of ivory or ebony in Mr Innes'/ option and to string up the instrument properly after / which … I am to claim for the remaining 12 s 6 d.
>
> Matthew Hardie[658]

Hardie had apparently been asked by Mr Innes to restore a guittar that had previously most likely been converted to a gut-strung instrument with six strings, back into 'its original state with a proper bridge and nut of 10 strings', as well as new frets on the fingerboard 'of ivory or ebony'. Moreover, the phrase 'such Antiont [sic] thing is perhaps not to be got It is worth of 2 Prestons in London I think the price of one is very cheap' is indicative of the guittar's declining popularity, suggesting that by that time the instrument had already become old-fashioned.

6.9 GUITTAR CASES

Like other portable instruments, guittars were usually stored in cases, which were probably sold together with new instruments.[659] Guittar cases were typically made of inexpensive wood shaped in the outline of the instrument to be stored; as a result, they could not easily be used interchangeably for guittars of different shapes or sizes. Most surviving cases are dressed on the inside with felt lining or a similar soft woolly fabric, to protect the instrument from scratches and dents, whereas on the outside they are typically covered in leather, which may have rendered them waterproof to some extent. Most guittar cases usually consist of a bottom and a top part, which are secured with a lock and hasp and two hooks and eyes on the sides (**Figures 6.76, 6.77**).

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[658] As quoted in Rattray (2006: 25).

[659] For instance, the Probate Inventory for Charles Pinto (TNA: PRO PROB31/821/151) in the National Archives, lists among 59 stored guittars 'Twenty one Guitars with / leather cover'd Cases', probably indicating finished instruments ready for sale. I am grateful to J. Nex for providing me with her transcription of this document. For the entire content of Pinto's inventory see Appendix III.

Figure 6.76: *Left*: **Top view of a case belonging to a teardrop-shaped guittar by Beck & Pinto dated 1764. Ulrich Wedemeier collection, Laatzen (photo by kind permission of Ulrich Wedemeier).** *Right*: **Side view of a case belonging to a teardrop-shaped guittar by Longman & Broderip, in private ownership (photo by kind permission of A. Garrett).**

Figure 6.77: The top (*left*) and side (*right*) views of a case belonging to an unsigned bowl-back guittar, MMA [1989.218.1, .2] (<http://www.metmuseum.org/search/iquery.asp>, accessed 7/12/2010). The case is quite deep due to the guittar's vaulted back.

The exterior of the cases is usually decorated with various patterns and often bears the maker's or owner's marks and other inscriptions on the top.[660] For example, a guittar case illustrated in the exhibition catalogue *Made for Music* by the Galpin Society (1986: item 39) is decorated with 'gilt chinoiserie on a black lacquer ground, the interior lined with blue baise'; the caption also mentions that 'whereas English guittars themselves are often basic in construction the surviving cases are often well made, decorative or both, perhaps because the maker's market was a rather discriminating one and would be impressed by good packaging'.[661]

Furthermore, according to the description of Thibault et al (1973: 100), a case belonging to a pear-shaped cistre is 'stamped and gilded, and decorated with gilt studs' with the owner's mark stamped on the top (**Figure 6.78**). Additionally, an extant bell-S-top-shaped guittar has been auctioned along with 'a fine fitted period, shaped, leather covered, wooden case decorated with tooling, also bearing the Royal cypher 'GR' surrounded by decorations in the form of oak leaves and acorns' [662] (**Figure 6.79**).

---

[660] For example, a keyed guittar by Longman & Broderip dated 1798, MFA [1999.1], has a 'leather-bound wood case stamped with various patterns' (see <http://www.mfa.org/collections/object/keyed-cittern-english-guitar--113025>, accessed 17/11/2007). Likewise, in his *A Descriptive Catalogue of Musical Instruments in the South Kensington Museum* Engel (1874: 258) lists a keyed guittar, numbered '37.'70.' and labelled as 'keyed-cither' in 'wooden case, covered with stamped leather'.

[661] A catalogue by Clementi, Collard & Collard from 1823 lists 'Cases for English Guitar', with prices starting from 16 shillings. I am grateful to James Westbrook for drawing my attention to this source.

[662] See Bonham's' auction catalogue, 15 February 1996, lot 80, p. 7 and front cover illustration. Interestingly, in his description of a guittar by Zumpe dated 1762, in the Historisches Museum Frankfurt, [X16650], Epstein (1927: 15, number 53) mentions a leather instrument case stamped with the initials 'GR' under the crown, perhaps indicating a royal ownership or endorsement, and also bearing Zumpe's address 'at the Sign of the Golden Guittar'. Unfortunately, according to Oliver Morr at the Historisches Museum Frankfurt (PC, 22/12/2009), the case was lost or destroyed during the Second World War, possibly around 1944 when several artefacts from the museum were moved to other buildings, and its present location is unknown.

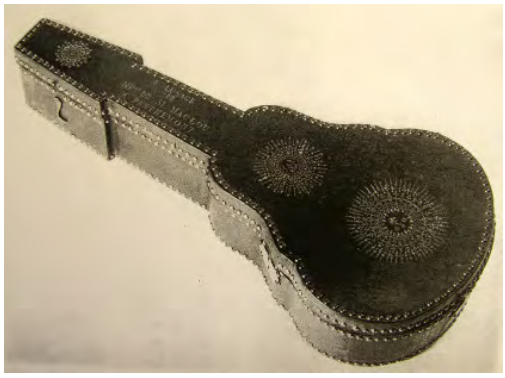


Figure 6.78: ***Left*****: A guittar case decorated with 'gilt chinoiserie on a black lacquer ground' as illustrated in the exhibition catalogue** ***Made for Music*** **by the Galpin Society (1986: item 39).** ***Right*****: A case belonging to a pear-shaped cistre is 'stamped and gilded, and decorated with gilt studs', with the owner's mark stamped on the top (Thibault et al 1973: 100, plate 61). Similar cases must have been used for pear-shaped guittars.**

Figure 6.79: The case of a bell S-top-shaped guittar (*left*), bearing the royal cypher 'GR' on its top (*right*) (Bonham's auction catalogue, 15 February 1996, lot 80, front cover illustration).

The cases of egg-shaped keyed guitars equipped with internal piano-key mechanisms were similar to cases for bowl-back guittars, although less deep, as it can be noticed in the following photos (**Figure 6.80**).

Figure 6.80: The case of a keyed guittar by Longman & Broderip, in closed (*top*) and opened (*bottom*) positions. Musikmuseet, Stockholm, [N36483] (<http://www.musikmuseet.se/samlingar/detalj.php?l=en&iid=2003&v=2009-02-02%2014:01:25&str=>, accessed 18/1/2010).

Notably, the top part of the cases of keyed guitars equipped with external piano-key mechanisms is shaped accordingly to accommodate the key box, as it can be noticed in the following photos (**Figure 6.81**).[663]

Figure 6.81: The top (*top*) and side (*bottom*) views of two cases belonging to keyed teardrop-shaped guittars *Left*: Preston, NMM [1292] (photo by kind permission of the NMM). *Right*: Unsigned, HMF [X4336]. Note the green felt lining on both cases and the similar locking systems with a lock and hasp and two hooks and eyes on the sides.

[663] A similar, though slightly larger, case, belonging to an eleven-string keyed guitar by Preston is currently displayed in the Stadtmuseum München, Munich, [43-307].

7 GUITTAR INNOVATIONS

'JOHN PRESTON, Of Banbury-Court, Long-Acre, London, GUITTAR and VIOLIN-MAKER, […] has lately found out and invented a new Improvement, or Instrument, for Tuning of Guittars; […] The Manner of Tuning the above Guittars is by a small Watch Key, which is done Instantly, and will keep the tune in that Order for a Month together, unless altered.'

John Preston, advertisement in the ***London Evening Post,*** **7 January 1766**

'My improvement upon the finger board of the guittar or other similar instruments is, that, instead of using fretts, I have a finger board cut sloping from the bottom of one stop to the top of the next, so that the edge or highest part is where the performer is to stop.'

Charles Clagget, ***Improvements on the Violin and other Instruments played on Finger Boards,*** **Patent No. 1140, 7 December 1776**

'My new invention consists of several parts […], and in the manner of constructing and fixing the said parts in and to the musical instrument commonly called the guittar, and by which the said instrument so commonly called the guittar, is rendered the more capable of being played on in the manner of a pianoforte.'

Christian Claus, ***An Improvement upon the musical Instrument commonly called the Guittar,*** **Patent No. 1394, 2 October 1783**

7.1 MECHANICAL AND TECHNICAL ASPECTS OF THE GUITTAR

The guittar developed at a time when innovation in many crafts, including instrument-making, was at its peak. The early stages of the Industrial Revolution, exemplified in the outbreak of sciences, the improvement of equipment and tools, the introduction of machinery, and the systematic organisation of production, had an important effect on manufacturing methods and standards, particularly for items of great public demand. Consequently, as a result of its growing popularity, from the 1760s the guittar was at the forefront of technological invention, and the mechanical and technical aspects of the instrument played an important role on its manufacture and marketing.

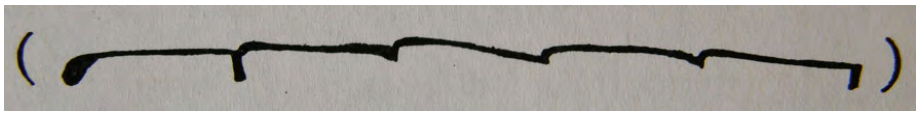
As already mentioned, several pioneering components and devices were developed and used on the guittar throughout its brief history, with the three main fields of innovation concerning the fingerboard construction, the various tuning devices, and the two piano-key mechanisms for striking the strings. Some of these inventions, principally designed for more accurate tuning, easier playing, sound improvement and tone variety, became distinctive features of guittar design and also had a significant influence on other contemporary or successor instruments. Interestingly, as it will be shown later, a number of these invented devices were officially patented but never took off in practice, while others became extremely popular even though they emerged outside the established patent system.[664]

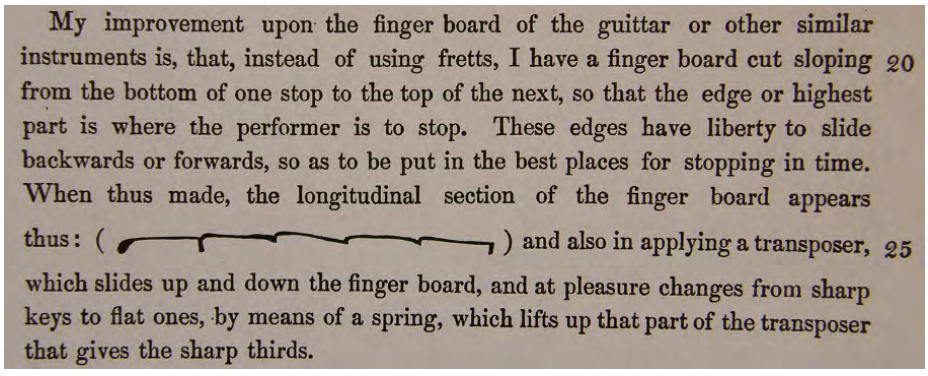
7.1.1 THE PATENT FINGERBOARDS OF CLAGGET AND GOLDSWORTH

As described earlier the guittar was normally fretted with metal bars inserted on a wooden fingerboard. Nevertheless, in 1776 Charles Clagget received a patent for his 'Improvements on the violin and other instruments played on finger boards' (7 December 1776, Patent No. 1140)[665];

[664] For a comprehensive analysis of the patent system in 18th-century Britain see MacLeod (1988: 75-157).
[665] This is the earliest recorded patent related to the guittar.

among these improvements was the invention of a new fingerboard for the guittar. Clagget's patent specification is presented below (**Figure 7.1**):

> A. D. 1776.-No. 1140. / *Clagget's Improvements on the Violin &c.* / CLAGGETT'S SPECIFICATION […] I, the said Charles Claggett […] should and lawfully might, during the term of years therein expressed, make, use, exercise, and vend, within that part of His Majesty's Kingdom of Great Britain called England, His Dominion of Wales, and Town of Berwick-upon-Tweed, my invention of "IMPROVEMENTS ON THE VIOLIN AND OTHER INSTRUMENTS PLAYED ON FINGER BOARDS". […]
>
> My improvement upon the finger board of the guittar or other similar instruments is, that, instead of using fretts, I have a finger board cut sloping from the bottom of one stop to the top of the next, so that the edge or highest part is where the performer is to stop. These edges have liberty to slide backwards or forwards, so as to be put in the best places for stopping in time. When thus made, the longitudinal section of the finger board appears thus:
>
> 
>
> and also in applying a transposer, which slides up and down the finger board, and at pleasure changes from sharp keys to flat ones, by means of a spring, which lifts up that part of the transposer that gives the sharp thirds.



My improvement upon the finger board of the guittar or other similar instruments is, that, instead of using fretts, I have a finger board cut sloping 20
from the bottom of one stop to the top of the next, so that the edge or highest part is where the performer is to stop. These edges have liberty to slide backwards or forwards, so as to be put in the best places for stopping in time. When thus made, the longitudinal section of the finger board appears thus: ( ) and also in applying a transposer, 25
which slides up and down the finger board, and at pleasure changes from sharp keys to flat ones, by means of a spring, which lifts up that part of the transposer that gives the sharp thirds.

Figure 7.1: The description and drawing of Clagget's improvements concerning the guittar fingerboard as presented in his 1776 patent.

Clagget's patent was announced in the following advertisement:

> December 20, 1776. / ON Saturday the 7th Instant, Mr. Charles Clag- / gett, of the City of Waterford, obtained His Majesty's / Letters Patent under the Great Seal, for Improvements made / by him on all Musical Instruments played on Finger-boards, / viz. Violin, Violoncello, Guittar, Mandolin, &c. which will / introduce into Concerts an infinitely more perfect Agreement, / by rendering it almost impossible to play out of Tune. The / Inventor will soon inform the Lovers of Music (in the Daily / Advertiser) where they may see the above Improvements. A / more full and particular Account of the attendant Advantages / Will shortly be published.[666]

A second patent, granted to Clagget (15 August 1788, Patent No. 1664), concerned 'Methods of constructing and tuning musical instruments, which will be perfected in their kind, and much easier to be performed on than any hitherto discovered.' However, Clagget's plans to produce instruments with his patent specifications were delayed due to a fire in February 1789, as captured in the following advertisement:

> October 23, 1789. HIS Majesty has been graciously pleased to grant unto Charles Clagget His Letters Patent at different Periods, for Improvements on many Musical Instruments, the Result of near Fourteen Years laborious and expensive Application, which would have been brought before the Lovers of that science long since, but unfortunately he was deprived of that Power by a Fire which happened in February last: He has, since that time, renewed his Undertaking, and has happily met with the Approbation of some of the first Judges in England. The Improvements chiefly consist in the Temperament of Musical Sounds on the Violin, Violoncello, Tenor, Harpsichord, Grand Piano Forte, Guittar, French horn, and Trumpet: also in an Improvement in tuning Harpsichords, Piano Fortes, Spinets, Harps, &c. &c. N. B. Now in the Press, and speedily will be published, an Explanation of this Undertaking in the fullest Manner.[667]

There is presently only one known guittar with this feature, in the Händel-Haus Museum, Halle, [MS 129] (**Figure 7.2**).

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[666] *London Gazette*, 21 December 1776, Issue 11729, p. 2.
[667] *London Gazette*, 20 October 1789, Issue 13142, p. 669.

Figure 7.2: Front, side, and back views of the only surviving guittar with a patent fingerboard by Clagget, c.1790. Haändel-Haus Museum, Halle, [MS 129].

The sloping fingerboard of this guittar consists of 14 frets made of ivory plates edged with dark wood, each placed on top of one another, creating a distinctive 'stepped' pattern as shown in Clagget's patent drawing (**Figure 7.3**) [668]; however, there is no 'transposer' sliding up and down the finger board, that 'changes from sharp keys to flat ones, by means of a spring', as described in Clagget's patent specifications.

[668] Claggett's inspiration for a slopping fingerboard may have originated in the fingerboard designs used on earlier citterns. For example, the use of similar slopping fingerboards on early citterns, using wooden blocks as frets, has been noted by Segerman (1999: 85, 89).

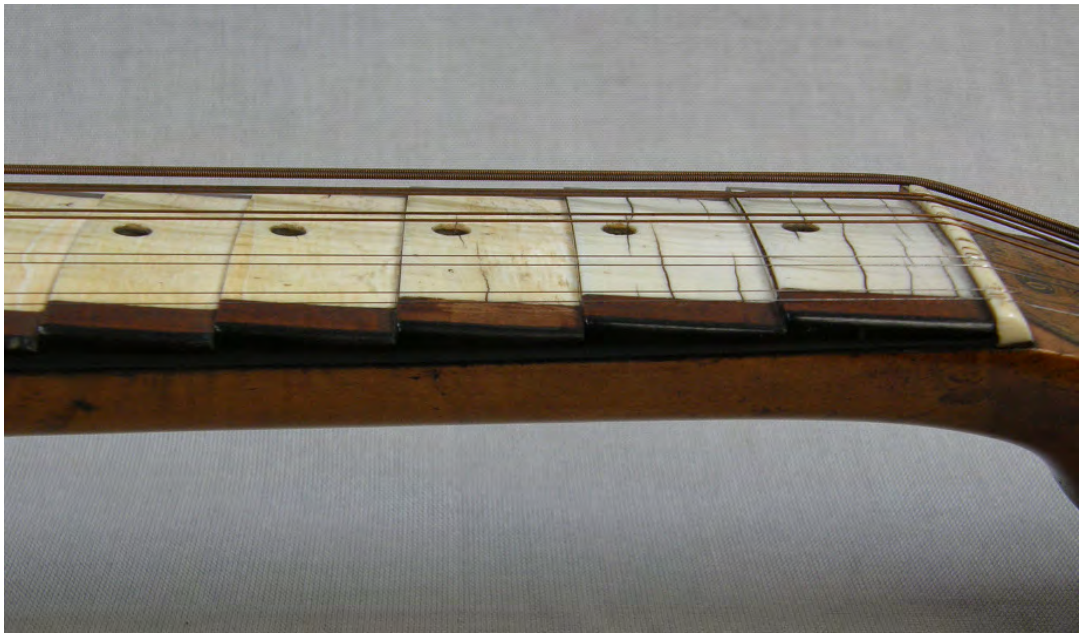

Figure 7.3: Detail of the sloping fingerboard on Clagget's guittar. This is the only known guittar to correspond to the design presented in Clagget's patent.

Nine years after Clagget's 1776 patent, in 1785, John Goldsworth received a patent for an 'Entire new improvement upon the musical instrument called the guittar' (23 July 1785, No. 1491); Goldsworth's specifications mainly concerned a removable internal piano-key mechanism for the guittar; however, in his patent Goldsworth also described a fingerboard 'fretted agreeably to the diatonic scale, so that the concords fall just on the different keys' which he illustrated in a drawing (**Figure 7.4**).

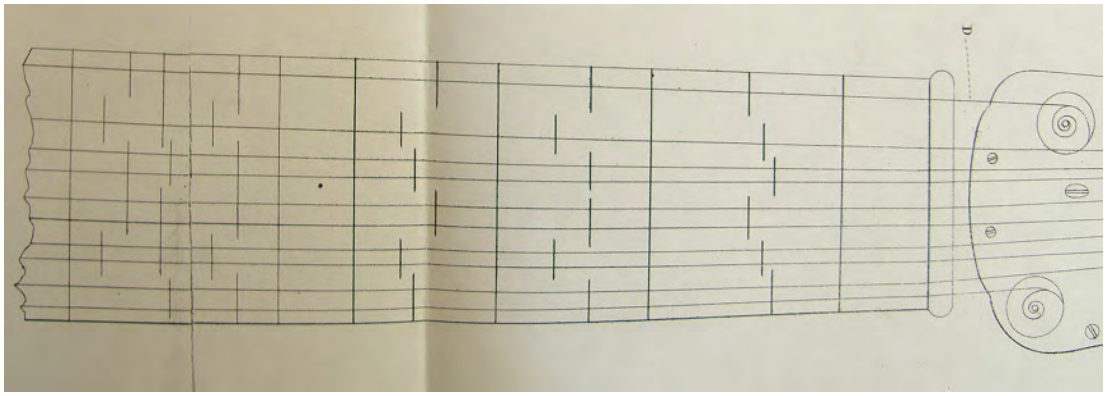

Figure 7.4: The drawing of Goldsworth's fingerboard 'fretted agreeably to the diatonic scale, so that the concords fall just on the different keys', corresponding to Figure 11 in Goldsworth's patent drawings.

Although, as it will be shown later, there are many surviving keyed guittars bearing Goldsworth's removable internal piano-key mechanism, no extant guittars with a fingerboard 'fretted agreeably to the diatonic scale', as described and shown in Goldsworth patent, are presently known. In fact, the absence of a significant number of surviving instruments equipped with either Clagget's or Goldsworth's patent fingerboard suggests that their inventions probably remained at an experimental stage and never became commercially successful.[669]

7.2 THE DEVELOPMENT OF TUNING DEVICES

7.2.1 FROM THE WOODEN PEGS TO THE FIRST TUNING MACHINES

As mentioned before, one of the most individual features of guittar technology is the variety of tuning devices that were employed during the instrument's lifetime. Later variations of these mechanisms still find use today on several instruments, confirming the effectiveness and long-

[669] It is important to note that an unusual fingerboard, on which the notes are stopped with keys rather than with the left-hand fingers, is depicted in William Jackson's patent (20 August 1784, Patent No. 1449) for the 'British Lyre', an instrument with features similar to the guittar, as will be shown later. However no extant instruments with such a fingerboard design are presently known.

lasting influence of the initial designs. The earliest types of guittar were fitted with lute or violin-style wooden tuning pegs for tuning the strings. The pegs were housed in a trapezoidal open pegbox, similar to that of a viol (**Figure 7.5**). The gear ratio[670] of wooden pegs is 1: 1.

Figure 7.5: Front, side, and back views of the viol-style pegbox with ten wooden tuning pegs on a bowl-back guittar by Rauche dated 1762. Blair Castle, Perthshire, [8050]. Note that the top peg is broken and partly missing.

On ten-string guittars the ten pegs are arranged equally on each side of the head, following an alternate pattern. Thus, five pegs are placed on each side, with the first peg (the one closest to the nut) being that of the bass c string of the sixth course, the second peg that of the treble g' string of first course, the third of the e string of the fifth course, and so on. The same pattern is followed on guittars with nine or eleven strings (**Figure 7.6**).

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[670] The gear ratio indicates the times the tuner head has to be rotated by 360° in order to achieve one turn of the tuner's post. A higher ratio permits finer adjustments, reducing the hassle of tuning up and down repeatedly before perfect tuning is achieved.

Figure 7.6: Front, side, and back views of the viol-style pegbox of an eleven-string, teardrop-shaped guittar by Rauche dated 1762. Dean Castle, Kilmarnock, [MI/A9].

Guittars with pegboxes have a head angle at the nut of 6° to 8°. The pegs were usually made of ebony or similar hardwood, while the pegheads are often decorated with small ivory pips (**Figure 7.7**).

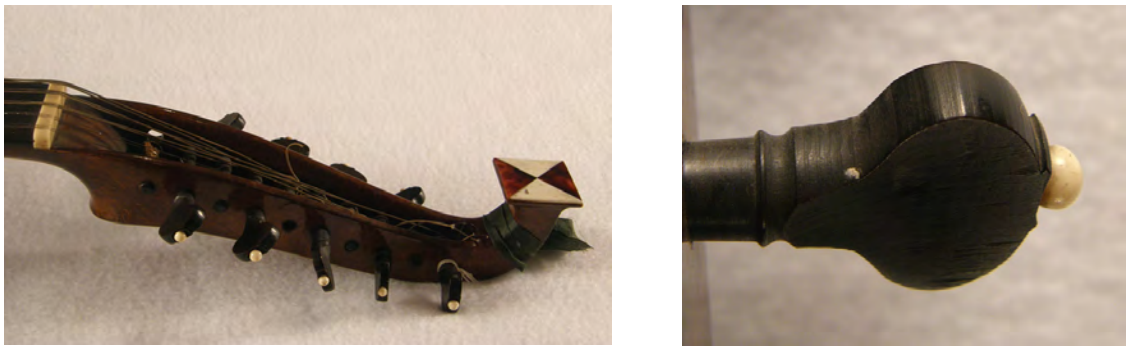

Figure 7.7: Side view of the pegbox with ebony tuning pegs (*left*) and detail of the decorative ivory pip on the peghead (*right*) on a guittar by Hintz. EUCHMI, Edinburgh, [310].

Curiously, a guittar by Simpson in Metropolitan Museum of Art, New York, [89.2.167], has a rather unusual tuning system with nine wooden pegs inserted vertically in three rows on a flat head, more or less like a baroque guitar (**Figure 7.8**).

Figure 7.8: Front view of a teardrop-shaped guittar by Simpson. Metropolitan Museum of Art, New York, [89.2.167] (photo by kind permission of MMA).

According to the catalogue description[671] the neck and head consist of three pieces of maple, while the rectangular flat head is joined to the neck at the nut. A sickle-shaped extension is attached on the back top of the head. The head, which has twelve holes, has 'two moldings on each side and six semicircular gouges on the top edge'. This odd tuning arrangement is possibly the outcome of an alteration since, apart from the head, most construction features of this instrument are typical for guittars.

[671] I am indebted to M. Suing at the MMA for providing me with catalogue information of this instrument.

It is also important to point out that tuning pegs are removable parts; as a result, many surviving guittars have more than one style of tuning pegs, after some of the originals have been either lost in the past or replaced during restoration. For example, a guittar by Preston in the Bate Collection of Musical Instruments, Oxford, [957], has at least four different styles of tuning pegs, some of which are definitely not original (**Figure 7.9**).

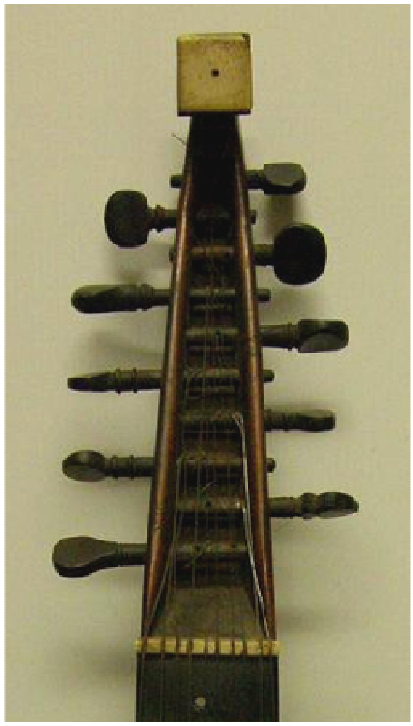

Figure 7.9: Detail of the head with at least four different styles of tuning pegs on a guitar by Preston. Bate Collection of Musical Instruments, Oxford, [957].

However, perhaps due to their fragility, as well as their inability to hold the wire strings of the guittar firmly and keep them in tune, wooden pegs were gradually replaced by other tuning mechanisms, like the watch-key machine, the worm-and-pinion tuners or the worm-gear machine heads. These mechanisms aimed to provide easier and more accurate tuning for the wire-strung guittar than the earlier wooden pegs and were probably developed concurrently around the 1760s.

7.2.2 THE INVENTION OF THE WATCH-KEY TUNING MACHINE

The watch-key machine[672] is a mechanism consisting of a set of iron screws with fine thread, enclosed in a rectangular brass[673] plate (**Figure 7.10**).

Figure 7.10: Front, side, and back views of a watch-key machine for ten strings. EUCHMI, Edinburgh, [3079].

On the screws are attached individual small hooks protruding from the plate and moving along 'guides' in it. The screws are turned using a small watch key, stretching and tuning the strings (**Figure 7.11**). The hook on the 28 mm-long thread runs its length from bottom to top after 28 whole turns of the key. There is one screw for each string; one end of the strings is attached with a loop on the hook, the other end fixed on endpins at the bottom of the guittar.

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[672] The mechanism adopted the name 'watch-key machine' due to the use of a watch key, rather than to any similarities with machines used for watches, since its construction is rather different. Doc Rossi claims that the only connection with watches is the key, since apart from screws there are no springs inside the watch-key machine. For more details see Rossi, D., 'Preston Tuner History' (<http://www.mail-archive.com/cittern%40cs.dartmouth.edu/>, accessed 15/1/2009).

[673] Brass is a copper-zinc alloy, usually containing a proportion of 70% copper and 30% zinc. According to conservator Louise Bacon (PC, 11/2008), who has done significant work on the identification and dating of brass alloys, by the mid-18th century, when the watch-key machine was probably invented, the technology to separate zinc from its ore was available. Thus, the composition of brass alloys, such as those used on watch-key machines, had been largely standardised. This fact actually makes the dating of watch-key machines by analyzing the composition of the brass components rather difficult.

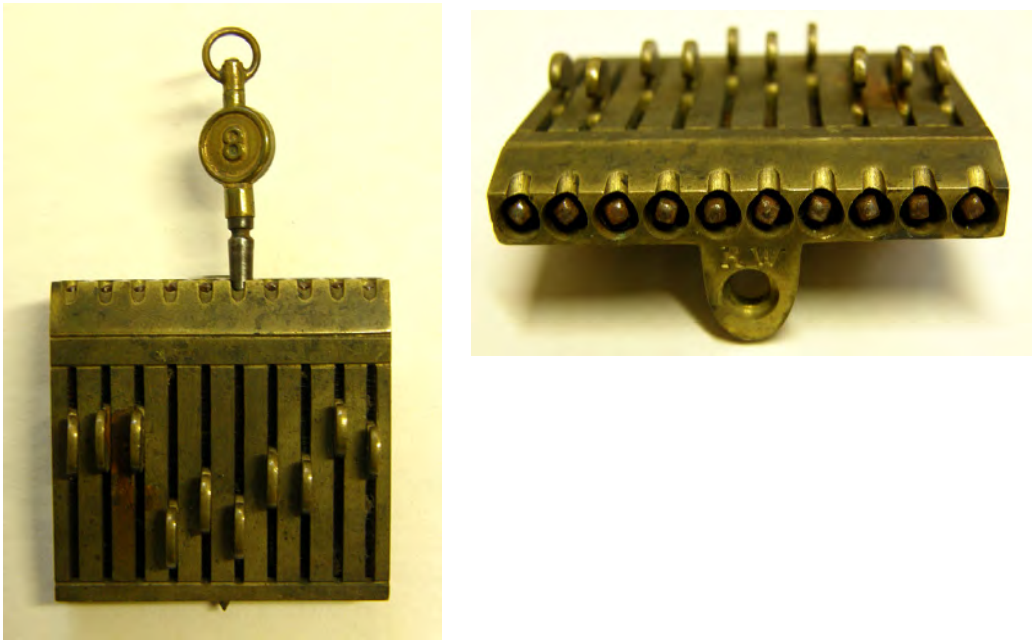

Figure 7.11: Front (*left*) and top (*right*) views of the watch-key machine EUC [3709], bearing the initials 'R W' engraved above the screw hole. Note the number '8' on the key, indicating its size.

On most guittars equipped with watch-key machines the head has the shape of a sickle to allow room for the small watch-key to turn the threads for tuning the guittar; the head angle at the nut is usually 14° to 16°. The mechanism is attached with a screw in an appropriately cut square slot on the top of the head (**Figure 7.12**).

Figure 7.12: Details of the square slot for the watch-key machine before (*left*) and after (*right*) it has been removed from the head of a keyed guittar by Claus. Blair Castle, Perthshire, [8051]. As the mechanism had probably never been removed in the past, the dust in the slot (*right*) has been accumulating since the watch-key machine was originally attached on the guittar (!).

The dimensions of watch-key machines vary slightly depending on the number of strings; for instance, a typical watch-key machine for a ten-string guittar by Preston has dimensions of approximately 40 mm height, 42 mm width, and 15 mm depth, whereas the machines for twelve-string keyed guittars by Claus or Longman & Broderip have similar height and depth,

but are much wider, about 45 mm to 50 mm. Regardless of their overall dimensions, however, most machines have approximately the same thread length of 26 mm to 28 mm.[674]

Moreover, on some late keyed guittars by Longman & Broderip the watch-key machine is mounted on the head with two screws, instead of one, probably to withstand the tension of more strings and to prevent the distortion of the machine[675] (**Figure 7.13**).

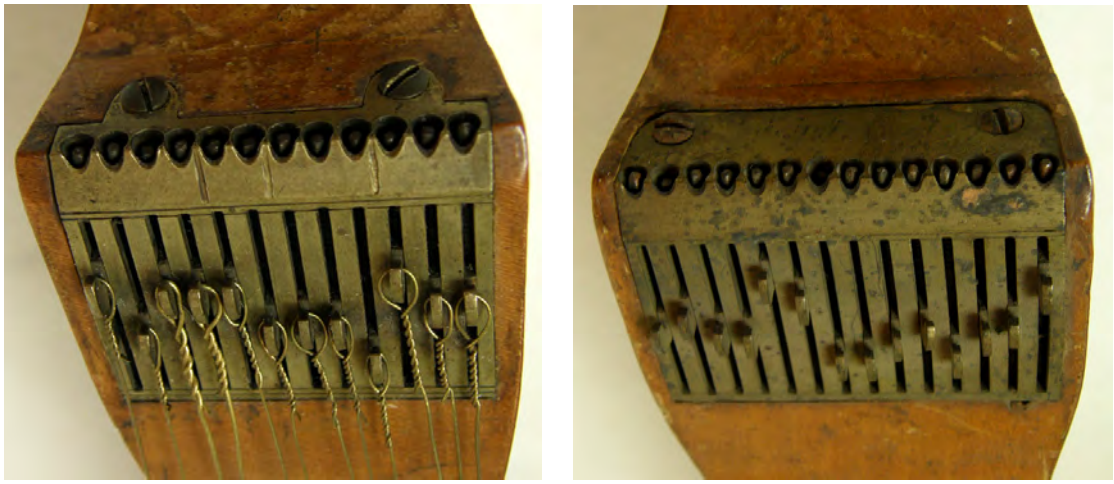

Figure 7.13: The watch-key machines on two keyed guittars by Longman & Broderip in the Museum für Musikinstrumente der Universität Leipzig, Leipzig, [628] (*left*) and [627] (*right*). Note that both machines have been attached on the head with two screws in order to withstand the tension of the twelve strings and to prevent distortion of the machine.

It is essential to note that the design of the watch-key machine required strings cut in a specific length with loops on both ends and, as a result, it prevents the use of string materials other than

[674] In comparison, a eleven-string French cistre in the Deutsches Museum, Munich, [10205], has a watch-key machine with dimensions of 53 mm length, 46 mm width, and 13 mm depth, with a quite long thread of 46 mm. Interestingly, it is fixed permanently on the head with two 'wedge'-shaped brass parts protruding from the top of the brass plate, instead of having a screw, making its removal for repairs rather difficult.

[675] A ten-string guittar by Joseph Kwiatowsky of Warsaw dated 1814, in the Germanisches Nationalmuseum, Nuremberg, [MIR 855] has a watch-key machine fixed similarly on the head with two screws, as it will be shown later.

wire.[676] With the watch-key machine, to put on a string the hook has to be lowered down entirely so that there is enough distance to stretch the string. Even then, the distance that a string attached to a hook can travel on the thread before it would be stretched and tuned to pitch is quite short, usually around 26 mm to 28 mm. Therefore, only wire strings can be used effectively, as they require less stretching than other materials, like gut or silk.[677]

Regarding key sizes, the watch-key machines on most examined guittars work with a modern watch-key of size No. 7 for a screw head of 1.60 mm.[678] However, the dimensions of the screw heads vary slightly; thus, some machines require keys of size of No. 8 or No. 9 for larger screw heads of 1.65 mm and 1.75 mm respectively. On several guittars the original keys have survived, in some cases bearing the size number, thus enabling a comparison between historical and modern sizes. For example, a guittar by Preston in EUCHMI, Edinburgh, [1067], and an unsigned guittar owned by D. Kilpatrick[679] retain their keys, which may be original, of sizes No. 8 and No. 9 respectively (**Figure 7.14**). The keys were usually attached on the head with a ribbon, as due to their small size they must have been quite easy to lose (**Figure 7.15**).

[676] The fact that the watch-key machine worked efficiently only with strings of the correct length and type was probably a marketing trick by instrument makers and sellers, who, apart from musical instruments, usually sold strings and tuned instruments as well. Besides, string-making had always been a quite profitable business, especially regarding the making of gut stings, and stringed instruments usually required an expensive annual maintenance and service, including the change of strings. According to Darryl Martin (PC, 5/3/09) the strings for guittars with watch-key machines must have been made precisely with some sort of special jig or other equipment.

[677] Guittar player and scholar Rob MacKillop (PC, 1/3/2008) has experimented with three different types of overwound strings for the bass courses on his guittar, using gut overwound with brass, silk overwound with brass, and brass overwound with yellow brass, respectively. Of these, only the last could actually be tuned to pitch using the watch key-machine as the distance of the lever is quite short; other materials, like gut or silk overwound with brass, require more winding round the hook to get properly stretched and therefore cannot be used effectively.

[678] English size No. 7 is equivalent to continental size No. 4. For a comparison of modern watch-key sizes see <http://www.rnhorological.co.uk/clock%20and%20pocketwatch%20key%20conversion.htm> (accessed 11/3/2010).

[679] For more details of this guittar see <http://www.maxwellplace.demon.co.uk/pandemonium/guittar.html> (accessed 14/3/2010).

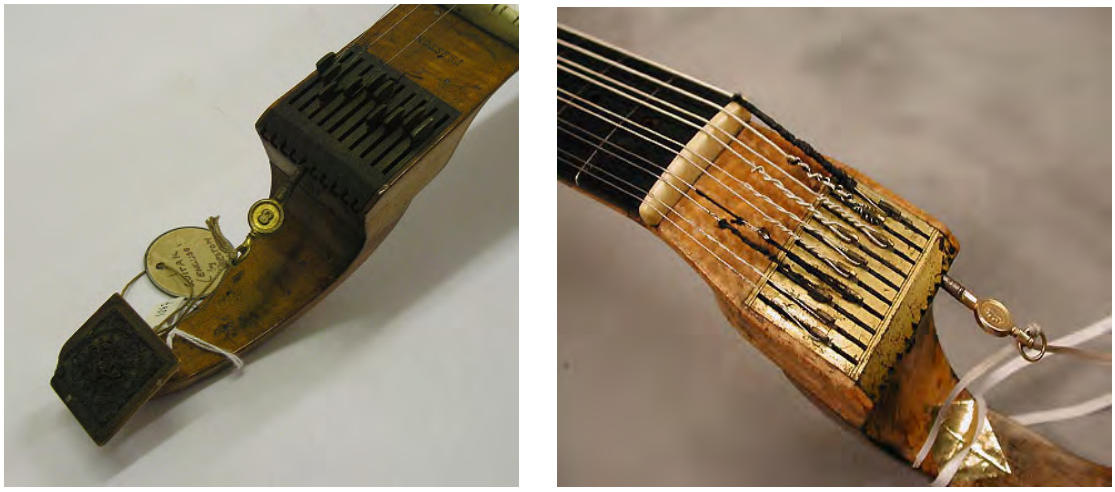

Figure 7.14: Detail of two watch-key machines retaining their keys, size No. 8 on a guittar by Preston, EUCHMI, Edinburgh, [1067] (*left*), and size No. 9 on an unsigned guittar owned by D. Kilpatrick (*right*). Note that the machine on the right is gold-plated.

Figure 7.15: *Left*: Two watch keys attached with a ribbon on the head of a guittar by Longman & Broderip. Germanisches Nationalmuseum, Nuremberg, [MIR 854]. *Right*: Detail of the keys.

The watch-key machine is suited to the short-scale wire guittar strings, and, according to various contemporary descriptions, it must have been quite effective and popular. Its only major disadvantage compared to the wooden pegs was that it adds extra weight on the head, due to its brass parts, making the neck end quite heavy. On the other hand, its small, compact design shortened significantly the overall length of a guittar, making it more portable and more protected against damage, compared to the wooden pegs, which could break easily. It is also noteworthy that the watch-key tuning machine was a standard feature on all keyed guitars with internal piano-key mechanisms, and on most keyed guittars with external piano-key mechanisms, with only few exceptions.[680]

Badley (2004: 9) states that watch-key machines were 'very temperamental', adding that 'the general quality of these mechanisms seems to have been rather poor'. Also Segerman (1999: 100) has argued that the watch key was not always desired among players, mentioning that 'extra care is needed in finding the right screw to tune with the watch key, the watch key can easily be misplaced, the extra loop on the string was a bother and there was little leeway in where it could be placed'. What both writers have overlooked is the fact that many of these machines are still in perfect working condition after almost 250 years.

The inventor of the watch-key tuning machine, as well as the exact date and location of its first use, is presently unknown. Systems with screws to tighten the hair of violin bows had been devised during the late 17th or early 18th century, while attempts to improve the tuning stability of stringed instruments using a system with screws to tighten up the strings must have started around the same time.[681] It is notable that several extant trumpet marines have a tuning system with a vertical screw that may have influenced the design of the watch-key machine (**Figure 7.16**). Adkins and Dickinson (1991: 149) have mentioned that the vertical screw mechanism has

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[680] For instance, a flat-back guittar by Beck dated 1765, in the Musée de la Musique, Paris, [E.2081], and a bowl-back guittar by Lucas dated 1761, owned by Enzo Ferrara, Lincoln, have been modified to receive external piano-key mechanisms, but have wooden tuning pegs, rather than the more common watch-key tuning machines.

[681] For example, according to Segerman (1999: 99) the technology of tightening strings up using a system with a screw and an 'eye' was already known in France from the beginning of the 18th century and had been used for various purposes on musical instruments, such as the tightening the hair of violin bows. Besides, a screw with a nut was also used to attach the capotasto on the guittar.

been used on a number of trumpet marines, noting that 'It has not been possible to determine the origin of this type of machine, but all of the datable specimens come from later than the mid-eighteenth century'. Moreover, Adkins and Dickinson (1991: 78, footnote 128) have remarked that 'An interesting application of the vertical screw principle was devised for string instruments by Preston of London in the 1760's. Known as a watch-key mechanism, it used a small vertical screw turned by a key for each of the strings', adding that this mechanism 'is found most frequently on Preston's English guitars'.[682]

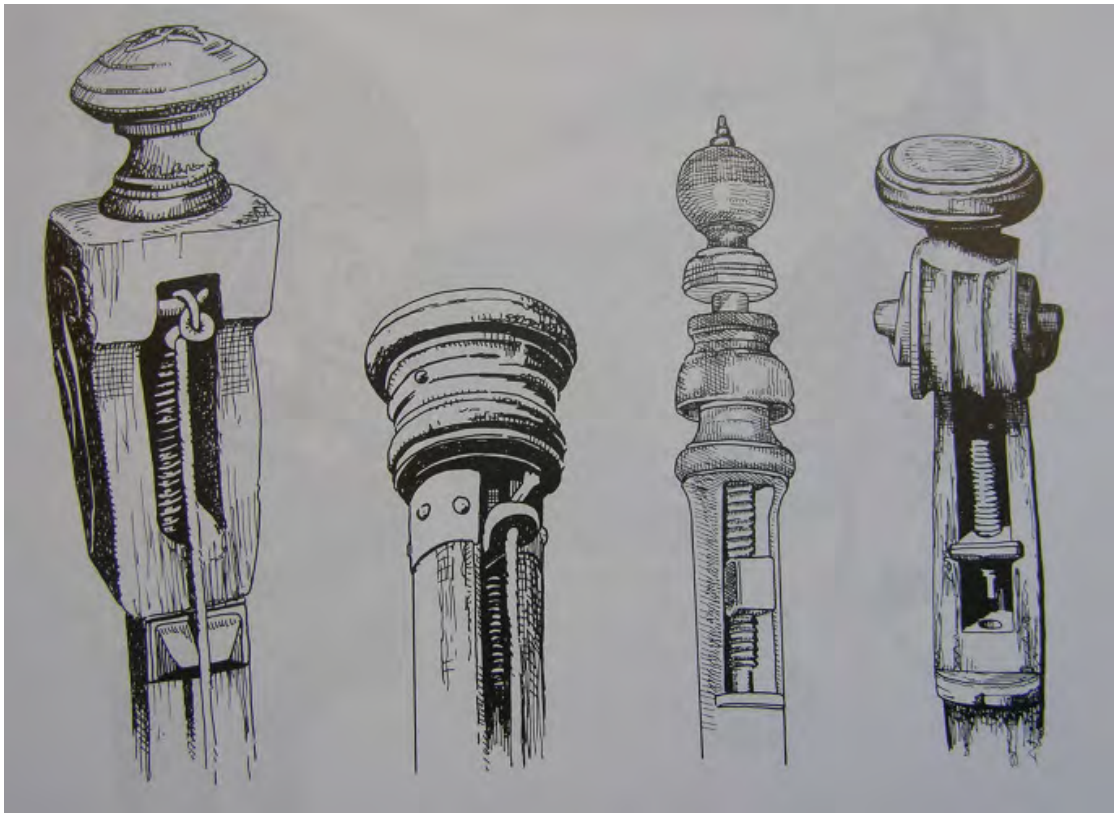

Figure 7.16: Detail of a drawing showing examples of the vertical screw tuning mechanism on four trumpet marines (Adkins and Dickinson 1991: 151, Fig. 39a-d).

[682] Adkins and Dickinson (1991: 78, footnote 128) have also noted, however, that an unsigned bell harp from about 1770 in the Horniman Museum, London, [332], 'has its fifty-two strings tuned in that manner rather than with the customary tuning pins.'

Interestingly, an unsigned guittar in EUCHMI, Edinburgh, [1592] (**Figures 7.17, 7.18**), has a quite unusual tuning system with long vertical 'open' screws attached in holes drilled through the head. This rather primitive mechanism looks similar to the vertical screw mechanism used on trumpet marines, shown above, and could be a precursor of the watch-key machine.

Figure 7.17: Front, side, and back views of an unsigned and undated guittar equipped with an unusual tuning mechanism employing long vertical screws. EUCHMI, Edinburgh, [1592]. Note that the screws are not enclosed in a separate box as on later machines, but are 'open' and can be removed though the holes drilled on the top of the head.

Figure 7.18: Front, side, and back views of the head and the unusual tuning mechanism using a system of long vertical 'open' screws for each string on EUC [1592].

However, the earliest signed guittar equipped with a watch-key machine is a festooned instrument by Liessem dated 1756 in the Victoria & Albert Museum, London, [230-1882] (**Figure 7.19**). This instrument, which is also one of the two earliest signed guittars, as already mentioned[683], is equipped with a watch-key machine for ten strings, and, given the date of manufacture (1756), if it is not a later addition, this is the earliest dated example of this device, as noted by Baines (1966: 43).

[683] See 'THE ARRIVAL OF THE GUITTAR IN LONDON', Chapter 3.

Figure 7.19: Detail of the watch-key machine on a guittar by Liessem dated 1756. Victoria & Albert Museum, London, [230-1882] (<http://collections.vam.ac.uk/>, accessed 8/1/2010).

A similar early example of this device is fitted on a bowl-back guittar by Hoffman dated 1758, in the collection of Taro Takeuchi, London (**Figure 7.20**). According to Alexander Batov[684], who has recently repaired this guittar, the neck is original and it seems as if it was originally designed to house the watch-key mechanism.

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[684] See Batov, A., 'Preston Tuner History' (<http://www.mail-archive.com/cittern%40cs.dartmouth.edu/>, accessed 15/1/2009).

Figure 7.20: Detail of the watch-key machine for ten strings on a bowl-back guittar by Hoffmann dated 1758. T. Takeuchi collection, London (<http://www.vihuelademano.com/current/pages/guittar-hoffmann1758.htm>, accessed 27/4/2009).

Moreover, the early dates of these two machines are confirmed in that they both look certainly less advanced and refined than those made later by other makers, such as Preston, which look more standardised.

In any case, considering these two examples, the watch-key tuning mechanism was probably in use already from the mid-1750s. It is important to note that on both machines the threads protrude from the top of the brass pate; on later machines the threads are inserted inside the plate, possibly for better protection against breaking. However, a quite unusual watch-key machine design is featured on a guittar by Clagget in the Händel-Haus Museum, Halle, [MS 129]; this instrument has a wooden and ivory cover on top of the watch key-machine, probably in order to protect it from damage (**Figure 7.21**).

Figure 7.21: Front and side views (*left and middle*) and detail (*right*) of the watch key machine on a guittar by Clagget, c.1790. Händel-Haus Museum, Halle, [MS 129]. Note the wooden and ivory protective cover attached with screws on the top of the machine; this is the only known guittar to have this feature.

7.2.3 THE WATCH-KEY TUNING MACHINE BY PRESTON

The most renowned manufacturer of the watch-key machine is arguably John Preston, who has often been accredited as the inventor of this device.[685] Actually, in an advertisement of 1778 Preston described himself as 'Guittar and Violin-maker, and the original Inventor for tuning the guitar with a watch key'[686], while as late as 1786 Preston still advertised as 'Guittar-maker and original Inventor of the machine for tuning with a watch-key'.[687] However, an earlier advertisement by Preston dating from 1766 (**Figure 7.22**) reveals more information on the invention of the watch-key machine:

> JOHN PRESTON, Of Banbury-Court, Long-Acre, London, GUITTAR and VIOLIN-MAKER, BEGS Leave to acquaint the Nobility, Gentry, and others, That he has lately found out and invented a new

[685] The watch-key machine has been commonly referred to as 'Preston's tuners' or 'Preston's machine' by various writers.
[686] *Gazetteer and New Daily Advertiser*, 9 April 1778 (as quoted in Lasocki 2010: 131); see also Humphries and Smith (1970: 263).
[687] *Morning Post and Daily Advertiser*, 25 July 1786 (as quoted in Lasocki 2010: 131).

Improvement, or Instrument, for Tuning of Guittars; and which is greatly approved of by all Masters and Dealers in this Branch of Business, in England, Scotland, and Ireland, by many Years Practice and Industry, which never could as yet be found out, though various Attempts has been made for that Purpose, but to no Effect. / The Manner of Tuning the above Guittars is by a small Watch Key, which is done Instantly, and will keep the tune in that Order for a Month together, unless altered. / Whereas others will not keep in Tune for five Minutes, the Pegs belonging thereunto are of so bad a Nature, that the Nobility, Gentlemen, and Ladies, do not chuse to trouble themselves so much with the above Guittars, being so troublesome to tune. / The Proprietor of the above Guittars begs leave to say, that, upon producing the same, that all those who are pleased to favour him their Commands, will be fully satisfied of the above, and shall be waited on immediately. / N. B. Please to beware of Counterfeits, as the Proprietor signs his Name on the Belly of the above Guittars; and all Orders sent shall be punctually observed, and at the lowest Prices, Wholesale and Retail, for ready Money only.[688]

JOHN PRESTON,
Of Banbury-Court, Long-Acre, London,
GUITTAR and VIOLIN-MAKER,
BEGS Leave to acquaint the Nobility, Gentry, and others, That he has lately found out and invented a new Improvement, or Instrument, for Tuning of Guittars; and which is greatly approved of by all Matters and Dealers in that Branch of Buſineſs, in England, Scotland, and Ireland, by many Years Practice and Induſtry, which never could as yet be found out, though various Attempts has been made for that Purpoſe, but to no Effect.
The Manner of Tuning the above Guittars is by a ſmall Watch Key, which is done inſtantly, and will keep the ſame in that Order for a Month together, unleſs altered.
Whereas others will not keep in Tune for five Minutes, the Pegs belonging thereunto are of ſo bad a Nature, that the Nobility, Gentlemen, and Ladies, do not chuſe to trouble themſelves ſo much with the above Guittars, being ſo troubleſome to tune.
The Proprietor of the above Guittars begs Leave to ſay, that, upon producing the ſame, that all thoſe who are pleaſed to favour him with their Commands, will be fully ſatisfied of the above, and ſhall be waited on immediately.
N. B. Pleaſe to beware of Counterfeits, as the Proprietor ſigns his Name on the Belly of the above Guittars; and all Orders ſent ſhall be punctually obſerved, and at the loweſt Prices, Wholeſale and Retail, for ready Money only.

Figure 7.22: The advertisement by Preston in the *London Evening Post* of 7 January 1766 (Fildes et al 2011: 14).

[688] *London Evening Post*, 7 January 1766, and *Gazetteer and New Daily Advertiser*, 3 February 1766 (as quoted in Lasocki 2010: 130-1).

The above advertisement contains several details worth discussing. Firstly, Preston names his invention as 'a new Improvement, or Instrument, for Tuning of Guittars'; according to MacLeod (1988: 87) in 18th-century Britain patents were often granted even for minor improvements or variations of earlier designs, confirming Preston's claim. However, no patent for this device has been officially recorded, and it is quite possible that, like many other successful designs, the watch-key machine was never actually patented.[689]

Secondly, Preston states that before his invention 'various Attempts has been made for that Purpose, but to no Effect', probably referring to the machines presented earlier. The basic difference between Preston's patent design and previous machines is that the head of the screw, where the watch-key has to be inserted, is enclosed inside the brass frame; on earlier mechanisms the head of the screw usually protrudes from the brass frame. Therefore, it is quite possible that Preston improved an earlier design of the watch-key machine, rather than inventing an entirely new design.[690] Thirdly, Preston clearly attempts to promote his tuning device, promising that it will 'keep the tune in that Order for a Month', further noting the ineffectiveness of tuning pegs.[691] He also informs the public that he 'signs his Name on the Belly of the above Guittars' asking them 'to beware of Counterfeits', indicating that other makers were copying Preston's design or were developing similar ideas.

Additional evidence regarding the date of invention comes from the following advertisement from 1766 by Hintz in which he claims to have discovered, if not invented himself, a new tuning mechanism for the guittar:

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[689] Some of the most important 18th-century inventions were never patented since obtaining a patent was a quite expensive and difficult process, as MacLeod (1988: 75-8) has described. Cole (1998: 66) has argued that Zumpe's square piano was another successful design that was never patented, while Tony Bingham (PC, 11/2007) further notes that it was a common practice for 18th-century instrument makers to call something patented just to prevent others from copying their designs.

[690] To design his improved machine Preston could have collaborated with craftsmen specialised in mechanisms for scientific instruments and other machinery, such as scales, guns or clocks. For example, Milnes (2000: 61) mentions that the bow maker John Dodd of London had worked as 'a gunlock fitter and money-scale maker', while François Tourte, a known bow maker in Paris, had an 'early training as a clock maker', so the two makers shared 'a facility in fine metalworking necessary for the making of screw-adjusted bows.'

[691] This is an indicative example of advertising hype which was common in contemporary advertisements.

> after many Years Study and Application in endeavouring to bring this favourite Instrument the Guittar (being the first Inventor) still to a greater perfection in regard to tuning and keeping the same in Tune, which has always been a principal Defect as well as inconvenient, has now found out, on a Principal entirely new, several Methods, whereby it is much easier and exacter tuned, and also remains much longer in Tune than by any Method hitherto known.[692]

It is interesting to note Hintz's comment that tuning and keeping the guittar in tune 'has always been a principal Defect as well as inconvenient', which similarly to Preston, almost certainly refers to guittars with wooden tuning pegs. Furthermore, the description of 'several Methods' for the easier and more accurate tuning of the guittar on a 'Principal entirely new' mentioned in the above advertisement clearly points out to the watch-key tuning machine, which is found on several extant guittars by Hintz.[693] Furthermore, the phrase 'easier and exacter tuned, and also remains much longer in tune' indicates that the new tuning system offered the advantages of easier and more accurate tuning, while providing longer tuning stability, as Preston had promised in his advertisement. It is, therefore, almost certain that Hintz used the watch-key machine developed by Preston on his instruments, rather than inventing a new device himself.[694] By a rare coincidence, the above description is confirmed by a bell S-top-shaped guittar by Hintz in the Ashmolean Museum, Oxford, [D.1:5] (**Figure 7.23**).

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[692] *The Public Advertiser*, 13, 17 and 22 March, and 9 May 1766 (as quoted in Graf 2008: 20).
[693] In his advertisement Hintz may have also referred to another tuning device, such as the worm-gear tuners; however, this is rather impossible, since, although many surviving guitars by Hintz bear watch-key machines, none equipped with worm-gear tuners is presently known.
[694] Hintz may have developed a different version of the watch-key machine or a similar tuning device, although no patent records or other literary references have survived to confirm his statement.

Figure 7.23: ***Left*****: Front view of a bell S-top-shaped guittar by Hintz, in the Ashmolean Museum, Oxford, [D.1:5], having a later-added watch-key machine and sickle-shaped head.** ***Right*****: Detail of the spliced neck to adapt the new head and watch-key machine.**

Interestingly, the neck of this guittar has been cut between the fifth and sixth fret, and a new neck part and sickle-shaped head with a watch-key machine have been added. This machine also looks less refined than later machines found on guittars by Preston or other makers. Moreover, it is fixed on the head only with a small screw which is not attached to the machine's brass plate, like the later types. These details point out that this machine is probably an early prototype. Moreover, the head has an inscription[695] written with pencil just below the watch-key machine, reading 'Prestons New / Improvement / […] 31 1766' (**Figure 7.24**). Actually, if this

[695] On the basis of this inscription the guittar had been erroneously dated 1786 by Boyden (1969: 42-3), which is anyway impossible, since Hintz died in 1772. In the light of this new evidence the manufacture date of this instrument is 1766 or earlier. I would like to thank Jon Whiteley at the Ashmolean Museum, who was kind enough to assist me with the reading of the inscription and to provide me with his personal notes of this instrument.

inscription was written by Hintz when the guittar was converted to receive the watch-key machine, then it confirms that the device used by Hintz was supplied by Preston.[696]

Figure 7.24: The inscription 'Prestons New / Improvement / […] 31 1766' written in pencil below the watch-key machine (*left*) and side view of the hooks (*right*) on AMO [D.1:5]. Note the letter 'M' (or upside-down 'W') engraved on the top of the brass plate.

The modification of guittars to install a watch-key machine (and/or an external piano key mechanism) was not an uncommon practice as confirmed in the following advertisement by Warrell and Co (**Figure 7.25**), which mentions 'Guittars on the last new Construction, superior in Tone; and to which may be added the Piano Forte Movement at Pleasure.- Old Guittars altered to Tune with the Watch Key; and good Second hand ditto, sold very Cheap.'

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[696] A guittar by Hintz the Victoria & Albert Museum, London, [37-1870], is equipped with a watch-key machine engraved 'PRESTON*INVENTOR'. According to Baines (1966: 43) the guittar has a 'renewed head' which probably suggests a similar conversion.

WARRELL and Co's

IMPROVED MUSICAL INSTRUMENTS.

Wholesale, Retail, and for Exportation,

At their Manufacturies or Warehouse,

Near Astley's Theatre, Westminster Bridge.

SQUARE PIANO FORTES superior to most others, however dignified and puffed off.

THE great impositions the Public have suffered in those Sort of Instruments, induces WARRELL and Co. to assure them, that the common square PIANO FORTES, when made by real Workmen, are in every respect answerable, both in Touch and Tone, to the highest expectation. They therefore Manufacture them on true *Philosophical Principles*, whereby they will stand longer in Tune than any other, and in not being Complicated, answer far better, and a considerable saving in the Price.

GRAND PIANO FORTES considerably under the usual enormous Prices.

ORGANIZED PIANO FORTES on the same Philosophical Principles, whereby they will keep in Tune together better than has hitherto been found in others, and much Cheaper.

GUITTARS on the last new Construction, superior in Tone; and to which may be added the Piano Forte Movement at Pleasure.—Old Guittars altered to Tune with the Watch Key; and good Second hand ditto, sold very Cheap.

PATENT and other GERMAN FLUTES, with the additional Keys, elegantly Tipt with Silver or Plain, down to 5l.—FIFES of different Sorts.

VIOLINS of various Prices, New or Second-hand.

ORGANS, HARPSICHORDS, SPINETS, and other INSTRUMENTS Second-hand

reasonable Terms.—Old Instruments of all KINDS repaired in the *best* Manner, and Tuned by

Figure 7.25: An advertisement by Warrell and Co announcing the modification of guittars to receive the watch-key machine and/or an external piano-key mechanism (BM Heals Collection 88.86, presented in Fildes et al 2011: 15).

Additionally, the examination of several extant guittars has shown that there are many examples of similar alterations, where the original pegbox with wooden tuning pegs has been replaced with a watch-key tuning machine. In most cases, during this alteration the top part of the neck close to the nut would be spliced and the old head with the wooden pegs removed. Then, a new sickle-shaped head, to facilitate the tuning using a watch-key, would be glued at the end of the neck.

The stages of this conversion are evidenced on three examined guittars. As can be noticed in the following photos (**Figure 7.26**) on all three guittars the neck has been cut between the nut and the first fret, while the new sickle-shaped head is glued with a 'tongue-and-grove' joint.

Figure 7.26: Examples of three examined guittars showing the neck alterations in order to receive new heads and watch-key machines. ***Left:*** **Rauche, dated 1767, Horniman Museum, London, [216-1906].** ***Middle:*** **Preston, undated, Horniman Museum, London, [1976.35].** ***Right*****: Preston, undated, Museo degli Strument Musicali, Rome, [766].**

These examples highlight a transitional period, during which various experimental versions of the watch-key machine were probably developed and tested[697], often on earlier guittars. It is noteworthy that as a result of this alteration, the new head angle at the nut would be almost doubled; therefore, as already mentioned, although guittars with pegboxes have a head angle at the nut of about 6° to 8°, on those equipped with the watch-key machine the angle is

[697] The catalogue description by Wells and Nobbs (2007: 97) of a guittar by Rauche dated 1767, in the Royal College of Music, London, [333], regarding its watch-key machine reads: 'The pull of the strings is at a greater angle to the screw threads than on later mechanisms; and this has tended to distort the mechanism', which suggests that these machines, and their application on guittars, were still at an experimental stage in the late 1760s.

approximately 14° to 16°. However, the 'break' angle of the strings on guittars with watch-key machines is roughly the same as on guittars with pegboxes, with minor variations.[698]

As the watch-key machine became more popular, several instruments were similarly altered to be fitted with this device. For instance, a six-string bowl-back cister by Anton Bachmann dated 1782, in the Deutsches Museum, Munich, [5442], was equipped with a watch-key machine after having been converted in the same way (**Figure 7.27**).

Figure 7.27: Front view (*left*) of a six-string bowl-back cister by Anton Bachmann dated 1782, in the Deutsches Museum, Munich, [5442], and detail (*right*), showing the neck alteration for the addition of the sickle-shaped head and the watch-key machine.

[698] It is important to note that on the watch-key machine the string end is mounted on a hook which protrudes from the frame of the mechanism. Therefore, if the head on which the watch-key machine was mounted had the same angle as on guittars with pegboxes, the string would not have enough 'break' angle behind the nut to prevent it from buzzing on the frets.

It seems that at some point after producing and testing his invention, Preston standardised his early prototype. Preston's later machines look more refined and elegant, having a more 'industrialised' design when compared to earlier watch-key devices. In addition they are usually engraved with the common guittar tuning in C and the words 'PRESTON*INVENTOR' below. The tuning is engraved in capital letters, with vertical lines between the letters indicating the number of strings for each course; thus, the two single bottom courses are indicated with one line, whereas the four double top with two lines: /C/E /G/ /C/ /E/ /G/ (**Figure 7.28**).

Figure 7.28: Two identical watch-key machines by Preston bearing engravings of the common guittar tuning in C and the words 'PRESTON*INVENTOR' below. *Left*: Ashmolean Museum, Oxford, [D.1:1]. *Right*: Museum für Musikinstrumente der Universität, Leipzig, [5005].

This clever idea of showing the tuning on the watch-key machine must have been quite useful for amateur musicians who wanted to tune their guittars. Notably, this practice is evident on numerous unsigned guittars equipped with watch-key machines, where the tuning is engraved on the front top of the machine (**Figure 7.29**).

Figure 7.29: The engraving of the common C tuning on the watch-key machine of an unsigned guittar. EUCHMI, Edinburgh, [1068]. Note that in contrast to other guittars, there is a longer distance from the nut to the watch-key machine probably to reduce the 'break' angle of the strings after the nut.

However, it is important to mention that several extant guittars by other makers, such as Hintz or Rauche, are also equipped with watch-key machines bearing the words 'PRESTON*INVENTOR', suggesting these were not used exclusively on Preston's guittars.[699] On the other hand, it is also noteworthy that many surviving guittars by Preston do not have his name engraved on the watch-key machine.[700] This fact possibly indicates that Preston started using the words 'PRESTON*INVENTOR' on these devices as a means of protecting his design

[699] For example, a keyed guittar by Hintz in the Victoria & Albert Museum, London, [37-1870], has a watch-key machine engraved 'PRESTON*INVENTOR' on its top. Likewise, a guittar by Rauche dated 1761 is inscribed 'Rauche / Chandos Street / London 1761' on the top of the back, while the back of the head is inscribed 'PRESTON MAKER LONDON' and the watch-key machine bears the words 'PRESTON INVENTOR'. For more details of this guittar see Sotheby's auction catalogue, 22-23 November 1989, lot 145, p. 45.

[700] Examples of these instruments include NMM [1292], NMS [A.1908.251], PLN [C101], OCO [C1797], and RCM [332].

and preventing other makers from copying it, when imitations of this mechanism appeared in the market. Alternatively, it may also suggest that the mechanism was constructed and provided by other craftsmen to Preston's specifications and then engraved 'PRESTON*INVENTOR' only selectively as a method of advertisement[701] or in order to increase the value of an instrument.[702]

Apart from Preston's machines, the only known watch-key machine that bears the maker's name is mounted on a festooned pear-shaped guittar by Buchinger in the Royal Northern College of Music, Manchester, [S 1], presented in Wright (2010: 201).[703] This device bears the words 'BUCHINGER*MAKER' under the common tuning in C engraved on its front (**Figure 7.30**).

Figure 7.30: The engraving on the watch-key machine of a guittar by Buchinger, RCNM [S 1] (photo by H. Sugimoto).

[701] Since they could be produced and sold separately in large numbers, Preston's watch-key machines must have been an easy way of advertising and a quite effective way of increasing his profits without having to construct whole instruments.
[702] MacLeod (1988: 87) claims that a patent could be 'used extensively as an advertising device' and in many cases it probably 'permitted a significant premium on an article's price', which may have been the case with Preston's watch-key tuning machine.
[703] However, a guittar by Longman & Broderip, listed in Christie's auction catalogue, 12 June 1979, lot 51, p. 15, is equipped with a watch-key tuning machine which bears the words 'Longman & Broderip/ No 26 Cheapside' on its front. Unfortunately, the whereabouts of this instrument are unknown and this detail cannot be verified.

On the other hand, several watch-key machines on surviving guittars bear small letters stamped or engraved on the top, which possibly indicate the initials of the craftsmen that made them. As already pointed out, the watch-key machine on the guittar AMO [D.1:5] by Hintz has the letter 'M' (or upside-down 'W') stamped or engraved on the front; the same inscription has been observed on the machine of a guittar owned by Makoto Tsuruta (**Figure 7.31**).[704]

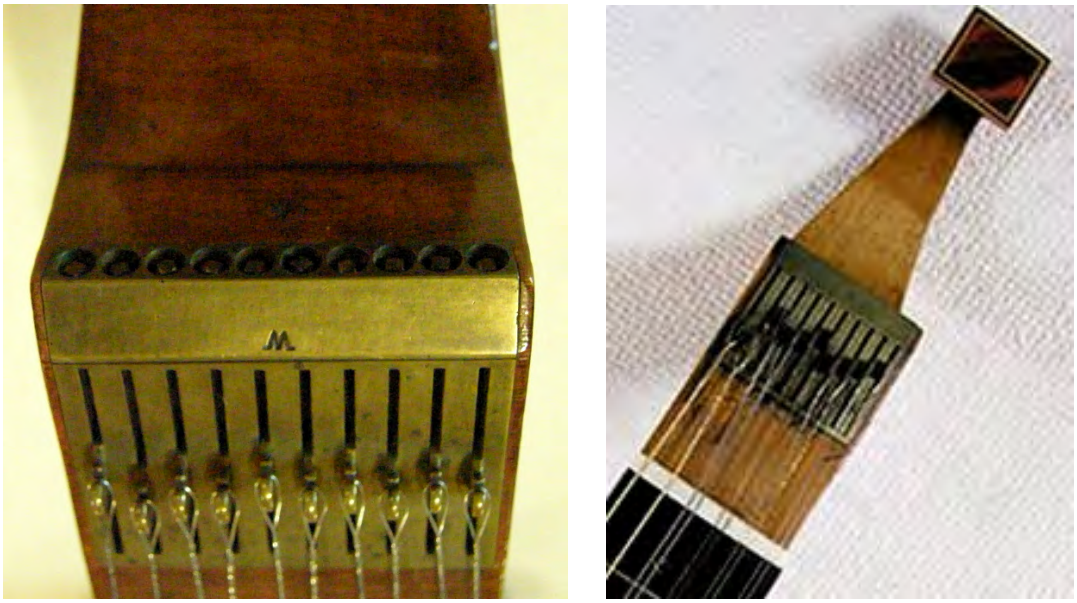

Figure 7.31: Detail of two similar watch-key machines with the letter 'M' (or reverse 'W') stamped or engraved on the front on AMO [D.1:5] by Hintz, made c.1766 (*left*) and on a undated guittar by Preston, owned by M. Tsuruta, Tokyo (*right*) (<http://www.crane.gr.jp/more/parts-reproduction/PRESTON_Guittar.jpg>, accessed 15/3/2010).

The letter 'W' is also stamped or engraved on the top of the watch-key machines of an unsigned guittar in the Royal Northern College of Music, Manchester, [S 26], and of an unsigned small guittar owned by Damien Delgrossi (**Figure 7.32**). These machines may have been made by

[704] For more details see <info@crane.gr.jp> and <http://www.crane.gr.jp/more/parts-reproduction/indexE.html> (accessed 15/3/2010).

William Warrell, whose advertisement, as Warrell and Co, announcing the modification of guittars to install a watch-key tuning machine was presented earlier.

Figure 7.32: Detail of a small guittar owned by D. Delgrossi, showing the letter 'W' stamped or engraved on the top of the watch-key machine for ten strings (<http://cittern.ning.com/photo/albums/a-very-small-guittar-or-cetra>, accessed 17/12/2010).

In addition, the watch-key machine of a keyed guittar by Longman & Broderip in the Germanisches Nationalmuseum, [MIR 857], has the initials 'T. G' stamped or engraved on its top. Similarly, the watch-key machines on three keyed guittars by Claus, in the Blair Castle, Perthshire, [8051], in the Musée des Instruments de Musique, Brussels, [261], and in the Metropolitan Museum of Art, New York, [89.4.1013], respectively, have the letter 'C' engraved on the top, indicating that they were probably made especially for Claus's twelve-string keyed guittars (**Figure 7.33**).

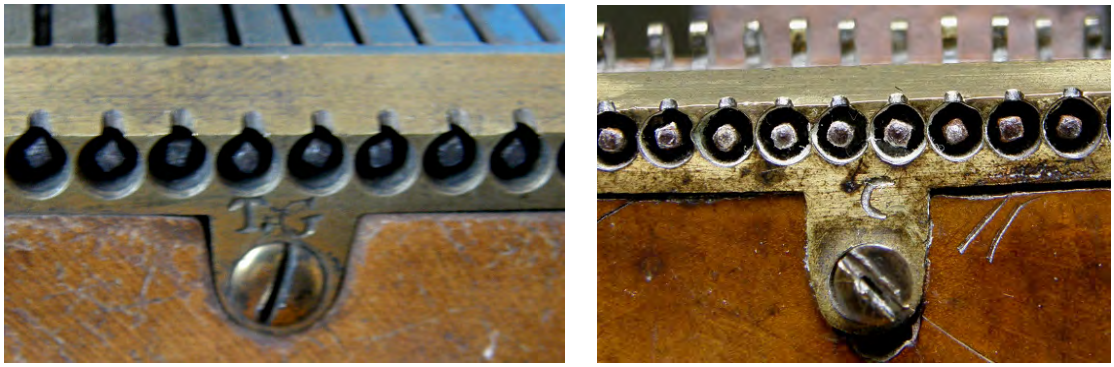

Figure 7.33: ***Left*****: The initials 'T. G' stamped or engraved on the top of a watch-key machine on a guittar by Longman & Broderip. Germanisches Nationalmuseum, Nuremberg, [MIR 857].** ***Right*****: A watch-key machine with the letter 'C' engraved on its top above the screw on a guittar by Claus. Blair Castle, Perthshire, [8051].**

Besides, the initials 'R W' are stamped or engraved on the top of the watch-key mechanism EUC [3079], presented above. The same initials have been observed on four other guittars, the first by Preston in the National Museum of Ireland, Dublin, [1913.393], the second an unsigned guittar in the Metropolitan Museum of Art, New York, [89.4.1014], the third a keyed guittar by Longman & Broderip in the Royal Northern College of Music, Manchester, [S 13], and the fourth an unsigned keyed guittar in the Historisches Museum, Frankfurt, [X4336] (**Figure 7.34**).

Figure 7.34: The initials 'R W' (*left*) stamped or engraved on the top of the watch-key machine (*right*) on an unsigned keyed guittar. Historisches Museum, Frankfurt, [X4336]. The design and dimensions of this machine are identical to EUC [3709] which is also engraved 'R W' on the top.

As Epstein (1927: 14) has pointed out, the maker of these machines is probably Robert Wornum (1742-1815), a London violin maker, music publisher and seller, possibly of German origin.[705] Wornum, who is listed by Doane (1794: 71) as 'Wornum, *Violin & Violoncello Maker*.-No.42, *Wigmore St*.', was working at Glasshouse Street, from 1772, and later at 42 Wigmore Street, near Cavendish Square, from c.1777 until 1815. The fact that his initials are found on unsigned guittars, as well as on the guittar NMI [1913.393] by Preston mentioned above, suggests that Wornum possibly supplied watch-key machines to various guittar manufacturers, including Preston himself.

Another maker that could have produced these machines is Robert Woffington, a piano maker working in Dublin, who had a partnership with the guittar maker William Gibson. Nevertheless,

[705] During the early 19th century Wornum's son, also named Robert (1780-1852), produced gut-strung Apollo lyre guitars which had a similar tuning as the guittar. However, he is best known as a piano maker and as the inventor of an action that is regarded as the forerunner of the modern upright action. For more details see Jones, P., '*Wornum*' in Grove Music Online ed. L. Macy, <http://www.grovemusic.com> > (accessed 11/3/2011).

none of Gibson's guittars, or any guittars by Dublin makers in general, are equipped with watch-key machines to confirm this assumption.[706]

Probably due to the reputation it achieved as a superior tuning system, which coincided with the popularity of the guittar itself, by the late 18th century the watch-key machine started to be used on other contemporary instruments apart from guittars, like the wire-strung cither viol, also known as 'sultana'. Notably there are several extant cither viols made by guittar makers such as Frederick Hintz or Thomas Perry of Dublin, who has also been credited with the invention of this instrument (**Figure 7.35**).

Figure 7.35: Detail of a watch-key machine for ten strings on a cither viol. EUCHMI, Edinburgh, [951].

[706] Interestingly, Darcy Kuronen has highlighted the use of watch-key tuning systems on upright pianos by Woffington in his paper 'The Earliest Upright Pianos?-Two Instruments by Robert Woffington of Dublin' presented in the Early Keyboard Instrument Symposium, EUCHMI, Edinburgh, 24, 25 and 26 October 2008 (<http://www.music.ed.ac.uk/euchmi/uek/uek2008p.html>, accessed 7/3/2010).

Moreover, an instrument called the 'British Lyre', invented in 1784 by William Jackson (20 August 1784, Patent No. 1449), is depicted in the patent drawings bearing a watch-key machine for eleven strings.[707]

Additionally, apart from Britain, several variations of the watch-key machine were widely used on guittars and similar instruments in other European countries, including Germany, Poland, France, Netherlands, Denmark, Sweden, and Portugal (**Figures 7.36-7.38**).[708]

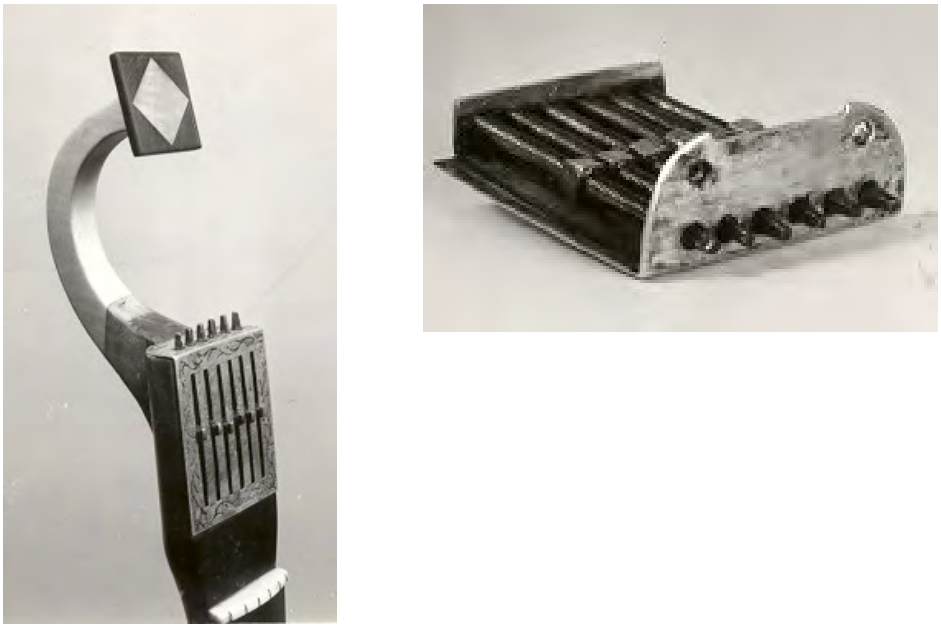

Figure 7.36: The watch-key machine for six strings (*right*) on a guittar probably made in Germany or Poland (*left*), in the Musikinstrumenten-Museum, Berlin, [4465] (photo by kind permission of MBE). Note that the machine is attached with two screws on the head, the top part of which is a replacement.

[707] For more details on the 'British Lyre' see 'THE 'BRITISH LYRE' BY JACKSON', Chapter 7. No surviving examples of this instrument are presently known.

[708] For example, a lyre guitar by I. J. Pleyel dated 1809, in the Musée de la Musique, Paris, [E.23], is equipped with a watch-key tuning machine for six strings. For more details see <http://mediatheque.cite-musique.fr/masc/?url=/clientbooklineCIMU/toolkit/p_requests/default-collection-musee.htm> (accessed 21/4/2011).

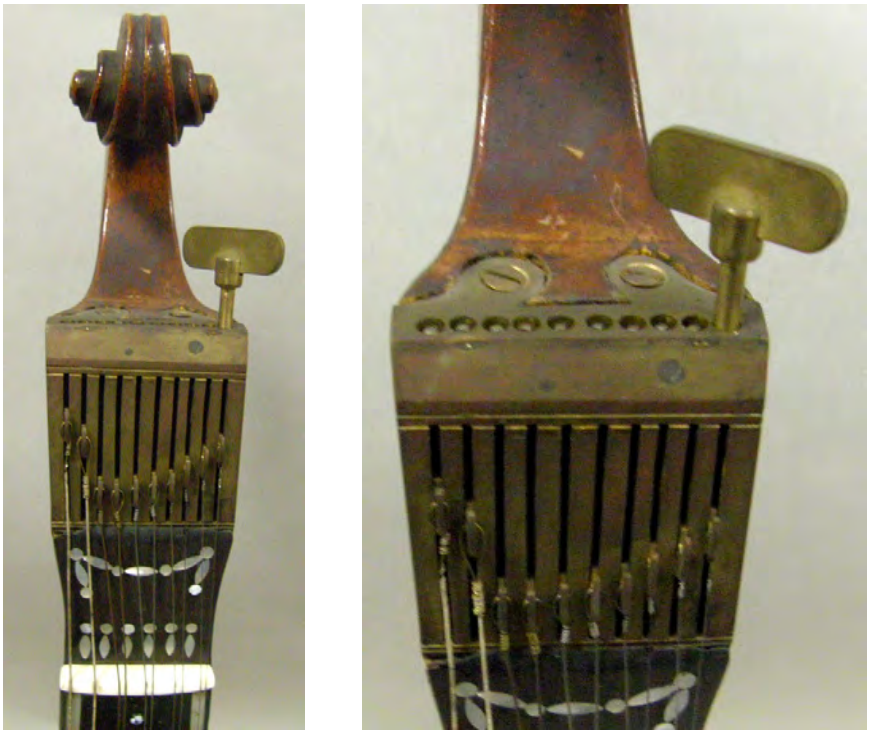

Figure 7.37: Front (*left*) and top (*right*) views of the watch-key machine on a guittar by Joseph Kwiatowsky of Warsaw dated 1814. Germanisches Nationalmuseum, Nuremberg, [MIR 855]. Like the machine shown above, this machine is attached with two screws on the head to withstand the string tension.

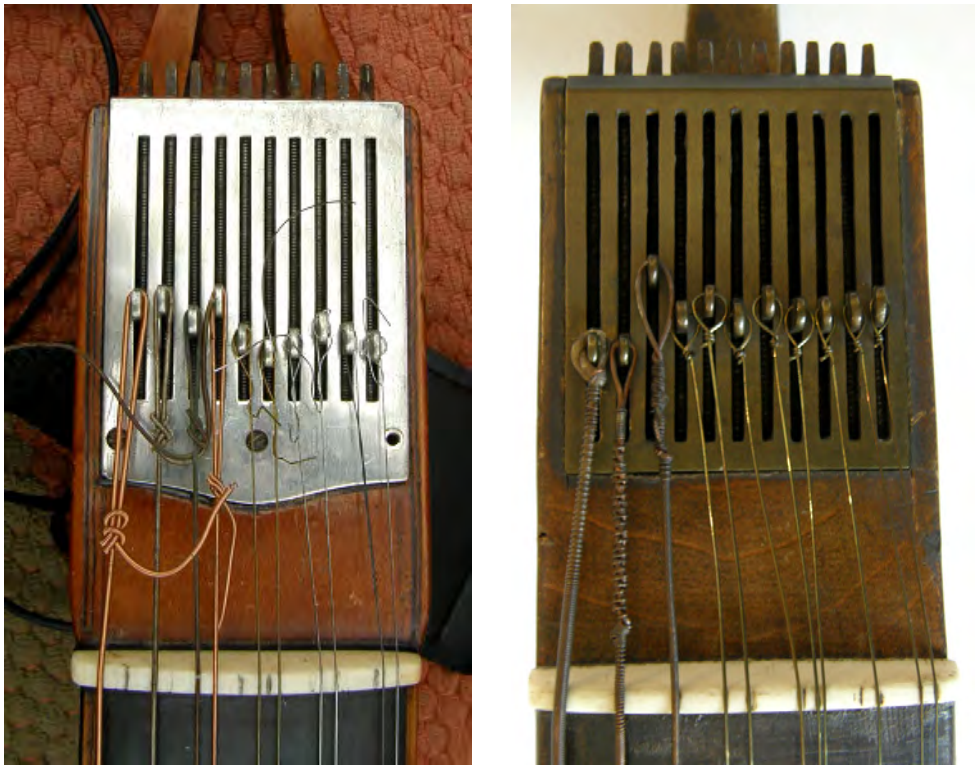

Figure 7.38: The different watch-key machines on an unsigned eleven-string French cistre in the Deutsches Museum, Munich, [10205] (*left*), and on a ten-string sister by Swartson of Amsterdam dated 1795, owned by T. Takeuchi, London (*right*).

Later versions of the watch-key machine are still used on several instruments, most notably on the Hamburger waldzither and the guitarra Portuguesa. These are usually fan-shaped and instead of using a separate watch-key they have individual cylindrical extensions integrated on the screw ends to turn and tune each string (**Figure 7.39**).

Figure 7.39: The tuning machines on a Hamburger waldzither by C. H. Böhm, Hamburg, early 20th century, owned by the author (*left*) and on a guitarra Portuguesa by Antonio Duarte of Oporto, early 20th century. EUCHMI, Edinburgh, [2765] (*right*).

Interestingly, a few modern makers have recently constructed replicas of watch–key machines from surviving guittars. For instance, in 2004 Makoto Tsuruta made a copy of a watch-key machine by Preston and, likewise, in 2008 Martina Rosenberger made a technical drawing and copy of a watch-key machine also by Preston presented below. On the other hand, Al Caruth has made a watch-key machine where the screws are turned with Allen wrenches, inspired by an original machine on a guittar by Lucas in the Museum of Fine Arts, Boston, [17.1746] (**Figures 7.40-7.42**).

Figure 7.40: The copy of a watch-key machine by Preston made in 2004 by M. Tsuruta (*left*) and detail of the original machine (*right*) (<http://www.crane.gr.jp/more/partsreproduction/indexE.html>, accessed 1/3/2010).

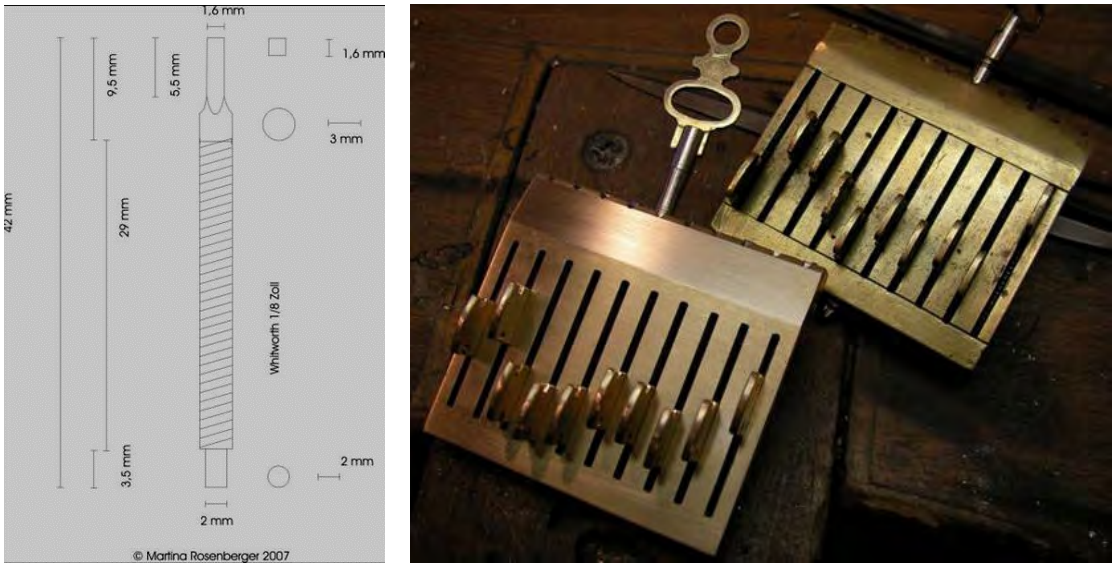

Figure 7.41: Technical drawing of the thread screw of a watch-key machine by Preston (*left*) and the copy made in 2008 by M. Rosenberger in front of the original machine (*right*) (<http://cittern.ning.com/profile/MartinaRosenberger?xg_source=profiles_memberList>, accessed 15/3/2010).

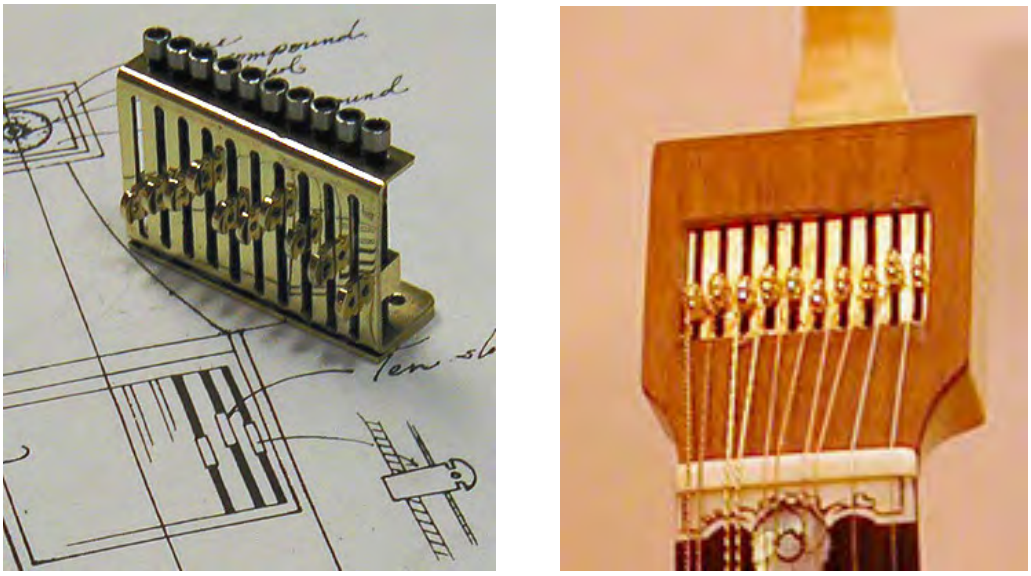

Figure 7.42: A modern watch-key machine constructed by Al Caruth. The screws are turned with Allen wrenches (<http://www.alcarruthluthier.com/guitars/englishGuitar/englishGuitar.htm>, accessed 27/2/2010).

7.2.4 THE WORM-AND-PINION TUNERS

Concurrently with the watch-key machine a different tuning system appeared on guittars. This employed a set of individual worm-and-pinion gears instead of long thread screws, which were still, however, turned using a separate watch-key. Adkins and Dickinson (1991: 79) mention that this tuning mechanism 'requires a complete revolution of the pinion for each tooth of the gear' further noting that 'Although slow in operation, it takes little strength to manipulate and it infinitesimally adjustable'. This design is probably the intermediate stage or link between the earlier wooden pegs, the watch-key machine, and the later machine heads, as it combines elements of all these three tuning devices.

A guittar by Elschleger in the Royal College of Music, London, [21], is fitted with such a tuning system consisting of 10 worm-and-pinion tuners, made of brass and ivory parts, which can be turned from the front with a watch-key, now missing (**Figure 7.43**).

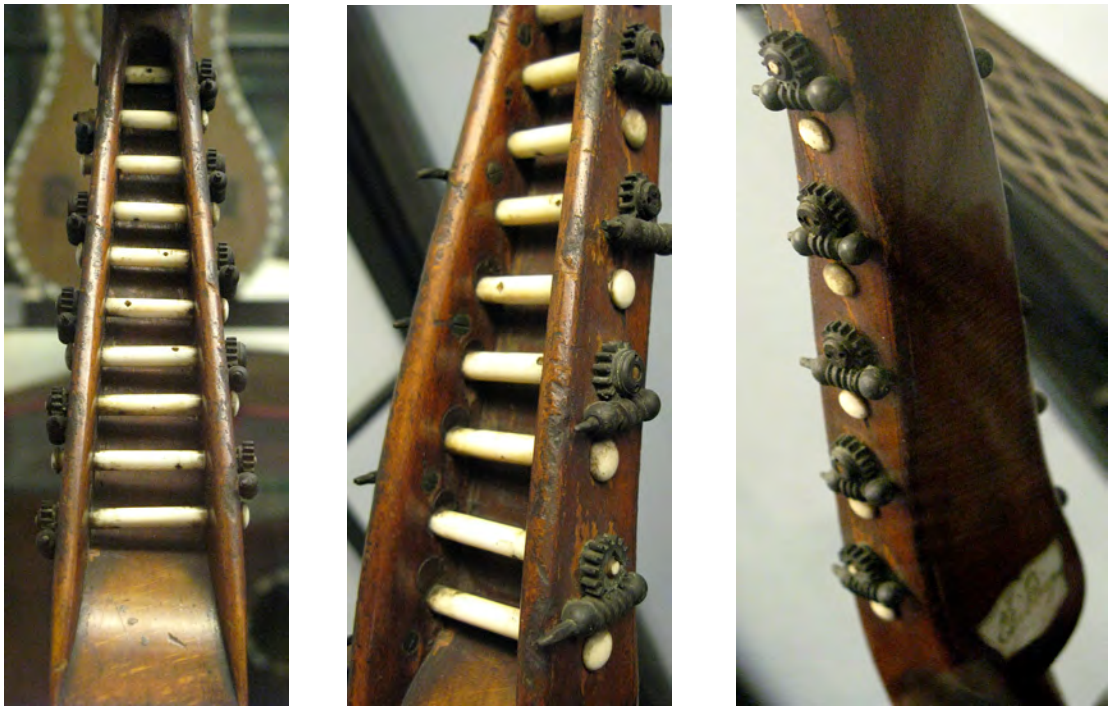

Figure 7.43: Front, side, and back views of the worm-and-pinion tuners on the head of a guittar by J. C. Elschleger. Royal College of Music, London, [21] (photos by H. Sugimoto).

A close observation of the head shows traces of alteration, which suggest that the tuners were installed after the guittar's original wooden pegs had been removed. This alteration also involved filling the sides of the head with two new pieces of wood, on which the tuners were screwed (**Figure 7.44**). The gear ratio of these tuners is 14: 1, while the strings are attached on ivory rods in the same way as on wooden pegs.

Figure 7.44: Detail showing the tuners' brass and ivory parts and the traces of the alteration on the head of RCM [21] (photo by H. Sugimoto).

An unsigned large twelve-string guittar in the Dean Castle, Kilmarnock, [MI/A12], is equipped with similar worm-and-pinion tuners (**Figure 7.45**).

Figure 7.45: Front, side, and back views of an unsigned large twelve-string guittar in the Dean Castle, Kilmarnock, [MI/A12].

This guittar is a rather unusual instrument in terms of its shape and size, although it has construction and decoration features similar to surviving guittars by Rauche. In addition, the tuners on this guittar are different from the tuners of RCM [21] in that the screws are turned with a watch-key from the back, like on a modern classical guitar, rather than the front. Moreover, the gear ratio of these tuners is 18: 1, thus providing a more accurate tuning, while in contrast to RCM [21], all the parts of the mechanism are made of brass (**Figure 7.46**).

Figure 7.46: Front (*left*) and side (*middle*) views and detail (*right*) of the brass worm-and-pinion tuners on the head of DCK [MI/A12].

Adkins and Dickinson (1991: 143-44) have mentioned the use of a similar tuning device, which they refer to as a 'ratchet and pawl mechanism', on several extant trumpet marines.[709] They describe this mechanism, which is quite possibly the precursor of the worm-and-pinion mechanism, as 'a more sophisticated means to prevent the pegs from slipping', pointing out that 'it was not until the eighteenth century that the machines were made completely of iron with cast-iron rings substituted for the earlier wooden peg handle' (**Figure 7.47**). Regarding the mechanism's function, Adkins and Dickinson (1991: 144) mention that 'Once the string is pulled

[709] The 'ratchet and pawl mechanism' has also been used on double basses; for example, a double bass by Leopold Widhalm, made in Nuremberg and dated 1753, now in EUCHMI, Edinburgh, [1104], is equipped with a similar tuning device.

up to pitch, the pawl engages the teeth of the ratchet and keeps the tension constant', further noting that 'The only problem with this device is its disinclination to fine adjustment'.[710]

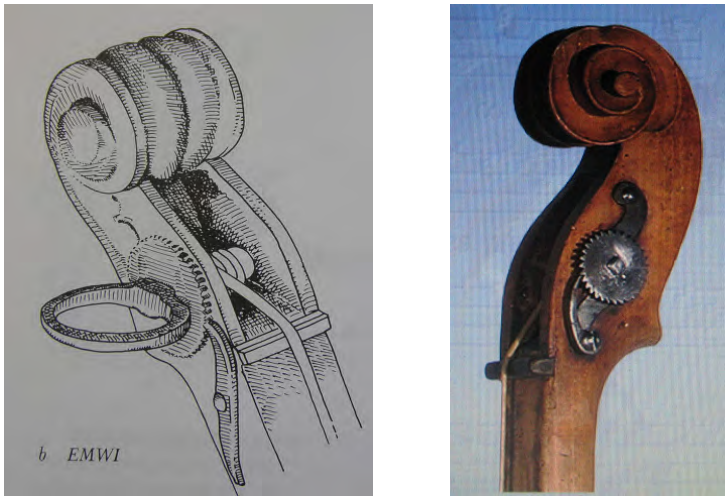

Figure 7.47: *Left*: Detail of a drawing showing the 'ratchet and pawl' tuning mechanism with an iron ring-shaped handle on a trumpet marine (Adkins and Dickinson 1991: 144, Fig. 34b). *Right*: The 'ratchet and pawl' mechanism on a trumpet marine in the Historisches Museum Basel, Basel, [1999.20] (photo by H. Sugimoto).

The exact details concerning the invention of the worm-and-pinion mechanism, which was most likely based on the 'ratchet and pawl' mechanism shown above, are unknown and no patent records have survived. Adkins and Dickinson (1991: 79-80) have stated that 'the origin of this device is unknown, but it appeared on both trumpet marines and contrabasses in the early years of the eighteenth century' (**Figure 7.48**), pointing out that the earliest datable trumpet marine equipped with a worm-and-pinion a mechanism is an instrument by Johann Ulrich Fischer dated 1722, in the Sammlung alter Musikinstrumente, Kunsthistorisches Museum, Vienna, [GdM 48].

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[710] Adkins and Dickinson (1991: 79, 144) mention that 'Praetorius advised that the wheel be as finely toothed as possible'; they further state that 'The player's usual resource with a coarsely toothed wheel is to insert a shim of the proper thickness between the tooth and the pawl'.

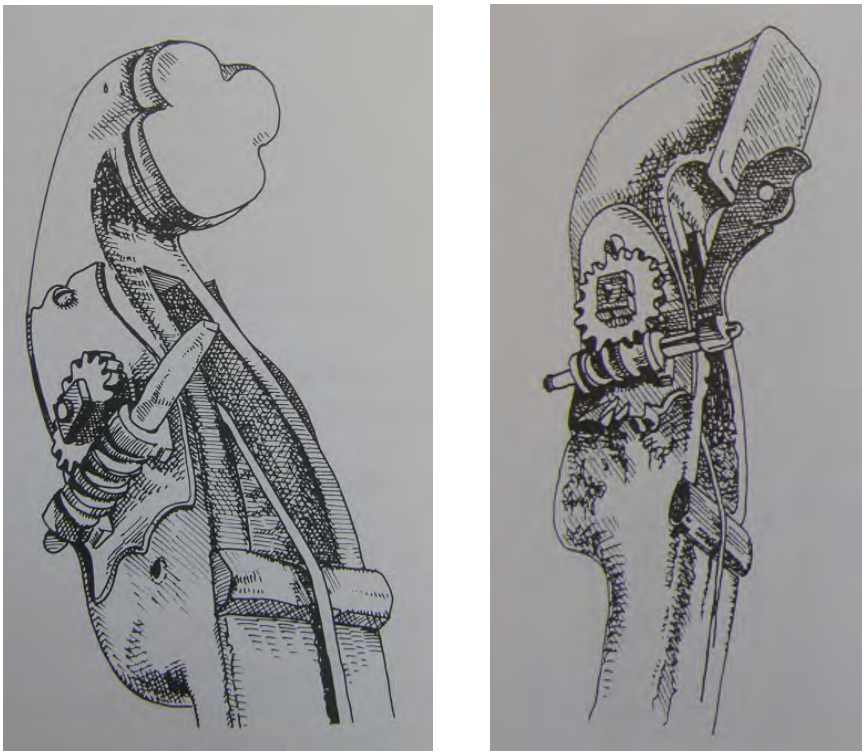

Figure 7.48: Details of drawings showing the worm-and-pinion tuning mechanisms on two trumpet marines (Adkins and Dickinson 1991: 80, Fig. 12, and 146, Fig. 32a). Note the similarities of these devices with the tuning mechanisms on the two guittars presented earlier.

Furthermore, some writers have suggested that the inventor of a tuning mechanism using a worm gear could have been Anton Bachmann (1716-1800), or more possibly his son Carl Ludwig (1748-1809), both instrument makers of the violin family working in Berlin.[711] Bachmann has been credited for several innovations, including a patent he received c.1778 for an improvement

[711] See Helm, E., and Elste, M., 'Bachmann, Carl Ludwig' in Grove Music Online ed. L. Macy (<http://www.grovemusic.com>, accessed 26/1/2010).

of the machine head for double basses[712], although a similar mechanism had been developed in 1766 in France by Benoît Fleury.[713]

In any case, it is certain that the worm-and-pinion tuners that are found on extant guittars had already been developed for stringed instruments during the early 18th century in countries such as Germany or France[714], and were later imported to Britain.

Interestingly, a teardrop-shaped arch guittar by Rauche dated 1766, now in the Musée des Instruments de Musique, Brussels, [1553], has two heads, the top having 8 wooden pegs, the lower having 10 brass worm-and-pinion tuners (**Figure 7.49**). These tuners look similar to those on the two guittars presented above, with the main difference being that in this case each screw is turned with a ring incorporated at the screw end, instead of a separate watch-key.

[712] Bachmann has also been credited with the invention (c.1780) of a piano-key mechanism for the guitar.
[713] In addition, Adkins and Dickinson (1991: 79-80) have remarked that a misinterpretation of Bachmann's patent 'has led to a number of assertions that he was the inventor of the worm-gear mechanism'.
[714] Interestingly, although there are several extant trumpet marines bearing worm-gear tuners, no German zisters or French cistres equipped with such tuning mechanisms are presently known.

Figure 7.49: A teardrop-shaped arch guittar by Rauche dated 1766. Musée des Instruments de Musique, Brussels, [1553] (photos by kind permission of MBR). Note that the brass tuners on the lower head have individual rings at the end of each screw.

This design is quite similar to the first machine heads which, as it will be described later, developed around the same time and later became standard for a large number of stringed instruments.

7.2.5 THE ARRIVAL OF THE FIRST MACHINE HEADS

In parallel with the watch-key machine and the worm-and-pinion tuners, another tuning system appeared on guittars. This system, essentially consisting of a set of machine heads with worm-gear tuners, actually proved to have the most wide and long-lasting application on a large number of stringed instruments. It is important to note that machine heads were not used on guittars as extensively as the watch-key machine; however, they are an almost exclusive feature

of ten-string guittars by makers working in Dublin, such as Gibson, McDonnell and Perry. A bell J-top-shaped guittar by Gibson dated 1772, in EUCHMI, Edinburgh, [309], has a typical set of machine heads in perfect condition of preservation and working order, allowing the thorough examination of their design and function (**Figure 7.50**).

Figure 7.50: Front, side, and back views of the brass machine heads on the spear-shaped head of a bell J-top-shaped guittar by Gibson of Dublin dated 1772. EUCHMI, Edinburgh, [309].

The machine heads of this instrument are made of brass and, similarly to the earlier wooden tuning pegs, they are arranged symmetrically on the spear-shaped head, with five placed on each side, fixed on two rectangular brass plates. As it can be noticed, a distinctive characteristic of machine heads is that, in contrast to the watch-key machine and the worm-and-pinion tuners presented above, both of which need a separate key to turn the screws, machine heads have thin brass ring-shaped pegs integrated on the end of each screw. The ring-shaped pegs, which have a diameter of approximately 13 mm and a thickness of 2 mm, are connected to a worm-gear,

which has a gear ratio of 8: 1 and is covered on the top and sides by a brass plate, possibly to prevent it from damage. Each of the two brass plates is bolted at six points on the top of the guittar head, which is veneered on the top and sides with thick rectangular pieces of ivory to support the machine heads and protect the wooden surface on the edges (**Figure 7.51**). One end of the string is attached on one of the endpins at the bottom of the guittar, while the other is fixed on small 'pillars' protruding from the brass plate, which can be turned using the ring-shaped peg.

Figure 7.51: Detail of the brass machine heads on EUC [309].

The obvious advantage of machine heads is that there is no need of a separate key (and the danger of losing it); another advantage, over the watch-key machine in particular, is that machine heads do not require strings of a specific length or material, since they can be infinitely adjusted.

The origins of machine heads are unknown and there is no recorded patent related to their invention. However, they are certainly influenced by the concept of the worm-and-pinion tuners presented earlier. Gibson was probably the first maker to use machine heads, since the earliest surviving guittar by Gibson, dated 1761 and currently owned by Paul Doyle, Galway, is also the earliest signed guittar to be equipped with machine heads. In addition, two similar guittars from

the early 1760s, the first co-signed by Gibson and Clagget and dated 1763, in the Stearns Collection, University of Michigan, Ann Arbor, [1086], the second by Gibson dated 1765, in the Victoria & Albert Museum, London, [W.7-1919], have similar machine heads, suggesting that this kind of tuning mechanism had already been in use by the early 1760s (**Figure 7.52**).

Figure 7.52: ***Left*****: The machine heads on the head of a guittar by Gibson dated 1761, owned by Paul Doyle, Galway. This is the earliest known guittar to be equipped with machine heads (photo by kind permission of P. Doyle).** ***Middle and right*****: The machine heads on the head of a guittar co-signed by Gibson and Clagget dated 1763, SAA [1086] (photo by kind permission of SAA), and of a guittar by Gibson dated 1765, V&A [W.7-1919] (<http://collections.vam.ac.uk/>, accessed 5/10/2009).**

It is noteworthy that in contrast to the watch-key machine, which appeared in many different versions, machine heads kept the same design until the end of the 18th century, although there must have been some attempts to change or improve their initial design.[715] For instance, Gibson continued using identical machine heads on his later instruments, made in the 1770s and 1780s

[715] See, for example, the tuning mechanism mentioned by Goldsworth in his 1785 patent, presented in 'THE PATENT TUNING MECHANISM BY GOLDSWORTH', Chapter 7.

(**Figure 7.53**), while similar machine heads are found on a surviving guittar made c.1800 by Gibson's successor Alexander McDonnell, now in the National Museum of Ireland, Dublin, [1937.27].

Figure 7.53: Front (*left*) and side (*right*) views of the machine heads on the head of a guittar by Gibson dated 1782, NMM [2627] (by kind permission of NMM). Note the veneered ivory pieces on which the brass plates bearing the machine heads are bolted; also note that the brass is heavily corroded and one of the ring-shaped pegs on the treble side of the head is broken.

Apart from Gibson and McDonnell, Thomas Perry was another maker in Dublin who typically used similar brass machine heads on his guittars (**Figure 7.54**). As in the case of the watch-key

machine, the common features of machines heads used by Dublin makers suggest that they were possibly supplied by a specialised blacksmith or maker of scientific instruments.[716]

Figure 7.54: The brass machine heads on the head of a pear-shaped guittar by Perry, owned by Taro Takeuchi, London.

Despite the fact that they offered the advantage of being easy to use with strings of any material, length and type, machine heads did not become widely employed by makers of plucked stringed instruments until the early 19th century. Perhaps one of the reasons for this delay is the fact that the early versions of these devices were probably expensive and difficult to construct, prone to damage, and hard to repair or replace. As can be noticed in the above photos, the ring-shaped pegs of the machine heads on many surviving guittars are broken, while on several examined guittars some of the tuners are bent or stuck and do not function properly.[717] As

[716] Baines (1965: 66) has mentioned that Baker was a specialised maker of machine heads for Spanish guitars made in Britain in the 19th century; another known maker of machine heads for Spanish guitars was Rance. It can be assumed that a similar craftsman was constructing machine heads for guittar makers working in late 18th-century Dublin.

[717] According to Taro Takeuchi (PC, 6/7/2009), the brass machine heads add considerable weight on the guittar's head and are in general more fragile than the watch-key machines due to their more delicate construction with small protruding parts. Another disadvantage is their difficulty of removability for repairs.

already noted, machine heads were typically used by Dublin makers, whereas most London makers used watch-key machines on their guittars. The only notable exception among London makers to have used both watch-key machines and machine heads on his guittars is Rauche, as evident on a large festooned pear-shaped twelve-string guittar dated 1770 in the Ashmolean Museum, Oxford, [D.1:3], which is equipped with machine heads similar to those used by Dublin makers (**Figure 7.55**).

Figure 7.55: Front, side, and back views of the brass machine heads on the head of a large festooned pear-shaped twelve-string guittar by Rauche dated 1770. Ashmolean Museum, Oxford, [D.1:3]. This is the only known guittar from a maker working outside Dublin which is equipped with this tuning mechanism.

In contrast to machine heads used by Dublin makers, which are typically fixed on the head with bolts inserted on veneered ivory pieces, the machines heads on this guittar are fixed on the

wooden head with screws, probably to allow later repairs or adjustments of the mechanism (**Figure 7.56**).[718]

Figure 7.56: Detail of the machine heads on AMO [D.1:3]. The iron screws may be replacements. Note also that, in contrast to the guittars by Dublin makers shown above, the edges of the wooden head are not veneered with ivory.

Interestingly, a guittar reproduction owned by Trevor Bailey has ten brass machine heads taken from an original guittar. These tuners look different from those used by Dublin makers in that they have larger ring-shaped pegs and seem to have a sturdier, if rather less refined, construction (**Figure 7.57**).

[718] It is, however, possible that these screws are later replacements installed after the tuners were removed for repair in the past.

Figure 7.57: The brass machine heads on a guittar reproduction owned by Trevor Bailey, Stoke on Trent. The machine heads are taken from an original guittar (<http://cittern.ning.com/photo/2107976:Photo:665>, accessed 13/4/2008).

Moreover, an arch-cistre with an unusual body shape by Renault & Chatelaine of Paris dated 1789, in the Musée de la Musique, Paris, [E.1662], is equipped with eleven individual machine heads placed asymmetrically, with six on the bass and five on the treble side of the head, reminiscent of the arrangement of wooden pegs on some early guittars (**Figure 7.58**).[719]

[719] For more details of this instrument see Baines (1966: 44-5 and plates 263, 266, and 267).

Figure 7.58: Front, side, and back views of an arch-cistre by Renault & Chatelaine of Paris dated 1789. Musée de la Musique, Paris, [E.1662] (<http://mediatheque.cite-musique.fr>, accessed 30/1/2010). The head where the additional open bass strings are attached is broken. Note the asymmetrical placement of the eleven machine heads.

As in the case of the watch-key machine, machine heads were also used on other stringed instruments apart from guittars, such as the wire-strung cither viol, also known as 'sultana' (**Figure 7.59**).

Figure 7.59: The machine heads on two cither viols by Perry & Wilkinson of Dublin. *Left*: dated 1792, National Museum and Galleries on Merseyside, Liverpool (Rushton 1994: 138). *Right*: dated 1794. Museum of Fine Arts, Boston, [17.1725] (Kuronen 2004: 138).

7.2.6 THE PATENT TUNING MECHANISM BY GOLDSWORTH

The variety of tuning devices presented above clearly indicate that around the late 18th century several makers and inventors were in search of fine tuning for the guittar and other instruments. As already mentioned earlier, in 1785 John Goldsworth received a patent for an 'Entire new improvement upon the musical instrument called the guittar' (23 July 1785, Patent No. 1491). Among other improvements described in Goldsworth's patent was a new tuning mechanism consisting of a spring barrel system in which the 'fuzee' is 'so adjusted to the power of the

spring as to overcome all the frictions in order to keep a string always at the same tension as when it is drawn up to concert pitch'.[720]

The descriptions and drawings regarding the tuning device mentioned in Goldsworth's patent are presented below (**Figure 7.60**). It is noteworthy that on the mechanism depicted in Goldsworth's patent the ten tuners are not equally distributed; there are four tuners on the bass side and six on the treble. Moreover, the tuners are enclosed in a brass frame fixed on the head with screws, possibly in order to facilitate repairs or adjustments. Interestingly, the depicted tuning mechanism is mounted on a spear-shaped head, similar to that commonly found on guittars by Irish makers such as Gibson, McDonnell or Perry. Since as already presented above, most guittars by these makers are typically equipped with worm-gear machine heads, it can be assumed that Goldsworth's patent tuning mechanism may have been an attempt to improve this already common design, with which he must have been familiar.

[720] Goldsworth's patent is the only recorded patent concerning a tuning mechanism for the guittar.

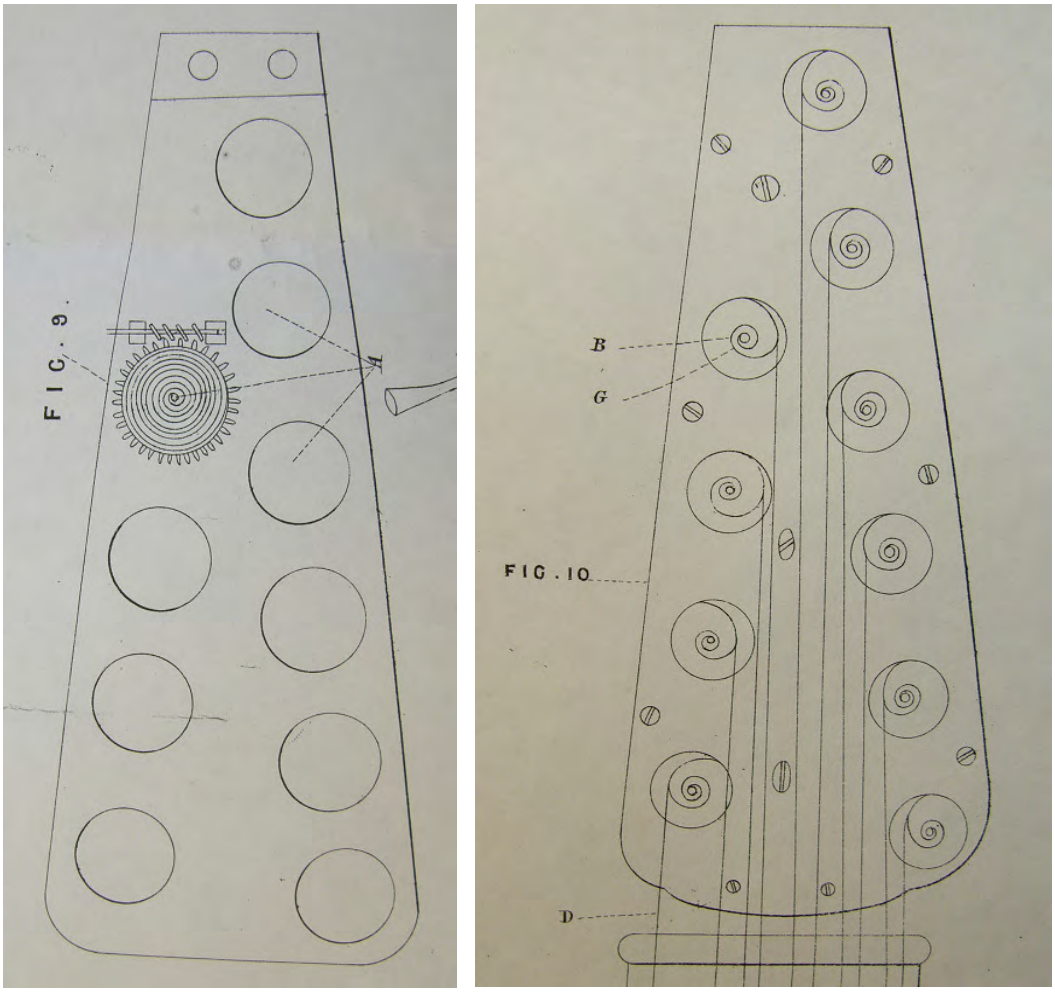

Figure 7.60: Back (*left*) and front (*right*) view of the tuning machine, corresponding to Figures 9 and 10 in Goldsworth's patent drawings. A: The spring barrel, which is half an inch deep, being made with a fillet in the lower end of the outside of the barrel cut with teeth that receives a worm to wind up the spring. B: The arbour of the spring and fuzee. C: The fuzee, which must be so adjusted to the power of the spring as to overcome all the frictions, in order to keep the string always at the same tension as when it is drawn to concert pitch. D: The string which is fastened to a small pin on the outer edge of the fuzee. N. B. The frame plates of this machine are enclosed by a brass edge, and is fixed on to the neck of the instrument in manner described in this plan, and this tuning machine may be applied to other stringed musical instruments.

The drawing of the back shows a detailed view of a worm gear with 34 teeth, giving it a gear ratio of 34: 1 (**Figure 7.61**).

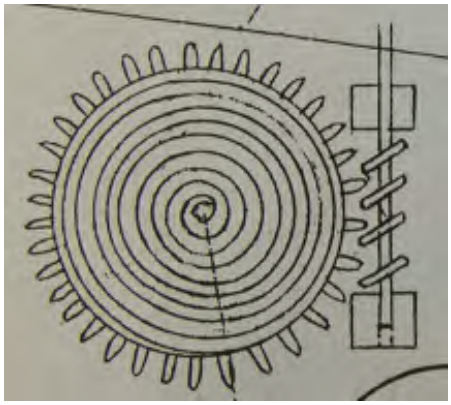

Figure 7.61: Detail of the worm gear on the back side of the tuning mechanism described in Goldsworth's patent.

As can be noticed, the worm gear is similar to the worm-and-pinion tuners presented earlier, although the higher tuning ratio of this mechanism can theoretically provide a more accurate tuning. Nevertheless, no instruments equipped with Goldsworth's patent tuning mechanism are presently known, suggesting that its function may have been rather ineffective in comparison to other tuning devices and, consequently, it never became commercially popular.

7.3 INTRODUCING A SET OF KEYS

7.3.1 THE INVENTION OF THE KEYED GUITTAR

One of the most distinctive features of the guittar design concerns the two piano-key mechanisms that were invented for the instrument in the 1780s. As already mentioned in Chapters 2 and 3, the playing techniques of the guittar derived from earlier instruments, such as the cittern and lute, essentially employing the right-hand fingers to pluck or strum the strings. However, during the early 1780s a new type of guittar started to appear. This instrument, often referred to as keyed or 'pianoforte' guittar, was equipped with a piano-key mechanism, which was an internal or external device consisting of a set of keys and hammers to strike the strings.

Several opinions have been expressed regarding the invention of the keyed guittar. So far it has been commonly suggested that the piano-key mechanism was introduced for the guittar in order to protect female players from damaging their fingernails. This suggestion has been repeated by a number of scholars in the past[721], without having been questioned and without any sufficient evidence to confirm it. In fact, it is historically inaccurate, because, as it will be shown later, the addition of a piano-key mechanism was promoted and advertised by its inventors as an improvement for various reasons rather than for the protection of the ladies' fingernails.

Besides, several contemporary guittar tutors advised plucking the strings with the flesh of the fingertips rather than with the nails of the right hand, which would have not been practical with long fingernails[722]:

> […] this [playing with the nails] should always be avoided, For I am persuaded a Chinese Mandarine could not Learn this Instrument 'till he pared his Nails.[723]

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[721] See, for example, Kinsky (1912: 190), Baines (1968: 48), Michel (1999: 61), or Tyler and Sparks (2002: 214).
[722] MacKillop (PC, 1/3/2008) has remarked that long fingernails would also make too much noise when clicking on the piano keys, especially on a relatively quiet instrument as the guittar.
[723] Rutherford, David (c.1756) *The Ladies' Pocket Guide or The Compleat Tutor for the Guittar* (as quoted in Rossi 2008: 4).

> […] never attempt to play with your Nails, for though it gives the Strings a smarter Tone, it is not half so pleasing and mellow, as the Flesh Part of the Finger produces: The former sounds harsh and scratching.[724]

> Of the way of plucking the strings. In order to produce the perfect sound the strings of the guittar, which are called *Corpo Sonoro* [the embodiment of the sound], should be plucked with the flesh of the fingers or the ends of the nails: this is better understood when playing *piano* [soft], which should be done using only the flesh of the fingers, and never the nails, so that the resulting sound is more graceful and mellow.[725]

A more credible theory shared by writers such as Harding (1933: 69) and Marcuse (1975: 444) suggests that the mechanism was invented around the last quarter of the 18th century to help the guittar adapt to the latest trend of 'piano mania', created by the success of the then newly-introduced square piano, during which every instrument had to be equipped with some sort of keys. Similarly, Coggin (1987: 205) has argued that the keyed guittar developed 'in order to regain some of the ground lost to the increasingly successful pianoforte', which was becoming popular at that time.

Additionally, there must have been strong commercial purposes behind the development of the keyed guittar. The idea of a piano-key mechanism for the guittar was possibly conceived by musical instrument manufacturers in order to make a portable equivalent of a keyboard instrument, such as the spinet, harpsichord or square piano, for the fashionable ladies, or to make the guittar more accessible to performers already accustomed to keyboard instruments, as Badley (2001: 11) has suggested, thus increasing their potential customers.[726] Moreover, as

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[724] See Ford, Ann (c.1761) *Lessons and Instructions for playing on the Guitar*, p. 8.

[725] See Leite, António da Silva (1796) *Estudo de Guitarra*, p. 28. The original Portuguese text reads: 'Do Modo como se devem ferir as Cordas. As *Cordas* da *Guittara*, a que chamaõ *Corpo sonoro*, para causarem o seu preciso effeito devem-se ferir com a polpa dos dedos, e tambem com as pontas das unhas: isto se entende, naõ se tocando *piano*, que a tocar-se, será unicamente com a polpa dos dedos, e nunca com as unhas, por fazer mais grato, e brando o som que das mesamas exigimos.' The translation of the Portuguese text was kindly provided by P. Bento and S. Fonte.

[726] It is known that during the late 18th century a significant number of musical instrument manufacturers were occupied in the construction of both keyboard and plucked stringed instruments. For instance, the involvement of several well-known square-piano manufacturers, such as Zumpe, Beck, Lucas and Haxby, in the guittar trade during the 1760s has been discussed in Poulopoulos (2011: 49-59). In addition, Grattan Flood (1909: 141) has mentioned William Gibson, the known guittar manufacturer, among harpsichord makers working in Dublin c.1765-1775, while Doyle (1978: 21) has listed Alexander McDonnell, Gibson's successor and also a guittar maker, as a 'harpsichord and piano maker'.

already noted, in the emerging consumerist society of Georgian Britain, the introduction of any new design, shape or function on an otherwise common item could instantly attract the interest of fashion-conscious clientele which, from the middle of the 18th-century onwards, was craving for novelties, especially in the decorative and fine arts.[727] Consequently, with the right promotion and advertising a new concept, such as the piano-key mechanism, on an established instrument, such as the guittar, could increase the profits of musical instrument manufacturers and dealers while involving minimal commercial risks.

In addition, Holman (2007: 11) has claimed that during the 1740s began a trend among musicians to perform on 'exotic novelty instruments' in London concerts, which reached 'a rather bizarre peak in the 1760s'. Holman adds that this trend reflected 'an increasing desire for novelty generally in fashionable society at this period', which in turn may have forced musical instrument makers to come up with new, more adventurous ideas.[728] Furthermore, around the same time started a fascination among instrument makers and inventors concerning the development of complicated mechanical sound-producing devices and tone-altering effects. Most of these ideas were related to the fine tuning, the improvement of the action or intonation, and the addition of various tone registers, levers, keys and stops on several types of musical instruments. Likewise, the addition of keys on the guittar may have been considered as an attempt to improve the instrument's sound[729] and render it more appropriate for the performance of new, demanding music styles.[730] As it will be described later, the use of keys intended to offer a loud and clear sound with additional dynamics and tone options, while preventing the right-hand fingers from jarring or clashing with the strings.

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[727] See Craske (1999: 193-95). Apparently, this attitude must have influenced musical instrument designers and makers, since musical instruments were considered luxury items, often purchased as much for their decorative or novelty values as for their musical qualities.

[728] Apart from the keyed guittar, other examples of novel instruments that became popular during the 18th century and quickly became obsolete include the cither viol, the baryton, the Æolian harp, the glass harmonica, and the orphica.

[729] Rob MacKillop (PC, 1/3/2008) has suggested that the addition of a piano-key mechanism on the guittar may have been an attempt to create a louder instrument that could play in ensembles with small keyboard instruments, like the spinet or square piano, in 18th-century drawing rooms.

[730] Around the last quarter of the 18th century there was a tendency among several composers to write more advanced music for the guittar and this change in repertoire probably affected the instrument's design. According to guittar players Rob MacKillop (PC, 1/3/2008), and Taro Takeuchi (PC, 6/7/2009), the later compositions for the guittar, like R. Straube's *Three Sonatas for the Guittar* (1768) or J. C. Bach's *A Sonata for the Guitar* (1775), are more demanding and complex compared to earlier works, like J. Oswald's *Twelve Divertimentis for the Guittar* (1759).

7.4 THE INTERNAL PIANO-KEY MECHANISM

7.4.1 THE PATENT INTERNAL PIANO-KEY MECHANISM BY CLAUS

The first attempts of fitting a piano-key mechanism on a guitar have been credited by several writers to Anton Bachmann[731] or to his son, Carl Ludwig Bachmann[732], both makers of instruments of the violin family working in Berlin who

> In 1780 […] designed a kind of guitar with keyboard which had a mechanism placed with on the right side of the body, which allowed the striking of the strings with small keys. This instrument had very little success.[733]

However, the earliest surviving patent related to the keyed guittar belongs to Christian Claus[734], who in 1783 invented an internal piano-key mechanism for the guittar (2 October 1783, Patent No. 1394). The patent description and drawings by Claus are presented below (**Figure 7.62**).

> A.D. 1783.-No. 1394.
>
> Clauss' Improvements in Guitars
>
> CLAUSS' SPECIFICATION.
>
> TO ALL TO WHOM THESE PRESENTS SHALL COME, I, CHRISTIAN CLAUSS, of Frith Street, in the Parish of Saint Ann, Soho, in the County of Middlesex, Musical Instrument Maker, do send greeting.

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[731] See, for example, Gai (1969: 148) and Jalovec (1965: 118). According to Jalovec (1965: 118) Anton Bachmann (1716-1800) was the supplier of musical instruments to the Royal Court in Prussia.

[732] For more details see Helm, E., and Elste, M., '*Bachmann, Carl Ludwig*' in Grove Music Online ed. L. Macy <http://www.grovemusic.com> (accessed 26/1/2010). Bachmann has also been credited with the improvement of a worm-gear tuning mechanism for double basses which he introduced around 1778.

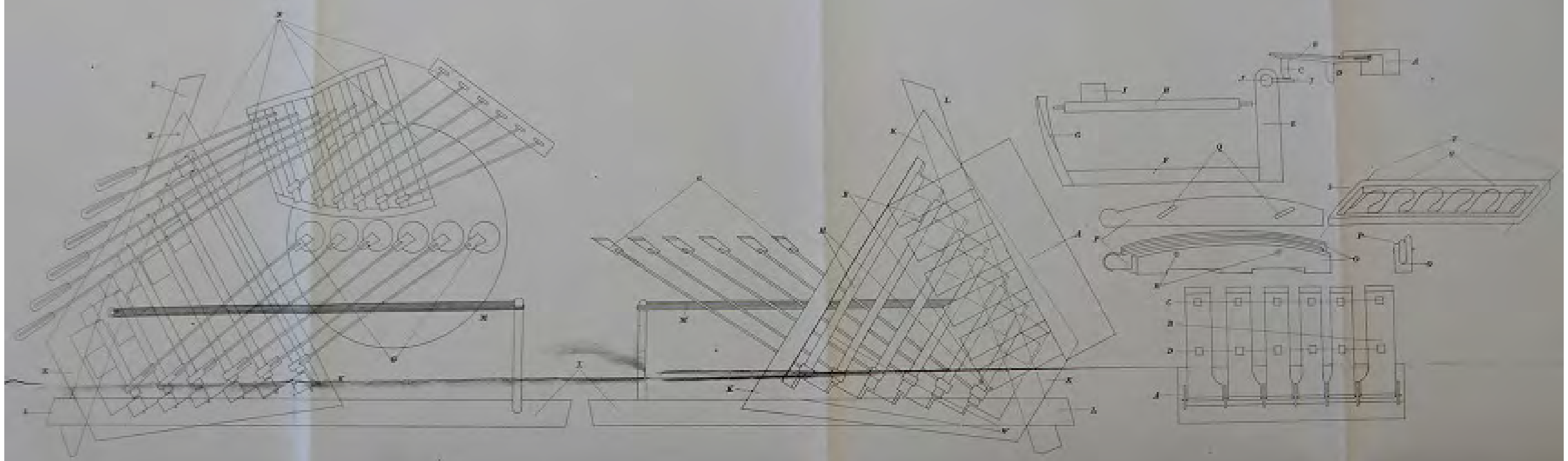
[733] See Fétis (1835: 26). The original French text reads: 'BACHMANN (CHARLES-LOUIS): [...]Il imagine aussi vers 1780 une espèce de guitare à clavier qui portrait vers la droite de la table un méchanism au moyen duquel on faisait frapper les cordes par de petis marteaux. Cet instrument eut peu de success […]'. The translation of the French text was kindly provided by B. Lamboul.

[734] Christian Claus (also mentioned as 'Clauss' or 'Clause' in contemporary documents) was a German instrument maker working in London. According to Groce (1991: 31) Claus was probably a native of Stuttgart who, like other makers of German origin, had settled in west London sometime before 1783. Claus was working at Frith Street in the Parish of Saint Ann, Soho, when he obtained his patent in 1783. For more details on Claus see also Appendix I.

[…] I, the said Christian Clauss, during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England, Wales, and the Town of Berwick-upon-Tweed, my invention of "AN IMPROVEMENT UPON THE MUSICAL INSTRUMENT COMMONLY CALLED THE GUITTAR;" [..].

My new invention consists of several parts of the machinery herein-after drawn, described, and referred to, which are marked, distinguished, or referred to by the several letters C, D, I, K, L, N, O, P, Q, R, S, T, V, W, and in the manner of constructing and fixing the said parts in and to the musical instrument commonly called the guittar, and by which the said instrument so commonly called the guittar, is rendered the more capable of being played on in the manner of a pianoforte, and admits of a harp stop or trumpet stop, or either at pleasure, in addition to the usual tones, with several other perfections; and which several parts of the said machinery […] are to be constructed, put together, and fixed in the manner described in the Plan or Drawing thereof hereunder drawn, and the explanation subjoined thereto; and which several parts of said machinery […] are made of wood, brass, leather, and the other materials mentioned in the said Plan or Drawing […]. In which Plan or drawing the several parts marked, distinguished, or referred to by the several letters A, B, E, F, G, H and M, although my own proper Invention, yet having been before my applying for the said Patent made public, are not the objects thereof, but are only introduced into this Specification and the said Plan or Drawing for the clearer explanation and understanding of the other parts which are the objects of the said Patent, and which are so marked, distinguished, or referred to by the said letters C, D, I, K, L, N, O, P, Q, R, S, T, V, W, as aforesaid.

(1 SHEET)



A The Carriage of the Keys. B The keys which are partly covered by the Hurr Top of the Carriage C.D Two Square Pins being Segments of a circle placed on the under side of the Keys and passing through the Belly or Upper side of the Guittar to depress the Pallets of the Rollers E F G. The Hammers the perpendicular part E having a round hole J for the insertion of the Roller. H. The Shaft or Roller that passes through the Hammers at J, where it is firmly fixed having at each end a centre that is received by the Triangular Frame. I the Pallets of the Hammers which being depressed by the Square Pins under the Keys raise the Hammers through the Belly of the Guittar until G strikes the Strings K KK. A triangular Frame receiving the centres of the Rollers. L.L.L. A frame fixed to the sides of the Guittar supporting the whole Machinery in the middle of the Body of the Guittar independent of the Belly or the back. M a rest or Bridge usually made of Cotton Threads fixed on the Frame L.L.L. to prevent the Hammers from falling on the back of the Guittar. N The Trumpet Stop is composed of similar parts with the foregoing Machine and is put in motion by the Pin D as the other is by the Pin C and may be played or not at pleasure by letting down a Spring placed near the Keys. O The Bridge supporting the Strings has a Groove for the Harp Stop P to slide in. P The Harp Stop having two long holes Q placed obliquely upwards to raise it answering to the two screws and R on the Bridge through which are the Pins that keep the two parts together. S. The Frame of the Piano stop through the ends of which the Wires T that fasten it on the belly of the Guittar underneath the Strings pass on which Wires it slides to be used at pleasure. V Valves that cause the Strokes of the hammers usually made of Woollen Cloth and fixed to the lower side of the Frame S and sometimes (as fancy directs) to a simple moveable Bar placed under the strings. W. Springs fixed to the Rollers.—

Figure 7.62: The drawings and text of Claus's specifications as described in his 1783 patent. The patent consists of the following parts, listed in the original document under the drawings: A. The Carriage of the Keys. B. The Keys which are partly covered by the thin Top of the Carriage. C. D. Two Square pins being Segments of a circle placed on the under side of the Keys and passing through the Belly or Upper side of the Guittar to depress pallats of the Rollers. E. F. G. The Hammers the perpendicular part E having around hole J for the insertion of the Roller. H. The Shaft or Roller that passes through the hammers at J where it is firmly fixed having at each end a centre that is received by the Triangular frame. I. The Pallats of the Hammers which being depressed by the Square pins under the Keys raise the Hammers through the Belly of the Guittar until G strikes the Strings. K. K. K. A triangular Frame receiving the centres of the Rollers. L. L. L. A frame fixed to the sides of the Guittar supporting the whole machinery in the middle of the Body of the Guittar independant of the Belly or the Back. M. a rest or Bridge made of Cotton Threads fixed on the frame L. L. L. to prevent the Hammers from falling on the back of the Guittar. N. The Trumpet Stop is composed of similar parts with the foregoing Machine and is put in motion by the pin D as the other is by the pin C and may be played or not at pleasure by letting down a Spring placed near the keys. O. The Bridge supporting the Strings has a Groove for the Harp Stop P to slide in. P. the Harp Stop having two long holes Q placed obliquely upwards to raise it answering to the two round ones R in the Bridge through which are the pins that keep the two parts together. S. The Frame of the Piano stop through the ends of which the Wires T that fasten it on the belly of the Guittar underneath the Strings pass on which Wires it slides to be used at pleasure. V. Valves that receive the Strokes of the hammers usually made of Woollen Cloth and fixed on the lower side of the Frame S and sometimes (as fancy directs) to a simple movable Bar placed under the strings. W. Springs fixed to the Rollers.

The drawings of Claus's specifications relating to the patent mechanism are presented below (**Figures 7.63-7.65**).

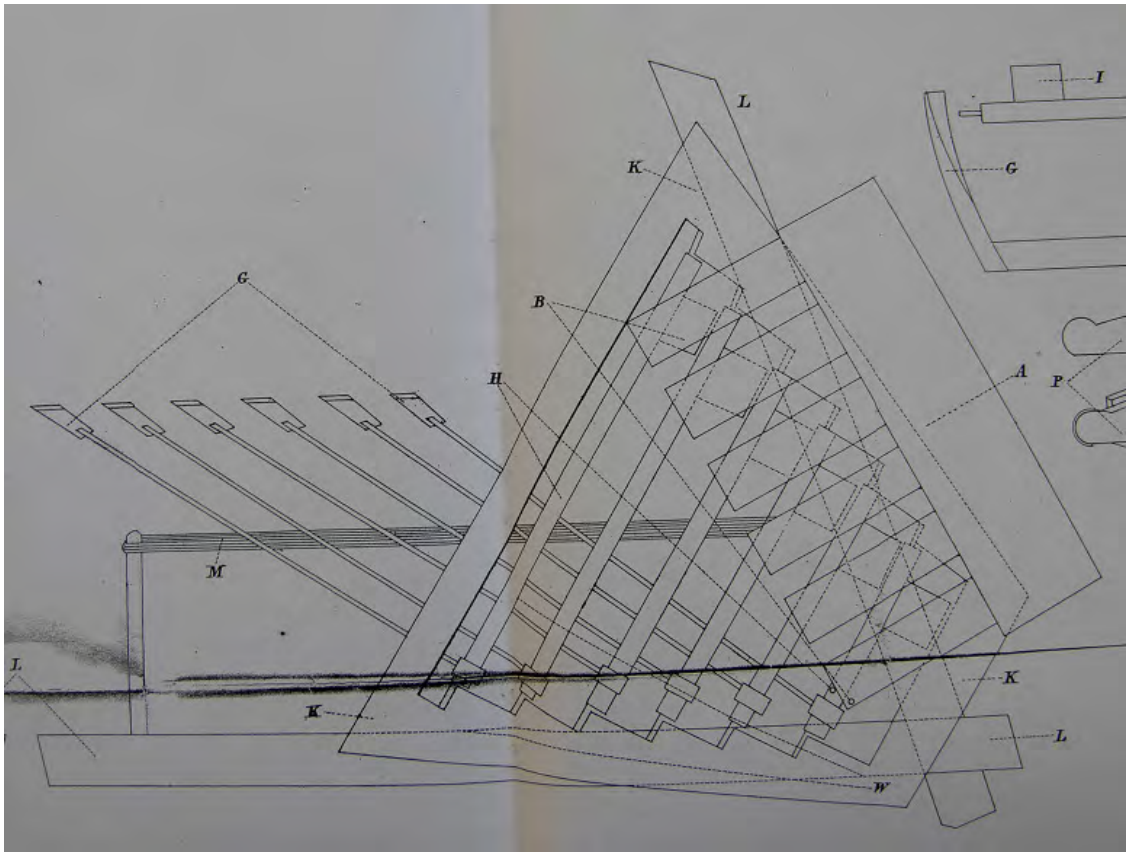


Figure 7.63: Top view of the piano-key mechanism patented by Claus. A: The key cover. B: The six keys. G: The hammer heads. H: The rollers. K-K-K: The triangular frame receiving the centres of the rollers H. L-L-L: A frame fixed to the sides of the guittar supporting the whole mechanism in the middle of the guittar body. M: The hammer rest made of cotton threads fixed on the frame L-L-L to prevent the hammers from falling on the back of the guittar. W: Wire springs fixed to the rollers.

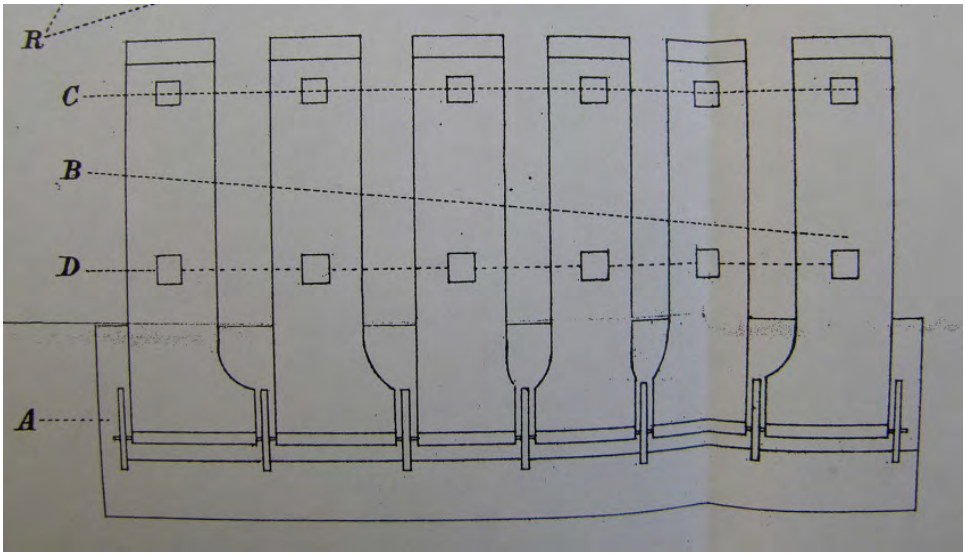


Figure 7.64: Detail of the under side of the keys shown in Claus's patent.

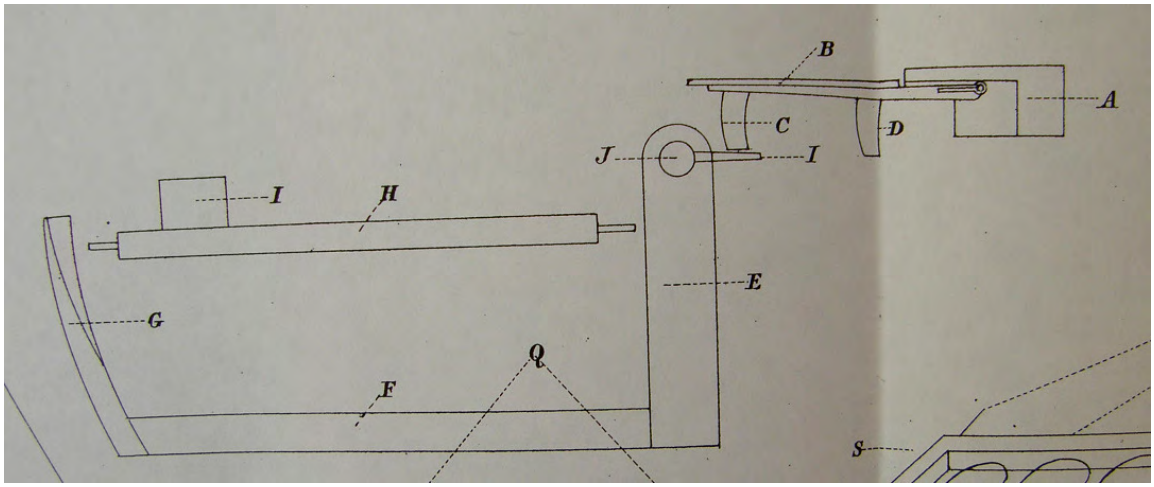


Figure 7.65: Side view of the piano-key mechanism patented by Claus. A: The key cover. B: The six keys. C, D: Two square pins placed on the under the keys and passing through the soundboard to depress pallets of the rollers H. E, F, G: The hammers. H: The roller that passes through the hammer levers at J where it is firmly fixed having at each end a centre that is received by the triangular frame K-K-K. I: The pallets of the hammers which being depressed by the square pins under the keys raise the hammer levers E, F until the hammer heads G strike the strings through the soundboard.

Apart from the main piano-key mechanism described in the patent, Claus's specifications also include a 'trumpet' stop, which is a similar hammer mechanism, activated by a spring placed near the keys (**Figure 7.66**). The hammers are set in motion by a second row of square pins placed under the keys. As can be noticed in the drawing, in this mechanism the hammer heads seem to be covered with felt or leather, in contrast to the uncovered wooden hammers of the main mechanism, hence the term 'trumpet' stop.

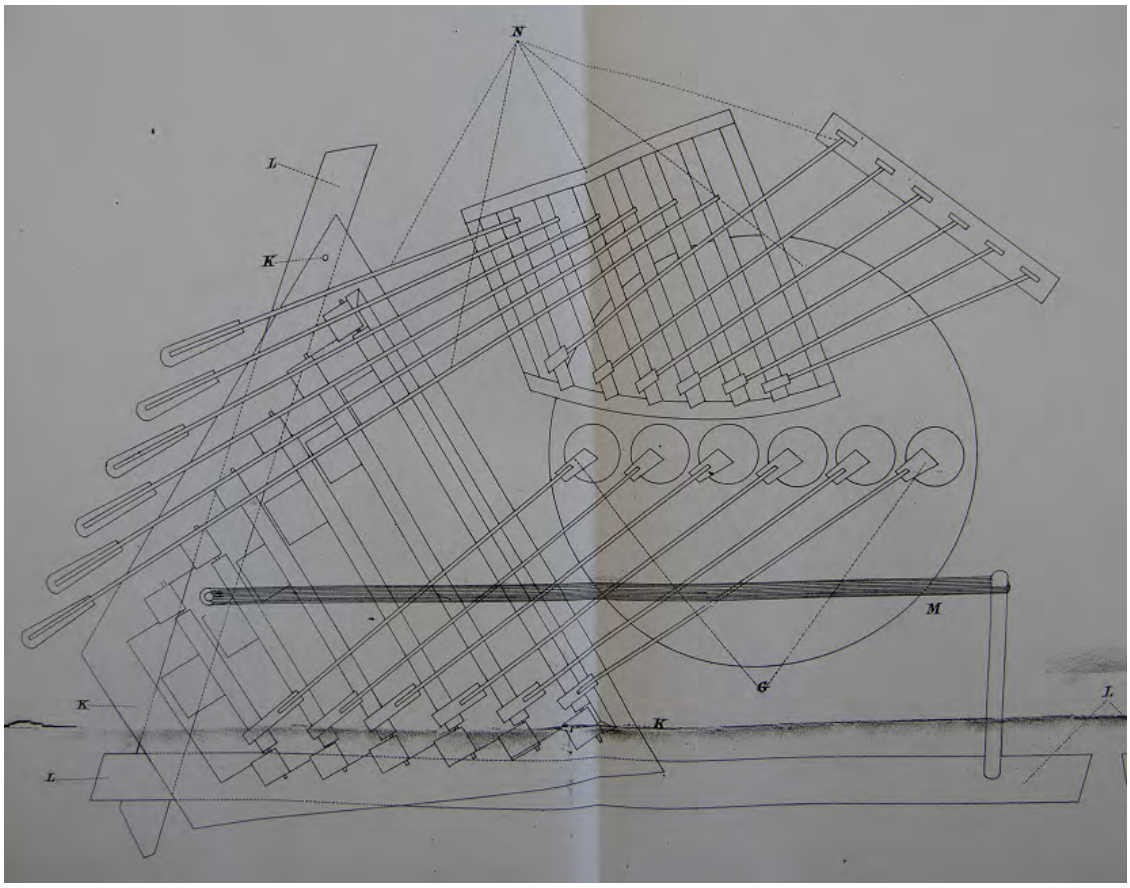


Figure 7.66: Bottom view of the mechanism showing the 'trumpet' stop mentioned in Claus's patent. G: The hammer heads. K-K-K: The triangular frame receiving the centres of the rollers. L-L-L: A frame fixed to the sides of the guittar supporting the whole mechanism in the middle of the body. M: The hammer rest. N: The trumpet stop, which is a similar hammer mechanism put in motion by the square pins D, activated using a spring placed near the keys.

The ‘harp’ stop mentioned in Claus’s patent is basically a strip of felt or leather that is used for muting the guittar strings (**Figure 7.67**). The ‘harp’ stop is activated when the strip is raised by sliding it in a longitudinal groove carved on the bridge.

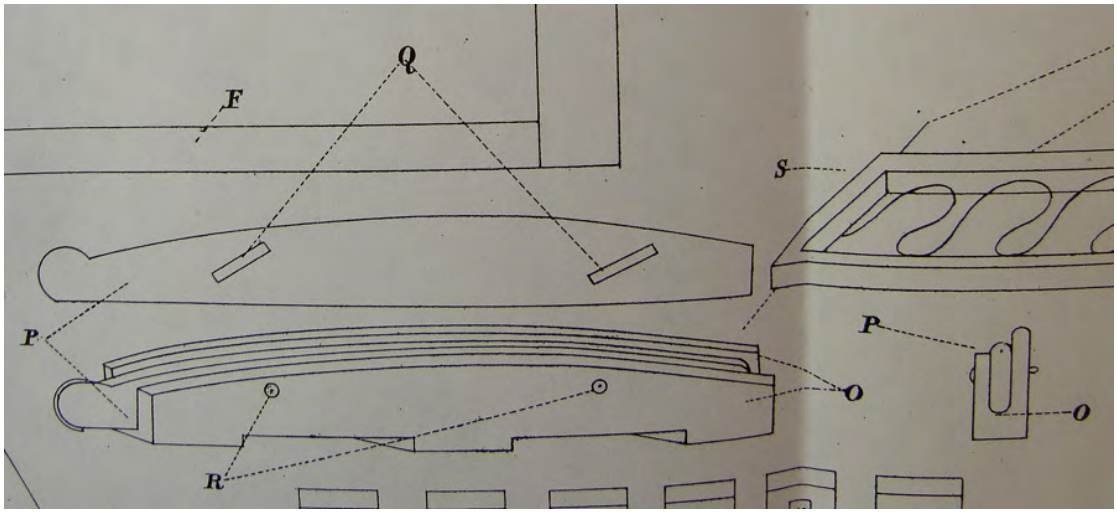


Figure 7.67: Detail of the ‘harp’ stop described in Claus’ patent. O: The arched bridge having a longitudinal groove for the harp stop P to slide in. P: The harp stop having two long holes Q placed obliquely upwards to raise it answering to the two round ones R in the bridge through which are the pins that keep the two parts together.

The patent also shows a drawing of a ‘piano’ stop fixed under the strings with wire. The ‘piano’ stop has woollen cloth ‘valves’ (this term has been used by Claus) that receive the strokes of the hammers (**Figure 7.68**). The ‘valves’ are fixed on the lower side of the frame or to a simple movable bar placed under the strings.

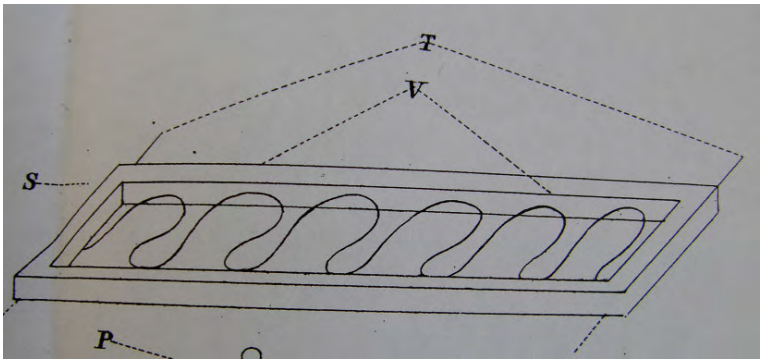


Figure 7.68: Detail of the piano stop. S: The frame of the piano stop T: The wires that fasten S through its ends on the soundboard underneath the strings. V: The woollen cloth valves that receive the strokes of the hammers.

The above descriptions and drawings of this patent, classified as an 'improvement' to the guittar, give an accurate account of the mechanism's design and characteristics, which can be evidenced on several extant instruments by Claus. One of them, in the Victoria & Albert Museum, London, [240-1881], is displayed with its back removed, which provides an exceptional opportunity to observe and examine the design, construction and function of the patent internal piano-key mechanism (**Figure 7.69**).

Figure 7.69: ***Left*****: Front view of a keyed guittar by Claus c.1785. Victoria & Albert Museum, London, [240-1881] (<http://collections.vam.ac.uk/>, accessed 7/2/2010)**. ***Right*****: Detail of the removed back of V&A [240-1881] revealing the internal piano-key mechanism.**

The mechanism, housed in the bottom of the instrument towards the treble side, consists of a pallet of six wooden keys, fixed with screws on the soundboard, and six leather-headed hammers placed in the interior of the instrument (**Figure 7.70**).

Figure 7.70: Detail of the piano-key mechanism on the V& A [240-1881] (Photo by D. Martin).

The action of the mechanism is based on a rather simple, but efficient concept: when a key is pressed a pin placed on its underside forces a square pallet attached on the hammer lever, to move downwards.[735] This movement rotates the lever and lifts the hammer to strike the strings through a carved hole on the rose. The return of the hammers is aided by wire springs attached to the levers. There is no escapement on this mechanism; thus, as long as the key is pressed the hammer is not released, but continues to touch the string.[736]

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[735] As already mentioned, it is not certain if it was Anton Bachmann, or his son Carl Ludwig, that first invented a key mechanism for the guitar. However, Gai (1969: 148) and Fétis (1835: 26) date Bachmann's invention in 1778 and 1780 respectively, which predate Claus's patent in 1783. It is, thus, very probable that Claus must have examined the invention of Bachmann, or a similar device, and copied it, perhaps improving some of the mechanism's features. It is also interesting to notice that a new idea, which did not prove very successful in the case of Bachmann, became popular in the case of Claus, as it has happened with many inventions.

[736] However, this fact may also be the result of mechanical damage to the mechanism.

This guittar has most of the features typically identified on keyed guittars by Claus. The distinctive egg-shaped body is large and quite deep to accommodate the piano-key mechanism. The ebony-veneered fingerboard has 12 frets and 3 capotasto holes, while the original position of the missing bridge can be observed below the rose. It is also interesting to note the simulated rose with six holes carved diagonally on the soundboard wood, the soundhole decoration applied directly on the soundboard in black ink, and the purfling, which consists of a pair of inked lines and red half-herringbone patterns painted on the edges. The sickle-shaped head is fitted with a watch-key machine for 12 strings and terminates with a square finial (**Figure 7.71**).

Figure 7.71: *Left*: Detail of the six wooden keys of the mechanism and the characteristic painted purfling on V&A [240-1881]. *Right*: Detail of the head fitted with a watch-key machine for 12 strings (photos by A. Sotiropoulos).

A similar keyed guittar survives in the Metropolitan Museum of Art, New York, [89.4.1013].[737] Like the V&A [240-1881], this guittar has a simulated rose with six diagonal holes and also

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[737] I am grateful to M. Suing at MMA for providing me with details of this instrument.

retains its original bridge with the 'harp' stop described in Claus's patent. The soundboard is stamped with the inscription 'Claus; the only inventor of the patent instrument' surrounding the Royal Arms on the top of the soundboard below the neck, and the words 'sold only by' at the bottom below the bridge, with the seller's name probably obliterated by later painted diagonal stripes. Moreover, the watch-key machine of this guittar is engraved with the letter 'C'.

As will be shown later, the stamps on the V&A [240-1881] presented above date this instrument to c.1785. However, two earlier guittars by Claus have survived, both having similar features with V&A [240-1881], apart from the decoration and the maker' marks. The first guittar belongs to the Musée des Instruments de Musique, Brussels, [261] (**Figure 7.72**).[738]

Figure 7.72: Front view of a keyed guittar by Claus made c.1783. Musée des Instruments de Musique, Brussels, [261] (photo by kind permission of MBR).

[738] I am thankful to A. Ceulemans at MBR for providing me with details and photos of this instrument.

This instrument bears two inked stamps on the soundboard, one with the coat of arms in a circle, above the rose, the other with the words '*Claus & Co. Inventor London*' below the rose (**Figure 7.73**), without mentioning the address of the maker.

Figure 7.73: *Left*: Details of the fingerboard with three capotasto holes and the watch-key machine for twelve strings, and the head with the square finial of MBR [261]. *Right*: Details of the stamps on the soundboard (photos by kind permission of MBR).

A keyed guittar by Claus in the Metropolitan Museum of Art, New York, [1982.241.3], made around the same time, bears similar stamps on its soundboard (**Figure 7.74**).

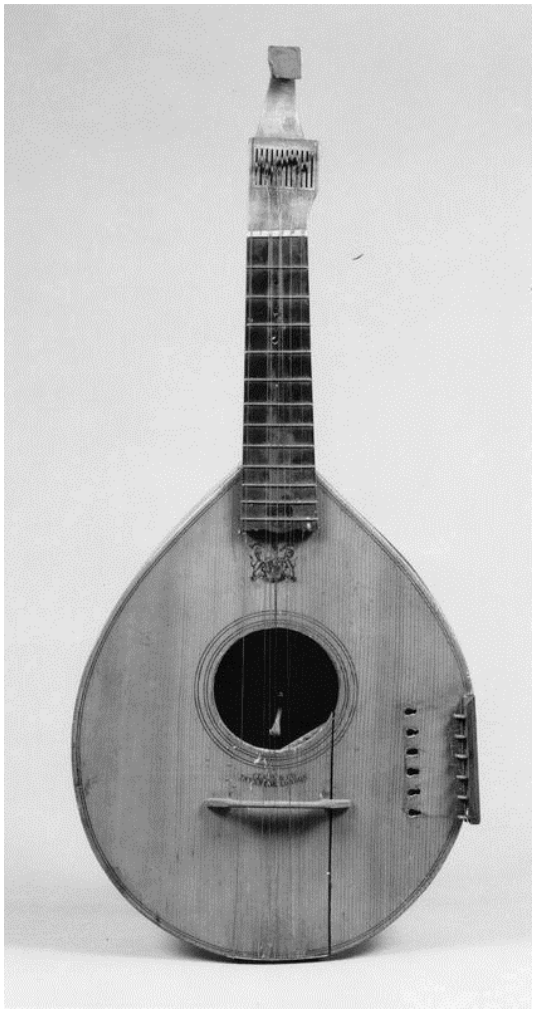

Figure 7.74: Front view of a keyed guittar by Claus made c.1783. Metropolitan Museum of Art, New York, [1982.241.3] (photo by kind permission of MMA). Note the distinctive stamps on the soundboard. Several components of the piano-key mechanism of this guittar are missing.

Both instruments were probably made c.1783, and most likely before 1785, when Claus started using two distinctive stamps on the soundboard of his keyed guittars, one above the rose and another below the bridge, as will be described later.

Other manufacturers must have quickly recognised a potential market for keyed guittars because shortly after receiving his patent Claus started facing competition by imitators as evidenced in the following announcement:

> By Authority of his Majesty's Royal Letters Patent. / PIANO FORTE GUITTAR. / CHRISTIAN CLAUSS, of Frith-street, / Soho, sole Inventor and Patentee of the new and ini- / mitable Improvements on the Piano Forte Guittar, most re- / spectfully acquaints the Nobility and Gentry, that he has / now ready for sale several beautiful Piano Forte Guittars, of / exquisite tone, which, independent of the advantages they pos- / ses under the patent, will be found in every respect greatly su- / perior to any that can be offered to the public. Their richness / and strength of tone, facility of execution, and delicacy of ex- / pression are so incomparable, and manifestly superior to any / others, that the Patentee feels himself happy to assure the ad- / mirers of this engaging instrument that his Piano Forte Guit- / tar may now be justly said to even rival the Piano Forte itself. / Indeed, so peculiarly excellent are the improvements, and so / distinguished is the honor and reward the Patentee has received / that it is not wonderful to find the trade attempting to impose / an imitation of the Patent Instrument upon the public, and / even attempting, by public advertisement, to call in question / the solemn decision of the High Court of Chancery, made / upon an inspection and comparison of the genuine and spurious / instruments, their separate properties, and an investigation of / the facts adduced in support of them. To prevent however / any further controversy, and to place the question beyond all / possibility of doubt, Mr. Clauss takes the liberty to subjoin an / extract from the order made by the Court on this occasion. It / is as follows, viz. "That the caveat asked by Charles Pinto / and James Longman be withdrawn, and that the Patent of the / said Christian Clauss do pass the Great Seal of Great Bri- / tain." - After this the Patentee flatters himself the candour of / a generous public will readily determine whose instrument most / deserves their attention. A Gentleman attends to teach the / Patent Piano Forte Guittar on reasonable terms. / N. B. The Patentee is removing into Gerrard-street, the / corner of Nassau-street, Soho, where all letters and orders will / be received and punctually attended to. / ***The Patentee herby engages to pay a reward of 20 / Guineas to any person who will discover any imitation upon / his patent, by making and vending the Patent Piano Forte / Guittars. [739]

There are several details worth discussing in the above announcement. To begin with, Claus makes a clear statement of the superiority of his patented 'Piano Forte Guitar', boasting that it can even 'rival the Piano Forte itself'. Furthermore, he openly reveals his imitators, namely

[739] *Morning Herald and Daily Advertiser*, 1 May 1784, 1096.

Charles Pinto and James Longman, suggesting that they have been producing and selling an imitation of his patent instrument, with details of the legal dispute which followed. Moreover, Claus's efforts to protect his patent are further confirmed by the financial reward he promises to pay upon any discoveries of imitations of his patent instrument.

However, a year later, and after having moved to a new address at No. 7 Gerard Street, Soho, Claus still continued his attempts to prevent imitations as confirmed in a similar advertisement:

> Royal Patent Forte Piano Guitars.
>
> MESS. Clauss and Co. the original and only Inventors and Patentees of the inimitable and beautiful new-invented Forte Piano Guitar, which, for Richness and Strength of Tone, Facility of Execution, and Delicacy of Expression, may be justly said even to rival the Piano Forte itself, return Thanks to the Nobility, Gentry, and the Public in General, for the generous Patronage they have experienced. The universal Approbation, with which this Instrument has been favoured, having induced some Persons to attempt imposing a spurious and wretched Imitation for Sale, with Intent to injure the Patentees, and to defraud the Purchasers, the Public are requested to observe, that the Patent Instrument is distinguished from all others, by being stamped on the Front with His Majesty's Arms, surrounded with the Words Clauss and Co. Inventors, London, Patent Instrument; and also stamped below the Bridge with the Address of the Patentees, No. 7, Gerard-street, Soho, where they are to be had, and where may also be had several Pieces of New Music adapted to this Instrument. They have also some excellent Forte Pianos to dispose of, which they doubt not will be found equal to any that can be purchased in London, and at as reasonable Prices. Orders from the East and West Indies, America, and every Part of Europe, as well as in Great Britain and Ireland, addressed as above, are executed with all possible Punctuality and Dispatch.
>
> §||§ It having been maliciously reported that the Patent Internal Improvements are liable to speedy Disorder, the Patentees hereby warrant their Wear for Twenty Years.[740]

As in the previous announcement, Claus lists the major advantages of the 'new-invented Forte Piano Guitar', which comprise 'Richness and Strength of Tone', 'Facility of Execution' and 'Delicacy of Expression'; with these descriptions Claus apparently indented to highlight the

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[740] *London Gazette*, 5 April 1785, 12636, p. 173. The same advertisement also appeared on 12 and 26 April 1785.

main properties of his new instrument, which included a fuller and louder sound, easiness of playing due to the keys, and a more sensitive touch, with variations of dynamics. The advertisement also contains a direct reference to the 'spurious and wretched Imitation' of Claus's patent instrument by his competitors, 'with Intent to injure the Patentees, and to defraud the Purchasers', followed by an accurate description of Claus's distinctive stamps on the soundboard, which, according to the patentee, would help customers discriminate the original patent instrument from all others.

It is also significant that, apart from manufacturing the patent 'Forte Piano Guitar', Claus's company offered printed music for it, as the phrase 'where may also be had several Pieces of New Music adapted to this Instrument' suggests[741], while in his 1784 announcement, presented earlier, he had mentioned his collaboration with a 'Gentleman' teaching the 'Patent Piano Forte Guittar'; both details indicate Claus's strong marketing acumen. Finally, the fact that Claus promised a twenty-year warranty indicates either his strong confidence on his patented mechanism or simply a marketing trick over his competitors.

Apart from the V&A [240-1881] presented earlier, the characteristic stamps mentioned in the above advertisement are evident on a keyed guittar by Claus in the Blair Castle, Perthshire, [8051] (**Figure 7.75**). This instrument, which bears heavy playing marks on the first frets of the fingerboard, has been preserved in its original condition, although the rose, bridge, nut, and parts of the piano-key mechanism are now missing.

[741] However, no works for the keyed guittar published by Claus are presently known.

Figure 7.75: Front, side, and back views of a keyed guittar by Claus made c.1785. Blair Castle, Perthshire, [8051].

This instrument bears the inked inscription 'Claus & Co. Inventor London. Patent-Instrument' inside a circle surrounding the Royal Arms on the top of the soundboard close to the neck, and his address 'No. 7 Garrard Street' on the bottom of the soundboard, just below the bridge (**Figure 7.76**).

Figure 7.76: ***Left*****: Detail of the soundboard of BCP [8051], showing the sawn-out rose, the traces of the missing bridge below the rose, the six keys enclosed in a brass frame on the lower right side, and the characteristic inked and painted purfling in half-herringbone pattern.** ***Right*****: Details of the two distinctive stamps above the rose and below the bridge.**

Similarly to the MBR [261] and MMA [89.4.1013] mentioned above, the watch-key machine of this guittar has the letter 'C' engraved on its top (**Figure 7.77**), suggesting that these watch- key machines were specially made for Claus's twelve-string keyed guittars.

Figure 7.77: The watch-key machine of BCP [8051] with the letter 'C' engraved on its top.

It is important to note that, as the last sentence of the advertisement from 1785 suggests, Claus's 'Patent Internal Improvements' had a reputation of 'speedy disorder', which indicates that the mechanism was rather inefficient and prone to working problems. It is noteworthy that on three of the guittars mentioned above, including BPC [8051], MBR [261] and MMA [1982.241.3], the wood around the soundhole seems to have been sawn out in two points and the original rose removed. This alteration probably enabled the easier movement of the hammers, which were possibly obstructed by an incorrect placement of the rose, or allowed the repair or adjustment of the mechanism inside the body.

Two more keyed guittars by Claus bearing the distinctive stamps have survived, the first belonging to the Danish Music Museum, Copenhagen, [C 86] (**Figure 7.78**) and the second to the National Trust for England, Snowshill Manor, Wessex, [SNO/MC/80)] (**Figure 7.79**).[742] Both instruments have cast brass roses with six circular holes to allow the movement of the hammers, while they also retain their original bridges with the harp stop described in Claus's patent.

[742] This instrument is said to have belonged to Lady Hamilton, and exhibited at the London Museum, before it was purchased in 1931 by the current owner at Snowshill Manor, Wessex. I am indebted to Andrew Garrett for providing me with details and photos of this guittar.

Figure 7.78: Front view (*left*) and detail of the brass rose, the bridge with the harp stop, the keys, and the maker's distinctive stamps on the soundboard (*right*) on a keyed guittar by Claus. Danish Music Museum, Copenhagen, [C 86] (photo by kind permission of the DMC).

Figure 7.79: Front view of a keyed guittar by Claus, c.1785. The National Trust for England, Snowshill Manor, Wessex, [SNO/MC/80)] (photo by kind permission of A. Garrett).

Apart from competition from other musical instrument manufacturers and inventors, who tried to promote improved versions of piano-key mechanisms for the guittar, as will be described later, around 1786 Claus was facing serious financial problems which eventually led to his bankruptcy[743] in 1787, as evidenced in the following announcement:

> No. 36, Walbrook, London. / 'Whereas a Commission of Bankrupt is awarded and issued / forth against Christian Clause, of Gerrard street, Sohosquare, / in the County of Middlesex, Musical Instrument-maker, / Dealer and Chapman, and he being declared a Bankrupt, / is hereby required to surrender himself to the Commissioners / in the said Commission named, or the major Part of them, / on the 15th Day of August instant, at Nine in the Forenoon, / on the 25th of the same Month, and on the 15th of September / next, at Ten in the Forenoon, at Guildhall, London, and make / a full Discovery / and Disclosure of his Estate and Effects ; when / and where the Creditors are to come prepared to prove their / Debts, and at the Second Sitting to chuse Assignees, and at / the last Sitting the said Bankrupt is required to finish his Examination, / and the Crediters are to assent to or dissent from the / Allowance of his Certificate. All Persons indebted to the said / Bankrupt, or that have any of his Effects, are not to pay or deliver / the same but to whom the Commissioners shall appoint, but / give Notice to Fabian and Williams, in Cursitors street, Chancery- / lane.[744]

Although the events after his bankruptcy remain unknown, it is known that Claus soon left London for a new destination. Probably to avoid paying his debts, Claus chose to flee to America[745] sometime before 1789. By 1789 Claus had finally settled in New York[746] where from 1791 until 1793 he formed a partnership with the keyboard instrument manufacturer Thomas Dodds at 66 Queen Street. As Groce (1991: 31) has remarked, since Dodds was primarily a keyboard instrument manufacturer, Claus's role in the partnership must have involved the construction of guittars and possibly other stringed instruments.

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[743] A court case from 1786 between Christian Claus and Joseph Levy in the National Archives (TNA PRO C12/154/35) sheds some light on the reasons of Claus's bankruptcy. According to J. Nex (PC, 3/2010), who has examined this document, Claus was in partnership with Joseph Levy, a 'Goldsmith and Jeweller', who 'was supposed to bring money in to the business but seems not to have done so according to Claus's statements'. Moreover, 'Claus objected to having to do the work of a common journeyman, and indeed some of the accounts include wages to a journeyman'. I am thankful to J. Nex for this interesting piece of information. Another reason for Claus's financial problems was probably that he could not overcome the high costs of obtaining his patent and expanding his business, while the actual sales of the keyed guittar were not able to secure profits that justified his earlier investment.

[744] *London Gazette*, 1787, 31 July, Issue 12908, p. 7.

[745] In the late 18th century escaping to America was a common alternative to going to prison in cases of bankruptcy.

[746] Claus is listed as a musical instrument maker in a New York directory from 1789, as Libin (1985: 163) has noted.

It seems that in New York Claus hoped to find a new market for his keyed guittars, since in a contemporary advertisement he informed 'the ladies that he intends to manufacture piano-fortes and common guitars the same as he used to do in London'.[747] Interestingly, a 'common' guittar as described in the above advertisement, stamped 'Dodds. / &. / Claus. / N-York.', survives in the Saco Museum, Maine, [2001.124.1] (**Figure 7.80**).[748]

Figure 7.80: Front view (*left*) and detail of the painted rose (*right*) of a guittar by Dodds & Claus made c.1791-93. Saco Museum, Maine, [2001.124.1] (photo by kind permission of SAM).

This instrument has all the standard features of Claus's manufacture, apart from the rather unusual figured maple soundboard, and is the only non-keyed guittar by Claus presently known.

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[747] Advertisement in *The Diary: or Loudon's Register,* New York, 10 June 1793 (as quoted in Groce 1991: 31-2).
[748] I am indebted to M. C. O'Brien at SAM for providing me with details and photographs of this guittar.

However, a more typical example of Claus's work during this period is a keyed guittar in the Luigi Cherubini Collection, Florence, [1988/76]. This instrument, also stamped 'Dodds. / &. / Claus. / N-York.', is equipped with Claus's patent internal mechanism (**Figure 7.81**).

Figure 7.81: Front, side, and back views of a keyed guittar by Dodds & Claus made c.1791-93. Luigi Cherubini Collection, Florence, [1988/76].

Both guittars by Dodds & Claus have plainer construction and decoration features compared to Claus's earlier instruments, which possibly suggests that, while working in New York, Claus tried to simplify the assembly of his guittars. This is more obvious in the case of the keyed guittar. Instead of a typical cast brass rose, this instrument has a simulated rose in an unusual elliptical shape, painted directly on the soundboard wood, with six holes drilled diagonally to allow the hammers strike the strings, like the V&A [240-1881] presented earlier. Moreover, the

bridge has a simple design, without the harp stop described in Claus's 1783 patent. Furthermore, the keys are enclosed in a wooden, instead of brass, frame, which is painted in a simple motif, while the keys, contrary to earlier instruments, are veneered with plain thin sheets of ivory. Additionally, the orange varnish is uniformly cracked all over the body possibly as a result of methods used to achieve a quick drying (**Figure 7.82**).

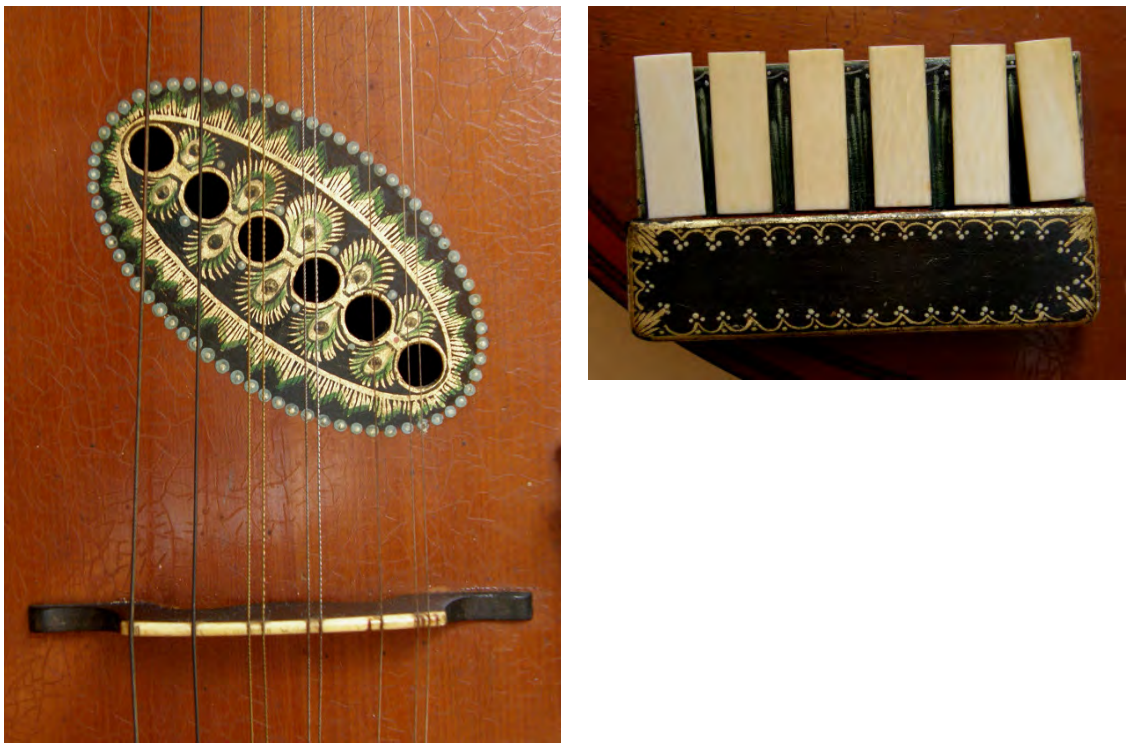

Figure 7.82: Details of the painted elliptical rose, the simple bridge without a harp stop, and the cracked varnish (*left*), and the painted wooden frame for the ivory-veneered keys (*right*) of the LCF [1988/76].

It is also remarkable that in contrast to most keyed guittars by Claus, which, as already mentioned, have twelve strings this instrument has eleven strings, with only the first treble course being triple-strung (**Figures 7.83, 7.84**).

Figure 7.83: The string arrangement of LCF [1988/76].

Figure 7.84: ***Left*****: Detail of the neck-body join showing the cracked varnish on the sides of LCF [1988/76].** ***Right*****: Detail of the head equipped with a watch-key machine for eleven strings, terminating in a square finial veneered with ivory (*****right*****).**

Regarding Claus's construction methods, an X-ray photograph of this guittar has revealed the internal bracing, which consists of four horizontal bars for the soundboard and four diagonal bars for the back (**Figure 7.85**).

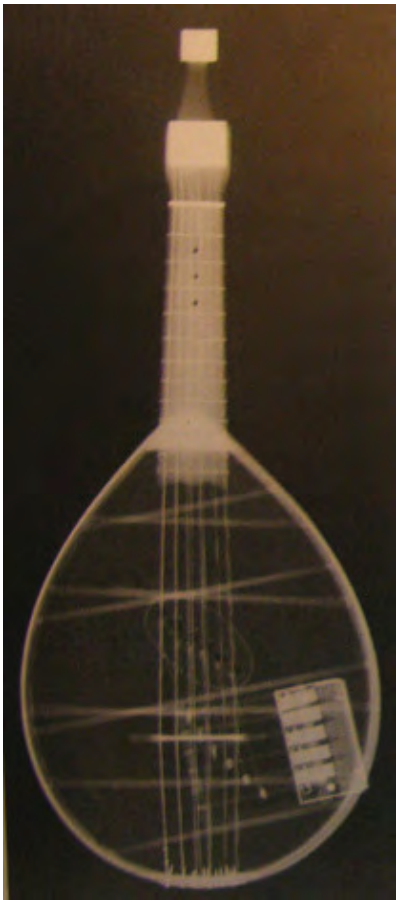

Figure 7.85: X-ray photograph of LCF [1988/76] (Falletti et al 2001: 187). Note the four horizontal bars for the soundboard and the four diagonal bars for the back. The neck is glued on the body with the support of a wooden block.

The bracing style of LCF [1988/76] is different to some of the instruments presented above. For instance, V&A [240-1881], which an earlier instrument, has four diagonal bars on both the front and the back, placed at opposite angles to that of the LCF [1988/76] (**Figure 7.86**).

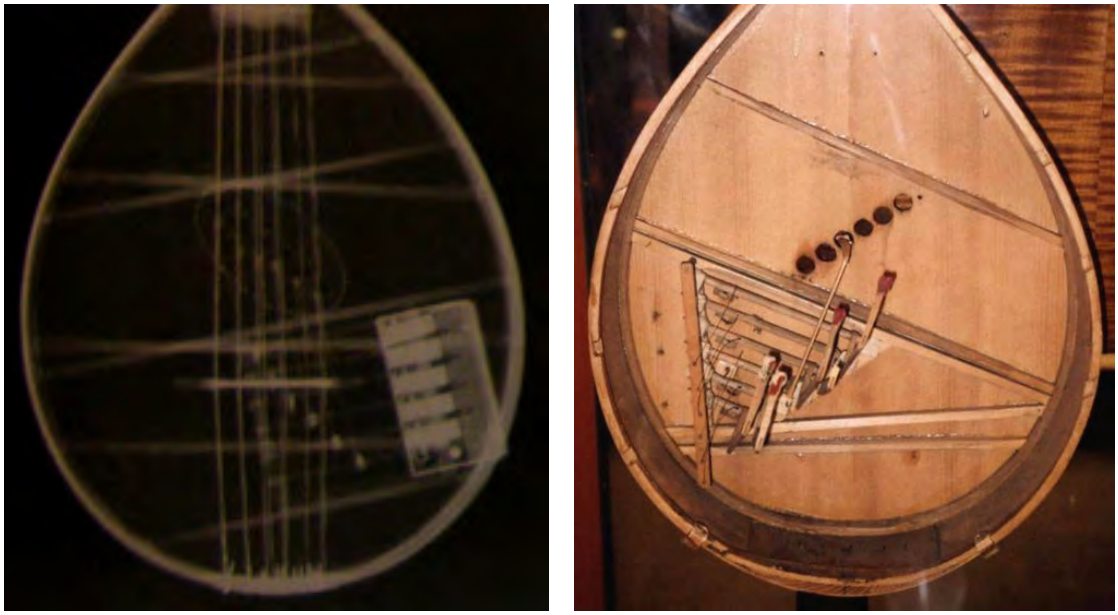

Figure 7.86: The different bracing styles of LFC [1988/76] (*left*) (Falletti et al 2001: 187) and V&A [240-1881] (*right*).

Additionally, in contrast to the London-made keyed guittars by Claus, which, as already shown, are usually stamped on the soundboard, both guittars by Dodds & Claus are stamped 'Dodds. / &. / Claus. / N-York.' on the neck heel (**Figure 7.87**).

Figure 7.87: The stamp 'Dodds. / &. / Claus. / N-York.' on the neck heel of SAM [2001.124.1] (*left*) (photo by kind permission of SAM) and LCF [1988/76] (*right*).

It is also important to note that the mechanism of LCF [1988/76] is not removable and the action has no escapement (**Figure 7.88**). This indicates that in New York Claus continued building his keyed guittars under the specifications of his patent from 1783, even though, as it will be described later, an improved removable mechanism with escapement, patented by John Goldsworth, was already available since 1785.

Figure 7.88: Detail of the piano-key mechanism of the LCF [1988/76]. The mechanism is not removable, but fixed permanently inside the guittar's body, as on the earlier guittars by Claus presented above. Note also that there is no escapement; therefore, as long as the key is pressed, the hammer is not released, but continues to touch the string (although this fact may also be the result of mechanical damage to the mechanism).

There are no details about Claus's life and work after 1793, although he is mentioned as a 'fretted musical instrument maker' working in New York from 1789 to 1799.[749] However, it is remarkable that out of the eleven guittars by Claus presently known ten are equipped with piano-key mechanisms, and only one is of the common type without keys, confirming that

[749] For more details see Holmes, M., 'American Fretted Musical Instrument Makers pre-civil War to WWII' (<http://www.mugwumps.com/AmerInstMkr.html>, accessed 16/1/2010).

Claus's production was mainly focused on keyed guittars.[750] An early literary reference for Claus's mechanism is included in Gustave Hess de Calve's encyclopaedic work *Music Theory, or a Consideration of This Art, Vol. I*, published in Kharkov in 1818.[751] Among other details in the entry for the guitar in page 19 of his '*Teoriia muzyki*' De Calve provides an interesting description of the piano-key mechanism patented by Claus in 1783:

> One German artist living in London improved this instrument [the guittar] so much, that it became a lot better. According to his method, to the lower right side of the soundboard the keys are attached, whose number is equal to the number of strings. These keys are connected to the same number of tangents, which - because of the touch [of the keys] through the soundhole in the middle of the guitar, between the fingerboard and the bridge, move forward and - like the piano's hammers - touch the individual strings. This instrument with such improvements from which the tone is stronger and more definite, achieves a fuller sound and more advantages. As for the left hand it's still a guitar, but for the right one it becomes a piano, this is why it's known as fortepiano-guitar.[752]

It is noteworthy that De Calve presents the piano-key mechanism as an improvement, emphasising on the 'stronger and more definite' tone and the 'fuller sound'[753] produced due to the piano-key mechanism, which corresponded to Claus's initial intentions.

7.4.2 THE IMPROVED PIANO-KEY MECHANISM BY GOLDSWORTH

It seems that the idea of fitting keys on the guittar attracted the interest of other inventors because soon after Claus's patent of 1783 two more patents including variations of the piano-key mechanism were granted. Thus, the following year, William Jackson developed an external piano-key mechanism to be used on his new patented instrument called the 'British Lyre' (20 August 1784, Patent No. 1449). The interesting feature of Jackson's patent, which will be presented in detail later, is that it emphasised the fact that the piano-key mechanism was

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[750] Apart from the seven instruments mentioned above a keyed guittar by Claus survives in the Museo Nazionale degli Strument Musicali, Rome, while another has been listed in the auction catalogue of Etude Tajan of 19 December 1997, lot 60, p. 14. It is also important to note that none of the surviving guittars by Claus is dated.
[751] See Timofeyev (2004: 240).
[752] The translation of this text in English was kindly provided by O. Timofeyev (PC, 7/4/2008).
[753] As it has been pointed out earlier most extant keyed guittars by Claus have twelve strings, with triple strings on the first two treble courses, in order to give a fuller sound when played with keys.

removable and, thus, easy to repair, stating that 'These boxes containing the machinery being movable afford an easy opportunity of repairing the same without being under the necessity of taking the instrument to pieces, and thereby endangering an alteration of the tone thereof.' Moreover, Jackson's patent mechanism was different from that of Claus in that it employed dampers to mute the strings before and after being struck by the hammers, while it was also equipped with a slider to raise or lower the level of the hammer attack, thus providing a 'piano-forte' effect.[754]

In 1785, only a year after Jackson's patent, John Goldsworth also received a patent for his 'Entire New Improvement upon the Musical Instrument called the Guitar' which included, among other inventions, a removable internal piano-key mechanism for the instrument (23 July 1785, Patent No. 1491). This is how Goldsworth's patent text begins:

> A.D. 1785.-No 1491.
>
> *Goldsworth's Improvement in the Musical Instrument called the Guitar.*
>
> GOLDSWORTH'S SPECIFICATION.
>
> TO ALL TO WHOM THESE PRESENTS SHALL COME, JOHN GOLDSWORTH, of Maiden Lane, Cheapside, in the City of London, Musical Instrument Maker, sends greeting.
>
> […] the said John Goldsworth, […] during the term of years here-in expressed, should and lawfully might use, exercise, and vend, his "ENTIRE NEW IMPROVEMENT UPON THE MUSICAL INSTRUMENT CALLED THE GUITTAR, BY WHICH THE SAME WILL BECOME A PERFECT INSTRUMENT OF ITS KIND, WHICH HATH NEVER BEFORE BEEN DISCOVERED, AND BY WHICH THE SAME CAN BE MORE EASILY REPAIRED AND KEPT IN TUNE" […].
>
> […] The nature of my said Invention […] is described and ascertained in and by the Plan, Drawings and Sections hereunto annext, and which are explained in and by the words, letters, and figures, and references following […].

[754] For more details on Jackson's patent see 'THE 'BRITISH LYRE' BY JACKSON', Chapter 7.

Goldsworth then provides extensive accounts of his inventions which correspond to twelve detailed drawings shown in Figures 1 to 12 in the original patent. The drawings relating to the improved internal piano-key mechanism are presented below along with the relative descriptions of the various parts (**Figures 7.89-7.93**).[755]

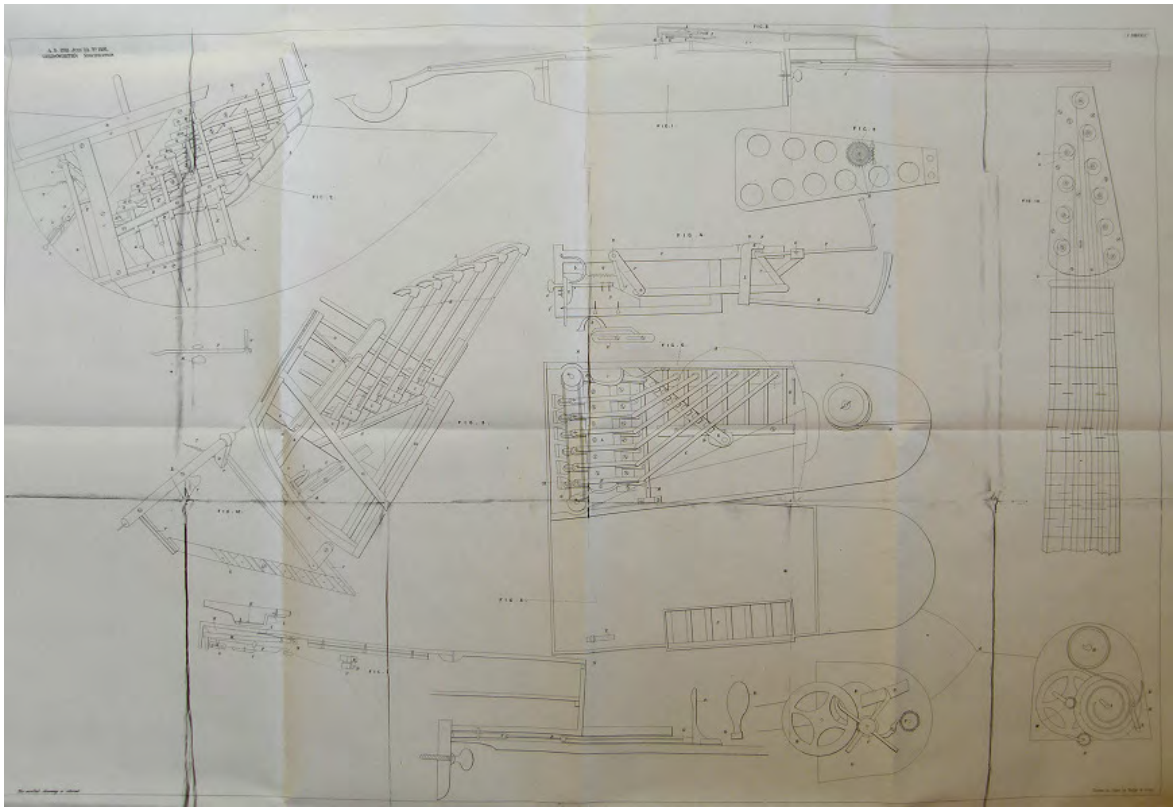

Figure 7.89: The drawings in Goldsworth's 1785 patent. The various parts of Goldsworth's inventions and improvements to the guittar are shown in twelve drawings (Figures 1 to 12).

[755] The content and form of the original text referring to each of the drawings in Jackson's patent has been slightly altered wherever it was considered necessary to simplify or clarify the description of the listed parts.

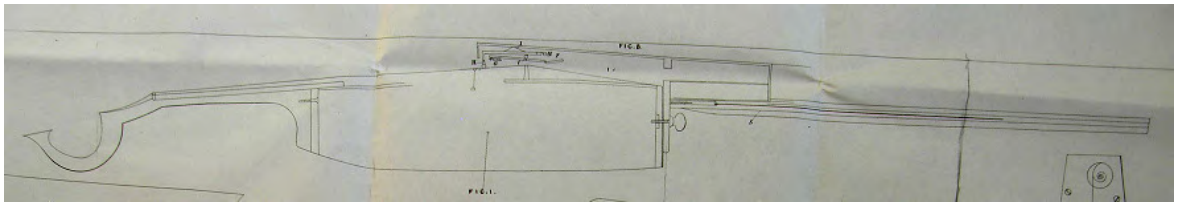

Figure 7.90: Side view of the guittar, corresponding to Figure 1 in Goldsworth's patent drawings, where it is shown at half-size scale.

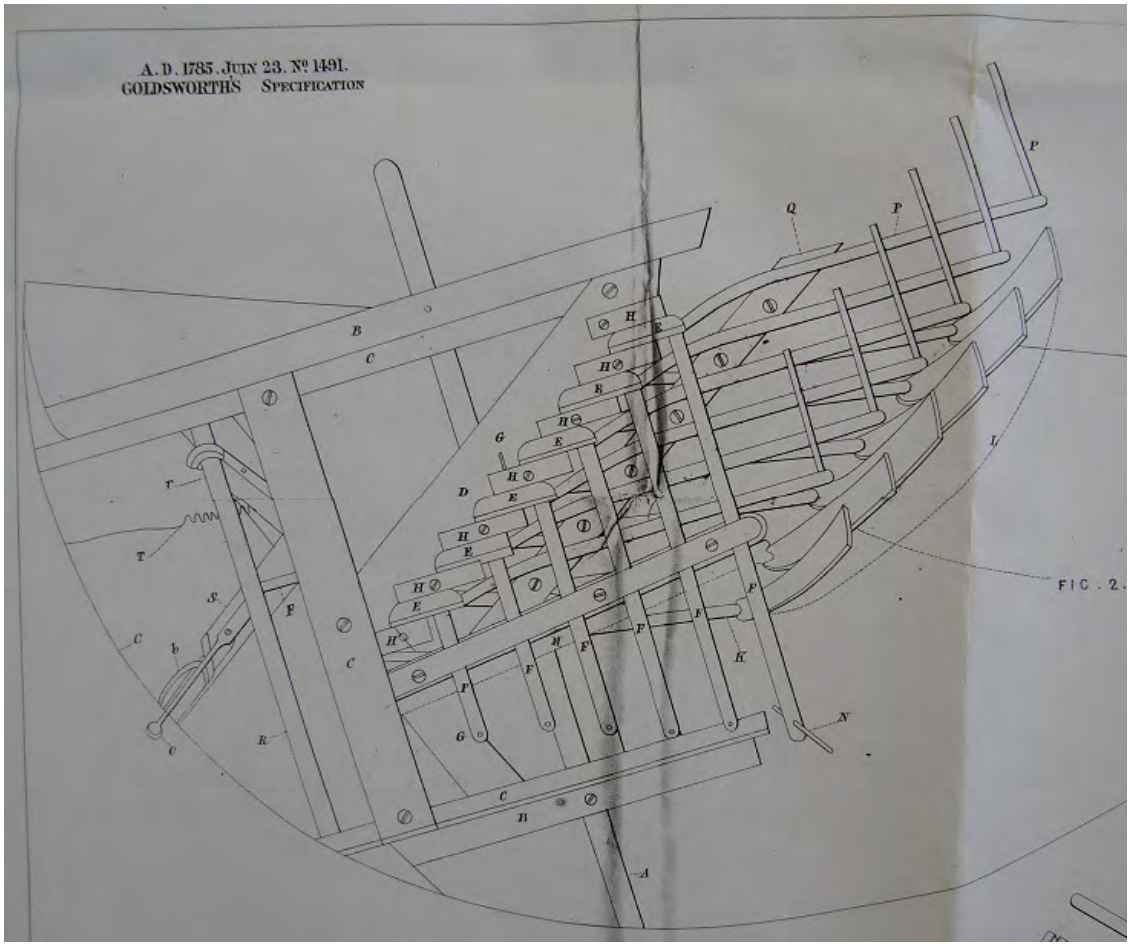

Figure 7.91: Top view of the patent mechanism, corresponding to Figure 2 in Goldsworth's patent drawings. A: A bar fixed across the guittar at a convenient distance from the soundboard, to support the carriage pieces. B: The carriage pieces, having a groove to receive the lower edge of the box or frame which contains the mechanism. C, C, C, C, C: the sliding

box or frame that contains the whole mechanism, which is drawn out of the side of the guittar near the tail pins for the purpose of fixing and easier repair. D: A rail, having grooves that receive the hammer tails. E, E, E, E ,E, E: The hammer tails, which are thrown up by the leavers F, F, F, F, F, F at one-twelfth part from the centre to the point. G: The pin drove through the hammer tail, on which it hangs, received by grooves in the rail D, which are lined with leather to prevent a rattling, which are covered by the pieces H, H, H, H, H, H, H, being lined with leather, and screwed on the rail D over the pin G to prevent their rising out of the grooves. I: The arm of the hammer, which is framed into the hammer tail E, and leads to the hammer shank. K: The hammer shank leading to the hammer head L. F, F, F, F, F, F: the leavers, having a pin drove through the middle, and being let into grooves in the carriage M. in the same manner as the hammer tails E, the ends being depressed by the stickers N, which lead through holes in the soundboard of the guittar to the keys on the upper side of the soundboard. N: The sticker, which is a wooden pin having a wire pin drove in one, and acts upon the end of the leaver through a hole, with a piece of cloth between, the other end of which goes in a hole bored on the under side of keys. O: The hautboy stop, which may be played or not, at pleasure, by moving a knob fixed on the front of the sliding box or frame C, C, C, C, C. P: A leaver, having a pin drove through the middle at one-third of its length from the leaver, that rises the hammer tail with a pin *p* in the other end, about one inch and a half long that continually stands up against the strings, being covered with buff leather or cloth to stop the vibration till the key is depressed by the finger, causes it to fall back, which suffers the string to vibrate, with a piece of buff leather between the ends of the two leavers, which fixes them together, which suffers them to act freely. Q: the carriage of the leavers P, in which carriage they act in the same manner as the leavers F. R: A roller, having two cranks and a tumbler fixed to it, which communicates to the carriage Q. S: A sliding wedge, having an iron slider with a knob fixed on it on the outside of the sliding box or frame C, C, C, C, C, which being moved in and out, communicates with the tumbler of the roller, and causes the pin *p* to move up and down, in order to take off or put on the hautboy stop at pleasure, and also, in order to take out, the action serves to draw the pins *p* down within the instrument. T: A spiral spring fixed to the crank, in order to bring back the action. V: A small bolt having a groove with two screws through it to slide on, and also a small spring serving to keep the stops on, which is effected by an iron stud in the side of the bolt V and over the iron slider.

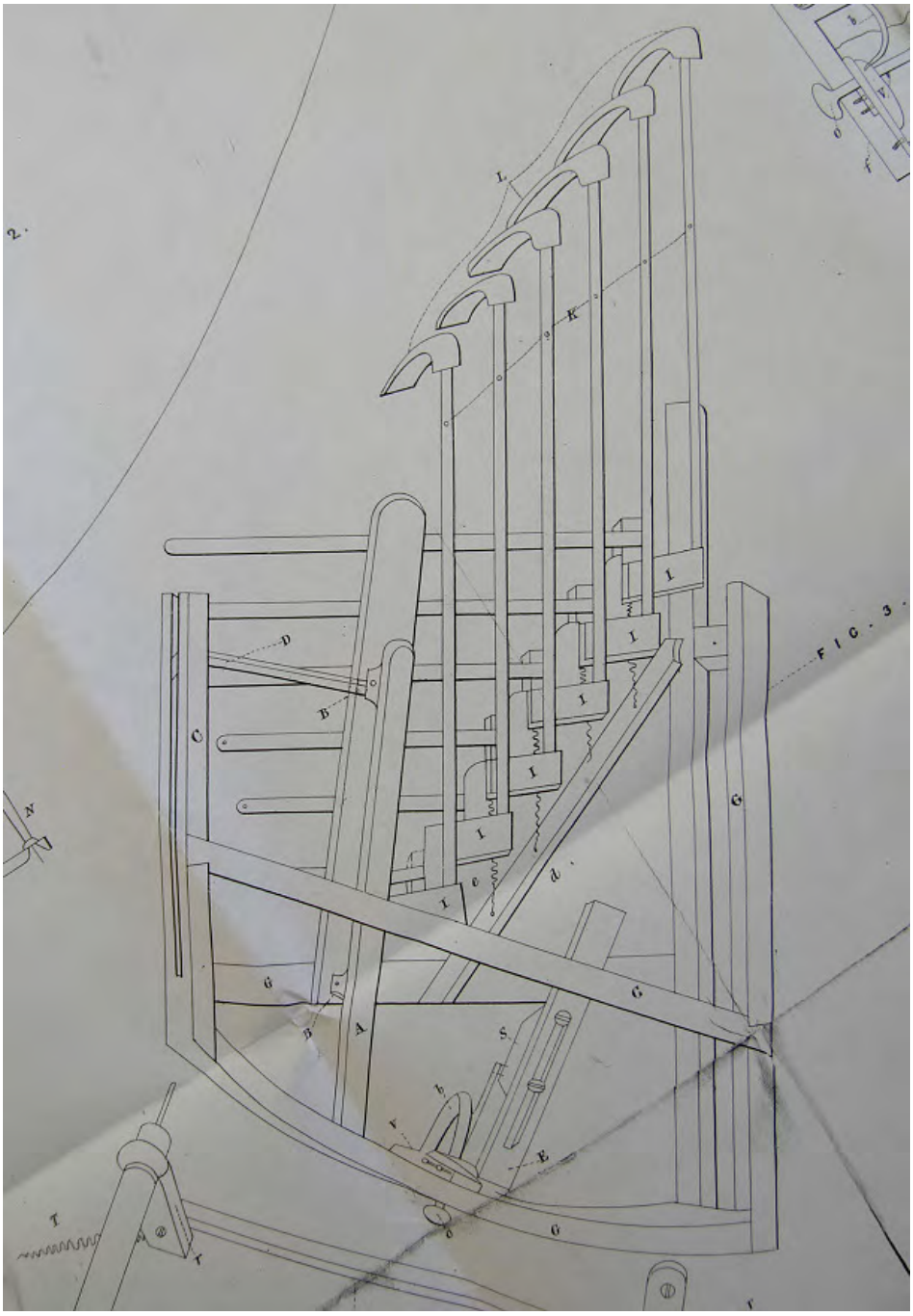

Figure 7.92: Bottom view of the patent mechanism, corresponding to Figure 3 in Goldsworth's patent drawings A: A rail frame into the front of the sliding box or frame C, C, C, C, C, with two small pillars B, B, that supports the carriage of the leavers F. C, C, C, C, C: The sliding box or frame. D: A small brace fixed to the side of the frame C, C, C, C, C, leading from the pillar

B in order to steady the carriage of the leavers F. e: a spiral spring made of No.4 steel wire, and being fixed to the arm of the hammers. I: The other end fixed into a block *d* glued on the backside of the rail D to return the hammers, so as to prevent a double blow. E: A small rail, fixed to the front of the sliding box or frame C, C, C, C, C, having a groove for two screws to slide in, that carries the sliding wedges S. E: A small brass plate fixed to the inside of the front of the sliding box or frame C, C, C, C, C, that receives the notches of the iron slider that is fixed to the upper side of the sliding wedge S.

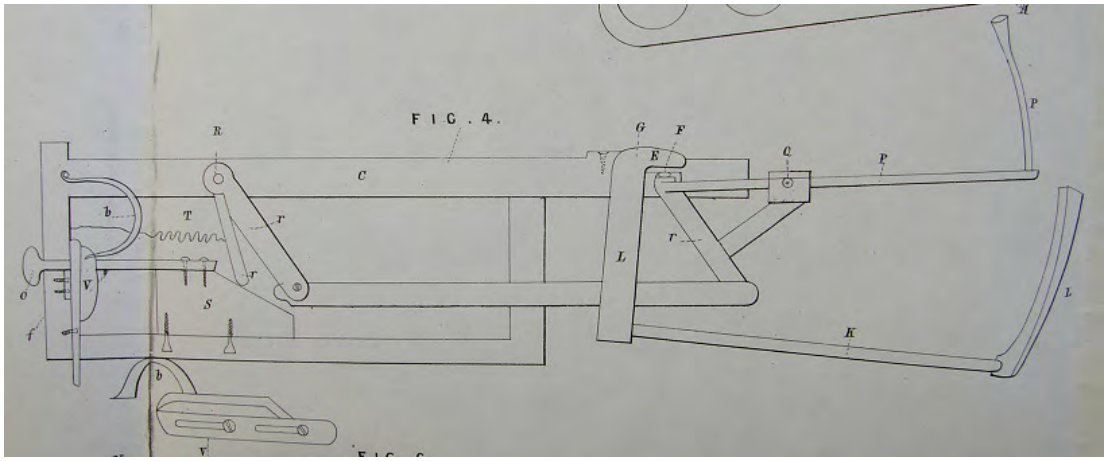

Figure 7.93: Side view of the machine, corresponding to Figure 4 in Goldsworth's patent drawings. C, C, C, C, C: The sliding box or frame. E: The hammer tail. F: The leaver of the hammers. G: The centre pin of the hammer tail. I: The arm of the hammer. K: The shank of the hammer. L: The head of the hammer. O: The hautboy stop. P: The leaver of the hautboy stop. *p*: The pin that is fixed to the leaver. Q: The carriage. R: The roller. *r, r, r*: The cranks and tumbler. S: The sliding wedge. T: A spiral spring. V: A bolt. *b*: A spring fixed to the bolt. *f*: A small brass plate fixed to the inside of the front.

Goldsworth's patent also includes the characteristic 'Cremona' stop, an external mechanism mounted on the bottom of the instrument which is regulated with a pedal depressed by the player's foot (**Figures 7.94-7.100**).

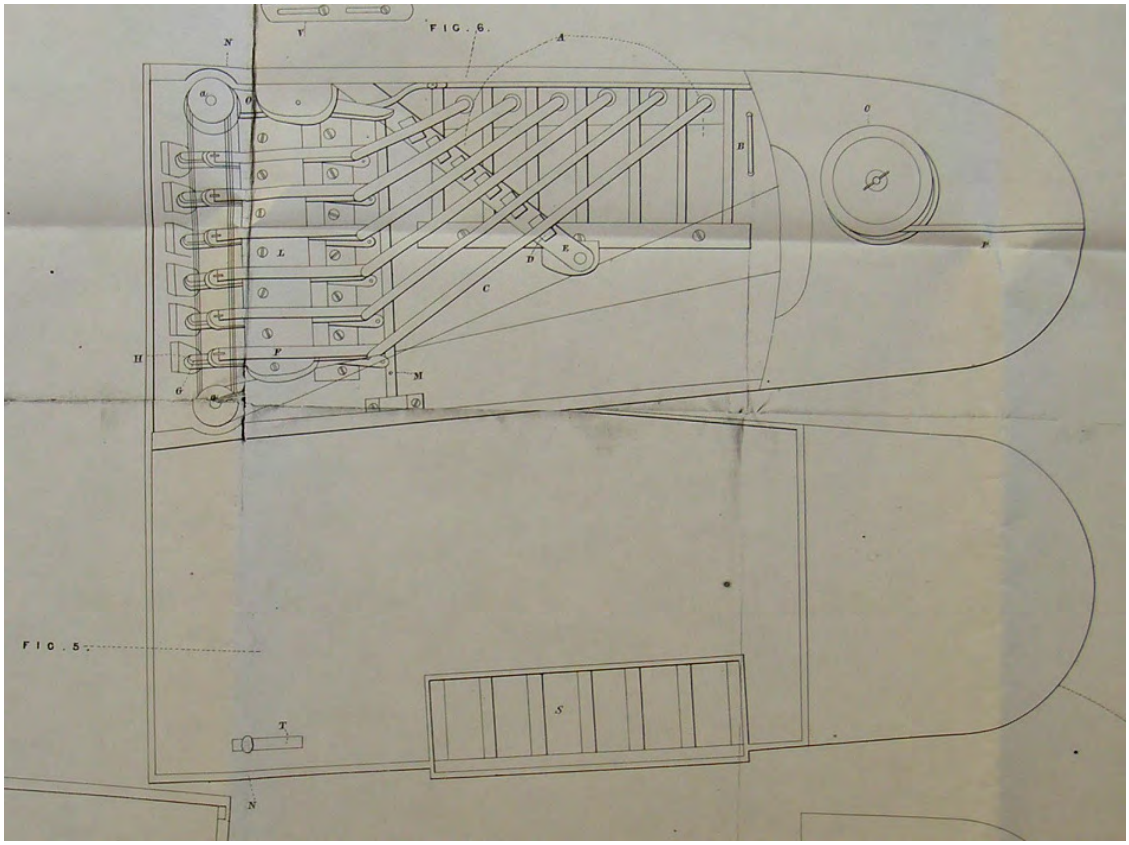

Figure 7.94: The top and bottom view of box that contains the mechanism of the Cremona stop corresponding to Figures 5 and 6 respectively in Goldsworth's patent drawings.

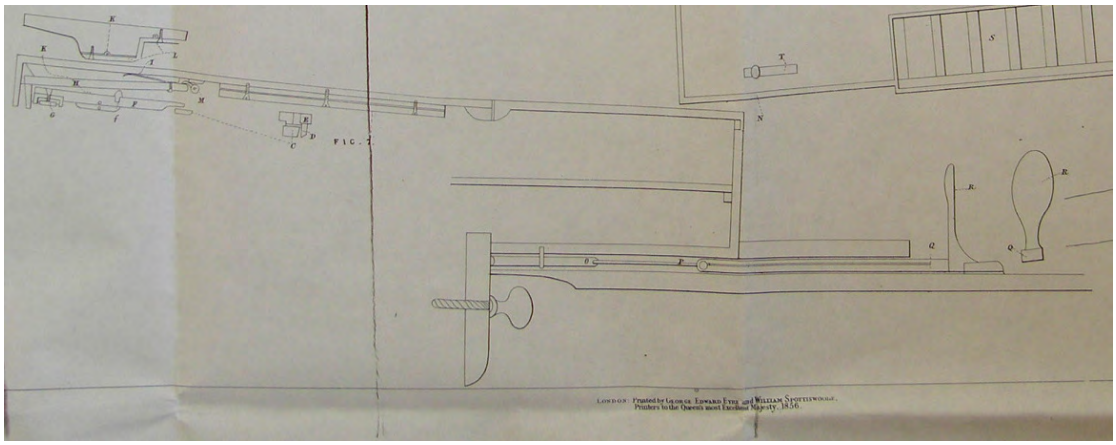

Figure 7.95: Cross section of the Cremona stop.

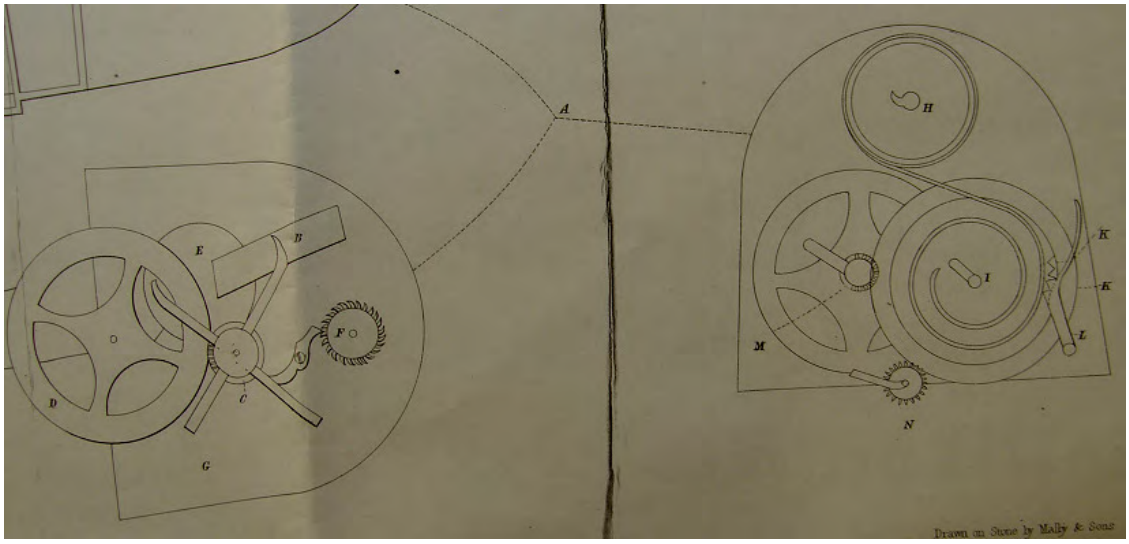

Figure 7.96: Detail of the Cremona stop. A: A movement for the purpose of drawing a silk line or hair over the strings. B: A fly to regulate the motion. C: A pinion fixed to the underside of the fly. D: A wheel which acts in the pinion C, fixed on the upper end of the pinion N above the frame plate G. E: A wooden pully that carries the catgut to the pully A in order to set it running, and it is fixed to the upper end of the pinion M above the frame plate G. F: A roached wheel and click, to set up the spring. G: The upper frame plate. H: A barrel and spring. I: A fuzee and wheel. K: A roached between the fuzee and wheel. L: A click that stops the roached wheel K whilst it is wound up. I: A spring fixed to the backside of the roached wheel K to press against one of the arms of the fuzee wheel to keep the movement in motion whilst it is winding up. M: A wheel and pinion. N: A pinion acting in the wheel M, and going through the frame G and carrying the wheel D. O: A pully on the underside of the box fixed on the fuzee arbour, and serves to wind up the movement. *p*: A piece of catgut to go over the pulley O and down a hollow pillar fixed to the bottom of the box to stand upon the ground, in which is a pedal that slides up and down the groove. Q: A piece of iron fitted in the groove and fastened to the catgut, in which is riveted the pedal. R: The pedal, which being depressed by the foot, winds up the movement A. S: the upper side of the keys. T: A slider that is fastened to the wedge N, in Figure 6, in order to move the roller M.

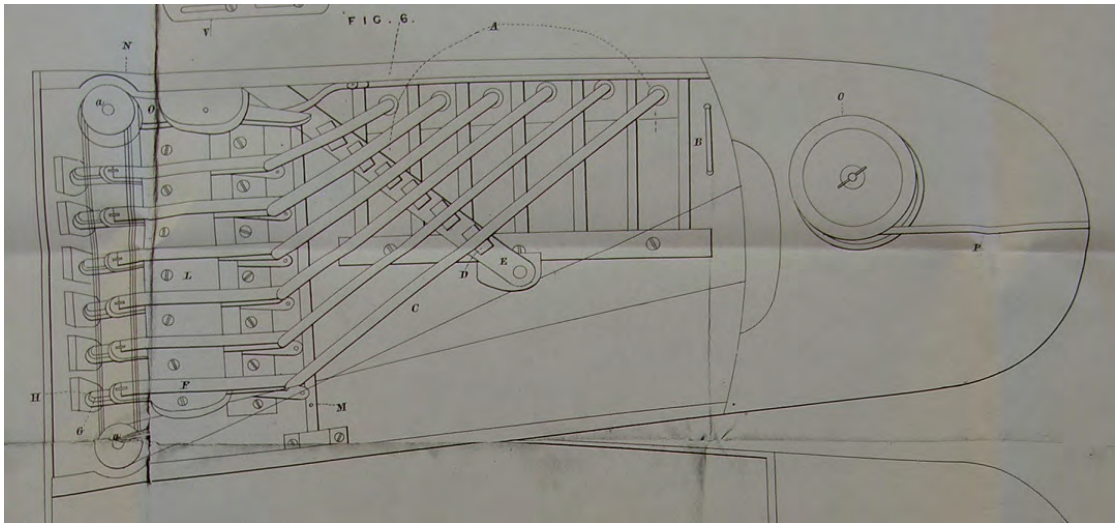

Figure 7.97: The bottom view of the box that contains the action of the Cremona stop, corresponding to Figure 6 in Goldsworth's patent drawings. A: The under side of the keys, having a round hole in the end for the insertion of a sticker. B: The sticker, being a small round pin fastened to the leaver C by means of a piece of buff leather between. C: The leaver, having a pin drove through the middle at half of its length for its centre, and being depressed by the keys A, raises the leaver F, till G, a roller, presses a silk or hair line H down upon the string that runs round the small pulleys A. D: Small studs fixed to the carriage of the leavers C to receive the centers. E: The carriage, supported by a small block on the under side of the upper part of the box. F: A leaver having a pin drove through the middle of its centre, having a tumbler *f* on its upper side, in order to raise the dampers from the strings. G: A small roller fixed in a frame in small pivets, and fastened to the under side of the leaver F. H: A damper, the head being covered with scarlet cloth or buff leather, being raised by the tumbler *f* , and suffers the string to vibrate, and having a spring I, that returns it on the strings to stop vibrations. I: The spring. K: A block that receives the centre of the leaver F, and also the centre of the damper H. L: A small piece screwed on the block K to keep down the centers of the leaver F and the damper H: M: An iron roller, with six fangs, that goes under the ends of the dampers H, and being bent square at one end admits of a wedge to slide under it to raise the dampers from the strings in order to play the other stops. N: The wedge that rises the iron

roller for lifting the dampers. O: A leaver that receives the pulley A with a spring acting on the other end in order to keep the silk or hair line tight.

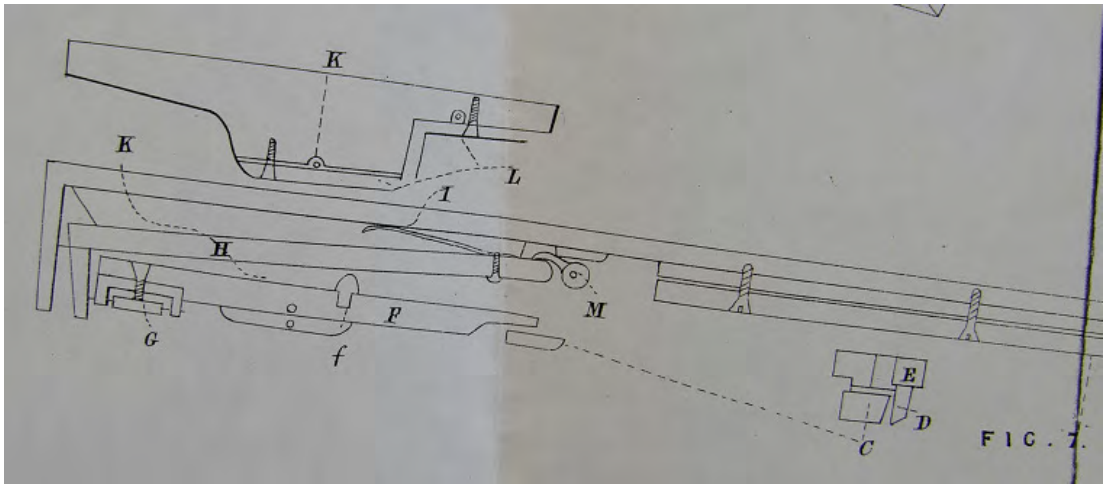

Figure 7.98: Cross section of the Cremona stop corresponding to Figure 7 in Goldsworth's patent drawings. D: Small studs fixed to the carriage of the leavers. E: The carriage. F: A leaver. *f*: The tumbler. G: The rollers. H: The damper. I: The spring. K: A block that receives the centres of the leavers F and the dampers H. L: Small pieces. M: An iron roller. N: The wedge that raises the rollers. O: The leaver that receives the pulley A.

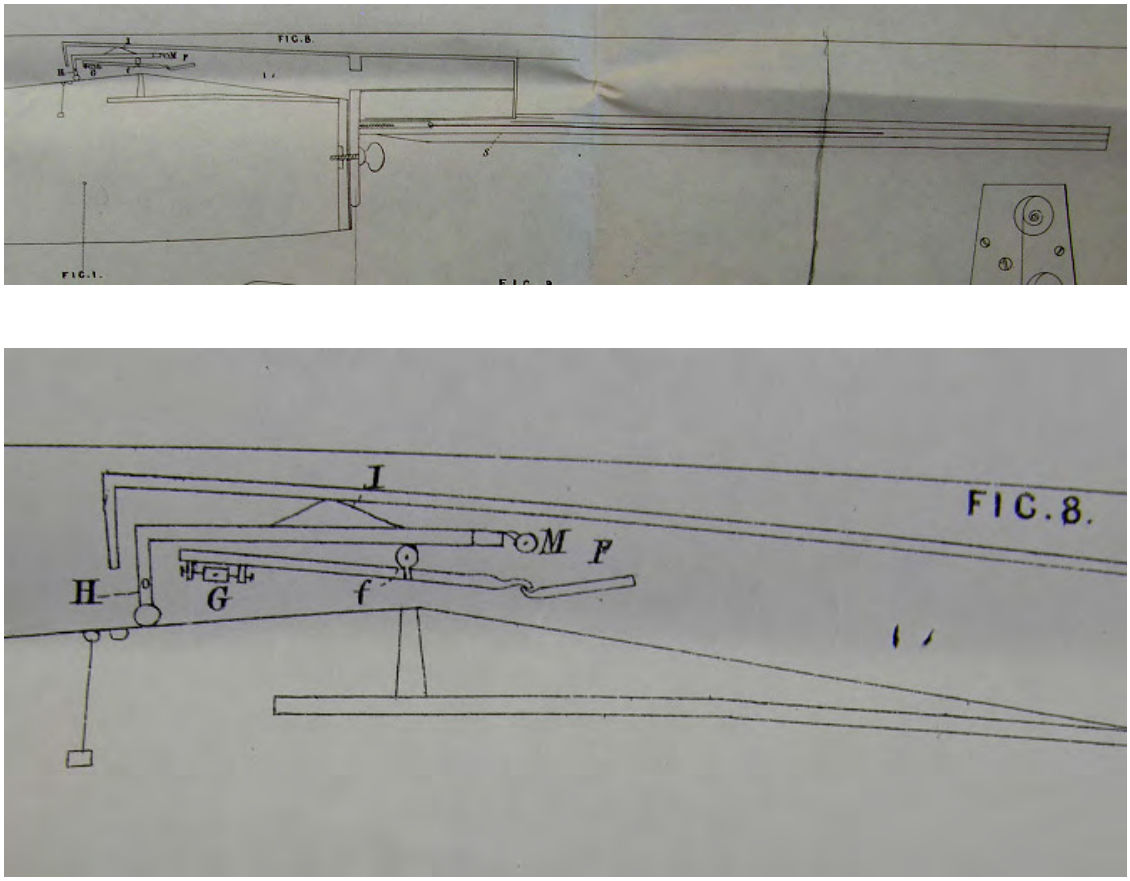

Figure 7.99: Cross section (*top*) and detail (*bottom*) of the Cremona stop, corresponding to Figure 8 in Goldsworth's patent drawings, in manner it should be placed on the guittar, as described in the patent. F: The leaver. *f*: The tumbler. G: The roller. H: The damper. I: The spring. M: An iron roller: S: A hollow pillar at the bottom of the guittar that receives the piece of iron (shown in the top drawing).

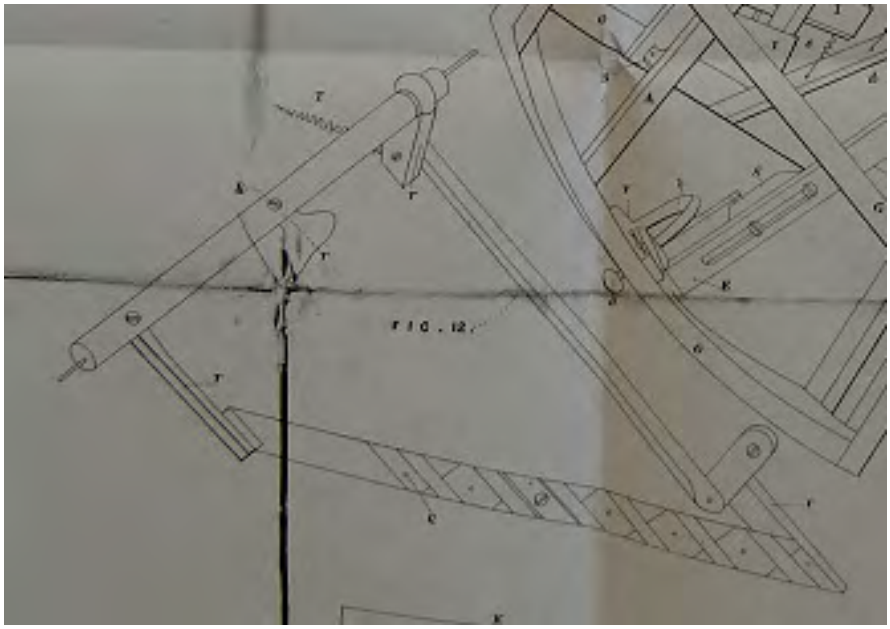

Figure 7.100: Detail of the carriage of the hautboy stop described above, corresponding to Figure 12 in Goldsworth's patent drawings.

As it is evident in the above drawings and descriptions, Goldsworth's inventions mainly aimed to improve the original internal mechanism patented earlier by Claus, using features from the external mechanism patented in 1784 by Jackson, as will be described later. It is actually noteworthy that the guittar shown in the patent drawing has an egg-shaped body similar to surviving guittars by Claus. Moreover, as in Jackson's external piano-key mechanism for the 'British Lyre', the major advantage of Goldsworth's patent is that the whole mechanism can be removed and repaired through a lid on the treble side near the bottom. Additionally, Goldsworth's mechanism employs a claw and cam hammer system with escapement to strike the strings, using dampers to eliminate the resulting string resonance[756], as well as an 'hautboy' stop, which can be activated by moving a knob fixed on the front of the sliding box. These features provide a further indication of Goldsworth's familiarity with and influence by Jackson's patent mechanism.

[756] The idea of using dampers on the guittar apparently originated in keyboard instrument manufacture, where the practice of adding dampers was widely used on several instruments.

However, no guittars by Goldsworth are presently known. Moreover, the 'Cremona' stop, as well as a new tuning machine and fingerboard described in Goldsworth's patent[757], have not been identified on any surviving instruments. Nevertheless, as it will be shown later, the main features of Goldsworth's improved internal piano-key mechanism were widely used on keyed guittars by Longman and Broderip.

7.4.3 THE 'PATENT PIANO FORTE GUITAR' BY LONGMAN & BRODERIP

Around the same time that Goldsworth received his patent, Longman & Broderip launched their 'Patent Piano Forte Guitar' as evidenced in the following two advertisements. The first advertisement from 1785 announces the sale of 'Piano Forte Guitars', without, however, mentioning a patent:

> To the CURIOUS in MUSICAL INSTRUMENTS. / LONGMAN and BRODERIP beg Leave / to acquaint the Nobility, Gentry, and Public in / general, that they have now for Sale, at their respective / Manufactories, No. 26 Cheapside, and No. 13, Haymarket, &c. an extensive Assortment of [then follows a list of various musical instruments] Guitars, Piano Forte Guitars […].[758]

On the other hand, the second advertisement from 1787 describes in detail the advantages of the 'Patent Piano Forte Guitars':

> MUSICAL INSTRUMENTS by the KING'S ROYAL LETTERS PATENT. / NOW ready for the inspection of the Nobi / lity, Gentry and Public in general at LONGMAN / and BRODERIP'S Magazine, No. 26 Cheapside, No. 13, / Haymarket, and their Manufactory in Tottenham Court / Road. / [then follows a description of musical instruments] /Patent Piano Forte Guitars, superior to any ever yet of- / fered to the Public, and greatly reduced in price, the ma- / chinery of which is not liable (like the generality) to be / out of order; it also renders the fingering pleasant, the / position of the hand graceful, and the tone

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[757] Goldsworth's patent also included a tuning machine with a spring barrel system and a fingerboard 'fretted agreeably to the diatonic scale'.

[758] *The Times*, 22 April 1785, 100, p. 1. I am grateful to J. Nex for bringing this and the following advertisement to my attention.

> infinitely ex- / ceeding anything ever heard. / Patent Tuning Machines, so peculiarly constructed, / that Ladies and Gentlemen may tune their own instru- / ments with the greatest ease. / […].[759]

A similar advertisement from 1787 announces:

> Patent Piano Forte Guitars
>
> Longman and Broderip, at their Grand Musical Magazines, No. 26, Cheapside, and No. 13, Haymarket, respectfully acquaint the Nobility, Gentry, and Publick in general, that they have obtained his Majesty's Royal Letters Patent for their great improvement of those instruments, being made to play with keys; an invention which gives them a decided superiority over every instrument of the kind, as it not only renders the fingering remarkably easy and graceful, but also adds a superior degree of brilliancy to the tone. They have also this singular advantage, that the machinery is so curiously contrived, that on the least accident happening to the movement, it can be drawn out with the greatest ease, and immediately rectified.[760]

According to the descriptions in the above advertisements the 'Patent Piano Forte Guitars' by Longman & Broderip were equipped with a removable internal piano-key mechanism similar to that patented by Goldsworth in 1785. It is known that in 1784 Goldsworth became a partner of Thomas Culliford, a keyboard instrument manufacturer in London, along William Rolfe and Thomas Bradford.[761] As Culliford's partner, Goldsworth must have been involved mainly in guittar-making when he developed his improved mechanism for which he received the 1785 patent. It is also known that in 1786 Culliford's company arranged an exclusive contract with the firm of Longman & Broderip, agreeing to provide them with £5000 worth of instruments per year.[762] Being a major and influential company in the musical instrument business in London, Longman & Broderip probably soon detected a potential market for the keyed guittar invented

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[759] *The Times*, 2 March 1787, 689, p. 1. The same advertisement appeared on 23 April 1787.
[760] *Morning Chronicle*, 5 March 1787 (as quoted in Girdham 1997: 98).
[761] See Nex (2004: 16).
[762] See Nex (2004: 17).

by Claus and spotted the need for a new mechanism that could be used on their guittars to compete with Claus's instruments.[763]

Since there are no surviving patent records for the 'Patent Piano Forte Guitar' of Longman & Broderip, it can be safely assumed that the above advertisements refer to the improved mechanism patented by Goldsworth, who, essentially being Longman & Broderip's sub-contractor in Culliford's firm, apparently sold or shared his patent rights with them and supplied them with the patent instruments.[764] Perhaps from his experience working with keyboard manufacturers and dealers, such as Culliford and Longman & Broderip, Goldsworth recognised that Claus's initial concept had working defects and undertook the task of developing an improved mechanism based on the earlier patents by Claus and Jackson.[765] The following description in a catalogue of Longman & Broderip from 1789 provides an interesting insight on this matter (**Figure 7.101**):

> PATENT PIANO FORTE GUITARS,-On an entire new Principle, different from any others, and divested of that aukward Appearance which the temporary Key-Box forms on the Belly of the Instrument: The Machinery is also so curiously contrived, that it acts with amazing Facility, and produces a Tone far beyond Conception, and nearly equal to that of a Piano Forte. The Machinery may be drawn out with Ease, to rectify any Impediment in the Movement. The great Demand for them, in preference to other, plainly evinces their superlative Degree of Merit.[766]

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[763] Phrases such as 'it also renders the fingering pleasant, the position of the hand graceful' or 'renders the fingering remarkably easy and graceful' in the two advertisements from 1787 indicate that the 'Patent Piano Forte Guitars' were principally addressed to female customers, who at that time were becoming a strong consuming force.

[764] According to MacLeod (1988: 89-90) patents were frequently 'bought, sold, bequeathed and divided into shares'. Therefore, in many cases it was common for a patentee to 'transfer the risks of manufacturing by selling the patent for a lump sum or by licensing a number of manufacturers to use the invention', adding that 'The scale of licences was an avenue open to inventors who lacked the will or the financial resources necessary to set up a full-scale commercial enterprise'.

[765] As MacLeod (1988: 87) has noted in late 18th-century Britain apart from original inventions patents were also frequently granted for improvements or variations of already patented designs. According to Cole (1998: 60) Zumpe is another inventor who combined various earlier design concepts with some of his own ideas to create his highly popular square piano.

[766] I am grateful to A. Rice for providing me with a copy of this document.

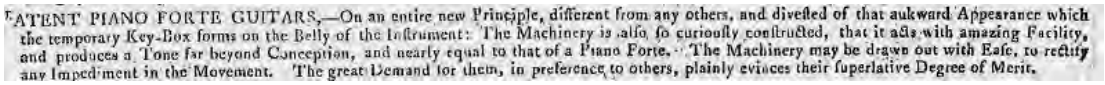

PATENT PIANO FORTE GUITARS,—On an entire new Principle, different from any others, and divested of that aukward Appearance which the temporary Key-Box forms on the Belly of the Instrument: The Machinery is also so curiously constructed, that it acts with amazing Facility, and produces a Tone far beyond Conception, and nearly equal to that of a Piano Forte. The Machinery may be drawn out with Ease, to rectify any Impediment in the Movement. The great Demand for them, in preference to others, plainly evinces their superlative Degree of Merit.

Figure 7.101: Detail from the catalogue of Longman & Broderip from 1789 (courtesy of A. Rice).

It is noteworthy that the catalogue description refers to an external mechanism, noting 'that aukward Appearance which the temporary Key-Box forms on the Belly of the Instrument'.[767] Moreover, as in the earlier advertisements, emphasis is given on the produced tone, which is 'far beyond Conception' and again compared to that of the pianoforte: 'nearly equal of Piano Forte'. The mechanism's facility for easy removal and repair is also pointed out: 'The Machinery may be drawn out with Ease, to rectify any Impediment in the Movement'. Moreover, the final sentence about the 'great Demand for them, in preference to others' may reflect the increasing popularity of keyed guittars over common guittars at that time.

A typical keyed guittar by Longman & Broderip, in the Germanisches Nationalmuseum, Nuremberg, [MIR 857] (**Figure 7.102**), has many features that correspond with the descriptions in the above advertisements as well as with the specifications presented in Goldsworth's patent.

[767] As it will be shown later this description most likely refers to the device known as 'Smith's Patent Box', based on Jackson's 1784 patent and used on numerous guittars.

Figure 7.102: Front, side, and back views of a keyed guittar by Longman & Broderip. Germanisches Nationalmuseum, Nuremberg, [MIR 857].

Like many other extant guittars by Longman & Broderip, this instrument is stamped on the back of the neck with the names and address of Longman & Broderip: 'LONGMAN & BRODERIP / No. 26 CHEAPSIDE & / No. 13 HAY-MARKET / LONDON'. Moreover, this instrument has the typical stringing of keyed guittars by Longman & Broderip, comprising two single strings for the bass, two double strings for the middle, and two triple strings for the treble courses.[768] A rectangular opening of about 125 mm x 48 mm on the treble side close to the bottom allows the removal of the mechanism and the adjustment of the hammers. A similar rectangular opening,

[768] As in the case of Claus's keyed guittars, the two triple-strung treble courses apparently aimed to produce a fuller sound.

simulated on the bass side, has a rather decorative role, creating a symmetrical pattern on the bottom of the body (**Figure 7.103**).

Figure 7.103: Detail of the bottom of GNN [MIR 857] showing the stringing arrangement and the removed piano-key mechanism through the opening on the treble side. The simulated opening on the bass side has a decorative role.

The mechanism, which is built on a trapezoid-shaped frame[769], consists of a complex design with escapement action using a claw and cam system to activate the six hammers, and wire springs for returning the hammers back to their original position (**Figure 7.104**).

[769] As already pointed out, keyed guittars with internal mechanisms have a distinctive system of interior bracing on the back, consisting of long diagonal bars which form a frame that supports the piano-key mechanism. In general the extra weight of the mechanism makes these guittars quite heavy, a fact easily noticed when handling during examination. In order to reduce the overall weight the wooden parts of the mechanism are often made of pine or similar softwood.

Figure 7.104: *Top*: **The removable internal piano-key mechanism of GNN [MIR 857].** *Bottom*: **Detail showing the escapement action using a claw and cam system on the piano-key mechanism of GNN [MIR 857]. When the piano key (in this case simulated with a wooden stick) is depressed, the hammer is forced to strike the string and immediately returns back to its original position by means of a wire spring.**

Although the mechanism of GNN [MIR 857] does not have dampers, as described in Goldsworth's patent, it includes the distinctive 'hautboy' stop, activated by a brass knob, placed on the mechanism's front cover, which can be pushed in or pulled out, thus producing the 'forte' or 'piano' effect (**Figure 7.105**).

Figure 7.105: The 'hautboy' stop on GNN [MIR 857]. When the brass knob is pushed in the hammers are on their highest position, producing the 'forte' effect; when the knob is pulled out the hammers are lowered, reducing the level of the hammer attack, producing the 'piano' effect.

The six piano keys, made of wood, are enclosed on a brass frame, which is fixed on the soundboard with two metal screws (**Figure 7.106**).

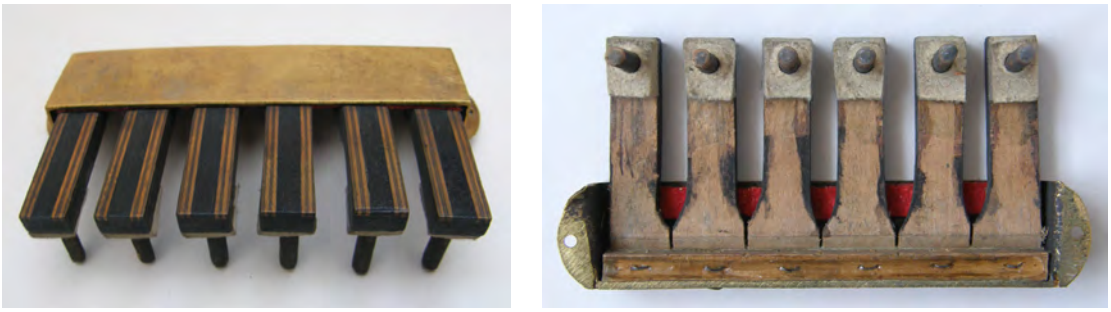


Figure 7.106: Top (*left*) and bottom (*right*) views of the six piano keys enclosed in a brass frame on GNN [MIR 857].

It is important to note that the hammer levers bear the numbers 1 to 6 written in pencil, while the inscription 'B14' is written in ink on the bottom of the mechanism (**Figure 7.107**).

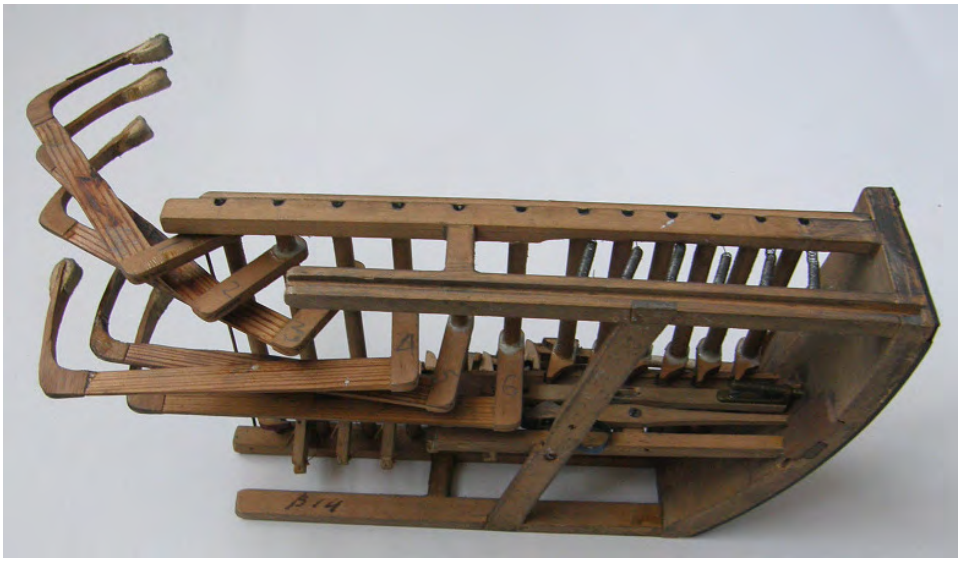


Figure 7.107: The underside of the piano-key mechanism on GNN [MIR 857]. Note the numbers 1 to 6 written in pencil on the hammer levers and the inscription'B14' written in ink on the bottom of the supporting frame.

Interestingly, the same inscription 'B14' is written in ink on a small paper label pasted on the inside of GNN [MIR 857] on the bass side near the endpins (**Figure 7.108**).

Figure 7.108: Detail of the inscription 'B14' written in ink on a paper label pasted on the inside of GNN [MIR 857] on the bass side near the endpins.

These inscriptions indicate an organised system of production with numbered parts to facilitate the easier assembly of the instruments. Moreover, this instrument is stamped with the number '178' on the back of the head (**Figure 7.109**).

Figure 7.109: Detail of the number '178' stamped on the back of the head of GNN [MIR 857].

Two similar keyed guittars by Longman & Broderip have survived, the first in the Hamamatsu Museum of Musical Instruments, Sizuoka, [C-0044R][770], the second, dated 1798, in the Museum of Fine Arts, Boston, [1999.1] (**Figure 7.110**).

[770] I am thankful to H. Sugimoto for this information; this guittar was formerly in the Collection of Musical Instruments of Dorothy and Robert Rosenbaum, Scarsdale, [251], and has been presented in Young (1980: 167, plate 205).

Figure 7.110: Front views of two keyed guittar by Longman & Broderip. *Left*: Hamamatsu Museum of Musical Instruments, Sizuoka, [C-0044R] (formerly in the Collection of Musical Instruments of Dorothy and Robert Rosenbaum, Scarsdale) (Young 1980: 167, plate 205). *Right*: Museum of Fine Arts, Boston, [1999.1] (Kuronen 2004: 124).

As it can be noticed the MFA [1999.1] is elaborately decorated with ivory parts on the fingerboard, rose, nut, bridge, and capotasto. The keys are veneered with mother-of-pearl and are enclosed in a silver frame, while the purfling has a green leaf pattern. These features suggest that it was custom-made for a well-off client. According to the catalogue description[771] this instrument bears the typical stamp 'LONGMAN & BRODERIP / No. 26 CHEAPSIDE & / No. 13

[771] See <http://www.mfa.org/collections/object/keyed-cittern-english-guitar--113025> (accessed 17/1/ 2010).

HAY-MARKET / LONDON' on the back of the neck.[772] In addition, the rose has the monogram 'A R L.', while the inscription 'T. B / July / 1798 [and] D. P. x' is handwritten in ink on the hammer mechanism.

Two other keyed guittars by Longman & Broderip have survived, one in private ownership, the other in the Royal Northern College of Music, Manchester, [S 13] (**Figure 7.111**). The interesting feature of these two instruments is that they both have the names and address of Longman & Broderip engraved on the brass key cover, and in the case of the second instrument, also on the brass rose.[773]

[772] It was a common practice for Longman & Broderip to stamp both their 'common' and keyed guittars on the back of the neck. For example, a keyed guittars by Longman & Broderip stamped 'LONGMAN & BRODERIP / NO. 26 CHEAPSIDE & / NO. 13 HAYMARKET / LONDON' belongs to the Smithsonian Institution, Washington DC, [324845]. However, a keyed guittar by the same manufacturers, in the Gemeentemuseum, Hague, bears the inscription 'Sold by Longman and Broderip'.

[773] This feature has been presented in 'MAKERS' IDENTIFICATION FEATURES', Chapter 6.

Figure 7.111: Two keyed guittars by Longman & Broderip. ***Left and middle*****: In private ownership (photo courtesy of T. Bingham).** ***Right*****: Royal Northern College of Music, Manchester, [S 13] (Wright 2010: 203).**

Interestingly, an unsigned keyed guittar in EUCHMI, Edinburgh, [308], shows that, apart from Claus and Longman & Broderip, other manufacturers were also constructing keyed guittars with internal mechanisms. The decoration and most external construction features of this guittar are similar to those of guittars by Longman & Broderip. For example, the guittar has a simulated lid and a knob on the treble side near the bottom, making the guittar look at first sight as if equipped with Goldsworth's patent removable mechanism (**Figure 7.112**).

Figure 7.112: Front view of EUC [308] (*left*) and detail of the 'simulated' lid and the knob on the treble side (*right*).

However, a more thorough examination has proved that the knob does not activate an 'hautboy' stop, whereas the mechanism is fixed permanently inside the body and cannot be removed as in Goldsworth's patent. This feature, possibly a later addition, has a rather decorative, if not deceiving, role. In addition, a close inspection of the body interior through the rose holes has revealed a piano-key mechanism similar to Claus's patent mechanism. For instance, the hammers are activated with a pin and roller system, instead of a claw and cam, having no escapement system, while an elastic layer of cotton or parchment for the hammers to rest on is attached on two supportive bars on the back of the guittar, as described in Claus's patent and observed on some of his surviving instruments. These features suggest that this instrument may have been an example of the 'spurious and wretched Imitation' that Claus pointed out in his 1785 advertisement, presented earlier.

As already mentioned briefly, one of the main characteristics of the keyed guittars presented above is the lack of dampers on the piano-key mechanism. However, a number of extant keyed guittars are equipped with this individual feature as described in Goldsworth's patent specifications, suggesting that dampers were used rather optionally. For example, an unsigned keyed guittar equipped with a piano-key mechanism with dampers belongs to the Czech Museum of Music, Prague, [M I/90] (**Figure 7.113**). This instrument has the number '34' stamped on the back of the head.[774]

Figure 7.113: Front view of an unsigned keyed guittar equipped with an internal piano-key mechanism with dampers. Czech Museum of Music, Prague, [M I/90] (Čížek, 2002: 38).

A similar unsigned keyed guittar in the Musée des Instruments de Musique, Brussels, [1552], is stamped with the number '130' on the back of the head (**Figure 7.114**).[775]

[774] I am grateful to P. Balog at the CMP for providing me with details of this instrument. The instrument is also mentioned briefly in Čížek (2002: 38).
[775] I am thankful to A. Ceulemans at MBR for providing me with details and photos of this instrument.

Figure 7.114: Front view of an unsigned keyed guittar equipped with an internal piano-key mechanism with dampers. Musée des Instruments de Musique, Brussels, [2916] (Paganelli 1970: 107, plate 47).

Another similar, although more decorated, keyed guittar survives in the Norsk Folkemuseum, Oslo, [NF.1900-0215] (**Figure 7.115**).

Figure 7.115: Front view of an unsigned keyed guittar equipped with an internal piano-key mechanism with dampers, with painted floral decoration on the front and sides. Norsk Folke museum, Oslo, [NF.1900-0215] (<http://cittern.ning.com/photo/nf19000215-1?context=user>).

As can be noticed in the above photos, the three keyed guittars with dampers have distinctive roses with twelve holes arranged in two rows, with six holes for the hammers, placed towards the neck, and six for the dampers, placed towards the bridge. Moreover, all three guittars are stamped with the coat of arms on the soundboard just below the fingerboard, suggesting that they were made according to patent specifications described in Goldsworth's patent.

Another feature of keyed guittars worth mentioning is the damper activation system. As described earlier, the dampers on piano-key mechanisms aimed to stop the unwanted resonance of the hammered strings of the guittar. However, probably for musical purposes that required either the longer sustain of strings or the use of fingernails to pluck the strings, at some point a system for the activation and release of the dampers was introduced on keyed guittars, an idea which most likely derived from similar devices widely used on various keyboard instruments.

This system, which is evident on several extant keyed guittars by Longman & Broderip, essentially consists of a long metal rod, running inside the neck from the first frets to the end of the fingerboard, which can be adjusted by two brass levers placed on the bass side of the neck. Two keyed guittars by Longman & Broderip equipped with a damper activation system survive in the Musikmuseet, Stockholm. The first guittar, MMS [F439], is stamped with the number '188' on the back of the head (**Figures 7.116-7.118**).

Figure 7.116: Front view of a keyed guittar by Longman & Broderip equipped with a damper activation system. Musikmuseet, Stockholm, [F439]. The original piano keys are now missing. (<http://www.musikmuseet.se/samlingar/detalj.php?l=en&iid=1915&v=2009-02-02%2014:18:30&str=>, accessed 19/1/2011).

Figure 7.117: Detail of the two brass levers for the activation of the dampers on the bass side of the neck of MMS [F439] (*left*), and detail showing the brass levers and the typical stamp by Longman & Broderip on the back of the neck (*right*) (photo by D. Johansson, by kind permission of MMS).

Figure 7.118: Detail of the number '188' stamped on the back of the head of MMS [F439] (photo by D. Johansson, by kind permission of MMS).

The second guittar, MMS [N36483], has identical features with MMS [F439] and is similarly stamped with the number '257' on the back of the head (**Figures 7.119, 7.120**).

Figure 7.119: Front view of a keyed guittar by Longman & Broderip equipped with a damper activation system. Musikmuseet, Stockholm, [N36483].(<http://www.musikmuseet.se/samlingar/detalj.php?l=en&iid=2003&v=2009-02-02%2014:01:25&str=>, accessed 18/1/2011).

Figure 7.120: Detail of the number '257' stamped on the back of the head of MMS [N36483] (*left*) and detail showing the brass lever for the activation of the dampers (the other is missing) and the typical stamp by Longman & Broderip on the back of the neck (*right*) (photos by D. Johansson, by kind permission of MMS).

Two guittars equipped with similar devices survive in the Museum für Musikinstrumente der Universität Leipzig, Leipzig. The first instrument, MUL [627], is a keyed guittar by Longman & Broderip; unfortunately, the piano keys and the internal hammer mechanism of this instrument are missing (**Figure 7.121**).

Figure 7.121: Front, side, and back views of a keyed guittar by Longman & Broderip quipped with a damper activation system. Museum für Musikinstrumente der Universität Leipzig, Leipzig, [627]. The piano keys and the internal hammer mechanism are missing.

Like the two guittars presented above, MUL [627] has a damper activation system with two brass levers on the bass side of the neck which can be pulled in and out. It is noteworthy that this instrument has an unusually long neck compared to other keyed guittars, while the fingerboard has been re-fretted, with thin strips of ebony fitted on the original fret positions. In addition, this guittar is stamped with the number '113' on the back of the head (**Figure 7.122**).

Figure 7.122: Detail of the number '113' stamped on the back of the head of MUL [627] (*left*) and detail showing the brass lever for the activation of the dampers on the first and second frets (*right*).

Moreover, the inscription 'B66' is written in ink on the bottom of the mechanism's supporting frame inside the body (**Figure 7.123**).

Figure 7.123: Detail of the inscription 'B66' written in ink on the bottom of the mechanism's supporting frame inside the body.

The second instrument, MUL [628], is an unsigned keyed guittar similar to MMS [F439] and MMS [N36483] presented earlier (**Figure 7.124**).

Figure 7.124: Front, side, and back views of an unsigned keyed guittar. Museum für Musikinstrumente der Universität Leipzig, Leipzig [628].

The most notable feature of MUL [628] is that it has six large oval holes on the rose, instead of the two rows of six holes which are typical on such guittars, as shown earlier. The close examination of this instrument has revealed that the original holes on the rose have been cut possibly because the original rose design with the two rows of holes obstructed the hammers and dampers from functioning properly. In addition the damper activation system has been modified, having a thick brass lever protruding from a rectangular opening on the bass side of the neck, instead of the two smaller ones presented earlier. The lever is attached with a screw on a long metal rod, placed inside the neck between the second and third fret and running along a

slot, which can be moved by the lever to release or engage the dampers (**Figure 7.125**). These alterations point out that these keyed guittars may have had working problems.[776]

Figure 7.125: Detail of the altered rose (*left*) and the brass lever for the activation of the dampers (*right*) on MUL [628].

The mechanism can be removed through a rectangular opening of about 130 mm x 58 mm on the treble side (**Figure 7.126**).

[776] Andreas Michel (PC, 30/3/2008), who has examined these two instruments in Leipzig for the publication of the museum catalogue in 1999, also claims that the alteration of the original rose was due to the inefficient function of the mechanism.

Figure 7.126: Detail of the rectangular opening on the treble side for the removal of the piano-key mechanism on MUL [628].

The removable internal piano-key mechanism of MUL [628] is presented below (**Figure 7.127**).

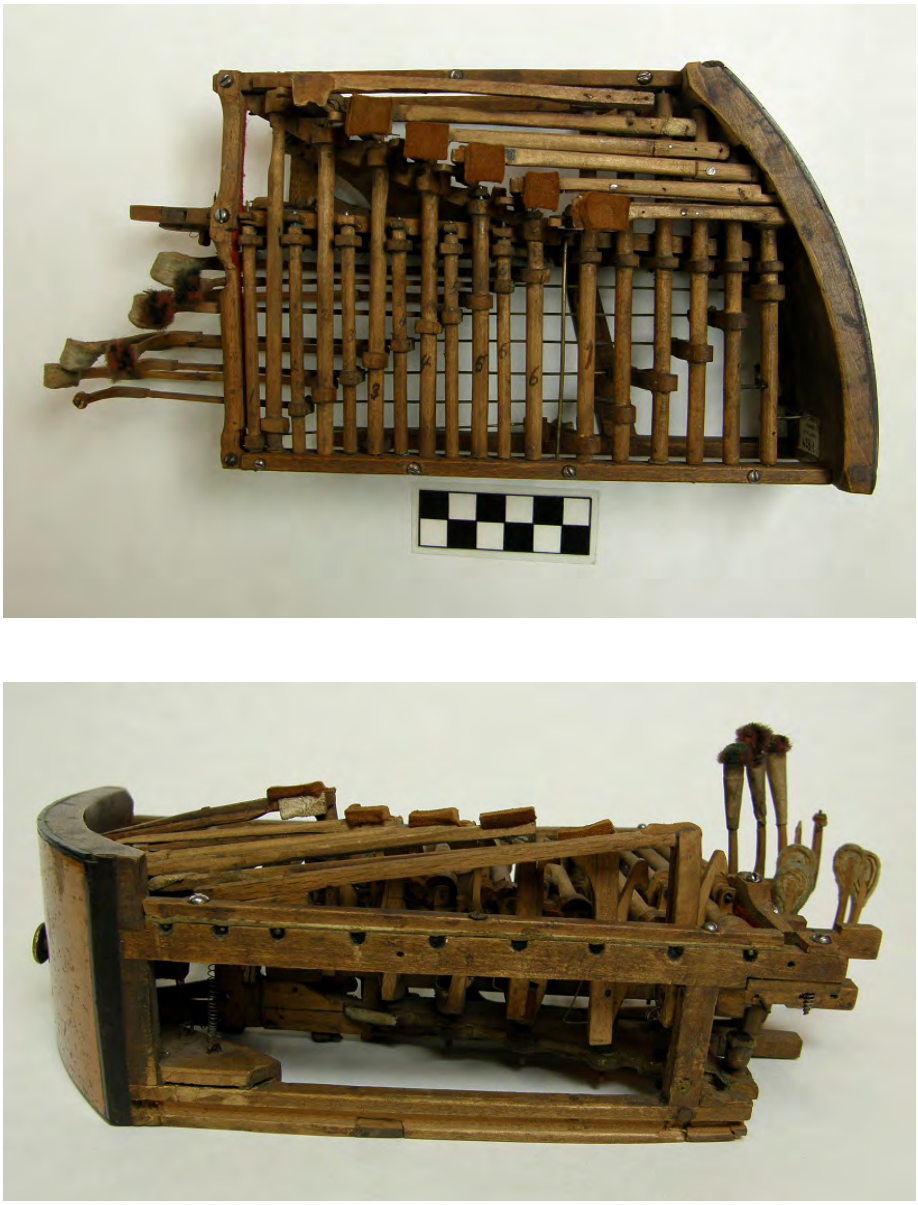


Figure 7.127: Top (*top*) and side (*bottom*) views of the piano-key mechanism of MUL [628].

The parts of the piano-key mechanism of MUL [628] are presented below (**Figure 7.128** and **Table 7.1**).

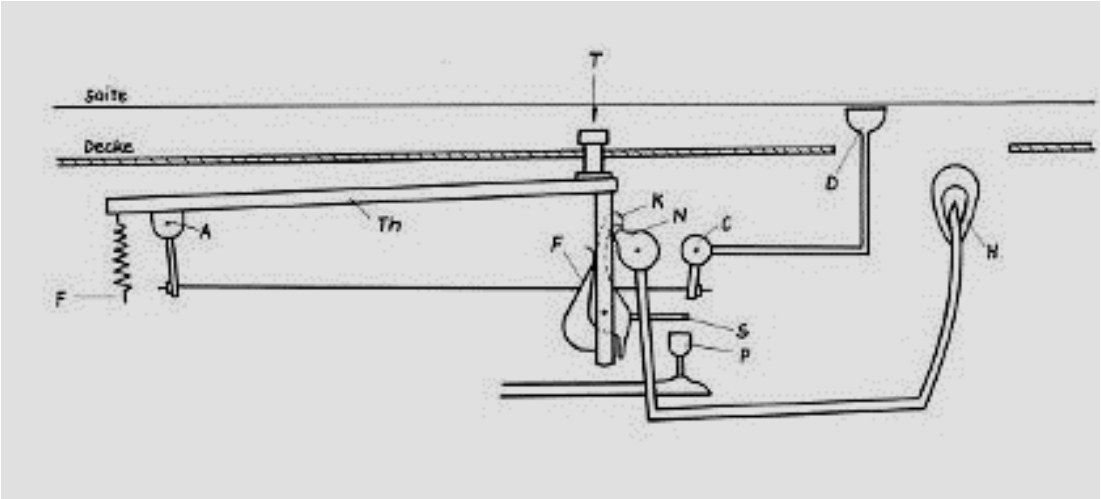


Figure 7.128: Technical drawing showing the hammer action of the piano-key mechanism of MUL [628] (Michel 1999: 70).

Parts	**A, C**	**D**	**F**	**H**	**K**	**N**	**P**	**S**	**T**	**Th**
Description	Axle	Damper	Wire spring	Hammer head	Claw	Cam	Trigger	Stop bar	Key	Key lever

Table 7.1 : The parts of the piano-key mechanism of MUL [628].

As can be noticed, the mechanism consists of a complex design with escapement action using a claw (K) and cam (N) to activate the six hammers, and a 'trigger' (P) for returning the hammers back to their original position. There are also six dampers (D). The mechanism also includes the distinctive 'hautboy' stop mentioned in Goldsworth patent (**Figure 7.129**).

Figure 7.129: Detail of the 'hautboy' stop on the piano-key mechanism of MUL [628]. Note also the numbers 1 to 6 written in ink on the hammer levers.

In addition a small paper label, bearing the inscription 'B101' written in ink is pasted on the inside of MUL [628] on the bottom near the endpins, as observed on GNN [MIR 857]. Moreover, like the keyed guittars shown above, MUL [628] is stamped with the number '146' on the back of the head (**Figure 7.130**). It is also notable that both MUL [627] and MUL [628] are stamped with the coat of arms on the soundboard just below the fingerboard.

Figure 7.130: left: Detail of the inscription 'B14' written in ink on a paper label pasted on the inside of MUL [628] on the bottom near the endpins. *Right*: Detail of the number '146' stamped on the back of the head of MUL [628].

The systematic examination of a number of keyed guittars by Longman & Broderip as well as unsigned keyed guittars has brought to light new details concerning the manufacture of these instruments and has pointed out certain production and marketing methods. From the facts presented above, it can be assumed that the egg-shaped body was mass-produced in a more or less uniform design with an opening on the treble side to receive for the piano-key mechanism. Then, depending on the customer's demand, a mechanism with or without the dampers, and the damper activation system, could be added to the instrument in combination with the appropriate rose. Therefore, by simply changing the piano-key mechanism and the rose, the other parts of the instrument being the same, a guittar manufacturer could produce different versions of keyed guittars which could be sold at different prices.[777]

Additionally, as has been shown earlier, it is important to note that apart from keyed guittars by Longman & Broderip, the serial numbers stamped on the back of the head have been observed on several unsigned keyed guittars with almost identical construction features, while two examined keyed guittars bear small paper labels with numbers written in ink pasted inside the body and the numbers one to six written in ink on the hammer levers. These details indicate that both the unsigned instruments and those stamped by Longman & Broderip were provided by the same manufacturer, most likely Goldsworth, who used a kind of serial numbering for keyed guittars to facilitate an easier and faster construction.[778] It is noteworthy that no extant common guittars by Longman & Broderip have similar numbers, suggesting that this system was used only on keyed guittars.

However, the examination of the serial numbers has shown that there is no correlation between the numbering system and the design of the mechanism (if it could be assumed that guittars with higher serial numbers would have mechanisms with new or improved features). For example, on guittars CMP [M I/90], MUL [627], MBR [1552], MUL [628], MMS [F439], and MMS

[777] Keyed guittars with dampers would have been presumably more expensive than the ones without this feature.
[778] It is possible that the neck was stamped on the back of the head in order to distinguish between necks used on common and keyed guittars. This would be useful for the final assembly of the various instrument parts in the workshop, since the necks for keyed guittars typically require a wider head due to the larger watch-key mechanism for twelve, rather than the usual ten, strings, and therefore, they could not be used interchangeably.

[N36483], numbered '34', '113'(also labelled 'B66'), '130', '146' (also labelled 'B101'), '188', and '257', respectively, the key mechanism is equipped with dampers, whereas on GNN [MIR 857], numbered '178' (also labelled 'B14'), the key mechanism has no dampers. Furthermore, the damper activation system is found on guittars MUL [627], MUL [628], MMS [F439], and MMS [N36483], numbered '113', '146', '188', and '257', but not on MBR [1552], numbered '130'. It is possible that the examination of more instruments of this type could provide some new evidence on the purpose of this numbering system.

7.5 THE EXTERNAL PIANO-KEY MECHANISM

7.5.1 THE 'BRITISH LYRE' BY JACKSON

As briefly mentioned above, shortly after the invention of the internal piano-key mechanism for the guittar by Claus, an external piano-key mechanism was developed. However, this device was first intended to be used not on the guittar but on a new instrument called 'The British Lyre', invented in 1784 by William Jackson (20 August 1784, Patent No. 1449). Jackson's patent, which provides the earliest reference relating to the invention of an external piano-key mechanism for a plucked stringed instrument, reads:

> A.D. 1784.-No. 1449.
>
> Jackson's Stringed Musical Instrument
>
> JACKSON'S SPECIFICATION
>
> TO ALL TO WHOM THESE PRESENTS SHALL COME, I, WILLIAM JACKSON, late of Vine Street, Lambeth Marsh, in the Parish of Saint Mary, Lambeth, in the County of Surry, Musician, but now of Oxford Street, in the Parish of Saint Ann, Soho, in the City and Liberty of Westminster, Musician and Musical Instrument Maker, send greeting.
>
> […] I, the said William Jackson, had, after much study, found out and invented a certain new musical instrument, which I […] call "THE BRITISH LYRE" […]

[…] NOW KNOW YE, that my said Invention, which I call the British Lyre, is a musical instrument, the body whereof is about twenty inches in length, thirteen inches in breadth, and four inches in depth, and the neck whereof is about fifteen inches in length, and three inches in breadth., but the size whereof may be increased or decreased at pleasure. […]

It hath seven strings […] all of wire, the names and qualities of which are G, C, E G, C, E, G, the sound of which strings is produced by the stings being struck by certain mechanism contained in a box, of which there are two, either of which may be made, used, or applied to the instrument at pleasure.

This mechanism is in each box put in motion by seven keys affixed on the top of thereof, and which are to be struck by the fingers. These boxes are exactly similar in the outward form, and that which is intended to be made use of is affixed on the belly of the instrument.[…] the mechanism in the inside of one of the boxes […] consists of hammers, each of which hath two heads, the one of wood only, the other of wood covered with leather. These hammers are supported by springs, and put in motion by the keys on the top of the box. […] On the outside of this box is a slider […] the moving of which strengthens or weakens the tone of the instrument.

The other box, which is of the same outward form, and which may be also affixed on the belly of the instrument […] contains both jacks and hammers, that is to say seven jacks and seven hammers. By the use of which last-mentioned box the instrument will have a lute stop and a pianoforte stop, which are to be changed by the same kind of slider as is on the other box. […]

These boxes containing the machinery being movable afford an easy opportunity of repairing the same without being under the necessity of taking the instrument to pieces, and thereby endangering an alteration of the tone thereof.

The manner of stopping the British Lyre is also totally new, and peculiar to the instrument, which, instead of being stopped by the fingers, the placing of which exactly behind the frets so as to stop in time is matter of great difficulty, is stopped and the tone given by small keys, which are affixed on a plate screwed over the neck of the instrument, and each of which, when pressed by the fingers, is certain always to fall on the strings in a determinate place behind the frets.[…] At the top of the last Figure are also expressed the several strings of the instrument, shewing the manner in which they pass under the keys by which they are stopped.

The most essential and distinguishing parts of this Invention are, the manner in which the strings are stopped by the keys on the plate affixed on the neck of the instrument, the boxes with the machinery by which the strings are struck, and the manner in which the same are applied on the belly of the instrument.

The drawings and text accompanying Jackson's patent are presented below (**Figure 7.131**):

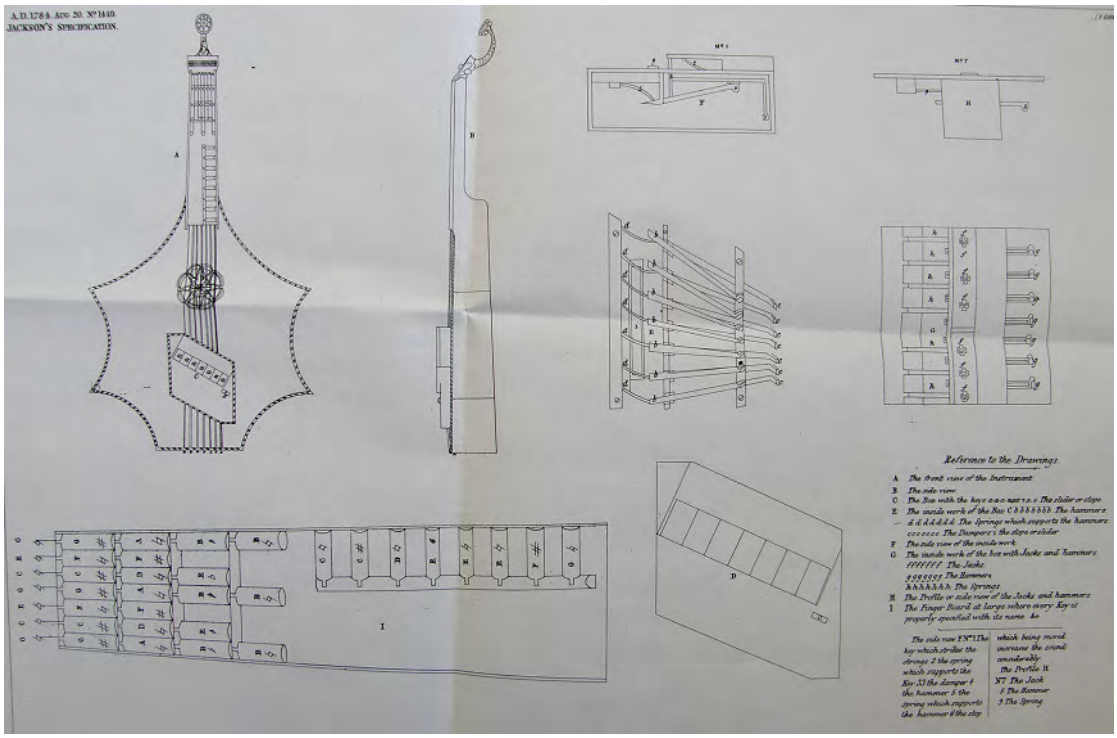


Figure 7.131: The drawings accompanying Jackson's 1784 patent for the 'British Lyre'.

The 'British Lyre', which has the same open tuning in C as the guittar, with an extra bass course tuned in G, was probably an attempt by Jackson to compete with the keyed guittar patented earlier by Claus. As it can be noticed in the patent drawings, Jackson's instrument has a distinctive hexagonal star-shaped body[779] and is equipped with an external piano-key mechanism with seven keys mounted on the lower part of the body below the rose (**Figures 7.132, 7.133**).

[779] Notably, the body shape of the 'British Lyre' is similar to many arch-zisters made in Saxony. See, for instance, <http://www.studia-instrumentorum.de/MUSEUM/zistern.htm> (accessed 28/12/2010).

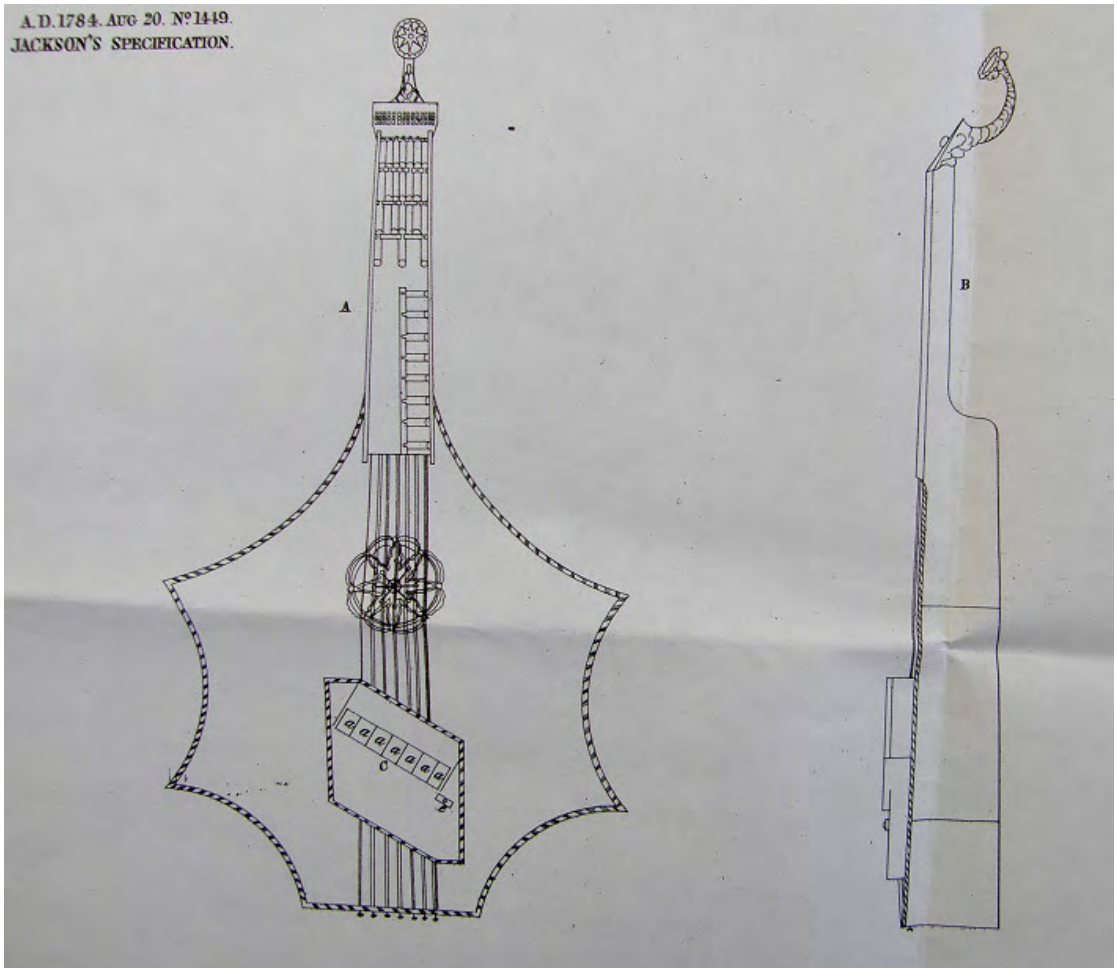
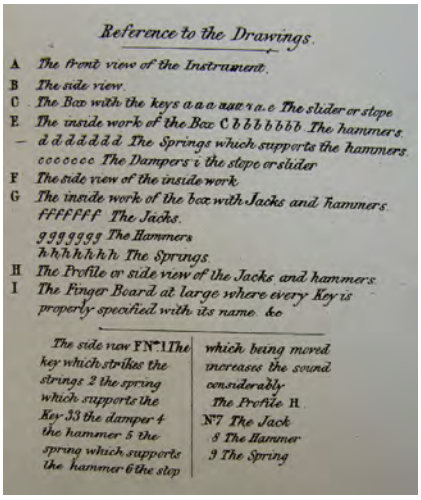


Figure 7.132: Front (A) and side (B) views of Jackson's 'British Lyre'.



Reference to the Drawings.

A The front view of the Instrument.
B The side view.
C The Box with the keys a a a a a a a. e The slider or stope
E The inside work of the Box C b b b b b b b. The hammers
d d d d d d d. The Springs which supports the hammers
c c c c c c. The Dampers i the stope or slider
F The side view of the inside work
G The inside work of the box with Jacks and hammers.
f f f f f f f. The Jacks.
g g g g g g g. The Hammers
h h h h h h h. The Springs.
H The Profile or side view of the Jacks and hammers.
I The Finger Board at large where every Key is properly specified with its name &c

The side view FN°1 The key which strikes the strings 2 the spring which supports the Key 3 the damper 4 the hammer 5 the spring which supports the hammer 6 the stop which being moved increases the sound considerably
The Profile H.
N°7 The Jack
8 The Hammer
9 The Spring

Figure 7.133: The reference to the drawings accompanying Jackson's patent.

It is noteworthy that Jackson's patent includes two similar boxes of seven keys, employing two different mechanisms 'either of which may be made, used, or applied to the instrument at pleasure'. The first box contains seven hammers with wooden or leather-covered hammer heads, while the second is equipped with 'both jacks and hammers' (**Figure 7.134**).

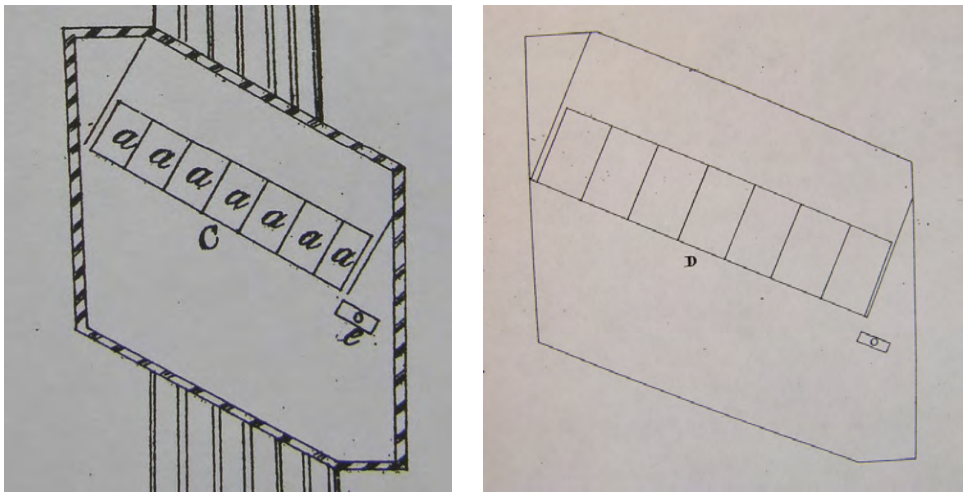


Figure 7.134: The two boxes containing the different piano-key mechanisms. *Left*: C: the box, a-a-a-a-a-a-a: the seven keys, e: the slider or stop. This box contains a mechanism with hammers. *Right*: D: A similar box containing the second mechanism with jacks and hammers.

The two mechanisms also include wire springs which support the hammers and the keys and force them to move back into their original position after the attack. In addition, both mechanisms are equipped with dampers to stop the string resonance, as well as a slider, placed on the top of each box, to raise or lower the level of the hammer attack, thus providing a 'piano-forte' effect (**Figure 7.135**). It is important to note that in his patent description Jackson emphasises the fact that the key boxes are removable and, therefore, easy to repair, offering a significant advantage over Claus's mechanism, which was permanently fixed inside the guittar's body. Moreover, the 'British Lyre' is depicted bearing a watch-key machine for eleven strings on a sickle-shaped headstock, indicating a direct influence from the guittar design.

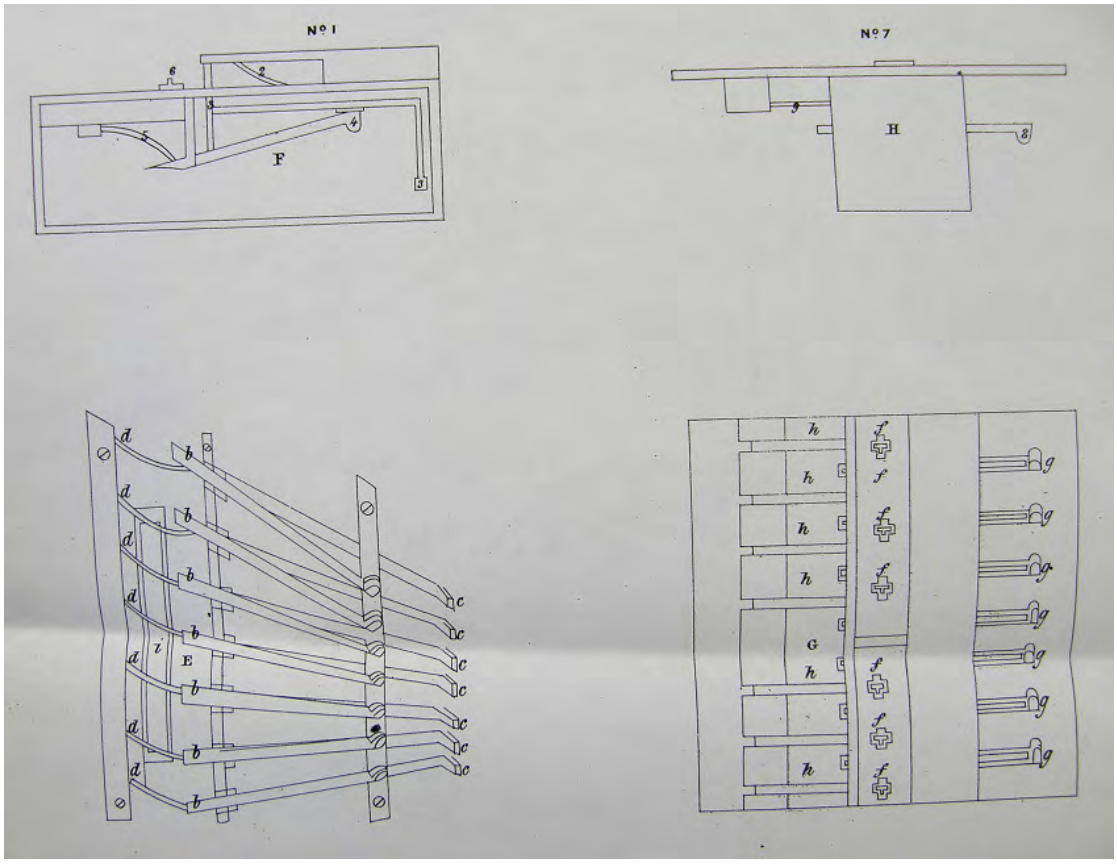


Figure 7.135: The two different piano-key mechanisms invented by Jackson for the 'British Lyre'. ***Clockwise from top left*****: F: Side view of the inside work of box C. No 1: The key which strikes the strings. No 2: The spring which supports the key. No 3: The damper. No 4: The**

hammer. No 5: The spring which supports the hammer. No 6: The stop which being moved increases the sound considerably. H: The profile or side view of the box D containing jacks and hammers. No 7: The jack. No 8: The hammer. No 9: The spring. G: Bottom view of the inside work of the box with jacks and hammers. f-f-f-f-f-f-f: The jacks. g-g-g-g-g-g-g: The hammers. h-h-h-h-h-h-h: The springs. E: Bottom view of the inside work of box C. b-b-b-b-b-b-b: The hammers. d-d-d-d-d-d-d: The springs which support the hammers. c-c-c-c-c-c-c: The dampers. I: The slider or stop. Apart from the use of dampers, the mechanism contained in box C is very similar to 'Smith's Patent Box'.

Although neither the patent description nor the drawings clarify the exact string materials, type and arrangement, it is possible that the eleven wire strings of the 'British Lyre'[780], tuned to G,-C-E-G-c'-e'-g', were arranged in double plain strings[781] for the four treble and single overwound strings for the three bass courses, similarly to several extant eleven-string guittars by makers such as Rauche, Prior, and Preston.[782]

Another interesting feature of the 'British Lyre' is the rather unusual fingerboard, on which the notes are stopped not with the left-hand fingers but 'by small keys, which are affixed on a plate screwed over the neck of the instrument, and each of which, when pressed by the fingers, is certain always to fall on the strings in a determinate place behind the frets'. Jackson's patent fingerboard is depicted with 30 keys spanning three octaves, while every key bears the name of the resulting note written on its top, probably as an aid to beginners or amateur performers (**Figure 7.136**).

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[780] It is most likely that Jackson meant 'courses' when he referred to the seven strings of the 'British Lyre'.

[781] Double strings produce a fuller sound than single strings for the treble courses, especially when struck by hammers; for the same reason, as already mentioned, most keyed guittars with internal piano-key mechanism usually have triple strings on the treble courses.

[782] These include a bowl-back guittar by Rauche dated 1761 (Bonham's auction catalogue, 23 June 2009, lot 24, p. 10); a teardrop-shaped guittar by Rauche dated 1762, DCK [MI/A9]; a pear-shaped guittar by Prior dated 1777, NMM [1515]; and an undated teardrop-shaped keyed guittar by Preston, SMM [43-307]. Moreover, an undated keyed guittar with eleven strings in seven courses is listed in Christie's auction catalogue of 16 June 1999, lot 13, p. 42. The last two instruments have several features similar to Jackson's 'British Lyre'.

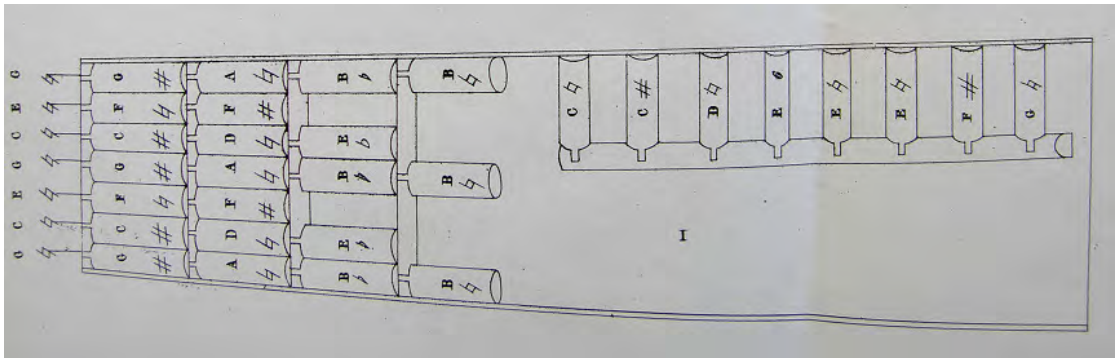

Figure 7.136: Detail of Jackson's patent fingerboard (I) equipped with 30 keys. Note that every key bears the name of the resulting note written on its top, probably as an aid to beginners or amateur performers.

Although the patent offered Jackson the exclusive rights to 'make, use, exercise, and vend' his invention for 14 years, no surviving examples of the 'British Lyre' are currently known.[783] However, as will be shown later, Jackson's patent piano-key mechanism was the predecessor of 'Smith's Patent Box'[784], a similar external piano-key mechanism found on a large number of surviving guittars.

7.5.2 'SMITH'S PATENT BOX'

The most common type of external piano-key mechanism is a device commonly known as 'Smith's Patent Box', which appeared sometime after 1784. A ten-string guittar by Preston in the National Museums Scotland, Edinburgh, [A.1908.251], is equipped with a typical Smith's Patent Box with six keys (**Figure 7.137**).

[783] Interestingly, a catalogue by Clementi, Collard & Collard from 1823 lists 'British Lyre, and Case' costing 12 guineas. I am thankful to James Westbrook for drawing my attention to this source.
[784] Apart from the use of dampers, the mechanism depicted inside box C in Jackson's patent drawings is very similar to 'Smith's Patent Box'.

Figure 7.137: Front, side, and back views of a guittar by Preston equipped with a typical Smith's Patent Box with six keys. National Museums Scotland, Edinburgh, [A.1908.251].

Smith's Patent Box is an oval wooden box containing a mechanism with six keys and six hammers. The box is typically stamped on its top with the words 'SMITH'S PATENT BOX / LONDON' over the coat of arms (**Figure 7.138**).

Figure 7.138: Top (*left*) and bottom (*right*) views of Smith's Patent Box belonging to NMS [A.1908.251]. Note the maker's distinctive stamp on the top.

A guittar very similar to NMS [A.1908.251], also made by Preston and equipped with Smith's Patent Box, in the National Music Museum, The University of South Dakota, Vermillion, [1292], suggests that these instruments were manufactured and sold with the key box as a standard feature of their design (**Figure 7.139**).

Figure 7.139: Front, side and back views of a guittar by Preston equipped with Smith's Patent Box with six keys. National Music Museum, University of South Dakota, Vermillion, [1292] (photo by kind permission of NMM). Note the similarities with the guittar presented above.

In contrast to the internal piano-key mechanism, which is built within the instrument's body, Smith's Patent Box is mounted externally on the bottom of the instrument's body, fixed with two long screws and being suspended over the bridge with two wooden arms. The device can be easily removed and re-installed, as tested on an eleven-string guittar by Preston in the Stadtmuseum München, Munich, [43-307], which is equipped with an unusual example of Smith's Patent Box with seven keys (**Figure 7.140**).[785]

[785] Notably, this guittar has a watch-key machine for eleven strings engraved with the words 'PRESTON*INVENTOR' and the tuning 'G-C-E G-C-E-G' engraved on its top. Interestingly, the same tuning has been mentioned in Jackson's patent for his 'British Lyre'.

Figure 7.140: Front views of an eleven-string guittar by Preston in the Stadtmuseum München, Munich, [43-307], before (*right*) and after (*left*) the addition of Smith's Patent Box.

Two of the seven hammers inside Smith's Patent Box belonging to SMM [43-307] are presently missing, allowing the examination of the internal structure and function of the mechanism (**Figure 7.141**).

Figure 7.141: The underside of Smith's Patent Box belonging to SMM [43-307]. Note that two of the seven hammers are missing.

In contrast to the internal mechanism, on this mechanism the action comes from above; thus, by depressing a key, a thin metal pilot, fixed underneath the key, forces a leather-covered hammer head to fall on the strings (**Figure 7.142**).

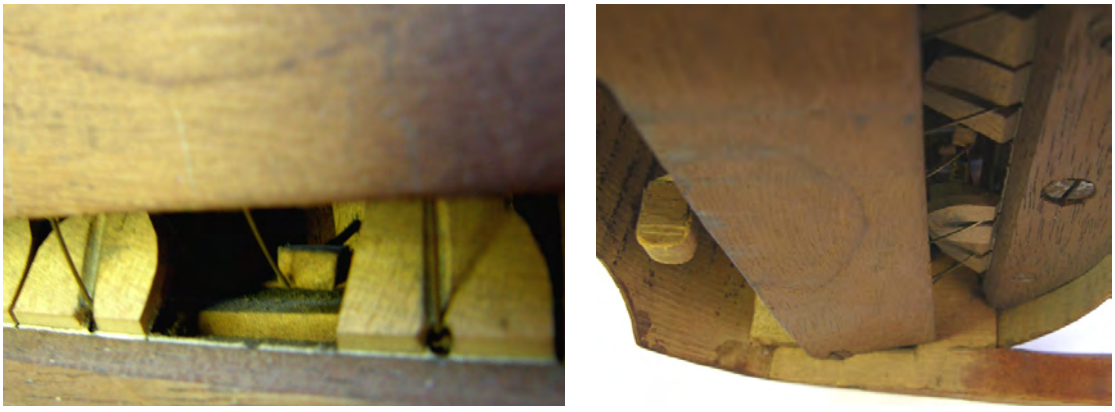

Figure 7.142: The action on Smith's Patent Box belonging to SMM [43-307]. ***Left*****: Detail of the metal pilot fixed underneath the key with two square felt parts on each end.** ***Right*****: Detail of the back end of the hammer. The movement of the pilot forces the hammer head to strike the string.**

The hammers are attached on a rail with parchment strips, while the return of the keys and the hammers to their original position is assisted by thin wire springs (**Figure 7.143**).

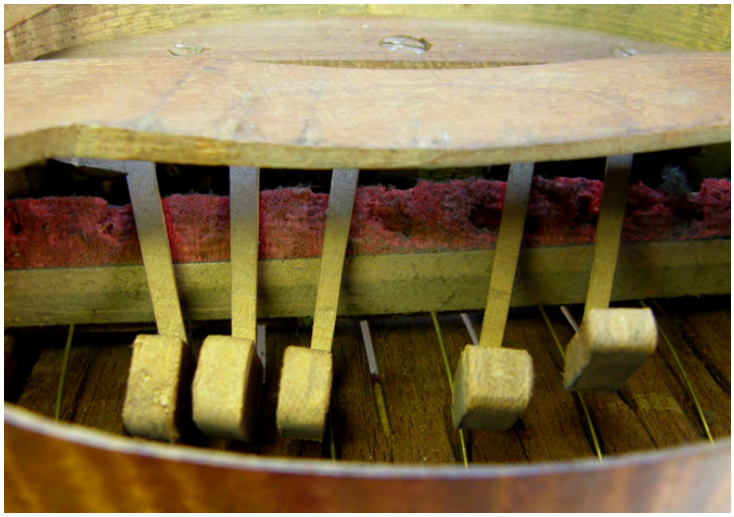

Figure 7.143: Detail of the underside of Smith's Patent Box belonging to SMM [43-307]. Note the thin wire springs for the return of the keys to their original position and the leather-covered hammer heads.

As can be noticed, Smith's Patent Box bears many similarities to the key mechanism described in Jackson's 1784 patent for the 'British Lyre'. So far the invention of this device has been attributed to a certain Smith[786] solely on the grounds of the typical stamp found on many boxes, as shown earlier, although no patent records have survived.

However, the missing link between Jackson's mechanism for the 'British Lyre' and Smith's Patent Box, is found on a surviving guittar by Thompsons. This instrument, now in the Hamamatsu Museum of Musical Instruments, Sizuoka[787], is equipped with an external piano-

[786] Smith may have been related to Joseph Smith, the harpsichord and piano maker included in Boalch (1974: 165), or to Thomas Smith, musical instrument-maker to the Duke of York, mentioned in Langwill (1949: 42).
[787] Information from T. Takeuchi (PC, 28/3/2011), who has recently made a recording of this instrument to be available in the museum's website.

key mechanism bearing the inscription 'Jackson & Smith / Patent Box / London'.[788] This detail suggests that Jackson apparently chose to produce a version of his patented mechanism to be used on the guittar, which was already an established instrument, rather than on his 'British Lyre', which was a new and commercially untested instrument. It is possible that Jackson initially produced some of these mechanisms in partnership with Smith, but later Smith most likely bought the patent rights, while Jackson probably dropped out of the partnership.

Interestingly, in an advertisement from 1786 (**Figure 7.144**) Preston offered for sale 'Patent Piano Forte Guittars' of 'his own manufacture':

> PATENT PIANO FORTE GUITTARS, Superior to any ever offered to the public, and greatly reduced in price. PRESTON, Guittar-maker and original Inventor of the machine for tuning with a watch key, at his warehouses, Exeter Exchange, and No. 97, Strand, has now ready for sale a variety of Guittars of his own manufacture, (which have been so many years greatly esteemed) with the new improvement of the Piano Forte Box, and at half the price usually paid for Piano Forte Guittars. This ingenious invention, for which the proprietor has obtained his Majesty's Royal Letters Patent, is allowed greatly to surpass every improvement on that instrument, is not liable (like the generality) to be out of order, and may be taken off at pleasure, the keys being over the strings renders the fingering pleasant, the position of the hand graceful, and the tone produced from his instrument infinitely exceeding any thing ever heard. N. B. Great allowance to merchants, captains of ships, and dealers.[789]

[788] For more details of this guittar see Sotheby's auction catalogue of 19 July 1968, lot. 44, p. 14.
[789] *Morning Post and Daily Advertiser*, 26 July 1786.

PATENT PIANO FORTE GUITTARS,
Superior to any ever offered to the public, and greatly reduced in price.

PRESTON, Guittar-maker and original Inventor of the machine for tuning with a watch-key, at his warehouſes, Exeter Exchange, and No. 97, Strand, has now ready for ſale a variety of Guittars of his own manufacture, (which have been ſo many years greatly eſteemed) with the new improvement of the Piano Forte Box, and at half the price uſually paid for Piano Forte Guittars. This ingenious invention, for which the proprietor has obtained his Majeſty's Royal Letters Patent, is allowed greatly to ſurpaſs every improvement on that inſtrument, is not liable (like the generality) to be out of order, and may be taken off at pleaſure, the keys being over the ſtrings renders the fingering pleaſant, the poſition of the hand graceful, and the tone produced from his inſtrument infinitely exceeding any thing ever heard.

N. B. Great allowance to merchants, captains of ſhips, and dealers.

Figure 7.144: The advertisement by Preston in the *Morning Post and Daily Advertiser* of 26 July 1786 (Fildes et al 2011: 18).

It is important to note that in the above advertisement Preston claims to have obtained 'his Majesty's Royal Letters Patent' for the 'Piano Forte Box'. However, there no external key boxes stamped by Preston, although there are numerous guittars by Preston equipped with 'Smith's Patent Box'; therefore, it can be safely assumed that Preston was supplied with these boxes (or had purchased the rights to produce them) by Smith. It is also noteworthy that guittars with external key boxes were sold 'at half the price usually paid for Piano Forte Guittars', most likely referring to the instruments with internal piano-key mechanisms offered by Claus or Longman & Broderip. Notably, Preston uses the same advertising hype as the above mentioned makers, promoting the removability, ease of fingering and superior tone of the new key mechanism.

Apart from guittars by Preston, there are numerous unsigned guittars, as well as guittars by manufacturers such as Hintz or Beck, on which Smith's Patent Boxes have been installed, usually as later additions (**Figure 7.145**).[790]

Figure 7.145: ***Left and middle*****: Front views of two unsigned guittars equipped with Smith's Patent Boxes in the Metropolitan Museum of Art, New York, [89.4.1014], and the Dean Castle Museum, Kilmarnock, [MI/A8], respectively.** ***Right*****: Front view of a guittar by Hintz equipped with Smith's Patent Box, which is a later addition. Victoria & Albert Museum, London, [37-1870] (<http://www.vam.ac.uk/collections/>, accessed 17/12/09).**

Nevertheless, it seems that apart from Smith, other manufacturers produced external piano-key devices since there is a large number of guittars equipped with unsigned key boxes similar to Smith's Patent Box. For instance, such mechanisms are found on four identical unsigned egg-shaped guittars in the Musée des Instruments de Musique, Brussels, [539], the Musashino

[790] Interestingly, Kinsky (1912: 190) has mentioned three major manufacturers of keyed guittars, including Longman & Broderip, John Preston and Jacob Johnson; however, no keyed guittars by Johnson are presently known.

Academia Musicae, Tokyo, [A 1249], the Ringve Museum, Trondheim, [NF.1908-0199], and the Royal College of Music, London, [241], presented below (**Figure 7.146**).[791]

Figure 7.146: Four identical unsigned egg-shaped guittars equipped with unsigned external key boxes. *Left to right*: Musée des Instruments de Musique, Brussels, [539] (by kind permission of MBR); Musashino Academia Musicae, [A 1249] (photo by H. Sugimoto); Ringve Museum, Trondheim, [NF.1908-0199] (http://cittern.ning.com/photo/nf19080199-hel-fotoringve?xg_source=activity); and Royal College of Music, London, [241] (Wells and Nobbs 2007: 100).

Moreover, apart from the guittars mentioned above, a similar unsigned egg-shaped guittar is equipped with an unsigned key box with seven keys (**Figure 7.147**).[792]

[791] A guittar with similar features belonging to the Museu Instrumental, Lisbon, has been presented in Lambertini (1914: 26).
[792] For more details of this guittar see Christie's auction catalogue of 16 June 1999, lot 13, p. 42.

Figure 7.147: Front view of an unsigned guittar equipped with an unsigned key box with seven keys (<http://cittern.theaterofmusic.com/old/engguit.html>, accessed 7/2/2008).

According to Wells and Nobbs (2007: 100) the action of the mechanism on RCM [241], presented above among the four unsigned guittars, has no escapement; instead, 'the limit of the key fall prevents the hammer from blocking the string'. Wells and Nobbs further add that 'the hammer action is in effect an inversion of Zumpe's square piano action but with wire springs in instead of gravity to return the key and hammer'. The similarities with the action on Smith's Patent Box, described earlier, suggest that these mechanisms are most likely copies of Smith's device.

The external key boxes were often retro-fitted and could be added or removed at pleasure, as confirmed in an advertisement by Warrell and Co, presented in Fildes et al (2011: 15), which mentions 'Guittars on the last new Construction, superior in Tone; and to which may be added the Piano Forte Movement at Pleasure.- Old Guittars altered to Tune with the Watch Key; and good Second hand ditto, sold very Cheap.'

As already mentioned, the external key box was attached to the body with two long screws near the bottom. The screw holes were placed behind the bridge, on either side of the strings near the bottom, often drilled directly on the soundboard wood. However, in order to prevent the soundboard wood from splitting or cracking, as observed on the copy of a guittar by Neuner & Hornsteiner in the Deutsches Museum, Munich, [15214], many extant guittars have supportive inlaid rectangular ivory blocks or long brass tubes where the screw holes are drilled (**Figure 7.148**).

Figure 7.148: *Left*: Detail of the holes for the addition of an external piano-key mechanism on the on a copy of a guittar made in 1908 by Neuner & Hornsteiner of Mittenwald, in the Deutsches Museum, Munich, [15214]. Note the long crack on the soundboard wood on the right hole. *Middle and right*: Detail of the ivory blocks on the bottom of the soundboard on a guittar by Rauche dated 1767 in the Horniman Museum, London, [216-1906], and of the brass tubes on NMS [A.1908.251] for the addition of an external piano-key mechanism.

In addition, like other removable parts, on several extant guittars the external key box is missing. However, its use is confirmed by the two ivory blocks or brass tubes near the bottom, as evident on the guittars shown above, as well as on a guittar by Clagget & Gibson dated 1763, in the Stearns Collection, University of Michigan, Ann Arbor, [1086], and on an unsigned guittar owned by D. Kilpatrick (**Figure 7.149**).[793]

[793] For more details of this instrument see <http://www.maxwellplace.demon.co.uk/pandemonium/guittar.html> (accessed 14/3/2010).

Figure 7.149*: Left*: Detail of the brass tubes near the bottom for the addition of an external key mechanism on a guittar co-signed by Clagget & Gibson dated 1763. Stearns Collection, University of Michigan, Ann Arbor, [1086] (photo by kind permission of SAA). *Right*: The two brass tubes and the scratches of the soundboard varnish on the bottom of an unsigned guittar owned by D. Kilpatrick are clear indications of the use of an external piano-key mechanism. (<http://www.maxwellplace.demon.co.uk/pandemonium/guittar.html>, accessed 14/3/2010).

The examination of several extant guittars has shown that the external piano-key mechanism was almost exclusively used in combination with the watch-key tuning machine. A guittar by Beck dated 1765 equipped with Smith's Patent Box, in the Musée de la Musique, Paris, [E.2081], is one of the few guittars to have the combination of an external piano-key mechanism and wooden tuning pegs, rather than the more common watch-key tuning machine (**Figures 7.150, 7.151**).[794]

[794] Similarly, a bowl-back guittar by Lucas dated 1761, owned by Enzo Ferrara, Lincoln, has two holes on the bottom of the soundboard to receive an external piano-key box, but is equipped with wooden pegs. In addition, the guittar by Clagget & Gibson in the Stearns Collection, University of Michigan, Ann Arbor, [1086], mentioned above, is equipped with brass machine heads.

Figure 7.150: Front, side and back views of a guittar by Beck dated 1765. Musée de la Musique, Paris, [E.2081] (<http://mediatheque.cite-musique.fr/>, accessed 29/11/2009). This guittar, which is equipped with Smith's Patent Box (removed in this photo), is one of the few guittars to have the combination of an external piano-key mechanism and wooden tuning pegs, rather than the more common watch-key tuning machine.

Figure 7.151: Detail of the MMP [E.2081] after the addition of Smith's Patent Box. (<http://mediatheque.cite-musique.fr/>, accessed 29/11/2009).

7.6 A COMPARISON OF THE TWO PIANO-KEY MECHANISMS

Keyed guittars sustained their popularity throughout the late 1780s and early 1790s. A humorous quotation from 1789 presented below, refers to the 'new invented keyed guitar', indicating the keyed guittar's novel character:

> I recommend to you to keep your *teeth* in good repair; that is, go / to the best price; and see that they be always well matched; as / much of the very peculiar expression of your face depends upon / the judicious display. / A musical friend of mine, whose ideas are all drawn from his be- / loved science, in rapturous admiration of a well-expressed passage / of yours in dumb shew, compared your face, at that moment, to / *the new invented key guitar.* From *such a man,* the conceit conveys / the highest possible compliment![795]

[795] The *Attic Miscellany; or, Characteristic Mirror of Men and Things. Including the Correspondent's Museum* (London, October 1789) Volume No. 1, p. 204 (<http://www.18thcjournals.amdigital.co.uk/>, accessed 17/11/2008).

Another contemporary reference to the keyed guittar comes from Charles Clagget's *Musical Magazine No. 1* which contains details 'for the production and importance of the major scale structure':

> […] all sharp keys are devided [sic] according t[o] this example, two full stops, then a half [s]top, three whole stops, & a half stop, this will easily be Discover[ed] on a key'd instrument, on the Guitar , &c, as a proof strike the third string of your guitar open-to be continued […].[796]

Another hint to the keyed guittar comes in an advertisement from 1796 which announces the sale of 'a handsome and fine toned Guittar, very cheap' noting that 'The Guittar is improved, and charmingly accompanies the voice'.[797] Moreover, a noteworthy account of two types of keyed guittars is included in the following entry for 'guitar' in an encyclopaedia from 1819:

> The Guitar, or Cittern, is much in use among the Spaniards, and their neighbours; it was also in vogue with us many years back; when some improvements were made, particularly the addition of six keys, corresponding with the six wires; these were called boxed guitars, and by some, piano-forte-guitars.[798]

In the above entry, the description 'boxed guitars' most likely refers to instruments equipped with a device known as 'Smith's Patent Box', whereas the 'piano-forte guitars' describe the keyed instruments equipped with the internal mechanism developed by Claus and Goldsworth. Additionally, although it is not certain if any keyed guittars were made outside London due to the patent restrictions, they must have been widely available across the British Isles, much like common guittars. For instance, as late as 1801 'Joseph and James Corbett advertised their music warehouse, 9 Patrick St. Limerick, as the finest collection of Musical Instruments for sale in any part of the Kingdom, which include new patent grand and square pianofortes, pedal harps, the

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[796] Clagget, Charles, *Musical Magazine No. 1* (as quoted in Lawrence 1999: 18-90). Lawrence (1999: 20) suggests that the keyed instrument mentioned above possibly refers either to a keyboard instrument or the keyed guittar, which was invented around that time.
[797] *Morning Advertiser*, 15 March 1796.
[798] Entry for 'Guitar' in the Third American Edition of W. Nicholson's *British Encyclopedia: Or Dictionary of Arts and Sciences*, 1819 (Philadelphia: Mitchell Ames White) (as quoted in Rossi, D., <http://www.cetrapublishing.com/citterncafe/?cat=13>, accessed 17/3/2009).

much admired harp-guitars, patent pianofortes and common guitars, […], Eolian lutes, tambourines, etc'.[799]

Regarding performance issues, there is rather limited information on the holding positions, playing techniques and ornamentation for keyed guittars.[800] The most important piece of information is included in the second edition of the guittar tutor *Estudo de Guitarra* by António da Silva Leite, published in Oporto in 1796. [801] In his tutor Leite (1796: 33) includes interesting details about the keyed guittar, stating that it has the advantage of playing more than one string (usually two strings) using only one right-hand finger. Leite also notes that although the keyed guittar produces a good sound in C, the natural key of the instrument, it does not sound as well when playing in others keys.

Only a few works composed for the keyed guittar are presently known. For instance, Armstrong (1908: 17) has mentioned that Thomas Bolton 'composed six Rondeaus, three Songs, and three Preludes, and selected and adapted other three songs with accompaniments for the Guitar or Pianoforte-Guitar […] printed by Longman and Broderip'. A similar (or possibly the same) work by Bolton has been listed by Lawrence (1999: 217, Appendix 1) as 'A Collection of Songs, Rondeaus, Waltzes, Marches and Dances, for the guitar, pianoforte guitar, or the new invented Spanish guitar […] Book 1'.[802] Moreover, Kassler et al (2004: 72) have listed a work published by Longman & Broderip in 1786 titled *Twenty Four of the Most Elegant, and Favourite English Songs, adapted for one, two, and three guitars, with an accompaniment […] by Signor Chilini di Asuni, author of the New Instruction Book for the Piano-Forte Guitar,* while, according to Tyler (2009: 15), around the

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[799] Hogan, Ita (1966) *Anglo Irish Music 1780-1830* (Cork: Cork University Press) (as quoted in Lawrence 1999: 21, footnote 45). Since no keyed guittars by Irish makers are presently known, the 'patent pianoforte guitars' mentioned in the advertisement were almost certainly imported to Ireland from London.

[800] Iconography could provide some useful details on performance aspects, since, as already shown in 'THE GUITTAR'S IMAGE IN GEORGIAN PORTRAITURE', Chapter 3, holding or playing the guittar was a common theme in 18th-century female portraiture. Nevertheless, no depictions of keyed guittars in paintings are currently known, which is rather unusual, given the fact that the instrument enjoyed a considerable popularity, as confirmed in several contemporary literary sources.

[801] I am obliged to P. Bento for the translation of the Portuguese text of Leite's tutor.

[802] A copy of this work, published by Goulding, Phipps & D'Almaine in London, c.1800, survives in the Additional Music collections in the National Library of Ireland (Reference number: 10, 871) (as quoted in Lawrence (1999: 217, Appendix 1).

same time Longman & Broderip had published Chilini di Asuni's *New and Complete Instructions for the Piano-forte Guitar*.

In addition, in 1795 Felix Chabran published his 'Compleat Instructions for the Spanish Guitar' noting that he is a 'teacher of the Spanish & Pianoforte Guitar & Violin […]'[803], while around the same year R. Birdchall published *Six Favourite Songs and Six Rondos by Sigr. Pleyel, And a Select Collection of Lessons, Airs, Minuets, Allemandes &c. To which are added Some French & Italian Songs Adapted for the Piano Forte Guittar By F. Chabran. Teacher of the Spanish & Pianoforte Guittars […]* (**Figure 7.152**). In addition, in 1799 Goulding & Co announced that 'In a few days will be published, a Collection of Music for the Guitar, Piano-forte Guitar, or new-invented Spanish guitar, consisting of Songs, Rondos, Marches and dances […]'.[804] These details suggest that keyed guittars were taught and played similarly to common guittars, as well as Spanish guitars, and most of the music was probably composed interchangeably for these instruments.[805]

[803] See Tyler and Sparks (2002: 239). Felix Chabran was a musician and music teacher from Piedmont who had settled in London around 1782. Chabran is listed as 'Chabran, Felix, Violin, Ro So Mu, Oper, Abb,-No.16, Wardour-Street.' in Doane (1794/1993: 12). Notably, Chabran's instructions for the Spanish guitar follow the style and outline of the *Instructions for the Guitar* published in 1758 by R. Bremner. Futhermore, it is interesting that in several pieces Chabran advocates thumb fretting of the bass strings (indicated with the symbol 'X'), with the left-hand thumb placed over the guitar fingerboard.

[804] *Morning Herald*, 21 December 1799, as quoted in Page (2011: 6).

[805]However, the phrase 'several Pieces of New Music adapted to this Instrument' in Claus's 1785 advertisement, mentioned earlier, probably implies variations or alterations of the established techniques to allow the performance of guittar music on keyed instruments.

Figure 7.152: The front page of *Six Favourite Songs and Six Rondos by Sigr. Pleyel, And a Select Collection of Lessons, Airs, Minuets, Allemandes &c. To which are added Some French & Italian Songs Adapted for the Piano Forte Guittar By F. Chabran*, published by R. Birchall, c.1795 (Fildes et al 2011: 29).

It is interesting to compare the two types of keyed guittars presented above in terms of construction, playability and sound, since the two piano-key mechanisms, internal and external, have quite different characteristics.[806] Starting from the design and construction features, the internal mechanism is more difficult to construct as it has to be build within the instrument and requires accurate design and frequent regulation, so that the keys can move unobstructed through the rose holes.[807] Moreover, as described earlier, only the later versions of this mechanism could be easily removed and repaired. In addition, the internal mechanism requires a deeper body in order to house the mechanism and seems more difficult to hold and balance,

[806] A comparative analysis of the two mechanisms has been included in the paper 'The Piano-key Mechanism of the English guittar' presented by the author at the '37th Annual Meeting of the American Musical Instrument Society', Calgary, Canada, 28 May-1 June 2008.
[807] The 'speedy disorder' mentioned in Claus's advertisement from 1785 possibly refers to this problem.

due to the added weight on the treble side.[808] Furthermore, as already mentioned, the fact that it received a number of alterations and improvements rather prevented or delayed the establishment of standard design.

In contrast, the external mechanism can be constructed separately in large numbers, thus avoiding the assembly of whole instruments, saving production time and costs. Furthermore, it can be removed quickly and without much effort simply by unscrewing the two screws that hold it in place; only the later versions of the internal type have this facility. Therefore, it is much easier to maintain and repair, or replace entirely in case of damage. This mechanism is also lighter due to the shorter hammer lengths and the more compact construction, and has a more equally distributed weight as it is placed on the centre of the instrument.[809] Moreover, it does not need a specifically designed interior bracing and rose, thus simplifying manufacture procedures. In addition, as it did not receive any major reconstructions, apart, perhaps, from the occasional decorative additions, it maintained a standard design, which in turn resulted in quick, inexpensive and uniform construction. On the other hand, this mechanism protrudes considerably from the soundboard, thus being more susceptible to damage, while its regular removal and re-application can also damage the soundboard wood.

In terms of playability, the internal mechanism seems more comfortable as the keys are placed quite close to the soundboard. Another advantage is that it allows the use of the right-hand fingers and/or the keys, making it more versatile for alterations of technique during a performance. However, it has a slower attack as the hammers have to travel a long distance before they hit the strings. Moreover, using fingers to pluck the treble strings is rather difficult as keyed guittars with internal mechanisms have usually three strings on the first and second courses. In opposition, the keys of the external mechanism stand quite high, rendering the

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[808] Apart from other performance issues, the piano-key mechanism was not placed on the bass side probably because the added weight on that side would force the whole body move downwards, which would make holding and playing the instrument rather awkward and difficult.

[809] This is a result of personal observation and handling of several instruments during examination and photography. As pointed out earlier, keyed guitars are generally heavier than common guittars. However, it is rather difficult to compare the two mechanisms, internal and external, in terms of weight, as this would involve measuring the weight of two exactly similar guitars, one equipped with the internal and the other with the external mechanism.

fingering awkward, and leaving less space for the performer's right-hand fingers; however, it has a faster attack due to the shorter hammer length. Additionally, the diagonal placement of the keys on the box is similar to the angle of the fingers when they pluck the strings, adding to the 'graceful' visual aspect, which was so crucial for the promotion of keyed guittars to a female clientele, as evidenced in contemporary advertisements.[810]

In terms of sound, the main advantage of the internal mechanism is that it is more efficient in producing a 'piano' or 'forte' effect when altering the level of the hammer attack, although this feature is efficient only on the later versions of the mechanism. In addition, it offers more tone options due to the various stops and the use of dampers. Moreover, as the striking position of the hammers is closer to the neck, it produces a rather mid-range and mellow sound. Conversely, the striking point of the external mechanism is right over the bridge, resulting in a rather percussive sound with more treble and 'attack', resembling the sound more of a hammered dulcimer than a plucked guittar.[811]

In conclusion, the external piano-key mechanism, having an action from above, was easier to construct and repair, and remained fairly standard during its lifetime, but offered limited sounding and playing options. On the other hand, the internal mechanism**,** having an action from underneath, gradually developed a more complex and advanced construction after receiving various alterations and improvements, thus providing more sounding and playing options.

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[810] It is also important to note that on keyed guittars with internal mechanisms, the design of the keys on the lower side of the body prevents a left-handed musician to perform conveniently on the instrument, whereas due to its placement in the middle of the body, the keys on the external mechanism can be played by both right-and left-handed players, although the angle of the keys is more convenient for a right-handed player.

[811] The sound characteristics of the two mechanisms are rather difficult to test or measure accurately, since most of the examined keyed guittars are not in playing condition due to their fragile condition of preservation. Besides, tuning to the correct pitch and playing the instruments can be detrimental from a conservation point of view, and thus should be avoided. Moreover, although several audio and video recordings of common guittars have been released, no recordings of keyed guittars are presently available, allowing only general speculations on the sound features of these guittars. Nevertheless, during a demonstration and concert at the 'First Cambridge Colloquium on the Guitar in the Early Nineteenth-century', Sidney Sussex College, University of Cambridge, 4-6 April 2011, Taro Takeuchi played on a common guittar by Perry, as well as on a keyed guittar by Preston equipped with 'Smith's Patent Box'. The keyed guittar by Preston had considerably more volume and a wider dynamic range compared to the common guittar by Perry.

Regardless of these features, however, the two piano-key mechanisms probably did not offer any substantial advantages to the guittar over other musical instruments, as their inventors hoped and declared[812], although their fashion lasted for about twenty years.[813] In fact, the addition of keys, in combination with their rather fragile construction and problematic maintenance, may have decreased the value of the guittar as a serious musical instrument, as Tyler and Sparks (2002: 227) have noted. The short vogue of the keyed guittar eventually signified the guittar's decline in the beginning of the 19th century, which concurred with the establishment of the pianoforte and the appearance of a series of new plucked stringed instruments, such as the harp-guitar, harp-lute-guitar, Apollo lyre, harp lute, dital harp, as well as the Spanish guitar, which became increasingly popular among amateur performers, adopting the role of the guittar as domestic instruments for vocal accompaniment.

7.7 KEYED GUITTARS OUTSIDE THE BRITISH ISLES

Around the 1790s variations of keyed guittars started becoming popular outside the British Isles. For example, a keyed guittar by Johann Nicolai Scherr of Copenhagen, dated 1796, survives in the Danish Music Museum, Copenhagen, [C 138].[814] In addition, a pear-shaped arch-cistre made by Deleplanque of Lille, in the Musée des Instruments de Musique, Brussels, [2916] (**Figure 7.153**), is equipped with an unusual external piano-key mechanism with nine keys. According to Baines (1966: 44 and plate 261) the key box is 'added by Hoebrechts' and dated 1792.[815]

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[812] It is noteworthy that the concept of fitting keys on plucked instruments in order to improve their capabilities is still being explored by modern instrument makers. For instance, a keyed electric guitar which can be plucked or struck and whose 'tone combinations surpass those attainable on other guitars' was invented in 1984 by William Schmitz, an instrument maker in Munich, and is now displayed in the Deutsches Museum, Munich, [1996-450]. Schmitz was awarded the Gold Medal of the Nuremberg International Exhibition in 1984 for his invention; however, this kind of guitar has remained at an experimental stage, not least because it cannot compete with other established types, being more expensive to built and more difficult to play by traditionally-trained guitar players.

[813] The latest surviving dated guittar is a keyed instrument in Danish Music Museum, Copenhagen, [CL150], signed 'Harley maker...Wych Street London 1805'.

[814] This instrument has been presented in 'THE GUITTAR IN SCANDINAVIA', Chapter 4.

[815] Interestingly, although the external piano-key mechanism was almost exclusively used in combination with the watch-key tuning machine, this instrument is one of the few surviving examples being equipped with wooden pegs, probably because the extra open bass string prevented the use of the standard watch-key machine, which was normally made for ten, eleven or twelve strings.

Figure 7.153: A pear-shaped arch-cistre by Deleplanque of Lille (*left*) equipped with an unusual external piano-key mechanism with nine keys by Hoebrechts dated 1792 (*right*). Musée des Instruments de Musique, Brussels, [2916] (photos by kind permission of MBR).

Likewise, an unsigned pear-shaped guittar, in Musikmuseet, Stockholm, [M2577] (**Figure 7.154**), has an uncommon internal piano-key mechanism; the construction and decoration features of this instrument suggest that it was most likely made in France rather that in Britain.

Figure 7.154 : A pear-shaped guittar (*left*) equipped with an uncommon internal piano-key mechanism (*right*). Musikmuseet, Stockholm, [M2577] (<http://www.musikmuseet.se/samlingar/>, accessed 17/5/2010). Note that the rose is cut in the middle to allow the hammers strike the strings.

Around the end of the 18th century keyed guittars became popular in Spain as well, a fact well documented in several contemporary advertisements. For instance, this is how French instrument maker Juan Puyol advertised his arrival and establishment in Madrid on 18 November 1790:

> Juan Puyol, of French nationality, a master builder of organs and other instruments, who has arrived from London, informs readers that he has settled in Madrid, on the ground floor of 5 Calle de la Ballesta, manzana 369. He makes organs […], barrel organs, English-style fortepianos […], double basses, and English guitars played with keys. He makes Spanish-style guitars, which are played with keys like the English ones and can at the same time be played in the Spanish way.[816]

This advertisement clearly shows that the concept of fitting keys on instruments was so fashionable at that time that keys were even used on 'Spanish-style guitars'. The next year, on 4 June 1791, the same maker announced:

> Juan Puyol, maker of organs, English-style pianofortes, organized and plain, also English guitars with keys and various other instruments, who from the Parisian school went to that of London to perfect himself in the building of such instruments with good taste, has established himself in Madrid [. . .].[817]

Other noteworthy references to pianoforte guittars in Madrid are included in the following advertisements[818]:

> In calle de Montera, in don Pedro Ursuequia's shop, newly invented English fortepiano guitars are for sale as well as various pieces of music for the instrument by the best composers... The inventor of this

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[816] See Kenyon de Pascual (1983: 216). Around that time English instruments had gained a reputation of high-quality manufacture and elegant style; as Kenyon de Pascual states, 'The fame of London as a piano-building centre induced many foreigners to visit it to gain experience and to study the latest developments'. Thus, it was a common practice among musical-instrument makers, such as Puyol, to mention their staying and training in London in order to increase their status and attract potential clients. Puyol also described himself as 'the maker who has arrived from London' on 8 February 1791.

[817] See Kenyon de Pascual (1983: 216). Puyol continued to advertise similarly over the following two years.

[818] The following excerpts come from the *Diario de Madrid*, an 18th-century daily newspaper in Madrid. The text is presented as translated and quoted by Kenyon de Pascual (1983: 299-308) in her article dealing with sales and makers of non-bowed string instruments in Madrid during second half of the 18th-century. According to Kenyon de Pascual (PC, 30/9/09), to whom I am grateful to for bringing this important source to my attention, there are no more such advertisements in the *Diario de Madrid* between 1795 and 1799.

> instrument is in Madrid lodging at 10, calle del Lobo and offers to teach any type of person to play the instrument within one month, either in his own home or at the houses of those who send for him.[819]
>
> […] there is for sale an English string instrument that is played with keys and quill and is tuned with a clock key [...].[820]
>
> At 14-2 calle San Bartolome there are for sale 2 English piano-guitars, made in London, one with a damper (sordina).[821]
>
> In 14 calle de San Bartolome an English piano guitar is for sale.[822]

As can be noticed the adjective 'English' is used in all the above advertisements, indicating England as the main exporter of keyed guittars.

Like common guittars, keyed guittars also travelled as far as America and India.[823] For example, Woodfield (2000: 22) presents a table listing the music and musical instruments imported on ships travelling to India in 1786 (**Table 7.2**), where the instruments would be usually sold in auctions. Among the listed instruments, which include several guittars, three keyed guittars are recorded:

Ship	**Officer**	**Auctioneer**	**Musical Instruments**
Earl of Oxford	Captain	Moore, Sanders & Lacey	…Piana Forte Guitars…
Walpole	Chief Officer	Wade and Matthews	Music and Musical Instruments by Longman and Broderip: …A piano forte guitar…
Lansdown	2nd Officer	-	…Patent piano forte guitars…

Table 7.2: Evidence of keyed guittars being imported on ships to India in 1786; the table includes the name of the ship, the rank of the officer, the name of the auctioneer in India, and the types of imported instruments (Woodfield 2000: 22, Table 1).

[819] *Diario de Madrid*, 21 July 1789.
[820] *Diario de Madrid*, 19 September 1794.
[821] *Diario de Madrid*, 10 October 1794.
[822] *Diario de Madrid*, 23 April 1795.
[823] As mentioned earlier, Claus's advertisement of his keyed guittar from 1785 announced that 'Orders from the East and West Indies, America, and every Part of Europe, as well as in Great Britain and Ireland, addressed as above, are executed with all possible Punctuality and Dispatch'.

Additionally, Head (1985: 551) has pointed out a sale in Calcutta in 1784 which included 'Piano-forte guitars' among other instruments[824], while Woodfield (2000: 67) has mentioned that around 1786 Mr Oehme, a music shop owner and concert organiser in Calcutta, advertised various instruments for sale in his shop including 'Forte Piano Guittars'.

Finally, it is important to note the influence of the keyed guittar on other contemporary instruments, most notably the orphica, invented by Carl Leopold Röllig in Vienna around 1794 and patented in 1795 (**Figure 7.155**). [825]

Figure 7.155: Front view of an orphica by Joseph Dohnal of Vienna, c.1795-1800. Kunsthistorisches Museum, Vienna, [SAM 601] (Hopfner 2010: 141).

Röllig's intention was to create a new portable instrument, or, according to Vogel (2004: 24), what Röllig considered 'known hitherto multi-stringed hand instruments' (**Figure 7.156**). Describing the orphica Röllig argues that although his new instrument differs considerably in

[824] *Calcutta Gazette*, 15 July 1784 (as quoted in Head 1985: 551).

[825] Röllig named his new-invented instrument 'Orphica' due to the similarity of its shape with the lyre of Orpheus, the Greek mythological poet and musician. As Vogel (2004: 24) point outs that 'During the romantic period, besides the orphica, references to Graeco-Roman civilization can be found in other forms of art, e.g. in the lyre-guitar (guitar in lyre shape) from around 1780-1820, the lyre-piano (an upright piano with upper body in lyre shape) from around 1830-50, as well as music stands in lyre shape, the frame for supporting the sustaining and 'una corda' pedals of pianofortes, and all of the furniture with legs and backs in lyre shape, such as chairs, tables and catafalques.' For more details on the invention and development of the orphica see Vogel (2004: 20-28).

construction from 'the theorbo, the lute, the English and Spanish Cittern (Kithara), it surpasses by far all of them in sweetness of sound and variety of modulations'.[826]

Figure 7.156: Technical drawing depicting an orphica and showing the suggested methods of holding and playing upon it, included in the 'Journal des Luxus und der Modern' by F. J. Bertuch and G. M. Kraus, 1796 (Birsak 2004: 1, Figure 2).

Vogel (2004: 25) notes that the orphica could be suspended 'from a band around the player's neck, like a guitar', thus enabling the performer 'to play in a standing position'. Furthermore, as it is evident in several contemporary drawings, the orphica was addressed to ladies and

[826] See Vogel (2004: 24, footnote 36). The original German text reads: 'Auf solche Weise entstand ein Instrument, das, seinem Baue nach, von der Theorbe, der Laute, der Englischen und Spanischen Zitther (Cithara) anz verschieden ist, und sie alle an Lieblichkeit des Tones und Mannigfaltigkeit der Modulation auch weit iibertrifft.'

gentlemen of the polite society as 'a small portable piano to be played in the open air' (**Figure 7.157**).[827]

Figure 7.157: *Left*: A standing gentleman playing an orphica suspended from a band around his neck (Birsak 2004: 2, Figure 4). *Right*: A seated lady playing an orphica (Birsak 2004: 2, Figure 3). Both engravings, produced by Adam von Bartsch, are included in C. L. Rollig's pamphlet 'Orphica: Ein musikalisches Instrument' printed in Vienna in 1795. Note that both musicians are depicted performing outdoors, highlighting the orphica's portability.

Moreover, Vogel (2004: 27) claims that 'The restricted keyboard compass gave few opportunities for the performer to play anything from the standard piano repertoire' adding that 'Most probably, only simple, uncomplicated, pieces or an accompaniment to the voice or another instrument were ever played on the orphica'. From the details presented above it is clear that in terms of its musical role and repertoire the orphica shared many similarities with the keyed (as well as the common) guittar.

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[827] See Vogel (2004: 24-5). According to Vogel in England the orphica adopted the name 'weekend piano'.

8 EPILOGUE

'You are most welcome to study the five guittars in the collection [...]. There is almost nothing in our files on these instruments. They are by far the most neglected area of the collection […].'

Jon Whiteley, ***Department of Western Art, The Ashmolean Museum*****, 2008**

'I've pulled the files out for all of our English guitars, and there is really very little in them, since you are one of the first people to show an interest in these instruments!'

Arian Sheets, ***Curator of Stringed Instruments, National Music Museum, The University of South Dakota*****, 2008**

8.1 CONCLUSIONS AND RESEARCH OUTCOMES

8.1.1 SUMMARY

The guittar was without question the most popular plucked stringed instrument in the British Isles during the second half of the 18th century. The instrument appeared in Britain around the mid-1750s and quickly became fashionable among female amateur performers of polite society, maintaining a high popularity until the beginning of the 19th century. This fact is reflected, as stated repeatedly in this thesis, in the numerous surviving guittars in public and private collections, the large quantity of published music for the instrument, and the wealth of related archives, literary references and iconographical sources.

Although the main issues concerning the instrument's origins, nomenclature and etymology have been analysed in detail in **Chapter 2** of this thesis, they have also underlined the need for establishing a common glossary and terminology within the organological community to describe a variety of plucked stringed instruments with similar features.[828] Moreover, several historical inaccuracies concerning the guittar which have been constantly repeated in the past have now been corrected, and gaps of information have been filled, with the new details presented in **Chapter 3**, which offers a sufficient background material for this scope, covering in depth the main stages of the instrument's history from its beginning to its end.

The guittar was mainly developed and used in England, Scotland and Ireland, and progressively acquired distinctive social and musical roles, as well as an individual sound and repertoire, developing into a particularly British instrument. However, as it has been clearly illustrated in **Chapter 4**, the instrument and its music were not constrained within the British Isles, but had a strong presence across the European continent and the British colonies, reaching places as

[828] This issue has also been noted by the author in his article 'A Comparison of Two Surviving Guittars by Zumpe and New Details Concerning the Involvement of Square Piano Makers in the Guittar Trade', *Galpin Society Journal*, Vol. 64, (2011), p. 49-59.

diverse as St Petersburg and Oporto, and travelling as far as North America and India, being deeply integrated into the lifestyles of the local societies.

In addition, throughout its short life, the guittar supported a lucrative trade which included a variety of professionals, such as musical instrument manufacturers, dealers and inventors, as well as music publishers, teachers, composers and performers, as presented extensively in **Chapter 5**. This network of businessmen, artists and artisans firstly boosted and then effectively exploited the guittar's growing popularity, before eventually abandoning the guittar for new instruments of increasing appeal, a process which reflects the general situation of the music business in the late 18th century, when fashions and styles changed rapidly.

Under the entrepreneurial spirit and creative input of these professionals, the guittar gradually adopted a wide variety of design, construction and decoration features, largely based on earlier and contemporary instruments. In addition, it incorporated new, original elements taking advantage of the changes that occurred in the manufacture and marketing of musical instruments during the late 18th century. Coming from a rather small, but representative sample of extant instruments, the details included in **Chapter 6** have allowed reliable comparisons and attributions of the manufacture characteristics and working methods among different guittar makers, and have also helped highlight the instrument's continuous development from its birth to its decline.[829] Additionally, as a by-product of the early industrial age, the guittar received several mechanical inventions and improvements, which showcased, above all, the instrument's strong marketing potential and public demand. Many of these innovations had a significant and long-lasting influence on various contemporary and successor instruments, due to the ingenuity and effectiveness of the original designs, as discussed at length in **Chapter 7**.

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[829] The history and development of the guittar during the second half of the 18th century resembles in many aspects the more recent history of the electric guitar and bass during the second half of the 20th century. Both instruments appeared in the early 1950s and were widely commercialised in the 1960s, being favoured especially among amateur performers. In addition, both instruments received many innovations in the 1970s, 1980s and 1990s, and have remained popular during the first decade of the 21st century, although they have recently become slightly overshadowed by other electronic instruments, such as the keyboard synthesiser, which can offer digital sound simulations and recording facilities.

8.1.2 A REVIEW OF GUITTAR ETYMOLOGY AND NOMENCLATURE

This study has suggested the guittar may have been influenced in several ways by earlier instruments which were popular in the British Isles before the 18th century, such as the cittern, guitar, lute, orpharion and bandora. These plucked instruments had been widely used in Britain until the end of the 17th century, when their popularity started decreasing. Regarding the guittar's origins, it is now certain that the instrument's closest ancestor was the Moravian cittern, and that, at least in its earliest form, the instrument was imported to England from Germany probably in the early 1750s.

However, as already mentioned, the guittar gradually developed several distinctive characteristics regarding both its 'hardware' properties (materials, dimensions and sizes, construction methods, decorative elements, etc.), as well as its 'software' features (stringing arrangements, tunings, playing techniques, repertoire, etc.), deserving its own merit in organological definition and classification. By removing the uncommon characteristics found among extant guittars, the following defining technical criteria, arranged in order of importance, have been selected to classify an instrument as a guittar:

1. The instrument is principally tuned to an open major chord in a triadic note pattern of root-third-fifth, and then again, at an octave higher, root-third-fifth (occasionally with additional notes in the bass register).

2. The instrument has 9 to 12 wire strings and a fretted fingerboard.[830]

3. The strings are typically arranged in combinations of single strings for the bass[831] and double strings for the treble courses (occasionally with triple strings on the top one or two treble courses on keyed instruments with internal piano-key mechanisms).

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[830] Instruments with additional open bass strings should be referred to as 'arch-guittars'.
[831] However, some extant large-sized, long-scale guittars by makers such as Rauche or Gibson have double strings on the bass courses.

4. The instrument is typically plucked with the right-hand fingers (occasionally also hammered with a keyed mechanism).

5. The instrument consists of a resonating body, which comprises the front, sides and back, a long round neck carrying a raised fingerboard, and a head which houses a tuning device, where the strings are fastened on, and terminates with a decorative finial.

6. The instrument has a wide arched fingerboard, with a radius of 6'' (152.4 mm) to 7.25'' (184.1 mm), equipped with 12 to 19 chromatic brass frets (occasionally with a capotasto to allow the pitch to be raised).

7. The instrument has a movable bridge and the strings are attached on the bottom of the body via endpins.

8. The instrument has a typical scaling of 420 mm (although extreme figures may range between 320 mm and 530 mm).

9. The instrument has a more or less rounded or oval body, the upper or lower parts of which may be festooned or pointed, with an essentially flat soundboard and a flat or curved back.

10. The instrument has a wooden or brass rose on the soundhole and is decorated with painted purfling on the soundboard.

Regardless of its other features, any instrument which matches these criteria can be called a guittar. On the other hand, as far as the instrument's nomenclature is concerned, although the instrument adopted several names during its historical use, the most appropriate term to refer to it is 'guittar', since this is the name mostly used in contemporary sources, as has been already mentioned in this thesis.[832] The terms 'English guittar' or 'English guitar' began to be used only

[832] See 'IN SEARCH OF A NAME', Chapter 3.

at later stages of the instrument's lifetime, especially towards its replacement from other plucked instruments whose names also included the term 'guitar', such as the 'Harp-guitar', the 'Spanish guitar' or the 'French guitar', etc. Therefore, the term 'guittar' should be preferred for all written references to the instrument and the term 'English guittar', which is now widely established, should be reserved only for oral references to the instrument, when it is necessary to differentiate between the wire-strung guittar and the gut-strung guitar.

8.1.3 REMARKS ON THE RISE AND DECLINE OF THE GUITTAR

In order to examine the reasons behind the rise and decline of the guittar in the British Isles during the second half of the 18th century it is important to summarise the historical background in which the guittar appeared. The guittar developed in Georgian Britain, which in the mid-1750s was a less authoritative state than most other European states at the time, with looser regulations on the arts and crafts, which supported private initiative, innovation and competitiveness. By that time the Hanoverian accession had created a strong trend for German fashions, while London had become a large hub for numerous immigrants from across Europe, evolving into a cosmopolitan metropolis which sustained a thriving artistic and musical scene.

The same time witnessed great scientific and technical progress, with the beginnings of the Industrial Revolution, which brought new tools and machinery, and significant changes in production methods. These results caused a rapid development of sciences and crafts, and of transport and communication, leading to the early forms of a capitalist economy, and the consequent growth of commerce, industry and trade. Equally important were the changes in social and cultural conditions. The improvement of working and living conditions, which led to an increase of population, was followed by an intellectual awakening, which culminated with the movement of Enlightenment and the arrival of the first Encyclopaedias, as well as the opening of philosophy, literature and the performing arts to a wider audience. Moreover, the rise of an affluent middle class initiated the concept of consumerism and created an awareness for fashion.

During this period the trends in music and the visual arts moved from 'Baroque' to 'Gallant' and 'Classical' styles, with secular music aiming to please and entertain a new, mostly urban, middle-class audience. Music entrepreneurship also developed considerably, with the increase of public concerts, often including celebrity performers, the establishment of music societies in major cities, and the production of cheap musical instruments and scores for the growing crowds of amateur performers. Furthermore, music education became widely accepted as a genteel and necessary accomplishment, especially for young ladies, and also provided an indication of wealth and status, thus being essential for social interactions.

Taking into account the circumstances mentioned above, the rise and decline of the guittar in the British Isles can be summarised in four main stages.[833]

1. 'Invention and Establishment': Mid-1750s to early 1760s

2. 'Development and Peak': Early 1760s to mid-1770s

3. 'Innovation and Imitation': Mid-1770s to late 1780s

4. 'Decline and Obsolescence': Late 1780s to early 1810s

The first stage, including the invention and establishment of the guittar, started around 1754 with the appearance of the guittar in London as an imported invention which was quickly adopted by fashionable London, and lasted until the early 1760s, when the instrument had become well-established in London's musical life. As has been mentioned, the earliest known published references to the guittar date from 1754, while the two earliest known surviving guittars, both made in London by R. Liessem, date from 1756. Additionally, the earliest dated

[833] Kurzweil (1999: 19) has identified seven stages in the life cycle of a technology, which has named 'Precursor', 'Invention', 'Development', 'Maturity', 'Pretenders', 'Obsolescence', and 'Antiquity', and which has thoroughly analysed, providing examples which include, among other objects, musical instruments and sound-reproducing devices. Kurzweil's system can be effectively applied to describe the rise and decline of the guittar and many other musical instruments as by-products of technological development.

guittar tutor, *Sixty Six Lessons for the Cetra or Guittar*, was published by G. B. Marella in London a year later, in 1757, although several undated tutors may have been published previously, while the earliest known iconographic evidence of the guittar, depicted in the 'Portrait of a Lady' by Arthur Devis, also dates from the same year.

Moreover, during this time the majority of makers involved in guittar-making were of German origin, the most important being Liessem, Hintz and Rauche, although a significant quantity of music for the instrument was composed, published and taught by musicians of British and Italian origin. During these years some of the most comprehensive and influential works for the guittar were published in London and Edinburgh, including tutors such as *Instructions for the Guitar* by R. Bremner or *The Art of Playing the Guitar or Cittra* by F. Geminiani, while the instrument was featured in public concerts by well-known performers such as Ann Ford or Frederic Theodor Schumann. It is notable that the early audience of the guittar consisted of both male and female amateur performers.

The second stage, covering the years from the early 1760s to the mid-1770s, encompasses the development and peak of the guittar. A guittar culture emerging from London rapidly expanded across the British provinces, and in Scotland and Ireland, while a guittar trade that included a network of professionals of various origins, who often worked in close partnerships, developed in London and other major British cities. The manufacture and marketing of the guittar gradually became controlled mainly by German, British and Irish makers, dealers and inventors, while the music and culture of the guittar was promoted among polite society by Italian, German, British and Irish music publishers, teachers, composers and performers. Interestingly, the profitable guittar trade attracted makers of various backgrounds and trainings, such as Zumpe, Beck, Lucas or Haxby, who were also involved in keyboard instrument-making.

In this period the instrument was also embraced by the royal court and the nobility and became a common and fashionable theme in contemporary literature and portraiture. In addition, during these years the guittar started being advertised as an affordable, elegant and easy to play instrument for female performers. Although during this period the guittar was occasionally featured in public concerts and theatrical productions, by this time it had adopted its permanent

role as a domestic instrument for young ladies. The works for the guittar included solos, but also duets and trios, with guittars or other instruments. Nevertheless, what is more important to note is the fact that popular tunes from operas and well-known pieces of music were arranged for the guittar, which meant that fine culture could be disseminated across a large part of the population, particularly among amateur performers of the middle classes, who could play this music at home for themselves and their guests.

The third stage, covering the period from the mid-1770s to the late-1780s, can be examined under the context of innovation and imitation in the guittar trade. This transitional period coincided with a time when guittar-making in Britain began to be dominated by large-scale entrepreneurs of mainly British origin, such as Preston, Longman & Broderip, or the Thompsons, with the German makers playing a less important role in guittar manufacture (one notable exception being Claus, who was responsible for the invention of the keyed guittar).

During this time the guittar was subject to a great amount of innovation, with four patents related to the instrument granted in 1776, 1783, 1784, and 1785, respectively. These patents regarded improvements of guittar parts, such as the fingerboard or various tuning devices, but mainly concerned piano-key mechanisms for hammering instead of plucking the strings, leading to the development of the keyed guittar. It is interesting to point out that, although it has so far been suggested that keyboard makers may have been threatened by the guittar's popularity[834], it was probably the guittar makers who, being alarmed by the increasing success of the pianoforte in the 1770s and 1780s, tried to rival this new instrument by adding keys to the guittar. It is also noteworthy that the four patents related to the guittar represent 10% of the patents granted in Britain between 1750 and 1800 relating to musical instruments.[835] However, as has already been described, several of these successful ideas were imitated and copied extensively by other makers, while their originators had to face heavy costs, and this often led to legal disputes, or

[834] The well-known story of Jacob Kirkman, described in detail in 'THE GUITTAR'S OPPONENTS AND CRITICS', Chapter 3, is included in almost any reference to the guittar in the relevant literature.
[835] 39 patents related to musical instruments were granted in Britain between 1750 and 1800, including 27 related to keyboard, 8 to stringed, 6 to wind and 2 to percussion instruments (some of these patents referred to more that one instrument). For more details see Woodcroft (1871/1984: 5-38).

even to bankruptcy and imprisonment. These facts illustrate, above all, that the guittar was evolving within a dynamic and competitive music industry, and within a consumerist society eager for novelty, efficiency, quality and variety.

Additionally, during these years the guittar culture, which had developed as a characteristic British phenomenon, was exported to other continental countries. The guittar and its music travelled to central- and eastern-European areas, such as most of the German-speaking regions and Bohemia, Poland, and Russia, where it influenced the design of the Russian seven-string guittar, while in the north they reached Scandinavian countries such as Denmark, Sweden, and Norway. Similarly, in southern Europe a guittar culture expanded to France, the Low Countries, Spain, and Portugal, where the guittar was transformed into an instrument of national appeal. Moreover, around this time the guittar fashion was also exported in the British colonies in America and India, largely as a result of imperialism and colonialism, which promoted aspects of British culture to the new areas under British dominance. It is noteworthy that in most of the places mentioned above the local instrument makers were strongly influenced by the guittar designs and trends emanating for London, while the instrument had essentially the same social and musical roles, as well as similar playing techniques and repertoire, as in Britain, although it was occasionally adapted to the needs and demands of the local communities.

The fourth and final stage refers to the decline of the guittar, which occurred during the years from the late 1780s to the early 1810s. Although music was still published for the guittar throughout the 1790s, the instrument was gradually superseded towards the end of the 18th and the beginning of the 19th centuries by a series of new gut-strung plucked instruments such as the as the harp-guitar, harp-lute-guitar, Apollo lyre, harp lute and dital harp, as well as the Spanish guitar. Most of these instruments were tuned in open C (or in tuning arrangements which included an open C tuning of the strings over the fingerboard), thus sharing the same playing techniques and repertoire as the guittar. When the sound of gut-strung instruments started becoming more popular, the wire-strung guittar and its characteristics became outdated. Alterations on surviving instruments have confirmed that the conversion of wire-strung guittars to gut-strung instruments, in order to meet the new demands was not unknown. Apart from the obvious stringing in gut instead of wire, such modifications usually involved the replacement of

the original nut, bridge and endpins with new parts, and often changes in the neck, fingerboard and the placement of frets.

From the early 1810s the guittar entered a state of obsolescence. The latest known surviving guittar, made in London by Harley, is dated 1805, while the latest music for the instrument dates from the early 1820s.[836] By the 1830s the guittar was considered an antique musical instrument of little value, as evidenced in contemporary references. Nevertheless, during its brief lifetime of about 50 years the guittar had enjoyed a considerable popularity among performers, and most importantly, it had created and sustained a culture and a market for plucked instruments across Britain during the second half of the 18th century.

8.1.4 OBSERVATIONS ON GUITTAR MANUFACTURE AND MARKETING

The results of this study have shown that at least 52 musical instrument manufacturers, dealers and inventors in the British Isles had been involved in the guittar trade, by 34 of whom there are 346 presently known surviving guittars.[837] In addition, it is estimated that more than 13,000 guittars were produced in the British Isles between 1750 and 1810, and about 600 or more of these have survived to date, allowing a thorough examination of their technical characteristics. The guittars examined during this study represent approximately 10% of the known surviving guittars.

As has been stated in this thesis, the most striking fact resulting from this examination concerns the wide variety of guittar design, construction and decoration features, which indicates the marketing power of the instrument as well as the growing need for novelty during the late 18th century; it also highlights the inventiveness and business acumen among guittar makers. As has been shown in this thesis, there were as many different types of guittars in the 18th century as, for example, the types of acoustic guitar that are produced today by various makers, to cover the needs of thousands of amateur and professional performers. However, it is important to note

[836] As has been pointed out, many advertisements and printed music between 1800 and 1820 mention lessons or instructions for the 'Spanish and English guitar'.
[837] For more details see Apendix I.

that the earlier guittars, especially those made in the 1750s and 1760s by German manufacturers, are characterised by quite different and individual styles, less standardised than later examples, whereas the majority of guittars made after the 1770s, especially by British manufacturers, have more uniform characteristics, which suggests that some successful designs, such as those produced by Preston, the Thompsons or Longman & Broderip, had prevailed over others within the guittar trade.

The design of the guittar, especially regarding body shapes and sizes, was quite influential for the commercial success of the instrument. For instance, although many early guittars had bowl backs and oval body shapes, this design gave way to flat-back instruments with rounded bodies, which were easier to construct, as well as hold and play. In addition, guittars of smaller sizes could be sold for children, thus increasing the makers' clientele, while guittars of larger sizes and longer scaling could be tuned at a lower pitch and provide the lower voice for guittar duets, such as those written by J. Oswald, with one guittar tuned in C the other in G, thus attracting customers who wanted to perform in ensembles.

In terms of construction, it is noteworthy that British makers almost exclusively built flat-back guittars, often using a combination of horizontal and diagonal bracing for the soundboard and back, whereas Irish and German makers typically used horizontal bracing; in addition, most German makers produced both flat-back and bowl-back guittars. It is also remarkable that on many guittars produced by British manufacturers, such as Preston or Longman & Broderip, the neck is joined to the body using a screw, the neck and head are made of many parts glued or screwed together than carved from a single piece of wood, and the wooden parts on the body and neck have often been stained before varnishing. Moreover, the decorative features of their instruments are usually minimal, more standardised, and less opulent compared to the German makers. These practices indicate that British manufacturers intended to accelerate construction and finishing, and to diminish the overall production costs, thus building cheaper instruments which aimed to attract middle-class customers.

Moreover, the diversity in guittar scaling, stringing properties and arrangements reflects the contemporary musical demands, as well as a constant experimentation with the guittar sound.

Although most guittars have ten strings arranged with two single strings for the bass and four double treble courses, other stringing combinations were used, either with one or more bass strings to extend the lower range of the instrument or with triple strings on the treble courses to produce a fuller sound, a feature used mainly on keyed instruments. An indicative example of the variety in guittar design can be seen on two guittars by Rauche, both dated 1762. The first guittar, BCP [8050], is an almond-shaped bowl-back instrument with a scaling of 456 mm, while the second, DCK [MI/A10], is a teardrop-shaped flat-back instrument with a scaling of 428 mm. In addition, apart from the different body shapes, overall dimensions, and scaling, the two guittars have ten and eleven strings respectively, indicating that at the time these guittars were manufactured there was a demand for both designs.

Furthermore, the development of the various tuning mechanisms for the guittar, such as the watch-key machine, the worm-and-pinion tuners or the machines heads, suggests that the guittar, at least at an early stage, had issues of fine tuning, which forced makers and inventors to improve the mechanical and technical aspects of the tuning devices, coming up with several effective solutions. Similarly, the addition of capotasto was aimed to increase the playability and range of the instrument in order to suit vocal accompaniment, which was its primary role. Likewise, the invention of the two piano-key mechanisms, which grew out of a need for a louder sound and more dynamics[838], clearly shows an attempt to keep the guittar in fashion by improving its musical characteristics (rather than by protecting the ladies' fingernails, as has been often assumed) when other instruments, such as the pianoforte, started becoming popular among performers.

Regarding the origins and invention of these distinctive features of the guittar, it is almost certain that the idea of the watch-key machine was first developed on the trumpet marine; early versions had been used on guittars already in the late 1750s, but the device was improved by Preston in 1766, becoming widely popular in the late 1760s. Moreover, this study has shown that

[838] This aspect has been analysed in 'A COMPARISON OF THE TWO PIANO-KEY MECHANISMS', Chapter 7.

the so-called 'Smith's Patent Box' certainly originated in Jackson's 1784 patent for the 'British Lyre', while the 'Piano Forte Guitars' advertised and sold by Longman & Broderip were most likely produced by Goldsworth, employing several features of his 1785 patent. Finally, as has been shown with several examples throughout this study, the modification of a guittar in order to install a capotasto, a watch-key machine, or an external piano-key mechanism, was not uncommon.

Decoration was another important aspect of guittar manufacture and marketing, especially given the fact that guittars were advertised as fashionable instruments for ladies. As has been pointed out, the use of costly materials, such as fine wood, ivory, tortoiseshell, or mother-of-pearl, on the rose, fingerboard and finial would increase the price of a guittar. Therefore, two otherwise identical instruments could be sold at different prices solely depending on their decoration features. The same applies to accessories, such as the capotasto, the watch-key machine, or the piano-key box, which could be added at pleasure at an additional cost.

In addition, the various makers' identification features on guittars, including paper labels, inscriptions in ink, engravings on metal parts, and stamps, most likely played a significant role in both advertising a maker's work to potential clients and protecting it from imitation. Moreover, the use of multiple marks or numbers on guittars by manufacturers such as Longman & Broderip or Preston clearly suggests production methods involving division of labour. Furthermore, as already noted, many examined guittars by these and other manufacturers have dimensions identical to the nearest millimetre, giving further weight to the idea of a standardised mass production, while the absence of dates indicates the manufacture of instruments for stockpile, which could be sold at anytime as new.

8.1.5 THE GUITTAR AS A MUSEUM ARTEFACT: A NEW ROLE?

Although focused on the guittar, the new evidence presented in this thesis has revealed various interesting facts concerning several aspects of instrument-making and musical life in late 18th-century Britain. Furthermore, it has pointed out the importance of employing an overarching approach and collaboration between different scientific disciplines, since the organological

study of musical instruments cannot be effectively carried out in isolation from the general socio-economic frame or the cultural background under which they were developed and used. As has been pointed out, this study aims to provide the first comprehensive study of the guittar in the British Isles, which coincides with a growing interest for the instrument and its music over the last years. Like many other musical instruments that had played an important part in the musical life of an era, but eventually became obsolete due to changing fashions and demands, after its decline in the early 19th century the guittar largely remained a curiosity among other museum artefacts.[839]

However, the instrument 'resurrected' approximately two hundred years after its disappearance largely due to the 'early music' revival which initiated awareness of historic musical instrument manufacture and performance. Accordingly, the last three decades have documented an increasing number of publications, conferences, concerts, recordings and other events related or devoted to the guittar, as well as the construction of websites and online discussion forums by guittar scholars, makers, players and enthusiasts for the circulation of information.[840] Furthermore, several instrument makers have recently produced technical drawings and copies of guittars or special parts for the instrument.[841] In addition, the last few years have witnessed a considerable rise in the current prices of original guittars[842], as well as initiatives by several museums to update their records and publish new data on surviving guittars in their collections.[843]

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[839] Indicative of this situation are the following comments when the author asked details about guittars in two major musical instrument collections: 'You are most welcome to study the five guittars in the collection [...]. There is almost nothing in our files on these instruments. There are by far the most neglected area of the collection […].', by Jon Whiteley, Department of Western Art, The Ashmolean Museum (PC, 8/2008), and 'I've pulled the files out for all of our English guitars, and there is really very little in them, since you are one of the first people to show an interest in these instruments!', by Arian Sheets, Curator of Stringed Instruments, National Music Museum, The University of South Dakota, (PC, 9/2008).

[840] Details of these activities have been mentioned in Chapter 1.

[841] For instance, Andy Rutherford has recently produced a technical drawing of his Preston/Thompsons guittar, while Martina Rosenberg and Makoto Tsuruta have both constructed copies of Preston's watch-key machine from original guittars in their ownership. Details of these works have been presented in Chapters 6 and 7.

[842] Although one can still find guittars auctioned for a few hundred pounds, the more elaborate or rare instruments may cost up to a few thousand pounds.

[843] Over the last three years the author has been contacted by various museums to provide results of his research for use in reference studies or for the publication of catalogues.

The main outcomes of this research concern the discovery of various instruments, iconographical evidence and archival sources previously unnoticed and, accordingly, the re-evaluation of several arguments concerning the guittar, as well as the methodical classification of the collected data for future reference.[844] The research has also identified several previously unrecorded instrument makers and other professionals involved in the guittar trade, providing a better and clearer view of the music business in Britain during the late 18th century, as well as highlighting the social and cultural character of guittar and its connection with a growing market for amateur musicians. Moreover, it has provided a concise methodology and has indicated potential sources for the future study of the instrument.

Nevertheless, to cover every aspect regarding the guittar would be rather impossible, especially considering the limitations of such a project; as result, several questions still need to be answered and several tasks have remained incomplete. For example, comprehensive lists of surviving guittars, published guittar music and guittar iconography are still under construction, while only a small number of extant guittars and archival sources have been so far examined to provide definite explanations to certain issues. In addition, the musical and performance characteristics of the instrument have not been fully studied, while the role of the guittar outside the British Isles needs to be examined more thoroughly. It is, however, hoped that this thesis will provide the basis for further systematic investigation which will bring to light more details concerning the guittar and its significant role during an important period of music history.

[844] Although there are several reference works for the study of keyboard or wind instruments, such as those by Boalch (1995) or Waterhouse (1993), no such works are presently available for the study of historic wire-strung plucked instruments.

APPENDICES

APPENDIX I: DIRECTORY OF GUITTAR MAKERS AND DEALERS

This directory includes all the known guittar makers and dealers working in the British Isles during the second half of the 18th century. The directory was compiled using and cross-referencing information from different sources, including standard reference works such as those of Humphries and Smith (1970), Jalovec (1968), Kidson (1900), Milnes (2000), Sadie (1984), Vannes (1951), Waterhouse (1993), or Boalch (1995), as well as auction and exhibition catalogues, journal articles and various online databases. The entries are arranged in alphabetical order, while precedence has been given to the spellings as found on extant instruments rather than in contemporary documents. The directory contains all the makers and dealers by whom guittars have survived, as well as those by whom no guittars have survived, but who were reportedly involved in the guittar trade as evidenced in literary references and contemporary documents; the names of inventors who were granted patents related to the guittar are also listed.

Each entry provides brief biographical information (names, dates, country of origin, etc.) and business details (workshop address, partnerships, main output, remarks on production methods, etc.), along with a provisional list of surviving guittars by each maker or dealer. The instruments are typically arranged firstly chronologically from the earliest to the latest as evidenced by the date of manufacture, when this is known, then alphabetically by the name of the public collection or private owner (with public collections mentioned first), and, finally, chronologically by the date of auction or sale, starting from the most recent to the earliest, when the present whereabouts of an instrument are unknown. It is important to note that some of these instruments, especially those recorded in auction catalogues, may have ended in public or private collections, and thus may have been duplicated in the lists. Any missing or unconfirmed details are indicated with a question mark (?).

ASTOR, GEORGE (GEORG PETER)

Biographical information and business details: b. 1752 - d. 1813. German musical instrument maker and music seller working at No. 79 Cornhill, and No. 27, Tottenham-Street, Fitzroy-Square, London, c.1798-1813. In an advertisement in the *Star* of 15 November 1798, quoted in Lasocki (2010: 118), Astor described himself as 'MANUFACTURER of MUSICAL INSTRUMENTS, and MUSIC-SELLER to their Majesties, and their Royal Highnesses the Prince of Wales and Dukes of York and Clarence'. In an advertisement in *The Times* of 12 January 1798, quoted in O'Brien (2009: 193), Astor and Co announced that they manufacture and sell 'Guitars' at their 'Music and Instrument Warehouse, No. 79 Cornhill, London'. In addition, the 'CATALOGUE OF MUSICAL INSTRUMENTS MANUFACTURED AND SOLD BY GEORGE ASTOR' from 1799, presented in Lasocki (2010: 119), lists 'Piano-Forte Guitars' and 'Cover'd Guitar Strings' among various instruments.

Surviving guittars: None

BANKS, BENJAMIN

Biographical information and business details: b. 14 July 1727 - d. 18 February 1795. English musical instrument maker and seller of the violin family, often described as the 'English Amati', working in Catherine Street, Salisbury. According to Milnes (2000: 47), Banks's 'first advertisements, appearing in the *Salisbury Journal* of 18 March 1757, are for citterns and keyboard instruments'.

Surviving guittars: 2

- A guittar by Banks dated 1757 is listed as 'cittern' in the *Illustrated Catalogue of Music Loan Exhibition by the Worshipful Company of Musicians at Fishmongers' Hall, June & July 1904* (London: Novello & Co, 1909, p. 138). A guittar dated 1750 'formerly the property of the widow of the Rev. Charles Wesley' listed in the same catalogue, p. 138, has also been attributed to Banks; the present wheareabouts of both instruments are unknown.

BECK, FREDERICK

Biographical information and business details: b. (?), baptised 30 May 1738, Württemberg - d. c.1798, London. German musical instrument maker who became known as a square piano manufacturer. He moved to London after 1756, working at No. 4, Broad Street, Golden Square, near Carnaby market, from around 1772 (in the late 1780s the building had been renumbered as No. 10). The earliest evidence of Beck's instrument-making activities is a drawing showing Beck's signature 'Fk Beck / London 1763' on the neck heel of a flat-back guittar, included in the Hill Archives (WA 1992.643.1, unmarked page). A guittar signed 'Beck & Pinto' and dated 1764, suggests that around that time Beck was in partnership with Charles Pinto, a musical instrument manufacturer and dealer. Most extant guittars by Beck date from the mid-1760s; from the early 1770s his work was focused on the manufacture of square pianos. In 1794 he was listed in Doane (1794/1993: 6) as 'Beck, Pia Forte Maker.-No.10 Broad-St. Carnaby M.'

Surviving guittars: 6

- 1764: Ulrich Wedemeier collection, Laatzen (signed 'Beck & Pinto')
- 1765: Kunitachi College of Music, Tachikawa-shi, Tokyo, [926]
- 1765: Musée de la Musique, Paris, [E.2081]
- 1765: Stearns Collection, University of Michigan, Ann Arbor, [1565]
- 1765: York Castle Museum, York, [DA7697]
- 1766: Gardiner Houlgate auction catalogue, 3 July 1998, lot 104, p. 5

BETTS, JOHN

Biographical information and business details: b. 1755, Stamford, Lincolnshire - d. March 1823, London. English musical instrument maker and dealer of the violin family working in No. 2

North Piazza, Royal Exchange, London. Betts, who succeeded R. Duke as the 'Musical Instrument Maker to his Royal Highness the Duke of Gloucester', is listed in Doane (1794/1993: 7) as 'Betts, John Edward, *Violin & Violoncello* Maker'. In his trade card, included in Milnes (2000: 60), Betts advertised that he 'Makes & Sells, Wholesale and Retail […] Guitars' among a variety of musical instruments.

Surviving guittars: None

BREMNER, ROBERT

Biographical information and business details: b. c.1713, Edinburgh - d. 12 May 1789, London. Scottish musical instrument maker, music publisher and seller working in Edinburgh and London. In Edinburgh Bremner's address was opposite the head of Blackfriars Wynd, High Street, between 1754 and 1759, first 'at the Golden Harp', then from c.1755 'at the Harp and Hautboy', while from c.1759 to 1789 he worked opposite Cross Well, High Street, as mentioned in Humphries and Smith (1970: 83-4). In 1762 Bremner moved his business in London, employing a manager, John Brysson, to run his Edinburgh branch. In London Bremner worked at the 'at the Harp and Hautboy', opposite Somerset House in the Strand, London, from 1762 until 1789; additionally, between c.1770 and 1775 he had a branch establishment at No. 108 New Bond Street.

In the late 1750s and early 1760s Bremner published a considerable quantity of guittar music, including his *Instructions for the Guitar* (1758/1765), probably the most comprehensive and influential guittar tutor, which may have been written by his son Robert, who had been earlier sent to London to study the guittar with F. Geminiani. Around 1758 Bremner also published *The Songs in the Gentle Shepherd*, which were 'Adapted for the Guitar by Robert Bremner. Edinburgh. Sold at his music Shop. Where may be had […] Instructions for Guitar […] Guitars & all other Musical Instruments at Reasonable Rates'. Moreover, an extensive list of Bremner's stock from around 1765, presented in Halfpenny (1964: 99-100), includes a large variety of musical instruments and accessories, among which were 'Guittars several sorts'. Bremner's business continued to flourish in the 1760s and 1770s; in 1764 Bremner bought the plates of John Simpson,

in 1777 most of the stock and plates of John Johnson, and in 1779 some plates from the firm of Welcker.

After his death in 1789 Bremner's entire stock-in-trade of the London business was purchased by Preston & Son. An advertisement for sale by auction of Bremner's various properties, commodities and stock-in-trade, included in the *Morning Post and Daily Advertiser* of 25 July 1789, as quoted in Humphries and Smith (1970: 25-6), confirms that by the time of his death Bremner was a very successful and wealthy businessman. In his final will of 1789 (TNA: PROB 11/1180) he was described as 'Robert Bremner, of the Strand in the County of Middlesex, Music Seller'.

Surviving guittars: 2

- (?): Sotheby's auction catalogue, 13 May 1971, lot 36, p. 11
- (?): Puttick & Simpson auction catalogue, 4 June 1970, lot 1, p. 1

BRODERIP & WILKINSON

Biographical information and business details: 1798 - 1807. English musical instrument manufacturers, music publishers and sellers working at No. 13 Haymarket, London. The company was formed in 1798 by Francis Fane Broderip and Charles Wilkinson, after Broderip had been released from the debtors' prison, to where he had been sent following Longman & Broderip's bankruptcy in 1795. After Broderip's death in 1807 the business was continued by Wilkinson, who worked with various partners, including Robert Wornum, a manufacturer of keyboard and plucked stringed instruments. The only extant guittar by Broderip & Wilkinson is a keyed instrument with features quite similar to keyed guittars produced by Longman & Broderip.

Surviving guittars: 1

- Christie's auction catalogue, 18 November 1998, lot 544, p. 59

BUCHINGER, JOSEPH

Biographical information and business details: b. 1750, fl. 1775 - 1811, d. (?). Also mentioned as 'Buckenger' or 'Buckinger'. Musical instrument maker, music publisher and seller possibly of German origin working at No. 443 Strand, London. The earliest known instrument by Buchinger is a guittar signed 'Joseph Buchinger / London 1775', mentioned in Vannes (1951: 46), in the Landesmuseum Württemberg, Stuttgart. According to Humphries and Smith (1970: 91) Buchinger was 'in partnership with Mrs. Elizabeth Carr, widow of Benjamin Carr, musical instrument maker of old Round Court, Strand' until September 1782. Buchinger had been apprentice to Rauche, since a printed label in a violin, mentioned in the Hill Archives (WA 1992.643.1, p. 58) bears the inscription 'Joseph Buchinger / late apprentice to Michl Rauche'. In 1785 Buchinger succeeded Rauche, as evidenced in an advertisement in the *Morning Herald* of 20 January 1785, in which he announced: 'Buchinger No. 443 Strand […] being the only successor to the late Mr. Rauche, whose guittars ever justly bore the preference, he continues to make them of the same pattern, having purchased his tools and utensils'.

Buchinger is listed in Doane (1794/1993: 10) as 'Buckinger, Joseph, *Bass, Viola, Music-Seller*, New Mu / Fu, Abb. - No.443, Strand.', while around 1805-6 he had a brief partnership with Sharp as 'Buchinger & Sharp'. Holman (2007: 16, 20) mentions that Buchinger, who was 'esteemed the best performer of the lute in Britain', was the father-in-law of Barry, a London manufacturer of gut-strung plucked instruments, such as harp-lute-guitars or Apollo lyres, around the end of the 18th and the beginning of the 19th centuries. Notably, Barry worked in partnership with Edward Light (1747-1832), listed as 'Light, Edward, *Alto, Violin, Harpsichord*' in Doane (1794/1993: 41), a musician, music teacher and inventor of the harp-guitar, harp-lute-guitar, harp lute, and dital harp, who had taught and published music for the guittar in the 1780s.

Surviving guittars: 2

- 1775: Landesmuseum Württemberg, Stuttgart, [?]
- (?): Royal Northern College of Music, Manchester, [S 1]

CLAGGET, CHARLES

Biographical information and business details: b. 1737, Waterford - d. c.1796, London. Also mentioned as 'Claggett' or 'Claget'. Irish musician, music teacher and inventor living and working in Dublin (1762-70), Liverpool (1771-73), Manchester (1773-75) and London (1776-c.1796). According to Waterhouse (1993: 64), around 1788 Clagget was working in Long Acre; by 1790 he had moved to No. 16 Greek Street, Soho, where he had opened a 'MUSICAL MUSEUM' for the display and sale of his patent instruments, as evidenced in several announcements presented in Kassler (1979: 194-96). Around 1760 Clagget composed *Forty Lessons and Twelve Songs for the Citra or Guitar*, while an advertisement in *Faulkner's Dublin Journal* of 30 April-3 May 1763, as quoted in Lawrence (1999: 16), announced that 'a song by Master Passerini' would be 'accompanied on the Guitar by Mr Claget'.

In 1776 Clagget received a patent for his 'Improvements on the violin and other instruments played on finger boards' (Patent No. 1140, 7 December, 1776), which included a new fingerboard for the guittar. Clagget was granted a second patent in 1788 (Patent No.1664, 15 August 1788), for 'Methods of constructing and tuning musical instruments, which will be perfected in their kind, and much easier to be performed on than any hitherto discovered.' However, Clagget's plan to release the patent was delayed due to a fire, as it is captured in the following advertisement in the *London Gazette* of 20 October 1789: 'October 23, 1789. HIS Majesty has been graciously pleased to grant unto Charles Clagget His Letters Patent at different Periods, for Improvements on many Musical Instruments, the Result of near Fourteen Years laborious and expensive Application, which would have been brought before the Lovers of that science long since, but unfortunately he was deprived of that Power by a Fire which happened in February last […] The Improvements chiefly consist in the Temperament of Musical Sounds on the Violin, Violoncello, Tenor, Harpsichord, Grand Piano Forte, Guittar, French horn, and Trumpet […]'.

Moreover, as an inventor Clagget, who was mainly concerned with mechanical improvements to the tuning of musical instruments, had some connections with James Watt, as mentioned in Holman (2007: 13), as well as a sort of partnership with William Gibson, a fact confirmed by two extant guittars signed 'Clagget & Gibson', dated 1763 and 1790. In 1793 Clagget went bankrupt

as recorded in the following announcement in the *London Gazette*, 26 March 1793 (a similar announcement appeared on 25 May 1793): 'Whereas a Commission of Bankrupt is awarded and issued / forth against Charles Claggett, of Greek-Street in the / Parish of St. Ann Soho, in the County of Middlesex, Musical / Instrument-maker, Dealer and Chapman, and he being declared / a Bankrupt is hereby required to surrender himself to the Commissioners [...]'; little is known about him after this date.

Surviving guittars: 3

- 1763: Stearns Collection, University of Michigan, Ann Arbor, [1086] (signed 'Clagget C. Gibson')

- 1790: National Museum of Ireland, Dublin, [?], mentioned in Doyle (1978: 23) (signed 'Clagget & Gibson')

- c.1790: Händel-Haus Museum, Halle, [MS 129]

CLAUS, CHRISTIAN

Biographical information and business details: fl. 1783-99. Also mentioned as 'Clauss' or 'Clause'. German musical instrument maker and dealer who, according to Groce (1991: 31), was probably a native of Stuttgart. Sometime before 1783 Claus had moved and settled in London, working at Frith Street in the Parish of Saint Ann, Soho. While in this address Claus obtained a patent for 'An improvement upon the musical instrument commonly called the guitar' (Patent No. 1394, 2 October 1783); the patent chiefly concerned the invention of an internal piano-key mechanism for the guittar. From this date Claus began to be mainly occupied in the manufacture of keyed guittars; ten out of eleven surviving guittars by Claus are equipped with internal piano-key mechanisms.

In an advertisement in the *Morning Herald and Daily Advertiser* of 1 May 1784 Claus announced that he would move to 'Gerrard-street, the corner of Nassau-street, Soho'. A year later in the *The London Gazette* of 5, 12 and 26 April 1785 Claus advertised his keyed guittars as 'Claus & Co'

from his new address at 'No. 7, Gerard-street, Soho'; by this time Claus had formed a partnership with Joseph Levy, a 'Goldsmith and Jeweller', as evidenced in court case from 1786 (TNA: PRO C12/154/35). In this document it is also reported that Claus & Co were buying in roses, tuning machines and various other guittar components, while they had purchased strings from a 'Mr Preston' and regularly paid 'Mr Foglar' (most likely Vogler) 'for guittars'.

Due to financial problems in 1787 Claus went bankrupt as confirmed in an announcement in the *London Gazette* of 31 July 1787 stating that 'a Commission of Bankrupt is awarded and issued forth against Christian Clause, of Gerrard street, Sohosquare, in the County of Middlesex, Musical Instrument-maker, Dealer and Chapman'. Probably to avoid paying his debts, Claus chose to flee to America sometime before 1789; by 1789 Claus had finally settled in New York, where he was listed as a musical instrument maker in a local directory, as mentioned in Libin (1985: 163). From 1791 until 1793 Claus worked in partnership with the keyboard instrument manufacturer Thomas Dodds at 66 Queen Street. In an advertisement in *The Diary: or Loudon's Register* of 10 June 1793, quoted in Groce (1991: 31-2), Claus informed 'the ladies that he intends to manufacture piano-fortes and common guitars the same as he used to do in London'. There are no details about Claus's life and work after 1793, although he is mentioned as a 'fretted musical instrument maker' working in New York from 1789 to 1799.

Surviving guittars: 11

- c.1783: Musée des Instruments de Musique, Brussels, [261]
- c.1783: Metropolitan Museum of Art, New York, [1982.241.3]
- c.1785: Blair Castle, Perthshire, [8051]
- c.1785: Danish Music Museum, Copenhagen, [C 86]
- c.1785: Metropolitan Museum of Art, New York, [89.4.1013]

- c.1785: Museo degli Strument Musicali di Roma, Rome, [1874]

- c.1785: The National Trust, [SNO/MC/80)]

- c.1785: Victoria & Albert Museum, London, [240-1881]

- c.1785: Etude Tajan auction catalogue, 19 December 1997, lot 60, p. 14.

- c.1791-93: Conservatorio 'Luighi Cherubini' Collection, Galleria dell' Academia, Florence, [1988/76] (stamped 'Dodds & Claus')

- c.1791-93: Saco Museum, Maine, [2001.124.1] (stamped 'Dodds & Claus'; this is the only extant non-keyed guittar by Claus)

CONNOR, DENNIS

Biographical information and business details: fl. c.1740-75. Irish musical instrument maker, music publisher and seller working in Dublin. According to Lawrence (1999: 28), Connor was working at 2 Little Christ Church Yard (1745-48) and South Christ Church Yard (1748-75). Connor is listed in Teahan (1963: 28) as a 'Maker of Flutes, Concert Flutes, Guitars, Violins and Hautboys, Dublin, Little Christchurch Yard, 1748.' An advertisement in the *Dublin Journal* of 14-17 July 1759, quoted in Lawrence (1999: 28), reads: 'Dennis Conner of South Christ Church Yard makes and sells Fiddles and Flutes and has brought Guitars to as great proportions as they make in London'.

Surviving guittars: None

CULLIFORD, ROLFE & BARROW

Biographical information and business details: 1789-97. English musical instrument makers and sellers working in London. The company was formed around 1789 by Thomas Culliford, William Rolfe and Charles Barrow, Culliford's son-in-law, after Culliford's previous partners, J.

Goldsworth and T. Bradford, had left Culliford & Co in 1787 and 1789 respectively, as mentioned in Nex (2004: 22-3). In 1795 the company opened a warehouse at No. 112 Cheapside and a manufactory at No. 13 Red Lion Court, Watling-street, where they produced various instruments, including 'Guittars of every description', as described in the following advertisement in the *Times* of 13 June 1795, quoted in Nex (2004: 27): 'MUSIC and MUSICAL INSTRUMENTS.-CULLIFORD, ROLFE, and BARROW respectfully beg leave to inform their Friends and the Public in general, that they have opened a Warehouse at No. 112, Cheapside, for the Sale of Grand and Small Piano-fortes, Harpsichords, and Guitars of every description, on the most approved principles.-Musical Publications, and every article in the Musical Branch. After twenty years experience in manufacturing the above-mentioned instruments, […], they are emboldened to hope for the patronage and support of a liberal and discerning Public.-Instruments tuned and repaired. Orders addressed to their Warehouse in Cheapside, or their Manufactory, No. 13, Red-lion-court, Watling-street, will be particularly attended to.'

The partnership dissolved in 1797 as evidenced in the following announcement in the *London Gazzette* of 14 October 1797: 'London, September 29, 1797. / THE Partnership lately subsisting between Thomas Culliford, / William Rolfe, and Charles Barrow, of Cheapside in the / City of London, Musical Instrument Makers, was this Day dissolved / by mutual Consent […]. As / witness our Hands. / *Tho. Culliford.* / *Wm. Rolfe.* / *Charles Barrow.*' According to Nex (2004: 31), Rolfe retained the address at No. 112 Cheapside and No. 13 Red Lion Court, while Culliford and Barrow moved to new premises at 'No. 172, Corner of Surry-Street, Strand', where they continued making musical instruments, including guittars, as 'Culliford & Co', as confirmed in the following advertisement, which appeared in the *London Gazzette* of 14 and 17 October 1797: 'CULLIFORD and Co. Grand and Square Piano Forte / Manufacturers, respectfully inform their Friends and the / Public, that they have removed their Business from- No. 112, / Cheapside, opposite Bow Church, to No. 172, Corner of. / Surry-Street, Strand, which is fitted up for the manufacturing / of Piano Fortes, Guitars, &c. […]. Instruments repaired and tuned in Town or Country by / Persons of approved Abilities. / *Tho. Culliford*. / *Cha. Barrow.*

In 1798 Culliford & Barrow went bankrupt, as mentioned in the following announcement in the *London Gazzette* of 30 October 1798: 'Whereas a Commission of Bankrupt is awarded and / issued

forth against Thomas Culliford and Charles / Barrow, of the Strand, in the County of Middlesex, Musical / Instrument Makers, Dealers, Chapmen, and Copartners, / and they being declared Bankrupts are hereby required to / surrender themselves to the Commissioners in the laid Commission […]'.

Surviving guittars: None

DICKINSON, EDWARD

Biographical information and business details: fl. 1750-90. Also mentioned as 'Dickenson'. English musical instrument maker of stringed instruments working at 'the Harp and Crown' in the Strand, near Exeter Change, London, c.1759. In the 1760s Dickinson had a partnership with Rauche as evidenced from a surviving trade card, included in the Hill Archives (WA 1992.643.2, p. 73), which reads: 'Guittars, Mandores, Lutes, Mandolins / Violins, Basses &c. / Made and Repair'd by Rauche & Dickenson / at the Music Warehouse / at the Guitar and Flute / in Chandois Street / London'. The only surviving guittar by Dickinson, dated 1759, is the earliest known guittar made by an English maker.

Surviving guittars: 1

- 1759: Victoria & Albert Museum, London, [222-1882]

DUKE, RICHARD

Biographical information and business details: b. 3 December 1718, Holborn, London - d. 21 February 1783, Kentish Town, London. English musical instrument maker and dealer of the violin family and 'Musical Instrument Maker to his Royal Highness the Duke of Gloucester', working at Lamb's Conduit Passage, Red Lion Square, Holborn; Red Lion Street, near Gray's Inn Passage, Holborn; and at No. 53 opposite Great Turnstile, High Holborn. According to Baines (1968: 49) one of Duke's apprentices was Thomas Perry of Dublin, another guittar maker. In his trade card while working at No. 53 opposite Great Turnstile, High Holborn, included in Milnes

(2000: 43), Duke advertised that he makes and sells 'All Sorts of Musical Instruments' including 'Guittars'.

Surviving guittars: None

ELSCHLEGER, J. C. (JOHANN CHRISTIAN?)

Biographical information and business details: Apart form one surviving guitar nothing is known about this maker; he may as well have been simply the owner of this instrument. The decoration features of this guittar are similar to makers working in London, especially Hintz.

Surviving guittars: 1

- (?): Royal College of Music, London, [21]

EVERDELL, W. (WILLIAM?)

Biographical information and business details: Apart form one surviving guitar nothing is known about this maker; he may as well have been simply the owner of this instrument.

Surviving guittars: 1

- (?): Smithsonian Institution, Washington DC, [#60.1373]

GIBSON, WILLIAM

Biographical information and business details: b. (?), fl. 1761-90, d. 1790. Irish musical instrument maker and music teacher working in College Green, Dublin. Grattan Flood (1909: 141) has mentioned Gibson among harpsichord makers working in Dublin c.1765-1775, noting, however, that Gibson 'devoted more attention to the guitar, which was then all the rage'. From 1766 to 1774 Gibson was working at College Street, then from 1775 to 1790 at 6 Grafton Street. According to Lawrence (1999: 26) Gibson was listed in the *Dublin Directories* from 1770 to 1773 as a 'teacher and musical instrument maker' and thereafter as a 'music instrument maker'. Gibson

was one of the earliest and most prolific guittar makers working outside London; a surviving guittar by Gibson, dated 1761, is the earliest known guittar made by an Irish maker.

From 1775 to 1778 Gibson had a partnership with the keyboard instrument maker Robert Woffington; an extant small-sized guittar dated 1776, mentioned in Armstrong (1908: 6, footnote 2), Doyle (1978: 23) and Lawrence (1999: 26), as well as a guittar dated 1774, listed in Sotheby's auction catalogue, 16 May 1978, lot 77, p. 24, are co-signed by Gibson and Woffington. Gibson also had some sort of partnership with the inventor Charles Clagget, since two extant guitars, the first dated 1763 and the second dated 1790, are co-signed by Gibson and Clagget. After his death in 1790 Gibson was succeeded by Alexander McDonnell, who continued making guittars imitating Gibson's style.

Surviving guittars: 29

- 1761: Paul Doyle collection, Galway (also listed in Phillips auction catalogue, 29 March 1984, lot 30, p. 6)
- 1763: Stearns Collection, University of Michigan, Ann Arbor, [1086] (signed 'Clagget C. Gibson')
- 1764: National Museum of Ireland, Dublin, [1913.396]
- 1765: Victoria & Albert Museum, London, [W.7-1919]
- 1765: Sotheby's auction catalogue, 23 November 1988, lot 682, p. 300
- 1765: Sotheby's auction catalogue, 13 March 1978, lot 328, p. 67
- 1767: Christie's auction catalogue, 3 July 1992, lot 2
- 1768: Musée de l'Hospice Comtesse, Lille, [C.616] (also mentioned in Vannes (1951: 127) as in the collection of 'Mme Hel of Lille')

- 1770: National Museum of Ireland, Dublin, [1995.105]
- 1771: Sotheby's auction catalogue, 16 March 1971, lot 25, p.10
- 1772: EUCHMI, Edinburgh, [309]
- 1772: Powerhouse Museum, Sydney, [H7854]
- 1774: Sotheby's auction catalogue, 16 May 1978, lot 77, p. 24 (signed 'Gibson & Woffington')
- 1775: Sotheby's auction catalogue, 13 and 21 November 2001, lot 349, p. 122
- 1776: National Museum of Ireland, Dublin, [?] (signed 'Gibson & Woffington')
- 1777: Academy of Music, Dublin, [?] (information from Paul Doyle)
- 1778: National Museum of Ireland, Dublin, [1908.31]
- 1778: Bonhams auction catalogue, 9 July 2007, lot 28, p. 10
- 1779: National Museum of Ireland, Dublin, [?], mentioned in Doyle (1978: 23)
- 1780: Christie's auction catalogue, 16 November 1972, lot 10, p. 7
- 1782: National Music Museum, University of South Dakota, Vermillion, [2627]
- 1788: Private collection, UK (information from A. Robb, <http://www.art-robb.co.uk/EG.html>, accessed 7/3/2011)
- 1790: National Museum of Ireland, Dublin, [?], mentioned in Doyle (1978: 23) (signed 'Clagget & Gibson')

- (?): National Museum of Ireland, Dublin, [1977.16]

- (?): Takuji Akashi collection, Ehime, Japan (information from <http://cittern.ning.com/profile/TakujiAkashi?xg_source=profiles_memberList>, accessed 10/3/2011)

- (?): Taro Takeuchi collection, London

- (?): Private collection, Amsterdam (information from <http://www.palmguitars.nl/archives/tales/wgibson.html>, accessed 8/9/2007)

- (?): Private collection, Germany (information from Martina Rosenberger, <http://cittern.ning.com/photo/gibsonmeyerv-1?context=latest>, accessed 17/2/2011)

- (?): Sotheby's auction catalogue, 4 November 1998, lot 301, p. 59

GOLDSWORTH, JOHN

Biographical information and business details: fl. 1778-93. English musical instrument maker and dealer working in London, at Maiden Lane, Cheapside, c.1785, and Tottenham Court Road, c.1790. In an insurance policy from 1778 Goldsworth was described as a 'harpsichord maker', residing at the address of T. Culliford, while in one of 1791 as a 'musical instrument maker', as presented in Whitehead and Nex (2002: 13, 20, Appendix 1). In 1784 Goldsworth became a member of Culliford & Co, along with Thomas Culliford, William Rolfe and Thomas Bradford; at that time he was residing at the address of W. Rolfe, as mentioned in Whitehead and Nex (2002: 13). In 1785 Goldsworth received a patent concerning a removable internal piano-key mechanism, as well as a new fingerboard and tuning mechanism for the guittar (Patent No. 1491, 23 July 1785); in his patent he is described as 'JOHN GOLDSWORTH, of Maiden Lane, Cheapside, in the City of London, Musical Instrument Maker'.

According to Nex (2004: 17) in 1786 Culliford & Co signed an contract with Longman and Broderip regarding the exclusive construction and supply of instruments, while the same year the four partners arranged a joint insurance policy with the Sun Fire Office, as mentioned in

Whitehead and Nex (2002: 13). As a partner in this contract Goldsworth most likely supplied the firm of Longman & Broderip with keyed guitars. In 1787 Goldsworth left Culliford & Co to form a partnership with John Geib; an insurance policy from 1791, reported in Whitehead and Nex (2002: 13), mentioned that Geib and Goldsworth jointly insured their 'utensil stock and goods in trust in their workshops and warehouses' in Longman's timber yard in Tottenham Court Road. This firm also provided Longman & Broderip with instruments, as mentioned in Nex (2004: 22-3). In 1793 Goldsworth went bankrupt as evidenced in the following announcement in the *London Gazette* of 30 March 1793 (similar announcements appeared on 2 and 23 April, and also 21 May 1793): 'WHereas a Commission of Bankrupt is awarded and issued forth against John Goldsworth, of Tottenham Court Road in the County of Middlesex, Musical Instrument Maker, Dealer and Chapman, and he being declared a Bankrupt is hereby required to surrender himself to the Commissioners […].' Nothing else is known about Goldsworth after 1793.

Surviving guittars: None

GOULDING, PHIPPS & D'ALMAINE

Biographical information and business details: c.1799 - 1810. English musical instrument manufacturers, music publishers and 'music sellers to the Prince and Princess of Wales', working at No. 45, Pall Mall, London, c.1800, as reported in Kidson (1900: 53-4). The company was developed around 1798 by George Goulding, who had started a music business in 1785, and his two partners, Thomas D'Almaine (c.1784-1866) and a certain Phipps. The catalogue of Goulding, Phipps and D'Almaine from 1800, as presented in Lasocki (2010: 129), includes 'Common' as well as 'Piano Forte Guitars' and 'Guitar Strings', while around that time they published T. Bolton's *A Collection of Songs, Rondeaus, Waltzes, Marches and Dances, for the guitar, pianoforte guitar, or the new invented Spanish guitar*. According to Kidson (1900: 91) around 1808-9 Phipps withdrew from the partnership and probably started his own business; a harp-guitar by Phipps survives in EUCHMI, Edinburgh, [1072].

Surviving guittars: None

HARDIE, MATTHEW

Biographical information and business details: b. 23 November 1754, Jedburgh - d. 1826, Edinburgh. Scottish musical instrument maker of the violin family, known as the 'Scottish Stradivari'. He worked at various addresses around the Lawnmarket, Edinburgh, as mentioned in Milnes (2000: 69-72). According to Rattray (2006: 18) Hardie is listed in the Edinburgh Directory of 1790 as 'Musical Instrument Maker, Lawnmarket'. In a letter dating from 31 April 1813 Hardie reported the repair of a guittar for a certain Mr Innes, as mentioned in Rattray (2006: 25), although it is uncertain if he produced any guittars himself.

Surviving guittars: None

HARLEY, DAN WARNER

Biographical information and business details: b. (?) - d. c.1818. English musical instrument maker of stringed instruments working at Wych Street, Middlesex, London. Harley had a partnership with William Warner and Samuel George Lewis which dissolved in 1798, as evidenced in an announcement in the *London Gazette* of 9 January 1799, which reads: 'THE Partnership between William Warner, Dan Warner Harley, and Samuel George Lewis, of Vauxhall-Walk, Lambeth, in the County of Surry, and Wych-Street, in the Parish of Saint Clement Danes, in the County of Middlesex, String and Musical Instrument-Makers, being this Day mutually dissolved […]. As witness their Hands this 15th Day of December, 1798.'

Like Barry and Buchinger, in the early 19th century Harley was mainly producing gut-strung plucked instruments, such as harp-lute-guitars, of which several have survived to date. A keyed guittar signed 'Harley maker ... Wych Street London 1805', is the only surviving guittar by Harley and the latest known signed guittar. In his will of 8 June, 1818 (HA87/A8/5/1), Harley is described as 'gent., musical instrument maker' residing in 'Tot Hill in Haughley'.

Surviving guittars: 1

- 1805: Danish Music Museum, Copenhagen, [CL150]

HAXBY, THOMAS

Biographical information and business details: b. (?), baptised 29 January 1729 - buried 31 October 1796. English musical instrument maker, music publisher and seller working 'at the Organ' in Blake Street, York, from 1756. Haxby is known as one of the most important and prolific keyboard instrument manufacturers working outside London. The earliest evidence of Haxby's association with the guittar is a bill dated 18 February 1761 in the Leeds City Archives, Pawson MSS, Box 39, as quoted in Haxby and Malden (1978: 48, footnote 26), which reports Haxby having been paid for new set of guittar strings in Temple Newsam House, Leeds, in 1760: 'T. Haxby for tuning the Harpsichord twice in 1760 £2.2.0 Set of Guitar strings 2/6'. Haxby's interest in the guittar trade is further confirmed by the fact that his brother and business partner, Robert, composed *Twenty-four Easy Airs for the Guittar made on Purpose for Young beginners* (London: J. Longman & Co, 1769), as mentioned in Haxby and Malden (1978: 44-5 and footnote 14), while Thomas himself published Thomas Thackray's *Six Lessons for the Guittar* in York, c.1770.

In his will of 1792 Haxby of York bequeathed to his successors, the Tomlisons 'all my Harpsichords Piano Forte Spinnets Stock of Wood Metal Tools Working Utensils and other Materials used in my Workshops [...]', as quoted in Haxby and Malden (1978: 53). After his death in 1796 Haxby was succeeded by his brother-in-law Edward Tomlinson, and his son Thomas, who had been Haxby's apprentice from 1782 to 1789. In the *York Courant* of 7 November 1796 the Tomlinsons announced that they had 'been employed by Mr Haxby for many years past, in assisting him and executing his business, and particularly in finishing all his new Instruments […]', as quoted in Haxby and Malden (1978: 47, footnote 23).

Surviving guittars: 2

- (?): Private collection, Germany (Information from W. Emmerich; this instrument was listed in Sotheby's auction catalogues of 27 March 1981, lot 84, p. 20, and of 4 November 1998, lot 297, p. 58)

- (?): Phillips auction catalogue, 14 December 1978, lot 56, p. 11 (mentioned in Vannes (1951: 152); also included in the *Illustrated Catalogue of Music Loan Exhibition by the Worshipful Company of Musicians at Fishmongers' Hall, June & July 1904* (London: Novello & Co Ltd, 1909), p.139, listed as a 'cittern' dated 1770, in the possession of A. F. Hill with the description 'Made for King George III. In its original leather case, with the Royal crown and initials G. R. stamped upon it.')

HINTZ, JOHN FREDERICK (JOHANN FRIEDRICH)

Biographical information and business details: b. 1711, Greifenhagen – d. 25 April 1772, London. Also mentioned as 'Hints' or 'Hinz'. Hintz, who had trained as a cabinet maker, probably immigrated to London in the 1730s; in 1738 he was listed as 'HINTS, FREDERICK, Cabinet-maker, at *The Porcupine*, in Newport Street, near Leicester Fields', as mentioned in Heal (1953: 82). In 1738 Hintz, who was raised as a Lutheran, left London to join the Moravian Church communities in Germany. As a Moravian member, and later acolyte, Hintz had to move frequently between Germany and England for nine years from 1738 to 1747. According to Graf (2008: 11) it was while working within the circles of Moravian Church that Hintz was urged to become an instrument maker.

After settling permanently in London in 1748 Hintz kept working closely with and under the directions of the Moravian community for a few years. As is reported in contemporary documents from 1751 Hintz had troubles reinstating his cabinet-making activities in London; an item in the minutes of the Helpers Conference from 12 September 1751, presented in Graf (2008: 15), reads 'Br. Hintz cannot get thro in his business', while another from 18 September announces 'If anyone who has credit by anyone who sells mahogany wood it might be serviceable to Br. Hinz.' However, in February 1752 Hintz opened his own shop 'at the Golden Guittar in Little Newport Street the Corner of Ryders Court near Leicesterfieds' where he continued to make furniture at least until 1753, as stated by Graf (2008: 15). Hintz started making guittars around 1754; an advertisement appearing in the *London Evening Post* of 6, 7, and 8 August 1754 reads: 'Frederick Hintz, At the Golden Guittar, in Little Newport-Street, facing Newport Market, Makes and Sells all sorts of the Completest Guittar; as also the Æolian Harp,

an Instrument play'd by the Wind [...]'. A similar announcement by Hintz in the *Public Advertiser* of 17 November 1755 reads: 'Frederick Hintz, at the Golden Guittar, the Corner of Ryder's Court, Leicester Fields is the Original Maker of that Instrument call'd The Guittar or Zittern, who has for many Years made and taught that Instrument, and has lately made a great Improvement on it, so that it may in a Moment be set to any Instrument or Voice […]'. Moreover, the earliest surviving guittars by Hintz are two instruments both dated 1757.

In 1763 Hintz was listed in Mortimer's *London Universal Directory*, as quoted in Dart (1949: 30), as 'HINTZ, Frederick. Guittar-maker to her Majesty and the Royal Family; makes Guittars, Mandolins, Viols de l'Amour, Viols de Gamba, Dulcimers, Solitaires, Lutes, Harps, Cymbals, the Trumpet-Marine and the Æolian Harp. *The Corner of Ryder's-court, Leicester-fields*'. Likewise in an advertisement in the *British Evening Post* of 27 October 1763 Hintz is described as 'Mr. Hintz, Guittar Maker to Her Majesty and the Royal Family'; the advertisement mentions four types of guittars invented by Hintz, namely 'a new-invented Guitar with eight Strings more in the Bass', a 'Guitar called the Tremulant', a 'De L'Amour Guittar, with a Lute Stop', and 'a Guittar to be played with a Bow, as well as with the Fingers'.

In 1764 Hintz is mentioned as an instrument maker in Moravian records for the first time; until then he was always listed as a furniture maker. Hintz is also listed in Leopold Mozart's travel notebook from around the same time as 'Mr: Hinz Cytarren-macher. Instruments Shop Co[r]ner of the Court near little Newport Str.', as quoted in Graf (2008: 21). In an advertisement in the *Public Advertiser* of 13, 17 and 22 March, and 9 May 1766, presented in Graf (2008: 20), Hintz claimed to be the 'first Inventor' of the guittar, announcing that he has 'after many Years Study and Application in endeavouring to bring this favourite Instrument the Guittar (being the first Inventor) still to a greater perfection in regard to tuning and keeping the same in Tune, which has always been a principal Defect as well as inconvenient, has now found out, on a Principal entirely new, several Methods, whereby it is much easier and exacter tuned, and also remains much longer in Tune than by any Method hitherto known.'

Graf (2008: 33) mentions that Hintz also played the guittar 'at the deathbed of his friend and spiritual mentor, John Senft in 1751' quoting that 'The last words he [Senft] uttered were the two

concluding verses of that German hymn 'O Sacred Head Now Wounded' which he began to sing of his own accord & Br. Hintz who lodged in his house accompanied it by gently touching the Guittar & directly he expired'. Moreover, Hintz taught the guittar, as evidenced in two trade cards in the Hill Archives (WA 1992.643.1, p. 164), which read: 'Frederick Hintz / At the Golden Guittar in Little Newport Street / the Corner of Ryders Court Leicesterfields / Makes & Teaches ye Guittar in the Completest Manner.'

In addition, in the early 1760s Hintz composed *A Choice Collection of Psalm and Hymn Tunes set for the Cetra or Guittar* (London: R. Bremner) and published *A Choice Collection of Airs, Minuets, Marches, Songs and Country Dances &c. by Several Eminent Authors Adapted for the Guittar as also a Book of Psalm & Hymn Tunes* (London: F. Hintz), as mentioned in Graf (2008: 20). By the mid-1760s Hintz's fame as a musical instrument maker had grown considerably and his business had become quite successful; however, his disconnection with the Moravians had grown deeper, while his personal life was marked by the loss of several members of his family.

Hintz died on 25 April 1772 after a gradual decline of his health due to a stroke, as recorded in the following report of his burial, presented in Graf (2008: 39): 'On April 25th our well-known brother, Friedrich Hinz departed this life after suffering from the effects of a stroke for quite some time. […]. His son implored that the soul-departed body of his father be buried on our God's Acre, and we could not refuse him such a thing. […].' Shortly after Hintz's death his stock-in-trade was offered for sale by auction as evident in an announcement in *The Daily Advertiser* of 1772, included in the Hill Archives (WA 1992.643.1, p. 163), which noted that 'Mr. Hintz was one of the best Guittar-makers in Europe, and that his instruments in general were very excellent'.

Surviving guittars: 37

- 1757: EUCHMI, Edinburgh, [1066]
- 1757: John Wesley's Chapel, Bristol

- c.1760: Museum of London, London, [88.336]
- c.1760: Horniman Museum, London, [M3-1983]
- 1761: National Music Museum, University of South Dakota, Vermillion, [1286]
- c.1766: Ashmolean Museum, Oxford, [D.1:5]
- (?): Conservatorio 'Luighi Cherubini' Collection, Galleria dell' Academia, Florence, [1988/89]
- (?): Dean Castle, Kilmarnock, [MI/A10]
- (?): Dolmetsch collection, Ranger's House, mentioned in Bevan (1990: 85) (now possibly in the Hornimann Museum, London)
- (?): EUCHMI, Edinburgh, [310]
- (?): EUCHMI, Edinburgh, [1114]
- (?): Glasgow Museums and Art Galleries, Glasgow, [MUSNN.11] (information from A. Myers)
- (?): Glasgow Museums and Art Galleries, Glasgow, [A.3.o.1941] (information from A. Myers)
- (?): Glasgow Museums and Art Galleries, Glasgow, [A20] (information from A. Myers)
- (?): Hamamatsu Museum of Musical Instruments, Sizuoka, [C-0029R] (information from H. Sugimoto)

- (?): Horniman Museum, London, [15.10.48/52] (possibly the instrument listed as belonging to 'Miss E. A. Willmott' in the *Illustrated Catalogue of Music Loan Exhibition by the Worshipful Company of Musicians at Fishmongers' Hall*, June & July 1904 (London: Novello & Co Ltd, 1909), p. 138)

- (?): Horniman Museum, London, [M80-1983]

- (?): Horniman Museum, London, [M83-1983]

- (?): Musée de la Musique, Paris, [E.980.2.350]

- (?): Selch Collection, Oberlin College, Oberlin (OH) [?] (information from G. Wells; also listed in Sotheby's auction catalogue, 8 November 1978, lot 160, p. 128-29)

- (?): Selch Collection, Oberlin College, Oberlin (OH) [?] (information from G. Wells)

- (?): Springer Music collection, Tunbridge Wells, Kent (information from <http://www.springersmusic.co.uk/Library/Cittern%20collection.htm>, accessed 12/3/2011)

- (?): Stearns Collection, University of Michigan, Ann Arbor, [1566]

- (?): Victoria & Albert Museum, London, [37-1870]

- (?): Thomas MacCracken collection, Oakton (VA) (information from G. Wells and T. Mac Cracken; also listed in Bonhams auction catalogue, 23 June 2009, lot 30, p. 13, and in Sotheby's auction catalogue, 18 November 1993, lot 32, p. 14)

- (?): Gerald Trimble collection, Asheville (NC) (information from G. Wells)

- (?): Graham Wells collection, Teddington, Middlesex

- (?): Private collection, Italy (?) (formerly owned by D. Rossi c.1998; information from G. Wells)

- (?): Christie's auction catalogue, 15 November 1995, lot 7, p. 5

- (?): Bonhams auction catalogue, 22 March 1994, lot 34, p. 4

- (?): Gardiner Houlgate auction catalogue, 29 May 1992, lot 112, p. 3

- (?): Phillips auction catalogue, 17 January 1985, lot 15, p. 5

- (?): Phillips auction catalogue, 10 September 1981, lot 35, p. 10

- (?): Phillips auction catalogue, 10 September 1981, lot 31, p. 9

- (?): Sotheby's auction catalogue, 15 May 1981, lot 501, p. 190

- (?): Phillips auction catalogue, 14 December 1978, lot 55, p. 10

- (?): Phillips auction catalogue, 14 September 1978, lot 39, p. 12

HOFFMANN, (?)

Biographical information and business details: fl. 1757-8. Musical instrument maker of German origin working in London. Very little is known about his name, origins and training although he may have been related to Johann Christian Hoffman, of the famous lute-making family in Leipzig. In the late 1750s Hoffmann had a partnership with Rauche, a fact confirmed by two surviving guittars, dated 1757 and 1758 respectively, signed 'Rauche & Hoffmann'. However, the partnership probably stopped around 1758 since another extant guittar dated 1758 is signed only by Hoffman.

Surviving guittars: 3

- 1757: Burns Birthplace Museum, Alloway, Ayrshire, [3.4565] (signed 'Rauche & Hoffmann')

- 1758: Royal Northern College of Music, Manchester, [S16] (signed 'Rauche & Hoffmann')

- 1758: Taro Takeuchi collection, London

JACKSON, WILLIAM

Biographical information and business details: fl. 1784. English musician and inventor who in 1784 received a patent for 'The British Lyre' (Patent No. 1583, 20 August 1784), an instrument with similar features to the guittar and equipped with an external piano-key mechanism. Jackson, who in his patent was described as 'WILLIAM JACKSON, late of Vine Street, Lambeth Marsh, in the Parish of Saint Mary, Lambeth, in the County of Surry, Musician, but now of Oxford Street, in the Parish of Saint Ann, Soho, in the City and Liberty of Westminster, Musician and Musical Instrument Maker', may have been the known organist and composer from Exeter (b. 29 May 1730-d. 5 July 1803), listed in Doane (1794/1993: 35) as 'Jackson, William, *Composer, Organ.-Exeter.*', or the musician listed in Doane (1794/1993: 35) as 'Jackson, William, *Violin, Horn*, New Mu Fu, Cir, Gua 2d Reg.-No 61, *Poland-Steet*.'

Surviving guittars: None. However, a surviving guitar by Thompsons, listed in Sotheby's auction catalogue, 19 July 1968, lot 44, p. 14, is equipped with an external-piano key mechanism bearing the inscription 'Jackson & Smith / Patent Box London'.

LANDRETH, JOHN

Biographical information and business details: fl. 1787. English inventor who in 1787 received a patent for his 'Improvement upon various instruments' (Patent No. 1596, 31 March 1787),

which aimed to prevent the sticking or rattling of keys upon keyed instruments, among which he included the guittar.

Surviving guittars: None

LIESSEM, REMERUS

Biographical information and business details: b. (?), fl. 1743-60, d. 1760. Also mentioned as 'Liessens' or 'Liessom', his first name often given as 'Remerius' or 'Reinerus'. Musical instrument maker and seller of stringed instruments working at Compton Street, St Ann's, Soho, London, 'over against the Black Boy', as quoted in the Hill Archives (WA 1992.643.2, p. 7). His origins are uncertain; the following excerpt, quoted in the Hill Archives (WA 1992.643.2, p. 8), suggests that Liessem was a 'Dutchman': 'There was at this time another purveyor of 'Musick' in Compton Street, notably a certain Mr. Liessom, probably a Dutchman, who had a shop 'over against the Black Boy'; and various announcements emanating from his establishment, are to be met with in the news-sheets of the mid-18th century.' However, from a paper label on a violin, bearing the inscription 'Reinerus Liessem / fecit Vienna 1743' it has been assumed that Liessem was 'probably an Austrian who hailing from Vienna settled in London around 1750', as stated in the Hill Archives (WA 1992.643.2, p. 8). Two extant guittars by Liessem, both dated 1756, are the earliest known signed guittars, while the majority of his other surviving guittars are dated 1758 or 1759. Between 1757 and 1759 Liessem also published and advertised several works for the guittar, as presented in Humphries and Smith (1970: 212).

In his last will from 24 December 1759 (proved 16 February 1760), quoted in the Hill Archives (WA 1992.643.2, p. 9), Liessem, who is described as 'REINERUS LIESSEM, of the parish of St. Ann. Soho, West-minster, musical instrument maker', bequeathed unto his wife, Elizabeth Liessem, 'all and singular my personal estate whatsoever and wheresoever', nominating her the 'sole execu-trix of this, my last will and testament'. When Liessem died in 1760 his wife offered his stock of instruments for sale, as evidenced in the following announcement in the *Daily Advertiser* of 23 April 1760, quoted in the Hill Archives (WA 1992.643.2, p. 7), which reads: 'REINERUS LEISSENS Musical Instrument Maker, being dead, his Widow gives this Notice to

the Publick, that she intends reducing his Stock of Instruments that are now finished, by an immediate Hand Sale of them, consisting of Violins, Tenors, Violoncellos, Violin d'Amour, Guitars, Mandalins, Lutes, Basses &c. The Tone and Neatness of his Work are too well known to need Recommendation in a Publick Paper; […]. To be view'd at his late Dwelling House in Compton Street, St Ann's'.

Surviving guittars: 16

- 1756: Victoria & Albert Museum, London, [230-1882]
- 1756: Sotheby's auction catalogue, 9 October 1981, lot 156, p. 50
- 1757: Museum of Fine Arts, Boston, [17.1749]
- 1757: Norwegian Academy of Music, Oslo, [MH-G 87]
- 1758: Dean Castle, Kilmarnock [MI/A11]
- 1758: EUCHMI, Edinburgh, [1070]
- 1758: Christie's auction catalogue, 21 March 1980, lot 42
- 1759: Muiskmuseet, Stockholm, [F441]
- (?): Kunitachi College of Music, Tachikawa-shi, Tokyo, [2203]
- (?): Sotheby's auction catalogue, 13 and 21 November 2001, lot 273, p. 100
- (?): Sotheby's auction catalogue, 4 November 1998, lot 125, p. 31
- (?): Phillips auction catalogue, 17 November 1996, lot 14, p. 6-7

- (?): Sotheby's auction catalogue, 17 November 1994, lot 60, p. 23
- (?): Sotheby's auction catalogue, 31 March 1988, lot 175,p. 177
- (?): Phillips auction catalogue, 1 March 1979, lot 34, p. 10
- (?): Sotheby's auction catalogue, 21 December 1972, lot 65

LONGMAN & BRODERIP

Biographical information and business details: 1776 - 1798. English musical instrument manufacturers, music publishers and sellers working in London. The company had started in 1767 by James Longman (?-1803), who in 1769 formed a partnership with Charles Lukey, becoming Longman Lukey & Co. In 1775 Francis Fane Broderip (1750-1807) joined Longman Lukey & Co and the new partnership worked for a year as Longman, Lukey, and Broderip. However, after Lukey's departure in 1776 and until 1795 the firm continued to trade as Longman & Broderip. The firm had had two warehouses, the first at No. 26 Cheapside, the second at No. 13 Haymarket, established in Michaelmas 1782, as well as a timber yard and manufactory in Tottenham Court Road, as evidenced in their catalogue of 1789.

In the late 1780s Longman & Broderip had become large-scale musical instrument dealers, whose stock included all kinds of musical instruments, including keyboards and guittars, which were probably commissioned from several manufacturers; they also undertook repairs and bought, sold or exchanged wood, second-hand musical instruments and music books. In 1788 the firm employed 'several hundred workmen of different denominations' as reported in *The Times* of 31 January 1788, p. 3, quoted in Nex (2004: 18). In September 1789 they advertised 'that they have [...] during the watering season opened a shop at Margate and Brighthelmstone for the sale of musical instruments', as mentioned in Humphries and Smith (1970: 216). Longman & Broderip also published a great quantity of guittar music, while during the late 1780s and early 1790s they advertised 'Patent Piano Forte Guitars', which were keyed guittars with a removable internal piano-key mechanism mostly likely produced by J. Goldsworth. In addition, the

numerous undated extant guittars bearing the stamp of Longman & Broderip were also probably supplied by other makers.

By 1794 the firm is listed in Doane (1794/1993: 42) as 'Longman & Broderip, *Organ-Builders, Pia Forte-Makers, Music Sellers,- No.26, Cheapside, No.13, Haymarket, & Tottenham Court Road*.' Around that time Longman & Broderip had begun facing strong financial difficulties, since they had borrowed large sums in earlier years to finance their business expansion and were unable to pay the vast debts. This eventually led to the bankruptcy of the firm in 1795 (TNA: PRO Copy B4/24, 84), with both partners ending in the Fleet, the debtors' prison. After their release about a year later Longman formed a new company with Muzio Clementi named Longman, Clementi & Co and trading from No. 26 Cheapside; however, due to his pending previous debts Longman was soon sent back to the Fleet, where he died in November 1803. On the other hand, in 1798 Broderip formed a partnership with Charles Wilkinson trading as Broderip & Wilkinson from No. 13 Haymarket until Broderip's death in 1807.

Surviving guittars: 44

- c.1798: Museum of Fine Arts, Boston [1999.1] (inscribed 'T. B / July / 1798'; also listed in Sotheby's auction catalogue, 4 November 1998, lot 134, p. 33) (keyed)
- c.1787: Musikmuseet, Stockholm, [N36483] (keyed, No. 257)
- c.1787: Musikmuseet, Stockholm, [F439] (keyed, No. 188)
- c.1785: Germanisches Nationalmuseum, Nuremberg, [MIR 857] (keyed, No. 178)
- c.1787: Museum für Musikinstrumente der Universität, Leipzig, [628] (keyed, No. 146)
- c.1787: Musée des Instruments de Musique, Brussels, [1552] (keyed, No. 130)
- c.1787: Museum für Musikinstrumente der Universität Leipzig, [627] (keyed, No. 113)

- c.1787: Czech Museum of Music, Prague, [M I/90] (keyed, No. 34)
- c.1787: Royal Northern College of Music, Manchester, [S13] (keyed)
- c.1787: Norsk Folkemuseum, Oslo, [NF.1900-0215] (keyed)
- c.1787: Museo degli Strument Musicali di Roma, Rome, [2582] (keyed)
- (?): Smithsonian Institution, Washington DC, [#324845] (keyed)
- c.1787: Hamamatsu Museum of Musical Instruments, Sizuoka, [C-0044R] (information from H. Sugimoto; also presented in Young (1980: 167) as belonging to the Rosenbaum Collection, Scarsdale, [251]) (keyed)
- c.1787: Gemeentemuseum, Hague, [?] (keyed, information from M. Latcham)
- c.1787: Tony Bingham collection, London (keyed)
- c.1787: Etude Tajan auction catalogue, 19 December 1997, lot 61, p. 14 (keyed)
- c.1787: Phillips auction catalogue, 11 December 1980, lot 37, p. 10 (keyed)
- 1782: Paul Doyle collection, Gallway (information by P. Doyle)
- (?): Gemeentemuseum, Hague, [?] (information from M. Latcham)
- (?): Hamamatsu Museum of Musical Instruments, Sizuoka, [C-0034R] (information from H. Sugimoto)
- (?): Museum für Musikinstrumente der Universität Leipzig, Leipzig, [622]
- (?): Royal Northern College of Music, Manchester, [S27]

- (?): Rob MacKillop collection, Edinburgh
- (?): Ulrich Wedemeier collection, Laatzen
- (?): Private collection, UK (?) (information from J. Westbrook)
- (?): Private collection, Midlands (information from A. Garrett, National Trust, England)
- (?): Bonhams auction catalogue, 16 June 2010, lot 68
- (?): Sotheby's auction catalogue, 13 and 21 November 2001, lot 351, p. 123
- (?): Sotheby's auction catalogue, 4 November 1998, lot 144, p. 34 (labelled 'Eliz. Horby, 1795')
- (?): Sotheby's auction catalogue, 4 November 1998, lot 278, p. 56
- (?): Bonhams auction catalogue, 22 March 1994, lot 35, p. 5
- (?): Phillips auction catalogue, 16 December 1993, lot 25, p. 6
- (?): Sotheby's auction catalogue, 18 November 1993, lot 32, p. 14
- (?): Phillips auction catalogue, 9 October 1986, lot 18, p. 6
- (?): Sotheby's auction catalogue, 22 November 1984, lot 280
- (?): Phillips auction catalogue, 1 April 1982, lot 66, p. 13
- (?): Phillips auction catalogue, 25 February 1982, lot 19, p. 8

- (?): Phillips auction catalogue, 10 September 1981, lot 32, p. 10
- (?): Sotheby's auction catalogue, 8 November 1979, lot 151, p. 22
- (?): Christie's auction catalogue, 12 June 1979, lot 51, p. 15
- (?): Phillips auction catalogue, 4 September 1975, lot 56, p. 10
- (?): Sotheby's auction catalogue, 13 February 1975, lot 45, p. 11
- (?): Sotheby's auction catalogue, 25 April 1974, lot 32, p. 16
- (?): Sotheby's auction catalogue, 13 May 1971, lot 30, p. 10

LONGMAN, LUKEY & CO

Biographical information and business details: 1769-73. English musical instrument manufacturers, music publishers and sellers working in London. The company had been started in 1767 by James Longman (?-1803), originally from Somerset, who established a business as a music seller and retailer in 1767, working at No. 26 Cheapside at the sign of 'the Harp & Crown', after taking over John Johnson's shop sign, but not his premises, as noted in Kidson (1990: 72). From 1769 Longman worked in partnership with Charles Lukey as Longman Lukey & Co until September 1775, when Francis Fane Broderip entered the business, which became Longman, Lukey & Broderip, as mentioned in Humphries and Smith (1970: 217).

In 1776 Lukey withdrew from the partnership and the firm continued as Longman & Broderip until 1798. Around 1770 Longman, Lukey & Co published a Pocket book for the Guittar. Moreover, there are six extant guittars bearing the stamp of Longman, Lukey & Co; these are also stamped by Preston on the neck or the head, suggesting that Longman, Lukey & Co were most likely supplied with guittars, or at least with guittar necks equipped with watch-key machines, by Preston.

Surviving guittars: 7

- c.1769-73: Danish Music Museum, Copenhagen, [1973-23] (also stamped by Preston)
- c.1769-73: Museum of London, London, [38.285] (also stamped by Preston; possibly the instrument mentioned by Tyler (2009: 14) as 'ex Boosey & Hawkes')
- c.1769-73: Royal College of Music, London, [315] (also stamped by Preston)
- c.1769-73: Royal Pavilion, Brighton Museum and Art Gallery, Brighton, [100605] (also stamped by Preston)
- c.1769-73: Stearns Collection, University of Michigan, Ann Arbor, [1087] (also stamped by Preston)
- c.1769-73: Phillips auction catalogue, 17 December 1981, lot 18, p. 8 (also stamped by Preston)
- c.1769-73: Christie's auction catalogue, 29 March 1973, lot 14, p. 8 (also stamped by Preston)

LUCAS, GEORGE (?)

Biographical information and business details: b. (?), fl. 1761, d. (?). Musical instrument maker, possibly of German origin, working 'at the Golden Guittar' in Silver Street, Golden Square, London; a guittar in the Ashmolean Museum, Oxford, [D.1:4], bears the inscription 'Lucas at Ye Golden / Guittar Silver Street / Golden Square', written with ink on a paper label pasted on the inside of the back. Apart from three surviving guittars by Lucas almost nothing is known about his origins and training. However, it is noteworthy that Lucas used the same shop sign of a 'Golden Guittar' as Zumpe, while the manufacture characteristics of his guittars share strong similarities with other makers of German origin, especially Hintz. In addition, an extant square piano inscribed 'Lucas, Featherstone Street, Finsbury Square, London', listed in Sotheby's

auction catalogue, 8 November 1978, lot 175, p 134, suggests that at some point Lucas had moved to a new address at Featherstone Street, Finsbury Square, where he manufactured keyboard instruments.

Surviving guittars: 3

- 1761: Dante Ferrara collection, Lincoln
- (?): Ashmolean Museum, Oxford, [D.1:4]
- (?): Museum of Fine Arts, Boston, [17.1746]

MCDONNELL, ALEXANDER

Biographical information and business details: fl. 1787-1810. Irish musical instrument maker and seller working in Dublin. McDonnell, who was the successor of William Gibson, is listed in the Dublin Directory of 1787 as 'musical instrument maker'; around this time (1787-88) he worked at No. 34 Anglesea St. Later McDonnell moved to No. 2 Church Lane (1790-1800); No. 12 Anglesea St. (1801-05); and No. 2 Church Lane (1806-10), as mentioned in Teahan (1963: 30), who also lists James McDonnell, another family member, as working in the same business. According to Doyle (1978: 21) and Teahan (1963: 30), McDonnell was a harpsichord and piano maker; a square piano inscribed 'Messrs McDonnell's, No. 2, Church Lane, Dublin' was listed in Sotheby's auction catalogue, 8 November 1978, lot 169, p. 131.

Surviving guittars: 1

- c.1800: National Museum of Ireland, Dublin, [1937.27]

MARTIN, ADAM

Biographical information and business details: fl. 1755 - 1800. English musical instrument maker, music publisher and seller working at Hermitage Bridge, London. In 1793 Martin, who

was primarily a flute maker specialising in tortoiseshell veneering, went bankrupt; an advertisement in the *Gazetteeer and New Daily Advertiser* of 24 June 1793, quoted in Lasocki (2010: 112), announced the sale by auction of Martin's stock-in-trade which included 'five guitars' among various other bowed and plucked stringed and keyboard instruments. Martin was listed in Doane (1794/1993: 44) as 'Martin, *Instrument Maker.- Hermitage Bridge, Wapping*', while according to Lasocki (2010: 112) Martin is mentioned working at the same address in a London directory for 1800.

Surviving guittars: None

MASON, C. (?)

Biographical information and business details: Apart from two surviving guittars very little is known about C. Mason; he may have been related to John Mason (fl. 1754-78), a wind musical instrument maker and seller working in various addresses in London, mentioned in Lasocki (2010: 85-90).

Surviving guittars: 2

- (?): Vintage Instruments collection, Philadelphia, [#27455]

- (?): Sotheby's auction catalogue, 16 May 1978, lot 79, p. 26

PERRY, THOMAS

Biographical information and business details: b. 1744 - d. 1818. Irish musical instrument maker and seller of the violin family working in Dublin. Plowright (1996: 125) mentions that Perry 'carried on the business started by his father from whom he received his training', adding that his first instrument is dated 1760. However, according to Baines (1968: 49) Perry was an apprentice of Richard Duke, the well-known London violin maker, and he is mentioned in the Dublin directories of 1787 as 'maker of Violins, Guitars, Tenors, Salters, Violoncellos', while Doyle (1978: 21) also reports that Perry 'is said to have studied violin making in England'.

Lawrence (1999: 27) mentions that Perry worked at four addresses in Dublin from around 1759-1760 and until his death in 1818, starting at Christ Church Yard Aston's Quay (1759-69), later moving to Anglesea St (c.1770-78), then at No. 6 Anglesea St (1778-1802), and finally at No. 4 Anglesea St (1803-1818).

Around 1790 Perry formed a partnership with William Wilkinson trading as Perry & Wilkinson; Wilkinson strengthened the partnership by marrying Perry's daughter Elizabeth in June 1794, as reported in Milnes (2000: 68). Perry, who was Ireland's leading violin maker at his time, is also considered as the inventor during the 1760s of the cither viol or 'sultana', a wire-strung bowed instrument which had some similarities to the guittar, although this instrument was also produced, and may have been invented, by F. Hintz.

Apart from Thomas Perry, there are three more contemporary Irish makers sharing the same surname. The first, James Perry, who was probably the younger brother and apprentice to Thomas Perry, worked at No. 6 Anglesea Street and possibly No. 4 Trinity Street, Dublin, between 1773 and 1788, and was also a maker of instruments of the violin family as well as guittars, as mentioned in Lawrence (1999: 27). Armstrong (1908: 6, footnote) has mentioned another James Perry, working in Kilkenny from 1776 to 1829, who according to Plowright (1996: 125) was a cousin of Thomas, although it is uncertain if he made any guittars. However, another Perry named John, who may have been a relative of Thomas, was according to Plowright (1996: 125) a 'violin and guitar maker' working in Belfast. John Perry is mentioned in an advertisement in the *Belfast News-Letter* of 5 August 1768, quoted in Lawrence (1999: 27), in which Perry notes that he was 'regularly bred to the making of guitars and violins, High Street, Belfast', before appearing in Dublin in 1769. No extant guittars by any of the three above mentioned Perrys are presently known.

Surviving guittars: 7

- 1790: National Museum of Ireland, Dublin, [1913.397]

- (?): National Museum of Ireland, Dublin, [1908.17]

- (?): Victoria & Albert Museum, London, [222-1882]

- (?): Taro Takeuchi collection, London

- (?): Sotheby's auction catalogue, 22 May 1986, lot 186, p. 174

- (?): Phillips auction catalogue, 14 September 1978, lot 41, p. 12

- (?): Sotheby's auction catalogue, 14 February 1974, lot 34, p. 10

PINTO, CHARLES

Biographical information and business details: fl. 1764-92. Musical instrument maker and dealer working in London. Very little is known about his origins and training; however, a surviving guittar dated 1764 and signed 'Beck & Pinto' suggests that in the mid-1760s Pinto had a partnership with Frederick Beck. Around the mid-1780s Pinto must have been in partnership with the firm of Longman & Broderip; this is confirmed in an announcement in the *Morning Herald and Daily Advertiser* of 1 May 1784, which concerned a court case over an imitation of Claus's patent keyed guittar by Pinto and Longman, stating 'That the caveat asked by Charles Pinto and James Longman be withdrawn, and that the Patent of the said Christian Clauss do pass the Great Seal of Great Britain.' In addition, the 1792 Probate Inventory for Charles Pinto (TNA: PRO PROB31/821/151), lists 'Twenty one Guitars with / leather cover'd Cases Thirty one Guitar six do / A Patent Guitar by Longman & Co' stored in a room on the first floor of his house.

Surviving guittars: 1

- 1764: Ulrich Wedemeier collection, Laatzen (signed 'Beck & Pinto')

PRESTON, JOHN

Biographical information and business details: b. 1727 - d. January 1798. English musical instrument maker, music publisher and seller working in London. The earliest reference to Preston's business activities comes from a directory for 1765, which mentions his address at '9, Banbury Court, Long Acre', as quoted in the Hill Archives (WA 1992.643.2, p. 67). While working in this address Preston must have been making guittars, since a guittar listed in Sotheby's auction catalogue of 16 March 1971 (lot 23, p. 10.) is signed 'J. N. Preston, Maker, Banbury Court, Long Acre' on the back of the pegbox.

In an advertisement appearing in the *London Evening Post* of 7 January 1766, and in the *Gazetteer and New Daily Advertiser* of 3 February 1766, quoted in Lasocki (2010: 130-31), Preston announced the invention of the watch-key machine for tuning the guittar: 'JOHN PRESTON, Of Banbury-Court, Long-Acre, London, GUITTAR and VIOLIN-MAKER, BEGS Leave to acquaint the Nobility, Gentry, and others, That he has lately found out and invented a new Improvement, or Instrument , for Tuning of Guittars […] The Manner of Tuning the above Guittars is by a small Watch Key, which is done Instantly, and will keep the tune in that Order for a Month together, unless altered. […]'. Preston's address at Banbury Court is also mentioned in a directory of 1774, mentioned in Kidson (1900: 106).

By 1776 Preston had moved his business to 'No.105, Strand, near Beaufort Buildings', from where, according to Kidson (1900: 106), he published 'books of Lessons for the guitar'. In an advertisement in the *Gazetteer and New Daily Advertiser* of 9 April 1778, quoted in Lasocki (2010: 131) and Humphries and Smith (1970: 263), Preston described himself as 'Guittar and Violin-maker, and the original Inventor for tuning the guitar with a watch key'. In 1785 Preston had already established a 'Manufactory' at No. 97 Strand, as well as a 'commodious Second-Hand Musical Instrument warehouse' at Exeter-Change nearby, as mentioned in the *General Evening Post* of 13 December 1785, quoted in Lasocki (2010: 131). Around this time his trade card, included in the Hill Archives (WA 1992.643.2, p. 67), announced: 'PRESTON / MUSICAL INSTRUMENT MAKER, / And Original Inventor of the Machine / For Tuning the Guitar, with a Watch Key, / AT HIS MUSIC SHOP / Sells all sorts of Musical Instruments, Finest Quality,

Roman / and Violoncello Strings & every Article in the Musical Branch / wholesale Retail & for Exportation on the most Reasonable Terms. / NB. INSTRUMENTS REPAIRED & TUN'D.' As late as 1786 Preston advertised in the *Morning Post and Daily Advertiser* of 25 July 1786, quoted in Lasocki (2010: 131), as 'Guittar-maker and original Inventor of the machine for tuning with a watch-key', while additionally referring to his 'new patent piano forte guittars'.

A legal document related to a court case from 15 September 1784 (TNA: PRO E133/82/26), which concerned music copyright involving Longman & Broderip against the music seller and publisher Samuel Babb, lists Peter Thompson and John Preston as witnesses. The document mentions that by this date Preston knew Longman for twenty years, Broderip for about eight, and the music seller and publisher Samuel Babb for five or six. The details in this document also reveal that Preston was born in 1727 as he is listed as 'John Preston at No. 97 in the Strand in the County of Middlesex Musical Instrument Maker aged fifty seven years'.

In 1789 Preston's son, Thomas, joined his father's already flourishing music business, which thereafter operated under the name 'Preston & Son' and occupied additional premises at Exeter Change, as mentioned in Kidson (1900: 106). The earliest reference to 'Preston and Son' is included in the *World* of 19 February 1789, while an advertisement in the same newspaper on 24 November 1789, mentioned in Lasocki (2010: 131), describes the firm as 'Manufacturers of Musical Instruments, Music Printers, Publishers and Wholesale Dealers'. The same year Preston edited and republished probably the most comprehensive guittar tutor *Instructions for the Guitar* by Robert Bremner, after buying his plates and stock-in-trade, as described in Humphries and Smith (1970: 32). Previously, in 1783, he had published *The Art of Playing the Guittar* by Edward Light, as mentioned in Armstrong (1908: 8, footnote 2).

By 1794 the firm was listed in Doane (1794/1993: 52) as 'Preston, John and Son, *Music-Sellers & Inst Makers*-No. 97, Strand.' Preston died in January 1798; an announcement in the *Oracle and Public Advertiser* of 15 January 1798, quoted in Lasocki (2010: 130), stated: 'DIED. Lately, Mr. Preston, Musical Instrument Maker, in the Strand.' The details in his will (TNA: PROB 11/1301), dated 1797 (proved 1798) and witnessed by William Forster, the known violin maker, show that by the time of his death Preston had accumulated the quite impressive amount of £20,000 in 3%

annuities. His stock-in-trade and copyrights were inherited by his son, Thomas, who continued the family business. Apart from his family members and relatives, Preston also left money to the wife of William Ward from the Sun Fire Office, from which Preston had possibly bought insurance policies or had other financial dealings, while it is also clear that Preston employed at least two clerks in his bussiness. These details signify that Preston was the proprietor of a very successful and wealthy business. Moreover, Preston was by far the most prolific guittar manufacturer and retailer, a fact confirmed in the large number of surviving guittars bearing his signature.

The main characteristic of Preston's work is the standardisation of production, with most of his extant guittars sharing quite similar design, construction and decoration features and having dimensions identical to the nearest millimetre, giving further weight to the idea of a mass production and stockpile of instruments. In addition, the examination of a number of extant guittars has shown that Preston supplied finished instruments or instrument parts, most likely necks equipped with watch-key machines stamped with his name, to other manufacturers and dealers, such as Longman, Lukey & Co, Hint, Rauche and the Thompsons. Moreover, a legal document from a court case of 1786 between Christian Claus and Joseph Levy (TNA: PRO C12/154/35) mentions that Claus had purchased strings from one 'Mr Preston'. On the other hand, many extant guittars by Preston are equipped with 'Smith's Patent Box', suggesting some sort of partnership between Preston and Smith.

Surviving guittars: 123

- c.1769-73: Danish Music Museum, Copenhagen, [1973-23] (also stamped by Longman, Lukey & Co)

- c.1769-73: Museum of London, London, [38.285] (also stamped by Longman, Lukey & Co) (Possibly the instrument mentioned by Tyler (2009: 14) as 'ex Boosey & Hawkes')

- c.1769-73: Royal College of Music, London, [315] (also stamped by Longman, Lukey & Co)

- c.1769-73: Royal Pavilion, Brighton Museum and Art Gallery, Brighton, [100605] (also stamped by Longman, Lukey & Co)

- c.1769-73: Stearns Collection, University of Michigan, Ann Arbor, [1087] (also stamped by Longman, Lukey & Co)

- c.1769-73: Phillips auction catalogue, 17 December 1981, lot 18, p. 8 (also stamped by Longman, Lukey & Co)

- c.1769-73: Christie's auction catalogue, 29 March 1973, lot 14, p. 8 (also stamped by Longman, Lukey & Co)

- (?): Ashmolean Museum, Oxford, [D.1:1]

- (?): Ashmolean Museum, Oxford, [D.1:2]

- (?): EUCHMI, Edinburgh, [1067]

- (?): Harvard University Collection, Cambridge, Massachusetts, [HUCP3287]

- (?): Horniman Museum, London, [1976. 132]

- (?): Horniman Museum, London, [1976. 135]

- (?): Horniman Museum, London, [1976. 136]

- (?): Horniman Museum, London, [15.10.48/51]

- (?): Horniman Museum, London, [15.10.48/61]

- (?): Horniman Museum, London, [2002. 305]

- (?): Kunitachi College of Music, Tachikawa-shi, Tokyo, [1841]
- (?): Metropolitan Museum of Art, New York, [89.4.1016]
- (?): Musée de la Musique, Paris, [E.2079]
- (?): Musée de la Musique, Paris, [E.980.2.351]
- (?): Museo degli Strument Musicali di Roma, Rome, [766]
- (?): Museo degli Strument Musicali di Roma, Rome, [767]
- (?): Museum of Fine Arts, Boston, [17. 1747]
- (?): Museum of London, London, [63.115/1]
- (?): Museum of London, London, [31.17/1]
- (?): Museum für Musikinstrumente der Universität Leipzig, Leipzig, [626] (lost during World War II)
- (?): Museum für Musikinstrumente der Universität Leipzig, Leipzig, [5005]
- (?): Musikinstrumenten-Museum, Berlin, [5891]
- (?): National Museum of Ireland, Dublin, [1913.393]
- (?): National Music Museum, University of South Dakota, Vermillion, [1292]
- (?): National Museums Scotland, Edinburgh, [A.1908.251]

- (?): National Trust for England, Snowshill Manor, Wessex, [SNO/MC/76] (information from A. Garrett)
- (?): National Trust for England, Snowshill Manor, Wessex, [SNO/MC/77] (information from A. Garrett)
- (?): Osaka College of Music, Toyonaka-shi, Osaka, [C1797] (information from H. Sugimoto)
- (?): Palais Lascaris, Nice, [C101]
- (?): Royal Academy of Music, London, [2006.2962] (former R. Spencer collection)
- (?): Royal College of Music, London, [161]
- (?): Royal College of Music, London, [331]
- (?): Royal College of Music, London, [332]
- (?): Royal Ontario Museum, Toronto, [913.4.59], mentioned in Tyler (2009: 15)
- (?): Royal Pavilion, Brighton Museum and Art Gallery, Brighton, [100573]
- (?): Smithsonian Institution, Washington DC, [#095325]
- (?): Smithsonian Institution, Washington DC, [#096475] (also stamped by Thompsons)
- (?): Smithsonian Institution, Washington DC, [#381920]
- (?): Stadtmuseum München, Munich, [43-307]
- (?): Yale University Collection of Musical Instruments, New Haven, CN, [4584]

- (?): York Castle Museum, York, [DA1743]
- (?): York Castle Museum, York, [DA1725]
- (?): Takuji Akashi collection, Ehime, Japan (information from T. Akashi, <http://cittern.ning.com/profile/TakujiAkashi?xg_source=profiles_memberList>, accessed 10/3/2011)
- (?): Tony Bingham collection, London (information from <http://www.oldmusicalinstruments.co.uk/instruments/instrument_list.php?cat=PS>, accessed 9/3/2011)
- (?): Ron Fernandez collection, (information from R. Fernandez, <http://www.fernandezmusic.com/PrestonGuittar.html>, accessed 7/3/2011)
- (?): Fiona Fraser collection, France (information from F. Fraser)
- (?): Robin Jeffrey collection, Rotherfield, East Sussex (information from Stephen Barber and Sandi Harris, <http://www.lutesandguitars.co.uk/htm/cat05.htm, accessed 4/ 3/2011)
- (?): Fiona Marsden collection, Australia (information from F. Marsden, <http://cittern.ning.com/profile/FionaMarsden?xg_source=profiles_memberList>, accessed 9/3/2011)
- (?): Shigeomi Murai collection, Hyogo, Japan, mentioned in Tyler (2009: 15)
- (?): Andy Rutherford collection, New York, (stamped 'Thompsons' over Preston)
- (?): Taro Takeuchi collection, London (information from T. Takeuchi)
- (?): Taro Takeuchi collection, London (information from T. Takeuchi)
- (?): Taro Takeutchi collection, London (stamped 'Thompsons' over Preston)
- (?): James Tyler collection, Pasadena, California, mentioned in Tyler (2009: 15)

- (?): Ulrich Wedemeier collection, Laatzen (information from U. Wedemeier)
- (?): Ulrich Wedemeier collection, Laatzen (information from U. Wedemeier)
- (?): Vintage Instruments collection, Philadelphia, [#27457]
- (?): Private collection, UK (Information from A. Robb, <http://www.art-robb.co.uk/EG.html>, accessed 7/3/2011)
- (?): Private collection, UK (?) (information from J. Westbrook)
- (?): Private collection, USA (?) (formerly owned by D. Rossi; information from <http://cittern.ning.com/video/farewell-to-an-old-friend>, accessed 11/3/2011)
- (?): Private collection, Netherlands (information from <http://www.atlasofpluckedinstruments.com/cittern.htm>, accessed 7/4/2011)
- (?): Former Selch Collection, mentioned in Tyler (2009: 15) (now possibly in Selch Collection, Oberlin College, Ohio)
- (?): Private collection, Riverdale, New York (information from <http://www.allmusicalinstruments.net/items/1004338/item1004338store.html#item>, accessed 6/4/2011)
- (?): Private collection, (?), sold at ebay online auction (<www.ebay.co.uk>, accessed 26 July 2010)
- (?): Private collection, (?), sold at ebay online auction (<www.ebay.co.uk>,accessed 12 October 2009)
- (?): Bonhams auction catalogue, 27 February 2006, lot 35, p. 11
- (?): Bonhams auction catalogue, 18 July 2005, lot 18, p.9

- (?): Sotheby's auction catalogue, 13 and 21 November 2001, lot 272, p. 100
- (?): Sotheby's auction catalogue, 4 November 1998, lot 143, p. 34
- (?): Phillips auction catalogue, 15 November 1990, lot 26, p. 7
- (?): Phillips auction catalogue, 14 September 1989, lot 45, p. 8
- (?): Phillips auction catalogue, 15 September 1988, lot 33, p. 7
- (?): Sotheby's auction catalogue, 31 March 1988, lot 187, p. 178
- (?): Sotheby's auction catalogue, 30 April 1987, lot 247, p. 235
- (?): Christie's auction catalogue, 11 November 1986, lot 27, p. 11
- (?): Sotheby's auction catalogue, 12 December 1985, lot 63
- (?): Sotheby's auction catalogue, 19 September 1985, lot 28
- (?): Christie's auction catalogue, 18 June 1985, lot 261, p. 75
- (?): Christie's auction catalogue, 20 November 1984, lot 28, p. 7
- (?): Phillips auction catalogue, 29 March 1984, lot 31, p. 6
- (?): Christie's auction catalogue, 21 November 1983, lot 50, p. 10
- (?): Phillips auction catalogue, 14 October 1982, lot 99, p. 11
- (?): Phillips auction catalogue, 1 April 1982, lot 67, p. 14

- (?): Phillips auction catalogue, 19 November 1981, lot 32, p. 9
- (?): Phillips auction catalogue, 10 September 1981, lot 33, p. 10
- (?): Sotheby's auction catalogue, 20 July 1981, lot 63, p. 12
- (?): Phillips auction catalogue, 26 March 1981, lot 25, p. 9
- (?): Sotheby's auction catalogue, 20 November 1980, lot 127, p. 36
- (?): Phillips auction catalogue, 15 May 1980, lot 14, p. 7
- (?): Sotheby's auction catalogue, 20 March 1980, lot 243, p. 79
- (?): Sotheby's auction catalogue, 20 March 1980, lot 241, p. 78
- (?): Sotheby's auction catalogue, 20 March 1980, lot 238, p. 78
- (?): Sotheby's auction catalogue, 7 February 1980, lot 63, p. 12
- (?): Sotheby's auction catalogue, 18 October 1979, lot 49, p. 15
- (?):Sotheby's auction catalogue, 20 September 1979, lot 19, p. 8
- (?): Sotheby's auction catalogue, 19 June 1979, lot 39, p. 12
- (?): Sotheby's auction catalogue, 19 June 1979, lot 38, p. 12
- (?): Sotheby's auction catalogue, 6 March 1979, lot 67, p. 19
- (?): Sotheby's auction catalogue, 17 September 1977, lot 70, p. 17

- (?): Sotheby's auction catalogue, 25 November 1976, lot 66, p. 22
- (?): Sotheby's auction catalogue, 6 May 1976, lot 48, p. 18
- (?): Christie's auction catalogue, 16 December 1975, lot 26, 11
- (?): Sotheby's auction catalogue, 27 November 1975, lot 50, p. 21 (stamped 'J. Green' on finial)
- (?): Sotheby's auction catalogue, 17 July 1975, lot 36, p. 12
- (?): Christie's auction catalogue, 8 May 1975, lot 13, p. 9
- (?): Sotheby's auction catalogue, 24 October 1974, lot 39, p. 10
- (?): Phillips auction catalogue, 19 September 1974, lot 31, p. 6
- (?): Phillips auction catalogue, 19 September 1974, lot 38, p. 7
- (?): Christie's auction catalogue, 10 December 1973, lot 16, p. 9
- (?): Sotheby's auction catalogue, 11 October 1973, lot 58, p. 7
- (?): Phillips auction catalogue, 12 July 1973, lot 24, p. 5
- (?): Sotheby's auction catalogue, 21 December, 1972, lot 15
- (?): Sotheby's auction catalogue, 13 May 1971, lot 29, p. 10
- (?): Sotheby's auction catalogue, 13 May 1971, lot 26, p. 9

- (?): Sotheby's auction catalogue, 16 March 1971, lot 23, p. 10 (signed 'J. N. Preston, Maker, Banbury Court, Long Acre')

- (?): Sotheby's auction catalogue, 16 March 1971, lot 22, p. 10

PRIOR, WILLIAM

Biographical information and business details: b. 1690 - d. 1759. Also mentioned as 'Pryor'. English musical instrument maker of the violin family working at Gateside, Newcastle. The only surviving guittar by Prior, labelled 'Made by William Prior, 1777', may have been made by his son, Matthew, who continued the family business, but bearing William's earlier label with an altered date.

Surviving guittars: 1

- 1777: National Music Museum,University of South Dakota, Vermillion, [1515]

RAUCHE, MICHAEL

Biographical information and business details: fl. 1757-84, d. 1784, London. Musical instrument maker, music publisher and seller, possibly of German origin, working in London. The details of his origins and training are unknown, although Rauche may have been trained as a lute maker, since apart from several extant bowl-back guittars there are three extant arch-lutes bearing his signature: the first, dated 1762, in the Victoria & Albert Museum, London, [9/1871], the second dated 1767, currently owned by Anthony Bailes (as mentioned in Holman 2007: 13), and the third, also dated 1767, in a private collection in Basel, Switzerland (information from Lynda Sayce). Rauche probably started building guittars around the late 1750s since a surviving guittar listed in Phillips auction catalogue, 15 December 1977, lot 45, p. 8, is signed 'Rauche 1757'; this guittar is the earliest surviving instrument by Rauche. Around the same time Rauche must have formed a brief partnership with Hoffmann, a fact confirmed by two extant instruments signed 'Rauche & Hoffmann', the first dated 1757, in the Burns Birthplace Museum,

Alloway, Ayrshire, [3.4565], the second dated 1758, in the Royal Northern College of Music, Manchester, [S16].

The partnership with Hoffman probably dissolved after 1758, since there an extant guittar, included in Sotheby's auction catalogue, 20 March 1980, lot 232 , p. 77, is inscribed 'Rauche London 1759'. Rauche's fame as a guittar maker must have grown considerably around 1760, when in her guittar tutor Ann Ford (c.1760: 9) mentioned that 'The neatest Work, and the best toned GUITARS I have hitherto seen, have been made by *Rauche*.' Around 1760 Rauche was working 'at the Guittar and Flute' in Chandos (or 'Chandois') Street, Covent Garden; a surviving guittar by Rauche dated 1760, listed in Phillips auction catalogue, 13 May 1976, lot 32, p. 6, is signed 'In Chandos Street London 1760'; likewise, a guittar included in Bonhams auction catalogue, 23 June 2009, lot 24, p. 10, is signed 'Michael Rauche at Chandos Street, London, 1761'. Another guittar by Rauche dated 1761, listed in Sotheby's auction catalogue, 22-23 November 1989, lot 145, p. 45, is also stamped by Preston, suggesting that it may have been later altered to receive a watch-key machine.

Rauche is listed in Mortimer's *London Universal Directory* from 1763, quoted in Dart (1949: 31), as 'RAUCHE, Michael, Chandois-street, Covent-garden'. From this address Rauche published music principally for the guittar, including Rudolf Straube's works *Lessons for Two Guittars with a Thorough Bass* (1765) and *Three Sonatas for the Guittar* (1768), which was 'Printed for and Sold by, ML RAUCHE, in Chandois Street'. Additionally, Kidson (1900: 109) mentions that around 1770 Rauche & Co published *Thirty-eight Lessons, with an addition of Six French and Italian Songs, for the Guittar, composed by F. Shuman, op. ist, London, printed for and sold by Michael Rauche & Co., at the sign of the Guittar and Flute, in Chandois Street, near St. Martin's Lane*. Rauche worked in Chandos Street at least until 1771 since a guittar signed 'Ml. Rauche / In Chandos Street / London 1771' is mentioned in the Hill Archives (WA 1992.643.2, p. 73). Moreover, from a surviving trade card in the Hill Archives (WA 1992.643.2, p. 73), which reads 'Guittars, Mandores, Lutes, Mandolins / Violins, Basses &c. / Made and Repair'd by Rauche & Dickenson / at the Music Warehouse / at the Guitar and Flute / in Chandois Street / London', it has been identified that while in this address Rauche worked in partnership with Dickinson, although no guittars or other instruments from this partnership are presently known.

Numerous guittars by Rauche have survived from the 1760s and the early 1770s, indicating that this was his most active period. In 1778 Rauche went bankrupt and was imprisoned in King's Bench Prison; around this time he had moved from Chandos Street to 'Tufton-street Lumley-street in the City of Westminster', as evidenced in the following announcement in *The London Gazette*, 6 June 1778, which reads: 'Prisoners in the KING's BENCH Prison. in the County of Surry. […] First Notice […] Michael Rauche, formerly of Chandos-street St. Martin's / in the Fields; late of Tufton-street Lumley-street in the / City of Westminster, both in the County of Middlesex, / Musical Instrument-maker.' Rauche is mentioned in the same newspaper as a prisoner also on 9 June 1778 ('second notice') and on 16 June 1778 ('third notice'). However, Rauche's imprisonment probably did not last for long, because a year after his bankruptcy he was working in a new address in Stangate Street, as evidenced by an extant guittar in the Birmingham Conservatoire, Birmingham, [11.2], which is signed '1779 Michael Rauche Stagnate Street Stangate Surry.'

No guittars by Rauche survive after this date and before his death in 1784, suggesting that his production had started to decline. After his death in 1784 Rauche was succeeded by Joseph Buchinger, as confirmed by an advertisement in *The Morning Herald* of 20 January 1785, quoted in Humphries and Smith (1970: 91 and 269), which announced: 'Buchinger No. 443 Strand […] being the only successor to the late Mr. Rauche, whose Guittars ever justly bore the preference, he continues to make them of the same pattern, having purchased his stock and utensils.' Rauche was one of the most prolific and individual guittar manufacturers; his guittars are characterised by a wide diversity of shapes and sizes, various scaling, fretting and stringing arrangements, as well as by the elaborate decoration and finishing with veneers and inlays.

Surviving guittars: 32

- 1757: Burns Museum, Alloway, Ayrshire, [3.4565] (signed 'Rauche & Hoffmann')

- 1757: Phillips auction catalogue, 15 December 1977, lot 45, p. 8.

- 1758: Royal Northern College of Music, Manchester, [S16] (signed 'Rauche & Hoffmann')

- 1759: Sotheby's auction catalogue, 20 March 1980, lot 232, p. 77

- 1760: Phillips auction catalogue, 13 May 1976, lot 32, p. 6

- 1760: Puttick & Simpson auction catalogue, 2 October 1919, lot 228 (as mentioned in the Hill Archives, WA 1992.643.2, p. 73).

- 1761: Bonhams auction catalogue, 23 June 2009, lot 24, p. 10 (also listed in Christie's auction catalogue, 16 December 1975, lot 25)

- 1761: Sotheby's auction catalogue, 22-23 November 1989, lot 145, p. 45 (also stamped by Preston)

- 1761: Sotheby's auction catalogue, 13 November 1987, lot 109, p. 21

- 1762: Blair Castle, Perthshire, [8050]

- 1762: Dean Castle, Kilmarnock, [MI/A9]

- 1762: Royal Pavilion, Brighton Museum and Art Gallery, Brighton, [100606]

- 1762: Phillips auction catalogue, 10 September 1981, lot 30, p. 9

- 1763: Horniman Museum, London, [241]

- 1763: Christie's auction catalogue, 26 April 1991, lot 20, p. 13

- 1764: Kunitachi College of Music, Tachikawa-shi, Tokyo, [265] (also listed in Sotheby's auction catalogue,14 March 1978, lot 331)

- 1764: National Museums Scotland, Edinburgh, [1905.842]
- 1766: Musée des Instruments de Musique, Brussels, [1553]
- 1766: Sotheby's auction catalogue, 25 November 1976, lot 68, p. 22
- 1767: Horniman Museum, London, [216-1906]
- 1767: Royal College of Music, London, [RCM 333]
- 1767: Philips auction, 5 April 1979, lot 17, plate I (also listed in Sotheby's auction catalogue, 4 November 1998, lot 139, p. 34)
- 1768: Bonhams auction, 23 June 2009, lot 22, p. 9 (also listed in Sotheby's auction catalogue, 25 November 1976, lot 69, p. 22)
- 1768: Listed in *EXPO Sussex 1968: Catalogue of the Musical Instrument Exhibition* (Sussex: Lewes Press), p. 8, number 86
- 1770: Ashmolean Museum, Oxford, [D.1:3]
- c.1760-71: Horniman Museum, London, [15.10.48/54] (signed 'Rauche in Chandos Street London', and inscribed 'Sophy Peron / 1789', possibly the owner of this instrument)
- 1771: Mentioned in the Hill Archives (WA 1992.643.2, p. 73) (signed 'Ml. Rauche / In Chandos Street / London 1771')
- 1772: Musée de la Musique, Paris, [E.979.2.71]
- 1772: Bonhams auction catalogue, 9 September 2002, lot 23, p. 6
- 1778: James Tyler collection, Pasadena, California, mentioned in Tyler (2009: 16)

- 1779: Birmingham Conservatoire, Birmingham, [11.2]

- (?): Sotheby's auction catalogue, 17 November 1977, lot 71, mentioned in Tyler (2009: 16)

RUDDIMAN, JOSEPH

Biographical information and business details: b. 18 March 1729, Monquhitter - d. March 1810, Aberdeen. Scottish musical instrument maker of the violin family working at Cooperstown, Aberdeen, widely regarded as one of the finest Scottish violin and cello makers of his day. According to Rattray (2006: 148), apart from violins, violas and cellos, Ruddimann's output includes 'pear-shaped guitars and sultanas', instruments which were also manufactured by Thomas Perry of Dublin. Rattray (2006: 148) further adds that the 'strong similarity between the work of the two makers presents another possibility for Ruddiman's training'. According to Jalovec (1968: 212) his guittars 'limit information to the letters 'J. R. F. A' (i.e. J. Ruddiman Fecit Aberdeen).'

Surviving guittars: 2

- (?): Victoria & Albert Museum, London, [375-1882]

- (?): Phillips auction catalogue, 24 January 1974, lot 20, p. 5

RUTHERFORD, DAVID

Biographical information and business details: b. (?), fl. 1745-70, d. 1770. Also mentioned as 'Rutherfoord'. Scottish musical instrument maker, music publisher and seller working 'at the Violin and German Flute' in St. Martin's Court near Leicesterfields, London, as mentioned in Humphries and Smith (1970: 283) and Kidson (1900: 112-13). Around 1756 Rutherford published *The Ladies' Pocket Guide or the Compleat tutor for the Guittar*, which is considered as one of the earliest guittar tutors. Rutherford died in 1770; in his last will (TNA: PROB 11/961) he bequeathed his stock-in-trade and £1,300 in 4% annuities to his wife, Christian Maria, to be divided among his five children upon her death. His eldest son, John, who continued the family

business until c.1784, inherited £220; his two daughters, Anna and Alice inherited equal amounts of £220 each, while his two younger sons, George and Joshua, were given £320 each. Interestingly, Rutherford is mentioned in an announcement in the *London Gazette* of 24 April 1790, twenty years after his death, as 'David Rutherford of St. Martin's in the Fields, London, Musical Instrument-makerr', being involved in the bankruptcy case of the merchants James Gough and Oliver Noyes, 'late of Kingston upon Hull', to which Rutherford reportedly owed money since 1746.

Surviving guittars: 1

- (?): Phillips auction catalogue, 19 November 1996, lot 15, p. 7

SIMPSON, JOHN

Biographical information and business details: fl.1734-46, d. c.1749. English musical instrument maker, music publisher and seller working 'at the Bass Viol and Flute' at Sweeting's Alley, near the East door of the Royal Exchange, London. After his death around 1749 Simpson's widow, Ann, continued the business under her own name until she married John Cox in 1751. An advertisement in *Lloyd's Evening Post* of 20 June 1764, quoted in Lasocki (2010: 98), announced the sale by auction of the 'Lease of the Dwelling-House and Shop of that old and well-established Muisck-Shop in Sweeting's-alley, Cornhill, (carried on many years by Mr. Simpson) now in the Occupation of Mrs. Cox, in full Trade […]'; the 'genuine Stock in Trade', also offered for sale, included 'Dulcimers, Guitars, Mandolins' among various instruments, suggesting that Simpson, and possibly Cox, had been producing guittars.

The business was continued from 1770 to c.1800 by James and John Simpson, the son and grandson of John and Ann. According to Kidson (1900: 117) 'The Directory for 1770 first names James and John Simpson, musical instrument makers, No. 15, Sweeting's Alley', while in 1796 the entry is 'J. Simpson, 14, Sweeting's Alley'. The firm is listed in Doane (1794/1993: 60) as' Simpson, James and Son, *Instrument Maker,* No. 15 *Sweeting's-Alley Cornhill*.' It is noteworthy that

in the second edition of his tutor *Estudo de Guitarra* António da Silva Leite (1796: 26, footnote 6) described Simpson as the best maker of guittars in England.

Surviving guittars: 2

- (?): Museum of Fine Arts, Montreal, [957. Dv4]

- (?): Metropolitan Museum of Art, New York, [89.2.167]

SMITH, (?)

Biographical information and business details: English manufacturer of external piano-key boxes for guittars working in London, c.1785. Nothing is known about Smith, although he may have been related either to Joseph Smith, the harpsichord and piano maker, included in Boalch (1974: 165), or to Thomas Smith, musical instrument-maker to the Duke of York, mentioned in Langwill (1949: 42). Around 1785 he probably developed a brief partnership with William Jackson, since surviving guitar by Thompsons, listed in Sotheby's auction catalogue, 19 July 1968, lot 44, p. 14, is equipped with an external-piano key mechanism bearing the inscription 'Jackson & Smith / Patent Box London'.

Surviving guittars: None. However, numerous external piano-key boxes mounted on surviving guittars are stamped 'SMITH'S PATENT BOX / LONDON'.

STEWART, NEIL

Biographical information and business details: fl. 1759-66. Also mentioned as 'Steuart'. Scottish musical instrument maker, music publisher and seller working 'at the Violin and Guitar', Edinburgh, c.1765, as mentioned in Humphries and Smith (1970: 301). According to MacKillop (2004: 142) in 1766 Stewart published 'A New Collection of Scots and English Tunes Adapted to the Guittar […] Printed & Sold by Neil Steuart at his Music Shop Opposite the head of Black fryers Wynd, Edinburgh, where may be had the following Instruments: Violins, Flutes, Spinits, Guittars at all Prices. Instruments taken in to mend.' Moreover, in an advertisement

from around the same time, quoted in Farmer (1947: 276), Stewart and his partners announced that they 'make all kinds of Harpsichords, Piano Fortes, Spinets, Guitars, etc.'

Surviving guittars: None

THOMPSON, FAMILY

Biographical information and business details: fl. 1743-1805. Family of English musical instrument makers, music publishers and sellers working at St. Paul's Churchyard. According to Milnes (2000: 40-1), the business, which had been established by Robert Thompson (fl. 1743-70) and his brother Peter (fl. from 1746, d. 1794), working in different addresses, was carried on by Peter's sons, Charles (fl. 1763-76) and Samuel (fl. from 1763, d. 1794), between 1763 and 1790. As Milnes (2000: 41) points out, by 1761 the firm was known as Thompson & Sons. Other members who were later involved in the business include Samuel's wife, Anne, and their two sons, Peter and Henry, who joined the business in 1779 and c.1793 respectively.

The Thompsons are listed in Doane (1794/1993: 65) as 'Thompson, Samuel & Peter, *Inst. Makers & Music Sellers. No.75, St. Paul's Church-Yard*.' After the deaths of Peter and Samuel in 1794, Anne and Henry, Samuel's second son, continued the business until 1798, and then Henry worked alone until 1805 at No. 75 St Paul's Churchyard. Around 1799 Henry Thompson published a guittar tutor titled *New and Compleat Instructions for the Guittar*, in the front cover of which he advertised 'a great Choice of Guittars at the most reasonable Prices and upon the newest Construction'. Moreover, there are three extant guittars bearing the stamp of the Thompsons; these are also stamped by Preston on the neck or head, suggesting that the Thompsons were supplied with guittars, or at least with guittar necks equipped with watch-key machines, by Preston.

Surviving guittars: 13

- (?): Smithsonian Institution, Washington DC, [# 096475] (also stamped by Preston)

- (?): Andy Rutherford collection, New York, (stamped 'Thompsons' over Preston)

- (?): Taro Takeuchi collection, London (stamped 'Thompsons' over Preston)
- (?): Sotheby's auction catalogue, 12 and 19 November 2002, lot 227, p. 115
- (?): Bonhams & Brooks auction catalogue, 18 September 2001, lot 1, p. 3
- (?): Bonhams auction catalogue, 16 Februray 2000, lot, 35, p. 5
- (?): Phillips auction catalogue, 9 October 1997, lot 50, p. 8
- (?): Sotheby's auction catalogue, 5 April 1984, lot 193, p. 152
- (?): Sotheby's auction catalogue, 22 May 1980, lot 73, p. 30
- (?): Sotheby's auction catalogue, 8 November 1979, lot 147, p. 21
- (?): Phillips auction catalogue, 1 March 1979, lot 33, p. 10
- (?): Sotheby's auction catalogue, 19 July 1968, lot 44, p. 14 (equipped with an external-piano key mechanism bearing the inscription 'Jackson & Smith / Patent Box London')
- (?): André Bissonnet collection, Paris (information from D. Delgrossi, <http://cittern.ning.com/forum/topics/ox-blood-english-guitar-finish>, accessed 8/3 2011)

THOMPSON, WARDHAUGH

Biographical information and business details: fl. 1787. English inventor who in 1787 received a patent for his 'Apparatus for tuning musical instruments' (Patent No. 1583, 15 January 1787), which was a device employing a system of a monochord with movable bridges for the accurate tuning of various instruments, including guittars.

Surviving guittars: None

THOROWGOOD, HENRY

Biographical information and business details: fl. 1760 - c.1780. English musical instrument maker, music publisher and seller working in London. Thorowgood was apprentice to J. Cox, who was the successor of J. Simpson. According to Humphries and Smith (1970: 310) from 1761 to 1764 Thorowgood worked in partnership with Robert Horne 'at the Violin and Guitar', firstly opposite Grocers Alley in the Poultry from 1761 to 1763, and then near Mercer's Chapel, Cheapside, from 1763 to 1764. In 1763 Thorowgood & Horne published the *Compleat Tutor for the Guitar*, and in the *Gazetteer and London Daily Advertiser* of 3 March 1764 they offered for sale 'the compleatest tutors for the German Flute, Violin and Guitar', as quoted in Lasocki (2010: 98). In 1764 Horne withdrew from the partnership and emigrated to America, while Thorowgood continued the business on his own.

An advertisement in the *Gazetteer and London Daily Advertiser* of 29 October 1764 listing Thorowgood's stock-in-trade, presented in Lasocki (2010: 100), included 'Guittars, ditto Strings' among a wide variety of musical instruments and musical accessories, as well as 'the newest and most approved Instruction Books for the Violin, German Flute, Guittar [...]'; moreover, in an advertisement in the *Gazetteer and New Daily Advertiser* of 23 May 1765, quoted in Lasocki (2010: 101), Thorowgood offered 'that most pleasing and harmonious instrument, called the HARP of ÆOLUS, which plays of itself when placed in a window; on which is fixed a scale for tuning Guitars'. Between 1765 and c.1780 Thorowgood worked 'at the Violin and Guitar' under the North Piazza of the Royal Exchange; in 1767 the address was numbered No. 6 North Piazza, Royal Exchange. Around 1765 Thorowgood published *Twelve Airs, for one and two Guitars, composed by John Parry Harper to their Majesty's*; since there are no surviving guittars bearing his name it is possible that he did not produce guittars himself but was supplied by other makers.

Surviving guittars: None

TRIPELL, JACOB

Biographical information and business details: fl. 1755-67. German musical instrument maker of stringed instruments working in London, c.1755-64, then in New York from c.1764. The only

references to his origins, training and early career come from an advertisement in *The New York Gazette*, 12 November 1764 and 3 August 1767, in which Tripell announced that he 'makes and repairs all sorts of Violins, Base and Tenor Viols, English and Spanish Guittars, Loutens, Mentelines, Mandores and Welsh Harps, at reasonable rates, as neat as in Europe, having work't at the business nine years, with the best hands in London since I left Germany'.

Surviving guittars: 1

- 1761: Gemeentemuseum, Hague, [?] (information from M. Latcham)

VOGLER, JOHN & GERARD (JOHANN & GERHARD)

Biographical information and business details: fl. 1777-85. Musical instrument makers, music publishers and sellers of German origin working in Glasshouse Street near Swallow Street, c.1777-85. According to Kidson (1900: 133-34) they were 'probably related to Johann Georg Vogler, a German violin maker who flourished at a rather earlier period'. In a court case from 1786 involving Christian Claus and Joseph Levy (TNA: PRO C12/154/35) it is reported that Claus regularly paid 'Mr Foglar' (most likely Vogler) 'for guittars'. Their premises were taken over by Robert Wornum (1742–1815), a musical instrument maker and music seller who in the early 19th century was producing keyboard and plucked instruments, including Apollo lyres.

Surviving guittars: 3

- (?): Gemeentemuseum, Hague, [MUZ-1933-0379]

- (?): Hobgoblin Museum, London, [25]

- (?): Vintage Instruments collection, Philadelphia, [#27456]

WARRELL, WILLIAM

Biographical information and business details: fl. c.1780-94. English musical instrument maker, music publisher and seller working in London. Humphries and Smith (1970: 323) give Warrell's addresses as '35 Tavistock Street, c.1777-80; New Road, near Westminster Bridge; Surrey Side of Westminster Bridge; or, Near Astley's Theatre, Westminster Bridge; 17 Bridge Road, Lambeth, c.1780-94 or later'. According to Kidson (1900: 147) Warrell is listed in the Musical Directory for 1794 as 'Warrell, organ builders, 17, Bridge Street, Lambeth'. An advertisement by Warrell and Co (BM Heals Collection 88.86), presented in Fildes et al (2011: 15), announced the sale of 'improved musical instruments, wholesale and retail, and for exportation, at their manufactories or warehouse, Near Astley's Theatre, Westminster Bridge'; the same advertisement mentioned 'Guittars on the last new Construction, superior in Tone; and to which may be added the Piano Forte Movement at Pleasure.- Old Guittars altered to Tune with the Watch Key; and good Second hand ditto, sold very Cheap.'

Surviving guittars: None

WATT, JAMES

Biographical information and business details: 19 January 1736 - 25 August 1819. Scottish inventor and mechanical engineer who became famous as the steam engine pioneer, living and working in Greenock, London, Glasgow, and Birmingham. In the late-1750s Watt, who had a background in the manufacture of scientific instruments, was occupied with the construction and development of mechanical parts used on various musical instruments, including guittars, as noted by Wright (2002: 107). The entry for a charge in Watt's Waste Book for 'perpetual screws, keys and adjusting screws' possibly indicates the manufacture, supply or fitting of parts for tuning machines used on guittars. In addition, according to Wright (2002: 107-8), in 1761 Watt was employing Robert Allen to make and repair fiddles and guittars, while by 1762 John Gardner was working for Watt making 'plates' for guittars and keys for flutes.

Surviving guittars: None

WOFFINGTON, ROBERT

Biographical information and business details: fl.1766-1823. Irish musical instrument maker, music publisher and seller, listed by Teahan (1963: 32) as an 'Organ Builder and Organistrum and Piano Maker', working at 9 William St., Dublin, between 1787 and 1810, and also in 1823. Woffington, who was an apprentice of Ferdinand Weber, a known keyboard instrument maker of Dublin, is mentioned as an assistant organist at St Mary's in 1766 and as an organist there from 1773 until 1785. According to Humphries and Smith (1970: 338), from 1775 to 1778 Woffington had a partnership with William Gibson; an extant small-sized guittar dated 1776, mentioned in Armstrong (1908: 6, footnote 2), Doyle (1978: 23) and Lawrence (1999: 26), as well as a guittar dated 1774, listed in Sotheby's auction catalogue, 16 May 1978, lot 77, p. 24, are co-signed by Gibson and Woffington. Since Woffington was primarily a keyboard instrument maker, it can be assumed that both guittars were most likely made by Gibson.

Surviving guittars: 2

- 1774: Sotheby's auction catalogue, 16 May 1978, lot 77, p. 24 (signed 'Gibson & Woffington')

- 1776: National Museum of Ireland, Dublin, [?] (signed 'Gibson & Woffington')

WOOD BROTHERS, H. & E. (?)

Biographical information and business details: fl. c.1778. Apart from one surviving guittar, very little is known about H. & E. Wood, although they may have been related to B. Wood, a music engraver and publisher working at No. 22 Hyde Street, Bloomsbury, c.1785, and No. 60 Chandos Street, Covent Garden, c.1789, mentioned in Humphries and Smith (1970: 340).

Surviving guittars: 1

- 1778: Sotheby's auction catalogue, 22 November 1984, lot 261

ZUMPE, JOHN CHRISTOPHER (JOHANN CHRISTOPH)

Biographical information and business details: b. 14 June 1726, Fürth - buried 5 December 1790, London. German musical instrument maker who became well-known as one the most influential and prolific manufacturers of square pianos. In the early 1750s Zumpe, who, according to Cole (1988: 51), had earlier served an apprenticeship as a cabinet maker in his hometown, moved to London, where by the late 1750s he was building keyboard instruments in the firm of Burkat Shudi. In 1761 he opened his own workshop at 7 Princes Street, Hanover Square, 'at the sign of the Golden Guittar', where from 1761 to 1764 he produced mainly plucked stringed instruments. Sometime around 1765 Zumpe developed the square piano and soon after he started producing the first versions of this instrument.

For ten years, from 1768 to 1778, Zumpe continued manufacturing square pianos in partnership with Gabriel Buntebart. In an insurance policy dated 9 January 1768 Zumpe's address is given as 'at the Queen's Arms in Princes Street'. By 1779 he had set up a new workshop in Princes Street, near Cavendish Square, where he worked until 1782, when he handed over his business to the brothers Frederick and Christian Schoene. In an advertisement in the *General Advertiser* of 1 February 1780, quoted in James (1930: 80), Zumpe claimed to be 'the inventor of the Small Piano-Forte and maker to her Majesty and the Royal Family.' According to Whitehead and Nex (2002: 9, Table 2; 21, Appendix 1; and 13, Document 2), in a 1779 insurance policy of the Sun Fire office Zumpe is described as a musical instrument maker, whereas a policy of 1781 describes him as a 'gent' living at No. 7 Charlotte Row, Paddington, suggesting that by 1781 Zumpe may have had retired from his instrument-making duties and had adopted a more administrative role in his profitable business. Likewise, in his will of 1784, Zumpe is described as 'John Christopher Zumpe, Gentleman, of Queen Charlotte Row, by the New Road, in St Mary-le-bone.', as quoted in Cole (1998: 67).

By 1786 Zumpe had moved to his last residence at No. 62 Edgware Road Paddington, as reported in the 1786 endorsement of Zumpe's 1781 insurance policy, mentioned in Whitehead and Nex (2002: 13, Document 2). Zumpe died in December 1790 and was buried in the Church of St Marylebone on 5 December 1790; his wife and close relatives inherited most of his large

fortune, although he also left generous donations to the St Marylebone Charity for Needy Children, and to the Orphan and Charity School in Fürth, as described in Cole (1998: 67).

Surviving guittars: 2

- 1762: Historisches Museum Frankfurt, Frankfurt am Main, [X16650]

- 1764: EUCHMI, Edinburgh, [1731]

APPENDIX II: THE ACCOUNTS OF THOMAS GREEN

The following list contains all the references related to the guittar as included in the accounts of Thomas Green (1742-90)[845]:

Cash received for Tuning Instruments		**£ s d**
Tuning Instruments 1756		
29 Jan	of the Right Hon'ble lady Sarah Cowper / for mending and Stringing a Citron etc	£1 1s 0d
14 Sept	of Lady Mary Mordaunt for Tuning her Citron, and / some strings to Ditto	2s 6d
6 Dec	of Miss Rolt for tuning A Guitar	1s 0d
14 Dec	of Lady Mary Mordaunt at Rev'd Mr Keyts at / Hatfield for tuning a Guitar	2s 6d
Tuning Instruments 1757		
14 Mar	of Miss Carey for tuning a Guitar	1s 0d
18 June	of Miss Carey for a Citron	1s 0d
22 June	of Miss Arnott for Ditto	1s 0d
11 July	of Miss Arnott for a Citron tuning	1s 0d
29 July	of Miss Carey for twice tuning a Guitar	2s 0d

[845] For the complete transcription of Green's accounts see Sheldrick (1992: 1-85). The sums appear here as recorded in Green's accounts; however, the symbols £, s, and d have been added next to the figures for more clarity.

6 Aug	of Miss Arnott for twice tuning a Guitar	2s 0d
30 Aug	of Miss Rolt, for tuning a Guitar	1s 6d
2 Sept	of Miss Carey for tuning a Guitar and a String	1s 6d
14 Sept	of Miss Raynolds at Thudridge Bury for Tuning her / Guittar	1s 0d

Tuning Instruments 1758

7 May	of Mrs Whetham at Bradfield, for a Guittar	1s 0d
4 Aug	of Lady Mordaunts for Tuning the Spinnet and two / Guittars	5s 0d
28 Dec	of Miss Snell at Lady Blounts for Tuning a Citron	2s 6d

Tuning Instruments 1759

30 Jan	of Miss Carey for Tuning a Guittar	1s 0d
5 Feb	of Miss Shaftoe for Tuning a Guittar	1s 0d
15 Feb	for Ditto, for Tuning a Guittar, and a Silver String	1s 0d
1 Mar	of Miss Shaftoe, for Tuning a Guittar	1s 0d

Receiv'd for Tuning Instruments in the Year 1763

18 Feb	of a young Lady at Mr Briants at Hodesdon for / Tuning a guittar	1s 0d
19 July	for Tuning a Guittar from Berkhamstead	1s 0d

Receiv'd for Tuning Instruments in the Year 1765

27 May of Miss Isles for a Guittar Tuning 1s 0d

18 Sept a YoungLady at Mrs Jones's for a Guittar 6d

Receiv'd for Tuning Instruments in the Year 1767

21 Oct of Miss Cokburne at Jennings Bury a Guittar 2s 6d

Tuning Instruments Year 1768

19 Mar a Young Lady at Dr Dimsdales a Guittar 1s 0d

Tuning Instruments Year 1769

11 Mar For a Guittar Tuning 1s 0d

18 May of Miss Whitbread at Bedwell Park […] / Tuning a Guittar 1s 0d

July a Guittar Tuning 1s 0d

16 Sep for Tuning a Guittar 1s 0d

Tuning Instruments Year 1770

12 May of Miss Townshend […] / for new Stringing a Guittar, and twice tuning / Ditto 5s 0d

1 Oct Tuning Mrs Byron's Guittar 1s 0d

Tuning Instruments Year 1771

23 Feb of Mrs Cornwallis at Birds place Essendon […] / of Ditto [tuning] for a Guittar and 3 Silver Strings 2s 6d

Tuning Instruments for the Year 1772

24 Jan Mrs Byham's Guittar Tun'd 2s 0d

Tuning Instruments Year [sic] for the Year 1773

21 July Col'l Cowper a Guittar and 2 Strings to Ditto 1s 6d

Tuning Instruments for the Year 1780

22 Sept of Lady Maria Carleton a Guittar mending and / tuning 2s 6d

Mrs Dimsdale Ditto 1s 0d

Tuning Instruments for the Year 1781

14 Nov Miss Dimsdale a Guittar 1s 0d

Tuning Instruments Year 1784

2 Feb Rec'd of Mrs Baker for Tuning […] / twice the Guittar 1783 / and Strings 13s 0d

Tuning Instruments in Year 1786

10 Jan of Col Miles's Lady a Guittar 5s 0d

17 Feb Miss Braithwhite by Amwel Church a Guittar etc 2s 6d

Money receiv'd Occasionally

1756

6 Aug of Miss Rolt Jun'r for Teaching her to Tune her / Citron 5s 0d

18 Sept Of the Hon'ble Mrs Spencer, for tuning her Citern, / as I suppose, or out of her own Generosity £1 1s 0d

Money Rec'd Occasionally 1759

3 Feb of Mrs Gardiner a pres't for Tuning her Guittar / Several Times 5s 0d

Rec'd Occasionally Year 1764

19 [no month] of Miss Barbara St John, for Guittar / and Violin Strings 10s 6d

Rec'd Occasionally year 1765

12 Feb Mr Rider for 3 Guittar Strings 1s 6d

Memorandums of Variety of things Bought by me from the Year 1744 to the Year 1787

1780 to Mr Wild for a Guittar £1 1s 0d

APPENDIX III: THE INVENTORY OF CHARLES PINTO

The complete text of the Probate Inventory for Charles Pinto (1792) is presented below[846]:

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Charles Pint dec^{d}

Inventory

Brot in 23^{d} Feb^{y} 1792

A true full plain perfect and particular / Inventory of all and singular the Goods – / Chattels and Credits of Charles Pinto late / of Johnsons Court in the Parish of Saint – / Dunstan in the West London a Batchelor / and a Bastard deceased which at any time / since his Death have come to the hands / possession or knowledge of Charles Pinto / and Elizabeth Senegar Wife of Edward / Senegar the natural Children of the said / deceased and the nominees of His – / Majesty and Administrators of all and – / singular the Goods Chattels and Credits of / the said deceased for the use and benefit of / his Majesty follows to wit /

Cash in the said deceaseds House at the / time of his death – } 1..2..~ /

The following Household Furniture and other / Effects the Property of the said deceased in his / late Dwelling House situate in Johnsons Court / aforesaid were Valued and Appraised by Thomas Blackmoor of Fleet Market London Sworn – / Appraiser to wit – /

No 1. Loft.

A Quantity of old Wood and sundry Lumber

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[846] See TNA: PRO PROB31/821/151, Probate Inventory for Charles Pinto, in the National Archives. I am grateful to J. Nex for providing me with her transcription of this document.

No 2. Garrett.

Five Doors ten Case Slips four Shuttles A Wainscott / two flap dining table part of an Organ ^ Case of an / Harpsicord sundry old Bedsted frames A Box with / a Quantity of old Iron a Trunk and sundry ffour / Mahogany Slabs one deal Board a fframe with Screws / A Quantity of frames and sundry old Lumber /

No 3. Passage

Six Glass Casements A small iron [?irune] Thirty two / pieces of Wood Quantity of iron pipe some iron and / backs for Stoves Quantity of painted Canvas twenty six / pieces of wood various – /

No 4. Front Garrett.

A Kitchen range two iron Kettles Iron meat hanger / Sixteen boards various a long iron barr Eleven Mahogany / Table flaps six Mahogany Chairs A Harpsicord Case – / part of two Bedsteads A Saddle and Bridle a Mahogany / table two Chests and a box with contents A fish Kettle / and Cover A working bench with sundry old iron / thereon a Chest of old iron A deal case A – / quantity of old wood A Mahogany pillar and / Claw Table A Slab A Writing desk three Stools – / three large maps of the World part of 2 Bedsteads / A Mahogany board two Spinnet Tops two iron – / bows A Harp A Mahogany Slab two pictures / parcel of wood hold fasts and sundry odd lumber. /

No 5. 2 Pair back Room

A four post bedstead with rod &c. A Pianoforte / A Harpsicord in Mahogany Case banded &c. A do / A do A do A do A Pianoforte A Harpsicord A do / A Spinnet A do A Mahogany Pillar and Claw / Table A Bread Table A pair of Tressels A / Mahogany dining Table with two flaps A Mahogany / dumb Waiter Some Scotch carpet some bedside do – / A Quilt a Mattress in check case A ffeather Bed / and pillow A ffeather bed A Pillar and Claw – / in part of a Table A

walnuttree Chest of / Draws A Pianoforte A Harpsicord A do A do / A do A folding leaf Leather Screen two – / Cloth horses A parcel of harpsichord stands with / Castors &c. A barrel Organ An easy Chair – A bath stove & Drum A Chimney Glass in / Carv'd and Guilt Frame A Bath Stove in brick / Work and various other sundry lumber Articles. /

No 6. Passage

A black figure A box A do A six leaf folding / Screen A Mahogany [?purtion] two Wainscott do /

No 7 ffront Room

A barrel and finger Organ fourteen loose Seats / A Mahogany Card Table A Desk A Bureau Bestead / A Map in black frame the portraits in black frames // A painting Six Mahogany Chairs six beach Chairs / stain'd Rush bottom Chair parcel of wooding feet / A harpsichord A do A do A small instrument / quantity of iron pipe A German Stove A German [sic] / A sett of harpsichord Keys A do A do A do A do / An Adas A Baskett with a Quantity of Dutch files / A German Stove An easy Chair A Corner Chair – / A bath Stove the back of a Stove A do A Mahogany / card Table A Mahogany tea Table A Mahogany / Pillar and Claw Table parcel of wood Four rush / bottom Chairs A Chest of Draws part of a napkin – / press part of a mahogany Table an iron barr three / window laths An iron rod sundry pieces of wood / part of a Bedstead A large Chest A four post / Bedstead with fluted posts lath &c. A large Trunk / containing twelve setts of harpsicord Keys various / ^ a feather Bed A goose feather bed A feather bed A hair mattress / three bolsters and four pillows two Blanketts and / sundry lumber. /

No 8. Back Room 1^{fl}r

A painting over the chimney piece a Dumer [m has line over indicating omission – Dumb waiter?] Six / boxes with contents A Mahogany bureau A – / Mahogany bedstead with folding doors An eight / day Clock in Japann'd case A Quantity of reading – / and Music books bound and unbound on the / floor A Chest and two Furnitures therein A / Blanket a counterpane and sundry other Articles / A Wardrobe A Quantity of Books three Mahogany / teachests A large

Cloths Press A Blunderbuss A Glass / A Magnifying Glass A Mahogany bureau A Chest / quantity of organ pipes some wine bottles parcel of / wood and sundry other lumber. /

No 9. Passage

About fourteen Mahogany music desks and a – bath Stove. /

No 10 front Room 1^{fl}r

A bath stove a painting over the chimney / eighteen Prints framed and Glased A pier Glass in / carv'd and gilt frame Twenty one Guitars with / leather cover'd Cases Thirty one Guitar six do [?keyed] / A Patent Guitar by Longman & Co Sixty five violin / various two small do eleven base Viols and / violoncellos one base viol with a case A harp A do // An eight day clock in Japann'd case An arm / chair six loose seat chairs Six violins and twelve / cases various About seventy violin bows various / two base viol cases A Mahogany dressing Table A / Mahogany Table sundry parts of violin and other / wood four pictures six small paintings six pier and / chimney Glasses four frames for pictures Six small / paintings some Mahogany boards A finger organ / A Cistern lined with lead a Case containing four / violins a Case and Violin A Case and violin – / two Cases A waluttree Chest of Draws / A bird organ A Mahogany Pembroke table – / and parcel of sundry Articles. /

No 11. Back Parlour

A Stove A Chimney Glass A Chest containing sundry – / old iron ^^{A} large organ A Mahogany bureau A – / Machine for twisting of instrument Strings A small / do A box containing parcel of brass work– / A Quantity of boards A Marble Slab with – / Mahogany frame A Mahogany Press A Mahogany / Slab three Deals and three iron brackets A Mahogany / Chest of Drawers A Mahogany writing desk and – / frame An Instrument case A Bell instrument / an upright harpsichord a harpsichord case A marble / slab A small do A Mahogany Pillar and / Claw Table A Mahogany do A do /

No 12. Passage.

A passage Lamp /

No 13. ffront Parlour

A bath Stove with Air top sett of fire irons / A Chimney Glass in carv'd and gilt frame / A painting in gilt frame A d^{o} in gilt – / frame A Girandole gilt frame A Pier Glass in – / A Painting of hunting A Mahogany Music / stand six Mahogany chairs covered with green – / Merine two stools a painted buffet with Glass – / Doors a pianforte [sic] a Harpsicord A do A do / in tone A do A Chimney board ^ a neehold Chest of Draws an upright / harpsichords twelve books and various other – / Articles A feather bed A do A do A do A do / two Pillows three Blankets A Quilts and a – / rug A Mahogany two flap dining Table – // A pillar and Claw Table A Mahogany board – / part of a turkey Carpet. /

No 14 Passage leading / from the Kitchen.

A Copper two Stone jars A Gridiron An iron tea / Kettle A quantity of bottles and sundrys A Copper / Pot a Gridiron five washing tubs A Plate rack – / An iron kettle cloths horse and mop A meat – / stand A [?Vni parcel of Wart] paper An iron tea – / Kettle A lead cistern sink lined with lead / copper fixed Iron ash Grate and sundrys. /

No 15. Kitchen.

A Kitchen grate a shovel and poker a – / toasting fork A Pier Glass A Mahogany table / some carpeting two cases for instruments An / arm chair A Coffee Mill a Register Stove A / Table Cloth A Mahogany dining table part of – / a desk A print framed and glassed a Pier Glass – / a Knife Box a flour tub A Walnuttree Chest – / of Draws an ironing board A Warming pan / A Footman a toasting fork two iron pots / two iron cheecks a Copper stand two tin – / dishes A Chest of Draws a Dutch oven. /

No 16. Back Kitchen.

Pair of Steps A Box lined with Copper A – / pickling tub lined with lead An iron Kettle – / a lead sink An oven fixed an iron back A – / lead cistern Marble Slab and sundry lumber – /

No 17. Yard.

Three pieces of Marble A Shelf five Jars various / three stone bottles and a copper pail. /

No 18. Wearing Apparel.

Nineteen Coats / Twenty three pair Breeches / Twenty six pair of Drawers and / Forty nine Waistcoats / Eight Shirts and one pair of Sheets. /

The above Household Furniture and / other Effects were valued and appraised – / at the sum of Two hundred and sixty / four pounds one Shilling and six – pence – 264..1..6 /

Item Those Exhibitants declare that the / said deceased die possessed of a Freehold / Messuage situate in Johnsons Court aforesaid / which was his the said deceaseds Dwelling / House and which has since been – / Surveyed and valued by the said – / Thomas Blackmore of Fleet Market – / Sworn Appraiser at the sum of One – / hundred and Ninety Pounds – / } 190..~..~ /

Lastly these Exhibitant declares / that no further or other Goods / Chattels or Credits of or belonging – / to the said deceased he at any / time since the said deceaseds – / death come to their or either of their / Hands possession or Knowledge./

On the Eighteenth day of / February One thousand seven – / hundred and Ninety two The / said Charles Pinto and Elizabeth / Senegar were duly sworn to the / truth of this Inventory – / } [signed] Charles Pinto / Elizabeth Sanigar [sic] /

Before me J Fisher /

Tho**s** Adderleye Jnr

Notary Publick

W^{m} Adderley

[On right hand page in pencil:]

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APPENDIX IV: 'INSTRUCTIONS FOR THE GUITAR'

The complete text of Robert Bremner's tutor *Instructions for the Guitar* (Edinburgh: R. Bremner, 1758) is presented below[847]:

INSTRUCTIONS

FOR THE

GUITAR;

WITH

A COLLECTION OF AIRS, SONGS AND DUETS,

fitted for that INSTRUMENT;

By

ROBERT BREMNER.

EDINBURGH:

Printed and Sold at his MUSIC-SHOP, where may be had GUITARS from two to six Guineas

[Price One Shilling and Six-pence.]

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[847] The text presented here follows a transcription by Rob MacKillop based on the copy of Bremner's tutor in the Cardiff University Library. For more details on Bremner's tutor see <http://www.rmguitar.info/> and <http://www.rmguitar.info/pdfs/Brem.pdf> (both accessed 23/11/2010).

INSTRUCTIONS FOR THE GUITAR

~The manner of holding the Guitar~

Place it across the Body, with the Neck inclined upwards; then apply the Little-finger of the Right-hand to the End of the Bridge next the first or smallest String, by which the instrument will rest upon it; the Left-hand holding the Neck between the Ball of the Thumb and Root of the Fore-finger. The best Way to hold it with Ease in this Position, is to sling it over the left Shoulder, with a Ribband fixed to both Ends of the Instrument, so that the Hands, particularly the Left-hand, may be free to move up and down without Interruption; the Necessity of which will be found in the Course of Practice.

~Of the Right-hand Fingers~

When the Instrument is thus placed, hold up the Wrist so as it may, together with the Fingers, form a Roundness: Then streight the Fore-finger, and draw it across all the Strings, beginning at the smallest. In like manner, return the Thumb, from the thickest, by which the Position of the Fingers will be discovered.

The true Fort of the Instrument is best produced by touching the Strings between the Sound-hole and the Bridge, tho' it will occasion a pleasing Variety to play some Times near the Bridge, and afterwards as far up as the Little-finger will allow the others to reach; the Tone of the one representing the Lute, and the other the Pipe or Organ. But this is only to be attempted when the Learner is well advanced, and can with Judgement apply it so as to expect a good Effect from it.

The running the Thumb and Fore-finger across the Strings, as above, is recommended as a Lesson sufficient for the first Day; only the Thumb to leave one String for the Fore-finger to begin with, and that they move up and down upon one another, so as the one may not interrupt the Performance of the other. After this Manner are all Arpeggio's performed; an example of which may be seen in the Second Prelude. Hitherto two Fingers, viz. the Thumb and Fore-finger, have only been recommended for Use, tho', in the Course of Performance, it will be shewn, that

four are requisite. There are some that only recommend these two for all. But this renders even easy Passages difficult, and must often marr the Performance; as it is impossible to move the Fore-finger (which by this method must execute the whole, except some occasional low Notes) so quick, as most Music will require, without sometimes touching the wrong Strings: Nor is there any Reason why a Finger that naturally hangs over a String should be idle, and another come from a Distance to perform its Office: On the contrary, had we a Finger for each String, it would facilitate our Performance; but this not being the case, we most lose the Use of none of those we have.

Example 1. in Plate first, shews the Notes representing the open Strings, and are called by the Letters under them. Example 2. shews a different method of fingering the Open Notes from that formerly given. N.B. 0 means the Thumb 1 Fore-finger 2 Second-finger 3 Third-finger In this Example, the first three Notes are played by the Thumb, which must not be lifted at each, but made to slide over them. The next three have a Finger to each: and as ther Strings are double (Such Strings as are close to each other are Unisons, or the same Sound, and therefore considered only as one Note. - footnote in original), Care must be taken that they are struck so as to make them vibrate equally. In returning these Notes, the Fingers are the same; only the last three, which, instead of the Thumb, are played by drawing the Fore-finger over them. To perform this quickly, is Work sufficient for the second Day. Example 3. is another Lesson on the open Strings, which merits another Day's Practice. Nor is Example 4. less deserving, as it is designed to exercise the Fingers for double, triple, and quadruple Notes. In playing this Lesson, the Fingers must be pressed equally on the Strings, and then drawn in towards the body, (the Thumb the reverse) at the same time viewing the Strings on the Finger-board, to discover if their vibrations are equal, which, if otherwise, is a Sign they have not been equally pressed.

Tho' these Examples are but short, yet, by repeating them (which is here designed) they may be lengthened at pleasure, taking care that no more Time be lost between the first and last Notes, than between any two lying next other. Each Parcel of Notes between the Cross-bars in Example 4. may be considered as a distinct Lesson, and repeated as above. Such Notes as have not the Fingers marked are to be played with those applied to the former Notes.

The anxious Learner will no doubt think it unreasonable to be so long detained without a Tune; but let such be assured, that beginning to learn any Instrument with Tunes, particularly known ones, is generally the greatest hinderance they can meet with; for their Eagerness to learn these Tunes makes them break thro'. every Rule and Method the industrious Teacher has been labouring to communicate; wheras, if the Learner would have a little Patience, and first endeavour to have a good Notion of the first Principles, together with a tolerable command of the Fingers, his Progress would be sure and speedy. Which, if otherwise, seldom fails of being slow and uncertain, attended with Aukwardness.

~Of the Left-hand Fingers~

Their Business is to apply the Strings to the Frets or Brass-bars across the Finger-board, so as to produce a good Tone, and this is best done by pressing the Finger on the String a little above the Fret from which the tone is received; each of these Frets is in reallity a Bridge, which, if the String is made to rest firmly upon, must undoubtedly give a Sound little inferior to the open Note. Of the Scale. The Learner being, it is hoped, by this Time, well aquainted with the Lines and Spaces on which the open Notes are placed, will have little Difficulty in remebring the others. Each Note of the scale (Example 5) has the proper Finger of the Lef-hand marked above it. The Right-hand Fingers may be applied as at (Example 2.). In playing up the Scale, the Fingers often slips a Space between the Frets; the Reason of which shall be hereafter given. All that the Learner has at present to observe is, to play the Notes as directed in the Scale and Plan of the Finger-board (Example 6.); the one pointing out the proper Finger, the other shewing where to place it. Example, The first Note C, is the sixth String open. The second, being D, is the Second-finger on the same String, placed on the Instrument, as represented by the Letter D in the Plan; and so of all the other stopped Notes.

~Of Notes, their Names and Proportions~

The Notes made Use of in either Vocal or Instrumental Music are of six Sorts, namely, Semibreve, Minim, Crotchet, Quaver, Semiquaver, and Demisemiquaver. As to their Lengths and Proportions, a Semibreve is equal to two Minims, four Crotchets, &c. See (Example 7.)

~Of Rests~

These are Characters which denote Silence, or an Intermission of Sound, and are the same, as to Measure of Time, with the Notes after which they are placed. They are likewise called by the same Names, as Semibreve-rest, Minim-rest, Crotchet-rest, &c.

~Of a Dot or Point~

A Dot or Point placed after any Note, makes that Note longer by a Half than it formerly was. For Instance, a Semibreve alone, is equal to two Minims, but by a Dot after it, is made equal to three; a Minim again is equal to two Crotchets, but with a Dot is equal to three. And so of the others, (Example 8)

~Of Cliffs~

There is one or other of them set at the Beginning of every Tune. The G or treble Cliff, is the only one used for this Instrument.

~Of Bars~

There are Lines which cross the five Lines, which, together with the Spaces betwixt them, are called Bars. Of these there are two Kinds, namely single and double: The single Bars serve to divide the Tune, according to its Measures. The double Bars serve to divide every Strain of a Tune. There is an Arch or Semicircle, with a Dot within it, placed over the first double Bar, in the Example of Bars; this Character is called a Close; and some Times serves to shew, that whatever Note it is placed over is the last Note of the Piece: At other Times it denotes, that the Note, over which it is placed, may be lengthened at pleasure. There is another Character, placed over the second double Bar, called a Repeat, which shews that the Music is to be performed over again, from the Note over which it is placed; and Dots, being placed by the double Bar, serves the same purpose. The other Character, at the end of the five Lines, resembling a W, is called a Direct, and

is placed at the End, in order to shew on what Line or Space the first Note, in the next Line of Music, is placed.

~Of Time~

The Characters which denote Time are always at the Beginning of a Piece of Music; and tho' they are many in Number, yet there are but two Sorts of Time, namely, Common Time and Triple Time. The First of these, Common Time Characters, denotes the Music to be Slow, and shews there is a Semibreve, or as many other Notes or Rests as are equal to its Length in a Bar. The second denotes the Music being quick, and answers for either one or two Semibreves in a Bar. Triple Time is known by having either 3/2, 3/4, 3/8, &c. at the Beginning of the Tune, the first of these shews that there are three Minims in a Bar, and is the slowest of all Triple Times. The second 3/4, shews, that there are three Crotchets in a Bar, and is generally quicker than the former; but that these and all other Kinds of Time may be rightly understood, let it be observed, that the Semibreve is the Source of all Times; for the undermost Figure being either 2, 4 or 8, signifies Minims, Crotchets or Quavers, contained in a Semibreve; and the Figure above shews how many of either of these is in a Bar. As for Instance, If 3/2 is placed before a Piece of Music, the Figure below tells the Number of Parts into which the Semibreve is divided, namely two, which signifies Minims; for there are no other Notes, whereof two are equal to a Semibreve: Then the Figure 3. above, shews that there are three of these Minims in a Bar; and so of the rest.

~Of Sharps, Flats, and Naturals~

It must be observed, that the Space betwixt each Fret on the Finger-board, is only a half Tone or Note; if a Sharp therefore is placed before a Note, it makes that Note a Half Tone sharper, or more accute than it formerly was. A Flat has the contrary Effect, as it takes away a Half Note from any Note before which it is placed, to make it more flat or grave. Either are performed by placing a different Finger on the Space above or below that formerly used. As, for Instance, Suppose a Sharp placed before D, the second Note in the Scale; then it is played, by putting down the third Finger in the Space above, as represented by the Sharp in the Plan. On the contrary, were it a Flat, the first Finger must be put down where the Flat is marked. If either of

them is set at the Beginning of a Piece of Music, they affect the Notes on such Lines or Spaces throughout the whole Tune, according to their different Natures. A Natural serves to contradict the Sharps or Flats, by restoring any Note before which it is placed to its former natural Sound.

~Of a Shake~

This seems to be the onely Deficiency of the Instrument; for, in every other Respect, it doubtless has the Advantage of most others of its Compass, as it is capable of adding the full Harmony to any Note the Performer chuses; which, together with its Melodiousness, renders it a most elegant Accompanier of the human Voice: Nor need it be doubted, but Time will remove this Defect, and likewise discover more Beauties in the Instrument than there are yet known; as it has but lately been introduced in Britain. One Method of a Shake, is, by sounding the Note above, and then moving the Finger of that Note as on the Violin; but as the vibration occasioned by sounding the Note soon ceases, the Effect is next to nothing. The next is the same with the former; only with this Difference, that, instead of moving the Finger up and down perpendicularly, it must, in falling and rising, form an Oval, by which it will draw the String a little to a Side, so as to renew the Vibration. This has a very good Effect, if done with Judgment. The last is that used by the Harper, namely, by the Thumb and Fore-finger on two different Strings. As, for Instance, Suppose a Shake is wanted on D, on the fourth Line; then it is performed by the Thumb and Fore-finger of the Right-hand, sounding that Note alternately with the open String above. If this Method is once acquired, it must be equal to a Shake on any other Instrument.

~Of a Beat~

This is best done by the second Method laid down for a Shake, only with this Difference, that, instead of the Note above, the Finger that stops the Note moves; which, when done, must be kept down, that the Note itself may be the last heard. See the Examples.

~Of a Slur~

A Slur on this Instrument, signifies no more than to point out such Notes as are played by drawing the same Finger over them, except in the Songs where they likewise shew such Notes as are sung to one Syllable. The Learner may now proceed to play some Tunes after which it will be necessary to observe the following Rules: 1. The Right-hand may play the open Notes in such Music as descend, which is done by drawing the String to a Side, in Raising the Finger from the Note above. See (Example 9) where such Notes as may be played in this Manner have Dots above them, as have also those in the Lesson in page 26. But Care must be taken, that these Notes this played be not stronger than the others, otherwise they will have a bad Effect. 2. In the scale, the 2d, 3d, 5th and 6th Strings, have only two Notes each, the 4th has three; and the first eight. But it is evident, by viewing the Frets, that each String must have the same number of Notes as the first and tho' the odds over these in the Scale, are no more than a Repetition of those on the Strings above; yet the Knowledge of them is most necessary, there being many Passages that cannot otherwise be performed. See the third Chord at (Example 10) where the G must be taken on the second String. N.B. The proper Fingers are marked to this Chord. At (Example 11) is another Instance where G must be taken on the 5th String. The easiest Method of playing those at (Example 12) (which is the same with the tenth Bar of the second Prelude,) is by placing the first or second Finger across all the Strings, so as to make them bear upon the fifth Fret. After this manner may any common Chord be played, as every Fret is one or other of them.

~Of Tuning the Guitar~

This is to be done only by an adjusted Ear, and therefore is not to be attempted by those who are unacquainted with Music. But as there is scarce a Place destitute of one that can tune a Violin, any such may easily tune a Guitar. The Method is this: Let the third String or Strings be tuned the same Sound with the 3d Finger on the fourth String of the Violin, which is C. This done, the second String is made to sound the same with the 1st Finger on the third String of the Violin, which is E, and is a third to the former. Then tune the first String to the 3d Finger on the same Violin String, being G; by which it becomes a 5th to the String first tuned. When these three are thus tuned, they will sound these three Notes at (Example 13). As a Proof of what has been done, compare such Notes as are crossed (See the Plan) with the open Strings above; and if they have the same Sound, the Instrument is so far tuned. As, for Instance, let the Note that is crossed

on the 2d String have the same Sound with the first String open, and so of the 3d and 2d String. The other three Strings are no more than Returns than the same Sound, they being eight Notes lower than the former, viz. the 4th is tuned an Octave to the first; the 5th to the 2d; and the 6th to the 3d. If the first and last three strings sound the first three Notes in the State-Holders Minuit properly, it is a Sign the Instrument is in Tune. And such as cannot tune it, ought to play this Minuit often, as the Knowledge of it will greatly forward their Tuning.

~Remarks on the Pitch of the Guitar~

The Notes appearing so high, makes it seem impossible for the Human voice to accompany this Instrument; but when it is considered, that the Music is set an Octave above it, to prevent too many Ledger-lines or unaccustomed Cliffs, the Difficulty will be removed. The true State of the open Notes are these at (Example 14) of which three are Bass, and therefore improper for a Trible Voice. Those who transpose for this Instrument, must observe, that the proper Compass on it for the Generality of Voices, if pitched at C, (which seems to be the most proper Pitch for the most of the Guitars that have yet appeared) are those Notes at (Example 15) which are Unison, or the same Sound on this Instrument, with these below them, on either Violin or Harpsichord. Those at (Example 16) is another Range of Notes which may likewise terminate the Bounds of a Song; they being the same with the former, only an Octave lower, as may be seen by the Notes below them with which they are Unison. If a Song is set in this Compass, (See the Bush aboon Traquair.) A Trible Voice will naturally sing an Octave above the Instrument, which, tho' not quite so proper, yet has no worse Effect than if a Man and a Woman sung an Air together. But the former at (Example 15) is doubtless preferable, were it not the frequent Shifting of the Hand it occasions, as it is Unison with the Trible Voice, (of which the Fair Sex are only possessed,) and likewise permits the Instrument to join a Bass or Thorough-Bass. Those Guitars that have moving Bridges on the Neck have the Advantage of the others; as by such, the Instrument is enabled to suit the voice with any Pitch of Song.

~FINIS~

APPENDIX V: 'THE ART OF PLAYING THE GUITAR OR CITTRA'

The introductory text from Francesco Geminiani's tutor *The Art of Playing the Guitar or Cittra* (Edinburgh: R. Bremner, 1760) is presented below[848]:

The ART of

Playing the

GUITAR or CITTRA

Containing

Several Compositions with a BASS for the

VIOLONCELLO or HARPSICHORD

Most Humbly Dedicated to the

Countess of Charleville

by

F. Geminiani.

---

[848] The text is presented here as included in the facsimile edition of Francesco Geminiani's *The Art of Playing the Guitar or Cittra* - Performers' Facsimiles 216 (New York: Performers' Editions), which is based on the copy of Geminiani's tutor belonging to the Library of Congress, Washington D. C.

N:B: These Compositions are contrived so, as to make very proper Solos for the Violin; and as all the Shifts and Graces requisite to play in a good taste are distinctly mark'd, it must be of great use to those who aspire to play that instrument.

EDINURGH. MDCCLX.

Printed for the Author by R: Bremner. At the Harp & Hautboy. and sold at all the Music shops in Great Britain and Ireland.

The Use of the lesser Guitar or Citera, being lately revived among us, I thought it might be of general advantage to its admirers to Compose some Lessons adapted to the compass and stile of that Instrument. And have endeavour'd to improve it by adding more Harmony and Modulation to the usual manner of performing on it.

The sweetness and brilliancy of sound peculiar to the Guitar, together with its convenient shape and size, and the easyness of performing on it, has already render'd it exstreamly fashionable in the polite world: But still it is more deserving of regard, even from good Judges of Music, than is generally apprehended, For the disposition and number of its Strings, render it capable of a very full and compleat Harmony, as it may be seen by the following Compositions.

EXPLANATION of the different CHARACTERS

The middle Stave consisting of six lines, represents the six strings of the Guitar.[849]

Where 0 is placed on any line, it denotes that string open.

The other figures represent the frets that cross the fingerboard, and also the fingers proper to stop these frets (See Ex: A) the figure 1 being placed on the 2^{d}. line signifies the first

[849] Geminiani's tutor is unique in that it uses tablature notation for the guittar parts.

finger to be placed on the first fret of the 2d. string, which string that line represents. again, the figure 2 signifies the 2d. finger on the 2d. fret of the 3d. string and so of the others. But if a second row of figures is placed above the six lines (See Ex: B) then the figures on the lines only denote the frets, and those above point out the proper fingers to stop those frets.

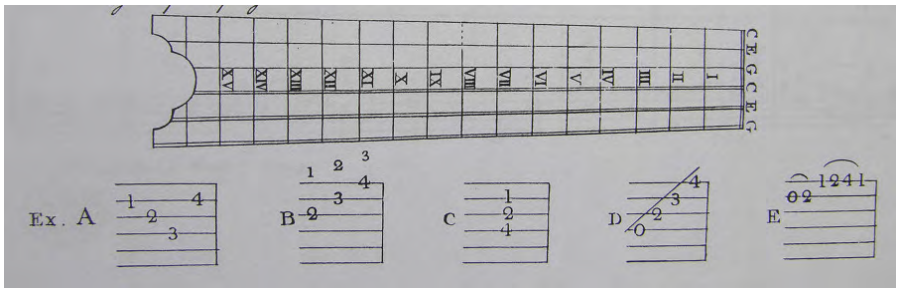
Where any numbers of figures stand over one another (See Ex: C) they show that the Notes constitute a Chord, and are to be struck alltogether. this oblique line / signifies the same. (See D)

Where a dash ∩ is placed over any two or more figures, the first is only to be struck, because the fingers in passing the others produce the sound. (See E)

As to what concerns the time and value of the Notes, the Violin part is only to be observ'd.

I shall not more trouble the Reader with explaining the different graces Viz. a Shake, Beat, Appogiatura &c. but refer those to the Instructions of a good Master or the genius of the Performer.

I have only to observe that the frets wou'd be more readily found, were they number'd as in this draught of the fingerboard.[850]



[850] The drawing of the fingerboard, showing the Latin numbers I to XV over 15 frets and the guittar tuning in C, is depicted in the bottom of the first page of the tutor, along with the five examples mentioned above by Geminiani. Interestingly, as it can be noticed, the fingerboard is depicted with nine stings arranged in six courses, with single strings for the three bass courses and double strings for the three treble courses.

APPENDIX VI: LIST OF GUITTAR MUSIC

A large quantity of music was published for the guittar during the second half of the 18th century. The list presented below is far from comprehensive, but provides an indicative sample of the variety of instruction books and works composed or arranged for the instrument. The entries are arranged firstly alphabetically and then chronologically from the latest to the earliest, while any missing or unconfirmed details are indicated with a question mark (?).[851]

Arne, Thomas Augustine (c.1763), *The airs with all the symphonies in the opera of Artaxerxes: corrected transpos'd for the German flute [,] violin & guittar* (London: ?).

Asuni, Chilini di (1786), *Twenty Four of the Most Elegant, and Favourite English Songs, adapted for one, two, and three guitars, with an accompaniment* (London: Longman & Broderip).

--- (c.1785), *New and Complete Instructions for the Piano-forte Guitar* (London: Longman & Broderip).

--- (1765), *Collection of Duets Songs and Airs for the Guittar [...] To which is Added Several favourite English, French & Italian Songs by the best Masters* (London: P. Welcker).

--- (?), *Lady's Amusement-being an intire new Collection of Favourite French and Italian Songs, Airs, Minuets & Marches* (London: P. Welcker).

Bach, Johann Christian (1775), *A Sonata for the Guitar with an Accompaniment for a Violin* (London: Longman & Broderip).

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[851]Apart from the listed titles, numerous anonymous works for the guittar have survived. Armstrong (1908: 16-7) has listed several examples of guittar music without, however, providing the full titles of the works or any dates of publication. An extensive list of guittar music in the National Library of Ireland, Dublin, is included in Lawrence (1999: 196-351). In addition, a large number of scores with guittar music survive in the British Library, London, the National Library of Scotland, Edinburgh, and the Wighton Collection of National Music, Dundee.

--- (?), *Sonata in two movements* (Jean Kirkpatrick Guittar manuscript, Buccleugh Collection, MC.2.9 Northamptonshire Council).

Bates, William (c.1769), *Eighteen Duettinos for Two Guittars, Two French Horns, or Two Clarinets* (London: J. Longman & Co).

Bianchi, Francesco (?), *The Marquis of Kildare's March, set by Mr Bianchi for two guitars, or two violins* (Dublin: B. Rhames).

Bland, John (c.1765), *Bland's First Collection of Twenty-four Airs, Marches, &c. Twelve for One, and Twelve for Two Guittars, or a Guitar and Violin, Composed by the Best Masters* (London: ?).

Bolton, Thomas (c.1800), *A Collection of Songs, Rondeaus, Waltzes, Marches and Dances, for the guitar, pianoforte guitar, or the new invented Spanish guitar* (London: Goulding, Phipps & D'Almaine).

--- (c.1795), *Six Rondeaus* (London: Longman & Broderip).

Bremner, Robert (1760), *Twelve Scots Songs for a Voice or Guitar* (Edinburgh: R. Bremner).

--- (1758; reprinted 1765), *Instructions for the Guitar; with a collection of Airs, Songs and Duet, fitted for this Instrument* (Edinburgh: R. Bremner).

--- (c.1758), *The Songs in the Gentle Shepherd* (Edinburgh: R. Bremner).

Buchinger, Joseph (?), *The Blue Bells of Scotland: A Favorite Scotch Song with an Accompaniment for the Pianoforte, Harp, Guittar or Lute […] adapted and accompanied by J. Buckinger* (London: J. Buchinger).

Carr, Benjamin, Joseph and Thomas (1793), *The Philadelphia pocket companion for the guittar or clarinett: Being a collection of the most favorite songs &c selected from the European performances and*

publications of the last twelve month and as its continuation will be annual it may be considered as a yearly journal of the most esteemd lyric compositions (Philadelphia: Carr & Cos).

Carter, Charles Thomas (c.1780), *A Favourite Duet for the Guitar* (Dublin: The Hibernian Magazine).

Chabran, Felix (c.1795), *Six Favourite Songs and Six Rondos by Sigr. Pleyel, And a Select Collection of Lessons, Airs, Minuets, Allemandes &c. To which are added Some French & Italian Songs Adapted for the Piano Forte Guittar By F. Chabran* (London: R. Birchall).

Clagget, Charles (c.1760), *Forty Lessons and Twelve Songs for the Citra or Guitarr* (Edinburgh: ?).

--- (?), *Musical Magazine No.1-A Publication Containing Song Music, Music for Harpsichord, Guitar, Flute* (London: ?).

Collins, John (?) (c.1775), *Compleat Tutor for the Guitar* (London: J. Johnson).

--- (1768), *Compleat Instruction for the Guitar* (London: J. Longman & Co).

--- (?), *Conquest of the Air, composed particularly for the guitar* (Dublin: Exshaw's Magazine).

Dibdin, Charles (1769), *The ballads sung by Mr. Dibdin this evening at Ranelagh: and a conclusion piece. Properly transposed for the German flute, and guittar; composed by Mr. Dibdin* (?).

Ford, Ann (c.1761), *Lessons and Instructions for Playing on the Guitar* (London: J. Walsh).

Gaudry, Richard (1781), *Alla stagion novella. The favourite Song in the Son-in-Law, sung by Mrs. Daly. Adapted for the Guittar, by R. Gaudry* (?).

Geminiani, Francesco (1760), *The Art of Playing on the Guitar or Cittra* (Edinburgh: R. Bremner).

Giardini, Felice, (1760), *Trii per Cetra, Violone e Basso* (?).

--- (c.1775), *Six Trios for the Guittar, Violin and Pianoforte* (?).

Giordani, Giuseppe (c.1780), S*ix solos for the Guittar […] and one Trio for the Guittar, Violin and Bass* (?).

--- (c.1781), *The favorite airs in The critic: sung with universal applause by Miss Field[,] Miss Abrahams & Sigr. Delpini at the Theatre Royal Drury Lane adapted for the voice, harpsichord, violin, German flute & guittar* (?).

Haxby, Robert (1769), *Twenty-four Easy Airs for the Guittar made on Purpose for Young beginners* (London: J. Longman & Co).

Hintz, Frederick (c. 1762), *A choice Collection of Airs, Minuets, Marches, Songs and Country Dances &c. by Several Eminent Authors Adapted for the Guittar as also a Book of Psalm & Hymn Tunes* (London: F. Hintz).

--- (c. 1760), *A Choice Collection of Psalm and Hymn Tunes set for the Cetra or Guittar* (London: R. Bremner).

Jackson, William (c.1790), *Canzonets, adapted for voice, harpsichord, violin, flute and guitar* (Dublin: J. Hill).

--- (1785), *Twelve Celebrated Songs, set for voice, harpsichord, violin, flute and guitar* (Dublin: J. Lee).

Lapis, Santo (1760), *A libro aperto. Light Airs with Minuets for the Harpsichord and for all sorts of Guittars [...] Composed by Mr. Santo Lapis […] Opera XVII […] MDCCLX* (London: R. Liessem).

--- (1759), *A new Guittar Book in 4 parts viz Italian, French, English Airs, and Duets for the voice accompanied with the Guittar and a Thorough Bass for the Hapsichord. Composed by Santo Lapis […] Opera XVI. MDCCLIX* (London: R. Liessem).

--- (1758), *Guittar in Fashion; containing twelve double Sonatas for all Sorts of Guittars, with Minuets, and six Duettos and two Guittars, and an Italian Song, compos'd by Santo Lapis. Sold by R. Liessem* (London: R. Liessem).

--- (1757), *Il Passa tempa della guitarra in twelve Italian Airs for the Voice, accompanied by the Guitar or Harpsichord. Composed by Sig. Santo Lapis. M. D. of Italian music* (London: R. Liessem).

Leite, Antonio Da Silva (1795), *Estudo de guitarra, em que se expoem o meco mais facil para aprender a tocar este instrumento* (Oporto: A. Alvarez Ribeiro).

Light, Edward (1785), *The Art of Playing the Guittar* (London: ?).

--- (1783), *The Ladies Amusement* (London: ?).

Longman & Broderip (c.1780), *Complete Instruction for the Guitar* (London: Longman & Broderip).

Longman & Broderip (c.1776), *Pocket Companion for the Guitar* (London: Longman & Broderip).

Longman & Co (c.1769), *12 Songs for the Guitar, with a Complete Scale* (London: Longman & Co).

Longman & Co (c.1769), *Twelve Songs and a Cantata for the Guittar* (London: Longman & Co).

Longman, Lukey & Broderip (c.1775), *A Pocket book for the Guitar* (London: Longman, Lukey & Broderip).

Magdalen Hospital Chapel (?), *A fifth sett of Psalms and hymns, used at the Magdalen chapel: Adapted for the organ, harpsichord, voice, violin, German flute & guittar* (London: J. Preston).

Marella, Giovanni Battista (1762), *Compositions for the Cetra or Guittar […] Book II. Opera IV* (London: G. B. Marella).

--- (1757), *Sixty Six Lessons for the Cetra or Guittar-Op. III* (London: G. B. Marella).

Marzi, Pasqualini de (c.1757), *Six Sonatas for the Cetra or Kitara* (?).

Merchi, Giacomo (c.1771), *Collection of the most favorite Italian French and English Songs & Duets for the Guittar, with an accompaniment for another Guittar [...] Op. XXII* (London: ?).

--- (c.1770), *Twelve Divertimenti* (London: ?).

--- (1766), *Scelta D'Arriette Francesi, Ialiane ed Inglesi con Accompagnamento di Chitarra […] Opera XV* (London: Mrs. Vallotton).

--- (1766), *Dodici Suonate per la Chitarra* (London: Mrs. Vallotton).

Mussolini, Cesare (1781), *Twenty four New Tunes for the English and Italian Pocket-Guitar, composed by Sig. Cesare Mussolini. Book Third* (London: Bielefeld).

--- (1781), *Six New Songs for the Harpsichord the English Guittar and the Italian Pocket Guittar, the words and music by Cesare Mussolini. Book Second* (London: Bielefeld).

Noferi, Giovanni Battista (c.1775), *Six Trios for the Guittar, Violin and Pianoforte or Violincello* (?).

--- (c.1775), *Six Sonatas or Lessons for the Guitar* (London: Longman, Lukey & Co).

--- (1763), *Sei Duetti per due Cetre* (?).

Oswald, James (c.1760), *A Compleat Tutor for the Guittar, with Two Scales shewing the Method of Playing in the keys of C and G: to which is added Eighteen Favourite Songs Adapted for that Instrument (Books 1st*) (London: J. Oswald).

--- (c.1759), *The Musical Magazine* (London: J. Oswald).

--- (c.1759), *Twelve Divertimentis for the Guittar* (London: J. Oswald).

--- (c.1758), *The Pocket Companion for the Guittar* (London: J. Oswald).

--- (c.1757), *Eighteen Divertimento's For two Guittars or two Mandelins* (London: J. Oswald).

Parry, John (c.1765), *A Collection of Welsh, English and Scottish Airs, with new Variations, Also Four new Lessons for the Harp or Harpsichord, composed by John Parry (of Raubon) To which are added, Twelve airs for the Guittar* (?).

--- (c.1765), *Twelve Airs, for one and two Guitars, composed by John Parry Harper to their Majesty's* (London: H. Thorowgood).

Pepusch, John Christopher (?), *The airs in the Beggar's opera for the guittar, German flute or violin: as perform'd at the theatres* (London: J. Johnson).

Pereyra, Da Costa A. (c.1760), *XII Serenatas* (London: J. Oswald).

Preston, John (c.1789), *Complete Instructions for the Guitar* (London: J. Preston).

Ritter, D. (c.1770), *Lessons for the Guittar* (London: D. Rutherford).

Ross, Robert (c.1770), *Select Collection of Lessons, Airs, Marches, Minuets, Reels, Jiggs, &c With the most favourite Songs for the Guittar To which are Added some excellent Songs, with a thorough Bass adapted To that Instrument* (Edinburgh: R. Ross).

Rush, George (c.1765), *A First Set of Sonatas for the Guitar. With an Accompanyment for another Guittar or Violin* (London: G. Rush).

--- (?), *Favourite lessons or airs for 2 guittars* (?).

--- (?), *12 Lessons for the Guitar* (London: J. Oswald).

Rutherford, John (c.1770), *Twelve of the most Celebrated English Songs which are now in Vogue Neatly adapted for the Guittar and Voice* (London: J. Rutherford).

Rutherford, David (c.1756), *The Ladies' Pocket Guide or The Compleat Tutor for the Guittar* (London: D. Rutherford).

--- (?), *A Curious Collection of the most celebrated Country Dances, Airs etc., which are now in vogue* (London: D. Rutherford).

Schuman, Friedrich Theodor (c.1770), *Thirty-eight Lessons, with an addition of Six French and Italian Songs, for the Guittar, composed by composed by F. Shuman, op. ist, London, printed for and sold by Michael Rauche & Co., at the sign of the Guittar and Flute, in Chandois Street, near St. Martin's Lane* (London: Rauche & Co).

--- (c.1765), *A Second set of Lessons For one and two Guittars-Opus II* (London: J. Johnson).

--- (?), *A Collection of the Most Celebrate Songs, set by several authors and adapted for the guitar by Frederic Schuman* (London: M. Rauche).

Sibbald, William (c.1773-4), *A Choice Collection of XII of the most favourite Songs for the Guittar […] printed for Wm. Sibbald, teacher of the Guittar […] and sold at his music shop, Temple Bar, in New Market* (Liverpool: W. Sibbald).

Stevenson, John Andrew (c.1800), *First selection of French and English songs with accompaniments for the guittar* (?).

Stewart, Neil (1766), *A New Collection of Scots and English Tunes Adapted to the Guittar* (Edinburgh: N. Stewart).

Straube, Rudolf (1768), *Three Sonatas for the Guittar with an Accompaniment for the Harpsichord or Violincello Composed by R. Straube. With an Addition of two Sonatas for the Guittar Accompanyd with*

the Violin. Likewise a choice Collection of the most Favourite English, Scotch and Italian Songs for one or two guittars (London: M. Rauche).

--- (1765), *Lessons for Two Guittars with a Thorough Bass* (London: M. Rauche).

Tacet, Joseph (1762), *A Collection of Italian, French and English Favorite Airs and Minuets with Variations: adapted for two German Flutes or two Violins or two Guittars by Mr. Tacet* (?).

Thackray, Thomas (c.1775), *Twelve divertimenti* (?).

--- (c.1770), *Six Lessons for the Guittar* (York: T. Haxby).

--- (c.1770), *A Collection of Forty Four Airs Properly adapted for One or Two Guittars* (?)

Thompson, Henry (c.1799), *New and Compleat Instructions for the Guittar* (London: H. Thompson).

Thompson, Samuel, Ann and Peter (c.1778), *Thompson's Pocket Companion for the Guitar, with proper directions for tuning to which is added a choice collection of the most favourite songs, airs, minuets and marches* (London: S. A. & P. Thompson).

Thompson & Son (c.1761), *The Compleat Tutor for the Guittar* (London: Thompson & Son).

Thorowgood & Horne (1763), *Compleat Tutor for the Guitar* (London: Thorowgood & Horne).

Unknown (c.1765), *Six Divertimentis or Lessons for the Guittar with a thorough bass for the harpsichord or violoncello comps'd by a Gentleman* (London: M. Rauche).

Vento, Mattia (c.1766), *The Favorite songs sung at Ranelagh for the voice and harpsichord: also adapted for the guittar* (?).

Vogler, Gerard (c.1805), *The Request* [with parts for two flutes and two guittars] (London: Muzio, Clementi, & Co).

Weideman, Carl Friedrich (c.1770), *Favorite Minuet for the Harpsichord, Two German Flutes or Two Guittars* (?).

Wilson, William (c.1766), *A New Selection of the Most Admired Songs for the Guittar* (Aberdeen: W. Wilson).

Zuchert, John Frederick (1759), *Six Sonatas or Solos for the Guitar and Bass* (London: J. F. Zuchert).

APPENDIX VII: LIST OF GUITTAR RECORDINGS

Over the last thirty years several recordings of music written for the guittar or recordings in which the performers have played on original guittars have been produced.[852] These are presented below:

Cabral, Pedro Caldeira (2002), *A Guitarra de Seculo XVIII (The Guitar in the XVIII Century)* (Tradisom: <www.tradisom.com>, accessed 4/2/2011).

Concerto Caledonia (1999), *Colin's Kisses: The Music of James Oswald* (Linn: CDK101) [Includes a recording of J. Oswald's *Divertimento IV* by Paula Chateauneuf].

Henriksen, Olav Chris, '*Fantasie* by Rudolph Straube (1768)' (<mfa.org/tours>, accessed 5/2/2011) [Recording on an unsigned guittar, MFA [27.2241], from the MFA Collection of Musical Instruments].

Hildebrand, David and Ginger (1999), *George Washington: Music for the First President* (<http://www.colonialmusic.org/ColonialMusic.htm>, accessed 23/2/2011) [Includes recordings of 18th-century music performed on the guittar; the duo has released several similar recordings featuring the guittar among the performed instruments].

Krause, Jim (1999), *Going up the Missouri-Songs and Dance Tunes from Old Fort Osage* (Old Sod Shanty label: 634479811821) [Includes recordings of traditional songs with guittar].

Mackillop, Rob (2001), *James Oswald: Twelve Divertimentis for the Guittar, 1759* (ASV Gaudeamus: CDGAU 221).

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[852] A number of unofficial video recordings of guittar music which have not been included in this list are available on the internet at <http://www.youtube.com/>.

--- (1998), *Flowers of the Forest* (Greentrax: CDTRAX 155) [Includes recordings of guittar music by R. Bremner, J. Oswald and other composers].

Miglierini, Carlo Mascilli and Clemente, Anna (1996), *Geminiani - The Art of Playing the Guitar or Cittra; Marella - Compositions for the Cetra or Guitar with Accompaniament* (Koch/Schwann: 3-1359-2 H1).

Mouland, Robert (2004), *Quiet The Household* (<http://www.wireharp.com/wireharp_017.htm>, accessed 8/2/2011) [Includes two recordings of traditional songs performed on the guittar].

Rossi, Doc (2008), *La Cetra Galante: solos and duets for 18th-century cittern* (Cetra: CD002, <http://magnatune.com/artists/docrossi>, accessed 5/2/2011).

Rossi, Doc and Damiani, Andrea (2004), *Pasqualini Demarzi - Six Sonatas for Cetra or Kitara* (Cetra: CD001, <http://magnatune.com/artists/docrossi>, accessed 5/2/2011).

Smithsonian Chamber Music Society, 'To Anacreon in Heaven' (Smithsonian Institution, <http://americanhistory.si.edu/starspangledbanner/credits.aspx>, accessed 7/2/2011) [The credits mention Howard Bass playing on a guittar 'by anonymous maker, England, 1760-1780'].

Takeuchi, Taro (2011), *Affectuoso! Virtuoso Guitar Music from the 18th Century* (Deux-Elles) [Includes recordings of guittar music by R. Straube, J. C. Bach and other composers].

Tyler, James (1978), *The Early Guitar* (Saga Records: Saga 5455) [Includes a recording of *Sonata for the Guitar with an Accompaniment for a Violin* by J.C. Bach (1775)].

Williams, John, Puyana, Rafael and Savall, Jordi (1971), *Music for Guitar and Harpsichord* (CBS: 72948) [Includes recordings of *Three Sonatas for the Guittar with an accompaniment for the harpsichord or violincello* by Rudolph Straube (1768)].

APPENDIX VIII: ADDITIONAL GUITTAR ICONOGRAPHY

As already mentioned in this thesis, there are numerous depictions of the guittar in 18th-century portraiture, many of which have been presented in Chapter 3 (see 'THE GUITTAR'S IMAGE IN GEORGIAN PORTRAITURE', Chapter 3). However, several additional examples of guittar iconography, which have been recently identified, and which would be too many to be included in the main text, are presented below.

Figure 1: Portrait of Mrs. Froude, née Phyllis Hurrell (1762) by Sir Joshua Reynolds (1723-92). The Minneapolis Institute of Arts, Minneapolis, [84.36] (<http://www.artsmia.org/viewer/detail.php?v=12&id=3282>, accessed 18/7/2011).

Figure 2: Portrait of Sussannah Dingley by Sir Joshua Reynolds (1723-92) (<http://www.klassiskgitar.net/1700-1750-7.html>, accessed 3/5/2011). The bell S-top guittar looks similar to several surviving instruments by Hintz.

Figure 3: Portrait of Lady Jane Warren, attributed to Francis Cotes (1726-70) (<http://www.klassiskgitar.net/1700-1750-4.html>, accessed 3/5/2011). Note that the depicted guittars has nine strings and looks similar to extant guittars by Liessem.

Figure 4: Portrait of Mary Hopkinson (1764) by Benjamin West (1738-1820). Smithsonian American Art Museum, Washington DC (<http://www.klassiskgitar.net/1750-1800-10.html>, accessed 3/5/2011). The bell S-top guittar is similar to several surviving instruments by Hintz. Note the blue ribbon tied on the tailbutton and head.

Figure 5: 'Domestick Employment Playing on the Guitar', printed for 'Robt. Sayer. No 53 Fleet Street' (courtesy of H. Sugimoto). The bell S-top guittar is similar to several surviving instruments by Hintz.

Figure 6: Portrait of Julia Stockton (1776) by Charles Willson Peale (1741-1827) (<http://www.klassiskgitar.net/1700-1750-6.html>, accessed 4/5/2011). The guittar, which is equipped with a watch-key machine, looks very similar to numerous surviving instruments by Preston. Note the pink ribbon tied on the sickle-shaped head.

Figure 7: Portrait of Deborah McClenachan by Charles Willson Peale (1741-1827). Yale University Art Gallery (<http://www.klassiskgitar.net/1700-1750-6.html>, accessed 4/5/2011).

Figure 8: Mrs Joseph Bird with her son. Unknown artist, Britain, c.1770. Private Collection (<http://www.klassiskgitar.net/1750-1800-3.html>, accessed 4/5/2011). The guittar, which has a tortoiseshell fingerboard and watch-key machine, looks similar to numerous surviving instruments by Preston.

Figure 9: Portrait of a young man holding a guittar under his arm standing in a garden beside a house, printed for 'Robt. Sayer. No 53 Fleet Street' (1773) (courtesy of H. Sugimoto).

Figure 10: Portrait of Lucy Randolph Burwell (c.1773) by Matthew Pratt (1734-1805) (<http://www.klassiskgitar.net/1700-1750-6.html>, accessed 3/5/2011). The guittar, which has a watch-key machine, looks similar to numerous surviving instruments by Preston. Note the blue ribbon tied on the tailbutton and head.

Figure 11: Portrait of Maria Hamilton Beckford (1799) by Benjamin West (1738-1820). National Gallery of Art, Washington DC (<http://www.klassiskgitar.net/1700-1750-4.html>, accessed 4/5/2011). Note the ten-string guittar resting on the sofa on the right side of the painting.

Figure 12: Portrait of a lady playing the guittar in a wood, attributed to Karl Anton Hickel (1745-98) (<http://www.klassiskgitar.net/1700-1750-4.html>, accessed 4/5/2011).

Figure 13: 'Amanda', portrait of a young lady playing the guittar sitting under a tree in a forest (courtesy of H. Sugimoto).

Figure 14: 'L' Improvisatrice' (c.1823) by Henry William Pickersgill (1782-1875) (<http://www.klassiskgitar.net/1750-1800-8.html>, accessed 3/5/2011). The guittar looks similar to numerous surviving instruments by Preston.

Figure 15: Portrait of a lady playing the guittar by Jan Gerard Waldorp (1740-1808) (http://www.klassiskgitar.net/1700-1750-9.html>, accessed 3/5/2011). The guittar looks similar to numerous surviving instruments by Preston.

Figure 16: Portrait of lady holding a bowl-back guittar. Unknown artist, Britain, late 18th century (<http://www.klassiskgitar.net/1750-1800-10.html>, accessed 3/5/2011). The sickle-shaped head indicates that the guittar is equipped with a watch-key tuning machine.

Figure 17: 'The Syrens' designed & etched by Thomas Rowlandson (1756-1827) (courtesy of H. Sugimoto). The sickle-shaped head suggests that this guitar is equipped with a watch-key machine.

Figure 18: Girl playing the guittar to a sleeping young gentleman. Thomas Rowlandson (1756-1827) (<http://www.klassiskgitar.net/1750-1800-8.html>, accessed 3/5/2011). This guitar, which has a rather long neck, is equipped with a watch-key machine.

Figure 19: 'The Duet'. Thomas Rowlandson (1756-1827). Gerard Coke Handel Colection (courtesy of H. Sugimoto). The sickle-shaped head suggests that this guitar is equipped with a watch-key machine.

Figure 20: 'The Honeymoon' (1816). Thomas Rowlandson (1756-1827). A guittar is resting on the sofa on the right side (courtesy of H. Sugimoto).

Figure 21: Portrait of two children, possibly brother and sister, late 18th century; the boy is playing a small flat-back guittar (courtesy of H. Sugimoto).

Figure 22: 'The Duet', engraving by R. Bell (1850) after a painting by William Etty (1787-1849) (<http://www.klassiskgitar.net/1750-1800-4.html>, accessed 4/5/2011). The depicted guitar is equipped with a watch-key machine.

Figure 23: 'The Lute Player'. William Etty (1787-1849). Private Collection. The depicted instrument is a flat-back guittar with a brass rose (courtesy of H. Sugimoto).

Figure 24: 'Time has not thin'd my Flowing Hair', portrait of an elderly woman singing and playing the guittar, late 18th century (courtesy of H. Sugimoto).

Figure 25: Portrait of a seated woman playing a guittar with a long neck and watch-key machine. Francois Bonvin, 19th century (courtesy of H. Sugimoto).

Figure 26: Portrait of a family, possibly by Michel Garnier (1753-1819). The lady on the right is playing a bowl-back guittar (courtesy of H. Sugimoto).

Figure 27: 'Disordant Matrimony', engraved by H. Bradford after a painting by John Collett, late 18th century (courtesy of H. Sugimoto). A guittar is lying on the floor in the centre of the painting.

APPENDIX IX: GUITTAR EXAMINATION TEMPLATE

GUITTAR EXAMINATION TEMPLATE

A. REFERENCE DETAILS

REF No.:	
NAME OF MAKER:	
PLACE OF MANUFACTURE:	
DATE OF MANUFACTURE:	
PRESENT LOCATION:	
OWNERSHIP:	
INVENTORY NUMBER:	
SIGNATURE:	
INSCRIPTIONS:	
REFERENCES:	

B. BASIC DESIGN & CONSTRUCTION FEATURES

BODY SHAPE:			
SCALING [2x(Nut-F12)]:	**2x =**	**STRING LENGTH (Nut-Bridge):**	
OVERALL LENGTH:		**Without tailbutton:**	
MAXIMUM WIDTH:		**At:**	
MAXIMUM DEPTH:		**At:**	
CONSTRUCTION MATERIALS:			
NUMBER OF STRINGS:	**COURSES:**	**MATERIALS:**	
NUMBER OF FRETS:	**Full:**	**Short:**	
SOUNDING METHOD:	**Internal/External**	**Description:**	
INSCRIPTIONS, STAMPS OR OTHER MARKS:	**Details:** **Location:** **Style: Inked/Engraved/Stamped/Paper label/Other**		

C. MATERIALS & DIMENSIONS OF INSTRUMENT PARTS

BODY:	**Length from body-neck join (BNJ) to bottom:** **Front: Back: Tailbutton:** **Intermediate lengths (festooned or bell-top guittars):** **BNJ-Point A: Point A-B: Point B-Bottom:** **Width at: BNJ: Point A: Widest bout:** **Depth at: BNJ: Point A: Widest bout: Bottom:**
SOUNDBOARD:	**Wood: Thickness:** **Number of pieces: Bookmatched: Y/N** **Wood grain direction: Rings per 25 mm:** **Towards centre: NG/WG Towards sides: NG/WG** **Width of grain: Close/Medium/Wide Depth of grain: Light/Medium/Deep**
PURFLING:	**Style/Arrangement:**
SOUNDBOARD PROTECTOR:	**Material:** **Dimensions: (L) x (W) x (H)**
TAILBUTTON:	**Material: Shape:** **Dimensions: Distance from back:**
ENDPINS:	**Material: Shape: Number:** **Dimensions: Arrangement:**
BRIDGE:	**Material: Shape: Loose/ Fixed** **Length: Max. Thickness: Bottom: Top:** **Max. Height: Saddle:**
ROSE AND SOUNDHOLE:	**Material: Shape: Dimensions:** **Construction: Flat/Arched/Sunken Distance from bottom:** **Ring surrounding rose:** **Soundhole decoration:** **Rose decoration:**
SIDES:	**Wood: Thickness: Number of pieces:** **Wood grain: Rings per 25mm:** **Width of grain: Close/Medium/Wide Depth of grain: Light/Medium/Deep** **Purfling: Y / N Style/Arrangement:**
BACK:	**Wood: Thickness:** **Number of pieces: Bookmatched: Y/N** **Wood grain: Rings per 25mm:** **Width of grain: Close/Medium/Wide Depth of grain: Light/Medium/Deep** **Purfling: Y / N Style/Arrangement:**
NECK:	**Wood: Number of pieces:** **Wood grain angle at heel:** **Wood grain: Rings per 25mm:** **Width of grain: Close/Medium/Wide Depth of grain: Light/Medium/Deep** **Length from body join to nut:** **Thickness at: Nut: 7th fret: Heel:** **Body-neck join: Nail/Screw/Other: Join at fret No.:**

FINGERBOARD:	**Wood:** **Length:** **Construction: : Plain/Veneered Arched/Flat Radius:** **Veneer:** **Decoration:** **Width at: Nut:** **7th fret:** **BNJ:** **End:** **Thickness at: Nut:** **7th fret:** **BNJ:** **End:** **Floating: Y/N After fret No.:** **End shape:**		
FRETS:	**Number of frets:** **Full:** **Short:** **Material:** **Thickness:** **Arrangement: Chromatic/Equal/Unequal**		
	Fret No.:	**Distance from nut (mm)**	**Difference (cents)**
	F1		
	F2		
	F3		
	F4		
	F5		
	F6		
	F7		
	F8		
	F9		
	F10		
	F11		
	F12		
	F13		
	F14		
	F15		
	F16		
	F17		
	F18		
	F19		
	F20		
	F21		
CAPOTASTO HOLES:	**Number:** **Holes on frets: 1 2 3 4 5 6 7 8 9 10** **Diameter of front holes:** **Dimensions of back holes: x**		
CAPOTASTO:	**Capotasto parts:** **Materials:** **Dimensions: Height:** **Width:** **Thickness:**		
NUT:	**Material:** **Shape:** **Loose/Fixed** **Height:** **Width:** **Thickness at: Top:** **Bottom:**		
HEAD:	**Wood:** **Shape:** **Length from nut to top:** **Width: At nut:** **At top below finial:** **Angle at nut:** **Thickness: At heel:** **At top below finial:** **Maximum depth:**		
TUNING MECHANISM:	**Type of mechanism:** **Wooden Pegs Watch-key machine Worm-and-pinion tuners Machine heads** **Arrangement:** **Dimensions:**		

FINIAL:	**Construction: Veneered/Inlaid Flat/Arched** **Dimensions: (H) x (W) x (T) Shape:** **Decoration materials: Pattern:**
INTERIOR BRACING:	**Soundboard: Number of bars:** **Arrangement: Horizontal: Diagonal: Dimensions:** **Back: Number of bars:** **Arrangement: Horizontal: Diagonal: Dimensions:** **Sides: Lining: Supportive blocks or braces:** **Arrangement: Dimensions:**
VARNISH & FINISHING:	**Colour: Quality:** **Transparency & thickness: Opaque /Grain visible/Transparent**
ACCESSORIES:	
OTHER REMARKS:	

D. CONDITION OF THE INSTRUMENT

MISSING PARTS:	
REPLACEMENTS:	
ALTERATIONS:	
PREVIOUS RESTORATION & CONSERVATION:	
CONDITION OF MATERIALS & SURFACES:	
Wooden parts:	
Metal parts:	
Veneer parts:	
Leather and textile parts:	
Moving parts:	
Varnish and finishing:	
INSTRUMENT OWNERSHIP HISTORY:	
ACKNOWLEDGEMENTS:	
OTHER DETAILS:	
	PANAGIOTIS POULOPOULOS
	Date of examination:

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