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A History of the Clarinet to 1820

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Abstract of the Dissertation

A HISTORY OF THE CLARINET TO 1820

By

ALBERT RICHARD RICE

The Claremont Graduate School: 1987

This study presents a detailed history of the clarinet from its ancient origins to 1820. It is divided into three parts: 1) origins, 2) the baroque clarinet, and 3) the classical clarinet. In the first part the ancestor of the modern instrument is traced to the memet of Ancient Egypt (2700 B.C.), and evidence is reviewed for the existence of a wind instrument having a single reed during the sixteenth century. Three chapters are then devoted to the Mock Trumpet and the seventeenth- and eighteenth-century chalumeau. The baroque clarinet is discussed in the second part. This part consists of four chapters concerning design and construction, playing techniques, music, and use by amateurs and professionals. The last part is devoted to the classical clarinet. It consists of three chapters concerning design and construction, playing techniques, and music.

Many of the informational sources which are discussed throughout the dissertation have not been cited in any previous investigation. They include specific clarinets, clarinet mechanisms, treatises, tutors, music (manuscript and published) and patent records. The majority of the findings are based upon the study of primary sources. In addition,

I have attempted to re-examine several conclusions arrived at by previous writers and by this process have sometimes been able to correct errors. There are six appendixes to this study. They include the following: an etymological study of the names for various clarinets, an inventory and description of extant baroque clarinets, an annotated inventory of clarinet instructional materials from 1732 to 1843, and a collation of fingerings for the classical clarinet.

I have found that the evolution of the baroque and classical clarinets was largely due to the technical and musical demands made by composers of the classic period, and in part, to the development after 1750 of lower-pitched clarinets, such as the clarinette d'amour and basset horn. During the nineteenth century, several players and makers strove to improve the intonation and technical facility of the classical clarinet. They devised an enormous variety of mechanisms that ultimately resulted in the present-day French and German clarinet systems used throughout the world.

A HISTORY OF THE CLARINET
TO 1820

By

ALBERT RICHARD RICE

A Dissertation submitted to the Faculty of
The Claremont Graduate School in partial
fulfillment of the requirements for the
degree of Doctor of Philosophy in the
Graduate Faculty of Music.

Claremont

1987

Approved by:

Frank Traficante

We, the undersigned, certify that we have read this dissertation and approve it as adequate in scope and quality for the degree of Doctor of Philosophy.

Supervisory Committee:

<u>Traficante</u>	Chairman
<u>H. M. Smith</u>	Member
<u>Rolund Jackson</u>	Member
<u>Philip H. Dreyer</u>	Member

DEDICATION

This dissertation is lovingly dedicated to my parents. They have endured endless conversations concerning the most obscure aspects of the chalumeau and clarinet. Their interest and support in all my musical activities over many years have contributed greatly to my own development.

PREFACE

The clarinet has been a subject of discussion in journal articles ever since a lively description of its possibilities appeared in the Musikalische Korrespondenz der Teutschen Filarmonischen Gesellschaft für Jahr 1791 (no. 6, 9 February 1791).¹ In 1887, Riccardo Gandolfi published for students at the Royal Musical Institute of Florence, what is the earliest book devoted entirely to the clarinet. This thirteen-page account contained a short history of the clarinet family, and mentioned some well-known compositions and performers.² The first scholarly investigation appeared in 1904 by Wilhelm Altenburg. Many statements from his book, which have later been shown to be erroneous, continue to re-appear in some of the most recent books of the present day.³ Altenburg also wrote several specialized articles concerning the

¹"Berichtigungen und Zusätze zum den Musikalischen Almanachen auf die Jahre 1782. 1783. 1784.," cols. 41-2.

²Riccardo Gandolfi, Appunti intorno al clarinetto compilati ad uso delle scuole del R. Istituto musicale di Firenze (Florence: Tipografia Galetti e cocci, 1887).

³Wilhelm Altenburg, Die Klarinette Ihre Entstehung und Entwicklung bis zur Jetztzeit in akustischer, technischer u. musikalischer Beziehung (Heilbronn am Neisse: C. F. Schmidt, [1904]); partial English translations by Gustav Saenger in "Wood-Wind Instruments, Their History and Uses," Metronome 29 (March 1913): 20; (April 1913): 26; (June 1913): 18-19; (Aug. 1913): 19; and Himie Voxman with emendations by Harry Bettoney in "The Clarinet Its Origin and Development," Woodwind Magazine 2 (Feb. 1950): 4, 16; (March 1950): 5, 14; (April 1950): 6, 8; (June-July 1950): 6, 10-11, 16; 3 (Sept. 1950): 6-7; (Oct. 1950): 7; (Nov. 1950): 8-9; (Dec. 1950): 8-10, 14; (Jan. 1951): 8-9.

clarinet in the Zeitschrift für Instrumentenbau, which are still valuable in their content.

Two general books on wind instruments appeared in 1938 by Adam Carse and in 1957 (3rd ed., 1967) by Anthony Baines.⁴ They both deal separately with mechanical and practical aspects of playing the modern woodwinds as well as provide brief historical sections. The most important books after these two general studies are the two posthumously published books by Oskar Kroll (1965, revised English ed., 1968) and by F. Geoffrey Rendall (1954, 3rd ed., 1971).⁵ The former deals mainly with the historical and musical development of the clarinet, while the latter is divided about equally between practical and historical questions. A highly scholarly, three-part article on the clarinet appeared in 1958 in the German encyclopedia Die Musik in Geschichte und Gegenwart.⁶ It includes sections on acoustics, ethnic and ancient clarinet instruments, and the European clarinet. Much of the information presented in this encyclopedia corrected earlier errors and misconceptions. Another important study appeared in 1971 by Ekkehart Nickel concerning woodwind instrument building in the city of Nuremberg.⁷ This author relied on archival documents, and examined

⁴Adam Carse, Musical Wind Instruments (London: Macmillan & Co., 1939); Anthony Baines, Woodwind Instruments and Their History (London: Faber and Faber, 1957).

⁵Oskar Kroll, Die Klarinette-ihre Geschichte, ihre Literatur, ihre grossen Meister (Kassel: Bärenreiter, 1965); F. Geoffrey Rendall, The Clarinet Some Notes upon its History and Construction (London: Williams and Norgate, 1954).

⁶Wilhelm Stauder, Hans Hickmann and Heinz Becker, "Klarinette," in Die Musik in Geschichte und Gegenwart, 16 vols. (Kassel: Bärenreiter, 1949-1979), vol. 7 (1958): cols. 986-1027.

⁷Ekkehart Nickel, Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg (Munich: E. Katzschler, 1971).

some of the earliest extant clarinets by eighteenth-century makers from Nuremberg.

Some of the most useful studies are dissertations which appeared during the 1960s and 1970s. They were concerned with the solo clarinet music of the eighteenth century (Titus, 1962); instructional material (Rousseau, 1962); and chamber music of the eighteenth century (Rau, 1977).⁸ Valuable books have also been written concerning clarinet virtuosi and orchestral players by Pamela Weston (1971 and 1977).⁹ Studies concerning the chalumeau and its music by Heinz Becker (1970) and Colin Lawson (1981), have also added to our knowledge of the early clarinet.¹⁰ The most recent studies by Phillip T. Young (1980 and 1982) and Nicholas Shackleton (in his articles for the New Grove Dictionary of Musical Instruments, 1984), include valuable data concerning many eighteenth-century clarinets.¹¹

⁸Robert Austin Titus, "The Solo Music for the clarinet in the Eighteenth Century" (Ph.D. dissertation, State University of Iowa, 1962); Eugene E. Rousseau, "Clarinet Instructional Materials from 1732 to ca. 1825" (Ph.D. dissertation, State University of Iowa, 1962); Ulrich Rau, "Die Kammermusik für Klarinette und Streichinstrument im Zeitalter der Wiener Klassik" (Ph.D. dissertation, Universitäts des Saarlandes, 1977).

⁹Pamela Weston, Clarinet Virtuosi of the Past (London: R. Hale, 1971); Idem, More Clarinet Virtuosi of the Past (London: The Author, 1977).

¹⁰Heinz Becker, "Das Chalumeau im 18. Jahrhundert," Speculum Musicae Artis. Festgabe für Heinrich Husmann zum 60. Geburtstag (Munich: W. Fink, 1970), pp. 23-46; Colin Lawson, The Chalumeau in Eighteenth Century Music (Ann Arbor: UMI Research Press, 1981).

¹¹Phillip T. Young, The Look of Music: rare musical instruments 1500-1900 (Vancouver: Vancouver Museums and Planetarium Association, 1980); Idem, Twenty-Five Hundred Historical Woodwind Instruments: An Inventory of the Major Collections (New York: Pendragon, 1982); Nicholas Shackleton, "Bass clarinet," "Basset-Horn", and "Clarinet" in the New Grove Dictionary of Musical Instruments, 4 vols. (New York: Macmillan, 1984).

The shortcomings of the majority of these prior studies are their lack of a detailed treatment of such areas as construction, playing techniques, music, and use by professionals and amateurs. Many of these studies do not quote the original text of sources, which are often important to the understanding of these areas. Their common use of a few secondary sources has also tended to perpetuate older errors and misconceptions. My approach in this study is mainly historical, and begins by providing a general view of the precursors of the clarinet in the single-reed instruments of antiquity, the middle ages, and through the eighteenth century. The following chapters are divided into two parts, concerning the baroque clarinet (c. 1700 to 1760) and the classical clarinet (1760 to 1820), named for the periods in which they were played. Here, sections are included which discuss the design and construction of various clarinets, the music written for these instruments, and their use by both amateur and professional players. I also investigate aspects of performance practice at various points in the instruments' development, which have received little or no attention. I have not provided a chapter concerning the use of the classical clarinet, since this area has been dealt with by Weston in her books on clarinet virtuosi, and by other writers in studies regarding the orchestra of the late eighteenth century. Acoustics and non-European clarinets are also not discussed. A good deal of theoretical, musical, and iconographical evidence which is presented here, has never appeared in a previous study, to my knowledge.

My original contributions to our knowledge of the clarinet include the citation and discussion of newly discovered information from early dictionaries, tutors, treatises and encyclopedias. These findings draw

together a large amount of data to help trace the development of the baroque and classical clarinets, their playing techniques, music, and significant performers. Hopefully, this study will kindle more interest in the eighteenth- and early nineteenth-century clarinet as an instrument worthy of study and use in performance of the music of these periods.

When I refer to clarinets from specific museums they are identified with the number assigned to each instrument by its present owner. A list of museums and collections that include some abbreviations which are often associated with particular institutions is found on page 465.

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ABBREVIATIONS

Journals and Encyclopedias:

<u>AMZ</u>	<u>Allgemeine Musikalische Zeitung</u>
<u>EM</u>	<u>Early Music</u>
<u>Grove 1</u>	<u>Grove's Dictionary of Music and Musicians</u> , 4 vols., 1879-89.
<u>Grove 5</u>	<u>Grove's Dictionary of Music and Musicians</u> , 9 vols., 1954.
<u>Grove 6</u>	<u>The New Grove Dictionary of Music and Musicians</u> , 20 vols., 1980.
<u>GSJ</u>	<u>Galpin Society Journal</u>
<u>JAMIS</u>	<u>Journal of the American Musical Instrument Society</u>
<u>Mf</u>	<u>Die Musikforschung</u>
<u>MGG</u>	<u>Die Musik in Geschichte und Gegenwart</u> , 16 vols., 1949-79.
<u>NACWPI Journal</u>	<u>National Association of College Wind and Percussion Instructors Journal</u>
<u>NGDMI</u>	<u>The New Grove Dictionary of Musical Instruments</u> , 3 vols., 1984.
<u>R.M.A. Chronicle</u>	<u>Royal Musical Association Chronicle</u>

ABBREVIATIONS (CONTINUED)

Libraries:

A(Wn)	Österreichische Nationalbibliothek, Vienna.
B(Bc)	Conservatoire Royal de Musique, Bibliothèque, Brussels.
Ch(Zz)	Zentralbibliothek, Zurich.
D-brd(Bim)	Staatliche Institut für Musikforschung Bibliothek, West Berlin
D-brd(DS)	Hessische Landes- und Hochschulbiblio- thek, Darmstadt.
D-brd(F)	Stadt- und Universitätsbibliothek, Frankfurt.
D-brd(KA)	Badische Landesbibliothek, Karlsruhe.
GB(Ge)	Euing Music Library, Glasgow.
I(Tn)	Biblioteca nazionale universitaria, Turin.
NL(DHgm)	Gemeente Museum, The Hague.
US(AA)	University of Michigan, Music Library Ann Arbor.
US(LAuc)	University of California, William Andrews Clark Memorial Library, Los Angeles.

CHAPTER I

PREDECESSORS FROM ANTIQUITY TO THE EIGHTEENTH CENTURY

The word, "clarinet", was classified by Hornbostel and Sachs as a generic term for all pipes, usually made of cane, in which the sound is produced through the vibration of a single reed. This reed, or "percussion lamella", is often formed on a pipe as a flexible tongue by a three-sided cut at the free end, and is known as an "idioglott" reed.¹ The definition of the clarinet for this study includes the further stipulation that it is an instrument which overblows, functionally, at the interval of a twelfth above the fundamental notes.² These two characteristics--the production of the sound by means of a mouthpiece with a single, beating reed, and a cylindrically bored body providing the capability of being overblown at the twelfth--are what distinguish the clarinet from all other woodwind instruments of the present day. For the purpose of examining the clarinet's "pre-history" at this point,

¹Erich M. von Hornbostel and Curt Sachs, "Systematik der Instrumentenkunde," Zeitschrift für Ethnologie 46 (1914): 553-90; Klaus Wachsmann, "Reed instruments," NGDMI, 3:219; and Curt Sachs, Handbuch der Musikinstrumentenkunde, 2nd ed. (Leipzig: Breitkopf & Härtel, 1930), p. 338.

²Overblowing is the process by which the player causes the air column of his instrument to break up into aliquot parts each of which vibrate at a frequency that is in direct proportion to the fundamental frequency. On the clarinet it involves increased wind pressure, the adjustment of the pressure and position of the lips on the reed, and the use of a small "speaker" hole in the body tube to assist the process. See Philip Bate, "Overblowing," NGDMI, 2:978.

however, we will adopt the generic definition used by Hornbostel and Sachs. The more specific definition will become useful when we reach the point of discussing the earliest manifestations of the true clarinet and need to distinguish these from the closest relative of the clarinet-the chalumeau.

Antiquity

Predecessors of the modern clarinet can be traced to instruments from as long ago as the third dynasty (2778 to 2723 B.C.) of the Old Kingdom in Egypt. They are double pipes called memet (in hieroglyphics as) and were depicted on the reliefs of seven tombs at Saqqarra, six tombs at Giza, and the pyramids of queen Khentkaus.³ The pipes of the memet were attached to each other by pieces of cloth and resin, each pipe having from four to six finger holes and a separate mouthpiece with an idioglott reed.⁴ This external beating reed provides the link connecting the ancient memet to the instrument we know as the clarinet. The idioglott or single reed is an important characteristic of the modern Egyptian clarinet, the arghul, and may be cut in such a way that the attached end is either uppermost ("katamonoglott"), nearest the player, or lowermost ("anamonoglott") as in the European clarinet. These reeds are found in types of arghul called the zummāra and mashūra

³Hans Hickmann, Musicologie Pharaonique (Kohl: Hietz, 1956), p. 155; Idem, Musikgeschichte in Bildern: Ägypten (Leipzig: VEB Deutscher Verlag für Musik, 1961), p. 158; Lise Manniche, Ancient Egyptian Musical Instruments (Berlin: Deutscher Kunstverlag München, 1975), pp. 19-20.

⁴Manniche, p. 18; Oskar Kroll, The Clarinet (New York: Taplinger, 1968), pp. 12-13. Two examples of memet are found in the museums of Cairo and Berlin, both lacking mouthpieces, see Manniche, p. 19 footnote 80.

(plate 1),⁵ while other modern Egyptian triple pipes sometimes utilize both types of idioglott reed.⁶ Both mouthpieces are placed entirely within the player's mouth, the sound being produced by continuous or circular breathing (i.e., one stores air in the cheeks blowing continuously, inhaling through the nose at the same time).⁷ Other ancient pipes with idioglott reeds have been identified in sources from later civilizations, such as: the aulos from Greece,⁸ the launeddas from Sardinia (c. 900 to 500 B.C. and still in use),⁹ and the halil from Palestine (5th or 4th century B.C.).¹⁰

In Europe, during the Middle Ages, reed pipes in the strict sense of the word seem to have been oboes, that is, they used a double rather than a single reed. No source, pictorial or literary, refers to a clarinet.¹¹ It is interesting to take note, however, of various terms for reed pipes which were first recorded in the French literature of the twelfth century. They include the following: chalumeau, chalemeau,

⁵Kroll, p. 13; Hickmann, Musikgeschichte in Bildern, Abbildung 87, p. 120.

⁶Heinz Becker, Zur Entwicklungsgeschichte der antiken und mittelalterlichen Rohrblattinstrumenten (Hamburg: H. Sikorski, 1966), pp. 77-9.

⁷See William J. Conner and Milfie Howell, "Arghūl," NGDMI, 1:72.

⁸James W. McKinnon and Robert Anderson, "Aulos," NGDMI, 1:85; Greek Musical Writings, volume I: the musician and his Art, ed. A. Barker (Cambridge: Cambridge University Press, 1984), pp. 14-15, 186-9; and Becker, pp. 79-80.

⁹Andreas Fridolin Weis Bentzon, The Launeddas, 2 vols. (Copenhagen: Akademisk Forlag, 1969), 1:28-9, pl. VIIa.

¹⁰Eric Werner, "Jewish Music," Grove 6, 9:614; cf. Jeremy Montagu, "Halil," NGDMI, 2:118-9.

¹¹Curt Sachs, The History of Musical Instruments (New York: W. W. Norton, 1940), p. 288.

PLATE 1

Two types of idioglott reed, ana- and katamonoglott, used in the mouthpieces of the mashūra and zummāra, from Heinz Becker, Zur Entwicklungsgeschichte der antiken und mittelalterlichen Rohrblattinstrumenten (Hamburg: H. Sikorski, 1966), p. 79.

chaleumeau, chaleumiau, chalemel, canameau, cannebaux, canimeaus, chalemiaus, chalemelle, chalemele, chalemie, chalemie, chalemise, chalemie, canamelle, kalemele, qalemele, and schalmaye.¹² A common derivation of these words appears to be the Latin word, calamellus, the diminutive of calamus,¹³ or the Latin, calamum, from the Greek, kalamon,¹⁴ or kalamos,¹⁵ all of which mean "reed pipe". These names, including some of their Latin equivalents, were used from the twelfth through the eighteenth centuries to indicate several different instruments. For instance, the French poetic literature of the twelfth century includes them to identify the shawm and pan pipe.¹⁶ Their interest for us stems from the fact that they clearly presage the late seventeenth-century term, chalumeau, which was the name of an instrument that shared with the clarinet, the fundamental characteristics of single beating reed and cylindrical bore. I will say more about the chalumeau in the remaining three sections of this chapter.

¹²Jean Baptiste de La Curne de Sainte-Palaye, Dictionnaire Historique de L'Ancien Langage François, 10 vols. (Paris: H. Champion, 1875-82), 1:335. Cf. Fritz Brücker, Die Blasinstrumente in der altfranzösischen Literatur (Giessen: Romanischen Seminars, 1929), pp. 17-79.

¹³Auguste Brachet, An Etymological Dictionary of the French Language (Oxford: Clarendon Press, 1878), p. 79.

¹⁴Léon Clédat, Dictionnaire Etymologique de la Langue Française (Paris: Hachette, 1931), p. 123, s.v. chaume.

¹⁵Kathleen Schlesinger, "Clarinet," Encyclopædia Britannica, 11th ed. (Cambridge: University Press, 1910), 4:439.

¹⁶Brücker, pp. 43-7. See also Pierre Larousse, Grand Dictionnaire Universel du XIX^e siècle, 15 vols. (Paris: Administration du Grand Dictionnaire Universel, 1865-76), 3:864.

The Sixteenth Century

Several French dictionaries from the sixteenth century use chalumeau (or the Latin equivalent) to identify a variety of instruments. For example, Estienne (1552) described the calamus as a "pype or whistle",¹⁷ and Harrison (1570) defined the chalumeau as "a reed, a pipe".¹⁸ Similarly, the chalumeau, according to Sainliens (1593) is "a reede, a pipe, stemmes of hearbs".¹⁹ In Italy, an equivalent word for chalumeau was zampogna. Florio (1598) defined this word as "an oaten-pipe, a sheapheards-pipe, a bagge-pipe", and in a later edition of his dictionary (1611) he substituted a "Reede-pipe" for the latter instrument.²⁰ None of these definitions suggest that these instruments called chalumeau made use of a single reed, references to which begin to appear only in descriptions from the seventeenth and eighteenth centuries.

Three illustrations from the sixteenth-century have been said to depict European single-reed instruments. Two of these are identified as chalumeaux in a valuable article concerning the clarinet by Kathleen Schlesinger, and the third is described by Herbert Heyde as an ancestor

¹⁷Robert Estienne, Dictionariolum Puerorium Tribus Linguis Latina Anglica e Gallica (London: R. Walsium, 1552; reprint ed., New York: Da Capo, 1971), s.v. calamus.

¹⁸[Luke Harrison], A Dictionarie French and English (London: H. Bynneman, 1570; reprint ed., Menston: Scolar Press, 1970), s.v. chalumeau.

¹⁹Claude de Sainliens, A Dictionary French and English (London: T. Woodcock, 1593; reprint ed., Menston: Scolar Press, 1970), s.v. chalumeau.

²⁰John Florio, A Worlde of Wordes, or Most copious and exact Dictionarie of the Italian and English (London: E. Blount, 1598; reprint ed., New York: G. Olms, 1972); Queen Anna's New World of Words or Dictionarie of the Italian and English tongues (London: M. Bradwood, 1611), s.v. zampogna.

of the clarinet.²¹ The first is found in plate seventy-nine of the woodcut impressions made for the Kaiser Maximilian I. Triumph (Triumph of Maximilian I), a series of woodcuts compiled in 1518 for the Emperor Maximilian I, and published in 1526 (plate 2).²² This plate illustrates ten men on horseback playing wind instruments which are cylindrical in outward appearance. The leading group of five horsemen play instruments which are shorter than those played by the second group. According to Schlesinger these are chalumeaux, yet the instruments of the first group are identified in the anonymous compiler's descriptive text which accompanies the illustrations as double-reed shawms, those of the second group as rauschpfeifen.²³ It is not clear why Schlesinger did not take

²¹Schlesinger, "Clarinet," 4:439-440; Herbert Heyde, "Ein Urahn der Klarinette?" Deutsches Jahrbuch für Musikwissenschaft für 1970 (Leipzig: Peters, 1971), 15:121-24.

²²Hans Burgkmair, The Triumph of Maximilian I, trans. of text by S. Appelbaum (New York: Dover, 1964), p. 9 footnote 38, pl. 79. This plate was attributed to the engraver, Albrecht Altdorfer on stylistic grounds, see Joseph Meder, Dürer-Katalog. Ein Handbuch über Albrecht Dürer's Stiche, Radierungen, Holzschnitte, deren Zustände, Ausgaben und Wasserzeichen (Vienna: Gilhofer and Rauschburg, 1932), p. 223.

²³A translation of the Latin text is provided by Barra Boydell in The Crumhorn and Other Renaissance Windcap Instruments (Buren: F. Knuf, 1982), pp. 369-70 note 364:

"And after these the Burgundian pipers should ride wearing the Burgundian colours with . . ., shawms, and Rauschpfeifen, and they all [should] be wearing laural wreaths".

This identification of the instruments in plate 2 is accepted by David Munrow. He points out that it is the first group which plays the shawm, on the basis of the pirouette of the shawm and the reedcap of the rauschpfeife visible in the engraving. Recently, however, the latter instruments have been convincingly been identified as "Schreyerpfeifen" by Boydell. Montagu also suggests that the former group should be called "tenor shawms" from his labelling of these instruments in Burgkmair's plate seventy-eight. See David Munrow, Instruments of the Middle Ages and Renaissance (Oxford: Oxford University Press, 1976), p. 51; Boydell, p. 316; Idem, "Rauschpfeife," NGDMI, 3:197-8; Jeremy Montagu, The World of Medieval & Renaissance Musical Instruments (Woodstock: N. Y.: Overlook Press, 1976), p. 87.

PLATE 2

Players of the shawm (left) and schreyerpfeife from the Kaiser Maximilian I. Triumph compiled in 1518, modern edition, Hans Burgkmair, The Triumph of Maximilian I (New York: Dover, 1964), pl. 79.

note of this descriptive text or, if she did, why her conclusion is in conflict with it. Schlesinger's second example, from an engraving entitled "Musica" in Jost Amman's Wapen und Stammbuch of 1589,²⁴ is described as being similar to a small, single-reed instrument exhibited at the Royal Military Exhibition in London during 1890 (see below page 27). Amman's plate (plate 3), however, illustrates clearly that the instrument in question is a recorder having a fipple mouthpiece with a flue rather than a mouthpiece and reed.

Herbert Heyde, the German organologist, proposed an ancestor for the clarinet though not, necessarily, a chalumeau, in a third pictorial representation from the sixteenth century. He described and reproduced a painting (c. 1525) which is found on the wing of the altar of the southern side of the chapel in the Stadtkirche in Bitterfeld, East Germany.²⁵ In this painting, Job, a favorite Renaissance subject of artists, is depicted in a leprous state sitting on a dung heap while a woman (his wife?) is cleansing him by pouring water over his head. Three musicians are also taking part in this ceremony by playing instruments which: appear to be made of metal, are held vertically, and terminate with a wide trumpet-like bell (plate 4). Heyde suggests that what is partially inserted in the players' mouths is a single-reed mouthpiece with a metal reed attached to the upperside by a wire or cord (plate 5). Indeed, there is ample evidence for the use of metal reeds

²⁴Jost Amman, Wapen und Stammbuch (Frankfurt: S. Feyrabend, 1589; reprint ed., Munich: G. Hirth, 1881), p. 111. This engraving had already appeared in Philipp Lonicer's Insignia Sacrae Caesaris Maiestatis . . . (Frankfurt: S. Feyrabend, 1579), p. 103; see Andreas Andresen, Der Deutsche Peintre-Graveur oder die deutschen Maler als Kupferstecher (Leipzig: R. Weigel, 1864; reprint ed., New York: Collectors Edition, [1977]), 1:375.

²⁵Heyde, "Ein Urahn der Klarinette?", 15:121; abb. 1-2.

PLATE 3

MVSICA.

Mancher sich sehnen thut nach freud/
Die im doch bringt groß Herken leidt.

Vnd thut sein Leib' Gut Seel beschwern/
Vnd all sein glimpff vnd Ehr verkern.

Mein freud keusch rein vnd Göttlich ist/
Bringt lust/ schimpff/ Ehr zu jeder frist.

Kein keuscher Wollust mag je sein/
Dann die ich bring den Dienern mein.

111

A woman playing an organ from Jost Amman's Wapen und Stammbuch
(Frankfurt: S. Feyrabends, 1589; reprint ed., Munich: Hirth, 1893), p.
111.

PLATE 4

A painting on an altar in the Stadtkirche in Bitterfeld, East Germany (c. 1525), from Herbert heyde, "Ein Urahn der Klarinette?" Deutsches Jahrbuch der Musikwissenschaft für 1970 15 (1971), ill. 1. "Ein Urahn der

PLATE 5

A section of the painting (plate 4) on an altar in the Stadtkirche in Bitterfeld, East Germany (c. 1525), from Herbert Heyde, "Ein Urahn der Klarinette?" Deutsches Jahrbuch der Musikwissenschaft für 1970 15 (1971), ill. 2.

from the Brandenburg inventory of 1582,²⁶ and in the phagotus (a bellows-blown organ) made by Afranio degli Albonesi (1480-c. 1565).²⁷ Heyde, however, did not concede the possibility that the painting in fact may illustrate the use of a reed cap (covering a double reed), rather than a single-reed mouthpiece.²⁸ Thus, of the three illustrations two clearly do not show single-reed instruments and the remaining one is by no means clear in this respect.

The Seventeenth and Eighteenth Centuries

Definitions for the chalumeau in dictionaries from the beginning of the seventeenth century are found to be similar to those of previous dictionaries. For instance, the Englishman, Cotgrave (1611) defined chalumeau as "a small reed, or cane; also, the stemme of an hearbe; also, a wheaten or oaten straw, or a pipe made thereof".²⁹ He also provided a definition of chalemelle as "a little pipe made of reed, or of a wheaten or oaten straw".³⁰ Nicot (1616) defined it as a "tuyau de mouth and air is blown into it. The pipe has two chalumeaux has two tone holes, one placed at each end, the second has three tone holes placed at the lower end of the pipe. Nicot stated that 'one can make

²⁶Cited by Curt Sachs in Musik und Oper am kurbrandenburgischen Hof (Berlin: J. Bard, 1910), p. 207.

²⁷Heyde, 15:122. See also Lyndesay G. Langwill, The Bassoon and Contrabassoon (London: E. Benn, 1975), pp. 7-9; Francis W. Galpin and Guy Oldham, "Phagotus," NGDMI, 1:557.

²⁸See Anthony Baines, "Reviews," GSJ 27 (1974): 151.

²⁹Randle Cotgrave, A Dictionarie of the French and English tongues (London, 1611; reprint ed., Columbia: University of South Carolina Press, 1950), s.v. chalumeau.

³⁰Cf. Jeffrey Pulver, A Dictionary of Old English Music & Musical Instruments (New York: E. P. Dutton & Co., 1929), p. 208. Pulver interpreted this definition and others similar to it as signifying a primitive shawm.

froment" (reed or wheat stalk),³¹ an instrument which may have included an idioglott reed as described in what follows.

Marin Mersenne, in his massive musical treatise, Harmonie Universelle (1636), described several different reed pipes as chalumeaux.³² In Proposition IX of the fifth book of wind instruments, four different types of chalumeaux are illustrated (plate 6). The first, from left to right, is a pipe of willow open at both ends, the second is a simple recorder-like instrument without any tone holes. The fourth is wind-capped instrument called a mirliton or kazoo, whose reed is a thin piece of skin wrapped around the inside of the capsule. It was set into vibration by speaking or singing into the only tone hole (B) near the top of the instrument. The third and fifth instruments have idioglott reeds and are made from wheat stalk or "tuyau de blé". The third is cut in the middle, the fifth on the upper part, to form a beating tongue which vibrates, when the reed portion is taken into the mouth and air is blown into it. The first of these chalumeaux has two tone holes, one placed at each end, the second has three tone holes placed at the lower end of the pipe. Mersenne stated that "one can make ten or twelve different pitches through the means of these three holes".³³ These two instruments foreshadow the more sophisticated

³¹Jean Nicot, Thresor de la Langue Françoise tant ancienne que moderne (Paris: D. Doucove, 1606; reprint ed., Menston: Scolar Press, 1970).

³²Marin Mersenne, Harmonie Universelle, 3 vols. (Paris: S. Cramoisy, 1636; reprint ed., Paris: Centre National de la Recherche Scientifique, 1963), 3:228-9; trans. by Roger E. Chapman as The Book on Instruments (The Hague: M. Nijhoff, 1957), pp. 298-9.

³³Translation by Chapman, p. 298.

"l'on puisse faire dix ou douze tons differens par le moyen de ces trois trous".

PLATE 6

"Chalumeau" instruments illustrated by Marin Mersenne in Harmonie Universelle, 3 vols. (Paris: S. Cramoisy, 1636; reprint ed., Paris: Centre National de la Recherche Scientifique, 1963), 3:229.

"chalumeau" with a separate or "heteroglott" reed, utilized by composers of the eighteenth century.

Mersenne mentions at a later point in the fifth book of wind instruments (Proposition XXVI) the various parts and reeds of the "bagpipe of the country people", the chalemie or cornemuse. He illustrates two single reeds (marked 1 and 2 in Plate 7) and one double-reed (3) next to the tubes in which they were inserted. The first single reed (1) is simply a piece of cane with an idioglott tongue. It was inserted at the end of the pipe marked NL, protected by the section LM, and placed inside the bag. The pipe NL was part of the great bourdon or drone pipe, made in three pieces (PO, ON and NL). The second single reed (2) was made from straw or wheat and is similar to the third and fifth chalumeaux of the fourth proposition (plate 6 above). It was inserted at the end of the small bourdon or drone pipe (HK), placed in the bag, and protected by a sheath (D). The double reed (3) made from thin pieces of cane, was fitted to the same double joint as the pipe called the chanter or chalumeau (EFG), and protected by the sheath (D). Mersenne also noted that the chalumeau (EFG) of this type of bagpipe is played in two ways. First, by using it as part of the bagpipe itself, second, by pulling it out of the skin to play as a small double-reed instrument.³⁴

Another contemporary definition of the chalumeau which describes an instrument that is practically identical to Mersenne's bagpipe is found in Trichet's manuscript treatise, "Traité des instruments de musique" (c. 1640).

Mersenne, p. 229.

³⁴Mersenne, pp. 376-80; trans. Chapman, pp. 354-7.

PLATE 7

A chalemie or cornemuse in Marin Mersenne, Harmonie Universelle, 3 vols. (Paris: S. Cramoisy, 1636; reprint ed., Paris: Centre national de la Recherche Scientifique, 1963), 3:283.

The chalumeau is (1) a rustic pipe made from a wheat stalk with a cut in its upper surface, half a foot long, such as are still played by children and young shepherds; it is also (2) the chanter of a cornemuse played as a separate instrument.³⁵

A contemporary illustration of an instrument that seems to be similar to Trichet's first type of chalumeau is found in the oil painting, "Réunion de paysans" by Louis Le Nain (1593-1648).³⁶ Here, a peasant boy is playing a small cane pipe, that has an unidentifiable number of tone holes. Unfortunately, the reed cannot be seen, so it is debatable whether this instrument is a single-reed chalumeau or a simple recorder.

It is evident from these sources, that during the sixteenth and seventeenth centuries in France, the single-reed chalumeau was a separate pipe with an idioglott reed, sometimes used as part of the bagpipe. Furthermore, the word "chalumeau" continued to designate a pipe which utilized a single or double reed through the seventeenth and into the eighteenth centuries. For instance, both the chalumeau (or chanter) and drone of Borjon's (1672) musette used a double reed, as did the musettes of Hotteterre (1737) and de Garsault (1761).³⁷ In 1715,

³⁵Sibyl Marcuse, A Survey of Musical Instruments (New York: Harper & Row, 1975), p. 719; cf. Pierre Trichet, Traité des instruments de musique (vers 1640), ed. F. Lesure (Neuilly-sur-Seine: Société de musique d'autrefois, 1957), pp. 92-4.

³⁶See "Classique: art classique. XVII^e siècle,": Grand Larousse Encyclopédique, 10 vols. (Paris: Librairie Larousse, 1960), 2: pl. 3; Thomas Munro, "Painting," The World Book Encyclopedia, 20 vols. (Chicago: Field Enterprises Educational Corp., 1961), 16:45.

³⁷[Charles Emmanuel Borjon de Scellery], Traité de la Musette (Lyon: I. Girin and B. Riviere, 1672; reprint ed., Geneva: Minkoff, [1972]); [Jacques] Hotteterre, Méthode pour la Musette (Paris: J. B. C. Ballard, 1738; reprint ed., Geneva: Minkoff, 1977); [François Alexandre Pierre] de Garsault, Notionaire, ou mémorial raisonné (Paris: G. Desnoes, 1761), pp. 648-9.

Crousaz wrote of the chalumeau as a "tuyau de bled", implying an idioglott reed.³⁸ A distant relative of the French musette was the pibgorn (a hornpipe) of England and Wales in use from the fifteenth through the nineteenth centuries.³⁹ Indeed, folk instruments having idioglott or heteroglott reeds are presently in use in Czechoslovakia and in several provinces of the U.S.S.R.⁴⁰ Additional evidence for the use of a single-reed wind instrument in European art music seems to be lacking until the end of the seventeenth century. No single-reed instrument, with the exception of the regal organ, is found in the instrumental treatises of Virdung, Agricola, Luscinius and Praetorius.⁴¹

The Mock Trumpet

By the last decade of the seventeenth century a key-less, wind instrument had become popular in England, under the name of the mock trumpet. It may be considered a type of chalumeau because of its

³⁸Jean Pierre de Crousaz, Traité de Beau (Amsterdam: F. L'Honoré, 1715), p. 239.

³⁹Henry Balfour, "The Old British 'Pibcorn' or 'Hornpipe' and its affinities," Journal of the Anthropological Institute 20 (1890) 144-7; Iowerth C. Peate, "Welsh musical instruments," Man 47 (Feb. 1947): 21-2. Cf. Joan Rimmer, "Pibgorn," NGDMI, 3:109-10.

⁴⁰See Anthony Baines, European and American Musical Instruments (New York: Viking Press, 1966), p. 112; and the Atlas of Musical Instruments of the Peoples Inhabiting the USSR, eds. K. A. Vertkov et al. (Moscow: State Music Publishers, 1975). See also the extensive listing of folk clarinets given at the end of the article "Clarinet" by Nicholas Shackleton in NGDMI, 1:402.

⁴¹Sebastian Virdung, Musica getutscht und auszgezogen (Strasbourg: W. Bischoe, 1511; reprint ed., Kassel: Bärenreiter, 1931); Martin Agricola, Musica Instrumentalis Deutsch (Wittenberg: G. Rhaw, 1529; reprint ed., Hildesheim: G. Olms, 1969); Ottmar Luscinius, Musurgia seu Praxis Musicae (Strasbourg: I. Schottum, 1536); Michael Praetorius, Syntagma Musicum: II. De Organographia (Wolfenbüttel: E. Holwein, 1619; reprint ed., Kassel: Bärenreiter, 1958).

resemblance to the recorder and probable use of an idioglott reed. A unique, extant tutor for this instrument is found in the Euing collection of the University of Glasgow.⁴² Its title page reads:

The Fourth / Compleat Book for the / MOCK TRUMPET / Containing Plain and Easy Directions to Sound y^e MOCK TRUMPET / Together with Variety of new TRUMPET TUNES AIRES MARCHES & MINUETS / fitted to that INSTRUMENT, and Very Proper for y^e BRAZEN TRUMPET, also / severall FIRST and SECOND TREBLES for two TRUMPETS / the whole Fairly Engraven / price 6^d / Note y^e first Second and Third Books may be had where these are Sold / — / London Printed for I. Walsh at y^e Harp in Katherine Street, I. Hare at y^e Viol & Flute in Cornhill, and / P. Randall at y^e Violin and Lute with out Temple Barr in the Strand.

The imprint "I. Walsh . . . I. Hare . . . and P. Randall" show that this volume was published between November 1706 and October 1708.⁴³ The earliest three datable books for the mock trumpet, all published by John Walsh, appeared between 1698 and 1703. Their titles have been traced through newspaper advertisements:

A Collection of Ayers fitted for the new instrument call'd the Mock Trumpet, & also first and Second Trebles for two Trumpets: Graven price 1s (Post Boy, 13-15 September 1698).⁴⁴

A Second Book for the new instrument called, the Mock Trumpet; containing variety of Trumpet-tunes, Ayrs, Marches, Minuets, made purposely for that Instruments: with Instruction for Learners. Also several first and second Trebles for two Trumpets. Engraven. Price 1s (Flying Post, 4 May 1699).⁴⁵

⁴²GB(Ge), Class-mark B.e. 19. The contents of this tutor and nature of the mock trumpet were initially investigated by Thurston Dart in "The Mock Trumpet," GSJ 6 (1953): 35-40.

⁴³William C. Smith, Bibliography of the Musical Works published by John Walsh during the years 1695-1720 (London: Bibliographical Society, 1948), p. xxvi.

⁴⁴Smith, p. 6, no. 17.

⁴⁵Smith, pp. 8-9, no. 21. See also Michael Tilmouth, "A Calendar of References to Music in Newspapers published in London and the Provinces (1660-1719)," R.M.A. Research Chronicle, no. 1 (1961): 28.

The 3d Book of the Mock Trumpet. Containing variety of new Trumpet Tunes, Aires and Minuets fitted to that Instrument, and very proper for the Brazen Trumpet, as also for Learners on the Violin, Flute or Hoboy, being both easy and pleasant. Likewise 1st and 2d Trebles for Trumpets, with directions for Learners, price 1s (Post Man, 23-26 October 1703).⁴⁶

The mock trumpet, clearly meant for the dilettante performer, was described in the first two books. Evidence of its early popularity in London is found in an advertisement from The Diverting Post of 25 November 1704:

Wilder's Mock Trumpets, which have been so well approv'd of by the greatest Musick Masters in England, and allow'd to imitate the Real Trumpet almost to perfection, are sold at most Musick-Shops in London. The said Wilder does every Day, from 9 till 11 of the Clock in the Morning, teach (several Gentlemen to sound first and second Trebles by Book so exact, that it is difficult to distinguish them from real Trumpets) privately at his own Lodgings at the Golden Horse-shoe in Blew Ball Court, in Salisbury Square, Fleet street, where any Musick-shop in England may be furnished with Mock-Trumpets Wholesale very reasonably.⁴⁷

One or more mock trumpet tutors were a part of Thomas Britton's (1644-1714) large collection of music and instruments sold at auction on 6-8 December 1714.⁴⁸ As late as 27 October 1718, the following advertisement appeared in The St. Ives Post Boy or The Loyal Packet:

⁴⁶Smith, p. 41, no. 137.

⁴⁷Tilmouth, p. 57.

⁴⁸A printed catalogue of Britton's music and instruments included: [number] "130. 9 books of instruction for the Psalmody, Flute and Mock-trumpet", as reprinted by John Hawkins in A General History of the Science and Practice of Music, 5 vols. (London, 1776, reprinted in 3 vols., London: Novello, 1853; reprint ed., New York: Dover, 1963), 2:792-3. From 1678, weekly music meetings were held at Britton's home in London, where the mock trumpet may have been played. See M. Tilmouth, "Britton, Thomas." Grove 6. 3:308.

George Barton . . . Sells the following Things at his Shops in Peterborough, at St. Ives and at St. Neot's every Market Day, viz. . . . Violins, Hoit-boys, Flutes, Mock-Trumpets, Flagelets . . .⁴⁹

Two mock trumpet tutors formed part of the extensive music collection in The Hague of the collector Nicolas Selhof (1680-1758).⁵⁰

The structural nature of the mock trumpet⁵¹ is of some uncertainty since this wind instrument is apparently not defined in any contemporary dictionary.⁵² This makes the information contained in The Fourth Compleat Book, especially important, therefore. After its title page (transcribed below), there are: a fingering chart, one page of directions for playing, and a page devoted to the rudiments of music. This is followed by eighteen pages of music, paginated from 1 to 18. The fingering chart entitled, "The GAMUT or Scale for the Mock Trumpet", shows a scale of one octave from g' to g'', with seven tone holes numbered from 1 to 7 (plate 8). The second page of the tutor is worth quoting here at length since it provides important directions for playing:

Directions for the Mock-Trumpet, The Gamut must be learned backwards, and forwards, by heart, then you must observe how to hold your Trumpet, which is thus, your Left hand being uppermost, place the middle finger of your left hand, on y^e 3^d Hole, and the fourth Finger of your Right Hand, on the lowest Hole, with your Right Hand Thumb beneath to Support, y^e trumpet, then the rest of

⁴⁹Tilmonth, "A Calendar of References to Music in Newspapers published in London and the Provinces (1660-1719)," p. 103.

⁵⁰"No. 2801-The Compleat Book for the Mock Trumpet, for one or two Trumpets, no. 2802-idem, ut supra, the fourth Book", in Catalogue of the music library, instruments and other property of Nicolas Selhof, sold in the Hague; 1759, intro. by A. Hyatt King (Amsterdam: F. Knuf, 1973), p. 240.

⁵¹Not to be confused with the tromba marina.

⁵²See Part 2, p. 37

PLATE 8

The GAMUT or Scale for the Mock Trumpet

Notes Ascending

Notes Descending

The first 4 Fingers:
Left HandThe lowest 3 your
Right Hand

Gamut or Gfolfreut	Alamire.	B-f-bemi.	C-folfaut.	D-lafolre	Ela	Ffaut	Gfolfreut in Alt	Gfolfreut in Alt	Ffaut	Ela	D-lafolre	C-folfaut	B-f-bemi	Alamire	Gfolfreut
1	1	1	1	1	1	1	0	0	1	1	1	1	1	1	1
7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

A fingering chart for the mock trumpet from The Fourth Compleat Book for the Mock Trumpet (London: J. Walsh, J. Hare, and P. Randall, [1706-1708]), p. [iii].

⁵³ This page is reproduced in Albert R. Rice, "The History and Literature of the Chalumeau and the Two-Keyed Clarinet," *The Clarinet* 7 (Aug. 1974): 18.

⁵⁴ Colin Lawson, *The Chalumeau in Eighteenth-Century English Music*

your Fingers, will stop the other holes in Course. The Figures under the Gamut, Directs you how to place your Fingers upon the Holes, then put the Trumpet in your Mouth, as far as the Gilded Leather, and blow pretty strong, which will produce the Notes, in the Gamut whose Names, are set over them, which teaches the Names of the Lines and Spaces. Your Left Hand Thumb is called, your first Finger, which stops the Hole, underneath your fore Finger, the 2^d your middle Finger, the 3^d your next, the fourth The fore Finger, of your Right Hand, the 5th the middle Finger, the 6th your Fourth Finger, the 7th which stops the lowest Hole. The Marks and Rules for Graces are these viz. A close shake thus = an open Shake Beat or Sweeting thus + To Grace Gsolreut in Alt, you must put down the middle Finger, of your Left Hand, and the middle Finger of your Right Hand, upon their proper Holes, then close beat, the fore Finger of your Right Hand, and it produces a tingling Gsolreut in Alt. To make a ratling between 2 Notes, first put down the Thumb and fore Finger of your Left hand, and beat strong with your middle and 4th Fingers, of the same Hand, remaining on. A close Shake must be play'd from y^e Note above, Example, If you would Shake Ffaut in Alt, first sound Gsolreut in Alt, then Shake your thumb in the same breath, on its proper Hole, concluding with it on. An open Shake or Sweetning is by Shaking your Finger over the half Hole, next below the Note to be sweetned ending with it off. Thus you must sweeten Delasol sound your Delasol, Shaking the third Finger of your Left Hand, over the half Hole, next below, keeping your finger up. In short after a close Shake keep your Finger down, After an open Shake keep your Finger up.⁵³

As we can see, the mock trumpet was covered in gilded leather and otherwise closely resembled a recorder, with finger number one for the thumb, beneath the hole for the index finger of the left hand. Indeed, the fingering is identical to that used for the alto recorder.⁵⁴

An instrument which seems to match the description above was preserved into the twentieth century only to be destroyed during World War II. It had been owned by the Flemish collector, C. C. Snoeck, and

⁵³This page is reproduced in Albert R. Rice, "The History and Literature of the Chalumeau and the Two-Keyed Clarinet," The Clarinet 1 (Aug. 1974): 12.

⁵⁴Colin Lawson, The Chalumeau in Eighteenth-Century Music (Ann Arbor, Mich.: UMI Research Press, 1981), p. 31.

was described in the catalogue of the Royal Military Exhibition of 1890 by the editor, C. R. Day, who identified it as chalumeau:

CHALUMEAU, in g', French pitch. This instrument consists of a tube of cane open at the lower end, the upper being closed by the natural joint of the cane. The tube is covered with red leather; and the reed consists of a small tongue detached from the cane itself, and shaved down to the required thickness. It is worthy of note that in this instrument the reed is placed upon the upper side, unlike the arrangement in the clarinets of the present day, and, therefore, the lips could have exercised but little control over the vibrations of the tongue. There are six finger-holes upon the upper side, with a seventh or thumb-hole below. The bell note is g'. The tone of the chalumeau is not unlike that of its successor the modern clarinet. Length 8½ inches, diameter .6 inch.⁵⁵

In 1894, Snoeck described this instrument as a "chalumeau à anche battante", 21 centimeters in length, not adding any new details to Day's earlier description of it.⁵⁶ Eight years later, most of his collection was bought for the Staatliche Hochschule für Musik in Berlin, in whose catalogue this instrument is described as an "Idioglott Klarinette".⁵⁷ It appears that this instrument may be identified with the mock trumpet on the basis of its length and the leather covering.⁵⁸

⁵⁵A Descriptive Catalogue of the Musical Instruments recently exhibited at the Royal Military Exhibition, London, 1890, ed. C. R. Day (London: Eyre & Spottiswoode, 1891), p. 110, no. 221, photographed in pl. IV, no. A.

⁵⁶César Charles Snoeck, Catalogue de la collection d'instruments de musique anciens ou curieux (Ghent: J. Vuylsteke, 1894), p. 174, no. 916.

⁵⁷Curt Sachs, Sammlung alter Musikinstrumente bei der Staatlichen Hochschule für Musik zu Berlin. Beschreibenden Katalog (Berlin: J. Bard, 1922), p. III, col. 344, no. 2916.

⁵⁸Cf. Lawson, p. 32. Private correspondence confirming the loss of this instrument was received in June of 1983 from Dr. Dieter Krickeberg of the Staatliches Institut für Musikforschung Preussischer Kulturbesitz.

The early arrival of the "chalumeau" in the Netherlands is shown by the publication of two volumes of duets by J. P. Dreux during 1703 to 1704.⁵⁹ Originally published by Estienne Roger in Amsterdam, the extant volumes in the Herzog-August library in Wolfenbüttel were pirated by Pierre Mortier in about 1709,⁶⁰ their titles read:

FANFARES / Pour les Chalumeaux & Trompettes / Propres aussi à jouer sur les Flûtes, Violins & Haubois / Composées Par / JAQUES PHILIPPE DREUX / Livre Premier [Second] / A AMSTERDAM / Chez PIERRE MORTIER sur le Vygendam / qui vend les Livres Nouveaux en Musique.

In his catalogue of 1706 Roger included these Fanfares by Dreux, and offered chalumeaux for sale at 3 florins apiece.⁶¹ The music of these duets is confined to the notes g', and c' to g'', and would therefore be playable on a keyless chalumeau. Similar to the contents of The Fourth Compleat Book for the Mock Trumpet, these duets illustrate further the early association of the chalumeau and trumpet in terms of musical idiom.⁶²

Baines suggested that a description of a keyless wind instrument in Buonanni's book of 1722 concerning musical instruments is, in fact, a

⁵⁹François Lesure, Bibliographie des éditions musicales publiées par Estienne Roger et Michel-Charles le Cène (Amsterdam, 1696-1743) (Paris: Heugel et Cie, 1969), p. 66.

⁶⁰Samuel F. Pogue, "Roger, Estienne," Grove 6, 16:99-101.

⁶¹Catalogue de Musique appended to [André Felibien, sieur des Avaux], Conferences de l'academie royale de peinture et de sculpture (Amsterdam: E. Roger, 1706), n.p.

⁶²Colin Lawson, "The Early Chalumeau Duets," GSJ 27 (1974): 126-7.

description of the English mock trumpet.⁶³ This description is one of several which appear in number XXIII, entitled, "Oboè":

Before ending this narrative, it remains to be pointed out that among the instruments, which are played with breath there is one (at best not much employed) which is commonly called scialumò [chalumeau]. Usually this is made of cane in the manner of a zampogna, as long as the recorder, it has seven holes, that is six above and one below.⁶⁴

Buonanni's zampogna was a wheat stalk chalumeau similar to Mersenne's "tuyau de blé".⁶⁵ Gastone Vio has shown from archival documents located in Venice at the Pietà, that the German, Lodovico Erdtman (Ludwig Erdtmann) was made "Maestro Professore di Salamuri" at the beginning of

⁶³Anthony Baines, Woodwind Instruments and Their History, 3rd ed., (London: Faber and Faber, 1967), p. 296.

⁶⁴All translations not otherwise attributed are by the present writer.

"Prima di terminare questa narrativa, non è da lasciarsi l'accennare, che trà gl'Istromenti, li quali si suonano col fiato uno ve n'è, (se bene non molto adoperato) il quali volgarmente se chiama Scialumò, suole esser questo fatto di canna a modo di Zampogna, e lungo come il Flauto, e hà buchi sette, cioè sei di sopra, ed uno di sotto".

Filippo Bonanni [Buonanni], Gabinetto Armonico pieno d'Istromenti sonori (Rome: G. Placho, 1722), p. 68. Some of Buonanni's definitions are slightly changed in an Italian-French edition, edited by G. Ceruti (Description Des Instrumens Harmoniques / Descrizione degli Istromenti Armonici, Rome: V. Monaldini, 1776, pp. 82-3). The above definition and others from the 1722 edition, are repeated by Pietro Gianelli in Dizionario della musica sacra, e profana (Vienna: A. Santini, 1801), 1:92.

⁶⁵Cf. Bonanni [Buonanni], Antique Musical Instruments and Their Players, 152 Plates from Buonanni's "Gabinetto Armonico", with a new intro. and captions by F. L. Harrison and J. Rimmer (New York: Dover, 1964), pl. 27.

1706.⁶⁶ This instrument was also known as the "Salmoni", "Salmo" and "Saltaron", and may have been identical to Buonanni's scialumò.⁶⁷

The Chalimo or Chalimou

In his catalogue of the wind instruments at the Bachhaus in Eisenach, Heyde quoted part of an invoice list of instruments dated 1687, in which "Ein Chor Chalimo von 4. stücken" were purchased from Nuremberg for the Duke of Römheld-Sachsen. Heyde implied that these instruments were built by the Nuremberg maker Johann Christoph Denner (1655-1707), whose stamp appears on a "Basset-Blockflöte" in the Bachhaus collection.⁶⁸ During the eighteenth century, "chalimou" instruments were ordered from Denner's son, Jacob (1681-1735), and are recorded in archival documents from Nuremberg (1710) and Götting (c. 1720), discussed below. The origin of this instrument is suggested by its French name, "chalumeau" (as well as the cognates in English, shalamo; Italian, scialumò; and German, Schalamaux) found in several books and musical sources. Furthermore, during the late seventeenth century, French makers such as, the Hotteterre family, became widely celebrated for their superior

⁶⁶Gastone Vio, "Precisazioni sui documenti della Pietà in relazione alle 'Figlie del coro'," in Vivaldi Veneziano Europeo, ed. F. Degradà (Florence: L. S. Olschki, 1980), pp. 105-6. According to the account book of the Pietà, 7 ducats and 16 grossi were paid to Ortoman [Erdtmann] on 17 March 1706 "per doi salamoni per choro"; while on 30 July he received 40 ducats "per saldo d'instrumenti salmo per coro". See M. Talbot, "Vivaldi e lo chalumeau," Rivista Italiana di musicologia 15 (1980): 150.

⁶⁷Cf. Talbot, "Vivaldi e lo chalumeau," pp. 158-62.

⁶⁸Quoted from the Römhelder Kammerechnungen by Herbert Heyde in Historische Musikinstrumente im Bachhaus Eisenach ([Weimar]: Bachhaus Eisenach, 1976), p. 193, no. L1. This document is preserved in the Staatsarchiv Meiningen, according to private correspondence which I have received from Dr. Heyde.

craftsmanship in making recorders, flutes, oboes and bassoons.⁶⁹ In 1696, J. C. Denner and the woodwind maker, Johann Schell petitioned the Nuremberg city council to be recognized as master craftsmen, and be granted permission to make for sale the ". . . French musical instruments . . . which were invented about 12 years ago [i.e. 1684] in France."⁷⁰ Only the recorder and oboe are mentioned in this document, but the single-reed chalumeau must have been one of these new instruments.⁷¹ Their petition was granted in apparent recognition of these new type of instruments.⁷²

It should be borne in mind that from the late seventeenth century, the German nobility slavishly copied their French contemporaries, adopting their language, clothes, food, furniture, dances, and music.⁷³ Therefore, the use of the chalumeau and several other instruments originating in France reflects this tendency of contemporary German

⁶⁹Anthony Baines, Woodwind Instruments and Their History, p. 276.

⁷⁰Nuremberg city archive, Rep. E 5 I, Drechs. 53, Prod. 26; quoted by Ekkehart Nickel in Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg (Munich: E. Katzschler, 1971), p. 204.

⁷¹Nora Post brought to my attention a Gobelins tapestry, "Argus et Mercure" (c. 1718, The Louvre, Paris), that depicts an instrument which appears to be a chalumeau or a baroque clarinet. See Maurice Fenaille, Etat Général des Tapisseries de La Manufacture des Gobelins Depuis son origine jusqu'à nos jours 1600-1900 (Paris: Hachette et Cie, 1904), 3:122-3, 127, 129. A keyless chalumeau is described as late as 1753 in Diderot and d'Alembert's Encyclopédie, see below, pp. 42-45.

⁷²Several extant recorders by J. C. Denner and Schell were made at so-called, "French pitch", between A-392 and about A-415, see Bruce Haynes, "Johann Sebastian Bach's Pitch Standards: The Woodwind Perspective," JAMIS 11 (1985): 100. Cf. Friedrich von Huene, "Denner," NGDMI, 1:557.

⁷³See Adrien Fauchier-Magnan, The Small German Courts in the Eighteenth Century, trans. M. Savill (London: Methuen, 1980), nn. 26-9.

society.⁷⁴ The earliest evidence of the use of the chalumeau in Germany is found in an anonymous collection inscribed "Hannover 1690". It is entitled, "XII^e Concert Charivari ou nopce de village a 4 Violon, 2 Chalumeaux 3 Pollissons et un Tambour les Viollons en Vielle".⁷⁵ Mattheson, in his biographical sketch of the composer, G. P. Telemann, stated that during his stay at Hildesheim, Telemann became acquainted "mit dem Hoboe, der Traverse, dem Schalümo, der Gambe" as well as other instruments.⁷⁶ This comment refers to Telemann's stay at Hildesheim sometime between 1697 and 1701, where he established contact with French musicians of the court of Brunswick. Reinhard Keiser's subsequent use of the chalumeau in Hamburg also probably indicates his exposure to it, when he was the Kapellmeister at Brunswick before 1695.⁷⁷ In Dresden, the "Privat-Chatouille" of August the Strong probably made use of the chalumeau. An invoice dated 1709 from the Dresden maker, Johann Christian Müller, included bassoon and oboe reeds, and "4 cadalichen Röhr", which Heyde believes were reeds for the chalumeau or shawm.⁷⁸

⁷⁴Other French names used for instruments in the Nuremberg archival sources include: "Hautbois", "Basson", and "Taille", see below, pp. 43-4.

⁷⁵In "12 Grands Concerts en Partition", D-brd(DS), 1226/12, see Hans Oskar Koch, "Sonderform der Blasinstrumente in der deutschen Musik vom späten 17. bis zur Mitte des 18. Jahrhunderts" (Ph.D. diss., Ruprecht-Karl-Universität, 1980), p. 223, the beginning of this work is transcribed on page 92. Koch, p. 91, believes that these chalumeaux were "Deutschen Schalmey".

⁷⁶Johann Mattheson, Grundlage einer Ehren-Pforte (Hamburg, 1740; reprint ed., Kassel: Bärenreiter, 1969), p. 357.

⁷⁷Heinz Becker, "Das Chalumeau bei Telemann," in Konferenzbericht der 3. Magdeburger Telemann-Festtage (Magdeburg: Deutsche Kulturbund, 1969), p. 69.

⁷⁸Staatsarchiv Dresden, Rechnungen der Privat-Chatouille Augusts des Starken, 1709, f. 70 quoted by Herbert Heyde in "Blasinstrumente und Bläser in Dresden zur Zeit des Fux-Schülers J. D. Zelenka" in Die

Numerous musical sources also indicate that the greatest use of the chalumeau during the eighteenth century occurred in German and Austrian centers, such as, Frankfurt, Dresden, Darmstadt and Vienna.⁷⁹

In 1730, a biography of J. C. Denner appeared in J. G. Doppelmayr's Historische Nachricht von den Nürnbergischen Mathematicis und Künstlern, crediting this maker with the improvement of the chalumeau, as well as the invention of the clarinet. In 1678, Denner, the son of a Nuremberg turner of game whistles and hunting horns ("Wildruff=und Horn=Dreher"), Heinrich Denner, had established a well-known business by building many fine quality woodwind instruments, including: recorders, pommers, oboes, dulcians, bassoons, racketts, and chalumeaux. He trained two sons, Jacob and Johann David (1691-1764) in the art of instrument building, but while some of Jacob's instruments have survived there are no known examples of the work of Johann David. Today, at least sixty-seven instruments by J. C. Denner and thirty-eight by Jacob are extant in museums and private collections.⁸⁰

A significant passage concerning the chalumeau and clarinet, in Doppelmayr's biographical account of J. C. Denner is cited here:

Finally his artistic passion compelled him to seek ways of improving his invention of the aforesaid instruments [recorders],

Bedeutung der Blasinstrumente im Schaffen von Johann Joseph Fux (Graz, forthcoming).

⁷⁹Becker, "Das Chalumeau bei Telemann," p. 357. For a list of musical works written from c. 1703 to 1772 see Becker, "Das Chalumeau im 18. Jahrhundert," in Speculum Musicae Artis. Festgabe für Heinrich Husmann zum 60. Geburtstag, ed. H. Becker and R. Gerlach (Munich: W. Fink, 1970), pp. 40-6; and Lawson, The Chalumeau in Eighteenth-Century Music, pp. 172-82.

⁸⁰See Phillip T. Young, Twenty-Five Hundred Historical Woodwind Instruments: An Inventory of the Major Collections (New York: Pendragon, 1982), pp. 20-6; Idem, "Some Further Instruments by the Denners," GSJ 35 (1982): 84-5.

and this praiseworthy intention had the desired effect. At the beginning of the current century, he invented a new kind of pipe work, the so-called clarinet, to the great delight of all music lovers, discovered again from ancient times the already well-known stick or rackett bassoon, and at length presented an improved chalumeau.⁸¹

This account of Denner's improvement of the chalumeau and invention of the clarinet is the earliest written evidence crediting this maker with the "invention" of the clarinet. It is the original source for virtually every eighteenth-century account which mentions the clarinet's inventor as Denner or a "Nürnberg", but in the light of recent research should not be accepted at face value without careful scrutiny. Nickel observed that this text appeared almost twenty-five years after Denner's death, and included inaccuracies, such as Denner's age at the time he left Leipzig to live in Nuremberg. Doppelmayr also tended to exaggerate the achievements of other Nuremberg craftsmen, such as Sigmund Schnitzer and Georg Grün.⁸² Furthermore, the contributions of other contemporary makers to the development of the chalumeau and clarinet have not been examined, and the exact nature of Denner's improvements to the chalumeau, according to Doppelmayr, are also not

⁸¹Cf. the English translation given by Kroll in The Clarinet, pp. 13-14.

"Zuletzt triebe ihn sein Kunst=Blieben annoch dahin an, wie er noch ein mehrers durch seine Erfindung und Verbesserung bey bemeldten Instrumenten dargeben mögte / dieses gute Vorhaben erreichte auch würcklich einen erwünschten Effect, indeme er zu Anfang diese lauffenden Seculi, eine neue Arth von Pfeiffen=wercken, die so genannte Clarinette, zu der Music-Liebenden grosen Vergnügen, ausfande, ferner wiederum die vor alten Zeiten schon bekandte Stock=Fagotte, endlich auch die Chalumeaux verbesserter darstellte".

Johann Gabriel Doppelmayr, Historisches Nachricht von den Nürnbergischen Mathematicis und Künstlern (Nuremberg: P. C. Monath, 1730), p. 305.

⁸²Nickel, p. 214.

known. However, the "Chalimo" purchased from Nuremberg, for the Duke of Römheld-Sachsen in 1687, raises the possibility that Denner was making these instruments at that early date. In 1698, the writer, C. Weigel, mentioned numerous instruments made in Nuremberg by "Zwey berühmte Meister" (Denner and Schell?), but cites neither the chalumeau nor the clarinet.⁸³ Until further evidence is uncovered, a reasonable working hypothesis would seem to be that Denner became involved with the clarinet sometime after 1698. Several eighteenth-century descriptions of the chalumeau provide us with a clearer idea of the structural nature of this instrument in different locations and at different times.

In addition to the type of "scialumò" described with that term (quoted above on page 27), Buonanni described a second type called the "calandrone":

Another type of scialumò, according to performers, is the calandrone, which has holes like the recorders. Near the beginning of the mouthpiece are two keys that cover two diametrically opposite holes. The lips are pressed as in the zampogna, and it renders a raucous sound that is not pleasant. It is played in the same manner as the recorder.⁸⁴

⁸³Christoff [Christoph] Weigel, Abbildung der Gemein-Nußlichen Haupt=Stände (Regensburg: n.p., 1698), pp. 237-8; cf. Friedrich von Huene, "Denner," NGDMI, 1:557.

⁸⁴Filippo Bonanni [Buonanni], p. 68.

"Un altra specie di Scialumò dicesi dalli Suonatori Calandrone, il quale hà li buchi, come li Flauti, e nel principio dell' imboccatura hà due molle, le quali premute, danno il fiato per due buchi oppositi in diametro, dove si pone la bocca e inferita un Zampogna, rende questo un suono rauco, e poco grato, e si suona colle medesime regole delli Flauti".

This definition is repeated by P. Gianelli in Dizionario della musica sacra e profana, 1:70.

The only apparent difference between Buonanni's calandrone and his scialumò is the addition of two diametrically opposite keys near the mouthpiece. A more comprehensive definition of the word chalumeau, is found in J. G. Walther's Musikalisches Lexicon of 1732. Of the four types that he described the last two instruments are the most important in this discussion:

Chalumeau, plural, Chalumeaux (French) Fistula pastoritia [Latin]. A shawm, shepherd's pipe made from some parts of cane called calamus. Besides this meaning, it is also found as the chanter in a bagpipe. Furthermore, it is a small woodwind instrument that has seven holes and a range from f' to a'' . Also the name for a little wind instrument made from boxwood that has seven holes, two brass keys up near the mouthpiece, and an additional à partes hole near the bottom. It has a range of from f' to a'' and b'' , possibly also to b'' and c''' .⁸⁵

Not surprisingly, the first two definitions correspond to Trichet's definition a century earlier, as well as to Mersenne's descriptions.⁸⁶

⁸⁵Cf. the translation given by Angela Maria Owen in "The Chalumeau and Its Music," The American Recorder 8 (1967): 7.

"Chalumeau, pl Chalumeaux (gall.) Fistula pastoritia [lat.] eine Schallmey, Schäfer=Peiffe; weil sie mehrentheils aus Rohr [so calamus heisset] gemacht ist. Nebst dieser Bedeutung wird auch die an einem Dudel=Sacke befindliche Pfeiffe; ferner ein kleines Blaß=Instrument, so sieben Löcher hat, und von f biß ins a gehet, also genennet. Ferner ein kleines aus Buchsbaum verfertigtes Blas=Instrument, so sieben Löcher oben beym Ansaße, zwo meßingene Klappen, auch bey der untern noch ein à partes

Loch hat, und vom f biss ins a und b , auch wohl biß ins

$\bar{h}$ und $\bar{c}$ gehet".

Johann Gottfried Walther, Musikalisches Lexicon, oder musikalische Bibliothek (Leipzig: W. Deer, 1732; reprint ed., Kassel: Bärenreiter, 1953), p. 153.

⁸⁶Cf. the descriptions in Mersenne, Harmonicorum libri XII (Paris, 1648; reprint ed., Geneva: Minkoff, 1972). See Veronika Gutmann, "Zur Funktion der Schriften von Mersenne und der Dictionnaires von Richelet und Furètiere in Johann Gottfried Walthers Musikalischem Lexikon - Eine Bestandsaufnahme zu instrumentenkundlichen Fachausdrücken." Basler

The third instrument is identical to the mock trumpet and Buonanni's scialumò, the additional a' of its range presumably played in the overblown register. This higher register is achieved by: opening one of the keys, increasing the wind pressure, and tightening the lips on the reed, forcing the air column into a higher frequency.⁸⁷ Walther's fourth chalumeau with two keys corresponds to Buonanni's calandrone, except for its à partes or double hole for its lowest finger hole. This double hole was provided to aid in the playing of the lowest half-step of the range.

Walther's entire definition was repeated practically verbatim in Majer's instrumental treatise, Museum Musicum (1732), placed between descriptions of the recorder and the transverse flute.⁸⁸ Heinz Becker pointed out that eighteenth-century writers, such as Majer, classified wind instruments on the basis of the number of finger holes on the instrument, instead of the present-day systems based on the nature of the vibrating bodies of the instrument.⁸⁹ In addition to this description, Majer provided an additional section devoted to members of the chalumeau family:

It is usual to have soprano and alto or quart, and even tenor and bass chalumeaux, at either French or German pitch, and because of their difficult embouchure they are very hard to blow.

Jahrbuch für Historische Musikpraxis (Winterthur: Amadeus, 1983), 6 (1982): 45-59.

⁸⁷Cf. Philip Bate, "Overblowing," NGDMI, 2:978.

⁸⁸Joseph Friedrich Bernhard Caspar Majer, Museum Musicum Theoretico Practicum, das ist Neu-eröffneter Theoretisch-und Practischer Music-Saal (Schwäb. Hall: G. M. Majer, 1732; reprint ed., Kassel: Bärenreiter, 1954), p. 32, 5; repeated in Idem, Neu-eröffneter Theoretisch und Practischer Music-Saal (Nuremberg: J. J. Cremer, 1741), pp. 43-4, 7.

⁸⁹Cf. Heinz Becker, "Das Chalumeau im 18. Jahrhundert," pp. 27-8 and Howard Mayer Brown, "Aerophone," NGDMI, 1:29.

The fingerings of these correspond most closely with the recorder, but their range does not extend much beyond an octave. For that reason, it is deemed unnecessary to report at further length on this matter, especially since if one can play the recorder, one can also perform easily [on the chalumeau].⁹⁰

Evidently, these types of chalumeaux were made in a family to compensate for their small playing range. The "quart" chalumeau was given this name because parts for it were transposed a fourth lower to provide a convenient fingering for the player.⁹¹ Those instruments described to be at French (Kammerton) pitch and German (Chorton) pitch--a major second or minor third higher⁹²--suggest that the latter were used in the few works composed for the chalumeau in a sharp tonality.⁹³ Incidentally, the lexicographer E. L. Gerber (1814) credited J. C. Denner with the improvement of the chalumeau both in its tone as well as

⁹⁰Cf. the translation by Kroll in The Clarinet, p. 14.

"Man hat sonst Discant, Alt- oder Quart Chalumeaux, wie auch Tenor- und Bass-Chalumeaux, theils mit dem Französischen / theils mit Teutschem Ton / und sind absonderlich ratione des schwehren Ansaßes / sehr hart zu blasen / die Application darauf correspondiret meistens mit denen Flöthen; Allein deren Ambitus erstrecket sich nicht viel über eine Octav. Wird derhalben vor unnöthig erachtet / weitläufiger hievon zu melden / zumalen / wann man eine Flöthen blasen kan / wird man auch hier praestanda praestiren können".

Majer, Museum Musicum . . . , p. 32, 6.

⁹¹See Becker, "Das Chalumeau im 18. Jahrhunderts," p. 31.

⁹²For much seventeenth and eighteenth-century documentation regarding these types of pitch see Arthur Mendel, "On the Pitches in Use in Bach's Time," Musical Quarterly 41 (1955): 337-8; Bruce Haynes, "Johann Sebastian Bach's Pitch Standards: The Woodwind Perspective," JAMIS 11 (1985): 55-114.

⁹³The majority of the music written for the chalumeau demonstrates that the lowest pitch of these instruments was either f or c, similar to the recorder family. An instrument pitched at Chorton could have its lowest pitch sounding d and be playable in a work written in A major, such as, the aria, "Meiner Seelen, Lust und Wonne" from Reinhard Keiser's opera, Croesus (1730 version). See Lawson, The Chalumeau in Eighteenth-Century Music, pp. 18, 36-7, 70-1.

its tuning.⁹⁴ Majer observed that the fingering of the chalumeau was very similar to that of the recorder, but the embouchure (or position of the lips) required was more difficult to achieve. Surely, the fipple mouthpiece of the recorder offered less resistance than the reed and beak mouthpiece of the chalumeau. Neither Buonanni, Majer, Walther nor Mattheson mention the mouthpiece of the chalumeau in their writings.

In addition to Buonanni's rejection of the tone of the calandrone, there were previously two other unfavorable comments concerning the sound of the chalumeau. Walther noted in his manuscript, "Praecepta der Musicalischen Composition" (1708) that the "Chalemau (French) is a short wind instrument which gives a sound similar to when a person sings through his teeth".⁹⁵ In 1713, Mattheson made a scornful remark about the sound of the chalumeau in his Neu=Eröffnete Orchestre:

The so-called chalumeaux may be allowed to voice their somewhat howling symphony of an evening, perhaps in June or July and from a distance, but never in January at a serenade on the water.⁹⁶

⁹⁴Ernst Ludwig Gerber, Neues Historisch-Biographisches Lexikon der Tonkünstler (Leipzig: A. Kühnel, 1812-1814; reprint ed.; Graz: Akademische Druck- u. Verlagsanstalt, 1966), cols. 871-2.

⁹⁵Johann Gottfried Walther, Praecepta der Musicalischen Composition (1708), ed. P. Benary (Leipzig: Breitkopf & Härtel, 1955), p. 43.

"Chalemau (gall) ist ein kurtz blasend Instrument, giebt einem Klang von sich, als wenn ein Mensch durch die Zähne singet".

⁹⁶Translation by Kroll in The Clarinet, p. 15.

"Den so genandten Chalumeaux mag vergönnet seyn / dass sie sich mit ihrer etwas heulende Symphonie des Abends etwann im Junio oder Julio, niemahls aber in Januario auff dem Wasser zum Ständchen / und zwar von weitem hören lassen".

Johann Mattheson, Das Neu=Eröffnete Orchestre (Hamburg: B. Schiller's Wittwe, 1713), p. 272.

This complaint may have been caused by a mixed use of different sizes or tunings of chalumeau instruments.⁹⁷ It seems unlikely that an unpleasant instrument with a loud tone would have been used in combination with particularly gentle instruments, such as is the case in Graupner's Trio for bass chalumeau, viola d'amore and basso continuo, and Telemann's Ouverture for two chalumeaux, two violette and basso continuo.

A few documents indicate that Jacob Denner constructed several sizes of chalumeaux and clarinets. None of his chalumeaux, however, appear to be extant today. The earliest evidence dates from 1708 when Duke Dernath of Schleswig Holstein, a friend of the composer, Keiser, ordered four "Chalimou-Partien" from Jacob Denner. It is not clear from the Duke's request, however, whether instruments or pieces of music were being asked for.⁹⁸ In 1710, a number of instruments were ordered for the Duke von Gronsfield in Nuremberg from Jacob Denner. In the following list, Nuremberg city document 1282, is found the earliest reference to the "clarinette" along with the "chalimou" and other wind instruments:

4 Hautbois, à fl. 5	20 fl. [i.e. florin
1 Taillie	7 fl. or gulden]
2 Fagott, à fl. 14	28 fl.
4 Flauten, à fl. 3	12 fl.
1 Alt-Flauden	5 fl.
2 Bass-Flauden à fl. 8	16 fl.

⁹⁷See Heinz Becker, "Klarinette. C. Die europäische Klarinette," MGG, 7 (1958): col. 1007.

⁹⁸See Becker, "Das Chalumeau im 18. Jahrhundert," p. 34 note 32a. This letter is found in "J. G. Dernaths Archiv, Reichsarchiv Kopenhagen", according to Peter Hirschfeld in Herrenhäuser und Schlösser in Schleswig-Holstein, ed. O. Vollert, 2nd ed. (n.p.: Deutscher Kunstverlag, 1959), p. 122. Contrary to Hirschfeld's note, this letter is not cited by Torben Krogh in "Reinhard Keiser in Kopenhagen," in Musikwissenschaftliche Beiträge: Festschrift für Johannes Wolf zu seinem sechzigsten Geburtstage (Berlin: M. Breslauer, 1929), pp. 84-7.

4 Chalimou, à fl. 3	12 fl.
1 Alt Chalimou	5 fl.
2 Chalimou-Basson, à fl. 14	28 fl.
1 Clarinettes	15 fl. ⁹⁹

Two other documents dated c. 1720, from Göttweig, a Benedictine abbey, about forty miles west of Vienna on the Danube, show that Jacob Denner's craftsmanship was admired in distant localities.¹⁰⁰ The first is Denner's estimate of the cost of building three "choirs" of woodwind instruments including three sizes of chalumeaux.

I Chor Hautbois mit 6 Stimen
alle von buxbaum

3 Primieur Hautbois a 5 fl	15 fl
1 Taille	9 fl
2 Basson, a 22	44 fl

I Chor Chalimou mit 6 Stimen

3 Primieur Chalimou, à 3 fl	9 fl
1 Second Chalimou	7 fl
2 Basson, à 18	36 fl

I Chor Flauden mit 6 Stimen

3 Primieur Flauden, à 3 fl	9 fl
1 Second Flauden	6 fl
2 Basson, a 15 fl	30 fl
Zu diesen noch 2 Flaud d'Almanq	45 fl ¹⁰¹

It is useful to compare this estimate with Denner's bill for the completed instruments as follows:

⁹⁹Nickel, Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg, pp. 251-2.

¹⁰⁰Horace Fitzpatrick, "Jacob Denner's Woodwinds for Göttweig Abbey," GSJ 21 (1968): 81-7.

¹⁰¹Quoted by Fitzpatrick, p. 83.

3 Hautbois	12 fl	
1 Taillie	8 fl	
1 Basson	20 fl	
1 Primieür Chalimoù	2 fl	30X [Kreutzer]
1 Second Chalimoù	5 fl	
2 Basson	30 fl	
3 Primieür Flaùd	6 fl	
1 Second Flaùd	5 fl	
2 Basson	24 fl	
2 Flaùd d'Almanquès	12 fl	¹⁰²

This bill shows not only several price reductions, but a decrease in the number of instruments from twenty to seventeen, only one primieür chalimoù and one bassoon having been delivered. Every instrument in the Göttweig document is identical to those in the Nuremberg city list, with the exception that transverse flutes replace the clarinets. A direct comparison of the prices of the three types of chalumeaux to the prices of the remaining instruments, suggests that they are Majer's soprano, alto and bass instruments.¹⁰³ The Göttweig estimate for "I Chor Chalimou mit 6 Stimen" further suggests that a similar combination of four instruments were made in 1687, for the Duke of Römheld-Sachsen and referred to as "Ein Chor Chalimo von 4. stücken" (see above, page 28).

By the 1730s the sound of the chalumeau had attracted the attention of organ builders in Germany. An 8' cylindrical reed stop, called the chalumeau, is first met with in the organ of the Frauenkirche at Dresden, built during 1732 to 1736 by the celebrated maker, Gottfried Silbermann.¹⁰⁴ This "chalumo" stop was described by Marpurg (1757) as a

¹⁰²Reproduced by Fitzpatrick as pl. V(a).

¹⁰³See Jürgen Eppelsheim, "Überlegungen zum Thema 'Chalumeau'," in Studien zur Aufführungspraxis und Interpretation von Instrumentalmusik des 18. Jahrhunderts (Blankenburg/Harz, n.p., [1983]), 19: 87-90.

¹⁰⁴Ulrich Dähnert, "The Newly Restored Silbermann Organ in the Catholic Court Church, Dresden," Organ Yearbook (Buren: F. Knuf, 1973), 4 (1973): 122.

"pleasant reed stop" and Adlung (1768) reported that most of Silbermann's organs included it.¹⁰⁵ According to Williams, Silbermann claimed to be the inventor of this stop.¹⁰⁶ Other names for it included the terms *chalemie* and *Schallmey* and were found in several organs made during the 1750s.¹⁰⁷ Three further examples of this stop in eighteenth-century organs have been recorded. They are the 8' "Chalümeau" on the Brustwerk in the Catholic Court Church in Dresden (made by G. Silbermann, 1750-54);¹⁰⁸ the 8' "Chalimouii", also called "Schallmey" on the Oberwerk in the church of St. Maximi in Merseburg (1752);¹⁰⁹ and the 8' "Shalumo" on the Pedal of the "Kneiphofische" organ at the Domkirche in Königsberg.¹¹⁰

¹⁰⁵Friedrich Wilhelm Marburg, Sammlung einiger Nachrichten von berühmten Orgelwerken in Teutschland (Buren: C. G. Mayer, 1757; reprinted in Marburg, Historisch-Kritische Beyträge zur Aufnahme der Musik, 5 vols. (Berlin: G. A. Lange, 1754-1778; reprint ed., Hildesheim: G. Olms, 1970), 3 (1758), p. 499. Jakob Adlung, Musica Mechanica Organoedi, 2 vols. (Berlin: F. W. Birnstiel, 1768; reprint ed., Kassel: Bärenreiter, 1961), 1:78.

¹⁰⁶Peter Williams, The European Organ, 1450-1850 (London: B. T. Batsford, 1966), p. 272. As can be seen, J. S. Bach's plans for the disposition of the organ at St. Blasius at Mülhausen, drawn up before 21 February 1708, included an 8' "Schalemoy" stop (Williams, p. 271, wrote "Chalemoy"). Bach's plans are reproduced by Werner Neumann in Bilddokumente zur Lebensgeschichte Johann Sebastian Bach / Pictorial Documents of the Life of Johann Sebastian Bach, Bach-Dokumente, vol. 4, English version, Anne Wyburd (Kassel: Bärenreiter, 1979), p. 412, pl. 81.

¹⁰⁷Adlung, 1:78.

¹⁰⁸Adlung, 1:211 and "Miscellen," AMZ 4 (21 July 1802), col. 703. See also Dähnert, p. 122.

¹⁰⁹Adlung, 1:78, 257-8.

¹¹⁰Marburg, 3:515.

Descriptions from the Mid-Eighteenth Century

Descriptions of the chalumeau from the mid-century are found in countries where little or no music for the instrument survives. For instance, in France, music for the eighteenth-century chalumeau has thus far not been found.¹¹¹ Nevertheless, a primitive chalumeau, quite similar to the mock trumpet and Buonanni's scialumò, was described in Diderot and d'Alembert's Encyclopédie (1753), and illustrated in volume five of the Planches (1767).¹¹² It is described after a brief mention of the use of wind instruments by the "ancient" Phrygians, Lybians, Egyptians, Arcadians and Sicilians:

Our chalumeau is quite different from that of the ancients. It is a wind instrument with a reed like the oboe. It is composed of two parts; the head, on which is attached a reed resembling that of the organ, except that it is of cane, and the body made of wood. The body of the instrument has nine holes It must be remarked that the eighth hole is double, that is the body of the instrument is pierced in this place with two small holes, placed one next to the other. Those that play this instrument hold and play it like the recorder, closing these two holes together or separately, when playing the lowest tone or a semitone above it. Thus, they do what is practiced on various other instruments.

. . . . It appears that the chalumeau, whose length is less than a foot, is able to play in unison with the tailles and the treble of the harpsichord. It is not longer in use in France.¹¹³

¹¹¹A concert program, however, reported in the Mercure de France (21 February 1728) included a "Conc. de chalumeau avec accomp. de la symph.", see Constant Pierre, Histoire du Concert Spirituel 1725-1790 (Paris: Heugel et Cie, 1975), p. 234.

¹¹²[Denis Diderot], "Chalumeau," Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers par un société de gens de lettres, 17 vols. (Paris: Briasson, David, Le Breton, 1751-1772), 3 (1753), p. 65; Recueil de planches sur les sciences, les arts libéraux et les arts mécaniques, avec leur explication, 11 vols. (Paris: Briasson, David, Le Breton, 1762-1772), 5 (1767), pl. 8.

¹¹³[Denis Diderot], "Chalumeau," Encyclopédie . . . , 3:40.

This instrument (plate 9) is quite short in comparison to other instruments shown in a plate from the Recueil de planches (1767).¹¹⁴ Figure 20 shows the entire body of the instrument seen from the back, figure 21, from the front, and figure 22, the beak mouthpiece separated from the instrument. The only differences between this chalumeau and the mock trumpet are its doubled eighth hole for the little finger, and a separate beak mouthpiece requiring a heteroglott reed tied on with

"Notre chalumeau est fort différent de celui des anciens: c'est un instrument à vent & à anche, comme le hautbois. Il est composé de deux parties; de la tête, dans laquelle est montée l'anche semblable à celle des orgues, excepté que la languette est de roseau, & que le corps est de bouis; du corps de l'instrument, où sont les trous au nombre du neuf Il faut remarquer que le huitième trou est double, c'est-à-dire que les corps de l'instrument est percé dans cet endroit de deux petits trous, placés à côté l'un de l'autre. Celui que joue de cet instrument, qui se tient & s'embouche comme la flûte-à-bec, ferme à la fois ou séparément les deux trous, comme il convient, & tire un ton ou un semi-ton, ainsi qu'on le pratique sur divers autres instrumens.

. . . . Il paroît que le chalumeau, dont la longueur est moindre que d'un pié, peut sonner l'unisson des tailles & des dessus du clavecin. Il n'est plus en usage en France".

¹¹⁴For a reproduction of the entire plate see Lawson, The Chalumeau in Eighteenth-Century Music, p. 19, pl. 4. A reconstruction of this chalumeau was made by Canon Francis W. Galpin and is preserved in the Museum of Fine Arts in Boston, see Nicholas Bessaraboff, Ancient European Musical Instruments. An Organological Study of the Musical Instruments in the Leslie Lindsey Mason Collection at the Museum of Fine Arts, Boston (New York: October House, [1941]), p. 97, no. 107. This reconstruction was erroneously attributed to Stuehnwal in [Barbara Lambert and D. Samuel Quigley], Musical Instruments Collection. Checklist of Instruments on Exhibition (Boston: Museum of Fine Arts, 1983), p. 29, no. 17. Two additional reconstructions of this chalumeau have been recorded. One is a copy of Galpin's reconstruction made by T. Lea Southgate and is now in the Miller collection in Washington, D.C., see The Dayton C. Miller Flute Collection. A Checklist of the Instruments, comp. L. E. Gilliam and W. Lichtenwanger (Washington: Library of Congress, 1961), p. 21, no. 293. Another is found in the Metropolitan Museum of Art in New York City, see the Catalogue of the Crosby Brown Collection of Musical Instruments of All Nations, 5 vols. (New York: The Metropolitan Museum of Art, 1901-1914), 1:133, no. 1849.

PLATE 9

string, like that of the clarinet because of its short length. It seems unlikely that the range of this chalumeau could be the same as that of the tenor (saxophone) and the upper register of the oboe. Plate XXI of the *Recueil de planches* provides a comparison of many instruments' ranges by means of a table entitled, "Table de rapport de l'entendue des voix et des instruments de musique moderne en chromatique". Here, the range for the chalumeau is given on the same line as that for the musette. It is given as f'' to g''' with f'' and g''' as additional notes, indicating an upper register produced by overblowing.¹¹⁵ La Borde in his *Essai sur la musique ancienne et moderne* took most of the information from the *Encyclopédie* article in his description of the chalumeau, adding that it was also called the *trumpet*.¹¹⁷

Several types of chalumeau instruments were described in the comprehensive *Encyclopédie* article on the instrument. The writer, J. V. Reyneau (1795).¹¹⁸ The second and third instruments mentioned in his definition for the chalumeau resemble respectively the rock trumpet and Major's tenor chalumeau.

CHALUMEAU. (French) is the small chalumeau. In Latin, *Pistula* *Parvioris*. It is a small woodwind instrument about the length of a

¹¹⁵In 1751, Garceault observed that the mouthpiece of the "clarinet ou haut-bois de forêt" resembled the mouthpiece of the chalumeau, which has a long orifice (i.e. diapason) set in its upper section (see *Encyclopédie*, *supra*, vol. 1, p. 100).

A keyless chalumeau from the *Recueil de planches*, 11 vols. (Paris: Briasson, David, Le Breton, 1762-72), 5 (1767), pl. 8, s.v. "Lutherie, suite de Instruments à vent".

¹¹⁷(Jean-Benjamin de la Borde), *Essai sur la musique ancienne et moderne*, 4 vols. (Paris: P. B. Moreau, 1780), 1:225-6.

¹¹⁸Jean Verachure, Reyneau, *Encyclopédie*, *supra*, vol. 1, p. 100. (Amsterdam: W. Braye, 1795), pp. 100-1.

string, like that of the clarinet.¹¹⁵ Because of its short length it seems unlikely that the range of this chalumeau could be the same as that of the tenor (tailles) and the upper register of the harpsichord. Plate XXI of the Recueil de planches provided a comparison of many instruments' ranges by means of a table entitled, "Table du rapport de l'entendue des voix et des instrumens de musique comparés au clavecin". Here, the range for the chalumeau is given on the same line as that for the musette. It is given as f' to c''' with d''' and e''' as additional notes, indicating an upper register produced by overblowing.¹¹⁶ La Borde in his Essai sur la musique (1780) repeated most of the information from the Encyclopédie article in his description of the chalumeau, adding that it was also called the zampogne.¹¹⁷

Several types of chalumeau instruments were described in the comprehensive music dictionary of the Dutch lawyer and writer, J. V. Reynvaan (1795).¹¹⁸ The second and third instruments mentioned in his definition for the chalumeau resemble respectively the mock trumpet and Majer's tenor chalumeau:

CHALUMEAU. (French) in the plural, Chalumeaux, in Latin, Fistula Pastoritia. It is a small shephard's flute about the length of a

¹¹⁵In 1761, Garsault observed that the mouthpiece of the "clarinet ou haut-bois de forêt" resembled the whistle of the chalumeau, which has a long orifice [i.e. idioglott reed] cut on its upper section (. . . "s'embouche par le sifflet de chalumeau, c'est-à-dire, par une sente de long, coupée sur le haut de l'instrument"). See François Alexandre Pierre de Garsault, Notionnaire, ou memorial raisonné, p. 628; and Albert R. Rice, "Garsault on the Clarinet," GSJ 32 (1979): 99-103.

¹¹⁶Cf. Lawson, pp. 20-2.

¹¹⁷[Jean-Benjamin de La Borde], Essai sur la musique ancienne et moderne, 4 vols. (Paris: P. D. Pierres, 1780), 1:248-9.

¹¹⁸Joos Verschuere Reynvaan, Muzikaaal Kunst-Woordenboek (Amsterdam: W. Brave, 1795), pp. 118-9.

foot. There are several different kinds which are large and small and high and low in pitch. They are made of reeds or beechwood, with and without keys. Those made of reeds have the width of a man's thumb. They are closed off in front with a cork and given a movable tongue, which is made by making a small cross cut in the reed behind the main cut. This makes the tongue thinner from below towards the small cross cut and then splits it away from the main tube along the small cross cut. Those made of beechwood have a mouthpiece made of reed, some instruments have a key on top near the mouthpiece. Furthermore, this instrument has six finger holes and one thumb hole. Its range is not much more than one octave, and everything above this becomes very hard to play. The fingering on this instrument is a lot like that of the recorder. Look at the scale for the chalumeau with one key at the top by the mouthpiece on the accompanying plate 9. One can also play it a third lower as can be seen by the lower scale. This enables one to play pieces for the violin or transverse flute on it, without having to rewrite them. Actually the scale really starts with f as its sounding pitch, one octave lower than the upper scale shows.¹¹⁹

¹¹⁹English translation by Dr. Roelof Wijbrandous of the Defense Language Institute, Monterey, California.

"CHALUMEAU. (Fransch.) In het meervoudige, Chalumeaux. In het Latijn, Fistula Pastoritia. Het is een zekere kleine herdersfluit, omtrent ter langte van één voet, welke dien naam gegeven wordt: men heeft er onderscheidene soorten van, grooter en kleiner, en des, hooger of laager in toon; met en zonder kleppen: dezelve worden gemaakt, of van riet, of van beukenboomhout: die van riet, hebben doorgaands de dikte van een mans duim; zijnde van vooren met eene kurk gestopt, en daar voorzien van eene beweegbaare tong, vervaardigd door een dwarskefjen in het riet, achter de kerf, te snijden; hetzelfde van onderen naar het kerfjen dun te maaken, en dan de tong langs het kerfjen optesplijten: die welke van beukenboomhout gemaakt zijn, hebben een rieten mondstuk, en hebben sommigen vaan boven bij het mondstuk een klepjen; zijnde er echter ook die dat niet hebben: verders is dit speeltuig voorzien van zes vingergaten, en één duimgat; deszelfs omtrek is al niet veel meer dan één Octaaf, en al wat daar boven gaat, wordt zeer bezwaarelijk om te blaazen. De Applicatie daarop komt meerendeels overeen met die der fluiten: zie de schaafe, voor die met ééne klep boven aan het mondstuk, op de hier nevenstaande Plaat 9; kunnende men die ook een Ters laager speelen, zo als bij den ondersten Muzijkbalk te zien is, wanneer men dan stukjens voor de Viool of Dwarsfluit, zonder die te moeten verschrijven, daarop kan speelen; want anders begint eigenlijk de schaafe met f, zo als de bovenste Muzijkbalk aanwijst; en wel volgens deszelfs eigenlijken toon, een Octaaf laager".

Reynvaan's first chalumeau, a shepherd's flute about the length of a foot, corresponds to the first chalumeau found in Walther's definition (see above pages 34-5). The different sizes and tunings discussed by Majer also seem to be alluded to by "several different kinds which are large and small, and high and low in pitch". His second chalumeau, having the width of a man's thumb and an idioglott reed, reminds us of the mock trumpet. A third, reproduced here in plate 10, had the same number of tone holes, seven, as the mock trumpet, and according to Reynvaan's engraving, an idioglott reed on its wood mouthpiece. One key provided an additional note, the range being about one octave less than the chalumeau in the Encyclopédie, sounding one octave lower. Therefore, it was a longer instrument than the latter or the mock trumpet, and corresponded to Majer's tenor chalumeau in range.¹²⁰

A one-key chalumeau was coincidentally mentioned by the Norwegian bandmaster, Lorents Nicolai Berg, in his instrumental treatise of 1782. At the beginning of his chapter concerning the clarinet he stated:

At one time a type of reed instrument with one key existed. I saw them once in the grammar school in Odense lying among several old instruments like remains of their dead ancestors. The chalumeau, along with others, was also a lovely sounding instrument back then.¹²¹

¹²⁰The second edition of Reynvaan's dictionary was never completed and ended with term, "Muzikgedacht" (a register of the organ). It is often confused with an earlier, incomplete edition of 1789 to 1790 (Muzijkaal Konstwoordenboek) which was entirely revised in 1795. See Jan Willem Enschedé, "Reynvaan, Mr. Joos Verschuere," in Nieuw Nederlandsch Biografisch Woordenboek, eds. P. C. Molhuysen and P. J. Blok, 10 vols. (Leiden: A. W. Sythoff, 1911-1937), 1: cols. 1435-7.

¹²¹Translation by Sonni Marschik in Albert R. Rice, "The Clarinet as Described by Lorents Nicolai Berg (1782)," JAMIS 5-6 (1979-1980): 45.

"Den het været et Slags saadanne Rør-Instrumenter til med een Klap i forrige Tider, dem jeg engang paa den latinske Skole i Oddense kom over at see iblandt endeel gamle Instrumenter, som Levninger

PLATE 10

A one-key, idioglott reed chalumeau in Joos Verschuere Reynvaan,
Muzikaaal Kunst-Woordenboek (Amsterdam: W. Brave, 1795), p1. 9.

Since Berg's "Scharmeyen" was associated with the clarinet, we may assume that it had a single reed, and may have been similar to Reynvaan's idioglott instrument.

Extant chalumeaux

Seven surviving instruments have been identified as chalumeaux. Three are preserved in the Bayerisches Nationalmuseum of Munich, four others in the Musikhistoriska of Stockholm. Previously, it had been thought that chalumeaux instruments were not extant,¹²² or that none larger than a soprano survived,¹²³ for the reason that the seven now acknowledged chalumeaux had been mistakenly identified as clarinets. (Further along in this chapter, I will discuss four additional instruments which may be considered as bass chalumeaux). These seven chalumeaux are listed here in an approximate chronological sequence.

<u>Maker</u>	<u>Length</u>	<u>Type</u>	<u>Construction</u>	<u>Location</u>
J.C. Denner	50.0 cm	tenor	3 joints, 2 keys	Munich 136
Liebau	52.6 cm	tenor	3 joints, 2 keys	Stockholm 143

at ligge efter deres afdøde Formænd. Scharmeyen var og i de Tider liflig m.f.".

Lorents Nicolai Berg, Den første Prøve for Begyndere udi Instrumental-Kunsten (Kristiansand: A. Swane, 1782), p. 48. A "Paar Chalimö in C" was listed in the church band inventory of 1781 at Markt Gaunersdorf (now Gaweinstal) in Lower Austria, see Horace Fitzpatrick, "Jacob Denner's Woodwinds for Göttweig Abbey," p. 87 note 8.

¹²²See Adam Carse, Musical Wind Instruments (London, 1939; reprint ed., New York: Da Capo, 1975), pp. 149-50.

¹²³Anthony Baines, European and American Musical Instruments, p. 112, no. 620.

Klenig	47.9 cm tenor	3 joints, 2 keys	Stockholm 141
Klenig	48.7 cm tenor	3 joints, 2 keys	Stockholm 142
Stuehnwal	22.3 cm soprano	2 joints, 2 keys	Munich 137
Anonymous	40.0 cm alto d'amour	3 joints, 3 keys	Munich 134
Muller	32.0 cm alto	2 joints, 7 keys	Stockholm 140 ¹²⁴

A total of six makers (one of which is anonymous) including J. C. Denner are represented by these instruments. Each chalumeau is made of boxwood and has two brass keys near the mouthpiece which were placed directly opposite each other, on the frontal and dorsal sides of the tube. The last two chalumeaux have additional keys and represent experimentation by the makers or later developments in construction.¹²⁵

The J. C. Denner instruments (fig 1)¹²⁶ includes six tone holes, another for the thumb, and a double hole for the lowest finger--resembling an alto recorder.¹²⁷ Its head

¹²⁴A missing alto chalumeau by Liebau (formerly Stockholm 139) was 33.2 cm and had 3 joints and 2 keys. See Cary Karp, "Baroque Woodwind in the Musikhistoriska Museet, Stockholm," *GSJ* 25 (1972): 82.

¹²⁵See Becker, "Das Chalumeau im 18. Jahrhundert," pp. 36, 38-9; and Lawson, *The Chalumeau in Eighteenth-Century Music*, pp. 5-16.

¹²⁶Figure 1 is an illustration from Victor-Charles Mahillon's article, "Oboe" in the *Encyclopædia Britannica*, 9th ed., 24 vols. (Edinburgh: A. & C. Black, 1875-1888), 17 (1884), p. 707. A very clear photograph of this instrument is found in Phillip T. Young's *The Look of Music: rare Musical Instruments 1500-1900* (Vancouver: Vancouver Museums & Planetarium Association, 1980), p. 26, no. 52.

¹²⁷This resemblance was noted in 1939 by F. Geoffrey Rendall in his "Historical Sketch" for Frederick J. Thurston and Alan Frank's *The Clarinet: A Comprehensive method for the Boehm Clarinet* (London: Hawkes & Sons, 1939), p. 4.

Fig. 1 - Tenor chalumeau

joint, 18.7 centimeters in length, consists of a mouthpiece and lower section forming a base for its two keys. Both Liebav chalumeaux share this characteristic of construction, but E. Nickel considered the Denner instrument to be the earliest on the basis of its more primitive mouthpiece.¹²⁸ Each instrument, excluding the examples by Klenig and the 3-key unmarked chalumeau, includes a double tone hole for the lowest finger, to aid in producing the lowest half-step. The Klenig chalumeaux, similar to early clarinets, have a head joint formed from a mouthpiece and a pear-shaped barrel, with their keys mounted on the middle joints. Their mouthpieces also have continuous grooves for the string used in binding the reed to the mouthpiece. This suggests a later date of manufacture than that of the Liebav instruments, whose mouthpieces have irregular notches.

Due to the length of the touchpiece of the keys on the Denner chalumeau, its mouthpiece must be turned so that the reed is placed against the upper lip. If the mouthpiece is turned so that the reed is placed against the lower lip, then the touchpiece of the key previously on the frontal side would obstruct the thumb hole. Furthermore, when the mouthpiece is positioned with reed uppermost, the maker's stamp on the head joint corresponds to the frontal position of the stamp on the

¹²⁸Ekkehart Nickel, Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg, p. 213.

lower joints.¹²⁹ Stuehnwal's soprano chalumeau, only 29 centimeters in length, includes a mouthpiece plus a short barrel, with its two keys on a lower joint, which may indicate a date of manufacture later than those of the Denner and Liebav instruments.¹³⁰ The anonymous three-key alto chalumeau in Munich is distinguished by a pear-shaped, incurved bell, as found on the clarinette d'amour, and the presence of a third key manipulated by the thumb of either hand, depending on which was placed lowest. As with the three-key clarinet, the lowest tone hole for the little finger was duplicated to give the option to the player as to which hand was placed lowest, the unused hole being stopped by wax or a wooden plug. According to Birsak, the presence of the third key and the "d'amour" bell is enough evidence to suggest a date of manufacture between 1750 and 1760.¹³¹ Muller's chalumeau is unusual because of its seven keys and lack of any foot joint. Its mouthpiece includes thread grooves. The position of touchpieces for its keys requires the use of the right hand lowest. Becker suggested the first quarter of the eighteenth century as a likely date of manufacture, and mentioned a prototype in the seven keys of the chanter on Borjon's musette of 1672.¹³²

¹²⁹See Jürgen Eppelsheim, "Das Denner-Chalumeau des Bayerischen Nationalmuseums," *Mf* 26 (1973): 498-500. Both of these characteristics are also apparent on the tenor chalumeau by Liebav, according to private correspondence to me from David Ross. Cf., Lawson, The Chalumeau in Eighteenth-Century Music, p. 10.

¹³⁰Cf. Lawson, *Ibid*, p. 13.

¹³¹Kurt Birsak, "Das Dreiklappen-Chalumeau im Bayerischen Nationalmuseum in München," *Mf* 26 (1973): 493.

¹³²Becker, "Das Chalumeau im 18. Jahrhundert," p. 39; [Charles-Emmanuel Borjon de Scellery], Traité de la musette (Lyons, 1672; reprint ed., Geneva: Minkoff, 1972).

Although no extant instruments of a bass size have been identified with certainty as bass chalumeaux, it may be presumed that such instruments were made and that they would have been the same size as a tenor recorder.¹³³ The estimates and bills for instruments by Jacob Denner, however, include a rather sharp difference in price between the "Chalimou basson" and the smaller sizes of chalumeaux (see pages 43-4 above). Several Viennese opera scores of the period, also specify a continuo part with "basson di chalumeau", perhaps indicating an instrument capable of playing the bass line at pitch (and thus with a probable range of $\underline{F}$ to $\underline{c}$).¹³⁴ Four eighteenth-century single-reed instruments capable of playing in this range exist and may, perhaps, be identified as bass chalumeaux.

The earliest of these instruments is found in the Museum Carolino Augusteum at Salzburg (no. 8/1) catalogued as a "sordun", and bearing the mark of "W Kress".¹³⁵ No specific information is known concerning where or when Kress was active. Only five other extant instruments are recorded which bear his stamp: two three-key oboes in Munich (nos. 38 and 39), a one-key basset flute in Brunswick (no. 821), a three-key tenor oboe in Copenhagen (no. 103), and another in Linz (no. 121).

¹³³From the late 1950s through the 1970s the Moeck Verlag in Celle, West Germany made four sizes of chalumeaux based on the Stockholm instruments. They included a bass size (which they named tenor) equivalent in length of a tenor recorder.

¹³⁴Colin Lawson, "Chalumeau," NGDMI, 1:328. See also, Jürgen Eppelsheim, "Überlegungen zum Thema 'Chalumeau'," in Studien zur Aufführungspraxis und Interpretation von Instrumentalmusik des 18. Jahrhunderts (Blankenburg/Herz, 1982), 19:86-90.

¹³⁵Kurt Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum. Verzeichnis und Entwicklungsgeschichtliche Untersuchungen (Salzburg: Salzburger Museum Carolino Augusteum, 1973), p. 31.

These instruments all appear to have been made during the early eighteenth century. Birsak dated the sordun in Salzburg as not later than the beginning of the eighteenth century.¹³⁶ It is made in the form of a dulzian being in one piece with two parallel bores, which doubles back on itself such that the end of the wind channel is next to the beginning. A short bell piece is inserted in the bore on the top of the instrument, and at the beginning of the bore on the top, is a smaller wood insert presumably to hold a curved or bent crook. On the lower end of the instrument is a brass capsule, covering the bend in the bore. There are nine finger holes and five brass key, two on the front side and three on the back side mounted on metal platforms called "saddles", commonly used on the dulzian and bassoon (plate 11).¹³⁷ There are keys for the notes a, b^b, F, E and C. The touchplate for the F key was made in a "double-wing" shape to allow for the left or right hand lowermost. Birsak found that the fingering of the Kress instrument would have been similar to that of the sixteenth-century sordunes in the Kunsthistorische Museum of Vienna (nos. A. 226-9), but the arrangement and design of the four keys on these four sordunes differ from the Kress instrument. The natural range of the Kress instrument is given by Birsak as B^b to b^b.¹³⁸

In plate 11 the bore of the Kress instrument can be seen to remain cylindrical throughout. The ratio of the bore's diameter (19 cm) to its

¹³⁶Birsak, pp. 84-5. See also Lyndesay G. Langwill, An Index of Musical Wind-Instrument Makers, 6th ed. (Edinburgh: The Author, 1980), p. 97 and Phillip T. Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 76.

¹³⁷The use of saddles as mounts is discussed by Carse in Musical Wind Instruments, pp. 54-5.

¹³⁸Birsak, pp. 31, 84-5.

PLATE 11

A five-key sordun by W. Kress (Salzburg 8/1) which may be a bass clarinet or bass chalumeau, from Kurt Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum (Salzburg: Salzburger Museum Carolino Augusteum, 1973), p. 86. The letter L and R signify left and right, while 1 stands for the thumb and 2 through 5 the fingers.

length (140 cm) is also similar to that found in eighteenth-century basset horns. Therefore, Birsak suggested that this instrument could be considered an early bass clarinet, and that its bore diameter corresponds more to the chalumeau than to the diameter of the bass sordune in C (8 cm) in the Vienna collection. He also experimented with the Kress instrument by fitting it with a bent, metal crook (similar to those found on the clarinette d'amour), and a clarinet mouthpiece. Even though his playing results were not satisfactory, this experiment does not disprove the theory that this instrument is a bass clarinet, since the instrument's original crook is missing.¹³⁹ Young also reported that the German maker and restorer of woodwinds, Rainer Weber, considers this instrument to be a bass chalumeau or bass clarinet.¹⁴⁰

Three other instruments of similar design, have been reported as bass clarinets by several authors. They are made from what may be described as a plank of wood, covered in leather, possibly made in Germany but bearing no stamp (Staatliche Akademische Hochschule für Musik, Berlin 2810; Conservatoire Royal de Musique, Brussels 939; and Museo Storico Lugano). The bore (c. 18 cm) runs along one side of the plank with the thumb hole opening directly on it. Seven finger holes enter on the upper surface bored at oblique angles for convenient reach of the fingers, similar to the tone holes on the wing joint of the bassoon. There is also a long, curved crook for the mouthpiece and an upturned widely-flared bell.¹⁴¹ The earliest of these instruments was

¹³⁹Cf. Birsak, pp. 85, 87, 90-1.

¹⁴⁰Phillip T. Young, "Letter from Europe," JAMIS Newsletter 11 (October 1982): 5.

¹⁴¹Cf. Lawson, "Chalumeau," NGDMI, 1:328 and F. Geoffrey Rendall, The Clarinet, p. 140.

destroyed in World War II, but is photographed in Sachs' catalogue of the Berlin collection.¹⁴² It had only one key for its lowest pitch (presumably *e*), and was designed to play only in its lowest register. Rendall suggested that this instrument was made before 1750 and could have been a bass chalumeau.¹⁴³ It had previously been part of the collections of Edmond de Coussemaker and Césaire Snoeck.¹⁴⁴ Coincidentally, the lexicographer, F. J. Fétis, wrote in 1830 that the earliest clarinets had one key, however, he probably did not know of the Berlin instrument, and his statement has not been corroborated by other evidence.¹⁴⁵

The instrument in Brussels has three brass keys: the register key, *a'* key and *e/b'* key, and was meant to play in the overblown register with the use of its register key (fig. 2). The curator of the collection of the Brussels

Fig. 2 - A three-key bass chalumeau or bass clarinet (Brussels 939).

¹⁴²Phillip T. Young, "A Bass Clarinet by the Mayrhofers of Passau," *JAMIS* 6 (1981): 40; Curt Sachs, *Sammlung alter Musikinstrumente bei der Staatlichen Hochschule für Musik zu Berlin*, col. 299, pl. 29.

¹⁴³Rendall, *The Clarinet*, p. 140 and Lawson, "Chalumeau," *NGDMI*, 1:328.

¹⁴⁴See *Catalogue de la Bibliothèque et des Instruments de Musique de feu M. Ch. Edm. H. de Coussemaker* (Brussels: F. J. Olivier, 1877; reprint ed., Buren: F. Knuf, 1977), pp. 205-6, no. 32; Snoeck, *Catalogue de la collection d'instruments anciens ou curieux*, pp. 172-3, no. 910.

¹⁴⁵François-Joseph Fétis, *La musique mise a la portée de tout le monde* (Paris: A. Mesnier, 1830), p. 167.

conservatory, V. C. Mahillon, described it as being pitched in a and stated that its quality was bad, lacking in timbre and accuracy of intonation.¹⁴⁶ This instrument was also probably made in about 1750.¹⁴⁷ The third instrument in Lugano was reported by Rendall as similar to the others, but has a downward pointing bell.¹⁴⁸ (Another similar instrument mentioned by Young, Florence 160, also has a downward pointing bell, but appears to be a bass clarinet with seven keys).¹⁴⁹

As long ago as 1884, V. C. Mahillon correctly identified the instruments made by J. C. Denner and Stuehnwal as chalumeaux in the article, "Oboe" of the ninth edition of the Encyclopædia Britannica. In referring to the single-reed chalumeau he stated:

¹⁴⁶Victor-Charles Mahillon, Catalogue descriptif & Analytique du musée instrumental du conservatoire royal de musique de Bruxelles, 2nd ed., 5 vols. (Ghent: A. Hoste, 1893-1922), 2:220. Figure 2 is taken from Mahillon's Catalogue, 2:219. A photograph and description of this instrument is found in A Descriptive Catalogue . . . at the Royal Military Exhibition, London, 1890, p. 123, pl. V; reproduced by Rendall, in The Clarinet, pl. 7, no. a; another photograph is found in Phillip Young's The Look of Music, p. 197, no. 243.

¹⁴⁷John Henry van der Meer, "Vivaldi's esoteric instruments," EM 7 (Jan. 1979): 138.

¹⁴⁸Rendall, p. 140, however, he did not specify the number of keys on this instrument.

¹⁴⁹It was made c. 1780, according to van der Meer, p. 138; cf. Young, "A Bass Clarinet by the Mayrhofers of Passau," p. 40. Vinicio Gai described this instrument as having six keys but his technical drawings appear to show seven (see Gli strumenti musicali della corte Medicea e il museo del conservatorio "Luigi Cherubini" di Firenze (Florence: Licos, 1969), pp. 221-2. A photograph of this instrument also indicates seven keys in the catalogue, Antichi Strumenti della raccolta dei Medici e dei Lorena alla formazione del Museo del Conservatorio di Firenze (Florence: Giunti-Barbèra, 1980), pl 108, no. 160. Arnaldo Bonaventura attributed this instrument to Domenico Del Mela, since it was found in this maker's house. See Bonaventura, "Domenico Del Mela e il primo pianoforte verticale," Bollettino della Società Mugellana studi Storici, vol. IV, no. 1 (1928): 9-10, as cited by Gai, p. 222 note 61.

The present writer has had the good fortune to find quite recently two examples in the National Museum at Munich, and has been kindly authorized by Herr von Hefner-Alteneck, director of the museum, to reproduce them for the museum of the conservatoire at Brussels.¹⁵⁰

The instrument depicted in Mahillon's article (see figure 1, page 50 above) is of such a unique construction, that it is without doubt the J. C. Denner chalumeau. Mahillon's facsimile (Brussels 911), made circa 1882 to 1884, was later included in the Royal Military Exhibition of 1890 held in London. It was photographed in Plate IV of the Exhibition's catalogue as number B, and identified on the "Errata" page as a "chalumeau in c'".¹⁵¹ A reconstruction of the soprano chalumeau by Stuehnwal was also carried out probably during 1882 to 1884. In 1892, Mahillon described these facsimiles of instruments by I. C. [Johann Christoph] Denner and Stuehnwal as chalumeaux, while cautiously labelling both instruments as "clarinette".¹⁵² In his catalogue of 1893, he applied Majer's (1732) terminology in describing these instruments as soprano and tenor chalumeaux. Here, Mahillon stated erroneously that the tenor chalumeau bore the stamp of I. [Jacob]

¹⁵⁰Victor-Charles Mahillon, "Oboe," Encyclopædia Britannica, 9th ed., 17 (1884), p. 707. The use of the Munich instruments in building reproductions was acknowledged by Mahillon in his Catalogue Descriptif & Analytique du Musée Instrumental du Conservatoire Royal de Musique de Bruxelles, 2nd ed., 1 (1893): 210.

¹⁵¹Captain Charles Russell Day, editor of the exhibition catalogue (1891), acknowledged the assistance given to him by V. C. Mahillon in his preface, p. IX. The Brussels' facsimile was photographed in Jacob Adam Kappey's Military Music: A History of Wind-Instrumental Bands (London: Boosey and Co., [c. 1894]), pl. VI, no. 10.

¹⁵²Victor-Charles Mahillon, "Catalogue des Instruments," Annuaire du Conservatoire Royal de Musique de Bruxelles (Ghent: A. Hoste, 1892), 16 (1892): 163, no. 906 (Stuehnwal copy); 165, no. 911 (J. C. Denner copy).

Denner.¹⁵³ These descriptions were undoubtedly the source of many subsequent erroneous descriptions of these instruments which have persisted in print as late as 1976.¹⁵⁴ Subsequently, various copies of the J. C. Denner chalumeau were made and are found in the museums of Boston,¹⁵⁵ New York,¹⁵⁶ Copenhagen,¹⁵⁷ Biebrich-Wiesbaden,¹⁵⁸ Hamburg,¹⁵⁹ and Leipzig.¹⁶⁰

Among the makers of extant chalumeaux, J. C. Denner is the only one who may have made clarinets. Four clarinets formerly attributed to him have been lost. A three-key specimen (at the University of California at Berkeley) is discussed in the next chapter. An additional

¹⁵³Mahillon, Catalogue descriptif & Analytique du musée instrumental du conservatoire royal de musique de Bruxelles, 2nd ed., 1 (1893), p. 210.

¹⁵⁴Beginning with the definitive works by Curt Sachs, Real-Lexikon der Musikinstrumente (Berlin: M. Hesse, 1913), col. 251a; and the Handbuch der Musikinstrumentenkunde, 2nd ed. (Leipzig: Breitkopf & Härtel, 1930), p. 339. Later writers include: Baines, Woodwind Instruments and Their History, pl. XXX, no. 5; Sibyl Marcuse, A Survey of Musical Instruments, p. 721; and Musical Instruments of the World, eds. The Diagram Group (New York: Facts on File, 1976), p. 40.

¹⁵⁵Nicholas Bessaraboff, Ancient European Musical Instruments, p. 97, no. 108; [Barbara Lambert and D. Samuel Quigley], Musical Instruments Collection, p. 29, no. 18. This copy is photographed in Francis W. Galpin's Old English Instruments of Music (London: Methuen, [1910]), pl. 34, no. 11.

¹⁵⁶Catalogue of the Crosby Brown Collection of Musical Instruments of All Nations, 1:134, no. 1845.

¹⁵⁷Angul Hammerich, Das Musikhistorische Museum zu Kopenhagen: Beschreibender Katalog, German trans., E. Bobé (Copenhagen: Breitkopf & Härtel, 1911), p. 33, no. 121.

¹⁵⁸Heinz Becker, "Klarinette," MGG, 7 (1958): pl. 43, no. 9.

¹⁵⁹Hans Schröder, Verzeichnis der Sammlung alter Musikinstrumente (Hamburg: Alster-Verlag, 1930), p. 74, no. 1926, 374.

¹⁶⁰Führer durch das musikwissenschaftliche Instrumenten-Museum der Universitäts Leipzig, ed. H. Schultz (Leipzig: Breitkopf & Härtel, 1929), p. 46, no. 1468a.

maker, besides Jacob Denner, who can be shown to have made both chalumeaux and clarinets is Philipp Borkens (1693-1759). According to the auction catalogue (1759) of the property of the Dutch musician, Nicolas Selhof, he owned the following instruments:

[no.] 166 Deux Clarinettes de Borkens

167 Cinq Chalumeaux, dont 1 de Borkens & 1 de deBye.¹⁶¹

A 2-key clarinet by Borkens is preserved in the Gemeentemuseum of the Hague (Ea 306-1933, see the list of clarinets in Appendix 2).

In conclusion, the single-reed chalumeau of the late seventeenth and eighteenth centuries was built in a variety of sizes and tunings, with one, two, three and seven keys, or none at all. There are also several differences in construction among the extant instruments noted above. A recent description by Anthony Baines of the stages in the development of the chalumeau, pictures three instruments: a keyless, mock trumpet, a two-key soprano chalumeau, and a two-key tenor chalumeau.¹⁶² On the basis of the evidence we have been able to present here, it is clear that Baines' description is vastly oversimplified. Our foregoing survey concerning the chalumeau is essential to a discussion of the origins of the clarinet, since several extant two-key chalumeaux of the eighteenth-century are quite similar in appearance to contemporary two-key clarinets. Indeed, based on these similarities, one might assume that the two-key clarinet was developed from the two-

¹⁶¹Catalogue d'une très belle bibliothèque de livres . . . ainsi qu'une collection de toutes sortes d'instruments, Deslaissez par Feu, Monsieur Nicolas Selhof (The Hague: A. Moetjens, 1759; reprinted in Catalogue of the music library, instruments and other property of Nicolas Selhof, sold in the Hague; 1759, p. 256.

¹⁶²Anthony Baines, "Clarinet," in the New Oxford Companion to Music, general ed., D. Arnold, 2 vols. (London: Oxford University Press, 1983), 1:407, fig. 2.

key chalumeau. Unfortunately, the evidence for this assumption is inconclusive. The clarinet differs from the chalumeau, in that the key on the dorsal side of the instrument is positioned higher and given a smaller tone hole to assist in producing the overblown register. In addition, the mouthpiece is smaller than that for the chalumeau, and the bell is larger and given a definite flare to its bore, unlike the recorder-like foot of the chalumeau. In the next chapter, we begin our discussion of the clarinet by tracing the earliest instruments to the Nuremberg workshop of Johann Christoph and Jacob Denner, and describing in detail the construction of the two- and three-key clarinets.

The makers, Johann Christoph and Jacob Denner, were active during the first decade of the eighteenth century, and continued to be constructed and played throughout the eighteenth and into the nineteenth centuries. This chapter ends its description in 1794, because important makers in various countries at this time carried out several fundamental changes in the design of the clarinet. There are many other characteristics of construction shared among the extant baroque clarinets which have been recorded. These characteristics are discussed below as well as some differences of construction, which appear to reflect the preferences and techniques of those makers in the city or area where they were made. In the list below, makers of extant baroque clarinets are grouped under the modern-day name of their country of origin, with an indication of how many examples of their clarinets are preserved.¹

¹The most important published sources concerning these instruments are Phillip T. Young's *Twenty-Five Hundred Historical Woodwind Instruments: An Inventory of the Baker Collection* (New York: Pantheon, 1962) and Lyndsey S. Langwill's *An Index of Historical Woodwind Instrument Makers*, 6th ed. (Edinburgh: The Author, 1987). Additional information concerning these instruments was generously provided to me by Drs. David Ross and Nicholas Shackleton. For more detailed information and

CHAPTER II

THE EARLIEST INSTRUMENTS

The makers, design and construction of the clarinet with two or three keys, known as the baroque clarinet, are the subjects of this chapter. These instruments were initially made sometime during the first decade of the eighteenth century, and continued to be constructed and played throughout the eighteenth and into the nineteenth centuries. This chapter ends its discussion in 1760, because woodwind makers in various countries at this time carried out several fundamental changes in the design of the clarinet. There are many common characteristics of construction shared among the extant baroque clarinets which have been recorded. These characteristics are discussed below as well as some differences of construction, which appear to reflect the preferences and techniques of those makers in the city or area where they were made. In the list below, makers of extant baroque clarinets are grouped under the modern-day name of their country of origin, with an indication of how many examples of their clarinets are preserved.¹

¹The most important published sources concerning these instruments are Phillip T. Young's Twenty-Five Hundred Historical Woodwind Instruments: An Inventory of the Major Collections (New York: Pengragon, 1982) and Lyndesay G. Langwill's An Index of Musical Wind-Instrument Makers, 6th ed. (Edinburgh: The Author, 1980). Additional information concerning these instruments was generously provided to me by Drs. David Ross and Nicholas Shackleton. For more detailed information and

Three-key Clarinets (14):

Makers of extant two- and three-key clarinets

Two-key Clarinets (28):

Germany (14)

Crone, Gottlieb. Leipzig (1)
 Denner, Jacob. Nuremberg (3)
 Oberlender, Johann Wilhelm (i). Nuremberg (2)
 Oberlender, Johann Wilhelm (ii). Nuremberg (1)
 Scherer, Georg Henrich. Bützbach (5)²
 Walch, Georg. Berchtesgaden (2)

Belgium (4)

Rottenburgh, Godefroid-Adrien (ii). Brussels (2)
 Willems, Jean Baptiste. Brussels (2)

Netherlands (2)

Boekhout, Thomas Conraed. Amsterdam (1)
 Borkens, Philip. Amsterdam (1)

Unknown origin (8)

Deper, M. (German?) (1)
 IGH (J. G. Heinze?) (1)
 Kelmer, G. N. (German?) (1)
 Zencker, J. G. (German?) (1)
 Unmarked (4)

²Georg Henrich Scherer was identified in a recent presentation by Phillip T. Young entitled, "The Scherer Family: German Woodwind-Making", at the joint meeting of the American Musical Instrument Society and the Galpin Society in Boston, Massachusetts, 2 June 1985.

Three-key Clarinets (14):

Germany (5)

Denner, Johann Christoph (?). Nuremberg (1)

Kenigsperger, Johann Wolfgang. Roding (1)

Scherer, Georg Henrich. Bützbach (1)

Walch, Georg. Berchtesgaden (2)

Czechoslovakia (1)

Friderich, J. Prague (1)

Unknown origin (8)

Fues, G. R. (German?) (1)

I.S.W. (Ioseph S. Walch?) (German?)

Lindner (German?) (1) [composite, see page 108 above]

Paur, R. (Baur, Rocko? Viennese?) (1)

Strehli, I. G. (German?) (1)

Unmarked (3)

The preceding shows that, of twenty-eight two-key clarinets, fourteen are by German, two by Belgian, and two by Dutch makers. Eight are of unknown origin. In this last group, the surnames of four makers imply that they might be of German origin. The maker of the largest number (5) of extant two-key clarinets is Georg Henrich Scherer (1703-1778).³ Of the thirteen three-key clarinets, five are by German makers, one is by a Czech, and eight are of unknown origin. In this last group, the surnames of makers suggest that four may be by German makers, and one by an Austrian.

³This makers' instruments are marked "SCHERER" while his father, Johannes Scherer, Jr., seems to have marked his instruments: "I SCHERER".

Clarinets made by the Denners--Documentation and Attribution

The earliest reference to the manufacture of the clarinet was shown by Nickel, from the account books in the Nuremberg archives, to date from 1710.⁴ In this year, Jacob Denner (1681-1735), the son of Johann Christoph Denner (1655-1707), received an order for several instruments from the Duke von Gronsfeld, a resident of Nuremberg, which included "2 Clarinettes" (see above, pp. 38-9). These two instruments are among the earliest clarinets which have been documented. During this year of 1710, according to Gottron, six clarinets by an unknown maker were bought from Mainz for the Rheingau abbey in Eberbach.⁵ The archival records of the Rheingau abbey, stored in Wiesbaden, also show that in 1710, a clarinet (perhaps one of the six?) was repaired in Mainz.⁶ Thus, of a total of eight or nine clarinets known to have been made in 1710, two were definitely made by Jacob Denner. Not long afterward, two churches in Nuremberg ordered clarinets from Jacob Denner. Between 1 May 1711 and 30 April 1712, four clarinets were made for the "Music-Chor" of the Frauenkirche.⁷ Two years later, the

⁴Nuremberg Stadtarchiv, Stadtrechnungsbeleg in Repertorium 54 a II, Nr. 1282, as quoted by Ekkehart Nickel in Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg (Munich: E. Katzbichler, 1971), pp. 251-2.

⁵Wiesbaden Stadtarchiv, cited by Adam Gottron in Mainzer Musikgeschichte von 1500 bis 1800 (Mainz: Auslieferung die Stadtbibliothek, 1959), pp. 115-6.

⁶Wiesbaden Haupt-Stadtarchiv, Archive der geistlichen Institute, Abt. 22, Rechnungsbuch des Kloster Eberbach/Rheingau 1710, 39^v: "Vor ein Clarinett restituire dem Keller zu Maintz den 24. Jan. 1711 3 fl.", as quoted by Nickel, p. 454 note 1247. The "Keller zu Maintz" was a person who handled the exchange of goods between the city of Mainz and the Rheingau abbey in Eberbach.

⁷Kirchenrechnung Vereinigtes protestantisches Kirchenvermögen der Stadt Nürnberg 228, Nr. 3, 70 in the Landeskirchliches Archiv, Nuremberg; cited by Nickel, p. 454 note 1246.

Sebaldkirche also ordered two clarinets.⁸ Indeed, on the basis of these archival documents, Nickel and Lawson have suggested that the invention of the clarinet should be credited to Jacob Denner, while assigning to Johann Christoph Denner the distinction of improving the chalumeau.⁹ Evidence, on the other hand, suggesting that Johann Christoph constructed clarinets before 1710, is provided by several written sources, as well as, an actual surviving three-key clarinet (fully described at a later point in this chapter).

The most important and often cited attribution of the invention of the clarinet to J. C. Denner, appeared in J. G. Doppelmayr's Historische Nachricht von den Nürnbergischen Mathematicis und Künstlern of 1730. In his biographical sketch of J. C. Denner, Doppelmayr stated that at the beginning of the "present century" (i.e. the eighteenth), Denner invented the clarinet and improved the chalumeau (see above, p. 32). Although Doppelmayr probably knew the Denners personally, his statements cannot be accepted without reservation. He made some factual errors in the article concerning J. C. Denner, and exaggerated the achievements of other Nuremberg artisans. Nevertheless, his account was adopted by dozens of later writers, who sometimes added details not found in Doppelmayr's original account.¹⁰ For instance, the idea that J. C. Denner invented the clarinet by improving the chalumeau can be traced to the third edition of F. A. Brockhaus' well-known Conversations-Lexikon

⁸Kirchenrechnung . . . 228, Nr. 5, 78 . . .; cited by Nickel, p. 454 note 1246.

⁹Nickel, p. 211; Colin Lawson, The Chalumeau in Eighteenth-Century Music (Ann Arbor: UMI Research Press, 1981), p. 9.

¹⁰These writers include the following authors fully cited in the bibliography: Walther (1732), Majer (1732), Zedler (1733), Barnickel (1737), Gottsched (1760) and Jablonski (1767).

(1814-1819).¹¹ This statement was repeated by countless authors and led to a confusion of the physical differences between the eighteenth-century chalumeau and clarinet.

The lexicographer, E. L. Gerber repeated most of Doppelmayr's information in his dictionaries, but specified 1700 as the year of the invention of the clarinet.¹² Some authors mistook Doppelmayr's statement "the beginning of the present century", as a reference to the seventeenth century. The first of these was probably J. Farey, who wrote the article, "Clarinet" in The Edinburgh Encyclopædia (1808-1830).¹³ The writer, C. G. von Murr (1778), however, suggested 1690 as the year of invention, and was probably the earliest writer to do so.¹⁴ This date became widely popularized due to its inclusion in the Biographie Universelle (1861) by F. J. Fétis.¹⁵ Other specific dates of

¹¹Conversations-Lexikon; oder Encyclopädisches Handwörterbuch für gebildete Stände, ed. F. A. Brockhaus [3rd ed.], 10 vols. (Leipzig: F. A. Brockhaus, 1814-19), 4:100. Brockhaus may have copied this statement about Denner from the first edition of the Conversationslexicon (1796-1808) by R. G. Löbel, which was unavailable to the present author. See Robert Collinson, Encyclopaedias: Their History Throughout the Ages, 2nd ed. (New York: Hefner, 1966), pp. 156-73.

¹²Ernst Ludwig Gerber, Historisch-Biographisches Lexikon der Tonkünstler (Leipzig, 1792; reprint ed., Graz: Akademische Druck.- u. Verlagsanstalt, 1966), part 2, "VI. Instrumenten-Register", p. 80; Neues Historisch-Biographisches Lexikon der Tonkünstler (Leipzig, 1812; reprint ed., Graz: Akademische Druck.- u. Verlagsanstalt, 1977), col. 871. A date of 1700 was also given by Lefevre (1802) and Busch (1814).

¹³John Farey, "Clarinet," Edinburgh Encyclopædia, ed. D. Brewster, 18 vols. (Edinburgh: W. Blackwood, 1808-1830), 6:672. A date of 1600 was also given in the dictionaries edited by Brande (1854) and Colange (1878).

¹⁴Christoph Gottlieb von Murr, Beschreibung der vornehmsten Merkwürdigkeiten (Nuremberg: J. E. Zeh, 1778), p. 740. Other authors who gave 1690 as the date of invention of the clarinet include: Lipowsky (1794), Busch (1801), Kees (1824) and Klosé (c. 1843).

¹⁵François-Joseph Fétis, "Denner, Jean Christophe," Biographie Universelle des musiciens et bibliographie générale de la musique, 2nd

invention suggested by later writers are 1696 by O. Paul (1874),¹⁶ and 1701 by the clarinetist, F. T. Blatt (1839).¹⁷ Still other nineteenth-century writers stated that the date of invention was between 1690 and 1700.¹⁸ The most substantial source of evidence--the account records in the Nuremberg archives quoted by Nickel--supports the view that c. 1700 to 1710 was the period during which the earliest clarinets were made, while leaving open the question whether it was Johann Christoph or Jacob Denner who actually made the first instrument.

Design and Construction

Descriptions

A few descriptions from the eighteenth century provide important information regarding the design of the baroque clarinet. Buonanni's article on the "Oboè" in his Gabinetto Armonico (1722) includes a description of the "clarone":

An instrument similar to the oboe is called the clarone. It is two and one-half palms long, terminating in a bell like the trumpet three inches in width. There are seven [finger] holes in front and one

ed., 8 vols. (Paris: Firmin Didot Frères, 1860-1865), 2 (1861), p. 469. Curiously, Stainer and Barret in their music dictionary (1889, p. 97) state: "Most authors relate that Denner invented the instrument in 1659, at which date he was four years old; but it was made by him after his residence in Nuremberg, in 1690".

¹⁶Oscar Paul, "Blas- und Schlaginstrumente Bestandtheile," in Amtlicher Bericht über die Wiener Weltausstellung im Jahre 1873, 2 vols. (Brunswick: F. Vieweg und Sohn, 1874), 2:649; repeated by Arrey von Dommer in "Denner, J. C.," in Allgemeine Deutsche Biographie, 56 vols. (Leipzig: Duncker & Humblot, 1875-1912), 5 (1877), p. 57.

¹⁷Franz Thaddäus Blatt, Die Kunst des Clarinetblasens / Méthode Complete de Clarinette (Paris: Schonenberger, [1839]), p. 3; repeated by Henri Lavoix in Histoire de L'instrumentation (Paris: Didot et Cie, 1878; reprint ed., Bologna: Forni, 1972), p. 119.

¹⁸These writers include: Andersch (1829), Gathy (1835), Bernsdorf (1857) and Baermann (1864).

behind. [Above these] there are two others opposite each other, but not diametrically. They are closed and opened by two springs pressed by the fingers when it is necessary to vary the tones which are much lower than that formed by the oboe.

I have not found the inventor of this instrument referred to by any author.¹⁹ Since no one has shown a trace of its antiquity, it is modern, originating from recorders. Because it has a high and vigorous sound it is not as easy to explain in writing, or to perceive as it is when you hear it. It is easy to recognize, even when mixed with the sounds of other instruments in symphonies.²⁰

Buonanni's clarone was similar to the oboe but ended in a wider bell, three inches in width. He also emphasized that the two holes near the top of the clarone are not diametrically opposite each other as with his second type of "scialumò", called the "calandrone" (see above, p. 33). These two physical characteristics--the wide bell and non-diametrical keys--are the most important physical characteristics distinguishing the baroque clarinet from the keyed chalumeau. Furthermore, the latter was designed to play only in its fundamental register. The clarinet, on the

¹⁹This is understandable since Doppelmayr, the earliest to mention the "inventor" of the clarinet, published his book in 1730.

²⁰Cf. the translations given by F. Geoffrey Rendall, The Clarinet, 3rd ed. (New York: W. W. Norton, 1971), pp. 68-9 and Anthony Baines, Woodwind Instruments and Their History, 3rd ed. (London: Faber and Faber, 1967), p. 297.

"Un Istromento simile all' Oboè nominato Clarone è lungo palmi due e mezzo, termina con bocca di Tromba larga oncie 3. E bucato in sette luoghi nella parte superiore, e in uno parte opposta inferiore. Oltre a questi buchi ne hà due altri laterali con due molle calcata con le dita, quando bisogna variare li tuoni, li quali sono più basso della voce formata dall' Oboè.

Chi sia stato il primo inventore di tal' Istromento non l'hò trovato riserito da alcuno scrittore, siccome da niuno sù descritto, segno manifesto non esser antico, mà moderno dedotto dalli Flauti, per avere voce più alta, e vigorosa, ne è sì facile e spiogarsi colla penna, come la comprende l'udito, da cui si distingue, e conosce, benchè confusa nelle Sinfonie con la voce di altri Istromenti Musicali".

Filippo Buonanni [Buonanni], Gabinetto armonico pieno d'Istromenti (Rome: G. Placho, 1722), pp. 67-8.

other hand, was provided with a register or speaker key operated by the thumb, which when pressed opens a small hole further up the bore, causing the instrument to produce easily the pitches of the interval of a twelfth above the notes in the fundamental register.²¹ The length of Buonanni's clarone, "lungo palmi due e mezzo", was shorter than the oboe's "circa due palmi e otto oncie" (Buonanni, p. 67). Yet its range was much lower than that of the oboe. Its "high and vigorous sound" was so characteristic of this instrument that Buonanni made a special point of mentioning it. On the basis of these points we see that the clarone was probably a small, high-pitched clarinet in $\underline{d''}$, $\underline{e''}$ or $\underline{f''}$.²² It is not surprising that Buonanni had already deduced the origin of the clarinet, since apart from its bell, mouthpiece and two keys, it resembled the recorder.

Ten years after the publication of Buonanni's book, J. G. Walther wrote the first definition of the clarinet in his well-known dictionary of terms and biography, the Musikalisches Lexikon of 1732. Like Buonanni he used the oboe for a comparison:

Clarinet, a woodwind instrument invented at the beginning of century by a Nuremberger. It resembles a long oboe, except for its wide mouthpiece, from afar the instrument sounds not unlike a trumpet. Its compass extends from f to d''' shown in table IX, figure one.²³

²¹Nicholas Shackleton, "Clarinet," NGDMI, 1:392.

²²The fingering of the written $\underline{c''}$ of each clarinet produces the pitch referred to as the tonality of the instrument.

²³Cf. the translation of a similar passage in Joseph Friedrich Bernhard Caspar Majer's Museum Musicum (Schwäb. Hall, 1732; reprint ed., Kassel: Bärenreiter, 1954), p. 32, by Oskar Kroll in The Clarinet (New York: Taplinger, 1968), p. 21.

"Clarinetto, ist ein zu Anfange dieses Seculi von einem Nürnberger erfundenes, und einer langen Hautbois nicht ungleiches

Walther's words "zu Anfange dieses Seculi" were obviously taken from Doppelmayr's biographical account of J. C. Denner. He also quoted Doppelmayr and cited his book for a biographical entry on Denner. Walther's clarinet resembled a "long oboe" and presumably was longer than Buonanni's clarone. Its "wide mouthpiece" is a characteristic of many extant, two-key clarinets discussed below. The range that appears in Walther's table 9 was given as f' to d''' , fully chromatic except for the $c^{\#}'''$. The lowest octave of f to f' , though included in the quotation here cited from Walther's text proper, appears to have been unintentionally omitted from his table.²⁴

The earliest French publication including some mention of the clarinet is found in a brief entry in Diderot's Encyclopédie of 1753. Here the instrument is described as a "sorte de hautbois", and the reader is referred to the article "hautbois", and to the "Lutherie" plates.²⁵ There is no information on the clarinet in the article on the oboe, however, and the drawing of the two-key clarinet in the Recueil de

hölzernes Blaß=Instrument, ausser daß ein breites Mund=Stück daran befestiget ist; klingt von ferne einer Trompete ziemlich ähnlich, und gehet von f bis ins d durch die Tab. IX. F. 1. angezeigte Klänge".

Johann Gottfried Walther, Musikalisches Lexikon (Leipzig: W. Deer, 1732; reprint ed., Kassel: Bärenreiter, 1953), p. 168.

²⁴This incorrect range of from f' to d''' was repeated by Georg Friedrich Wolf in his Kurzgefaßtes musikalisches Lexikon (Halle: J. C. Hendel, 1787), p. 34; as well as the later editions in Halle (1792, p. 34) and Vienna (1800, p. 23).

²⁵[Denis Diderot], "Clarinette," Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers par un société de gens de lettres, 17 vols. (Paris: Briasson, David, Le Breton, 1751-1765), 3 (1753), p. 505.

planches (1767) resembles the outline of the conically bored oboe.²⁶ Nonetheless, this engraving (plate 12), is accurate enough in its structural detail to be useful for making a comparison with photographs of some extant two-key clarinets, carried out in the following section.

Materials

The two- or three-key clarinet was usually made of European boxwood, its botanical designation being, Buxus sempervirens. It is wood of a delicate yellow color, which darkens with age to a honey hue. Other materials sometimes used were plum, pear, maple and ivory.²⁷ Two-key clarinets were usually divided into three sections: 1) mouthpiece with a large socket; 2) a middle joint with two non-diametrical keys placed on the frontal and dorsal sides of the tube, with one hole for the thumb on the dorsal side, and six finger holes on the frontal side; and 3) a lower stock combined with a bell having one hole for the little finger, which could be rotated to accommodate either hand being placed lowermost. Two-key clarinets were also made in four sections by dividing the middle joint after the third finger hole.²⁸ These sections were joined together by the construction of tenons fitting into a corresponding socket. To make the tenon, the end of one piece was thinned to about half its normal thickness, and a corresponding amount

²⁶Recueil de planches sur les sciences, les arts libéraux et les arts mécaniques, avec leur explication, 11 vols. (Paris: Briasson, David, Le Breton, 1762-1772), 5 (1767), pl. 8. See Eric Halfpenny, "Castillon on the Clarinet," Music and Letters 35 (October 1954): 333.

²⁷Michael G. Zadro, Woods used for woodwind since the 16th Century," EM 3 (April 1975): 135; 3 (July 1975): 249.

²⁸Cf. Albert R. Rice, "Clarinet Fingering Charts," GJ 37 (1984): 22.

PLATE 12

was taken away from the inside of the socket which received the reed, thus forming a socket. In order to give it greater strength, the wall round the socket was turned rather thicker than the rest of the body, and the end was often protected against strain and consequent splitting by a ring or ferrule of ivory, bone or metal. The flange was engaged round with waxed thread in order to make the joint air-tight.²⁰

Mouthpiece

A two-key clarinet made in three sections from the Recueil de planches, 11 vols. (Paris: Briasson, David, Le Breton, 1762-1772), 5 (1767), pl. 8, s.v. "Lutherie, suite de instruments à vent".

This instrument is a two-key clarinet. It is described by John Henry Van der Meer, *Germanische Musikinstrumente*, dargestellt durch die Sammlung Briasson, David, Le Breton, Nürnberg: n.p., 1876, p. 26, photograph on page 26. Van der Meer dated this instrument as c. 1765.

²⁰Stickleton, "Clarinet," 1902, 1907.

was taken away from the inside of the piece which received the tenon, thus forming a socket. In order to give it greater strength, the wood round the socket was turned rather thicker than the rest of the tube, and the end was often protected against strain and consequent splitting by a ring or ferrule of ivory, bone or metal. The tenon was wrapped round with waxed thread in order to make the joint air tight.²⁹

Mouthpiece

Plate 13 is a photograph of a typical mouthpiece with its large socket from a two-key d'' clarinet, part of an instrument made by Jacob Denner (Nuremberg 149).³⁰ We see a large opening or slot bordered by thin "rails", on which the reed vibrated. It is interesting to note that the reed found with this mouthpiece is known to have been made in the eighteenth century.³¹ Several shallow grooves were carved on the outside of the mouthpiece, and below the slot, as well as on the butt or lower end of the reed (as may be seen in the photograph) to facilitate its binding to the rails by a string or twine. At least four ornamental rings of varying sizes were tuned just above the socket. This socket does not have a ferrule at its end, but its bulging outline indicates a

²⁹Adam Carse, Musical Wind Instruments (London, 1939, reprint ed., New York: Da Capo, 1965), p. 58.

³⁰This photograph was supplied to me through the courtesy of David Ross, the complete instrument is seen in : Anthony Baines, European and American Musical Instruments (New York: Viking Press, 1966), pl. 621 who dated this instrument as c. 1730; Shackleton, "Clarinet,": pl. 3, no. b; John Henry Van der Meer, Germanisches Nationalmuseum Nürnberg. Wegweiser durch die Sammlung Historischer Musikinstrumente, 2nd ed. (Nuremberg: n.p., 1976), p. 34, photograph on page 45. Van der Meer dated this instrument as c. 1715.

³¹Shackleton, "Clarinet," NGDMI, 1:397.

PLATE 13

Mouthpiece/socket joint, reed and string from a clarinet in d' by Jacob Denner (Nuremberg 149).

characteristic thickening of wood just below its midpoint.³² The mouthpiece of the clarinet in the Encyclopédie (plate 12, fig. 19) has a smaller V-shaped slot, a large ornamental ring followed by a pear-shaped socket, and what appears to be a ferrule at its end. Both mouthpieces are tapered on the opposite side, as with the modern mouthpiece, to fit in the players' mouth, the pointed shape being called the beak. One interesting aspect of clarinet research is that the angle of taper varies from mouthpiece to mouthpiece. Another example of this taper can be found on a mouthpiece of a clarinet in c'' by Jacob Denner (Berlin 223) in plate 14.³³ Inside all clarinet mouthpieces, opposing the reed, is a wedge-shaped tone chamber, which becomes cylindrical in shape to match the bore of the upper joint.³⁴ The organologist, Kurt Birsak, noted that the length of the tone chamber (Bahnlänge) of this mouthpiece (partially seen in plate 14) is very long (5.0 cm), and is similar in length to the tone chamber of J. C. Denner's tenor chalumeau (5.2 cm, Munich 136). By comparison, the tone chamber of the Jacob Denner clarinet in Berlin (2.05 cm) is much shorter (see plate 16).³⁵

The following drawings and measurements of three mouthpieces from two-key d'' clarinets (fig. 3) illustrate further variety in design,

³²Cf. Eric Halfpenny, "Early English Clarinets," GSJ 18 (1965): 47.

³³Photographs of clarinets in the Berlin collection were supplied to me through the courtesy of Mrs. Deutsch of the Musik-Instrumenten Sammlung of the Staatliches Institut für Musikforschung.

³⁴Cf., Shackleton, 1:390.

³⁵Kurt Birsak, "Das Dreiklappen-Chalumeau im Bayerischen National-Museum in München," Mf 26 (Oct.-Dec. 1973): 495.

ornamental turning and the shape of slots.³⁶ The various dimensions of the mouthpiece along

Fig. 3-Three mouthpiece/sockets from two-key $\underline{d''}$ clarinets.

with the overall length and bore of the instrument affect the tuning of the clarinet. Other aspects of design reflect a preference by the maker, such as, the length and size of the slot, the shape of the socket, and the style of ornamental turnings. Jacob Denner's mouthpiece illustrated in plate 14 is similar in shape to the Anonymous mouthpiece. Differences in measurements are also found in a reconstruction of a mouthpiece for a copy of the J. C. (?) Denner clarinet in $\underline{d''}$ (Berkeley 19), based on measurements of mouthpieces by Jacob Denner by the modern maker, T. E. Hoeprich. For instance, the overall length of his mouthpiece is about the same as the Crone mouthpiece, but the width of

³⁶Figure 3 is taken from Deirdre Daines, Robin Hewitt, Gerald Vickers and John Hanchett, "Some measurements of early wind instruments," *EM* 4 (Oct. 1976): 461. The Borkens and Anonymous clarinets are in the Gemeentemuseum of The Hague, the Crone instrument is in the Rijksmuseum of Amsterdam, see Appendix 2. All measurements are given in millimeters.

the slot is greater at the top (12 mm), and the bottom edge (10 mm) than most of these examples.³⁷

Keys

The keys of eighteenth-century clarinets were forged commonly in brass, occasionally in silver.³⁸ Touchplates for the thumb or fingers varied considerably in design. The key covers, however, were usually made in a square shape, though a few are round. On the under surface of these flaps was a piece of leather in order to make the hole air tight when it was covered.³⁹ Carse explained the mechanical actions of these keys:

Keys are of two sorts, namely, the open and closed keys. The open key is one which stands open when it is not touched, leaving the hole uncovered; the closed key seals up the hole when the lever is not touched, and only uncovers it when the fingerplate is pressed down. The open key acts in exactly the same way as a finger over a hole, for when a finger falls on a hole, that hole is closed; similarly, when a finger falls on the fingerplate of an open key it causes the hole to be closed. The closed key acts in the opposite way and opens the hole when the finger falls on the fingerplate An open key requires two levers, each pivoting on its own axle; and placed end to end so that one acts on the end of the other; thus, when the fingerplate is up the key-cover is also up, and the hole is open; conversely, when the fingerplate is pressed down the key-cover descends on the hole and closes it.

A closed key is a single lever rocking see-saw-wise on an axle; when the fingerplate is up the key-cover is down and the hole is covered, but when the fingerplate is pressed down the key-cover rises and opens the hole.⁴⁰

³⁷See T. Eric Hoeprich, "A Three-Key Clarinet by J. C. Denner," *GSJ* 34 (1981): 21, 24.

³⁸Rendall, *The Clarinet*, p. 20.

³⁹Carse, *Musical Wind Instruments*, p. 50.

⁴⁰Carse, pp. 46-7.

These keys lie in a channel cut in a raised ring or ridge of wood which runs round the instrument. This ring was left standing when the instrument was turned on the lathe. A thick, brass pin (the axle on which the key pivots) was inserted across the channel and through a hole in the middle of the key lever, the two ends being firmly embedded in the wood of the ring.⁴¹ Both open and closed keys are kept in their normal position by brass springs, attached to the outer bore or riveted to the underside of the key. The pressure of the spring upwards keeps the fingerplate up until it is depressed.⁴²

Keys are commonly named according to the note which sounds when the touchplate is pressed down. Thus, the closed "a" key on the frontal side of the clarinet produces a written a' when its touchplate is depressed. The closed key on the dorsal side is called the "speaker" or "register" key, when its touchplate is depressed an "overblown" register is produced a twelfth higher than the notes of the fundamental register. The speaker key hole was always lined with a metal tube, which projects internally about half way across the bore, to eliminate the clogging of its tone hole moisture.⁴³ Plate 14 shows a two-key clarinet in c'' by Jacob Denner, and the surviving middle joint (all that remains after the World War II bombing) of a two-key clarinet in d'' by Johann Wilhelm Oberlender (i) (Berlin 223 and 2870).⁴⁴ This photograph clearly shows

⁴¹Cf. Carse, p. 53.

⁴²Carse, p. 47; and Phillip T. Young, Twenty-Five Hundred Historical Woodwind Instruments, p. IX.

⁴³Halfpenny, "Early English Clarinets," p. 47.

⁴⁴A photograph of the complete Oberlender clarinet is found in Curt Sachs, Sammlung alter Musikinstrumente bei der Staatlichen Hochschule für Musik zu Berlin. Beschreibender Katalog (Berlin: J. Bard, 1922), pl. 29, no. 2870 and Kroll, The Clarinet, pl. 5.

PLATE 14

Left: the middle joint from a two-key clarinet in d'' by J. W. Oberlender i (Berlin 2870). Right: a two-key clarinet in c'' by Jacob Denner (Berlin 223).

the non-diametrical keys on both of these instruments, which were erroneously described by Rendall.⁴⁵ Looking now at the upper joint of the Jacob Denner instrument (in four sections), and the middle joint of the Oberlender clarinet (formerly in three sections), we see that the upper turned ring carries the speaker key on the dorsal side. The lower turned ring was channeled to provide room for the touchplate of the speaker, so it could be depressed by the thumb of either hand (see plate 14 and compare plate 12). Both rings on the joints of the Denner and Oberlender clarinets are rounded, and have lathe center marks as a guide for boring the fulcrum pins on which the keys pivot (see plates 16 and 17).⁴⁶ In plate 16 and 17, the different styles of ornamental turning and design of the a' keys are also clearly seen.

Makers' stamps

Woodwind makers of baroque clarinets often placed a distinctive stamp with their name, or an abbreviated version of it, on every section of the clarinet, except the mouthpiece/socket. Jacob Denner's stamp, as seen in plate 15, consists of "I Denner" in a scroll with a pine tree beneath, separating the initials "I D". The use of a pine tree was a pun on the low German word, "Denner", which had the same meaning as the

⁴⁵Rendall, p. 68. Sachs noted that the keys of these instruments produced a' (a key) and b' (speaker), which Rendall seems to have interpreted to indicate that they were positioned diametrically opposite (Sammlung . . . , col. 289, no. 2870 and col. 291, no. 223). Furthermore, Rendall may have been influenced by the descriptions of W. Altenburg and C. Snoeck who both stated that the Oberlender clarinet was similar to the chalumeau and primitive in construction. See Wilhelm Altenburg, Die Klarinette (Heilbronn: C. F. Schmidt, [1904]), p. 3 and Césaire Snoeck, Catalogue de la collection d'instruments anciens ou curieux (Ghent: J. Vuylsteke, 1894), p. 165, no. 870.

⁴⁶Cf. Halfpenny, p. 47.

PLATE 15

The dorsal sides of two clarinets. Left: an unidentified five-key clarinet (Berlin collection). Right: a two-key clarinet in c'' by Jacob Denner (Berlin 223).

PLATE 16

The mouthpiece/socket and upper joint of a two-key clarinet in c'' by Jacob Denner (Berlin 223).

⁴⁹ I. Eric Haepprich, "Clarinet Development in the 18th century," *EN* 12 (Feb. 1964): 53, illustrated on 17 (Jan. 1963): 50.

high German, "Tanner" or "Tannenbaum", a pine tree.⁴⁷ Oberlender's stamp was simply "J W Oberlender" in a scroll with the initial "O" beneath (plate 17).⁴⁸

Middle section and the bell

Looking back at plate 14, we notice a large, bulging socket at the top of the lower joint. This "bulb"-shaped socket is found on several two and three-key clarinets, including the instrument pictured in the Recueil de planches (plate 12). The middle joint by Oberlender carries only an ornamental ring since this section is in one piece, and does not need the added reinforcement. Three finger holes are on the lower joint of the Denner clarinet, not clearly visible in the photographs. The lower stock/bell of the Denner clarinet has a large socket boss, with a seventh finger hole bored at a slanted or oblique angle. This angle was bored so that the hole could be reached by the little finger of either hand. The bore beneath this bulging socket appears to have a diameter similar to that of the lower joint, forming a bell from a gradual flaring and expansion. This section is also quite similar to its corresponding section on the instrument pictured in the Recueil de planches (plate 12). Another Jacob Denner clarinet in Brussels (912), according to Hoeprich, is slightly conical in its exterior despite a cylindrical bore.⁴⁹

⁴⁷See Horace Fitzpatrick, "Jacob Denner's Woodwinds for Göttingen Abbey," GSJ 21 (1968): 81.

⁴⁸A comprehensive listing with illustrations of woodwind makers' stamps is given by Lyndesay G. Langwill in An Index of Musical Wind-Instrument Makers, 6th ed., pp. 211-27, 304.

⁴⁹T. Eric Hoeprich, "Clarinet Reed position in the 18th century," EM 12 (Feb. 1984): 53, illustrated in EM 11 (Jan. 1983): 60.

PLATE 17

It also appears that the [redacted] socket was damaged on the top or back, cut off at the [redacted] and a new socket sunk in the upper end of the reman[redacted] and a ferrule added, to

50 This photograph was supplied to us by the courtesy of Dr. Robert Renkel, director of the Musikinstrumenten-Museum.

The middle joint of a two-key clarinet in d' by Johann Wilhelm Oberlender i (Berlin 2870).

Composite instruments

Plate 18 is a photograph of an unmarked two-key clarinet in the Musikinstrumenten-Museum (no. 1457) of the Karl-Marx-Universität in Leipzig.⁵⁰ This instrument was recently thought to be a chalumeau on the basis of a description of the notes produced by its two keys, a' (a key) and b' (speaker key).⁵¹ Dr. Hubert Henkel of the museum in Leipzig stated to me in private correspondence, that the register key of this instrument is twenty-three millimeters higher than the a' key. The photograph reveals that his clarinet was assembled with sections that do not match in the color or grain of wood. For instance, the lower stock/bell is much darker in color than the single middle section, which has a large metal ferrule at its lower end. The socket of the mouthpiece is also darker in color than the middle section. Since all of these sections were not made together, this instrument should not be understood as typical of two-key clarinets. Clarinets which have been assembled with sections from other instruments are called composite instruments.

It also appears that the original mouthpiece/socket was damaged on the top or beak, cut off at the level of the turned ring, a socket sunk in the upper end of the remaining piece and a metal ferrule added, to

⁵⁰This photograph was supplied to me by the courtesy of Dr. Hubert Henkel, director of the Musikinstrumentenmuseum.

⁵¹Gerhardt Hochstrasser, "Das Problem des Kunstmusik-Chalumeaus (II)," Glareana. Nachrichten der Gesellschaft der Freunde alter Musikinstrumente 28 (31 March 1979): 13-5. Hochstrasser based his identification on a description by J. Zimmermann who quoted Georg Kinsky's unpublished manuscript of the third volume of his "Katalog des Heyer-Museums in Köln". See Josef Zimmermann, Von Zinken Flöten und Schalmeien (Düren: A. Bezani, [1967]), p. 67.

PLATE 18

An unmarked two-key clarinet (Leipzig 1457) comprising sections from different instruments.

⁵²See Halfpenny, p. 45.

⁵³Herbert Heyde, "Ein Klarinettenmodell aus Leipzig", *Deutsches Jahrbuch der Musikwissenschaft* 78 (1921), 15-16, 174-175, 176-177, 178-179, 180-181, 182-183, 184-185, 186-187, 188-189, 190-191, 192-193, 194-195, 196-197, 198-199, 200-201, 202-203, 204-205, 206-207, 208-209, 210-211, 212-213, 214-215, 216-217, 218-219, 220-221, 222-223, 224-225, 226-227, 228-229, 230-231, 232-233, 234-235, 236-237, 238-239, 240-241, 242-243, 244-245, 246-247, 248-249, 250-251, 252-253, 254-255, 256-257, 258-259, 260-261, 262-263, 264-265, 266-267, 268-269, 270-271, 272-273, 274-275, 276-277, 278-279, 280-281, 282-283, 284-285, 286-287, 288-289, 290-291, 292-293, 294-295, 296-297, 298-299, 300-301, 302-303, 304-305, 306-307, 308-309, 310-311, 312-313, 314-315, 316-317, 318-319, 320-321, 322-323, 324-325, 326-327, 328-329, 330-331, 332-333, 334-335, 336-337, 338-339, 340-341, 342-343, 344-345, 346-347, 348-349, 350-351, 352-353, 354-355, 356-357, 358-359, 360-361, 362-363, 364-365, 366-367, 368-369, 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592-593, 594-595, 596-597, 598-599, 600-601, 602-603, 604-605, 606-607, 608-609, 610-611, 612-613, 614-615, 616-617, 618-619, 620-621, 622-623, 624-625, 626-627, 628-629, 630-631, 632-633, 634-635, 636-637, 638-639, 640-641, 642-643, 644-645, 646-647, 648-649, 650-651, 652-653, 654-655, 656-657, 658-659, 660-661, 662-663, 664-665, 666-667, 668-669, 670-671, 672-673, 674-675, 676-677, 678-679, 680-681, 682-683, 684-685, 686-687, 688-689, 690-691, 692-693, 694-695, 696-697, 698-699, 700-701, 702-703, 704-705, 706-707, 708-709, 710-711, 712-713, 714-715, 716-717, 718-719, 720-721, 722-723, 724-725, 726-727, 728-729, 730-731, 732-733, 734-735, 736-737, 738-739, 740-741, 742-743, 744-745, 746-747, 748-749, 750-751, 752-753, 754-755, 756-757, 758-759, 760-761, 762-763, 764-765, 766-767, 768-769, 770-771, 772-773, 774-775, 776-777, 778-779, 780-781, 782-783, 784-785, 786-787, 788-789, 790-791, 792-793, 794-795, 796-797, 798-799, 800-801, 802-803, 804-805, 806-807, 808-809, 810-811, 812-813, 814-815, 816-817, 818-819, 820-821, 822-823, 824-825, 826-827, 828-829, 830-831, 832-833, 834-835, 836-837, 838-839, 840-841, 842-843, 844-845, 846-847, 848-849, 850-851, 852-853, 854-855, 856-857, 858-859, 860-861, 862-863, 864-865, 866-867, 868-869, 870-871, 872-873, 874-875, 876-877, 878-879, 880-881, 882-883, 884-885, 886-887, 888-889, 890-891, 892-893, 894-895, 896-897, 898-899, 900-901, 902-903, 904-905, 906-907, 908-909, 910-911, 912-913, 914-915, 916-917, 918-919, 920-921, 922-923, 924-925, 926-927, 928-929, 930-931, 932-933, 934-935, 936-937, 938-939, 940-941, 942-943, 944-945, 946-947, 948-949, 950-951, 952-953, 954-955, 956-957, 958-959, 960-961, 962-963, 964-965, 966-967, 968-969, 970-971, 972-973, 974-975, 976-977, 978-979, 980-981, 982-983, 984-985, 986-987, 988-989, 990-991, 992-993, 994-995, 996-997, 998-999, 1000-1001, 1002-1003, 1004-1005, 1006-1007, 1008-1009, 1010-1011, 1012-1013, 1014-1015, 1016-1017, 1018-1019, 1020-1021, 1022-1023, 1024-1025, 1026-1027, 1028-1029, 1030-1031, 1032-1033, 1034-1035, 1036-1037, 1038-1039, 1040-1041, 1042-1043, 1044-1045, 1046-1047, 1048-1049, 1050-1051, 1052-1053, 1054-1055, 1056-1057, 1058-1059, 1060-1061, 1062-1063, 1064-1065, 1066-1067, 1068-1069, 1070-1071, 1072-1073, 1074-1075, 1076-1077, 1078-1079, 1080-1081, 1082-1083, 1084-1085, 1086-1087, 1088-1089, 1090-1091, 1092-1093, 1094-1095, 1096-1097, 1098-1099, 1100-1101, 1102-1103, 1104-1105, 1106-1107, 1108-1109, 1110-1111, 1112-1113, 1114-1115, 1116-1117, 1118-1119, 1120-1121, 1122-1123, 1124-1125, 1126-1127, 1128-1129, 1130-1131, 1132-1133, 1134-1135, 1136-1137, 1138-1139, 1140-1141, 1142-1143, 1144-1145, 1146-1147, 1148-1149, 1150-1151, 1152-1153, 1154-1155, 1156-1157, 1158-1159, 1160-1161, 1162-1163, 1164-1165, 1166-1167, 1168-1169, 1170-1171, 1172-1173, 1174-1175, 1176-1177, 1178-1179, 1180-1181, 1182-1183, 1184-1185, 1186-1187, 1188-1189, 1190-1191, 1192-1193, 1194-1195, 1196-1197, 1198-1199, 1200-1201, 1202-1203, 1204-1205, 1206-1207, 1208-1209, 1210-1211, 1212-1213, 1214-1215, 1216-1217, 1218-1219, 1220-1221, 1222-1223, 1224-1225, 1226-1227, 1228-1229, 1230-1231, 1232-1233, 1234-1235, 1236-1237, 1238-1239, 1240-1241, 1242-1243, 1244-1245, 1246-1247, 1248-1249, 1250-1251, 1252-1253, 1254-1255, 1256-1257, 1258-1259, 1260-1261, 1262-1263, 1264-1265, 1266-1267, 1268-1269, 1270-1271, 1272-1273, 1274-1275, 1276-1277, 1278-1279, 1280-1281, 1282-1283, 1284-1285, 1286-1287, 1288-1289, 1290-1291, 1292-1293, 1294-1295, 1296-1297, 1298-1299, 1300-1301, 1302-1303, 1304-1305, 1306-1307, 1308-1309, 1310-1311, 1312-1313, 1314-1315, 1316-1317, 1318-1319, 1320-1321, 1322-1323, 1324-1325, 1326-1327, 1328-1329, 1330-1331, 1332-1333, 1334-1335, 1336-1337, 1338-1339, 1340-1341, 1342-1343, 1344-1345, 1346-1347, 1348-1349, 1350-1351, 1352-1353, 1354-1355, 1356-1357, 1358-1359, 1360-1361, 1362-1363, 1364-1365, 1366-1367, 1368-1369, 1370-1371, 1372-1373, 1374-1375, 1376-1377, 1378-1379, 1380-1381, 1382-1383, 1384-1385, 1386-1387, 1388-1389, 1390-1391, 1392-1393, 1394-1395, 1396-1397, 1398-1399, 1400-1401, 1402-1403, 1404-1405, 1406-1407, 1408-1409, 1410-1411, 1412-1413, 1414-1415, 1416-1417, 1418-1419, 1420-1421, 1422-1423, 1424-1425, 1426-1427, 1428-1429, 1430-1431, 1432-1433, 1434-1435, 1436-1437, 1438-1439, 1440-1441, 1442-1443, 1444-1445, 1446-1447, 1448-1449, 1450-1451, 1452-1453, 1454-1455, 1456-1457, 1458-1459, 1460-1461, 1462-1463, 1464-1465, 1466-1467, 1468-1469, 1470-1471, 1472-1473, 1474-1475, 1476-1477, 1478-1479, 1480-1481, 1482-1483, 1484-1485, 1486-1487, 1488-1489, 1490-1491, 1492-1493, 1494-1495, 1496-1497, 1498-1499, 1500-1501, 1502-1503, 1504-1505, 1506-1507, 1508-1509, 1510-1511, 1512-1513, 1514-1515, 1516-1517, 1518-1519, 1520-1521, 1522-1523, 1524-1525, 1526-1527, 1528-1529, 1530-1531, 1532-1533, 1534-1535, 1536-1537, 1538-1539, 1540-1541, 1542-1543, 1544-1545, 1546-1547, 1548-1549, 1550-1551, 1552-1553, 1554-1555, 1556-1557, 1558-1559, 1560-1561, 1562-1563, 1564-1565, 1566-1567, 1568-1569, 1570-1571, 1572-1573, 1574-1575, 1576-1577, 1578-1579, 1580-1581, 1582-1583, 1584-1585, 1586-1587, 1588-1589, 1590-1591, 1592-1593, 1594-1595, 1596-1597, 1598-1599, 1600-1601, 1602-1603, 1604-1605, 1606-1607, 1608-1609, 1610-1611, 1612-1613, 1614-1615, 1616-1617, 1618-1619, 1620-1621, 1622-1623, 1624-1625, 1626-1627, 1628-1629, 1630-1631, 1632-1633, 1634-1635, 1636-1637, 1638-1639, 1640-1641, 1642-1643, 1644-1645, 1646-1647, 1648-1649, 1650-1651, 1652-1653, 1654-1655, 1656-1657, 1658-1659, 1660-1661, 1662-1663, 1664-1665, 1666-1667, 1668-1669, 1670-1671, 1672-1673, 1674-1675, 1676-1677, 1678-1679, 1680-1681, 1682-1683, 1684-1685, 1686-1687, 1688-1689, 1690-1691, 1692-1693, 1694-1695, 1696-1697, 1698-1699, 1700-1701, 1702-1703, 1704-1705, 1706-1707, 1708-1709, 1710-1711, 1712-1713, 1714-1715, 1716-1717, 1718-1719, 1720-1721, 1722-1723, 1724-1725, 1726-1727, 1728-1729, 1730-1731, 1732-1733, 1734-1735, 1736-1737, 1738-1739, 1740-1741, 1742-1743, 1744-1745, 1746-1747, 1748-1749, 1750-1751, 1752-1753, 1754-1755, 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2120-2121, 2122-2123, 2124-2125, 2126-2127, 2128-2129, 2130-2131, 2132-2133, 2134-2135, 2136-2137, 2138-2139, 2140-2141, 2142-2143, 2144-2145, 2146-2147, 2148-2149, 2150-2151, 2152-2153, 2154-2155, 2156-2157, 2158-2159, 2160-2161, 2162-2163, 2164-2165, 2166-2167, 2168-2169, 2170-2171, 2172-2173, 2174-2175, 2176-2177, 2178-2179, 2180-2181, 2182-2183, 2184-2185, 2186-2187, 2188-2189, 2190-2191, 2192-2193, 2194-2195, 2196-2197, 2198-2199, 2200-2201, 2202-2203, 2204-2205, 2206-2207, 2208-2209, 2210-2211, 2212-2213, 2214-2215, 2216-2217, 2218-2219, 2220-2221, 2222-2223, 2224-2225, 2226-2227, 2228-2229, 2230-2231, 2232-2233, 2234-2235, 2236-2237, 2238-2239, 2240-2241, 2242-2243, 2244-2245, 2246-2247, 2248-2249, 2250-2251, 2252-2253, 2254-2255, 2256-2257, 2258-2259, 2260-2261, 2262-2263, 2264-2265, 2266-2267, 2268-2269, 2270-2271, 2272-2273, 2274-2275, 2276-2277, 2278-2279, 2280-2281, 2282-2283, 2284-2285, 2286-2287, 2288-2289, 2290-2291, 2292-2293, 2294-2295, 2296-2297, 2298-2299, 2300-2301, 2302-2303, 2304-2305, 2306-2307, 2308-2309, 2310-2311, 2312-2313, 2314-2315, 2316-2317, 2318-2319, 2320-2321, 2322-2323, 2324-2325, 2326-2327, 2328-2329, 2330-2331, 2332-2333, 2334-2335, 2336-2337, 2338-2339, 2340-2341, 2342-2343, 2344-2345, 2346-2347, 2348-2349, 2350-2351, 2352-2353, 2354-2355, 2356-2357, 2358-2359, 2360-2361, 2362-2363, 2364-2365, 2366-2367, 2368-2369, 2370-2371, 2372-2373, 2374-2375, 2376-2377, 2378-2379, 2380-2381, 2382-2383, 2384-2385, 2386-2387, 2388-2389, 2390-2391, 2392-2393, 2394-2395, 2396-2397, 2398-2399, 2400-2401, 2402-2403, 2404-2405, 2406-2407, 2408-2409, 2410-2411, 2412-2413, 2414-2415, 2416-2417, 2418-2419, 2420-2421, 2422-2423, 2424-2425, 2426-2427, 2428-2429, 2430-2431, 2432-2433, 2434-2435, 2436-2437, 2438-2439, 2440-2441, 2442-2443, 2444-2445, 2446-2447, 2448-2449, 2450-2451, 2452-2453, 2454-2455, 2456-2457, 2458-2459, 2460-2461, 2462-2463, 2464-2465, 2466-2467, 2468-2469, 2470-2471, 2472-2473, 2474-2475, 2476-2477, 2478-2479, 2480-2481, 2482-2483, 2484-2485, 2486-2487, 2488-2489, 2490-2491, 2492-2493, 2494-2495, 2496-2497, 2498-2499, 2500-2501, 2502-2503, 2504-2505, 2506-2507

take the tenon of a replacement mouthpiece. Indeed, many mouthpieces of baroque clarinets may not be in their original state, since some were altered for a particular player or refashioned due to damage.⁵² The organologist, H. Heyde, described the mouthpiece of this clarinet as being made of metal and having an idioglott (!) reed.⁵³ Unfortunately, the material which this mouthpiece consists of, cannot be verified from this photograph, only the uneven rails can be seen. A three-key clarinet in a' by Lindner (Brussels 913, plate 18) which was accepted as authentic for many years, has recently been shown to be a composite instrument.⁵⁴ Shackleton found that only the unmarked lower stock/bell of this instrument was originally part of a three-key clarinet. The lower joint, marked "Lindner", is from a c' clarinet of the late eighteenth century, and the upper joint and mouthpiece/socket are modern reproductions.⁵⁵

The Third Key

By 1750, several woodwind makers added a third, open-standing key to the lower stock/bell, supplying the notes e or b' and linking the fundamental and overblown registers.⁵⁶ This long key (e/b' key) was

⁵²See Halfpenny, p. 45.

⁵³Herbert Heyde, "Ein Urahn der Klarinette?" Deutsches Jahrbuch der Musikwissenschaft für 1970 (Leipzig: Peters, 1971), 15:122, 124 note 14 and Hochstrasser, p. 15.

⁵⁴See Rendall, The Clarinet, p. 70, photographed as pl. I, d; and Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 80.

⁵⁵Nicholas Shackleton, "The 'Well Known Clarinet by Lindner'," GJSJ 38 (1985): 137-9.

⁵⁶I refer to the notes e and b' produced by this key as the usual result on eighteenth-century clarinets. The research of K. Birsak, with three three-key instruments in the Salzburg collection, has shown that

mounted on a ring of the bell joint and usually positioned on the back of the instrument, to be operated by the right or left thumb depending on which hand was placed lowermost. These three-key clarinets always include a second or alternate hole on the lower stock that could be reached by the finger. This hole enabled the player to choose which hand would be uppermost, the hole which was not needed would then be plugged by wax or a spindle-shaped wooden stopper.⁵⁷ A few other clarinets had their e/b' key placed on the left side of the instrument, to be operated by the left-hand little finger, and included one tone hole on the lower stock for the right-hand little finger. In plate 19, we see both types of three-key clarinet and a two-key clarinet. From left to right: three-key in d' by Georg Henrich Scherer (c. 1750); three-key in a', a composite instrument, the lower joint stamped Lindner (c. 1780)--the e/b' key is on the dorsal side--and; two-key in c' by Jacob Denner (c. 1720; Brussels 924, 913, 912).⁵⁸ Both of the alternate holes are seen on the Lindner instrument and the e/b' key on the left side of the Scherer clarinet is visible.⁵⁹ The extra length of tubing on the lower stock of both three-key clarinets, was added directly below the socket boss for the lowest key.

A few three-key clarinets have an extra section added to the levers of their thumb keys, so that, when the lower joint is turned around, these keys are within reach of the left hand fourth finger. The the pitches produced with this key were sometimes designed to be a half-step higher (see p. 125 above).

⁵⁷Kroll, The Clarinet, p. 19 note 2.

⁵⁸This photograph and the dating of the instruments are by David Ross, and appear in The Clarinet 11 (Fall 1983).

⁵⁹In private correspondence, David Ross has told me that this key was originally much longer than its present appearance would indicate.

PLATE 19

Left to right: three-key clarinet in $\underline{d}''$ by Georg Henrich Scherer (c. 1750); three-key in $\underline{a}'$ by Lindner (c. 1780, $\underline{b}'$ key placed on the back); two-key in $\underline{c}''$ by Jacob Denner (c. 1720, Brussels, 924, 913, 912).

redundant hole is now in the rear and may be permanently blocked.⁶⁰ An anonymous three-key instrument (Nuremberg 150), as noted by Kroll, is exceptional in regard to its possibilities for the use of the e/b' key. It is pitched in e^b' and consequently shorter in length than most three-key clarinets. Its e/b' key is very long (mounted to a block on the bell), and accessible to either the left hand fourth finger when the left hand is higher, or the left thumb if the right hand is higher.⁶¹ Montagu wrongly assumed that these fingering positions, in regard to the e/b' key, were possible on every three-key clarinet. Unless the clarinet is very short in length, the e/b' key must be lengthened in order to be reached by the left hand fourth finger.⁶²

Some Additional Aspects of Design

Looking back to plate 19, we see that the Scherer clarinet has ivory ferrules on the top of its lower stock/bell and the end of its mouthpiece/socket. The use of ivory ferrules began about the mid-century, but was more commonly found on clarinets built during the last third of the eighteenth century.⁶³ Interestingly, Scherer is the only

⁶⁰Examples of these instruments are by G. Walch and "ISW" (Salzburg 18/2 and 18/6), and two three-key clarinettes d'amour--low pitched clarinets with globular bells--by P. Paur (or R. Bauer, Vienna, Gesellschaft der Musikfreunde 130, and Technisches Museum). See Kurt Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum (Salzburg: Salzburger Museum Carolino Augusteum, 1973), p. 113; and Shackleton, "Clarinet," 1:393.

⁶¹Kroll, p. 19 note 2; Jeremy Montagu, The World of Baroque & Classical Musical Instruments (Woodstock, New York: The Overlook Press, 1979), p. 51, pl. 35. Also photographed in William H. Stubbins, The Art of Clarinetistry (Ann Arbor: Ann Arbor Publishers, 1965), pl. IV.

⁶²David Ross came to this conclusion after an examination of many eighteenth-century instruments, cf. Montagu, p. 51.

⁶³Cf. Rendall, p. 71.

known maker who constructed two-key clarinets made entirely of ivory (see Appendix 2). The mouthpieces of the Scherer clarinet and the reproduction for the lower joint marked Lindner are designed differently than Denner's. For example, the slots are smaller and a flat area called the table, was provided for the butt end of the reed to be placed upon. The Lindner reproduction mouthpiece has a particularly long table, extending to the ferrule of the socket, and is similar to the mouthpiece of an authentic three-key clarinet by J. W. Kenigsperger (Munich 110).⁶⁴ Another difference in design is that Denner clarinets are characterized by a somewhat wider bore--approximately equivalent to the modern $\underline{b}^b$ clarinet--and as wide a mouthpiece. Later in the century, instruments of $\underline{d}''$ pitch were built with a smaller bore favoring the higher part of the range, and with a very much narrower mouthpiece, a good example being a two-key clarinet in $\underline{d}''$ by Zencker (Nuremberg 424).⁶⁵

Pitch, Tuning and Pitch Designations

Two-key clarinets are recorded in museum catalogues as being constructed in $\underline{d}''$ and $\underline{c}''$, less often in $\underline{e}^{b''}$, $\underline{e}''$ and $\underline{g}''$. One exception is a two-key instrument by Jean Baptiste Willems in $\underline{b}^b$ (Brussels 2573, cf. Appendix 2). The three-key instruments are listed with a greater variety of pitches, i.e., $\underline{a}'$, $\underline{b}^b$, $\underline{c}''$, $\underline{d}''$, $\underline{f}''$, $\underline{g}''$ and $\underline{a}^{b''}$. In common with the two-key clarinet, the greater number of pitch designations are those in $\underline{d}''$ and $\underline{c}''$. The accuracy of pitch

⁶⁴See the photograph in Phillip T. Young's The Look of Music: rare musical instruments 1500-1900 (Vancouver: Vancouver Museums & Planetarium Association, 1980), p. 26, no. 100.

⁶⁵Shackleton, "Clarinet," 1:393.

designations given in museum catalogues, however, is often questionable, particularly if the instrument is not playable or was not tested with an electronic tuner.

During the eighteenth century, the pitch used for tuning the clarinet varied at different times and in various places. This diversity of tuning was not peculiar to the clarinet. The general situation was commented upon by the important German writer, Johann Joachim Quantz (1752):

The pitch regularly used for tuning an orchestra has always varied considerably according to the time and place. The disagreeable choir pitch prevailed in Germany for several centuries, as the old organs prove. Other instruments, such as violins, double basses, trombones, recorders, shawms, bombards, trumpets, clarinets, &c., were also made to conform to it. But after the French had transformed the German cross-pipe into the transverse flute, the shawm into the oboe, and the bombard into the bassoon, using their lower and more agreeable pitch, the high choir pitch began in Germany to be supplanted by the chamber pitch, as is demonstrated by some of the most famous new organs. At the present time the Venetian pitch is the highest; it is almost the same as our old choir pitch. The Roman pitch of about twenty years ago was low, and was equal to that of Paris. At present, however, the Parisian pitch is beginning almost to equal that of Venice.⁶⁶

⁶⁶Translation by Edward R. Reilly in Johann Joachim Quantz, On Playing the Flute (New York: Schirmer, 1966), p. 267, §6.

"Der Ton, in welchem die Orchester zu stimmen pflegen, ist nach Beschaffenheiten der Orte und Zeiten immer sehr verschieden gewesen. Der unangenehme Chorton hat einige Jahrhunderte in Deutschland geherrscht, welches die alten Orgeln sattem beweisen. Man hat auch die übrigen Instrumente, als: Violinen, Baßgeigen, Posaunen, Flöten a bec, Schallmeyern, Bombarten, Trompeten, Clarinetten, u.s.w. darnach eingerichtet. Nachdem aber die Franzosen, nach ihrem angenehmen tiefern Tone, die deutsche Querpfeife in die Flöte traversiere, die Schallmey in den Hoboe, und den Bombart in den Basson verwandelt hatten hat man in Deutschland auch angefangen, den hohen Chorton mit dem Kammertone zu verwechseln: wie auch nunmehr einige der berühmtesten neuen Orgeln beweisen. Der venezianische Ton ist ißiger Zeit eigentlich der höchste, und unserm alten Chortone fast ähnlich. Der römische

Quantz also states that the best tuning is the "so-called German A chamber pitch", because it is the mean between the French and Venetian, and convenient for both wind and string players.⁶⁷ Modern makers who construct reproductions of baroque clarinets, such as Hoeprich and Brian Ackerman of London, have found the original pitch level of several clarinets to be between A-415 and A-420.

Makers began indicating the pitch of their clarinets about 1750, by comparing the pitches produced in the upper register (the most frequently played register) to that of the oboe.⁶⁸ The sounding pitch of the instrument, when fingering the note $\underline{c}''$, was then marked on the instrument by the use of a single letter. For example, the clarinet pitched in $\underline{c}''$ was marked "C", the clarinet in $\underline{d}''$ marked "D", and the clarinet in $\underline{b}^b$ was "B" (the German for b-flat). This letter was carved on the upper section of the instrument just below the mouthpiece/socket, and occasionally on every section. An early and untypical example is the three-key clarinet by J. W. Kenigsperger (Munich 110) marked "G" on the upper section, just below the mouthpiece/socket.⁶⁹ This instrument is 51.8 cm in length with a bore diameter of 1.1 cm, and appears to be too short to be a low clarinet in g' , and too long to be a clarinet in

Ton war, vor etlichen und zwanzig Jahren, tief, und dem Pariser Ton dem venezianischen fast gleich zu machen".

Johann Joachim Quantz, Versuch einer Anweisung die Flöte traversiere zu spielen (Berlin, 1752; reprint ed., Leipzig: C. F. Kahnt, 1906), p. 184, §6.

⁶⁷Quantz, pp. 184-5; trans., Reilly, p. 268.

⁶⁸Cf. Anthony Baines, "Transposing Instruments," NGDMI, 3:617.

⁶⁹Visible in the photograph in Phillip T. Young, The Look of Music, p. 26, no. 100.

high g'' . A solution to this problem occurs in the treatise of the Italian writer, F. Antolini (1812), who stated that makers constructed clarinets in pitches determined by their fingerings for the notes c'' and f'' .⁷⁰ Based on this evidence, it then seems likely that Kenigsperger identified the pitch of this instrument by the fingering for f'' rather than the usual note c'' . The designation of "G" would therefore indicate that this instrument was tuned one whole-step higher than the clarinet in c'' , and was actually pitched in d'' (according to the present-day method of pitch designation). The length and bore of other d'' clarinets are also similar to those of this instrument, supporting this assumption which was suggested to me by Shackleton. A playing test, however, would be necessary to verify this hypothesis.

The J. C. (?) Denner clarinet

An unusual and controversial three-key clarinet (Berkeley 19) has recently been suggested to have been the work of Johann Christoph Denner.⁷¹ This instrument is incomplete, consisting of only a middle section and a lower stock/bell. The third key is mounted for use by the thumb, and double finger holes were bored for the third, fourth, sixth, and seventh hole positions, with the bottom set duplicated to allow for left or right-handed players (see plates 20 and 21).⁷² I have personally studied this instrument and can confirm the observations

⁷⁰Francesco Antolini, La retta maniera di scrivere per il clarinetto (Milan: C. Buccinelli, 1813), pp. 18-9 note 2.

⁷¹See T. Eric Hoeprich, "A Three-Key Clarinet by J. C. Denner," GSJ 34 (1981): 21-32.

⁷²These illustrations are from Hoeprich's article, pp. 22-3, figs. 1 and 2.

PLATE 20

N.B. The key is shown too wide in this drawing by approx. 2 mm.

FIG. 1: J. C. Denner clarinet, front view

A drawing of the front view of a three-key clarinet in d'' (Berkeley 19) attributed to J. C. Denner, from GSJ 34 (1981): 22.

PLATE 21

FIG. 2: J. C. Denner clarinet, rear view

A drawing of the rear view of a three-key clarinet in d' (Berkeley 12) attributed to J. C. Denner, from GSJ 34 (1981): 23.

given by T. E. Hoeprich in his article for the Galpin Society Journal (1981). The makers' mark on this clarinet is unfortunately illegible, only a scroll is visible with an initial "D" beneath. J. C. Denner's stamp usually consisted of "I C Denner" in a scroll sometimes with a "D" or a " $\frac{D}{I}$ " beneath the scroll.⁷³

Lawson and Young have expressed reservations about accepting the attribution of this clarinet to J. C. Denner, basing their arguments mainly on the identity of the maker of the bass recorders sold in 1720 to Göttweig abbey near Vienna.⁷⁴ These instruments bear the name "I C Denner" in a scroll with the subscript " $\frac{D}{I}$ ". Fitzpatrick suggested that Jacob Denner continued to use his father's stamp, on his own instruments after his father's death in 1707, the subscript being the initials of Jacob's name.⁷⁵ Van der Meer, however, rejected this hypothesis proposing rather that Jacob added his initials to instruments made by his father and bearing his father's stamp, and subsequently sold these instruments.⁷⁶

If one accepts the Berkeley clarinet as being made by J. C. Denner, then there can be no doubt, according to Hoeprich, that the third key was J. C. Denner's invention and not added at a later time.

⁷³See Nickel, Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg, pp. 255-6 and Langwill, An Index of Musical Wind-Instrument Makers, 6th ed., p. 217. A third mark of J. C. Denner's makes use of interlocking initials without a scroll.

⁷⁴Colin Lawson, "Chalumeau and clarinet" in "Observations," EM 8 (July 1980): 368; Young, Twenty-Five Hundred Historical Woodwind Instruments, pp. 23, 25.

⁷⁵Fitzpatrick, "Jacob Denner's Woodwinds for Göttweig Abbey," pp. 81, 85-6.

⁷⁶John Henry Van der Meer, "Some More Denner Guesses," GSJ 23 (1970): 118.

Indeed, the construction of the ring in which this key is mounted is not merely ornamental, but clearly an original part of the bell. Although the bell section is not stamped, its color, ornamental turnings, and key mounts are identical to those of the middle section. Hoeprich believes that it is unlikely that this bell was made by Jacob Denner because of its uneven profile, which is typical of earlier baroque instruments. The touchplate and round cover of the key on the bell (plate 20) is exactly the same shape as those found on a number of extant bass recorders by J. C. Denner. Furthermore, the extant instruments by Jacob Denner do not have two-piece, open keys with this shape.⁷⁷

The unusual number of double holes on the Berkeley instrument for the third, fourth, sixth and seventh hole positions is notable. Indeed, the use of double holes on the clarinet is more typical of the last third of the eighteenth century. Double holes are found, however, for the seventh hole positions on the J. C. Denner chalumeau (Munich 136), and for the third and fourth positions of several oboes by this maker.⁷⁸ Furthermore, a unique, ivory recorder by J. C. Denner, recently found, has double holes for the sixth and seventh hole positions, making it easier to accept the profusion of double holes found on the Berkeley clarinet.⁷⁹ Finally, a three-key instrument attributed to one of the Denners was mistakenly recorded in the catalogue of the Brussels conservatory instrument collection. Shackleton has recently shown that this instrument was not by one of the Denners, but is actually a

⁷⁷Hoeprich, pp. 24, 27.

⁷⁸See chapter one page 50 above.

⁷⁹Phillip T. Young, "Some Further Instruments by the Denners," G&J 35 (1982): 84.

composite three-key clarinet with its lower joint stamped "Lindner" (Brussels 913).⁸⁰ If accepted as authentic, the Berkeley clarinet is then the only extant clarinet by J. C. Denner, and probably the oldest existing clarinet.⁸¹

Several writers have previously mentioned clarinets made by J. C. Denner, some examples of which were probably mis-identified instruments by Jacob Denner, others cannot now be verified. For example, sixty-six instruments in the Germanisches Museum in Nuremberg were listed in an anonymous article in the Anzeiger für Kunde der Deutschen Vorzeit (1860), number fifty-nine being a "Clarinette von J. C. Denner" with a height of 1' 8" (50.8 cm).⁸² Today, one clarinet by Jacob Denner is found in this museum in Nuremberg (149). Van der Meer, however, recently stated that of eighteen instruments lent to this museum by the Lutheran church administration at Fürth, two clarinets were made either by Jacob or J. C. Denner. For an unknown reason, seventeen of these instruments including the clarinets, were returned to Fürth in 1932, and cannot be located today.⁸³ Four years earlier in 1928, F. Jahn mentioned "some well preserved examples of clarinets by J. C. Denner" in the Nuremberg museum, without providing further details.⁸⁴ In a later

⁸⁰Shackleton, "The 'Well Known Clarinet by Lindner'," pp. 137-9.

⁸¹Cf. T. Eric Hoeprich, "The L. C. [sic] Denner Clarinet at Berkeley," GSJ 37 (1984): 114.

⁸²"Die Sammlung musikalischer Instrumente im germanischen Museum," Anzeiger für Kunde der Deutschen Vorzeit, neue folge, 17 (1860): col. 46.

⁸³John Henry Van der Meer, "More About Denner," GSJ 36 (1983): 127.

⁸⁴Fritz Jahn, "Das Germanisches National-museum zu Nürnberg und seine Musikinstrumenten-Sammlung," Zeitschrift für Musikwissenschaft 10 (Oct. 1927-Sept. 1928): 108.

manuscript catalogue of this collection by Jahn, he listed three clarinets (149, 196, 197) as the work of the father Denner.⁸⁵ Two of these clarinets (196 and 197) were destroyed during World War II. They were attributed to Johann Christoph Denner by Van der Meer.⁸⁶ Nickel and Lawson believed that Jahn had confused father and son, since the only surviving clarinet (149) carries the stamp of Jacob.⁸⁷ Finally, a letter partially reproduced by Young, contains a reference to three clarinets made by J. C. Denner. These were owned by one Clarence A. Lyle of New York City and were stolen from his home in 1918.⁸⁸ While of course these reports suggest that several clarinets were made by J. C. Denner, they cannot be offered as proof. Some reports have been shown to be mistaken, and until further corroborating evidence is presented the extant instruments by the Denners are: one tenor chalumeau by Johann Christoph, three two-key clarinets by Jacob and the three-key clarinet attributed to J. C. Denner.

Keyless Clarinets

Some discussion seems appropriate here concerning the so-called "keyless" clarinets mentioned in three sources. The earliest concerns an engraving (dated c. 1720-30) of several woodwind instruments by the

⁸⁵Fritz Jahn "Alte Musikinstrumente im Germanischen Nationalmuseum Nürnberg. Beschreibender Katalog," (Nuremberg, n.d.), cited by Nickel, p. 211; 455 note 1262.

⁸⁶John Henry Van der Meer, "Denner Revisted," GSJ 21 (1968): 208.

⁸⁷Nickel, p. 211; Lawson, The Chalumeau in Eighteenth-Century Music, p. 6.

⁸⁸See Phillip T. Young, "Woodwind Instruments by the Denners of Nürnberg," GSJ 20 (1967): 15-6.

German artist, M. Engelbrecht (1684-1756).⁸⁹ In his commentary to a facsimile of this engraving, Sydney Beck stated that a keyless clarinet was pictured on a table among other instruments, next to a seated gentleman playing a recorder. After having examined the original engraving at the New York Public Library, I found that the touchplate of the a' key is visible, and that Engelbrecht was probably portraying a two-key instrument.⁹⁰ The next two sources concern instruments which have been reported in catalogues as being keyless. These reports, however, should be used with caution as many descriptions of instruments in catalogues have been shown to be erroneous. In the catalogue of the Stearns collection at Ann Arbor, Michigan, a keyless alto clarinet in f was described as being covered with leather on two of its four sections, having seven finger holes, and a length of 83 cm.⁹¹ The second source is the catalogue of the private collection of Natale Gallini. It includes a photograph of a keyless, eighteenth-century (?) soprano clarinet, described as a primitive clarinet 655 mm in length, its wood covered in leather.⁹² To positively confirm these descriptions first-hand study must be given these two instruments.

⁸⁹Martin Engelbrecht, "Flötten, Hautbois, Flachinett, Fagot, und Clarinette &c." from a series entitled, "Varii generis instrumenta musica". See Sydney Beck and Elizabeth E. Roth, Music in Prints (New York: The New York Public Library, 1965), nos. 30, 32.

⁹⁰In private correspondence David Ross suggested to me that an examination of this engraving would show that this instrument was indeed a two-key clarinet.

⁹¹Albert Stanley, Catalogue of the Stearns Collection of musical instruments, 2nd ed. (Ann Arbor: University of Michigan, 1921), p. 95, no. 628.

⁹²Mostra di antichi strumenti musicali della collezione N. Gallini (Milan: Villa Comunale (Ex Reale), 1953), p. 34, pl. XXVII, no. 148. Keyless clarinets have been made as non-functional art objects. For instance, a nineteenth-century clarinet made of faience is photographed

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CHAPTER III

PLAYING TECHNIQUES OF THE BAROQUE CLARINET

The Two-Key Clarinet

There are two main sources concerning the playing technique of the two-key clarinet--the German treatises by J. F. B. C. Major (1732, 2nd ed., 1741) and J. P. Cisei (1738, 2nd ed., 1792). They both include sections devoted to music theory, and provide elementary instruction or general comments regarding a variety of wind, keyboard and string instruments. These books are the earliest and most important published sources dealing with the baroque clarinet.

Range and Mouthpiece Placement

Major wrote a brief description of the instrument and included what is now the earliest known fingering chart and drawing of the two-key clarinet.¹ This fingering chart shows a separate fingering for each pitch by the use of filled-in dots, indicating which tone holes are to be covered and touchplates pressed (plate 25). Major's information concerning the clarinet (which is entirely on this page 39) is identical

¹ Though Friedrich Bernhard Cramer, in an advertisement for the firm of Sotheby's in London, see EM 7 (Jan. 1979): 151. A clarinet made of faience was part of the collection assembled during the nineteenth century by Savoye. See Collection de M. Savoye. Instruments de Musique. Ancienes, Rares et Curieux. Commissaire-Priseur, Me Paul Chevallier, Exposition 14-15 May 1882 ([Paris: n.p., 1882]), p. 14, no. 118.

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¹Joseph Friedrich Bernhard Caspar Majer, Museum Musicum Theoretico Practicum, Neu=eröffneter Theoretisch= und Practischer Music-Saal (Schwäb. Hall: G. M. Majer, 1732; reprint ed., Kassel: Bärenreiter, 1954), p. 39. This page is unchanged in the second edition, Neu=eröffneter Theoretisch=und Praktischer Music=Saal (Nuremberg: J. J. Cremer, 1741), p. 52.

with one exception to that found in J. G. Walther's Musikalisches Lexikon of the same year (see p. 71 above).² The exception is that Majer described the range of the clarinet as extending from "tenor f to a' and sometimes to c'", whereas Walther described the range as f to d' and did not provide a fingering chart.

The contents of Eisel's Musicus Autodidaktos are arranged according to a format of questions and answers, which either differ from or enlarge upon Majer's information.³ The range of the clarinet is given by Eisel in his third question, and a fingering chart from f to c', "although it is not impossible to play a fifth or sixth higher" [to g' or a'].⁴

Majer's illustration (plate 22) of the two-key clarinet is rather crudely drawn, but it does indicate a flared bell and a bulbous barrel typical of many instruments.⁵ The position of the mouthpiece shows that

²Heinz Becker noted in the "Nachwort" to the reprint edition of Majer's treatise, that the section on the clarinet was placed next to Majer's remarks on the trumpet, not on the basis of a similar playing technique, but because the clarinet sounded like a trumpet from a distance ("von ferne einer Trompete ziemlich ähnlich", Majer, p. 39). The Württembergische Landesbibliothek in Stuttgart owns a copy of this book with manuscript annotations in Majer's hand (on page 71). None of the annotations concern the clarinet. Cf. Thomas E. Warner, An Annotated Bibliography of Woodwind Instruction Books, 1600-1830 (Detroit: Information Coordinators, 1967), p. 15.

³[Joseph Philipp Eisel], Musicus Autodidaktos, oder der sich selbst informirende Musicus (Erfurt: J. M. Funcken, 1738), pp. 76-8. This chapter remained unchanged in the second edition, Der sich selbst informirende Musicus oder; Gründliche Anweisung zu der Vocal-und Instrumental-Music (Augsburg: J. J. Lotter, 1762), pp. 54-7.

⁴Eisel, p.76.

"Doch ist es manchen Virtuosen nichts unmögliches, eine 5te oder 6te höher zu blasen".

⁵Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," GSJ 37 (1984): 22.

PLATE 22

39

*Applicatio
auf das
Clarinet.*

S. 16.
Clarinetto, ist ein zu Anfang dieses Seculi von einem Nürnberger
erfundenes/ und einer langen Hautbois nicht ungleiches hölzernes Blas-
Instrument, ausser daß ein breites Mundstück daran befestiget ist; es klingt
dieses Instrument von ferne einer Trompete zimlich ähnlich/ und gehet von
dem Tenor f. bis zum 2. gestrichenen a. auch zuweilen ins 3. gestrichene c.

Das Daumen-Schloß.
Daumen-Loch.
Rechts-Loch.
Mittel-Finger
Gold-Finger.
Reis-Finger.
Mittel-Finger
Gold-Finger.
Klein-Finger.
Rechts-Hand

Systema Musicum samt den Noten.
f g gis a b h c cis d dis e f hs g a b h c cis d dis e f hs g gis a

The earliest fingering chart for the two-key clarinet in Joseph Friedrich Bernhard Caspar Majer's Museum Musicum (Schwäbisch Hall: G. M. Majer, 1732; reprint ed., Kassel: Bärenreiter, 1954), p. 39.

the reed would have to be placed toward the upper lip, contrary to the usual playing technique of today--placing the reed against the lower lip. This mouthpiece position, however, was probably not the only position used by players of the baroque clarinet. For example, Hoeprich noticed that a two-key clarinet by Scherer, in a private collection in the Netherlands, is stamped as usual on all joints except the mouthpiece, with the maker's name and the symbol of the lion, used by Scherer. In addition to the stamp, Scherer added the letter "T" on all joints, including the mouthpiece, probably as a way of marking this instrument as one of a pair of clarinets, the other of which, formerly in the same collection (now in the Rosenbaum collection), is identified by the letter "D". On the mouthpiece of the first clarinet the "T" appears on both the reed side and the side opposite, clearly indicating an option in mouthpiece position.⁶ Indeed, this conclusion is supported by a body of written evidence in treatises and clarinet tutors from the last half of the eighteenth and beginning of the nineteenth centuries, which while showing a preference for one mouthpiece position do not rule out the opposite (see pages 335-345 below). The musicologist, H. Becker, has suggested that the German terms denoting mouthpiece position, i.e., "über-" (upper-) and "untersichblasin" (lower-lip playing),⁷ be replaced by the more precise anatomical terms, maxillary (upper) and mandibular (lower).⁸ I have adopted these for this study.

⁶Cf. T. Eric Hoeprich, "Clarinet Reed Position in the 18th Century," EM 12 (Feb. 1984): 55 note 5.

⁷These German terms are initially found in Johann Georg Heinrich Backofen's tutor, Anweisung zur Klarinette nebst einer kurzen Abhandlung das Basset-Horn (Leipzig: Breitkopf und Härtel, [c. 1803]), p. 37.

⁸Heinz Becker, "Chalumeau" and "Klarinette" in Das Große Lexikon der Musik, eds. M. Honegger and G. Massenkeil, 8 vols. (Freiburg:

Hand Position and Fingerings

Eisel states that the hands are placed as on the oboe, with the left hand above, and the right below.⁹ Apparently, it has always been usual with woodwind instruments to place the right hand in the lower position, because the work of the lower hand is slightly more complex than that of the upper hand.¹⁰ Eisel's fingering chart is reproduced here from a copy in the Bibliothèque Nationale, which includes unique handwritten additions and an inaccurate drawing of the clarinet (plate 23).¹¹ His use of filled in circles arranged horizontally indicates which tone holes are to be covered and touchplates pressed.¹² Eisel also wrote out a separate description of each fingering from *f* to *c'''*, correcting errors which incidentally occur in his fingering chart for *f'* and *g#'''* (Eisel, pp. 76-8). In Plate 23 the handwritten scale placed

Herder, 1976-1980), 2:91; 4:357. A. W. Ligtoet applied the terms "subjacent" and "suprajacent reeds" to these mouthpiece positions. See A. W. Ligtoet, *Exotische en oude europese muziekinstrumenten / Exotic and ancient european musical instruments in the department of musical history of the municipal museum of the Hague* (The Hague: Nijgh & Van Ditmar, n.d.), p. 46.

⁹Eisel, p. 76.

"... das Clarinett wird wie ein Hautbois mit Ansehung der lincken Hand oben, und der Rechten unten tractiret".

¹⁰Eric Halfpenny and Niall O'Loughlin, "Fingering," *NGDMI* 1:758.

¹¹See Bruce Haynes' comments on this copy of Eisel's treatise in "Oboe Fingering Charts, 1695-1816," *GSJ* 31 (1978): 74.

¹²This arrangement had previously appeared in the fingering charts in D. Speer's treatise of 1697. It would seem that Eisel partially modelled his treatise after this one, since Speer also discussed his material by making use of questions and answers. See Daniel Speer, *Grund-richter Kurtz-Leicht- und Nöthiger jetz Wol-Vermehrter Unterricht der Musikalischer Kunst*, [2nd ed.] (Ulm: G. W. Kuhn, 1697); see also Speer's fingering chart for the cornett in Anthony C. Baines, "Cornett," *NGDMI*, 1:449 ill. 2.

vertically next to the fingerings is entitled, "Game de Clarinett", and excluded $c^\sharp$, and $g^\sharp$, but included four higher notes from d''' to g''' . Whoever drew the clarinet here appears to have confused it with the oboe. Its two keys are mounted in the same position as the oboe's $d^\sharp$ and c' keys on the lower section, and the finger holes for the upper hand are too widely spaced. The double-reed, however, seems to have been replaced by an attempt to depict a single-reed mouthpiece.¹³

All of the fingerings given in the charts by Majer and Eisel are compared in Table 1 below. Numbers are used to represent the tone holes which are covered by the fingers of the left and right hands (123 456 7). The letter S indicates the speaker key, A the a' key, and T the thumb. The reader will note the similarities for most notes in the low register, f to b^b . Surprisingly, in the second or overblown register, all of Majer's fingerings from b' to a'' are from one-half step to a minor third lower than Eisel's. The fingerings for Eisel's second register are equivalent to those normally utilized on all later types of eighteenth and nineteenth-century clarinets. Both Becker and Birsak described Majer's unusual fingerings as being due to individual playing practice as well as differences in instruments construction.¹⁴ Becker played the Jacob Denner two-key clarinet in Berlin (223) in order to compare these two charts, and concluded that Eisel's chart was more

¹³A considerably more accurate and detailed drawing of the oboe is found in this copy of Eisel's treatise, along with additional fingerings for high notes, see Haynes, p. 74.

¹⁴Heinz Becker, "Zur Geschichte der Klarinette im 18. Jahrhundert," *Mf* 8, no. 3 (1955): 281-2; Kurt Birsak, *Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum*, 1973), p. 120.

PLATE 23

Sign. C.

Die Figur des Clarinetts ist p. 78. anzuhessen.

Die zugemachten oder schwarzen Nullen zeigen die Bedeckung der Löcher an, die leeren oder offenen Nullen hergegen weisen, welche Löcher nicht gedeckt sondern offen bleiben müssen. Und so verhält sich bey allen nachfolgenden Schematibus.

Fingering chart for the two-key clarinet from [Johann Philipp Eisel], Musicus Autodidaktos (Erfurt: J. M. Funcken, 1738) no. 11 in a copy at the Bibliothèque Nationale, Paris. It includes handwritten additions possibly by Eisel (see below p. 109).

accurate.¹⁵ Birsak, however, played a two-key clarinet and three three-key clarinets from the Salzburg collection, and, by his carefully tabulated results, showed that both fingering charts were accurate for different instruments.¹⁶ Birsak's results are discussed in more detail below. Therefore, it appears that certain two-key clarinets did produce the notes given in the upper register by Majer, while other two-key instruments produced twelfths in the second register common to all later clarinets.

Two probable errors in Majer's chart are the inclusion of the a' key and the use of the thumb for f#' and g'.¹⁷ Majer omitted a fingering for g#', a note which might have been provided with the use of Eisel's fingering for g#' (S 2). A probable error in Eisel's chart is the inclusion of the speaker with the fingering for a'.¹⁸ Eisel omitted a fingering for g#, a note which possibly could have been provided with the use of Majer's fingering for g# (T 123 45 7). The lack of a fingering for b' in Eisel's chart, prompted Baines to suggest that, "the b' was made by squeezing the b^b'",¹⁹ i.e. tightening the lips. Evidence presented below, however, suggests that the b' was purposely omitted from this chart, since this note was probably not available on the clarinet for which this chart was written. The lack of a c#' might have been solved by covering half of the seventh finger hole. Half hole

¹⁵Becker, p. 281.

¹⁶Birsak, pp. 120-133.

¹⁷Cf. Birsak, p. 120.

¹⁸Cf. Birsak, p. 120.

¹⁹Anthony Baines, Woodwind Instruments and Their History, 3rd ed. (London: Faber and Faber, 1967), p. 298.

TABLE 1

THE FINGERINGS FOR THE TWO-KEY CLARINET OF
MAJER COMPARED WITH THOSE OF EISEL

<u>Majer</u>		<u>Eisel</u> ¹
<u>Pitches:</u>	<u>Fingerings:</u> ²	
<u>First register:</u>		
f	T 123 456 7	Omitted
g	T 123 456	ST 123 456 7
g [#]	T 123 45 7	Omitted
a	T 123 45	ST 123 456
b ^b	T 123 4 6	ST 123 45 7
b	T 123 56	T 123 4
c'	T 123	ST 123 4 5
c [#] '	T 12 4	ST 123 56
d'	T 12	ST 123
e'	T 1	ST 12 4
f'	T 2	ST 12
f [#] '	AT 12 (probably an error)	T 1 3
g'	AT 2 (probably an error)	2
g [#] '	Omitted	S 2
a'	A	SA 2 (probably an error)

¹Fingering which are not provided are the same as Majer's. Cf. a similar table in Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," GSJ 37 (1984): 36-7.

²T=thumb, A=a' key, S=speaker.

TABLE 1 (CONTINUED)

THE FINGERINGS FOR THE TWO-KEY CLARINET OF
MAJER COMPARED WITH THOSE OF EISEL

<u>Majer</u>	<u>Eisel</u>
b ^b SA	SA 2
<u>Second register:</u>	
b'	ST 123 456 7
c''	ST 123 456 7
c [#] ''	ST 123 45 7
d''	ST 123 45
d [#] ''	ST 123 4 6
e''	ST 123 56
f''	ST 123
f [#] ''	ST 12
g'	ST 1 3
g [#] ''	ST 1
a''	ST 2
b ^b ''	Omitted
b''	Omitted
c'''	Omitted

²⁰Cf. Birskak, p. 124. See [Jacques] Hotteterre, *Principes de la Flûte traversière* (Amsterdam: E. Roger [c. 1728]); reprint ed., Kassel: Bärenreiter, 1962), pp. 12-15 planche 1; Johann Joachim Quantz, *Vernünftiger Anweisung die Flûte traversière zu spielen*, 3rd ed. (Breslau: J. F. Korn, 1750; reprint ed., Kassel: Bärenreiter, 1963), p. 35.

²¹See Rice, "Clarinet Fingering Charts, 1732-1816," p. 23.

Birskak, pp. 122-3.

fingerings were surely known among the wind players who played the clarinet, since they are found in the fingering charts for the flute by Hotteterre (1707) and Quantz (1752).²⁰

The Three-Key Clarinet

Two sources which include material pertaining to the three-key clarinet have recently been discovered by the author.²¹ They include the only known fingering charts for the three-key clarinet as well as other unique historical evidence. Both of these sources were written after 1780 and testify to the continued use of this instrument, alongside the more advanced four and five-key clarinets. Their charts are, however, much less important and detailed than those found in Majer's and Eisel's treatises, whose charts served several early makers, according to Birsak, as models for tuning clarinets.²² The first three-key chart, is found in the treatise by L. N. Berg (1782), written in Norwegian, and entitled, Den første Prøve for Begyndere udi Instrumental-Kunsten [The first training for beginners in instrumental music]. Berg's book is similar in organization to the treatises by Majer and Eisel. He included a section devoted to music theory and discussed several string, keyboard and wind instruments. In his chapter on the clarinet, Berg actually described the five-key instruments (evidently the most popular instrument of the time) but provided as well

²⁰Cf. Birsak, p. 124. See [Jacques] Hotteterre, Principes de la flûte traversière (Amsterdam: E. Roger [c. 1728]); reprint ed., Kassel: Bärenreiter, 1982), pp. 12-15 planche 1; Johann Joachim Quantz, Versuch einer Anweisung die Flöte traversière zu spielen, 3rd ed. (Breslau: J. F. Korn, 1789; reprint ed., Kassel: Bärenreiter, 1953), p. 35.

²¹See Rice, "Clarinet Fingering Charts, 1732-1816," p. 23.

²²Birsak, pp. 132-3.

the only fingering chart (found so far) for the three-key clarinet with an e/b' key positioned for the left hand (plate 24).²³ He explained that this chart could served as a model for all types of clarinets, and recommended an inexpensive three-key clarinet for the beginner.²⁴ In this unique chart, Berg made use of numbers 1 through 7 to represent the fingers, with 0 being the thumb. The letter A is the a' key, and L the e/b' key operated by the left hand little finger. The vertical line above the 0 indicates the use of the speaker key. Berg's range is from e to e''', greater than the charts for the two-key clarinet, but he simplified it for beginners by excluding chromatic notes except for b-flats. His fingering for b^b' (AT 2) appears to be in error, it should include the speaker key rather than the thumb, as found in all later sources.

Berg's Instructions

The reader will note that Berg employed the sixth finger (ring finger of the right hand) on almost every fingering. This additional supporting finger is called a buttress finger or "Stutzfinger", and is found in tutors for the recorder, flute and oboe since the seventeenth

²³Lorents Nicolai Berg, Den første Prøve for Begyndere udi Instrumental-Kunsten (Kristiansand: A. Swane, 1782), pp. 48-52. See Albert R. Rice, "The Clarinet as Described by Lorents Nicolai Berg (1782)," JAMIS 5-6 (1979-1980): 42-53.

²⁴Berg appears to have been influenced by the treatise of J. D. Berlin (1744), the first music instruction book in Norway, since he praised (p. 59) Berlin's fingerings for the dulcian. See Johan Daniel Berlin, Musicaliske Elementer (Trondheim: The Author, 1744), and Hans Magne Græsvold, Lorents Nicolai Berg og hans lærbok 'Den første prøve for begyndere udi instrumental-kunsten'," Studia Musicologica Norvegica 2 (1976): 117.

PLATE 24

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De første Noder og Tall-Tabellen til Clarinetten.

Gentle.

e	f	g	a	b	h	c	d	e	f	g	a	b	h	c	d	e	f	g	a	b	h	c	d	e
Bass - Octav.							Second - Octav.							Discant - Octav.							5te Octav.			

Joye.

The earliest published fingering chart for the three-key clarinet, with an e/b' key positioned for the left little finger, from Lorents Nicolai Berg, Den første Prøve for Begyndere udi Instrumental-Kunsten (Kristiansand: A. Swane, 1782), p. 50 (in the private collection of Hans Rudolf Stalder, Zumikon, Switzerland).

century.²⁵ It is not surprising therefore that players of the baroque clarinet would have made use of this fingering technique too. The inclusion of a buttress finger by Berg improved the resonance and tuning of certain notes. Its use on the oboe, according to Halfpenny, was primarily for the purpose of eliminating unnecessary finger shifts and thus facilitating smoother playing.²⁶ Berg made the earliest known recommendation for the use of a mandibular mouthpiece position (i.e., positioning the reed toward the lower lip), stating that with its use a good tone should be produced, and that notes could be separated with the tongue.²⁷ There seems to be some relationship between the mandibular position and the need for a buttress finger since it is found in two nineteenth-century fingering charts by German authors who advocated this mouthpiece position.

Additional evidence concerning these playing techniques is found in a fine mezzotint (c. 1750-1760) by the Augsburg engraver, Johann Elias Ridinger, of a boy playing a clarinet in a pastoral setting (plate 25).²⁸ Ridinger's depiction of the clarinet shows a number of carefully

²⁵See John Hudgebutt, A Vade Mecum for the Lovers of Music (London: N. Thompson, 1679); [Jean-Pierre Freillon Poncein], La véritable manière d'apprendre à jouer en perfection du haut-bois, de la flûte et du flageolet (Paris: J. Collombat, 1700); and Haynes, pp. 81-90.

²⁶Eric Halfpenny, "The French Hautboy: A Technical Survey: Part II," GSJ 8 (1956): 51. Berg's experience as an oboist, noted in his chapter on the clarinet, is reflected in his predominant use of finger 6 (ring finger of the right hand) as a buttress finger in his chart for the oboe, on page 46 of his treatise.

²⁷Rice, "The Clarinet as Described by Lorents Nicolai Berg," p. 47.

²⁸Reproduced in European musical instruments on prints and drawings on microfiche. Print collection of the Music Department of the Haags Gemeentemuseum, The Hague, Netherlands. Répertoire International d'Iconographie Musicale (RidIM), fiche no. 42, inv. nr.

PLATE 25

"Le va son, l'homme s'abat le flûte en clair et nette
 "redit au l'homme s'abat le flûte en clair et nette
 "redit au l'homme s'abat le flûte en clair et nette
 "redit au l'homme s'abat le flûte en clair et nette

"Le va son, l'homme s'abat le flûte en clair et nette
 "redit au l'homme s'abat le flûte en clair et nette
 "redit au l'homme s'abat le flûte en clair et nette
 "redit au l'homme s'abat le flûte en clair et nette

Engraving of a boy playing a three-key clarinet (c. 1750-1760) by J. E. Ridinger, NL(DHgm).

drawn details, which imply that it was copied from an actual specimen. For instance, the a' key is clearly shown and a long cylindrical section below the lowest finger hole includes an appropriately placed boss for the lowest finger hole situated on the back of the instrument. A wooden peg for the unused little-finger hole is also evident, as well as a carefully drawn bell. The only questionable details are a somewhat truncated barrel and several over-sized tone holes.²⁹ Interestingly, it appears that the back of the mouthpiece is curved, suggesting that this is an early example of a player using the mandibular mouthpiece position in order to press the reed against the lower lip.³⁰ Furthermore, the position of the fingers suggests the use of a buttress finger (with finger six or the ring finger) to produce the notes e^b' (T 1 3 6) or f[#]' (1 3 6).

The "Gamut for the Clarionet"

The second chart for the three-key clarinet appears on the fly leaf of a copy of The Compleat Tutor for the German Flute (c. 1810).³¹ It is a single manuscript page entitled, "Gamut for the Clarionet", and has its fingerings and notes written out by hand (plate 26). The letters on this page, indicating the names of the notes and the location of the keys and fingers, appear to be printed. This is the only chart

819-zj. Photographed also in David Ross, "Ridinger's 'Youth Playing the Clarinet'," The Clarinet 7 (Fall 1979): 34; and Hoeprich, "Clarinet reed position in the 18th century," p. 48 ill. 1.

²⁹Ross, pp. 34-5.

³⁰Cf. Ross, p. 35 and Hoeprich, p. 53.

³¹Compleat Tutor for the German Flute (Dublin: J. Delaney, [c. 1810]). Reproduced on microfilm in the series, "Woodwind Instruction Books, 1600-1830: Music 3141: (Washington: Library of Congress, 1978); photographed in Rice, "Clarinet Fingering Charts, 1732-1816," pl. VI.

PLATE 26

For C (ST 123 8) is prohibi

Bb Key
Thumb hole
B. Key
Left hand
Right hand
Little finger

Gamut For The Clarinet

A fingering chart for the three-key clarinet, with an e/b' key positioned for the thumb of either hand, from an anonymous "Gamut for the Clarionet", bound as the fly leaf of The Compleat Tutor for the German Flute (Dublin: J. Delaney, c. 1810).

which suggests that it was meant for an instrument with an e/b' key positioned to be operated by the thumb. This being indicated by the written placement of that key below the a' key and above the left hand. The range ascends to f'''--one pitch higher than that given by Berg. Its range is more limited than Berg's range because all chromatic pitches including b^b' were omitted from this chart. The fingering given for f'' (ST 123 5) is probably erroneous since this fingering, on the majority of eighteenth and nineteenth-century clarinets, produces an f[#]''.³² A comparison of all of the fingerings in this chart and those given in Berg's treatise are listed in Table 2. We see that these fingerings are almost identical if we ignore the consistent use of finger six or the e/b' key (for d''' and e''') as a buttress finger in Berg's chart. In the lower register, these fingerings are similar to those of Majer and Eisel, and in the upper register to those of Eisel (cf. Table 1).

Birsak's Fingerings and Observations

Kurt Birsak's investigation of the baroque clarinet included playing two-key and three-key clarinets by G. Walch (Salzburg 18/1 and 18/2, both c. 1750). He noted the pitches and frequencies in herz on an electronic tuning device, using the fingerings from Majer and Eisel. It will be useful to paraphrase his findings here. The two-key instrument is essentially in tune with itself, except for the note f, which was too low in its tuning. Overblowing this note by using the register key produced a b', following Majer's fingering for this note. On Walch's three-key clarinet, Birsak found that the placement of tone holes for

³²Rice, *Ibid.*, p. 23.

TABLE 2

THE FINGERINGS OF THE THREE-KEY CLARINET OF BERG COMPARED
WITH THOSE OF THE "GAMUT FOR THE CLARINET"

Berg"Gamut for the Clarinet"¹

Pitches: Fingerings:²

First register:

e	T	123 456 7 B	ST 123 5 (probably an error)
f	T	123 456 7	ST 123
g	T	123 456	ST 12
a	T	123 45	
b ^b	T	123 4 6	Omitted
b	T	123 56	T 123 4
c'	T	123 6	T 123
d'	T	12 6	T 12
e'	T	1 6	T 1
f'	T	2 6	T 2
g'		2 6	Open
a'	A	2 6	A
b ^b ,	AT	2 6 (probably an error)	Omitted

Second register:

b' ST 123 456 7 B

¹Fingerings which are not provided are the same as Berg's.

²T=thumb, A=a' key, S=speaker, B=e/b' key.

TABLE 2 (CONTINUED)

THE FINGERINGS OF THE THREE-KEY CLARINET OF BERG COMPARED
WITH THOSE OF THE "GAMUT FOR THE CLARINET"

<u>Berg</u>	<u>"Gamut for the Clarinet"</u>
c'' ST 123 456 7	
d'' ST 123 456	
e'' ST 123 45	
f'' ST 123 4 6	ST 123 5 (probably an error)
g'' ST 123 6	ST 123
a'' ST 12 6	ST 12
b ^b ST 1 3 6	Omitted
c''' ST 2 6	ST 2
d''' ST 23 4 6 B	ST 23 4 6
e''' ST 23 B	ST 23
f''' ST 12	Omitted

³³ Birsak, pp. 124, 126.

³⁴ Birsak, pp. 128-9, Table VI, note 1a.

the two lowest notes, e and f is such, that they actually produce f and f[#]. When overblowing the lowest note, f he produced a b'. This result suggests that on this instrument the third key was added only in the interest of obtaining a b'. The b' of this clarinet, at 434 herz, tuned well with its a' below, but was low in pitch in relation to its c' at 450 herz. Birsak suggested as an explanation for this unusual tuning, that when Walch added the third key, Eisel's fingering was probably not known or the principles rejected.³³ He concluded that the tuning of both of these instruments was based on Majer's fingerings for the upper register.

Another three-key instrument--a clarinette d'amour in a^b stamped "ISW" (Salzburg 18/5)--revealed the same tuning in the low register as found with the three-key clarinet by Walch, f and f[#] for the usual e and f. This instrument, however, was tuned according to Eisel's fingerings in the second register and when overblown it did not produce b' with the third key in the upper register but c' instead. A third three-key instrument--a clarinette d'amour in a^b stamped "Ioseph/SW/Trifftern" (18/4)--followed Eisel's fingerings in the upper register producing a c' with the third key. But in the chalumeau register this key produced an e.³⁴ Obviously, the tuning of these instruments varied considerably following the fingerings of either Majer or Eisel in the upper register.

Birsak observed that the fingering on the oboe for c' is the same as Eisel's fingering for c' (ST 123 456 7). He suggested that the influence of oboists, who undoubtedly played the baroque clarinet, was responsible for this fingering for c' as well as for the greater range

³³Birsak, pp. 124, 128.

³⁴Birsak, pp. 128-9, Table VI, note 163.

TABLE 3

KURT BIRSAK'S FINGERING AND THE TUNING

OF A TWO-KEY CLARINET BY G. WALCH¹

<u>Pitch:</u>	<u>Fingerings:</u>	<u>Sounding pitch in herz:</u>
f	T 123 456 7	g [#] 434
g	T 123 456	a ^b 450
a	T 123 45	b ^b 450
b ^b	T 123 4 6	c' 432
b	T 123 4	c [#] ,
	T 123 56 7	c [#]
c'	T 123	d' 432
c [#] ,	T 123	d [#] ,
	T 12 456 7	d [#] ,
d'	T 12	e' 440
d [#] ,	T 12	e [#] ,
	T 1 3 456 7	e [#] ,
e'	T 1	f [#] ,
f'	T 2	g' 440
f [#] ,	123 4 6 7	g [#] ,
g'	Open	a' 440
g [#] ,	S 123 4 6 7	
a'	S	b ^b ,
b ^b ,	SA	c'' 448

¹Cf. Kurt Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum, p. 126, Tabelle IV.

TABLE 3 (CONTINUED)

KURT BIRSAK'S FINGERING AND THE TUNING
OF A TWO-KEY CLARINET BY G. WALCH

Pitch: Fingerings: Sounding pitch in herz:

Second register:

b'	ST 123 456 7	c ^{#''} 448
c''	ST 123 456 7	d''
c ^{#''}	ST 123 456	d ^{#''} 448
d''	ST 123 45 7	e'' 440
e ^b	ST 123 4 6 7	f'' 436
e''	ST 123 4 7	f ^{#''} 440
f''	ST 123 5 7	g'' 444
f ^{#''}	ST 123 (7)	g ^{#''} 436
g''	ST 12 4 6	a'' 440
g ^{#''}	ST 1 3 (7)	a ^{#''} 444
a''	ST 1 (7)	b'' 440
b ^{b''}	ST 2 (7)	c''' 436
b''	ST 1	c ^{#'''} 440
c'''	ST 23 456	d''' 440

encompassed by Eisel's fingerings. The sacrifice of the b' from Majer's chart provided a more extensive second register, and a fluent pattern of fingering similar to that of the oboe, characteristics suitable for the baroque concerto.³⁵ It should be noted that another player might obtain different results than Birsak playing the same instruments, mouthpieces and reeds. Nevertheless, Birsak's results appear to substantiate the accuracy of Majer's fingerings for some baroque clarinets.

Birsak also devised his own fingerings for the two-key clarinet by Walch, which differ in several particulars from the historical charts. They are, however, important in showing further possibilities for fingering that produce acceptable pitches on these baroque clarinets. For a comparison with the historical charts Birsak's fingerings are recorded in Table 3. In four fingerings, he covered half of a finger hole, noted by a slash through the number of the finger, i.e., 4. For instance, he fingered the note b' as ST 123 456 7 and for c'', covered half the seventh tone hole with the little finger, ST 123 456 7. He found that the pitch of the notes employing half-hole fingerings often had to be corrected by means of relaxing or tightening the embouchure.³⁶ As a result, Birsak provided alternate fingerings for three of these notes by adding more fingers of the right hand. He also employed the buttress finger using finger 7, the little finger of the right hand, as an optional addition (noted in parenthesis in Table 3). Birsak's fingerings in the first register (e to b') are similar to those in the historical charts. For example, his fingering for b', missing from

³⁵Birsak, pp. 128-9 note 164.

³⁶Birsak, p. 124.

Eisel's chart, is the same as Majer's fingering for c'' (ST 123 456 7). Thereafter, his fingerings do not resemble those of Majer or Eisel.

Other differences in tuning undoubtedly exist in baroque clarinets by different makers. For instance, reports were made by Sachs, Rendall, Kinsky, Zimmermann and Hochstrasser (see below, pp. 80, 82, 87) that two-key clarinets by Denner, Oberlender, Kelmer and an unmarked clarinet in Leipzig (1457) produced a b' with the use of the speaker (presumably these authors meant with the a' and speaker keys). If their reports are correct, then these instruments may have been tuned according to Eisel's model, assuming the first overblown note (ST 123 456 7) produced the note c''.³⁷ Recently, Hoeprich asserted that after playing about fifteen original two-key clarinets, representing instrument makers from four different countries, he found that they all produced a b', when all the tone holes and both the a' and speaker keys were open.³⁸

In conclusion, it appears that there were two basic types of two and three-key clarinet. Those following Majer's fingerings, produce b' as ST 123 456 7 and are identified here as type I. Those following Eisel's fingerings produce c'' as ST 123 456 7 and are identified as type II. The fingering for c'' is particularly important in determining, since makers are known to have used this note for tuning

³⁷Some confusion was also created by the descriptions of the fingerings for a', b^b' and b' on J. C. Denner's tenor chalumeau (Munich 136), which was described as a two-key clarinet in the well-known books by Rendall and Kroll. These pitches do not necessarily correspond to pitches produced on two-key clarinets. See Oskar Kroll, The Clarinet (New York: Taplinger, 1968), p. 17 and F. Geoffrey Rendall, The Clarinet, 3rd ed. (New York: W. W. Norton, 1971), p. 68.

³⁸T. Eric Hoeprich, "A Three-Key Clarinet by J. C. Denner," GSJ 34 (1981): 28. Hoeprich's own chart of fingerings for the Denner clarinet (pp. 31-2) includes the use of four half-hole fingerings (using double holes on this instrument) and Eisel's fingering for c''.

their instruments. This distinction between baroque clarinets is applied in the following chapter dealing with the baroque repertory, when it can be determined in particular musical works.

MUSIC FOR THE TWO- AND THREE-KEY CLARINET

Music including parts intended specifically for the two-key clarinet began to appear during the second decade of the eighteenth century. The majority of these parts exhibit a style of writing characterized by repeated notes, broken chord figures, a limited range, and restricted use of the low register. After about 1730 other characteristics which take on a greater importance, are a lyrical style of melodic writing including frequent leaps and a more frequent use of the low register. The following discussion of music for the baroque clarinet includes a few works which, though written after the cut-off date of 1760, can be seen, on stylistic grounds, to have been composed for the baroque clarinet.

The Early Books

The earliest known musical works calling for clarinets were published by the Frenchman, Estienne Roger in Amsterdam from about 1712 to 1715. They comprise an anonymous collection of six of ten volumes entitled, *Airs à Deux Chalumeaux, deux Flûtes, deux Clarinettes, ou deux Violons, deux Flûtes, deux Clarinettes, ou deux Violons*.

¹Dated by François Lesure to 1712, and attributed to Estienne Roger et Michel (Paris: Heugel, 1908), p. 10.

CHAPTER IV

MUSIC FOR THE TWO- AND THREE-KEY CLARINET

Music including parts intended specifically for the two-key clarinet began to appear during the second decade of the eighteenth century. The majority of these parts exhibit a style of writing characterized by repeated notes, broken chord figures, a limited range, and restricted use of the low register. After about 1730 other characteristics which take on a greater importance, are a lyrical style of melodic writing including frequent leaps and a more frequent use of the low register. The following discussion of music for the baroque clarinet includes a few works which, though written after our cut-off date of 1760, can be seen, on stylistic grounds, to have been conceived for the baroque clarinet.

The Early Duos

The earliest known musical works calling for clarinets were published by the Frenchman, Estienne Roger in Amsterdam from about 1712 to 1715. They comprise an anonymous collection of duos in two volumes entitled, Airs à Deux Chalumeaux, Deux Trompettes, deux Hauboïs, deux Violons, deux Flûtes, deux Clarinelles, ou Cors de Chasse.¹ Only a

¹Dated by François Lesure in Bibliographie des éditions musicales publiées par Estienne Roger et Michel-Charles Le Cène (Amsterdam 1696-1743) (Paris: Heugel, 1969), p. 84. Dr. Shackleton has informed me

second edition, published by Roger and M. C. Le Cène circa 1717 to 1722, is extant.² The name "clarinelles", in the title, is surely a printer's error since the catalogues of Roger (1716) and his successor Le Cène (1737),³ advertised these duos using the word "clarinette". Another book of duos, not known to be extant, was advertised in Roger's catalogue of 1716 (p. 310, no. 358) as the following: Airs à 2 Clarinettes ou deux Chalumeaux &c. Composées par Mr. Dreux. Walther, in 1732, identified the by then deceased flutist Jaques [sic] Philippe Dreux as both the composer of these Airs and the editor of three books of Fanfares pour deux Chalumeaux ou deux Trompettes (see above pp. 26).⁴

The anonymous Airs à . . . deux clarinettes of c. 1712-15 were published in two volumes, each having two part-books named "Dessus" and "Second Dessus" respectively. The first volume contains thirty-four airs, and the second, forty-four, numbered consecutively from 1 to 78.⁵ The music in both volumes requires a diatonic range of d' to b' omitting e', with an occasional g#', while the upper Dessus part includes one a in number 78. About two-fifths of these duos may be played using only notes from the harmonic series, and are therefore

that Roger did not mention the clarinet in an advertisement during 1706-8 (cf. Nicholas Shackleton, "Clarinet," NGDMI, 1: 399).

²See Thurston Dart, "The Earliest Collections of Clarinet Music," GSJ 4 (1951):40.

³Catalogue de Musique (Amsterdam: E. Roger, 1716), nos. 348-9, appended to [Denis Vairasse] Histoire des Sevarambes (Amsterdam: E. Roger, 1716), p. 310; Catalogue des livres de Musique (Amsterdam: M. C. Le Cène, 1737), p. 19, reprinted and appended to Lesure, *Ibid.*

⁴Johann Gottfried Walther, Musikalisches Lexicon (Leipzig: W. Deer, 1732; reprint ed., Kassel: Bärenreiter, 1953), p. 218.

⁵Dart, p. 40 and Colin Lawson, The Chalumeau in Eighteenth-Century Music (Ann Arbor: UMI Research Press, 1981), pp. 36, 188 note 16).

suitable for brass instruments.⁶ The last two numbers (77 and 78) in the second volume contain an unfigured bass part, using only the notes A and d, and according to Dart, was probably intended for the tympani.⁷ Lawson noted, in number 78, the wide range of the "premier dessus", a to a'', and the exclusive use of the notes of the D major arpeggio suggesting that this piece was written for a brass instrument.⁸ According to Lawson, alto chalumeaux pitched in Chorton, with their lowest note sounding d', could play all of these duets except number 78. Conventional soprano chalumeaux with a doubled seventh finger hole could also be used for all but three of these pieces.⁹ The inclusion of violins and flutes in the titles of these Airs, were probably added to secure a wider sale, since the music includes repeated notes and broken chord figures more typical of idiomatic brass writing.¹⁰ For example, the third duet (example 1) illustrates the trumpet-like character of many of these pieces, and a popular echo effect.¹¹ Although this music was not intended exclusively for the clarinet, some of its style characteristics are similar to those found in later music which is designated as being for this instrument alone. Two-key clarinets pitched in d'' (which are capable of fingering the note b') are best

⁶Lawson, p. 37. Cf. Guy Oldham, "Harmonics," NGDMI, 2:29 table 1.

⁷Dart, p. 40.

⁸Colin Lawson, "The Early Chalumeau Duets," GSJ 27 (1974): 127-8 and ex. 2.

⁹Lawson, The Chalumeau in Eighteenth-Century Music, p. 37.

¹⁰Lawson, *Ibid.*, p. 37.

¹¹Numbers 1, 2, 3, 24 and 60 of the Airs were published in the modern collection, Klarinetten Duette aus der Frühzeit des Instrumentes, ed. H. Becker (Wiesbaden: Breitkopf & Härtel, 1954), pp. 3-6.

EXAMPLE 1

The musical score consists of four systems, each with a treble and bass staff. The key signature is one sharp (F#) and the time signature is common time (C). The notation includes various rhythmic values, including eighth and sixteenth notes, and rests. The word "Echo" appears at the end of the second and fourth systems, indicating a specific musical technique or effect.

The third duet from Airs à deux Chalumeaux, deux Trompettes, deux Hauboys, deux Violons, deux Flûtes, deux Clarinelles, ou Cors de Chasse (Amsterdam: E. Roger, c. 1712-15), B(Bc).

suiting for the technical demands of these pieces, because they would require a minimum of awkward cross fingerings compared to those of non-transposing clarinets.

Vivaldi--Juditha Triumphans

Antonio Vivaldi, in his oratorio Juditha Triumphans (1716), included two "clareni" in the nineteenth piece, a chorus entitled, "Plena nectare".¹² One part is written for two instruments in unison in B-flat major, with a one-octave range of $\underline{b}^{b'}$ to $\underline{b}^{b''}$ (example 2). It might be thought that Vivaldi's use of the term "clareni" suggests that trumpets, not clarinets, were intended. Indeed, this part exhibits a trumpet-like character in its use of repeated notes and triadic figures, and is playable on a natural trumpet pitched in $\underline{b}^{b'}$.¹³ A part for the "tromba", however, is included by Vivaldi in the overture, and several scholars have associated the designation, "clareni" with other names used in reference to the clarinet by Vivaldi. For instance, Kolneder and Talbot cited the following: "clarinet(ti)" in the concertos RV 559 and 560, "claren(i)" in concerto RV 556, and "clarini" in the slow movement of RV 556. Furthermore, during the eighteenth century, German composers not Italians, used the term "clarino" to refer to the trumpet as well as to a specific register of the trumpet.¹⁴ For instance, in

¹²The autograph is in I(Tn), Collezione Foà 28. See the facsimile ed., entitled Juditha Triumphans Sacrum Militare Oratorium (Siena: Accademia Musicale Chigiana, 1948), pp. 115-8, and the modern edition, ed. A. Zedda (Milan: Ricordi, [1971]), pp. 184-91.

¹³Compare the range of pitches for the natural trumpet given by Philip Bate in The Trumpet and Trombone, 2nd ed. (New York: W. W. Norton, 1978), p. 113.

¹⁴Walter Kolneder, "Die Klarinette als Concertino=Instrument bei Vivaldi," Mf 4 (1951): 187; Kolneder, "Noch einmal: Vivaldi und die Klarinette," Mf 8 (1955): 209-10; Michael Talbot, Vivaldi (London: J.

EXAMPLE 2

The "clareni" part from the chorus, "Plena nectare", in Antonio Vivaldi's oratorio, Juditha Triumphans (1716, facsimile ed., Siena: Accademia Musicale Chigiana, 1948), pp. 115-118, I(Tn) Foà collection.

1713, the writer, J. Mattheson defined the trumpet as: ". . . die Trompete/Ital. Tromba oder Clarino . . .".¹⁵ On the other hand, a name similar to those used by Vivaldi, "clarone", was used by Buonanni in 1722 in reference to the two-key clarinet (see above pp. 69-70). Selfridge-Field also believes that these parts for the "clarenì" were meant for the clarinet. She mentioned Vivaldi's manifest interest in and access to novel instruments. He travelled extensively in the German-speaking domains, Holland, perhaps France, and much of Italy where he may have heard the clarinet. In addition, the Pietà audience regularly brought gift-bearing European nobility of many nationalities into its midst.¹⁶ If we are correct in assuming Vivaldi's clarenì were clarinets, then these parts are the earliest known instance of orchestral music for the clarinet. Two-key clarinets pitched in $\flat^b$, as suggested by Talbot,¹⁷ are well suited for the cross fingerings required in this work. Clarinets in $\underline{c}'$, however, could also have been used for these very restricted parts.

Interestingly, in Juditha, Vivaldi employed almost every instrument that was in use at the Pietà. The score calls for two recorders, two oboes, a soprano chalumeau, two clarinets, two trumpets

M. Dent & Sons, 1978), pp. 162-3. This interpretation is supported by a definition of "clarino" as a "klarinet" by the Dutch writer, Joos Verschuere Reynvaan in Muzikaal Konst-Woordenboek, 2 vols. (Middelburg: W. A. Keel and J. De Jongh, 1789), 1:150.

¹⁵Johann Mattheson, Das Neu=Eröffnete Orchestre (Hamburg: B. Schillers Wittwe, 1713), p. 265.

¹⁶Eleanor Selfridge-Field, "Vivaldi's esoteric instruments" in "Correspondence," EM 7 (Jan. 1979):139; Idem, Venetian Instrumental Music from Gabrieli to Vivaldi (New York: Praeger, 1975), pp. 256-7. For the view that these parts were meant for the trumpet see, Walter Lebermann, "Zur Besetzungsfrage der Concerti grossi von A. Vivaldi," Mf 7 (1954): 337-9.

¹⁷Talbot, p. 163.

with timpani, a mandolin, four theorboes (playing in two parts), an obbligato organ, five viola all'inglese and a viola d'amore in addition to strings and continuo. Some players probably doubled on more than one instrument, since for example, only one kind of woodwind instrument is heard at a time.¹⁸ Evidence presented in the next section shows that the baroque clarinet was often played by a musician whose main instrument was the flute, oboe, bassoon or French horn. The music for clarinet in Vivaldi's concertos is stylistically more advanced than the parts in Juditha, and therefore is discussed later in this chapter.

F. B. Conti

Francesco Bartolomeo Conti (1681-1732) became associate theorist at the Habsburg court in Vienna in April 1701. He was officially designated court composer in 1713, and continued to perform on the theorboe.¹⁹ Conti, like Vivaldi, wrote for the chalumeau in several cantatas,²⁰ and for "Clarinet in D" in at least one version of the comic opera, Don Chischiotte in Sierra Morena (1719).²¹ This opera was particularly popular and was given in Brunswick from February 1720 until 1738, and in Hamburg from 5 October 1722 until 1737.²²

¹⁸Talbot, p. 196.

¹⁹Hermine Williams, "Conti, Francesco Bartolomeo," Grove 6, 4:680.

²⁰See Lawson, The Chalumeau in Eighteenth-Century Music, pp. 62-3.

²¹The title page and beginning of the "Ouvertura Andante" is reproduced by Bernard Paumgartner in his article, "Conti," in MGG 2 (1952): cols. 1641-2. This version of the opera has not been available to me. A copy of Don Chischiotte in Sierra Morena in the Austrian National Library of Vienna (Sig. 17.207) does not include the clarinet.

²²A German text was provided for some of the arias in Brunswick by J. S. Müller and in Hamburg by Plochäü and Mattheson. See Alfred Loewenberg, Annals of Opera 1597-1940, 3rd ed. (Ototowa, New Jersey:

Telemann

Georg Philipp Telemann wrote for the chalumeau from 1718 and was one of the earliest composers to write for the clarinet, beginning in 1721. According to Lawson, the chalumeaux in Telemann's cantatas, oratorios, and serenatas are clearly regarded as desirable for their delicate tone colors, and were often reserved for poignant dramatic moments. In contrast, the clarinet assumed a less important position in Telemann's work.²³ Presented here is a listing of Telemann's works employing the clarinet. It includes the following information: the key and range of the parts, the tonality of the clarinets employed, and comments regarding the parts.²⁴ Items one, two and five contain autograph parts, three and four are written in a later hand.

Cantatas in the Stadt- und Universitätsbibliothek, Frankfurt am Main:

1) Mus. FF. Ms 1474 Telemann 743. Wer mich liebet, wird mein Wort halten (1721).²⁵ C major, c' to a'' for clarinet in d'' (the orchestral score is written in D Major). One part is marked, "Clarinetto et Corno da Caccia". Here the clarinet appears in one aria

Rowman and Littlefield, 1978), col. 140; Paumgartner, col 1641; Williams, p. 681; and Ernst Ludwig Gerber, Neues Historisch-Biographisches Lexikon der Tonkünstler (Leipzig, 1812; reprint ed., Graz: Akademische Druck-u. Verlagsanstalt, 1966), cols. 771-2.

²³Cf. Colin Lawson, "The baroque repertoire: Some observations for the tercentenary of Johann Christoph Graupner (1683-1760)," The Clarinet 11 (Fall 1983): 18.

²⁴While most of the comments are based on my own study of the music, in some cases I have adopted Lawson's observations as expressed in "Telemann and the Chalumeau," EM 9 (July 1981): 315-16, 318; and "The baroque repertoire: Some observations for the tercentenary of Johann Christoph Graupner (1683-1760)," p. 18.

²⁵The beginning of this aria in its full, autograph score was reproduced by Colin Lawson in "The Chalumeau, Independent voice or poor relations?" EM 7 (July 1979): 352.

and a "Corno da caccia ex f" in another aria, both instruments probably intended to be played by one musician. The writing is technically more demanding than that found in the anonymous Airs and Vivaldi's Juditha discussed above, including several leaps of as much as a ninth (example 3). Together with this larger range we find dynamic markings for forte and piano.

Two alternate clarinet parts for this cantata are extant. They appear to have been written at a later date, and introduce more elaborate figuration, such as the use of triplets to replace groups of eighth notes.

2) Mus. FF. Ms. 807 Telemann 76. Christus ist um unsrer Missetat willen (1721). C major, first clarinet, c'' to a''; second clarinet, c' to f'' for clarinets in d''. The first clarinet includes some thirty-second notes and trills on three different notes in the da capo aria (example 4). Both clarinets are often paired together in thirds or fifths. Alternate autograph parts for "Oboe I^{mo} obligato" and "Pro Organo" include the stipulation, "In Ermangelung der Clarinetten" (in the absence of clarinets). Thus, it appears that during the 1720s, the clarinet was not always available in Frankfurt.

3) Mus. FF. Ms. 1187 Telemann 456. Jesus wirst du bald erscheinen (first performed in 1719). B-flat major, f' to b^{b'} for clarinet in b^{b'}. One of the orchestral parts, marked "Cornettino vel Clarinetto", is in a different and probably a later hand than the autograph parts, though not identified in the catalogue by Carl Süss.²⁶

²⁶Katalog der kirchlichen Musikhandschriften des 17. und 18. Jahrhunderts in Frankfurt am Main, eds. C. Süss and P. Epstein (Frankfurt, 1926) cited in Lawson, The Chalumeau in Eighteenth-Century Music, p. 190 note 3; see Lawson, "Telemann and the Chalumeau," p. 316.

EXAMPLE 3

Clarinetto et Corno da caccia.

Aria di Solo *Aria Alto Solo* *Recitativo*

Clarinetto.

Preto. *p*

Corno da caccia ex F. *Capo* *Recitativo* *pia r.o.*

The "Clarinetto et Corno da Caccia" part from G. P. Telemann's cantata, Wer mich liebet, wird mein Wort halten (1721), D-brd(F).

EXAMPLE 4

Clarinetto. I.

Tutti *largo*

51 *Recitativo*

Adagio *largo*

The "Clarinetto 1" part from G. P. Telemann's cantata, Christus ist um unsrer Missetat willen (1721), D-brd(F).

The consistent employment of broken chord figures and repeated notes (example 5) seems to indicate that the "cornettino" was the intended instrument, the clarinet serving as an alternative instrument. A later, more developed eighteenth-century clarinet in $\text{b}^{\flat}$ was probably used here, although this part is playable but awkward in fingering on a two-key clarinet.

4) Mus. FF. Ms. 953 Telemann 222. Ein ungefärbt Gemüte (first performed in 1722). C Major, first clarinet, f' to f''' ; second clarinet, f' to $\text{b}^{\flat}$ for clarinet "ex F". These are additional parts in a later hand which double the horn parts. The use of pitches above c''' in a section marked "Aria", and the designation for clarinets in f'' is more commonly found in parts from the late eighteenth and early nineteenth centuries.

In the Staatsbibliothek Preussischer Kulturbesitz Musikabteilung, Berlin:

5) Autograph Telemann 28. Serenata, zum Convivio der HH Burgercapitains (1728). D major, e' to g'' for clarinet in d'' . After 1721, when Telemann resided in Hamburg, he was required to entertain the guests of the commandant of the city's militia, by writing a "Kapitänsmusik" consisting of an oratorio and a serenata.²⁷ In the bass solo with chorus, "Der höhe Schutzherr dieses Staats", the orchestra comprises a "tromba", "clarinetto", oboe 2 and strings.²⁸ The clarinet and trumpet parts are stylistically indistinguishable from each other and at times in the score even share the same stave. Indeed, the

²⁷Martin Ruhnke, "Georg Philipp Telemann," Grove 6, 18:650.

²⁸Part of the score of this aria is printed as an example by Lawson in "Telemann and the Chalumeau," p. 319 ex. 6 and "The baroque repertoire . . .," p. 19 ex. 1.

EXAMPLE 5

Handwritten musical score for *Cornettin o vi Clarinetto*. The score is written on 11 staves. The title is written at the top right. The first staff begins with a treble clef, a key signature of one sharp (F#), and a common time signature (C). The tempo marking *allegro* is written below the fifth staff. The score concludes with a double bar line and a repeat sign on the eleventh staff.

The "Cornettino vel Clarinetto" part from G. P. Telemann's cantata, Jesus wirst du bald erscheinen (1719), probably added by G. M. Telemann, circa 1776 to 1827.

clarinet seems here to have been a genuine substitute for an unavailable second trumpet rather than offering a subtle contrast of timbre; it must have been played by the first oboist.²⁹

Telemann wrote only for the clarinet in d' in his autograph parts (nos. 1, 2 and 5 above), and restricted the range of each part to the interval of a thirteenth. It is notable that the note b', missing on type II, two-key clarinets, was purposely avoided as well as the chalumeau notes below c'.³⁰ Furthermore, in respect to the range utilized, Telemann treated the clarinet as if it were identical to the oboe. It seems likely that the later clarinet parts in two cantatas (nos. 3 and 4 above) were added by Telemann's grandson, Georg Michael, who became Kantor at Riga in 1773 and undertook extensive revisions of the cantatas from 1776 to 1827.³¹

J. A. J. Faber

The lexicographer, F. J. Fétis, cited an early use of the clarinet by Jean-Adam-Joseph Faber, a priest of the church of Notre-Dame at Antwerp. Faber's mass, "pour l'Assomption", included five voice parts, and an orchestra of two violins, viola, two cellos, oboe, two flutes, clarinet, contrabass, harpsichord and organ, in a manuscript copy dated July 1726.³² F. A. Gevaert, in 1885, published the first twenty-one

²⁹Lawson, "The baroque repertoire . . .", p. 18.

³⁰The designations type I and II refer to the types of clarinets which were tuned according to the fingerings given by the writers Majer (1732) and Eisel (1738, see page 129 above).

³¹Richard Petzoldt, Georg Philipp Telemann, trans. H. Fitzpatrick (New York: Oxford University Press, 1974), p. 75; Ruhnke, 18:647.

³²François-Joseph Fétis, Biographie Universelle, 8 vols. (Paris: Didot Frères, Fils et Cie, 1860-1865), 3:173.

measures of a contralto solo, "Qui tollis peccata mundi" of an unidentified mass by Faber of 1720, which included the clarinet. Gevaert had received this excerpt and descriptive information from the musicologist, Léon-Phillippe-Marie Burbure de Wesembeek,³³ who is known today for cataloguing the archives at Antwerp.³⁴ It is not clear whether Gevaert's example comes from the mass, "pour l'Assomption" referred to by Fétis. The solo contralto in the "Qui tollis" is accompanied by two flutes, clarinet and harpsichord rather than organ (example 6). A two-key clarinet in c'' is appropriate for this part, which features the earliest known use of arpeggios in the chalumeau or low register descending to f , with a total range required of from f to $b^{b''}$. This part is technically more demanding than anything for the clarinet in Telemann's music, and includes a wide leap of two octaves and a third from f to a'' in the fourteenth measure. Referring to the mass, the "Qui tollis" of which was quoted by Gevaert, van der Linden called it, "Maria Assumpta", in his article concerning Antwerp for the encyclopedia, Die Musik in Geschichte und Gegenwart.³⁵ The manuscript of this mass was reported by the archivist of Antwerp cathedral to have been lost, according to Kroll.³⁶

³³François-Auguste Gevaert, Nouveau traité d'instrumentation (Paris: Lemoine & Fils, 1885), p. 177; trans. E. F. E. Suddard as A New Treatise on Instrumentation (Paris: Lemoine & Co., n.d.), pp. 117-8 ex. 264.

³⁴Marie-Thérèse Buysens, "Léon-Phillippe-Marie Burbure (de Wesembeek)," Grove 6, 3:458.

³⁵Charles van der Linden, "Antwerpen," MGG 1 (1949-1951): col. 556. His bibliography includes writings by Burbure which were not available to me.

³⁶Oskar Kroll, The Clarinet (New York: Taplinger, 1968), p. 46 note 1.

EXAMPLE 6

Flauti
traversi

Clarinetto

Cembalo
Senza organo

Alto solo.
Qui tol - lis pec - etc.

The contralto solo, "Qui tollis peccata mundi" from an unidentified Mass by Jean-Adam-Joseph Faber (1726?) printed in François-Auguste Gevaert, Nouveau traité d'instrumentation (Paris: Lemoine & Fils, 1885), p. 178, ex. 264.

Some composers at this time were acquainted with two different approaches to writing for the clarinet. For example, the sixth question concerning the clarinet in J. P. Eisel's Musicus Autodidaktos (1738) asks, what type of clef is used for the clarinet? Eisel replied that "one usually uses the G clef, in which case the instrument is treated in the clarino or trumpet style, yet sometimes the discant [soprano] and alto clefs are found, in which case the clarinet is handled as a chalumeau".³⁷ Although soprano or alto clefs are rarely found in parts for the baroque clarinet, Eisel's statement is substantiated by the style of writing in several works, e.g., Telemann's works, which treat the clarinet like a trumpet and the extended use of the chalumeau register in Faber's mass. These two approaches to writing may explain how the term "chalumeau" came to be applied later in the century, to the lowest register of the clarinet.³⁸

J. V. Rathgeber

The earliest known clarinet concertos were written by Johann Valentin Rathgeber (1672-1750), a Benedictine priest and choirmaster at Banz near Coburg in southern Germany. A popular composer of church music, Rathgeber published much of his music during his lifetime by the Augsburg firm of Lotter. From 1729 to 1738 Rathgeber left his post and travelled throughout Germany -- without permission from his abbot --

³⁷Johann Philipp Eisel, Musicus Autodidaktos (Erfurt: M. Juncken, 1738), p. 78.

"Was hat das Clarinett vor einen Clavem? Das gemeine und ordentliche Zeiten dieses Instruments ist insgemein der Clavis G, und so dann wird es auf Clarino-Art tractiret, doch kommt auch jezuweilen der Discant und Alt-Clavis, wenn man das Clarinett wie einen Chalumeaux handelt, vor".

³⁸Cf. Lawson, "the baroque repertoire . . .," p. 18.

where he gathered information about performance conditions and liturgical customs in the catholic areas of Germany. Although he was reinstated as choirmaster after his return to Banz, Rathgeber produced no more church music after 1738. His works include three collections of secular instrumental music.³⁹ The first of these was his opus six, published in 1728 at Augsburg by Lotter. It is entitled, Chelys Sonora Excitans Spiritum Musicorum Digitis, Auribus, Ac Animis (The sonorous lute stimulates the musical spirit of the fingers, hearing and soul).⁴⁰ The work is in the form of a complete set of partbooks which is held in the Zentralbibliothek at Zurich.⁴¹ It comprises twenty-four concertos divided into two parts. Rathgeber juxtaposes the instrumentation of strings in the first half, against winds and strings in the second. These works include both solo concertos and concerti grossi. The first six concertos are for violin solo (marked "principale"), two violins (a viola part is not included), organ and cello, each concerto being in a different key. The next six concertos of the first part are for two violins, organ and cello. Also, each is in a different key except numbers 11 and 12, which are both in G minor. The first six concertos of part two are for two violins, two "clarinis vel Lituus obligatis",

³⁹See Elizabeth Roche, "Rathgeber, Johann Valentin," Grove 6, 15:598.

⁴⁰"Chelys" is the Greek word for "tortoise", referring to the tortoise shell of the lyre, and in medieval and renaissance writings was used for the lyre. C. Simpson defined this word as the viol, which may imply by the similarity in title, that Rathgeber knew Christopher Simpson's Chelys minuritionum . . . / The Division Viol, 2nd ed. (London, 1665), 3rd ed. (London, 1712). See James W. McKinnon, "Lyre §2: Ancient Greece," NGDMI, 2:582; Idem, "Chelys," NGDMI, 1:348.

⁴¹The contents of this work have been incorrectly described in every source consulted by the author (including MGG and Grove 6) and are therefore given here.

organ and cello. In each of these concertos the clarino (trumpet) or lituo (identified variously as a cornetto, shawn, horn or low trumpet)⁴² is pitched in different tonalities. Of the final six concertos, the first two, numbers 19 and 20, are for two violins, "Clarinetto vel Lituo ex C obligato", organ and cello. Concerto number 21 is for violin solo, two violins, two "clarinis vel Lituus ex C pro libitu", organ and cello. Number 22 is for two violins, two clarinis (designated as in number 21), organ and cello. The final two concertos (23 and 24) are entitled, "Concerto pastorello", and are for two violins, two clarinis (as in the previous work), organ and cello.

Because of the proximity of Banz to Nuremberg where the Denners and Oberlenders worked (about 55 miles), it seems likely that Rathgeber would have known of the clarinet, and used it as a substitute for the clarino or lituo in concertos number 19 and 20. Each of these works were written in three movements: allegro, adagio (the clarinetto is silent), and allegro; and allegro, adagio (the clarinetto plays only a repeated $\underline{e'}$), presto. The ranges employed for the clarinet are $\underline{c'}$ to $\underline{a''}$ (concerto 19)⁴³ and $\underline{e'}$ to $\underline{c''''}$ (concerto 20). Both works include $\underline{f\#''}$. These parts are indistinguishable from those for the clarino in Rathgeber's concertos, and contain triadic themes and repeated notes as shown in the first movement of concerto 19 (example 7).⁴⁴ An indication

⁴²See Walther, Musikalisches Lexikon, p. 376; Curt Sachs, "Die Litui in Bachs Motette, 'O Jesu Christ', Bach Jahrbuch 18 (1921): 96-7; and James W. McKinnon, "Lituus," NGDMI, 2:533.

⁴³Edited for trumpet, violin or recorder by Erhard Nowak (Stuttgart: Carus, 1976). Nowak also suggests the possibility of performing this work on the soprano chalumeau, clarinet and horn in high $\underline{c}$.

⁴⁴Compare [Johann] Valentin Rathgeber, Concerto number XV, op. 6 for two clarini, ed. E. Hess (Basle: Kneusslin, 1968).

EXAMPLE 7

10.
 The image shows a page of musical notation for a concerto. At the top, there is a title in Spanish: "CLARINETO ycl. LITUO Solo. Ex C. Obligato." followed by "Allegro. 6/8 S." and "Concerto 19." The notation is written on a single staff with a treble clef and a key signature of one flat. The first movement is marked "Allegro. 6/8 S." and the second movement is marked "Adagio. 18". The notation includes various musical symbols such as notes, rests, and dynamic markings. The page number "10." is in the top left corner.

The "Clarineto vel Lituo" part by J. V. Rathgeber from Chelys Sonora Excitans Spiritum Musicorum Digitis, Auribus, Ac Animis (Augsburg: J. J. Lotter, 1728), concerto 19, movements one and two, p. 10, Ch(Zz).

that Rathgeber's conservative style of writing was a matter of choice is found in his preface to these concertos. Here he stated: "I decided to provide the easiest possible manner and method, and to that end appeal less to virtuoso skill and more to musical judgment".⁴⁵ His writing for the "clarineto" in these works is similar to that found in the clarinet part of Telemann's Wer mich liebet, wird mein Wort halten (1721, example 3) in its triadic style, lack of the note $\flat$, and the omission of all chalumeau notes below $\underline{c}'$. Rathgeber's concertos are also technically idiomatic for two key clarinets in $\underline{c}''$.⁴⁶

Vivaldi--Concertos

Two of Vivaldi's concertos (RV 559 and 560) which specify the "clarinet" are concerti grossi as were several of the works in Rathgeber's Chelys Sonora. In Vivaldi's concertos two clarinets are paired with two oboes, and a full complement of strings and basso continuo. The range of each clarinet in RV 559 is g to $\underline{c}'''$, in RV 560 the first clarinet is from g to $\underline{c}'''$, second, $\underline{f}$ to $\underline{c}'''$. Vivaldi is perhaps the earliest composer to purposely exploit the distinctive tone colors of the upper and lower registers of the clarinet. His writing for the upper register is similar to Rathgeber's in its trumpet-like

⁴⁵Rathgeber, Chelys Sonora . . ., from the preface entitled "Ad Philomusum" (To the music lover):

"Index docebit omnia; Modum & methodum facillimam subministrare cogitavi, ideò non tam artificio pro solis Virtuosis, quàm aurium judicio pro minùs habituatìs placere studui".

⁴⁶Hans Rudolph Stalder, first clarinetist of the Tonhalle orchestra of Zurich, performed both of these concertos in 1981, on a reproduction of a two-key clarinet by T. Eric Hoeprich. See Karl Ludwig Nicol, "Ein Gang durch die frühe Geschichte der Klarinette," Tibia 6, no. 3 (1981): 423-5.

character, as seen in the following passage from the first movement of RV 560 (example 8).⁴⁷

EXAMPLE 8

He also showed an awareness of the aptness of the chalumeau register for lugubrious effects, emphasized by a use of minor inflections in the same movement (example 9).⁴⁸ This difference in timbre between the upper and lower registers of the clarinet was subsequently noted by the German author, J. Adlung (1758) who stated:

Clarinet is well-known. In the low range it sounds differently than in the high range, therefore, one calls it [the range] chalumeau.⁴⁹

Interestingly, when writing in the chalumeau register, Vivaldi employed the bass clef, intending the notes to sound an octave higher (examples 10 and 11). During the second movement of RV 560 (marked Largo), the oboes are featured as a duet with string accompaniment, while the clarinets are silent. The second movement of RV 559 (Largo),

⁴⁷Several passages from these concertos copied from the autograph scores are illustrated by Walter Kolneder in "Die Klarinette als Concertino-Instrument bei Vivaldi," *Mf* 4 (1951):187-90; Idem, "Noch einmal: Vivaldi und die Klarinette," *Mf* 8 (1955): 210; and Idem, Aufführungspraxis bei Vivaldi (Leipzig: Breitkopf & Härtel, 1955), p. 109.

⁴⁸Michael Talbot, Vivaldi, p. 162.

⁴⁹Jacob Adlung, Anleitung zu der musikalischen Gelahrtheit (Erfurt: J. D. Jungnicol; reprint ed., Kassel: Bärenreiter, 1958), p. 588.

"Clarinet ist bekannt. In der Tiefe lautet es anders, als in der Höhe, und alsdenn nennt man es chalumeau".

EXAMPLE 9

RV 560, first movement (allegro), measures 40-43.

EXAMPLE 10

RV 560, first movement, measures 79-81.

two clarinets

two oboes

basso continuo

EXAMPLE 11

RV 559, second movement, measures 93-94.

two clarinets

two oboes

Musical examples from Antonio Vivaldi's Concertos RV 559 and 560.

however, is quite unusual in that the oboes and clarinets play alone in a lyrical dialogue (example 11).

Vivaldi's third concerto RV 556, written for the feast of Saint Laurence ("per la Solennità di San Lorenzo") combines aspects of the solo concerto with the concerto grosso. It has a dominant violin solo part, with a second "concertante" violin, and an extensive wind section of two recorders, two oboes, two clarinets ("claren"), and bassoon. The first clarinet utilizes a range of from $\underline{c}'$ to $\underline{d}'''$, one note higher than RV 559 and 560; the second clarinet part has a range of $\underline{g}$ to $\underline{c}'''$. In marked contrast to the outer movements, the second movement in its first version, was written for solo violin and a bass part played by five instruments. A note written at the beginning of the second movement in the autograph score to the left of the lower stave, and extending downwards, specifies these additional instruments: "Clarini solo, e / Arpeggio con / il Leuto / Un Violoncello / Un Viol: o piz / zicato / Tutti il Basso". Talbot surmised that the bass part was to be played by both clarinets ("clarini") and an additional violin, pizzicato, in the upper octave (normal when these instruments read from the bass clef) and one cello and an archlute, arpeggiando, at written pitch. Later, Vivaldi suppressed the clarinet parts, allotting their notes by means of cues to recorders, oboes or violins as appropriate in the outer movements. In the second version, Vivaldi reverted to the more conventional solo cello perhaps with continuo, to play the bass part.⁵⁰

Vivaldi carefully avoided all $\underline{b}'$ -naturals in the clarinet parts of each of his three concertos. Two apparent exceptions occur in RV 556

⁵⁰Michael Talbot, "Vivaldi's instrumentation" in "Correspondence," *EM* 7 (Oct. 1979):561. Talbot refers to folio 11v of the autograph at I(Tn), Giordano collezione 34.

and 559. In the first movement of RV 556, the note $\underline{b}'$ occurs once in measures 34, 139 and 142,⁵¹ each in an arpeggiated dominant seventh chord in G Major. Ephrikian notes, in the Ricordi edition, that in the last two appearances a $\underline{d}'$ was written in the manuscript. Thus, it is likely that the printed $\underline{b}'$ in measure 34 was also originally a $\underline{d}'$. In the Ricordi edition of RV 559, a $\underline{b}'$ is printed twice in measures 96 and 97 in both clarinet parts playing in unison.⁵² Kolneder, however, illustrated measure 9 of this movement (Ricordi's measure 97) from the autograph, where both parts were notated in the bass clef (example 12).

EXAMPLE 12

clarinets

oboes

He indicated that these parts were to be played an octave higher.⁵³ In this case, a transposition of two octaves is musically justified, in this and the previous measure, because of the high tessitura of the oboes and the written $\underline{D}$, requiring a two-octave transposition. Naturally, the performer of the two-key clarinet could avoid the troublesome $\underline{b}'$ by transposing the groups of notes concerned, noted in the bass clef, one octave higher. This conspicuous lack of the note $\underline{b}'$ in these concertos strongly suggests it to have been a result of a

⁵¹See Antonio Vivaldi, *Concerto in Do Maggiore*, Fanna XII, no. 14 (RV 556), ed. A. Ephrikian (Milan: Ricordi, 1949).

⁵²See Antonio Vivaldi, *Concerto in Do Maggiore*, Fanna XII, no. 2 (RV 559), ed. A. Ephrikian (Milan: Ricordi, 1947).

⁵³Kolneder, "Die Klarinette . . .," p. 190.

conscious effort by Vivaldi to take into consideration the lack of this note on many two-key clarinets in c'' . Kolneder dated these works between 1720 and 1740, while Karl Haas suggested 1726 to 1730.⁵⁴ Both estimates could be supported by the early use of the single-reed chalumeau (salmoé) at the Piéta from 1706,⁵⁵ and the payment for the repair of two clarinets at the Piéta on 13 March 1740.⁵⁶

F. Kölbel

A unique trio for "Clarinet, Cornu de Schass et Basso", by a German French horn player, Ferdinand Kölbel, is found in manuscript parts at Darmstadt.⁵⁷ There are four separate parts to the trio but no score. The first part, designated "Clarinet" is in the key of C, the second part, marked "Cornu" is also in C major. The last part is written in the bass clef without any designation or numbers to indicate a figured bass. There are two versions of the bass part--one is in D and the other in C. This bass part could have been played as a continuo line on a keyboard instrument, or on another wind or string instrument. It seems likely that Kölbel wrote the D major version of the bass part

⁵⁴Kolneder, "Die Klarinette . . .," p. 191; Karl Haas, "Haydn's English Military Marches" the preface to Joseph Haydn, Three Military Marches (London: Musica Rara, [c. 1960]), note 4. Another Italian composer, Nicoló Jommelli wrote for the "Clarinette" in his opera, Cajo Mario (1746). See Hermann Abert, who thought these parts were meant for the clarino in Niccolo [sic] Jommelli als Opernkomponist (Halle: M. Neimeyer, 1908), p. 201.

⁵⁵Michael Talbot, "Vivaldi e lo chalumeau," Rivista Italiana di Musicologia 15 (1980): 158-9.

⁵⁶Denis Arnold, "Instruments and Instrumental Teaching in the Early Italian Conservatories," GSJ 18 (1965): 78.

⁵⁷D-brd(DS), Mus. 1181. Cf. Alfred Berner's description of this work quoted by Herbert Kölbel in "Ferdinand Kölbel (ca. 1705-1778), der Erfinder des Klappenhorns," Das Musikinstrument 28 (May 1979): 806.

to accommodate the use of a woodwind instrument, such as bassoon, tuned a major second lower at Cammerton pitch.⁵⁸ This trio consists of three movements (marked allegro, adagio, allegro) that utilize a range of from $\underline{c'}$ to $\underline{g'''}'$ for the clarinet. Kölbel did not hesitate to use the highest part of this range, from $\underline{e'''}'$ to $\underline{g'''}'$, repeatedly in all three movements. His writing for the clarinet was based on triadic themes and mainly relies on scale passages, octave leaps and arpeggiated figures (example 13). This part strongly resembles Vivaldi's parts in the concertos in its scale passages and thematic material, as shown by a comparison of the beginning of Kölbel's first movement and a few measures from Vivaldi's concerto RV 560 (example 14). Kölbel's writing, however, calls for an even greater technical ability and employs a consistently higher tessitura, as shown in the third movement (example 15). This virtuoso writing and lack of chalumeau notes below $\underline{c'}$ as well as the note $\underline{b'}$, suggests that this part was meant for a type II two-key clarinet in $\underline{d''}$.

Not much is known of Kölbel's life. In about 1724, while he was employed by the Duke von Holstein, he went to St. Petersburg and remained to become a member of the court orchestra in 1729. In 1740, he presented an application at the court to build a keyed horn, "mit verschiedenen neuen Tönen". Kölbel travelled to Vienna in 1744, and sometime between 1741 and 1754 the Dutch ambassador to St. Petersburg took him to Constantinople with a number of other musicians.⁵⁹ By 1756, he returned to the Russian court where he remained for thirteen more

⁵⁸See Bruce Haynes, "Johann Sebastian Bach's Pitch Standards: The Woodwind Perspective," *JAMIS* 11 (1985): 64, 102-3.

⁵⁹Kölbel, p. 807.

EXAMPLE 13

Clarinet.

Clarinet part from Ferdinand Kölbels, Trio for "Clarinet, Cornu de Schass
et Basso", first movement, c. 1740-50, D-brd(DS).

EXAMPLE 14

clarinet

horn

bass

F. Kölbel, Trio, first movement, measures 1-4.

first clarinet

second clarinet

basso continuo

A. Vivaldi, Concerto RV 560, first movement, measures 46-49.

A comparison of the part writing in Kölbel's Trio and Vivaldi's Concerto RV 560.

EXAMPLE 15

Clarinet part from Ferdinand Kölbel, Trio for "Clarinete Cornu de Schass et Bass", third movement, c. 1740-50, D-brd(DS).

years in the orchestra.⁶⁰ About 1766, Kölbel made a successful debut with his keyed horn (which he called the Amorschall), playing with his son-in-law, Franz Hensel, in three trios for two horns and cello, in the remote keys (for a brass instrument) of C minor, F minor and E major. They also played two obligato horn parts in a concerto with other instruments.⁶¹ After this debut his invention is not heard of again.

The title page of Kölbel's trio is marked "a Wien". This suggests that the trio was written while he lived in Vienna, sometime between 1744 and 1756. Rau, in his study of chamber music written for the clarinet, suggested a date of composition of c. 1740 to 1750.⁶² In our earlier description of Telemann's Wer mich liebet, wird mein Wort halten (1721) we noted that the same musician played the clarinet and horn part, and called attention to the fact that instrumentalists at this time played more than one instrument. We may perhaps assume that Kölbel or his son-in-law Hensel, played the clarinet.⁶³

⁶⁰R. Aloys Mooser, Annales de la musique et des musiciens en Russie au XVIII^{me} siècle, 3 vols. ([Geneva]: Mont-Blanc, 1951), 1:228.

⁶¹Jacob von Stählin, "Nachrichten von der Musik in Rußland," in Johann Joseph Haigold [August Ludwig von Schlözer], Beylagen zum neueränderten Rußland (Riga: J. F. Hartknoch, 1769), part 2, pp. 175-8; 186-92; reprinted in [Johann Adam Hiller], Musikalische Nachrichten und Anmerkungen auf das Jahr 1770, 3rd part (Leipzig: Zeitungs-Expedition, 1770; reprint ed., Hildesheim: G. Olms, 1970), 4:221-2; 229-32. See Mooser, 2:38 note 1.

⁶²Ulrich Rau, "Die Kammermusik für Klarinette und Streichinstrument im Zeitalter der Wiener Klassik" (Ph.D. diss., Saarbrücken: Universitäts des Saarlandes, 1977), pp. 233-4.

⁶³A further association of musical idiom at this time, between the clarinet and horn is implied by an anonymous "Sonate a 2 Corno o Clarinetti" owned by the Dutch music collector, Nicolas Selhoff. See Catalogue d'une très belle bibliothèque de livres . . . (The Hague: A. Moetjens, 1759); reprinted in Catalogue of the music library, instruments and other property of Nicolas Selhoff, sold in the Hague, 1759 (Amsterdam: F. Knuf, 1973), p. 247, no. 2926. Not surprisingly,

Handel

Another early chamber work with clarinet is a trio in five movements, entitled "Ouverture" by George Frideric Handel. It calls for two clarinets and one horn. There are no individual parts but only a score written in D major, having a range of $\underline{c}^{\#}$ to $\underline{d}'''$ for the first clarinet and $\underline{a}$ to $\underline{d}'''$ for the second. According to Haas, the identification of the instruments ("Clarinet 1", "Clarinet 2, and "Corno di Caccio") was entered into the autograph music by Handel's friend, John Christopher Smith, Sr.⁶⁴ This trio was previously thought to be only the wind parts of an incomplete orchestral work. The musical evidence, however, shows that it is a complete work in its harmonic and structural content, and does not contain long sections of rests implying that other parts are missing.⁶⁵ The opening movement is clearly written in the French overture style leading into a lively Allegro ma non troppo movement, where imitative, fanfare-like entries abound (example 16). A lyrical Larghetto movement pairs the clarinets in thirds and sixths, with the horn in both supportive and imitative roles. Both clarinets alone are contrasted with sections for the horn by itself in the following movement, marked "Andante Allegro" (example 17). The final Allegro in 3/8 is quite brilliant, featuring rapidly moving eighths and sixteenth notes in every part (example 18).

Selhof also owned a copy of Rathgeber's Chelys Sonora (p. 256, no. 1293).

⁶⁴See George Frideric Handel, Ouverture (Suite), ed. K. Haas (London: Schott & Co., 1952), note, and see the reproduction of the beginning of the autograph.

⁶⁵Cf. Catalogue of the Music in the Fitzwilliam Museum, Cambridge, eds. J. A. Fuller-Maitland and A. H. Mann (Cambridge, 1893), and R. B. Chatwin, "Handel and the Clarinet," GSJ 3(1950): 6-8.

EXAMPLE 16

(Moderato)

Clarinet 1

Clarinet 2

Corno di Caccia

f

Allegro ma non troppo

30

mf

mf

mf

(tr)

(tr)

(tr)

The opening measures of the first and second movements from Handel's Trio for two clarinets and horn, c. 1748 (London: Schott & Co., 1952), pp. 1-2.

EXAMPLE 17

Andante Allegro

The musical score is written for three staves in a 4/4 time signature with a key signature of two sharps (F# and C#). The tempo is marked "Andante Allegro". The first system contains measures 1-3. In measure 1, the first two staves begin with a forte (*f*) dynamic. The third staff has a whole rest. In measure 2, the first two staves continue with eighth-note patterns, while the third staff has a whole rest. In measure 3, the first two staves continue, and the third staff has a whole rest. The second system contains measures 4-5. In measure 4, the first two staves have whole rests, and the third staff has a whole rest. In measure 5, the first two staves have whole rests, and the third staff has a whole rest. The dynamics *f* and *p* are indicated at the beginning and end of measures respectively.

Handel's Trio, fourth movement, measures 1-5 (London: Schott & Co., 1952), p. 6.

EXAMPLE 18

Allegro

⁶⁶Eric Halfpenny, "Handel and the Clarinet" in "Letters to the Editor," *The Musical Times* 93 (Dec. 1952): 487.

⁶⁷Chavira, p. 7.

⁶⁸Mass in his note to Handel, *Clarinet*, p. 10. Of example 18 to measures 17-19 in the opening sinfonia of Act 1 in Georg Friedrich Handel, *Solomon*, ed. F. S. Chandler (London: Breitkopf & Härtel, 1867; reprint ed., Ridgwood, New Jersey: Gregg, 1965), p. 204.

⁶⁹Victor Schnaicher, *The Life of Handel*, vol. 3, *Handel's Operas* (London: Victor Gollancz, 1911): 216; and David J. Birch, "Handel's 'Unaccompanied Clarinet' in *Handel-Maxwell*, 3 vols., ed. S. and N. Dixon (Oxford: Clarendon, 1976), 1: 236.

Handel, *Trio*, fifth movement, measures 1-8 (London: Schott & Co., 1952), p. 8.

The clarinet parts include several chromatic pitches, besides the f-sharps and c-sharps of the key signature, such as g^{#'}, d^{#''} and g^{#'''}. Because of the resulting complications in fingering and poor intonation of some pitches, Halfpenny assumed that two-key clarinets in d['] were used in order to play in C major.⁶⁶ Chatwin suggested that a three-key clarinet in c['] must also be considered as a possibility.⁶⁷ Indeed, on the basis of our working knowledge of clarinet fingerings, it is also apparent that these parts were playable on certain two-key clarinets in c['] and three-key clarinets in d['], both of which include a fingering for the note b[']. Haas dated this trio as c. 1748 to 1749, because the "Andante Allegro" movement contains some similar musical motives found in the "Entry of the Queen of Sheba" from the oratorio, Solomon (1748).⁶⁸ This date is supported by the apparent use of clarinets in the Granville copies of the aria, "Par che mi nasca in seno" in Handel's opera, Tamerlano (first performed in 1724).⁶⁹ According to Larsen, the copies made for the Granville collection of Handel's works were completed from about 1744 to 1745.⁷⁰

⁶⁶Eric Halfpenny, "Handel and the Clarinet" in "Letters to the Editor," The Musical Times 93 (Dec. 1952): 557.

⁶⁷Chatwin, p. 7

⁶⁸Haas in his note to Handel, Overture (Suite). Cf. example 16 to measures 17-19 in the opening Sinfonia of Act III in Georg Friedrich Händel, Solomon, ed. F. G. Chrysander (Leipzig: Breitkopf & Härtel, 1867; reprint ed., Ridgewood, New Jersey: Gregg Press, 1965), p. 208.

⁶⁹Cf. Victor Schoelcher, The Life of Handel, trans. J. Lowe (London: Trübner and Co., 1857), p. 405; R. A. Streatfield, "The Granville Collection of Handel Manuscripts," The Musical Antiquary 2 (July 1911): 216; and Bernd Baselt, "Thematisch-systematisches Verzeichnis" in Händel-Handbuch, 3 vols., ed. W. and M. Eisen (Kassel: Bärenreiter, 1978), 1: 238.

⁷⁰Jens Peter Larsen, Handel's Messiah, Origins, Compositions, Sources, 2nd ed. (New York: W. W. Norton, 1972), pp. 211-12.

J. M. Molter

A technically most advanced style of writing for the two-key clarinet in d'' is found in the six concertos by the Kapellmeister of Durlach, Johann Melchior Molter (1696-1765). Molter is noted for his adventurous writing for the timpani, trumpet (clarino) and horn, as well as his preference for new and unusual instruments like the clarinet, chalumeau, flauto d'amore, flauto cornetto and harp.⁷¹ Four of his clarinet concertos were published by Heinz Becker,⁷² another (MS. 332, Badische Landesbibliothek, Karlsruhe) was the subject of a D.M.A. dissertation,⁷³ and the last (MS. 328) was edited in another D.M.A. dissertation.⁷⁴ Scores (which include five parts) are preserved for all six concertos in Karlsruhe. Two of the published concertos (MSS. 302 and 304) include title pages which describe the instrumentation as: "Concerto, Clarinetto concertato, Violino primo, Violino secondo, Viola (or Violetta), Violoncello e Cembalo". Only the original cembalo part is extant in MS. 302, with additional oboe parts in a later hand. All the parts, however, are preserved in MS. 304 including two additional oboe parts. The two other published concertos (MSS. 334 and 337) include the designation "Clarinetto" to identify the highest part in their scores. The scores of the last two works (MSS. 328 and 332) are

⁷¹Klaus Häfner, "Molter, Johann Melchior," Grove 6, 12: 474.

⁷²"Klarinetten-Konzerte des 18. Jahrhunderts", ed. H. Becker in Das Erbe Deutscher Musik (Wiesbaden: Breitkopf & Härtel, 1957), vol. 41, pp. 1-52.

⁷³Edward Francis Lanning, "The clarinet as the intended solo instrument in Johann Melchior Molter's Concerto 34" (D.M.A. diss., University of Missouri at Kansas City, 1969).

⁷⁴Richard A. Shanley, "The fifth and sixth clarinet concertos by Johann Melchior Molter: A lecture recital together with three additional recitals" (D.M.A. diss., North Texas State University, 1976).

unmarked, but their highest parts are sufficiently similar in range and style of writing to the solo parts of the clarinet concertos to be identified as such.

All six concertos consistently employ a very high tessitura between $\underline{c}'''$ and $\underline{g}'''$, with notes below $\underline{c}''$ usually treated in a purely triadic manner. The technical demands include wide leaps of more than one octave, triplet sixteenth figures, thirty-second and sixty-fourth note flourishes, as well as a number of grace notes and trills (example 19). The music for the clarinet in these works, moreover, cannot be considered as appropriate for the clarino trumpet, but represent a mature style of writing for the two-key clarinet. Becker supported this view when he observed that these concertos employ a wider range and higher tessitura than a clarino concerto by Molter. He also noted that the clarino, in this work and in the two Brandenburg concertos by Bach, rest during the slow movements, but the clarinet in Molter's concertos plays in all the slow movements. In MS. 304, the clarinet begins with a long sustained tone that Becker has noted was used by several composers of clarinet music during the nineteenth century (example 20).⁷⁵ Lanning also found in three concertos for horn, three concertos for clarino, and one for horn and clarino that Molter used a range with the highest pitch being $\underline{d}'''$, and that $\underline{f}^{\#}''$ was the only chromatic pitch required.⁷⁶ Table 4 shows the range and chromatic pitches found in each of the clarinet concertos. It is evident that Molter's playing demands are quite high, considering the awkward fingering and the level of technique

⁷⁵Heinz Becker, "Zur Geschichte der Klarinette im 18. Jahrhundert," *Mf* 8 (1955): 287-8.

⁷⁶Lanning, pp. 7-9.

EXAMPLE 19

304 19. *Clarinetto concertato*

The image shows a handwritten musical score for the first movement of J. M. Molter's Concerto in A major, specifically the clarinet part. The score is written on ten staves, with the first staff in treble clef and the subsequent staves in bass clef. The music is written in a cursive, handwritten style, with various musical notations including notes, rests, and dynamic markings. The title 'Clarinetto concertato' is written in cursive above the staves. The number '304' is written in the top left corner, and '19.' is written above the first staff. The overall appearance is that of a manuscript or a working draft.

First movement of the clarinet part from J. M. Molter's Concerto in A major, D-brd(KA).

EXAMPLE 20

Second movement of the clarinet part from J. M. Molter's Concerto in A major, D-brd(KA).

TABLE 4

THE RANGE AND CHROMATIC PITCHES FOUND IN JOHANN MELCHIOR
MOLTER'S CLARINET CONCERTOS¹

MS. 302 (G major), c'-g'''

MS. 304 (A major), c''-g'''

MS. 328 (D major), g-f'''

MS. 332 (D major), d'-g'''

MS. 334 (D major), c''-f#'''

MS. 337 (D major), g'-g'''

Chromatic pitches:

MS. 302: d#''', f#''', g#''', b^b'', f#''''.

MS. 304: c#''', d#''', f#''', g#''', b^b'', c#''''.

MS. 328: d#''', f#''', b^b'', c#''', f#''''.

MS. 332:² b', c#''', d#''', f#''', g#''', b^b'', f#''''.

MS. 334: c#''', d#''', f#''', b^b'', c#''', f#''''.

MS. 337: c#''', d#''', e#''', f#''', g#''', c#''', f#''''.

¹Cf. the range and chromatic pitches given in E. F. Lanning, "The clarinet as the intended solo instrument in Johann Melchior Molter's concerto 34", p. 8.

²It is noteworthy that both g#'' and a^b' appear in this concerto.

required. The range of from g to f''' (in MS. 328) is the widest, and the use of seven chromatic pitches is the most extensive (in MSS. 332 and 337) of all of these works. An exceptional use of low g in the chalumeau register is found in the third movement of the unmarked concerto in D (MS. 328). Here, a sequence of eighth notes leads to a leap of g to c''' , or two octaves and a fourth (example 21). The use of the note b' in the first movement of the concerto in D (MS. 332) is unusual, since it is the only example of Molter's employment of this note for the clarinet (example 22).⁷⁷ Aside from this work the remainder of the concertos are appropriate for a type II two-key clarinet.

Becker believed that these concertos were written about 1745 during Molter's second Karlsruhe period as Kapellmeister for the court of Baden-Durlach (1742-1765).⁷⁸ In support of this dating, we note that the opening ritornello of Molter's concerto in A major (MS. 304, example 23) appears to be a transposed version of Johann Adolph Hasse's concerto in B minor for flute, published in London in 1741.⁷⁹ This is not surprising since many composers copied themes from others during this

⁷⁷This concerto was recently recorded with harpsichord accompaniment by Keith Puddy of London, on a two-key clarinet in d' by Brian Ackerman and Edward Planas (a copy of a clarinet by Zencker, Nuremberg 424) on a Capriole cassette (CAPT 1994, 1984).

⁷⁸Heinz Becker, "Klarinette," in Das Große Lexikon der Musik, 8 vols., ed. M. Honneger and G. Massenkeil (Freiburg: Herder, 1976), 4:357. Becker's arguments for this dating are discussed in chapter five, since they concern the activity of particular musicians at the Durlach court.

⁷⁹Compare example 23 to the opening measures of Hasse's flute concerto in "Instrumental Deutscher Meister", ed. A. Schering, Denkmäler Deutscher Tonkunst, 65 vols. (Leipzig: Breitkopf & Härtel, 1892-1931), 29-30 (1906; reprint ed., Wiesbaden: Breitkopf & Härtel, 1958), p. 33. The beginning of the second movement of Hasse's flute concerto also begins with a sustained tone as found in Molter's A major concerto.

EXAMPLE 21

Third movement from J. M. Molter's Concerto in D major (Ms. 328) showing wide leaps from g in the clarinet part (sixth line down), D-brd(KA).

EXAMPLE 22

First movement from J. M. Molter's Concerto in D (Ms. 332). Here, the note $\flat'$ is included in a sequence in the clarinet part (fifth line up), D-brd(KA).

EXAMPLE 23

Enc. 6

Clarinetto

304

The image shows a handwritten musical score for the beginning of J. M. Molter's Concerto in A major. The score is written on ten staves. The first three staves are labeled 'Clarinetto' and '304'. The notation is dense and includes various musical symbols such as clefs, notes, rests, and dynamic markings. The score is written in a cursive, handwritten style.

The beginning of J. M. Molter's Concerto in A major, D-brd(KA).

period, and Hasse was popular and widely published during his lifetime. Molter's concertos also exhibit characteristics of the gallant style (in his elegant treatment of themes), which he developed from his musical studies in Italy, and during his second Karlsruhe period.⁸⁰

Rameau

We have reason to believe that in France, the clarinet was initially used in Jean-Philippe Rameau's tragédie en musique, Zoroastre of 1749. Two clarinetists, Jean Schieffer and François Raiffer, are listed in a document from the archives of the Paris Opéra entitled, "Instruments Extraordinaires Employés à l'Opéra". They were paid a total of 168 Livres "pour avoir joué de la clarinette dans trois Répétitions et 25 Représentations de l'Opéra de Zoroastre, à raison de 6 Livres, chaque fois".⁸¹ However, neither the engraved score of Zoroastre of 1749, nor another score (in the Bibliothèque Nationale) dated 1756, contains parts for the clarinet. These missing parts imply that the musicians cited above also played another wind instrument in the orchestra such as the oboe, and played the clarinet when instructed to do so. Besides the string instruments, Rameau's orchestra for Zoroastre consisted of two flutes, two horns and two oboes.⁸²

⁸⁰Häfner, "Molter, Johann Melchior," 12:474.

⁸¹Etat de Payements qui seront faits à plusieurs sujets cy-après nommez, employez à l'Opéra, par extraordinaire, depuis le 29 aoust 1749, Arch. Opéra. A. 19. Emargements, 1749-1751; quoted by Lionel de La Laurencie in "Rameau et les clarinettes," Revue Musicale Mensuelle 9 (Feb. 1913): 27-8.

⁸²La Laurencie, p. 28. The orchestra for the performance in 1756 included 4 oboes, 2 flutes, 5 bassoons and 1 trumpet. See Durey de Noinville and Travenol, Histoire du théâtre de L'Opéra en France, Depuis Son Établissement jusqu'à présent, 2nd ed., 2 vols. (Paris: Duchesne, 1757), 2:141.

In 1859, the writer Adolphe Adam stated that Rameau had used clarinets in his opéra-ballet entitled, Temple de la Gloire of 1745, as an incidental part in the orchestra and in the overture as a curious and special instrument.⁸³ No other evidence, however, appears to support his statement. In an earlier book, Adam mentioned that the first use of the clarinet in the orchestra had been in Rameau's pastoral-héroïque, Acante et Céphise of 1751.⁸⁴ Indeed, Rameau skillfully made use of two clarinets in the overture and in acts two and three of Acante (also spelled Achante) et Céphise. For instance, in the "Fireworks" (Feu d'Artifice) section of the overture two clarinets in c'' are given parts which include trumpet-like triadic figures (example 24),⁸⁵ sixteenth note ornaments on a' and b' (example 25) and thirty-second note flourishes (example 26).⁸⁶ This movement requires a technical facility in playing the thirty-second note runs that is equivalent to some sections of the Molter concertos. A wide range from g to e''' is also required as well as trills from b' to c'', suggesting that three-key clarinets in c'' (with a fingered b'') were played.

In an orchestral and chorus number, "Annonce", of act two, clarinets and horns were notated on the same line. Since this number is written in D major, the clarinetists probably played d'' clarinets

⁸³Adolphe Adam, Derniers Souvenirs d'un Musicien (Paris: M. Lévy Frères, 1859), p. 181.

⁸⁴Idem, Souvenirs d'un Musicien (Paris: M. Lévy Frères, 1857), p. 71.

⁸⁵This page was re-engraved and illustrated in Gabriel Pierné and Henry Wollett, "Histoire de l'orchestration" in Encyclopédie de la Musique et Dictionnaire du Conservatoire, 11 vols. ed. L. de La Laurencie (Paris: Delegrave, 1913-1931), part 2, 4 (1931): 2233-4.

⁸⁶[Jean-Philippe] Rameau, Acante et Céphise ou La Sympathie (Paris: L'Auteur, [1751]).

EXAMPLE 24

2 *Feu d'Artifice.*
 Flutes.
 1^{re} Viol.
 2^e Viol.
 Clarinettes.
 1^{er} Cor.
 2^e Cor.
 Parties
 1^{re} Tromp.
 2^e Tromp.
 Cornes 1^{re}
 Basses.

Triadic figures in the clarinet parts from the "Fireworks" (*Feu d'Artifice*) section of the Overture to J. P. Rameau's *Acante et Céphise* (Paris: L'Auteur, 1751), p. 2; US(AA).

EXAMPLE 25

4

Tous *Seul* *Vous*

pre

2^e

Sixteenth note ornamental figures in the clarinet parts from the Overture to J. P. Rameau's Acante et Céphise (Paris: L'Auteur, 1751), p. 4; US(AA).

EXAMPLE 26

Thirty-second note flourishes in the clarinet parts from the Overture to J. P. Rameau's Acante et Céphise (Paris: L'Auteur, 1751), p. 9; US(AA).

transposing the parts into C major. In the next section called "Entrée", the clarinets are given a lyrical solo line with the accompaniment of two horns, strings and basso continuo (examples 27a-b). At this point in the score and the clarinets parts, the music has been transposed for the player, in a similar manner to present-day notation. However, in this example in D major, for clarinets in a'', two clefs are notated, a treble clef in F major, followed by a soprano clef in D major. The first clef indicated what the player reads, whereas the second clef indicated what is actually heard. According to Pierre, Rameau began this French practice of indicating the tonality of clarinets for the convenience of the player by the use of an additional soprano or alto clef.⁸⁷ Following the "Entrée" section is a "Première Rigaudon" or dance movement scored simply for two clarinets in a' and two horns in d. This quartet is a striking and rich blend of tone colors that was to become a popular, and frequently used combination later in the century (examples 27b-c). The contrast with the string tone of the "Second Rigaudon" is especially effective. The following section, "Un Chasseur" (a hunter), is a bass aria, "L'Amour est heureux", that makes use of canonic entrances with a combination of clarinets in d'' and horns in d as an accompaniment (example 28). Here, an alto clef indicates the transposition for the clarinets and a

⁸⁷Constant Pierre, La Facture Instrumentale à l'Exposition Universelle de 1889 (Paris: Librairie de l'Art Indépendant, 1890), pp. 214-15. See Nina Stern, "Rameau's Acante et Céphise: The Clarinet in France in the Middle of the Eighteenth Century" (Diplomarbeit, Schola Cantorum Basiliensis, 1893), pp. 13-14. The theorist, Francoeur, confirmed Rameau's practice by giving musical examples transposed into easily played tonalities for six clarinets of different pitches, and wrote a second clef immediately to the left of the clarinet parts to indicate the required transposition. See [Louis-Joseph] Francoeur, Diapason général de tous les instruments à vent (Paris: Des Lauriers, [1772]; reprint ed., Geneva: Minkoff, 1972), pp. 25-9, 32-3.

EXAMPLE 27a

3^o Acte 2^e

Chantons, ff: deux amans confians, chantons des flames si belles, chantons des flames si bel..les.

Chantons deux amans confians, Chantons, / des flames si bel..les Chantons des flames si bel..les.

avec Cors et Clar.

Pro Clarinette

Entrée ardante

1^{er} Cors

2^e Cors

1^{re} Viol.

2^e Viol.

Basses d.

Clarinets in a' are given a lyrical solo in the "Entrée" or entrance section in act two of J. P. Rameau's Acante et Céphise (Paris: L'Auteur, 1751), p. 80; US(AA).

EXAMPLE 27b

Achante et Céphise

8x

Pr. Clar.
2e Clar.
Pr. Cors.

The second half of the "Entrée" or entrance section and the beginning of the "Rigaudon" for two clarinets in *a'* and two horns in *d* in act two of J. P. Rameau's *Acante et Céphise* (Paris: L'Auteur, 1751), p. 81; US(AA).

EXAMPLE 27c

82

Acte 2^e

Rep.

Rep.

PP Viol. a. doni.

2^e Rigaudon.

2^e Viol. a. doni.

Basso a. doni.

On reprend le p.^r Rigaudon.

The first "Rigaudon" for two clarinets and two horns followed by a second "Rigaudon" for strings, then repeated back to the first "Rigaudon", from J. P. Rameau's Acante et Cephise (Paris: L'Auteur, 1751), p. 82; US(AA).

EXAMPLE 28

Un Chasseur: *Achante et Céphise* 83

L'Amour est heureux par lui-même, Sa chère... n'est son plus cher trésor. L'a-

1^{re} Clarinette

2^e Clar.

1^{re} Cor

2^e Cor.

Fin.

Fin. 1^{re}

Fin. 2^e

The section called "Un Chasseur" (a hunter) with two clarinets in d'' , two horns in d and basso continuo accompanying a bass singer in the aria, "L'Amour est heureux", from act two of J. P. Rameau's *Acante et Céphise* (Paris: L'Auteur, 1751), p. 83; US(AA).

supporting basso continuo is notated in the solo bass part. This aria was praised in the Mercure de France after the first performance of Acante et Céphise on 19 November 1751: "On à extrêmement goûté . . . dans la fête des chasseurs, les airs joués par les clarinettes".⁸⁸ The entr'-acte between acts two and three includes another quartet for clarinets in a' and horns in d, this time in a harmonically and rhythmically simple style (example 29).⁸⁹ In act three (pp. 131-2 of the score), the instrumentation is altered to achieve a new blend of tone colors. Two clarinets in d' are paired with violins doubled by oboes with a supporting bass line, in a fanfare-like "Contre=Danse". The choir is added to this instrumentation in the next section of the work.

Some scholars had previously thought that Rameau's parts for "Clarinettes" were meant for the clarino or high trumpet. For instance, the German writer, Mennicke pointed to the fanfare-like style of the "Feu d'Artifice" and stated that the "clarinettes" parts could all be performed on a natural trumpet.⁹⁰ The remaining sections of the overture, however, prove that a natural trumpet could not have been intended because of the use of thirty-second notes beginning on a and g (example 26), which include many notes not playable on that instrument.

⁸⁸Mercure de France (Décembre 1751): 2:178, quoted by Michel Brenet [pseud. Marie Bobillier], Les Concerts en France sous l'Ancien Régime (Paris: Fischbacher, 1900), pp. 224-5; Idem, "Rameau, Gossec et les clarinettes," Le Guide Musical 49 (1 March 1903): 184.

⁸⁹This quartet is transcribed to sounding pitch by Masson, pp. 524-5. See also Nina Stern, "Il clarinetto in Francia nella seconda metà del Settecento," Il Flauto Dolce 10-11 (Jan.-June 1984): 29-31; Idem, "The Clarinet in the Eighteenth Century: Rameau and his contemporaries," The American Recorder 26 (May 1985): 71-3.

⁹⁰Carl Mennicke, Hasse und die Brüder Graun als Symphoniker (Leipzig: Breitkopf & Härtel, 1906), pp. 278-9.

EXAMPLE 29

92 *Entr'Acte* Acte 2^e

Int. 1^{re} Clarinette

2^e Clar.

P^r Cors.

2^e Cors.

Petite Reprise

Petite Reprise.

The "Entr'Acte" for clarinets in a' and horns in d between acts two and three of Acante et Céphise (Paris: L'Auteur, 1751), p. 92; US(AA).

Furthermore, the lyrical nature of the "clarinette" parts in the "Entrée of act two (examples 271-b) and elsewhere in Acante, show that they were meant for the clarinet and not the natural trumpet. The biographer of F. J. Gossec, Hellouin, assumed that the designation, "clarinettes" in Acante was equivalent to "clarini".⁹¹ Brenet, however, argued against Hellouin's identification, by citing the following note in Rameau's hand at the end of the second "Rigaudon" in the second act of Acante (example 27c): "We repeat the first rigaudon after the second, but then very softly, since the clarinets play at the same time".⁹² Surely this necessity for reduced volume would not have been required of a trumpet. Based on this document and the musical evidence, Brenet concluded that clarinets were intended in Acante et Céphise.⁹³

⁹¹Frédéric Hellouin, Gossec et la musique française à la fin du XVIII^e siècle (Paris: Charles, 1903), p. 129 note 1. L. Stollbrock assumed that Johann Georg von Reutter referred to the clarinet when he specified two clarini as well as two trombe in his opera, La Speranza Assicurata (1736). This assumption does not appear to be supported by any other evidence. Furthermore, an important school of clarino playing was cultivated in Vienna, where Reutter's opera was performed, during the eighteenth century. Cf. L. Stollbrock, "Leben und Wirken des k.k. Hofkapellmeister und Hofkompositors Johann Georg Reutter jun.," Vierteljahrsschrift für Musikwissenschaft 8 (1892): 296-7; and Edward H. Tarr, "Trumpet," NGDMI, 3: 647.

⁹²Quoted by Brenet in "Rameau, Gossec et les clarinettes," p. 185.

"On reprend ce premier rigaudon après le deuxième, mais pour lors très doux, parce que les clarinettes le jouent en même tems".

Brenet cited the authority of the musicologist, Charles Malherbe in identifying Rameau's handwriting.

⁹³The only other use of the clarinet by Rameau is found in his tragédie lyrique, Les Boréades (1764). In an autograph score the overture includes the indication, "clarinettes ou hautbois", and "hautbois et clarinettes", but separate parts are not found so it seems that clarinets were used *ad libitum*. On page five of the score a note reads: "S'il y des clarinettes elles jouent les parties des viol. et les Bassons celles des Basses, qu'il faut d'un nian moins copier partons". See Jean-Philippe Rameau, Les Boréades (1764) Tragédie

d'Herbain and Garsault

The Chevalier d'Herbain included clarinets in his ballet Céline produced at the Opéra on 28 September 1756. These clarinets are often paired with horns. At one point in the manuscript score parts are found for clarinets pitched in f'', these identical parts were transposed in the engraved score a minor third lower for "clarinettes en ré". Later in the manuscript score (p. 72) we find an ariette accompanied by clarinets in e^{b''}.⁹⁴ An interesting description in a French encyclopedia of 1761 appears to verify d'Herbain's use of these high-pitched clarinets.

F. A. P. de Garsault included an extensive section concerning music in his encyclopedia entitled, Notionnaire, ou mémorial raisonné.⁹⁵ He described forty instruments dividing them into eight categories according to their different usages. The clarinet is listed among the "Instruments de Guerre & de Chasse", as "à vent & embouchure de Chalumeau. Le Clarinet ou Haut-boit de forêts, joue avec les Cors de Chasse dans les Concerts".⁹⁶ Garsault provides the following description of the clarinet with a plate of both the clarinet and "Trompe ou Cors de Chasse" (plate 27):

Lyrique, Fac-similé de la Partition Originale (Paris: Stil, 1982), pp. 1-3,5.

⁹⁴Céline, ballet en un acte représenté royale de musique le 28 Sept. 1756 (Paris: Aux adresses ordinaires), at F(Po) and F(Pc). See Georges Cucuel, Études sur un orchestre au XVIII^e siècle (Paris: Fischbacher, 1913, p. 18 note 1, including musical examples.

⁹⁵François Alexandre Pierre de Garsault, Notionnaire, ou mémorial raisonné (Paris: G. Desprez, 1761), pp. 601-69.

⁹⁶Garsault, pp. 632-3. Cf. Albert R. Rice, "Garsault on the Clarinet," GSJ 32 (1979): 99-103.

PLATE 27

The clarinet is a wind instrument of the fifth of tones, that is, its g' is at the fifth below the g' of the treble instruments. Therefore, one is always obliged to transpose since it must sound g' to play in unison with the violins, oboes, etc. That is why it is still necessary to know, when one is playing this instrument, additional clarinet instruments that are pitched on a higher scale. The treble instruments that are pitched on a higher scale have the advantage of being able to play in unison with hunting horns in concerts. It is difficult to play the hunting horns because of the hardness of its sound, which is difficult to soften. It has a special mouthpiece which is different from the others. This is not one inch or so in length, but it is at the end. This is not the breath, but the sound of the instrument which produces with the breath, a sound which is very different from the others. One holds it in front of the mouth, and it is not inserted with ten holes, of which only two are open at the end.

Pl. XXXI. Fig. 625

The hunting horn or "Cors de chasse" and a two-key clarinet pitched in f'' from François Alexandre Pierre de Garsault, Notionnaire, ou mémorial raisonné (Paris: G. Desprez, 1761), p. 646, pl. XXXI.

The clarinet is a wind instrument at the fifth of tones, that is, its a' is at the fifth below the a' of the treble instruments. Therefore, one is always obliged to transpose since it must sound e' to play in unison with the violins, oboes, etc. That is why it is still necessary to have, when one is playing this instrument, additional clarinets to match the treble instruments that are pitched on a higher or lower a'. It has the advantage of being gay and sonorous and to mix well with hunting horns in concerts. It is rarely played alone because of the hardness of its sound, which is difficult to soften. It has a special mouthpiece that is split in its length at the end. This slot, one inch or more in length, is put in the mouth and produces with the breath, the sound of the musette or the rural chalumeau. One holds it in front like the oboe.

It is nineteen inches in length and is pierced with ten holes, of which the two highest are covered with keys.

Range

From F below its a' to E in the third octave.⁹⁷

Based on the transposition required for its e' to sound an a' and its length of only nineteen inches, Garsault's two-key clarinet was pitched in f'', though he states that there were additional pitches. Neither

⁹⁷ Compare the translation in Rice, "Garsault on the Clarinet," p. 101.

"Le Clarinet est un instrument à vent, à la quinte des tons, c'est-à-dire, que son amila est à la quinte audessous de l'amila des dessus, ce qui l'oblige à l'unisson des Violons, Hautbois, &c. C'est ce qui fait encore qu'il faut être muni, quand on joue de cet instrument, d'autant de Clarinets que les dessus sont montés sur un amila plus haut ou plus bas. Il a en récompense l'avantage d'être gai & sonore, & de faire très-bien dans les Concerts mêlé avec les Cors-de-Chasse. Il est rare qu'il réussisse seul à cause de la dureté du son qu'il est difficile d'adoucir. Il a une embouchure particulière, c'est d'être fendu en long par le bout d'en haut: cette fente, longue d'un pounce & plus, mise dans la bouche, rend en soufflant un son de Muzette ou de Chalumeau champêtre. On le tient en avant comme le Haut-bois.

Il a dix-neuf pouces de long & percé de dix trous, dont les deux d'en haut sont bouchés avec des clefs.

Etendue

Du fa au-dessous de son amila au mi troisième octave.

Walther, Majer, or Eisel mention the pitch of the two-key clarinets they described in their earlier books. Not until Valentin Roeser wrote his instrumentation manual, Essai d'instruction (1764), are the pitches mentioned at which clarinets were made in the eighteenth century. Roeser included the clarinet in f'' as one of them but states that it is very high, and used in the orchestra only "pour les pieces à grand bruit".⁹⁸ In this treatise, Roeser described the more advanced four-key clarinet, but stated that the clarinet in d'' was too small to hold the fourth key, so presumably these clarinets had two or three keys.⁹⁹ According to Garsault, the f'' clarinet blended well with horns, a combination used by d'Herbain in Céline. The "hardness of sound referred to was undoubtedly due to its high pitch. Garsault's brief description of the mouthpiece and its reed is the earliest in any known tutor or instruction book. Yet, though he includes a description and illustration of double reeds, he apparently did not fully understand the double reed. He classifies it and the clarinet mouthpiece with "embouchures en sifflet" of the recorder and flageolet.¹⁰⁰

T. Arne

The earliest orchestral use of the clarinet in England appeared in Thomas Arne's opera, Thomas and Sally or the Sailor's Return (1760). Two clarinets and two horns (both written in c'') begin the opera, an unusual combination for the London public. They play the first half of

⁹⁸Valentin Roeser, Essai d'instruction à l'usage de ceux qui composent pour la clarinette et le cor (Paris: Le Menu, [1764], a later printing by Mercier, [c. 1794-96]; reprint ed., Geneva: Minkoff, 1972), p. 2.

⁹⁹Roeser, p. 10 note *.

¹⁰⁰Garsault, pp. 627-8.

a "symphony, behind the scenes at the further end", presumably in the wings of the theater. In order to imitate an echo, the clarinets and horns play the tune alternately (example 30a).¹⁰¹ As they complete this overture the players walk on stage followed by several huntsmen in the cast, as well as the Squire (a tenor) who sings the song, "The Echoing Horn", accompanied by the clarinets and horns (example 30a-b). Here, the horns double the tenor while the clarinets imitate them canonically. The ensemble is augmented in the refrain (called the Chorus) by the addition of one oboe, violins, and tenor and bass singers. This genre scene is similar in its triadic writing and subject material to Rameau's "Un Chasseur" (A Hunter) from Acante et Céphise (example 28). Arne's writing is simpler, however, requiring a range of $\underline{c'}$ to g'' , easily playable on a type I two-key clarinet in $\underline{c''}$.

Two years later, in 1762, Arne included two clarinets in the aria, "In Fancy our hopes and fears" in his opera, Artaxerxes. Here the clarinets and horns are paired with a string ensemble and a tenor solo (example 31a-b).¹⁰² The range employed, g' to $\underline{c'''}$, is wider than in Thomas and Sally, and several notes on $\underline{b'}$ are required throughout the aria. Its simple, triadic-style and lack of chromatic pitches suggest that three-key clarinets in $\underline{c''}$ were meant for these parts.

¹⁰¹[Thomas Augustine] Arne, Thomas and Sally, or The Sailor's Return (London: The Author, 1761), pp. 6-7. The beginning of this example is illustrated by Anthony Baines in Woodwind Instruments and Their History, 3rd ed. (London: Faber and Faber, 1967), p. 298.

¹⁰²[Thomas Augustine] Arne, Artaxerxes, An English Opera (London: J. Johnson, [1762]), pp. 86-9.

EXAMPLE 30a

6 THOMAS and SALLY or the SAILOR'S return.

ACT the 1.st SCENE 1.st A COUNTRY SEAT.

It self the following Symphony is play'd behind the Scenes at the further end. Then the Horns & Clarinets come on sounding the rest of the Symphony several Huntsmen follow & hunt of full the figure.

1st HORN
and
CLARINET. *With Spirit 1st Horn alone. 2^d Horn. Clarinets alone.*

2^d HORN
and
CLARINET.

Enter. 1st Horn. 2^d Horn. 1st Clarinet. 2^d Clarinet.

Tutti.

1st and 2^d
HORNS. *Pia. For.*

1st and 2^d
CLARINETS. *Pia.*

SQUIRE. *The Echoing Horn calls the sportsmen abroad, to Harve my brave Boys and away:*

The Morning is up, and the cry of the Hounds upbraids our too tedious delay, what Pleasure...

Clarinets and horns in T. A. Arne's Thomas and Sally (London: The Author, 1761), p. 6; US(LAuc).

EXAMPLE 30b

feel in pur-suing the Fox, o'er Hill and o'er Vall-y he flies. then follow we'll soon over take him, Hur-

1st Horn.

2nd Horn.

3rd Horn.

4th Horn.

Clarinets & Flutes

Vio.

Tenor

Voices

Bass

Voices

Other

Basses

za! the Traitor is seized on and dies. he dies. the Traitor is seized on and dies.

Then follow we'll soon over take him, Hurra! the Traitor is seized on and dies.

Then follow we'll soon over take him.

The conclusion of the tenor solo, "The Echoing Horn" in T. A. Arne's
Thomas and Sally (London: The Author, 1761), p. 7; US(LAuc).

EXAMPLE 31a

56

Act. 2^{do} Sung by Mr. Perelli.

Clarinetto 1.^{mo}

Clarinetto 2.^{do}

Corno 1.^o & 2.^{do}

Violino 1.^{mo}

Violino 2.^{do}

Viola

Bassi

Andante

Pia

Clarinets in the tenor aria, "In Fancy our Hopes and Fears" from T. A. Arne's Artaxerxes (London: J. Johnson, [1762]), p. 86; US(LAuc).

EXAMPLE 31b

87

In infancy our

Hopes and fears were to each other known and triad thip in our ripper years has twin'd our

The tenor aria, "In Fancy our Hopes and Fears" from T. A. Arne's Artaxerxes (London: J. Johnson, [1762]), p. 87; US(LAuc).

J. C. Bach

Johann Christian Bach began writing for the clarinet in his opera, Orione o sia Diana vendicata, completed in 1762 in London.¹⁰³ According to Warburton, the subject of this opera enabled Bach to give the orchestra a larger role than in his previous opere serie. Here, there is a much richer figuration and a greater prominence given to wind instruments, including the novel use of English horns and clarinets.¹⁰⁴ Indeed, the historian Burney was quite enthusiastic about Orione:

Every judge of Music perceived the emanations of genius throughout the whole performance; but were chiefly struck with the richness of the harmony, the ingenious texture of the parts, and, above all, with the new and happy use he had made of wind-instruments: this being the first time that clarinets had admission in our opera orchestra.¹⁰⁵

Clarinets in d'' are specified in the overture and in b^{b'} elsewhere in the opera.¹⁰⁶ The printed parts of the three-movement overture include a full string section and basso continuo, as well as first and second " . . . Taillie" (English horn) notated in the mezzo soprano clef (c' on the

¹⁰³Johann Christian Bach, Orione, o sia Diana vendicata (London: I. Walsh, 1763). It is nowadays assumed that Bach did not write L'Olimpe formerly dated as 1753. This work is a cantata, where clarinets are required, written during the late eighteenth century. Cf. Max Schwarz, "Johann Christian Bach (1735-1782)," Sammelbände der Internationalen Musikgesellschaft 2 (1900-1901): 444; Heinz Becker, "Die europäische Klarinette," MGG, 7 (1958): col. 1019; and Ernest Warburton, "Bach, Johann Christian," Grove 6, 1: 873 (worklist).

¹⁰⁴Warburton, 1:873.

¹⁰⁵Charles Burney, A General History of Music from the Earliest Ages to the Present Period (London, 1789; reprint ed., 2 vols., New York: Dover, 1957), 2:865. Apparently, Burney was unaware of Arne's earlier use of the clarinet in Thomas and Sally (1760). His statement was also repeated by William Parke in his Musical Memoirs, 2 vols. (London: H. Colburn and R. Bentley, 1830; reprint ed., New York: Da Capo, 1970), 1:348.

¹⁰⁶See F. Geoffrey Rendall, "A Short Account of the Clarinet in England during the Eighteenth and Nineteenth Centuries," Proceedings of the Musical Association 68 (1942):58.

second line). Both players of the English horn must also play the transverse flute during the second movement. The clarinet parts are notated in the alto clef,¹⁰⁷ and there are other handwritten parts for oboes, transposed from the English horn parts, which I have seen in the music library of the University of California at Berkeley. Fanfare-like figures are predominant in the clarinet parts with solo passages of some lyrical content in four measures of the first movement and six of the third (example 32). The note b' is carefully avoided in these parts which were probably intended for a two-key clarinet. Bach continued to use the clarinet in all of his subsequent operas, treating them with the utmost economy (as he did in Orione), by using them only once or twice in each act.¹⁰⁸

In conclusion, this chapter discusses every work written for the baroque clarinet, known to me, namely, twenty-four works by fourteen composers. A majority of these composers wrote for clarinets pitched in d'' or c'', and treated the instrument as a replacement for the clarino trumpet. A notable exception is Rameau's emancipated use of clarinets in b' and a' in his pastoral herioque, Acante et Céphise. During the 1750s, with the development of the classic style and the mechanical improvements of the instrument, composers became interested in the expressive capabilities and tone color of the clarinet. At this time, clarinet music began to appear on a technical and musical level equivalent to that usually given to the oboe.

¹⁰⁷Rendall stated that Bach wrote his clarinet parts in tenor clef (c' on the fourth line) which may be the case in Bach's other works. See F. Geoffrey Rendall, The Clarinet, 3rd ed. (New York: W. W. Norton, 1971), p. 77.

¹⁰⁸Ernest Warburton, "J. C. Bach's Opera's," Proceedings of the Royal Musical Association 92 (1965-1966):99.

EXAMPLE 32

in D

CLARINETTO^{2o} PRIMO

OVERTURE I

Allegro con Brio

OVERTURE I

Allegro con Brio

Solo

Andante Tacet

Allegro

Solo

Da Capo Sino al Segno

Orione

The first clarinet part of the overture to J. C. Bach's Orione, o sia Diana vendicata (London: I. Walsh, 1763), US(BE).

CHAPTER V

THE USE OF THE BAROQUE CLARINET BY

AMATEURS AND PROFESSIONALS

The use of the clarinet before 1760 is documented in various sources, such as: iconographical documents, concert reviews and notices, listings of orchestral players, and biographical accounts. In this chapter some iconographical documents are discussed, as well as the concert appearances and orchestral positions of several individual clarinetists. Their positions, obligations and privileges within eighteenth-century society are also noted. The following ranking of instrumentalists, formulated by C. H. Mahling, provides us with a useful categorization of musicians during the eighteenth century:

- 1) Travelling virtuoso
- 2) Court orchestral musician
- 3) Town and church musician
- 4) Military musician
- 5) Spielmann or itinerant minstrel¹

The successful travelling virtuoso was held in the highest esteem, while the wandering Spielmann or minstrel was simply tolerated by society. The remaining types of musicians held positions with different requirements and privileges, although there were also village musicians

¹Christoph-Helmut Mahling, "The Origin and Social Status of the Court Orchestral Musician in the 18th and early 19th century in Germany," in The Social Status of the Professional Musician from the Middle Ages to the 19th Century, ed. W. Salmen, trans., H. Kaufman and B. Reisner (New York: Pendragon, 1983), p. 255.

who alternated between music making as a profession and as an avocation.² Musicians who played the baroque clarinet were traced in all five categories. Furthermore, there exists a body of evidence showing the use of the clarinet by wealthy aristocrats.

Aristocrats

While written references make no mention of the use of the baroque clarinet by the aristocracy, their interest in the clarinet is shown in documents which indicate that they purchased instruments, and included them in their private wind ensembles. For instance, the Nuremberg archival records from 1710 indicate that the Duke von Gronsfield ordered two clarinets, from the maker, Jacob Denner,³ to be used among the many instruments played by his court musicians.⁴ Furthermore, the earliest representation of a clarinetist shows a well dressed gentleman playing a two-key clarinet in a luxurious room, of what could have been a wealthy residence. This engraving is by the Nuremberg artist, J. C. Weigel from a collection entitled, "Musicalisches Theatrum" (c. 1722, plate 28).⁵

²See Dieter Krickeberg, "On the Social Status of the Spielmann ('Folk Musician') in 17th and 18th Century Germany, Particularly in the Northwest," in *Ibid.*, pp. 104-6.

³Quoted by Ekkehart Nickel in Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg (Munich: E. Katzbichler, 1971), pp. 251-2.

⁴The orchestral musician did not specialize in a single instrument until the nineteenth century. During the eighteenth century most players were initially trained to play a number of wind, string and percussion instruments in a Stadtppfeiferei (town pipers' school). See Mahling, pp. 231-4 and Heinrich W. Schwab, "The Social Status of the Town Musician," in The Social Status . . . , p. 41.

⁵Johann Christoph Weigel, Musicalisches Theatrum (Nuremberg: J. C. Weigel, [c. 1722]; facsimile ed., ed. A. Berner (Kassel:

According to Berner, a chapter entitled, "Von dem Musikalischen Instrumente" in Johann Mattheson's Das Neu=Eröffnete Orchestre (1713), served as a guide for the planning and execution of Weigel's collection of thirty-six engravings depicting musicians.⁶ Mattheson had evaluated several instruments on the basis of their aesthetic appeal and mentioned their use by different members of society. The engravings in Weigel's collection reflect Mattheson's approach in that they contrast a courtly elegant musical life in its first section, with a peasant's or soldier's form of music making in its second. Indeed, of twenty-three musical instruments described by Mattheson, all but one (the chalumeau) are reproduced by Weigel. In place of the chalumeau Weigel depicted a similar but more fashionable instrument, the clarinet.⁷ Because these engravings were made in Nuremberg, the depiction of a clarinet, as well as those of several other wind instruments, could have been based on the actual instruments made by the Denners or other local makers.⁸ Weigel's illustrations show some independence from Mattheson's book as regards the evaluation of instruments found in the poetic captions, such as those for the recorder and lute.⁹ Another example was in Weigel's approval of the clarinet. In his caption to the engraving of the clarinet (plate 28), he provided this favorable description:

When the trumpet call is all too loud,
The clarinet does serve to please

Bärenreiter, 1961), sheet 14; dated by Franz Krautwurst in "Weigel, Johann Christoph," MGG, 14 (1968): col. 375.

⁶Alfred Berner in the "Nachwort" to *Ibid.*, p. VIII.

⁷Cf. Berner, pp. IV, VIII.

⁸Cf. Berner, p. IX.

⁹Berner, p. VIII.

Eschewing both the high and lowest sound,
 It varies gracefully and thus attains the prize.
 Wherefore the noble spirit, enamored of this reed,
 Instruction craves and plays assiduously.¹⁰

In contrast to Weigel's opinion, Mattheson had clearly disliked the "somewhat howling symphony" made by the chalumeau.¹¹ Weigel's indication, however, that the clarinet is a softer substitute for the trumpet is particularly well illustrated in the compositions of Vivaldi (see above pp. 135-8).

In a similar series of engravings (c. 1720-1730) of aristocratic and peasant musicians, the Augsburg artist, Martin Engelbrecht, included a well-dressed aristocrat playing a recorder. A bassoon is also shown resting against a wall, with an oboe, two more recorders, a flageolet, and a two-key clarinet on a nearby table (see the discussion above, p. 103).¹² Another aristocrat actually playing a baroque clarinet, is depicted as one of sixteen different scenes of musicians on a single eighteenth-century engraved sheet, in the Gemeentemuseum of The Hague

¹⁰Translation in Oskar Kroll, The Clarinet, rev. D. Riehm, trans. H. Morris, ed. A. Baines (New York: Taplinger, 1968), p. 51.

"Wān der Trompeten-Schall will allzulaut erthönen
 so dient das Clarinet auf angenehme weiß
 es darff en honen-Thon auch niedern nicht entlehnen
 und wechselt lieblich um; Ihm bleibt hierdurch der preiß.
 darum manch Edler Geist, dem dieses werck beliebt.
 Sich Lehr-begierig zeigt und embsig darin übet"

Weigel, Musicalisches Theatrum, sheet 14.

¹¹See above pp. 37.

¹²See Music in Prints, ed., S. Beck and E. E. Roth ([New York]: The New York Public Library, 1965), nos. 30, 32. This player is portrayed in a strikingly similar manner to Weigel's player of the "Flüte Douse" in his Musicalische Theatrum (sheet 12), even to the extent of depicting the identical fingering.

PLATE 28

The earliest representation of a clarinetist from Johann Christoph Weigel, Musicalisches Theatrum (Nuremberg: J. C. Weigel, c. 1722, facsimile ed., Kassel: Bärenreiter, 1961), sheet 14.

(plate 29).¹³ Because of the small size of the original engraving, only a few details are visible concerning the clarinet. It is shown with a long lower joint, which might indicate that a three-key clarinet (with a thumb key for the notes e/b') was drawn. On the lower-left hand corner of this sheet appears: "Joh. Pet: Wolff Seel: Erben exc.", which probably indicates that the artist was one Johann Peter Wolff.¹⁴ An aristocratic family is depicted in an anonymous German etching (first half of the eighteenth century), the father playing the cello, the mother singing, while a son plays the clarinet (plate 30).¹⁵ The instrument held by the boy is clearly shown to be a baroque clarinet by the shape of the bell and mouthpiece, in spite of Klerk's identification of it as a recorder.¹⁶ In common with many eighteenth-century depictions, such as that found in the Recueil de planches (plate 12), this clarinet is conical in its outward appearance. It appears that this etching was part of a series since it carries the number three on the right-hand corner. The corresponding couplet reads: "I work with true affection, strengthen through music's sound, and bring to the Creator, a pure song of praise."¹⁷

¹³Reproduced in European musical instruments on prints and drawings on microfiche. Print Collection of the Music Department of the Haags Gemeentemuseum, The Hague, Netherlands. Répertoire International d'Iconographie Musicale (RidIM), fiche no. 41 (1.4), Inv. nr. 810-zj.

¹⁴This engraving was attributed to an anonymous artist. Cf. the Index to European musical instruments ..., compiled by M. Klerk ([Zug, Switserzerland]: Inter Documentation, [1976]), p. 15.

¹⁵European Musical Instruments ..., fiche no. 20 (2.5), Inv. nr. PM 186-zj.

¹⁶Cf. the Index to European musical instruments ..., p. 8.

¹⁷See plate 30.

(plate 29).¹³ Because of the small size of the original engraving, only a few details are visible concerning the clarinet. It is shown with a long lower joint, which might indicate that a three-key clarinet (with a thumb key for the notes e/b') was drawn. On the lower-left hand corner of this sheet appears: "Joh. Pet: Wolff Seel: Erben exc.", which probably indicates that the artist was one Johann Peter Wolff.¹⁴ An aristocratic family is depicted in an anonymous German etching (first half of the eighteenth century), the father playing the cello, the mother singing, while a son plays the clarinet (plate 30).¹⁵ The instrument held by the boy is clearly shown to be a baroque clarinet by the shape of the bell and mouthpiece, in spite of Klerk's identification of it as a recorder.¹⁶ In common with many eighteenth-century depictions, such as that found in the Recueil de planches (plate 12), this clarinet is conical in its outward appearance. It appears that this etching was part of a series since it carries the number three on the right-hand corner. The corresponding couplet reads: "I work with true affection, strengthen through music's sound, and bring to the Creator, a pure song of praise."¹⁷

¹³Reproduced in European musical instruments on prints and drawings on microfiche. Print Collection of the Music Department of the Haags Gemeentemuseum, The Hague, Netherlands. Répertoire International d'Iconographie Musicale (RidIM), fiche no. 41 (1.4), Inv. nr. 810-zj.

¹⁴This engraving was attributed to an anonymous artist. Cf. the Index to European musical instruments ..., compiled by M. Klerk ([Zug, Switserland]: Inter Documentation, [1976]), p. 15.

¹⁵European Musical Instruments ..., fiche no. 20 (2.5), Inv. nr. PM 186-zj.

¹⁶Cf. the Index to European musical instruments ..., p. 8.

¹⁷See plate 30.

PLATE 29

An aristocrat playing the baroque clarinet in one of sixteen eighteenth-century engraved scenes of musicians on a single sheet, probably by Joh. Pet. Wolff, NL(Hgm).

PLATE 30

An aristocratic family depicted in an anonymous German etching from the first half of the eighteenth century, NL(Hgm).

Travelling Virtuosi

Travelling virtuosi were important, during the first half of the eighteenth century, in introducing the clarinet to the concert-going public in many large cities of Germany, Great Britain and France. Their performances undoubtedly encouraged aristocrats and town and church musicians to add the new instrument to their musical organizations. The prospect of financial gain lead performers to England in particular. In 1713, Mattheson observed that most musicians in Europe went to England to earn a good deal of money:

He who in the present time thinks of playing music betakes himself to England. In Italy and France one plays to hear and learn, in England one plays to gain [money], but in the fatherland it is the best in consuming.¹⁸

Indeed, the prompter, John Downes (1708) wrote of the Italian singer, Francesca Margherita de l'Epine, that "[She has] since her Arrival in England, by Modest Computation; . . . got by the Stage and Gentry, above 10000 Guineas".¹⁹ It is not surprising therefore, to note that the

"Mit treuen Seelen trieb, gestärckt durch Music klang, bring ich dem Schöpffer dar, ein reines Lob-gesang".

¹⁸Cf. the translation by Mollie Sands in "Music as a Profession in Eighteenth-Century England," Music and Letters 24 (April 1943): 91.

"Wer bey diesen Zeiten etwas in der Music zu praestiren vermeinet / der begibt sich nach Engelland. In Italien und Frankreich etwas zu hören und zu lernen; in Engelland etwas zu verdienen; im Vaterlande aber am besten zu verzehren."

Johann Mattheson, Das Neu=Eröffnete Orchestre (Hamburg: B. Schillers Wittwe, 1713), p. 211 (erroneously printed as 121).

¹⁹John Downes, Roscius Anglicanus (London: H. Playford, 1708; reprint ed., Los Angeles: The Augustan Reprint Society, 1969), p. 46.

earliest clarinetists, who have been identified by name, are two German players who gave benefit concerts in London during 1726 and 1727. On 24 March 1726, the following announcement appeared in The Daily Courant:

For the Benefit of M. August Freudenfeld, and Francis Rosenberg, Clarinets.

At Mr. Hickford's Great Room over against the Tennis-Court, in James's Street, near the Hay-Market, Tomorrow being Friday, the 25th of March, will be performed a Consort of Instrumental Musick by the best Hands. To begin precisely at Seven a-Clock. N.B. You are desired to come in at James's-Street Side.²⁰

This identical announcement was repeated one year later, in The Daily Courant of 14 March 1727 with an admission price given as 5 shillings.²¹ Freudenfeld or Rosenberg might have played the chalumeau in concerts at the Richmond-Wells theater. Five years earlier The Daily Post of 31 June 1722 had announced:

RICHMOND-WELLS . . . on Mondays will be a select band of Musick from the Opera . . . N.B. There will be several Concerto's every Evening on a new Instrument from Germany call'd The Shalamo; never play'd in Publick before.²²

Although this particular figure may be an exaggeration, l'Epine was immensely popular and did command high fees. See Winton Dean, "L'Epine, Francesca Margherita de," Grove 6, 10:682-3.

²⁰The Daily Courant, no. 7624 (24 March 1726), n.p., GB(Lbm), Burney Papers on microfilm, vol. 265B.

²¹The Daily Courant, no. 7929 (14 March 1727), m.p., GB(Lbm), Burney Papers on microfilm, vol. 265B. These players may also have influenced Handel to include two chalumeaux in a sketch for the aria, "Quando non vede" in the opera, Riccardo Primo (1727). In later versions, Handel replaced the chalumeaux with oboes by inserting a musically similar aria, "Quell' innocente afflito". See Colin Lawson, The Chalumeau in Eighteenth-Century Music (Ann Arbor: UMI Research Press, 1981), pp. 145-6.

²²Quoted by Pamela Weston in More Clarinet Virtuosi of the Past (London: The Author, 1977), p. 16.

Both the "Shalamo" and clarinet were subsequently played in London from 1737 by another foreign-born virtuoso, a "Mons. Charle" also known as "Mr. Charles". His career has been documented in some depth.²³

Originally from France, Charle appeared in various cities throughout Great Britain for twenty-two years. He was initially mentioned on 6 October 1733 in the "Third Musick" between the acts of the play, The Relapse by Sir John Yanbrugh, at the Haymarket theater. The "Third Musick" included the following: "I. Concerto for French Horns, the French Horns by Charle and Giay, lately arriv'd from Paris" and "III. Solo for French Horn by Charle".²⁴ Both Charle and Giay performed again at the Haymarket theater on 20 October 1733, but this time in a "Duo for Two French Horns."²⁵ Charle's first name is never mentioned in a concert advertisement, and from 9 September 1734, he began to call himself, "Mr. Charles", at a performance of a concerto on the French Horn at Goodman's Field's theater.²⁶ He continued to appear as a soloist on the French horn until 1 April 1735, when he gave a benefit concert at the Swan Tavern performing "several new Pieces on the French Horn and Clarinet".²⁷ It appears at this time that Charle also

²³His career and concert appearances are reconstructed by Pamela Weston in Clarinet Virtuosi of the Past (London: R. Hale, 1971), pp. 17-28; and A Biographical Dictionary of Actors, Actresses, Musicians, Dancers, Managers & Other Stage Personnel in London, 1660-1800, eds. P. H. Highfill, Jr., K. A. Burnim and E. A. Langhans (Carbondale: Southern Illinois University Press, 1973-), 3 (1975):178-9.

²⁴The London Stage 1660-1800, 5 parts (Carbondale: Southern Illinois University Press, 1960-1968), 3, 1729-1747:323.

²⁵*Ibid.*, 3:328.

²⁶*Ibid.*, 3:414. A performer with a similar name, "Charles, the Merry Trumpeter of Oxford", gave performances during the month of October from 1729 to 1733. See The London Stage 1660-1800, part 3.

²⁷*Ibid.*, 3:475.

used the French form of his name when writing music. On 10 October 1735, The Daily Advertiser mentioned the following works for flute to be played at a concert: "Solo on the German Flute by Burchinger, Se Largo by Burchinger and Charle".²⁸ Two years later, Charle began to play the chalumeau in his concerts. On 11 March 1737 at a cost of five shillings, one could be admitted to Stationers' Hall for a concert of music "By the best Hands, with a Solo; and several new Pieces on the French Horn, Clarinette, and Sharlarno [sic] by Mr. Charles. Also several pieces on the French Horn by an English Gentlewoman, and a Negro boy of ten years old, both scholars of Mr. Charles".²⁹ Charle was now active as a teacher of the French horn and possibly also taught the clarinet.

Weston suggested that Charle may have been the chalumeau soloist in Paris at a Concert Spirituel on 21 February 1728, when the Mercure de France (p. 385) reported:

They played a concerto for chalumeau with the accompaniment of the symphony, who formed the choruses. This instrument, which is greatly used in Germany, imitates the oboe and the recorder. The whole thing had quite a singular effect and gave pleasure . . .³⁰

²⁸Ibid., 3:517.

²⁹A Biographical Dictionary . . . , 3:178-9.

³⁰Quoted by Michel Brenet [pseud. Marie Bobillier], Les Concerts en France (Paris: Fischbacher, 1900), pp. 135-6; Weston, Clarinet Virtuosi of the Past, p. 20.

"On joua ensuite un Concerto de chalumeau, avec les accompagnements de la Symphonie qui forment les chœurs, Cet instrument qui est fort en usage en Allemagne, imite le Haut-Bois et la Flûte à Bec. Le tout ensemble parut assez singulier et fin plaisir ..."

In 1742, Charle crossed the Irish Sea to Dublin on a ship called the Chester Trader. Heralded as "the famous French-Horn" and "Master of Musick from London", he arrived on 19 March. It is possible that he came to Dublin at the suggestion of Handel who had preceded him by a few days, and whose works are often found on Charle's concerts. In Dublin, Charle lived in Caple Street at the house of Mr. Hunt, an upholsterer.³¹ During this time, he played in the pit band at the Aungier Street Theatre and advertised for pupils. Faulkner's Dublin Journal called him "the Hungarian",³² and this is how he is advertised in the Dublin Mercury for his benefit concert on 12 May 1742 (plate 31).³³ This concert included popular works such as, "Mr. Handel's Water-Music, with the March in Scipio, and the grand Chorus in Atalanta". It is noteworthy that Charle himself played a "Solo on the French Horn", "A Concerto on the Clarinet", "A Solo on the Hautbois de Amour", and "A select Piece on the Shalamo". According to the announcement in the Dublin Mercury, "The Clarinet, the Hautbois de Amour, and Shalamo, were never heard in this Kingdom before".

As Charle was himself a composer it is probable that his horn, oboe d'amour and chalumeau solos, and possibly the clarinet concerto, were all written by him. His success at performing on four different instruments was widely noted in the newspapers, where it was announced that he would, at popular request, give a repeat performance. This second performance was given on 2 June at the fashionable Playhouse or Theatre Royal in Aungier Street. In November, the papers announced that

³¹Weston, Ibid., p. 21.

³²A Biographical Dictionary ..., 3:179.

³³Reproduced from Weston, Clarinet Virtuosi of the Past, p. 23.

PLATE 31

At the MUSIC-HALL in Fishamble-street,
To-morrow being Wednesday the 12th of May,
1742.

will be performed

A GRAND CONCERT of MUSIC,
By Mr. CHARLES, the HUNGARIAN, Master
of the French Horn, with his Second; accom-
panied by all the best Hands in this City.

First ACT,

1. An Overture with French Horns, called, new
Pastor Fido;
2. The 6th Concerto of Signior Geminiani;
3. A Solo on the French Horn, by Mr. Charles, to
shew the Beauty of that Instrument;
4. A Concerto on the Clarinet.

Second ACT,

1. Mr. HANDEL's Water-Music, with the March
in Scipio, and the grand Chorus in Atalanta;
2. A Concerto on the German Flute, by Mr. Le-
vieux;
3. A Solo on the Hautbois de Amour, by Mr.
Charles;
4. Signior Haffé's Concerto, with Signora Barba-
rini's Minuet.

Third ACT.

1. The Overture in Saul, with the Dead March,
composed by Mr. HANDEL, but never performed
here before.
2. A select Piece on the Shalamo.
3. A Solo on the Violoncello, by Signior Pasqua-
lino.
4. The Turkish Musick in the original Taste, as
performed at the Spring Garden, Vaux-hall,
London.

The Concert to begin at 7 o'Clock in the Evening.
N. B. The Clarinet, the Hautbois de Amour, and
Shalamo, were never heard in this Kingdom before.
Tickets at 5 s. and 5 d. each; to be had at Mr.
Neal's and Mr. Manwaring's Musick Shops, at
Bacon's Coffee-house, and at Mr. Hoey's in
Skinner-Row.

An announcement in the Dublin Mercury of Mr. Charles' first concert in
Dublin on 12 May 1742, from Pamela Weston, Clarinet Virtuosi of the Past
(London: R. Hale, 1971), p. 23.

he had taken over "Mr. Geminiani's Concerns and Great Musick Room in Dame Street",³⁴ which the violinist, Francesco Geminiani, had left in 1741.³⁵ Here, Charle gave lessons to gentlemen "and others" from 8 a.m. to 3 p.m. His terms were: "If to the Room, a guinea entrance, and a guinea for sixteen lessons to a month. If he waits on gentlemen, a Moydore entrance, and a Moydore for sixteen lessons."³⁶ Since the Moydore was the equivalent of £3 17s. 8d., with a large number of students he could have done very well financially.³⁷

After two more concerts, one of which included the clarinet, Charle gave up his tenure at Geminiani's house and returned to London. His next concert was given on 1 November 1743 in the Assembly Rooms at Salisbury, which included his usual horn solos and works for clarinet, oboe d'amour and chalumeau. There was an important addition in the form of a trio for three French horns played by himself, his wife and son. Handel's music was featured again, and, as in Dublin, the clarinet, oboe d'amour and chalumeau were making their first appearance in the city. The family gave a similar concert at Hickford's Room, London, on 25 April 1744. Weston suggested that if Mrs. Charle or her son were able to perform on the clarinet, Handel's Overture in D major (c. 1748-49), scored for two clarinets and horn, could have been written for and played by the family trio.³⁸ Charle and his son continued to concertize

³⁴Weston, *Ibid.*, p. 25.

³⁵A Biographical Dictionary ..., 3:179.

³⁶Weston, *Ibid.*, p. 25.

³⁷See W. H. Grattan Flood, A History of Irish Music, 3rd ed. (Dublin: Browne and Nolan, 1913), p. 284.

³⁸Weston, *Ibid.*, pp. 25-6. See the discussion of Handel's Overture, above, pp. 163-7.

in cities outside London as shown by the announcement in Barrow's Worcester Journal (1748): "Mr. Charles, senior and junior, from Vauxhall, performed on the French horn and two foreign instruments, the shallamo and clarinet".³⁹ Their employment in the orchestra of Vauxhall gardens in London, required orchestral playing, accompanying vocal solos, and concerto playing probably on the horn and clarinet.⁴⁰

The last concert appearance of Charle and his son was on 22 March 1755 at the Assembly Rooms in Edinburgh. It is significant that the announcement of this concert mentions "several select Pieces on the clarinet and other instruments"; the clarinet had now become popular and was important enough to be the only instrument that was mentioned.⁴¹ From the 1760s the clarinet was played at the Edinburgh assembly, an aristocratic dancing club.⁴² Mons. Charle and his family undoubtedly had contributed to the clarinets' newly found popularity. He is the only clarinet virtuoso during the early eighteenth century whose concerts over a twenty-two year period have been documented. His travels from France through Great Britain may be examined on Map 1.

A few reports of other virtuoso clarinetists, from before 1760, are preserved in notices from newspapers. For example, the Frankfurter Frag- und Anzeigungs-Nachrichten on 13 October 1739 announced the

³⁹Percy A. Scholes, The Oxford Companion to Music, 10th ed., ed., J. O. Ward (London: Oxford University Press, 1970), p. 190.

⁴⁰See Edward Croft-Murray, "London §V: Pleasure gardens," Grove 6, 11:177-80.

⁴¹Weston, *Ibid.*, p. 27. Weston states that Charle was in Dublin during 1756, but does not give any details of his activities or a source of information, see More Clarinet Virtuosi of the Past, p. 70.

⁴²See David Johnson, Music and Society in Lowland Scotland in the Eighteenth Century (London: Oxford University Press, 1972), pp. 48-9.

following: "Advertisement: Two good clarinetists have arrived at the Windmill in All Saints Lane; anyone wishing to hear them perform will be welcome".⁴³ At the Concert Spirituel in Paris, on 25 March 1750, a concerto for the "clarine" (according to Pierre, the clarinet) was played by a bassonist, France de Kermasin.⁴⁴ This is the earliest known performance of a clarinet concerto in France. Shortly afterwards, "A Concerto for Clarinette" was performed in London, at the New Haymarket Theatre on 30 December 1751. At the same theater, on 7 January 1752 a "Concerto for two Clarinettes" was played, unfortunately we do not know the names of the clarinetists in either concert.⁴⁵ We do know the names, however, of the earliest English clarinetists, Thomas Habgood and Hugh Pearson, who played a "grand" concerto at the Kings Theater on 13 March 1758.⁴⁶ With these last reports in mind, it is interesting to note that an author in 1830 (known only by the initials "J. P.") wrote the following concerning the clarinet in the English journal, The Harmonicon:

⁴³Translation in Kroll, The Clarinet, p. 47 note 1.

"Advertisement. Zwey gute Clarinettisten sind allhier in der Windmühl auf der Allerheiligen-Gass ankommen; wer solche zu hören beliebt kann sich dasselbst melden".

Quoted by Carl Israël in Frankfurter Concert-Chronik von 1713-1780 (Frankfurt: Selbstverlag des Vereins, 1876), p. 29.

⁴⁴Mercure de France, April 1750, p. 183; cited by Constant Pierre in Histoire du Concert Spirituel 1725-1790 (Paris: Heugel, 1975), pp. 116, 257 no. 403.

⁴⁵The London Stage 1600-1800, 4:282, 284.

⁴⁶See A Biographical Dictionary ..., 7(1982), p. 124; Weston, Clarinet Virtuosi of the Past, pp. 121, 192.

MAP 1

FRANCE AND GREAT BRITAIN IN 1721

The location of cities where Mons. Charle performed: Paris, c. 1720-1730; London, 1733-1739; Dublin, 1742-43; Salisbury, 1743; Worcester, 1748; Edinburgh, 1755. From the Grand Atlas and Picture Book of the World (Chicago: Rand McNally & Co., 1977), p. 99.

I conjecture, also, that it [the clarinet] is of German invention, for I have heard that a native of that country played on a clarionet with three keys only, many years ago, in this country.⁴⁷

An interesting pictorial source depicts the playing of a baroque clarinet in a setting of a distinctly, stylized nature. It is an anonymous Dutch etching illustrating two players of the horn and clarinet. They are portrayed with costumes in the style of the Italian, commedia dell'arte, and have been described as "Musical Harlequins" (plate 32).⁴⁸ Heoprich recently pointed out the conical profile of this clarinet and its resemblance to the oboe, except for the obvious differences in turning.⁴⁹ The association of the clarinet with the horn probably indicates that this etching was made during a time when these instruments were commonly used together, about the mid-eighteenth century. The cheerful descriptive poem describing the clarinet reads:

With the lovely sound of my bright clarinet
I cover noise however loud it becomes,
Even the pleasant sound of the shrill peace trumpet,
Must yield in beauty to my clarinet.⁵⁰

⁴⁷J. P., "On the Clarionet," The Harmonicon 8 (1830): 57-8; reprinted with commentary by Albert R. Rice in "'On the Clarionet' from the Harmonicon," The Clarinet 11 (Spring 1984): 34-5.

⁴⁸Number six of a set in European musical instruments ..., fiche no. 20 (1.1), Inv. nr. PM 361-pj; Index, p. 8. See Historische Blaasinstrumenten de Ontwikkeling van de Blaasinstrumenten vanaf 1600 (Kerkrade: Wereldmuziekconours, 1974), p. 73 no. 163, b.

⁴⁹T. Eric Hoeprich, "Clarinet Reed Position in the 18th century," EM 12 (Feb. 1984): 52-3, ill. 4.

⁵⁰See plate 32, translation by Dr. Hans Ruyter, Claremont Graduate School.

"Door 'tliet 'lyk klinken van myn frisse Clarinet.
Verdoof ik het geluit hoe hoog, 'took word verheven,
En de aangename klank der schelle Vré-trompet,
Zy moet haar schoonheid voor myn Clarinet begeven."

PLATE 32

Men hoort men Hoorn wel meer in Stad, als op het Land,
 Of Wildornissen, vol van Zinnen, Turken, Linden:
 'twaas iemant de oorzaak: vol, in luster met verstand,
 En wat men in de Stad van de wroegte Wil een rinceu.

Door dloff'lyk blenden van men friso Clarinet.
 Verdoof ik het geluid hoe hoog, ook word verhoort.
 Ende aanschouwen ik de der finelle Vro trompet.
 Zy moet naar schoonheid van men Clarinet begeren

Players of the clarinet and horn in an anonymous Dutch etching (c. 1750s) dressed in the costumes of the Italian commedia dell'arte, NL(DHgm).

A notable characteristic emphasized here, is the greater beauty of the tone of the clarinet compared to the "Peace" trumpet. The foregoing section includes some of the earliest reports of clarinetists in Europe. The efforts of these performers to introduce the instrument to the concert-going public was surely essential in encouraging the inclusion of the clarinet in court and theater orchestras.

Court Orchestral Clarinetists

The earliest court orchestra which made use of the clarinet was at Koblenz. Here, on 17 January 1733, two clarinets were bought for the "Hof music".⁵¹ The earliest musician who played the clarinet at Coblenz, Johann Peter Spitz, also played oboe and viola from 1734 to 1785.⁵² Another early orchestra which owned clarinets was that of the court of Sayn-Wittgenstein at Berleburg. In a detailed list of instruments dated 1741, we find "In einem Flöten-Casten zwey Paar Clarinetten".⁵³

Weston suggested that the oboist, Carl Barbandt, also played the clarinet at the court of Hanover from 1735 to 1752.⁵⁴ Subsequently, Barbandt lived in London from 1753 to 1770, where he was active as a

⁵¹Staatsarchiv Koblenz 1 C5130 fol 108, cited by Gustav Bereths in Die Musikpflege am kurtrierischen Hofe zu Koblenz-Ehrenbreitstein (Mainz: B. Schott's Söhne, 1964), p. 44.

⁵²Bereths, p. 48.

⁵³"Inventarium sämtlicher Mobiliare, aufgenommen nach Ableben des Grafen Casimir 1741," cited by Joachim Domp in Studien zur Geschichte der Musik an Westfälischen Adelshöfen im XVIII. Jahrhundert (Düsseldorf: H. Krumbiegel, 1934), pp. 68-9.

⁵⁴Weston, More Clarinet Virtuosi of the Past, p. 39.

performer on the flute, oboe, harpsichord, and as a composer and teacher.⁵⁵ His "Great Concerto with Clarinets, French Horns and Kettle Drums" was performed on 25 March 1756.⁵⁶ The nineteenth-century scholar, C. F. Pohl, listed Barbandt as a clarinetist in London from 1756. He described Barbandt's playing as being very expressive in a concert on 15 February 1760.⁵⁷ In Hamburg, clarinetists may have been available as early as 1738, since two players of the chalumeau were included in the opera orchestra from this year.⁵⁸ There does not seem to be any additional evidence, however, of the regular use of the clarinet there from the first half of the eighteenth century. The earliest date for which clarinetists are recorded to have been in the court orchestra at Hamburg is 1795.⁵⁹

The use of the clarinet at the Durlach court can be determined by several documents. In the city and address directory of 1771 we find the first mention of a clarinetist:

Flautotraversist:	Johann Reusch
Hautboist:	derselbe

⁵⁵A Biographical Dictionary . . ., 1:279-80.

⁵⁶Weston, *Ibid.*, p. 39.

⁵⁷Carl Ferdinand Pohl, Mozart und Haydn in London, 2 vols. (Vienna: C. Gerold's Sohn, 1867; reprint ed., New York: Da Capo, 1970), 2:208 note 1, 373.

⁵⁸Wilhelm Kleefeld, "Das Orchester der Hamburger Oper, 1678-1738," Sammelbände der Internationalen Musikgesellschaft 1 (1899-1900): 269, 286. Cf. Weston, More Clarinet Virtuosi of the Past, p. 60, s.v. "Bultos".

⁵⁹See Weston, *Ibid.*, p. 60, s.v. "Bultos" and p. 147, s.v. "Krause, Karl Joseph".

Clarinetist: derselbe⁶⁰

Reusch or Reisch came to Durlach from Bayreuth in 1730 and was entered in the 1737 register as an oboist and footman. On 23 April 1747 he was promoted out of the livery to court musician. He was entered only as a transverse flutist in the address directory of 1763. There is, however, a manuscript formerly owned by the composer, J. M. Molter, dated around 1760, in which Reusch is referred to as either a clarinet or horn player:⁶¹

Since the band of clarinets and horns was broken up by the retirement of the previous court musician, Jacob Hengel, nevertheless the gap is at present being filled through the particular diligence of the court musician, Reusch, and now since the aforementioned Hengel's salary becomes vacated through his retirement, we ought to . . .⁶²

Although the first mention of a clarinetist in the Durlach register occurred in 1771, we see that at least ten years earlier an ensemble of clarinets and horns existed. Since Reusch, who is later listed as a clarinetist, replaced Hengel, we can assume that Hengel played clarinet

⁶⁰From the "Staats und Adresse Kalender auf das Jahr 1771" quoted by Ludwig Schiedermair in "Die Oper an den badischen Hofen des 17. u. 18. Jahrhunderts," Sammelbände der Internationalen Musikgesellschaft 14 (1912-1913): 445.

⁶¹Heinz Becker, "Zur Geschichte der Klarinette im 18. Jahrhundert," Mf 8 (1955): 289.

⁶²Translation by Don Halloran.

"Demnach der durch das austreten des gewesenen Hof Musici, Jacob Hengel, zerrissene Chor de Musique von Clarinetten und Horn, nunmehr durch Besondern Fleiß des Hof Musici Reuschen anwiederum ergänzt und wir nun auch durch erstgenannten Hengels ausweichen deßen gantze Besoldung ledig werden ..." [quotation breaks off here]

instrumental inventory of 1749.⁶⁷ Two clarinets were first purchased for this court orchestra by an unnamed maker in 1752.⁶⁸ In Frankfurt am Main on 15 August 1749, a work by the "Vice Capell-Directore", Heinrich Valentin Beck was performed, which included four court virtuosi playing the trumpet, clarinet, horn and flute or recorder.⁶⁹ Clarinet players may have been available at this date in Frankfurt, but did not appear as regular members of the opera orchestra until 1792.⁷⁰

The earliest clarinetists to perform in Paris were Jean Schieffer and François Raiffer, who played in the first performance of Rameau's opera, Zoroastre on 5 December 1749. According to the Opéra's record of payments (Etat de Payements), these players were among six supplementary musicians who were paid for three rehearsals and twenty-five performances of Zoroastre during 1749 and 1750.⁷¹ Schieffer probably

⁶⁷Cf. Niemöller, p. 66.

⁶⁸"Rechn. Mittwochsrentkammer 20. 12. 52", cited by Niemöller, p. 80 note 5.

⁶⁹Quoted by Carl Israël, Frankfurter Concert-Chronik von 1713-1780, p. 36.

"...mit 4 Fürstlichen Virtuosen unter umwechselnden Trombetten, Clarinetten, Waldhorn, Flaut-travers und à bec etc. nur einmahl Musicalisch aufgeführt werden".

See Hugo Riemann, Musik Lexikon, 11th ed., ed. A. Einstein (Berlin: M. Hesse, 1929), p. 129.

⁷⁰See Mus. Beobachter (Frankfurt am Main, 1792) cited by Ottmar Schreiber in Orchester und Orchesterpraxis in Deutschland zwischen 1780 und 1850 (Berlin: Junker und Dünhaupt, 1938), p. 103.

⁷¹"Etat de Payements qui seront faits à plusieurs sujets cy-après nommez, employez à l'Opéra, par extraordinaire, depuis le 29 aoust 1749," in the Arch. Opéra A. 19. Emargements, 1749-1751; cited by Lionel de La Laurencie in "Rameau et les Clarinettes," Revue Musicale Mensuelle 9 (Feb. 1913):27-8. These players were identified as the Germans, Johann Schieffer and Franz Raiffer by Cuthbert Girdlestone in Jean-Philippe Rameau, His Life and Work, 2nd ed. (New York: Dover, 1969), p. 294.

played the horn at a Concert Spirituel in Paris on 9 April 1751, and Raiffer is listed as a clarinetist in these concerts on 25 March 1775.⁷² From 19 November 1751 to 7 January 1762, there were eighteen performances of Rameau's Acante et Cépise at the Opéra. The number of clarinetists who participated in these performances is somewhat problematical. A document of payments from the archives of the Opéra identifies the following:

Gaspard Procksch pour avoir joué de la Clarinette dans 18.
Representations de l'Opera d'Acante et Cephise du 19. November
1761 [sic] au 7. Janvier 1762 a raison de 6# par chaque
Representation 108#
Rus Leo a fair Sept Repetition don il luy en est passé trois
suivant l'osays 18# 126.
Flieger pour idem que dessus 126.
Schencker pour idem que dessus 126.
Louis pour idem que dessus 126.⁷³

Each of these musicians received 126 livres for eighteen performances and three rehearsals. La Laurencie assumed that Schencker and Louis also played the clarinet on the basis of this Etat,⁷⁴ although the score indicates only two clarinets and two horns.⁷⁵ The identification of these players, however, is further clarified by an Etat of 1763. It names the principal musicians of the wealthy amateur, La Pouplinière,

⁷²See Pierre, p. 260, no. 433 and p. 303, no. 926.

⁷³"Etat des Payements à faire à differents Sujets Employés par Extraordinaire dans plusieurs Representations de differents Opera" reproduced by Nina Stern in "The Clarinet in the Middle of the Eighteenth Century" (Diplomarbeit, Basle: Schola Cantorum Basiliensis, 1983), pl. IV.

⁷⁴See Lionel de La Laurencie, "Rameau, son gendre et ses descendants," Revue Musicale Mensuelle 7 (15 Feb. 1911) 16.

⁷⁵Contrary to Weston's assertion (More Clarinet Virtuosi of the Past, p. 199), the entr'acte between acts 2 and 3 of Acante requires two clarinets and two horns, not four clarinets.

who performed Acante: Procksch and Flieger, clarinet; Schencker, "Harpe-Cor" (harp and horn), and Louis, "Contrebasse-Cor" (contrabass and horn).⁷⁶ Furthermore, an anonymous eighteenth-century author who described La Pouplinière's orchestra noted: "It had the best music in Europe, even before engaging twelve superior musicians, besides 2 clarinets and 2 horns of the highest quality ..."⁷⁷ It therefore seems likely that Procksch and Flieger played the clarinet while Louis and Schencker played the horn in Acante et Céphise.

At Darmstadt, David Steger was appointed chamber musician in 1750 to the court orchestra. He had been listed in the church records as a chamber musician since 1743, and was listed as a violin and clarinet player in 1757.⁷⁸ Another member of this orchestra, Karl Jacob Gozian, played violin and clarinet from 1754 until his death two years later.⁷⁹ Gozian was apparently replaced on 20 February 1756 by the nineteen-year-old, Johann Peter Schüller, who had studied with the court composer, Christoph Graupner, for two years. Schüller played the clarinet and horn and by 1766, the musette or bagpipe.⁸⁰ It is noteworthy that two c''

⁷⁶Quoted by Georges Cucuel in La Pouplinière et la musique de chambre au XVIII^e siècle (Paris: Fischbacher, 1913), p. 339.

⁷⁷Quoted by Cucuel in Études sur un orchestre au XVIII^{me} siècle, pp. 17-18.

"Il avait la meilleure musique de l'Europe, ayant à ses gages 12 musiciens des plus excellents, en outre 2 clarinettes et 2 cors admirables ..."

Anecdotes sur ce qui s'est passé chez M. de la Pouplinière (n.p., n.d.).

⁷⁸Elisabeth Noack, Musikgeschichte Darmstadts vom Mittelalter bis zur Goethezeit (Mainz: B. Schott's Söhne, 1967), pp. 232-3.

⁷⁹Noack, p. 233.

⁸⁰Noack, p. 237. Graupner's last sacred cantata, "Lasset eure Bitte im Gebet" of 1754, included a pair of d'' clarinets which must

Regensburg was stated by Becker, to have been in 1755.⁸⁵ Becker, however, appears to have misread the study which he cited, concerning the Regensburg court orchestra, since the earliest listing of the clarinetists, Wack and Engelhard Engel appears in a document dated 1765.⁸⁶ Furthermore, according to a later study by Färber (who appears to have corrected Mettenleiter), the first year for which the presence of clarinetists at the Thurn and Taxis court can be documented is 1784.⁸⁷

The famous orchestra at the Mannheim court hired Michael Qallenberg and Johannes Hampel as clarinetists in late 1759. They are recorded in the Almanach Electoral Palatin Pour L'Année 1759, but are not in the manuscript salary list (Besoldungsliste) dated 28 July 1759.⁸⁸ According to Jacob von Stählin, in 1759 "a pair of clever clarinetists", Lankammer and Compagnon, arrived in St. Petersburg to

⁸⁵Becker, "Zur Geschichte der Klarinette im 18. Jahrhundert," p. 275; Idem, "Vorwort" to "Klarinetten-Konzerte des 18. Jahrhunderts" in Das Erbe Deutscher Musik (Wiesbaden: Breitkopf & Härtel, 1957), vol. 41, p. VII note 2.

⁸⁶See Dominicus Mettenleiter, Aus der musikalischen Vergangenheit bayrischer Städte. Musikgeschichte der Stadt Regensburg (Regensburg: J. G. Bossenecker, 1866), p. 270, and Robert A. Titus, "The Solo Music for the Clarinet in the Eighteenth Century" (Ph.D. diss., State University of Iowa, 1962), p. 57.

⁸⁷Sigfrid Färber, Das Regensburger Fürstlich Thurn und Taxissche Hoftheater und seine Oper 1760-1786, Sonderdruck aus den "Verhandlung des Historischen Vereins von Oberpfalz und Regensburg", vol. 86 (n.p., 1936), pp. 102, 119-20.

⁸⁸See Eugene K. Wolf, The Symphonies of Johann Stamitz (The Hague: M. Nijhoff, 1981), p. 343 note 15; and Robert Münster, "Johann Anton Fils und das Mannheimer Orchester in den Jahren 1754 bis 1760" in Johann Anton Fils (1733-1760) Ein Eichstätter Komponist der Mannheimer Klassik, ed. H. Holzbauer (Tutzing: H. Schneider, 1983), pp. 39-40, 41 notes 5 and 6.

play in the orchestra.⁸⁹ His dating, however, was shown to be erroneous by Mooser. Christopher-Benjamin Langhammer went to St. Petersburg in 1763 and is mentioned several times as oboist in the Archives des Théâtres impériaux,⁹⁰ while Compagnon is not recorded as a member of the St. Petersburg orchestra. In London, the earliest orchestral use of the clarinet was probably at a subscription concert for the German composer, Carl Barbandt, in 1756 (see above p. 223). Another foreign musician active in London was the German, Carl or Charles Weichsel. He played oboe at the Kings Theatre, and was probably the "Mr. Wrexell" who played the clarinet on 28 December 1760, in Arne's Thomas and Sally, and in his music for an "Afterpiece: An New Musical Entertainment".⁹¹ Weichsel may also have played the clarinet during 1762 in Arne's Artaxerxes and J. C. Bach's Orione.⁹² A final example of the orchestral use of what were probably baroque clarinets occurred in Zweibrücken. In 1760, three clarinetists were listed as court musicians: Johann Kertz, Troller (or Broller), and Wilhelm Weisch (the father).⁹³ In summary from 1733 to 1760, at least nine court orchestras in Germany made use of the

⁸⁹Jacob von Stählin, "Nachrichten von der Musik in Rußland," in Johann Joseph Haigold [August Ludwig von Schlözer], Beylagen zum neuveränderten Russland (Riga: J. F. Hartknoch, 1769-1770), part 2, p. 106.

⁹⁰See R.-Aloys Mooser, Annales de la musique et des musiciens en Russie au XVIII^{me} siècle, 2 vols. (Geneva: Mont-Blanc, 1955), 1:55, 203 note 2.

⁹¹Carl Ferdinand Pohl, Mozart und Haydn in London, 1:64, 71-2; 2:373. At Covent Garden Theatre, Weichsel received 5 shillings a night for playing the oboe, and 10 shillings 6 pence for playing the clarinet in Thomas and Sally. See The London Stage 1600-1800, 4:815, 827.

⁹²Weston, More Clarinet Virtuosi of the Past, p. 267.

⁹³Musik und Musiker am Mittelrhein. Ein biographisches, orts- und landesgeschichtliches Nachschlagewerk, ed. H. Unverricht, 2 vols. (Mainz: B. Schott's Söhne, [1974]), L:180-1.

clarinet. By mid-century the instrument was required at the Paris Opéra and was included in one court orchestra in Czechoslovakia (see Table 5 above page 235).

Town and Church Musicians

Very frequently the same musicians who played in the court orchestra also played in the local churches, as suggested for the chapel of St. Gereon in Cologne from 1749 (see page 226 above). At the Rheingau abbey of Eberbach, church musicians probably played the clarinet during the second decade of the eighteenth century, because six clarinets were bought for this abbey from Mainz in 1710.⁹⁴ Shortly thereafter, two churches in Nuremberg ordered clarinets from Jacob Denner. Between 1 May 1711 and 30 April 1712, four clarinets were made for the "Music-Chor" of the Frauenkirche.⁹⁵ Two years later, the Sebaldkirche also ordered two clarinets.⁹⁶

According to the lexicographer, E. L. Gerber, Joseph Lacher, Kapellmeister in Kempten and a virtuoso player of the English horn, was taught the oboe and clarinet by his father, a town musician

⁹⁴Wiesbaden Stadtarchiv, cited by Adam Gottron, Mainzer Musikgeschichte von 1500 bis 1800 (Mainz: Auslieferung die Stadtbibliothek, 1959), pp. 115-16.

⁹⁵Kirchenrechnung Vereinigtes protestantisches Kirchenvermögen der Stadt Nürnberg 228, nr. 3, 70 in the Landeskirchliches Archiv, Nuremberg, cited by Nickel, Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg, p. 454.

⁹⁶Kirchenrechnung ... 228, nr. 5, 78 ..., cited by Nickel, p. 454 note 1246.

("Dorfmusikanten"). Joseph began to play these instruments at seven years of age in 1746.⁹⁷ If Gerber's account is accurate, then it suggests that the baroque clarinet was popular among town and church musicians. During this time, the abbey of Kremsmünster must have made use of clarinets in their music. An inventory of their collection of instruments, taken in 1747, includes two boxwood clarinets ("2 Buchsbaumerne Clarinett").⁹⁸

In his autobiography, Benjamin Franklin mentioned hearing clarinets while visiting Bethlehem, Pennsylvania in 1756. He stated: "I was at their Church, where I was entertain'd with good Musick, the Organ being accompanied with Violins, Hautboys, Flutes, Clarinets, etc.". Franklin, however, wrote this portion of his autobiography between September and October 1788, and is assumed to have been relying on a faulty recollection of past events.⁹⁹ D. M. McCorkle, formerly director of the Moravian Music Foundation, commented that:

Many of Franklin's papers had been destroyed during the Revolution, and he was doubtless writing from memory. It seems safe to assume that he had become familiar with the "clarinets" in Paris, rather than Bethlehem, and they slipped into this list of woodwinds inadvertently. Certainly, no other evidence has turned up to indicate that the clarinet was known in Bethlehem as early as 1756.¹⁰⁰

⁹⁷Ernst Ludwig Gerber, Neues Historische-Biographisches Lexicon der Tönkünstler (Leipzig: J. G. I. Breitkopf, 1813-1814; reprint ed., Graz: Akademische Druck- u. Verlagsanstalt, 1966), part 2, col. 156.

⁹⁸"Mitteilungen," Monatshefte für Musik-Geschichte 20 (1888): 109-10.

⁹⁹See The Autobiography of Benjamin Franklin, A Genetic Text, eds. J. A. Leo Lemay and P. M. Zall (Knoxville: University of Tennessee Press, 1981), pp. x, 149.

¹⁰⁰Donald M. McCorkle, "The Moravian Contribution to American Music," Notes 13 (Sept. 1956): 600.

Dr. Karl Kroeger, formerly of the Moravian Music Foundation, told me in private correspondence that later investigations still confirm McCorkle's statement. Indeed, in both Bethlehem and Winston-Salem, North Carolina, two large Moravian communities, clarinets are not found among written instrumental parts until after 1800.¹⁰¹ See Table 5 for a list of the appearances of the baroque clarinet from 1710 to 1760 in court and church orchestras, as well as in some inventories of instrumental collections by country, city and date.

Military Musicians

The two and three-key clarinet continued to be played in several countries throughout the remainder of the eighteenth and even during the beginning of the nineteenth centuries, particularly in military bands. For example, in 1766 the grenadier band ("Grenadiers-Compagnien") of Salzburg consisted of two clarinets, two fifes and two drums,¹⁰² although this band must have come into existence before this date. Two marches written for two clarinets and two "Pfeifer" are extant, presumably written for this band since they are inscribed, "kayserlich-königlichen Exercitium de anno 1765".¹⁰³ Fortunately a description of

¹⁰¹Personal correspondence from Dr. Karl Kroeger.

¹⁰²According to a "Zirkular-Reskript" dated 4 October 1766 quoted by David Whitwell in The Wind Band and Wind Ensemble of the Classic Period (1750-1800) (Northridge, California: Winds, 1984), p. 105. This document was reproduced in "Hübner's Sammlung der Militär-, Politischen und Oekonomie Gesetze" vol. 4 (1765-1768), p. 77f, according to Emil Rameis in Die Österreichische Militärmusik - von ihren Anfängen bis zum Jahre 1918 (Tutzing: H. Schneider, 1976), p. 19.

¹⁰³They are entitled, "Mousquetiers Marche" and "Grenadiers Marche" and reproduced by Eugen Brixel, Güther Martin and Gottfried Pils

TABLE 5

THE CLARINET IN COURT, CHURCH AND OPERA ORCHESTRAS AND
INVENTORY LISTINGS, 1710-1760

	<u>Germany</u>	<u>France</u>	<u>Czechoslovakia</u>
1710	Nuremberg, Eberbach		
1733	Coblenz		
1735(?)	Hanover		
1741	Berleburg		
1740s	Durlach		
1747	Kremsmünster		
1748	Cologne		
1749	Frankfurt am Main(?)	Paris	
1751			Olomouc
1754	Darmstadt		
	Schlosshof/March		
1759	Mannheim		
1760	Zweibrücken		

¹⁰⁴Salzburg, Landesarchiv, A 111/11 cited by Kurt Birsak in "Salzburg, Mozart und die Klarinette." *Mitteilungen der Internationalen Stiftung Mozarteum* 33 (1985): 40. English translation by Gail Schamberger in "Salzburg, Mozart, and the Clarinet." *The Clarinet* 13 (Fall 1985): 26.

¹⁰⁵Birsak, 1984, photographs are 1a-c on p. 27.

¹⁰⁶See Oskar Seefeltner, *Das Salzburger Kriegswesen*, Salzburger Museum Carolino Augusteum HS 4045, as cited by Birsak, *The Clarinet*, p. 31.

¹⁰⁷Lorents Nikolai Berg, *Das erste Prava für Bassklarinete* 1791, pp. 50-1, 52.

these two clarinets exists in the Salzburg archives. An "Essay and Specification of Instruments in the French Pitch required by Military Bandsmen: dated 1769 cites the following: "2 clarinets in D with mouthpiece and long B key as well as a joint for tuning it to C".¹⁰⁴ Birsak has recently pointed out that there is in existence a three-key clarinet in d'' (with an e/b' key for the thumb) by G. Walch in the Salzburg collection (18/2) which fits remarkably well the description of 1769.¹⁰⁵ According to an inventory of 1776, these two clarinets were still owned by the grenadier band.¹⁰⁶

Later examples of the use of the baroque clarinet appear in countries outside of Germany. For instance, the Norwegian bandmaster, L. N. Berg, provided a fingering chart for the three-key clarinet (with an e/b' key for the left-hand little finger), in his treatise of 1782 and implied that it was an inexpensive instrument appropriate for the beginner.¹⁰⁷ In about 1810, a clarinetist in Dublin wrote a fingering chart for a three-key clarinet (with an e/b' key for the thumb), on the

in Das ist Oesterreichs Militär Musik: von "Turkischen Musik" zu den Philharmonischen in Uniform (Graz: Kaleidoskop, 1982), pp. 46-7.

¹⁰⁴Salzburg, Landesarchiv, Akte Landschaft XIII/11 cited by Kurt Birsak in "Salzburg, Mozart und die Klarinette," Mitteilungen der Internationalen Stiftung Mozarteum 33 (1985):40. English translation by Gail Schamberger in "Salzburg, Mozart, and the Clarinet," The Clarinet 13 (Fall 1985): 26.

¹⁰⁵Birsak, *Ibid*, photographs are 1a-c on p. 27.

¹⁰⁶See Oskar Seefeldner, Das Salzburger Kriegswesen, Salzburger Museum Carolino Augusteum HS 4045, as cited by Birsak, The Clarinet, p. 31.

¹⁰⁷Lorents Nicolai Berg, Den første Prøve for Begyndere udi Instrumental-Kunsten (Kristiansand: A., Swane, 1782), pp. 50-1; see Albert R. Rice, "The Clarinet as Described by Lorents Nicolai Berg (1782)," JAMIS 5-6 (1979-1980): 44, 48-9.

fly leaf of an anonymous flute tutor.¹⁰⁸ A two or three-key instrument may also have been used in Swedish military bands beginning in about 1762 or 1763.¹⁰⁹ The Swedish music historian, A. A. Hülphers, mentioned the clarinet in his treatise of 1773 as an instrument "recently adopted in our Regimental Music".¹¹⁰ He also credited the introduction of the clarinet to a Count Fersen, who "augmented the field music at the Royal Lifeguards with clarinets ...".¹¹¹

The instruments made use of by Count Fersen may have been similar to those used by a group of musicians in the infantry described by the organist, Johan Miklin, in a letter to Hülphers (dated 17 March 1772) as "consisting of ten persons, namely three oboists, two horns, two bassons, two clarinets and one trumpet".¹¹²

In France the three-key clarinet seems to have been played in the military well into the 1780s. J. B. L. Carré depicted a three-key clarinet (with an e/b' key for the left-hand little finger) in a plate

¹⁰⁸Entitled, "Gamut for the Clarionet", see Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," GSJ 37 (1984): 23.

¹⁰⁹See Rice, *Ibid.*, p. 19.

¹¹⁰Translation of the Swedish by Mrs. Kirsten Koblik.

"aylingen i vår Regements Musik antagne."

Abraham Abrahamsson Hülphers, Historisk Afhandling om Music Och Instrumenter (Westerås: J. L. Horrn, 1773; reprint ed., Stockholm: Svenskt musikhistoriskt arkiv, 1969), p. 87 note 11.

¹¹¹"har fält-musiken . . . med Clarinetter . . . Hülphers, p. 103 note 23.

¹¹²Quoted by Tobias Norlind in "Abraham Abrahamsson Hülphers och frihetstidens musikliv," Svenskt Tidskrift för Musikforskning 19 (1937): 44.

"uprätter . . . af 10 personer, näm1. 3 hautboist., 2 waldth. 2 bassong. 2 clarinett. 1 trompet."

dated 1782, of his treatise concerning the French military (plate 33).¹¹³ He described it as "resembling a variety of oboe, but different in that the reed is very large and hard, which is why the sound is very silvery and close to the clarino".¹¹⁴ In Holland, the writer, Joos Verschuere Reynvaan wrote the ranges of several wind instruments in his Catechismus der Musijk (1787). The range given for the clarinet of from f to e''' suggests that he was referring to a two-key instrument. Furthermore, in his dictionary, Muzijkaal Kunst-Woordenboek of 1795, Reynvaan called the two key clarinet a "piva", and promised a fingering chart which never appeared because the book was never completed.¹¹⁵

In conclusion, the baroque clarinet continued to be used in military bands throughout Europe during the late eighteenth and early nineteenth centuries. As we shall show in the following sections,

¹¹³[Jean Baptiste Louis] Carré, Panoplie: ou, Réunion de tout ce qui a trait à la guerre, depuis l'origine de la nation française jusqu'à nos jours (Chalons-sur-Marne: Pinteville-Vouchard, 1795, originally written in 1783), pl. XIV.

¹¹⁴Carré, p. 373.

"semble und variété du hautbois, et n'en diffère que par l'anche plus large et plus ferme, pourquoi le son en est plus argentin et plus proche de celui du clairon."

¹¹⁵Joos Verschuere Reijnvaen, Catechismus der Muzijk (Amsterdam: J. de Jongh and L. J. Burgvliet, 1787), pl. 15; Idem, Muzijkaal Kunst-Woordenboek (Amsterdam: W. Brave, 1795), pp. 141, 519. Gerber claimed that the invasion of Holland during the French revolution prevented the publication of the second part of this dictionary in its 1795 edition. Furthermore, a manuscript of the remaining part has not been found and was probably lost by the publisher. See Ernst Ludwig Gerber, Neues Historische-Biographisches Lexicon der Tonkünstler, cols. 842-3; G. H. Broekhuizen, "Joost Verschuere Reynvaan," Caecilia en die Muziek 5 (1848): 167-8; G. A. Fokker, "Reijnvaan (Mr. Joos Verschuere)," Bouwsteenen. Tweede Jaarboek der Vereeniging voor Noord-Nederlands Muziekgeschiedenis 1872-1874 ([Amsterdam]: Loman, Kirberger & Van Kesteren, [1874]), p. 122; and Jan Willem Enschedé, "Reynvaan, Mr. Joos Verschuere" in Nieuw Nederlandsche Biografische Woordenboek, ed. P. C. Molhuysen and P. J. Blok, 10 vols. (Leiden: A. W. Sythoff, 1911-1931), 1: cols. 1435-7.

PLATE 33

however, classical four, five and six-key clarinets, slowly supplanted the baroque instrument as they came to be introduced into many opera and court orchestras in large cultural centers (such as Paris, London and Berlin), as a result of their popularization by virtuoso players.

A three-key clarinet, with the B key for the left-hand little finger, in Jean Baptiste Louis Carré, Panoplie: ou, Réunion de tout ce qui a trait à la guerre (Paris: Fuchs, 1797), pl. XIV.

however, classical four, five and six-key clarinets, slowly supplanted the baroque instrument as they came to be introduced into many opera and court orchestras in large cultural centers (such as Paris, London and Berlin), as a result of their popularization by virtuoso players.

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CHAPTER VI

AN INSTRUMENT OF TONAL CONTRAST

The clarinet commonly played between 1760 and 1820 had either four or five keys, and differs in some aspects of construction from the baroque, two- and three-key instruments. These additional keys are for the notes $\underline{a}^b/\underline{e}^{b''}$ and $\underline{f}^\#/\underline{c}^{\#''}$. It cannot be known with certainty which of these keys was added first to the clarinet. They provide better intonation, resonance and greater facility than the cross fingering required for these notes on the two- and three-key clarinets.¹ Indeed, during this time the five-key clarinet became the standard model for players around the world, and continued to be made in Germany as late as the early twentieth century.² After the instrument lost its baroque connotation as a substitute for the trumpet, it was given parts on technical and musical levels, comparable to music for the oboe. A much greater interest was also shown by composers and theoreticians in the expressive capabilities and tone color of the clarinet. As the instrument became better known, it became ever more popular, because its range, its beauty of tone and its expressive power were considered by

¹Cf. Adam Carse, Musical Wind Instruments (London: Macmillan and Co., 1939, reprint ed., New York: Da Capo, 1975), p. 27.

²During the early twentieth century, five-key boxwood clarinets were on sale in England, imported from Markneukirchen by Theodor Stark. See H. Edmund Poole, "A Catalogue of Musical Instruments offered for sale in 1839 by D'Almaine & Co., Soho Square," GSJ 35 (March 1982):31.

many to be greater than those of any other woodwind instrument.³ Included below is a discussion of the design and construction of clarinets with more than five keys, made from 1760 to 1820, since many aspects of these instruments were adopted by later makers.

The Four-Key Clarinet

A fourth key with its corresponding tone hole was added to the clarinet on the joint for the lowest hand. Several surviving examples of four-key instruments indicate that many makers utilized a short $\underline{a}^b/\underline{e}^{b''}$ key positioned for the right-hand little finger. Considerable written documentation, however, shows that other makers preferred instead, a long $\underline{f}^\#/\underline{c}^\#''$ key positioned for the left-hand little finger. Both types of these four-key clarinets were played at about the same time. Like its predecessors the two- and three-key clarinets, four-key instruments are sometimes divided into three sections: 1) mouthpiece with socket; 2) middle joint having two non-diametrical keys (the speaker and $\underline{a}'$ keys) placed on the frontal and dorsal sides of the tube, with one hole for the thumb on the dorsal side, and six finger holes on the frontal side; and 3) lower stock combined with a bell, having one hole for the right-hand little finger. The third section included a long lever for the $\underline{e}/\underline{b}'$ key mounted on a ring, and positioned for the right thumb or left-hand little finger.⁴ The short lever for the $\underline{a}^b/\underline{e}^{b''}$ key is positioned for the right-hand little finger and mounted in a pronounced socket swelling of the lowest

³Jeremy Montagu, The World of Baroque & Classical Musical Instruments (Woodstock, New York: Overlook Press, 1979), p. 87.

⁴By mid-eighteenth century, the practice of placing the left hand uppermost was required because of the placement of the fourth key. Cf. Nicholas Shackleton, "Clarinet," NGDMI, 1:343.

joint. Its flap (which is usually square in shape) covers a tone hole just below the finger hole for the note f/c'' , which was bored in the swelling at an oblique or slanted angle. Theoretically, the hole for the $a^b/e^{b''}$ key should be placed above the fingerhole for f/c'' , but because of the extra width of the bore at the socket swelling, it must be placed lower to achieve the correct tuning.⁵ The long lever for the $f^\# / c^\#''$ key is positioned for the left-hand little finger and mounted in a pronounced socket swelling of the lowest joint. When the e/b' key is placed on the left side of the clarinet, the $f^\# / c^\#''$ key is higher up on the tube than the hole for the e/b' key, and the touchplates of these levers are close together so they are easily reached by the left-hand little finger. Four-key clarinets were also made in four sections by a division of the middle joint after the third finger hole. Additional joints were created after a mouthpiece was chipped or a bell cracked. Replacements were most economically effectual by cutting off the broken mouthpiece and turning a socket into the upper end of the barrel, to take the corresponding tenon of the replacement mouthpiece. In a similar manner, a socket was turned in the lower end of the stock, to take the corresponding tenon of the replacement bell. The advantage of making separate mouthpiece and barrel joints or bell and lower stock joints became evident to makers by the 1780s.⁶

⁵Cf. Eric Halfpenny, "Early English Clarinets," *GSJ* 18 (1965):49; and Carse, pp. 154, 158. Clarinets with this characteristic were known in Flemish as *Klarinet met eksteroog*, the French equivalent being *Clarinette avec oeil de perdrix* (clarinet with an eye of partridge). See Victor-Charles Mahillon, *Catalogue Descriptif et Analytique du Musée Instrumental du Conservatoire Royal de Musique de Bruxelles*, 5 vols. (Ghent: A. Hoste, 1893-1922), 4:347.

⁶Cf. Halfpenny, pp. 45, 49-50.

Germany

The earliest four-key clarinets were clarinettes d'amours pitched in $\underline{a}'$, $\underline{a}^{b'}$, or $\underline{g}'$, constructed by German makers about 1750 to 1760.⁷ These low pitched instruments differ from soprano clarinets (pitched in $\underline{a}'$ and above) by their greater length, the use of a globular or pear-shaped bell, and a metal crook or curved wooden barrel, for convenient placing of the mouthpiece.⁸ Unlike the soprano clarinet, the touchplate of the $\underline{a}^{b'}/\underline{e}^{b''}$ key on the clarinette d'amour was usually made in a "double wing" shape for the benefit of right or left-handed players.⁹ German makers of three- and four-key clarinettes d'amours include: J. Kraus, "I.S.W.", "Ioseph SW/Trifftern", F. Gehring, F. G. Kenigsperger, and F. Lehner.¹⁰ The addition of the $\underline{a}^{b'}/\underline{e}^{b''}$ key is also found on basset horns (tenor clarinets) pitched in $\underline{f}'$, made by German makers from c. 1760 through the 1770s. For example, this key is found on a five-key

⁷In each instance the fingering of the written $\underline{c}'$ of these particular clarinets produces the pitches referred to as the tonality of the instrument.

⁸Cf. Anthony Baines, European and American Musical Instruments (New York: Viking Press, 1966), p. 114. Many surviving examples of clarinettes d'amours appear to be originally three-key instruments that were modernized by the addition of an extra key or two. See Nicholas Shackleton, "Clarinette d'amour," NGDMI, 1:404.

⁹See Kurt Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum. Verzeichnis und Entwicklungs-geschichtliche Untersuchungen (Salzburg: Salzburger Museum Carolino Augusteum, 1973), pp. 46, nos. 18/6, 18/7 and 18/8; p. 114.

¹⁰See Curt Sachs, Sammlung alter Musikinstrumente bei der Staatliche Hochschule für Musik zu Berlin. Beschreibender Katalog (Berlin: J. Bard, 1922), col. 295, nos. 84, 85; 293, no. 2892; Birsak, p. 46, nos. 18/4, 18/5, 18/6 and 18/7; Heinrich Seifers, "Die Blasinstrumente im Deutschen Museum. Beschreibender Katalog," Deutsches Museum von Meisterwerken der Naturwissenschaft und Technik. Abhandlungen und Berichte 44 (1976):43, no. 18869; Shackleton, "Clarinette d'amour," p. 404, ill. 1(a); Phillip T. Young, Twenty-Five Hundred Historical Woodwind Instruments (New York: Pendragon, 1982), pp. 69, 138.

basset horn by J. P. Pledinger, two six-key basset horns by A. and M. Mayrhofer, and a seven-key instrument by "ISW" (Ioseph S. Walch/Trifftern?).¹¹

One of the earliest four key soprano clarinets was constructed by the maker, "ISW" (the same maker as "ISW"?, London, Horniman museum 243, plate 34) circa 1750-60. Its $\underline{a}^b/\underline{e}^b$ key was originally made in a "double wing" shape, the wing furthest to the left of the right-hand little finger was partly filed down.¹² This unusual feature clearly shows a similarity to the $\underline{a}^b/\underline{e}^b$ key of the clarinette d'amour. The instrument is pitched in $\underline{c}'$, made of boxwood, and appears to be divided into six sections: bell, lower stock, lower joint, upper joint, barrel and mouthpiece. The separate bell and mouthpiece were undoubtedly provided after the one-piece, original sections had been damaged. An aspect of construction commonly seen on four- and five-key clarinets is ISW's use of a block or a cutaway boss rather than a turned ring on the lower joint, to position the flap of the $\underline{e}/\underline{b}'$ key. Horn ferrules are also found on this instrument, a feature common to many clarinets made after the mid-century.¹³

¹¹Birsak, p. 50, nos. 30 and 31; Birsak, "Zu Josef Saams Buch über das Bassetthorn: Ein Diskussionsbeitrag," *Mf* 27 (July-Sept. 1974):336-37; Young, p. 83.

¹²See the sketch of this instrument in [Adam Carse], *The Adam Carse collection of old Musical Wind Instruments* (London: London County Council, [1951]), p. 45; and Graham Melville-Mason's description in *An Exhibition of European Musical Instruments. The Galpin Society, 21st Anniversary Exhibition* (Edinburgh: Reid School of Music, 1968), p. 26, no. 153.

¹³For another photograph of this clarinet see Adam Carse, *Musical Wind Instruments*, p. VII(a) and [Jean L. Jenkins], *Musical Instruments. Horniman Museum London* (London: Inner London Education Authority, 1970), pl 15, no. 84, where its maker is listed as "Walch".

PLATE 34

A four-key clarinet by "ISW" (London, Horniman Museum 243) which includes an $\underline{a}^b/\underline{e}^b$ key with a touchplate made in a "double wing" shape. The wing furthest to the left of the right-hand little finger was partly filed down.

The Germans continued to make four-key clarinets during the 1770s and through the 1780s, with some modifications of construction. For example, a clarinet in c'' by August Grenser of Dresden (Leipzig 1472) includes two small tone holes in the place of one larger hole--a double hole--for the third and seventh fingers. These double holes make the intonation more exact in playing the semitones $c\sharp'/g\sharp''$ and $f\sharp'/c\sharp''$. Grenser's instrument is dated "1777" on the lower stock/bell, one of the earliest clarinets dated by a German maker.¹⁴ It is divided into four sections, having a separate mouthpiece and barrel, single middle joint, and lower stock/bell. The touchplate of the a^b/e^b key is gently curved upward for ease in manipulation with the right-hand little finger. Ivory ferrules also appear on both ends of the lower stock/bell and barrel, a type of ferrule very often found on clarinets after the mid-century.¹⁵ Later German makers include C. F. Riedel and J. N. Gehring, whose clarinet in b^b dated 1788, was lost during World War II unfortunately.¹⁶ Heyde has dated an anonymous instrument in d'' (Leipzig 1458) as late as c. 1790.¹⁷

Three inventories of the instruments found in German court orchestras provide evidence for the use of additional middle joints of

¹⁴The practice of dating clarinets is found on a few instruments of German, Czech, English, French and Italian origin.

¹⁵For a photograph and description see Herbert Heyde, "Über Rohrblattinstrumente des Musikinstrumentenmuseums der Karl-Marx-Universität Leipzig," *Tibia* 2 (1979):382, abb. 6; and Phillip T. Young, *The Look of Music: rare musical instruments, 1500-1900* (Vancouver: Vancouver Museums & Planetarium Association, 1980), p. 17, no. 101.

¹⁶See Curt Sachs, *Sammlung Alter Musikinstrumente bei der Staatliche Hochschule für Musik zu Berlin*, cols. 291-2, nos. 520, and 2873. The loss of the Gehring clarinet was reported to me by David Ross.

¹⁷Heyde, p. 383.

longer or shorter lengths, inserted to change the pitch of an instrument. For example, in 1780 the Detmold "Musikkammer" included "2 Klarinetten, B mit A-Stücken, 2 Klarinetten C ohne Einsatzstücken".¹⁸ In 1783, a list of instruments available to the court orchestra at Koblenz reveals "4 Klarinetten F und B, die F seyndt nicht brauchbar", "2 Klarinetten A mit B-Stück", and "1 Klarinette in C".¹⁹ Another inventory here for 1789 (dated 19 January 1790) includes two "D Clarinetten mit A Stück und silberne Klappen".²⁰ We note that in Detmold, clarinets in $\underline{b}'$ were provided with a "stück" for tuning one-half step lower to $\underline{a}'$, but in Koblenz the clarinets in $\underline{a}'$ have a "stück" for changing to $\underline{b}'$. The use of these middle joints made it easier for the players to perform in various tonalities on the $\underline{a}'$ or $\underline{b}'$ instrument. A change of more than one-half step would require a reduction in the size of additional sections of the clarinet. None of the $\underline{c}''$ clarinets were provided with a "stück" although the notation "ohne Einsatzstücken" implies that a "stück" could also have been provided for a half-step change to a clarinet in $\underline{b}'$. The "D Clarinetten mit A Stück und silberne Klappen" probably referred to a $\underline{d}''$ clarinet with a shorter "stück" for tuning to $\underline{e}^{b''}$.²¹ As late as 1803, G. H. Bestlmeier, a dealer of musical instruments in Nuremberg, provided a

¹⁸Lippische Landesarchiv in Detmold, Hofstaatssachen Titel 6 Nr. 10, quoted by Joachim Domp in Studien zur Geschichte der Musik an Westfällischen Adelshöfen im XVIII. Jahrhundert (Düsseldorf: H. Krumbiegel, 1934), p. 50.

¹⁹Gustav Bereths, Die Musikpflege am Kurtrierischen Hofe zur Koblenz-Ehrenbreitstein (Mainz: B. Schott's Söhne, 1964), pp. 154-55.

²⁰Staatsarchiv Koblenz IC/948, fols. 14-16, quoted by Shelley Davis, "The Orchestra under Clemens Wenzeslaus: Music at a Late Eighteenth-Century Court," JAMIS 1 (1975): 98-99.

²¹See Nicholas Shackleton, "Clarinet," NGDMI, 1:393.

drawing of a four-key clarinet (with an $\underline{a}^b/\underline{e}^{b''}$ key), which he advertised for sale as "A clarinet with an $\underline{a}'$ joint fitted with ivory, 16 florins".²²

Further information concerning the German clarinet appears in an anonymous article published in 1781 in the Deutsches Encyclopädie (the first German encyclopedia to be modeled on Diderot's Encyclopédie²³):

Clarinet, a wind instrument produces a tone more pleasant than the oboe, and more cutting than the flute; it is midway between the oboe and transverse flute.

The facile clarinets of the regiment shriek more than a trumpet particularly if they have a metal mouthpiece instead of a wooden one. Here, the discussion is about the softer instruments like those handled by the new concert artists.

A clarinet has a range similar to a string instrument but extends five tones lower; also it has generally come to be used in a relationship of a fifth [to the tonic pitch], since they [the clarinetists] would rather play the note $\underline{b}^b$ than $\underline{b}$, and find playing in the key of F easier than in C.

In general, there is no other instrument that gives the composer more trouble than the clarinet. When playing the chalmeau [register] a $\underline{c}''$ clarinet goes up to $\underline{e}'$ and two tones lower than the violin.

One cannot ascend above $\underline{c}'''$ or $\underline{d}'''$. Its keys help to produce semitones and its range has the best effect in the middle.²⁴

²²Georg Hieronymus Bestlmeier, Magazin von verschiedenen Kunst- und andern nützlichen Sachen, 3 (1803), reproduced by Bernhard Schultze in Querflöten der Renaissance und des Barock. Eine historisierende literarische Anthologie, 2nd ed. (Munich: The Author, 1984), p. 448.

"Ein Clarinet mit einem A Stück garnirt mit Elfenbein 16 ft."

²³Robert Collinson, Encyclopaedias: Their History Throughout the Ages, 2nd ed. (New York: Hafner, 1966), p. 110.

²⁴Deutsche Encyclopädie oder Allgemeines Real-Wörterbuch aller Künste und Wissenschaft, ed. H. M. G. Köster, 23 vols. (Frankfurt: Varrentrapp Sohn und Wenner, 1778-1807), 5 (1781): 685.

"Clarinet, ein Blasinstrument, welches einen mehr molligten Ton von sich giebt, als die Hoboe, und mehr schneidenden, als eine Flöte; das Mittel zwischen Hoboe und Queerflöt.

Die raschen Regimentsclarinette, besonders, wenn sie staat hölzernen Scheidel einen von Meßing haben, schreyen mehr als eine

It is notable that the unique tone quality of the clarinet--midway between the oboe and transverse flute--is emphasized in the first sentence of the description. One may assume that the trumpet-like clarinets in the "regiment" were the shrill, high-pitched clarinets in f'' or the bright toned clarinets in c'' . The use of a metal mouthpiece (the earliest known reference) seems to have helped in the production of a brilliant tone quality. The "softer" instruments used by the new concert artists were undoubtedly the lower-pitched instruments in b^b and a' . Their similarity to a string instrument such as the violin was obvious, since the clarinet often took the leading part in regiment bands. Because of the cross fingerings required the note b^b is actually much better in tune than b , and many works at this time were written in a tonality a fifth higher than the pitch of the clarinet being used, e.g., clarinet in b^b in the key of F and clarinet in d'' in the key of A (the transposed key of F). The chal(u)meau register is identified here as from e' to the lowest note, e . This is the earliest German source to mention specific pitches. This author preferred the mid-range of the clarinet as providing the best quality of tone. His cautious upper limit of d''' may reflect this preference.

Trompete. Hier ist aber die Rede von den sanften Instrumenten, wie sie die neuern Concertisten behandeln.

Ein Clarinet scheint wie ein Saite, die vom Ueberspinnen um 5 Töne tiefer wird, auch in einer fünften Verhältniß auf die Welt gekommen zu seynz weil sie lieber b als $\underline{h}$, und leichter aus dem F als C blasen.

Ueberhaupt ist kein Instrument, das den Tonseßern mehr Mühe macht, als das Clarinet. Wenn sie Chalmeau blasen, so geht ein $\underline{c}$ Clarinet bis ins $\underline{e}$ und zwey Töne tiefer als die Geige.

Ueber das dreygestrichene $\underline{\underline{c}}$ oder $\underline{\underline{d}}$ darf man sie nicht hinaufseßsen. Ihre Klappen helfen die Semitöne herauszubringen, und ihr Umfang macht in der Mitte die beste Wirkung."

England

In England, clarinets were initially advertised for sale, among other instruments, by George Brown in Jackson's Oxford Journal on 30 November 1754, the advertisement being repeated on 10 May 1755. During October of the same year, Thomas Underwood advertised clarinets for sale in the Bath Journal, repeating his advertisement on 27 March 1756 in the Oxford Journal.²⁵ These instruments may have been the baroque, two- or three-key type or possibly the more advanced four-key design. One tantalizing bit of evidence is a clarinet barrel (Washington, Miller collection 275) stamped by the important English maker, Thomas Stanesby, Jr. (1692-1754).²⁶ Unfortunately, it cannot be proven, from the barrel alone, that Stanesby actually made clarinets, since his stamp may have been used after he died in 1754. Indeed, Stanesby's tools and work in progress were bequeathed in his will to his apprentice, Caleb Gedney,²⁷ who in turn was identified as the maker of two clarinets in the collection of one Samuel Hellier (d. 1784).²⁸ Further evidence in England, are the eight "Schalmeys" that make up part of the wall stuccos in the Upper Library of Christ Church, Oxford (1753), which were probably meant to represent clarinets according to Halfpenny.²⁹ Because

²⁵Halfpenny, "Early English Clarinets," p. 53.

²⁶Eric Halfpenny, "Further Light on the Stanesby Family," GSJ 13 (1960): 68; Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 125.

²⁷Eric Halfpenny, "Biographical Notices of the Early English Woodwind-Making School," GSJ 12 (1959): 49-51.

²⁸Samuel Hellier (edited by Eric Halfpenny), "A Catalogue of Musical Instruments," GSJ 18 (1965):5-6.

²⁹Eric Halfpenny, "The Christ Church Trophies," GSJ 28 (1975):82-3.

of their lack of detail, it is uncertain whether these instruments were depicted as two-, three- or four-key instruments.

Only one four-key clarinet of English origin has been recorded. It is an anonymous instrument in c'' (c. 1760) in the Bate collection at Oxford (no. 413).³⁰ This instrument has separate bell and mouthpiece sections, and carries narrow ferrules of brass, a metal which is fairly often employed for this purpose. Its barrel was bored to accept a mouthpiece having a tenon almost the full length of the barrel itself, for the purpose of providing a long tuning slide. According to Shackleton, this characteristic is peculiar to English clarinets from about 1785.³¹ Halfpenny stated that this clarinet is a composite instrument consisting of sections from different clarinets.³² The body and turned ring mounts of this instrument, however, resemble those of a five-key clarinet made by Henry Kusder of London, during the 1760s.³³

France

Three examples of four-key clarinets by the French makers, J. Michel (in d''), Martin Lot (in $b^{b'}$) and Charlier (in c'') were catalogued by Sachs.³⁴ Each of these instruments carries an $a^{b/e}b''$

³⁰Photographs of this instrument are found in F. Geoffrey Rendall, The Clarinet, 3rd ed. (London: E. Benn, 1971), pl. 2, a; and Jeremy Montagu, The World of Baroque & Classical Musical Instruments, p. 88, p. 70.

³¹Shackleton, "Clarinet," p. 393.

³²Halfpenny, "Early English Clarinets," p. 56, note 2.

³³Cf. Halfpenny, "Early English Clarinets," p. V(d), pl. VI, 2.

³⁴See Curt Sachs, Sammlung Alter Musikinstrumente bei der Staatliche Hochschule für Musik zu Berlin, cols. 289, no. 2874; 292, nos. 2871, 2878. We are uncertain about the nationality and identity of Charlier. See Lyndesay G. Langwill, An Index of Musical Wind-Instrument Makers, 6th ed. (Edinburgh: The Author, 1980), p. 28.

key. Charlier's clarinet has this key positioned on the dorsal side for thumb. Lot's instrument originally had this key in the same position as that of Charlier's, but the tone hole was filled in and a new one drilled so as to re-position the key on the frontal side.³⁵ A metal saddle was used on this clarinet to mount the e/b' key, probably to repair damage to the original mounting. On the basis of this evidence it might be assumed that on the earliest French four-key instruments, the dorsal position of the a^b/e^{b'} key (like the original position of the e/b' key)³⁶ preceded what came to be its usual place on the front of the instrument.³⁷

During the 1760s and 1770s, several written accounts were published in Paris and Amsterdam concerning a four-key clarinet with an f[#]/c^{#'} key. The first of these, by the German writer and clarinetist, Valentin Roeser, is also the earliest known instrumentation manual. It is entitled, Essai d'instruction à l'usage de ceux qui composent pour la clarinette et le cor (1764).³⁸ Roeser did not provide a specific description of the clarinet in his Essai, but it may be presumed that it was a four-key instrument, since he did make an important comment about the e/b' and f[#]/c^{#'} keys. He stated that, "The two keys were added not long ago, because earlier ones had neither the B natural [e/b' key] or

³⁵Sachs, col. 292.

³⁶See Shackleton, "Clarinet," p. 393.

³⁷See Oskar Kroll, The Clarinet, rev. D. Riehm, trans., H. Morris, trans. ed., A. Baines (New York: Taplinger, 1968), p. 19.

³⁸(Paris: Le Menu, [1764], a later printing, Paris: Mercier, [1794 - 1796], reprint ed., Geneva: Minkoff, 1972), pp. 2-12. For a translation and commentary see Albert R. Rice, "Valentin Roeser's Essay on the Clarinet (1764), Background and Commentary" (M.A. thesis, Claremont Graduate School, 1977), pp. 91-136. See Heinz Becker, History of Instrumentation, trans. R. Kolben (Cologne: A. Volk, 1964), p. 22.

the C sharp [$f^{\#}/c^{\#''}$ key].³⁹ Roeser was probably referring to a time of not less than about ten years prior to the date of his treatise for the addition of these keys. The most important evidence for this assumption is a clarinet concerto by Johann Stamitz (1717-1757). The technical difficulty of this work suggests that it was written for a four- or five-key clarinet.⁴⁰ Furthermore, it seems very likely that Stamitz composed this concerto during his visit to Paris, from 1754 to 1755, since clarinetists were not regular members of his court orchestra in Mannheim until 1759.⁴¹ Finally, according to Roeser, he met Stamitz during his stay in Paris, and exchanged information with him concerning the correct manner of writing music for the presumably new, classical clarinet and the horn.⁴²

In his Essai, Roeser reported that seven clarinets of different pitches (and thus of differing sizes) were available to the composer. He cited those pitched in g' (the pitch of the clarinette d'amour), a' , $b^{b'}$, c'' , d'' , e'' and f'' .⁴³ These instruments were used by the clarinetist in order to ease the difficulties encountered in both the fingering and intonation of music written in various tonalities. Roeser

³⁹Roeser, Essai . . . , p. 10, note*.

⁴⁰"Ces deux Clefs ont été ajoutées il n'y à pas longtems, Car auparavant on n'avait ni ce Si naturel ni cet Ut#."

⁴¹See below pages 373-378.

⁴²Clarinetists were initially recorded at Mannheim in the Almanach Electoral Palatin Pour L'Année 1759. See Eugene K. Wolf, The Symphonies of Johann Stamitz (The Hague: M. Nijhoff, 1981), p. 343, note 15; and above page 230.

⁴³Roeser, Essai . . . , p. 19. Cf. Elaine Keillor in "Communications," Journal of the American Musicological Society 28 (1975): 567.

⁴⁴Roeser, Essai . . . , p. 2.

also recognized the different tonal qualities of some of these instruments. For instance, he states that the clarinet in g' is the sweetest type, and the clarinets in d'' and e'' are more brilliant and sonorous than the clarinet in a' .⁴⁴

Two additional clarinets in b' and $e^{b''}$ were subsequently added to Roeser's list by the French writers, L. J. Francoeur and J. B. de La Borde.⁴⁵ In his instrumentation treatise of 1772, Francoeur provided a description of the tonal qualities of six clarinets and noted their use in specific types of musical works:

The large clarinet in g' [clarinette d'amour] is the largest and sweetest, but not very common in the orchestra. Its tone is sad and lugubrious which is why it is used for somber effects and funeral pieces The large clarinet in a' has a tone which is very sweet, much less somber and with a greater range than that in g' . It is appropriate for tender and gracious airs The clarinets in $b^{d'}$ and b' ⁴⁶ have a more vigorous and projecting sound than those in a' , especially those in b' . They are suitable for grand effects in symphonies and overtures The clarinet in c'' is more sonorous than that in b' and is suitable for grand effects in overtures and war pieces The small clarinet in d'' is very sonorous and projecting, which is why it is named brilliant, and is effective in loud works such as, overtures, symphonies and airs The small clarinet in e'' is not very common due to its small size and very high sound; it is used only for tempests, combats, and tambourins⁴⁷

⁴⁴Roeser, *Ibid.*, pp. 2, 7-8.

⁴⁵[Louis-Joseph] Francoeur, Diapason général de tous les instrumens à vent (Paris: Le Marchand, [1772], a later printing, Paris: Des Lauriers, [c. 1781], reprint ed., Geneva: Minkoff, 1972, p. 21; [Jean-Benjamin de La Borde], Essai sur la musique ancienne et moderne, 4 vols. (Paris: P. D. Pierres, 1780), 1:252.

⁴⁶Francoeur mentioned (p. 24) that the clarinet in b' is actually the $b^{b'}$ instrument which has been altered by the substitution of shorter middle joints (corps de rechange).

⁴⁷Francoeur, pp. 23-25.

"La grande Clarinette en G-ré-sol, est l'espece la plus grande et la plus douce, elle n'est pas fort comune dans les Orchestres, le Son en est triste et lugubre c'est pourquoy on n'en fait usage que

An illustration of the four-key clarinet with an $\underline{f^\#}/\underline{c^\#}$ key is found in the fingering chart of Roeser's Gamme de la clarinette, avec six duos (1769).⁴⁸ The clarinet depicted in this chart appears to have been made in four joints: two middle sections and two integral sections for the bell/lower stock and mouthpiece/socket (plate 35). The shank of the $\underline{f^\#}/\underline{c^\#}$ key lever includes a noticeable upward curve, an uncommon characteristic among extant instruments. This engraving of the clarinet was used as a model for similar drawings in the fingering charts of three subsequent publications.⁴⁹

Frédéric Adolphe Maximilian Gustav de Castillon (1747-1814), a Swiss musician and professor of mathematics at the military school in Berlin, wrote nearly six hundred articles concerning music theory, history and instruments in the five-volume supplement to the

dans les effets sombres et les morceaux funebres La grande Clarinette en A-mi-la, a le son fort doux beaucoup moins sombre et a plus d'étendue que celle en Sol, elle est propre aux airs tendres et gracieux Les Clarinettes en B-fa-si b ou 4, ont le Son plus fort et plus saillant que celles en La, surtout celle en Si4; elles sont propres aux grands effets, comme Simphonies, Ouvertures, bruit de Guerre La Clarinette en C-sol-ut, est plus sonore que celle en Si, elle est propre aux grands effets, comme Ouvertures, bruit de Guerre La petite Clarinette en D-la-ré, est très sonore et très saillante c'es pourquoy on la nomme Brillante, elle est propre aux morceaux de grand bruit, comme Ouvertures, Simphonies, Airs La petite Clarinette en E-si-mi4 ou naturel, n'est pas fort commune á cause de sa petitesse; elle á le Son très aigü et n'est propre qu'aux Tempêtes, Combats, Tambourins"

⁴⁸(Paris: Le Menu, [c. 1769]), title page. See Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," GSJ (1984): 23-4, pl. V.

⁴⁹[Jacques] Hotteterre, Méthode Nouvelle Édition Augmentée des Tablatures de la Clarinette de Mr. Bailleux (Paris: Bailleux, [c. 1775]), p. 24; an anonymous Principes de Clarinette avec la Tablature des Meilleurs M^{tres} pour cet Instrument (Paris: [Girard, c. 1775]), p. 1; Abraham, Principes de Clarinette (Paris: Frère, [c. 1782]), p. 2. See Rice, *Ibid.*, p. 24.

Encyclopédie (1776-1777).⁵⁰ In his article, "Clarinette", he described a four-key instrument (with an $f^{\#}/c^{\#}$ key) which differed only slightly in construction from Roeser's clarinet, and was illustrated in four engravings in a supplemental volume of plates (1777, plate 35, figures 17-20),⁵¹ Castillon's description is very informative and thus warrants an extensive quotation here:

Clarinet: The clarinet is a reed instrument, invented, it is said, at the beginning of this century by a Nuremberger. The [two-key] instrument illustrated [in the 1767 drawing, plate 9] is apparently of the earliest type, but that [four-key instrument] shown in our Plate IV, figs. 17 and 18 [in the 1777 supplement] is more complicated.

Nowadays the clarinet is made in four pieces; the head, the two middle joints and the foot. There are twelve lateral holes, of which seven in front and one at the back are closed by the fingers; the other four are closed by keys. The head is made of boxwood like the rest; it terminates in a beak somewhat resembling that of a flute clouée [flageolet?].⁵² but instead of the mouthpiece, this beak has on its upper flat part a triangular hole as seen in fig. 19 of Plate IV. The beak is pierced obliquely so that the interior profile exactly corresponds to the outline shown in fig. 20. The triangular orifice is covered by a tongue of cane, suitably shaped and adapted, and tied on with thread; so that the mouthpiece of the clarinet is something like the tongue of brass that one finds on a child's wooden trumpet. Incidentally, the tone of the clarinet closely resembles that of the trumpet.

⁵⁰See Biographie Universelle, ed. G. Michaud, 45 vols. (Paris: C. Desplaces, 1854-1865), 7:IX; François-Joseph Fétis, Biographie Universelle des Musiciens, 2nd ed., 8 vols. (Paris: Didot Frères, 1866-1870), 2:208; see also Kathleen Hardesty, The Supplément to the Encyclopédie (The Hague: M. Nijhoff, 1977), p. 133.

⁵¹Supplément à l'Encyclopédie, ou Dictionnaire Raison-né des Sciences, des Arts et des Métiers . . ., ed. J. B. Robinet, 5 vols. (Amsterdam: M. M. Rey, 1776-1780), 2:450-451; and Suite du Recueil de Planches . . . (Paris: Panckoucke, Stoupe, Brunet, 1777), p. 144, sup. pl. 4.

⁵²"Flûte clouée" was corrected to "flûte douce" (recorder) in a reprint of this article in the "Art du faiseur d'instruments de musique et Lutherie," L'Encyclopédie methodique. Arts et Métiers Mechaniques, ed., J. F. Marmontel, 2 vols. (Paris: Panckoucke, 1782-1818), 1:118-120.

PLATE 35

FOUR-KEY CLARINETTS WITH AN F#/C#'' KEY IN THE WORKS OF
ROESER AND CASTILLON

From top to bottom: clarinet from Valentin Roeser, Gamme de la clarinette, avec six duos (Paris: Le Menu, [c. 1769]); figure 17, a clarinet; figure 18, the dorsal side of this clarinet taken apart; figures 19 and 20 frontal and sideways view of the mouthpiece/socket and reed illustrating F. A. M. G. de Castillon's article, "Clarinette" (supplement to the Encyclopédie, 1776) from the Suite de recueil de Planches (Paris: Pankoucke, Stoupe, Brunet, 1777), p. 143, sup. pl. 4.

⁶³The thumb hole and speaker key are numbered in the drawing after the holes and keys on the frontal side.

The clarinet is held like the recorder. Holes 2, 3 and 4 are closed by the three fingers of the left hand. The thumb covers hole 11 and manages the key 12.⁵³ Besides hole 2, the index finger controls key 1. The little finger serves to open and close keys 9 and 10. It is important to bear in mind this double duty of the thumb, index and little fingers when writing music for the clarinet, otherwise one may create insurmountable difficulties. The three fingers of the right hand close holes 5, 6, 7 and the little finger hole 8, while the thumb helps to hold the instrument.

The clarinet described above has a compass of 3 octaves and 2 tones, for the most part chromatic. [Here follows the fingering chart.]

The cadences or trills are played on the clarinet as on the other wind instruments, by opening the upper hole.

One observation must be made, which is that the clarinet is a minor third lower than other instruments; that is, its lowest C is in unison with the lowest A on the violin. By this reckoning the compass of the clarinet extends from 4 ft. C#, the first C# of the cello [*sic*] to E, the triple octave of the minor third of this C# or the fingered E on the top string of the violin.

This is why, when the clarinet plays with other instruments, the part is written a minor third higher than theirs. For example, if the piece is in A major, the part is in C; if in D, it is in F. Owing to fingering difficulties, obligato passages are only written for the clarinet in C (the A of other instruments) and in F major (the D of other instruments). To remedy this want of variety, the middle joints containing the holes 2, 3, 4, 5, 6 and 7 are now made in duplicate. With these new pieces the clarinet is raised a major semitone, giving two more tonalities Bb and Eb major.

In preparing a piece of music in A major for the clarinet, one writes it in C major, and for D major in F, marking the part as one does for the horns, "Clarinet in C" [*sic*, apparently a typographical error for A], so that the player will know which middle joints to take. If the music is in Bb or Eb, the clarinet part will be in C for Bb and in F for Eb, and will be marked "Clarinet in Bb".

As regards filling-up passages, where the clarinet has not obligati or plays only simple parts, they can be managed in all keys by careful attention to fingering and breath controls, upon which this instruments makes considerable demands.

The two things to remember are that the clarinet is usually a minor third below other instruments, but that one should state which middle joints the player must select.

At the time of writing, there is in Berlin a musician who plays a clarinet with six keys, on which he obtains all the modes.

⁵³The thumb hole and speaker key are numbered in the drawing after the holes and keys on the frontal side.

It has already been shown that four keys cause difficulties. How much worse it must be with six!⁵⁴

At the time he wrote this article, Castillon was unacquainted with the two-key clarinet illustrated in the Planches (1767) of the Encyclopédie. He emphasized that the clarinet was actually pitched in a', but provided with two duplicate middle pieces to raise the pitch a half step higher to b^{b'}. The six-key clarinet of the musician in Berlin reminds us that instruments of a more advanced design were available to a few adventurous players. Its fifth and sixth keys were probably for the notes a^b/e^{b'} and c[#]/g^{#'}, the latter found on French instruments of the late eighteenth century.

The reader will note that the f[#]/c^{#'} key of Castillon's clarinet (indicated in fig. 17 of plate 35) has a straight shank, a characteristic found on several five-key clarinets made later in the century. Its four sections are separated (fig. 18) revealing the dorsal side of the instrument, and the tenons of the joints shown without the thread that is normally wrapped around them. The shape of the lower stock/bell seems to have a more gradual taper than that of Roeser's clarinet. The two views of the reed and the mouthpiece/socket are given in figures 19 and 20. We note that the mouthpiece socket is shorter than Roeser's and has a triangular slot with a squared-off end. Halfpenny assumed that Castillon's four-key clarinet was an instrument developed by French makers.⁵⁵ Indeed, the French did play this type of

⁵⁴Compare the translation by Eric Halfpenny in "Castilon [sic] on the Clarinet," Music and Letters 35 (Oct. 1954): 334-5. Due to the length of my quotation, Castillon's original text is reproduced in Appendix 5 rather than here.

⁵⁵Halfpenny, "Castilon [sic] on the Clarinet," pp. 333, 336.

clarinet as proven by the books and fingering charts of Roeser, Francoeur and others. It appears, however, that this type of clarinet was known also in Berlin, since Castillon wrote his article in that city. The possibility then arises that this type of four-key clarinet was introduced to Paris by Roeser or earlier German clarinetists, rather than being a separate development by French makers. In any case, the national origin of this type of clarinet must remain in question, because of the apparent lack of extant four-key clarinets with an $f^{\#}/c^{\#}$ key of either French or German provenance.⁵⁶

Belgium

Two four-key clarinets by Godefroid-Adrien Rottenburgh (ii) and one by Jean Baptiste Willems are characteristic of an early type of construction found in Brussels during the 1760s. Rottenburgh's clarinet in $b^{\flat}$ (Brussels 2572) is divided into three sections: mouthpiece/socket (now missing); undivided middle joint; and lower stock/bell. Its $e/b^{\flat}$ key is positioned on the back of the instrument for the right thumb similar to those keys found on three-key clarinets.⁵⁷ Another Rottenburgh clarinet pitched in $a^{\flat}$ (Shackleton collection) is illustrated in The New Grove Dictionary of Musical

⁵⁶Only one example of a four-key clarinet with the $f^{\#}/c^{\#}$ key has come to my attention. It was described as a clarinette d'amour in $a^{\flat}$ by "Deginan", owned by the Flemish collector, César Snoeck. See A Descriptive Catalogue of the Musical Instruments recently exhibited at the Royal Military Exhibition, London, 1890, ed. C. R. Day (London: Eyre & Spottiswoode, 1891), p. 112, no. 225. The present location of this instrument, however, is unknown.

⁵⁷See Victor-Charles Mahillon, Catalogue Descriptif . . ., 4:349; Phillip T. Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 82.

Instruments.⁵⁸ It includes two features common to clarinets made after the mid-century: a block or cutaway boss on the lower stock/bell to position the $\underline{e}/\underline{b}'$ key for the left-hand little finger, and an ivory ferrule on the upper end of the lower stock. A four-key clarinet in $\underline{c}''$ by Willems (Brussels 2560) is unusual in that it includes two small double holes in place of the sixth tone hole for the notes $\underline{a}^b/\underline{e}^{b''}$, as well as the $\underline{a}^b/\underline{e}^{b''}$ key. Because of the existence of these double holes, Mahillon suggested that the $\underline{a}^b/\underline{e}^{b''}$ key of this instrument was a later addition.⁵⁹ Another clarinet attributed to Willems (Brussels 919) is a composite instrument partly made by Rottenburgh. It includes a metal slider for elongating the touchplate of the $\underline{e}/\underline{b}'$ key for use when inserting longer middle joints when tuning to $\underline{a}'$.⁶⁰ This slider may have been added at a later date, since metal sliders for the $\underline{e}/\underline{b}'$ and $\underline{f}^\sharp/\underline{c}^\sharp''$ keys are often seen on French instruments from about 1800. It is interesting to note that both Rottenburgh and Willems also made two-key and five-key clarinets. another four-key clarinet was made about 1780 by Jean Arnold Antoine Tuerlinckx of Mechlen (north of Brussels). It differs from the earlier instruments by its division into six joints

⁵⁸Gude, European Musikinstrumenten. Haag's Genootschap ([The Hague]: n.p., [c. 1970]), pp. 26-27 where the instrument is dated c. 1780 and photographed.

⁵⁹Mahillon, 2: 214; Langwill identified this maker as Jeroenias Schlegel of Basle in an Index of Musical Wind-Instrument Makers, 6th ed., p. 196.

⁵⁸Shackleton, "Clarinet," NGDMI, 1: 392, ill. 3(3); dated by Shackleton as c. 1760. Cf. Friedrich von Huene, "Rottenburgh," NGDMI, 3:264.

⁵⁹Mahillon, Catalogue Descriptif . . . , 4:346.

⁶⁰Mahillon, Catalogue Descriptif . . . 2:211-212. For a photograph see F. Geoffrey Rendall, The Clarinet, pl. I, f. Nicholas Shackleton informed me about the composite construction of this instrument.

(with separate mouthpiece and bell), and its use of five ivory ferrules.⁶¹

Other Countries

Mahillon reported that a four-key clarinette d'amour in g' marked "Schlegel à Bâle", includes an $\underline{a^b}/\underline{e^{b'}}$ key with a curved touchplate positioned for the thumb of the right hand.⁶² This unusual key placement seems to have been made for the benefit of right or left-handed players, and is rarely found. Clarinets were initially offered for sale in the United States during the 1760s in New York and Philadelphia. For example, The New York Gazette of 16 November 1761 advertised "clareonets" made by Gottlieb Wolhaupter, and the Pennsylvania Gazette for 5 January 1764 mentioned clarinets in stock at the music store of Michael Hillegas in Philadelphia.⁶³ While it is not possible to say how many keys these advertised instruments had, we do know that four four-key clarinets were offered for sale at an auction of a large number of items owned by the long-lived music publisher, George E. Blake (1775-1871).⁶⁴

⁶¹Oude Europese Muziekinstrumenten. Haags Gemeentemuseum ([The Hague]: n.p., [c. 1970]), pp. 25-27 where the instrument is dated c. 1780 and photographed.

⁶²Mahillon, 2: 214; Langwill identified this maker as Jeremias Schlegel of Basle in an Index of Musical Wind-Instrument Makers, 6th ed., p. 158.

⁶³See Rita S. Gottesman, The Arts and Crafts in New York, 1726-1776 (New York: The New York Historical Society, 1936, reprint ed., New York: Da Capo, 1970), p. 368; Jo Ann Taricani, "Music in Colonial Philadelphia: Some New Documents," Musical Quarterly 65 (1979) 194.

⁶⁴Catalogue of the Large and Valuable Stock of Music Plates, Sheet Music, Musical Instruments, Material, &c. Being the entire Stock of the late George E. Blake ([Philadelphia]: M. Thomas & Sons, 1871), p. 50, nos. 2799, 2800, 2804, 2805. Blake's career is discussed by Richard J.

The four-key clarinet was also used in the Netherlands during the 1780s and 1790s. It is mentioned in the music dictionary of Joos Verschuere Reynvaan (1795) who provided a fingering chart as well. This is the only known example of a fingering chart for the four-key clarinet with an $\underline{a}^b/\underline{e}^{b''}$ key.⁶⁵ Reynvaan's clarinet exhibits a slightly bulging mouthpiece socket and a wide bell (plate 36). The four-key instrument continued to be played in Italy during the late eighteenth century. It is mentioned by the Italian writer, Carlo Gervasoni, in his treatise of 1800.⁶⁶

The Five-Key Clarinet

The five-key clarinet includes a key for the speaker hole (or the note $\underline{g}^{\#}$ when used by itself), and for the notes $\underline{a}'$, $\underline{a}^b/\underline{e}^{b''}$, $\underline{f}^{\#}/\underline{c}^{\#''}$, and $\underline{e}/\underline{b}'$. It was constructed in different countries at various times during the eighteenth and early nineteenth centuries often alongside four-key, six-key and instruments of a more advanced design. The clarinetist, J. X. Lefevre, began his famous Méthode de clarinette (1802) with an explanation of the origin and development of the clarinet. He stated that the keys for $\underline{e}/\underline{b}'$, $\underline{f}^{\#}/\underline{c}^{\#''}$ and $\underline{a}^b/\underline{e}^{b''}$ were

Wolfe in Early American Music Engraving and Printing (Urbana: University of Illinois, 1980), pp. 45-7.

⁶⁵Muzikaaal Kunst-Woordenboek (Amsterdam: W. Brave, 1795), p. 410, s.v. "Klarinet", pl. 30. See Rice, "Clarinet Fingering Charts," p. 25.

⁶⁶La Scuola della Musica (Piacenza: N. Orcesi), p. 352. Gervasoni did not identify the keys of his clarinet.

PLATE 36

A four-key clarinet with an $\text{a}^{\flat}/\text{e}^{\flat}$ key from Joos Verschuere Reynvaan, *Muzikaa1 Kunst-Woordenboek* (Amsterdam: W. Brave, 1795), pl. 30.

added by a Mr. Friz [sic].⁶⁷ In 1808, the maker, J. F. Simiot added to Lefevre's account by stating this "discovery" by Fritz had been made in 1760.⁶⁸ Other than these statements by Lefevre and Simiot there is no further evidence to suggest that the Brunswick organ maker, Barthold Fritz, invented these keys or even made clarinets.⁶⁹ There exists, however, a few five-key instruments of German origin which may have been made about 1760 or earlier.

Germany

The earliest German maker whose five-key instruments are extant is a G(Georg?) Walch of Berchtesgaden. A document of 1764 identified him, although there appears to be two previous makers by this name in Berchtesgaden.⁷⁰ Two d'' clarinets by this maker are found in six sections, which may indicate that the original mouthpiece/socket and bell/stock were damaged and later replaced with separate sections.⁷¹

⁶⁷[Jean-Xavier] Le Fevre, Méthode de clarinette (Paris: L'Imprimerie du Conservatoire de Musique, an XI [1802]), p. 1.

"... ces trois dernières clefs est due à Mr. Friz, facteur d'instrumens á vent."

Wilhelm Schneider was probably the earliest to identify this maker as the organ maker, Barthold Fritz of Brunswick. However, he interpreted Lefevre to mean that Fritz added only the two keys for f#/c# and a^b/e^b. See Historisch=technische Beschreibung der musikalischen Instrumente (Neisse and Leipzig: T. Hennings, 1834), p. 26.

⁶⁸[Jacques François] Simiot, Tableau Explicatif des innovations et changemens faits à la clarinette (Lyons: The Author, 1808), page entitled "Prospectus".

⁶⁹Cf. Donald Howard Boalch and Peter Williams, "Fritz, Barthold," NGDMI, 1:798.

⁷⁰Cf. Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum, pp. 63, 65 and Hans Bruckner, "Die Pfeifenmacherei in Berchtesgaden," Tibia 4, no. 2 (1979): 294-5.

⁷¹Cf. Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 141. Zimmermann, however, dated his d'' clarinet (now Bonn 123) to

The upper (and only extant) section of another clarinet by G. Walch (probably in b^b '), however, appears to have originally been made in six sections, with the register key mounted in a ring on the upper section (an eighteenth-century characteristic of construction).⁷²

Most of the German-made five-key clarinets we have were made during the last third of the eighteenth century. The archival records of the court orchestra at Cologne, however, show that the maker, Carl Barth, constructed clarinets from 1765 to 1768.⁷³ Other makers during this period include Heinrich Carl Tölcke (1719-1792), Carl Augustin Grenser (1720-1807), his nephew, Johann Heinrich Wilhelm Grenser (1674-1813), and Jakob Friedrich Grundmann (1727 or 29-1800). Although well-known makers, such as the Grensers, continued to construct four-key clarinets during the late eighteenth century,⁷⁴ some makers also produced instruments with additional keys. One of the earliest recorded examples which may have been of German origin, is the six-key clarinet reportedly owned by a player who passed through Berlin in 1776. The

about 1800. See Josef Zimmermann, Von Zinken Flöten und Schalmeyen. Katalog einer Sammlung historischer Holzblasinstrumente ([Duren: A. Bezani], 1967), p. 117.

⁷²Birsak, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum, p. 45. Birsak dated this clarinet to the middle of the eighteenth century.

⁷³Rechn. Mittwochsrentkammer 24.7.65, cited by Klaus Wolfgang Niemöller, Kirchenmusik und reichsstädtische Musikpflege im Köln des 18. Jahrhunderts (Cologne: A. Volk, 1960), p. 80 note 8. A five-key clarinet by Barth was recorded at Berlin as no. 2882. See Sachs, Sammlung Alter Musikinstrumente bei der Staatliche Hochschule für Musik zu Berlin, col. 294.

⁷⁴This may have been due to the attitude that it was better to correct intonation by a careful construction of the bore and tone holes, rather than the addition of more keys. See the statements concerning the flute by Heinrich Grenser in "Erklärung an Tromlitz über die Flöten" in "Intelligenz-Blatt zur Allgemeinen Musikalischen Zeitung," no. XI (March 1800), AMZ 2(1799): inserted between cols. 464 and 465; and Friedrich von Huene, "(Johann) Heinrich (Wilhelm) Grenser," NGDMI, 2:77.

existence of this instrument astonished the Swiss writer, Frédéric de Castillon.⁷⁵ Its sixth key was most likely Lefevre and Baumann's $c^{\#}/g^{\#}$, since this key is found on many subsequent German instruments, although the trill key from a' to b' is found in place of this key on some early clarinets.⁷⁶ It is interesting to note that Johann Friedrich Floth (1761 - 1807), according to C. Billert, made an eight-key instrument as early as 1791.⁷⁷

Young listed an incomplete five-key a' clarinet by Grundmann in Poznan (184). He reported that the catalogue of the Muzeum Wielkopolskie stated that this clarinet is dated 1759 in one section and 1795 on another section.⁷⁸ If the 1759 date is accurate then this instrument is the earliest dated clarinet. One of the earliest German five-key clarinets is an unusual one by H. C. Tölcke (Trondheim RMT 75/3) pitched in $b^{b'}$ and divided into five sections: bell/lower stock, two finger hole joints, barrel and mouthpiece. It includes ivory ferrules and what appears to be an ivory barrel. Originally, the instrument had its keys for $f^{\#}/c^{\#}$ and e/b both positioned on the dorsal side to be operated by the thumb. At some later time the

⁷⁵See his report in the Supplément to the Encyclopédie (1776), pages 256-260 above.

⁷⁶For example, a clarinet in $b^{b'}$ by H. C. Tölcke (Boston 21). See Nicholas Bessaraboff, Ancient European Musical Instruments. An Organological Study of the Musical Instruments in the Leslie Lindsey Mason Collection at the Museum of Fine Arts, Boston (New York: October House, 1941), p. 100, no. 112; [Barbara Lambert and D. Samuel Quigley], Musical Instruments Collection. Checklist of Instruments on Exhibition (Boston: Museum of Fine Arts, 1983), p. 30, no. 21.

⁷⁷C. Billert, "Clarinette," Musikalisches Conversations-Lexicon, ed. H. Mendel, 11 vols. (Berlin: R. Oppenheim, 1870-1876), 2:481.

⁷⁸Phillip T. Young, "Inventory of Instruments: J. H. Eichentopf, Poerschman, Sattler, A. and H. Grenser, Grundmann," GSJ 31 (1978): 128.

original tone holes were filled in and these keys were re-mounted and positioned on the frontal side to be operated by the left-hand little finger. As a result of this alteration, Tölcke's stamp on the lower stock has been displaced from its original position which would have been parallel to the stamps on the other sections.⁷⁹

A typical five-key German clarinet is illustrated as part of a fingering chart in J. G. H. Backofen's Anweisung zur Klarinette (c. 1803).⁸⁰ The reader will note in plate 37, the five sections of Backofen's clarinet: dark colored mouthpiece (probably ebony), barrel, two middle joints and a lower/stock/bell. The lower stock includes a rounded swelling, where the keys for $f^{\#}/c^{\#''}$ and e/b' were mounted, and the bell is quite wide. By the time J. Froehlich wrote his description of the clarinet (1810-11), the instrument was usually being made in six sections with a divided lower stock and bell. He explained that it is better to divide these sections in order to avoid cracks caused by changes in temperature. Shorter pieces of wood are not apt to expand and contract so easily as larger ones.⁸¹ Froehlich stated further that the bell of the clarinet should be rather wide and convex so that the lower range will be full and strong, and the upper range can be played

⁷⁹I am grateful to Hans Rudolf Stalder for informing me about this clarinet. For a photograph see Peter Andreas Kjeldsberg, Musikinstrumenter ved Ringve Museum. The Collection of Musical Instruments (Trondheim: Ringve Museums Skifter, 1976), pp. 62-3.

⁸⁰Johann Georg Heinrich Backofen, Anweisung zur Klarinette nebst einer kurzen Abhandlung über das Basset-Horn (Leipzig: Breitkopf & Härtel, [c. 1803]), p. 8.

⁸¹See Joseph Froehlich, Vollständige Theoretisch=practtisch Musik-Schule (Bonn: N. Simrock, [1810-11]), p. 8; trans. Eugene E. Rousseau, "Clarinet Instructional Materials from 1732 to ca. 1825" (Ph.D. diss., State University of Iowa, 1962), p. 174.

PLATE 37

⁸²See Froehlich, p. 41; Rousseau, p. 188.

⁸³The straight lever for $\text{g}^{\sharp}/\text{g}^{\flat}$ is still depicted in fingering charts for the six and nine-key clarinet in Gottfried Weber's article, "Einiges über Clarinette und Bassett-horn," *Flöjia* II, no. 41 (1829):35-57.

⁸⁴A. R. Rice, "Clarinet Fingering Charts, 1732-1816," pp. 19-20.

⁸⁵David Rux has informed me in personal correspondence that two clarinets by August Grenser, to Helsingborg and Amsterdam (the latter now owned by T. Eric Bengtson, formerly by G. Hase) have double holes for the third and seventh finger holes. Cf. Young, *Twenty-Five Hundred Historical Woodwind Instruments*, p. 44, clarinets nos. 3 and 4.

⁸⁶Curt Sachs, *Leopoldo Mottola's Instruments*, in *Flöjia*, col. 223, no. 523. This instrument was lost in World War II according to Young, *Twenty-Five Hundred Historical Woodwind Instruments*, p. 51.

A five-key clarinet illustrated as part of a fingering chart from Johann Georg Heinrich Backofen, Anweisung zur Klarinette nebst einer kurzen Abhandlung über das Bassett-Horn (Leipzig: Breitkopf & Härtel, [c. 1803]), p. 8.

easily.⁸² The $\underline{f^\#}/\underline{c^\#''}$ key levers on German instruments of this period are invariably straight rather than cranked or offset as with English-made instruments.⁸³

Many German makers added double holes to their instruments to avoid the necessity of adding fingers (known as cross fingering) for some pitches to correct intonation.⁸⁴ For instance, August Grenser often used double holes for the third and seventh finger holes, providing a $\underline{c^\#'}/\underline{g^\#''}$ and an $\underline{f^\#}/\underline{c^\#''}$.⁸⁵ His nephew, Heinrich Grenser, included a double hole for the third finger hole for $\underline{c^\#'}/\underline{g^\#''}$ (and curiously, a key for these pitches as well) on a six-key clarinet pitched in $\underline{b^b}$.⁸⁶ The theorist, H. C. Koch (1802), referred to this aspect of construction, mentioning the use of a double hole on good clarinets, but only for the third finger.⁸⁷ Interestingly, an anonymous

⁸²See Froehlich, p. 4; trans. Rousseau, p. 165.

⁸³The straight lever for $\underline{f^\#}/\underline{c^\#''}$ is still depicted in fingering charts for the six and nine-key clarinet in Gottfried Weber's article, "Einiges über Clarinette und Bassett-horn," Cäcilia 11, no. 41 (1829):35-57.

⁸⁴A. R. Rice, "Clarinet Fingering Charts, 1732-1816," pp. 19-20.

⁸⁵David Ross has informed me in personal correspondence that two clarinets by August Grenser, in Halsingborg and Amsterdam (the latter now owned by T. Eric Hoeprich, formerly by G. Hase) have double holes for the third and seventh finger holes. Cf. Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 44, clarinets nos. 3 and 4.

⁸⁶Curt Sachs, Sammlung Alter Musikinstrumente . . . zu Berlin, col 293, no. 523. This instrument was lost in World War II according to Young, Twenty-Five Hundred Historical Woodwind Instruments, p. 51, clarinet no. 7. According to David Ross in private correspondence with me, some clarinets by C. G. Bormann (1770 to 71-1839) in the collections in Vienna and Munich, include this double hole as well as a $\underline{c^\#'}/\underline{g^\#''}$ key as an original part of the instrument and not as a later addition.

⁸⁷Heinrich Christoph Koch, Musikalisches Lexikon (Frankfurt: H. dem Jüngern, 1802, reprint ed., Hildesheim: Olms, 1964), cols. 333-334, note **.

(German?) five-key clarinet made entirely of ivory (Casadesus collection, Boston 89) has its third and fourth hole positions doubled,⁸⁸ which is rarely found on clarinets but is common to the eighteenth- and nineteenth-century oboe.⁸⁹

In 1808, C. F. Michaelis published an article anonymously in the Allgemeine Musikalische Zeitung suggesting the use of nine keys on the clarinet. Since many of his readers were wary of problems caused by complicated mechanisms, he mentioned that after three-quarters of a year only one key had needed to be repaired.⁹⁰ Michaelis did not describe the additional keys of his clarinets, but they may have been (besides the initial five) for the notes, $c^{\#'}/g^{\#''}$, b^b/f'' , e^b/b^b'' , and $g^{\#'}$, as found on a nine-key instrument in b^b' by Stengel of Bayreuth (Rendall collection, Edinburgh 106) made about 1825.⁹¹ Another possible arrangement of these keys which includes one for f'/c''' instead of the $g^{\#'}$ key, is shown in a fingering chart published in 1829.⁹² The composer, Louis Spohr, helped to promote the use of a more complicated

⁸⁸Catalogue of the Casadesus Collection of Old Musical Instruments (Boston: n.p., 1926), no. 89. This instrument was formerly in the collection of August Tolbecque. Cf. Elisabeth Bernard, "Tolbecque, Auguste" Grove 6, 19:29.

⁸⁹See Phillip A. Bate, The Oboe, 3rd ed. (New York: W. W. Norton, 1975), p. 49.

⁹⁰[Christian Friedrich Michaelis], "Ueber die Klarinette," AMZ 10 (16 March 1808):cols. 367-8, 390. Michaelis stated that his clarinets were made by Kayser of Hanover. A nine-key clarinet by F. Kayser is extant in the Städtische Museum of Göttingen, according to Langwill in An Index of Musical Wind-Instrument Makers, 6th ed., p. 88.

⁹¹For a description see F. G. Rendall, The Clarinet, p. 87 and G. Melville-Mason, A Check-List of the Single-Reed Woodwind Instruments in the Edinburgh University Collection of Historic Musical Instruments, p. 6, no. 106.

⁹²See G. Weber, "Einiges über Clarinett und Bassetthorn," after p. 40.

clarinet. In the introduction to the published edition of his first clarinet concerto (written in 1808), he emphasized that this highly technical work could only be executed with an eleven-key instrument. In addition to the usual five keys, Spohr specified: an $\underline{e}^{b'}/\underline{b}^{b''}$ trill key for the first finger of the right hand; an $\underline{f'}/\underline{c''}$ trill key for the third finger of the left hand; a trill key used for trilling $\underline{a'}$ to $\underline{b'}$ and $\underline{b}^{b'}$ to $\underline{c''}$ for the first finger of the right hand; a $\underline{g\sharp'}$ key for the first finger of the left hand; a $\underline{b^b}/\underline{f''}$ key which could also be used for trilling, for the third finger of the right hand; a double hole for the third hole position or preferably a $\underline{c\sharp'}/\underline{g\sharp''}$ key; a hole on the dorsal side for the right thumb to produce a low $\underline{b}$; and curved touchplates for the $\underline{f\sharp'}/\underline{c\sharp''}$ and $\underline{e}/\underline{b'}$ keys for greater facility in playing $\underline{b'}$ followed by $\underline{c\sharp''}$.⁹³ An eleven-key clarinet by Heinrich Grenser (Heckel collection, Biebrich K-7) includes all of these keys as specified by Spohr.⁹⁴

The most important and significant modifications to the design of the classical clarinet were carried out by the Russian born musician and maker, Iwan Müller, during the first and second decades of the nineteenth century. Simiot claimed that Müller had constructed an eight-key clarinet while Müller was living in Russia in 1803.⁹⁵ By 1808, Müller had gone to Dresden where he worked with the German maker,

⁹³Spohr's first concerto was published in Leipzig by Kühnel in 1810. The introduction is reproduced in Karl Stock, "Johann Simon Hermstedt. Zum Gedächtnis des berühmten Klarinettenvirtuosen und ersten Kappellmeisters des ehemaligen Hofkapelle, jetzt staatliches Loh=Orchester, zu Sondershausen," Deutsche Musiker=Zeitung 60 (21 Sept. 1929):797. Cf. the descriptions given by O. Kroll in The Clarinet, pp. 25, 72-73.

⁹⁴For a photograph of this instrument see P. T. Young, The Look of Music, p. 151, no. 181.

⁹⁵Revue Musicale 6 (1 January 1830): 541.

Johann Heinrich Grenser, to construct an alto clarinet in f' by applying a new system of 16 keys to a basset horn, removing its four lowest notes for $d^\sharp$, d , $c^\sharp$ and c .⁹⁶ In 1809, the Vienna correspondent for the Allgemeine Musikalische Zeitung reviewed a concert where Müller played his basset horn. He quoted Müller in the review as stating that his improvements to the basset horn could and should be applied to the clarinet. The editor of this journal, J. F. Rochlitz, also mentioned the use of pads of leather under each key of Müller's basset horn, which minimized the rattling caused when the key levers are depressed.⁹⁷ In about 1810, Müller travelled to Paris where he set up an instrument making shop with the assistance of a stockbroker, M. P. Petit, and Boscari, an amateur musician.⁹⁸ The first person to make a thirteen-key clarinet, Müller was particularly attentive to placing the tone holes in their acoustically correct positions for the proper intonation. He also introduced key pads of gut or leather stuffed with wool in the shape of an "elastic ball".⁹⁹ They required the use of a round, hollow cup

⁹⁶Grenser may have begun work on this instrument by March of 1808, see [C. F. Michaelis], "Ueber die Klarinete," AMZ 10 (16 March 1808): cols. 389-90, note *. Müller's instrument is described as the Müllersche Bassethorn" in "Nachrichten," AMZ 11 (9 Nov 1808):cols. 89-91; and in "Miscellen," AMZ 11 (13 Sept. 1809):cols 798-99.

⁹⁷"Nachrichten," AMZ 11 (12 July 1809): col. 653 and note *. Cf. F. G. Rendall, The Clarinet, p. 89.

⁹⁸See [Louis Benjamin] Francoeur, "Rapport fait par M. Francoeur, au non du Comité des arts mécaniques, sur une nouvelle clarinette présentée à la Société par M. Janssen, rue l'Évêque, no. 14, butte des Moulins, à Paris," Bulletin de la Société d'encouragement pour l'industrie nationale 212 (1822):42 and Joseph James Estock, "A Biographical Dictionary of Clarinetists Born Before 1800" (Ph.D. diss., University of Iowa, 1972), pp. 250-54.

⁹⁹See Iwan Müller, Méthode pour La nouvelle Clarinette & Clarinette-Alto (Paris: Gambaro, [c. 1821]), p. 32; and cf. Pamela Weston, "Müller, Iwan," NGDMI, 2:703-4.

soldered to the shank, their corresponding holes had to be countersunk, leaving a raised rim of wood for the pad to rest upon.¹⁰⁰ Besides the eleven keys specified by Spohr in his introduction to his first clarinet concerto (1810), Müller added useful keys for f/c'' and $b/f\sharp''$.¹⁰¹ Two of the thirteen keys (ie., those for $f\sharp/c\sharp''$ and b^b/f'') included attachments to their levers called branches, positioned for the right thumb for use in trilling particularly awkward intervals. Müller also introduced a metal ligature with two screws for holding the reed to the mouthpiece, as being preferable to the use of twine in its ease of adjustment and better appearance.¹⁰² With his thirteen-key soprano clarinet, Müller intended to increase the technical capabilities of the instrument so that the player might dispense with a whole set of clarinets and play compositions in any tonality on the b^b' instrument alone.¹⁰³

In 1812, Müller presented his alto clarinet and his thirteen-key soprano clarinet in b^b' for the approval of a commission of eight members from the Conservatoire Impériale de Musique et de Déclamation of Paris. This commission did not accept Müller's soprano clarinet, but did approve his alto clarinet. They recognized the improvement in technical capabilities and intonation of his soprano instrument, but rejected it on the grounds that with its sole use, the composer would be

¹⁰⁰See F. G. Rendall, The Clarinet, p. 26.

¹⁰¹For a description of Müller's keys, see O. Kroll, The Clarinet, p. 26-7.

¹⁰²He called his ligature an "anneau" or ring in the Méthode . . . p. 23, where a mouthpiece, metal ligature and reed are illustrated as fig. 1-5.

¹⁰³Müller, Méthode . . . , p. 5.

deprived of the individual tonal characteristics of the clarinets pitched in c'' and a' .¹⁰⁴ According to Gottfried Weber, this decision was reversed after two years, and Müller's clarinet was approved for use at the Paris conservatory in 1814.¹⁰⁵ His thirteen-key soprano instrument and his alto clarinet were manufactured during the 1820s by Gentellet in Paris, Brelet in Lyons, J. G. C. Bischoff in Damrstadt, B. Schott's Söhne in Mainz, and Griessling & Schlott in Berlin.¹⁰⁶ According to Fröhlich in 1817, Müller had promised to provide a tutor for his new clarinet. This was eventually published in Paris in about 1821 and subsequently translated into German and Italian.¹⁰⁷ Müller had

¹⁰⁴"Rapport fait par la commission chargée d'examiner la nouvelle clarinette proposée par M. Muller, et la clarinette alto perfectionnée par la même artiste", dated 12 May 1812 in Gazette Nationale, ou Le Moniteur Universel, no. 152 (31 May 1812):593. The commission members were: X. Lefèvre, Eler, Duvernoy, Méhul, Cherubini, Gossec, Catel and Sarrette. For a section of the original report see F. G. Rendall, The Clarinet, p. 90 and Pamela Weston, Clarinet Virtuosi of the Past (London: R. Hale, 1971), pp. 159-160.

¹⁰⁵Gottfried Weber, "Clarinette," in Allgemeine Encyclopädie der Wissenschaften und Künste, eds. J. S. Ersch and J. G. Gruber, 167 vols. (Leipzig: J. F. Gleditsch, 1818-1889), 17 (1828): 374.

¹⁰⁶César Gardeton, Annales de la musique ou almanach musical de Paris, 2nd year (Paris, 1820, reprint ed., Geneva: Minkoff, 1978), p. 65; According to Constant Pierre, Brelet made "clarinettes à la Muller" in 1823, see Les Facteurs de Instruments de Musique (Paris: E. Sagot, 1893), p. 310, note 1; Johann Georg Heinrich Backofen, Anweisung zur Clarinette mit besonderer Hinsicht auf die in neuern Zeiten diesem Instrument beigefügten Klappen nebst einer kurzen Abhandlung über das Basset-Horn (Leipzig: Breitkopf & Härtel, [1824]), p. 6; "Intelligenzblatt zur Caecilia. 1825", nr. 9 in Caecilia, eine Zeitschrift für die musikalische Welt 3 (1825): 16; "Intelligenz-Blatt zur allgemeinen musikalischen Zeitung", no. VI (June 1825) in AMZ 27 (1825): col. 28, "Anzeige".

¹⁰⁷[Joseph] Fröhlich, "Ueber die Verbesserung der Klarinette vom Hrn. Iwan Müller, vormals Prof. am Conservatorium zu Paris, nun erstem Klarinettisten an der grossen Oper zu London," AMZ 19 (15 Oct. 1817): col. 719. The German translation of Müller's Méthode was published in 1825. Italian translations are recorded for 1824, 1842, and c. 1858. See Appendix 3, An Inventory of Clarinet Instructional Materials, 1732-1843.

an enormous influence on later makers and his thirteen-key clarinet (with some later modifications) became the standard instrument for most clarinetists until the early part of the twentieth century.¹⁰⁸

England

A few makers active in England from circa 1765 made five-key clarinets rather than the four-key instruments preferred at this time in Germany and France. The two earliest surviving five-key clarinets (both of which have had a sixth key added sometime after their construction) were made by George Miller (fl. London, c. 1765-1799), who was possibly of German origin.¹⁰⁹ These are matching clarinets in $\text{b}^{\flat}$ (Gloucester, Hardwicke Court) made for William Sharp (1729-1820) circa 1765.¹¹⁰ A frequently reproduced painting of the Sharp family (1779-1781) by the German portrait artist, Johan Zoffany, includes a number of musical instruments, among which can be seen the bell of one of these clarinets (although partly concealed by other instruments) on the table.¹¹¹ This instrument carries a wide ivory ring at the end of the bell and the wood was burned to simulate tortoise shell.¹¹² An analysis of the

¹⁰⁸See Shackleton, "Clarinet," NGDMI, 1:395.

¹⁰⁹Maurice Byrne, "Miller, George " NGDMI, 1:662.

¹¹⁰These instruments were the property of the late Miss Olive K. Ll. Lloyd-Baker of Hardwicke Court. For a photograph and description see Eric Halfpenny, "Early English Clarinets," GSJ 18 (1965):51-2, pl. V, a-b.

¹¹¹See Mary Webster, Johan Zoffany 1733-1810 ([London]: National Portrait Gallery, [1976]), pp. 69-70, no. 87; and Arthur Hutchins, Mozart: The Man - The Musician (New York: Schirmer, 1976), in the section entitled "Pictorial Essay: Music and Society", p. 39, ill. 61.

¹¹²This process, called sand burning, requires that pieces of wood be laid on a corrugated bed of sand in an iron tray over a flame. Contact with the ridges in the hot sand produces patterns of darker

construction of English-made clarinets is given below, since a good deal of information is available from the scholarly literature and eighteenth- and nineteenth-century sources.

Mouthpiece and Barrel: The mouthpiece/socket of one of the Miller clarinets in b^b is in its original state of one integral section, while the mouthpiece of the other clarinet is a replacement with a long tenon, the top of the severed socket being reinforced by an ivory ring.¹¹³ Indeed, English mouthpieces are characterized by their diminutive size, compared to continental examples, and when separated from their socket include long tenons in order to provide a long tuning slide.¹¹⁴ Sometimes the mouthpiece tenon is the same length as the socket, in which case the bore of the socket (later called the barrel) is "stepped" where it meets its lower ferrule; otherwise the mouthpiece is given a short tenon similar to the modern type, and the barrel retains a section of the original bore between its two ferrules.¹¹⁵ A separate mouthpiece with a long tenon was commonly made during the 1780s and is illustrated in the fingering chart of the earliest English tutor, The Clarinet Instructor by which Playing on that Instrument is rendered easy . . . (c 1780, plate 38, no. 1).¹¹⁶ By 1800, a separate barrel was always made

¹¹³See James Wood, "Clarinet and other Wind Musical Instruments", British Patent, no. 2381 (30 April 1800; reprint, London: E. C. Lye and W. Spottiswoode, 1858), p. 2.

mottling which are much admired. See F. Geoffrey Rendall, The Clarinet, pp. 13, 71, 84 note 9.

¹¹³Eric Halfpenny, "Early English Clarinets," p. 45.

¹¹⁴Nicholas Shackleton, "Clarinet," NGDMI, 1: 393.

¹¹⁵Cf. Halfpenny, p. 45.

¹¹⁶(London: Longman & Broderip). See Rice, "Clarinet Fingering Charts, 1732-1816," p. 25.

and was known as the socket or box.¹¹⁷ The English maker, James Wood, went a step further by lining the bore of the barrel with a brass tube, five-eighths of an inch in diameter and one inch long, for greater ease in tuning.¹¹⁸ The barrel was made to fit and slide into the tenon of the upper middle joint and is illustrated in Wood's patent design and in the fingering chart of J. Mahon's A New and Complete Preceptor for the Clarinet . . . (c. 1803, plate 38, nos. 2, 3a-b).¹¹⁹

The original slots of the earliest mouthpieces are very short, narrow and fan-shaped with a nearly square upper end.¹²⁰ A later design is seen in the slot of a mouthpiece (of African blackwood) belonging to a clarinet in c' by George Astor and Co. (c. 1810, author's collection). It is closer to a rectangle, the upper end (8.5 mm) of the slot being similar in length to its lower end (7.0 mm), and its upper end is curved.¹²¹ During the early nineteenth century, mouthpieces were usually made of dense, black wood, more impervious to warping than boxwood, such as, ebony, cocus and African blackwood.¹²²

The Middle Joints: Both of the Hardwicke Court Miller clarinets have two middle joints, the lower stock and bell being integral. The

¹¹⁷See James Wood, "Clarionet and other Wind Musical Instruments", British Patent, no. 2381 (10 April 1800; reprint, London: G. E. Eyre and W. Spottiswoode, 1856), p. 2.

¹¹⁸Wood, p. 3.

¹¹⁹(London: Goulding, Phipps & D'Almaine), p. 3. See Rice, "Clarinet Fingering Charts, 1732-1816," pp. 28-9, 41 note 48.

¹²⁰Halfpenny, p. 46; cf. Wood's drawing, plate 38, no. 3b.

¹²¹This mouthpiece was at one time refaced, but the shape of the slot was only slightly altered.

¹²²See Michael G. Zadro, "Woods used for woodwind instruments since the 16th century-1," EM 3 (April 1975):136.

PLATE 38

FIVE- AND SEVEN KEY CLARINETTS BY ENGLISH MAKERS

1) A five-key clarinet from The Clarinet Instructor (c. 1780); 2) A five-key clarinet with "swivel" keys in John Mahon's A New and Complete Preceptor (c. 1803); 3a-b) Two views of a seven-key clarinet from James Wood's patent, "Clarionet and other Wind Musical Instruments" (1800).

upper of these joints carries the a' key on the front and the register key on the back, mounted into slightly rounded rings with lathe centermarks as a guide for boring the fulcrum pins. Later rings are square and plain, and are underpinned with a thick brass wire crossing the grain of wood below the fulcrum pins, and sunk in the thickness of the tube's wall, to prevent incipient cracks from spreading. Still later instruments have cutaway blocks instead of rings and are usually pinned at all pivot points.¹²³ After instrument makers began to construct the bell as a separate piece the lower middle joint was sometimes united to the lower stock, probably to reduce the number of tenon-and-socket joints. Two examples of this construction were made by Miller and his associate John Cramer (fl. London, c. 1785-1828).¹²⁴ This Miller clarinet also carries a pivot boss on the upper middle joint for a right-hand trill key from b^{b'} to c''--the sixth key found on many English clarinets. However, this key was never fitted to this instrument, nor could it have been without first flattening off the upper key ring to form a seating.¹²⁵ This trill key is usually found on clarinets during the late eighteenth or early nineteenth centuries, when cutaway blocks had replaced rings for mounting keys. Interestingly, both Hardwicke Court Millers have been fitted with this key. They are both mounted for the left hand (an unusual practice), and are contemporary additions made for the owner of the clarinets, William

¹²³Halfpenny, p. 47.

¹²⁴Halfpenny, pp. 48, 52, no. 7, pl. VII B1. This characteristic is also found in James Wood's patent (p. 3) and drawing, plate 38, nos 3a-b. Cramer, like Miller, may have been of German descent. See M. Byrne, "Miller, George," NGDMI, 1:662-3.

¹²⁵Halfpenny, p. 48.

Sharp. Their workmanship is not of the same quality as is that for the other keys, and it is probable that they were among the earliest clarinets in England to receive the sixth key. It should be noted that the pivots for these left-hand keys were accommodated in the lower ring (where the a' key is mounted), and the note holes were placed at the level of the upper ring, which was flattened or cut away to receive the key pad. The pivot boss for the right hand is usually placed below the lower ring to suit the longer lever.¹²⁶

An interesting later development in the design of keys are the round, "self-aligning" or "swivel" key flaps found in James Wood's patent of 1800. They consist of a round key cover of "wood, bone, ivory, metal, brass or any metallick composition" which has a nob that is connected by means of a screw to the end of each key lever.¹²⁷ The component parts are clearly shown in Wood's drawing and illustrated in Mahon's drawing of a five-key clarinet (plate 37, nos. 2 and 3). Wood's clarinet includes the trill key for b^{b'} and c'' positioned for the left hand and an additional key for g^{#'} positioned for the right hand, both keys having long curved levers. Another innovation by this maker is his use of small pipes or bushings made of metal, wood or other materials, and inserted into the tone holes covered by keys, in an effort to provide an airtight seating.¹²⁸ A six-key instrument in c'' made by the

¹²⁶Cf. Halfpenny, p. 48.

¹²⁷James Wood, "Clarionet and other Wind Musical Instruments", p. 3. See Andrew Lyle, "John Mahon's Clarinet Preceptor," GSJ 30 (1977):53; and page 2 of the sleeve notes by Alan Hacker for the recording of J. N. Hummel's Clarinet Quartet (L'Oiseau Lyre DSL0 501, 1974).

¹²⁸Wood, pp. 3-4, also seen in Wood's illustration plate 38, no. 3.

London firm of Goulding and Co. (1799-1836) includes these modifications of James Wood, though without the $g^{\#}$ key.¹²⁹ A nineteenth-century maker, Thomas Key (fl. London, c. 1800 - 1853), used metal bushings (liners or sleeves) in the covered tone holes of several clarinets, and occasionally a few liners are encountered in open tone holes as well.¹³⁰ Key also made use of the normal square key flaps, as well as a slightly convex round flap.¹³¹ The latter design became popular by the second decade of the nineteenth century.

An interesting external feature of the middle sections is that they are not completely cylindrical, but are often given a very slightly downward taper with a corresponding outward flare at the shoulders of tenons. According to Halfpenny, the effect is of lightness and elegance, and is evidently the product of the makers' view of dynamic symmetry.¹³² Early nineteenth century English clarinets are usually divided into five or six joints: the bell, lower stock, one or two finger hole joints, barrel and mouthpiece. Occasionally the barrel and upper joint were made in one piece and used with three other sections: the bell, lower stock and mouthpiece.¹³³ Other instruments are found

¹²⁹This instrument is owned by the English clarinetist, Alan Hacker, who had four more keys added to the instrument by the modern maker, Edward Planas. See Hacker's sleeve notes for the recording of J. N. Hummel's Clarinet Quartet and the photograph of the instrument on the back of the album cover.

¹³⁰See James N. Luke, "The Clarinets of Thomas Key of London" (D.M.A. diss., University of Missouri--Kansas City, 1969), p. 31. It is possible that Key was of German descent, see Luke, p. 16.

¹³¹Many of these keys are mounted on metal saddles instead of wooden rings or knobs. See Luke, pp. 33-35 and Rendall, *The Clarinet*, pp. 23-25.

¹³²Halfpenny, p. 48.

¹³³Luke, p. 37.

with two alternative fingerhole joints (and sometimes an alternative barrel) to change the tonality of the instrument from $\underline{c}''$ to $\underline{b}'$ or from $\underline{b}^b'$ to $\underline{a}'$. The touchplates of the long keys for $\underline{e}/\underline{b}'$ and $\underline{f}^\#/\underline{c}^\#''$ sometimes include sliders which are extendible for use with the longer fingerhole joints. An instrument by Astor (Bate collection, Oxford 4) is found with alternative joints for tuning from $\underline{c}''$ to $\underline{b}^b'$. It is possible, however, that these joints do not belong to this clarinet since a change of a whole step, rather than the usual half step, would create intonation difficulties.¹³⁴ Furthermore, it has been suggested that a right hand joint and another barrel for an extension to $\underline{a}'$ is missing, since there are additional compartments in the case holding this instrument.¹³⁵ Some clarinetists may have carried three instruments (in $\underline{c}''$, $\underline{b}^b'$ and $\underline{a}'$) completely assembled, as shown by a set of three clarinets by Thomas Key held in one box, in the Rendall collection.¹³⁶

The Bell Sections: Halfpenny has noted the apparent difficulty of grafting the sharply-expanding bell onto the cylindrical tube of the earliest clarinets. The practice of separating the bell from the lower joint appears to have been adopted at the same time that the mouthpiece

¹³⁴Cf. Shackleton, "Clarinet," NGDMI, 1: 393.

¹³⁵[Anthony Baines], The Bate Collection of Historical Wind Instruments. Catalogue of the Instruments ([Oxford]: University of Oxford, 1976), p. 31, no. 4.

¹³⁶Edinburgh University collection, nos 143-145. See An Exhibition of European Music Instruments, ed. G. Melville-Mason ([Edinburgh]: Edinburgh University, 1968), p. VIII(1); Graham Melville-Mason, A Check-List of The Single-Reed Woodwind Instruments in the Edinburgh University Collection of Historic Musical Instruments (Edinburgh: Edinburgh University Collection, 1982), pp. 3, 6, 12.

came to be separated from the barrel.¹³⁷ Some early instruments, however, are found with a separate bell and a mouthpiece/socket of the earliest type. Later instruments by Key were made with a barrel and upper joint in one piece and a separate bell.¹³⁸ The swelling for the f/c'' hole found on four-key German instruments is replaced on English five-key clarinets with a large socket boss. On the earliest instruments this boss is given a sloping downward or rounded curve, later clarinets have a sharp swag-like incurve which just clears the seating of the a^b/e^b'' hole, and also furnishes an effective bearing for the key pivot.¹³⁹ The levers for the $f^\sharp/c^\sharp''$ key of the earliest clarinets are straight for their entire length, as seen with the clarinet in the anonymous tutor of c. 1780 (plate 38, no. 1). It was found that the design of this key created a sideways thrust at the bearing, so to solve this problem an additional boss was left turned on the tube above the $f^\sharp/c^\sharp''$ hole, and slotted to act as a guide for the neck of the keys. The lever of the $f^\sharp/c^\sharp''$ key was then offset or cranked to the left, from $\frac{1}{4}$ to $\frac{1}{2}$ inch, about the middle of the shank.¹⁴⁰ This design placed the touchplate within convenient reach of the left-hand little finger and in close proximity to the e/b' touchplate.

¹³⁷Halfpenny, pp. 49-50, pl. I, g.

¹³⁸Luke, p. 37.

¹³⁹These two types of bosses are clearly seen in plate 38 (nos. 2 and 3a-b), the earliest appearing with the illustration in the anonymous tutor (no. 1). For a photograph of the early sloping type on a five-key clarinet by Kusder (c. 1765), see Graham Wells, "London Salesroom," *EM* 4 (July 1976):305.

¹⁴⁰Halfpenny, pp. 50, 52-3. At least one clarinet, by Thomas Collier (fl. London, c. 1751-1785), illustrates an intermediate step in construction by its cranked $f^\sharp/c^\sharp$ key without a bottom guide. See Halfpenny, pp. 50, 52.

Two patents by James Wood are of interest since later makers adopted and improved upon some of his ideas. The first of these appeared in 1814, and is the application of metal cylindrical tubes, as an aid in tuning, throughout the middle and lower joints of the clarinet, as well as in the joints of flutes and bassoons.¹⁴¹ Although this type of construction was not utilized to a great extent for the clarinet, many subsequent makers added metal tubes or inserts, and some made clarinets entirely of metal. Five years later, Wood patented keys for $\underline{e/b'}$ and $\underline{f\#/c\#''}$ that overlap in the positions of their touchplates for an easier manipulation of the left-hand little finger between the touchplates. These keys were mounted on the lowest finger hole joint with the aid of a metal saddle shown with a letter "F" in Wood's patent (plate 39).¹⁴² During the same time, the important continental makers, J. F. Simiot and I. Müller, applied their advanced mechanisms to the clarinet, overshadowing this interesting innovation which was used on a few instruments.

The earliest known clarinet bearing a date is a five-key instrument by Collier. It is inscribed "London 1770" on its bell, with

¹⁴¹James Wood, "Certain Improvements on the German Flute, Applicable also to the Clarionet and Bassoon", British Patent, No. 3797 (10 May 1814), p. 3. According to Burney, the maker, Goulding and Co. obtained Wood's patents for lining the bore with a metal tube, and that for lining the tone holes with a metal pipe in combination with his "swivel" keys. See [Charles Burney], "Clarinet" in The Cyclopaedia; or Universal Dictionary of Arts, Sciences, and Literature, ed. A. Rees, 44 vols. (London: Longman, Hurst, Rees, Orme & Brown, 1802-1820), 8, s.v. "Clarinet".

¹⁴²James Wood, "An Improvement in the Formation and Position of the Long Keys B Natural and C Sharp, used upon the Musical Instrument commonly called the Clarionet, for the more easily Fingering of the Same", British patent, no. 4423 (14 Feb. 1820). William Bainbridge, a maker of flutes and flageolets, noted this invention as a "very important improvement" in his Observations on the Cause of Imperfections in Wind Instruments . . . (London: the Author, 1823), p. 20.

PLATE 39

JAMES WOOD'S DESIGN FOR THE B AND C# KEYS (1819)

FIG. 2.

FIG. 5.

FIG. 3.

FIG. 4.

Figures 4 and 5 are the separate keys for $f^{\#}/c^{\#}$ and e/b , figures 2 and 3 show them assembled on the lower joint of the clarinet. From James Wood, "An Improvement in the . . .", British patent, no. 4423 (14 Feb. 1820).

a star and the makers' stamp.¹⁴³ From this evidence we may assume that five-key clarinets were known in London from the late 1760s. Collier probably worked for Charles Schuchart (1720-1765), whose five-key clarinets are among the earliest made in England.¹⁴⁴ It is notable that Miller's Hardwicke Court clarinets (see p. 277) carry his stamp and a rose on a stem. All his subsequent instruments have a unicorn's head as a makers' mark; this mark continued to be used by later makers who worked with Miller, i.e., Cramer, Astor and their successors Bilton, Gerock, Key, Robert Wolfe and Figg.¹⁴⁵ During the early nineteenth century, many instruments were made at higher or lower pitch levels than formerly in use, to match the pitch levels which were current in continental Europe. The Englishman, John Cramer was one of the earliest to use a numerical system for indicating the pitch level of instruments: the flattest were marked 1 and the sharpest 6.¹⁴⁶ Thomas Key made use of similar numbers, such as, "2" or "6" to identify barrels of differing lengths to adjust the pitch of the clarinet.¹⁴⁷ In conclusion, a majority of the early English makers probably immigrated from Germany. Most of the extant examples of five-key clarinets from the 1760s were made in England, rather than in Germany or France.

¹⁴³Kneighly Cliffe Castle Museum, see Halfpenny, p. 52; Niall O'Loughlin, "Collier Thomas," *NGDMI* 1:446-7.

¹⁴⁴In 1984, I examined a five-key clarinet marked "SCHUCHART", offered for sale by the London instrument dealer, Tony Bingham. This instrument had the construction characteristics of the earliest clarinets. It was priced at over £2000. Cf. Maurice Byrne, "Schuchart, J(ohan) J(ust)," *NGDMI*, 3:333.

¹⁴⁵M. Byrne, "Miller, George" *NGDMI*, 1:662-3.

¹⁴⁶M. Byrne, "Cramer, John" *NGDMI*, 1: 512; J. J. K. Rhodes, W. R. Thomas, "Pitch, §5: Since 1800," *NGDMI*, 3:127-8.

¹⁴⁷Luke, *The Clarinets of Thomas Key*, p. 37.

France

In Paris, the four-key clarinet was still being used until the 1780s, as proven by its description by Roeser (1764) and Francoeur (1772), and the publication of five fingering charts from c. 1769 to c. 1782.¹⁴⁸ The five-key instrument probably first appeared about 1780, an early Parisian-made example being a clarinet in $\flat^b$ by Mousseter (Oxford, Bate collection, 446).¹⁴⁹ It consists of six sections made of boxwood: bell, lower stock, two fingerhole joints, barrel and mouthpiece. The barrel joint is quite long, a typical characteristic of French construction.¹⁵⁰ Rings were employed to mount the $\underline{a}'$ and register keys, but separate blocks were used on the lower stock for mounting the $\underline{f\sharp}/\underline{c\sharp}''$ and $\underline{e}/\underline{b}'$ keys. Mousseter also made use of a straight lever for the $\underline{f\sharp}/\underline{c\sharp}''$ key, which was always preferred by French makers who do not seem to have made use of the cranked or offset English design.¹⁵¹ Both the $\underline{f\sharp}/\underline{c\sharp}''$ and $\underline{e}/\underline{b}'$ keys have extendible levers for use when lengthier alternate joints (corps de rechange), were employed to change this clarinet's $\flat^b$ tonality to $\underline{a}'$. There is a round, gracefully shaped swelling for the $\underline{f}/\underline{c}''$ tone hole, which acts both as a

¹⁴⁸See Appendix 3, An Inventory of Clarinet Instructional Materials, 1732-1843.

¹⁴⁹See [Anthony Baines], The Bate Collection of Historical Wind Instruments, p. 33. Illustrated in Anthony Baines, Woodwind Instruments and their History, 3rd ed. (London: Faber and Faber, 1967), p. XXVII; and Phillip T. Young, Look of Music, p. 149, no. 178. Young's date of "1770?" for this instrument seems too early in view of the written evidence.

¹⁵⁰Shackleton, "Clarinet," NGDMI, 1:392.

¹⁵¹This straight $\underline{f\sharp}/\underline{c\sharp}''$ key with its mounting in a rounded swelling is found as late as 1845 in Georg Kastner's Méthode élémentaire pour la clarinette (Paris: Maquet, [1845]). See his fingering charts for the six- and nine-key clarinets.

mounting for the $\underline{a}^b/\underline{e}^{b''}$ key and as a slot for the levers of the $\underline{f}^\#/\underline{c}^\#$ and $\underline{e}/\underline{b}'$ keys.

The first published illustration in France of a five-key clarinet appeared about 1785 with a fingering chart in the important *Méthode* by A. Vanderhagen (plate 40).¹⁵² Vanderhagen shows what appears to be an earlier type of five-key clarinet than the instrument by Mousseter. We note this instrument's four sections (like those of the earliest English clarinets): lower stock/bell (having a gently curved swelling on the lower stock), two fingerhole sections, and a mouthpiece with an integral socket. A later tutor by F. Blasius (c. 1796) illustrates a clarinet which is quite similar to Mousseter's instrument. Blasius included a separate barrel and a rounded swelling on the stock (plate 40, no. 2).¹⁵³

The earliest authenticated five-key instrument by a French maker is a clarinet in $\underline{b}^{b'}$ by Michel Amelingue (c. 1760-1826).¹⁵⁴ It is constructed of ebony and divided into six parts: bell, lower stock, two middle sections, a separate barrel and mouthpiece. There are duplicate sections to lower the pitch to $\underline{a}'$ for the mouthpiece, barrel and two middle joints, the lower stock and bell remaining the same.¹⁵⁵

¹⁵²Amand Van-der-Hagen, *Méthode nouvelle et raisonnée pour la clarinette* (Paris: Boyer and Le Menu, [c. 1785], reprint ed., Geneva: Minkoff, 1972.)

¹⁵³Frédéric Blasius, *Nouvelle méthode de clarinette* (Paris: Porthaux, [c. 1796]), reprint ed., Geneva: Minkoff, 1972).

¹⁵⁴See Young, *Twenty-Five Hundred Historical Woodwind Instruments*, pp. v; 1, clarinet no. 5.

¹⁵⁵Nicholas Bessaraboff, *Ancient European Musical Instruments. An Organological Study of the Musical Instruments in the Leslie Lindsey Mason Collection at the Museum of Fine Arts, Boston* (New York: October House, [1941]), p. 100, 317; [Barbara Lambert and D. Samuel Quigley],

PLATE 40

FIVE-KEY CLARINETS DEPICTED IN FRENCH TUTORS

- 1) Amand Van-der-Hagen, Méthode nouvelle et raisonnée pour la clarinette (c. 1785); 2) Frédéric Blasius, Nouvelle méthode de clarinette (c. 1796); 3) Jean-Xavier Le Fevre, Méthode de clarinette (1802).

According to Bessaraboff, this instrument belonged to a Captain Bryant P. Tilden, and arrived at Boston's Museum of Fine Arts in a wooden case with brass fittings, and the following letter:

"My Clarionett

was bo't for me by my music master D'Anglebert, a German professor at Bordeaux in 1795. It was made, years previously, by Amlingue of Paris. I paid twenty silver crowns (6 livres ca.) on account of its superior excellence. My music lessons were on every day-- during one hour: about 18 mo. at three francs per lesson.

It has now travelled with me six times, to various parts of Europe and Asia Minor. Twice to Brazils. [A check mark is inserted here.] Four times to China,--besides many trips shorter distances, Java, Manilla, etc. etc. etc. making over 200,000 miles.

Near St. Helena. Ship Globe from Canton for Philadelphia.

April 8th 1832"

"Bryant P. Tilden"

Below this is added a check mark and a postscript: "3 times more. Batavis Manila and Canton. Sept. 1837".¹⁵⁶ Amlingue was active in Paris by at least 1785, since he is listed as living at "Rue de Chantre" in the Tablettes de Renommée des Musiciens of 1785.¹⁵⁷ This letter, therefore, documents the existence of Amlingue's clarinet before 1794.

J. X. Lefevre illustrated a clarinet similar to Amlingue's instrument with extendible touchplates for the f[#]/c[#] and e/b keys, as part of a fingering chart from his well-known Méthode (1802, plates 40 no. 3 and 48).¹⁵⁸ Plate one of Lefevre's tutor illustrates a clarinet

Musical Instruments Collection. Checklist of Instruments on Exhibition (Boston; Museum of Fine Arts, 1983), p. 30, no. 20.

¹⁵⁶Bessaraboff, p. 100.

¹⁵⁷(Paris, 1785, reprint ed., Geneva: Minkoff, [1971]), p. [52].

¹⁵⁸[Jean-Xavier] Le Fevre, Méthode de clarinette (Paris: L'Imprimerie du Conservatoire de Musique, An. XI [1802], reprint ed., Geneva: Minkoff, 1974.)

separated into five sections (plate 41). Here, Lefevre clearly shows the twine used in wrapping the reed onto the facing mouthpiece. We note the use of one middle section with six finger holes, the $\underline{a}'$ key and register key, and a new key for $\underline{c}^{\#}'/\underline{g}^{\#}''$ --the sixth key added by French makers. According to Lefevre, this key was added to his instrument by the maker, Joseph Baumann (c. 1800-1830).¹⁵⁹ This maker also made five-key clarinets which appear to be identical to that shown in Lefevre's fingering chart.¹⁶⁰ Baumann usually added the $\underline{c}^{\#}'/\underline{g}^{\#}''$ key by a process called pillar mounting.¹⁶¹ He screwed and soldered this key to an oval, metal plate which was placed into the wood of the joint and firmly planted with screws.¹⁶² Examples of six-key clarinets by Baumann are in the collections at Antwerp, Brussels and Oxford.¹⁶³

Various dates have been assigned for the addition of the $\underline{c}^{\#}'/\underline{g}^{\#}''$ key, e.g., 1787, 1788, and 1791.¹⁶⁴ The musician, and writer, O.

¹⁵⁹Le Fevre, p. 1.

¹⁶⁰An example is at Oxford in the Bate collection (no. 415), illustrated in Anthony Baines, European and American Musical Instruments, p. 626.

¹⁶¹Cf. Niall O'Loughlin, "Baumann, Joseph," NGDMI, 1:196.

¹⁶²F. Geoffrey Rendall, The Clarinet, p. 24.

¹⁶³Catalogus van de Muziekinstrumenten uit de verzameling van het Museum Vleeshuis (Antwerp: Ruckers Genootschap, [1981]), p. 69, no. 188; p. 70, no. 192; Victor-Charles Mahillon, Catalogue Descriptif et Analytique du Musée Instrumental du Conservatoire Royal de Musique de Bruxelles, 2:214, no. 929; [Anthony Baines], The Bate Collection of Historical Wind Instruments, p. 31, nos. 40, 416.

¹⁶⁴François Joseph Fétis, La musique mise a la portée de tout le monde (Paris: A. Mesnier, 1830), p. 162. Fétis did not specifically identify the sixth key in this source. "F. C." credited the $\underline{c}^{\#}'/\underline{g}^{\#}''$ key to Lefevre in "Clarinette," Dictionnaire Général des Lettres, des Beaux-Arts des Sciences Morales et Politiques, eds. T. Bachelet and L. C. Dozobry (Paris: Dezobry, F. Tando et Cie, 1862), 1st part, p. 154. [Louis] Adam de Pontécoulant, Organographie: Essai sur la facture instrumentale, 2 vols. (Paris: Castel, 1861, reprint ed., Amsterdam:

PLATE 41
 THE SEPARATE SECTIONS OF A SIX-KEY CLARINET WITH
 A C[#]'/G[#]'' KEY

Planche 1^{re}

A: bell, B: lower stock, C: middle joint, D: barrel, E: mouthpiece and reed, F: frontal and side views of the reed wrapped with twine, G: C[#]'/G[#]'' key, from J. X. Le Fevre, Méthode (1802).

Vandenbrock knew of this key in 1793 and pointed out that Lefevre's discovery of this key was "trés nécessaire pour rendre l'instrument plus parfait et plus juste".¹⁶⁵ It is certain, therefore, that the $\underline{c}^{\#}/g^{\#}$ key was added to the clarinet in France by the 1790s.

In 1808, the innovative maker from Lyons, Jacques François Simiot (fl. 1803-28), published an explanation of his improvements to the clarinet, and a fingering chart for a seven-key instrument.¹⁶⁶ The clarinet pictured in this fingering chart is reproduced here as plate 42. We note that Simiot added a key on the upper joint for trilling from $\underline{a}'$ to $\underline{b}'$ (like those found on English clarinets), a seventh key for the notes $\underline{b}/\underline{f}$ used only for trills, and the application of a double hole to the third finger hole for the notes $\underline{c}^{\#}/g^{\#}$, instead of another key. Additional improvements on Simiot's clarinets included: an ingenious mechanism for opening a speaker hole at the front of the instrument, where it is less susceptible to blockage by water; a brass tube in the thumb hole to retard the flow of saliva; a tuning slide of thin brass between barrel and mouthpiece; and a mark indicating the position to which the bell should be drawn out when using the corps de rechange for tuning from $\underline{b}'$ to $\underline{a}'$.¹⁶⁷ Two clarinets by Simiot with these improvements are illustrated in the New Grove Dictionary of Musical Instruments. They are pitched in $\underline{c}'$ and $\underline{b}^b$ with a three-

F. Knuf, 1972), 1: 198; F. J. Fétis, Exposition Universelle de Paris, en 1855. Fabrication des instruments de musique (Paris: Impr. Imperiale, 1856), p. 9

¹⁶⁵Othon Vandenbrock, Traité Général de tous les instrumens à vent (Paris: Boyer, 1793, reprint ed., Geneva: Minkoff, 1974), p. 45.

¹⁶⁶[Jacques François] Simiot, Tableau explicatif des innovations et changements faits à la clarinette (Lyons: (The Author, 1808).

¹⁶⁷Shackleton, "Clarinet," NGDMI, 1:395.

PLATE 42

A SEVEN-KEY CLARINET ILLUSTRATED BY
JACQUES-FRANÇOIS SIMIOT (1808)

This instrument included the following keys: register, $\underline{a'}$, $\underline{a'/b'}$ trill, $\underline{b/f''}$ trill, $\underline{a^b/e^b''}$, $\underline{f\#/c\#''}$ and $\underline{e/b'}$. Its third finger hole was doubled to produce a $\underline{c\#/g\#''}$. From [Jacques-François] Simiot, Tableau explicatif des innovations et changements faits a la clarinette (Lyons: The Author, 1808).

section corps (barrel and two finger hole joints) for conversion to a'.¹⁶⁸ In a letter dated 22 December 1829, addressed to F. J. Fétis and published in the Revue Musicale, Simiot claimed to have made a twelve-key clarinet in 1803.¹⁶⁹ Even though 1803 is quite early for the appearance of a twelve-key clarinet it is not difficult to believe that Simiot made one then, considering his ability and innovative nature.¹⁷⁰ Simiot's improvements, however, were not widely known since he was a provincial maker whose workshop was not in Paris.

The earliest maker to construct a clarinet entirely of brass was Jean Hilaire Asté, who adopted the name of Halary.¹⁷¹ In 1817, he submitted a description of four instruments to the Académie des Beaux-Arts for their approval, including a "Clarinette Métallique".¹⁷² According to Pontécoulant, this instrument (which he called "Clairon-Métallique") is the same as a wooden clarinet, but its tone is less agreeable and not as soft as the ordinary clarinet.¹⁷³ All of Halary's

¹⁶⁸For a photograph see Shackleton, "Clarinet," ill. 5(a).

¹⁶⁹"Correspondence," Revue Musicale 6 (1 Jan. 1830):541-2. Cf. Niall O'Loughlin, "Simiot, Jacques-François," NGDMI, 3:387.

¹⁷⁰Amand Vanderhagen was the earliest to publish a fingering chart for the twelve-key instrument about 1819, in his little-known, Nouvelle Méthode pour la clarinette moderne à douze cles (Paris: Pleyel et Fils aîné. c. 1819). See A. R. Rice, "Clarinet fingering Charts, 1732-1816," p. 30.

¹⁷¹See Niall O'Loughlin, "Halary," NGDMI 2:118.

¹⁷²See the "Extraits des rapports faits à l'Institut de France . . . en 1817 sur les instr. de M. Halary" as quoted by Roland Wright in Dictionnaire des instruments de musique (London: Battley Brothers, [1941]), p. 35.

¹⁷³[Louis-] Adam de Pontécoulant, Organographie: Essai sur la facture instrumentale, 2:130-1. Pontécoulant claimed to have quoted from the description given to the Académie des Beaux-Arts.

new instruments were granted a patent in 1821.¹⁷⁴ Numerous makers since this time have manufactured metal clarinets up to the present day.

Austria and the Basset Clarinet

According to the writer, C. F. Cramer (1783), the maker, Theodor Lotz (c. 1748-1792) improved the construction of a seven-key basset horn in 1782 while he was living at Pressburg (now Bratislava, Czechoslovakia).¹⁷⁵ In 1784, Lotz moved to Vienna where he was appointed Royal Instrument Maker to the Kaiser in 1788.¹⁷⁶ From 1784 to 1785, he made clarinets pitched in c'' with middle sections (which are referred in documents as "H Stücken" or "Mutationen") when tuning to b' , for the court musicians, Anton and Johann Stadler.¹⁷⁷ By 1788, Lotz had completed a soprano clarinet for Anton Stadler with an extension to its lower range of two additional notes, similar to the range of some basset horns. The earliest evidence of this clarinet (named "Bass-Klarinett") is a program of a concert given at the Royal and Imperial Theater in Vienna on 20 February 1788 which states:

Herr [Anton] Stadler . . . in the service of his majesty the Kaiser . . . will play a concerto on the Bass-Klarinet . . . Herr

¹⁷⁴Pontécoulant, 2:130. An extant, eight-key clarinet marked "Halari" (Munich 10201) was probably made by Asté's successor, Jean-Louis Antoine (1788-1861). In 1840, Antoine adopted Asté's business name but used the spelling, "Halari", on his instruments. See O'Loughlin, "Halary," 2:118 and Heinrich Seifers, "Die Blasinstrumente im Deutschen Museum. Beschreibender Katalog," p. 42.

¹⁷⁵Magazin der Musik, ed. C. F. Cramer (Hamburg, 1783, reprint ed., Hildesheim: G. Olms, 1971), first year, first half, p. 654.

¹⁷⁶Pamela Weston, More Clarinet Virtuosi of the Past, p. 165; Pamela L. Poulin, "The Basset Clarinet of Anton Stadler," College Music Symposium 22 (Fall 1982): 72.

¹⁷⁷See Roger Hellyer, "Some Documents relating to Viennese Wind-Instrument Purchases, 1779-1837," GSJ 28 (1975): 51.

Stadler will play a variation on the Bass-Klarinet, an instrument of new invention and manufacture of the Royal and Imperial instrument maker, Theodor Loz [sic]. This instrument has two more low tones than the normal clarinet.¹⁷⁸

The two additional notes were probably $d^\sharp$ and d . These notes are found in two incomplete quintets for clarinet and strings written by Mozart for his friend Stadler. The d is found in K. Anh 91 (516c, 1787?) for b^b clarinet, and an e^b in K. Anh 88 (581a, 1789?) for a' clarinet.¹⁷⁹ Shortly afterwards, this instrument was probably given a chromatic extension to include the notes $d^\sharp$, d , $c^\sharp$ and c . Several scholars have shown that Mozart wrote his clarinet quintet (K. 589, 1789) and concerto (K. 622, 1791) for an instrument, now called the basset clarinet, which encompassed this lower range.¹⁸⁰ At about the same time, these four

¹⁷⁸Cf. the translation by Poulin in "The Basset Clarinet of Anton Stadler," pp. 72-3.

"Herr Stadler . . . in wirklichen Diensten Sr. Majestät des Kaisers . . . Wird Herr Stadler ein Variazon auf der Baß = Klarinet spielen . . . Spielt Herr Stadler eine Variazon auf der Baß = Klarinet; einem Instrumente von einer neuen Erfindung, und Verfertigung des k. k. Hof = Instrumentenmakers, Theodor Loz; dieses Instrument hat zwey tieft Töne mehr, als die gewöhnliche Klarinet".

This program is reproduced by Poulin, Ibid., fig. 3.

¹⁷⁹See the forward by E. F. Schmid to Wolfgang Amadeus Mozart, Neue Ausgabe sämtlicher Werke, "Serie VIII: Kammermusik, Abt. 2, Quintette mit Bläsern" (Kassel: Bärenreiter, 1958), pp. IX-X and 41-3, 50-51.

¹⁸⁰See the evidence presented by: George Dazeley, "The Original Text of Mozart's Clarinet Concerto," Music Review 9 (August 1948): 166-172; Jirí Kratochvíl, "Betrachtungen über die Urfassung des Konzerts für Klarinette und des Quintetts für Klarinette und Streicher von W. A. Mozart," in Internationale Konferenz über das Leben und Werk W. A. Mozarts Praha 27.-31. Mai 1956 (Prague: n.p., [c. 1958]), pp. 262-71 where the term "Bassettklarinette" was coined; and Ernest Hess, "Die Ursprung-Gestalt des Klarinettenkonzertes KV 622," Mozart Jahrbuch 1967, pp. 18-30. According to Shackleton, the larger tone holes of Bohemian clarinets, especially at the lower end of the instrument, made possible a fuller tone in the chalumeau register that was exploited more

keys were added to the basset horn possibly by Lotz, but credited to Anton and Johann Stadler by the writer and theorist, J. G. Albrechtsberger in 1790.¹⁸¹

Anton Stadler's basset clarinet was mentioned upon his arrival in Berlin, in an announcement in the Musikalisches Wochenblatt (January 1792):

Mr. Stadler has also added several notes to his instrument by means of keys. However, the gain, through the added keys, is not very great, because the instrument is almost overladen with keys.¹⁸²

This statement suggests that Stadler's instrument included more than the usual five keys, as well as its four keys to produce the lower or "basset" notes.¹⁸³ On 12 September 1795, Anton Stadler played both his basset clarinet and a basset horn at a concert in Hanover.¹⁸⁴ A year

effectively by Mozart than his predecessors, see Shackleton, "Clarinet," NGDMI, 1:395.

¹⁸¹Johann Georg Albrechtsberger, Gründliche Anweisung zur Composition . . . und mit einem Anhang: von der Beschaffenheit und Anwendung aller jetzt üblichen Musikalischen Instrument (Leipzig: J. G. I. Breitkopf, 1790), p. 426.

¹⁸²Translation by Poulin, p. 76. This source is cited as: Johann F. Reichardt and F. Ae. Munzen, ed., Musikalisches Wochenblatt (Berlin: In der neuen Berlinschen Musikhandlung, 1793), p. 41. A different citation for this source was given by Arthur J. Ness as: J. F. Reichardt, "Fremde Virtuosen," Musikalisches Wochenblatt (Berlin, 1791-2), XV, 118. See Ness, "Some Remarks Concerning the Basset Clarinet and Mozart's Concerto in A Major (KV 622)" (M.A. thesis, Harvard University, 1961), p. 16.

¹⁸³Cf. Poulin, p. 77. Mozart's concerto can be managed, however, with a simpler instrument as was demonstrated by the American clarinetist, Eric Hoeprich. He gave a fine performance on a ten-key basset clarinet of his own design in May of 1985, with the Orchestra of the XVIIIth Century at the Concertgebouw in Amsterdam.

¹⁸⁴Reported in the Hannöversichen Anzeigen and quoted by Heinrich Sievers in Hannoversche Musikgeschichte: Dokumente, Kritiken, und Meinungen (Tutzing: H. Schneider, 1979), p. 318.

later, the writer, J. F. von Schönfeld noted that in addition to the ordinary clarinet, the Stadler's played an instrument called the "basset clarinet":

Stadler brothers, with the Imperial court orchestra are excellently skillful artists, both on the ordinary clarinet and the basset clarinet. The latter instrument is difficult to handle in its production of tone, the delicacy of expression, and the facility to have it perfectly under control.¹⁸⁵

Von Schönfeld's careful distinction between the Stadler's two instruments may indicate that the "basset clarinet", in this description, was in fact a basset horn, which, because of its narrow bore, is slightly more difficult to handle in its production of tone than the ordinary clarinet.

Stadler's basset clarinet was described in detail after he played in Vienna in October of 1801:

Herr Stadler, a great virtuoso on several wind instruments, presented himself at one of the academies [concerts] performed by amateurs in the Augarten. He played a clarinet with modifications of his own invention. His instrument is not the usual uniform shape throughout. About three-quarters of its length down it has a ridge running round the tube which from that point onward flares out toward the bell. This has the advantage of giving the

¹⁸⁵Johann Ferdinand von Schönfeld, Jahrbuch der Tonkunst von Wien und Prag (Vienna, 1796; reprint ed., Munich: E. Katzschler, 1976), p. 58.

"Stadler, Hr. Gebrüder, bei der kais. Hofmusik, sind ausgezeichnet geschickte Künstler sowohl auf dem gewöhnlichen Klarinet, als auch auf dem Baßettklarinet, als welche schwer zu traktirend Instrumente sie von Seite des Tons, der Delikatesse, des Ausdrucks und der Leichtigkeit vollkommen in ihrer Gewalt haben".

instrument more range in the lower register, and the lowest notes sound not unlike those of a French horn.¹⁸⁶

In 1802, a colleague of Lotz, Franz Scholl, was granted a privilege by Kaiser Franz II for improvements to his newly invented "Schollbasso", a basset clarinet with a range of four octaves. Scholl also continued to make clarinets with an extension of two notes to their lower range.¹⁸⁷ The latter type of clarinet with additional notes for d and c are mentioned by Backofen (c. 1803) as "a new and excellent invention now being made in Vienna".¹⁸⁸ An anonymous basset clarinet having pitches only for d and c (sometimes called "basset" notes) is extant in the collection of the Conservatoire in Paris (no. 347).¹⁸⁹ It is attributed

¹⁸⁶Translation in Oskar Kroll, The Clarinet, p. 22, note 1.

"Hr. Stadler, ein großer Künstler auf mehrern Blaseinstrumenten, präsentirte sich in einer von den Akademien, welche im Augarten von Dilettanten aufgeführt werden, auf einer Klarinette mit Abänderung von seiner Erfindung, welche darin besteht, daß es nicht, wie gewöhnlich, bis an das Ende zur Oeffnung gerade fortläuft. Durch den letzten vierten Theil ungefähr ist eine Querpfeife angebracht, von welcher aus erst die weiter hinausgebogene hervorragende Oeffnung geht. Der Vortheil dieser Aenderung besteht darin, daß das Instrument hiedurch noch mehr Tiefe erhält, und in den letzten Tönen mit dem Waldhorn Aehnlichkeit hat".

"IV. Wiener Kunstdnachrichten," Journal des Luxus und der Moden, ed. J. F. Bartuch, 16 (1801): 543-44. This description was paraphrased by Ernst Ludwig Gerber in Neues Historische-Biographisches Lexikon der Tonkünstler (Leipzig, 1813-14; reprint ed., Graz: Akademische Druck- u. Verlagsanstalt, 1966), col. 248.

¹⁸⁷See Helga Haupt, "Wiener Instrumentenbauer von 1791-1815," Studien zur Musikwissenschaft 24 (1960): 172.

¹⁸⁸J. G. H. Backofen, Anweisung zur Klarinette nebst einer kurzen Abhandlung über das Basset-Horn, p. 35.

"Noch eine neuere und vortreffliche Erfindung ist diese, dass man jetzt in Wien Klarinetten macht . . ."

¹⁸⁹I am grateful to Keith Puddy for this information. Cf. Gustave Chouquet, Le Musée du Conservatoire National de Musique. Catalog

to the Viennese school (possibly Scholl) and dated to the late eighteenth century by Keith Puddy and Nicholas Shackleton. Pitched in $\underline{a}'$, this instrument has the following ten keys: register, $\underline{a}'$, $\underline{e}^{b'}/\underline{b}^{b''}$, $\underline{c}^{\#'}/\underline{g}^{\#''}$ (possibly a later addition), $\underline{b}/\underline{f}^{\#''}$ (possibly a later addition), $\underline{f}/\underline{c}''$, $\underline{f}^{\#}/\underline{c}^{\#''}$, $\underline{e}/\underline{b}'$, $\underline{d}$ and $\underline{c}$. This instrument is one of the very few clarinets which does not include a key for $\underline{a}^{b'}/\underline{e}^{b''}$. It could not have been used for playing Mozart's concerto since it does not include basset notes which are fully chromatic. Three nineteenth-century instruments, which in three cases were mistakenly identified as basset horns, are now known to be basset clarinets.¹⁹⁰ They are: a thirteen-key clarinet in $\underline{a}'$ by Strohbach (Hamburg 1912, 1562), a sixteen-key instrument in $\underline{a}'$ by Johann Gottlieb Bischoff (Darmstadt Kg 61:116), and a "simple system" or thirteen-key $\underline{b}^{b'}$ clarinet by an anonymous maker (possibly French) of the late nineteenth century (Oxford, Bate collection x48).¹⁹¹

An unusual five-key clarinet in $\underline{a}'$ (c. 1800, Vienna N.E. 340) by the Viennese maker, Johann Merklein (fl. c 1799-1847) has two alternate fingerhole joints, with seven keys, for tuning to $\underline{b}^{b'}$ thus providing a

Raisonné des Instruments de cette collection (Paris: Didot Frères, 1875; reprint ed., Geneva: Minkoff, 1981). For additional information concerning a reconstruction of Stadler's basset clarinet see Gerhard Croll and Kurt Birsak, "Anton Stadler's 'Bassettklarinette' und das 'Stadler-Quintett' KV 581," Oesterreichische Musikzeitschrift 24 (Jan. 1969): 3-11.

¹⁹⁰I am grateful to Nicholas Shackleton for this information.

¹⁹¹See Hans Schröder, Verzeichnis der Sammlung alter Musikinstrumente (Hamburg: Alster, 1930), p. 82, where this instrument is identified as a basset horn; Musik Instrumente aus dem Hessischen Landesmuseum 16.-19. Jahrhundert (Darmstadt: Hessisches Landesmuseum, 1980), pp. 50-1, where this instrument is identified as a basset horn; and [Anthony Baines], The Bate Collection of Historical Wind Instruments, p. 39. For an explanation of the term, "simple system", see Anthony Baines, Woodwind Instruments and Their History, 3rd ed. (London: Faber and Faber, 1967), pp. 136-139.

total of ten keys to the $\underline{b}^b$ instrument. Naturally, the additional joints for the $\underline{b}^b$ clarinet may have been made at a later date. These ten keys are the following: register key, $\underline{a}^b$ to $\underline{b}^b$ trill, $\underline{a}^b$, $\underline{g}^{\#}$, $\underline{e}^b / \underline{b}^b$, $\underline{c}^{\#} / \underline{g}^{\#}$, $\underline{b} / \underline{f}^{\#}$, $\underline{a}^b / \underline{e}^b$, $\underline{f}^{\#} / \underline{c}^{\#}$, and $\underline{e} / \underline{b}$.¹⁹²

Other Countries

Two makers from Brussels, Godefroid-Adrien Rottenburgh (ii, 1709-1790) and Jean Baptiste Willems (1761-1809), made five-key clarinets in apparent imitation of earlier German or French models.¹⁹³ They both followed the dominant trends in clarinet making by constructing two-, four-, and five-key instruments, but no three-key clarinets. In Poland during the 1760s, there were clarinets somewhat more advanced mechanically than in other parts of Europe. This fact is shown by an interesting list of the parts of the clarinet in the trilingual encyclopedia (Czech, Latin, German) Nomenclator, Artifex, et Mechanicus (1768) by Jan Karel Rohn, appearing under the German heading "Pfeiffenmacher (Flötenbohrer)":

The Clarinet, a pipe similar to the oboe, but somewhat stouter, and below wider. The head or top. The middle piece. The cup [bell] without a bottom. It generally has three flaps or keys, sometimes six. The feathers. Large mouthpiece with reed.¹⁹⁴

¹⁹²See Julius Schlosser, Die Sammlung Alter Musikinstrumente. Beschreibendes Verzeichnis (Vienna: A. Schroll, & Co., 1920), p. 125 and for a photograph see Tafel LIII; Lyndesay G. Langwill, An Index of Musical Wind-Instrument Makers 6th ed. (Edinburgh: The Author, 1980), p. 117.

¹⁹³Several clarinets are listed for these makers by P. T. Young in Twenty-Five Hundred Historical Woodwind Instruments, pp. 105, 146.

¹⁹⁴Translation of the Polish by Dr. Hans Ruyter.

"Klarinet / Pisstiala na spůsob hoboge / wssak o něco tlustssy / a dole ssjrssý. Clario, onis f. tibia acuti soni, clamosa ribia. Das Klarinet / eine Pfeiffe auf die art einer Hoboy / jedoch um

Although a three-part construction has not been recorded among eighteenth-century clarinets, Rohn's instrument appears to have consisted of a lower stock/bell, fingerhole joint and mouthpiece/socket. This description is the earliest known report of the use of as many as six keys. The sixth key may have been either one for $c^{\#}/g^{\#}$ or the trill key from a' to b' . Rohn's feathers were probably used for cleaning the instrument after playing, as oboists use to clean their instrument today.

In America, several makers such as Asa Hopkins (1779-1839), John Meacham (1785 - 1844), Samuel Graves (1794-1878), William Whitely (fl. 1810-1853), and Edward Riley (fl. 1814-1831) all made five and six-key clarinets based on English models.¹⁹⁵ Their clarinets include the

etwas stärker / und unten breiter. Hlawa. Capitellum. Der Kopf / oder Tüssel. Prostředek. Pars media. Das Mittelstück. Ssiroky Spodek. Pars extreme latoir. Der Becher ohne boden. Obyčegně má tři Klapy / někdy ssest. Ordinariè habet tres valvulas, interdum sex. Hat insgemein drey Klappen / oder Schlüsse / bisweilen sechse. Péra Penna. Die Federn. Náhubek tlusty. Orificium subscassulum. Dicks Mundstück mit Rohr."

Joanne Carolo Rohn, Nomenclator Artifex, et Mechanicus. To gest: Gmenowatel W trogi Ržeči . . . Der Kenner in dreym Sprachen (Prague: Widow of J. Prussow, 1768), pp. 232-3. This volume is the last of a four volume compendium of facts published from 1764 to 1768. Cf. Rice, "Clarinet Fingering Charts, 1732-1816," pp. 18, 38 note 9. See Josefa Jungmanna, Historie Literatury České (Prague: A. Straširipka, 1825), p. 353; Knihopis Českých A Slovenských Tisků od doby nejstarší až do konce XVIII. Století. ed. F. Horák (Prague: Nakladatelství Československé Akademie Ved, 1961, pp. 436-8, no. 14.865; and Jindřich Keller, "Příštelníci A. Trubaři," Sborník Národního Muzea V Praze 29, no. 4-5 (1975): 177-182.

¹⁹⁵For Hopkins see Baines, European and American Musical Instruments, p. 113, no. 629; for Meacham see Robert E. Eliason, "The Meachams, Musical Instruments Makers of Hartford and Albany," JAMIS 5-6 (1979-1980): 54-73, figs. 4 and 6; for Whitely and Graves see Idem, Graves & Company Musical Instrument Makers (Dearborn: The Edison Institute, 1975), pp. 6-8; a five-key clarinet by Reilly (owned by Kermit Welch of Lomita, California) was studied by the present author.

typical "English style" socket boss on the lower stock with a sharp incurve, and a small mouthpiece with a long tenon. A six-key clarinet by Graves and Co. (c. 1840, Claremont, Janssen collection 197) is notable for its small English-style mouthpiece made of metal, perhaps pewter. This mouthpiece carries a very long metal tenon of 5.8 cm, which extends unusually through its metal-lined barrel (with a pewter collar) and into a metal insert of the upper joint by 1.5 cm.¹⁹⁶ It appears that this tenon was designed by Graves for a greater degree of security in playing as well as for protection against breakage. Unfortunately, the top of its pewter mouthpiece was still susceptible to damage, and it is now badly chipped.

In conclusion, the development of the classical clarinet was a significant turning point in the history of the instrument. Its appearance can be seen to coincide with the creation of lower-pitched clarinets, such as the clarinette d'amour and basset horn during the 1750s. The evolution of the classical clarinet, however, seems to be largely due to the technical and musical demands made by composers of the classic period (see chapter 8). Historically, the four-key clarinet can be seen as a transitional type from c. 1750 to 1780 in Germany and France, leading to the popular five-key clarinet. This instrument began to replace the baroque clarinet during the 1750s, and by about 1780 became the favorite throughout Europe. The innovations by James Wood and Jacques François Simiot, as well as the basset clarinets of Theodor Lotz, Anton Stadler and Franz Scholl, were never generally adopted by the clarinetist. The most popular instrument continued to be the five-

¹⁹⁶See Albert R. Rice, "A Catalog of the Woodwind Instruments in the Curt Janssen Collection of Claremont University Center" (Claremont, typewritten ms., 1983), pp. 23, 44-45.

key clarinet until about 1820. After this time, the reforms of Iwan Müller were slowly adopted by makers throughout the world.

CHAPTER VII

PLAYING TECHNIQUES OF THE CLASSICAL CLARINET

This chapter deals with seven aspects of classical clarinet playing technique: the selection of a clarinet by the composer and performer; transposition by the clarinetist; the range and registers; resonance, mouthpiece position and articulation; fingering; ornamentation; and two unusual techniques, the *saute* and *multiphonics*. Pertinent information is presented in letters and treatises, musical scores and parts, pictorial sources, and in some cases, the physical characteristics of extant instruments. Although the first three topics relate more to the composer than the performer, they are appropriate for inclusion here because of their relevance to playing technique.

The Selection of a Clarinet by the Composer and Performer

During the late eighteenth century, the composer could choose from a total of nine clarinets of differing pitches: g' (the pitch of the *clarinette d'amour*), g' , g^b , a' , a^b , b' , b^b , c' and c^b .¹ The use of so many instruments was necessary in order to cope with difficulties encountered in both the fingering and intonation of music written in

¹See Valentin Rösner, *Essai d'instruction à l'usage de ceux qui commencent à jouer la clarinette et la sac* (Paris: Le Mout, [1764]; reprinted ed., Geneva: Krieger, [1974]), p. 2; [Louis-Joseph] Froberger, *Diagonon général de tous les instruments à vent* (Paris: Le Moutard, [1774]; reprinted ed., Geneva: Krieger, [1972]), p. 21; Jean-Baptiste de la Forge, *Essai sur la musique ancienne et moderne*, 4 vols. (Paris: P. G. Leclercq, 1760, 1762).

CHAPTER VII

PLAYING TECHNIQUES OF THE CLASSICAL CLARINET

This chapter deals with seven aspects of classical clarinet playing technique: the selection of a clarinet by the composer and performer; transposition by the clarinetist; the range and registers; embouchure, mouthpiece position and articulation; fingering; ornamentation; and two unusual techniques, the mute and multiphonics. Pertinent information is preserved in tutors and treatises, musical scores and parts, pictorial sources, and in some cases, the physical characteristics of extant instruments. Although the first three topics relate more to the composer than the performer, they are appropriate for inclusion here because of their relevance to playing technique.

The Selection of a Clarinet by the Composer and Performer

During the late eighteenth century, the composer could choose from a total of nine clarinets of differing pitches: g' (the pitch of the clarinette d'amour), a' , b^b' , b' , c'' , d'' , e^b'' , e'' and f'' .¹ The use of so many instruments was necessary in order to cope with difficulties encountered in both the fingering and intonation of music written in

¹See Valentin Roeser, Essai d'instruction à l'usage de ceux qui composent pour la clarinette et le cor (Paris: Le Menu, [1764]; reprint ed., Geneva: Minkoff, [1972]), p. 2; [Louis-Joseph] Francoeur, Diapason général de tous les instrumens à vent (Paris: Le Marchand, [1772]; reprint ed., Geneva: Minkoff, [1972]), p. 21; [Jean-Benjamin de La Borde], Essai sur la musique ancienne et moderne, 4 vols. (Paris: P. D. Pierres, 1780), 1:252.

various tonalities. According to the clarinetist and writer, V. Roeser, the tonalities easiest to play are F and C major and D and G minor.² Indeed, I have found that works written in tonalities having more than one flat or one sharp often present serious difficulties in fingering and intonation. Performing in other tonalities is possible, but practical only at slow speeds when the fingerings of the required notes are not overly awkward.

Roeser and Francoeur, indicated in their writings the preferred clarinets (from a total of eight pitches) which were the easiest to play in several major and minor tonalities. They illustrated the pitch of the proper clarinet by writing a separate F major scale or a musical example for each instrument, and compared the pitches produced by this clarinet to the equivalent sound produced on string instruments.³ Francoeur's results (which incorporated Roeser's) are compiled in Table 6. The reader will note that for the major keys, the clarinetist always plays from a part written in the transposed tonalities of C and F major except in three examples. These exceptions are in the tonalities of B^b (example 6), E^b (13) and E (16). In B^b and E major, the b^{b'} and a clarinets, respectively, were substituted for the less common, small f^{''} and e^{''} clarinets, because these high-pitched instruments were used only in the orchestra for very loud works.⁴ According to Francoeur, E^b major is very difficult to play and B major is rarely used by the composer.⁵ For minor keys, the clarinetist, usually plays in D and G minor. The

²Roeser, p. 5.

³Roeser, pp. 4-10; Francoeur, pp. 25-30.

⁴Roeser, pp. 2, 7; Francoeur, pp. 25, 27 note b.

⁵Francoeur, p. 27 note c, p. 29 note f.

TABLE 6

THE PITCHES OF CLARINETS PRESCRIBED FOR
DIFFERENT TONALITIES BY FRANCOEUR (1772)

<u>Example</u> <u>Numbers</u> ¹	<u>Sounding</u> <u>Tonality</u> ²	<u>Nominal Pitch of</u> <u>Clarinet</u>	<u>Written</u> <u>Tonality</u> ²
1	G	<u>g'</u>	C
2	G	<u>d''</u>	F
3	A	<u>a'</u>	C
4	A	<u>e''</u>	F
5	B ^b	<u>b^b'</u>	C
6	B ^b	<u>c''</u>	B ^b
6b	B ^b	<u>f''</u>	F
7	B	<u>b'</u>	C
8	B	<u>e''</u>	F ³
9	C	<u>g'</u>	F
10	C	<u>c''</u>	C
11	D	<u>d''</u>	C
12	D	<u>a'</u>	F
13	E ^b	<u>c''</u>	E ^b
14	E ^b	<u>b^b'</u>	F

¹These numbers are numbered examples illustrating the recommended clarinets for specific tonalities in L. J. Francoeur's Diapason général de tous les instrumens a vent (Paris, 1772). Letters refer to Francoeur's footnotes to these examples.

²Upper case letters represent major tonalities, lower case minor.

³The clarinet parts in Francoeur's example eight (p. 27) were incorrectly transposed to G, a whole step too high.

TABLE 6 (CONTINUED)

<u>Example</u> <u>Numbers</u>	<u>Sounding</u> <u>Tonality</u>	<u>Nominal Pitch of</u> <u>Clarinet</u>	<u>Written</u> <u>Tonality</u>
15	E	<u>e''</u>	C
15g	E	<u>b'</u>	F
16	E	<u>a'</u>	G
17	F	<u>c''</u>	F
17j	F	<u>f''</u>	C (or <u>f'</u>), <u>e''</u> and
18	g	<u>c''</u>	g
19	a	<u>a'</u>	c ⁴
19k	a	<u>d''</u>	g
20	b	<u>a'</u>	d
21	c	<u>b^b'</u>	d
22	d	<u>c''</u>	d
23	e	<u>a'</u>	g
24	f	<u>b^b'</u>	g

⁴Francoeur, p. 32 example 19.

⁵Francoeur, p. 31.

⁶See p. 5; Francoeur, p. 31. Francoeur mentioned (p. 24) that the clarinet in b' is actually the b^b' instrument which has been altered in pitch by the substitution of shorter middle joints (*corps de rechange*). In order to aid the composer in writing for the clarinet, Francoeur (pp. 25-6, 32-3), indicated the sounding notes for eight clarinets of different pitches by writing a second clef in the margin preceding the usual treble clef. Thus, the clarinetist played the notes as written, and the sounding pitch was indicated for the composer by the clef in the margin.

⁷See Thord Lindgren in the English translation of the introduction to *Carl Nielsen's Abrahamsen Nielsen's Historical Record* (ed. by Thord Lindgren, Copenhagen: G. E. C. Gørlitz, 1944), 20 note 20.

⁸The clarinet parts in Francoeur's example nineteen (p. 32) omitted the key signature of three flats.

suggestion by Francoeur of an $\underline{a}'$ clarinet for A minor (ex. 19, to play in the written key of C minor) is unusual, particularly, because of the difficulty of playing in the parallel major key of E^b .⁶ Francoeur stated that in order to determine which type of clarinet should be specified in any major or minor tonality, a section of the work is transposed to C major and compared to the original piece. The pitch which corresponds to the transposed note, $\underline{c}''$, is therefore the pitch name of the clarinet.⁷ The clarinets which were most often played of all of these instruments were those pitched in $\underline{a}'$, $\underline{b}^b$ (or $\underline{b}'$), $\underline{c}''$ and $\underline{d}''$.⁸

In Sweden, during the 1770s, a preference for the tone quality of the lower-pitched clarinets (probably in $\underline{b}^b$ and $\underline{a}'$) is unequivocally stated by Johan Miklin, director musices in Linköping.⁹ In a letter dated 31 August 1772, to the music historian, A. A. Hülphers he writes:

I don't believe clarinets were in use in Sweden until 1762 or 63. The first time I heard them was in Malmö in 1766. The larger ones, which are used in concerts in Paris, sound infinitely better than the clarinets [i.e. the two-key instruments] which are used at the regiments, as they don't screech so. But the larger ones are delightful, owing to the fact that one can so easily play

⁶Francoeur, p. 32 example 19.

⁷Francoeur, p. 31.

⁸Roeser, p. 5; Francoeur, p. 21. Francoeur mentioned (p. 24) that the clarinet in $\underline{b}'$ is actually the $\underline{b}^b$ instrument which has been altered in pitch by the substitution of shorter middle joints (corps de rechange). In order to aid the composer in writing for the clarinet, Francoeur (pp. 25-9, 32-3), indicated the sounding notes for eight clarinets of different pitches by writing a second clef in the margin preceding the usual treble clef. Thus, the clarinetist played the notes as written, and the sounding pitch was indicated for the composer by the clef in the margin.

⁹See Thorild Lindgren in the English translation of the introduction to Abraham Abrahamsson Hülphers, Historisk afhandling och instrumenter (Westerås: J. L. Hornn, 1773; reprint ed., Stockholm: Svenskt musikhistoriskt arkiv, 1969), pp. 14, 20 note 20.

forte and piano and the lower chalumeau notes. They have many long brass keys for both hands.¹⁰

By the 1770s, these lower-pitched clarinets with four or five keys, were gaining in popularity due to their mellow tone quality, greater flexibility of dynamic range, and additional pitches, of their lowest register.¹¹

Frédéric de Castillon, who wrote from Berlin in 1776, stated that the normal instrument was the clarinet pitched in a' . Owing to fingering difficulties, solo or technically demanding passages were written for his four-key instrument only in C and F major (the sounding tonalities of A and D major). Castillon also mentioned the use of duplicate middle joints which could raise the pitch of the clarinet in a' by one semitone to b^b . With the b^b clarinet, technical passages could be written in the sounding tonalities of B^b and E^b major,¹² a conclusion previously voiced by Roeser and Francoeur (cf. Table 6). In contrast to Castillon, an anonymous English writer of the first known

¹⁰Translation by Mrs. Kirsten Koblik in Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," *GSJ* 37 (1984): 19.

"Clarinetter tror jag ej varit i Sverige än sedan 1762 el. 3. Första gången hörde jag dem i Malmö 1766, de storre, som i Paris brukas i concert, låt oändligt bättre, än de samma clarinetter, som brukas wid regimenterna; ty de skrika uke så; nem de större äro sköna, i anseende därtill at man så commod kan bruka forte och piano samt den grogwa chalumeau-ton. De hafwa flere långa mässingsklaffar för bäge händer".

Quoted by Tobias Norlind in "Abraham Abrahamsson Hülphers och frihetstidens musikliv," *Svenskt Tidskrift för Musikforskning* 19 (1937): 56-57.

¹¹Rice, p. 19.

¹²Frédéric de Castillon, "ClarINETTE," *Supplément à l'Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers* . . ., ed. J. B. Robinet, 5 vols. (Amsterdam: M. M. Rey, 1776-1780), 2:450-451.

tutor for the five-key clarinet (c. 1780) knew only the clarinets pitched in $\underline{b}^b$ and $\underline{c}''$. He stated the following:

As Pieces of Music are composed in different Keys, in which Clarinets can play in Concert with other Instruments; it is necessary to have two Clarinets, one a B. [-flat] the other a C. [T]he B. [-flat] Clarinet must be used if the Peice [sic] is in the Key of E. [-flat] or B. [-flat] and the C. Clarinet if it is in the Key of F. or C. [I]n [these] four Keys, B. [-flat] C. E. [-flat] and F. [,] Pieces of Music most commo[n]ly are, when Clarinets join in Concert.---¹³

From this description and four others in similar English tutors, it appears that only the $\underline{c}''$ and $\underline{b}^b$ clarinets were known in England during the late eighteenth century.¹⁴ The $\underline{a}'$ clarinet, however, must also have been used since the English composer, Samuel Wesley, referred to three clarinets pitched in $\underline{c}''$, $\underline{b}^b$ and $\underline{a}'$ in a section of a manuscript (c. 1789) devoted to information concerning musical instruments.¹⁵

In 1785, the Parisian clarinetist, A. Vanderhagen made a distinction between the $\underline{b}^b$ and $\underline{b}'$ clarinets in his important clarinet tutor, by labelling them respectively, "clarinette en Si" and "clarinette en Mi# [diése]."¹⁶ In the second edition of this tutor (c.

¹³The Clarinet Instructor by which Playing on that Instrument is rendered easy to any one unacquainted with Music (London: Longman & Broderip, [c. 1780]), p. 7.

¹⁴Compleat Instuctions [sic] for the Clarinet (London: S. A. & P. Thompson, [c. 1785]), p. 8; New and Complete Instructions for the clarionet (London: Preston & Son, [c. 1797]), p. 6; New and Compleat Instructions for the clarionet (London: A. Bland & Weller's, [c. 1798]), p. 6; The Clarinet Preceptor (London: C. Wheatstone, [c. 1803]), p. 6.

¹⁵"Clarinet Scale in the hand of Samuel Wesley" (c. 1789), GB(Lbm), Add. 35011, fol. 166.

¹⁶Amand Van-der-Hagen, Méthode Nouvelle et Raisonnée pour la clarinette (Paris: Boyer, [1785]), reprint ed., Geneva: Minkoff, 1972), p. 19.

1799), Vanderhagen called the latter clarinet the "clarinette en Mi majeur". He explained this name by stating that

The clarinet in mi majeur has a corps in E which is put on the clarinet in c'' This clarinet is a semitone lower than the clarinet in c'' Consequently, it is necessary to play or write a semitone higher than for the violin.¹⁷

Besides the use of the b' clarinet in E major, Vanderhagen specified the use of this instrument for B major, as well as $G^\sharp$ and $C^\sharp$ minor.¹⁸ In Paris, the b' clarinet was the standard instrument (rather than the a' clarinet as in Berlin), and a corps en la was used when converting it to an a' clarinet. By about 1800, the d'' clarinet was no longer in use.¹⁹ Indeed, the normal practice, as reported by the clarinetists, Frédéric Blasius (c. 1796) and Jean-Xavier Lefevre (c. 1802), was to use two clarinets with additional middle joints which could be used to change the pitch of their instruments from b' to a'' and from c'' to b' .²⁰ Lefevre advocated using these clarinets in every major and minor tonality. In a section concerning transposition in his famous tutor, he

¹⁷Translation by Eugene E. Rousseau in "Clarinet Instructional Materials from 1732 to ca. 1825" (Ph.D. diss., State University of Iowa, 1962), p. 114.

"Clarinette en Mi Majeur c'est un corps en mi qui se pose sur la Clarinette en ut Cette Clarinette est un demi ton plus basse que la Clarinette en ut Il faut en consequence jouer ou écrire un demi ton plus haut que le violon".

Amand Vanderhagen, Nouvelle Méthode de clarinette divisée en deux parties (Paris: Pleyel, [c. 1799]), p. 70.

¹⁸Vanderhagen, p. 70.

¹⁹According to Vanderhagen, pp. 69-70.

²⁰Frédéric Blasius, Nouvelle Méthode de clarinette et Raisonnement des instruments (Paris: Porthaux, [c. 1796]), reprint ed., Geneva: Minkoff, 1972), pp. 45-6; [Jean-Xavier] Le Fevre, Méthode de clarinette (Paris: A l'Imprimerie du Conservatoire de Musique, An IX [1802]; reprint ed., Geneva: Minkoff, 1974), p. 138.

provided musical examples of all twenty-four major and minor tonalities divided among and written for the c'' , b' , $b^{b'}$ and a' clarinets.²¹ The relationship between instruments and tonality is shown in Table 7. Lefevre seems to have been referring to the note b' when he renamed the b' and $b^{b'}$ clarinets, as the "clarinette en Si majeur" and the "clarinette en Sib [bémol]".²² These names were probably adopted to help avoid confusion with the high-pitched clarinet in $e^{b''}$, known at this time as the "clarinette en Mi".²³

The Italian writer, C. Gervasoni (1800) stated that for convenience in playing in various keys, clarinets are marked on their middle joints (corpo di mezzo) as "Clarinetto in B fa" and "Clarinetto in E la fa", to indicate the joints for the $b^{b'}$ and b' instruments.²⁴ In 1813, F. Antolini gave a fuller explanation of these markings on the middle joints of the clarinets in c'' , b' , $b^{b'}$ and a' :

Note that the manufacturers are accustomed to mark each section of the clarinet with the letter of the key in which it is constructed. That in c'' carries the letter C, because the c'' fingering actually produces the c'' . That in $b^{b'}$ carries the letter B, because the fingering for c'' actually produces the $b^{b'}$. The joint in a' carries the letter A Only the piece in b' is not named for the note produced by its c'' fingering (which produces the said b'), but for its fingering for f'' which produces the e'' ; it is marked by all manufacturers in this manner: = E.# =.

²¹Le Fevre, pp. 138-144.

²²Le Fevre, p. 138. The $b^{b'}$ clarinet had previously been named the "clarinette en Si bemol" in Othon Vandembroeck's Traité général de tous les instruments à vent à l'usage des compositeurs (Paris: Boyer, [c. 1794], reprint ed., Geneva: Minkoff, 1974), pp. 49-50.

²³See Vanderhagen, Nouvelle Méthode de clarinette divisée en deux parties, p. 71; V. Michel, Méthode de Clarinette (Paris: Cochet, [c. 1801]), p. 22.

²⁴Carlo Gervasoni, La Scuola della Musica in tre parti divisa (Piacenza: Orcesi, 1800, reprint ed., Bologna: Forni, [1969]), p. 353.

TABLE 7 (CONT'D)

THE CLARINETS PRESCRIBED FOR DIFFERENT
TONALITIES BY LEFEVRE (1802)

<u>Sounding</u> <u>Tonality</u>	<u>Nominal Pitch</u> <u>of Clarinet</u>	<u>Written</u> <u>Tonality</u>
G ^b	<u>b</u> ^b ,	B ^b
G ^b	<u>a</u> '	B ^b
G	<u>c</u> ''	G
A ^b	<u>b</u> ^b ,	A ^b
A	<u>b</u> '	B ^b
A	<u>a</u> '	C
B ^b	<u>c</u> ''	B ^b
B ^b	<u>b</u> ^b ,	C
B	<u>b</u> '	C
C	<u>c</u> ''	C
C	<u>b</u> ^b ,	D
C [#]	<u>b</u> '	D
D ^b	<u>b</u> ^b ,	E ^b
D	<u>c</u> ''	D
D	<u>a</u> '	F
E ^b	<u>b</u> ^b ,	F
E	<u>b</u> '	F
E	<u>a</u> '	G
F	<u>c</u> ''	F
F	<u>b</u> ^b ,	G

Tonalities which are given as upper case letters are major keys,
those given as lower case letters are minor keys.

TABLE 7 (CONTINUED)

<u>Sounding</u> <u>Tonality</u>	<u>Nominal Pitch</u> <u>of Clarinet</u>	<u>Written</u> <u>Tonality</u> ¹
F [#]	<u>b'</u>	G
F [#]	<u>a'</u>	D
g	<u>c''</u>	g
g	<u>b^b,</u>	a
g [#]	<u>b'</u>	a
g [#]	<u>a'</u>	a
a	<u>c''</u>	a
a	<u>b^b,</u>	b
a [#]	<u>b'</u>	b
b ^b	<u>b^b,</u>	c
b	<u>b'</u>	c
b	<u>a'</u>	d
b	<u>c''</u>	b
c	<u>b^b,</u>	d
c [#]	<u>b'</u>	d
c [#]	<u>a'</u>	e
d	<u>c''</u>	d
d	<u>b^b,</u>	e
d [#]	<u>b'</u>	e
e ^b	<u>a'</u>	g

¹Tonalities which are given as upper case letters are major keys, those given as lower case letters are minor keys.

TABLE 7 (CONTINUED)

<u>Sounding</u>	<u>Nominal Pitch</u>	<u>Written</u>
<u>Tonality</u>	<u>of Clarinet</u>	<u>Tonality</u>

e	c''	e
f	b ^b '	g
f [#]	b'	g
f [#]	a'	a

²⁵Translation by Dupré E. Rousseau in "Clarinet Instructional Materials from 1802 to ca. 1825", p. 115.

"Si chiama che giacque primo componente il clarinetto, costumasi da' fabbricatori a marcarsi colla lettera iniziale del tuono in cui è costrutto. Quello in cui si costruisce porta la lettera B., perchè in quella parte la lettera B., perchè la costruzione del C. rende il solo. Il nome in cui si costruisce porta la lettera A. . . . Il solo porta la lettera B. e si chiamano, anche della costruzione B. (che rende il tutto fuori della costruzione del tuono, che rende l'istesso, e se non il fabbricatore si trova in quel modo - B. . . ."

Ma se altri vogliono che si possa ripetere questa costruzione, che del dubbio, che, marcandosi questo pezzo colla lettera B., apparirebbe confusione col clarinetto in B^b, marcato colla lettera B., questo dubbio parrebbe si potesse marcare il clarinetto in B^b, non col solo B., (che si chiamerebbe che B^b, che B^b) che con un semplice unito - B. . . . se in allora marcasse il pezzo in B^b col solo B. . . ."

Francesco Antolini, La vera maniera di scrivere per il clarinetto ed il fagotto da flauto (Milano: C. Boccini, 1813), pp. 18-19, note 1-2.

Kristian Christoph Koch, Musikalisches Lexicon (Frankfurt: H. von Wagner, 1802; reprint ed., Hildesheim: G. Olms, 1964), vol. 334.

I believe that this distinction cannot have any other purpose than to prevent the confusion that could arise, if this joint were marked with the letter B, between it and the clarinet in $\underline{b}^b$, which is also marked with the letter B. This confusion, however, would be avoided easily if only the clarinet in $\underline{b}^b$ were marked not merely with B (which strictly speaking means $\underline{b}^b$, not $\underline{b}^b$), but thus = B^b =, and then marking the piece in $\underline{b}^b$ with B alone.²⁵

This is the only evidence known that describes the use of the letter "E#" in order to identify the middle joints for the $\underline{b}^b$ clarinet.

At this time in Germany, the use of additional middle joints for changing the tonality of the clarinet seems to have been going out of fashion. For instance, according to H. C. Koch (1802), clarinets pitched in $\underline{c}''$, $\underline{b}^b$, and $\underline{a}'$ are employed in the orchestra, the $\underline{b}^b$ instrument being the most commonly played.²⁶ In his tutor of c. 1803, J. G. H. Backofen recommended the use of the $\underline{b}^b$ clarinet to the student, rather than "like the French, a $\underline{c}''$ clarinet", since it is a

²⁵Translation by Eugene E. Rousseau in "Clarinet Instructional Materials from 1732 to ca. 1825", p. 116.

"Si osservi che ciascun pezzo componente il clarinetto, costumasi da' fabbricatori a marcarlo colla lettera iniziale del tuono in cui è costruito. Quello in cesolfaut porta la lettera C., perchè la posizione del cesolfaut rende realmente il cesolfaut. Quello in befà porta la lettera B., perchè la posizione del C. rende il befà. Il pezzo in alamirè porta la lettera A. . . . Il solo pezzo in bemì è denominato, anzichè dalla posizione C. (che rende il detto bemì) dalla posizione del faut, che rende l'elamì, e da tutt' il fabbricatori si marca in cotal modo = E.# =.

Non da altra cagione credo si possa ripetere questa distinzione; che dal dubbio, che, marcandosi questo pezzo colla lettera B., arrecar possa confusione col clarinetto in befà, marcato anch' esso colla lettera B. Questo dubbio peraltro si volesse marcare il clarinetto in befà, non col solo B. (che rigorosamente dice bemì, non befà) ma con un bemolle unito = B^b =, ed in allora marcando il pezzo in bemì col solo B. . . ."

Francesco Antolini, La retta maniera di scrivere per il clarinetto ed altri istromenti da fiato (Milan: C. Buccinelli, 1813), pp. 18-19, note 2.

²⁶Heinrich Christoph Koch, Musikalisches Lexicon (Frankfurt: H. dem Jungern, 1802, reprint ed., Hildesheim: G. Olms, 1964), col. 334.

good compromise between the c'' and a' instruments.²⁷ The writer, C. F. Michaelis, however, preferred the a' clarinet as the main instrument because it is the most beautiful of these three clarinets.²⁸ None of these German sources mention the use of additional middle joints. In 1832, Catrufo reported that the use of the corps de rechange in France was abandoned and replaced by the three clarinets in c'', b'-flat and a'.²⁹

Even though Roeser, Francoeur and Castillon advised the composer to indicate which tonality is required for the clarinet at the beginning of a piece,³⁰ this practice was not standardized in scores until the early nineteenth century. French composers in particular seem to have adopted two distinct approaches to labeling clarinet parts in their scores. The first practice, identical to that used today, is found in François-Joseph Gossec's Missa pro defunctis (1760).³¹ Here, the parts are marked "Clarinetti G" (for the clarinette d'amour) in one section, and "Clarinetti B" (for the b'-flat clarinet) in two other sections.

²⁷See [Johann Georg Heinrich] Backofen, Anweisung zur Klarinette nebst einer kurzen Abhandlung über das Basset-Horn (Leipzig: Breitkopf & Härtel, [c. 1803]), p. 1. In order to aid the composer in writing for these three clarinets, Backofen (p. 34), recommended the use of three clefs to indicate the sounding pitches of each instrument, i.e., the treble clef for the c'' clarinet, tenor for the b' and discant or soprano for the a' instrument.

²⁸[Christian Friedrich Michaelis], "Ueber die Klarinette," AMZ 10 (16 March 1808): col. 387.

²⁹[Gioseffo] Catrufo, Des Voix et des Instrumens à Cordes à Vent et à Percussion (Paris: B. Latte, [1832]), p. 10.

³⁰Roeser, p. 10, Francoeur, p. 30; Castillon, 2:451.

³¹Published as the Messe des Morts in Paris by M. Henry in 1780, see Robert James Macdonald, "François-Joseph Gossec and French Instrumental Music in the Second Half of the Eighteenth Century", 2 vols. (Ph.D. diss., University of Michigan, 1968), 1:448-9, note 210, 511.

(In two further sections the tonality of the clarinets is omitted where instruments in $\flat$ '-flat and $\underline{c}''$ are required). The second practice was noted in a dissertation by D. P. Charlton, who examined thirty-one French operas written from 1768 to 1788:

In the overture to L'amitié à l'épreuve (1770), which is in D major, the instruction appears as for a C instrument with a key signature of two sharps, "en ut" refers not to the proposed key of the clarinet but of the clarinet part. A D instrument was intended, as was also the case in Gretry's L'union de l'amour et des arts (1773). A dance movement in D major; p. 38 requires oboes in unison with clarinets; these are given on one stave of music, in two sharps. The instruction reads, "Clarinettes comme les hautbois en ut". Similarly, on p. 85 clarinets in B natural on their own stave in E major are labeled "en fa". Comparable labelling systems may be seen in Cherubini's Démophoon [1788] and in many scores of all kinds after 1789.³²

By the early nineteenth century, this second practice of indicating the transposition for the clarinetist was abandoned by composers in favor of writing out a transposed part and indicating the tonality of the instrument required.

Transposition by the Clarinetist

The earliest evidence that players transposed their parts at sight from the sounding pitch, appears in Francoeur's treatise of 1772. Here, Francoeur states that in the absence of other clarinets, the composer can use the $\underline{c}''$ clarinet for playing in all major or minor tonalities, but one must avoid difficult passages in the minor tonalities.³³ In his instrumentation treatise of c. 1794, O. Vandebroek proposed the use of the $\underline{c}''$, $\underline{b}'$, $\underline{b}'$ -flat and $\underline{a}'$ clarinets for many of the same tonalities

³²David Philip Charlton, "Orchestration and Orchestral Practice in Paris, 1789 to 1810" (Ph.D. thesis, University of Cambridge, 1973), pp. 283-4.

³³Francoeur, pp. 24, 34.

given by Roeser and Francoeur.³⁴ He also explained the usual practice of French composers:

Nevertheless, most composers omit all the flats and sharps of the key signature, the musicians are [therefore] obliged to know all the key signatures and their transpositions; we have musicians who find themselves very embarrassed when it is necessary to transpose, and others for which it is not troublesome, because they had made it a frequent habit.³⁵

At the turn of the century, Michel preferred to play the b'-flat clarinet transposing when necessary. He stated that

. . . it is lower by one tone than that in c'', which introduces the necessity of transposing in order to correspond in unison to the violins, but this slight inconvenience disappears in front of all good musicians, who find an advantageous compensation in its more beautiful and vigorous tone and much more facility in fingering . . .³⁶

Michel is referring to the technical facility of pitches played on the b' clarinet specifically when transposing in tonalities having more than one flat. He continued by observing the usefulness of the c'' clarinet:

³⁴O. Vandenbroeck, Traité Général . . . , pp. 46-7.

³⁵Vandenbroeck, p. 47.

"Cependant la plu-part des Compositeurs laissant tous les bemols ou tous les diesis à la Clef, les Musiciens sont bien obligés de connaître toutes les Clefs et la transposition, nous avons des Musiciens que se trouvent très embarrassés quand il faut qu'ils transposent, et d'autres à que cela ne coûte rien par la grande habitude."

³⁶Michel, Méthode de Clarinette, p. 2.

". . . elle est plus basse d'un ton que celle en Ut ce qui la met dans la nécessité de transposer pour se rapporter à l'unisson des Violons, mais ce léger inconvénient disparaît devant tous les bons Musiciens qui s'en trouvent avantageusement dédomagés par un son plus beau et plus fort et par un doigter beaucoup plus facile . . ."

. . . it is good, however, to know how to play in all the pitches with one clarinet in c'' because of sharp and flat modulations that one can encounter in a piece of music . . .³⁷

Michel's comments imply that clarinetists usually played as far as possible with the c'' clarinet, refraining from the use of the corps de rechange. The lack of extant corps, especially those for the b' clarinet, seems to substantiate this viewpoint.³⁸

Range and Registers

In his instrumentation treatise of 1764, Roeser indicated both the range and the registers of the four-key clarinet by means of the following scale:³⁹

On this scale the lowest note indicated, e, was separated from the highest f'' by a bar line, perhaps an indication that the pitch of this

³⁷Michel, p. 2.

" . . . il est bon cependant de savoir jouer dans tous les tons avec la seule Clarinette en Ut a cause des modulations diézées et Bémolisées qui peuvent se rencontrer dans un morceau de musique . . ."

³⁸This lack of extant corps de rechange was confirmed by the organologist, Philip Bate, as reported by Charlton, pp. 279, 289.

³⁹Roeser, p. 3. This scale omits some notes of the chromatic scale which would fall between the highest and lowest notes of the range. These were considered to be out of tune and unusable. Subsequent treatises show that these gaps in the scale were gradually filled in and the upper range extended for the five-key clarinet, until by 1790 (Albrechtsberger's treatise) the full chromatic scale from e to c'''' had come within the capabilities of the instrument.

lowest note could be different on some instruments.⁴⁰ Roeser did not explain the numbers under the notes e and f, but they probably indicate these notes as the first and second of the range.

His division of the range into three parts is the earliest illustration of the registers, and proved to be quite influential since it was copied by almost all subsequent writers. Roeser also wrote the earliest detailed description of each part of the range:

One distinguishes up to three types of sounds within the range of the clarinet; the first, which is from the F in the small octave to the B-flat in the first octave [f to b'] is called chalumeau, because it is very sweet. The second, which is from the B natural of the first octave up to the C-sharp of the third [b' to c#'''] is called clarion or clarinet, because it is very sonorous and very brilliant. The third, which is from the D of the third octave up to F [d''' to f'''] can be called shrill, because it is very loud, and because one is not able to play as softly in it as the preceding. That is also why one ought never to use it in delicate passages. I could have shown some further semitones in the range of the clarinet, but as these are very out of tune, I have considered it appropriate to leave them out.⁴¹

⁴⁰K. Birsak found that the pitches produced with the use of a third key, on three, three-key instruments in the Salzburg collection, were not the usual e and b', because of the placement of the tone hole for this key. See Kurt Birsak, Die Holzblasinstrumente im Salzburger Museum Augusteum (Salzburg: Salzburger Museum Carolino Augusteum, 1973), pp. 124, 128-9 and the discussion below on pages 122-128.

⁴¹Translation in Albert R. Rice, "Valentin Roeser's Essay on the Clarinet (1764), Background and Commentary" (M.A. thesis, Claremont Graduate School, 1977), p. 100.

⁴²"On distingue jus qu'à trois sortes de sons dans l'étendue de la Clarinette; le premier qui est depuis le Fa de la petite Octave jusqu'au Si b, mol de la première Octave es appellé Chalumeau, parce qu'il est très doux. Le second qui est depuis le Si naturel de la première Octave jus qu'à l'Ut # de la troisième est appellé Clairon on [sic] Clarinette parce qu'il est plus sonore et plus brillant. Le troisième qui est depuis le Re de la troisième Octave jusqu'au Fa, peut être appellé aigü, parce qu'il est très fort et qu'on ne peut l'adoucir comme les précédents. C'est alussi pourquoi l'on ne devrait pas s'en servir pour les passages délicats. J'aurois pu demontrer encore quelques Sémi-

About five years later, Roeser published a fingering chart for the four-key clarinet that included fingerings for all of these notes as well as an additional four ($f^\sharp$, b , $g^\sharp$ and g''').⁴²

The theorist, Francoeur (1772), copied Roeser's description of the three parts of the range in the Essai, and added the note a''' .⁴³ Additionally, Francoeur indicated the range of two parts which he called "Premier Dessus" (a to f''') and "Second Dessus" (f to c''' and e to d'''). He explained that these parts are limited to specific notes in order to accommodate players who were capable of playing within the higher or lower range of the clarinet.⁴⁴ As part of his description of the quality of tone concerning six clarinets of differing pitch (in g' , a' , b^b or b' , c'' , d'' and e''), Francoeur gave the upper and lower notes appropriate for the "Premier Dessus" and "Second Dessus" of each instrument. For the "Premier Dessus", in every case the lowest note given was c' , while the upper note was extended beyond his general description to g''' for the clarinets in c'' and d'' . For the "Second Dessus", Francoeur extended the upper note of the range to an e''' for

tons de plus dans l'étendue de la Clarinette, mais comme ils sont très faux, j'ai jugé à propos de les Supprimer."

Roeser, Essai d'instruction à l'usage de ceux qui composent pour la clarinette et le cor, pp. 3-4.

⁴²[Valentin] Roeser, Gamme de la clarinette avec six duo pour cet instrument (Paris: Le Menu, [c. 1769]), see Rice, "Clarinet Fingering Charts, 1732-1816," pp. 23-4, pl. V.

⁴³Francoeur, p. 18.

⁴⁴Francoeur, p. 22. This division may have been suggested to Francoeur by Roeser's division of the much larger range of the horn into two parts in his Essai (pp. 17-19). While horn players recognized and used this two-part division, no other subsequent theorist wrote of a division of the range of the clarinet.

the clarinet in $\underline{d}''$.⁴⁵ Francoeur appears to have based his two-part division of the range on a pre-existing practice of clarinetists. For example, the Bohemian composer, Franz Pokorny, wrote a concerto in E-flat major designated in the autograph as "per il clarinetto primo", and a second concerto in B-flat major (dated "9 octobris 1765") designated "per il clarinetto secundo". The ranges of these works (both written for the $\underline{b}^b$ clarinet) are similar to those given by Francoeur, the E-flat concerto written from $\underline{c}'$ to $\underline{e}'''$, the B-flat work from $\underline{f}$ to $\underline{c}'''$.⁴⁶ This practice, however, was not used by later composers who generally made use of the full range of the clarinet in concertos.

Although Francoeur listed the note $\underline{a}'''$ he did not provide a fingering which initially appeared in a fingering chart in an edition of Corrette's flute tutor (c. 1773).⁴⁷ In 1776, a fingering for $\underline{c}^\sharp$ was given by Castillon in his chart, and Vanderhagen (1785) added a $\underline{g}^\sharp$ in the fingering chart of his method for the five-key clarinet.⁴⁸ The Viennese theorist, Albrechtsberger (1790), was the earliest to indicate a fully chromatic range from $\underline{e}$ to $\underline{c}'''$ (considered the present-day standard range), and J. X. Lefevre (1802) provided fingerings for all of

⁴⁵Francoeur, pp. 23-25.

⁴⁶See "Klarinetten-Konzerte des 18. Jahrhunderts," in Das Erbe Deutscher Musik, vol. 41, ed. H. Becker (Wiesbaden: Breitkopf & Härtel, 1957), pp. X, 103-4.

⁴⁷[Michel] Corrette, Méthode Raisonnée pour apprendre aisement à jouer de la Flûtte [sic] Traversière . . . Nouvelle édition, revue corrigée augmentée de la Game du Hautbois et de la Clarinette (Paris: aux adresse ordinaire de Musique, [c. 1773]), p. 56.

⁴⁸Frédéric de Castillon, "Clarinette," Supplément à l'Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers . . ., ed., J. B. Robinet, 5 vols. (Amsterdam: M. M. Rey, 1776-1780), 2:450; A. Van-der-hagen, Méthode Nouvelle et Raisonnée pour la clarinette (Paris: Boyer, [c. 1785]); reprint ed., Geneva: Minkoff, 1972).

these notes.⁴⁹ The innovative French maker, J. F. Simiot, published a two-page explanation and a fingering chart for his seven-key clarinet in 1808. His instrument included a key used for trilling from $\underline{a}'$ to $\underline{b}'$ and another key for the notes $\underline{b^b}/\underline{f''}$, also used for trilling, but in practice similar to the standard five-key clarinet. Simiot gave fingerings for seven additional notes ($\underline{c^{\#}}''''$ chromatically to $\underline{g}''''$) above Lefevre's highest pitch of $\underline{c}''''$, simply to attract attention to his instruments.⁵⁰ These extremely high pitches have never come into general use for the clarinetist.

As early as 1758, J. Adlung noted two different qualities of the clarinet's range, calling the lower part "chalumeau":

The clarinet is well known. In the low register it sounds differently than in the high range, therefore, one calls it [the range] chalumeau.⁵¹

Later in the century, composers used the word "chalumeau" in clarinet parts to indicate that a particular passage written in the upper or "clarinette" register should be played an octave lower in the chalumeau register. In a similar manner, the word, "clarinette", was used to indicate the notes which were played at pitch, but occasionally was used to indicate the transposition of a passage an octave upward. The

⁴⁹Johann Georg Albrechtsberger, Gründliche Anweisung zur Composition . . . und mit einem Anhang: von der Beschaffenheit und Anwendung aller jetzt üblichen Musikalischen Instrumente (Leipzig: J. G. I. Breitkopf, 1790), p. 437; [Jean-Xavier] Le Fevre, Méthode de clarinette (Paris, [1802], reprint ed., Geneva: Minkoff, 1974), planches 3 and 4.

⁵⁰[Jacques-François] Simiot, Tableau Explicatif des innovations et changemens faits à la clarinette (Lyons: [The Author], 1808). See, Rice, "Clarinet Fingering Charts, 1732-1816," p. 29.

⁵¹Jacob Adlung, Anleitung zu der musikalischen Gelahrtheit (Erfurt: J. D. Jungnicol, 1758, reprint ed., Kassel: Bärenreiter, 1953), p. 588.

earliest known musical example using these designations appears in Franz Pokorny's clarinet concerto in B-flat major (1765). In measures 143 to 148 of the first movement in the clarinet part, two variations in notation are found. Originally, these five measures were written in the treble clef and the word "Shale" (presumably an abbreviation for "Shalumeau" or "Schalümo") placed at the beginning of the line. This designation appears to have implied that six notes of the first half of the measure, written as c'' down to e' , be played an octave lower. Most of the remaining notes of these five measures are written too low for this octave transposition. This first version was crossed out and a second version, with several changes in the choice of notes, written in the bass clef is found in the lower margin of the score. The designation "Clarin" is found at the beginning of this version, and can only mean that these notes are to be played an octave higher, since most of them are below the range of the clarinet. Interestingly, the second version of these five measures includes two low e 's, a note which otherwise does not appear elsewhere in this concerto. Perhaps the e was omitted in the first version because of the questionable intonation of this note on clarinets of this period.⁵²

The anonymous writer of the definition "Clarinet" in the Deutsche Encyclopädie (1781) stated that "When playing the chalmeau [register] a c'' clarinet goes up to e' and [descends two tones lower than the

⁵²Cf. "Klarinetten-Konzerte des 18. Jahrhunderts," pp. XI and 105, and Robert A. Titus, "The Solo Music for the Clarinet in the Eighteenth century" (Ph.D. diss., State University of Iowa, 1962), pp. 170-173.

violin".⁵³ Thus, this author called the notes from e to e' "chalmeau". Vanderhagen (1785) also identified these notes as the "Chalumau" register suggesting that the student use them to test the playing response of the reed.⁵⁴ The earliest explanation of the use of the word "chalumeau" to indicate transposition of one octave lower, appeared in the first edition of a Dutch music dictionary by J. V. Reynvaan (1789):

Whenever one finds this term written in a clarinet part, it denotes that one should play that passage, next to which it is found, one octave lower. This being the pitch of the chalumeau,

⁵³Deutsche Encyclopädie oder Allgemeines Real=Wörterbuch aller Künste und Wissenschaft, ed. H. M. G. Köster, 23 vols. (Frankfurt: Varrentrapp Sohn und Wenner, 1778-1807), 5 (1781): 685.

"Wenn sie Chalmeau blasen, so geht ein c Clarinet bis ins e und zwey Töne tiefer als die Geige."

⁵⁴Van-der-hagen, Méthode Nouvelle et Raisonnée pour la Clarinette, p. 3; repeated by Michel, Méthode de clarinette, p. 3. Later writers who called the notes from e to e' "chalumeau" include W. Schneider (1834) and H. Berlioz in his influential instrumentation treatise of 1843. Schneider explained that with the use of the word "chalmeau" above notes higher than e', the "Chalmeau-Octave" may be played. See Wilhelm Schneider, Historisch=technische Beschreibung der musicalischen Instrumente (Neiße and Leipzig: T. Hennings, 1834), p. 30. Berlioz appears to have been following Schneider's statement when he gave the following unusual description of the range: e to e' (grave), f' to b^b' (chalumeau), b' to c''' (médium), and d''' to d'''' (aigu). See Hector Berlioz, Grand traité d'instrumentation et d'orchestration modernes (Paris: Schonenberger, [1844], second ed., Paris: Schonenberger [1855], reprint ed., Paris: H. Lemoine et Cie, [1952]), p. 134. The more commonly accepted range was initially given by the clarinetist, F. Berr as e to f' (chalumeau), g' to b^b' (intermédiaire), b' to c''' (clairon), and d''' to g''' (aigu). See Frédéric Berr, Traité complet de la clarinette à quatorze clefs (Paris: E. Duverger, 1836), pp. 9-10. Berr's second edition of this tutor provided a chromatic range of e to f', f#' to b^b', b' to c''' and c#''' to g'''. See Frédéric Berr, Méthode complète de clarinette (Paris: E. Gérard, [c. 1844]), p. 7, and Georges Kastner, Traité général d'instrumentation . . . supplément (Paris: Prilipp et Cie, [1844]), p. 23.

and being done in order to prevent the use of the bass clef, which would otherwise have to be used.⁵⁵

Reynvaan's mention of the bass clef seems to reflect the earlier German practice as shown in Pokorny's clarinet concerto in B-flat (1765), composed for the court of Öttingen-Wallerstein.⁵⁶ Blasius (c. 1796) was the earliest writer to explain both terms concerning octave transposition:

To the clarinet, there is a word which is attached. That is Chalumeau. This word means to transpose or to play a passage one octave lower. One takes the notes as they are, when they are written under Clarinette.⁵⁷

⁵⁵Translation by Dr. Roelof Wijbrandous of the Defense Language Institute, Monterey, California.

"Wanneer men deezen Term vindt geschreeven, in eene Clarinetpartije; geest het te kennen, dat men die Passagie, waarbij dat gevonden wordt, een Octaaf Laager moet Speelen. Zijnde dit de Toon der CHALUMEAU, of Schalmeije: en wordende dit gedaan; om dat men anderszins den Bassleutel zoude moeten bezigen, het welk hier door voorgekoomen wordt."

Joos Verschuere Reynvaan Muzijkaal Konstwoordenboek belhelzende verklaaringen van, als mede het gebruik en de kracht der Konstwoorden, die in de muzijk voorkomen, 2 vols. (Middleburg and Amsterdam: W. A. Keel and J. de Jongh, 1789-1790), 1:117.

⁵⁶See August Scharnagl, "Pokorny, Franz Xaver (Thomas)," Grove 6, 15:22.

⁵⁷Translation by William Menkin in "Frédéric Blasius: Nouvelle Méthode de Clarinette et Raisonnement des Instruments'. A Complete Translation and Analysis with an Historical and Biographical Background of the Composer and his Compositions for Clarinet" (D.M.A. diss., Stanford University, 1980), p. 69.

"A la Clarinette il y'a un mot qui lui est attaché, qui est Chalumeau, ce mot veut dire de transposer ou de jouer le passage une octave plus bas, on ne Reprend les Notes telles qu'elles sont, que lors qu'il y a Ecrit audessus Clarinette."

Frédéric Blasius, Nouvelle Méthode de clarinette, p. 51.

At this point in his tutor, Blasius gave a one-line example using both of these terms and the actual sounding notes when transposed.⁵⁸ The German clarinetist, Backofen (c. 1803), explained octave transposition by comparing the use of the bass clef for the lowest notes of the basset horn (written $\underline{g}$ to $\underline{C}$, but sounding an octave higher), with the use of the term "chal.", which indicated a transposition of notes one octave lower for the clarinet.⁵⁹

Embouchure, Mouthpiece Position and Articulation

The French word, embouchure, is commonly understood to refer to the position and shape of the lips while playing a wind instrument. This word is also occasionally used to refer to the mouthpiece of the clarinet or the headjoint of the flute.⁶⁰ The earliest published instruction concerning the embouchure used in playing the clarinet appeared in an anonymous English tutor for the five-key clarinet:

Blow moderately strong the Chalumeau Notes, but for the Clarinet Notes, the reed must be pinched with the Lips a little. and blown

⁵⁸A. Vanderhagen provided almost a full page of exercises alternating these two terms in the second issue of his tutor, Méthode Nouvelle et Raisonnée pour la clarinette (Paris: Nadermann, [c. 1797-1798]), pp. 8-9. The English clarinetist, J. Mahon (c. 1802), wrote similar exercises adopting the terms "chalumeau" or "chal." and "clarinet" or "clar." to indicate the same octave transposition and return to the written notes advocated by Blasius.

⁵⁹Backofen, Anweisung, p. 36.

⁶⁰Willi Apel, Harvard Dictionary of Music, 2nd ed. (Cambridge, Mass.: Harvard University Press, 1972), p. 287. Carnaud was probably the earliest to call the mouthpiece of the clarinet an "embouchure" in his Méthode pour la clarinette à six et à treize Clefs (Paris: Richault, [c. 1835]), on his fingering chart entitled, "Gamme des Tons Naturels pour la clarinette a six Clefs".

a little stronger; yet be carefull that the Teeth do not touch the Reed in blowing.⁶¹

The reed was tied onto the mouthpiece with twine or waxed thread, grooves or knurls were carved on the outside of the mouthpiece for this purpose. A. Vanderhagen, a Parisian clarinetist, gave additional directions concerning the embouchure in his important and detailed Méthode (1785):

I will say, thus, do not put the mouthpiece of the clarinet too high [into the mouth], but only up to the absence of the cut of the reed. . . . support the mouthpiece on the teeth and cover the reed with the upper lip, in no case touching the reed with the upper teeth, because the upper teeth have to sustain and press on the upper lip in order to pinch the high tones. The lips of the mouth must close firmly for one not to lose air through the mouth . . .⁶²

Blasius repeated some of Vanderhagen's statements in his tutor (c. 1796), but is more explicit concerning the lips:

. . . take good care that the mouthpiece nor the reed is touched by the teeth. It is necessary to support the mouthpiece on the lower lip to cover the reed with the upper lip, without the teeth touching any of it.⁶³

⁶¹The Clarinet Instructor . . . (London: Longman & Broderip, [c. 1780]), on the fingering chart entitled, "A Scale of Notes for the Clarinett". Identical statements are found in several English and American tutors as late as c. 1823 in A New & Complete Preceptor for the Clarinet (Philadelphia: J. G. Klemm, [c. 1823]), p. 3.

⁶²Van-der-Hagen, Méthode Nouvelle et Raisonnée pour la clarinette, pp. 1-2.

"Je dirai donc qu'il ne faut pas emboucher le bec de la Clarinette trop avant. Mais seulement j'usqu'au défaut de la taille d l'anche; . . . appuier le bec sur les dents, couvrir l'anche de la lèvre superieure sans que les dents de la rangée superieure y touchent en aucun cas."

⁶³Translation by Menkin, p. 66.

". . . prendre bien garde que le bec ni l'anche ne soient touchés par les dents. Il faut appuier le bec sur la levre inferieure,

Rather than covering only the upper teeth as Vanderhagen suggested, Blasius preferred to cover the upper and lower teeth with both lips, what is called in the present day, the "double-lip" embouchure. A few years after Blasius had written, the clarinetist, Michel (c. 1801), clearly suggested that only the upper teeth be covered by the lips:

. . . one ought to rest the mouthpiece on the lower teeth, and cover the reed with the upper lip without ever allowing the upper teeth to touch it . . .⁶⁴

Another consideration, that must have occurred to these authors, is the size and angle of teeth which would determine if the player could cover with one or both lips.

In each of these descriptions by French clarinetists it is apparent that they placed the mouthpiece and attached reed against the upper lip, contrary to the predominant present-day practice of placing it against the bottom lip (i.e., respectively the maxillary and mandibular mouthpiece positions).⁶⁵ Each of these positions affects the resonance, response, pitch and tonguing of the notes produced in a different manner. The majority of clarinets from this period by French

couvrir l'anche de la lèvre supérieure, sans que les dents y touchent en aucun."

Blasius, Méthode de clarinette, p. 48. This "double-lip" embouchure was also recommended by Lefevre in his influential Méthode de clarinette, p. 2.

⁶⁴Translation by Rousseau, p. 125.

". . . on doit appuyer le bec sur les dents inférieures, et couvrir l'anche avec la lèvre supérieure sans que jamais les dents d'en haut y touchent . . ."

Michel, Méthode de clarinette, p. 3.

⁶⁵I have adopted Becker's anatomical terms to indicate these positions of mouthpiece position. See Heinz Becker, "Klarinette" in Das Große Lexicon der Musik, ed. M. Honneger and G. Massenkeil, 8 vols. (Freiburg: Herder, 1976-1980), 4:357.

and English makers seem to have been designed to play with a maxillary position, since the mouthpiece must be turned in this position to match the makers' stamp with the same stamp on the remaining sections.⁶⁶ Confirmation of this practice is found in a number of treatises and tutors from this period. On the other hand, there is a body of evidence which suggests that clarinetists had the option of playing with either mouthpiece position. A preference for either position by the players from specific countries can be shown in several published sources. For instance, Roeser (1764) was the earliest to state the French preference for the maxillary position when he advised the composer not to write repeated sixteenth notes as one would do for the violin:

Many repeated sixteenth notes are not employed on the clarinet since the lungs must substitute for the tongue stroke, due to the position of the reed under the roof of the mouth.⁶⁷

He then illustrated repeated sixteenth notes played on the violin and their replacement for the clarinet by dotted half notes, quarter and eighth notes.⁶⁸ Roeser implied by his statement and example that the tongue was not used to articulate, and that articulation was accomplished by aspirations of breath. About five years later, he

⁶⁶See T. Eric Hoeprich, "Clarinet reed position in the 18th century," EM 12 (February 1984): 51; cf. Nicholas Shackleton, "Clarinet," NGDMI, 1:397.

⁶⁷Translation by Robert A. Titus in "The Solo Music for the Clarinet in the Eighteenth Century" (Ph.D. diss., State University of Iowa, 1962), p. 77.

"Beaucoup de doubles Croches dans le Mode parallele ne sont point en usages sur la Clarinette, attendu que la Poitrine doit substituer au coup de Langue, à cause de la position de l'Anche qui se trouve sous le Palais de la Bouche."

Roeser, Essai d'instruction, p. 12.

⁶⁸Roeser, Ibid.

depicted the maxillary position on the fingering chart for a four-key clarinet in his Gamme de la clarinette (c. 1769).⁶⁹

It seems likely that the playing practices of clarinetists in Paris influenced visitors from other countries. For instance, the letter from Johan Miklin (director musices in Linköping, Sweden) dated 31 August 1772, to A. A. Hülphers, mentions large clarinets "used in concerts in Paris" (see page 312 above) and describes a manner of articulation similar to that mentioned by Roeser:

. . . The reed is not as on an oboe; rather over the oblong opening one puts and inserts a thin, flat wide reed. It is always stationary, is lightly pressed by the lips, but never touched by the tongue. One must so to speak puff out the wind, but it is not heavy or hard to play. The best and most accurate information about this you may obtain in Stockholm.⁷⁰

Miklin's description of the lips pressing the reed resembles the "double-lip" embouchure described by Blasius. The similarities to the articulation and embouchure mentioned by Roeser and Blasius, also imply that these Swedish players made use of the maxillary mouthpiece

⁶⁹Subsequently, three fingering charts for the four-key clarinet, published in Paris, depicted this maxillary position. They are found in [Jacques] Hotteterre, Méthode . . . de la Flute . . ., new ed., augmented by [A.] Bailleux (Paris: Bailleux, [c. 1775]), p. 24; Principes de clarinette avec la Tablature des Meilleurs M^{tres} (Paris: [Girard, c. 1775]), pp. 1-2; and Abraham, Principes de clarinette (Paris: Frère, [c. 1782]), p. 2.

⁷⁰Translation by Mrs. Kirsten Koblik.

" . . . Röret är ej som på hautbois; utan öfwer den aflånga öppningen lägges och inskjutes et tunt, platt bredt rör, som alltid sitter fast, hwilket löst tryckes med läpparne, men aldrig får röras med tungan, utan måste man liksom flåsa fram wädret; är dock icke tungeller hårdspelt. Bästa och säkraste underrättelsen härom kan Hr Direct. få i Stockholm."

position.⁷¹ Most of the French writers of subsequent methods for the five and six-key clarinets from 1785 illustrated this mouthpiece position in their fingering charts.⁷² An early example of the use of the mandibular position in France, however, is found in a portrait of one Villement, signed by Pierre Bazin and dated 1780. Here, a man is shown holding a five-key clarinet with what appears to be a mandibular mouthpiece position.⁷³

The earliest recommendation for the use of the mandibular position is found in a Norwegian treatise of 1782 by the bandmaster, L. N. Berg. In a chapter concerning the clarinet he stated:

If you want the clarinet to sound good, you must not put the mouthpiece too far into your mouth, as it must otherwise shriek like a happy goose. Instead, the reed is placed on the lower lip, and in this manner you force it with the breath to produce a pleasant sound and tone, using the tongue to separate the notes at your discretion.⁷⁴

⁷¹Cf. Albert R. Rice, "Clarinet reed position" in "Correspondence," EM 12 (August 1984): 429, 431.

⁷²Vanderhagen (1785, c. 1799, c. 1819, c. 1836), Blasius (c. 1796), Michel (c. 1801), Lefevre (1802), Demar (c. 1808), Bochsa (c. 1809), Ribicki (c. 1826), Gambaro (c. 1830), and Carnaud (1829, c. 1830). See Appendix 3 for the full titles of these tutors.

⁷³This portrait may be found at the Rijksarchief voor Kunsthistorische Dokumentatie in Amsterdam. See T. Eric Hoeprich, "Clarinet reed position in the 18th century," EM 12 (February 1984): 52 and ill. 5.

⁷⁴Translation by Mrs. Sonni Marschik in Albert R. Rice, "The Clarinet as Described by Lorents Nicolai Berg (1782)," JAMIS 5-6 (1979-1980): 47.

"Naar man vil faae Clarinetten til at Inde, maa man ikke stikke Munkstykket for langt ind i Munden, at den ikke skal skriige som en glad Gass, men man lægger Røret paa den underste Læbe, og tvinger det saaledes med Binden, at det giver en angennem Lyd og Tone fra sig, hvortil Tungen, ved at støde Binden ud, sikller Tonerne efter Behag."

Lorents Nicolai Berg, Den første Prøve for Begyndere udi Instrumental-Kunsten (Kristiansand: A. Swane, 1782), p. 49.

Berg emphasized the fact that one may use the tongue to separate the notes using this type of mouthpiece position. A few years later, several German writers acknowledged or advocated the use of the mandibular position. For instance, Backofen (c. 1803) mentioned both positions while not advocating one in particular:

By the way, whether it is better while playing to place the reed against the upper or lower lip--which clarinetists call on top or underneath--I have not preference. I have heard good people play in both manners. Here, what one is used to is most important.⁷⁵

A much stronger statement in preference for the mandibular position was made by C. F. Michaelis in the issue of the Allgemeine Musikalische Zeitung for 16 March 1808:

In order for the clarinet to become a connoisseur's instrument . . . it is first necessary that one ceases to play with the reed on top as the French still do in their methods. Admittedly one may then lose the extreme high register, but on the other hand one gains--may I say--the entire instrument. Even the playing position is more difficult according to the former method and gives to the head a disagreeable angle of inclination. But how is it possible to form a smooth and tender sound if one touches the fibrous reed with his teeth? In this way . . . a harsh sound must unavoidably issue forth . . .⁷⁶

⁷⁵Translation by T. Eric Hoeprich in "Clarinet reed position in the 18th century," p. 50.

"Ob es übrigens besser sey, das Blättchen beym Blasen an die obere oder untere Lippe zu halten -- was die Klarinetisten ober sich oder unter sich blasen nennen -- will ich nicht entschieden. Ich habe schon von beyden Methode tüchtige Leute gehört. Gewohnheit macht hier alles."

J. G. H. Backofen, Anweisung zur Klarinette nebst einer kurzen Abhandlung über das Basset-Horn, p. 4. His fingering charts illustrate a clarinet with a maxillary mouthpiece position.

⁷⁶Translation in Rice, "The Clarinet as Described by Lorents Nicolai Berg," p. 52.

"Soll inzwischen das Instrument die Liebhaber noch mehr reizen Dahin gehört zuerst, dass mann aufhört, das Blatt oben zu blasen, wie die Franzosen sogar noch in ihrer Anweisung fordern. Man verliert dann freylich jene äusserste Höhe, aber man gewinnt dagenen -- ich möchte sagen, das ganze Instrument. Selbst die

Michaelis was convinced of the improvement in tone with the use of the mandibular position. He also observed that the player must hold the instrument at a wider angle away from the body when using the maxillary position. Two years later, J. Fröhlich (1810-11), described the advantages and disadvantages of both mouthpiece positions in his detailed treatise:

There are two ways of playing the clarinet, one, by having the reed on top, the other by having it on the bottom of the mouthpiece.

In the latter the player has more advantage in articulation with the tongue attacking, for example, in faster passages; but the disadvantage is that he cannot play with equal quality, nor with changes from high to low, as anyone who knows the nature of the clarinet can understand. In the first method the tongue cannot be securely and precisely used; also, since there is a certain whistling of air, the tone cannot be correctly formed and does not achieve sonorous quality. And those who believe that without tonguing [i.e., with the mandibular position] no lively, energetic performance is possible, err the more, as they seem to misjudge the real goal of all instrumentalists, especially the clarinetist, which is to equal the singer.⁷⁷

Haltung des Instruments ist nach jener Weise schwieriger, und giebt dem Kopfe eine unangenehme Richtung. Allein wie ist es möglich, einen saften und zarten Ton zu bilden, wenn man das fibrirende Blatt mit den Zähnen berührt? Hierdurch muss ganz unvermeidlich . . . ein scharfer Ton herauskommen . . ."

[C. F. Michaelis], "Ueber die Klarinette," AMZ 10 (16 March 1808): col. 386.

⁷⁷Translation by Rousseau, p. 128.

"Es gibt überhaupt zwey Arten das Clarinett zu blasen; eine, wenn man das Blatt ober dem Kopfe, und die andere, wenn man es unter demselben hält.

Bey dieser letzten hat der Spieler mehr Vortheil mit der Articulation durch den Zungenstoss Z.B. im geschwinderen Vortrage gestossener Passagen, aber den Nachtheil dass er nicht so geschwind mit einer solchen Gleichheit, wie jener, Höhe und Tiefe wechseln kann, wie es jeder leicht beurtheilen kann, der die Natur dieses Instrumentes, und die dazu erforderliche Behandlungsart kennt. Bey der ersten Art lässt sich die Zunge nicht so genau und sicher anwenden, es entsteht auch durch ihre Anwendung im Blasen ein Pfeifen der Luft, der Ton kann nicht gehörig gebildet werden, und erhält das klangvolle nicht. Unterdessen ist ihre Anwendung auch nicht nothwendig, und diejenigen, welche glauben, dass ohne dem Zugenstosse kein lebendiger, energischer, mannigfaltiger

Fröhlich seems to favor the mandibular position in this description although he also stressed that fine results may be achieved with the maxillary position, and cited an example in the excellent playing of the Würzburg court clarinetist, Phillip Meisner.⁷⁸ Fröhlich, however, illustrated the maxillary position in his fingering chart. Additional evidence for the optional use of both mouthpiece positions in Germany and its neighboring nations seems to be indicated by the rarity of makers' stamps on the mouthpieces of clarinets made in Germany, Austria and Bohemia.⁷⁹ One important exception, noted by Hoeprich, is an extant five-key clarinet in $\text{b}^{\flat}$, by Theodor Lotz, the maker of Anton Stadler's basset clarinet (see above pp. 298-9). All of the joints of Lotz's five-key instrument are stamped including the mouthpiece, where the stamp was placed on the side opposite from the reed facing. If all the stamps are aligned, the clarinet must be played with the mandibular position.⁸⁰

During the late eighteenth and early nineteenth centuries, the use of the mandibular mouthpiece position became more popular throughout Europe, through the influence to a large extent of German virtuoso players. For instance, Fétis related that during the 1780s, the virtuoso, Joseph Beer (1744-1812), heard the sweet quality of tone

Vortrag Statt finden könne, irren um so mehr, als sie das einzige Ziel aller Instrumentalisten, besonders des Clarinettisten, dem Sänger gleich zu kommen, zu misskennen scheinen."

[Joseph] Fröhlich, Vollständige Theoretisch=practische Musikschule für alle beym Orchester gebräuliche wichtigen Instrumente (Bonn: N. Simrock, [1810-11]), p. 14.

⁷⁸Fröhlich, Ibid.

⁷⁹Hoeprich, "Clarinet reed position in the 18th century," p. 51.

⁸⁰Hoeprich, Ibid., this clarinet is preserved in the Musée des Instruments Anciens de Musique, Geneva.

produced by a German clarinetist named Schwartz, which prompted him to change his style of playing (probably adopting the mandibular position).⁸¹ It has also been assumed that Franz Tausch (1762-1817) played with the mandibular position because of the soft quality and variability of this tone described by Gerber (1813-14):⁸²

What versatility in gradation of tone! At one moment the low whisper of leaves borne along by the soft breath of the zephyr; at another his instrument soared above all others in a torrent of brilliant arpeggios.⁸³

If Tausch did play with the mandibular position, then he would have taught this method to his students, who included the well-known virtuosi, Bernhard Crusell and Heinrich Baermann. Yet, a twelve-key clarinet used by Baermann during his highly successful concerts at Paris, in 1818, is illustrated with the maxillary position in a fingering chart in A. Vanderhagen's Methodé (c. 1819).⁸⁴ The mandibular position was associated with Iwan Müller's thirteen-key clarinet, which

⁸¹François-Joseph Fétis, "Beer, Joseph" in Biographie Universelle des musiciens et bibliographie générale de la musique, 2nd ed., 8 vols. (Paris: Firmin Didot Frères, 1860-1865), 1:297. Cf. F. Geoffrey Rendall, The Clarinet, 3rd ed. (London: E. Benn, 1971), pp. 80-81.

⁸²See Rendall, p. 81 and Peter Clinch, "Clarinet Concerto No. 3 by Franz Tausch (1762-1817)" Studies in Music 8 (1974): 21-2.

⁸³Translation by Rendall, p. 80.

"Welch eine Mannichfaltigkeit in der Modifikation der Töne seines Instruments! Bald war es das leise Flüstern der durch den sanften Hauch des Zephyrs bewegten Blätter, bald erhob sich sein Instrument in rollenden und glänzenden gebrochenen Passagen über alle übrigen, wobey immer die schmelzendsten Melodien absechselten."

Ernst Ludwig Gerber, Neues Historisch-Biographisches Lexikon der Tonkünstler (Leipzig: A. Kühnel, 1812-14), 4: col. 328.

⁸⁴See A. Vanderhagen, Méthode pour la clarinette moderne à douze clefs (Paris: Pleyel, [c. 1819]); Pamela Weston, More Clarinet Virtuosi of the Past (London: The Author, 1977), p. 253.

was adopted after 1812 by several leading players, such as, Franco Dacosta, Gabriel Péchignier and Jacques Bouffil.⁸⁵ Indeed, Müller was the earliest writer to illustrate the mandibular position in a fingering chart, and put forward some persuasive reasons to adopt this position:

There are several reasons . . . to prefer the reed supported by the lower lip: First the right thumb becomes useful for fingering because it no longer is needed to support the clarinet In the second place, one has the advantage of being able to put a small piece of heavy paper over the lower teeth, and thus prevent the lip from becoming cut, as those who put the reed on top can scarcely avoid. Finally, the performer is not obliged to contract his muscles, and by so doing, to disfigure his facial characteristics [i.e. with the maxillary position], because the upper lip is too small to be able naturally to cover the teeth. This last reason is not the least; in fact, the performer ought to search carefully to avoid anything which might arouse a disagreeable or painful sensation in the listener.⁸⁶

⁸⁵See [Louis-Benjamin] Francoeur, "Rapport fait par M. Francoeur, au mon du Comité des arts mécaniques, sur une nouvelle clarinette présentée à la Société par M. Janssen, rue l'Evêque, no. 14, butte des Moulins, à Paris," Bulletin de la Société d'encouragement pour l'industrie nationale, 212 (1822): 44.

⁸⁶Translation by Rousseau, pp. 128, 130.

"Il y a plusieurs raisons . . . de préférence avec l'anche appuyée sur la lèvre inférieure: 1.° on y gagne, que le pouce de la main droite devient un doigt utile, car on n'en a plus besoin pour soutenir la Clarinette En second lieu, on a cet avantage, de pouvoir mettre sur les dents de la mâchoire inférieure, un petit morceau de carte, et par-là éviter que les dents ne blessent pas la lèvre sur laquelle on met l'anche, ce que les personnes qui mettent l'anche en-dessus ne peuvent guère éviter: et enfin, l'exécutant n'est pas obligé de contracter ses nerfs, et parlà, de défigurer les traits de sa figure, ce qui arrive à ceux qui jouent différemment, parce que la lèvre supérieure est trop petite pour pouvoir naturellement se reposer sur les dents: cette dernière raison n'est pas la moindre, en effet, l'exécutant doit chercher soigneusement à éviter tout ce qui peut inspirer à l'auditeur une sensation désagréable et pénible."

Müller, Méthode, pp. 23-4. It should be noted that a fingering chart for Müller's thirteen-key clarinet was published in Bonn by Simrock, before August 1816, and entitled, Gamme pour la nouvelle Clarinette inventée par lui. It was listed by Carl Friedrich Whistling in his Handbuch der musikalischen Litteratur (Leipzig: A. Meysel, 1817), p. 215.

Subsequently, French authors of clarinet methods, such as, Rybicki (c. 1826) and Vaillant (c. 1828), illustrated the maxillary position for the five-key clarinet and the mandibular position for the thirteen-key instrument.⁸⁷ The Czech clarinetist, Blatt (c. 1827-28), published a bilingual German-French method in Paris which illustrated the mandibular position in his charts for six, nine and twelve-key clarinets.⁸⁸ At about the same time, Carnaud (1829, c. 1835) noted both mouthpiece positions, preferred the mandibular, but illustrated the maxillary for six and thirteen-key clarinets.⁸⁹ In 1829, Fétis strongly advocated the use of the mandibular position to the French clarinetist:

In France, the oboes, flutes and bassoons leave nothing to be desired. The clarinet is less successfully cultivated, although we have many commendable artists for their talent. Our inferiority in this genre, in regard to Germany, is due to a vicious system that our clarinetists have adopted as far as the position of the reed in the mouth, where force is applied to the reeds. In Germany, where the clarinet is cultivated with much success, the mouthpiece of the instrument is placed in the mouth of the player in a way that the reed is placed on the lower lip; in France it is the contrary, the reed is placed on top. The advantages of the German manner are evident; that the lower lip is much better in softness and smoothness than the upper, the tongue is not able to punctuate but compelled to go up with the French manner.⁹⁰

⁸⁷François Rybicki, Méthode pour la clarinette (Lyons: Arnaud, [c. 1826]); [Pierre] Vaillant, Nouvelle Méthode de clarinette à cinq et à treize clefs (Paris: Au magasin de Musique et de Pianos de l'Auteur, [c. 1828]).

⁸⁸[Franz Thaddäus] Blatt, Méthode Complète de Clarinette (Mainz, Paris and Antwerp: les fils de B. Schott, [c. 1827-28]).

⁸⁹Carnaud, Nouvelle Méthode de la clarinette moderne à six Clefs et à Treize Clefs (Paris: Collinet, 1829); Idem, Méthode pour la clarinette à six et à treize Clefs (Paris: Richault, [c. 1835]).

⁹⁰François-Joseph Fétis, "De l'exécution musicale," Revue Musicale 3 (1829): 226.

"En France, les hautbois, les flûtes et les bassons ne laissant rien à désirer. La clarinette est moins heureusement cultivée, quoique nous ayons plusieurs artistes recommandables par leur

Again in 1830, Fétis stated that "the German clarinetists are incontestably superior to the French". He noted the brilliant playing of the French and their lack of the sweetness and soft qualities of tone produced by the German players. Fétis attributed this lack of quality to the powerful and voluminous tone production of the French, and their use of the maxillary position.⁹¹ These criticisms may have prompted some French players to adopt the German tone production and mandibular position.

In England, most clarinetists played with the "double lip" embouchure and maxillary mouthpiece position until the mid-eighteenth century.⁹² John Mahon, in his well-known tutor (c. 1803) stated: "The

talent. Notre infériorité en ce genre, à l'égard de l'Allemagne, tient au système vicieux que nos clarinettistes ont adopté tant par la position de l'anche dans la bouche, que pour la force de ses anches. En Allemagne, où la clarinette est cultivée avec beaucoup de succès, le bec de l'instrument est placé dans la bouche de l'exécutant, de manière que l'anche est pressée par la lèvre inférieure; en France, c'est le contraire, et l'anche est placée en dessus. Les avantages de la manière allemande sont évidens; car la lèvre inférieure a bien plus de moelleux et de velouté que la supérieure, et la langue n'étant point obligée de remonter, comme dans la manière française."

⁹¹François-Joseph Fétis, La musique mise a la portée de tout le monde (Paris: A. Mesnier, 1830), p. 292.

"Les clarinettistes allemands ont une supériorité incontestable sur les Français."

In the second edition of Backofen's tutor (1824), he was particularly critical of those players who adopted Müller's thirteen-key clarinet and played with the maxillary position, since they could not make use of Müller's keys for the right thumb without disturbing the position of their mouthpiece. See Johann Georg Heinrich Backofen, Anweisung zur Clarinette (Leipzig: Breitkopf & Härtel, [1824]), p. 6; cf. the interpretation of Backofen's statement by Heinz Becker in "Zur Geschichte der Klarinette im 18. Jahrhundert," Mf 8 (1955): 283 and Oskar Kroll, The Clarinet, rev. by D. Riehm (New York: Taplinger, 1968), p. 28.

⁹²An early illustration of the mandibular mouthpiece position is found in James Wood's English patent specification, "Clarionet and other Wind Musical Instruments", no. 2381 (10 April 1800; reprinted, London:

Mouthpiece of the Clarionet must not be put so far in the mouth as the tying of the Reed, which must be upwards, the Teeth should not touch the Reed . . ."⁹³ A later English clarinetist of renown, T. L. Willman, advocated both of these techniques in his method of 1826.⁹⁴ Subsequently, the mandibular position was recognized by an anonymous author about 1830: ". . . some play with the Reed pressing against the lower lip - but the general mode is the reverse - viz: the reed up . . ."⁹⁵ By about 1842, J. Hopkinson voiced his approval of the mandibular position:

Opinions vary considerably on the proper manner of applying the reed; foreigners play with it downwards, the contrary is practiced in England; for a Dilettante i.e. a non Professional Performer I must acknowledge I give the Preference to the first method . . .⁹⁶

Vanderhagen (c. 1785) wrote the earliest instructions concerning how to tongue, despite the fact that he played with the maxillary mouthpiece position. He advised the use of two syllables, "d" for legato or connected notes, and "t" for staccato or detached notes. The latter were marked with either a vertical stroke or wedge (!), or a dot

G. E. Eyre and W. Spottiswoode, 1856). See Rice, "Clarinet reed position", pp. 429-30.

⁹³John Mahon, A New and Complete Preceptor for the Clarinet (London: Goulding, Phipps & D'Almaine, [c. 1803]), p. 1.

⁹⁴Thomas L. Willman, A Complete Instruction Book for the Clarinet (London: Goulding, D'Almaine & Co., [1826]), pp. 4-6, 8.

⁹⁵Metzler and Son's Clarinet Preceptor . . . The whole recently written by an Eminent Professor (London: Metzler & Son, [c. 1830]), p. 3. The earliest American tutor to illustrate the mandibular position is A New and Complete Preceptor for the Clarionet (Boston: J. Ashton, [c. 1825]), p. 3.

⁹⁶John Hopkinson, A New and Complete Preceptor for the Clarinet (London: Metzler & Co., [c. 1842]), p. 2.

(·).⁹⁷ Vanderhagen was also one of the earliest writers to carefully distinguish between these two staccato marks. The vertical stroke, when notated on a downbeat, indicated a longer and more marked staccato than the dot, which signified a shorter and less accented articulation. If the vertical stroke did not appear on a downbeat, it was played short similar to the dot.⁹⁸ In one of his examples, Vanderhagen indicated three types of tonguing, the legato, short staccato and accented staccato:

Fig. 4. Three types of articulation from Vanderhagen, Méthode Nouvelle et Raisonnée, p. 8.

Vanderhagen also gave examples of various combinations of articulated and slurred notes.⁹⁹

The English instruction books of the period do not offer any specific instructions concerning tonguing. One anonymous method of c. 1785, however, did indicate the slur and its marking, and explained the vertical stroke and dot as staccato marks, which "imply that the notes they are placed to, must be played in a very spirited and distinct manner".¹⁰⁰ Each note of the example given is shown as being played for one-half of its written value. The only distinction offered between

⁹⁷Van-der-Hagen, Méthode Nouvelle et Raisonnée pour la clarinette, pp. 5-9.

⁹⁸Van-der-Hagen, p. 8; cf. Thomas Everett Warner, "Indications of Performance Practice in Woodwind Instruction Books of the 17th and 18th Centuries" (Ph.D. diss., New York University, 1964), p. 89.

⁹⁹Lefevre later described the three types of articulations given by Vanderhagen in his famous Méthode (c. 1802), p. 10.

¹⁰⁰Complete Instructions [sic] for the Clarinet (London: S. A. & P. Thompson, [c. 1785]), p. 7. A similar comment is found in several English and American tutors during the nineteenth century.

these two types of staccato is the word "soft" appearing below the dotted notes.¹⁰¹ In the second edition of Vanderhagen's tutor (c. 1799), he suggested the use of different syllables for articulation, "tu" instead of the earlier recommended "T" and "té" instead of "D". He also described articulated notes without any markings as soft ("moelleux").¹⁰²

Two German writers provide some additional information concerning articulation. Backofen described three means for articulating notes: with the tongue, lips or the throat.¹⁰³ He favored the use of the tongue, since using the lips creates an "ugly grimace" (hässliche Grimace), and "even if the musician does not grimace when he produces the notes with the throat, there is something else that is unpleasant, the [glottal] stop in the throat that is audible with every note."¹⁰⁴ Backofen also described two additional articulation markings not mentioned by Vanderhagen:

If, over several notes a tie is placed in addition to the dots , then they are somewhat separated by a gentle attack of the tongue, but the tone is in no way interrupted. More forceful

¹⁰¹Ibid.

¹⁰²A. Vanderhagen, Nouvelle Méthode de clarinette divisée en deux parties, p. 36. Michel suggested "tû" and "te" for these staccato notes in his Méthode (c. 1801), p. 13.

¹⁰³Backofen, Anweisung zur Klarinette, p. 11.

¹⁰⁴Translation by Rousseau, p. 132.

"Fallen auch bey diesen die Grimassen weg, so haben sie wieder eine andre Unannehmlichkeit, nemlich diese, dass man jeden Stoss der Kehle hört."

Backofen, Ibid., p. 12.

attacks of the tongue in an uninterrupted melody are designated as follows: . ¹⁰⁵

During the eighteenth century, these articulations were called respectively, "breath stroke" and "slurred staccato" or "pearl stroke". ¹⁰⁶ Froehlich stated that those clarinetists who play with the maxillary position "must pronounce an easy and light 'ha', which need only be done somewhat more strongly in the lower range, the performance of which can also be aided with the lips. Those who play with the reed on the bottom can use the syllable tü or tu." ¹⁰⁷

Fingering

The fingerings used by players of the classical clarinet gradually became standardized during the early nineteenth century. Some alternative fingerings, however, were clearly preferred by writers of fingering charts, because they produced pitches with a more accurate

¹⁰⁵ Translation by Rousseau, p. 132.

"Wenn über mehrern Noten Punkte, und über diesen noch ein Bogen angebracht ist, so werden sie zwar durch einen schwachen Zugenstoss etwass getrennt, aber der Ton keineswegs ganz unterbrochen. Stärkere Zungenstösse in ununterbrochenem Gesang werden so bezeichnet ."

Backofen, Ibid., p. 12.

¹⁰⁶ See Betty Bang Mather, Interpretation of French Music from 1675 to 1775 for Woodwind and Other Performers (New York: McGinnis & Marx, 1973), pp. 47-8.

¹⁰⁷ Translation by Rousseau, p. 188.

". . . spreche man in das Instrument ein leichtesh (ha) welches nur bey tiefern Tönen härter angesprochen wird, bey deren Vortrage man sich auch etwas Vorschub durch das nachhelfen mit den Lippen verschafft.

Jene welche unter sich blasen können sich der Sylbe tü oder tu bedienen."

Froehlich, Vollständige Theoretisch=pracktische Musikschule für alle beym Orchester gebräuliche wichtigen Instrumente, p. 14.

intonation. Thirty-nine fingering charts dating from c. 1769 to 1816 were examined for this study.¹⁰⁸ Many of them, not surprisingly, merely duplicate fingerings which had appeared in earlier charts. The following table lists the number of charts some of whose fingerings appear there for the first time, and the type of clarinet for which they were written. It reveals a distribution of twenty-five charts to three types of clarinets.

<u>Number of Charts</u>	<u>Type of Clarinet</u>
5	4-key
19	5-key
1	7-key

The fingerings for one seven-key clarinet are included here, since they date from 1808, and are basically identical to those of the five-key clarinet. The instrument for which this chart is intended, by J. F. Simiot (see 7A in Appendix 4), was essentially a five-key clarinet with two auxiliary keys for trills.

As far as geographical distribution is concerned, France produced the greatest number of original charts with twelve,¹⁰⁹ followed by England (five), United States (three), Germany (two), Holland (two) and one from Italy. Thus the majority of fingerings for the classical clarinet were probably intended for French or English clarinets. A number of basic fingerings are shared among all of the charts regardless of their national origin, and many of the later charts also include several alternate fingerings. A few fingerings, however, are peculiar to certain countries. For instance, some of the English and French

¹⁰⁸Every fingering which appears in these sources is identified in Appendix 4.

¹⁰⁹One chart which appears in French (number 4D in Appendix 4) was written in Berlin and published in Amsterdam.

charts (modeled on 5A and 5B) specify differing fingerings both for b and for c[#]. Four French charts (5B, 5D, 5F, 5H) also provide separate fingerings for the enharmonic pitches, g[#] and a^b. Aside from these examples there is no evidence for a national school of clarinet fingering. In all of the charts, the widest variety of fingerings occurs above c''' (there are seventeen in all for d'''). Roeser offered an explanation for these in his chart of c. 1769 (4A): "When one passes c''' the scale is not standard, because everyone does it according to his own taste" (see plate 43).¹¹⁰ The lack of standardization for many pitches is confirmed by Froehlich in his treatise of 1810-11 (5R):¹¹¹

Due to the different construction and various manners of blowing of wind and reed instruments, there are no generally applicable rules of fingering. All one can do is give the usual fingerings and a critique on each tone, and, at the same time, to inform the student of the various manners in which the same tone can be fingered, in order to make the dark tones brighter and more sonorous, and to improve the bad ones. Consequently, one must really see to it that each player evolves the fingering for himself.¹¹²

¹¹⁰[Valentin] Roeser, Gamme de la clarinette, avec six duo pour cet instrument (Paris: Le Menu, [c. 1769]).

"Lorsqu'on a passé le troisième ut, la Gamme n'est plus generale, parce que chacun la fait à son gré."

¹¹¹Cf. Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," GSJ 37 (1984): 19.

¹¹²Translation by Rousseau, p. 191.

"Da sich wegen des verschiedenen Baues, und der verschiedenen Art des Einblasens der Blas: vorzüglich Rohrinstrumente keine durchaus bestimmte Regeln des Fingersatzes geben lassen, so ist alles, was man hier thun kann, in einer Scala die gewöhnlichen Griffe anzugeben, und eine Critik über jeden Ton anzuhängen und dabey die verschiedene Art, den nämlichen Ton zugreifen, nebst den Mitteln anzuzeigen, die dumpfen Töne heller und klingender zu machen, und die schlechten zu verbessern. Hieraus muss sich nun jeder für sein Instrument seine Scala selbst ausziehen."

PLATE 43

*la 2^e sur la 3^e
instrument*

*la 2^e sur la 3^e
instrument*

GAMME DE LA CLARINETTE.
Avec Six Duo pour cet Instrument.
Par M. Roeser Musicien de M.^{te} le Duc d'Orleans.

pour 1^{re}

mi fa fa' sol la si' ri' ut re mi mi' fa fa' sol sol' la si' ri' ut ut' re mi mi' fa fa' sol sol' la si' ri' ut ut' re mi mi' fa sol
ou
re. ou
la.

Les Points noirs désignent les Thoux fermés, et les Zéros les Thoux ouverts.
Lorsqu'on a passé le troisième ut, la Gamme n'est plus générale, parce que chacun la suit à son gré.

A PARIS. Chez M.^{te} le Menu. M.^{te} de Musique de Feu M.^{te} la Dauphine; Rue du Roule, à la Clef d'or. *Cron sculp.*

The earliest fingering chart for the four-key clarinet in Valentin Roeser, Gamme de la clarinette, avec six duo pour cet instrument (Paris: Le Menu, [c. 1769]).

The use of the mandibular mouthpiece position by German players appears to have suggested the need for an additional support or buttress finger, usually the ring finger of the right hand.¹¹³ It is indicated in both of the German charts (5K and 5R) as well as the French chart written in Berlin (4D, by the addition of the e/b' key). The use of this buttress finger affected the resonance and tuning of certain notes, helped to balance the instrument, and was used to eliminate unnecessary finger shifts and facilitate smoother playing.¹¹⁴ The majority of published fingerings for the classical clarinet are found in Appendix 4, although some additional fingerings for the five and six-key clarinets may be seen in fingerings charts published after 1816.¹¹⁵

Ornamentation

A few theorists provided directions and examples concerning the execution of specific ornaments for the four and five-key clarinet. Roeser is again the earliest to write on the subject:

Throughout the complete range of the clarinet there are only three notes where one can trill on a half step or a minor second, for example, on the a' and b' one cannot trill in this manner and on b^b one cannot execute a major second with c[#].¹¹⁶

¹¹³Cf. Anthony Baines, Woodwind Instruments and Their History, 3rd ed. (London: Faber and Faber, 1967), p. 301.

¹¹⁴Cf. Eric Halfpenny, "The French Hautboy: A Technical Survey, Part II," GSJ 8 (1956): 51.

¹¹⁵See Appendix 3 for a list of instructional materials which include fingering charts from 1732 to 1843.

¹¹⁶Roeser, Essai d'instruction, p. 11.

"Dans toute l'étendue de la Clarinette il n'y a que trois tons où l'on puisse battre la cadence avec le demiton ou la petite seconde, par ex. Sur le La, et le Si, naturel de la première Octave, et sur le Fa #, de la seconde Octave. Toutes les autres

Francoeur was much more specific in indicating several trills throughout the range of a major or minor half step. In addition to those mentioned by Roeser, he wrote trills for $\underline{a'}$, from $\underline{d''}$ on every half step to $\underline{d'''}$, $\underline{e^{b'''}}$ and $\underline{e'''}.$ In each case, Francoeur indicated two notes, one of which is either a whole or half step above the other, the first presumably being the upper auxiliary of the trill.¹¹⁷ One of these trills, $\underline{c''}$ to $\underline{b'}$, is described as "brisées et Cadences" and provided with an example as an anticipated trill in the autograph supplement to the Diapason général:¹¹⁸

<p>Signe</p> <p>Cadence brise ou finte</p>	<p>Pincé ou Brissé</p>
<p>Effets</p> <p>Ex. 33a</p>	<p>Ex. 33b</p>

Another trill, the "pincé ou Brissé", is called a "Schneller" by Neumann.¹¹⁹ Francoeur also gave illustrations of the one-note graces, "coulé" and "port de voix". Both of these ornaments are played on the

Cadences ou Trilles ne peuvent se faire qu'avec la grande secondé sur le Si b de la première Octave, elle ne peut s'exécuter qu'avec l'Ut # ou la seconde Superflue."

¹¹⁷Francoeur, Diapason général, p. 34.

¹¹⁸See Frederick Neumann, Ornamentation in Baroque and Post-Baroque Music (Princeton: Princeton University Press, 1978), p. 285, ex. 26.31.

¹¹⁹Neumann, *Ibid.*

beat, the first short, the second long. In the unmetrical example 34b the coulé is ambiguous in rhythm:¹²⁰

Ex. 34a

Ex. 34b

In addition, Francoeur gave to the single mordent the terms "martellement" and "flaté" as synonyms and used the symbol of a vertical dash: . Neumann assumed that this ornament (ex. 35) was played off the beat and cited as additional evidence the onbeat realizations of the coulé and port de voix (exs. 34a-b). The term flaté meaning flattered, may suggest delicacy and tenderness.¹²¹

Martellement ou flaté

Ex. 35

Subsequent French clarinet methods devoted separate sections and more illustrations to ornaments. For instance, Vanderhagen (c. 1785), whose detailed method was emulated by later writers, included sections concerning the port de voix, "l'Accent", "Notes de Gout", cadences and

¹²⁰Neumann, p. 89.

¹²¹Neumann, p. 434.

martellement.¹²² He described the cadence or trill as "made by taking a diatonic note above that which one wishes to cadence, this borrowed note ought to be a whole or half step above the main note, according to the mode, and one makes the trill long increasing the movement of the finger towards the end and terminating lively".¹²³ His illustration gives the impression that the trill is started on the main note, but he stated under this example that the trill is begun with an *a''*.

Ex. 36

A "Cadence préparée" is also illustrated and the performer is advised: "before striking [the fingers], [to] rest a short time on the borrowing [upper] note".¹²⁴

Ex. 37

¹²²Vanderhagen, *Méthode Nouvelle et Raisonnée*, pp. 9-13.

¹²³Cf. the translation by Rousseau, p. 140.

"... se fait en empruntant une note diatonique au dessus de celle que l'on veut Cadeneer et que cette note d'embrunt soit Majeure ou Mineure selon le mode ou l'on est il faut lors que la Cadence est longue precipiter le mouvement du doigt vers la fin et la terminer vivement."

Vanderhagen, p. 12.

¹²⁴Vanderhagen, p. 12.

"... avant que de battre, rester un peu de temp sur la note d'emprunt".

Blasius (c. 1796) added the following observation: "To terminate a cadence agreeably, one adds to the finish two small notes which one makes more slowly".¹²⁵

Ex. 38

A list of notes that one is able to trill is not provided by Vanderhagen; however, he does state that a trill can be made on a' by closing all of the finger holes and striking together fingers 2 and 4.¹²⁶ Subsequently, Michel (c. 1801) did provide a written out guide for the available trills for the five-key clarinet from f to b''.¹²⁷ Interestingly, his example distinctly shows the trill beginning on the main note:¹²⁸

Ex. 39

Lefevre (1802) wrote that "the trill improperly called the cadence consists of an alternation between the main note and a note above or below it", although his examples show the trill beginning on a note

¹²⁵Translation by Menkin, p. 73.

"Pour terminer une Cadence agréablement, on ajoute a la fin deux petites Notes, qu'on fait bien lentement."

Blasius, Nouvelle méthode de clarinette, p. 55.

¹²⁶Vanderhagen, p. 13.

¹²⁷Michel, Méthode de clarinette, p. 25.

¹²⁸Michel, p. 24.

above the main note.¹²⁹ Lefevre was the earliest to provide a separate fingering chart of trills (from *f* to *e'''*) by indicating them on a chart of chromatic notes.¹³⁰ An extension of his trill fingerings was later given by the Italian writer, Antolini, from *e* to *g#'''*.¹³¹

Vanderhagen gave realizations of the martellement (mordent) and port de voix that differed from Francoeur's examples in some respects. For instance, the martellement is given additional trills and the small notes of the port de voix are written as one-half the value of the note they precede (ex. 40a-b).¹³²

His l'Acçent are small notes which are diatonically a step or a third above the note they follow, and receive only one-fourth the value of the preceding note (ex. 41).¹³³

¹²⁹Translation by Rousseau, p. 141.

"Le trille qu'on appelle improprement CADENCE est composé d'une petit note placé au dessus ou au dessous de la note qu'on doit triller (ou cadencer) et qu'on articule alternativement avec cette même note."

Lefevre, *Méthode de clarinette*, p. 12.

¹³⁰Lefevre, pl. 4.

¹³¹Antolini, *La retta maniera di scrivere per il clarinetto*, pls. V and VI.

¹³²Vanderhagen, pp. 13, 9.

¹³³Vanderhagen, p. 10.

Ex. 41: l'Accent

Vanderhagen's note de gout (identical to Francoeur's coulé) are small notes that principally descend by step between the interval of a third.¹³⁴ An example is given by Blasius (ex. 42a) showing appoggiaturas one-half the value of the main note,¹³⁵ and Vanderhagen wrote that this small note is given two-thirds the value of the cadence note for expression (ex. 42b).¹³⁶

(a)

(b)

Exs. 42a-b: notes de gout

Blasius gave an example of another ornament, the brisé or turn which makes use of upper and lower neighboring tones (ex. 43a),¹³⁷ while Lefevre stated that the "petit groupe ou Gruppetto" is improperly called "cadence brisée" and gave a different example of a turn (ex. 43b).¹³⁸

brisé Exs. 43 petit groupe

(a)

(b)

¹³⁴Vanderhagen, p. 10.

¹³⁵Blasius, p. 54.

¹³⁶Vanderhagen, p. 11.

¹³⁷Blasius, p. 55, repeated by Vanderhagen in the second edition of his tutor, *Nouvelle méthode de clarinette*, p. 40.

¹³⁸Lefevre, p. 13.

G. E. Blake, the author of the earliest American clarinet tutor (c. 1803), gave an illustration of the usual "passing shake" (ex. 46).¹³⁹ Michel gave a third example of the "brissé ou en Italien circolo mezzo", that is not as rhythmically defined as Lefevre's (ex. 44).¹³⁹

Ex. 44: brissé ou en Italien circolo mezzo

A brief discussion of ornaments is frequently given in English and American tutors of this period. Their realizations are identical or similar to those given in the earlier French sources, with a few interesting exceptions. Five ornaments are usually illustrated: the shake (trill), turned shake, turn, beat and appoggiatura. Both types of trills and their symbols are shown by the anonymous author of The Clarinet Instructor (c. 1780, ex. 44). The turned shake included a termination of one note below the main note:¹⁴⁰

Ex. 45

¹³⁹Michel, p. 24.

¹⁴⁰The Clarinet Instructor, p. 6.

G. E. Blake, the author of the earliest American clarinet tutor (c. 1803), gave an illustration of the unusual "passing shake" (ex. 46):¹⁴¹

Ex. 46: passing shake

The English turn (ex. 47a) was identical to Blasius' brisé (ex. 47a),¹⁴² although an alternate realization is found in the Compleat Instuitions [sic] for the Clarinet (c. 1785, ex. 47c).¹⁴³

Ex. 47: turns

Identical to Vanderhagen's martellement (ex. 40a), was the beat or mordent beginning on the main note, although there are examples where it begins on the lower auxiliary note (ex. 48a-b). At least four different signs were given for

Ex. 48: beats

¹⁴¹George E. Blake, A New and Complete Preceptor for the Clarinet (Philadelphia: Printed for the Author, [c. 1803]), p. 7, an identical realization is found for the "Transient Shake" in The Clarinet Preceptor (London: G. Goulding, [c. 1803]), p. 7.

¹⁴²See The Clarinet Instructor, p. 6.

¹⁴³Compleat Instuitions [sic], p. 6.

this ornament: ∞ , $\times$, $//$, and $\backslash$.¹⁴⁴ Directions and examples in all of these tutors are identical for the appoggiatura. It receives one-half the value of the note it precedes, and two-thirds the value of a dotted note in the same manner as Blasius' note de gout. In addition, the Compleat Instuctions [sic] includes some appoggiaturas with smaller note values and illustrations of how they are to be played (ex. 49).¹⁴⁵ The German writers, Backofen and Froehlich,

Ex. 49: appoggiaturas

did not provide a discussion of ornaments in their tutors, although Backofen did include a chart of trill fingerings (see plate 49 above).

Unusual Techniques: the Mute

Woodwind mutes are initially found in scores from the first half of the eighteenth century. For instance, a mute for the oboe is required by Johann David Heinichen in his opera, Flavio Crispo (1720), and for the bassoon by Jan Dismas Zelenka in his oratorio, Gesù al

¹⁴⁴The Complete Instructor, p. 6; Compleat Instuctions (sic), p. 6; The Clarinet Preceptor, p. 7, Blake, p. 7.

¹⁴⁵Compleat Instuctions [sic], p. 6.

Calvario (c. 1735).¹⁴⁶ In 1752, Quantz noted the use of differing materials for the mutes of wind instruments:

Let me say in passing that wind players would do better to insert a piece of damp sponge, rather than paper or other materials, into the opening of their instruments when they wish to mute them.¹⁴⁷

A type of clarinet mute was made by the Belgian maker, Jean-Arnold-Antoine Tuerlinckx (1753-1827). It is initially recorded in a register of instruments (written in Flemish) made by Tuerlinckx and his son, Corneille-Jean-Joseph (1793-1855) for 1784: "For eight clarinets with four A pieces, two D pieces, two mute, 105 gulden".¹⁴⁸ Presumably, four of these instruments were pitched in b^b and supplied with corps de rechange for tuning to a' , the four remaining clarinets were probably in

¹⁴⁶See Herbert Heyde, "Blasinstrumenten und Bläser in Dresden zur Zeit des Fux-Schülers J. D. Zelenka" in Die Bedeutung der Blasinstrumente im Schaffen von Johann Joseph Fux (Graz, forthcoming).

¹⁴⁷Translation by Edward R. Reilly in Johann Joachim Quantz, On Playing the Flute (New York: Schirmer, 1966), p. 234.

"Ich erinnere hier beyläufig, daß die blasende Instrumentisten besser thun, wenn sie, anstatt Papiere oder anderer Sachen, ein Stück feuchten Schwamm in die Oefung ihrer Instrumente hinein stecken; wenn sie dieselben dämpfen wollen".

Johann Joachim Quantz, Versuch einer Anweisung die Flöte traversiere zu spielen (Berlin, 1752; reprint ed., Leipzig: C. F. Kahnt, 1906), p. 434.

¹⁴⁸See the "Extraits du Registre des Comptes de la maison J. A. A. et C. J. J. Tuerlinckx - Pièce justificatives", quoted by Raymond Van Aerde in Les Tuerlinckx, Luthier a Malines (Mechlin: L. & A. Godenne, 1914), p. 163.

"Nog voor acht clarinetten met vier A Stuckken, twee D stukken, twee sour, 105 gulden".

Presumably, this register was compiled from a "Registre de la comptabilité du facteur C. J. J. Tuerlinckx de Malines depuis le mois d'octobre 1784 jusqu'au 1er Janvier 1818" in the Bibliothèque spéciale du Musée Instrumentale du Conservatoire royale de Musique de Bruxelles", cited by Lyndesay G. Langwill in An Index of Musical Wind-Instrument Makers, 6th ed. (Edinburgh: The Author, 1980), p. 179.

e^b'' with corps in d'' (see the discussion of corps de rechange on pages 247-49 above). On 23 November 1785, Tuerlinckx supplied 23 [b^b'] clarinets with A pieces "en sourdine" to a Mr. Van Geurik.¹⁴⁹ Thereafter, clarinets in a' and b^b, made with mutes are listed until 1789.¹⁵⁰ Unfortunately, we know nothing precise about these mutes or their construction. In 1791, an anonymous German author was quite impressed with the sound of the muted clarinet. He queried: "How moving is the tone of this instrument above the others, when its intensity is moderated through its bell (that is, through the peculiar mute belonging to it)?"¹⁵¹

The earliest documented musical use of a clarinet mute is in Gaspare Spontini's opera, Milton of 1804. There is no indication in the score of which method of muting was to be used, all that can be deduced is that it did not affect the instruments' range nor soften it too much for use in combination with other instruments. Indeed, Spontini wrote a passage for muted clarinet and oboe, as well as a solo for the muted clarinet.¹⁵² At the beginning of the second act of Spontini's Fernand Cortez (1809), clarinets, oboes and horns are marked "en sourdine" in

¹⁴⁹Van Aerde, p. 164.

¹⁵⁰Idem, p. 167.

¹⁵¹"Berichtigungen und Zusätze zum den Musikalischen Almanachen auf die Jahre 1782. 1783. 1784.," Musikalische Korrespondenz der Deutschen Filarmonischen Gesellschaft für Jahr 1791, no. 6 (9 Feb. 1791): cols. 41-2.

"Wie rührend ist ubrigens nicht der Ton dieses Instruments, wenn seine Stärke durch den angebrachten Becher (das ist, durch den ihm eigenthümlichen zugehörigen Dämpfer) moderirt wird?"

¹⁵²See David Philip Charlton, "Orchestration and Orchestral Practice in Paris, 1789 to 1810" 2 vols. (Ph.D. thesis, University of Cambridge, 1973), 1:325.

the autograph score.¹⁵³ More precise instructions for the clarinets and oboes given on page 394 of the printed score read: "enclose the end of the instrument in a bag of leather".¹⁵⁴ Some writers have mistakenly credited Berlioz with inventing this technique. Berlioz later did make use of this method when he called for a clarinet mute, by wrapping the bell in a bag of cloth or leather in his monodrama, Le Retour à la Vie or Lélio (1831-32).¹⁵⁵

Multiphonics

Multiphonics or what is sometimes called split-tones are the production of two or more simultaneous pitches on wind instruments. This technique may be achieved by humming one note while playing another, or by a combination of fingering, breath pressure and by taking more or less of the mouthpiece into the mouth.¹⁵⁶ At least two eighteenth-century clarinetists made use of this technique. The earliest was the German, Georg Nason, who travelled extensively in Germany and Italy demonstrating the playing of two notes at one time.

¹⁵³See the photograph of this section in Dennis Libby, "Spontini, Gaspare," Grove 6, 18: 20, ill. 3.

¹⁵⁴See Charlton, 1:325.

"en renferment le bas de l'instrument dans une bourse de peau".

¹⁵⁵See Hector Berlioz, Grand Traité d'instrumentation et d'orchestration modernes (Paris: Schonenberger, [1843]; reprint ed., Paris: H. Lemoine et Cie, [1952]), p. 144 and note 1; cf. Clifford Bevan, "Mute, 2: Wind," NGDMI, 2:729.

¹⁵⁶For a full explanation of this technique as applied to the modern clarinet, see Temistocle Pace, Ancie battenti-storia-fisica-letteratura (Florence: C. Cya, 1943); Bruno Bartolozzi, New Sounds for Woodwind, trans. by R. S. Brindle (London: Oxford University Press, 1967) and Phillip Rehfeldt, New Directions for Clarinet (Los Angeles: University of California Press, 1979).

He is known to have given a concert appearance in Gotha in 1797.¹⁵⁷ An Italian clarinetist by the name of Orsato used this technique somewhat later than Nason, and may have heard him play in Italy or acquired knowledge of it directly from Nason. On 18 May 1800, Orsato played a concert in London at the Covent Garden Theatre according to the following advertisement:

"Concert Clarinet by Orsato (of the Theatre Royal, Venice; 1st appearance in this Metropolis), who will perform a duetto, solo by means of the Pression and Repercussion of the Airs; This [,] his curious Discovery [,] has received the greatest Applause in most of the courts.¹⁵⁸

His playing responsibilities in Venice have not been traced, nor have his subsequent concert appearances.

In conclusion, the playing techniques of the clarinet slowly became standardized with the gradual adoption of the Müller clarinet and later designs of clarinet systems after 1820. For instance, by about 1830, the use of three clarinets in c'', b^b' and a' (without corps de rechange) became generally accepted in the orchestra, although various high-pitched clarinets continued to be used in military bands. Composers, later in the nineteenth century, usually wrote transposed parts for particular clarinets, and the limits of the range and various registers became standardized. The mandibular mouthpiece position was also adopted by the majority of players. Finally, due to the awkward fingering of the classical clarinet and the poor intonation of many of

¹⁵⁷See Pamela Weston, More Clarinet Virtuosi of the Past (London: The Author, 1977), p. 185. The famous horn player, G. Punto (1746-1803), was able to play two notes simultaneously and even full chords. See Reginald Morley-Pegge and Horace Fitzpatrick, "Punto, Giovanni," Grove 6, 15:456.

¹⁵⁸Quoted in The London Stage, 5 parts (Carbondale: Southern Illinois University Press, 1960-1968), 5:2175-6.

its pitches it came to be superseded by the thirteen-key clarinet of Müller and the later "Boehm system" of Hyacinthe Klosé and Auguste Buffet.¹⁵⁹ The improved instrument allows greater ease of fingering and makes possible more accurate intonation.

ideals of severity which were taking place by the mid-eighteenth century.²

The clarinet became a favorite instrument during this era of sentimentality and romanticism. In 1788, Schubert enthusiastically described its warm, sensual sound in the following terms: "Its character symbolizes the melting sentiments of love - it is the tone of the passionate lover, the sighing, the languishing; and he who knows how to bring out the seductive timbre, is sure to captivate the heart."

CHAPTER VIII

MUSIC FOR THE FOUR- AND FIVE-KEY CLARINET

This chapter presents a chronological overview of several important works from c. 1754-55 to c. 1815 which employed the classical clarinet. During this time, it was used in a vast number of compositions, such as, chamber music (with keyboard or strings), "Harmonien" or wind bands, orchestral works, and concertos.¹ The reasons for its popularity are no doubt to be found in the instrument's greater variety of tone color, larger range and additional fingerings (compared to the baroque clarinet), and above all in the change in

¹Some of the most useful sources of information on music for the classical clarinet are: Burnet C. Tuthill, Sonatas for the clarinet and piano: annotated listings (Washington D. C.: Music Educators National Conference, [1972]); Idem, "The Quartets and Quintets for Clarinet and Strings," NACWPI Journal 22 (Summer 1974): 3-15; Ulrich Rau, "Die Kammermusik für Klarinette und Streichinstrumente im Zeitalter der Wiener Klassik" (Ph.D. diss., Saarbrücken: Universität des Saarlandes, 1977); David Whitwell, Wind Band and Wind Ensemble Literature of the Classic Period (Northridge, California: Winds, 1983); Daniel Thomas Bogart, "A History of the Clarinet as an Orchestral Instrument from Inception to Full Acceptance into the Woodwind Choir" (Ph.D. diss., Michigan State University, 1968); Robert Austin Titus, "The Solo Music for the Clarinet in the Eighteenth Century" (Ph.D. diss., State University of Iowa, 1962); György Balássa, "Az első bécsi klasszikus iskola klarinétversenyei (1770-1810)," [Clarinet Concertos of the First Vienna School] Magyar Zene 18 (March 1977): 48-74, (June 1977):134-183; John P. Newhill, "The Contribution of the Mannheim School to Clarinet Literature," Music Review 40 (May 1979):90-122.

ideals of sonority which were taking place by the mid-eighteenth century.²

The clarinet became a favorite instrument during this era of sentimentality and romanticism. In 1785, Schubart enthusiastically described its warm, sensual sound in the following terms: "Its character symbolizes the melting sentiments of love - it is the tone of the passionate heart The tone is so mellifluous, so languishing; and he who knows how to bring out the medium timbre, is sure to conquer every heart".³ Grétry (1789) observed that "the clarinet expresses sorrow Even when executing cheerful airs, it still mixes in a shade of sadness. If one could dance in prison, I would do so to the sound of the clarinet".⁴

²Cf. Oskar Kroll, The Clarinet, rev. D. Riehm (New York: Taplinger, 1968), p. 54.

³Translation by Kroll, p. 54.

"Der Charakter desselben ist: in Liebe zerflossenes Gefühl, - so ganz der Ton des empfindsamen Herzens Der Ton ist so süß, so hinschmachtend; und wer die Mitteltinten darauf auszudrücken vermag, daft seines Siegs über die Herzen gewiss seyn."

[Christian Friedrich Daniel Schubart], Ideen zu einer Ästhetik der Tonkunst (Vienna: J. V. Degen, 1806, dictated in 1783-1785; reprint ed., Hildesheim: G. Olms, 1969), p. 320.

⁴[André Ernest Modeste Grétry], Mémoires ou Essai sur la Musique (Paris: L'Auteur, 1789), p. 279.

"La clarinette convient à la douleur Lorsqu'elle exécute des airs gais, elle y mêle encore une teinte de tristesse. Si l'on dançoit dans une prison, je voudrois que ce fût au son de la clarinette."

These laudatory remarks by Schubart and Grétry were selected from a wealth of such comments which may be found in the literature of this period. See Rau, "Die Kammermusik für Klarinette und Streichinstrumente im Zeitalter der Wiener Klassik", pp. 375-80 and Heinz Becker, "Zur Geschichte der Klarinette im 18. Jahrhundert," Mf 8 no. 3 (1955):292.

Two compositions by Johann Stamitz--a quartet for two clarinets and two horns, and a clarinet concerto--appear to be the earliest works calling for the four- or five-key clarinet. They were both written about 1754 or 1755. A technically demanding clarinet concerto by Franz Tausch (c. 1815) appears to be the latest work for this instrument. These three works are discussed below together with a selection of others from the vast literature which survives for the four- and five-key classical clarinets. The choice of works to include for discussion was based upon my evaluation of their historical and musical importance, as well as my wish to illustrate the gradual change which came about in the melodic and technical writing for the instrument from a simple melodic style to a virtuosic technical style.

J. Stamitz

The important Mannheim composer, Johann Stamitz (1717-1757), visited Paris from September 1754 to September 1755, where he conducted the orchestra of the wealthy patron of the arts, A.-J.-J. de La Pouplinière, at his palace.⁵ It is quite possible that while he resided there, Stamitz wrote the three-movement quartet for two clarinets in $\flat$ and two horns in $\flat$, which was published in 1764 by the German clarinetist, V. Roeser.⁶ The quartet is written in three short

⁵George Cucuel, La Pouplinière et la musique de chambre au XVIII^e siècle (Paris: Fischbacher, 1913), pp. 312-13.

⁶Valentin Roeser, Essai d'instruction à l'usage de ceux qui composent pour la clarinette et le cor (Paris: Le Menu, [1764]; reprint ed., Geneva: Minkoff, 1972), pp. 20-1. For more concerning Roeser see, Albert R. Rice, "Valentin Roeser's Essay on the Clarinet (1764), Background and Commentary" (M.A. thesis, Claremont Graduate School, 1977), pp. 77-90. Roeser's activity in Paris during 1754 to 1755 is indicated by his own statement: "We played these pieces [an unnamed quartet for clarinet and horns] in the presence of Mr. Stamitz, during

movements entitled, Adagio, Adagio and Allegro (examples 50a-b).⁷ Technical demands are modest and the range is limited for the first clarinet, from f' to c''' , and for the second, from a to g''' . These parts could have been played on a three-key instrument, but their inclusion in Roeser's Essai (where a four-key clarinet was mentioned) implies that they were meant for the four-key type. The first movement is similar in meter and tempo to Rameau's quartet in the "Entr'-acte" at the end of act two in Acante et Céphise (example 29, p. 188). The Stamitz work, however, shows a greater independence of part writing by frequently pairing the second clarinet with the first horn, and an abundance of forte and piano dynamic markings, occasionally separated by only one beat.⁸

While he was living in Paris, Stamitz also made use of the clarinet in at least three symphonies. In the Mercure de France of May 1755 (p. 181) a Concert Spirituel of March 26 was reviewed, at which "une symphonie de Stamich, avec clarinets et cors de chasse" was performed. A Concert Spirituel of the following night also included a

his journey to Paris . . ." ("Nous avons executé ces Pièces en présence de Mr. Stamitz, pendant son séjour à Paris . . .", Roeser, p. 19). Cf. Elaine Keillor in "Communications," Journal of the American Musicological Society 28 (Fall 1975):567, and Barry S. Brook, "Roeser, Valentin," Grove 6, 16:97-8.

⁷The first movement of this work was reprinted for two clarinets in g' and two horns in c , with the addition of a part for one bassoon, as well as additional ornaments, articulation and dynamic markings in [Louis-Joseph] Francoeur's Diapason général de tous les instrumens à vent (Paris: Le Marchand, [1772]; reprint ed., Geneva: Minkoff, 1972), p. 58.

⁸Both of these compositional devices are associated with Stamitz's adaptation of the Italian overture style to the symphony, see Eugene K. Wolf, "Stamitz, Johann," Grove 6, 18:62.

EXAMPLE 50a

The musical score for Example 50a is arranged in three systems. The first system features an *Adagio* tempo marking and includes parts for Clarinettes and Cors (Horns). The second system continues the Clarinet and Horn parts. The third system includes parts for Clarinet and Bassoon. The score is written in 2/4 time and includes dynamic markings such as *p*, *f*, and *Cres*.

The first movement and beginning of the second movement from a quartet for two clarinets in $\flat$ and two horns in $\flat$ by Johann Stamitz in Valentin Roeser's Essai d'instruction de ceux qui composent pour la clarinette et le cor (Paris, 1764; reprint ed., Geneva: Minkoff, 1972), p. 20.

EXAMPLE 50b

⁹See Constant Pierre, *Histoire de Concert Spirituel 1725-1759* (Paris: Muzel et Cie, 1975), p. 262, nos. 137-8. Another *Concert Spirituel* (23 March 1755) included an unidentified "something à la Clarinettes et cors de chasse", probably by Stamitz.

¹⁰Eugene K. Wolf, *The Symphonies of Stamitz* (Boston: W. W. Norton, 1981), pt. 4b, pp. 36-7, 343 note 16 and 291.

The end of the second movement and the third movement from a quartet for two clarinets in $\flat$ and two horns in $\flat$ by Johann Stamitz in Valentin Roeser's Essai d'instruction de ceux qui composent pour la clarinette et le cor (Paris, 1764; reprint ed., Geneva: Minkoff, 1972), p. 21.

symphony of "Stamich" with the same instrumentation.⁹ Wolf believed that these citations refer to one of the symphonies by Stamitz published in a collection of six works in Paris, by Venier (1758), with the subtitle, "La Melodia Germanica". The title page of this work implies a preference for the clarinet, saying, "Faute de Clarinettes, on pourra les Exécuter avec deux Hautbois, Flutes ou Violons".¹⁰ Indeed, in three extant symphonies by Stamitz from this period, clarinets appear to represent the preferred woodwind.¹¹ It should be noted that clarinets were not officially part of the Mannheim court orchestra until after July 1759,¹² and may not have been available to Stamitz until his journey to Paris in 1754 to 1755.

The Parisian writer, Ancelet (1757), was so impressed by the combination of horns and clarinets (probably as a result of hearing Stamitz's works) that he stated the following:

The Horns please still more than when they accompany clarinets, instruments unknown till now in France and which have

⁹See Constant Pierre, Histoire de Concert Spirituel 1725-1790 (Paris: Heugel et Cie, 1975), p. 269, nos. 537-8. Another Concert Spirituel (30 March 1755) included an unidentified "Symphony avec Clarinettes et cors de chasse", probably by Stamitz.

¹⁰Eugene K. Wolf, The Symphonies of Stamitz (Boston: M. Nijhoff, 1981), pl. 4b, pp. 36-7, 343 note 15 and 293.

¹¹Wolf, *Ibid.*, p. 293.

¹²See the manuscript salary list (Besoldungsliste) reproduced by Robert Münster in "Johann Anton Fils und das Mannheimer Orchester in den Jahren 1754 bis 1760" in Johann Anton Fils (1733-1760) Ein Eichstätter Komponist der Mannheimer Klassik, ed. H. Holzbauer (Tutzing: H. Schneider, 1983), pp. 39-40; 41 notes 5 and 6.

on our hearts and on our ears rights which were unknown to us. Of what use they could be to our composers in their music!¹³

In 1936, the biographer of Stamitz, P. Gradenwitz, discovered a manuscript in the Fürstliche Thurn und Taxissche Hofbibliothek at Regensburg. The title page reads: "Concerto a 7 Stromenti / Clarinetto Principal Toni B / Violino Primo et Secundo / Corno Primo et Secundo in B / Alto Viola et Basso / del Sigⁿ. Stamitz". It is written for a b^b clarinet in three movements, an Allegro moderato, Adagio and Poco Presto. After a critical examination of this work, Gradenwitz concluded, on the basis of several stylistic characteristics, that it was written by Johann Stamitz (and not by his son Carl (1745-1801), ten of whose clarinet concertos are extant).¹⁴ Subsequent authorities, such as Eugene K. Wolf, have also attributed this work to Johann Stamitz. Gradenwitz suggested 1750-57, as the probable dates of composition.¹⁵ The English writer, John P. Newhill, has suggested further that this

¹³Translation by Robert James Macdonald in "François-Joseph Gossec and French Instrumental Music in the Second Half of the 18th Century", 3 vols. (Ph.D. diss., University of Michigan, 1968), 1:172-3.

"Les Cors de chasse plaisent encore davantage, quand ils accompagnent les Clarinettes, instrumens ignorés jusqu'ici en France, & qui ont sur nos coers & sur nos oreilles, des droits qui nous étoient inconnus. Quel emploi nos compositeurs n'en pourroient-ils pas faire dans leur Musique!"

[Ancelet], Observations sur la musique, les musiciens, et les instrumens (Amsterdam: Aux depens de la compagnie, 1757), p. 33.

¹⁴Peter Gradenwitz, "The Beginnings of Clarinet Literature," Music and Letters 17 (April 1936): 145-50; Eugene K. Wolf with Jean K. Wolf, "Stamitz, Carl," Grove 6, 18:65. See pages 387-391 below for some comments regarding the clarinet music of Carl Stamitz.

¹⁵Peter Gradenwitz, "Concerto Find," New York Times (1 April 1951), section 7, p. 1.

concerto was written in Paris for Gaspard Proksch, a clarinetist in La Pouplinière's orchestra.¹⁶

The clarinet solo part in the concerto is much more demanding than those found in Stamitz's quartet. For instance, the range employed, e to f[#]''', is larger than that used in any previous work. The frequent wide leaps and virtuosic writing (example 51), reminds the reader of the writing found in the concertos by J. M. Molter for the earlier baroque clarinet. In contrast to Molter's writing, however, this concerto by Stamitz makes much more frequent use of the chalumeau register in arpeggio passages, diatonic lines, and wide interval leaps (example 52). The second movement (Adagio) begins on a sustained c''' (as do the second movements of some Molter concertos) from which a lyrical melody is spun out in the second or clarion register (example 53). The third movement (poco presto in three-eight), includes some broken passage work, typical of many later eighteenth-century works for the clarinet (example 54a). Noteworthy is a low e which forms part of a leap of two octaves to e''' (example 54b). This low e and the frequent appearance of the note c[#]''' in chromatic passages are indications that this work was written for a four- or five-key clarinet. Even though the typical instrument, during 1754 to 1755, had three keys, it seems quite possible that a solo player would have used a clarinet with one or two additional keys for the playing of concertos.¹⁷

¹⁶John P. Newhill, "The Contribution of the Mannheim School to Clarinet Literature," p. 111.

¹⁷The following recordings of the Johann Stamitz concerto have been made by two players using five-key clarinets with an orchestra of authentic string instruments: Alan Hacker playing a clarinet by George Miller, c. 1760? (L'Oiseau-Lyre DSL0 505, 1975), and Hans Rudolf Stalder playing a clarinet by Henry Kusder, c. 1765 (Ex Libris EL 16804, 1979).

EXAMPLE 51

The $\flat$, clarinet part from the first movement (*Allegro moderato*) of the Concerto by Johann Stamitz (Mainz: B. Schott's Söhne, 1967), pp. 2-3.

EXAMPLE 52

The musical score consists of six staves of music, all in treble clef. The notation is characterized by frequent triplets, indicated by a '3' above the notes, and various slurs grouping the notes. The first staff begins with a triplet of eighth notes. The second staff has a tempo marking '90' above the first measure. The third staff continues the triplet pattern. The fourth staff has a tempo marking '100' above the first measure. The fifth staff includes a trill, marked 'tr', and continues with triplets. The sixth staff concludes the passage with triplets. The music is written in a style typical of 18th-century manuscript notation, with some ligatures and specific note values.

The clarinet part from the first movement (*Allegro moderato*) of the Concerto by Johann Stamitz (Mainz: B. Schott's Söhne, 1967), p. 4.

EXAMPLE 53

The opening measures of the clarinet solo from the second movement (Adagio) of the Concerto by Johann Stamitz (Mainz: B. Schott's Söhne, 1967), p. 5.

EXAMPLE 54a

EXAMPLE 54b

Portions of the clarinet part from the third movement (Poco Presto) of the Concerto by Johann Stamitz (Mainz: B. Schott's Söhne, 1967), p. 8.

Joseph and Michael Haydn

Joseph Haydn initially wrote for the clarinet in 1761, after he was appointed Vice-Kapellmeister to Prince Paul Anton Esterházy.¹⁸ At Eisenstadt, Haydn wrote several divertimentos for the Prince's Harmonien or wind band, which consisted of two flutes, two oboes (or clarinets or English horns), two bassoons and two horns.¹⁹ The principal function of this group was to provide background music at dinners and social events, and occasionally to perform in public and private concerts, where they sometimes accompanied a soloist.²⁰ A quartet for two clarinets and two horns dated 1761 (in an autograph copy) is extant and has been published in two modern editions.²¹ Haydn was quite conservative in his writing, generally making use of arpeggio figures and limiting the range to two octaves at its widest, from c' to c''' .

A much more significant work for the classical clarinet during this time, was written by Michael Haydn (1737-1806) the younger brother of Joseph. One of the earliest works written for the clarinet in Salzburg, was Michael Haydn's nine-movement Divertimento in D of 1764.²²

¹⁸Haydn's contract was dated 1 May 1761, see Jens Peter Larsen, "Haydn, Joseph," Grove 6, 8:332.

¹⁹Cf. Georg Feder, "Haydn, Joseph, worklist," Grove 6, 8:377-78 with the list of works for wind ensemble given by David Whitwell in Wind Band and Wind Ensemble Literature of the Classic Period (Northridge, California: Winds, 1983), pp. 206-12.

²⁰Roger Hellyer, "Harmoniemusik," Grove 6, 8:167.

²¹Joseph Haydn, Divertimento, eds. H. and W. Höckner (Copenhagen: W. Hansen, 1932) and ed. H. C. Robbins Landon (Vienna: Doblinger, 1959).

²²H(Bn), Ms. Mus. II. 84 designated "Salzburg 22. July bis. 4 August 1764." See Kurt Birsak, "Salzburg, Mozart und die Klarinette," Mitteilungen der Internationalen Stiftung Mozarteum 33 (1985):43;

This work is scored for two flutes, two oboes, clarinet in a' (concertato), two bassons, two horns, two clarinis (trumpets), trombone (concertato), two violins, two violas, two cellos and bass.²³ According to Pauly, this Divertimento includes four movements that were subsequently used again to form Haydn's symphony, P38, of c. 1768.²⁴ In two movements of the Divertimento, an Andante in 3/4 and a Spirituoso in 4/4, the a' clarinet is given a part of technical difficulty equivalent to that which one might expect to find in a concerto. Its range extends from e to d''' and includes many leaps of one and one-half octaves, e.g., f# to c''' or b^b to f'', and even once e to b^b''. Chromatic passages are found written in the clarion or second register, the lower range is freely used, and the notes c[#]''' and d[#]''' are frequently written. Because of these characteristics, Birsak believed that this work was written for a five-key clarinet and played by a virtuoso. He questioned the availability of a player of this caliber at Salzburg, and suggested that Haydn probably wrote this work before his arrival in 1763.²⁵

An alternative explanation for the existence of this work, or at least the two virtuoso movements, may be seen in R. Münster's description of Haydn's seven-movement Serenade, which includes two virtuoso movements for the trumpet in d''. According to Münster, Haydn wrote the majority of his works for the Salzburg court, but was also

translation by G. Schamberger as "Salzburg, Mozart and the Clarinet," in The Clarinet 13 (Fall 1985):28.

²³Birsak, Ibid., p. 31 note 14.

²⁴Reinhard G. Pauly, "Haydn, Michael," Grove 6, 8:409.

²⁵Birsak, "Salzburg, Mozart, and the clarinet," p. 28. Michael Haydn's subsequent works for the clarinet include parts which are technically much easier than his Divertimento.

highly regarded as a composer at several Austrian and Bavarian monasteries. Several of them (St. Peter's at Salzburg, Michaelbeuren, Herrenchiemsee, etc.) commissioned numerous works from him. In fact, the Serenade, with its extremely difficult trumpet part, is found at the Benedictine Abbey of Lambach in upper Austria.²⁶ Even though Haydn's Divertimento was designated "Salzburg", he may have written the virtuoso clarinet movements as the result of a previous commission for a musician at one of these monasteries.

F. X. Pokorny

Two works which do not approach the high level of Michael Haydn's Divertimento, are the concertos by the bohemian composer, Franz Xaver Pokorny (1728-1794). They were written for players of the court of Oettingen-Wallerstein, and are unusual for the designations on the autographs: "Concerto per il clarinetto primo" and "Concerto per il clarinetto secundo" (dated, "9 octobris 1765", see the discussion above, pp. 327, 328-9).²⁷ Both of these concertos were written in three movements (slow, fast, slow), the first being in E-flat major, the second in B-flat major. In these works, Pokorny appears to have followed the practice of writing for first and second horn players, by purposely staying within a higher range (c' to e''') for the first clarinetist, and a lower range (f to c''') for the second player. He

²⁶Robert Münster, "Mannheim and Vienna (1760-1800)", notes to a Deutsche Grammophon Gesellschaft Archiv recording of Michael Haydn's trumpet concerto (198415, c. 1967).

²⁷See August Scharnagel, "Pokorny, Franz Xaver (Thomas)," Grove 6, 15:22; and the "Kritischer Bericht" by Heinz Becker in "Klarinetten-Konzerte des 18. Jahrhunderts," Das Erbe Deutscher Musik, vol. 41 (Wiesbaden: Breitkopf & Härtel, 1957), pp. 103-5.

appears to be the only composer of the period to have followed this procedure, although the Parisian theorist, Francoeur, noted this practice in his subsequent instrumentation treatise.²⁸ The clarinet parts of these concertos are of a moderate difficulty, the most interesting aspect being an extensive use of the chalumeau or low register, in the first movement of the second concerto (example 55). Here Pokorny effectively contrasts the difference in tone color of the upper and lower registers, by alternating musical motives between both registers. In this movement, he also applied the terms, "Shale" ("Shalumeau" or "Shalümo") to indicate a transposition of notes an octave lower, and "Clarin" ("Clarinet"), indicating a return to the written notation.²⁹ Neither the first nor the second concerto make use of the notes $\underline{c}^{\#\prime\prime}$ or $\underline{d}^{\#\prime\prime}$, and thus, could have been written for a four-key instrument, such as those clarinets made by the German makers, August and Heinrich Grenser, without an $\underline{f}^{\#}/\underline{c}^{\#\prime\prime}$ key.

G. C. Wagenseil

The Viennese court composer, Georg Christoph Wagenseil (1715-1777), wrote a Sonata for clarinet, violin and basso continuo, WV 580, that may date from the 1760s or 1770s. It appropriately represents the Viennese Rococo in its "Empfindsamkeit" and "gallant style".³⁰

²⁸See [Louis-Joseph] Francoeur, Diapason général de tous les instrumens à vent (Paris: Le Marchand, [1772]; reprint ed., Geneva: Minkoff, 1972), pp. 22-5.

²⁹An alternate version in eight measures of this movement made use of a bass clef to indicate an octave transposition, rather than the term, "Shale". See Becker, "Klarinetten-Konzerte des 18. Jahrhunderts," p. 105.

³⁰See the modern edition, Georg Christoph Wagenseil, Sonata per Clarinetto, Violino e Basso Continuo, ed. R. Scholz (Vienna: Doblinger,

EXAMPLE 55

12 2 14 Str. Hr. Solo

35 3 3 3 3

41

45 6 6

51 6 6

66 Solo

72

78 3 3 3 3 3 3 3 3

80 3 3 3 3 3 3 3 3

91 3 3 12 Viol. I/II Solo

110 3 3 3 3

115

120 3 3 3 3

A portion of the first movement of the clarinet part of the Concerto in B-flat major by Franz Xaver Pokorny (Wiesbaden: Breitkopf & Härtel, 1958).

Throughout this work, Wagenseil gave a leading part to the clarinet, the violin and harpsichord being entirely accompanimental. The clarinet part is of moderate difficulty, utilizing a range from g to d''' , although most of the passage work is written in the second register (example 56). The designations, "Chal." and "Clar.", indicating an octave transposition and a return to the written pitches respectively, are written several times in the first and third movements. The use of the notes c''' -sharp and d''' -sharp seems to imply that this work was meant for a five-key clarinet.

C. P. E. Bach

Another work written for the classical clarinet is Carl Philipp Emanuel Bach's Sechs keine Sonaten, H 516-21, for harpsichord, clarinet and bassoon.³¹ Bach wrote this work after 1767, probably when he took Telemann's place as Music Director of five churches in Hamburg.³² Alternate versions of these sonatas have been found as part of eleven subsequent works, dating from the 1770s and 1780s.³³ Since Bach was a keyboard virtuoso, the harpsichord was given a brilliant and leading

1777), and preface. Many chamber works of this period were written and published with alternate parts for the oboe or violin intended as alternates to the solo clarinet, e.g., the quartets for clarinet and string trio by Paul Struck, Carl Stamitz and Christian Cannabich. See Jerrold A. Sundet, "A Study of Manuscript, Out-Of-Print, and Currently Published Compositions for Single Oboe or Single Clarinet with Small String Group (c. 1750-1820)" (D.Ed. diss., Greeley, Colorado: Colorado State College, 1964), pp. 149, 298; and Christian Cannabich, Quartett, ed. H. Steinbeck (Vienna: Doblinger, 1969).

³¹See the modern edition, C. P. E. Bach, 6 Sonatas for Clarinet, Bassoon and Piano, ed. G. Piccioli (New York: International, 1955).

³²Cf. Eugene Helm, "Bach, Carl Philipp Emanuel," Grove 6, 1:855 and Oskar Kroll, The Clarinet, p. 54.

³³See Helm, *Ibid.*, 1:858.

EXAMPLE 56

Andante

f *Chal.* *p*

f *p*

f *p*

f

p

p

f

The first movement of the clarinet part of Georg Christoph Wagenseil's Sonata per Clarinetto, Violino e Basso continuo WV 508 (Vienna: Doblinger, 1977).

part which was simply doubled or echoed by the clarinet and bassoon throughout the work. The clarinet part, however, is quite a brilliant contrast to that for the bassoon, making frequent use of the clarinet's high register from c''' to f''' , its entire range being limited from c' to f''' (example 57). Technically, this work includes a very demanding part for a four- or five-key clarinet. Bach's subsequent works including the clarinet, in duets and pieces for wind band, contain parts which are not as virtuosic as these trios.³⁴

C. Stamitz

Carl Stamitz (1745-1801) was one of the most prolific composers from Mannheim. He wrote a number of solo works for the clarinet, including ten concertos and seventeen quartets for clarinet and strings.³⁵ In 1770, Stamitz went to Paris and in the following year became court composer and conductor for Duke Louis of Noailles at Paris.³⁶ Here, he began composing his clarinet concertos for the famous clarinetist, Joseph Beer. At a Concert Spirituel on 24 December 1771, Beer played a clarinet concerto by Stamitz for the first time.³⁷ Beer continued to perform concertos by Stamitz, his own concertos, and others

³⁴Cf. Kroll, The Clarinet, p. 54.

³⁵See Eugene K. Wolf with Jean K. Wolf, "Stamitz, Carl," Grove 6, 18:64. Cf. Fritz Kaiser, "Stamitz, Carl, worklist," Grove 6, 18:65 and John P. Newhill, "The contribution of the Mannheim School to Clarinet Literature," Music Review 40 (May 1979): 103-11. Stamitz's clarinet concertos were initially examined by Helmut Boese in Die Klarinette als Solo Instrument in der Mannheimer Schule (Dresden: Dittert & Co., 1940), pp. 23-52, 123-25. Carl Stamitz was the son of Johann whose music for the clarinet is discussed on pp. 368-378 above.

³⁶Wolf, *Ibid.*, 18:63.

³⁷Boese, p. 31 and Pierre, Histoire du Concert Spirituel 1725-1790, p. 299, no. 889.

EXAMPLE 57

Allegretto

The musical score for Example 57, titled "Allegretto", is written for a single melodic line. It begins with a treble clef and a key signature of one flat (B-flat). The time signature is 2/4. The tempo is marked "Allegretto". The score consists of ten staves of music. The dynamics range from *mf* (mezzo-forte) to *f* (forte) and *p* (piano). The piece includes several trills (*tr*), triplets (marked with a '3'), and first and second endings (marked with '1.' and '2.'). The music is characterized by rapid sixteenth-note passages and a variety of articulations.

The clarinet part of the first sonata from 6 Sonatas for clarinet, bassoon and piano by Carl Philipp Emanuel Bach (New York: International, 1955).

not identified, at twenty-five subsequent concert Spirituels until 1 November 1779.³⁸ Four of Stamitz's clarinet concertos were published in Paris during 1777, 1779 and c. 1780; a fifth was published in Berlin in 1793.³⁹

A typical example of Stamitz's writing for the clarinet is found in his concerto in B-flat major, for the $\text{b}^{\flat}$ clarinet, cataloged as number three by Newhill.⁴⁰ It was written in three movements, an Allegro Moderato, Romanze and Presto. The lyrical nature of Stamitz's writing is shown by the first and second themes of the first movement (examples 58a-b). Here, he stressed expressive melodiousness rather than virtuosity. The technical demands are limited, with a range from f to e''' , and the thematic material presented in the upper register, although some arpeggio figures in the low register appear briefly in the third movement.⁴¹ A written out cadenza ends this movement in a manuscript copy preserved at the Austrian national library (example 58b).⁴² This cadenza gives the soloist the opportunity to display his technical abilities. It includes arpeggio and diatonic passages in thirty-second notes and a leap of two octaves and a third from f to a'' .

³⁸Pierre, pp. 300, 303-7, 310-12, nos 885, 886, 890, 896, 928, 930, 944-46, 949, 952, 955, 960, 963, 986, 989, 993, 995, 998, 999, 1002, 1004, 1010, 1011.

³⁹Kaiser, "Stamitz, Carl, worklist," 18:65.

⁴⁰Newhill, p. 105. See the modern editions, Carl Stamitz, *Concerto* no. 3 (New York: C. F. Peters, 1957); (New York: International, 1969).

⁴¹Cf. Kroll, p. 56.

⁴²A(Wn), Mus. 5865. This cadenza has been included in the first movement of the editions by Peters and International.

EXAMPLE 58a

Concerto
Allegro Moderato

Clarinetto Principale
in B.

The musical score is written for a single instrument, the Clarinet Principal in B. It consists of 14 staves of music. The first staff begins with a piano (*p*) dynamic and a *tutti* marking. The second staff contains the measure number 37. The eighth staff contains the measure number 31 and a *tutti* marking. The music is written in a single system with various musical notations including notes, rests, and dynamic markings.

The clarinet part from Carl Stamitz's Concerto no. 3, A(Wn).

EXAMPLE 58b

This image shows a handwritten musical score for a clarinet part. The score is written on 15 staves, organized into three systems of five staves each. The notation includes various musical symbols such as notes, rests, slurs, and dynamic markings. Key features include:

- Staff 3:** A measure number '17' is written at the beginning.
- Staff 10:** A measure number '24' is written at the beginning.
- Staff 11:** The word 'Tutti' is written in a cursive hand.
- Staff 14:** The words 'Tutti Rondo' are written in a cursive hand.
- Staff 15:** The piece concludes with a double bar line.

 The handwriting is fluid and characteristic of 18th-century musical notation. The paper shows signs of age, including some staining and wear.

The end of the first movement and cadenza in the clarinet part from Carl Stamitz's Concerto no. 3, A(Wn).

L. Kozeluch and F. A. Rosetti

The bohemian composer, Leopold Kozeluch (1747-1818), lived in Vienna from 1778 where he became established as an excellent pianist, teacher and composer. He wrote two clarinet concertos and one concerto for clarinet and bassoon.⁴³ A comparison of Stamitz's cadenza (example 58b) with three others found in one of Kozeluch's concertos, provides some insight into the abilities of the players of this time. Interestingly, five separate cadenzas on individual sheets of paper were included with Kozeluch's concerto in E-flat major, preserved at the Austrian national library.⁴⁴ The first cadenza, however, is inscribed, "a Concerto de Rosetti", which implies that this, or perhaps all of these cadenzas originally belonged to clarinet concerti by Francesco Antonio Rosetti (c. 1750-1792). Rosetti, whose original name was Franz Anton Rösler, entered the service of Kraft Ernst, Prince of Oettingen-Wallerstein in 1773, where he became Kapellmeister in 1785. He probably wrote five clarinet concertos from about 1781 to 1782, during a journey to Paris.⁴⁵ Rosetti's second concerto in E-flat major was listed in the

⁴³See Milan Pošťolka, "Kozeluch, Leopold," Grove 6, 10:226, and A(Wn), Mus. 589 (concerto for clarinet and bassoon).

⁴⁴A(Wn), Mus. 5854. This work was designated as V:1 in Milan Pošťolka's catalogue, Leopold Koželuh (Prague, 1965). See Jiří Kratochvíl, "Koncertantní Klarinet v českém klasicismu," [The clarinet in Czech classicism] Ziva Hudba. Sbornik Praci (1968):303; and the modern edition, Leopold Kozeluch, Concerto in Mi^b Maggiore, eds. G. Balassa and V. Lampert (Budapest: Editio Musica, 1975). The cadenza provided in this edition was written by the editors. Kozeluch's concertos were dated before 1790 by Pošťolka in "Kozeluch, Leopold," 10:226.

⁴⁵Cf. Titus, "The Solo Music for the Clarinet in the Eighteenth Century," pp. 340-1 and Horace Fitzpatrick, "Rosetti, Francesco Antonio," Grove 6, 16:206-7.

supplement XV (1782-1784) to Breitkopf's thematic catalogue.⁴⁶ The clarinet part is also preserved in a manuscript copy at the Austrian national library (SM 5863), without a cadenza written in any of the three movements.

The first cadenza, in F major (example 59a), makes use of turns with quarter notes, eighth notes, and sixteenth notes moving in repeated chordal patterns and arpeggios. Its widest leap is a major sixth (e to c') and it is slightly less virtuosic than Stamitz's cadenza. The second cadenza, in C major (example 59b), also relies heavily on arpeggio patterns but includes many more leaps, especially to g', and matches Stamitz's widest leap of two octaves and a major third (e to g''). In this cadenza there are a few slurs written for groups of four sixteenth notes (Stamitz's cadenza also notates some slurs). The choice of articulation, however, was left to the performer. It appears to be somewhat more virtuosic than Stamitz's cadenza, since the repeated leaps to g' are technically awkward.⁴⁷ The third cadenza, in F Major (example 59b), is similar to the first in its use of chordal figures and arpeggios, but also makes use of two series of eighth-note triplets and the introductory notes are similar to those in Stamitz's cadenza. This cadenza, however, is not as virtuosic and its widest leap is just one octave and a major fifth (c to g''). Additional clarinet cadenzas written in manuscripts of this period occasionally make use of thirty-second notes, but rarely as much as Stamitz did in his cadenza. One of

⁴⁶The Breitkopf Thematic Catalogue. The Six Parts and Sixteen Supplements 1762-1787, ed. B. S. Brook (New York: Dover, 1966), p. 41.

⁴⁷Passages in octaves are technically difficult and are seldom seen in the concertos or cadenzas.

EXAMPLE 59a

Two cadenzas found in the clarinet part of the concerto in E-flat major by Leopold Kozeluch, V:1, A(Wn).

EXAMPLE 59b

A cadenza found in the clarinet part of the concerto in E-flat major by Leopold Kozeluch, V:1, A(Wn).

these examples, written by the Regensburg composer, Freiherr Theodor von Schacht (1748-1823), includes a written f.⁴⁸

W. A. Mozart

Mozart's works for the clarinet are without doubt the most important contributions of the entire period. He began writing for the instrument with a Divertimento K 113, scored for strings, two clarinets and two horns of 1771.⁴⁹ Ward listed over ninety works (including fragments) either written for the clarinet or basset horn, or including significant parts for these instruments. They include nine operas, beginning with Idomeneo K 366 (1780), nine concertos, four symphonies, six Masonic works, and twenty-one vocal arias, duets or trios.⁵⁰ Subsequently, many additional arrangements have been found of the works for wind band.⁵¹

In his instructions (1785-86) to his English student, Thomas Attwood, Mozart advised, "The Clarinette must always be written in C or in F".⁵² These tonalities were recommended, since they are the easiest

⁴⁸See David Lasocki and Betty Bang Mather, The Classical Woodwind Cadenza (New York: McGinnis & Marx, 1978), pp. 8, 10, 19, 20, 29; August Scharnagl, "Schacht, Theodor, Freiherr von," Grove 6, 16:583.

⁴⁹Nicholas Shackleton, "Clarinet," NGDMI, 1:400.

⁵⁰See Martha Kingdon Ward, "Mozart and the Clarinet," Music and Letters 28 (April 1947):126-53.

⁵¹See Daniel Leeson and David Whitwell, "Mozart's 'Spurious' Wind Octets," Music and Letters 53 (Oct. 1972):377-99; Roger Hellyer, "Mozart's Harmoniemusik," Music Review 34 (May 1973):146-56; Whitwell, Wind Band and Wind Ensemble Literature of the Classic Period, pp. 225-36.

⁵²See Thomas Attwood Theorie- und Kompositionsstudien bei Mozart, eds. E. Hertzmann, C. B. Oldman, D. Heartz and A. Mann in Wolfgang Amadeus Mozart, Neue Ausgabe Sämtliche Werke, vol. X/30/1 (Kassel: Bärenreiter, 1963), p. 124.

to finger and least troublesome in their intonation for the five-key clarinet (see the discussion above, p. 309). On the next page of his instructions, he wrote a table of transposition to illustrate the use of the four commonly used clarinets in $\underline{c}'$, $\underline{b}'$, $\underline{b}^{b'}$ and $\underline{a}'$, next to the comment: "The Clarinett is very useful instead of the oboes when the Key has a number of Flats or Sharps".⁵³ Indeed, Mozart usually followed his own advice by writing for the clarinet in C and F major. For example, in the E major numbers of Idomeneo (the chorus "Placido è il mar" and the aria "Zeffiretti lusinghieri"), and of Così fan tutte (the trio "Soave sia il vento" and the rondo "Per pietà") were scored for clarinet in $\underline{b}'$, with the parts transposed to F major. Other examples include the prominent writing given to the $\underline{c}'$ clarinet in Don Giovanni (the arias "Vedrai carino", in C, and "Non mi dir", in F), and Così fan tutte (the duet "Il core vi dono"). Occasionally, Mozart's choice of clarinet was determined by the tone color of the instrument rather than tonalities of C and F major, as in the Kyrie in D minor K 341/368a where $\underline{a}'$ clarinets in four flats are used instead of $\underline{c}'$ clarinets.⁵⁴ A concern over the use of the proper clarinet and the recognition of the tonal difference between the $\underline{c}'$ and $\underline{b}'$ -flat clarinets, was voiced as early as 1808 by J. F. Rochlitz. He was particularly concerned that the

⁵³See "Verzeichnüss (sic) aller Wiener Werke von Mozart 1784 bis Monath 1791" reprinted with the booklet by Otto E. Deutsch, Mozart's Catalogue of his Works 1784-1791 (New York: H. Schenker, [1956]).

⁵³Thomas Attwood Theorie- und Kompositionsstudien, p. 157. Toeplitz challenged the logic of Mozart's statement but seems to have misunderstood its application to Mozart's table of transposition. See Uri Toeplitz, Die Holzbläser in der Musik Mozarts und ihr Verhältnis zur Tonartwahl (Baden-Baden: V. Koerner, 1978), p. 183.

⁵⁴See Colin Lawson, "The Authentic Clarinet: tone and tonality," Musical Times 124 (June 1983):357.

player should play the c'', b'-flat and a' clarinets as intended by Mozart in Don Giovanni.⁵⁵

The most important of Mozart's works for clarinet were those composed for the clarinetist, Anton Stadler: the "Kegelstatt Trio:" K 498 (for clarinet, viola and piano), the Quintet K 581 and the Concerto K 622. The Trio (1786, named "Terzett" in Mozart's catalogue of his own works)⁵⁶ has a fairly straight-forward part with all of the melodic writing in the upper register, and only occasional arpeggios in the chalumeau register. It does include, however, some difficult chromatic passages in the first movement, beginning with the initial entrance of the clarinet (example 60). The most prominent part of the Trio is given to the piano, which approaches the virtuosity of a concerto in the third movement.⁵⁷

Apart from the Trio, the Quintet and Concerto were intended to be played on Stadler's a' clarinet with an extended lower range, now named the "Basset clarinet".⁵⁸ By 1789, Stadler's a' clarinet had a lower

⁵⁵See "Etwas über die Aufführung von Lieb und Treue. Liederspiel in Einem Akt, mit Melodien von Hrn. Kapellm. Reichard, dirigirt vom Hrn. Musikd. Seidel in Berlin" in *Intelligenz-Blatt zur Allgemeinen Musikalischen Zeitung*, no. VI (Feb. 1808), *AMZ* 10 (1807-08), the "Anmerkung des Verf." on cols. 23-6 note ** (Rochlitz was the editor of the *AMZ*).

⁵⁶See "Verzeichnuess [sic] aller meiner Werke von Monath Febrario 1784 bis Monath 1"; reprinted with the booklet by Otto E. Deutsch, *Mozart's Catalogue of his Works 1784-1791* (New York: H. Reichner, [1956]).

⁵⁷The title page of an early edition of the Trio also indicates the prominence of the keyboard instrument: "Trio pour Clavecin, ou Forte-Piano, avec accompagnement de Clarinette ou Violon, et Viola composé par Mr Mozart. Oeuvre 14^{me}" (Offenbach sur le Mein: J. Andre, [1793]).

⁵⁸This name was initially proposed by Jiří Kratochvíl in "Betrachtungen über die Urfassung des Konzerts für Klarinette und des Quintetts für Klarinette und Streicher von W. A. Mozart," in

EXAMPLE 60

The opening phrase of the clarinet part (first movement) to the Trio for piano, clarinet and viola K 498 by Wolfgang Amadeus Mozart.

extension which included the chromatic pitches: $\underline{d}^\sharp$, $\underline{d}$, $\underline{c}^\sharp$ and $\underline{c}$ (see the discussion above, pp. 298-302). This fact is documented by a concert advertisement of 20 February 1788, and by the notes below $\underline{e}$ found in the fragments of two quintets for clarinet and strings (K 516c and K 581a), the second clarinet part in the second act of the autograph of Così fan tutte, and the obbligato clarinet solo to the aria, "Parto, parto ma tu ben mio", from La Clemenza di Tito.⁵⁹ Both of the autographs of the quintet and concerto are lost, but there have been attempts at restoring the original text of the clarinet parts. The quintet is written in four movements (Allegro, Larghetto, Minuetto, and Allegretto con Variazioni). In this work, the lower range of the clarinet is used extensively, although the important melodic material is presented in the second register. The second movement (Larghetto) is especially notable for its flowing, lyrical theme given in the second register. Based on the musical evidence, Kratochvíl made suggestions concerning the original notes of the quintet. He illustrated some of his reconstructed version next to the published version, in parts of the third and fourth movements (example 61).⁶⁰ These sequences and arpeggios in his original version appear to have been altered to fit the range of the normal clarinet, as in measure 116 of the third movement and measure 65 of the fourth movement.

Internationale Konferenz über das Leben und Werk W. A. Mozarts Praha 27-31. Mai 1956 [c. 1958], p. 262.

⁵⁹See Pamela L. Poulin, "The Bassett Clarinet of Anton Stadler," College Music Symposium 22 (Fall 1982): 72 fig. 3, 73-4. The quintet fragments are partially reproduced from the autograph and republished in Wolfgang Amadeus Mozart, Neue Ausgabe sämtlicher Werke, vol. VIII/19/2 (Kassel: Bärenreiter, 1958), pp. XV, XVIII, 41-3, 50-2.

⁶⁰Kratochvíl, pp. 268-70.

EXAMPLE 61

Beispiel Nr. 4

Cl. A 114 115 116 117 118 119

Vl. 1, 2 Vl. 1

Quart

Vl. 2

Vla. Vel.

Cl. A 120 121 122 123

Quart

Beispiel Nr. 5

Cl. A 124 125 126 127 128 129 130 131 132 133

Vl. 1, 2 Vl. 1

Quart

Vl. 2

Vla. Vel.

Cl. A 134 135 136 137 138 139 140 141 142 143

Quart

Jirí Kratochvíl's reconstruction of part of the third and fourth movements of Mozart's Quintet compared to the published version (see page 400 above).

The evidence for the original musical text of the concerto is more substantial. Mozart initially wrote the concerto for a basset horn in G, as shown by his autograph sketch of 199 measures in the Rychenberg Stiftung at Winterthur, Switzerland.⁶¹ It corresponds identically to the first half of the clarinet concerto, and includes several notes below E, playable on a basset horn. An important review of the concerto in the AMZ (1802) quoted several passages that were altered and made the following comment:

Finally, the critic feels obliged to say that Mozart wrote this Concerto for a clarinet encompassing low C. Thus, the following passages in the principal voice have all to be transposed from the lower octave [here follow six examples] . . . and similarly very many passages have been transposed or altered [here follow further examples] However, since clarinets encompassing low C must at present be counted among the rarer instruments, thanks are due to the editors for these transpositions and alterations, although they have not improved the Concerto. Perhaps it would have been just as well to have published it in the original version and to have inserted these transpositions and alterations in smaller notes.⁶²

⁶¹Reproduced in Wolfgang Amadeus Mozart, Neue Ausgabe sämtlicher Werke, vol. V/14/4, pp. 165-76.

⁶²Translation by Kroll, p. 63.

"Schliesslich findet Recensent noch nöthig zu bemerken, dass Mozart dieses Konzert für eine Klarinette, die unten bis ins c geht, geschrieben hat. So müssen z.B. folgende Stellen in der Principal-Stimme sämtlich in die tiefere Oktave versetzt werden Und auf dies Art sind sehr viele Stellen versetzt und verändert worden Da nun aber bis jetzt solche Klarinetten, die unten bis c gehen, noch immer unter die seltenen Instrumente gerechnet werden müssen, so ist man den Herausgebern für die gewöhnliche Klarinette allerdings Dank schuldig, ob das Konzert gleich nicht dadurch gewonnen hat. Vielleicht wäre es eben so gut gewesen, es ganz nach dem ursprünglichen Originale herauszugeben, und diese Versetzungen und Veränderungen allenfalls durch kleinere Noten zu bemerken."

[Friedrich Rochlitz], "Recension," AMZ 4 (March 1802): cols. 412-13.

In spite of the transpositions and alterations, this concerto remains the finest from the Classical Period. The three movements (Allegro in 4/4, Adagio and 3/4 and Allegro in 6/8) are ideally suited to the instrument and bring out its lyrical tonal qualities in the songlike themes. In addition to the passages cited in the AMZ review, several additional passages, on the basis of musical evidence, have been discussed by Dazeley, Kratochvíl, Hess, and Hacker.⁶³ An edition for the clarinet or basset clarinet has been published, with its lower "basset" notes given in smaller print, as well as a complete version for the basset clarinet in the Neue Ausgabe.⁶⁴ Some of Kratochvíl's suggestions which were printed below the published version are given here as example 62.

Interestingly, there are two additional works which were written by composers other than Mozart probably for Stadler's basset clarinet. For example, Franz Xaver Süssmayr, wrote an incomplete movement of a concerto in D major, dated 1792, which utilizes an astoundingly large range of from c to c''''.⁶⁵ A clarinet part from a concerto in B-flat major, preserved at the Austrian national library, includes five

⁶³George Dazeley, "The Original Text of Mozart's Clarinet Concerto," Music Review 9 (Aug. 1948):166-72; Kratochvíl, pp. 263-8; Ernst Hess, "Die Ursprüngliche Gestalt des Klarinettenkonzertes KV 622," Mozart Jahrbuch 1967, pp. 22-9; Alan Hacker, "Foreword" to a pocket score of the Concerto (London: Eulenburg, 1971), p. VII; Idem, "Mozart and the basset clarinet," Musical Times 110 (April 1969):361.

⁶⁴Wolfgang Amadeus Mozart, Concerto for Clarinet or Basset Clarinet in A, ed., A. Hacker (London: Schott & Co., 1974); Idem, "Konzerte," Neue Ausgabe sämtlicher Werke, ed. F. Giegling (Kassel: Bärenreiter, 1977), vol. V/14/4, pp. 3-82. Breitkopf und Härtel's edition of the concerto may have been the first to appear since it was advertised in the "Intelligenz-Blatt zur Allgemeinen Musikalischen Zeitung", no. VII (April 1801), AMZ 3 (1 April 1801): between cols. 468-9. Cf. Geigling, p. VIII.

⁶⁵GB(Lb1), Add. 32181. See Hacker, "Mozart and the basset clarinet," p. 360 and ex. 1.

EXAMPLE 62

66 The Breitkopf & Härtel edition of Mozart's Clarinet Concerto, K. 617 (1782-1784), p. 41. Poulin translated the high g'' , and erroneously thought that these cadenzas belonged to a double clarinet concerto attributed to Franz Tausch, see "The Basses Clarinet of Anton Stadler," p. 360 and ex. 1.

67 See Pamela Weston, *Mozart's Clarinet Virtuosi of the Past* (London: The Author, 1977), pp. 27-8, and Ernst Ludwig Gerber, *Historisch-Biographisches Lexikon der Tonkünstler* (Leipzig: J. G. I. Breitkopf, 1790; reprint ed., Graz: Akademische Druck- u. Verlagsanstalt, 1977), col. 940.

Jirí Kratochvíl's reconstruction of part of the third movement of Mozart's Concerto compared to the published version (see page 403 above).

Announcement in the *Zeitung der Musikfreunde*, see Poulin, pp. 79 note 41; Fig. 3.

cadenzas on three slips of paper that specify notes below e. An incipit of this work is found in the Breitkopf thematic catalogue, which names the composer as "Michl".⁶⁶ He was probably either Michel Yost (1754-1786) or Joseph Michel (1772-?), both of whom wrote clarinet concertos.⁶⁷ In any event, a player who had a basset clarinet, perhaps Stadler, must have added these cadenzas (example 63). The first cadenza uses the bass clef in notating the basset notes, and makes use of a range of from C to g'''. The second cadenza is even more virtuosic in its use of thirty-second notes. The third and fourth cadenzas are quite short and were placed at the end of the second movement (Romance) of the concerto. The last short cadenza was placed at the end of the third movement (Rondo). Stadler's name is also found in two announcements of court performances of 23 December 1805 and 31 March 1806, when "an aria by Paer [was] sung by Madame Campi, accompanied by Stadler on a clarinet with modifications of his own invention".⁶⁸ The aria by Paer has not

⁶⁶The Breitkopf Thematic Catalogue, Supplement XV (1782-1784), p. 41. Poulin transcribed the first cadenza omitting the high g''', and erroneously thought that these cadenzas belonged to a double clarinet concerto attributed to Franz Tausch, see "The Basset Clarinet of Anton Stadler," p. 360 and ex. 1.

⁶⁷See Pamela Weston, More Clarinet Virtuosi of the Past (London: The Author, 1977), pp. 277-8, and Ernst Ludwig Gerber, Historisch-Biographisches Lexikon der Tonkünstler (Leipzig: J. G. I. Breitkopf, 1790; reprint ed., Graz: Akademische Druck- u. Verlagsanstalt, 1977), col. 940.

⁶⁸Translation by Poulin, p. 79.

"Arie von Paer, gesungen von Madame Campi, accompanirti, von Herrn Stadler, auf einer thun selbst erfunden Karinett".

Announcement in the Gesellschaft der Musikfreunde, see Poulin, pp. 79 note 41; 80 fig. 4.

EXAMPLE 63

69 Poulis, p. 31. Including facsimiles of the manuscript and program, see Pamela L. Poulis, "The Basses of Anton Stadler and His Music" (M.A. thesis, Rochester University of Rochester, 1977).

70 See Douglas Johnson, "Stadler, Anton, works and workslist," Grove 6, 1974. For a discussion of Stadler's concertizing, see Pamela L. Poulis, "The Basses of Anton Stadler and His Music" (M.A. thesis, Rochester University of Rochester, 1977).

72 J. Krumpholtz's discussion of Stadler's writing, p. 67.

been identified but may have been taken from one of his operas written in Vienna.⁶⁹

L. van Beethoven

Beethoven began writing for the clarinet after he arrived in Vienna in 1792. From 1792 to c. 1803 he completed several chamber works which include prominent clarinet parts. They include the Quintet, op. 16 (for piano, oboe, clarinet, horn and bassoon, 1796), Trio, op. 11 (for piano, clarinet and cello, 1797), and the Septet, op. 20 (for violin, viola, horn, clarinet, bassoon, cello and contrabass, 1799-1800).⁷⁰ These works are a significant addition to the literature of the clarinet and were written for the virtuoso player, Josef Bähr.⁷¹ Beethoven's greatest contribution to the literature of the clarinet, however, may be found in his orchestral music. In the symphonies, he gave the instrument memorable lyric solos, technically adroit passages, and paired it with other woodwinds, usually the bassoon, to form a distinctive orchestral tone color. His familiarity with the tonal and technical characteristics of the clarinet is best shown by the remarkable emancipated writing found in the Minuet of the eighth Symphony (1812, example 64).⁷² Here, the clarinet floats above an

⁶⁹Poulin, p. 79. For a full account of Stadler's concertizing, including facsimiles of announcements and programs, see Pamela L. Poulin, "The Bassett Clarinet of Anton Stadler and Its Music" (M.A. thesis, Rochester: University of Rochester, 1977).

⁷⁰See Douglas Johnson, "Beethoven, Ludwig van, worklist," Grove 6, 2:397.

⁷¹See Pamela Weston, "Beethoven's Clarinetists," Musical Times 111 (Dec. 1970): 1212-13, and Idem, Clarinet Virtuosi of the Past (London: R. Hale, 1971), p. 40.

⁷²Cf. Kroll's assessment of Beethoven's writing, p. 67.

EXAMPLE 64

The clarinet solo from the Minuet from Beethoven's Eighth Symphony (1813).

⁷³ Cf. London, "The Authentic Clarinet: tone and tonality," pp. 357-8.

⁷⁴ See Example 11, pp. 112-13; Pamela Weston, *Clarinet Virtuosity of the Past* (London: E. Hein, 1971), pp. 41-3.

accompagnement of horns and strings, on a cantabile melody in the second register, reaching to high g''' twice, pianissimo at the end of the solo. Beethoven's sensitivity to tone color is further shown by his use of c'' clarinets in the G major slow movement of the Violin concerto. The bright quality of these instruments was preferred in this movement, while the a' clarinets were retained in the outer movements with their noticeably more mellow tone.⁷³ Beethoven's writing served as an example to countless composers, in showing the variety of technical and tonal nuances available to the orchestral clarinetist.

F. W. Tausch

Franz Wilhelm Tausch (1762-1817) was a virtuoso clarinetist and composer. Born in Heidelberg, he moved to Mannheim in 1765, where he studied with his father, the clarinetist, Jacob Tausch. He later became a member of the Mannheim orchestra and moved with this orchestra to Munich, when the court was transferred in 1778. In 1780, he began touring as a soloist, going to Vienna, Dresden, and Berlin. Nine years later he was appointed a member of the Dowager Queen of Prussia's private band. Tausch remained in Berlin for the rest of his life although he continued to go on concert tours, perform regularly and in 1805, he founded a Conservatorium for Wind Instrumentalists, where he taught a number of important soloists, including Heinrich Baermann and Bernhard Crusell.⁷⁴

⁷³Cf. Lawson, "The Authentic Clarinet: tone and tonality," pp. 357-8.

⁷⁴See Newhill, pp. 112-13; Pamela Weston, Clarinet Virtuosi of the Past (London: R. Hale, 1971), pp. 41-3.

Tausch's extant solo works are two solo concertos and two concertanti for two clarinets. His works are quite virtuosic with a few lyrical themes interspersed in a busy texture. For instance, Michaelis criticised Tausch's writing of octave passages in eighth notes, comparing his concertante for two clarinets in B-flat major (1800) with Mozart's more restrained use of technique in his works:

The good is spoiled if over-used, if one demands too much, the beauty of an instrument is ruined by using it capriciously. Mozart, the immortal, who knew how to respect the clarinet, proved this fact in the few compositions he wrote for it. In his masterful Concerto (op. 107) one notes that he was interested only in acclaiming its beauty, and was cautious in his use of the highest pitches, seldom ascending as high as f''' , and only once to g''' . And this is true in his excellent Quintet, Op. 108. On the other hand, in the otherwise praiseworthy double concerto by Tausch (no. 1034) the passage for the first clarinet at the end of the allegro is not playable:

In particular, it cannot be played with a reed that is used to produce a soft tone. Now would it be sensible to sacrifice a lovely concerto for a single, capricious passage?⁷⁵

⁷⁵Translation by Kenneth Kawashima in Helmut Boese's "The Clarinet as a Solo-Instrument in the Music of the Mannheim School" (D.M.A. thesis, Baltimore: Peabody Conservatory of Music, 1965), p. 53.

"Man schadet der guten Sache, wenn man zu viel verlangt, und anstatt die Schönheiten eines Instruments zu benutzen, nach Caprizen hascht. Der unsterbliche Mozart, der die Klarinette sehr zu schätzen wusste, hat in den wenigen Kompositionen, die wir ihm für dies Instrument verdanken, dieses bestätigt. In seinem musterhaften Konzerte (Op. 107) bemerkt man leicht, dass er nur auf Darlegung der wesentlichsten Schönheiten des Instruments ausging; und was die Höhe betrifft, so kommt nur selten das hohe F. G aber nur einmal vor. Und so ist es auch in seinem trefflichen Quartett, Op. 108. Dagegen ist in dem, übrigens lobenswerthen Doppel-Konzert von Tausch, (No. 1034.) die Passage für die erste

Certainly for the dilettante player this work would have been too difficult to perform. It was probably written, however, for Tausch and Joseph Beer, two of the greatest clarinet virtuosi of the period.⁷⁶

Tausch's second Concerto (c. 1815) represents a high point of technique for the classical five-key clarinet. It is not known with certainty that Tausch did not adopt one of the new twelve- or thirteen-key clarinets, but it seems doubtful that a player who had achieved such fame with the five-key clarinet would have adopted a completely different instrument at the end of his life. This concerto is written in three movements, a brilliant Allegro, a very short Adagio, and a jolly "Polonoise" movement in 3/4. It was published in 1819 by Andre, after Tausch's death.⁷⁷ An example from the end of the first movement (example 65) reveals Tausch's predilection for octave leaps in the highest register, and an enormous leap downward of three octaves and a minor third (a'''-flat to f). This section ends after more octave leaps on a high b'''. Surely, this concerto is the most challenging of the entire period. Although it lacks the musical quality of the Mozart concerto, it points toward the virtuoso romantic works of Weber and Spohr, both of whom wrote for a more elaborate and highly developed instrument.

Klarinette am Ende des Allegro: in der That unausführbar, wenn man sich nicht zu einem Blatte verstehen will, auf welchem wol so etwas, aber kein zarter Ton hervorbringen ist. Wäre es nun vernünftig, auf solche Art ein schönes Konzert für eine einzige capriziöse Passage aufzuopfern?"

[Christian Friedrich Michaelis], "Ueber die Klarinette," AMZ 10 (16 March 1808):col. 386.

⁷⁶Newhill, p. 115.

⁷⁷Newhill, p. 113.

EXAMPLE 65

Handwritten musical score for the end of the first movement in the clarinet part of Franz Tausch's Concerto no. 2, D-brd(Bim). The score is written on ten staves. The first staff has a treble clef and a key signature of one sharp (F#). The music is in 4/4 time. The score includes various musical notations such as notes, rests, and dynamic markings. The signature "F. Tausch" is written at the bottom of the staves.

The end of the first movement in the clarinet part of Franz Tausch's Concerto no. 2, D-brd(Bim).

In conclusion, the period of greatest musical activity for the classical clarinet was between 1760 and 1820. Three important developments occurred during this time: the evolution of the classical style of composition, the creation of a modern orchestral idiom, and the cultivation of the technical and tonal capabilities of the clarinet. Outstanding individual performers often served as an impetus to the musical imagination of composers. A few examples of this type of relationship include: Gaspard Proksch and Johann Stamitz; Joseph Beer and Carl Stamitz; Anton Stadler and Mozart; and Josef Bähr and Beethoven. Finally, the music examined in this chapter represents only a selection of significant works which illustrate the gradual change in musical style from the roccoco period of Johann Stamitz, though the classical period of Carl Stamitz and Mozart, to the pre-romantic period of Tausch and Beethoven.

CONCLUDING REMARKS

This dissertation has provided a comprehensive history of the clarinet by tracing its predecessors from antiquity to the eighteenth century; reviewing descriptive and musical evidence from treatises concerning the chalumeau and the clarinet; discussing the physical characteristics of the chalumeau, baroque and classical clarinets; investigating the playing techniques of the baroque and classical clarinets; and examining most of the extant music for the baroque clarinet and some significant examples written for the classical clarinet. Based on the evidence presented in this study, I suggest that the evolution of the baroque and classical clarinet was largely due to the technical and musical demands made by composers of the classical period, and in part, to the development after 1750 of the lower-pitched clarinets, such as the clarinette d'amour and the basset horn. Furthermore, based on the sections devoted to music and playing techniques, it may be concluded that the baroque and classical clarinets were much less limited in their technical and musical capabilities than previously assumed. During the nineteenth century, composers made greater use of the technical and tonal capabilities of the clarinet in solo pieces, orchestral works and in chamber music. They provided the impetus for players and makers to improve the intonation and technical facility of the classical clarinet, by devising an enormous variety of mechanisms that ultimately resulted in the present-day French and German clarinet systems used throughout the world.

The aim of this dissertation was to bring together a quantity of detailed information in presenting a comprehensive history of the clarinet from its earliest origins to about 1820. Each of the eight

chapters and five appendixes presents findings which will surely be amplified and corrected by more specific studies. Hopefully, this dissertation will be useful as a sourcebook of information for the interested player and scholar. APPENDIX I.

AN ETYMOLOGY OF THE NAMES FOR VARIOUS MEMBERS OF THE CLARINET FAMILY, 1710-1843

This appendix presents an etymological study of numerous names applied to various members of the clarinet family. It illustrates the origin and historical development of the earliest names for several types of clarinet by determining their basic elements, indicating their earliest known form, recording their changes in form and meaning, noting their transmission from one language to another, and identifying their cognates in other languages.¹ In addition, many types of clarinet are shown by this study to have been disseminated during the eighteenth and nineteenth centuries to various parts of the world. For each member of the clarinet family the basic elements of the earliest names are determined. Separate sections are then devoted to a chronological overview of names in specific countries. The members of the clarinet family which are included in this investigation are the following: 1) soprano, 2) higher-pitched clarinets, 3) clarinette d'amour, 4) alto, 5) contralto, 6) basset horn, 7) contra basset horn, 8) bass, and 9) contra bass.

During the eighteenth and nineteenth centuries a large variety of names and spellings were used for the instruments which constitute the

¹For the definition for "etymology" given in Webster's II New International Dictionary, 3rd ed., A. H. Soukhomov ([Boston]: Houghton Mifflin, 1964), p. 445.

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¹Cf. the definition for "etymology" given in Webster's II New Riverside University Dictionary, senior ed., A. H. Soukhanov ([Boston]: Houghton Mifflin, 1984), p. 446.

clarinet family. Most of these names were derived from a description of the instruments' sound, a few others were derived from their shape. For instance, the Italian name, *clarinetto*, is an obvious diminutive of *clarino*,² a name used for the trumpet and sometimes more specifically for its upper range. In many eighteenth-century sources, in fact, the sound of the clarinet is described as being similar to that of the trumpet. The French name, *clarinette*, is sometimes identified as a diminutive of *clarine*,³ a bell, which itself, is derived from the Late Latin, *clarior*,⁴ a trumpet, or *clarus*,⁵ *clara*,⁶ meaning clear. Altenburg (c. 1770), however, claimed that the word, *clarinette*, actually means "little trumpet".⁷ An example of a shape-related name is "krumhorn" (a curved, wind instrument of the Renaissance), written by eighteenth- and nineteenth-century authors as another name for the curved, basset horn (a tenor clarinet). The names of each member of the clarinet family, which have been identified in sources dating from 1710 to 1843, are discussed below, arranged from the highest to the lowest pitched

²Carlo Battisti and Giovanni Alessio, Dizionario Etimologico Italiano (Florence: G. Barbera, 1975), 2:974.

³Albert Dauzat, Dictionnaire Etymologique de la langue française (Paris: Librairie Larousse, 1938), p. 180.

⁴Webster's New Twentieth Century Dictionary of the English Language, Unabridged 2nd 3d., eds., J. L. McKechnie et al. (Cleveland: World Publishing Co., 1958), p. 333.

⁵Ernest Klein, A Comprehensive Etymological Dictionary of the English Language (New York: Elsevier, 1966), 1:296.

⁶Pierre Larousse, Grand Dictionnaire Universel du XIX^e siècle (Paris: Administration du Grand Dictionnaire Universel, 1869), 4:389.

⁷Johann Ernst Altenburg, Versuch einer Anleitung zur heroisch-musikalischen Trompeter- und Pauker-Kunst (Halle: J. C. Hendel, 1795, written c. 1770; reprint ed., New York: Broude Brothers, 1966), p. 12.

clarinets. All of the different spelling and name variants are listed in the following. Table 8 (soprano clarinet and higher-pitched clarinet), table 9 (clarinette d'amour), table 10 (alto and contra alto clarinet), table 11 (basset and contra basset horn), and table 12 (bass and contra bass clarinet). A listing of the complete clarinet family, which has been documented to 1850, is given in table 13 at the end of this appendix.

Soprano clarinet

Germany and Austria

The earliest references to the soprano clarinet which have been found occur in Germany in three different spelling. "Clarinette" is written in a list of instruments made by the Nuremberg maker, Jacob Denner in 1710.⁸ In the same year, "clarinett", without the final "e", was used in the account book of the Rheingau abbey at Eberbach.⁹ "Clarinet" also appears in two subsequent requests from Denner during 1711-12 and 1713-14.¹⁰ Both neuter and feminine articles are found with these names in Germany throughout the eighteenth century. For instance, Weigle's (c. 1722) descriptive poem for his engraving of a clarinetist

⁸Nuremberg Stadtarchiv, Stadtrechnungsbeleg in Repertorium 54 a II, Nr. 1282, as quoted by Ekkehart Nickel in Der Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg (Munich: E. Katzbichler, 1967), pp. 251-2.

⁹Wiesbaden Stadtarchiv, cited by Adam Gottron in Mainzer Musikgeschichte von 1500 bis 1800 (Mainz: Auslieferung die Stadtbibliothek, 1959), pp. 115-6.

¹⁰Kirchenrechnung Vereinigtes protestantisches Kirchenvermögen der Stadt Nürnberg 228, Nr. 3, 70 in the Landeskirchliches Archiv, Nuremberg; cited by Nickel, p. 454 note 1246.

uses "das clarinet" (but the engraving itself is titled "clarinett").¹¹ Other writers who employ "das clarinett" or "das clarinet" include: Majer (1732, 1741), Eisel (1738, 1762), Adlung (1758), Schubert (1806, but written during 1784-5), Koch (1802), and Gottfried Weber (as late as 1828 and 1829) who traced this name from the masculine, "il clarinetto".¹² Conti wrote parts for "clarinetti" in at least one version of Don Chisciotte in Sierra Morena (1719),¹³ produced in Vienna and several German cities. Many Germany composers during the eighteenth century preferred to use Italian names for instruments in their scores and parts.¹⁴ For instance, Telemann wrote for the "clarinetto" from 1721,¹⁵ and the "clarineto" is called for in two concertos by Rathgeber in his Latin-titled collection of 1728.¹⁶ "Clarinetto" is also found in Walther's widely-circulated Lexicon (1732), and is subsequently copied and paraphrased in several dictionaries, treatises and lexicons.¹⁷

¹¹Johann Christoph Weigle, Musicalisches Theatrum, Nuremberg (c. 1722); facsimile ed., ed. A. Berner (Kassel: Bärenreiter, 1961), leaf 14.

¹²Each of these authors and their sources are fully cited in the bibliography.

¹³Title page and the beginning of the score is reproduced in Bernard Paumgartner, "Conti, Francesco," MGG 2 (1952): cols. 1641-2.

¹⁴Cf. Reine Dahlqvist, "Taille, Oboe da Caccia and Corno Inglese," GSJ 26 (1973): 71.

¹⁵In the autograph score and parts of the cantata, "Wer mich liebet, wird mein Wort halten", D-brd(F), Mus. 1474.

¹⁶Valentin Rathgeber, Chelys Sonora, op. VI (Augsburg: J. J. Lotter, 1729), concertos 19 and 20.

¹⁷Johann Gottfried Walther, Musikalisches Lexikon oder Musikalische Bibliothek (Leipzig: W. Deer, 1732; reprint ed., ed. R. Schaal, Kassel: Bärenreiter, 1953), p. 168. "Clarinetto" is found in the works of the following authors, fully cited in the bibliography: Majer (1732, 1741), Zedler (1733), Barnickel (1737, 1749), Gottsched (1760), Jablonsky (1767), Wolf (1787), and Albrechtsberger (1790).

Doppelmayr, however, writes "die so genante Clarinette" in his biographical sketch of the Nuremberg maker, Johann Christoph Denner.¹⁸ This spelling and use of the article "die" is taken up by several German authors during the eighteenth and nineteenth centuries.¹⁹

Two word variants or possibly misspellings were recorded in the archives of the Cologne cathedral: "Clairennetten" in 1752, and "Clarilte" in 1767.²⁰ An interesting example of another word variant occurs in a descriptive poem which appears with a mezzotint of a clarinetist (c. 1750-60), by the Augsburg artist, Johann Elias Ridinger (1698-1767).²¹ The first line includes a pun on the name of the instruments:

Like the name it bears, it sounds clear and pure quite
in the manner of a trumpet, yet all dolce and sweet
Ah, had one ever a virtuoso who, on a quiet night,
might blow him gently to his rest.²¹

¹⁸Johann Gabriel Doppelmayr, Historische Nachricht von den Nürnbergischen Mathematicis und Künstlern (Nuremberg: P. C. Monaths, 1730), pp. 305-6.

¹⁹These authors, fully cited in the bibliography include: Altenburg (1795, written c. 1770), Murr (1778), Meusel (1783), Albrechtsberger (1790), and Busch (1790).

²⁰Rechn. Mittwochsrentkammer 20 December 1752, 23 September 1767, quoted by Klaus Wolfgang Niemöller in Kirchenmusik und reichsstädtische Musikpflege im Köln des 18. Jahrhunderts (Cologne: A. Volk, 1960), p. 80 notes 5 and 8. In 1748, the musicians Klein and Flügel played the "Clarnetten". See Niemöller, pp. 65-6.

²¹Translation by D. Martin Jenni in David Ross, "Ridinger's 'Youth Playing the Clarinet'," The Clarinet 7 (Fall 1977): 34-5.

"Wie es den Nahmen führt, so kling es klar und nette
Recht auf Trompeten art; jedoch gar douce und süsz
Ach wer doch allezeit ein Virtuosen hätte,
Der ihm bey stiller nacht fein sanfft zur ruhe bliesz".

This engraving is illustrated in plate 25, page 119. The name "Clarinet", is used in the caption to this mezzotint.

Perhaps this German perception of the sound of the clarinet as being "klar und nette" (clear and pure) eventually suggested the use of the "k" instead of the "c" in spelling the name, "Klarinette". This spelling, as "Klarinetten", appears at least as early as 1780, in the inventory of instruments at the court of Detmold.²² In 1785, the "Klarinet" is mentioned by Schink in his description of a performance of a wind band work by Mozart.²³ Von Schönfeld also writes "die Klarinet" in 1796,²⁴ but Michaelis (1808) is the first to champion the use of "die Klarinette", justifying this name with the French form, "la clarinette".²⁵ It is not until the latter part of the nineteenth century that this spelling and gender came to be adopted by the majority of writers and composers in Germany and Austria.

Two additional names described the extended-range soprano clarinets played by Anton Stadler, the dedicatee of several of Mozart's works. On 20 February 1788, Stadler played a concerto on the "Baß=Klarinet" at the Hoftheater in Vienna.²⁶ In 1801, this instrument

²²"Verzeichniss derer, in der Musicalien Kammer des Hoch Reichs Gräfl. Schlosses zu Dtm. befindlichen Instrumente und Musicalien, geführt von Concertmeister I. F. Kittel 1780", quoted by Joachim Domp in Studien zur Geschichte der Musik an Westfälischen Adelshöfen im XVIII. Jahrhundert (Ph.D. diss., Universität Fribourg; Düsseldorf: H. Krumbiegel, 1934), p. 50.

²³Johann Friedrich Schink, Litterarische Fragmente, 2 vols. (Graz: Widmanstätterschen Schriften, 1785), 1:286.

²⁴Johann Friedrich von Schönfeld, Jahrbuch der Tonkunst von Wien und Prag (Vienna: Schönfeldischer Verlag, 1796; reprint ed., Munich: E. Katzschler, 1976), p. 192.

²⁵[Christian Friedrich Michaelis], "Ueber die Klarinette," AMZ 10 (9 March 1808): cols. 369-70 note *.

²⁶This program is reproduced by Pamela L. Poulin in "The Bassett Clarinet of Anton Stadler," College Music Symposium 22 (Fall 1982): 72 fig. 3.

is described as a "Klarinette mit Abänderung" (clarinet with modification) in a report concerning concerts in Vienna.²⁷ Another name, "Bassetklarinet" (low clarinet), is written by von Schönfeld (1796) in referring to an instrument played by Anton Stadler and his brother, Johann.²⁸ This term may have been applied to either an extended-range soprano clarinet in *bb'* or *a'* (its present meaning), or to the basset horn, a lower-pitched member of the clarinet family. Another unusual name, "Gellflöte" (shrill flute), found in Campe's Wörterbuch (1801),²⁹ appears in only a few later dictionaries. The Austrian maker, Franz Scholl, was granted a patent in 1802, for his "Schollbasso", a clarinet with a lower range extended by two notes.³⁰

with the accompaniment of "cor-de-chasse" and "serenades" (clarinettes).³⁶ The Netherlands and France

After Jacob Denner used the name, "clarinette", it is found in an early publication of duets (c. 1712-15) written by J. P. Dreux, and published by a Frenchman, E. Roger, in Amsterdam.³¹ Another set of duets by an

²⁷"IV. Wiener Kunstnachrichten," Journal des Luxus und Moden, ed. F. J. Bartuch, 16 (October 1801): 543-44.

²⁸Von Schönfeld, p. 58.

²⁹Joachim Heinrich Campe, Wörterbuch zur Erklärung und Verdeutschung der unserer Sprache aufgedrungenen fremden Ausdrücke (Brunswick: Schulbuchhandlung, 1801), 1:229. The negative connotations of the term "Gellflöte" are echoed by the ornithologist, Thomas Bewick, who wrote that: "The voice of the Swan, singly, is shrill, piercing and harsh, not unlike the sound of the clarionet when blown by a novice in music" (A History of British Birds, Newcastle: E. Walker, 1804, vol. 2, p. 275).

³⁰See Helga Haupt, "Wiener Instrumentenbauer von 1791 bis 1815," Studien zur Musikwissenschaft 24 (1960): 172.

³¹Jaques [sic] Philippe Dreux, Airs à 2 Clarinettes ou deux Chalumeaux . . ., see François Lesure, Bibliographie des éditions musicales publiées par Estienne Roger et Michel-Charles Le Cène (Amsterdam 1696-1743) (Paris: Heugel, 1969), p. 66.

anonymous composer, published by Roger during this time, is entitled, Airs à Deux Chalumeaux, Deux Trompettes, deux Hautbois, deux Violins, deux Flûtes, Deux Clarinelles, ou Cors de Chasse.³² The name "clarinelles" is surely a printer's error since the catalogs of Roger (1716) and his successor, Le Cène (1737),³³ print this title using the word "clarinette". "Clarinette" is also found in the score and parts of J. P. Rameau's tragedie lyrique, Acante et Céphise (1751).³⁴ On 25 March 1750, the Mercure de France reported a concert which included a concerto played on the "clarine" (probably the clarinet) by the bassoonist, France de Kermasin.³⁵ In his memoirs of 1810, F. J. Gossec, stated that in 1757 he wrote two pieces for the soprano, Sophie Arnoud, with the accompaniment of "cor-de-chasse" and "serinettes" (clarinettes).³⁶ Although these pieces have not been found among

³²B(Bc), classmark 5606, 2 vols., see Lesure, p. 54.

³³Catalogue de Musique (Amsterdam: E. Roger, 1716) appended to [Denis Vairasse], Histoire des Sevarambes (Amsterdam: E. Roger, 1716), p. 310. In another Catalogue (1716, p. [1]) appears the heading: "Pièces pour la clarinette et le Cor de Chasse", appended to [Nicolas Aubin], Cruels effets (Amsterdam: E. Roger, 1716). Catalogue des livre de musique (Amsterdam: M. C. Le Cène, 1737), p. 19; reprinted and appended to Lesure.

³⁴See the discussion on pages 177-89 above.

³⁵See Constant Pierre, Histoire du Concert Spirituel 1725-1790 (Paris: Heugel, 1975), pp. 116, 257.

³⁶"Notice sur l'introduction des cors, des clarinettes et des trombones dans les orchestres français. extraité des manuscrits autographes de Gossec," Revue Musicale 3, no. 5 (1829): 220.

Gossec's works,³⁷ it is quite possible that the word "serinettes" was applied to the clarinet in Paris during the 1750s.³⁸

A few authors, including Ancelet (1757),³⁹ De Garsault (1761),⁴⁰ and La Borde (1780)⁴¹ prefer the masculine form, "le clarinet" or "le clarinette". Others, including Rousseau (1753),⁴² Roeser (1764),⁴³ Francoeur (1772),⁴⁴ and Castillon (1776), use "la clarinette", the last in a detailed article for the Supplément to the Encyclopédie,⁴⁵ setting an influential example concerning spelling and gender. By the latter part of the century, "la clarinette" was quite commonly in use in France.

³⁷See Robert James Macdonald, "François-Joseph Gossec and French Instrumental Music in the Second Half of the Eighteenth-Century" (Ph.D. diss., University of Michigan, 1968), 1:302.

³⁸By the 1760s, the word "serinette" was used to refer to a small organ with a crank. See Lionel de La Laurencie, L'Académie de Musique et le Concert de Nantes (Paris, 1906; reprint ed., Geneva: Minkoff, 1972), pp. 180-1.

³⁹[Ancelet], Observations sur la musique (Amsterdam: Aux depens de la compagnie, 1757), p. 33.

⁴⁰François Alexandre Pierre de Garsault, Notionnaire, ou mémorial raisonné (Paris: G. Desprez, 1761), p. 647. De Garsault curiously calls the clarinet, "haut-bois de forêts" (pp. 628, 633), a name later applied to the oboe da caccia in *f*, by J. B. de La Borde in Essai sur la musique ancienne et moderne, 2 vols. (Paris: P. D. Pierres, 1780), 1:266-7.

⁴¹La Borde, 1:249-52.

⁴²[Jean-Jacques Rousseau], "Clarinette," Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers, 28 vols. (Paris: Briasson, David, Le Breton, 1751-72), 3:505.

⁴³Valentin Roeser, Essai d'instruction à l'usage de ceux qui composent pour la clarinette et le cor (Paris: Le Menu, 1764).

⁴⁴[Louis-Joseph] Francoeur, Diapason général de tous les instruments à vent (Paris: Le Marchand, 1772), pp. 18-35.

⁴⁵Frédéric de Castillon, "Clarinette," Supplément à l'encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des métiers, 5 vols (Amsterdam: M. M. Rey, 1776-77), 2:450-2.

The earliest spelling in Dutch, "klarinet", appeared in Reynvaan's musical textbook in 1787.⁴⁶ In 1817, the Parisian maker, Jean Hilaire Astè (called Halary) submitted a "clarinette métallique" (metal clarinet) to the Academy des Beaux-Arts.⁴⁷ This instrument is called "clairon métallique" in Halary's patent of 1821.⁴⁸ The clarinetist, H. Klosè collaborated with the maker, A. Buffet, to make an improved clarinet, which Klosè called "clarinette à anneaux mobiles" (clarinet with movable rings) in his important tutor of 1843.⁴⁹

Italy

Several name variants were used in Italy during the eighteenth century. Vivaldi wrote four forms of the name: "clarenì" in his oratorio, Juditha Triumphans RV 644 (1716); "claren" in the Concerto per

⁴⁶Joos Verschuere Reinvaen, Catechismus der Muzik (Amsterdam: J. de Jongh and L. J. Burgvliet, 1787), pp. 113-16. Reynvaan called the two-key clarinet, "piva", in his Muzikaal Kunst-Woordenboek (Amsterdam: W. Brave, 1795), pp. 141, 419.

⁴⁷Extraits des rapports faits à l'Institut de France . . . en 1816 sur les inst. de M. Halary, quoted by Roland Wright in Dictionnaire des instruments de musique (London: Battley Brothers [1941]), p. 35.

⁴⁸See the descriptions given in Adam de La Pontécoulant, Organographie: essai sur la facture instrumentale, 2 vols. (Paris: Castel, 1861; reprint ed., Amsterdam: F. Knuf, 1972), 2: 130-1 and Constant Pierre, Les facteurs d'instruments de musique (Paris: E. Sagot, 1893; reprint ed., Geneva: Minkoff, 1971), p. 331.

⁴⁹Hyacinthe Klosè, Méthode pour servir à l'enseignement de la clarinette à anneaux mobiles (Paris: Meissonnier, [1843]). Because of Theobald Boehm's well-known use of movable rings on flutes beginning in about 1832, this clarinet was mis-named "clarinette Boehm" (and is still called the "Boehm clarinet"), as early as 1865, in P. Goumas' patent (no. 69247) for improvements to the key mechanism of the clarinet, quoted by Wright, p. 35. Auguste Buffet, Jeune patented this system of movable rings for the clarinet and oboe on 19 February 1844 (no. 9759). For a reproduction and translation of this patent, see H. Noble Vance, Historical Development of the Clarinet (Rock Island, Illinois: EnnennVee, 1973), pp. 33-43.

la solennità de San Lorenzo RV 559 and 560 (c. 1720-40); and "clarini" in the second movement of the concerto RV 556.⁵⁰ Indeed, "clarino" is still used in colloquial speech in Italy to mean the soprano clarinet.⁵¹ The usual name "clarinetto" appears at least as early as 1746 in Jommelli's opera, Cajo Mario,⁵² produced in Rome, and is defined in 1781 in a list of items requiring tariffs at Florence.⁵³ Buonanni, in 1722, described the "clarone" (derived from "clarino") as a two-key clarinet.⁵⁴ By the nineteenth century, however, "il clarinetto" was commonly adopted by Italian writers and composers.

⁵⁰Walter Lebermann, "Zur Besetzungsfrage der Concerti grossi von A. Vivaldi," Mf 7, no. 3 (1954): 337; Walter Kolneder, "Noch einmal: Vivaldi und die Klarinette," Mf 8, no. 2 (1955): 209-11; and Colin Lawson, "Salmoè and clarinet," EM 7 (Jan. 1979): 138. In concerto RV 556, Vivaldi wrote a note indicating that "clarini" should play the bass part (an octave higher) with other string instruments. Talbot has interpreted these "clarini" to be clarinets in Vivaldi (London: J. M. Dent & Sons, 1979), p. 163; and "Vivaldi's instrumentation," EM 7 (Oct. 1979): 561. This interpretation is supported by a definition of "clarino" as a "clarinet" by Egbert Buys in Nieuw en Volkomen Woordenboek van Konsten en Weetenschappen, 10 vols. (Amsterdam: K. de Veer, 1769-78), 2:559.

⁵¹See Nicola Zingarelli, Vocabolario della Lingua Italiana (Milan: Bietti, 1938-39), p. 243.

⁵²See Hermann Abert, Niccolo Jommelli als Opernkomponist (Halle: M. Niemeyer, 1908), pp. 200-1 and M. P. McClymonds, "Jommelli, Nicolò," Grove 6, 9:693.

⁵³Tariffa delle Gabelle per Firenze (Florence: Cambiagi, 1781): "strumento a fiato costituito da un tubo cilindrico di legno, munito di un bocchino ad ancia semplice nella parte superiore, e di una campana al termine del tubo". Quoted by Manlio Cortelazzo and Paolo Zolli in Dizionario etimologico della lingua italiana (Bologna: Zanichelli, 1979), 1:244. The tariff for each clarinet was 8 soldi and 4 denari, Tariffa delle Gabelle per Firenze, p. 70.

⁵⁴Filippo Bonanni [Buonanni], Gabinetto armonico pieno d'Istromenti (Rome: G. Placho, 1722), p. 67. G. Ceruti edited an Italian-French edition (Rome: V. Monaldini, 1776) translating "clarone" into the French, "clairon" (p. 82). See also, Battisti and Allesio, 2:974. For Buonanni's description see above, pp. 69-70.

England and the U.S.A.

The usual name in English, "clarinet", first appeared in an announcement for a benefit concert for two German clarinetists on 24 March 1726, in London's Daily Courant.⁵⁵ In 1733, Gay chose "clarinette" for the title of a tune in his libretto to the ballad opera, Achilles.⁵⁶ Another name appeared on 16 November 1761, when a German maker, G. Wolhaupter, advertised "clareonets" for sale in the New-York Gazette.⁵⁷ Six years later, Tans'ur described the "clarion" as a clarinet or small trumpet.⁵⁸ The Edinburgh Musical Society plan-books included the following entry for 15 November 1771: "Concerto Lord Kelly with Clarinitt[s]". A manuscript overture by Lord Kelly on 13 December 1771 included "Clarinet" solos.⁵⁹ Beginning in 1785, "clarionet"

⁵⁵Number 7624 (unpaginated), Burney Papers, vol. 256B, GB(Lbm). See also, The London Stage 1660-1800, ed. E. L. Avery (Carbondale, Ill.: Southern Illinois University Press, 1960), part 2, p. 860. The players (Freudenfeld and Rosenberg) presumably supplied the name for their new instrument for this advertisement, cf. Pamela Weston, More Clarinet Virtuosi of the Past (London: The Author, 1977), pp. 15-16.

⁵⁶John Gay, Achilles (London: J. Watts, 1733), p. 45, Air XXXVII. The other short tunes in this libretto are also named without any apparent purpose, see Roger Fiske, English Theatre Music in the Eighteenth Century (London: Oxford University Press, 1973), p. 113. Gay's spelling is not "clarinet" as stated by F. G. Rendall in The Clarinet (New York: W. W. Norton, 1971), pp. 1-2.

⁵⁷Rita S. Gottesman, The Arts and Crafts in New York 1726-1776 (New York: New York Historical Society for 1936, 1938; reprint ed., New York: Da Capo, 1970), 1:368.

⁵⁸William Tans'ur, The elements of music display'd (London: S. Crowder, 1772), book III (1767), p. 100. The clarion was identified with the clarinet also by Charles Richardson (A New Dictionary of the English Language, London: W. Richering, 1839, p. 324); and considered equivalent to the clarino by W. H. Stone in "Clarinet," Grove 1, 1 (1889): 361.

⁵⁹Quoted by David Johnson in Music and Society in Lowland Scotland in the Eighteenth Century (London: Oxford University Press, 1972), pp. 82-3.

appeared in print frequently in poems, and continued in use through the early twentieth century,⁶⁰ although the most common name from this time is "clarinet". This poetic form with an added "o" is simply a diminutive of "clarion".⁶¹

Norway

Three names for the clarinet are associated with Lorents Nicolai Berg, a bandmaster in Kristiansand from 1775 to 1787. He advertised a "Clarenet" and other instruments for sale on 25 January 1781 in the Christiansandske Uge-Blade.⁶² Berg's textbook on music, published in 1782, includes a section devoted to the "clarinetten".⁶³ After his death on 21 March 1787, an inventory made of the instruments that he owned includes "2 Klaretter" (two clarinets).⁶⁴

Other Countries

Additional eighteenth and nineteenth-century names for the clarinet in other countries include the following: Czechoslovakia,

⁶⁰William Cowper, The Task, A Poem, in Six Books (London: J. Johnson, 1785), book II, p. 58. The date of Cowper's book is not 1784 as stated in A New English Dictionary on Historical Principles, ed. J. A. H. Murray (Oxford: Clarendon Press, 1893), 2:463.

⁶¹A New English Dictionary on Historical Principles, 2:463.

⁶²See Hans Magne Græsvold, "Lorents Nicolai Berg og hans læræbok, 'Den første prøve for begyndere udi instrumental-kunsten'," Studia Musicologica Norvegica. Norsk Årsskrift for Musikkforskning 2 (1976): 130 and note 36.

⁶³Den første Prøve for Begyndere udi Instrumental-Kunsten (Kristiansand: A. Swane, 1782), pp. 48-52. See Albert R. Rice, "The Clarinet as Described by Lorents Nicolai Berg (1782)," JAMIS 5-6 (1980): 42-53.

⁶⁴Kristiansand bys skifteprotokoll, nr. 8, fol. 456-465b, as quoted by Græsvold, p. 150 and note 40.

"clarinet" (1768),⁶⁵ and "clarnet" (1776);⁶⁶ Sweden, "clarinette" (1771);⁶⁷ Spain, "clarinete" (1779);⁶⁸ Portugal; "clarineta" (1784);⁶⁹ and Turkey "kıralmat" (1808).⁷⁰

Higher-pitched clarinets

Several special designations for the higher-pitched clarinets are found in nineteenth-century Italian treatises. Mirecki (1825) called the clarinets in f'' and g'' , "quartino" and "quintino", designating them both as "clarinettini".⁷¹ Pilotti (1836) named the "piccoli" clarinets in d'' , $e^{b''}$, f'' , and $a^{b''}$, "clarinetto Terzini". He added that the smallest in $a^{b''}$ is called the "ottavino" or piccolo of the clarinets.⁷² According to Keess (1824), a high-pitched clarinet

⁶⁵Jan Karel Rohn, Nomenclator Artifex, et Mechanicus. To gest: Gmenowatel U trogi Ržeči (Prague: Widow of J. Prussowy, 1768), p. 232.

⁶⁶See Jiří Sehnal, "Die Musikkapelle des Olmützer Bischofs Maximilian Hamilton," Mf 24 (Oct.-Dec. 1971): 412.

⁶⁷Dagligt allehanda, nr. 19 (1771), p. 4, reported a concert by the clarinetist, Johan Öhman; cited in Ordbok över Svenska Språket, ed. Svenska Akademien (Lund: A. B. P. Lindstedts Univ.-Bokhandel, 1893-), 14: col. K 1132.

⁶⁸Tomás de Yriarte [Iriarte y Oropesa], La Musica, Poema (Madrid: En la Imprenta Real de La Gazetta, 1779), p. 82.

⁶⁹Joaquim José da Costa e Sá, Nouveau Dictionnaire François-Portugais (Lisbon: Borel, Borel & Compagnie, 1784), p. 249.

⁷⁰See Laurence Picken, Folk Musical Instruments of Turkey (London: Oxford University Press, 1975), p. 511.

⁷¹Francesco (Franciszek Wincentny) Mirecki, Trattato Intorno agli Istrumenti ed all' Instrumentazione (Milan: G. Ricordi, [1825]), p. 10.

⁷²Giuseppe Pilotti, Brevè Insegnamento Teorico (Bologna: Cipriani, [1825]), p. 10.

invented in 1813, by the Viennese maker, Johann Merklein, was called the "orphinette".⁷³

Clarinete d'amour

Roeser's (1764) "clarinette en G, re, sol" and the "grande clarinette" of Francoeur's treatise (1772) may be identified with either the clarinette d'amour or the basset horn.⁷⁴ In 1772, J. C. Bach wrote for three "clarinetti d'amore" in the overture to Temistocle,⁷⁵ which has recently been identified as parts for the basset horn.⁷⁶ During 1772 and 1773, Jeremias Schlögl, a maker from Basle, supplied the Munich court orchestra with four "tiefe douce Clarinet" and four dozen reeds.⁷⁷ The "low sweet clarinets" or clarinettes d'amour are easily associated by their name, to the descriptions of the "sweet" g clarinet by Roeser and Francoeur.⁷⁸ By 1781, a separate citation appeared for the

⁷³Stephen Edler von Keess, Darstellung des Fabricis=und gewerbswesen in seinem gegenwärtigen zustande (Vienna: Morschner and Jaspar, 1824), 3:163.

⁷⁴Roeser, Essai d'instruction, p. 2 and Francoeur Diapason général, pp. 18-19, 23.

⁷⁵Johann Christian Bach, "Sinfonie D dur, Ouverture zur Oper Temistocle", no. II, in Das Erbe Deutscher Musik, ed. F. Stein (Wiesbaden: Breitkopf & Härtel, 1956), pp. 71-8.

⁷⁶See Richard Maunder, "J. C. Bach and the Basset-horn," GSJ 37 (1984): 42-7.

⁷⁷Hofzahlamtsrechnungen für München im Archiv für Oberbayern, "für gelieferte 2 Baar tiefe douce Clarinet und 4 Dutzend Clarinet Zugen", as quoted by Hans-Joachim Nösselt in Ein ältest Orchester 1530-1980, 450 Jahre Bayerisches Hof- und Staatsorchester (Munich: Bruckmann, 1980), p. 95. Josef Saam quoted a payment given to Schlögl for "1 Baar douce Clarinet" in 1773 in Das Bassetthorn, seine Erfindung und Weiterbildung (Mainz: B. Schott's Söhne, 1971), pp. 47-8.

⁷⁸In a section of J. G. H. Backofen's Anweisung zur Klarinette (Leipzig: Breitkopf & Härtel, [c. 1803], p. 35 note *), he gave examples

TABLE 8 (CONTINUED)

<u>Germany and Austria</u>		<u>Other Countries</u>
1750		clarine (France)
1751	basistklarinet ²	clarinette (France)
1752	clairnetten	
1750s	gelbflöte	serinettes (France)
1761	Schallbasse	clareonet (U.S.A)
1767		clarion (England)
1768	Orphinette	clarinet (Czechoslovakia)
1769		clarinet (Netherlands)
1771		clarinitt (Scotland)
1825		clarinett (Scotland)
		clarinette (Sweden)
1776		clairon (France)
1836		clarnet (Czechoslovakia)
1779		clarinete (Spain)
1780	klarinettisten	clarinetto terzini (Italy)
1781		clarenet (Norway)
1782		clarinetten (Norway)
1784		clarenet (Portugal)
1785	klarinet	clarionet (England)
1787		klarinet (Netherlands)
		klaretter (Norway)
1788	baß-klarinett ¹	

¹See Table 12.

TABLE 8 (CONTINUED)

	<u>Germany and Austria</u>	<u>Other Countries</u>
1795		piva (Netherlands)
1796	bassettklarinet ²	
1801	klarinette mit abänderung gellflöte	
1802	Schollbasso	
1808		kıralmat (Turkey)
1813	Orphinette	
1817		clarinette métallique (France)
1821		clairon métallique (France)
1825		clarinettini (Italy)
		quartini (Italy)
		quintino (Italy)
1836		piccoli (Italy)
		ottavino (Italy)
		clarinetto terzini (Italy)
1843		clarinette à anneaux mobiles (France)

Deutsche Encyclopädie oder Allgemeines Real-Wörterbuch aller Künste und Wissenschaften, ed. H. N. G. Köster, 23 vols. (Frankfurt: Varrentrapp Sohn und Werner, 1778-1807), 5 (1781): 685.

⁸¹ See the "Registre des Comptes" quoted in Flemish by Raymond van Aerde in *Les Tuerlinckx: Luthiers à Malines* (Mechlin: L. & A. Godenne, 1914), pp. 182, 166, 167.

⁸² *Journal für Literatur, Kunst, Luxus und Mode* (1793), p. CXIII.

² See Table 11. *Clarinet*, n.p.

"clarinettes d'amour" in the Deutsche Encyclopädie (the first German encyclopedia to be modeled on Diderot's Encyclopédie):⁷⁹

Clarinette d'amour are those clarinets newly introduced by 3 clarinetists of the Nassau-Weilburg court. They are deeper than the ordinary clarinet and are in fact pitched in G.

The third is like a bassoon, and creates a splendid effect. It snarls like a metal gamba stop in an old organ.⁸⁰

During 1784, 1787 and 1789, the "clarinet d'amoer" (Flemish?) and "clarinette d'amour" are included in the register of instruments constructed by the Belgian woodwind maker, Jean-Arnold Tuerlinckx.⁸¹ In 1793, at his music publishing firm in Berlin, J. C. F. Reilstab offered for sale, "Eine Clarinett d'amore oder G clarinet von Grundmann".⁸² The English writer, Busby (c. 1801), also mentioned a G clarinet, probably a clarinette d'amour, which is "scarcely ever used, at least in this country".⁸³ At the Turkish court of Mahmud II (1808-39), Giuseppe

of clarinets in various pitches, excluding the basset horn, and stated that the clarinet in g is "Bekannter unter dem Namen: Douce-Klarinette".

⁷⁹See Robert Collinson, Encyclopaedias: Their History Throughout the Ages, 2nd ed. (New York: Hafner, 1966), p. 110.

⁸⁰Translation by John Newhill.

"Clarinettes d'amour, sind jene von 3 Clarinetisten am Nassau-Weilburgischen Hofe neuerfundene Clarinetten, die tiefer als die gewöhnlichen und eigentlich aus dem G gehen.

Das dritte gleicht einem Fagotte, und in einem laufenden Baß macht es die herrlichste Wirkung: es schnauzt wie eine in den alten Orgeln von gutem Metall gemachte Gamba."

Deutsche Encyclopädie oder Allgemeines Real-Wörterbuch aller Künste und Wissenschaft, ed. H. M. G. Köster, 23 vols. (Frankfurt: Varrentrapp Sohn und Wenner, 1778-1807), 5 (1781): 685.

⁸¹See the "Registre des Comptes" quoted in Flemish by Raymond van Aerde in Les Tuerlinckx: Luthiers à Malines (Mechlin: L. & A. Godenne, 1914), pp. 162, 166, 167.

⁸²Journal für Literatur, Kunst, Luxus und Mode (1793), p. CXXIII.

⁸³Thomas Busby, A Complete Dictionary of Music (London: R. Phelps, [c. 1801]), s.v. "clarinet", n.p.

Donizetti (brother to the composer, Gaetano) introduced the low g clarinet, "aşk klârneti" (clarinette d'amour), where it was played in Western European repertory and was particularly convenient for Turkish tunes.⁸⁴

Alto clarinet

This instrument was incorrectly defined in the first edition of the Oxford English Dictionary as being higher in pitch than the soprano clarinet.⁸⁵ The alto clarinet is pitched either in f'' (like the basset horn) or in $e^{b''}$, and may have been used in England from the late eighteenth century in military bands.⁸⁶ For instance, several long clarinets (altos?) are pictured in a drawing and an engraving of two bands in the "Ceremony from St. James' to St. Paul's on Tuesday the 15th December, 1797 . . ."⁸⁷ G. Catlin, an American maker, advertised "tenor clarinets" in the Connecticut Courant of 23 June 1800, which may have alto clarinets or basset horns.⁸⁸ Indeed, in England the alto in $e^{b'}$ was occasionally called a "tenor clarinet" during the nineteenth

⁸⁴See Laurence Picken, Folk Musical Instruments of Turkey, p. 511.

⁸⁵A New English Dictionary on Historical Principles, 1 (1888): 258; corrected in A Supplement to the Oxford English Dictionary, ed. R. W. Burchfield (Oxford: Clarendon Press, 1972), 1:70.

⁸⁶They were called "alt-clarionet" by Charles Mandel in A Treatise on the Instrumentation of Military Bands (London: Boosey and Sons, 1859), pp. 14, 17.

⁸⁷See Frank Harrison and Joan Rimmer, European musical instruments (London: Studio Vista, 1964), figs. 175 a-b.

⁸⁸Cf. Robert E. Eliason, "George Catlin - Hartford Musical Instrument Maker, Part I," JAMIS 8 (1982): 20-3.

TABLE 9

CLARINETTE D'AMOUR NAMES, 1764-1808

France	Germany and Other Countries
1764 clarinette en G, re, sol ¹	
1772 grande clarinette ¹	clarinetto d'amore (Germany)
	douce Clarinet (Germany)
1781	Clarinettes d'amour (Germany)
1784	clarinet d'amoer (Belgium)
1788	clarinettes d'amour (Belgium)
1793	Clarinet d'amore (Germany)
	G Clarinet (Germany)
c. 1801	G clarinet (England)
1808	aşk klarneti (Turkey)

⁸⁹See Adolph S. Marx, *General Medical Instruction*, trans., G. Macrone (London: Hovell, 1834), p. 51; John (Palgrave) Simpson, *The Bandmaster's Guide* (London: Swaner and Co., [c. 1885]), 2:32, 131-2.

⁹⁰See the "Nachrichten," *AMZ* 3 (7 November 1808): cols. 88-91; it was described as the "Müllersche Bassothone" in "Miscellen," *AMZ* 9 (13 September 1809): cols. 788-89.

⁹¹See "Rapport fait par la commission chargée d'examiner la nouvelle clarinette proposée par M. Müller et la clarinette alto perfectionnée par le même artiste" in *Gazette Nationale, ou Le Moniteur Universel*, no. 152 (31 May 1812), pp. 523-24. The commission members were: A. Lefèvre, Eler, Duvernoy, Mehul, Cherubini, Gossec, Catel and Serrette.

⁹²Joseph Fröhlich, "Ueber die Verbesserung der Klarinette von Hrn. Ivan Müller, vormals Prof. am Conservatorium zu Paris, nun ersten Klarinetisten an der grossen Oper zu London," *AMZ* 19 (15 October 1817): cols. 717-19.

⁹³"Anzeige" in the *Intelligenz-Blatt*, no. VI (June 1825), *AMZ* 27 (1825): p. 28. Müller signed his advertisement as the "Erfinder der neuen verbesserten Klarinette und Klarinette-Alto u.s.w."

⁹⁴See, e.g., quoted by Wright, *Dictionnaire des instruments des*

¹See Table 11.

century.⁸⁹ A German player and maker, Iwan Müller, improved the alto clarinet in 1808, by having the maker, J. H. Grenser, apply a new system of keys to a basset horn which omitted the keys for the supplementary lower pitches below low e.⁹⁰ In 1812, Müller's "clarinette alto" was approved by a commission of eight members of the Conservatoire Impériale de Musique et de Déclamation of Paris.⁹¹ This instrument is first described with the usual German name, "Altklarinette" by Fröhlich in an article of 1817.⁹² Eight years later, Müller endorsed an "Alto-Klarinette" made to his specifications by Griessling and Schlott of Berlin.⁹³ In 1819, the Almanach du Commerce mentioned a "clarinette à alto" made by Gentellet of Paris.⁹⁴ An Italian name, "clarinetto alto", is found in a translation of Müller's important clarinet tutor (c. 1824), with the comment that this instrument could also be called

⁸⁹See Adolph B. Marx, General Musical Instruction, trans., G. Macirone (London: Novello, Ewer, 1854), p. 51; John [Palgrave] Simpson, The Bandmaster's Guide (London: Boosey and Co., [c. 1885]), 2:32, 131-2.

⁹⁰See the "Nachrichten," AMZ 9 (9 November 1808): cols. 89-91; it was described as the "Müllersche Bassethorn" in "Miscellen," AMZ 9 (13 September 1809): cols. 798-99.

⁹¹See "Rapport fait par la commission chargée d'examiner la nouvelle clarinette proposée par M. Muller et la clarinette alto perfectionnée par le même artiste" in Gazette Nationale, ou Le Moniteur Universel, no. 152 (31 May 1812), pp. 593-94. The commission members were: X. Lefèvre, Eler, Duvernoy, Méhul, Cherubini, Gossec, Catel and Sarrette.

⁹²Joseph Fröhlich, "Ueber die Verbesserung der Klarinette von Hrn. Iwan Müller, vormals Prof. am Conservatorium zu Paris, nun erstem Klarinettisten an der grossen Oper zu London," AMZ 19 (15 October 1817): cols. 717-19.

⁹³"Anzeige" in the Intelligenz-Blatt, no. VI (June 1825), AMZ 27 (1825): p. 28. Müller signed his advertisement as the "Erfinder der neuen verbesserten Klarinette und Klarinette-Alto u.s.w."

⁹⁴Page 138, quoted by Wright, Dictionnaire des instruments des musique, p. 35.

"clarone".⁹⁵ In 1825, "Clarinettes d'alto ou Cor de Bassette" were advertised by the firm of B. Schott's Söhnen in Cäcilia, a music journal published in Mainz.⁹⁶ The "Tenor-clarinette" credited to J. G. G. Streitwolf, a maker in Göttingen, may have been either an alto clarinet or a basset horn.⁹⁷

Contra alto clarinet

The contra alto clarinet is pitched in E-flat one octave lower than the alto clarinet. Two nineteenth-century examples are the following: J. G. H. Streitwolf's "Contra Bass-Clarinette" (1829) initially pitched in F,⁹⁸ later in E-flat, and Adolphe Sax's "Clarinette-Contrebasse" (1840-41) at first in E-flat and later in F.⁹⁹

⁹⁵Iwan Müller, Méthode pour La nouvelle Clarinette (Florence: J. Ricordi, [1824]), p. 2. The text of this tutor is written in Italian. A unique name, "clarinetto viola" is found in the instrumentation treatise by Antonio Tosoroni, Trattato Pratico di Strumentazione (Florence: G. G. Guidi Borgo, 1850), pp. 26-7.

⁹⁶See "Intelligenzblatt zur Caecilia, 1825, nr. 9", Cäcilia 3 (1825): 16.

⁹⁷See [Friedrich Arnold Brockhaus], Allgemeine deutsche Real-Encyklopädie für die gebildeten Stände. Conversations Lexikon, supplement to 7th ed. (Leipzig: F. A. Brockhaus, 1833), 2:696-7.

⁹⁸See the article concerning Streitwolf's instruments in Berlinische Musikalische Zeitung (1830), cited by Johann Ernst Häuser in Musikalisches Lexikon oder Erklärung und Verdeutschung (Meissen: F. W. Goedsche, 1833), 1:92 and "Nouvelle Invention - d'une clarinette-basse et d'une clarinette contrabasse," Revue Musicale 8, no. 9 (1830): 331.

⁹⁹See [François-Joseph] Fétis, "Nouvelles clarinettes de M. Sax fils," Revue et Gazette Musicale de Paris 8 (Jan. 1841): 20; and Georges Kastner, Traité générale d'instrumentation . . . Supplément (Paris: Prilipp, [1844]), p. 25.

TABLE 10

ALTO AND CONTRA ALTO CLARINET NAMES, 1800-1841

<u>Germany</u>	<u>Other Countries</u>
1800	tenor clarinet ¹ (U.S.A.)
1809 Müllersche bassetthorn ²	
1812	clarinette alto (France)
1817 Altklarinette	
1819	clarinette à alto (France)
1824	clarinetto alto (Italy)
	clarone ³ (Italy)
1825 Alto-Klarinette	
Klarinette-Alto	
clarinettes d'alto	
1829 contra bass-clarinette	
1830	clarinette contrabass (France)
1833 Tenor-Klarinette ¹	
1840-41	clarinette-contrebasse (France)

¹See Table 11.²Lacks the lowest notes of the basset horn.³See Tables 11 and 12.

Basset horn

The names which have been used for the basset horn are almost all sound-related, an example is, the Italian "corno di bassetto". The corno is derived from the Latin, cornu, a horn, and the bassetto is the diminutive of bassus, or bass.¹⁰⁰ Its meaning, "small bass horn", remains the same with or without the proposition, "di", as in the form, "corno bassetto". The German name, "Bassethorn", is derived as the diminutive of the French, basse or Italian, basso, and the old high German, Horn,¹⁰¹ also meaning "small bass horn". A shape-related name, "Krummhorn",¹⁰² was probably suggested by the curved or angled form of the eighteenth century instrument, and is associated with the basset horn as early as 1790, by Albrechtsberger.¹⁰³ Both the German name, "Bassethorn" and the French, "cor de basset" are thought by some linguists to have been adopted from the Italian name, "corno di bassetto".¹⁰⁴ The German origin of the instrument, however, suggests

¹⁰⁰Battisti and Alessio, 1:425; 2:1116.

¹⁰¹Duden. Das große Wörterbuch der deutschen Sprache, eds. R. Köster, W. Müller and C. Schrupp (Mannheim: Bibliographisches Institut, 1977), 1:306; 3:1285. See also Wilhelm Altenburg, "Eine 'Wiedereinführung des Bassethorns'," Zeitschrift für Instrumentenbau 27 (1907): 555.

¹⁰²Not to be confused with the Renaissance instrument.

¹⁰³Johann Georg Albrechtsberger, Gründliche Anweisung zur composition . . . und mit einem Anhang: von der Beschaffenheit und Anwendung aller jetzt üblichen Musikalischen Instrumente (Leipzig: J. G. I. Breitkopf, 1790), p. 426. This association with the krummhorn is mentioned by the following authors: Busch (1802), Wolf (1806), Keess (1824), Andersch (1829), Schilling (1835), and Lieber and Wigglesworth (1836, who associated the basset horn with the "curved cornet").

¹⁰⁴The Random House Dictionary of the English Language, ed. in chief, J. Stein (New York: Random House, 1981), p. 125; Webster's New International Dictionary of the English Language, 2nd ed., Unabridged, eds. W. A. Nelson, T. A. Knott, and P. W. Carhart (Springfield, Mass.: G. & C. Merriam Co., 1957), p. 228.

that the Italian and French names were originally translations of "Bassetthorn".¹⁰⁵

Germany and Austria

The earliest recorded name is "Corno die Baßetto" found in Leopold Mozart's manuscript catalogue of his twelve-year-old son's musical works, compiled in 1768.¹⁰⁶ Meusel, another German author, cited a performance on the "corno bassetto" in 1783, because it was not mentioned in Forkel's Musikalisches Almanach für Deutschland auf das Jahr 1783.¹⁰⁷ In the same year, the usual German name, "Bassetthorn", first appeared in Cramer's report of a concert that took place in 1782 at Ludwiglust.¹⁰⁸ Two years later, the unique combination of German and Italian, "Basset-Corni", was introduced by Schink.¹⁰⁹ Wilke (1786) was the first to provide both Italian and German terms in his dictionary.¹¹⁰ Use of these names in Germany, however, was far from standardized. Von Schönfeld's (1796) "Baßettklarinet", may have referred to a basset horn

¹⁰⁵See Nicholas Shackleton, "Basset-horn," NGDMI, 1:172-3.

¹⁰⁶"Verzeichnis alles desjenigen was dieser 12jährige Knab seit seinem 7ten Jahre componiert und in originale kan aufgezeigt werden", in Mozart Briefe und Aufzeichnungen, ed. Internationalen Stiftung Mozarteum Salzburg, collected and explained by W. A. Bauer and O. E. Deutsch, 7 vols. (Kassel: Bärenreiter, 1962-72), 1:289.

¹⁰⁷Johann Georg Meusel, "Zusätze und Berichtigungen zu Herrn Forkels musikalische almanach von Jahr 1783," Miscellaneen artistischen Inhalts, part 17 (1783): 296-7.

¹⁰⁸Magazin der Musik, ed. C. F. Cramer (Hamburg: Musicalischen Niederlage, 1783-86; reprint ed., Hildesheim: G. Olms, 1971), first year, first half, pp. 179-80.

¹⁰⁹Schink, Litterarische Fragmente, 1:286.

¹¹⁰"Corno Bassetto" and "Bassetthorn" in [Johann Georg Leberecht von Wilke], Musikalisches Hand-Wörterbuch, oder kurzgefasste Anleitung (Weimar: C. R. Hofmanns seel. Wittve und Erben, 1786), p. 36.

in f or to a clarinet in b^b , with an extended lower range.¹¹¹ It should be noted the writer, Weber (1822), claimed that additional terms for the basset horn were "Basset-Clarinette", "Baß-Clarinette" and "Clarinettbaß".¹¹² Another name variant is "Basset-Horn" written in the title of Backofen's tutor (c. 1803).¹¹³ The same year, the French name, "cor de basset", was printed in the publication of Backofen's quintet for basset horn and strings.¹¹⁴ According to Boese, the horn part from one edition of Peter von Winter's *Concertante pour violin, clarinette, basson et cor* (c. 1803), is labelled, "Cor die Bassetto", and meant for the basset horn.¹¹⁵ Another basset horn name is found in the official account of Anton Stadler's death in 1812. In this document, Anton's son, "Antonius" is described (in Viennese dialect) as "erster Passetelist" (first basset horn player) of Vienna's Theater an der Wien.¹¹⁶

¹¹¹Von Schönfeld, Jahrbuch der Tonkunst von Wien und Prag, p. 192.

¹¹²Gottfried Weber, "Basset-Horn," Allgemeine Encyclopädie der Wissenschaft und Künste, eds. J. S. Ersch and J. G. Gruber, 167 vols. (Leipzig: Brockhaus, 1818-89), 8 (1822), p. 49.

¹¹³Johann Georg Heinrich Backofen, Anweisung zur Klarinette nebst einer kurzen Abhandlung über das Basset-Horn (Leipzig: Breitkopf & Härtel, [c. 1803]).

¹¹⁴"Quintetto pour Cor de Basette, 2 Violins, Alto, Violoncelle, Oeuv. 9" (Leipzig: Breitkopf & Härtel, [c. 1803]), cited in the "Recension," AMZ 6 (9 November 1803), cols. 91-3.

¹¹⁵Helmut Boese, Die Klarinette als Soloinstrument in der Musik der Mannheimer Schule (Dresden: M. Dittert & Co., 1940), p. 83.

¹¹⁶Stadarch. Wien, Totenbeschauprotokoll, quoted by Karl Maria Pisarowitz in "'Müaßt ma nix in übel aufnehmen . . ." Beitragsversuche zu einer Gebrüder-Stadler-Biographie," Mitteilungen der Internationalen Stiftung Mozarteum (Feb. 1971): 31-2, note 20.

France

Roeser's (1764) important listing of instruments included the "clarinette en G, re, sol", which was later described as the "grande clarinette" by Francoeur in 1772.¹¹⁷ Both of these names may be identified with either the basset horn or the clarinette d'amour. In 1774, the Mercure de France announced that M. Valentin will play "sur le corno-basseto ou contra-clarinette."¹¹⁸ The first appearance of the usual French name, "cor de basset" seems to have occurred in 1814, in A. Choron's translation of Albrechtsberger's Anweisung zur Composition.¹¹⁹ An unusual sound-related name, "Clarinette Sourdine", is found only in Kastner's instrumentation treatise of 1837.¹²⁰

England and the U.S.A.

George Catlin of Hartford, Connecticut advertised "tenor clarinets" for sale in the Connecticut Courant of 23 June 1800.¹²¹ These instruments could have been either basset horns or alto clarinets pitched in e^b . since the name, "tenor clarinet", was applied to the latter in England during the nineteenth century.¹²² Other writers, however, describe the function of the basset horn as the tenor

¹¹⁷Roeser, p. 2; Francoeur, p. 23.

¹¹⁸"Vacance des spectacles," vol. 2 (April 1774), p. 164.

¹¹⁹J. Georg Albrechtsberger, Méthode élémentaire de composition, trans. A. Choron, 2 vols. (Paris: V. Courcier, 1814), 1:172.

¹²⁰[Jean-Georges] Kastner, Traité générale d'instrumentation (Paris: Prilipp, [1837]), p. 40.

¹²¹Eliason, "George Catlin - Hartford Musical Instrument Maker," pp. 20-3.

¹²²Simpson, The Bandmaster's Guide, 2:32, 131-2; A Descriptive Catalogue of the Musical Instruments recently exhibited at the Royal Military Exhibition, London, 1890, ed. C. R. Day (London: Eyre & Spottiswoode, 1891), p. 130, no. 276.

instrument of the family, but do not label it as a tenor clarinet.¹²³ Mahon, an English clarinetist, called the basset horn by the unique terms, "Clara Voce" (clear voice) and "Corno Bassetta", in his clarinet tutor (c. 1803).¹²⁴ Knight (1835), one of the earliest Englishmen to publish the term "Basset-horn", complained about the use of the name "corno bassetto": "The unfitness of this term must at once be obvious, but unhappily, the musical nomenclature abounds in obscurity, absurdities, and contradictions".¹²⁵ Occasionally, authors confused the basset horn with the cor anglais or English horn.¹²⁶

Italy

The earliest recorded Italian name from an Italian source is "Corno-Bassetto" found in Antolini's instrumentation treatise of 1813.¹²⁷

¹²³Mandel, A Treatise on the Instrumentation of Military Bands, p. 13; William H. Stone, "Basset-Horn," Grove 1, 1 (1879): 150.

¹²⁴John Mahon, A New and Complete Preceptor for the Clarinet (London: Goulding, Phipps & D'Almaine, [c. 1803]), pp. 38, 61. "Corno Bassetta" was corrected to "Corno Bassetto" in a reprint of this tutor published between 1811 and 1816, see Appendix 3 for an annotated listing of instructional materials.

¹²⁵The Penny Encyclopaedia of the Society for the diffusion of useful Knowledge, ed. C. Knight (London: C. Knight, 1835), 4:2, s.v. "basset-horn".

¹²⁶Three examples are: Mirecki, Tratatto Intorno agli Instrumente ed al Instrumentazione, p. 7 [noted by the reviewer in "Nachrichten," AMZ 27 (26 Oct. 1825): col. 718]; John W. Moore, The Musician's Lexicon: or encyclopedistical Treasury of Musical Knowledge (Boston: Keith's Music Publishing House, 1845), p. 101 and the Official Descriptive and Illustrated Catalogue of the Great Exhibition 1851, 3 vols. (London: Spicer Brothers, 1851), 2:1272.

¹²⁷Francesco Antolini, La Retta Maniera di scrivera per il clarinetto (Milan: C. Buccinelli, 1813), pp. 49-51.

Two other names, "Clarone" and "Clarinetto Dolce" are given in Lichtenthal's authoritative dictionary (1826).¹²⁸

Contra basset horn

The contra basset horn is pitched in $\underline{F}$ one octave lower than the basset horn, and was developed in Germany and France. Two nineteenth-century examples are the following: Streitwolf's "Contra Bass-Clarinette" (1829) initially pitched in $\underline{F}$,¹²⁹ later in $\underline{E}^b$, and Sax's "Clarinette-Contrebass" (1840-41) at first in $\underline{E}^b$ and later built in $\underline{F}$.¹³⁰

Bass clarinet

France

The bass clarinet is pitched one octave lower than the soprano instruments in $\underline{c}''$, $\underline{b}^b$ or $\underline{a}'$. Its earliest recorded names appeared in France, beginning with a "basse-tube" made by Gilles Lot of Paris, described in L'Avant Coureur on 11 May 1772.¹³¹ Another name for Lot's

¹²⁸Pietro Lichtenthal, Dizionario e Bibliografia della musica, 4 vols. (Milan: A. Fontana, 1826-36), 1:171. According to Wright (Dictionnaire, p. 50), an unusual Italian name, "Cornetto Bassetto", is recorded by Soullier in his French dictionary of 1887.

¹²⁹See the article concerning Streitwolf's instruments in Berlinische Musikalische Zeitung (1830), cited by Häuser in Musikalisches Lexikon, 1:92; and "Nouvelle Invention - d'une clarinette-basse et d'une clarinette contrabasse," Revue Musicale 8, no. 9 (1830): 331.

¹³⁰See Fétis, "Nouvelles clarinettes de M. Sax fils," p. 20, and Kastner, Traité . . . Supplément (Paris: Prilipp, [1844]), p. 25.

¹³¹Page 292, quoted by Constant Pierre in Les facteurs d'instruments de musique (Paris: E. Sagot, 1893), pp. 103-4; Wright, p. 16, and Rendall, The Clarinet, p. 139.

TABLE 11

BASSET HORN AND CONTRA BASSET HORN NAMES, 1768-1841

	<u>France</u>	<u>Germany and Other Countries</u>
1764	clarinette en G, re, sol ¹	
1768		Corno di Baßetto (Germany)
1772	grande clarinette ¹	
1774	corno-basseto	
1825	contra-clarinette	
1783		Corno Bassetto (Germany)
1830		Basethorn (Germany)
1785		Basset-Corni (Germany)
1790		Krummhorn (Germany)
1796		Baßettklarinet ² (Germany)
1800		tenor clarinet ³ (U.S.A.)
c. 1803		Basset-Horn (Germany)
		Corno Bassetto (England)
		Clara Voce (England)
1803		Cor de Bassette (Germany)
		Cor die Bassetto (Germany)
1812		Passetelist ⁴ (Austria)
1813		Corno-Basetto (Italy)

¹See Table 9.

²See Table 8.

³See Table 10.

⁴Appears in the source as "erster Passetelist" (first basset horn player).

TABLE 11 (CONTINUED)

	<u>France</u>	<u>Germany and Other Countries</u>
1814	cor de basset	
1822		Basset-Clarinette ⁵ (Germany)
		Baß-Clarinette ⁵ (Germany)
		Clarinettbass ⁵ (Germany)
1824		Clarone ⁶ (Italy)
1826		Clarinetto dolce (Italy)
1829		Contra Bass-Clarinette (Germany)
1830	clarinette contrabasse	
1833		Tenor-Klarinette ⁷ (Germany)
1835		Basset-Horn (England)
		corno bassetto (England)
1837	clarinette sourdine	
1840-41	clarinette-contrebass	

¹³³See "Basse guerrière de M. Dumas," *Archives des découvertes et des inventions nouvelles*, . . . pendant l'année 1810, 3 (1811): 222-3; "Rapport fait par MM. Bessac, Grétry, Néhel, membres de la classe des beaux arts, et MM. Hally et Charles, membres de la classe des sciences physiques et mathématiques, des séances des 9 et 2 avril 1811," *Assemblée nationale, ou le Moniteur universel*, no. 109 (19 April 1811): 440-1; and "Arts Industriels-Musique," *Gazette Nationale, ou le Moniteur universel*, no. 16 (16 Jan. 1812): 83-4.

¹³⁴Cited by Wright, p. 16. Wright, however, incorrectly describes this instrument as a type of bassoon, cf. *Flauto, les facteurs d'instruments de musique*, p. 402.

¹³⁵François-Joseph Fétis, *Curiosités historiques de la musique* (Paris: Janet et Cotelle, 1830), pp. 268-9.

⁵See Table 12.

⁶See Tables 10 and 12.

⁷See Table 10.

instrument was "Baisse taille" (Bass tenor) reported in an issue of L'Almanach Dauphin for 1777.¹³² In 1810, Dumas invented a bass clarinet for use in military bands, which he named "basse guerrière" (martial bass).¹³³ Another instrument, the "basse orgue" was described in François Sautermeister's patent of 12 August 1812.¹³⁴ In 1830, Fétis reported that Iwan Müller was occupied with the construction of a "clarinette violoncelle".¹³⁵ Subsequently, Adolphe Sax made two types of bass clarinets (patented on 21 June 1838) which were much more successful than any of his predecessors.¹³⁶

Germany

Bass clarinets in Germany were initially mentioned in 1791, as "die sogenannten Baßclarinetten", in anonymous critique of J. N.

¹³²Page 45 of the supplement to L'Almanach Dauphin, quoted by Pierre, *Ibid.*, p. 105.

¹³³See "Basse guerrière de M. Dumas," Archives des découvertes et des inventions nouvelles . . . pendant l'année 1810, 3 (1811): 222-3; "Rapport fait par MM. Gossec, Grétry, Méhul, membres de la classe des beaux-arts, et MM. Haüy et Charles, membres de la classe des sciences physiques et mathématiques, dan les séances des 6 et 8 avril 1811," Gazette nationale, ou Le Moniteur universel, no. 109 (19 April 1811): 420-1; and "Arts Industriels-Musique," Gazette Nationale, ou Le Moniteur Universel, no. 16 (16 Jan. 1812): 63-4.

¹³⁴Cited by Wright, p. 15. Wright, however, incorrectly describes this instrument as a type of bassoon, cf. Pierre, Les facteurs d'instruments de musique, p. 402.

¹³⁵François-Joseph Fétis, Curiosités historiques de la musique (Paris: Janet et Cotele, 1830), pp. 288-9.

¹³⁶For drawings from Sax's patent see, William McBride, "The Early Saxophone in Patents 1838-1850 Compared," GSJ 35 (1982): 113-15. Sax's instruments are pictured and described by Kastner as a "clarinette basse recourbée" (curved bass clarinet), and a "clarinette basse droite" (straight bass clarinet), in Manuel Général de Musique Militaire (Paris: Didot Frères, 1848), p. 375, pl. XXVI.

Forkel's Musikalisches Almanach (1782-84).¹³⁷ These instruments may have been made by Johann Heinrich Grenser, who Gerber (1812) credited with the invention and naming in 1793, of a "Klarinetten-Baß".¹³⁸ A "Bass-Clarinette" by J. H. G. Streitwolf, a maker from Göttingen, was initially publicized in his own article of 1828 entitled, "Beschreibung der von mir erfunden Bass-Clarinette".¹³⁹ Weber's earlier use in 1822 of "Baß-Clarinette" and "Clarinettbass" for the basset horn (referred to above, p. 442), obviously did not gain acceptance.

Italy

In 1813, Antolini described the "clarone" as a bass clarinet,¹⁴⁰ a name still used for this instrument. An instrument made about 1830 by Catterino Catterini was stamped "Glicibarifono", and described in an

¹³⁷"Berichtigungen und Zusätze zum den Musikalischen Almanachen auf die Jahre 1782. 1783. 1784.," Musikalische Korrespondenz der Deutschen Filarmonischen Gesellschaft für Jahr 1791, no. 6 (9 Feb. 1791), col. 41.

¹³⁸Ernst Ludwig Gerber, Neues Historisch-Biographisches Lexikon der Tonkünstler (Leipzig: J. G. I. Breitkopf, 1812-14; reprint ed., Graz: Akademische Druck-u. Verlagsanstalt, 1969), part 2, col. 393.

¹³⁹According to W. Altenburg in an article from the Zeitschrift für Instrumentenbau (1890), cited by Lyndesay G. Langwill in An Index of Musical Wind-Instrument Makers, 6th ed., (Edinburgh: L. G. Langwill, 1980), p. 173. Subsequently, Streitwolf made two types of bass clarinet illustrated in his "Verzeichniss von Flöten, Clarinetten, Oboën, Fagotten, Basshörnern, Flageoletten, etc." (c. 1830-5); and photographed by Günther Hart in "Gottlieb Streitwolf (II.) Vor 200 Jahren wurde der Instrumentenmacher geboren," Göttinger Monatsblätter (Dec. 1979): 4-5. See Heinroth, "Neue Erfindungen," Eutonia, eine hauptsächlich pädagogische Musik=Zeitschrift 1 (1829): 203-4; and Albert R. Rice, "'On Two Newly Invented Clarinets' from the Harmonicon," The Clarinet 5 (Winter 1978): 39.

¹⁴⁰Antolini, p. 50.

article of 1833 as the "Polifono".¹⁴¹ Wright (p. 74) provides a derivation of "Glicibarifon(a)" from three Greek words: γλυκύς (sweet), βαρύς (low), and φωνή (sounds). The clarinetist, Hyacinthe Klosé, supplied Kastner with a French version of this name, "Glici-Baryphone", which was included in the supplement (1844) to Kastner's treatise.¹⁴²

The word "clarinet" has been U.S.A. be related etymologically to

The earliest (c. 1810) of Catlin's bass clarinets is preserved at the Henry Ford Museum (Dearborn, Michigan) and signed, "Invented and / made by George Catlin / Hartford / Con.". Uzal Miner, an American maker, began advertising Catlin's "patent clarions" on 14 September 1813 in the Connecticut Courant.¹⁴³

Contra bass clarinet

Contra bass clarinets are pitched two octaves lower than soprano clarinets in c'' or b^b. The earliest known is Dumas' "contrabass guerrière" of 1808.¹⁴⁴ In 1839, W. F. Wieprecht (subsequently director of the Prussian military band) and the maker, E. Skorra, devised a

¹⁴¹This instrument is preserved at Oxford in the Bate collection (no. 496), see An Exhibition of European Musical Instruments, ed. G. Melville-Mason (Edinburgh: Reid School of Music, 1968), p. 31, no. 207; described in Giornale di belle arte e tecnologia (Oct.-Nov. 1833), p. 292 [according to "Nachrichten," AMZ 36 (20 August 1834), col. 571].

¹⁴²Kastner, Traité . . . Supplément, p. 25.

¹⁴³Eliason, "George Catlin - Hartford Musical Instrument Maker, Part 1," pp. 30-2; Idem, "George Catlin, Hartford Musical Instrument Maker, Part 2," JAMIS 9 (1983): 29-48.

¹⁴⁴See "Nouvel instrument à vent, par M. Dumas," Archives des découvertes et des inventions nouvelles . . . pendant l'année 1808, 1 (1808); 379; "Basse guerrière de M. Dumas," pp. 222-3; and "Rapport fait par MM. Gossec . . .," pp. 420-2.

contra bass in C' which they named "Bathyphon".¹⁴⁵ Altenburg derived this name from the Greek words: *βαρύς* (low) and *φωνή* (tone).¹⁴⁶ By 1833, Sax completed his "clarinette bourdon" pitched in B^b , which is described in the supplement to Kastner's treatise (p. 25).

Summary

The word "clarinet" has been shown to be related etymologically to "clarino". This relationship is also supported by many composers during the eighteenth century who wrote parts for the clarinet which make use of trumpet-like idioms discussed in chapter IV (above). Most of the names written for the soprano clarinet were variants of the French "clarinette" or Italian, "clarinetto". The diverse types of names for the other members of the clarinet family are understandable, considering the immense activity of the instrument makers during the period studied. Table 13 includes: the usual English name (or Italian names for the higher-pitched instruments); the usual pitch produced using the fingering for c'' ; and lowest sounding pitch, of each member of the

¹⁴⁵See J. P. Schmidt, "Ueber die chromatische Bass-Tuba und das neu erfundene Holz-Bass-Blas-Instrument, genannt Bathyphon," *AMZ* 42 (16 December 1840): cols., 1041-2; and Wieprecht's description (in English) from his manuscript treatise on instrumentation quoted in *A Descriptive Catalogue of the Musical Instruments recently exhibited at the Royal Military Exhibition, London, 1890*, pp. 124-5. Day, the editor of this catalogue, incorrectly stated that the bathyphon is pitched in E^b . Cf., the illustrations and description given by V. C. Mahillon in *Catalogue Descriptive & Analytique du Musée Instrumentale du Conservatoire Royal de Musique de Bruxelles*, 2nd ed. (Ghent: A. Hoste, 1893), 1:216-20.

¹⁴⁶Wilhelm Altenburg, "F. Besson's Kontrabass-Klarinette in Vergleiche zu dem Batyphon und der Streitwolf'schen Bass-Klarinette," *Zeitschrift für Instrumentenbau* 12 (1 Aug. 1892): 595; cf. Wright (p. 17) for his derivation of the word "Bathyphone".

clarinet family mentioned in appendix. A few additional instruments BASS AND CONTRA BASS CLARINET NAMES, 1772-1844 are included, also.

	<u>France</u>	<u>Germany and Other Countries</u>
1772	basse-tube	
1777	baisse-taille	
1791		Baßclarinetten (Germany)
1808	contrabasse guerrière	
c. 1810		clarion (U.S.A.)
1810	basse guerrière	
1812	basse orgue	
1813		clarone ¹
1822		Baß-Clarinette ¹
		Basset-Clarinette ¹
		Clarinetttbaß ¹
1830	clarinette-basse	
	clarinette-violoncelle	
c. 1830		Glicibarifono (Italy)
		Polifono (Italy)
1839		Batyphon (Germany)
1844	Glici-Baryphone	
	clarinette bourdon	

¹See Table 11.

clarinet family mentioned in this appendix. A few additional instruments mentioned in sources dating to 1850 have been included, also.

Name	Pitch name	Lowest sounding pitch
<u>Sopranino and Soprano clarinets:</u>		
Piccolo ²	c'''	c'
Piccolo ²	b ^b ''	d'
Piccolo ²	a''	d ^b '
Piccolo (Ottavino)	a ^b ''	c'
Quintino	g''	b
Piccolo	g ^b ''	b ^b
Quartino	f''	a
Piccolo	e''	a ^b
Terzino	e ^b ''	g
Terzino	d''	f ^b
Soprano ³	d ^b ''	f
Soprano	c''	e
Soprano	b'	e ^b
Soprano	b ^b '	d
Soprano	a'	d ^b
Basset clarinet	c''	c

¹Cf. Curt Sachs' list of the clarinet family in his *Handbuch der Musikinstrumentenkunde*, 2nd ed. (Leipzig: Breitkopf & Härtel, 1930), p. 347.

²These clarinets are listed in two sources: Joseph Fahrbach, *Neuere Wiener Clarinette-Schule* (Vienna: A. Diabelli, [c. 1841]), p. 16; and Antonio Tosoroni, *Trattato pratico di strumentazione* (Florence: G. G. Guidi, 1850), pp. 22-3.

³Listed by Tosoroni, p. 24, and Charles Mandel, *A Treatise on the Instrumentation of Military Bands*, p. 17.

TABLE 13
THE CLARINET FAMILY, 1710-1850¹

<u>Name</u>	<u>Pitch name</u>	<u>Lowest sounding pitch</u>
<u>Sopranino and Soprano clarinets:</u>		
Piccolo ²	<u>c'''</u>	<u>e'</u>
Piccolo ²	<u>b^b''</u>	<u>d'</u>
Piccolo ²	<u>a''</u>	<u>d^b,</u>
Piccolo (Ottavino)	<u>a^b''</u>	<u>c'</u>
Quintino	<u>g''</u>	<u>b</u>
Piccolo	<u>g^b''</u>	<u>b^b</u>
Quartino	<u>f''</u>	<u>a</u>
Piccolo	<u>e''</u>	<u>a^b</u>
Terzino	<u>e^b''</u>	<u>g</u>
Terzino	<u>d''</u>	<u>g^b</u>
Soprano ³	<u>d^b''</u>	<u>f</u>
Soprano	<u>c''</u>	<u>e</u>
Soprano	<u>b'</u>	<u>e^b</u>
Soprano	<u>b^b,</u>	<u>d</u>
Soprano	<u>a'</u>	<u>d^b</u>
Basset clarinet	<u>c''</u>	<u>c</u>

¹Cf. Curt Sachs' list of the clarinet family in his Handbuch der Musikinstrumentenkunde, 2nd ed. (Leipzig: Breitkopf & Härtel, 1930), p. 347.

²These clarinets are listed in two sources: Joseph Fahrbach, Neuste Wiener Clarinette-Schule (Vienna: A. Diabelli, [c. 1841]), p. 16; and Antonio Tosoroni, Trattato pratico di strumentazione (Florence: G. G. Guidi, 1850), pp. 22-3.

³Listed by Tosoroni, p. 24, and Charles Mandel, A Treatise on the Instrumentation of Military Bands, p. 17.

TABLE 13 (CONTINUED)

<u>Name</u>	<u>Pitch name</u>	<u>Lowest sounding pitch</u>
Basset clarinet	<u>b</u> ^b ,	<u>B</u> ^b
Basset clarinet	<u>a</u> '	<u>A</u>
<u>Clarinettes d'amour:</u>		
Clarinette d'amour	<u>a</u> ^b ,	<u>C</u>
Clarinette d'amour	<u>g</u> '	<u>B</u>
Clarinette d'amour	<u>f</u> '	<u>A</u>
<u>Alto clarinets:</u> ⁴		
alto clarinet	<u>f</u> '	<u>A</u>
alto clarinet	<u>e</u> ^b ,	<u>G</u>
<u>Basset horns:</u> ⁵		
Basset horn	<u>g</u> '	<u>G</u>
Basset horn	<u>f</u> '	<u>F</u>
Basset horn	<u>e</u> '	<u>E</u>
Basset horn	<u>e</u> ^b ,	<u>E</u> ^b
Basset horn	<u>d</u> '	<u>D</u>
<u>Bass clarinets:</u>		
bass clarinet	<u>c</u>	<u>C</u> '
bass clarinet	<u>B</u> ^b	<u>B</u> ^b , or <u>A</u> ^b ,

⁴Unlike the modern alto clarinet, these lowest sounding pitches reflect the fact that the lowest written note that may be produced is e.

⁵These basset horns were listed by Johann Georg Albrechtsberger in Gründliche Anweisung zur Composition, p. 427. Their lowest written note is the note C.

TABLE 13 (CONTINUED)

<u>Name</u>	<u>Pitch name</u>	<u>lowest sounding note</u>
bass clarinet	<u>A</u>	<u>A'</u> or <u>G'</u>
<u>Contra alto clarinets:</u> ⁶		
Contra alto clarinet	<u>F</u>	<u>A'</u>
Contra alto clarinet	<u>E^b</u>	<u>G'</u>
<u>Contra basset horns:</u>		
Contra basset horn	<u>F</u>	<u>F'</u>
Contra basset horn	<u>E^b</u>	<u>E^b'</u>
<u>Contra bass clarinets:</u>		
Contra bass clarinet	<u>C'</u>	<u>C''</u>
Contra bass clarinet	<u>B^b'</u>	<u>B^b''</u>

⁶Unlike the modern contra alto clarinet, their lowest sounding pitches reflect the fact that the lowest written note that may be produced is e.

APPENDIX 2

AN INVENTORY AND DESCRIPTION OF
EXTANT BAROQUE CLARINETS

This inventory of two- and three-key clarinets was compiled mainly from catalogues of European instrument museums, and from advice generously supplied to me by Drs. David Ross and Nicholas Shackleton. When it was obtainable the following information is listed for each instrument: maker and dates, tonality of instrument, material of keys, material of body, type of fittings, number of sections, length dimensions in centimeters (abbreviated by L), bore dimensions in centimeters (abbreviated by B), location by city of collection, and identification number in that collection. Even though I did not personally verify the accuracy of these descriptions, they were thought to be of sufficient value to be presented. A list of sources is given at the end of this appendix.

TWO-KEY (28):

Anonymous. In d'', brass keys, boxwood, unmounted, three sections, Hague Ea 449-1933.

_____. In e^b'', brass keys, boxwood, unmounted, four sections (composite of sections from different instruments), Leipzig 1457.

_____. In d'', London, Rubin collection.

_____. Leipzig 1462.

Boekhout, Thomas Conraet (c. 1665-1715). In c'', brass keys, boxwood stained black, ivory fittings, four sections (missing the mouthpiece/barrel), L 48, B 1.4, Brussels 2561.

Borkens, Philip (1693-after 1763). In d'', brass keys, boxwood, three sections, L 54.7, Hague Ea 306-1933.

Crone, Gottlieb (fl. 1740-50). In d'', brass keys, boxwood, L 54.2, Amsterdam, Rijksmuseum (formerly Hague Ea 58-X-1952).

Denner, Jacob (1681-1735). In c'', brass keys, boxwood, unmounted, four sections, L 58, Berlin 223.

_____. In c'', brass keys, boxwood, unmounted, four sections, L 60, Brussels 912.

_____. In d'', brass keys, boxwood, unmounted, four sections, L 51, Nuremberg MI 149.

Deper, M. In d'', Linz MU 123.

IGH, Hague 50-X-52.

Kelmer, G. N. In c'', brass keys, boxwood, horn fittings, three sections, L 55.2, Leipzig 1469

Oberlender, Johann Wilhelm I (1681-1763). In d'', brass keys, boxwood, unmounted, three sections (missing mouthpiece/barrel and bell), original L 54, Berlin 2870.

_____. In c'', brass keys, boxwood, unmounted, three sections, L 55.2, Leningrad 486.

Oberlender, Johann Wilhelm II (1712-1779). In c'', brass keys, boxwood, ivory fittings, three sections, L 54.6, Leipzig 1470.

Rottenburgh, Godefroid-Adrien (1709-1790). In e^b'', brass keys, boxwood, ivory fittings, four sections, L 53.8, Brussels 915.

_____. In c'', brass keys, ebony, ivory fittings, three sections, L 53.7, Brussels 2571.

Scherer, Johannes (1664-1722) or Georg Henrich (1703-1778). In e'', brass keys, boxwood, ivory fittings, three sections, L 47.4, B 1.3, Eisenach L-4.

_____. In d'', silver keys, ivory unmounted, four sections, L 52.7, B 1.6, London RCM 101.

_____. In d'', silver keys, boxwood, ivory fittings, four sections, L 54, B 1.3, Paris C.529, E.697.

_____. In $\underline{d}''$, silver keys, boxwood, ivory fittings, four sections (including an additional middle section), Varel, Holland, Haren collection.

_____. In $\underline{d}''$, silver keys, boxwood, ivory fittings, four sections (including an additional middle section), Scarsdale, New York, Rosenbaum collection.

Walch, Georg (1690-?). In $\underline{e}^{b''}$, brass keys, '', brass keys, boxwood, unmounted, three sections, L 57.8, Bonn BH (formerly Zimmerman 122).

_____. In $\underline{d}''$, brass keys, plum, brass fittings, three sections, L 53, B 1.25, Salzburg 18/1.

Willems, Jean Baptiste (1761-1809). In $\underline{d}''$, brass keys, boxwood, unmounted, four sections, L 41.5 B 1.17, Brussels 916.

_____. In $\underline{b}^{b'}$, brass keys, boxwood, unmounted four sections, L 65.8, B 1.29-1.42, Brussels 2573.

Zencker, J. G. In $\underline{d}''$, brass keys, boxwood, unmounted, three sections, Nuremberg MIR 424.

_____. In $\underline{d}''$, silver keys, left-hand little finger $\underline{e}/\underline{b}'$ key, boxwood, ivory fittings, three sections, L 56.5, B 1.22, Brussels 924.

THREE-KEY (14):

Anonymous. In $\underline{f}''$, brass keys, thumb $\underline{e}/\underline{b}'$ key, L 40, Munich BNM 134.

_____. In $\underline{e}^{b''}$, brass keys, left-hand little finger $\underline{e}/\underline{b}'$ key, boxwood, three sections, unmounted, Nuremberg MI 150.

. In g'' or $a^{b''}$, brass keys, left-hand little finger e/b' key, boxwood, six (?) sections, horn fittings, Nuremberg MIR 426.

Denner, Johann Christoph (?) (1655-1707). In d'' , brass keys, thumb e/b' key, boxwood, unmounted, three sections (missing the mouthpiece/barrel), doubled tone holes for fingers 3, 4, 6 and 7, L 52.4, B 1.43-1.445, Berkeley 19.

Fridrich, J. In c'' , brass keys, thumb e/b' key, boxwood, unmounted, three sections (missing the mouthpiece/barrel), Prague 666E.

Fues, G. R. In a' , Bochum 50.

Kenigsperger, Johann Wolfgang (c. 1705-1752). In d'' , brass keys, thumb e/b' key, plum, one horn fitting, three sections, L 51.8, B 1.1, Munich BNM Mu 110.

Lindner (fl late eighteenth century). Brass keys, thumb e/b' key, boxwood, unmounted, three sections (composite instrument, only the lower stock/bell is from a baroque clarinet), Brussels 913.

Paur, R. In c'' , L 55.3, B 1.4, Nuremberg MIR 425.

Scherer, Johannes (1664-1722) or Georg Henrich (1703-1778). In d'' , silver keys, left-hand little finger e/b' key, boxwood, ivory fittings, three sections, L 56.5, B 1.22, Brussels 924.

Strehli, I. G. In c'' , L 61, Munich SIS 48/40.

I.S.W. In $b^{b'}$, brass keys, boxwood, horn fittings, five sections, L 64, B 1.2, Linz W 146.

Walch, Georg (1690-?). In d'', brass keys, thumb e/b' key, pear, unmounted, three sections, L 57, B 1.2, Salzburg 18/2.

_____. Germany, private collection.

General:

Young, Phillip T. Twenty-five Hundred Historical Woodwind Instruments.

Boekhout:

Historische Blaasinstrumenten de ontwikkeling van de blaasinstrumenten vanaf 1500 (Hague catalogue).

Denner, J. G.:

Hoepfich, T. E., "A Three-Key Clarinet by J. C. Denner".

Fridrich:

Keller, Jindrich, "Pistolefci a Truhari" (Prague catalogue).

Lindner:

Shackleton, Nicholas, "The 'Well Known Clarinet by Lindner'".

Scherer:

Hoepfich, T. E., "Die Klarinetten Johann Scherers".

Young, P. T., "The Scherer Family: German Woodwind Making".

Walch:

Birsak, Kurt, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum (Salzburg catalogue).

Bruckner, Hans, "Die Pfeifenscherer in Berchtesgaden".

Zimmerman, Josef, Von Zinken Flöten und Schalmeien (Bonn catalogue).

Anonymous:

Older European Muziekinstrumenten (Hague catalogue).

Stubbins, William W., The SOURCES CONSULTED (Munich Instruments).

(Complete citations are given in the bibliography)

General:

Young, Phillip T. Twenty-Five Hundred Historical Woodwind Instruments.

Boekhout:

Historische Blaasinstrumenten de ontwikkeling van de blaasinstrumenten vanaf 1600 (Hague catalogue).

Denner, J. C.:

Hoeprich, T. E., "A Three-Key Clarinet by J. C. Denner".

Fridrich:

Keller, Jindrich, "Pístelníci a Trubari" (Prague catalogue).

Lindner:

Shackleton, Nicholas, "The 'Well Known Clarinet by Lindner'".

Scherer:

Hoeprich, T. E., "Die Klarinetten Johann Scherers".

Young, P. T., "The Scherer Family: German Woodwind Making".

Walch:

Birsak, Kurt, Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum (Salzburg catalogue).

Bruckner, Hans, "Die Pfeifenmacherei in Berchtesgaden".

Zimmerman, Josef, Von Zinken Flöten und Schalmeien (Bonn catalogue).

Anonymous:

Oude Europese Muziekinstrumenten (Hague catalogue).

Stubbins, William H., The Art of Clarinetistry (Nuremberg instruments).

Amsterdam: Rijksmuseum.

Berkeley: University of California, Department of Music.

Berlin: Musikinstrumenten Museum, Staatliches Institut für Musikforschung.

Bochum: Städtisches Musikinstrumentensammlung Grunds bei der Stadtbucherei.

Bonn BH: Beethovenhaus.

Brussels: Musée Instrumentale.

Eisenach: Bachhaus.

Hague: Gemeente Museum.

Leipzig: Musikinstrumenten Museum, Karl Marx Universität.

Leningrad: Institute of Theater, Music and Cinematography.

Linz: Oberösterreichisches Landesmuseum.

London RCM: Royal College of Music Museum of Instruments.

Munich BNM: Bayerisches Nationalmuseum.

Munich SIS: Musikinstrumentenmuseum im Stadtmuseum.

Nuremberg NI and NIR: Germanisches Nationalmuseum.

Paris: Musée Instrumentale.

Prague: Hudební Oddělení Národního Muzea.

Salzburg: Museum Carolino Augustum.

MUSEUMS AND COLLECTIONS

Amsterdam: Rijksmuseum.

Berkeley: University of California, Department of Music.

Berlin: Musikinstrumenten Museum, Staatlichen Institut für Musikforschung.

Bochum: Städtisches Musikinstrumentensammlung Grumbt bei der Städtbücherei

Bonn BH: Beethovenhaus.

Brussels: Musée Instrumentale.

Eisenach: Bachhaus.

Hague: Gemeente Museum.

Leipzig: Musikinstrumenten Museum, Karl Marx Universität.

Leningrad: Institute of Theater, Music and Cinematography.

Linz: Oberösterreichisches Landesmuseum.

London RCM: Royal College of Music Museum of Instruments.

Munich BNM: Bayerisches Nationalmuseum.

Munich SIS: Musikinstrumentenmuseum im Stadtmuseum.

Nuremberg MI and MIR Germanisches Nationalmuseum.

Paris: Musée Instrumentale.

Prague: Hudebni Oddeleni Narodniho Muzea.

Salzburg: Museum Carolino Augusteum.

Each citation includes the following: author, title, place of publication, publisher, date, specific page or pages dealing with the clarinet, comments concerning the source, later editions, or

APPENDIX 3

AN ANNOTATED INVENTORY OF INSTRUCTIONAL MATERIALS FOR
THE CLARINET WHICH INCLUDE A FINGERING CHART, 1732-1843

This appendix includes a listing of tutors, treatises, or books which include a fingering chart or directions for fingering, and are dated from 1732 to 1843. Ninety-four sources were examined for this study. They are arranged chronologically according to the number of keys on the soprano clarinet for which each is intended. The following is a table which shows the number of these sources which refer to each of fourteen types of clarinets based on the number of keys.

<u>Number of Sources</u>	<u>Type of Clarinet</u>
2	2-key
2	3-key
7	4-key
49	5-key
8	6-key
2	7-key
1	8-key
3	9-key
1	11-key
4	12-key
11	13-key
1	14-key
1	15-key
1	16-key
1	Klosé-Buffer

Each citation includes the following: author, title, place of publication, publisher, date, specific page or pages dealing with the clarinet, comments concerning the source, later editions, or translations to 1843, source of dating, location, and library number.

1843 was chosen as a limit for this inventory, since this is the date of publication of the first book devoted to the modern instrument (the Klosé-Buffet clarinet). Those sources listed by Thomas E. Warner in An Annotated Bibliography of Woodwind Instruction Books, 1600-1830, are given a short title, and include his numbering preceded by a "W". When additional bibliographical or technical data support a date other than Warner's that date is given, with its supporting reference cited in an abbreviated form (complete citations are given in the bibliography). For those titles dating to 1830 not included in Warner, it was decided to provide an exact transcription of the title page, to help to distinguish earlier from later editions or printings, and to give full imprint data to allow dating by publishers' address or plate numbers.¹ The locations of sources are indicated by RISM sigla identified at the end of this appendix. An asterisk before a siglum denotes the copy is incomplete.

¹One exception is the title of the Supplément à l'Encyclopédie, an encyclopedia which has been studied in several secondary sources, such as Kathleen Hardesty's The Supplément to the Encyclopédie (The Hague: M. Nijhoff, 1977).

2-Key (a', register):

1. Majer, J. F. B. C. 1732

Museum Musicum . . . Schwäb. Hall: G. M. Majer, 1732. W65

Page 39 includes comments concerning the clarinet and a fingering chart. A copy of this book in the Württembergische Landesbibliothek at Stuttgart includes supplementary additions in Majer's hand, but none concerning the clarinet.

Facsimile edition: ed. H. Becker, Kassel: Bärenreiter, 1954. 2nd edition: Neu=eröffneter Theoretisch=und Pracktischer Music=Saal . . . Nuremberg: J. J. Cremer, 1741. Page 52 is identical to page 39 of the first edition.

2. [Eisel, J. P.] 1738

Musicus autodidaktos . . . Erfurt: J. M. Funcken, 1738. W71

Pages 76-8 comprise a section on the clarinet and a fingering chart. A copy of this book in the Bibliothèque Nationale at Paris includes a drawing of an instrument and a scale of notes labelled "Game", possibly in Eisel's hand.

Facsimile edition: Leipzig: Zentralantiquariat der DDR, 1976. 2nd edition: Der sich selbst informirende Musicus . . . Augsburg: J. J. Lotter, 1762. Pages 54-7 are identical to pages 76-8 of the first edition.

3-Key (e/b', a', register):

1. Berg, Lorents Nicolai. 1782

Den første Prøve / for Begyndere / udi / INSTRUMENTAL-Kunsten, / Eller / en kort og tydelig Underretning / om de første Noder at lære, / Til Lættelse ved Informationen paa adskillige / Musicalske Instrumenter, / I

sær paa / Claveer, Violin, Alt-Violon, Bas-Violoncel, Citar og en Deel blæsende Instrumenter. / Samlet og udgivet / ved LORENTS NICOLAJ BERG, / Kongl. Bestalter Instrumentist i Christianssand og dens Handel=District. / Christianssand, 1782. Trykt hos A. Swane paa Forlæggernes Bekostning.

Pages 48-52 comprise a chapter on the clarinet with a fingering chart. English translation in A. R. Rice, "The Clarinet . . .," pp. 45-50.

Location: *N(Ou); N(Tmi); Zumikon, Switzerland, Stalder collection.

2. [Anonymous]. c. 1810

"Gamut for the Clarionet". W299

A fingering chart bound as the fly leaf of The Complete Tutor for the German Flute . . . Dublin: J. Delany, c. 1810.

Locations: US(Wc).

4-Key (e/b', f#/c#'', a', register):

1. [Roeser, Valentin]. c. 1769

Gamme de la clarinette / Avec Six Duo pour cet Instrument. / Par M^r. Roeser musicien de M^{gr}. le Duc D'orleans. / A PARIS, Chez M^r/ Le Menu M^d. de Musique de Feu M^{dme}. la Dauphine; Rue du Roule, a la Clef d'or. Ceron sculp:

Bound with [Michel Corrette], Méthode pour apprendre aisément a jouer de la flûte traversiere . . . Paris: Boivin and Lyons: Bretonne, c. 1735. (W68)

The six pages of this source include one fingering chart (which is also the title page) and five pages of music.

An identical anonymous copy is found in F(Pn), Ch. 90, C. 11.

Dating: C. Johannson, French Music Publishers' Catalogues, 2: fac.

81.

Location: US(Wc), MT 342 .C8 Case.

2. Corrette, [Michel].

c. 1773

MÉTHODE / Raisonnée pour apprendre aisément / à jouer de la Flûtte [sic]
Traversiere / avec les principes de Musique / des Ariettes et autres
Jolis Airs en Duo / Ouvrage utile et Curieux / qui conduit en très peu
de tem a la parfaite / connoiſſance de la Musique à Jouer à Livre ouvré /
les Sonates, Concerto, et Symphonies. / Par M^r. CORRETTE / Ch^r. de
Christ. Nouvelle édition, revue corrigée et augmentée de / la Game du
Haut-bois et de la Clarinette. / Prix 6^{tt}. / Aux Adresses ordinaires de
Musique / Avec Privilige du Roi.

Page 55 includes a fingering chart, 56-66 include music.

Facsimile edition: Geneva: Minkoff, 1978.

Dating: this method is a later edition of W68, see D. Fuller,
"Corrette, Michel," Grove 6, 4:802.

Location: F(Pn), Rés. 237.

3. [Anonymous].

c. 1775

PRINCIPES DE CLARINETTE / Avec la Tablature des Meilleurs M^{tres}. / pour
cet Instrument et plusier Duo pour / cet Instrument Prix 1^{tt}. 4^s. A
Paris

The seven pages of this source include two pages for a fingering
chart (one of which is the title page) and five page of music.

Dating: A similar title is listed as being published by Girard in
the Almanach Musicale 1 (1775):87, no. 219, reprint ed.; Geneva:
Minkoff, 1972, p. 95.

Location: US(Cn), Case f V .716 .715; F(Pn), Vmg. 20820.

4. Hotteterre, [Jacques].

c. 1775

METHODE / POUR / APPRENDRE A JOUER EN TRÉS PEU DE TEMS / De la Flute traversiere, de la Flute à bec et / du Haut-bois. Divisée en differents traités / Par M^r. HOTTETERRE, le Romain / Flute de la Chambre du Roi. / NOUVELLE ÉDITION / Augmentée des Principes de la Musique et de Tablatures / de la Clarinette et du Basson Suivi d'un Recueil d'A / - riettes choisies dans les plus beaux Operas Comiques; / Menuets et autres jolis Aires ajustés pour deux Flutes / traversieres Violons, ou pardessus de Viole; &c. / PAR M^r. BAILLEUX / Ouvrage utile aux Comménçants et à ceux qui veulent / parvenir a l'exécution des Sonates et Concertos, &c. / Prix 9^{tt}. / A PARIS. / Chez M^r. Bailleux M^d. de Musique ordinaire de la Chambre et Menus / plaisirs du Roi, rue St. Honoré a la Regle d'Or. / A Lyon, à Bordeaux, à Toulouse et à Lille. / AVEC PRIVILÉGE DU ROI.

Page 24 includes a fingering chart.

Dating: this tutor is a later edition of W42, see C. Johansson, 2: fac., 2; and J. Bowers, "A Catalogue . . .," p. 124.

Location: D-ddr(Bds); F(Pc); US(Wc).

5. Castillon, Frédéric [Adolphe Maximilian Gustav] de. 1776

"Clarinette" in the Supplément à l'Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers . . ., 5 vols., Amsterdam: M. M. Rey, 1776-1777, vol. 2, pp. 450-1.

One page of text (p. 451) includes a fingering chart.

Facsimile edition: Paris: Au Cercle du livre précieux, 1977. A corrected edition was published under the title of Art du faiseur

d'instruments de musique et Lutherie, Paris, 1785; reprint ed., Geneva: Minkoff, 1972, pp. 118-9. A partial English translation is by E. Halfpenny in "Castilon [sic] on the Clarinet," pp. 334-5.

6. Abraham.

[1782]

PRINCIPES / DE CLARINETTE / Suivis de Pas rdoubls et de Marches / Les Plus a la Mode. / ARRANGES / EN DUO / Par M^r. ABRAHAM / Prix / A PARIS Chez Frre passage du Saumen / Avec privilege du Roy

In this source there is one fingering chart in the first clarinet part book of two books of duos. It is bound with thirty-two collections (called recueils) comprising 661 duos.

Dating: This source may be identified with W151, see Brenet, "La Librairie musicale en France de 1653 1790 . . .", p. 464.

Location: F(Dm).

4-Key (e/b', a^b/e^{b''}, a', register):

1. Reynvaan, Joos Verschuere.

1795

Muzikaal / Kunst- / WOORDENBOEK, / Behelzende, / DE VERKLAARINGEN, / als mede / het gebruik en de kracht / der / KUNST-WOORDEN, / die in de muzik voorkomen, / door / J. VERSCHUERE REYNVAAN, / practiseerend advocaat. / Te Amsteldam, bij / WOUTER BRAVE, / Boekverkoper op den Zeekik. / MDCCXCV.

Page 419 includes one page of text under the word, "Klarinet", and there is one fingering chart as plate 30. This is the only known fingering chart for this type of four-key clarinet.

Location: A(Wn), GM(Lbm), US(Wc).

5-Key (e/b'', f[#]/c^{#''}, a^b/e^{b''}, a'', register):

1. [Anonymous].

c. 1780

The clarinet Instructor . . . London: Longman & Broderip. W134

This source is the earliest known tutor for the five-key clarinet.

2. Gehot, Joseph. [1784]

A / Treatise on the Theory & Practice / of Music / in three parts. / The 1st part treats of practical Music in general, the 2^d of the Thorough Bass & the 3^d of Counterpoint, or Composition; together / with Scales of every Musical Instrument & the art of fingering on Keyed, & bowing on stringed Instruments, explained in various Examples. / BY / Joseph Gehot / LONDON, printed for the Author at N^o. 17, Sherrard Street, Golden Square.

Page 14 includes a fingering chart. It was republished by Gehot in Complete Instructions for every musical instrument . . ., London: G. Goulding, c. 1801, p. 8 (W259).

Dating: J. C. Kessler, "Gehot, Joseph," Grove 6, 7:216.

Location: GB(Lbm), US(Bp).

3. [Anonymous]. c. 1785

Complete Instructions [sic] for the Clarinet . . ., London: S, A, & P, Thompson. W156

4. Van-Der-Hagen, Amand. c. 1785

Méthode Nouvelle et Raisonnée pour la clarinette . . ., Paris: Boyer and Le Menu. W157

Facsimile edition: Geneva: Minkoff, 1972.

Later editions of this tutor were published by two firms in Paris: Nadermann, c. 1797-98 [dating: Devriès and Lesure, Dictionnaire des éditeurs de musique français, 1:123; locations: F(Pn), Ch. 62]; and Sieber, c. 1799 and c. 1802-3 [dating: Devriès and Lesure, 1:147;

locations: US(Wc), MT 382 .V32; Iowa City, Voxman collection]. These later editions include additional text and music.

5. Reynvaan, Joos Verschuere. 1795

Muzijkaal Kunst-Woordenboek . . . Amsterdam: W. Brave, 1795.

Pages 141-2 include an entry for this instrument under the term, "Clarinetto", and there is one fingering chart as plate 11. For the full title see above, page 472 no. 1.

Location: A(Wn), GB(Lbm), US(Wc).

6. Blasius, Frédéric. c. 1796

Nouvelle Méthode de clarinette . . ., Paris: Porthaux. W223

Pages 45-55 includes text dealing with the clarinet, pages 56-113 include exercises and music.

Facsimile edition: Geneva: Minkoff, 1972. English translation by W. Menkin in "Frédéric Blasius . . ."

Dating: F. Lesure, "Écrits imprimés sur la musique . . .", p. 1.

7. [Anonymous]. c. 1797

New and Complete Instructions for the Clarionet . . ., London: Preston & Son. W187

Additional locations: *GB(Gm).

A later issue appeared in London by Preston, c. 1822-34 (location: New York City, Wurlitzer-Bruck collection).

8. [Anonymous] c. 1798

New and Compleat Instructions for the Clarionet . . . London: A. Bland & Weller. W191

The fingering chart in this source is incomplete.

9. Vanderhagen, Amand. c. 1799

Nouvelle Méthode de clarinette divisée en deux parties . . ., Paris: Pleyel. W253

Dating: Devriès and Lesure, 1:135.

Later editions of this tutor were published by two firms, Paris: Pleyel et Fils aîné, c. 1816 (marked "2^{ème} Edition", dating: Devriès and Lesure, 1:135; locations: Zumikon, Switzerland, Stalder collection); and Leipzig: Breitkopf & Härtel, c. 1836 [text in French and German; dating: review in the AMZ 38 (1836), cols. 653-4; locations: GB(Lbm), h. 3878..c].

10. [Dickinson, Silas]. c. 1800

"Silas Dickinson's Book".

This manuscript source includes a fingering chart at the beginning of a collection of music.

For a general description of this manuscript and an examination of one of its trios, see J. LaRue, "Handle's Clarinet," pp. 177-78.

Locations: US(Nyp), Music Res. Amer.

11. Holyoke, Samuel. c. 1800

The Instrumental Assistant . . ., Exeter, New Hampshire: H. Ranlet. W234

Pages 11-12 of this sources include text and fingering charts.

Additional location: US(WS).

12. [Anonymous] c. 1801

The Clarinet Preceptor . . ., London: C. Wheatstone. W255

13. Michel, V. c. 1801

Méthode de clarinette . . ., Paris: Cochet. W260

The author of this source may have been the son of the clarinetist Michel Yost (1754-1786), according to Gerber in Neues Historisch-Biographisches Lexikon . . ., cols. 424-5.

14. [Callcott, John Wall].

c. 1797-1807

"Collections for a Practical Dictionary of Music".

This manuscript source includes a chapter entitled, "Clarinett". A transcription is by A. R. Rice in "An Eighteenth Century . . .," pp. 29-30.

Dating: J. C. Kessler, The Science of Music in Britain, 1:150-2.

Location: GB(Lbm), add. MS. 27680, fols. 25-37.

15. Le Fevre, [Jean-Xavier].

[1802]

Méthode de clarinette . . ., Paris: A l'Imprimerie du Conservatoire de Musique, An XI. W266

Facsimile edition: Geneva: Minkoff, 1974.

A shorter edition was published with parallel columns of French and German text in Offenbach by J. André, c. 1805 [dating: Deutsch, Musikverlags Nummern, p. 6; location: GB(Lbm); US(CA); US(NYp); US(Wc)].

Two subsequent editions of this tutor were applied to the 11- and 13-key clarinet, see pp. 490 (no. 1) and 493 (no. 7).

16. [Anonymous].

c. 1803

The Clarinet Preceptor . . ., London: G. Goulding. W268

17. Backofen, [Johann Georg Heinrich].

c. 1803

Anweisung zur Klarinette . . ., Leipzig: Breitkopf & Härtel. W264

An identical copy of this source was published by Backofen as:
Neue teoretisch [sic] prachtische Klarinett Schule . . ., Vienna: J.
 Cappi, c. 1812 (W324).

2nd edition: Vienna: K. K. pr. chemischen Druckerey, c. 1810
 (dating: O. E. Deutsch, Musikverlags Nummern, p. 24; location: London,
 Melville-Mason collection).

Dating: Advertised in the "Intelligenz-Blatt zur Allgemeinen
 Musikalischen Zeitung", no. 4 (Nov. 1803), AMZ, 5 (1803).

18. Blake, G[eorge] E.

c. 1803

A New and Complete Preceptor / for the / CLARINET. / Being an
 Introduction to the Art of Playing on that Instrument / Explained in the
 most simple and comprehensive manner / ALSO / A Selection of the newest
 & most Favorite Airs, Song tunes, Marches &c. / By G. E. BLAKE. /
 PHILADELPHIA. / Printed for the Author & Sold at his Musical Repository
 N^o. 1 South 3^d. St.

This source includes nine pages of text, thirteen pages of music,
 two fingering charts, and one page for a dictionary of terms.

Dating: D. W. Krummel, Guide for dating early published music, p.
 66.

Location: New York City, Selch collection.

19. [Hunter, Thomas].

c. 1803

"Thomas Hunter's Booke".

This manuscript source includes a fingering chart.

Location: Binghamton, New York, State University of New York.

20. Mahon, John.

c. 1803

A New and Complete / PRECEPTOR, / for the / CLARINET, / which Contains a Short & Easy / TREATISE on MUSIC, / The Art of acquiring a Fine Tone, including Forty-two / Lessons on the relative Notes, peculiar to the Clarinet, / On the Chassimeau [sic] and Fingering the Instrument, on counting / Time &c,--with TWELVE EASY LESSONS for TWO / CLARINETS, TWELVE FAVORITE AIRS selected from the best / Scottish, Irish, & French Music; adapted for Two Clarinets / two with Variations EIGHT EXERCISES for acquiring neat / Execution FOUR CONCERTANTE DUETS, Pleyel's German Hymn, / with Variations arranged for Two Clarinets, and a Variety of / CADENZAS or PRELUDES in DIFFERENT KEYS. / To which is added the Gamut, for the Clara Voce or Corno Bassetto / and a Scale of Transposition for Clarinet Players in General. / by / JOHN MAHON. / Enter'd at Stat^s. Hall. LONDON Price 10^s/6 / Printed by Goulding, Phipps & D'Almaine, 45 Pall Mall & 76 St. James's Str^t. / Music Sellers to their Royal Highnesses the Prince & Princess of Wales / and Manufacturers of Military Musical Instruments. W270

This source includes six pages of text, fifty-four pages of music and two fingering charts.

A 2nd corrected edition was published in London by Goulding, D'Almaine, Potter and Co., c. 1811-16 (dating: A. Lyle, "John Mahon's Clarinet Preceptor," p. 52; location: Leicester, Newark Houses Museum).

Dating: Langwill, An Index . . . , p. 64.

Location: GM(Er).

21. Herrick, Joseph. 1807

The Instrumental Preceptor . . . , Exeter, New Hampshire, 1807. W288

Page 8 of this source includes text and a fingering chart.

22. Shaw, O[liver]. 1807

For the Gentlemen . . ., Dedham: Massachusetts, 1807. W291

Page 9 of this source includes text and a fingering chart.

23. Démar, [Sébastien]. c. 1808

Nouvelle Méthode pour la clarinette . . ., Orléans: l'Auteur. W297

24. [Anonymous]. c. 1808

[The Clarinet Preceptor]. W292

This source is a printed tutor whose title page is missing. It is probably a later issue of either no. 12 or 17.

25. Bochsa, Charles. c. 1808

MÉTHODE / Instructive / Pour la Clarinette / Contenant les Principes généraux de la Musique et de la Cla / -rinette, différentes Gammes, Lecons faciles, et douze petits Airs / choisis dans les Ouvrages d'Haydn, Mozart, Paisiello et autres, ar / -rangés facilement pour les Commencants. / Par / Charles Bochsa Pere / Prix 6^{tt}. / Propriété de l'Editeur Enregistrée a la Bibliot^e. Imp^{le}. / A PARIS / Chez Imbault Marchand de musique de leurs Majestés II. et RR. / au Mont d'or, rue S^t. Honoré N^o. 125, entre l'Hôtel d'Aligre et la rue des Poulies, / et Péristile du Théâtre de l'Opéra Comique rue Favart N^o. 461 / 0.41 L. a b c d.

This source includes six pages of text, eleven pages of music, and two fingering charts.

Dating: Devriès and Lesure, 1:126.

Location: US(U), qM 788.6207 B631m

26. [Anonymous]. c. 1810

"Scala zur Clarinette zum Selbstunterricht".

This manuscript source is an incomplete fingering chart written in Austria and signed: "Antonius Schminder". It is reproduced and dated by Karl M. Klier in Volkstümliche Musikinstrumente in den Alpen (Kassel: Bärenreiter, 1956), fig. 82.

27. Froehlich J[oseph].

c. 1810-11

Vollständige Theoretisch-practische Musikschnle . . ., Bonn: Simrock.
W310

In this treatise, Froehlich wrote a chapter concerning the clarinet which consists of twenty-one pages of text (pp. 7-27) and a fingering chart.

28. Antolini, Francesco.

1813

La retta maniera di scrivere per il clarinetto . . . Milan: C. Buccinelli, 1813. W333

Antolini's rambling discussion includes comments concerning the flute, English horn, French horn and trumpet. he includes two fingering charts for the clarinet.

29. Whitely, William.

1816

The Instrumental Preceptor . . ., Utica, New York, 1816.
W351

Pages 8-9 of this source include brief instructions and two fingering charts.

30. Bacon, [Allyn].

c. 1817

Bacon's Complete Preceptor for the Clarinet . . ., Philadelphia: A. Bacon. W357

Dating: Krummel, p. 232. *the Clarinet* . . . Philadelphia: J. G.

31. [Anonymous]. c. 1818

A Complete Preceptor for the Clarinet . . . New York: Dubois. W353

Much of this tutor's material is copied from no. 17.

32. Leroy, P. c. 1819

Klarinettenschule / für / die ersten Anfänger / enthaltend / die Anfangsgründe der Musik, kurz / und leicht fasslich dargestellt, die Ton= / leiten und zwanzig Uebungsstücke / von / P. LEROY. / BERLIN, / in der Schlesinger'schen Buch und Musikhandlung. / Preis M.1,50. / 564.

This source is a German translation of a French tutor W250. It includes three pages of text, three pages of music and one fingering chart.

Dating: Deutsch, p. 21. . . Paris: Arnand. W279

Locations: Iowa City, Voxman collection.

33. Goodale, [Ezekial]. 1819

The Instrumental Director . . . , Hallowell, Maine, 1819. W365

Page 8 of this source includes a few comments and a fingering chart.

34. [Anonymous]. 1820

Literary and Musical Magazine. W362

The "Clarionet Instructions" comprise one page of text and two fingering charts. They appear in vol. 4 (n.s. vol. 1), April-May 1820, pp. 172, 176 and 180.

35. [Anonymous]. c. 1823

A New & Complete Preceptor for the Clarinet . . ., Philadelphia: J. G. Klemm. W402

Dating: Krummel, p. 234.

37. [Anonymous].

c. 1825

A NEW AND COMPLETE / PRECEPTOR / For the / CLARINET / With a Selection of / Lessons and Favourite Airs / Adapted / For the Instrument / Boston, Published by John Ashton. 197 Washington St.

This source comprises fourteen pages of text, twelve pages of music and two fingering charts.

Dating: National Union Catalog, Pre-56 Imprints, vol. 412, p. 185.

Location: US(Wc), ML 31 .53e no. 3 Case

38. Rybicki, François.

c. 1826

Méthode pour la clarinette . . ., Paris: Arnaud. W279

Dating: Journal Général d'Annonces d'objets d'Arts et de librairie 2 (1 July 1826): 444; reprint ed., Geneva: Minkoff, 1977, p. 904.

39. Graupner, [Gottlieb].

1826

G. GRAUPNER'S / Complete Preceptor for / the / CLARINET, / Containing an accurate Scale / and Examples of the best Fingering / to which is added a Collection of the most popular / AIRS, MARCHES, &c.&c. / and a Concise / Dictionary of Musical Terms / Botton, [sic] Published by G. GRAUPNER and Sold for him by / JOHN ASHTON N^o. 197 Washington St. / Copy Right Secured July 14th 1826. W419

This source comprises twenty pages of text, seven pages of music, and two fingering charts.

Location: US(Cn), Case 7Q 82.

40. [Anonymous]. c. 1828

A / COMPLETE PRECEPTOR / for the / CLARIONET / Containing Instructions
for that instrument, and including a variety of / Popular Duetts, /
Waltz's Airs, / Marches &c, / Hallowell: / Glazier, Masters & Co.

This tutor includes eight pages of text, fifteen pages of music,
and two fingering charts. It appears to have printed from the same
plates as no. 35.

Location: US(Wc).

41. Vaillant, [Pierre]. c. 1828

Nouvelle Méthode de clarinette a Cinq et a Treize Clefs . . ., Paris:
l'Auteur. W447

This tutor is very similar to no. 38.

Dating: C. Hopkinson, A Dictionary of Parisian Music Publishers,
1700-1950, p. 116.

42. [Anonymous]. c. 1830

Metzler's & Son's Clarinet Preceptor . . . by an eminent Professor . .
. , London: Metzler & Son. W432

On page 9 of this source clarinets are described with five, nine
and ten keys.

43. [Anonymous]. c. 1830

"A Natural Gamut for the Clarionett".

This manuscript fingering chart indicates a range from e to f'''.
It was probably copied from a late eighteenth-century English source and
is reproduced by S. J. McPherson in "The Clarinet in Nineteenth-Century
America", p. 12.

Location: North Andover, Massachusetts, North Andover Historical Society. / 1837.

44. [Anonymous].

c. 1830

"Scale or Gamut for the Clarionet".

This manuscript fingering chart indicates a chromatic range from e to g'''. It is the only chart which shows the practice of covering half of a tone hole (for the notes, b', f#' and f#''').

This chart is reproduced by S. J. McPherson in "Nineteenth-Century American Clarinet Music, 1878-1915: An Annotated Bibliography" (M.A. thesis, University of California at Santa Barbara, 1982), pp. 29, 31.

Location: Edgarton, Massachusetts, Dukes County Historical Society.

45. Bertini, Auguste [Benoît].

1837

NEW SYSTEM FOR LEARNING, / and acquiring extraordinary facility on, / ALL MUSICAL INSTRUMENTS, / particularly the / PIANO-FORTE, HARP, VIOLIN, & GUITAR, / (as well as in singing,) / IN A VERY SHORT SPACE OF TIME: / with / A NEW AND EASY MODE OF MARKING THE FINGERING OF ALL WIND INSTRUMENTS. / Illustrated by forty-four explanatory plates, including those for musical cards, / That will enable the pupil to make great progress, even in the absence of a master, and without an instrument; / and dedicated to his pupils in Amsterdam, Brussels, Paris, Naples, and London. / BY AUGUSTE BERTINI. / Second Edition, / Considerably Enlarged and Improved. / N.B.--This system is not only of use to the student, but even to the most finished performer; as, by the practice of it for a few minutes every day, he will gain more / than by slaving for hours at his

88. [Moore, John Wicks].

The World of Music, vol. 1 (4 July 1840): page 88.

instrument. / LONDON: / PUBLISHED BY LONGMAN, ORME, BROWN, GREEN, AND LONGMANS. / 1837.

This treatise includes Bertini's manner of notating fingerings. The fingering chart for the clarinet (p. 5) is dated "Nov 1830", and could be sold separately.

The first edition of this treatise is recorded in the British Museum Catalogue of Printed Books as being published in London by Longman & Co. in 1830, and located in GB(Lbm), 557* e. 24.

Location: GB(Er).

46. [Moore, John Weeks]. c. 1840

[Vocal and Instrumental Self Instructor], n.p., n.d.

One page of this unpaginated treatise includes similar instructions to those given in no. 48, and a fingering chart taken from an earlier English tutor. The title page of this source is lacking and is identified by A. R. Rice in "Instrumental Tutors and Treatises at Winston-Salem," p. 35.

Location: *US(WS).

47. [Brown, William A.] [1840]

"Music Book for Clarinet".

This manuscript source includes forty-eight pages of music and one fingering chart.

Dating: The music is signed: March 1840, Aug. 1840, Dec. 17th 1840 and 1841 on different pages.

Location: US(SA).

48. [Moore, John Weeks].

1840

The World of Music, vol. 1 (4 July 1840): page 88.

This periodical includes instructions and a fingering chart entitled, "Holyoke's Complete Scale for the Clarionett". The instructions were taken from an earlier English tutor. Most of the fingerings were based on Holyoke's chart (no. 11). Identified by A. R. Rice in "Instrumental Tutors and Treatises at Winston-Salem," p. 35.

Location: US(WS).

49. Howe, Elias Jr. [1843]

Howe's School for the Clarionett . . ., Boston: E. Howe, Jr.

This source comprises eight pages of text, thirty-two pages of music, and two fingering charts. A fingering chart for the thirteen-key clarinet is also included.

Location: US(NYp).

6-Key (e/b', f#/c#'', a^b/e^b'', c#/g#'', a', register):

1. Blatt, [Franz Thaddäus]. c. 1828

Méthode complete [sic] de clarinette . . ., Mainz: les fils de B. Schott. W425

This source includes fingering charts for the 9- and 12-key clarinet.

2. Carnaud. 1829

Nouvelle Méthode de la clarinette moderne à Six Clefs et a Treize Clefs . . ., Paris: Collinet, 1829. W429

3. Weber, Gottfried. 1829

"Einiges über Clarinett und Bassetthorn," in Cäcilia, vol. 11, no. 41 (1829): 37-57.

This article includes fingering charts for the 6- and 9-key clarinet. It is an adaptation of Weber's article, "Clarinet" in the Allgemeine Encyclopädie der Wissenschaften und Künste, eds. J. S. Ersch and J. G. Gruber, 167 vols. (Leipzig: Brockhaus, 1818-89), 17 (1828):370-74.

4. Baissières-Faber, [François]. c. 1830

Méthode Élémentaire et facile pour la clarinette à six Clefs . . . , Paris: Schonenberger. W439

The copy located of this tutor is lacking its fingering charts for the 6- and 13-key clarinet.

5. Gambaro, [Jean-Baptiste]. c. 1830

Méthode Facile de clarinette à six Clefs . . . , Paris: Gambaro. W410

Dating: Hopkinson, p. 104.

6. Carnaud. c. 1835

Méthode pour la clarinette à six et à treize clefs . . . , Paris: Richault. W441

This tutor is very similar in content to no. 2.

Dating: Hopkinson, p. 104.

7. Berr, Frédéric [J. Ennès Berr].

Nouvelle Méthode de clarinette à 6 et 13 Clefs . . . , Paris: Meissonnier and J. L. Heugel.

This tutor comprises 109 pages.

Dating: A. Wotquenne, Catalogue de la Bibliothèque . . . , p. 139.

Location: B(Bc), Litt. DD. 9004.

8. Lefevre, [Jean-Xavier]. [1842]

Metodo per clarinetto . . . , Milan: G. Ricordi.

This source is an Italian translation of Lefevre's tutor for the five-key clarinet (no. 15, p. xxx). It comprises 140 pages with two fingering charts for the 6- and 11-key clarinet.

Dating: T. F. Heck, "Ricordi Plate Numbers in the Earlier 19th Century," p. 117.

Location: A(Wn), SA 75 A 43.

7-Key (e/b', f#/c#'', a^b/e^{b''}, b^b/f'', a', a'/b' trill, register):

1. Simiot, [Jacques-François]. 1808

TABLEAU EXPLICATIF / des innovations et changemens faits a la Clarinette par SIMIOT facteur [text] Plâtre N^o. 14 A LYON

This source comprises two pages of explanation and a dated fingering chart. It appears to have been written to advertise Simiot's fine clarinets.

Location: F(Pn), Vm⁸ h. 41.

7-Key (e/b', f#/c#'', f/c'', a^b/e^{b''}, thumb plate, a', register):

1. Schneider, Wilhelm. 1834

"Clarinette" in Historisch=technische Beschreibung der musicalischen Instrumente, Neisse and Leipzig: T. Hennings, 1834, pp. 26-32.

Tafel IV includes this very unusual fingering chart.

8-Key (e/b', f#/c#'', a^b/e^{b''}, b/f#'', c#/g#'', e^b/b^{b''}, a', a'/b' trill, register):

1. Hopkinson, John. c. 1842

A New and Complete Preceptor for the Clarinet . . . , London: Metzler & Co.

This source comprises forty-one pages of text. The 8-key clarinet in Hopkinson's fingering chart was probably made by the maker, George Metzler and son.

Dating: Langwill, An Index . . ., p. 117.

Location: GB(Lbm), h. 2175.

9-Key (e/b' / f#/c#'', a^b/eb'', b^b/f'', c#'/g#'', e^b/b^b'', f'/c''', a', register): source is an Italian translation of Lefevre's tutor for the

1. Blatt, [Franz Thaddäus]. c. 1828

Methode Complete [sic] de clarinette . . ., Mainz: les fils de B. Schott. W425

This source includes fingering charts for the 9- and 12-key clarinet.

2. Weber, Gottfried. 1829

"Einiges über Clarinett und Bassetthorn" in Cäcilia, vol. 11, no. 41 (1829): 37-57.

This article includes fingering charts for the 6- and 9-key clarinet. It is an adaptation of Weber's article, "Clarinett" in the Allgemeine Encyclopädie der Wissenschaften und Künste, eds. J. S. Ersch and J. G. Gruber, 167 vols. (Leipzig: Brockhaus, 1818-89), 17 (1828): 370-74.

9-Key (e/b', f#/c#'', a^b/e^b'', b^b/f'', c#'/g#'', e^b/b^b'', f#/c#''', a', register):

1. Porter, William Smith. 1834

"Wind Instruments" in The Musical Cyclopedia . . ., Boston: J. Loring, 1834, pp. 426-32.

Dating: C. Gardeton, Bibliographie

Page 429 of this source is a fingering chart for a 5-key clarinet with fingerings for four additional keys.

11-Key (e/b', f#/c#'', a^b/e^b'', bb/f'', c#'/g#'', e^b/b^b'', f/c''', g#', a', a'/b' trill, register):

1. Lefevre, [Jean-Xavier]. [1842]

Metodo per clarinetto . . ., Milan: G. Ricordi.

This source is an Italian translation of Lefevre's tutor for the five-key clarinet (no. 15, p. 476). It comprises 140 pages with two fingering charts for the 6- and 11-key clarinet.

Dating: T. F. Heck, "Ricordi Plate Numbers in the Earlier 19th Century," p. 117.

Location: A(Wn), SA 75 A 43.

12-Key (e/b', f#/c#'', a^b/e^b'', b^b/f'', b/f#'', c#'/g#'', e^b/b^b'', f'/c''', g#', a', a'/b' trill, register):

1. Vanderhagen, Amand. c. 1819

Nouvelle Méthode pour la clarinette moderne à douze cles . . ., Paris: Pleyel & Fils aîné.

According to a printed note on the fingering chart, this type of 12-key clarinet was used by the German clarinetist, Heinrich Baermann, during his concerts in Paris of 1818.

Dating: Devriès and Lesure, Dictionnaire . . ., vol. 1, p. 129.

2. Dacosta, [Isaac-Franco]. c. 1821

Etude pour les Cadences de la clarinette à douze Clefs . . ., Paris:

l'Auteur. W443

This incomplete source provides written fingerings for trills.

Dating: C. Gardeton, Bibliographie Musicale . . ., p. 46.

3. Backofen, [Johann Georg Heinrich]. [1824]
Anweisung zur Clarinette mit besonderer Hinsicht auf die in neuern Zeiten diesem Instrument beigefügten Klappen . . ., Leipzig: Breitkopf & Härtel.

This source comprises forty-two pages and includes Backofen's 5-key clarinet fingering chart from his tutor of c. 1803 (no. 17, page 476).

Dating: Preface dated, "14 June 1824".

Location: D-ddr(LEm), P5038.

4. Blatt, [Franz Thaddäus]. c. 1828
Methode Complete [sic] de clarinette . . ., Mainz: les fils de B. Schott. W425

This source includes fingering charts for the 9- and 12-key clarinet.

13-Key (e/b' , $f^\sharp/c^\sharp''$, f/c'' , $a^b/e^{b''}$, $b^b/f''(2)$, $b/f^\sharp''$, $c^\sharp'/g^\sharp''$, $e^b/b^{b''}$, f'/c'' , $g^\sharp'$, a' , a'/b' trill, register):

1. Müller, Ivan. 1821
Methode pour la Nouvelle Clarinette & Clarinette-Alto . . ., Paris: Gambaro. W412

A very important tutor in advocating Müller's 13-key clarinet. He included additional thumb levers for the $f^\sharp/c^\sharp''$ and $a^b/e^{b''}$ keys positioned for the thumb of the right hand.

Later editions include the following: Milan: G. Ricordi, [1824], 69 pages in length without a section on the alto clarinet [dating: T.F. Heck, "Ricordi . . ., p. 117; location: A(Wn), SA 75 A 33]; and Leipzig: F. Hofmeister, [1825], a slightly revised German edition [dating:

announcement of 23 July 1825 by Hofmeister in the "Intelligenz-Blatt zur allgemeinen musikalischen Zeitung", no. 7 (Aug. 1825), AMZ 27 (1825); location: GB(Lbm), h. 2179].

Dating: The publication of Müller's tutor by Gambaro is mentioned by Louis-Benjamin Francoeur in his "Rapport fait par M. Francoeur . . .," Bulletin de la société d'encouragement pour l'industrie nationale, vol. 212 (1822), page 45 (his report is signed "9 January 1822").

2. Rybicki, François. c. 1826

Méthode pour la clarinette . . ., Paris: Arnaud. W279

This source includes fingering charts for the 5-key (no. 38, page 482) and 13-key clarinet.

Dating: Journal Général d'Annonces d'objets d'Arts et de librairie 2 (1 July 1826): 444; reprint ed., Geneva: Minkoff, 1977, p. 904.

3. Vaillant, [Pierre]. c. 1828

Nouvelle Méthode de clarinette à Cinq et à Treize Clefs . . ., Paris: l'Auteur. W447

This source includes fingering charts for the 5-key (no. 41, page 483) and 13-key clarinet.

Dating: Hopkinson, A Dictionary . . ., p. 116.

4. Carnaud. 1829

Nouvelle Méthode de la clarinette moderne à Six Clefs et à Treize Clefs . . ., Paris: Collinet. W429

This source includes fingering charts for the 6-key (no. 2, page 486) and 13-key clarinet.

5. Baissières-Faber [François]. c. 1830

Méthode Élémentaire et facile pour la clarinette à six et à 13 clefs . .
 ., Paris: Schonenberger. W439

The copy located of this tutor is lacking its fingering charts for the 6- and 13-key clarinet.

6. Carnaud. c. 1835

Méthode pour la clarinette à six et à treize clefs . . ., Paris:
 Richault. W441

This source includes fingering charts for the 6-key (no. 6, page 476) and 13-key clarinet.

Dating: Hopkinson, p. 104.

7. Buteux [Claude François]. [1836]

Méthode de clarinette d'après celle Composée par Xavier Le Fèvre . . .
Augmentée du Mécanisme de l'Instrument perfectionné par Iwan Muller . .
 ., Paris: Troupenas et Cie.

This source is an adaptation of Lefevre's tutor for the 5-key clarinet (no. 15, page 476). It comprises 181 pages.

Dating: Hopkinson, p. 116. A handwritten note on the title page states: "Déposé à la Direction. Mai 1836, N^o. 94."

Location: F(Pn), ch. 10.

8. Blatt, [Franz Thaddäus]. [1839]

Die Kunst des Clarinetblasens / Méthode Complete de Clarinette . . .,
 Mainz: B. Schott's Söhnen.

This bilingual German-French tutor is an improved and enlarged edition of Blatt's tutor of 1828 (no. 1, p. 486 and no. 1, p. 489). The copy of this source in US(NYp) is lacking its fingering charts.

Dating: the preface is signed "September 1839".

Location: US(NYp).

9. Berr, Frédéric [J. Ennès Berr]. [1839]

Nouvelle Méthode de clarinette à 6 et 13 Clefs . . ., Paris: Meissonnier and J. L. Heugel.

This tutor comprises 109 pages. It includes fingering charts for the 6-key (no. 7, p. 487) and 13-key clarinet.

Dating: A. Wotquenne, Catalogue de la Bibliothèque . . ., p. 139.

Location: B(Bc), Litt. DD. 9004.

10. Howe, Elias Jr. [1843]

Howe's School for the Clarionett . . ., Boston: E. Howe, Jr.

This source comprises eight pages of text, thirty-two pages of music, and two fingering charts for the 5-key (no. 49, p. 486) and 13-key clarinet.

Location: US(NYp).

13-Key (e/b', f#/c'', a^b/e^b', b^b/f'', b/f#''(2), c#/g'', e^b/b^b', f'/c'', g#, a', a'/b' trill, register):

1. Willman, Thomas [Lindsay]. [1826]

A Complete Instruction Book for the Clarinet . . ., London: Goulding, D'Almaine & Co. W421

Two fingering charts are included in this source. Willman's book is an important English tutor that was reprinted in the U.S.A. from the mid-1840s.

14-Key (e/b', f#/c'', f/c'', a^b/e^b', b/f#''(2), c#/g'', e^b/b^b', f'/c'', g#, a', a'/b' trill, register):

1. Berr, Frédéric.

1836

Traité complet de la clarinette à quatorze clefs . . ., Paris: E. Duverger, 1836.

This source is 96 pages in length. Berr was an important advocate of the 13- and 14-key clarinet in Paris.

Location: B(Br), 6367 B Mus.

15-Key (e/b', f[#]/c[#]'', f/c''', a^b/e^b''(2), b^b/f'', b/f[#]'', c[#]/g[#]'', e^b/b^b'', f'/c''', g[#]', a', a'/b' trill, b^b', register):

1. Gutteridge, William. [1824]

Introduction to the Art of Playing on Gutteridge's New Patent Clarinet . . ., London: Clementi & Co. W391

Gutteridge stated in this tutor (p. 1) that he built clarinets as early as 1813, according to his own placement of tone holes and placement of keys. In addition to the unusual placement of tone holes and design of finger touchplates, he added another tone hole for a second a^b/e^b'' key, and a separate key for the note b^b' in addition to a register key. Gutteridge's clarinet design, according to the fingering chart in this tutor, was constructed by Clementi & Co. See, E. A. K. Ridley, The Royal College of Music Museum of Instruments Catalogue Part I: European Wind Instruments (London: The Royal College of Music, 1982), p. 37, no. 248.

16-Key e/b', f[#]/c[#]'', f/c''', a^b/e^b''(2), b^b/f'', b/f[#]'', c[#]/g[#]'', e^b/b^b(2), f'/c''', f[#]/c[#]'', g[#]', a', a'/b' trill, register):

1. Fahrbach, Joseph. c. 1841

Neueste Wiener Clarinetten-Schule . . ., Vienna: A. Diabelli and Co.

Fahrbach's interesting clarinet included two additional keys for the notes a^b/e^b'' and e^b/b^b'', as well as projections at the ends of

some touchplates for greater ease in fingering. Fahrbach's clarinet chart is also used by Andreas Nemetz in his Allgemeine Musikschule für Militär Musik, Vienna: A. Diabelli & Co., [1843], p. 24 [location: A(Wm), MS 8283].

Dating: Deutsch, Musikverlags Nummern . . ., p. 11.

Location: GB(Lbm), h. 2174.

Klosé-Buffer ("Boehm System", 17 keys and 6 rings):

1. Klosé, [Hyacinthe Eléonore]. c. 1843

Méthode pour servir a l'enseignement de la clarinette à anneaux mobiles, et de celle à 13 clés . . ., Paris: Meissonnier.

Klosé's tutor is the most important of the nineteenth century, due to the immense popularity of this type of clarinet during the late nineteenth and early twentieth centuries. Klosé and the instrument maker, Auguste Buffet, Jeune collaborated in the design of this instrument. Buffet applied for a French patent on 15 December 1843 which specified his placement of tone holes and use of rings to the clarinet and oboe. He was granted patent number 9759 on 19 February 1844.² This type of clarinet is presently played in every country of the world except Germany and Austria. Klosé's tutor comprises 189 pages in length and includes a fingering chart.

There were many subsequent editions of this tutor throughout the nineteenth and twentieth centuries. A second issue was published in Paris by Gérard and Meissonnier, c. 1868 [dating: Hopkinson, A Dictionary . . ., p. 51; location: GB(Lbm), h. 2176].

²For a reproduction and English translation of Buffet's patent, see H. Noble Vance, Historical Development of the Clarinet (Rock Island, Illinois: EnnenVee, 1973), pp. 30-43.

Dating: Hopkinson, p. 90. The publication of this tutor was noted in the AMZ, vol. 46, no. 41 (Oct. 1844): col. 688.

Location: B(Bc), Litt. DD 9054.

LIBRARY LOCATIONS

- A(Wn)-Österreichische Nationalbibliothek, Vienna Austria.
- B(Bc)-Conservatoire Royal de Musique, Bibliotheque, Brussels, Belgium.
- B(Br)-Bibliotheque Royale Albert I^{er}, Brussels, Belgium.
- D-ddr(Bds)-Deutsche Staatsbibliothek, East Berlin, East Germany.
- D-ddr(LEm)-Musikbibliothek der Stadt Leipzig, Leipzig, East Germany.
- F(Dm)-Bibliotheque municipale, Dijon, France.
- F(Pc)-Bibliotheque du Conservatoire national de musique, Paris, France
- F(Pn)-Bibliotheque nationale, Paris, France.
- GB(Er)-Reid Music Library at the University of Edinburgh, Edinburgh, Scotland.
- GB(Gm)-Mitchell Library, Glasgow, Scotland.
- GB(Lbm)-British Museum, London, England.
- N(Ou)-Universitetsbiblioteket i Oslo, Oslo, Norway.
- N(Tmi)-Musikkvitenskapelig Institutt, Trondheim, Norway.
- US(Bp)-Boston Public Library, Boston, Massachusetts.
- US(CA)-Harvard University music library, Cambridge, Massachusetts.
- US(Cn)-Newberry Library, Chicago, Illinois.
- US(NYp)-New York Public Library at Lincoln Center, New York.
- US(SA)-Essex Institute Library, Salem, Massachusetts.
- US(U)-University of Illinois music library, Urbana, Illinois.
- US(Wc)-Library of Congress, Washington, D.C.
- US(WS)-Moravian Music Foundation, Winston-Salem, North Carolina.

¹By 1819, charts began to appear for clarinets with as many as twelve keys, requiring fundamental changes in fingering.

²Most of the comments concerning these sources are from my article, "Clarinet Fingering Charts, 1782-1842". This appendix, however, includes several corrections and additions to the listings and collation.

APPENDIX 4

A COLLATION OF FINGERINGS FOR THE CLASSICAL CLARINET, c. 1769-1816

Table 14 presents a collation of fingerings for the classical clarinet taken from twenty-five fingering charts in sources which are dated between c. 1769 to 1816. During this time, charts were found for clarinets having four, five and seven keys.¹ These sources were used for this collation because at least one fingering from each chart appeared there for the first time. In the listing below, each of these sources is briefly identified, as well as errors in their charts, written comments, unusual or high pitches, and additional keys mentioned by the authors.² Copies, later editions and reprints of these sources are omitted from this listing. In the headings below, numbers refer to the quantity of keys; letters indicate the chronology. The fingering in both this listing and in Table 14 below distinguish between the left and right hand. The letter S indicates the speaker key, A the a' key, T the thumb, B the e/b' key, C# the f#/c#' key, and Eb the a^b/e^b' key.

¹By 1819, charts began to appear for clarinets with as many as twelve keys, requiring fundamental changes in fingering.

²Most of the comments concerning these sources are taken from my article, "Clarinet Fingering Charts, 1732-1816". This appendix, however, includes several corrections and additions to the listings and collation.

4A. Roeser, V. Gamme de la clarinette, avec Six Duo pour cet Instrument, Paris, c. 1769. Roeser's is the first chart for the four-key clarinet (with C# key) and is a model for several "gammes" and tutors. A range is given from e to g''' including all chromatic pitches except g#', c#' and f#'''. On this chart Roeser stated that notes b and f#' can be fingering in a different manner (see plate 43, page 351), but provided only one fingering for both of these notes.

4B. Corrette, M. Méthode . . . de la Flute Traversiere . . . Nouvelle édition, revue, corrigée et augmentée de la Gamme du Haut-bois et de la Clarinette, [Lyons and Rouen], c. 1773. The fingerings of this chart were copied from Roeser's (4A), but a new fingering for a''' was added to the range after a double bar line.

4C. Principes de Clarinette Avec la Tablature des Meilleurs M^{tres} pour cet Instrument et plusier Duo pour cet Instrument, Paris, c. 1775. A unique fingering for a' as AT 3 may be a printing error since there are several more errors in this chart noted in the collation. Another fingering for a''' also appears here, S 12 C#.

4D. Castillon, F. A. M. G. de. "Clarinette" in the Supplément à l'Encyclopédie, ou Dictionnaire Raisonné des Sciences, des Arts et des Métiers, Amsterdam, 1776 (plate 44). Castillon added ten fingerings to those found in Roeser's chart (4A), many of these also appear in some of the later charts written for the five-key clarinet. One printing error for c#' occurred with the inclusion of the B key. An unusual application of the buttress finger is seen with the employment of the B

PLATE 44

The image shows a musical staff with a treble clef and a key signature of one sharp (F#). The melody consists of a series of eighth and sixteenth notes, including chromatic passages. Below the staff is a fingering chart with 12 rows, each corresponding to a finger number (1-12). Each row contains a sequence of circles, some of which are filled with a dot, indicating the specific fingering for each note in the melody. The notes are labeled with solfège syllables: mi, fa, so, la, si, ut, re, mi, fa, so, la, si, ut, re, mi, fa, so, la, si, ut, re, mi, fa, so.

A fingering chart for the four-key clarinet by F. A. M. G. de Castillon in "Clarinetto" from the Supplément à l'Encyclopédie . . . (Amsterdam: M. C. Rey, 1776), 2:451.

key on the six highest notes of this chart (c^{#'''} to g^{'''} excluding f^{#'''}).

4E. Reynvaan, J. V. Muzikaal Kunst-Woordenboek, Amsterdam, 1795, pl. 30 (plate 45). This Dutch source appears to contain the only four-key clarinet chart with an Eb key instead of the C# key. Reynvaan's chart is the first to specify chromatic pitches from e to a^{'''}. Among his many fingerings (four are shown for d^{'''} and g^{'''}), the use of fingers 6 and 7 as buttress fingers are given in two fingerings for g^{#'''}. A fingering for g['] also adds fingers 456 7, an occasional present-day practice.

5A. Anonymous. The Clarinet Instructor, London, c. 1780 (plate 46).¹ The earliest tutor for the five-key clarinet, this book contains an important chart which served as a model for several copies published in England and the U.S.A. The range is limited to f^{'''} and does not include as many chromatic pitches as the earlier four-key charts 4A-D (it omits f[#], g^{#'}, c^{#'''}, and e^{b'''}). One printing error occurred when the fingering for e^{'''} was listed a second time as an alternate fingering.

5B. Vanderhagen, A. Méthode Nouvelle et RAisonnée pour la clarinette, Paris, c. 1785 (plate 47). The greater sophistication of this tutor's didactic instructions (when compared to 5A) is reflected in its fingerings which are fully chromatic from e to e^{'''} and ascend to a^{'''}. Three alternate fingerings are also included for d^{'''}. Vanderhagen also distinguished between g^{#'} and a^{b'}, all the other enharmonic notes were

¹This chart is also reproduced by Nicholas Shackleton in the article, "Clarinet," NGDMI, 1:394.

PLATE 45

The only four-key clarinet fingering chart having an Eb key instead of a C# key from J. V. Reynvaan, Muzikaal Kunst-Woordenboek (Amsterdam: W. Brave, 1795), pl. 30.

given one fingering. This chart was used by several subsequent writers as a basis for their charts.

5C. Reynvaan, J. V. Muzikaal Kunst-Woordenboek, Amsterdam, 1795, pl.

11. Reynvaan's second chart was written for a five-key clarinet. He appears to have copied some of the fingerings found in 5A since the notation of chromatic pitches begin, as in 5A, with $\underline{b}^b$. A much greater number of fingerings are offered here, however, chromatic pitches being provided up to $\underline{a}'''$, and there are several alternate fingerings for pitches above $\underline{c}'''$. Unique fingerings are found for $\underline{d}'''$, $\underline{e}'''$, $\underline{f}^{\#}'''$, $\underline{g}^{\#}'''$ and $\underline{a}'''$.

5D. Blasius, F. Nouvelle Méthode de Clarinette, Paris, c. 1796.

Blasius added nine fingerings to Vnderhagen's (5B) range from $\underline{c}'''$ to $\underline{g}'''$, four ($\underline{c}'''$, $\underline{d}'''$, $\underline{e}^b'''$ and $\underline{e}'''$) of which are unique. A written description of the fingerings (pp. 49-50) corrects four errors in this chart.

5E. Callcott, J. W. "Clarinett" in a "Dictionary of Music", London,

c. 1797-1802, a manuscript in the British Library.² Callcott provided a discussion of the fingerings from $\underline{e}$ to $\underline{c}'''$. his fingering for $\underline{f}'''$ is unique and that for $\underline{f}'$ is a useful alternative. An error occurred with the inclusion of T with fingers 12 for $\underline{f}^{\#}'$.

5F. Vanderhagen, A. Nouvelle Méthode de Clarinette divisée en deux parties, Paris, c. 1799. Vanderhagen provided nine new fingerings in

Instructor (London: Longman & Broderip, c. 1799).

²The text of Callcott's article on the clarinet is transcribed with commentary by Albert R. Rice in "An Eighteenth Century Description of the Five Key Clarinet," The Clarinet 4 (Winter 1977): 29-30.

PLATE 46

A SCALE OF NOTES FOR THE

(CLARINETT)

The Notes in this part of the Instrument are called CHALUMEAU.

The Notes in this part of the Instrument are called CLARINET.

A different way of playing these Notes.

The Clarinet must be held near the Centre of the Body, the Bell Part inclining downwards, with the left Hand uppermost and the right lowest. The Thumb of the left Hand, is for the Key nearest the Mouth and the first open Hole that is underneath—the 1st Finger, for the second or upper Key and the second open Hole—the 2^d Finger, for the third open Hole—the 3^d Finger, for the fourth open Hole, and the little Finger of the left Hand, for the two long or lowest Keys—the 1st Finger of the right Hand, for the fifth open Hole—the 2^d finger, for the sixth open Hole—the 3^d finger, for the seventh open Hole—the little Finger of the right Hand, for the eight or lowest open Hole and the short Key at the Bottom—so that the Thumb, 1st and little Finger of the left hand, manages six Holes, and the little Finger of the right Hand two. Blow moderately strong the Chalumeau Notes, but for the Clarinet Notes, the reed must be pinched with the Lips a little, and blown a little stronger; yet be careful that the Teeth do not touch the Reed in blowing.

(This Scale to face Page 2.)

The earliest fingering chart for the five-key clarinet from The Clarinet Instructor (London: Longman & Broderip, [c. 1780]).

this second edition of his tutor (5B). He continued to distinguish between $g^{\#'}$ and $a^{b'}$ but offered a changed fingering for the latter.

5G. "Silas Dickinson's Book", c. 1800, a manuscript in the New York Public Library. This chart of one page appears to be handwritten, and is called "A Scale of the Natural Notes for the Clarinet". It includes fingerings from e to d''' without any accidentals, and two unique fingerings are found for c''' and d''' .

5H. Anonymous. The Clarinet Preceptor, London, c. 1801. The fingerings of this chart were compiled mainly from 5A and Vanderhagen's chart (5B), and are the first among five-key charts to be fully chromatic from e to a''' . An unusual distinction was made between fingerings for $f^{\#'}$ and $g^{b'}$, the fingering for the latter being unique. Several new fingerings include a useful $g^{\#''}$, also d''' , f''' , $f^{\#'''}$, g''' , $g^{\#'''}$, and a''' .

5I. Michel, V. Méthode de Clarinette, Paris, c. 1801. Michel followed the fingerings of the second edition of Vanderhagen's tutor (5F), but added alternate fingerings for $f^{\#''}$ and $g^{\#''}$.

5J. Lefevre, J. X. Méthode de Clarinette, Paris, 1802 (plate 48). Lefevre's tutor was written expressly for use at the newly formed Conservatoire de Musique, and is the most important and influential of those for the five-key clarinet. He was the first to provide a chromatic range from e to c''' (considered the present-day standard range), and included a chromatic trill chart to e''' . Some of his more useful fingerings are those for b , $g^{\#'}$, b'' and d''' . A number of

PLATE 47

GAMME NATURELLE

Différentes parties
pour partie d.c.
a. b. c.

Les points noirs indiquent les trous fermés et les blancs les trous ouverts.

The earliest fingering chart for the five-key clarinet published in France. From A. Vanderhagen's Méthode Nouvelle et Raisonnée pour la clarinette (Paris: Boyer, [c. 1785]).

specific comments concerning the correction of intonation on particular notes are included in the collation.

5K. Backofen, J. G. H. Anweisung zur Klarinette, Leipzig, c. 1803 (plate 49). Backofen's tutor includes the earliest German chart for the five-key clarinet. He was very thorough in providing many alternate fingerings for trills to $\underline{c}^{\#'''}$. There are some distinctions made between enharmonic notes in this chart, which are noted in the collation. Although the upper limit is g''' , Backofen stated that there are no definite fingerings for higher notes, and that these notes depend more or less on the condition of the reed (his chart for the basset horn provided fingerings for $\underline{a}'''$, $\underline{b}'''$ and $\underline{c}'''$). Several fingerings employ the buttress finger on 7, and unique ones are found throughout the entire range.

5L. Mahon, J. A New and Complete Preceptor for the Clarinet, London, c. 1803. Mahon's fingerings resemble the earlier English charts. This author, however, does provide unique fingerings for $g^{\#'}$ and $\underline{e}^{b'''}$. Another fingering for g''' , ST 7Eb, is probably an error since it is nearly impossible to cover 7 with the little finger of the right hand and depress the Eb key at the same time.³

5M. Anonymous. The Clarinet Preceptor, London, c. 1803. This chart contains a larger number of alternate fingerings than Mahon's (5L) or

5H. One unique fingering is found for $\underline{f}^{\#'''}$, ST 1 3.

One of the fingering charts from J. G. Backofen, Anweisung zur Klarinette (Paris: A. J. Imprimerie de la Conservatoire de Musique, 1803), pl. 49.

³For a reproduction of Mahon's fingering chart see Andrew Lyle, "John Mahon's Clarinet Preceptor," GSJ 30 (1977): pl. VIII.

PLATE 48

Plaque 48

GAMME NATURELLE DE LA CLARINETTE AVEC LE DOIGTÉ.

Les lignes perpendiculaires marquent les notes.
 Les lignes horizontales répondent aux trous et Clefs de l'instrument.
 Les points noirs désignent les trous fermés.
 Les vides indiquent les trous ouverts.

Exemple, pour le *Re* et *Si*.
 On observe de la même façon les autres notes qui s'expriment
 d'une seule main, par les autres doigts, à distance.

One of the fingering charts from J. X. Lefevre, Méthode de Clarinette (Paris: A l'Imprimerie du Conservatoire de Musique, An XI [1802]), pl.

5N. Shaw, O. For the Gentlemen, Dedham, 1807. This American treatise contains a chart that is based partly on 5A because of its lack of $f^\#$ and $g^\#$. Its range extends only to g''' but it contains a unique fingering for $e^{b'''}$, ST 23 4 Eb.

50. Demar, S. Nouvelle Méthode pour la Clarinette, Paris, c. 1808. Demar's is a conservative French chart ascending only to f''' and is partly copied from Lefevre (5J). Included are two useful alternates for d''' and unique fingerings for b^b and f''' . An unusual fingering for a' , SAT 123 B 456 7, is given which had been indicated by Lefevre (5J) only as part of a trill fingering from a' to b' .

5P. Bochsa, C. Méthode Instructive pour la Clarinette, paris, c. 1809. Bochsa's chart provided one unique fingering for f''' .

5Q. Froehlich, J. Vollständige Theoretisch=pracktische Musikschule, Bonn, 1810-11. Froehlich's chapter entitled "Clarinett Schule" is one of the most thoroughly written tutors for the five-key clarinet. His chart provided the usual fingerings to f''' , but a written commentary (pp. 15, 17-19) added many other alternate fingerings. All of Froehlich's comments on these fingerings are included in the collation. He also mentioned that new instruments often include additional keys, such as the $c^\#'/g^\#''$ key and one for trilling b^b to c'' (when used with the A key alone it produced a trill from a' to b').

5R. Antolini, F. La retta maniera di scrivere per il clarinetto ed altril istromenti da fiato, Milan, 1813 (plate 50). In this treatise, Antolini mentioned using information from the methods of Vanderhagen (5B, 5F). Blasium (5D) and Lefevre (5J). The range of his chart

PLATE 49

10

Chromatische Scala.

Handwritten notes on the left margin:

- Klarinette*
- 5 Kl.*
- as Klarinette*
- 5 Kl.*
- 5 Kl.*

Handwritten notes on the right margin:

- als als*
- (x)(2) (x)*
- (#)*

- 4) Den *as* Triller mit *b* wüßte ich nicht anders zu machen, als mit dem Daumen der rechten Hand.
 5) Und diesen nicht anders als mit dem Zeigefinger der rechten Hand. Beide sind daher wegen ihrer Schwierigkeit in Kompositionen für die Klarinette zu vermeiden.
 6) Für die höhern chromatischen Töne und Triller giebt es eigentlich keine bestimmte Applikatur. Sie hängen mehr oder weniger von dem Zustande des Blättchens ab. Ist dieses gut und etwas stark, so lassen sie sich leicht und auf verschiedene Arten herausbringen.
 7) Bey dem *a* Triller mit dem *b* müssen alle Löcher mit Ausnahme der 2 obersten zugemacht, und dann mit dem Mittelfinger der linken Hand getrillert werden.

The earliest German fingering chart for the five-key clarinet from J. G. H. Backofen's Anweisung zur Klarinette (Leipzig: Breitkopf & Härtel, [c. 1803]), p. 10.

follows Lefevre's in ascending to $\underline{c}''''$, and trill fingerings are included on all notes to $\underline{g}'''$. New fingerings are given for $\underline{f}^{\#}'''$, $\underline{g}'''$, $\underline{a}^{\#}'''$, $\underline{b}'''$ and $\underline{c}''''$.

5S. Whitely, W. The Instrumental Preceptor, Utica, 1816. This American treatise includes a chart which is similar to that found in 5M, but new fingerings are given for $\underline{g}^{\#}'''$ and $\underline{a}'''$. Whitely mentioned that some clarinets have three additional keys: one for trilling from $\underline{a}'$ to $\underline{b}'$, another for $\underline{e}^b/\underline{b}^b$ (both of which are placed on the upper joint), and a third for $\underline{b}^b/\underline{f}''$ on the lower joint.

7A. Simiot, J. F. Tableau explicatif des innovations et changemens faits a la clarinette, Lyons, 1808. Two pages of explanation and a fingering chart comprise Simiot's Improvements which include the addition of keys for $\underline{b}^b/\underline{f}''$, the $\underline{a}'/\underline{b}'$ trill, and a double hole for $\underline{c}^{\#}/\underline{g}^{\#}'''$ (see below pp. 295-7). He rather cautiously relegated the new $\underline{b}^b/\underline{f}''$ key to trills, and otherwise largely followed Lefevre's (5J) fingerings. New fingerings included his $\underline{g}^{\#}'''$, $\underline{a}^{\#}'''$, $\underline{b}'''$ and an $\underline{f}^{\#}'''$ which employ both the B and the Eb keys. Simiot's addition of seven notes ($\underline{c}^{\#}''''$ to $\underline{g}''''$) above Lefevre's highest pitch of $\underline{c}''''$ was surely to attract attention to his own clarinets. He claimed that these higher notes could be played on his clarinets with the same facility as the lower pitches, and that these additional notes have the same character and volume of sound as $\underline{c}''''$.

The earliest Italian fingering chart for the five-key clarinet from A. Antolini's *la vera maniera di suonare il clarinetto* (Milan: G. Bucciellii, 1813), pl. V.

PLATE 50

Scala diatonica, o naturale del Clarinetto

Tav. V.

The earliest Italian fingering chart for the five-key clarinet from A. Antolini's La retta maniera di scrivere per il clarinetto (Milan: C. Buccinelli, 1813), pl. V.

TABLE 14 (continued)

Pitches:

Fingerings:

TABLE 14

A COLLATION OF FINGERINGS FOR THE CLASSICAL CLARINET TAKEN
FROM FINGERING CHARTS DATING FROM c. 1769 TO 1816¹

Pitches:Fingerings:²First register:

e	T	123 B	456 7	in all charts.
f	T	123	456 7	in all charts.
f [#]	T	123 C#	456 7	in 4A-D, 5B-F, 5H-S, 7A.
	T	123 B	456	in 4E.
g	T	123	456	in all charts. [Errors in 5F and 5I are the inclusion of 7].
g [#]	T	123	456 Eb	in 4E, 5B-F, 5H-S, 7A.
	T	123 C#	456 Eb	in 50 (when too low).
a	T	123	45	in all charts.
	T	123	45 7	in 5F and 5I.
a [#]	T	123	4 6 7	in 5K.
b ^b	T	123	4 6	in all charts except 5E and 5G.
				[Finger 7 is erroneously included in 4C].

¹Cf. the collation of fingerings given in Albert R. Rice, "Clarinet Fingering Charts, 1732-1816," GSJ 37 (1984): 31-6.

²See pages 500-512 to identify the sources of these fingerings by their heading. Comments in parentheses were made by the author of the fingering chart, comments in brackets are given by the present author. T=thumb, A=a' key, S=speaker key, B=e/b' key, C#=f#/c#' key, Eb=ab/eb' key. A slash is used to designate the covering of one double hole for finger 3 (i.e., 3) in Simiot's fingering chart (7A).

TABLE 14 (CONTINUED)

Pitches:Fingerings:

b	T	123	4	in 4A-E, 5B, 5D-F, 5H-M, 5O-S, 7A. [This fingering is only implied in 5E. An error in 4C is the inclusion of 56].
	T	123	56	in 5A, 5C, 5L-N.
	T	123	4 7	in 5F and 5I.
	T	123	4 Eb	in 5J (pinch the lips) and 5Q.
	T	123	4 6	in 5G [probably an error].
	T	123	5	in 5O (reduce the air a little).
c ^b ,	T	123 B	56	in 5K
c'	T	123		in all charts. [An error in 4C is the inclusion of 4].
c [#] ,	T	12	4	in 4D, 4E, 5I, 5Q.
	T	12	45	in 5A, 5C, 5L-N, 5Q.
	T	12	4 6	in 5B, 5D, 5F, 5H-J, 5O, 5P, 5S.
	T	123	4 6	in 5R [probably an error].
	T	12 B	456 7	in 5K
	T	123		in 7A.
d'	T	12		in all charts.
d [#] ,	T	1 3		in all charts except 5E and 5G.
e ^b ,	T	1 3	45	in 5Q (when too high).
	T	1 3	4 6	in 5K.
e'	T	1		in all charts (5J: if too low, pinch the lips).
e [#] ,	T	2		in 5K.
f'	T	2		in all charts but 5E and 5G.

TABLE 14 (CONTINUED)

Pitches:Fingerings:

$a^{b'}$	S	2		in 5B, 5D.
	AT	123 B	456	in 5F, 5I.
a'	A	123	45 7	in 4A-E, 5A, 5C, 5E, 5G, 5L-N, 7A.
	A	123	456 7	in 5Q.
	A	2		in 5B, 5D, 5F, 5H-J, 5P, 5R, 5S.
	A	23		in 5Q (if too high).
	AT	3		in 4C.
	S	2		in 5K.
	SAT	123 B	456 7	in 50. [Used as a trill from $\underline{a'}$ to $\underline{b'}$ in 5J trilling finger 5].
$b^{b'}$	SA	123		in 4A, 4B, 4D-E, 5A, 5C, 5E, 5K-N, 7A.
	SA	2		in 5B, 5D, 5F, 5H-I, 5P, 5R, 5S.
	SA	23		in 5K, 5Q (if too high).
	SA	23	5	in 4C.
	SA	23	4 7	in 5Q.
	SA	23	456 7	in 50.

Second Register:

b'	ST	123 B	456 7	in all charts. [Errors: 4C omitted 2 B 4, 5D omitted 7].
c''	ST	123	456 7	in all charts [an error in 5D is the omission of 7].
$c^{\#''}$	ST	123 C#	456 7	in all charts, except 4D, 4E and 5G [Errors in 5S are the omission of 7; in 4D, the inclusion of B].

TABLE 14 (CONTINUED)

Pitches:Fingerings:

d''	ST	123	456	in all charts.
d''	ST	123 B	456	in 5Q (if too low).
d#''	ST	123	45 7	in 4A-D.
	ST	123	456 Eb	in 4E, 5A-F, 5H-S, 7A.
	ST	123 C#	456 Eb	in 5Q (if too low).
e ^b ''	ST	123 B	45 7	in 5K.
e'''	ST	123	45	in all charts.
f''	ST	123	4 6	in all charts.
	ST	123	4 6 7	in 5E.
f#''	ST	123	56	in 4A, 4C-E, 5A-D, 5F, 5H-S.
	ST	123	56 Eb	in 5C, 5L, 5M.
	ST	123 C#	56	in 5I, 5Q (if too low).
	ST	123	4	in 7A.
	ST	123	5	in 4D.
g''	ST	123		in all charts.
g#''	ST	12	4	in 4A-D, 5A, 5C, 5L, 5M, 5Q (if too low) [an error in 4C is the inclusion of finger 3].
	ST	12	4 7	in 4E.
	ST	12	4 Eb	in 5B, 5D.
	ST	12	4 6	in 4E, 5C, 5F, 5I-Q, 5R, 5S.
	ST	12	3 6 Eb	in 5I, 5L, 5P.
	ST	12	56	in 5H, 5K.
	ST	123		in 7A.
a''	ST	12	4 6 Eb	in all charts, [an error in 5D is

TABLE 14 (CONTINUED)

Pitches:Fingerings:

d'''	the omission of finger 2].		
b ^b ''	ST 1 3		in all charts except 5E and 5G.
b''	ST 1		in 4A-E, 5A-H, 5K-N, 5P, 5R.
	ST 1		Eb in 5Q.
	ST 1	B	Eb in 5Q (if too low).
	ST	23 B	456 Eb in 5J, 5O, 7A.
c'''	ST 2		in 4A-E, 5A-F, 5H-S [an error in 5D is the omission of 2, this fingering is only implied in 5E].
	ST 2	45	in 5G.
	ST 2	B	in 5Q.

Third Register:

c [#] '''	ST		in 4A, 4C-E, 5C, 5F, 5K, 5M, 5P, 5Q.
	ST	B	in 4D.
	ST	23 B	456 in 4E, 5B-D, 5F, 5I, 5K, 5M, 5O-5R, 7A.
	ST	23 B	456 7 in 4E, 5C, 5K.
	ST	23 B	7 in 5K.
	ST	1	in 5Q (in chromatic passages).
d'''	ST	23	4 6 in 5O.
	ST	23 B	4 6 in 4E, 5B-D, 5F, 5I, 5J, 5M, 5P, 5R.
	ST	23 B	4 6 Eb in 5B, 5F, 5I, 5J, 5L, 5N, 5P, 7A.

TABLE 14 (CONTINUED)

<u>Pitches:</u>					<u>Fingerings:</u>
d'''	ST	23 B	4 6 Eb		in 50, 5Q, 5S.
	ST	23	45		in 5G.
	ST	23 B	45		in 4D, 5B, 5M, 5R.
	ST	123 B	45		in 5D.
	ST	23	45 Eb		in 5H.
	ST	23 B	45 Eb		in 5J, 5K.
	ST	23	456		in 4E, 5C.
	ST	23	456 7		in 4E, 5C, 5L.
	ST	23	45 7		in 5K.
	SAT	23 B			in 4E, 5A, 5C, 5M.
	SAT	2			in 4E, 5B, 5C, 5F, 5I, 5K, 5M, 5P, 5Q.
	SAT	2		Eb	in 5J, 5O.
	S	12 B			in 5D, 5Q.
	S	2			in 4A-C, 5K.
e ^b '''	ST	23 B	4		in 4D, 5B, 5F, 5I, 5P.
	ST	23 B	4 Eb		in 4E, 5J, 5O, 5Q, 5R.
	ST	23 B			in 5D.
	ST	23 B	5		in 4E, 5C, 5M.
	ST	23	4 7		in 5M, 5S, 7A.
	ST	23	4 7		in 5K.
	ST	23	4 Eb		in 5N.
	ST	23	5 Eb		in 5H.
	ST	23 B	5 Eb		in 5Q (if too low).
	ST	23 B	7		in 5K.

TABLE 14 (CONTINUED)

Pitches:Fingerings:

e ^{b'''}	ST	123	5	Eb	in 5L.
	SAT				in 5K.
	S	23	4 6		in 4A, 4B, 4E.
	S	23	456		in 4C.
e'''	ST	23 B		Eb	in 5B, 5C, 5M.
	ST	123 B		Eb	in 4D.
	ST	123		456 Eb	in 5C, 5Q, 5R.
	ST	23		456 Eb	in 4A-C, 4E, 5A, 5C, 5K, 5L, 5M.
	ST	23		Eb	in 5F, 5H-I, 5J, 5L, 5N-P, 5S, 7A.
	ST	23 B		Eb	in 5J, 5O, 5Q.
	ST	23	45		in 5C.
	ST	2 B			in 5D.
f'''	ST	12			in 4A-C, 4E, 5A, 5C, 5K, 5M.
	ST	12 B			in 4D, 5B.
	ST	12		456 Eb	in 5L, 5Q.
	ST	12	4 6		in 5D, 5F, 5I, 5O, 5P.
	ST	12 B	4 6		in 5C, 5J, 5M, 5R, 5S, 7A.
	ST	123		456 7	in 4E (fingered the same as g''').
	ST	123	456	Eb	in 5H, 5N.
	ST	12	456 7		in 5P.
	ST	2	6	Eb	in 5O.
	SAT	1 3		Eb	in 5Q.
	SAT	23		Eb	in 5J.
	SAT	23 B		Eb	in 5J.
f#'''	ST	12			in 5F, 5I, 5P, 5Q, 5S.

TABLE 14 (CONTINUED)

Pitches:Fingerings:

f#'''	ST	12	B	4 6	in 4E, 5C.
g'''	ST	123			in 5Q. 5D, 5F, 5I, 5L, 5P, 5Q.
	ST	1 3	B	4 6	in 5M. 5C.
	ST	2			in 5L. 4E.
	ST	123		45 Eb	in 5H, 5N.
	ST	12		56 Eb	in 5R. 5N.
	ST	123	B	456 Eb	in 5J, 5Q.
	ST	12	B	456 Eb	in 7A. 7A.
g'''	ST	1			in 4A-C, 5C, 5M.
	ST	1	B		in 4D, 4E.
a'''	ST	1		456	in 5R.
	ST	123			in 4E.
	ST	123		45	in 5H, 5K, 5N.
b'''	ST	23	B		in 4E.
	ST	23	B	456	in 5B.
	ST	23	B	456 7	in 5F, 5I, 5P.
c'''	ST	12		456	in 5J.
	ST	12		456 7	in 5D, 5F, 5I, 5J, 5P.
	ST	12	B	456 7	in 7A.
	ST				in 5Q, 5S.
Fourth Register (only in 7A):					
	ST			7Eb	in 5L [probably an error].
g#'''	ST	1 3			in 4E, 5C, 7A.
d'''	ST	123		4	in 5H, 5M.
e'''	ST	12		4 7	in 5J, 5R.
f'''	ST	123		456 Eb	in 5S.

TABLE 14 (CONTINUED)

Pitches:Fingerings:

	ST 12 B 4	in 7A.
a'''	ST 23	in 4B, 5D, 5F, 5I, 5L, 5P, 5Q.
	ST 23 B 4 6	in 4E, 5C.
	ST 12 C#	in 4C, 4E.
	ST 12	in 4E.
	ST 123	in 5H, 5M.
	ST 123 B 45	in 5B.
	ST 1 3	in 5J, 7A.
	ST 1 3 Eb	in 5J, 5R.
	ST Eb	in 5S.
a#'''	ST 1 3	in 5R.
	SAT 1 3	in 5J.
	ST 123 456 7	in 7A.
b'''	ST 12 45	in 7A.
	ST 12 C# 45	in 5J.
	ST 123 C# 45	in 5J.
c''''	ST 1 C# 4	in 5J.
	ST 12 C# 4	in 5J, 7A.
	SAT 2 5 Eb	in 5R.

Fourth Register (only in 7A):

c#''''	ST 1 C# 4.
d''''	ST 123 C# 45.
e ^b ''''	ST 23 C# 45.
e''''	ST 23 C# 456 Eb.

TABLE 14 (CONTINUED)

Pitches:Fingerings:Fourth Register (only in 7A):

f'''' ST 6 Eb.

f#'''' ST 5 Eb.

g'''' ST 456 7

FRÉDÉRIC DE CASTILLON'S ARTICLE "CLARINETTE".
 Appendix 5 presents the French text of Castillon's article on
 the clarinet for *L'Encyclopédie*, vol. 8 (1778), pages
 450-1. Due to its length it has been placed here rather than in the
 footnote to the translation which appears on pages 257-86 above. The
 original text presented here includes a correction of one word given in
 the reprint of this article in the "Art de l'ancien d'instruments de
 musique et Lutherie," in the *L'Encyclopédie Méthodique, Arts et Métiers
 Mécaniques*, ed. J. F. Marmontel, vol. 1 (1782), pages 118-20.

Clarinetto, (Luth.) la clarinette est un instrument à vent,
 inventé, à ce que l'on prétend au commencement de ce siècle, par un
 Nurembourgeois. Apparemment que la clarinette se voit, fig. 19, 17,
 18 & 19, planche VIII de Luth. seconde Suite. Elle est, dans les Sciences,
 éc. est telle qu'elle étoit dans son commencement; mais celle que l'on
 trouve dans notre planche IX de Luth. Suite, fig. 17 & 18, est plus
 compliquée.

La clarinette telle qu'elle est aujourd'hui, est composée de
 quatre pièces: la tête, deux corps de bois & le bec. Elle a deux
 trous latéraux, dont sont parvenus à un sonner avec le doigt avec
 les doigts, les quatre autres sont bouchés avec des clefs. La tête de
 la clarinette est faite de bois, comme le reste; elle se termine par un
 bec, semblable en dehors à celui d'une flûte douce; mais au lieu d'un

APPENDIX 5

FRÉDÉRIC DE CASTILLON'S ARTICLE "CLARINETTE"

This appendix presents the French text of Castillon's article on the clarinet for the Supplément à l'Encyclopédie, vol. 2 (1776), pages 450-1. Due to its length it has been placed here rather than in the footnote to the translation which appears on pages 257-60 above. The original text presented here includes a correction of one word given in the reprint of this article in the "Art du faiseur d'instruments de musique et Lutherie," in the L'Encyclopédie Methodique. Arts et Métiers Mecaniques, ed. J. F. Marmontel, vol. 1 (1782), pages 118-20.

Clarinette, (Luth.) la clarinette est un instrument à anche, inventé, à ce que l'on prétend au commencement de ce siècle, par un Nurembourgeois. Apparemment que la clarinette qu'on voit, fig. 16, 17, 18 & 19, planche VIII de Luth. seconde Suite, Dict. rais. des Sciences, &c. est telle qu'elle étoit dans son commencement; car celle que l'on trouve dans notre planche IV de Luth. Suppl. fig. 17 & 18, est plus compliquée.

La clarinette telle qu'elle est aujourd'hui, est composée de quatre pieces; la tête, deux corps de milieu & le pied. Elle a douze trous latéraux, dont sept pardevant & un parderriere se bouchent avec les doigts, les quatre autres sont bouchés avec des clefs. La tête de la clarinette est faite de buis, comme le reste; elle se termine par un bec, semblable endehors à celui d'une flûte douce: mais au lieu d'un

biseau, ce bec a sur le plan supérieur un trou triangulaire, comme on peut voir fig. 19, planche IV de Luth. Suppl. Le bec est percé obliquement, de façon que le trou intérieur est exactement de la figure de ce même bec, fig. 20. La fente triangulaire se couvre d'une languette a de roseau qu'on aminoit convenablement, & qu'on attache avec du sil: ensorte que l'embouchure de la clarinette tient beaucoup de ces languettes de laiton, qu'on met dans les trompettes de bois des enfans; aussi la clarinette a-t-elle assez le son d'une trompette.

On tient la clarinette comme la flûte à bec; on bouche les trous 2, 3, 4, avec les trois doigts de la main gauche; le pouce bouche le trou 11, & doit gouverner la clef du trou 12; outre le trou 2, l'index gouverne encore la clef du trou 1; le petit doigt de la main sert pour ouvrir & fermer les clefs des trous 9 & 10; il faut bien prendre garde au double emploi du pouce, de l'index & du petit doigt de la main gauche, quand on compose des pièces pour la clarinette, sans cela on court risque de les faire d'une difficulté insurmountable. Les trois doigts de la main droite bouchent les trous 5, 6, 7, & le petit doigt le trou 8; quant au pouce, il sert à tenir l'instrument.

La clarinette telle que nous venons de la décrire, a trois octaves & deux tons d'étendue, avec la plupart des semitons. Voici sa tablature [see plate 44, page 501].

Les cadences ou trils se font sur la clarinette comme sur les autres instrumens à vent, et débouchant le trou supérieur.

Une observation importante qu'il faut faire, c'est que la clarinette est d'une tierce mineure plus basse que les autres instrumens; c'est-à-dire, que son premier ut en bas est à l'unisson du premier la du violon; à ce compte, l'étendue de la clarinette est donc

effectivement depuis l'ut # à l'unisson de celui du 4 pieds, ou du premier ut # du violoncelle jusqu'au mi triple octave de la tierce mineure de cet ut #, & qui est à l'unisson du mi qu'on prend en démanchant sur la chanterelle du violon. C'est pourquoi quant la clarinette est accompagnée d'autres instrumens, on note sa partie une tierce mineure plus haut que celle des autres instrumens: par exemple, si la piece est en la majeur, on note la partie de la clarinette en ut; si la piece est en re, on la note en fa. Vu la difficulté du doigter, on ne peut composer des parties obligées pour la clarinette qu'en ut majeur (ou la relativement aux autres instrumens); pour remédier à ce peu de variété, on a imaginé de faire doubler les corps du milieu où se trouvent les trous: 2, 3, 4, 5, 6 & 7. Moyennant ces nouveaux corps, on élève toute la clarinette d'un semi-ton majeur, enforte que l'on a deux modes de plus sib & mib, & on écrit au-dessus clarinette en sib.

Quant aux parties de remplissage, ou la clarinette n'a que des tenues, ou du moins, peu de notes, ou peut les faire dans tous les modes; seulement il faut faire attention au doigter, & à ménager du tems au joueur pour reprendre haleine, car cet instrument en demande beaucoup. On aura toujours égard à ce que la clarinette est d'une tierce mineure plus basse que les autres instrumens, & l'on aura soin d'écrire de quels corps les musiciens doivent se servir.

Dans le tems que je faisois cet article, il passa par Berlin un musicien qui jouoit d'une clarinette à six clefs, sur laquelle il exécutoit tous les modes. On a déjà remarqué combien les quatre clefs causent de difficultés; ce doit être bien pis avec six (F.D.C.)

SELECTED BIBLIOGRAPHY

Sources Before 1844, Books:

- Adlung, Jacob. Anleitung zu der Musikalischen Gelahrtheit. Erfurt: J. D. Jungnicol, 1758; facsimile ed., Kassel: Bärenreiter, 1953.
- Albrechtsberger, Johann Georg. Gründliche Anweisung der Composition . . . und mit einem Anhang: von der Beschaffenheit und Anwendung aller jetzt üblichen Musikalischen Instrumente. Leipzig: J. G. I. Breitkopf, 1790.
- Altenburg, Johann Ernst. Versuch einer Anleitung, zur Heroisch-musikalischen Trompeter-und Pauker-Kunst. Halle: J. C. Hendel, 1795 (written in c. 1770); facsimile: New York: Broude, 1966
- Amman, Jost. Wapen und Stammbuch. Frankfurt: S. Feyeraben, reprint ed., Munich: Hirth, 1881.
- [Ancelet]. Observations sur la musique, les musiciens, et les instruments. Amsterdam: Aux depens de la compagnie, 1757.
- Andersch, Johann Daniel. Musikalisches Woerterbuch. Berlin: W. Natorff und Comp., 1829.
- Antolini, Francesco. La retta maniera di scrivere per il clarinetto. Milan: C. Buccinelli, 1813.
- [Barnickel]. Kurzegefasstes musicalisches Lexicon. Chemnitz: J. C. and J. D. Stössel, 1737. Neue Auflage, 1749.
- Berlioz, Hector. Grand Traité d'instrumentation et d'orchestration modernes. Paris: Schonenberger, 1843.
- [Brockhaus, Friedrich Arnold]. Allgemeine Deutsche Real-Encyclopädie für die Gebildeten Stände (Conversations Lexikon). Leipzig: F. A. Brockhaus, 1818.
- Buonanni [Bonanni], Filippo. Gabinetto Armonico Pieno d'Istromenti Sonori Indicati, e Spiegati. Rome: G. Placho, 1723.

- Buonanni [Bonanni], Filippo. Descrizione degl' Istromenti Armonico. Rome: V. Monaldini, 1776.
- Busch, Gabriel Christoph Benjamin. Versuch eines Handbuchs der Erfindungen. 8 vols. Eisenach: J. G. E. Wittekindt, 1790-98.
- Carré, Jean Baptiste Louis. Panoplie: ou, Réunion de tout ce qui a trait à la guerre, depuis l'origine de la nation française jusqu'à nos jours. Paris: Fuchs, 1795 (written in 1783).
- Catrufo, [Giuseppe]. Des Voix et des Instrumens à Cordes à Vent et à Percussion. Paris: B. Latte, [1832].
- Costa, Joachim Joseph da e Sa. Nouveau Dictionnaire François-Portugais. Lisbon: Borel, Borel & Compagnie, 1784.
- [Crousaz, Jean Pierre de]. Traité du Beau. Où l'on Montre en Quoi Consiste ce qui l'on Nomme ainsi, par des Exam- ples tirez de la Plûpart des Arts & des Sciences. Amsterdam: F. L'Honoré, 1715.
- Doppelmayr, Johann Gabriel. Historische Nachricht von den Nürnbergischen Mathematicis und Kunstlern. Nuremberg: P. C. Monath, 1730.
- [Eisel, Johann Phillip]. Musicus Autodidaktos, oder Der sich selbst Informirende Musicus. Erfurt: J. M. Funcken, 1738; reprint ed., Leipzig: Zentralantiquariat der DDR, 1976.
- Der sich selbst Informirende Musicus, oder Gründ- liche Anweisung zu der Vocal-und Instrumental-Music. Augsburg: J. J. Lotter, 1762.
- Encyclopédie, ou Dictionnaire Raisoné des Sciences, des Arts et des Métiers par un Société de Gens de Lettres. Eds. D. Diderot and J. Le Rond d'Alembert, 17 vols. Paris: Briasson, David, Le Breton, 1751-65.
- Fétis, François Joseph. La Musique Mise a la Portée de Tout la Monde. Paris: A. Mesnier, 1830.
- Francoeur, [Louis-Joseph]. Diapason Général de Tous les Instrumens a Vent. Paris: Le Marchand, 1772; a later printing: Paris: Des Lauriers, c. 1781; reprint ed., Geneva: Minkoff, 1972.
- Fröhlich, Joseph. Systematischer Unterricht in den vorzü- lichsten Orchester-Instrumenten. Würzburg: F. Bauer, 1829.

- Froehlich, Joseph. Vollständige Theoretisch-practische Musikschule. Bonn: Simrock, [1810-11].
- Gardeton, César. Annales de la Musique ou Almanach Musicale de Paris. 2nd Year. Paris, 1820; reprint ed., Geneva: Minkoff, 1978.
- Garsault, François Alexandre Pierre de. Notionaire, ou Mé-morial Raisonné. Paris: G. Desprez, 1761.
- Gathy, A. (ed.). Musikalisches Conversations-Lexicon Encyclopädie der Gesammten Musik-Wissenschaft für Künstler, Kunstfreunde und Gebildete. Leipzig: Schubert & Niemeyer, 1835.
- Gerber, Ernst Ludwig. Historisch-Biographisches Lexikon der Tonkünstler. Leipzig: J. G. I. Breitkopf, 1790-92; reprint ed., Graz: Akademische Druck- u. Verlagsanstalt, 1977.
- _____. Neues Historisch-Biographisches Lexikon der Tonkünstler. Leipzig: A. Kühnel, 1812-14; reprint ed., Graz: Akademische Druck- u. Verlagsanstalt, 1966.
- Gervasoni, Carlo. La Scuola della Musica in Tre Parti Divisa. Piacenza: N. Orcesi, 1800.
- Gianelli, Pietro. Dizionario della Musica Sacra, e Profana. Venice: A. Santini, 1801.
- Gottsched, Johann Christoph. Handlexicon oder Kurzgefasstes Wörterbuch. Leipzig, 1760.
- Grétry, [André-Ernst-Modest]e. Mémoires ou Essai sur la Musique. Paris: l'Auteur, 1789.
- Häuser, Johann Ernst. Musikalisches Lexicon. Meissen: F. W. Goedsche, 1833.
- Iriarte y Oropesa, Tomás de. La Musica, Poema. Madrid: En la Imprenta Real de La Gazeta, 1779.
- Jablonski, Johann Theodor. Allgemeines Lexicon der Künste und Wissenschaften. 3rd ed. Königsberg: Zeisens Wittwe und Hartungs Erben, 1767.
- Keess, Stephen Edler von. Darstellung des Fabricks-und Gewerbswesen in Seinem Gegenwärtigen Zustande, Vorzüglich in Technischer, Mercantilischer und Statistischer Beziehung. 2nd ed. Vienna: Morschner und Jaspar, 1829.
- Koch, Heinrich Christoph. Musikalisches Lexicon. Frankfurt: A. Hermann dem Jüngern, 1802; reprint ed., Hil-

desheim: G. Olms, 1964.

[La Borde, Jean-Benjamin]. Essai sur la Musique Ancienne et Moderne. 4 vols. Paris: P. D. Pierres, 1780.

Lichtenthal, Pietro. Dizionario e Bibliografia della Musica. Milan: A. Fontana, 1826.

Lieber, Francis and Wigglesworth (eds.). Encyclopedia Americana: A Popular Dictionary. 13 vols. Philadelphia: Desilver, Thomas & Co., 1829-33; reprinted 1836.

Lipowsky, Felix Joseph. Uebersicht der Deutschen Geschichte. Munich: J. Lentner, 1794.

Majer, Joseph Friedrich Bernhard Caspar. Museum Musicum Theoretico Praciticum, das ist Neu-eröffneter Theoretisch-und Practicum Music-Saal. Schwäb. Hall: G. M. Majer, 1732; reprint ed., Kassel: Bärenreiter, 1954.

_____. Neu-eröffneter Theoretisch-und Pracktischer Music-Saal. Nuremberg: J. J. Cremer, 1741.

Mattheson, Johann. Das Neu-Eröffnete Orchestre, oder Universelle und Gründliche Anleitung. Hamburg: B. Schilter, 1713.

Mersenne, Marin. Harmonie Universelle. 3 vols. Paris: S. Cramoisy, 1636; reprint ed., Paris: Centre National de la Recherche Scientifique, 1963.

[Meysel, Anton]. Handbuch der Musikalischen Litteratur oder Allgemeines Systematisches Geordnetes Verzeichniss. Leipzig: A. Meysel, 1817-39; reprint ed., New York: Vienna House, 1972.

Murr, Christoph Gottlieb von. Beschreibung der Vornehmsten Merkwürdigkeiten. Nuremberg: J. E. Zeh, 1778.

Quantz, Johann Joachim. Versuch einer Anweisung die Flöte Traversie zu Spielen. Berlin: J. F. Voss, 1752; reprint: ed., Leipzig: C. F. Kahnt, 1906.

Recueil de Planches sur les Sciences, les Arts Libéraux et les Arts Méchaniques, avec leur Explication. 11 vols. Paris: Briasson, David, Le Breton, Durand, 1762-72.

Rees, Abraham. The Cyclopaedia: or Universal Dictionary of Arts, Sciences, and Literature. 44 vols. London: Longman, Hurst, Rees, Orme & Brown, 1802-1820.

Reynvaan, Joos Verschuere. Catechismus der Muzik. Amsterdam: W. Brave, 1787.

Reynvaan, Joos Verschuere Muzikaal Konst-Woordenboek.
Middleburg: W. A. Keel and J. De Jongh, 1789.

. Muzikaal Kunst-Woordenboek. Amsterdam: W. Brave,
1795.

Roeser, Valentin. Essai d'Instruction a l'usage de Ceux qui
Composent pour la Clarinette et le Cor. Paris: Le
Menu, 1764; a later printing, Paris: Mercier, 1780-81;
reprint ed., Geneva: 1972.

Rohn, Joanne Carolo. Nomenclator Artifex et Mechanicus. To
Gest: Gmenowatel U Trogi Rzeci. Der Kenner in Dreyen
Sprachen. Prague: J. Prussow, 1768.

Schink, Johann Friedrich. Litterarische Fragmente. Graz:
Widmanstättenschen Schriften, 1785.

Schönfeld, Johann Ferdinand von. Jahrbuch der Tonkunst von
Wien und Prag. Vienna, 1796; reprint ed., Munich: E.
Katzbichler, 1976.

[Schubart, Christian Friedrich Daniel]. Ideen zu einer
Ästhetik der Tonkunst. Vienna: J. B. Degen, 1806
(written in 1784-85); reprint ed., Hildesheim: G. Olms,
1969.

Selhof, Nicolas. Catalogue d'une très belle Bibliothèque
de Livres. The Hague: A. Moetjens, 1759; reprint ed.,
Amsterdam: F. Knuf, 1973.

Simiot, [Jacques-François]. Tableau Explicatif des Innova-
tions et Changemens Faits à la Clarinette. Lyons: [The
Author], 1808.

Supplément a l'Encyclopédie, ou Dictionnaire Raisonné des
Sciences, des Arts et des Métiers par un Société de
Gens de Lettres. Ed. J. B. Robinet, 5 vols. Amster-
dam: M. M. Rey, 1776-1780.

Tablettes de Renommée des Musiciens. Paris, 1785; reprint
ed., Geneva: Minkoff, 1971.

Tariffa delle Gabelle per Firenze. Florence: Cambiagi,
1781.

Trichet, Pierre. Traité des Instruments de Musique (vers
1640). Introduction and notes by F. Lesure. Neuilly-
sur-Seine: Société de Musique d'Autrefois, 1957.

Vandenbrock, Othon Joseph. Traité Général de Tous les In-
struments à Vent. Paris: Boyer, 1793; reprint ed., Ge-
neva: Minkoff, 1974.

Walther, Johann Gottfried. Musikalisches Lexicon oder Musikalisches Bibliothek. Leipzig: W. Decker, 1732; reprint ed., Kassel: Bärenreiter, 1953.

_____. Praecepta der Musikalischen Composition. Leipzig, 1708; reprint ed., Leipzig: Breitkopf & Härtel, 1955.

Weigel, Christoff. Abbildung der Gemein-Nußlichen Haupt-Stände. Nuremberg: n.p., 1698.

Weigle, Johann Christoph. Musikalisches Theatrum. Nuremberg, c. 1722; facsimile ed., New York: Bärenreiter, 1961.

[Wilke J. G. L.] Musikalisches Hand-Wörterbuch. Weimar: C. R. Harmanns seel. Wittwe und Erben, 1786.

Wolf, Georg Friedrich. Kurzgefasstes Musikalisches Lexikon. Halle: J. C. Hendel, 1787.

Woodwind Instruction Books, 1600-1830: Music 3141. 17 reels of microfilm. Washington: Library of Congress Photoduplication Service, 1978.

Zedler, Johann Heinrich. Grosse Vollständiges Universal-Lexicon aller Wissenschaften und Künste. 64 vols. Halle and Leipzig: J. H. Zedler, 1731-54.

Sources Before 1844, Articles:

- "Berichtigungen und Zusätze zum den Musikalischen Almanachen auf die Jahre 1782. 1783. 1784." Musikalische Korrespondenz der Deutschen Filarmonischen Gesellschaft für Jahr 1791, eds. H. P. C. Boßler and J. F. Christmann, no. 6 (9 February 1791): cols. 41-2.
- "Instrumens de Musique, Confectionnés par B. Schott à Mayence, í Anvers chez A. Schott." Cäcilia, eine Zeitschrift fü die Musikalische Welt 11, no. 9 (1825): 16.
- Cramer, Carl Friedrich, ed. Magazin der Musik. 2 vols., 1783-86; reprint ed., New York: G. Olms, 1971.
- [Fétis, François Joseph]. "Instrumens nouveaux. Clarinette-basse." Revue Musicale 7 (18 May 1833): 122-3.
- Forkel, Johann Nikolaus, ed. Musikalischer Almanach für Deutschland. 4 vols., 1782-84, 1789; reprint ed., New York: G. Olms, 1974.
- Francoeur, [Louis-Benjamin]. "Rapport fait par M. Francoeur, au nom du Comité des Arts Mécaniques, sur une Nouvelle Clarinette Présentée à la Société par M. Janssen, rue l'Evêque, no. 14, butte des Moulins, à Paris," Bulletin de la Société d'encouragement pour l'industrie nationale 212 (1822): 40-45.
- Fröhlich, Franz Joseph. "Ueber die Verbesserung der Klarinette vom Hrn. Ivan Müller, vormals Prof. am Conservatorium zu Paris, nun erstem Klarinettenisten an der grossen Oper zu London," Allgemeine Musikalische Zeitung 19 (15 October 1817): cols. 713-719.
- [Gossec, François-Joseph]. "Notice sur l'introduction des cors, des clarinettes et des trombones dans les orchestres français; extraite des manuscrits autographes de Gossec." Revue Musicale 3, no. 5 (1829): 217-223.
- Meusel, Johann Georg. "Zusätze und Berichtigungen zu Herrn Forkels musikalischen Almanach von Jahr 1783." Miscellaneen artistischen Inhalts 17 (1783): 293-297.
- [Michaelis, Christian Friedrich]. "Ueber die Klarinette." Allgemeine Musikalische Zeitung 10 (9 March 1808): cols. 369-375; (16 March 1808): cols. 385-391.
- Simiot, [Jacques-François]. "Correspondance." Revue Musicale 6 (1 Jan. 1830): 541-542.
- Weber, Gottfried. "Clarinett." Allgemeine Encyclopädie der Wissenschaft und Künste, eds. J. S. Ersch and J. G. Gruber, 167 vols. Leipzig: J. F. Gleditsch, 1818-1889.

Vol. 17 (1828): 370-374.

"Einiges über Clarinett und Bassetthorn." Cäcilia, eine Zeitschrift für die Musikalische Welt 11, no. 41 (1829): 35-57.

Wood, James. "Clarionet and Other Wind Musical Instruments." British Patent, no. 2381 (10 April 1820); reprinted, London: G. E. Eyre and W. Spottiswoode, 1856.

"An Improvement in the Formation and Position of the Long Keys B Natural and C Sharp, upon the Musical Instrument Commonly Called the Clarinet, for the more easily-fingering of the same." British Patent, no. 4423 (14 February 1820); reprinted, London: G. E. Eyre and W. Spottiswoode, 1856.

Patents:

Gutteridge, William. "Certain Improvements on the Clarinet". British Patent, no. 4890 (18 March 1824); reprinted, London: G. E. Eyre and W. Spottiswoode, 1856.

Wood, James. "Clarionet and Other Wind Musical Instruments." British Patent, no. 2391 (10 April 1800); reprinted, London: G. E. Eyre and W. Spottiswoode, 1856.

_____. "An Improvement in the Formation and Position of the Long Keys B Natural and C Sharp, upon the Musical Instrument Commonly Called the Clarionet, for the more easily fingering of the same." British Patent, no. 4423 (14 February 1820); reprinted, London: G. E. Eyre and W. Spottiswoode, 1856.

Baermann, Carl. *Vollständige Clarinettschule*. 3 vols. Offenbach: J. André, 1864-75.

Baines, Anthony. *European and American Musical Instruments*. New York: Viking Press, 1966.

_____. *Woodwind Instruments and Their History*. 2nd ed. London: Faber and Faber, 1967.

Beck, Sydney and Elizabeth E. Koch. *Music in Prints*. New York: The New York Public Library, 1966.

Becker, Heinz. *Zur Entwicklungsgeschichte der Klarinetten im mittelalterlichen Rohrblattinstrumentenbau*. Kassel: H. Sikorski, 1966.

Bentzen, Andreas Fridolin Weis. *The Clarinet*. 2 vols. Copenhagen: Akademisk Forlag, 1969.

Beraths, Gustav. *Die Musikflüsse im kurfürstlichen Hof zu Koblenz-Ehrenbreitstein*. Kassel: H. Sikorski's Sohn, 1964.

Bernsdorf, Eduard (ed.). *Neues Universal-Lexikon*. 4 vols. Dresden: R. Schaefer, 1857.

_____. *A Biographical Dictionary of Actors, Actresses, Musicians, Dancers, Managers & Other Stage Personnel in London, 1600-1800*. /eds. P. H. Highfill, Jr., K. A. Burtis and E. A. Langhans, 10 vols. Carbondale: Southern Illinois University Press, 1973-.

Bobollier, Marie [Brenet, Michel]. *Les Concerts en France sous l'ancien régime*. Paris: Fischbacher, 1909.

Boydell, Barra. *The Crumhorn and Other Renaissance Wind-cap Instruments*. Buren: F. Knuf, 1962.

Modern Sources, Books:

- Adam, Adolph. Derniers Souvenirs d'un Musicien. Paris: M. Levy Frères, 1859.
- _____. Souvenirs d'un Musicien. Paris: M. Levy Frères, 1857.
- Aerde, Raymond van. Les Tuerlinckx: Luthiers à Malines. Mechlin: L. & A. Godenne, 1914.
- Altenburg, Wilhelm. Die Klarinette; Ihre Entstehung und Entwicklung bis zur Jetztzeit in akustischer, technischer, u. musikalischer Beziehung. Heilbronn: C. F. Schmidt, 1904.
- Baermann, Carl. Vollständige Clarinett Schule. 5 vols. Offenbach: J. André, 1864-75.
- Baines, Anthony. European and American Musical Instruments. New York: Viking Press, 1966.
- _____. Woodwind Instruments and Their History. 3rd ed. London: Faber and Faber, 1967.
- Beck, Sydney and Elizabeth E. Roth. Music in Prints. New York: The New York Public Library, 1965.
- Becker, Heinz. Zur Entwicklungsgeschichte der antiken und mittelalterlichen Rohrblattinstrumenten. Hamburg: H. Sikorski, 1966.
- Bentzon, Andreas Fridolin Weis. The Launeddas. 2 vols. Copenhagen: Akademisk Forlag, 1969.
- Bereths, Gustav. Die Musikpflege am kurtrierischen Hofe zu Koblenz-Ehrenbreitstein. Mainz: B. Schott's Söhne, 1964.
- Bernsdorf, Eduard (ed.). Neues Universal-Lexikon. 4 vols. Dresden: R. Schaefes, 1857.
- A Biographical Dictionary of Actors, Actresses, Musicians, Dancers, Managers & Other Stage Personnel in London, 1600-1800. /eds. P. H. Highfill, Jr., K. A. Burnim and E. A. Langhans, 10 vols. Carbondale: Southern Illinois University Press, 1973-.
- Bobollier, Marie [Brenet, Michel]. Les Concerts en France sous l'ancien régime. Paris: Fischbacher, 1900.
- Boydell, Barra. The Crumhorn and Other Renaissance Wind-cap Instruments. Buren: F. Knuf, 1982.

- Brücker, Fritz. Die Blasinstrumente in der altfranzösischen Literatur. Giessen: Romanischen Seminars, 1926.
- Burgkmair, Hans. The Triumph of Maximilian I. Trans. of text by S. Appelbaum. New York: Dover, 1964.
- Carse, Adam. Musical Wind Instruments. London, 1939; reprint ed., New York: Da Capo, 1965.
- Cucuel, Georges. Études sur un orchestre au XVIII^{me} siècle. Paris: Fischbacher, 1913.
- _____. La Pouplinière et la musique de chambre au XVIII^e siècle. Paris: Fischbacher, 1913.
- Domp, Joachim. Studien zur Geschichte der Musik an Westfälischen Adelshöfen im XVIII. Jahrhundert. Düsseldorf: H. Krumbiegel, 1934.
- _____. European Musical Instruments on Prints and Drawings on Microfiche. Print Collection of the Music Department of the Haags Gemeentemuseum. The Hague: n.p., [1976].
- Fétis, François-Joseph. Biographie Universelle des Musiciens et Bibliographie Générale de la Musique. 8 vols. Paris: Didot Frères, 1860-65.
- Färber, Sigfrid. Das Regensburger Fürstlich Thurn und Taxissche Hoftheater und seine Oper 1760-1786. Sonderdruck aus den "Verhandlung des Historischen Vereins von Oberpfalz und Regensburg". Vol. 86. n.p., 1936.
- Franklin, Benjamin. The Autobiography of Benjamin Franklin. A Genetic Text. Eds. J. A. Leo Lemay and P. M. Zall. Knoxville: University of Tennessee Press, 1981.
- Gandolfi, Riccardo. Appunti intorno al clarinetto compilati ad uso delle scuole del R. Istituto musicale di Firenze. Florence: Tipografia Galletti e cocci, 1887.
- Gevaert, François-Auguste. Nouveau traité d'instrumentation. Paris: Lemoine & Fils, 1885.
- Gottron, Adam. Mainzer Musikgeschichte von 1500 bis 1800. Mainz: Auslieferung durch die Stadtbibliothek, 1959.
- Hardesty, Kathleen. The Supplément to the Encyclopédie. The Hague: M. Nijhoff, 1977.
- Harrison, Frank and Joan Rimmer. European Musical Instruments. London: Studio Vista, 1964.
- Hickmann, Hans. Musicologie Pharaonique. Kehl: Hietz, 1956.

- _____. Musikgeschichte in Bildern: Ägypten. Leipzig: VEB Deutscher Verlag für Musik, 1961.
- Israël, Carl. Frankfurter Concert-Chronik von 1773-1780. Frankfurt: Selbstverlag des Vereins, 1876.
- Johannson, Cari. French Music Publishers' Catalogues of the Second Half of the Eighteenth Century. 2 vols. Stockholm: Almqvist & Wiksells, 1955.
- Johnson, David. Music and Society in Lowland Scotland in the Eighteenth Century. London: Oxford University Press, 1972.
- Kassler, Jamie Croy. The Science of Music in Britain, 1714-1830. 2 vols. New York: Garland, 1979.
- Kroll, Oskar. The Clarinet. Revised and with a repertory by D. Riehm. Trans. by Hilda Morris, trans. ed. by A. Baines. New York: Taplinger, 1968.
- Langwill, Lyndesay G. An Index of Musical Wind-Instrument Makers. 6th ed. Edinburgh: The Author, 1980.
- Larsen, Jens Peter. Handel's Messiah, Origins, Compositions, Sources. 2nd ed. New York: W. W. Norton, 1972.
- Lawson, Colin. The Chalumeau in Eighteenth-Century Music. Ann Arbor: UMI Research Press, 1981.
- Lesure, François. Bibliographie des Éditions Musicales publiées par Estienne Roger et Michel-Charles le Cène (Amsterdam, 1696-1743). Paris: Heugel, 1969.
- The London Stage, 1660-1800. 5 parts. Carbondale: Southern Illinois University Press, 1960-68.
- Manniche, Lise. Ancient Egyptian Musical Instruments. Berlin: Deutscher Kunstverlag München, 1975.
- Marcuse, Sibyl. Musical Instruments: A Comprehensive Dictionary. New York: Doubleday & Co., 1964.
- Masson, Paul-Marie. L'Opéra de Rameau. Paris: H. Laurens, 1930.
- Montagu, Jeremy. The World of Baroque and Classical Instruments. New York: Overlook Press, 1974.
- Mooser, R. Aloys. Annales de la musique et des musiciens en Russie au XVIII^{me} siècle. 3 vols. Geneva: Mont-Blanc, 1951.

- Neumann, Frederick. Ornamentation in Baroque and Post-Baroque Music. Princeton: Princeton University Press, 1978.
- Nickel, Ekkehard. Die Holzblasinstrumentenbau in der Freien Reichsstadt Nürnberg. Munich: E. Katzbichler, 1971.
- Niemöller, Klaus Wolfgang. Kirchenmusik und reichsstädtische Musikpflege im Köln des 18. Jahrhundert. Cologne: A. Volk, 1960.
- Noack, Elisabeth. Musikgeschichte Darmstadts vom Mittelalter bis zur Goethezeit. Mainz: B. Schott's Söhne, 1967.
- Pierre, Constant. La Facture Instrumentale à l'exposition Universelle de 1889. Paris: Librairie de l'art indépendant, 1890.
- _____. Les Facteurs d'instruments de Musique les luthiers et la facture instrumentale. Paris: Sagot, 1893.
- _____. Histoire du Concert Spirituel 1725-1790. Paris: Société Française de musicologie, 1975.
- Pohl, Carl Ferdinand. Mozart und Haydn in London. Vienna: C. Gerold's Sohn, 1867; reprint ed., New York: Da Capo, 1970.
- Pontécoulant, Le Comte Adam de. Organographie Essai sur la facture instrumentale. 3 vols. Paris: Castel, 1861.
- Rendall, F. Geoffrey. The Clarinet. Some Notes upon its History and Construction. 3rd ed. Revised and with some additional materials by P. Bate. New York: W. W. Norton, 1971.
- Sachs, Curt. Handbuch der Musikinstrumentenkunde. 2nd ed. Leipzig: Breitkopf & Härtel, 1930.
- _____. The History of Musical Instruments. New York: W. W. Norton, 1940.
- _____. Real-Lexicon der Musikinstrumente. Berlin: M. Hesse, 1913; reprint ed., Hildesheim: G. Olms, 1962.
- Samm, Josef. Das Bassetthorn: seine Erfindung und Weiterbildung. Mainz: B. Schotts Söhne, 1971.
- Schreiber, Ottmar. Orchester und Orchesterpraxis in Deutschland zwischen 1700 und 1850. Berlin: Junker und Dünnhaupt, 1938.

The Social Status of the Professional Musician from the Middle Ages to the 19th Century. Ed. W. Salmen, trans., W. Kaufman and B. Reisner. New York: Pendragon, 1983.

Stubbins, William. The Art of Clarinetistry. Ann Arbor: Ann Arbor Publishers, 1965.

Talbot, Michael. Vivaldi. London: J. M. Dent & Sons, 1978.

Tuthill, Burnet C. Concertos for Clarinet, Sonatas for Clarinet and Piano. Annotated Listings. Washington: Music Educators National Conference, [1972].

Vance, N. Noble. Historical Development of the Clarinet. Rock Island, Illinois: EnnennVee, 1973.

Warner, Thomas E. An Annotated Bibliography of Woodwind Instruction Books, 1600-1830. Detroit: Information Coordinators, 1967.

Webster, Mary. Johan Zoffany 1733-1810. [London]: National Portrait Gallery, 1976.

Weston, Pamela. Clarinet Virtuosi of the Past. London: R. Hale, 1971.

_____. More Clarinet Virtuosi of the Past. London: The Author, 1977.

Whitwell, David. The Wind Band and Wind Ensemble of the Classic Period. Northridge, California: Winds, 1984.

Wolf, Eugene K. The Symphonies of Johann Stamitz. The Hague: M. Nijhoff, 1981.

Wotquenne, Alfred. Catalogue de la Bibliothèque. Conservatoire Royal de Musique de Bruxelles. Brussels: Coosemans Frères et Soeurs, 1908.

Wright, Rowland. Dictionnaire des instruments de musique. Études de lexicologie. London: Battley Brothers, [1941].

Young, Phillip T. The Look of Music: rare musical instruments 1500-1900. Vancouver: Vancouver Museums and Planetarium Association, 1980.

Modern Sources: Articles:

- Altenburg, Wilhelm. "F. Besson's Kontrabass-Klarinette im Vergleiche zu dem Batyphon und der Streitwolf'schen Bassklarinette. Zeitschrift für Instrumentenbau, 12 (1 Aug. 1892): 594-96.
- Balfour, Henry. "The Old British 'Pibcorn' or 'Hornpipe' and its affinities." Journal of the Anthropological Institute 20 (1890): 142-54.
- Baselt, Bernd. "Thematisch-systematisches Verzeichnis." Händel-Handbuch. Vol. 1, eds. W. and M. Eisen, Kassel: Bärenreiter, 1978.
- Becker, Heinz. "Das Chalumeau bei Telemann." Konferenzbericht der 2. Magdeburger Telemann-Festtage. Magdeburg: Deutsche Kulturland, 1969, pp. 68-76.
- _____. "Das Chalumeau im 18. Jahrhundert." Speculum Musicae Artis. Festgabe für Heinrich Husmann zum 60. Geburtstag. Munich: H. Fink, 1970, pp. 23-46.
- _____. "Zur Geschichte der Klarinette im 18. Jahrhundert." Die Musikforschung 8, no. 3 (1955): 271-93.
- [Billert, C.]. "Clarinete." Musikalisches Conversations-Lexicon. Ed. H. Mendel, 11 vols. Berlin: R. Oppenheim, 1872.
- Birsak, Kurt. "Das Dreiklappen-Chalumeau im Bayerischen National-museum in München." Die Musikforschung 26 (Oct.-Dec. 1973): 493-7.
- _____. "Zu Josef Saams Buch über das Bassetthorn: Ein Diskussionsbeitrag." Die Musikforschung 27 (July-Sept. 1974): 335-41.
- _____. "Salzburg, Mozart und die Klarinette. Mitteilungen der Internationalen Stiftung Mozarteum 33 (1985): 40-7.
- Bobollier, Marie [Brenet, Michel]. "La Librarie musicale en France de 1653 à 1790 après des registres de privilèges." Sammelbände der Internationalen Musikgesellschaft 8 (1906-07): 401-66.
- _____. "Rameau, Gossec et les clarinettes." Le Guide Musical 49 (1 March 1903): 183-5; (8 March 1903): 203-5; (15 March 1903): 227-8.
- Bowers, Jane. "A Catalogue of French Works for the Transverse Flute 1692-1761." 'Recherches' sur la Musique Française classique 18 (1978): 124.

- Bruckner, Hans. "Die Pfeifenmacher in Berchtesgaden." Tibia 4, no. 2 (1979): 288-96.
- Chatwin, R. B. "Handel and the Clarinet." Galpin Society Journal 3 (March 1950): 3-8.
- Clinch, Peter. "Clarinet Concerto No. 3 by Franz Tausch (1762-1817)." Studies in Music 8 (1974): 17-31.
- Dart, Thurston. "The Earliest Collection of Clarinet Music." Galpin Society Journal 4 (June 1951): 39-41.
- _____. "The Mock Trumpet." Galpin Society Journal 6 (July 1953): 35-40.
- Dazeley, George. "The Original Text of Mozart's Clarinet Concerto." Music Review 9 (Aug. 1948): 166-72.
- [Eitner, Robert]. "Mitteilungen." Monatshefte für Musik-Geschichte 12 (1888): 12-15, 108-11.
- Eppelsheim, Jürgen. "Das Denner-Chalumeau des Bayerischen Nationalmuseums." Die Musikforschung 26 (Dec. 1973): 498-500.
- Fitzpatrick, Horace. "Jacob Denner's Woodwinds for Göttingen Abbey." Galpin Society Journal 21 (March 1968): 81-7.
- Gradenwitz, Peter. "The Beginnings of Clarinet Literature." Music and Letters 17 (April 1936): 145-50.
- _____. "Concerto Find - Story Behind the Uncovering of Stamitz Work for Clarinet and Orchestra." The New York Times, section 7 (1 April 1951): 1.
- Græsvold, Hans Magne. "Lorents Nicolai Berg og hans lærbok 'Den første prøve for begyndere udi instrumentalkunsten'." Studia Musicologica Norvegica. Norsk Årsskrift for Musikkforskning 2 (1976): 97-121.
- Hacker, Alan. "Mozart and the basset clarinet." Musical Times 110 (April 1969): 359-62.
- Halfpenny, Eric. "Castillon on the Clarinet." Music and Letters 4 (October 1954): 332-8.
- _____. "Early English Clarinets." Galpin Society Journal 18 (March 1965): 42-56.
- Haupt, Helga. "Wiener Instrumentenbauer von 1791-1815." Studien zur Musikwissenschaften 24 (1960): 120-84.

- Heck, T. F. "Ricordi Plate Numbers in the Earlier 19th Century: A Chronological Survey." Current Musicology 10 (1970): 117-24.
- Hellier, Samuel. "A Catalogue of Musically Instruments." Galpin Society Journal 18 (March 1965): 5-6.
- Hellyer, Roger. "Mozart's 'Harmoniemusik' with bibliographical notes on Haydn and Pleyel." Haydn Yearbook 9 (1975): 349-57.
- _____. "Some Documents relating to Viennese Wind-Instrument Purchases, 1779-1837." Galpin Society Journal 28 (April 1975): 50-9.
- Hess, Ernst. "Die Ursprüngliche Gestalt des Klarinettenkonzertes KV 622." Mozart Jahrbuch (1967): 18-30.
- Heyde, Herbert. "Ein Urahn der Klarinette?" Deutsches Jahrbuch der Musikwissenschaft für 1970 (1971): 27-34.
- _____. "Über Rohrblattinstrumente des Musikinstrumentenmuseums der Karl-Marx Universität Leipzig." Tibia 2 (1979): 378-83.
- Hoeprich, T. Eric. "Clarinet reed position in the 18th century." Early Music 12 (Feb. 1984): 49-55.
- _____. "Die Klarinetten Johann Scherers." Tibia 10, no. 3 (1985): 435-38.
- _____. "A Three-Key Clarinet by J. C. Denner." Galpin Society Journal 34 (1981): 21-32.
- Karp, Cary. "Baroque Woodwind in the Musikhistoriska Museet, Stockholm." Galpin Society Journal 25 (1972): 80-6.
- Kingdon-Ward, Martha. "Mozart and the Clarinet." Music and Letters 28 (April 1947): 126-53.
- Kleefeld, Wilhelm. "Das Orchester in der Hamburger Oper 1678-1738." Sammelbände der Internationalen Musikgesellschaft 1 (1899-1900): 219-89.
- Kölbel, Herbert. "Ferdinand Kölbel (ca. 1705-1778), der Erfindung des Klappenhorns." Das Musikinstrument 28 (May 1979): 806-8.
- Kolneder, Walter. "Die Klarinette als concertino-instrument bei Vivaldi." Die Musikforschung 4, no. 2/3 (1951): 185-91.
- Owen, Angela Maria. "The Chalumeau and the Clarinet." Early Music Recorder 3, no. 1 (1967): 3-6.

Kolneder, Walter. "Noch einmal: Vivaldi und die Klarinette." Die Musikforschung 8, no. 2 (1955): 209-11.

Kratochvíl, Jirí. "Betrachtungen über die urfassung des konzerts für Klarinette und des quintetts für Klarinette und Streicher von W. A. Mozart." International Konferenz über das Leben und Werk W. A. Mozarts Praha 27.-31. Mai 1956. Ed. by Verband Tschechoslowakische Komponisten, [c. 1958], pp. 262-71.

La Laurencie, Lionel de. "Rameau et les clarinettes." Revue Musicale Mensuelle 9 (February 1913): 27-8.

_____. "Rameau, son gendre et ses descendants." Revue Musicale Mensuelle 7 (15 Feb. 1911): 15-16.

Lawson, Colin. "The Authentic Clarinet: tone and tonality." Musical Times 124 (June 1983): 357-8.

_____. "The Baroque repertoire: Some observations for the tercentenary of Johann Christoph Graupner (1683-1760)." The Clarinet 11 (Fall 1983): 18.

Lebermann, Walter. "Zur Besetzungsfrage der Concerti grossi von A. Vivaldi." Die Musikforschung 7, no. 3 (1954): 337-39.

Lesure, François. "Écrits imprimés sur la musique Addenda et Corrigenda." Fontis Artis Musicae 26, no. 1 (1979): 1-4.

Lyle, Andrew. "John Mahon's Clarinet Preceptor." Galpin Society Journal 30 (1977): 52-5.

McPherson, Sandra J. "The Clarinet in Nineteenth-Century America." ClariNetwork 4, no. 4 (Holiday 1985): 10-13.

Münster, Robert. "Johann Anton Fils und das Mannheimer Orchester in den Jahren 1754 bis 1760." In Johann Anton Fils (1733-1760) Ein Eichstätter Komponist der Mannheimer Klassik. Ed. H. Holzbauer, Tutzing: H. Schneider, 1983, pp. 39-40.

Newhill, John P. "The Contribution of the Mannheim School to Clarinet Literature." Music Review 40 (May 1979): 90-112.

Norlind, Tobias. "Abraham Abrahamsson Hülphers och frihetstidens musikliv." Svensk Tidskrift för Musikforskning 19 (1937): 16-64.

Owen, Angela Maria. "The Chalumeau and its Music." American Recorder 8, no. 1 (1967): 7-9.

Pilková, Zdenka. "Musikzentren in den böhmischen Ländern in der ersten Hälfte des 18. Jahrhunderts vom Standpunkt des Instrumentariums." In Studien zur Aufführungspraxis und Interpretation von Instrumentalmusik des 18. Jahrhunderts. Blankenburg/Herz: n.p., vol. 8, 1978.

Pisarowitz, Karl Maria. "'Müaßt ma nix in übel aufnehmen . . .' Beitragsversuche zu einer Gebrüder-Stadler-Biographie." Mitteilungen der Internationalen Stiftung Mozarteum (Feb. 1971): 29-33.

Poulin, Pamela L. "The Basset Clarinet of Anton Stadler." College Music Symposium 22 (Fall 1982): 67-82.

Rice, Albert R. "The Clarinet as Described by Lorents Nicolai Berg." Journal of the American Musical Instrument Society 5-6 (1979-80): 43-52.

_____. "Clarinet Fingering Charts, 1732-1816." Galpin Society Journal 37 (1984): 16-41.

_____. "Clarinet reed position." Early Music 12 (Aug. 1984): 429, 431.

_____. "An Eighteenth Century Description of the Five-Key Clarinet." The Clarinet 4 (Winter 1977): 29-30.

_____. "Garsault on the Clarinet." Galpin Society Journal 32 (1979): 99-103.

_____. "The History and Literature of the Chalumeau and Two-Keyed Clarinet." The Clarinet 1 (Aug. 1974): 11-21.

_____. "Instrumental Tutors and Treatises at Winston-Salem." Moravian Music Journal 30 (Fall 1985): 34-5.

_____. "'On two newly-invent Clarinets' from the Harmonicon." The Clarinet 5 (Winter 1978): 39.

_____. "'On the Clarionet' from the Harmonicon." The Clarinet 11 (Spring 1984): 34-5.

Rendall, F. Geoffrey. "A Short Account of the Clarinet in England during the Eighteenth and Nineteenth Centuries." Proceedings of the Royal Musical Association 68 (1941-42): 55-86.

Ross, David. "Ridinger's 'Youth Playing the Clarinet'." The Clarinet 7 (Fall 1979): 34-5.

- Schiedermaier, Ludwig. "Die Oper an den badischen Höfen des 17. u. 18. Jahrhunderts." Sammelbände der Internationalen Musikgesellschaft 14 (1912-13): 199-207, 369-449, 510-50.
- Sehnal, Jiří. "Die Musikkapelle des Olmützer Bischofs Maximilian Hamilton." Die Musikforschung 21 (Oct.-Dec. 1971): 411-17.
- Shackleton, Nicholas. "The 'Well Known Clarinet by Lindner'." Galpin Society Journal 38 (1985): 137-9.
- Stern, Nina. "Il clarinette in Francia nella seconda metà dal Settecento." Il Flauto Dolce 10-11 (Jan.-June 1984): 29-31; partially translated in Idem. "The Clarinet in the Eighteenth Century: Rameau and his contemporaries." The American Recorder 26 (May 1985): 71-3.
- Storck, Karl. "Johann Simon Hermstedt." Deutsche Musiker-Zeitung 60 (21 September 1929): 796-8.
- Talbot, Michael. "Vivaldi e lo chalumeau." Rivista Italiana di Musicologia 15 (1980):
- Tilmouth, Micahel. "A Calendar of References to Music in Newspapers published in Lond and the Provinces (1600-1719)." R.M.A. Chronicle 1 (1961):
- Tuthill, Burnet C. "The Quartets and Quintets for Clarinet and Strings." NACWPI Journal (Summer 1974): 3-15.
- Van der Meer, John Henry. "The Chalumeau Problem." Galpin Society Journal 15 (March 1962): 89-91.
- _____. "Some More Denner Guesses." Galpin Society Journal 23 (August 1970): 117-19.
- Vio, Gastone. "Precisazione sui documenti della Pietà in relazione alle 'Figlie del cor'." In Vivaldi Veneziano Europeo. Ed. F. Degrada. Florence: L. S. Olshki, 1980, pp. 101-22.
- Warburton, Ernest. "J. C. Bach's Opera's." Proceedings of the Royal Musical Association 92 (1965-66):
- Weston, Pamela. "Beethoven's Clarinetists." Musical Times 111, no. 1534 (Dec. 1970): 1212-13.
- Young, Phillip T. "A Bass Clarinet by the Mayrhofers of Passau." Journal of the American Musical Instrument Society 6 (1981): 36-46.
- _____. "Some Further Instruments by the Denners." Galpin Society Journal 35 (1982): 78-85.

Dissertations-Theses-Papers

Young, Phillip T. "Woodwind Instruments by the Denners of Nürnberg." Galpin Society Journal 20 (1967): 9-16.

Zadro, Michael G. "Woods Used for Woodwind Instruments since the 16th Century." Early Music 3 (April 1975): 134-36; (July 1975): 249-251.

Lanning, Edward Francis. "The Clarinet as the Standard Solo Instrument in Johann Sebastian Bach's Concertos." D.M.A. dissertation, University of Minnesota-St. Paul, 1969.

Macdonald, Robert James. "France's 18th Century and French Instrumental Music of the Second Half of the Eighteenth Century". 3 vols. Ph.D. dissertation, Michigan State University, 1968.

McPherson, Sandra J. "Windsong: A Study of the Clarinet Music, 1878-1918: An Analysis of Technique." M.A. thesis, University of California at Santa Barbara, 1962.

Ness, Arthur J. "Some Aspects of the Clarinet in Mozart's Chamber Music and Mozart's Clarinet in A Major K. 285." M.A. thesis, Harvard University, 1971.

Poulin, Pamela J. "The English Clarinet of Joseph Haydn and Its Music." M.A. thesis, University of Minnesota, 1976.

Rau, Ulrich. "Die Kammermusik für Klarinetten und Violine im 18. Jahrhundert." Ph.D. dissertation, Universität Bonn, 1971.

Rice, Albert Richard. "Valentin Remy's Clarinet in the 18th Century: Background and Significance." M.A. thesis, Vermont Graduate School, 1977.

Rousseau, Eugene E. "Clarinet Music in the United States 1732 to ca.1825." Ph.D. dissertation, North Texas State University, 1962.

Shanley, Richard A. "The First and Second Clarinet Concertos by Johann Melchior Holzer: A Study of the Original Manuscripts with additional recitals." M.A. dissertation, Texas State University, 1976.

Stern, Nina. "Rameau's Clarinet in the 18th Century: France in the Middle of the Eighteenth Century." Diplomarbeit, Schola Cantorum Basiliensis, 1965.

Dissertations-Theses-Papers:

- Charlton, David Philip. "Orchestration and Orchestral Practice in Paris, 1789 to 1810". 2 vols. Ph.D. thesis, University of Cambridge, 1973.
- Estock, Joseph James. "A Biographical Dictionary of Clarinetists Born Before 1800". Ph.D. dissertation, University of Iowa, 1972.
- Lanning, Edward Francis. "The Clarinet as the intended Solo instrument in Johann Melchior Molter's Concerto 34". D.M.A. dissertation, University of Missouri-Kansas City, 1969.
- Macdonald, Robert James. "François-Joseph Gossec and French Instrumental Music of the Second Half of the Eighteenth Century". 3 vols. Ph.D. dissertation, University of Michigan, 1968.
- McPherson, Sandra J. "Nineteenth-Century American Clarinet Music, 1878-1915: An Annotated Bibliography". M.A. thesis, University of California at Santa Barbara, 1982.
- Ness, Arthur J. "Some Remarks Concerning the Bassett Clarinet and Mozart's Concerto in A Major (KV 622)". M.A. thesis, Harvard University, 1961.
- Poulin, Pamela J. "The Bassett Clarinet of Anton Stadler and Its Music". M.A. thesis, University of Rochester, 1976.
- Rau, Ulrich. "Die Kammermusik für Klarinette und Streichinstrument im Zeitalter der Wiener Klassik". Ph.D. dissertation, Universitäts des Saarlandes, 1977.
- Rice, Albert Richard. "Valentin Roeser's Essay on the Clarinet: Background and Commentary". M.A. thesis, Claremont Graduate School, 1977.
- Rousseau, Eugene E. "Clarinet Instructional Materials from 1732 to ca.1825". Ph.D. dissertation, North Texas State University, 1962.
- Shanley, Richard A. "The fifth and sixth clarinet concertos by Johann Melchior Molter: A lecture recital together with additional recitals". D.M.A. dissertation, North Texas State University, 1976.
- Stern, Nina. "Rameau's Acante et Céphise: The Clarinet in France in the Middle of the Eighteenth Century". Diplomarbeit, Schola Cantorum Basiliensis, 1983.

Titus, Robert Austin. "The Solo Music for the Clarinet in the Eighteenth Century." Ph.D. dissertation, State University of Iowa, 1962.

Warner, Thomas Everett. "Indications of Performance Practice in Woodwind Instruction Books of the 17th and 18th Centuries". Ph.D. dissertation, New York University, 1964.

Young, Phillip T. "The Scherer Family: German Woodwind-Making". Paper presented at a joint meeting of the American Musical Instrument Society and the Galpin Society, Boston, Massachusetts, 2 June 1985.

Bonn. Zimmermann, Josef. *Von Zinken Flöten und Schallmengen. Katalog einer Sammlung historischer Holzblasinstrumente*. Birkensdorf-Düren: A. Busani, [1967].

Boston. Bessaraboff, Nicholas. *Ancient European Musical Instruments. An Organological Study of the Musical Instruments in the Leslie Lindsey Mason Collection at the Museum of Fine Arts, Boston*. New York: October House, 1941.

---. *Catalogue of the Casadesu Collection of Old Musical Instruments Presented on October 23, 1926, by friends, to the Boston Symphony Orchestra, in loving memory of its founder, Henry J. Casadesu*. Boston: n.p., 1926.

---. [Lambert, Barbara and D. Samuel Ortelov]. *Musical Instruments Collection. Checklist of Instruments on Exhibition*. Boston: Museum of Fine Arts, 1961.

Brussels. *Catalogue de la Bibliothèque des Instruments de feu M. Ch. Sch. de Louvain*. Brussels: F. A. Olivier, 1877; reprint ed., Paris: F. A. Olivier, 1927.

---. Mahillon, Victor-Charles. *Catalogue des Instruments Analytique du musée instrumental de l'Université royale de musique de Bruxelles*. 2nd ed. Paris: Librairie générale de A. Neuf, 1890-1926.

Claremont. Rice, Albert R. "A catalogue of the Musical Instruments in the Curt Janson Collection at the Claremont University Center." Typewritten, 1963.

Darmstadt. *Musik Instrumente aus dem hessischen Landessmuseum 16.-19. Jahrhundert*. Darmstadt: Hessisches Landesmuseum, 1980.

Catalogues of Musical Instrument Collections:

- Ann Arbor, Michigan. Stanley, Albert A. Catalogue of the Stearns Collection of Musical Instruments. 2nd ed. Ann Arbor: University of Michigan, 1921.
- Berkeley, California. Boyden, David D. "Catalogue of the Collection of Musical Instruments in the Department of Music, University of California, Berkeley". Typescript, n.d.
- Berlin. Sachs, Curt. Sammlung alter Musikinstrumente bei der Staatlichen Hochschule für Musik zu Berlin. Beschreibender Katalog. Berlin: J. Bard, 1922.
- Bonn. Zimmermann, Josef. Von Zinken Flöten und Schalmeyen. Katalog einer Sammlung historischer Holzblasinstrumente. Birkesdorf-Düren: A. Bezani, [1967].
- Boston. Bessaraboff, Nicholas. Ancient European Musical Instruments. An Organological Study of the Musical Instruments in the Leslie Lindsey Mason Collection at the Museum of Fine Arts, Boston. New York: October House, 1941.
- -- . Catalogue of the Casadesus Collection of Old Musical Instruments Presented on October 23, 1926, by friends, to the Boston Symphony Orchestra, in loving memory of its founder, Henry L. Higginson. Boston: n.p., 1926.
- -- . [Lambert, Barbara and D. Samuel Quigley]. Musical Instruments Collection. Checklist of instruments on Exhibition. Boston: Museum of Fine Arts, 1983.
- Brussels. Catalogue de la Bibliothèque et des Instruments de feu M. Ch. Edm. H. de Coussemaker. Brussels: F. J. Olivier, 1877; reprint ed., Buren: F. Knuf, 1977.
- -- . Mahillon, Victor-Charles. Catalogue descriptif & Analytique du musée instrumental du Conservatoire royal de musique de Bruxelles. 2nd ed. 5 vols. Ghent: Librairie générale de A. Hoste, 1893-1922.
- Claremont. Rice, Albert R. "A Catalogue of the Woodwind Instruments in the Curt Janssen Collection of the Claremont University Center." Typewritten, 1983.
- Darmstadt. Musik Instrumente aus dem hessischen Landesmuseum 16.-19. Jahrhundert. Darmstadt: Hessisches Landesmuseum, 1980.

- Edinburgh. Galpin Society. An Exhibition of European Musical Instruments. Ed. G. Melville-Mason. Edinburgh: Edinburgh University, 1968.
- — —. Melville-Mason, Graham. A Check-List of the Single-Reed Woodwind Instruments in the Edinburgh University Collection of Historic Instruments. Edinburgh: Reid School of Music, 1982.
- Eisenach. Heyde, Herbert. Historische Musikinstrument im Bachhaus Eisenach. [Weimar]: Bachhaus Eisenach, 1976.
- Florence. Gai, Vinicio. Gli Strumenti Musicali della Corte Medicea e il Museo del Conservatorio "Luigi Cherubini" di Firenze. Florence: Licosa, 1969.
- — —. [Pinzauti, Leonardo]. Conservatoria di Musica Luigi Cherubini. Antichi Strumenti Collezioni dei Medici e dei Lorena alla formazione del Museo del Conservatorio di Firenze. Florence: Giunta-Barbèra, 1980.
- Ghent. Snoeck, César Charles. Catalogue de la collection d'Instruments de musique Anciens ou Curieux. Ghent: J. Vuylsteke, 1894.
- — —. Catalogue de la Collection d'Instruments de Musique Flamands et Néerlandais. Ghent: I. Vanderpoorten, 1903.
- The Hague. Historische Blassinstrumenten de Ontwikkeling van de Blaasinstrumenten Vanaf 1600. Kerkrade: Wereldmuziekconours, 1974.
- — —. Ligtoet, A. W. Exotische en oude europese muziek-instrumenten / Exotic and Ancient european musical instruments in the department of musical history of the municipal museum at the Hague. The Hague: Nijgh & Van Ditmar, n.d.
- — —. Oude Europese Muziekinstrumenten. Haags Gemeentemuseum. [The Hague: Gemeentemuseum, c. 197-?].
- Hamburg. Schröder, Hans. Verzeichnis der Sammlung alter Musikinstrumente. Hamburg: Alster-Verlag, 1930.
- Leipzig. Schultz, Helmut. Führer durch das Musikwissenschaftliche Instrumenten-Museum der Universität Leipzig. Leipzig: Breitkopf & Härtel, 1929.
- London. A Descriptive Catalogue of the Musical Instruments recently exhibited at the Royal Military Exhibition, London, 1890. Ed. Charles Russel Day. London: Eyre & Spottiswoode, 1891.

- -- . Horniman Museum. The Adam Carse Collection of Old Musical Wind Instruments. London: London County Council, 1950.
- Milan. Museo degli Strumenti Musicali. Comune di Milano. Ed. Natale and Franco Gallini. Milan: Castello Sforzesco, 1963.
- -- . Mostra di Antichi Strumenti Musicali della Collezione N. Gallini. Milan: Villa Comunale (Ex Reale), 1953.
- Munich. Seifers, Heinrich. "Die Blasinstrumente im Deutschen Museum. Beschreibender Katalog." In Deutsches Museum Abhandlungen und Berichte, vol. 44, part 1 (1975). Munich: R. Oldenbourg, 1976.
- New York. Catalogue of the Crosby Brown Collection of Musical Instruments of All Nations. 5 vols. New York: The Metropolitan Museum of Art, 1901-1914.
- Nuremburg. "Die Sammlung musikalischer Instrumente im germanische Museum." In Anzeiger für Kunde der Detuschen Vorzeit, Neue Folge, vol. 16 (1860): 6-8; 43-46.
- -- . Van der Meer, John Henry. Germanisches Nationalmuseum Nürnberg. Wegweiser durch die Sammlung Historischer Musikinstrumente. 2nd ed. Nuremberg, n.p., 1976.
- Oxford. [Baines, Anthony]. The Bate Collection of Historical Wind Instruments. Catalogue of the Instruments. Oxford: University of Oxford, 1976.
- Paris. Chouquet, Gustave. La Musée du Conservatoire National de Musique. Catalog Raisoné des Instruments de cette collection. 4 vols. Paris: Didot Frères, 1875-1903.
- -- . Collection de M. Savoye. Instruments de Musique. Anciens, Rares et Curieux. Commissaire-Priseur, Me Paul Chevallier. Paris: n.p., 1882.
- -- . Eighteenth Century Musical Instruments: France and Britain / Les instruments de musique au XVIII^e siècle: France et Grande-Bretagne. Eds. G. Thibault, J. Jenkins and J. Bran-Ricci. London: Eyre & Spottiswoode, 1973.
- Salzburg. Birsak, Kurt. Die Holzblasinstrumente im Salzburger Museum Carolino Augusteum. Verzeichnis und Entwicklungsgeschichte Untersuchungen. Salzburger Museum Carolino Augusteum Jahresschrift, vol. 18 (1972). Salzburg: Salzburger Museum Carolino Augusteum, 1973.

Published Music:

Trondheim. Kjeldsberg, Peter Andreas. Musikkinstrumenter ved Ringve Museum. The Collection of Musical Instruments. Trondheim: Ringve Museum Skrifter, 1976.

Vienna. Schlosser, Julius von. Die Sammlung alter Musikinstrumente. Kunsthistorisches Museum. Musikinstrumentensammlung. Vienna: A. Schroll & Co., 1920; reprint ed., Hildesheim: G. Olms, 1974.

Washington. The Dayton L. Miller Flute Collection. A Checklist of the Instruments. Compiled by L. E. Gilliam and W. Lichtenwanger. Washington: Library of Congress, 1961.

General. Young, Phillip. Twenty-Five Hundred Historical Woodwind Instruments. An Inventory of the Major Collections. New York: Pendragon, 1982.

_____. ed. "Klarinetten-Konzerte des 18. Jahrhunderts." In Das Erbe Deutscher Musik, vol. 41. Wiesbaden: Breitkopf & Härtel, 1957.

Handel, George Frideric. Overture (Suite). Ed. K. Haas. London: Schott & Co., 1952.

Haydn, Joseph. Divertimenti. Ed. H. and V. Höckner. Copenhagen: W. Hansen, 1932.

Mozart, Wolfgang Amadeus. Neue Ausgabe Sämtliche Werke. Serie VIII: Kammermusik: Werkgruppe 19: Streichquintette und Quintette mit Bläsern; Abteilung 2: Quintette mit Bläsern. Ed. E. F. Schmid. Kassel: Bärenreiter, 1958.

_____. Neue Ausgabe Sämtliche Werke. Serie V: Konzerte; Werkgruppe 14: Konzerte für ein oder mehrere Streich-Blas- und Zupfinstrumente und Orchester; Band 4: Klarinettenkonzert. Ed. F. Giegling. Kassel: Bärenreiter, 1977.

Porkorny, Franz Xaver. Concerto in E-flat. Wiesbaden: Breitkopf & Härtel, 1955.

Rameau, [Jean-Philippe]. Acrote et Céphise ou la Sympathie. Paris: L'Artour, [1751].

Rathgeber, Valentin. Chelys Sonora Excitant Spiritum Musivum Digitis. Auribus. Ac Animis Accommodata, et Orbi Data in Bis Duodenis hoc est: XXIV. Concertationibus. Augsburg: J. J. Lotter, 1728.

Stamitz, Johann. Concerto. Mainz: B. Schott's Söhne, 1917.

Published Music:

- Arne, [Thomas Augustine]. Artaxeres. An English Opera. London: John Johnson, [1762].
- _____. Thomas and Sally, or the Sailor's Return. London: The Author, 1761.
- Bach, Carl Philipp Emanuel. 6 Sonatas for Clarinet, Bassoon and Piano. Ed. G. Piccioli. New York: International, 1955.
- Bach, Johann Christian. Orione, o sia Diana Vendicata. London: I. Walsh, 1763.
- Becker, Heinz, ed. Klarinetten Duette aus der Frühzeit des Instrumentes. Wiesbaden: Breitkopf & Härtel, 1954.
- _____, ed. "Klarinetten-Konzerte des 18. Jahrhunderts." In Das Erbe Deutscher Musik, vol. 41. Wiesbaden: Breitkopf & Härtel, 1957.
- Handel, George Frideric. Ouverture (Suite). Ed. K. Haas. London: Schott & Co., 1952.
- Haydn, Joseph. Divertimento. Ed. H. and W. Höckner. Copenhagen: W. Hansen, 1932.
- Mozart, Wolfgang Amadeus. Neue Ausgabe Sämtliche Werke. Serie VIII: Kammermusik: Werkgruppe 19: Streichquintette und Quintette mit Bläsern; Abteilung 2: Quintette mit Bläsern. Ed. E. F. Schmid. Kassel: Bärenreiter, 1958.
- _____. Neue Ausgabe Sämtliche Werke. Serie V: Konzerte; Werkgruppe 14: Konzerte für ein oder mehrere Streichblas- und Zupfinstrumente und Orchester; Band 4: Klarinettenkonzert. Ed. F. Giegling. Kassel: Bärenreiter, 1977.
- Porkorny, Franz Xaver. Concerto in B-flat. Wiesbaden: Breitkopf & Härtel, 1958.
- Rameau, [Jean-Philippe]. Acante et Céphise ou La Sympathie. Paris: L'Auteur, [1751].
- Rathgeber, Valentin. Chelys Sonora Excitans Spiritum Musicorum Digitis, Auribus, Ac Animis Accommodata, et Orbi Data in Bis Duodenis hoc est: XXIV. Concertationibus. Augsburg: J. J. Lotter, 1728.
- Stamitz, Johann. Concerto. Mainz: B. Schott's Söhne, 1967.

Vivaldi, Antonio. Concerto in Do Maggiore per 2 Oboi, 2 Clarinetti, Archi et Cembalo, RV 559. Ed. A. Ephrikian. Milan: Ricordi, 1947.

. Concerto in Do Maggiore per 2 Oboi, 2 Clarinetti, Archi e Cembalo, RV 560. Ed. A. Ephrikian. Milan: Ricordi, 1947.

. Juditha Triumphans. Sacrum Militare Oratorium. Siena: Accademia Musicale Chigiana, 1948.

Wagenseil, Georg Christoph. Sonata per Clarinetto, Violino e Basso Continuo. Ed. R. Scholz. Vienna: Doblinger, 1977.

Notes:

Unpublished Music:

Kölbel, Ferdinand. "Trio: Clarinet, Cornu de Schass et Basso", c. 1740-50, D-brd(DS).

Kozeluch, Leopold. "Concerto" in E-flat major, c. 1780s. A(Wn).

Michl. "Concerto" in B-flat major, c. 1780s. A(Wn).

Molter, Johann Melchior. Six "Concertos", c. 1740-1750s. D-brd(KA).

Rosetti, Francesco Antonio. "Concerto" in E-flat major, c. 1780s. A(Wn).

Stamitz, Carl. "Concerto" in E-flat major, c. 1770s. A(Wn).

Tausch, Franz Wilhelm. "Concerto" in E-flat Major, c. 1815. D-brd(Bim).

Telemann, Georg Phillip. Cantata, "Christus ist um unsrer Missetat willen", 1721. D-brd(F).

_____. Cantata, "Ein ungefärbt Gemüte, 1722. D-brd(F).

_____. Cantata, "Wer mich liebet, wird mein Wort halten", 1721. D-brd(F).