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# Transverse Flutes by London Makers, 1750-1900, in the Collections of The Shrine to Music Museum

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Transverse Flutes by London Makers, 1750-1900,  
in the Collections of  
The Shrine to Music Museum

by

Amy Shaw Kreitzer

B.S., Music Education, Tennessee Technological University, 1986

M.L.S., Indiana University, 1988

A Thesis Submitted in Partial Fulfillment of  
the Requirements for the Degree of  
Master of Music

---

Department of Music  
in the Graduate School

The University of South Dakota  
May 1993

To the Resident Instructional Staff:

We hereby recommend that the thesis by Amy Shaw Kreitzer, entitled Transverse Flutes by London Makers, 1750-1900, in the Collections of The Shrine to Music Museum, be accepted in partial fulfillment of the requirements for the degree of Master of Music.

Paul W. Cherry

Amy Shaw

Robert

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## **The Shrine to Music Museum**

The Shrine to Music Museum, located in Vermillion, South Dakota on the University of South Dakota campus, was founded in 1973. The goal of the Museum is to serve as an international center for the study of musical instruments. The nucleus of its collections is the Arne B. Larson Collection of Musical Instruments & Library, which was donated to the Museum in 1979. Its growing collections now include more than 5,000 American, European, and non-Western musical instruments, and are among the most comprehensive in the world. The Museum is accredited by the American Association of Museums and is designated "A Landmark of American Music" by the National Music Council.

## INTRODUCTION

### Flute Makers in the Environs of London

**London shops.** The seventy-three instruments described in this thesis were made, or at least sold, in London shops between about 1750 and 1900. They bear the stamps of thirty-three firms active in London during this time. The primary reason for such a thriving London flute trade during the eighteenth and nineteenth centuries is that London was home to a wealthy peerage and a middle class which was climbing the social ladder. These people had expensive tastes and a weakness for luxury goods. Local craftsmen were ready to oblige them and earned a high reputation for their fine clocks, watches, furniture, coaches, gold and silver plate, and of course musical instruments, including flutes.

If England was "the nation of shopkeepers" as Napoleon declared,<sup>1</sup> then London was its shopping mecca. Shops filled with consumer goods lined mile after mile of the city's streets. Foreign visitors like Sophie von La Roche were amazed:

Behind the great glass windows absolutely everything one can think of is neatly, attractively displayed, in such abundance of choice as almost to make one greedy. Now large slipper and shoe shops for anything from adults down to dolls, can be seen; now fashion-articles or silver or brass shops, books, guns, glasses, the confectioner's goodies, the pewterer's wares, fans, etc.<sup>2</sup>

Flutes were also to be had behind the great glass windows along London's major shopping routes. The town's most impressive shopping route stretched from Mile End on the east to Parliament Street on the West, approximately three miles all told.<sup>3</sup> This route included the following flute workshops: George Astor at 79 Cornhill; Cahusac, Preston, and Wigley on the Strand; Potter on Fleet Street; and Thomas Key in Charing Cross. The other major shopping route stretched four miles from Shoreditch Church on the northeast to Oxford Street in the West End.<sup>4</sup> This included the flute shops of Gerock

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<sup>1</sup>Quoted by Stella Margetson, Regency London (New York: Praeger, 1971), p. 17.

<sup>2</sup>Sophie von La Roche quoted by William B. Willcox and Walter L. Arnstein, The Age of Aristocracy, 1688 to 1830, 5th ed., A History of England, vol. 4, edited by Lacey Baldwin Smith (Lexington, Massachusetts: D. C. Heath & Co., 1988), p. 59.

<sup>3</sup>Mary Cathcart Borer, An Illustrated Guide to London, 1800 (New York: St. Martin's Press, 1988), p. 91.

<sup>4</sup>*Ibid.*

on Bishopsgate Street; Andrew Kauffmann on Snow Hill; and Milhouse, Bland & Weller, and Metzler's warehouse in Oxford Street. Other important shopping areas in which flute shops were located included: Gracechurch Street (Gerock's shop was for a time located here), St. James' Street (home to Goulding's shop in the 1780s and 1790s), Pall Mall (the shops of Goulding, Key, and Monzani were briefly located here), Covent Garden (Rudall & Rose established their business here in 1821), and New Bond Street (the shops of Cahusac and Goulding were located here before 1810).

"**Flutomania.**" The flute makers' primary clientele were male amateurs from the peerage and the middle classes.<sup>5</sup> Among these well-to-do amateurs was Willoughby Bertie, Fourth Earl of Abingdon and the supporter of the Bach-Abel concerts, who was said to be "an excellent performer on the flute, and composed for that instrument."<sup>6</sup> Other well-known amateurs were Lord Byron and even King George III.<sup>7</sup> In imitation of aristocratic players, middle class amateurs began taking up the flute in increasing numbers after about 1775. Indeed, the Athenaeum for 19 August 1829 states, "We take it for granted that one man out of ten plays the flute..."<sup>8</sup> David Eagle has dubbed this

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<sup>5</sup>During the eighteenth century and part of the nineteenth, it was not considered customary for women to play the flute. Leppert goes so far as to suggest this may have been due to the flute's phallic associations (see his Music in Image: Domesticity, Ideology and Socio-Cultural Formation in Eighteenth-Century England (Cambridge: Cambridge University Press, 1988), p. 122). Although there were a few women flutists in England, including Cora Cardigan (see Richard Shepherd Rockstro, A Treatise on the Construction, the History and the Practice of the Flute, Including a Sketch of the Elements of Acoustics and Critical Notices of Sixty Celebrated Flute-Players (London: Rudall, Carte & Co. and Keith, Prowse & Co., 1890), ¶321, p. 146, and Adolph Goldberg, Porträts und Biographien hervorragender Flöten-Virtuosen, -Dilettanten und-Komponisten, Edition Moeck Nr. 4037 (Berlin: n.p., 1906; reprint ed., Celle: Moeck Verlag, 1987), p. 23) and a Miss Cann (see Rockstro, ¶547, p. 295), the vast majority of women musicians were singers or players of the harpsichord, piano, harp, or English guitar. Women who played harpsichord or piano were frequently accompanied by men on the flute in drawing room performances. Women flutists apparently became more usual toward the close of the nineteenth century, for Rockstro says of Miss Cann: "...flute playing was a less common feminine accomplishment in those days [1825-1826] than it happily is at present."

<sup>6</sup>John S. Sainsbury, Dictionary of Musicians from the Earliest Ages to the Present Time (London: Sainsbury & Co., 1825; reprint ed., New York: Da Capo Press, 1966), s.v., "Abingdon (Lord)".

<sup>7</sup>H. Macaulay Fitzgibbon, The Story of the Flute, Being a History of the Flute and Everything Connected With It, 2nd ed. (London: W. Reeves, 1929; New York: C. Scribner's Sons, 1929), p. 108; William T. Parke, Musical Memoirs: Comprising an Account of the General State of Music in England from the First Commemoration of Handel, in 1784, to the Year 1830 (London: Henry Colburn & Richard Bentley, 1830; reprint ed., New York: Da Capo, 1970), vol. 2, p. 226.

<sup>8</sup>Quoted by David William Eagle, "A Constant Passion and a Constant Pursuit: A Social History of Flute-Playing in England from 1800 to 1851" (Ph.D. diss., University of Minnesota, 1977), p. 6.

phenomenon "flutomania" and notes that it peaked in the 1820s and 1830s.<sup>9</sup> He cites a number of causes for the flute's popularity:

1. A need to eradicate class lines by sharing an interest with persons of high social standing.
2. To accompany a young lady; either a sister or a possible conquest.
3. To astonish hearers and to show up rival males. This could be closely related to the previous reason.
4. Because it was "easy."
5. Because of its portability.
6. As an outlet for pent-up emotions.
7. To uplift the soul and to keep away from the evil companions that lurked in taverns.
8. To mitigate ennui, as Fétis claimed.
9. Because of the improvements in the instrument.<sup>10</sup>

**Location of flute makers.** A study of the street addresses of London makers reflects the economic geography of the city. To attract their wealthy clientele, it was advantageous for flute makers to locate their shops in more fashionable districts. Throughout the eighteenth century, the original City of London was becoming more the province of finance and international trade, and less the residence of the upper classes, who were moving westward beyond the City walls. Westminster became fashionable *ca.* 1700, and the craftsmen catering to the upper crust of society settled nearby to produce personal and domestic wares, among them, musical instruments. Among these craftsmen were many of the earliest London flute makers, who settled along a mile-long stretch of the Strand and Fleet Street and along their neighboring streets. This cluster of makers included the following:<sup>11</sup>

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<sup>9</sup>Eagle, p. 2.

<sup>10</sup>*Ibid.*, p. 208.

<sup>11</sup>This information is derived from: The New Langwill Index: Dictionary of Historical Wind-Instrument Makers and Inventors, edited by William Waterhouse (London: T. Bingham, forthcoming); Maurice Byrne, "The Cahusacs and Hallet," Galpin Society Journal 41 (1988): 24-31; Maurice Byrne, "More on Bressan," Galpin Society Journal 37 (1984): 109; Maurice Byrne, "Schuchart and the Extended Foot-Joint," Galpin Society Journal 18 (1965): 7-13; Maurice Byrne, "The Church Band at Swalcliffe," Galpin Society Journal 17 (1964): 89-98; Eric Halfpenny, "Biographical Notices of the Early English Woodwind-Making School, c. 1650-1750," Galpin Society Journal 12 (1959): 44-52; Eric Halfpenny, "Further Light on the Stanesby Family," Galpin Society Journal 13 (1960): 59-69. Note: On the next few pages, those makers represented in the Museum's collections appear in bold.

<u>Maker</u>	<u>Address</u>
Peter Bressan (d. 1731)	Duchy Lane, St. Mary-le-Strand (Somerset Yard, just south of the Strand)
Thomas Stanesby, Sr. (ca. 1668-1734)	Stonecutter Street (north of Fleet Street)
<b>Thomas Stanesby, Jr.</b> (1692-1754) <sup>12</sup>	Temple Exchange, Fleet Street, opposite St. Dunstan's Church
<b>Thomas Cahusac, Sr.</b> (1714-1798)	196 Strand, near St. Clement's Church
Charles Schuchart (1720-1765)	20 Chandos Street (north of the Strand)
<b>Richard Potter</b> (1726-1806)	Pemberton Row, Fleet Street
	Johnson's Court, Fleet Street
Caleb Gedney (ca. 1729-1769)	Temple Exchange, Fleet Street
Jonathan Fentum	78 Strand (1763-1784)
Thomas Collier (d. 1785)	20 Chandos Street (1767-1785)
<b>George Astor</b> (d. 1813)	Wych Street (1778-1798)
John Hale	20 Chandos Street (1785-1804)

The makers in this part of town became important in the development of keyed flutes during the mid-eighteenth century. Located in Westminster not far from these makers were Johan Just Schuchart (Charles Schuchart's father who died in 1759), John Mason (known to be active in the 1750s), and **George Goulding** (beginning ca. 1785). Several makers were located along the Strand and Fleet Street in the early nineteenth century, including **William Henry Potter**, **Thomas Cahusac, Jr.**, **William Maurice Cahusac**, **Willis & Goodlad**, John Fentum, **John Parker**, **Charles Wigley**, Henry Wylde, and Whitaker & Co., but few makers were still here after 1840.

Even though the general trend was for makers to move away from the City walls, a few makers settled within the walls, ca. 1800. **George Astor** moved to 79 Cornhill in 1798 and **Christopher Gerock** moved to 76 Bishopsgate Within, ca. 1804. **John Longman** and **Clementi & Co.** were in Cheapside until 1816 and 1831, respectively. However, few flute makers or dealers had shops here after that time, probably because fashionable folk were said to rarely set foot in the City.<sup>13</sup>

By 1800, Mayfair, north of Westminster, had become the fashionable district.<sup>14</sup> Many of the leisured classes from the country owned houses in Mayfair which they occupied during the

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<sup>12</sup>The Museum's collections contain an ivory third flute by Thomas Stanesby, Jr. (no. 3979). It dates from before 1733 and is not included in this catalog.

<sup>13</sup>Margetson, p. 12.

<sup>14</sup>Borer, Illustrated Guide to London, p. 34.



"Season" (May, June, and July).<sup>15</sup> Once again, the tendency was for the best shops to follow their clientele to Mayfair and the neighboring West End. With a few flute makers, it is possible to discern the trend toward Mayfair or the nearby West End:<sup>16</sup>

<u>Maker</u>	<u>City</u>	<u>Westminster</u>	<u>Mayfair/West End</u>
George Astor	79 Cornhill (1798-1826)		27 Tottenham Street (1821-1826)
Thomas Cahusac, Jr.		196 Strand (1800-1805)	114 New Bond Street (1805-1808)  42 Wigmore Street (1808-1814)
Clementi & Co.	26 Cheapside (1802-1831)		195 Tottenham Court Road (1807-1831)
Goulding & Co.		25 St. James Street (ca. 1785-1798)  45 Pall Mall (1798-1804)  76 St. James Street (1803)	117 New Bond Street (1804-1809)  124 Bond Street (1809-1811)

Throughout the nineteenth century, a number of flute makers were located in Charing Cross, Mayfair, the West End, Soho, and Holborn. Relatively few flute makers, however, were located in outlying areas of South, North, or East London. In these parts of town, the main activity was in heavy industry, rather than in consumer goods such as musical instruments.<sup>17</sup> Furthermore, crossing the river was not terribly convenient, and there were bridge tolls in place until 1856.<sup>18</sup>

**Professional flutists.** In addition to buying flutes, wealthy Londoners also supported a large musical establishment in London by attending and sponsoring concerts. The musical establishment

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<sup>15</sup>Gillian Avery, Victorian People in Life and in Literature (New York: Holt, Rinehart & Winston, 1970), p. 68.

<sup>16</sup>New Langwill Index (forthcoming).

<sup>17</sup>Christine MacLeod, Inventing the Industrial Revolution: The English Patent System, 1660-1800 (Cambridge: Cambridge University Press, 1988), pp. 123-124.

<sup>18</sup>Early Victorian London, Chapter 1, "Work and Wages," by J. H. Clapham, pp. 22-23.

included a comparatively smaller number of professional flutists who performed in the local theatres, in the Philharmonic Society, and in subscription concerts. These flutists also taught the flute, some of them at the Royal Academy of Music. These professional flutists, of course, would also have been customers of local flute makers.

### Characteristics of Flute Makers

**The Company of Turners of London.** The early flute makers were wood turners and were associated with the Company of Turners of London. The Turners' Company was one of the smaller of the City Livery Companies, which had their origins in the Medieval craft guild system. The Turners' Company was officially chartered in 1604, and, like other guilds, it had the following powers:

The typical guild decided who could work or trade in its craft; it controlled prices and wages, working conditions and welfare. It exercised vigorous quality control with wide powers of inspection and confiscation, coupled with severe punishment for poor workmanship. In return it received monopoly powers. Guild members were eventually known as liverymen because they wore a distinctive livery or uniform. They were governed by a Master and usually two Wardens, supported in due course by a Court of Assistants. Often there were also freemen and a yeomanry. These tended to be the craft workers while the liverymen were the employers.<sup>19</sup>

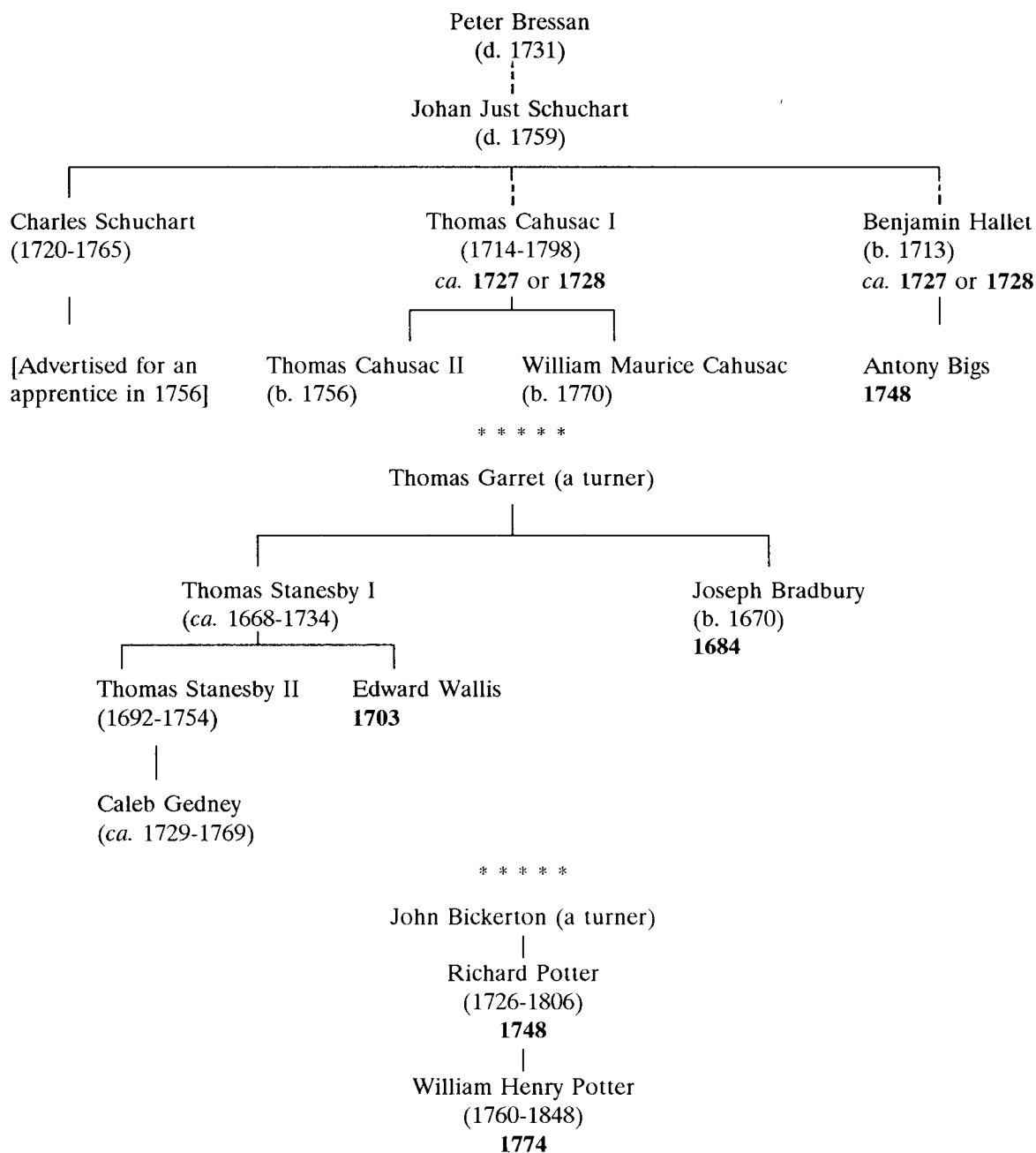
Admission to the Turners' Company was usually through an apprenticeship with a master craftsman beginning at about age fourteen and lasting seven years. The master personally instructed the apprentice in the craft and provided food and lodgings, usually in the master's living quarters above his shop. Following his apprenticeship, the aspiring turner was required to serve two years as journeyman with a master craftsman. At the end of that time, he was required to make a proof piece as evidence of his workmanship for the Company's Wardens. If the proof piece was of acceptable quality, the journeyman was eligible for the freedom of the company. That is, he was admitted to the Turners' Company and allowed to establish his own shop. A master was normally permitted to have

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<sup>19</sup>Ben Weinreb and Christopher Hibbert, The London Encyclopaedia (London: Macmillan, 1983; reprint ed., Bethesda, Maryland: Adler & Adler, 1983), s.v., "City Livery Companies."

## APPRENTICESHIPS OF SELECTED FLUTE MAKERS<sup>20</sup>

The date in bold indicates the year the apprenticeship began.  
Broken lines indicate possible, but unconfirmed apprenticeships.



<sup>20</sup>This information is derived from: New Langwill Index (forthcoming); Lyndesay G. Langwill, Index of Musical Wind-Instrument Makers, 6th ed., revised (Edinburgh: By the author, 1980); Byrne, "Cahusacs" pp. 24-31; Byrne, "Schuchart," pp. 7-13; Byrne, "Church Band," pp. 89-98; Halfpenny, "Biographical Notices," pp. 44-52; Halfpenny, "Further Light on the Stanesby Family," pp. 59-69.



From ca. 1737 to 1766, the Turners' Company owned a hall on College Hill (near the number 22 on this map). After 1766, the Company had no hall. John Roque's map of 1746, reproduced from John Roque, *The A to Z of Georgian London* (London: London Topographical Society and Harry Margary, 1982), p. 26.

no more than two apprentices and one journeyman at a time.<sup>21</sup> A number of flute makers are known to have served apprenticeships as turners.<sup>22</sup>

Elections were held annually for the Company's Masters and Wardens, and a number of flute makers were elected to these offices. Thomas Stanesby, Jr. was elected Master in 1739 and 1740. Richard Potter was elected Upper Warden in 1779 and Master in 1782. William Henry Potter was elected Upper Warden in 1802 and Master in 1805.<sup>23</sup> This certainly must have been an indication that they were well respected by other turners.

**Foreign craftsmen.** In its early days, the Turners' Company attempted to protect its interests by excluding foreigners from working as turners in London. As time went on, however, it became increasingly difficult to stem the flow of foreign craftsmen into the city. A number of flute makers are known or assumed to have been of foreign extraction. In the first succession of apprenticeships on the previous page, for example, Bressan and possibly the Cahusacs were French, while the Schucharts were German. It would be interesting to know what, if any, resistance these makers received from the Turners' Company. By the eighteenth century, it was perhaps minimal:

So long as London was synonymous [*sic*] with the City, with a population of 100,000 or less, the walls with which the Craft Guilds surrounded their trades were sufficient to keep out the incoming hordes of immigrants. Nevertheless, others than King Canute have discovered, to their cost, that the sea cannot be confined in bounds, and slowly, but none the less surely, the City became inundated by the flood of craftsmen from the country and abroad. As the space within the City walls became incapable of containing the growing population of London, which thereby was made to spread its borders on both sides of the river, so the Craft Guilds found their trade preserves

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<sup>21</sup>A. C. Stanley-Stone, The Worshipful Company of Turners of London: Its Origin and History (London: Lindley-Jones and Bro., 1925), pp. 56-57.

<sup>22</sup>Others became flute makers by a different route: Christopher Gerock was apprenticed to the Musicians' Company, and John Rose was apprenticed to a firm of organ makers. New Langwill Index (forthcoming). An important factor in recruitment to the flute trade was having a father or another relative in the trade. A number of firms represented in this catalog were passed on from father to son: Cahusac, Potter, Preston, Willis, Blackman, Metzler, Butler, Wallis, Hawkes, and Rudall, Carte & Co.

<sup>23</sup>Stanley-Stone, pp. 294-296.

invaded by swarms from outside, with the inevitable result that the control of their particular trades slipped from their hands, and they presently gave up the struggle.<sup>24</sup>

We have already seen that flute makers were in fact working beyond the City walls in Westminster, Soho, and along Oxford Street during the course of the eighteenth century.

Other flute makers of foreign origin continued to arrive in London during the eighteenth and nineteenth centuries. These foreign makers perhaps felt encouraged to emigrate by the presence of significant numbers of foreign musicians working in London. Young British aristocrats developed a taste for Continental music while on the Grand Tour, and were eager to support Continental musicians in subscription concerts after they returned home.<sup>25</sup> In fact, London has been described as a "gold mine"<sup>26</sup> and as "a sort of Klondyke"<sup>27</sup> for Continental musicians. During the eighteenth century, London professional musicians were increasingly Italians, especially after the Italian opera at the Haymarket Theatre became popular. The Italians faced a certain amount of prejudice from native musicians and Protestant Londoners, but they were sought after as music teachers and were relatively well-paid.<sup>28</sup> Among the Italian flutists who settled in London were Tebaldo Monzani, who became well-known as a flute maker, and Pietro Grassi Florio.

About half way through the Georgian era, the Italian influence began to wane, and the public began to favor German musicians.<sup>29</sup> This was due in large part to the enormous popularity of Handel, and perhaps to the connection with the reigning House of Hanover. Many German musicians arrived in London after having been displaced when central European nobility disbanded their musical

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<sup>24</sup>Stanley-Stone, pp. 221-222. Another class of interlopers the turners became resigned to were turners who moved to London from the provinces. The growing percentage of the overall British population residing in London is a well-known demographic trend. London attracted the following makers from the provinces and Scotland: Thomas Stanesby, Sr. (from Derbyshire), Richard Potter (from Mitcham, Surrey), William Milhouse (from Newark), Cornelius Ward (from Liverpool), George Rudall (from Derbyshire), and John Rose (from Edinburgh).

<sup>25</sup>Reginald Nettel, The Orchestra in England: A Social History (London: Readers Union, 1948; reprint ed., St. Clair Shores, Michigan: Scholarly Press, 1972), p. 73.

<sup>26</sup>Percy M. Young, A History of British Music (New York: Norton, 1967), p. 434.

<sup>27</sup>Nettel, p. 219.

<sup>28</sup>Leppert, p. 20.

<sup>29</sup>Young, p. 418.

establishments in the wake of the Seven Years' War.<sup>30</sup> Carl Friedrich Weideman, Charles Saust, Carl Weiss, J. G. Graeff, and Rafael Dressler were among the flutists who emigrated to London from German-speaking countries before 1830.<sup>31</sup> Besides the Schucharts, German flute makers working in London included George Astor, Valentin Metzler, Christopher Gerock, and possibly Andrew Kauffmann, G. W. Bonn, and George Miller.<sup>32</sup>

**The shift from artisan to capitalist organization.** The guilds enforced their regulations less stringently in the late eighteenth and early nineteenth centuries, as supply and demand became more and more the regulating factor. The organization of many workshops shifted away from the traditional artisan organization to a capitalist organization. In the capitalist organization, the master became primarily or entirely a businessman as opposed to an actual artisan. This meant the old system of apprenticeship changed from one in which the master personally taught the apprentice, to one in which the journeyman instructed the apprentice. The master and apprentices no longer lived together upstairs above the workshop, but lived apart in quarters separate from the shop, the apprentice receiving small wages.<sup>33</sup> The old guilds had always been the province of the liveryman employers. As fewer and fewer employers were artisans, the guild became less representative of the actual craftsman, and more a social and charitable organization of capitalist liverymen. The journeymen, whose concerns regarding working conditions were not always addressed by the guilds, began to organize themselves.<sup>34</sup> This was the beginning of the trade union movement which resulted in the formation of unions such as the Military and Orchestral Musical Instrument Maker's Trade Society (1894).<sup>35</sup>

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<sup>30</sup>Nettel, p. 76.

<sup>31</sup>Parke, vol. 2, p. 226 [Weideman]; Sainsbury, *s.v.*, "Saust (Charles)," "Weiss, (Carl R.)," and "Graeff, (John George);" Rockstro, 1880, pp. 578-579 [Dressler].

<sup>32</sup>New Langwill Index (forthcoming); Stanley Sadie, ed., The New Grove Dictionary of Musical Instruments (London: Macmillan, 1984; New York: Grove's Dictionaries of Music, 1984), *s.v.*, "Miller, George," by Maurice Byrne.

<sup>33</sup>Charles More, Skill and the English Working Class, 1870-1914 (New York: St. Martin's Press, 1980), pp. 42, 47, 49.

<sup>34</sup>Stanley-Stone, pp. 223-224.

<sup>35</sup>Herbert Tracey, ed., Seventy Years of Trade Unionism, 1868-1938 (London: Trades Union Congress, 1938), p. 228.

The shift to the capitalist organization occurred more slowly in smaller, older trades such as flute making. However, by the late nineteenth century, the larger firms which had diversified into companies manufacturing a wide variety of military instruments were no doubt organized according to the capitalist principle. A case in point is Rudall, Carte & Co. As Rudall & Rose earlier in the century, this firm specialized in flutes, and one of its directors, John Rose, was an artisan. By the late nineteenth century, the firm, with Richard Carte at the helm, manufactured all sorts of military instruments. Richard Carte was a flutist and a businessman, and although his name was applied to the final product, he was not himself an artisan. Other military instrument firms, several of them located in Soho, were undoubtedly organized in the same fashion. Besides Rudall, Carte & Co., these companies included Metzler & Co., S. A. Chappell, Hawkes & Son, G. Butler & Sons, and Joseph Wallis & Son. Manufacturing processes tended to become more and more specialized, with workers carrying out small parts of the overall process. Algernon Rose gives an example, albeit in brass manufacturing. He describes Besson's Euston Road factory (located in close proximity to Joseph Wallis & Son), which employed 145 workers and which was subdivided into several departments: bell making, piston making, fitting, tuning, engraving, metal polishing, and finishing.<sup>36</sup> Manufacturing processes in other branches of the musical instrument trade, for example piano making, were also becoming highly subdivided. Booth describes this subdivision of labor and the state of apprenticeship in the London piano industry in 1893:

A great many boys and youths are employed in the trade, but very few of them are thoroughly taught; any regular system of apprenticeship has fallen into disuse and is hardly likely to be revived. The "contractors" and small masters employ, perhaps, the largest proportion of young hands, but it must be admitted that they also teach them most. The larger the factory and the more complete the sub-division of the work into departments, the less chance a boy has of acquiring any general knowledge, though in place of this he becomes quite perfect at some one process. For lack of regulation on the question of apprenticeship, the trade is liable to be over-crowded with incompetent men.<sup>37</sup>

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<sup>36</sup>Algernon Sidney Rose, Talks with Bandsmen: A Popular Handbook for Brass Instrumentalists (London: W. Rider & Son, 1895), p. 124.

<sup>37</sup>Charles Booth, Life and Labour of the People in London, Second Series: Industry (London: Macmillan & Co., 1903), vol. 2, pp. 59-60.



**Other characteristics of English flute makers.** Most makers could not afford to sell flutes exclusively; therefore, many of the makers represented in this catalog also published music. A few firms represented here did not make flutes at all, but merely acted as dealers, and applied their stamp to flutes actually made by some other firm. These dealers frequently called themselves "Music Sellers."

Bland & Weller, John Longman, Monro & May, and possibly Clementi & Co., John Preston, and Goulding & Co. are members of this class of firm. Music sellers often made keyboard instruments, a popular combination being a partnership between an engraver and a piano maker (as in the case of Bland & Weller).

### **The English Flute**

Although sixty-two of the flutes studied here are simple system flutes, there is a sampling of the new systems which appeared during the nineteenth century. The typical flute in 1750 was a conical boxwood instrument with a single key for D $\sharp$ . It produced a small, rather sweet sound because of its small finger holes and embouchure hole, and its conical bore, which favored the fundamental pitch and the first harmonic.<sup>38</sup> The key was mounted on a raised wooden ring, turned from the original piece of wood.

Of all the woodwinds, the one-keyed flute had the worst cross fingerings. A number of notes could only be produced with cross (forked) fingerings, and these notes sounded muffled in comparison to other notes and were difficult to play in tune. The further the flutist ventured from the flute's basic scale of D major, the more cross fingerings were necessary, and the more risky life became. Quantz actually warns flutists to avoid playing pieces in difficult keys for audiences who are unaware of the difficulty.<sup>39</sup> With these limitations, it is not surprising that the flute was the first of the woodwind family to be mechanized. Accordingly, in the late 1760s, three keys were added for B $\flat$ , G $\sharp$ , and F

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<sup>38</sup>Philip Bate, The Flute: A Study of its History, Development and Construction (London: Ernest Benn, 1969; New York: Norton, 1969), p. 40.

<sup>39</sup>Johann Joachim Quantz, On Playing the Flute, translated by Edward R. Reilly (New York: The Free Press, 1966), p. 200.

to eliminate some of the cross fingerings. These keys were viewed with distrust by some older players, and some players only used the keys for trills. Shortly after, the lower range of the flute was extended by a whole step to C through the addition of two foot keys. Richard Potter, represented in the Museum's collection by six flutes, was an important figure in the development of the six-keyed flute, and his work was well known not only in London, but on the Continent. In the 1780s, Continental makers introduced a key for  $c^1$  and an alternate side key for F. The flute's extra keys gradually gained ground, but among English flutists, there was no standardization. At the turn of the eighteenth century, professional flutists played on flutes having anywhere from one to eight keys.<sup>40</sup> The coexistence of a variety of different flutes was typical of the English flute scene from the late eighteenth century throughout most of the nineteenth.

Before 1800, the English school of flute-making began adopting features which distinguished it from Continental traditions of flute-making. One of these features was that makers, lead by Potter, began fitting the head joint with a tuning slide consisting of two telescoping metal tubes which together lined the entire length of the head joint bore. The metal-lined head joint tended to produce a brighter sound than the typical all-wood Continental flute. While some method of tuning was necessary during an era when pitch standards varied from locale to locale, German makers preferred the old-fashioned *corps de rechange* (alternate upper middle joints of different lengths) to the newfangled tuning slide.<sup>41</sup>

English flute-making continued to diverge from Continental flute-making after 1800, when a number of factors contributed to the demand for a more powerful flute in England. The size of orchestras and concert halls was increasing, which made it difficult for the traditional small-holed flute to project. Also, the Regency Era saw the rise of flute soloists who, to be successful, had to be heard above an orchestra. The legendary flute soloist Charles Nicholson, Jr. achieved a very loud and powerful tone by enlarging the diameter of the holes of his flute. Thus began a trend in England of

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<sup>40</sup>Bate, p. 98.

<sup>41</sup>Jane Bowers, "Mozart and the Flute," Early Music 20 (February 1992): 39.

making wide-holed flutes. French makers in contrast retained their relatively small holes, and the Germans never enlarged their holes to the extent of the Nicholson-style wide-holed flutes. Richard Carte explains the difference in orientation:

The eminent performers also, both German and French, have always aimed at mere sweetness of tone than power. Very different has been the case in England. No performers have ever approached the English in the union of a rich and large volume with sweetness of tone. And it has, doubtless, been from the desire to obtain this, that so many experiments have been made by the English performers and manufacturers, with different-sized holes and variations of the general bore.<sup>42</sup>

Because of this dichotomy, flute soloists visiting from the Continent found it increasingly difficult to be accepted by London audiences, which compared them to Nicholson. Such was the experience of the Frenchman Louis Drouet<sup>43</sup> and Theobald Boehm of Munich.

The English flute sound inspired Boehm to thoroughly redesign the flute. His 1832 model was a major departure from the simple system flute. It met with varying reception in the different European centers of flute playing. The French accepted it wholeheartedly and contributed a number of minor improvements of lasting value. Germanic players considered the old flute's sweet, uneven tone as central to its existence, and therefore did not consider the Boehm flute's even scale and brighter sound as any particular improvement. The English appreciated the tone quality of the Boehm flute, but were loath to adapt to its new fingering system. Therefore, they created many hybrid instruments which attempted to combine the old fingering system with Boehm's acoustical principles. Most of these were short-lived, but some, such as Carte's system and the Pratten system, were of lasting popularity. In 1847, Boehm introduced a new cylinder flute which gradually gained ground in England, and by 1877 Ebenezer Prout reported that this model was then played by a majority of orchestral players.<sup>44</sup> The Boehm flute was better equipped to compete in large Romantic Era orchestras and to negotiate increasingly complex music. It is, of course, still the most commonly used type of flute.

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<sup>42</sup>Richard Carte, Sketch in the Successive Improvements Made in the Flute (London: Rudall, Rose & Co., 1851), p. 21.

<sup>43</sup>Eagle, p. 119.

<sup>44</sup>Ebenezer Prout, Instrumentation (London: Novello, Ewer, 1877), p. 94.

### Materials Used by English Flute Makers

**Woods.** The favorite wood for flutes and for many other turned articles was for many years boxwood, due to its density and uniformity of grain. The English variety became increasingly scarce during the nineteenth century, so most boxwood had to be imported from Turkey. Turkish boxwood had a natural polish and the advantage of requiring less meticulous seasoning. It was such a popular material that Constantinople exported thousands of tons annually.<sup>45</sup> Ebony, imported from Ceylon and India, was occasionally used in flutes as an alternative to boxwood before about 1810.<sup>46</sup> Ebony had the advantages of being hard and durable, and took a high polish, but it was prone to cracking.<sup>47</sup>

After 1800, and especially after 1820, a number of tropical hardwoods became popular in flute making. There were two reasons for this. One is that glossy exotic woods, particularly dark striped ones like cocus, were in vogue during the Regency period for furniture.<sup>48</sup> The second reason is that, as keywork proliferated and became more complex, it was necessary to find a more stable wood than boxwood, which had a tendency to warp.<sup>49</sup> Cocus (also called cocoa), the best quality of which was imported from Jamaica, absorbed less water, had a uniform grain, and was more stable than boxwood.<sup>50</sup>

In the Museum's collection it is possible to see this trend away from boxwood and toward tropical hardwoods. The eighteenth-century makers are here represented almost entirely by boxwood flutes. Later makers are increasingly represented by cocus and even satinwood.

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<sup>45</sup>The Encyclopaedia Britannica: A Dictionary of Arts, Sciences, and General Literature, 9th ed. (New York: Henry G. Allen & Co., 1888), *s.v.*, "Boxwood"; M. G. Zadro, "Woods Used for Woodwind Instruments Since the 16th Century," Early Music 3 (1975): 135.

<sup>46</sup>S. C. Hamilton, The Irish Flute Player's Handbook (n.p.: Traditional Music Shop for Breac Publications, 1990), p. 102.

<sup>47</sup>Zadro, p. 250.

<sup>48</sup>E. T. Joy, "Furniture," in The Regency Period, 1810-1830, pp. 39-52, The Connoisseur Period Guides to the Houses, Decoration, Furnishing and Chattels of the Classic Periods, vol. 5 (New York: Reynal & Co., n.d.), p. 43.

<sup>49</sup>Zadro, pp. 135-136.

<sup>50</sup>Rockstro, ¶1313, p. 141.

**Ivory.** Another material used by certain makers is ivory. The best ivory came from African elephants, whose ivory was closer-grained and less likely to yellow than that of Indian elephants. Zanzibar was then the center of the ivory trade.<sup>51</sup> Thomas Stanesby, Jr., Potter, Cahusac, Monzani, and a few other makers supplied all-ivory flutes with silver decoration to wealthy amateurs. Ivory flutes are beautiful and fairly durable, but Bate said of them, "...their tone is on the meagre side."<sup>52</sup> Therefore, ivory was usually of less utility than wood, considering the cost.<sup>53</sup> Nevertheless, the nobility were sometimes more interested in the prestige offered by an instrument than in its actual sound.<sup>54</sup> The Museum's four-keyed Cahusac flute, no. 4837, is a particularly fine ivory example. The collection contains four other ivory flutes by Potter (no. 4337), Wigley (no. 4841), Kauffmann (no. 4842), and the mysterious Manzane (no. 4158).

Ivory was also used for ferrules on boxwood instruments, both for decoration and to strengthen the sockets. Occasionally, Siberian mammoth ivory was used for this purpose. Other materials for ferrules included walrus ivory and horn. By the end of the nineteenth century, ivory ferrules had become old-fashioned.<sup>55</sup>

**Metals.** Two alternative materials for the flute became available about the middle of the century. With his 1847 model flute, Boehm introduced the cylindrical silver tube. It was not the first use of a metal tube: George Miller of London patented a metal military fife, made of an alloy of copper and brass, in 1810. The metal flute did not take hold in England in 1810, nor did it gain much ground after 1847. At the end of the century, Rockstro admired the responsiveness of the metal flute, but not its heat conductivity, which affected the flute's pitch level. Interestingly, he saw metal flutes as "charming drawing-room instruments," and predicted they would never find a place in the

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<sup>51</sup>Encyclopaedia Britannica (1888), s.v., "Ivory," by Charles Sissmore Tomes.

<sup>52</sup>Bate, p. 203.

<sup>53</sup>"A History of the Flute," Penny Magazine 9 (1840): 172, quoted by Eagle, pp. 181-182.

<sup>54</sup>Leppert, p. 155. Wealthy amateurs were obviously proud of their luxurious flutes, judging from the many examples bearing their owner's monogram.

<sup>55</sup>Rockstro, ¶1323, p. 148.

orchestra.<sup>56</sup> The only metal flute considered in this study was marketed by Rudall & Rose, but is actually of French manufacture. The metal flute was much more quickly accepted in France. Despite the English resistance to metal flutes, Rudall, Carte & Co. in 1868 were the first makers to make gold flutes, ahead of the French by one year.<sup>57</sup> In 1896, Rudall, Carte supplied a gold flute to the well-known virtuoso, Albert Fransella. The Musical Times reported:

Mr. Albert Fransella's new gold flute, manufactured by Messrs. Rudall, Carte, made its public *début* at a concert given by its possessor on the 7th ult., at the Queen's (Small) Hall. The middle and lower registers of the instrument certainly possess a fine tone, somewhat suggestive of a saxophone, but the instrument must be heard in an orchestra before the artistic value of the adoption of its costly material can be truly gauged.<sup>58</sup>

Whatever the gold flute's merits, Fransella later returned to his wooden flute.

The other use of metals in flute making was, of course, for keys and other mechanism. Silver was used on finer instruments, brass on less expensive ones. Potter, Monzani, and Rudall & Rose used silver almost exclusively. In the 1830s, the white bronzes (alloys of zinc, nickel, and copper), referred to in the catalog as "German silver," became common.<sup>59</sup>

**Ebonite.** The other alternative material for flute bodies was ebonite. This material, also called vulcanite and sometimes mistakenly called bakelite,<sup>60</sup> consisted of a mixture of sulfur, Borneo rubber, lead, and black pigment which was heated for several hours at temperatures from 135° to 150° Fahrenheit. Ebonite was first used in flute making by Alfred G. Badger of New York *ca.* 1851, and was widely used by makers like Rudall, Carte & Co. during the last two decades of the century. According to Rockstro, ebonite was particularly suitable for flutes because it was practically

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<sup>56</sup>*Ibid.*, ¶320, pp. 144-145.

<sup>57</sup>Peter Spohr, Kunsthandwerk im Dienst der Musik; Transverse Flutes Down the Centuries from all over the World; Au fil du temps, flûtes traversières du monde entier (Frankfurt am Main: By the author, 1991), p. 75. Rudall, Carte & Co. were also the first to line wooden head joints with platinum (1928) and the first to make all-platinum flutes (1933).

<sup>58</sup>The Musical Times (March 1896) quoted in Percy A. Scholes, The Mirror of Music, 1844-1944: A Century of Musical Life in Britain as Reflected in the Pages of "The Musical Times" (London: Novello & Co. and Oxford University Press, 1947), p. 815.

<sup>59</sup>Bate, p. 203.

<sup>60</sup>Bakelite was not invented until 1909 by Baekeland, and was first manufactured in Berlin in 1910. Spohr, p. 90.

indestructible, did not absorb water and therefore retained its original dimensions, and was a bad conductor of heat, which discouraged variations of pitch resultant from changes in air temperature.<sup>61</sup>

Certain French makers manufactured flutes out of crystal, but this was not common amongst English makers.

The fact that London was a center of international trade meant that the materials used in flute making were available to the city's craftsmen. London was a chief port, and England's shipping fleet was enormous. At any given time, hundreds of ships waited to load or unload their cargoes at London's docks. Another factor contributed to ensure a ready supply of raw materials: London was the capital of a growing empire. By the end of the nineteenth century, Britain controlled a vast deal of territory, including much of the Caribbean, parts of South America and Africa, Mauritius, Ceylon, most of India, North Borneo, Indonesia, and Singapore--the sources of many of the more exotic materials that were used in flute making.<sup>62</sup> These materials, of course, eventually found their way into London warehouses.

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<sup>61</sup>Encyclopaedia Britannica, s.v. "India-rubber"; Spohr, p. 75; Rockstro, ¶321, p. 145-147.

<sup>62</sup>Sally Mitchell, ed., Victorian Britain: An Encyclopedia (New York: Garland, 1988), s.v., "Empire and Imperialism," by Sally Mitchell and James D. Startt.

**THE CATALOG**



## Cataloging Conventions

The flute makers in this catalog are arranged roughly by the date they became active. In the case of makers represented by more than one instrument, these are as much as possible arranged under the maker in chronological order to enable comparison. For each instrument the following information is given, as applicable:

### [INSTRUMENT TYPE]

The pitch of transposing instruments is identified according to orchestral terminology, *i.e.*, by the instrument's pitch in relation to C. This is in contrast to an earlier practice of designating flutes according to the pitch of the key note of their basic scale (*i.e.*, the pitch produced when the six finger holes are covered).<sup>63</sup> For example, a small flute which sounds E♭ in relation to C (or F with six fingers down) is here designated "Flute in E♭."

#### **Catalog number:**

This number is assigned by the Museum to the instrument upon its acquisition.

#### **Maker: and/or Distributor:**

The name of the individual or firm responsible for the manufacturing and/or marketing of the instrument is recorded here.

#### **Date:**

This is the estimated date the flute was manufactured or distributed.

#### **Inscriptions:**

These include the maker's marks and any other identifying marks found on the instrument, including serial numbers, pitch designations, etc. Any pictorial devices are described within brackets. When signatures are transcribed, the vertical bar ( | ) signifies the end of a line. For example, the signature

PRESTON  
LONDON

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<sup>63</sup>This practice is still common in parts of the world in the case of flute bands. Bate, p. 5, explains: "...Band-flutes are built in various pitches so as to form a homogeneous choir of voices. All are transposing instruments, the 'six-finger' note being invariably written as D. Traditionally, however, they are *named* after the actual sound of this D and not the adjacent C as in orchestral practice. This custom sometimes causes confusion and many musicians and theoretical writers have called for its abolition. So far, however, the flute bandsman has remained adamant."

is transcribed PRESTON | LONDON.

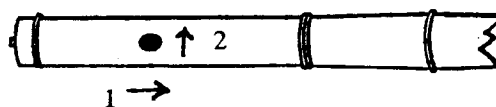
#### Acquisition history:

The major collection of which the instrument is a part is indicated here, as well as what is known of its previous owners.

#### Measurements:

Overall length: This measurement is the total length of the instrument from end to end, in centimeters, disregarding the projecting cork adjuster screw, if present.

Embouchure: These measurements represent the dimensions of the embouchure hole, in millimeters, measuring first longitudinally (parallel to the body of the flute), and second latitudinally (at a right angle to the body of the flute):



Sounding length: This measurement is the total length, in centimeters, from the center of the embouchure hole to the end of the foot, with any tuning slides closed. This is not the sounding length in the strict sense of the term, which would require end correction at both ends of the tube.<sup>64</sup>

#### Pitch:

Six-finger note: This pitch is the note produced when the instrument is sounded with six fingers down. It is here given in order to avoid confusion between band and orchestral terminology of transposing instruments.

Lowest note: This pitch is the lowest note which can be fingered on the flute.

In the interests of preservation of the instrument, and because the author is not herself a flutist, the instruments were not played to determine their exact playing pitch. Therefore, the pitches recorded here are only relative.

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<sup>64</sup>Bate, p. 34.

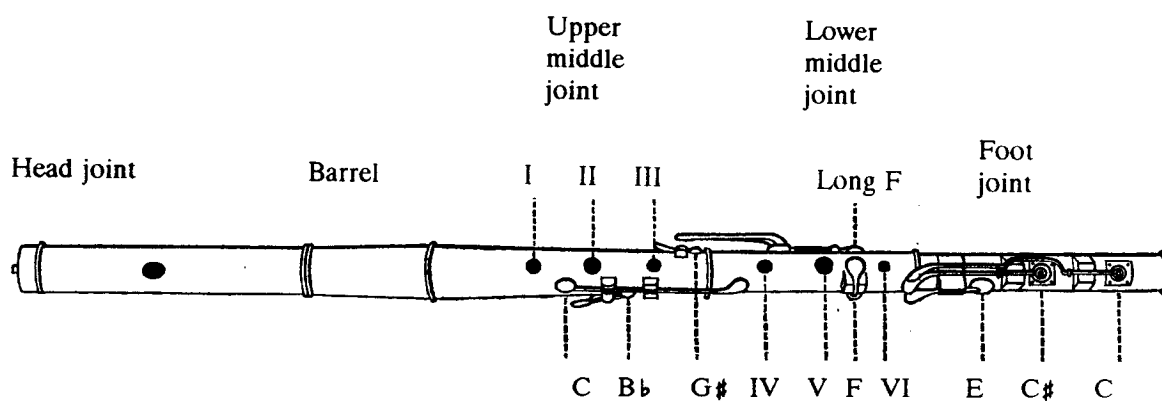
**Construction:**

Described here are: the type of wood, decoration, type of bore, etc. The type of wood was determined by inspection only; precise identification of species cannot be certain without removing samples from the instruments.

**Mechanism:**

Described here are: the type of key system or number of keys, shape of key heads, material of keys, type of mounting, etc. Springs are flat springs attached to the key shanks unless otherwise noted.

Keys are named for the note produced when the key is activated. For example, the normally closed key which opens to produce F is called the F key. Since the music for transposing flutes is transposed and played as if the instrument were at concert pitch, individual keys are referred to by the same names as those on the C flute. Finger holes are referred to by Roman numerals:



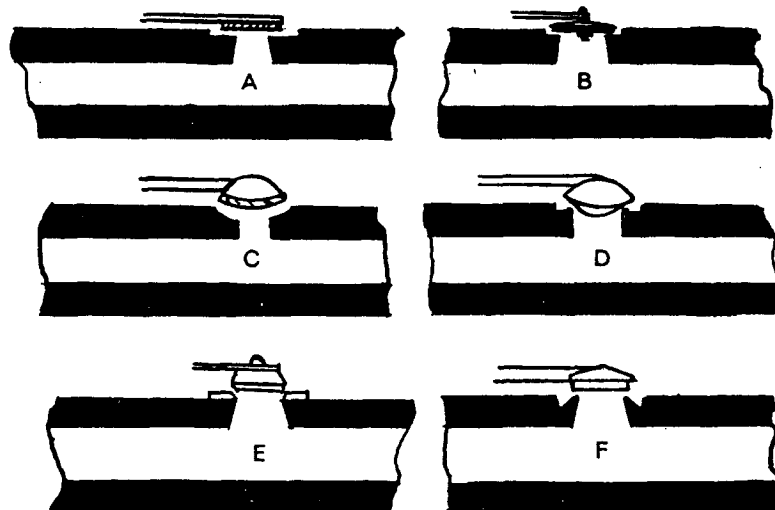
Eight-keyed flute. Adapted from Rockstro, p. 300.



*a*, Touch. *b*, Shank, or Stem. *c*, Cup.

Saltspoon key. Reproduced from Rockstro, p. 197.

Occasionally descriptions of key seatings are supplied under the heading **Mechanism**: which refer to the following illustration, reproduced from Bate.<sup>65</sup>



**Fig. 61** Varieties of keys and seatings in section  
**A.** Plain flat key. Flat seating  
**B.** Monzani type loose riveted key. Leather retained by screw and nut  
**C.** Cupped key (early type) 'Purse' pad. Hemispherical seating  
**D.** Cupped key (later type). Inset metal tube seating (shows choking effect of bulging or deformed pad)  
**E.** Soft metal plug. Countersunk metal plate seating  
**F.** Modern flat cup with thin, felt-backed pad. Conical and recessed seating

Also described under **Mechanism**: are any tuning devices, such as tuning slides, screw cork adjusters, etc.

<sup>65</sup>Bate, p. 221.

**Accessories:**

Instrument cases and other articles associated with the instrument are listed here.

**Condition:**

The instrument's general state of preservation is here described.

**Notes:**

Any remaining historical or technical information regarding the instrument is recorded here.

**Part I:**  
**Simple System Flutes**

### CAHUSAC

The Cahusacs made some of the finest flutes to be had in London during the second half of the eighteenth century and for a decade into the nineteenth. Thomas Cahusac I was possibly an apprentice to the musical instrument maker Johan Just Schuchart. Thomas married at least three times and had a very numerous family (see family tree below). In the 1730s and 1740s the Cahusacs shared lodgings with the instrument maker Benjamin Hallet in Stationer's Alley, also known as Boyle's Head Court, north of the Strand. In 1753 he moved opposite to St. Clement Danes (later 196 Strand), at the sign of the "Two Flutes and Violin." Fortunately, he carried on an extensive trade there, since by 1753 he had at least seven children.<sup>66</sup>

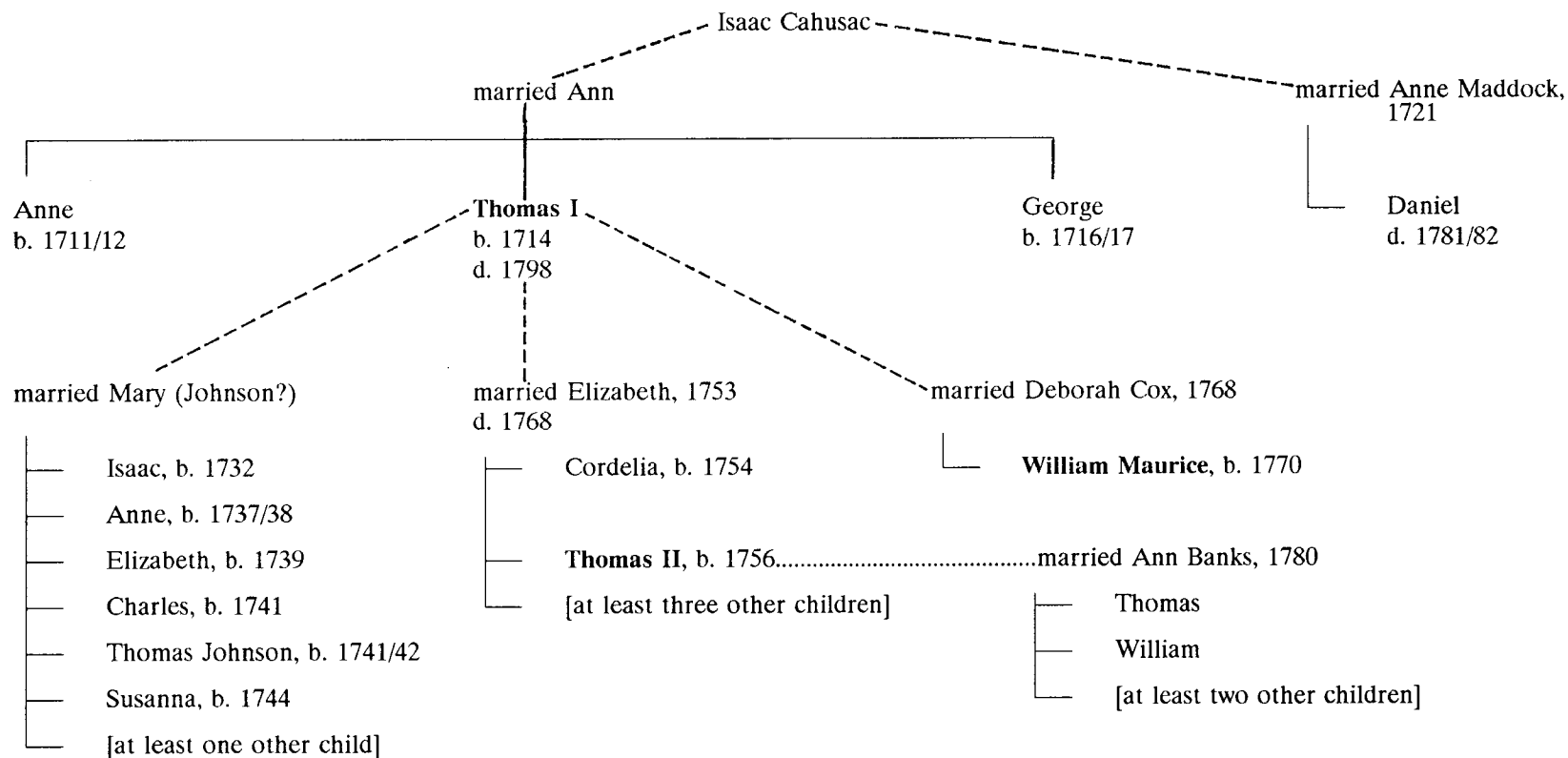
Two of his sons, Thomas II and William Maurice, became musical instrument makers. Thomas II began his own shop in Newport Street in 1781. He worked in Reading from 1786-1789, but this was apparently an unsuccessful venture, for his advertisement of 2 February 1789 states: "...he is going to leave Reading in a short time, to be with his father in business, at No 196, facing St Clements Church, Strand London."<sup>67</sup> The family business became Cahusac & Sons in 1794, when both Thomas II and William Maurice worked with their father.

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<sup>66</sup>Maurice Byrne, "Cahusacs," pp., 24-25. Incidentally, the lexicographer Samuel Johnson was a regular member of the congregation at St. Clement Danes. (Weinreb and Hibbert, *s.v.* "St Clement Danes.") The Cahusac's neighborhood was not very glamorous. The narrow passages skirting the church were distinguished by overhanging Medieval buildings, and Butcher's Row on the north side was a slum full of meat shops. In the late 1790s, however, the area was considerably improved by the demolition of some of the older buildings and the construction of elegant shops in their place. See Felix Barker and Peter Jackson, The History of London in Maps (London: Barrie & Jenkins, 1990), pp. 78-79.

<sup>67</sup>Byrne, "Cahusacs," pp. 26-29.

CAHUSAC FAMILY TREE<sup>68</sup>



<sup>68</sup>This information is derived from Maurice Byrne, "The Cahusacs and Hallet," Galpin Society Journal 41 (1988): 24-31.



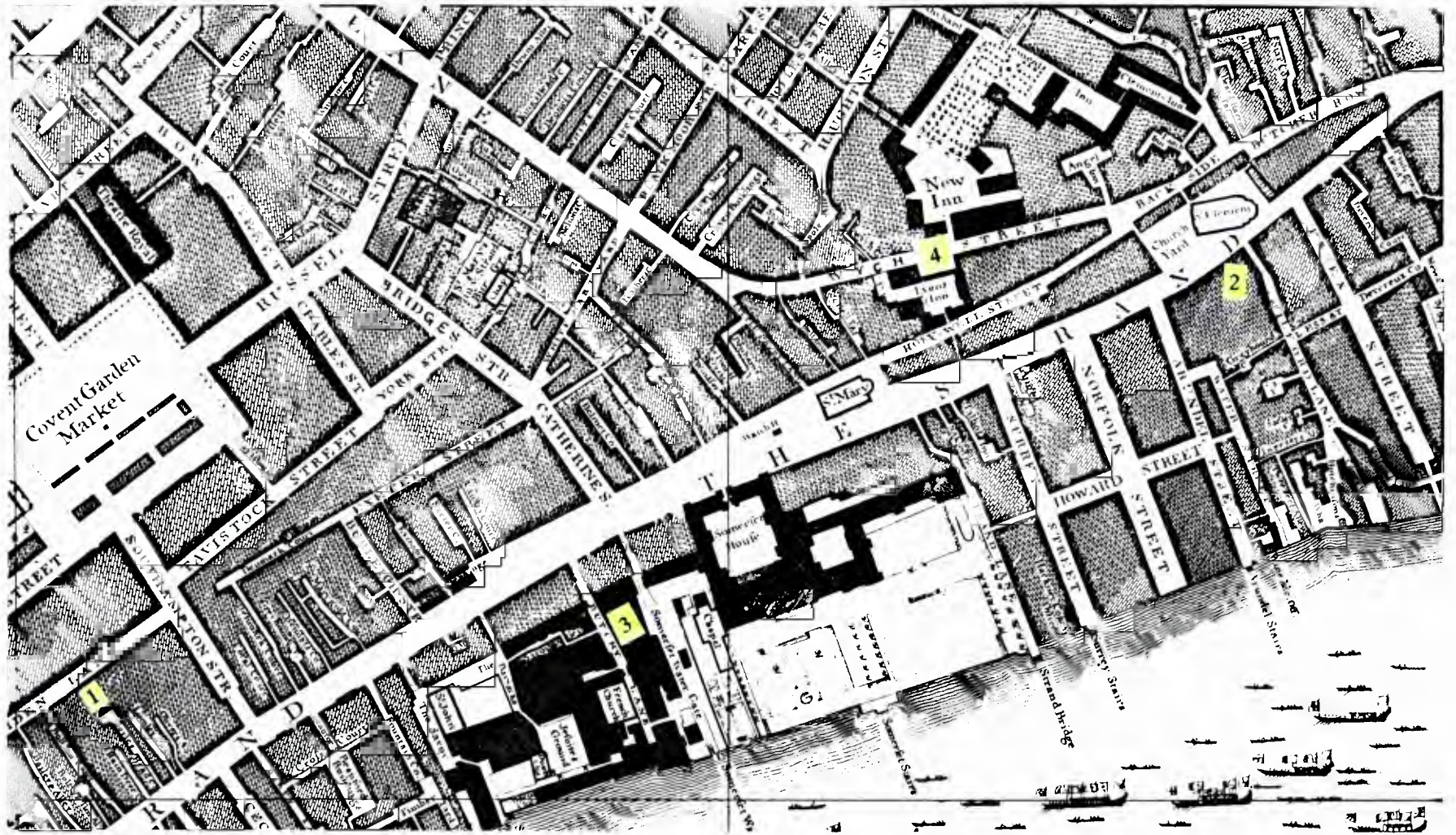
Map, following page:

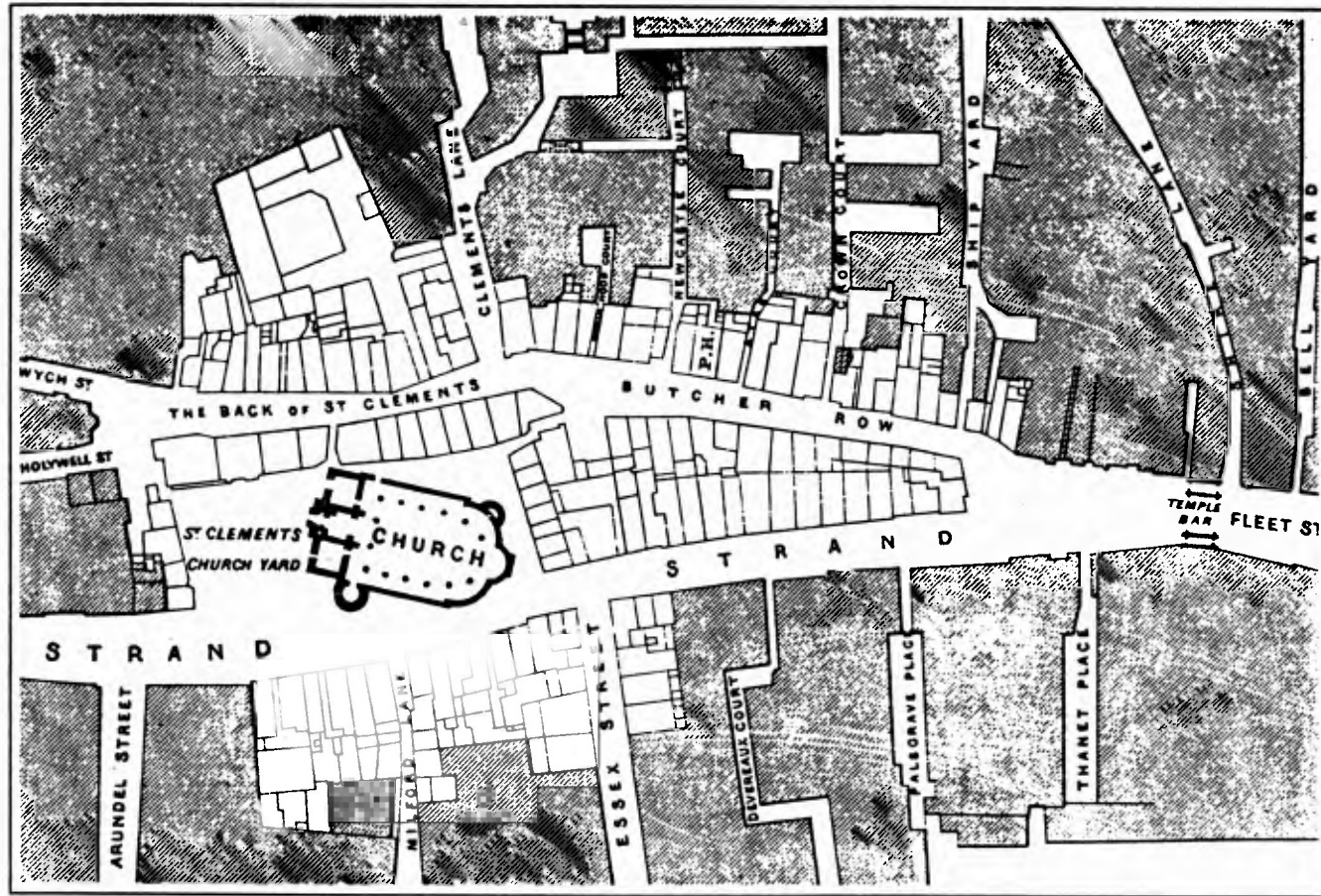
**The Cahusacs' neighborhood in the Strand**

1. Boyle's Head Court
2. 196 Strand, St. Clements
3. Duchy Lane (here spelled Dutchy), the former premises of Peter Bressan
4. Wych Street, home to Astor's earlier shop

Scale: 4.5 inches equals .25 mile

John Roque's map of 1746, reproduced in Roque, The A to Z of Georgian London, p. 22.





The area near the Cahusacs' shop in St. Clements. The shop was located just south of the Church. Wood engraving from Some Account of the Parish of St. Clement Danes, by John Diprose, Vol. ii, 1876, reproduced from Felix Barker and Peter Jackson, The History of London in Maps (London: Barrie & Jenkins, 1990), p. 78.

In 1798 Thomas I died. He was sufficiently well-known to the community that his death was noticed in two major periodicals, The Gentleman's Magazine and The Sun:

May 18th, 1798, Mr Thomas Cahusac, senior, of the Strand, the oldest musical instrument maker in and near London.<sup>69</sup>

Died on Friday se'nnight, Mr. Thomas Cahusac, sen. of the Strand, the oldest musical instrument maker in London, at the advanced age of eighty four years, much respected by all his friends. He was a father of thirty children and married to four wives.<sup>70</sup>

After their father's death, Thomas II and William Maurice remained partners until 1800, at which time they separated, Thomas II moving to 41 Haymarket. In 1805 he moved to 114 New Bond Street and in 1808 to Wigmore Street. He appears to have died or retired in 1814, after which he is no longer listed. William Maurice remained at 196 Strand until 1811, when he moved to 79 High Holborn. He retired in 1816. He was alive at least until 1829, when he was at Bexley, Kent.<sup>71</sup>

Since Thomas I, Thomas II, and William Maurice all seem to have used the CAHUSAC | LONDON stamp, precise attributions are often impossible.<sup>72</sup> Their later instruments were also marked 196 STRAND, and it has been suggested that such a stamp implies a post-1794 date.<sup>73</sup> A few Cahusac instruments are said to bear date stamps between 1769 and 1797.<sup>74</sup>

Certainly, those Cahusac instruments marked 41 HAYMARKET were made by Thomas II. The writer takes issue, however, with the statement in the New Grove Dictionary of Musical Instruments:

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<sup>69</sup>The Gentleman's Magazine quoted by Frank Kidson, British Music Publishers, Printers and Engravers (London: W. E. Hall & Sons, 1900), p. 22. This periodical had a wide circulation in Europe and the United States, according to H. C. Landon, Haydn: Chronicle and Works, Vol. 3, Haydn in England, 1791-1795 (Bloomington, Indiana: Indiana University Press, 1976), p. 93.

<sup>70</sup>The Sun, 28 May 1798, quoted by Byrne, "Cahusacs," p. 24. Byrne suggests that the reference to thirty children and four wives may possibly be an exaggeration. The Sun had reported extensively on Haydn's visits earlier in the decade, and it is interesting that a publication which noticed the great composer also noticed a maker of flutes. See Landon, Haydn in England.

<sup>71</sup>New Grove Dictionary of Musical Instruments, s.v., "Cahusac," by Frank Kidson, William C. Smith, and Guy Oldham.

<sup>72</sup>New Langwill Index (forthcoming).

<sup>73</sup>Historic Flutes From Private Collections (New York: André Mertens Galleries for Musical Instruments, Metropolitan Museum of Art, 1986), p. 14.

<sup>74</sup>New Grove Dictionary of Musical Instruments, s.v., "Cahusac," by Kidson, Smith, and Oldham.

Apart from one exceptional two-key flute stamped 41 Haymarket (Thomas Cahusac (ii), 1800-1805), the style and pitch of these instruments show that they were made during the second half of the 18th century and thus apparently by the elder Cahusac only.

Cahusac flutes marked **41 HAYMARKET** are not as exceptional as stated above. Eight different examples were found during this project.<sup>75</sup> Furthermore, not all the pre-1794 instruments can be safely attributed to Thomas I. Some of them are undoubtedly by Thomas II, who, if he served an apprenticeship with his father beginning about the time he was fourteen, would probably have been an active maker by about 1777. William Maurice, fourteen years younger, was probably active by about 1791.

Two flutes signed **CAHUSAC | JUNIOR** were found. Thomas II may have used this stamp to distinguish his instruments while his father was still alive, for example when he [Thomas II] was working in Newport Street. Similarly, he used the **41 HAYMARKET** stamp to distinguish his instruments from those of his brother after 1800. No flutes bearing any of Thomas II's other addresses were found. Nor were any flutes found bearing William Maurice's initials or his High Holborn address.<sup>76</sup> One must conclude from the available evidence that either his instruments do not survive, or that they are marked simply, **CAHUSAC | LONDON**.

The Cahusacs made a variety of other woodwinds, including oboes, clarinets, bassoons, piccolos, tenor flutes, vox humanas, and tenoroons. Cahusac also sold violins. In fact, Thomas I is recorded as having worked in association with the sons of the violin maker Banks, and Thomas II married Ann Banks, daughter of Benjamin Banks.<sup>77</sup> The Cahusacs also published sheet music, country dance books, and at least twelve volumes of airs for the flute titled Cahusac's Pocket

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<sup>75</sup>See list of extant Cahusac flutes in the Appendix, pp. 305-308.

<sup>76</sup>However, a trade card of William Maurice's, issued from 196 Strand, survives in the British Museum. It is reproduced in Langwill, Index, p. 24.

<sup>77</sup>Byrne, "Cahusacs," p. 26.

Companion for the German Flute: Containing a Selection of Favorite Songs, Airs, Minuets, Marches, Allemands, Cotillions, Dances and Duets.<sup>78</sup>

Cahusac flutes are usually boxwood instruments with one, four, or six square keys. Unlike the Milhouses, however, the Cahusacs produced many ivory flutes. Their earlier flutes have a reverse F key and a cross G# key (compare the photograph of the Museum's no. 4837 on p. 35 to that of no. 4561 on p. 38). Since it has been speculated that the Cahusacs were of French extraction (Cahusac is near Albi in southern France), it is tempting to draw a connection between the cross G# keys on Cahusac flutes and the cross G# keys on many French flutes. However, their French descent and possible influence on or by French flute making remain conjecture. At any rate, the Cahusacs eventually made their F and G# keys like those on most other London flutes. Presumably, proximity to and knowledge of their competitors' work encouraged a kind of uniformity amongst the work of London flute makers.

**COMPARISON OF CAHUSAC HOLE DIAMETERS**

Finger Hole Diameters (in millimeters)

Catalog number	I	II	III	IV	V	VI
4837	7.0	7.0	5.9	6.4	6.3	5.0
4561	7.0	7.0	5.9	7.0	6.9	5.1

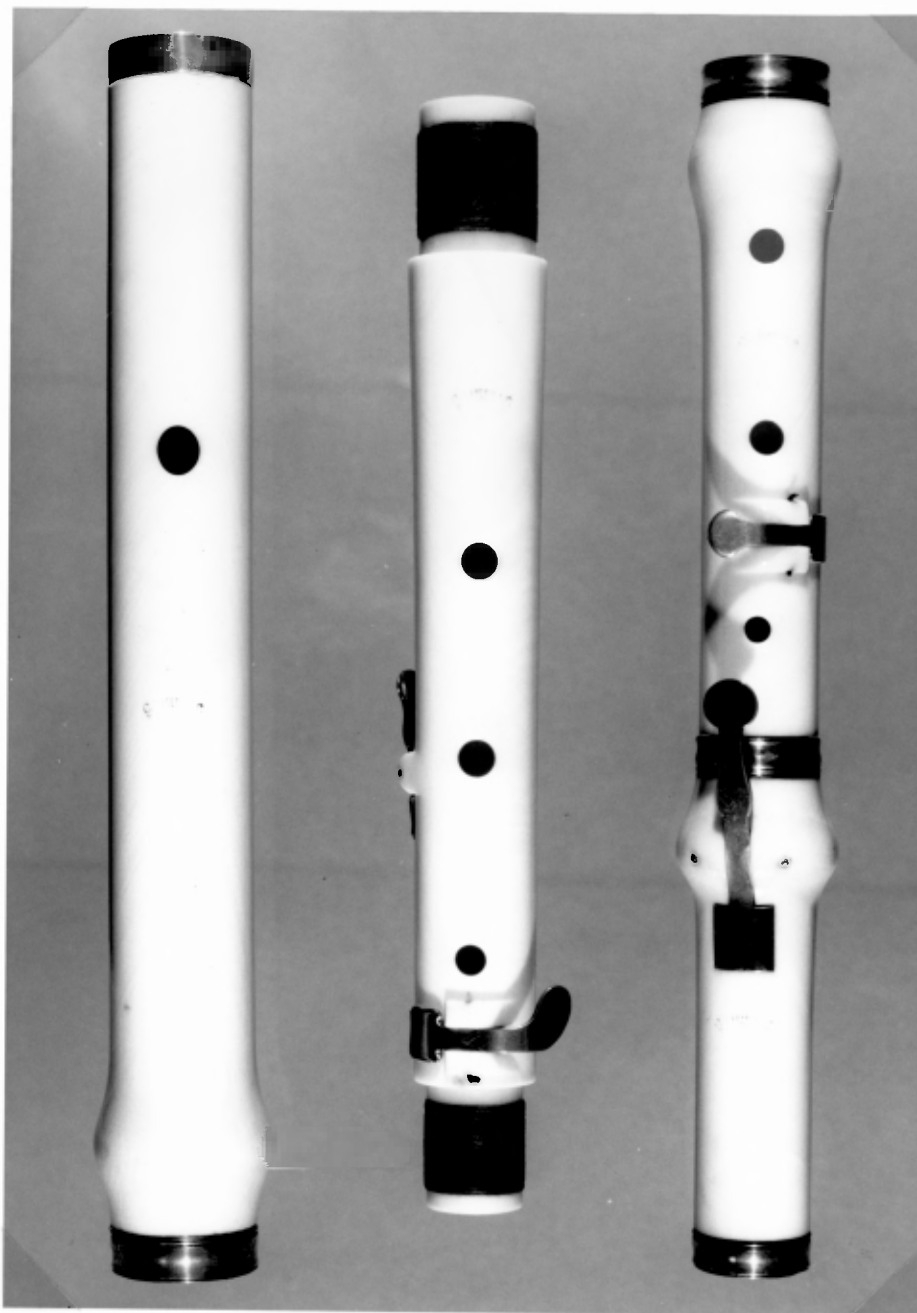
Embouchure Diameters (in millimeters)

Catalog number	Longitudinal axis	Latitudinal axis
4837	9.0	9.5
4561 <sup>79</sup>	10.2	10.8

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<sup>78</sup>Kidson, p. 22; British Library, The Catalogue of Printed Music in the British Library to 1980 (London: K. G. Saur, 1981), s.v., "Cahusac (Thomas)."

<sup>79</sup>These measurements are only approximate; the head joint of this flute has cracked across the embouchure.



No. 4837. Flute by Cahusac.

## FLUTE

<b>Catalog number:</b>	4837
<b>Maker:</b>	Thomas Cahusac I or Thomas Cahusac II or William Maurice Cahusac
<b>Date:</b>	Second half of the eighteenth century
<b>Inscriptions:</b>	All joints: [curved] CAHUSAC   LONDON
<b>Acquisition history:</b>	Higbee-Abbot Collection, 1989. <sup>80</sup> Dale Higbee acquired the flute from Philip Bate in 1964.

**Description:**1. Measurements

Overall length:	61.5 cm
Embouchure:	9 mm x 7.9 mm
Sounding length:	53.7 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Ivory body in four joints. Four silver ferrules and silver head cap. The head cap is a replacement for the missing original head cap, and was made while Philip Bate owned the flute. The cork is also a later replacement and is faced on either side with a metal disc. Conical bore. The walls of the ivory body are quite thin (approximately 4 mm).

4. Mechanism

Four silver keys are mounted on turned blocks and turned ring (B $\flat$ , cross G $\sharp$ , reverse F, D $\sharp$ ). The key heads are flat and square with beveled edges and notched corners except for the D $\sharp$  key, which has a plain square key head. The D $\sharp$  key is characteristically chamfered (curved to fit the contour of the exterior of the tube).

**Condition:**

The flute is in excellent condition.

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<sup>80</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3. This flute is listed as "Fls., ivory and silver, Higbee;" in Langwill, Index, s.v. "Cahusac, William Maurice."



**Notes:**

The small embouchure, cross G# key, and reverse F key of this instrument suggest an earlier date. Bate was of the opinion that this flute dated from before 1800.<sup>81</sup> Before that date, the flute could have been made by any of the three Cahusacs, although William Maurice seems least probable, since he probably was not active until the early 1790s.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 4561

**Maker:** Thomas Cahusac II or William Maurice Cahusac

**Date:** ca. 1799-1810

**Inscriptions:** Head joint and barrel: [curved] CAHUSAC | STRAND | LONDON  
All other joints: [curved] CAHUSAC | LONDON

**Acquisition history:** Estate of Arne B. Larson, 1988.

**Description:**1. Measurements

Overall length: 60.1 cm  
Embouchure: 10.1 mm x 10.9 mm (head joint is cracked through embouchure)  
Sounding length: 52.6 cm

2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

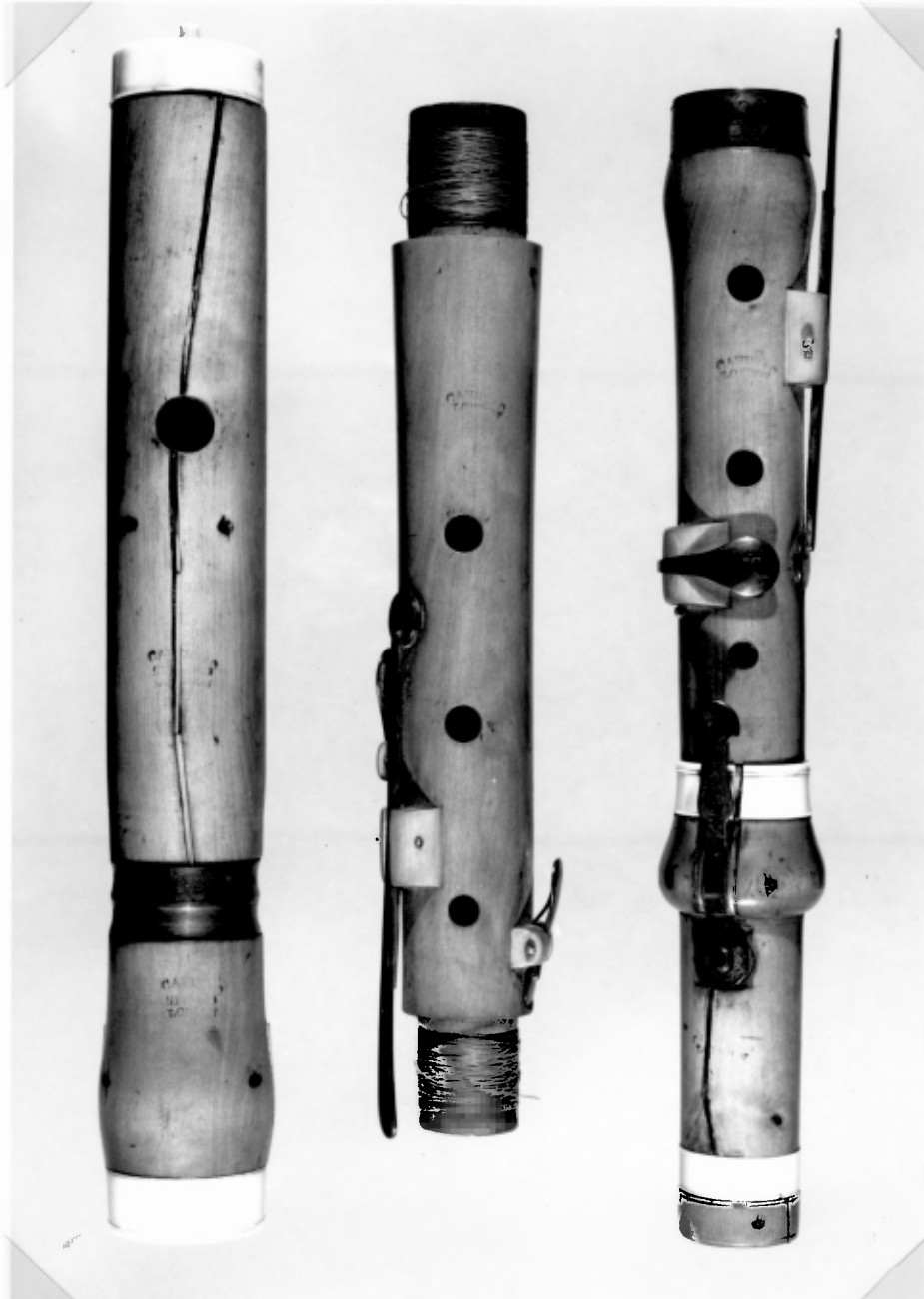
Boxwood body in five sections. Three ivory ferrules and ivory head cap. Conical bore. The three metal ferrules on the head joint and lower middle joint are probably later repairs.

4. Mechanism

Originally, this flute had one silver key (D#) with pewter plug key head mounted on a turned ring, the channel of which is lined with a brass sleeve. Five silver keys with round, flat key heads were later mounted on applied blocks (high C, B♭, G#, F, and long F). The F key and long F key control separate holes. The pewter plug closes over a metal-lined hole.

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<sup>81</sup>Philip Bate to Dale Higbee, 12 May 1960.



No. 4561. Flute by Cahusac.

The head joint is fully lined with metal and has a graduated tuning slide and a graduated ivory screw cork adjuster. The foot joint is also fully lined and has a graduated register.

**Condition:**

All the joints are cracked except for the upper middle joint. The cracks have all been pinned, and the ones in the head and foot joints have also been sealed with wooden shims. The two ivory ferrules on the foot are cracked.

**Notes:**

The presence of the tuning slide, register, and pewter plug suggest that this flute was made after 1799, when Potter's patent protection expired. It was probably made while Thomas II and William Maurice were in partnership, or by William Maurice after the two separated.

## RICHARD POTTER AND WILLIAM HENRY POTTER

Richard Potter was perhaps the most important flute maker in late eighteenth-century England. Not only was his workmanship exceptional, but he introduced certain features which became staples of English flute making for decades to come. Richard Potter was succeeded about 1800 by his second son, William Henry Potter. The Museum's collections include eight flutes by Richard and William Henry which illustrate all but one period in the history of the firm.

### Family History

Richard Potter was born in 1725 in Mitcham, Surrey, a town known for cricket grounds and lavender growing.<sup>82</sup> His father Henry was a lavender grower, but Richard's career took another direction. In 1740, three years after Henry died, his fourteen-year-old son began an apprenticeship under John Bickerton, a London turner.<sup>83</sup>

Potter completed his apprenticeship in 1748 and presumably was employed as a journeyman until at least 1750. After that, he would have been free to set up on his own. He was sufficiently established by 1754 to marry Mary Frances Huddleston and is known to have been working as a flute maker in Silver Street by *ca.* 1755. From *ca.* 1757, he was at Green Dragon Court, Foster Lane, Cheapside. Around 1764, Potter acquired 5 Pemberton Row, Gough Square, Fleet Street, where he worked until 1785. At that time, he acquired his shop at 5 Johnson's Court, Fleet Street, and retained 5 Pemberton Row as the family home.<sup>84</sup>

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<sup>82</sup>For over a century, the cultivation of lavender and medicinal herbs was the major occupation in Mitcham, until synthetic chemicals were introduced and the value of land near London rose sharply during the late nineteenth century. Weinreb and Hibbert, *s.v.*, "Mitcham."

<sup>83</sup>R. Chatwin, "The Musical Instrument Makers Named Potter," unpublished typescript preserved in the Dayton C. Miller Flute Collection. In 1740, the year Potter began his apprenticeship, Thomas Stanesby, Jr. was serving his second term as Master of the Turners' Company of London. (Stanley-Stone, p. 294.)

<sup>84</sup>R. Chatwin, unpublished typescript; New Langwill Index (forthcoming).

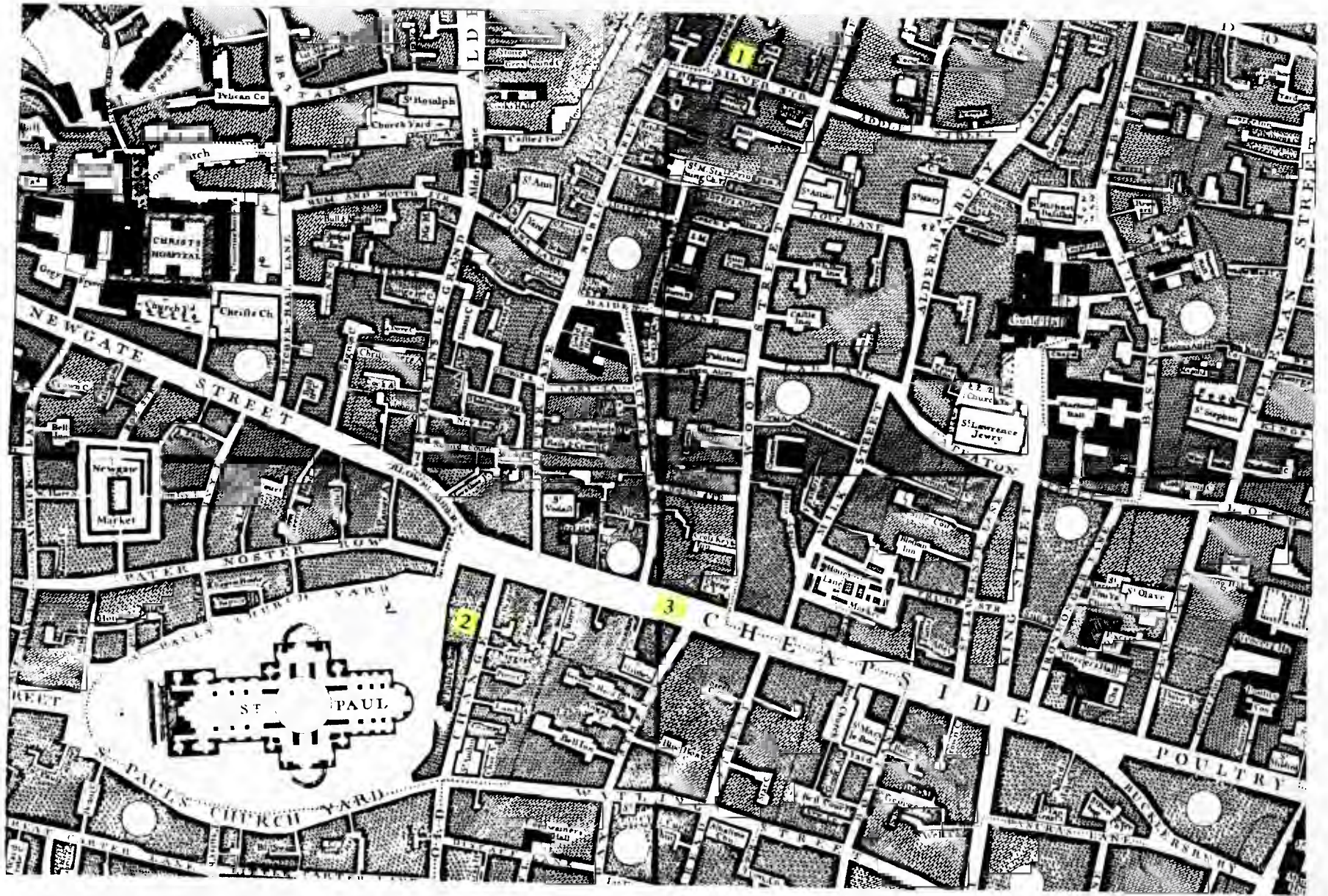
Map, following page:

**Richard Potter's earlier addresses**

1. Silver Street
2. Green Dragon Court, Foster Lane
3. Cheapside, later home to shops of Clementi,  
Longman, and Keith, Prowse & Co.

Scale: 4.5" equals .25 mile

John Roque's map of 1746, reproduced from Roque, The A to Z of Georgian London, pp. 9, 22, 24, and 26.



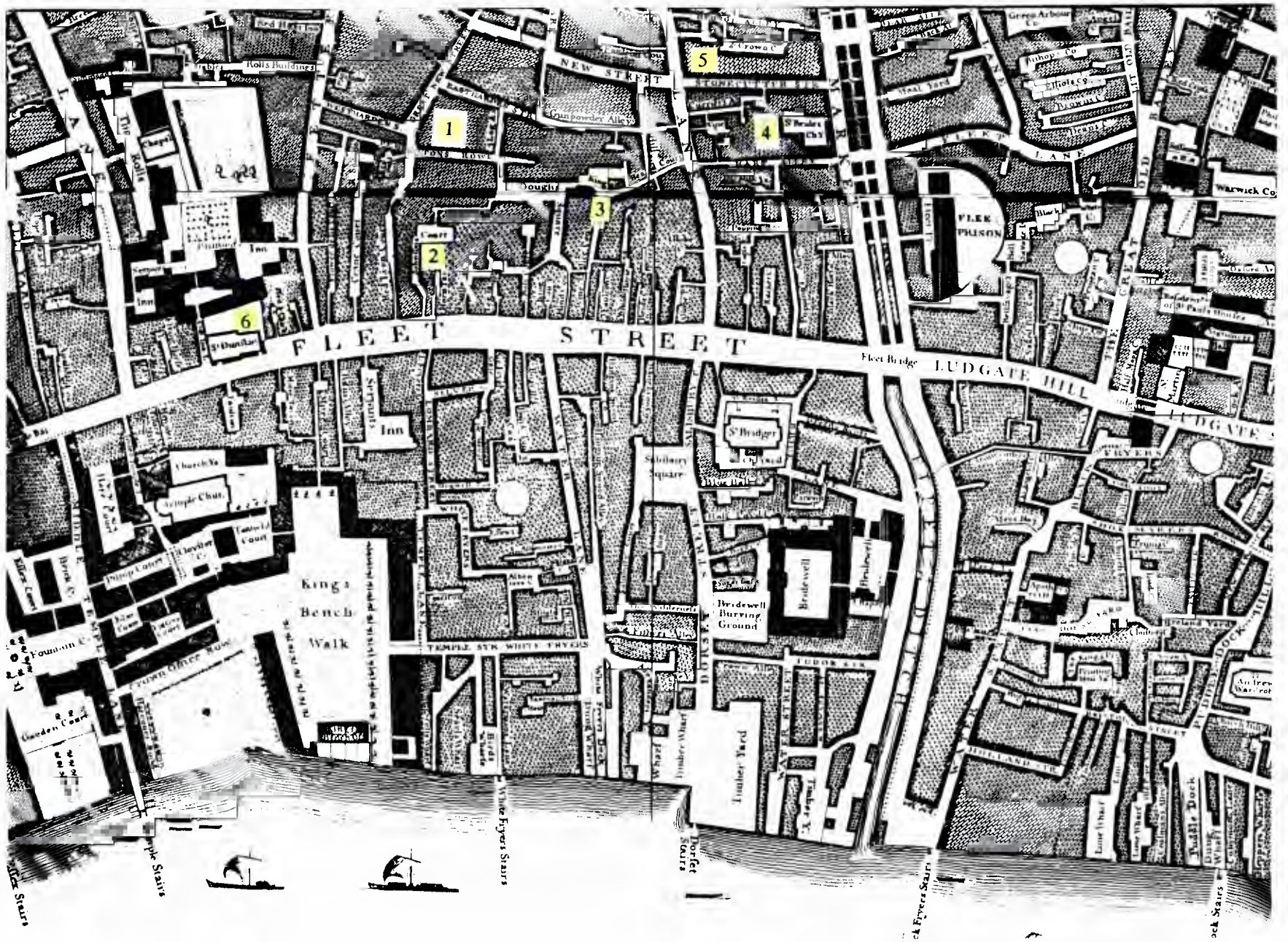
Map, following page:

**The Potters' Fleet Street neighborhood**

1. Pemberton Row
2. Johnson's Court
3. Wine Office Court
4. St. Bride's Church
5. Stonecutter Street (earlier home to Thomas Stanesby, Sr.)
6. St. Dunstan's Church (Thomas Stanesby, Jr. worked earlier opposite the Church in Temple Exchange.)

Scale: 4.5" equals .25 mile

John Roque's map of 1746, reproduced from Roque, The A to Z of Georgian London, pp. 9, 24.





The Potter's Fleet Street neighborhood was the haunt of newspaper publishers, book sellers, writers, and shopkeepers of all sorts. Johnson's Court and Gough Square were earlier home to Samuel Johnson while he was writing his famous dictionary. The well-known Irish dramatist and writer, Hugh Kelly, was the family's eccentric neighbor in Gough Square.<sup>85</sup>

The Potters raised five children (see family tree following). Their eldest son, Richard Huddleston, and his son Cipriani Potter became important figures on London's concert scene. Richard Huddleston Potter was very active as organist at nearby St. Bride's, Fleet Street, for some forty years. He played the flute in the Handel Festivals in Westminster Abbey<sup>86</sup> and played the oboe professionally. Richard was one of the thirty original members of the influential Philharmonic Society (founded in 1813) and played the viola in its orchestra. He was married to the daughter of Samuel Christian Baumgarten, the well-known bassoonist.<sup>87</sup>

The extent to which Richard Huddleston Potter was involved in his father's business is rather puzzling. The younger Richard was apprenticed to his father, as might be expected of the first son of a gifted craftsman.<sup>88</sup> During the 1760s, the elder Richard changed his maker's stamp to POTTER | SENIOR, which suggests that a Potter Junior was then making instruments. Oddly enough, at this time neither son was old enough to take an active part in the firm.<sup>89</sup> As an adult, Richard

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<sup>85</sup>Borer, pp. 98-99; Weinreb and Hibbert, *s.v.* "Gough Square" and "Johnson's Court." Johnson's Court was incidentally not named after Samuel, but after a tailor by the same name. Hugh Kelly reportedly "...exhibited his fat little figure in a flaming broad silver-laced waistcoat, bag-wig and sword and was so fond of displaying plate on his sideboard that he added to it his silver spurs."

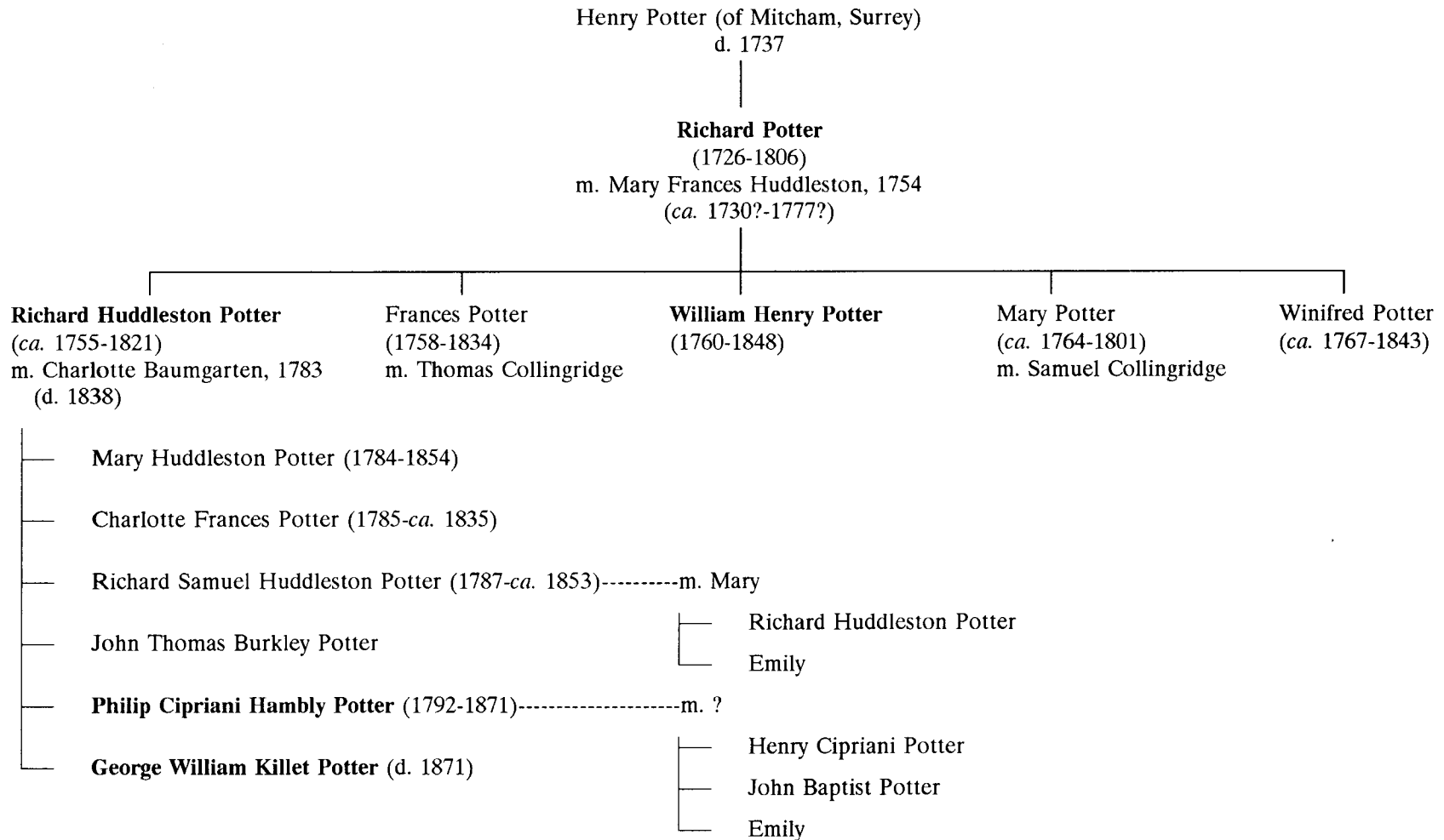
<sup>86</sup>It is debatable, however, whether the flutes could be *heard* at these affairs. The enormous orchestra for the 1784 commemoration, for example, included 95 violins, 26 violas, 21 'cellos, 15 double basses, 26 oboes, 26 bassoons, one contrabassoon, 12 trumpets, 12 horns, six trombones, kettledrums, tower drums, organ, but only six flutes. Despite the flute's great popularity in amateur music making, it seems to have been a fairly low priority at this time on the professional orchestral scene. Nettel, p. 88.

<sup>87</sup>New Grove Dictionary of Music and Musicians, *s.v.*, "Potter," by Philip H. Peter.

<sup>88</sup>*Ibid.*

<sup>89</sup>David Shorey, "History and Buying Guide of Potter Flutes," paper presented at the 11th annual national meeting of the American Musical Instrument Society, Oberlin, Ohio, 15-18 April 1982.

POTTER FAMILY TREE<sup>90</sup>



<sup>90</sup>This information is derived from R. Chatwin's unpublished typescript and is the result of his research of church registers, wills, etc.

Huddleston must have been so busy with his performing engagements that it seems unlikely he had much time to devote to musical instrument making. Perhaps he was nominally involved as his father's business partner. For example, he might have kept the firm's books, since he often audited the accounts of the Philharmonic Society and served as its treasurer for two years.<sup>91</sup> And St. Bride's, where he played the organ, was conveniently located near his father's shop. Furthermore, even after William Henry succeeded his father after his death, there was a separate directory listing for "R. Potter & Son, musical instrument makers, 5 Johnson's Court", apart from "W. H. Potter, patent flute maker, Johnson's Court." This separate listing continued until about the time of Richard Huddleston Potter's death. At least one of Richard Huddleston's sons (George William Killet Potter) and two of his grandchildren were apprenticed as turners.<sup>92</sup> Richard Huddleston may have taken some interest in the family trade after all. Ultimately, however, it was his younger brother who carried on the tradition of craftsmanship.

Of all the Potters, it was Richard Huddleston's third son, Cipriani, who achieved the most renown. He was not a musical instrument maker at all, but a piano prodigy, composer, conductor of the Philharmonic Concerts, and principal of the Academy of Music. In 1818 he met Beethoven, who was favorably impressed by Cipriani's abilities.<sup>93</sup> According to Fitzgibbon, one of Cipriani's grandfathers was Joseph Tacet, one of the first English flutists to adopt a flute with extra keys.<sup>94</sup> The source of Fitzgibbon's information is unknown, but it cannot be entirely accurate, since Cipriani's grandfathers were Richard Potter and Samuel Christian Baumgarten. Perhaps the Baumgartens were somehow related to Tacet, but this has not been established.

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<sup>91</sup>New Grove Dictionary of Musical Instruments, s.v., "Potter," by Philip H. Peter.

<sup>92</sup>R. Chatwin, unpublished typescript. George William Killet Potter held key offices in the Turners' Company for many years. He was elected Renter Warden in 1847, 1851, 1856, and 1865; Upper Warden in 1848, 1857, and 1866; and Master in 1850, 1859, and 1869. (Stanley-Stone, pp. 297-298.)

<sup>93</sup>New Grove Dictionary of Music and Musicians, s.v., "Potter," by Philip H. Peter; Young, pp. 442-445.

<sup>94</sup>Fitzgibbon, p. 42.

### Richard Potter as Flute Maker

Richard Potter's work can be divided into three major stylistic periods.<sup>95</sup> The flutes from these different periods can be identified by their signature and the details of their construction.

First period. The 1750s and 1760s mark the first period, during which he signed his flutes **POTTER LONDON** on a scroll. These flutes have a small, round embouchure hole and a single square key. They usually have a plain cork stopper without adjuster, but sometimes have *corps de rechange*. The tone holes display a certain amount of double undercutting, which was to become more apparent in later years. According to Shorey,

The Potter double-undercutting consists of a fairly broad opening from the top of the tone hole towards the bore, met with an extremely wide fraise-cutting coming up from the bore, creating a step. The degree to which the fraise cutting differs from the top cutting of the tone hole becomes more and more accentuated with each stage in the development in the flute making of Richard Potter.<sup>96</sup>

Another feature of the early Potter flutes is that the head joint stamp is slightly offset, so that when all the stamps are in line, the embouchure hole is turned inward. One owner of a scroll-stamped Potter flute describes the effect of playing with the embouchure hole turned inward:

Lining up the marks gives a good 15° inturn as far as one can judge by eye. Incidentally it brings the E flat key a little nearer the line of the fingerholes than I find wholly comfortable (but about where Quantz's fingering-chart illustration shows it!). I had never dared turn the head in this far before. First impression is that the cross-fingerings that need flattening, G sharps, B flats, Cs especially, need much less humouring; also the bottom D, which is a little shaky on this flare-foot instrument, is improved. But the results are better in sharp keys than in flat ones; with the embouchure in line with the fingerholes it is the other way round.<sup>97</sup>

The Museum's two early Potter flutes, nos. 4166 and 4438, are characteristic of this first period.

Second period. During the late 1760s, Potter began signing his flutes **POTTER | SENIOR** and sometimes dated the foot joint as well. The flutes from this period, like the earlier scroll-stamped ones, have an offset head joint stamp, since these early classical flutes were still played with the embouchure turned in. The embouchure now has a delicate oval shape.

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<sup>95</sup>These stylistic periods were outlined by David Shorey in "History and Buying Guide."

<sup>96</sup>*Ibid.*

<sup>97</sup>Harry Shorto, "Comm. 119," FOMRHI Quarterly, no. 14 (January 1979): 4.

The most important feature of these flutes from Potter's second period, however, is the addition of new keys. Potter, along with the London maker Caleb Gedney, began adding five new keys to the one-keyed flute in the late 1760s. The keys for B♭, G♯, and F were added first, resulting in a four-keyed flute, and the C and C♯ keys were added to the foot joint shortly thereafter, resulting in a six-keyed flute. The open-standing foot keys, which extended the flute's lower range by a whole step, had been fitted to the flute earlier in the century by certain German makers, and by Johan Just Schuchart, Thomas Stanesby, Jr., and John Mason in London, but the keys had not become prevalent.<sup>98</sup> At any rate, neither Potter nor Gedney can be said to have invented these foot keys.

The other three keys, B♭, G♯, and F, were added to eliminate troublesome cross fingerings on the one-keyed flute. The old, awkward fork fingerings for these chromatic notes produced a veiled tone quality which was going out of fashion in England. The new keys allowed each of these accidentals to sound from its own hole, making the flute capable of playing in a wider variety of keys with good facility and intonation.

The invention of these keys has been credited to a number of flute makers and flutists, including Potter, Kusder, Pietro Grassi Florio, and Joseph Tacet. Little is known of Kusder, other than that he made flutes, oboes, and bassoons in London during the last quarter of the century. Ribock describes Kusder as the earliest English maker of the six-keyed flute in his Bemerkungen über die Flöte (1782).<sup>99</sup> Florio and Tacet were certainly among the earliest players to adopt keyed flutes, but there is no firm evidence they invented any of these keys. There are extant flutes marked Florio, but according to Maurice Byrne, they were probably made by John Hale.<sup>100</sup> In fact, teachers of the flute commonly supplied instruments to their students stamped with the name of the teacher instead of the actual maker. The New Langwill Index quotes Arnold's flute tutor of 1787, which states that Tacet introduced the new keys, which were then improved by Potter. Rockstro, however, denies

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<sup>98</sup>Byrne, "Schuchart," pp. 7-8, 11.

<sup>99</sup>Cited by Bate, p. 96. Detailed photographs of a surviving Kusder flute can be seen in John Solum, The Early Flute: With a Chapter on the Renaissance Flute by Anne Smith, Early Music Series 15 (Oxford: Clarendon Press, 1992), pp. 53, 58, and 59.

<sup>100</sup>Byrne, "Schuchart," p. 10.

Tacet was significantly involved.<sup>101</sup> Unfortunately, this stage in the development of the flute was not well documented, and the documentation that exists tends to be contradictory. Determining who first applied the new keys, and when, has long frustrated scholars. Adam Carse, writing in the 1930s, seems to have already given up trying to reach a definite conclusion:

Claims for the credit of having "invented" the additional keys of the flute have been made on behalf of many players and makers, rather many, in fact, for the number of added keys. Now after the passage of 150 years, any attempt to pin down to any particular year the advent of the various keys, would be equally futile.<sup>102</sup>

Maurice Byrne has aptly pointed out: "Any development of this sort is of course the work of many individuals; the interaction of maker, inventor, player and composer is an established principle..."<sup>103</sup> In any case, it can be safely said that London was a hotbed in the development of flute keywork, and that Potter was of chief importance in this activity, especially after the death of Gedney in 1769. While the keyed flutes had a mixed reception, they eventually gained in favor. According to Bate, the six-keyed flute was "...the professional player's standard instrument during the greater part of Beethoven's working life."<sup>104</sup>

The earliest dated Potter Senior flute is the six-keyed flute stamped 1776 in the collections of the Chicago Historical Society.<sup>105</sup> Another six-keyed flute from this period survives in the Dayton C. Miller Collection and is stamped 1778.<sup>106</sup> This example, as well as another six-keyed

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<sup>101</sup>Rockstro, ¶452, p. 243.

<sup>102</sup>Adam Carse, Musical Wind Instruments: A History of the Wind Instruments Used in European Orchestras and Wind-Bands from the Later Middle Ages up to the Present Time (New York: Da Capo, 1975), p. 91.

<sup>103</sup>Byrne, "Schuchart," p. 10.

<sup>104</sup>Bate, p. 97.

<sup>105</sup>The Horniman Museum and Library's Catalogue of the Adam Carse Collection of Old Musical Wind Instruments (London: London County Council, 1951), pp. 25-26, states that the Chicago flute has only one foot key, but Jane Bowers has verified that it has in fact both keys. (See Bowers, pp. 38, 42.) The flute in the Chicago Historical Society, however, is not the earliest extant flute with a foot key as stated by Philip H. Peter in his New Grove Dictionary of Musical Instruments article. That distinction currently belongs to a six-keyed flute by Caleb Gedney dated 1769. The Gedney flute is preserved at the Museum of Fine Arts in Boston. (Bowers, p. 37. See also photographs in Solum, p. 61.)

<sup>106</sup>Laura E. Gilliam and William Lichtenwanger, comps., The Dayton C. Miller Flute Collection: A Checklist of the Instruments (Washington, D.C.: Library of Congress, 1961), p. 29 (no. 405); Shorey, "History and Buying Guide."

flute stamped 1782 in the Bate Collection,<sup>107</sup> features low C shanks which artfully vault over the C# key. The latest dated Potter Senior flute encountered during this study was a five-keyed ivory example in the Valenza Collection which is said to be marked 1791.<sup>108</sup> This date actually overlaps Potter's third period.

During his second period, Potter is supposed to have built a six-keyed flute which was acquired by the fledgling Irish flutist Andrew Ashe (ca. 1759-1838). In 1774 Ashe heard the flutist Vanhall (brother of the famous composer) perform in The Hague:

...The Sieur Vanhall...arrived at the Hague from London, and brought a flute, made by the present Mr. Potter's father [*i.e.*, by Richard], which had six keys... These additional keys on Vanhall's flute were in *his* hands only ornamental, as he had not acquired the use of them; but when young Ashe tried them, and found that they produced all the half notes as full and round as the tones natural to the instrument in its unkeyed state, he made up his mind to have this flute, *coute qui coute*; which he accomplished at a considerable price... This was about the latter end of 1774, when Ashe had not attained his sixteenth year.<sup>109</sup>

Ashe became a celebrated virtuoso, and was eventually recruited by Salomon to play in the Haydn concerts beginning in 1792. Salomon suspended his principal flutist, J. G. Graeff, who, though an able musician, did not however take advantage of Potter's new extended flutes:

GRAEFF executed a Flute Concerto with a very powerful tone and rapidity of finger. It was noticed that he played upon a Flute not of the new construction; it had no greater compass than D below.<sup>110</sup>

Ashe is also said to have played the flutes of Milhouse,<sup>111</sup> so it is difficult to say what his flute of choice was in 1792 during Haydn's historic visit--whether it was one by Potter, Milhouse, or some other maker--but it was no doubt a flute with foot keys of the type popularized by Potter.

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<sup>107</sup>Baines, p. 7 (no. 1028).

<sup>108</sup>Historic Flutes From Private Collections, p. 20.

<sup>109</sup>Sainsbury, *s.v.*, "Ashe (Andrew)".

<sup>110</sup>The Oracle, 10 March 1792, quoted by H. C. Robbins Landon, Haydn: Chronicle and Works, Vol. 3, Haydn in England, 1791-1795 (Bloomington, Indiana: Indiana University Press, 1976), p. 144.

<sup>111</sup>Charles Nicholson, School for the Flute, Vol. 1 (New York: William Hall & Son, 1836; reprint ed., Somerville, Massachusetts: Peter Bloom, 1989), pp. 5-6.

Jane Bowers identifies another possible customer of Potter's:

Almost certainly the Duc de Guines for whom Mozart wrote the flute and harp concerto had a six-key English flute similar to these Potter and Gedney instruments. The duke had been ambassador to London until 1776, where he would have had the opportunity to learn about the instrument and to acquire one. This is confirmed by several passages in the concerto in which Mozart included not only low  $d' \flat$  and  $c'$ , but also a long  $a' \flat$  marked with a crescendo to *forte*, which would have been impossible to make on the weak cross-fingered  $a' \flat$  of the one-key flute. Since the second movement of the concerto is in F major, it contains a number of passages which would benefit from the use of the  $f'$  and  $b' \flat$  keys on long notes, although these passages are playable on the one-key flute.<sup>112</sup>

Two obvious signs of Potter's success occurred toward the end of the second period. In 1779, he was elected Upper Warden by the Turners' Company; in 1782, he was elected Master.<sup>113</sup> Three years later, Potter was able to afford a home separate from his shop. During this period most artisan-shopkeepers lived above their shops; therefore, Potter must have been quite secure financially.

Third period. Richard Potter's third period began about 1785, the year of his landmark patent, no. 1499. Shorey describes this flute as "...perhaps the most popular and influential single instrument from the time of Hotteterre to the introduction of the Boehm flute."<sup>114</sup> Potter signed his patent flutes POTTER | JOHNSON'S COURT | FLEET STREET | LONDON. Four of the Museum's flutes, nos. 4337, 4440, 2360, and 2357, date from Potter's third period. Most of the features in this patent were not original, but they had not yet been patented in England, and patents at the time carried no force beyond their country of origin. The flute described in the patent incorporated pewter plug keys, a tuning slide, a screw cork adjuster, and a register.

**Pewter plug keys.** The key heads, which Potter called "valves," were made of soft pewter in the shape of flattened cones flexibly attached to their shanks. The pewter plugs closed over holes with metal inserts. This design obviated the need to maintain leather pads on the keys. The flute shown in the specification has four keys ( $B \flat$ ,  $G \sharp$ , F,  $D \sharp$ ), but Potter's most popular model had six keys ( $B \flat$ ,  $G \sharp$ , F,  $D \sharp$ ,  $C \sharp$ , C).

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<sup>112</sup>Bowers, p. 38.

<sup>113</sup>Stanley-Stone, p. 295.

<sup>114</sup>Shorey, "History and Buying Guide."



The pewter plugs, which were the only original feature in Potter's patent, were commonplace on English flutes even as late as 1850.<sup>115</sup> Even when saltspoon keys had become popular *ca.* 1825, foot keys were often still fitted with pewter plugs. Potter's pewter plugs were small and closed over metal-lined holes. Later, as tone hole diameters widened, makers like Rudall & Rose made larger plugs which seem to have necessitated a different sort of seating. These closed over key beds in the form of metal plates surrounding the hole. The plates presumably could be more easily machined for precise seating.

According to Rockstro and Langwill, it was Johann Friedrich Boie of Göttingen who invented the pewter plug.<sup>116</sup> But Bowers gives Potter more credit, since she recently discovered that in 1794 Boie advertised flutes made in the style of Potter.<sup>117</sup> Apparently Boie was emulating Potter, and not the other way around. Even earlier, in 1791, Friedrich Hammig of Vienna advertised his wind instruments, including flutes with plug keys in the English style of Potter.<sup>118</sup> Potter's work was obviously well-known on the Continent.

Potter's patent flute featured three different tuning devices: a tuning slide, screw cork adjuster, and register. All three of these devices were developed in the early eighteenth century. Potter added numbered graduations to these devices, and as much as possible designed the flute to play in tune when the numbers were made to correspond.

**Tuning slide.** The head joint consists of airtight telescoping metal tubes with an outer tube of wood. The pitch of the instrument could be adjusted by pulling apart or pushing together the two sections of the head joint. The tuning slide meant the flutist no longer had to carry *corps de rechange* about in order to cope with varying standards of pitch. The numbers on the graduations corresponded to the numbers on the old *corps de rechange* (compare to the Museum's Astor flute below).

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<sup>115</sup>Bate, p. 218. By 1890, pewter plugs were used only on a few inexpensive flutes, the modern flat cup having superseded it. Rockstro, ¶385, pp. 197-198.

<sup>116</sup>Rockstro, ¶384, p. 197; Lyndesay G. Langwill, "F. Boie of Göttingen (1762-1809)," Galpin Society Journal 14 (1961): 72.

<sup>117</sup>Bowers, p. 38. John Solum, on the other hand, credits Boie with the invention. Solum, p. 64.

<sup>118</sup>*Ibid.*, p. 39.

Tuning slides first appeared on the Continent before 1750. Quantz, in his autobiography of 1754, describes a head joint with an extra socket and tenon. The disadvantage of this early version of the tuning slide was that, when the slide was pulled out, it left a recess in the bore. Later, telescoping metal tubes inside the head joint provided a more consistent bore by eliminating this gap.<sup>119</sup> Soon the metal tubes were extended so that the entire head joint was lined with metal. This complete metal lining was characteristic of Potter's patent flutes and became a prominent feature of nineteenth-century English flute making.<sup>120</sup> According to Rockstro, the advantages of the metal-lined head joint were its brilliant tone and its resistance to cracking. This last assertion, however, has not been borne out by time. The hundreds of extant cracked metal-lined head joints illustrate the instability of the design: as the wood became dryer, it contracted until the metal tube became too constraining, at which point the wood cracked to relieve the stress. However, these head joint cracks, while disfiguring, usually do not significantly affect the playing ability of the instrument (unless the crack runs across the embouchure), since the metal tubes are essentially airtight.

**Screw cork adjuster.** By moving a screw projecting through the head cap, the position of the cork could be adjusted so that it would correspond to the position of the tuning slide.

**Register.** The foot joint in Potter's patent is equipped with telescoping metal tubes similar to those of the head joint, so that the length of the foot joint could be adjusted to compensate to some extent when the tube was lengthened elsewhere. Potter supplied registers only to flutes without low C and C# keys. The register first appeared after *ca.* 1720, and has been attributed to Pierre Gabriel Buffardin, Quantz's teacher.<sup>121</sup> Quantz did not approve of it, but the flute improver J. G. Tromlitz spoke approvingly of it in 1791.<sup>122</sup>

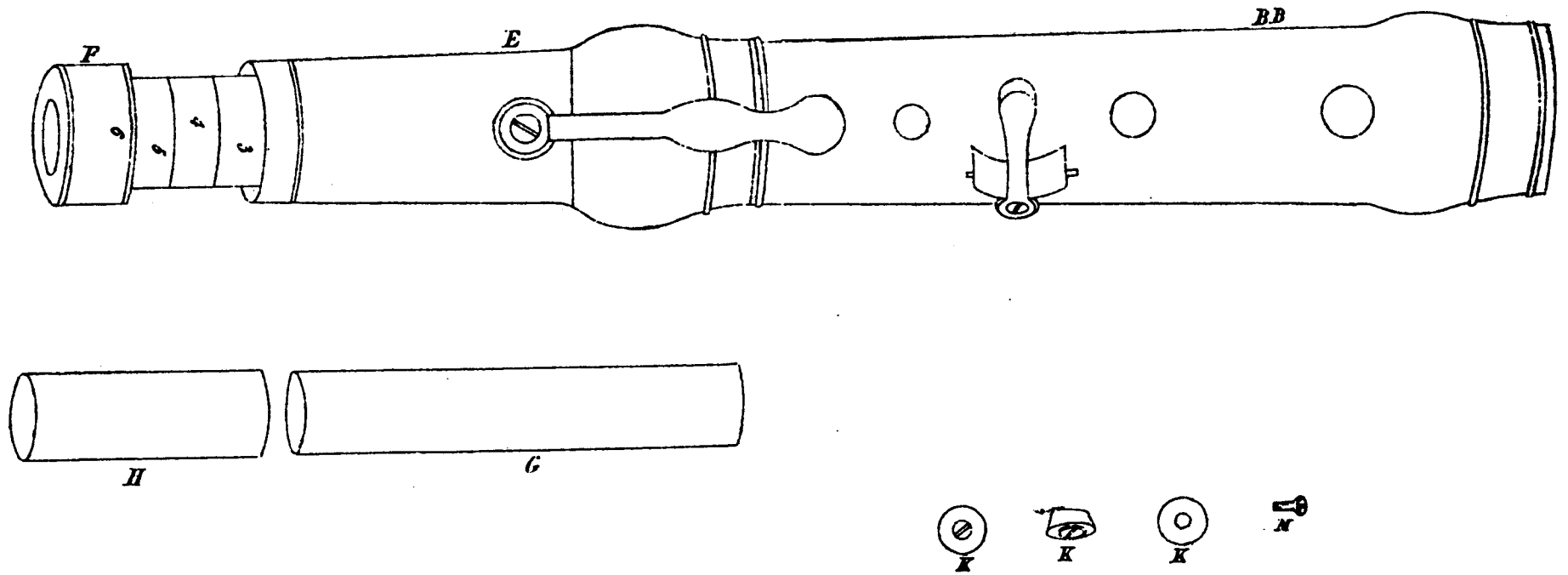
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<sup>119</sup>Bate, p. 93.

<sup>120</sup>*Ibid.*; Rockstro, ¶318, pp. 143-144.

<sup>121</sup>Nancy Toff, The Development of the Modern Flute (Urbana, Illinois: University of Illinois Press, 1986), p. 45.

<sup>122</sup>Johann George Tromlitz, The Virtuoso Flute-Player, translated and edited by Ardal Powell, Cambridge Musical Texts and Monographs (Cambridge: Cambridge University Press, 1991), p. 36.



Potter's 1785 Patent flute. An excerpt from the patent specification, showing the register, pewter plugs, and telescoping metal tubes for the foot.

Acoustically speaking, the lengthening or shortening of the bore demands a respacing of the finger holes. Since this is not practicable, the screw cork adjuster and register allowed minor adjustments in order to maintain some sort of equilibrium when the tuning slide in the head joint was moved. Rockstro explains how the cork was positioned: "...it may be roughly stated that the stopper should be *pushed in* to an extent varying from an eighth to a quarter of the distance of the *drawing out* of the [tuning] slide."<sup>123</sup> Conversely, the register was pushed in or pulled out in the same direction as the tuning slide. The positioning of these tuning devices was made more convenient on the Potter flute due to its clearly numbered graduations.

The English style flute, then, as developed by Potter, featured pewter plug keys and a metal-lined head joint with a tuning slide. The tone of the English flute tended to be even because the additional keys eliminated the necessity for certain cross fingerings which altered tone quality. The metal-lined head joint meant that most English flutes tended to produce a rather bright sound.<sup>124</sup> The English style of flute contrasts with German flutes, which tended to have *corps de rechange* instead of tuning slides, and flat, leather-padded keys. The German flutes, without metal head linings, tended to produce a more covered sound.<sup>125</sup>

The Potter flutes had a very high reputation and were expensive, and the inevitable problem of fake Potter flutes arises. A close examination of many flutes signed POTTER | LONDON (lacking the characteristic scroll or Johnson's Court address) reveals them to be spurious imitations. In fact, two such impostors were uncovered in the Museum's collection, and these are described in the section below, Flutes By Unidentified Makers (p. 207). They were obviously made by nineteenth-century hucksters attempting to capitalize on Potter's reputation. These fakes were commonly made of inferior materials, and most of them play poorly.<sup>126</sup>

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<sup>123</sup>Rockstro, ¶332, p. 156.

<sup>124</sup>*Ibid.*, p. 39. Even the Museum's no. 4166, an early Potter flute which has a simple unlined head joint, has a bright sound. Roderick Cameron to Efrim Fruchtman, 23 June 1981.

<sup>125</sup>Bowers, pp. 38-39.

<sup>126</sup>Shorey, "History and Buying Guide."

**William Henry Potter.**

The Museum owns two flutes by William Henry Potter (nos. 4439 and 4291). William Henry was apprenticed to his father in 1774, the same year Richard is said to have made Ashe's flute. He received his freedom of the Turners' Company in 1788, when he was in his late twenties. Twelve years later, Richard retired, leaving William Henry in charge of the shop. It is not known exactly when the stamp was changed from POTTER to WILL<sup>M</sup> · HEN<sup>Y</sup> POTTER. This may not have occurred until Richard died in 1806, and the shop passed officially to William Henry through the action of Richard's will. William Henry continued at 5 Johnson's Court until *ca.* 1814, when he moved a short distance away to Wine Office Court. In 1834, he left that address and worked from the family home at 5 Pemberton Row until retiring in 1837 to Bromley, Kent. No instruments marked with the Wine Office Court or Pemberton Row address are known to this writer.

During the last fifteen years of Richard Potter's active career, the only major change in his style was the flattening of the vaulted C $\sharp$  shank, which, although attractive, had a tendency to become bent. William Henry continued much in the style of his father, but on the other hand tried a number of new ideas. For example, the flutes by William Henry show a greater variety of woods. While the predominant wood was still boxwood, William Henry chose ebony more often than his father. William Henry also produced more seven-, eight-, and nine-keyed flutes. There are a few seven- and eight-keyed flutes by Richard, but some of these clearly were originally six-keyed flutes. An example of this is the seven-keyed flute in the Stearns Collection (no. 564).<sup>127</sup> An examination of the list of extant Potter flutes in Appendix B (pp. 324-329) gives some idea of the changes in woods and number of keys from father to son. John Solum, who cites Wragg's Improved Flute Preceptor (1806), states that William Henry designed a high C key which was placed in line with the G $\sharp$  key and controlled by the left-hand index finger.<sup>128</sup> Another change is that William Henry's tone holes tend

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<sup>127</sup>James M. Borders, European and American Wind and Percussion Instruments: Catalogue of the Stearns Collection of Musical Instruments, University of Michigan (Ann Arbor, Michigan: University of Michigan Press, 1988), p. 21.

<sup>128</sup>Solum, p. 63.

to be larger than those of his father. The table of tone hole dimensions below bears this out. Philip Peter states that, unlike Richard, William Henry occasionally left out the metal inset for the holes covered by pewter plugs.<sup>129</sup> This difference is not apparent in the Museum's examples. However, these examples do reveal that William Henry was perhaps less consistent in fitting his turned blocks and turned rings with metal sleeves.

Another departure of William Henry's was his patent, no. 3136 of 1808, which was for a glide mechanism. The famous flute virtuoso Charles Nicholson, in his showy performances of national airs, variations, and similar display pieces, popularized an ornament called the glide (a portamento). This was normally accomplished by gradually sliding the finger on or off a finger hole.<sup>130</sup> William Henry Potter's patent describes a mechanism enabling this effect on keyed notes. When a key was pressed, springs caused the key head to slide across the tone hole, producing a portamento. This innovation was not widely adopted, and it may not even have reached the production stage, since no surviving flutes with the patented glide mechanism were discovered during this study. Certainly this patent had not the far-reaching effect of Richard Potter's 1785 patent.

This is not to say that the Potter firm did not continue to thrive under William Henry's management. Like his father, he held offices in the Turners' Company: Upper Warden in 1802 and Master in 1805.<sup>131</sup> When Nicholson arrived in London about 1815, he states that Potter's flutes were, along with Milhouse and Monzani, the most reputable in London, and he himself played a Potter flute. Since Richard Potter had been dead several years by this time, he was presumably speaking of William Henry Potter.<sup>132</sup> Furthermore, by the time William Henry died in 1848, he had amassed a £40,000 fortune. This was no small accomplishment for a grandson of a lavender grower.

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<sup>129</sup>New Grove Dictionary of Musical Instruments, s.v., "Potter," by Philip H. Peter.

<sup>130</sup>Catherine Smith, "Special Expressive Characteristics of the Pre-Boehm Transverse Flute, I," Woodwind World 13, no. 4 (1974): 28, 34.

<sup>131</sup>Stanley-Stone, p. 296.

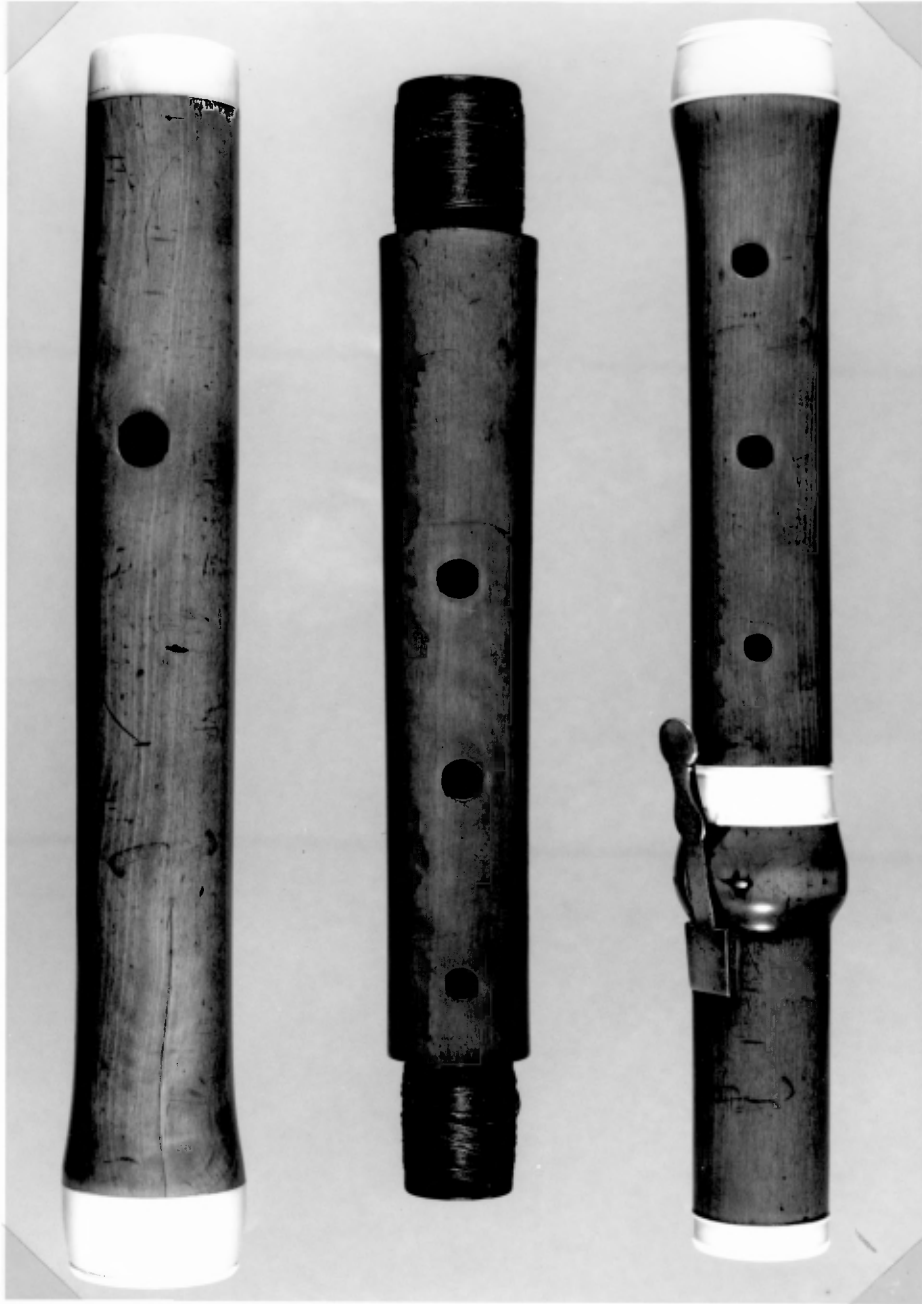
<sup>132</sup>Nicholson, pp. 5-6.

## COMPARISON OF POTTER HOLE DIAMETERS

Catalog number	<u>Finger Hole Diameters (in millimeters)</u>					
	I	II	III	IV	V	VI
<u>Richard</u>						
4166	7.0	7.0	5.3	6.0	6.0	4.9
4438	6.8	6.8	5.6	6.1	6.1	5.0
4337	6.9	7.0	5.4	6.9	6.5	5.0
4440	6.5	6.5	5.5	6.2	6.2	4.9
2360	6.9	6.9	5.3	6.5	6.5	5.0
2357	6.5	6.5	5.4	6.2	6.2	5.0
<u>William Henry</u>						
4439	6.0	7.5	6.0	7.0	7.9	5.5
4291	6.2	7.1	6.0	7.0	7.0	5.0

Embouchure Diameters (in millimeters)

Catalog number	Longitudinal axis	Latitudinal axis
<u>Richard</u>		
4166	9.8	9.2
4438	9.0	8.5
4337	9.9	8.5
4440	10.0	9.0
2360	10.0	10.0
2357	9.8	9.1
<u>William Henry</u>		
4439	10.9	10.2
4291	10.4	10.3



No. 4166. Flute by Richard Potter.



## FLUTE

**Catalog number:** 4166

**Maker:** Richard Potter

**Date:** ca. 1750-1770

**Inscriptions:** All joints: [on a scroll] POTTER LONDON

**Acquisition history:** Purchased from Efrim Fruchtman of Memphis, Tennessee. Arne B. and Jeanne F. Larson Endowment Fund, 1987.

**Description:**1. Measurements

Overall length: 60.8 cm  
 Embouchure: 9.8 mm x 9.2 mm (shape of embouchure has been altered)  
 Sounding length: 53.5 cm

2. Pitch

Six-finger note: d  
 Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

One silver key (D#) with plain square key head is mounted on a turned ring.

**Condition:**

The flute is in excellent condition, having been restored by Roderick Cameron of San Francisco, California, in 1981.<sup>133</sup> Cameron replaced the old ivory rings, which he identified as mastodon ivory. Underneath the new ivory, Cameron reinforced the sockets with metal bands. The bands close up cracks in the head joint and lower middle joint, and discourage the cracks from extending further. The head cap appears to be the original ivory. A crack in one shoulder of the turned ring has been repaired.

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<sup>133</sup>Roderick Cameron to Efrim Fruchtman, 23 June 1981.



No. 4438. Flute by Richard Potter.

**Notes:**

The stamp on the head joint is slightly off-center, so that, when all the stamps are lined up, the embouchure hole is slightly closer to the player. Earlier in its history, the shape of the embouchure was slightly altered by some rectangular blunt instrument. According to Roderick Cameron, the instrument's pitch is approximately A=428.<sup>134</sup> David Shorey places this flute "...among the finest English Classical one-keyed flutes surviving today."<sup>135</sup>

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**FLUTE**

**Catalog number:** 4438

**Maker:** Richard Potter

**Date:** ca. 1750-1770

**Inscriptions:** All joints: [on a scroll] POTTER LONDON

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson bought the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, along with twenty-four other woodwind instruments.

**Description:**1. Measurements

Overall length: 60.8 cm  
 Embouchure: 9 mm x 8.5 mm  
 Sounding length: 53.7 cm

2. Pitch

Six-finger note: d  
 Lowest note: d

3. Construction

Boxwood body in four joints. Three ivory ferrules and ivory head cap. The crude bone ferrule around the head socket is a later replacement. Conical bore. This flute is a good example of the stepped tone hole undercutting peculiar to Potter.

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<sup>134</sup>Roderick Cameron to Efrim Fruchtman, 23 June 1981.

<sup>135</sup>David Shorey, "Appraisal of a flute by Richard Potter of London, owned by Efrim Fruchtman of Memphis, Tenn.," 15 June 1981.





No. 4337. Flute by Richard Potter.

### 3. Construction

Ivory body in five sections. Ivory head cap. The narrow metal band encircling the head joint is a later attempt to close the crack running the length of the joint (wear marks indicate the head joint once had two other such bands). Conical bore. Characteristic Potter tone hole undercutting.

### 4. Mechanism

Six silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). Only the touchpiece and shank of the C $\sharp$  key survive; the key head has been lost. The channels of the turned blocks and rings are lined with silver sleeves. The key heads are pewter plugs and close over metal-lined tone holes.

The shank of the low C key is vaulted over the C $\sharp$  key, and the touchpieces of the low C and C $\sharp$  have small decorative notches. These are features of Potter flutes made shortly after the 1785 patent.<sup>137</sup> The vaulting of the low C key was an attractive design, but was abandoned in favor of a curved shank which fit closer to the flute body, probably because the vaulted shank was prone to accidental bending.<sup>138</sup>

The low C and C $\sharp$  keys share another feature peculiar to Richard Potter's flutes. Their flat brass springs, at the point where they are riveted to the shanks, are shaped in the form of a P for Potter.<sup>139</sup>

The head joint is fully lined with brass and has a tuning slide with graduations marked 4 and 5 (visible when the slide is extended). When the slide is completely closed, the only number visible is 6, which is stamped on the barrel above the signature. The tube is longest when extended to 4.

There is also an ivory screw cork adjuster with graduations corresponding to the tuning slide: the tip of the screw is marked 4, the first graduation on the side of the screw is marked 5, and the second graduation on the side of the screw is marked 6.

### **Condition:**

The flute is in fair condition. The head joint, which has been shortened at the cork end,<sup>140</sup> has a large crack. The pewter plug for low C $\sharp$  has been lost, although the shank and touchpiece both survive.

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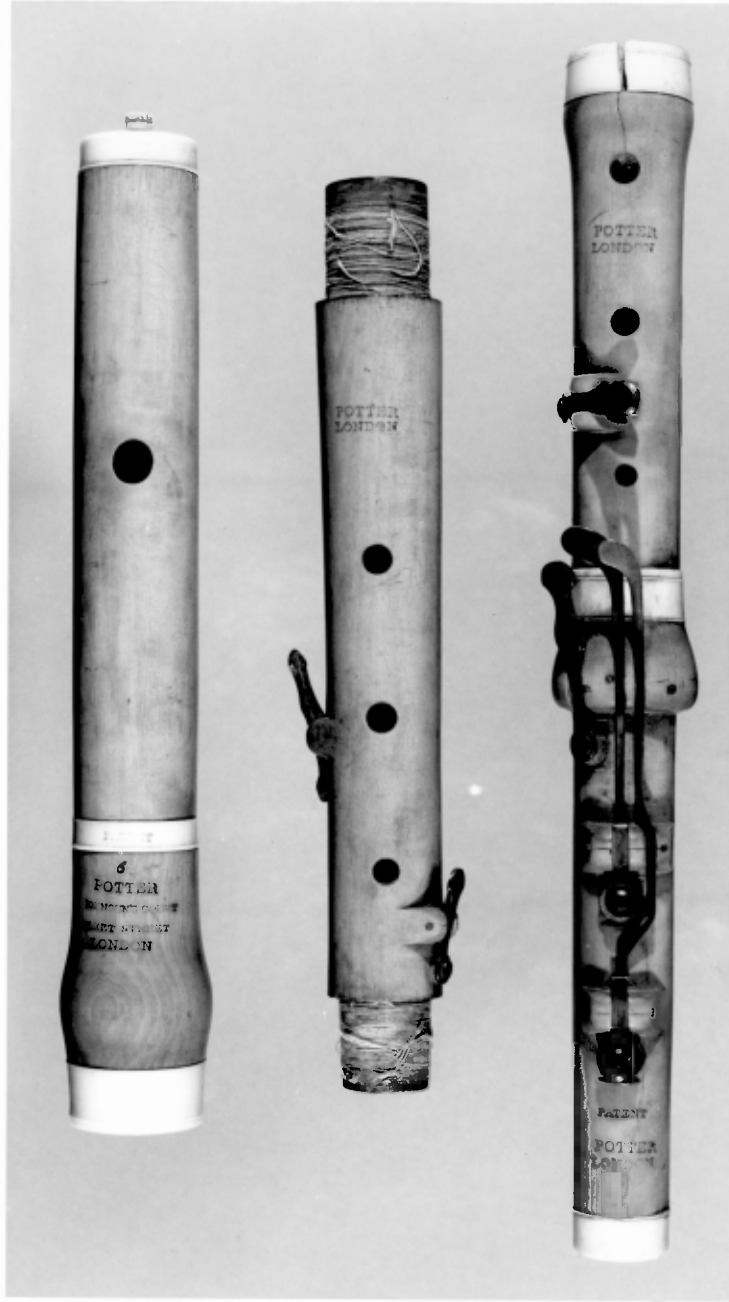
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<sup>137</sup>David Shorey, The 1990 Catalog of Flutes: Including a Complete Listing and Illustrations of Selected Instruments from The Gandalf Collection (Bowdoinham, Maine: David and Nina Shorey Antique Flutes, 1990), p. 5; and David Shorey, in a telephone conversation of 7 May 1991, to Amy Kreitzer.

<sup>138</sup>David Shorey, in a telephone conversation of 15 May 1991, to Amy Kreitzer.

<sup>139</sup>David Shorey, in a telephone conversation of 7 May 1991, to Amy Kreitzer.

<sup>140</sup>This alteration was probably made because pitch rose generally throughout Europe during the eighteenth and nineteenth centuries. Bate, p. 92.



No. 4440. Flute by Richard Potter.

## FLUTE

**Catalog number:** 4440

**Maker:** Richard Potter

**Date:** ca. 1790-1800

**Inscriptions:** Head joint, on ivory ring adjacent to barrel: **PATENT**  
 Barrel, with tuning slide extended: **4 | 5 | 6 | POTTER |**  
**JOHNSON'S COURT | FLEET STREET | LONDON**  
 Middle joints: **POTTER | LONDON**  
 Foot: **PATENT | [space] | POTTER | LONDON**

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988.

**Description:**1. Measurements

Overall length: 66.9 cm  
 Embouchure: 10 mm x 9 mm  
 Sounding length: 59.3 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore. Stepped, bell-shaped undercutting of tone holes.

4. Mechanism

Six silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The key heads are pewter plugs and close over metal-lined tone holes. The springs for the low C and C $\sharp$  are in the shape of a P for Potter.

The touchpieces for low C and C $\sharp$  are plain, without decorative notches. The low C shank runs close to the wood instead of being vaulted. These two features suggest that this flute was made later than the ivory flute above (no. 4337).

The head joint is fully lined with metal and has a tuning slide with graduations marked **4** and **5** (visible when the slide is extended). When the slide is completely closed, the only number visible is **6**, which is stamped on the barrel above the signature. The bore is longest when extended to **4**.



There is also an ivory screw cork adjuster with graduations corresponding to the tuning slide: the tip of the screw is marked **4**, the first graduation on the side of the screw is marked **5**, and the second graduation on the side of the screw is marked **6**.

**Condition:**

The flute is in fair condition, with cracks in the head joint, barrel, and lower middle joint. The finish is worn, especially around the embouchure and finger holes; evidently, the instrument was well-liked and much played.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 2360

**Maker:** Richard Potter

**Date:** ca. 1785-1800

**Inscriptions:** Head joint, on ivory ferrule adjacent to barrel: **PATENT**  
 Barrel (tuning slide is frozen shut): **6 | POTTER |**  
**JOHNSON'S COURT | FLEET STREET | LONDON**  
 Middle joints: **POTTER | LONDON**  
 Foot, just below lowest key: **POTTER | LONDON**  
 Foot, near the register (frozen shut): [on ivory ferrule] **PATENT**  
 | [on wood] **6**

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>141</sup> Larson probably obtained the instrument from Houghton Music Company, of Blackpool, England, in the 1930's or 1940's.

**Description:**

1. Measurements

Overall length:	60.4 cm
Embouchure:	10 mm x 10 mm
Sounding length:	53.5 cm
  
2. Pitch

Six-finger note:	d
Lowest note:	d

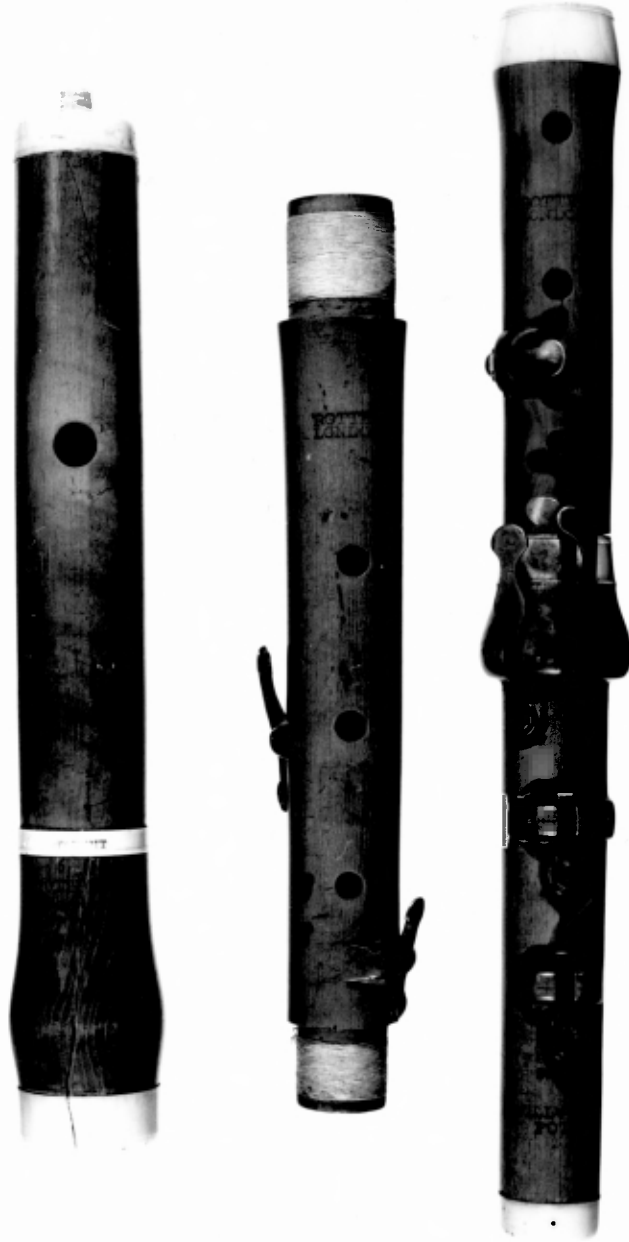
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<sup>141</sup>Arne B. Larson, unpublished inventory, no. 312.



No. 2360. Flute by Richard Potter.





No. 2357. Flute by Richard Potter and William Henry Potter.

**Description:**1. Measurements

Overall length: 66.5 cm  
 Embouchure: 9.8 mm x 9.1 mm  
 Sounding length: 59.2 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Six silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The channels of the block mounts for the B $\flat$ , G $\sharp$ , and F keys are lined with silver sleeves. The key heads are pewter plugs and close over metal-lined tone holes. Flat brass springs are attached to the key shanks.<sup>143</sup>

The head joint is fully lined with metal and has a tuning slide with graduations marked 4 and 5 (visible when the slide is extended). When the slide is completely closed, the only number visible is 6, which is stamped on the barrel above the signature. The bore is longest when extended to 4.

There is also an ivory screw cork adjuster with graduations corresponding to the tuning slide: the tip of the screw is marked 4, the first graduation on the side of the screw is marked 5, and the second graduation on the side of the screw is marked 6.

**Condition:**

The flute is in fair condition, having serious cracks in the head joint, barrel, and ivory ferrule on the foot joint (the ferrule has been pinned).

**Notes:**

This is apparently a composite instrument, the top three joints having been made by Richard Potter, and only the foot joint having been made by William Henry Potter. The parts appear to have been assembled not in the Potter workshop, but by some later collector or player. The tenon end of the lower middle joint has been crudely shortened, probably in an attempt to adjust to the rising pitch in Europe during the eighteenth and nineteenth centuries.

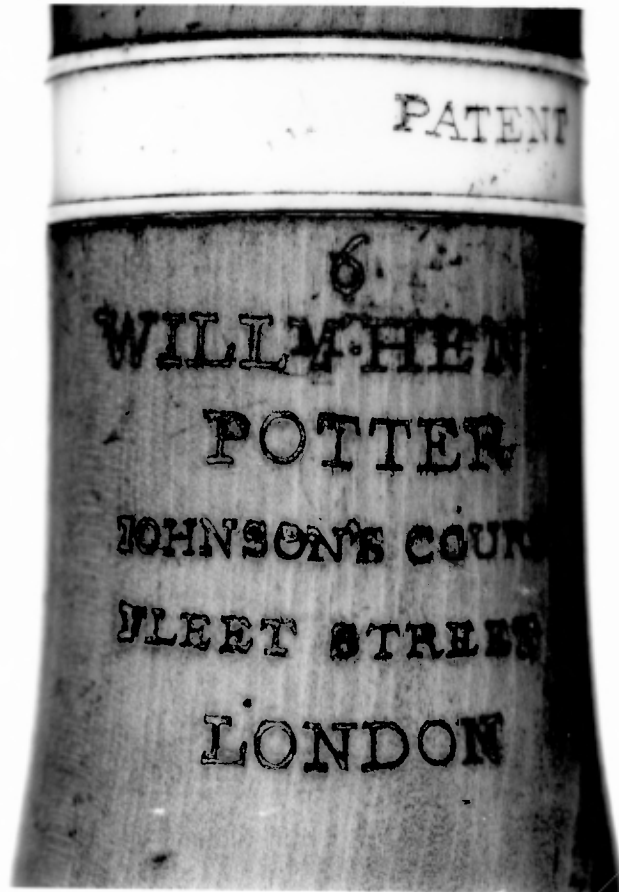
\* \* \* \* \*

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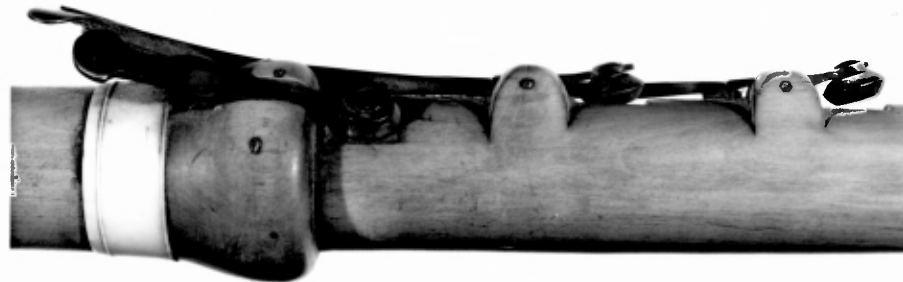
<sup>143</sup>The springs for the C $\sharp$  and low C keys are not "P"-shaped. Perhaps by the time he made this foot joint, William Henry had abandoned the "P for Potter" springs of his father.



No. 4439. Flute by William Henry Potter.



No. 4439. Detail of barrel signature.



No. 4439. Detail of patent keys.

## FLUTE

**Catalog number:** 4439

**Maker:** William Henry Potter

**Date:** ca. 1800-ca. 1814

**Inscriptions:** Head joint, on ivory ferrule adjacent to barrel: PATENT  
 Barrel (tuning slide is frozen shut): 6 | WILL<sup>M</sup> · HEN<sup>Y</sup> |  
 POTTER | IOHNSON'S COURT | FLEET STREET |  
 LONDON  
 Middle joints: WILL<sup>M</sup> · HEN<sup>Y</sup> | POTTER  
 Foot: PATENT | [space] | WILL<sup>M</sup> · HEN<sup>Y</sup> | POTTER

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988.

**Description:**1. Measurements

Overall length: 66.3 cm  
 Embouchure: 10.9 mm x 10.2 mm  
 Sounding length: 59.6 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Six silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The key heads are pewter plugs and close over metal-lined tone holes. The springs for the C $\sharp$  and low C are in the shape of a P for Potter.

The head joint is fully lined with metal and has a tuning slide. The tuning slide is now frozen, but if it could be extended, graduations labeled 4 and 5 would probably be revealed. With the slide shut as it is, only the number 6 is visible on the barrel.

There is also an ivory screw cork adjuster with graduations corresponding to the tuning slide: the tip of the screw is marked 4, and the second graduation on the side of the screw is marked 6. There is a chip in the screw on the first graduation, obliterating 5.



**Condition:**

The flute is in excellent condition, one of only a few with metal-lined head joints which have escaped cracking. The foot cap is chipped and cracked and was pinned at one time. The finish is quite worn around the embouchure and finger holes.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 4291

**Maker:** William Henry Potter

**Date:** ca. 1800-ca. 1814

**Inscriptions:** Barrel, with tuning slide extended: 4 | 5 | 6 | WILL<sup>M</sup> · HEN<sup>Y</sup> |  
POTTER | JOHNSON'S COURT | FLEET STREET |  
LONDON  
Middle joints: WILL<sup>M</sup> · HEN<sup>Y</sup> | POTTER  
Foot: PATENT | [space] | WILL<sup>M</sup> · HEN<sup>Y</sup> | POTTER

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>144</sup> Larson possibly obtained this flute from Houghton Music Company of Blackpool, England, in 1948.

**Description:**1. Measurements

Overall length: 60 cm  
Embouchure: 10.4 cm x 10.3 cm (head joint cracked across embouchure)  
Sounding length: 51.9 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore. Stepped, bell-shaped tone hole undercutting.

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<sup>144</sup>Arne B. Larson, unpublished inventory, no. 481.

4. Mechanism

The flute originally had four silver keys mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ), but only the G $\sharp$  and F keys have survived. The key heads are pewter plugs and close over metal-lined tone holes.

The head joint is fully lined with metal and has a tuning slide with graduations marked 4 and 5 (visible when the slide is extended). When the slide is completely closed, the only number visible is 6, which is stamped on the barrel above the signature. The bore is longest when extended to 4.

There is also an ivory screw cork adjuster with graduations corresponding to the tuning slide: the tip of the screw is marked 4, the first graduation on the side of the screw is marked 5, and the second graduation on the side of the screw is marked 6.

**Condition:**

The flute is in poor condition, having lost two of its keys and cracked across the embouchure.

JOHN PARKER

John Parker made piccolos, flutes, flageolets, and bassoons at 52 Long Lane, Southwark, from about 1770 until 1804. He then moved to 3 Angel Court, Strand, where he remained until about 1815.<sup>145</sup> He is said to have invented the cross-blown flageolet.<sup>146</sup> Parker's surviving flutes seem to be predominantly one-keyed or four-keyed boxwood models.

\* \* \* \* \*

**PICCOLO**

**Catalog number:** 2708

**Maker:** John Parker

**Date:** ca. 1770-1815

**Inscriptions:** Head joint: **D | PARKER | LONDON | 8**  
Middle joint and foot: **PARKER**

**Acquisition history:** Purchased by the Shrine to Music Museum Foundation from Peggy Baird of Clinton, Tennessee, in 1980.

**Description:**1. Measurements

Overall length: 29.9 cm  
Embouchure: 8 mm x 7.2 mm  
Sounding length: 27.5 cm

2. Pitch

Six-finger note: d<sup>1</sup>  
Lowest note: d<sup>1</sup>

3. Construction

Stained boxwood or fruitwood (?) body in three joints. Conical bore.

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<sup>145</sup>New Langwill Index (forthcoming). The move to Angel Court, Strand, must have been a step up from his premises in Long Lane, which was known for its second-hand clothes sellers. Weinreb and Hibbert, s.v., "Long Lane."

<sup>146</sup>Langwill, "London Wind-Instrument Makers," p. 100.

4. Mechanism

A single brass key is mounted on a turned ring (D♯). The key head is square, with beveled edges and notched corners.

**Condition:**

The piccolo is in good condition. There is a crack in the head joint which has been glued.

**Notes:**

See the remarks on the development of the nineteenth-century piccolo below in connection with Metzler (p. 121).

## PRESTON

The Preston family enterprise was established about 1774 in Longacre by John Preston, a maker of violins and guitars. After 1775, the firm occupied addresses in the Strand for nearly fifty years.<sup>147</sup> Preston claimed to sell "the greatest variety of new music and musical instruments, ruled paper, etc., wholesale and retale [*sic*]."<sup>148</sup> Best known as music publishers, the firm engaged in the complete publication process: printing, publishing, and selling.<sup>149</sup> Among Preston's many publications were operas, country dances, songs, keyboard music, Preston's Pocket Companion for the German Flute (in four volumes, *ca.* 1785-*ca.* 1800),<sup>150</sup> and instructional books such as Nicholson's Flute Preceptor (*ca.* 1818).<sup>151</sup> Since John Preston's background was in string instrument making, and the firm's music publishing was so extensive, it seems more likely that Preston merely sold the flutes of other makers. He may have employed flute makers, but it is unlikely that he ever made flutes himself. An extant flute signed "Preston, London, J. H. Powell London fecit" would seem to corroborate this; however, John Henry Powell described himself elsewhere as simply "Musical Instrument Seller."<sup>152</sup>

In 1789, the style of the firm became Preston & Son when John's son, Thomas, became a partner. Thomas continued working alone after his father died *ca.* 1800.<sup>153</sup> In 1823, he relocated to 71 Dean Street, Soho, where he worked until 1834.

Since all extant Preston flutes seem to be signed simply, **PRESTON | LONDON**, it is difficult to determine whether individual flutes were sold by John Preston, Preston & Son, or Thomas Preston.

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<sup>147</sup>New Grove Dictionary of Music and Musicians, *s.v.*, "Preston & Son," by Frank Kidson, William C. Smith, and Peter Ward Jones.

<sup>148</sup>Preston's 1776 advertisement quoted in Kidson, p. 106.

<sup>149</sup>Humphries and Smith, pp. 263-264. Incidentally, Humphries and Smith state that, "In an advertisement of 1778, John Preston claimed to be the original inventor of the method for tuning the guitar with a watch key" (p. 263).

<sup>150</sup>British Library, Catalog of Printed Music before 1800, *s.v.*, "Preston (John)."

<sup>151</sup>Eagle, p. 141.

<sup>152</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 16th May, 1978... (London: Sotheby Parke Bernet, 1978), Lot 13.

<sup>153</sup>Langwill, Index, *s.v.*, "Preston, John" and "Preston & Son."



No. 1511. Flute by Preston.

## FLUTE

**Catalog number:** 1511

**Maker:** John Preston, Preston & Son, or Thomas Preston  
(perhaps only distributors)

**Date:** ca. 1774-1834

**Inscriptions:** All joints: [curved] PRESTON | LONDON

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>154</sup> Larson obtained the flute from L. W. Anderson, of England, in 1938.

**Description:**1. Measurements

Overall length: 60 cm  
 Embouchure: 11 mm x 10.1 mm  
 Sounding length: 53 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The key heads are square, with beveled edges and notched corners.

**Condition:**

The instrument is in good condition. There are a few small cracks in the head joint and lower middle joint sockets, but the ivory is intact. The touchpiece of the D $\sharp$  key was reconstructed by Gary M. Stewart, who prepared the instrument for use by David Eagle in the recital, "Early Nineteenth-Century Music for Piano and Flute," at the Shrine to Music Museum, 28 February 1979.

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<sup>154</sup>Arne B. Larson, unpublished inventory, no. 480.

### ASTOR

George Peter Astor (1752-1813) and his younger brother, John Jacob Astor (1763-1848) shared humble roots as the sons of a butcher. They grew up in Waldorf, a village situated between Heidelberg and the Rhine in the Duchy of Baden. George Astor, who moved to London in his early twenties, was employed as an instrument maker by 1777, possibly with George Miller.<sup>155</sup> John Jacob Astor joined his brother in London about 1778, and together the two engaged in flute making.<sup>156</sup>

At the close of the war in America in 1783, an enterprising John Jacob Astor, with a consignment of his brother's flutes and some other musical merchandise, set off to seek his fortune in America. He landed in Baltimore and continued on to New York City, where he sold his entire stock by 1785. He invested the proceeds in furs, and went on to amass a legendary fortune in the fur trade and real estate. Until about 1802, he periodically returned to England to gather more instruments for sale in America.<sup>157</sup>

Meanwhile, George Astor remained in London. If he was not becoming quite as wealthy as his brother, he was prospering to the extent that he could move from his small workshop in Wych Street to larger premises at 79 Cornhill.<sup>158</sup> His flutes were favored by the famous soloist Charles Nicholson, and by his father before him.<sup>159</sup> George Astor also published music and made pianos, organs, clarinets, and bassoons.<sup>160</sup>

When George Astor died in 1813, his wife Elizabeth continued the business. From 1814-1819, she was in the partnership Astor & Horwood. This partnership was followed by another, Gerock,

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<sup>155</sup>New Grove Dictionary of Musical Instruments, s.v., "Miller, George," by Maurice Byrne.

<sup>156</sup>Kenneth Wiggins Porter, John Jacob Astor, Business Man, Harvard Studies in Business History, vol. 1 (Cambridge: Harvard University Press, 1931), vol. 1, pp. 3-8; and New Langwill Index (forthcoming).

<sup>157</sup>Porter, John Jacob Astor, vol. 1, pp. 9-23, 111-112, and 117.

<sup>158</sup>Kidson, p. 3.

<sup>159</sup>Nicholson, p. 6.

<sup>160</sup>New Langwill Index (forthcoming).



Astor & Co., from 1824-*ca.* 1827. Elizabeth probably retired or died *ca.* 1830, the date of the last directory listing.<sup>161</sup> None of George's four sons followed their father's line of work, although one of them became a music teacher in New York. George Astor died leaving his affairs rather involved, but his widow, sons, and four daughters happily benefited from John Jacob Astor's fortune.<sup>162</sup>

Surviving flutes by the Astor firm are primarily one-, four-, or six-keyed boxwood instruments with silver keys and ivory decoration. The Museum's example, with six keys and *corps de rechange*, is a superior flute. Its relatively small embouchure and vaulted C $\sharp$  key suggest the flute was made before 1800.

\* \* \* \* \*

#### FLUTE

**Catalog number:** 4840

**Maker:** George and John Astor, or George Astor, or Astor & Co.

**Date:** *ca.* 1778-1800

**Inscriptions:** Head, lower middle joint, foot: ASTOR | LONDON | [unicorn head]  
 Three *corps de rechange*, from longest to shortest:  
 4 | ASTOR | LONDON | [unicorn head]  
 5 | ASTOR | LONDON | [unicorn head]  
 6 | ASTOR | LONDON | [unicorn head]  
 There are score marks on the underside of the low C and C $\sharp$  keys.

**Acquisition history:** Higbee-Abbott Collection, 1989.<sup>163</sup> Dale Higbee of Salisbury, North Carolina, bought this flute from Philip Bate of London, in 1960.

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<sup>161</sup>New Langwill Index (forthcoming).

<sup>162</sup>Porter, John Jacob Astor, pp. 1027-1028.

<sup>163</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.



No. 4840. Flute by Astor.

**Description:**1. Measurements

Overall length:	66.9 cm (with <i>corps de rechange</i> marked 4)
	66.1 cm (with <i>corps de rechange</i> marked 5)
	65.3 cm (with <i>corps de rechange</i> marked 6)
Embouchure:	9 mm x 8.5 mm
Sounding length:	59.9 cm (with <i>corps de rechange</i> marked 4)
	59.1 cm (with <i>corps de rechange</i> marked 5)
	58.3 cm (with <i>corps de rechange</i> marked 6)

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Curly boxwood body in four joints with two extra upper middle joints. Four ivory ferrules and ivory head cap. Cork is a later replacement and is faced with a metal disc. Conical bore.

4. Mechanism

Six silver-plated keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The shank for low C is vaulted over the C $\sharp$  key. The key heads are square, with notched corners and beveled edges. The low C and C $\sharp$  keys are in the form of rocking key plates. The key beds are square with a scalloped bottom edge.

There is a graduated ivory screw cork adjuster.

5. Accessories

The instrument has its original mahogany case with floral marquetry pattern on the lid and felt lining.

**Condition:**

The instrument is in very good condition, although it has many small scratches. Bate had the flute "thoroughly cleaned up and the joints relapped."<sup>164</sup>

**Notes:**

Another photograph of this flute can be seen in either of the following articles:

"1989 Acquisitions at USD Music Museum." Newsletter of the American Musical Instrument Society 19 (February 1990): 15.

"Museum Makes Important Acquisitions Again in 1989." Shrine to Music Museum Newsletter 17 (January 1990): 4, 6.

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<sup>164</sup>Philip Bate to Dale Higbee, 20 July 1960.

### GOULDING & CO.

Goulding & Co. was a major firm of music sellers, music publishers, and musical instrument makers established in 1785 by George Goulding. He was joined around 1800 by Thomas D'Almaine (*ca.* 1784-1866), and other partners were sporadically associated with the firm. In 1834 George Goulding retired or died, and the firm became D'Almaine & Co. H. Edmund Poole summarizes the major partnerships:

1. *George Goulding 25 James Street Covent Garden, 1785-1798.*
2. *Goulding Phipps and D'Almaine 45 Pall Mall, 1798-1804*  
(from *c.*1806 the style changed to Goulding Phipps, D'Almaine & Co. or simply Goulding & Co. Phipps withdrew in *c.*1810).
3. *Goulding D'Almaine Potter & Co. 124 New Bond Street, c. 1810-11 and then 20 Soho Square, c.1811-1823.*  
(Also known as Goulding & Co. and occasionally *c.*1813, as Goulding, D'Almaine, Potter & Wood. Potter dropped out in 1823.)
4. *Goulding & D'Almaine 20 Soho Square, c. 1823-34.*
5. *D'Almaine & Co. 20 Soho Square, c.1834-58. 104 Bond Street, c.1858-1866.*<sup>165</sup>

In addition, Thomas MacKinlay (D'Almaine's nephew) was a partner in the 1840s. Goulding & Co. carried on an enormous trade, and their financial success is reflected by their lavish Soho Square premises, a fine old mansion which they acquired in 1811.<sup>166</sup>

Goulding & Co.'s role in musical instrument making is not clear. They described themselves as musical instrument makers, and *ca.* 1798 as military musical instrument makers, but they were also known to have sold the instruments of other makers.<sup>167</sup> The Complete Book of Trades, or the Parents' Guide and Youths' Instructor... describes three functions of the music seller: music publisher, music dealer, and musical instrument maker, usually of pianos and organs.<sup>168</sup> Goulding & Co.

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<sup>165</sup>H. Edmund Poole, "A Catalogue of Musical Instruments Offered for Sale in 1839 by D'Almaine & Co., 20 Soho Square," Galpin Society Journal 35 (1982): 3.

<sup>166</sup>Stately old mansions must have been available following the exodus of Soho's aristocratic residents in the late eighteenth century, when most of them moved to Mayfair. Around the turn of the century, professionals such as lawyers, dentists, architects, and auctioneers, began to move to Soho Square. Several musical instrument makers moved in during the early nineteenth century. Weinreb and Hibbert, *s.v.*, "Soho Square."

<sup>167</sup>Poole, pp. 4 and 8 and David Halton, "A Note on the Pianofortes," in Poole, p. 29.

<sup>168</sup>N. Whittock and others, The Complete Book of Trades, or the Parents' Guide and Youths' Instructor... (London: Thomas Tegg, 1842), quoted by Poole, p. 4.

seems to fit this description. The New Langwill Index lists Goulding & Co. as makers of pianos and organs only, although, according to David Halton, "There is still no evidence to indicate that the firm had its own piano manufactory..."<sup>169</sup> Poole again quotes The Complete Book of Trades:

"The same persons seldom manufacture, but buy of the respective artizans that *other kind* of instruments", the trumpets bugles and trombones. "Flutes, fifes, oboes, clarionets, bassoons and the intermediate *vox humane*... have each their separate and favourite makers, which a short experience teach the Music-seller how to appreciate."<sup>170</sup>

This implies that most music sellers like Goulding & Co. would have normally sold the flutes of other makers, rather than making their own.

However, Poole believes Goulding & Co. actively made woodwind instruments:

Fortunately there is ample evidence that the firm did make flutes, oboes, clarinets and bassoons throughout its history. Lyndesay Langwill's *Index of Wind-Instrument Makers* records the survival of many splendid instruments stamped with the name of the firm. In other standard reference works and in narrative accounts of the historical development of wind instruments the products of the Goulding & D'Almaine partnerships are shown to have been amongst the leaders in their class. Any fear that a particular flute, oboe, clarinet or bassoon might have been made by an independent skilful artizan and the D'Almaine brand *burnt on* later can only be allayed by informed connoisseurship applied to a comparison of the surviving instruments searching for "finger prints" of the firm's characteristic style.<sup>171</sup>

The fact that a certain Potter (a relation of Richard Potter, the flute maker) and the flute maker James Wood were both for a time partners in Goulding & Co. seems to support Poole's conclusion, since these partners probably brought an interest in flute making to the firm.<sup>172</sup>

Other authorities hold the opposite opinion that Goulding & Co. did in fact frequently apply their stamp to instruments supplied by other makers. F. G. Rendall believed woodwind instruments

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<sup>169</sup>Halton, in Poole, p. 29.

<sup>170</sup>Whitlock and others, quoted by Poole, p. 4.

<sup>171</sup>Poole, p. 8.

<sup>172</sup>A flute signed GOULDING | WOOD & CO. survives in the Royal College of Music Museum: Ridley, p. 13 (no. 326 FL/8). Another appeared at Sotheby's: Musical Instruments, Part I: ...First Day of Sale, Wednesday, 3rd November 1982... (London: Sotheby Parke Bernet, 1982), Lot 33. A flute in E♭ with the same signature is in the Bate Collection: Baines, Bate Collection, p. 15 (no. 1002).

stamped **GOULDING & CO.** were made by the Woods,<sup>173</sup> and the Museum's Goulding flutes do look very similar to those of James Wood. After 1816, James Wood was conveniently located in Soho near Goulding & Co., on New Compton Street. Since the Goulding instruments vary in pattern, Jeremy Montagu also suspects that they might have been made by other makers.<sup>174</sup> Perhaps makers like Key or Gerock were involved, since a Goulding flute reportedly stamped with the device of a unicorn's head appeared at a Sotheby's auction.<sup>175</sup>

Goulding & Co.'s publications consisted mainly of popular works such as country dances, excerpts from operas, songs, and pieces for military band. Around 1810, the firm capitalized on a genre in vogue amongst amateur musicians, the piano and harp duet with flute accompaniment *ad lib.*<sup>176</sup> An early Goulding publication was Aird's "Selection of Scotch, English, Irish and Foreign Airs for the Flute."<sup>177</sup>

Most flutes sold by Goulding & Co. were medium-quality boxwood instruments with ivory decoration and one, four, or six keys. Many of them feature Potter's tuning slide and pewter plug keys.

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<sup>173</sup>New Langwill Index (forthcoming). Lyndesay G. Langwill, in his "London Wind-Instrument Makers of the Seventeenth and Eighteenth Centuries," Music Review 7 (May 1946): 98, also states this possibility. Some Goulding instruments are clearly marked **J. Wood fecit**. Others are stamped **Jas. Wood & Son, Makers** on the foot joint, such as a flute in the Robert A. Lehman Collection. See Historic Flutes from Private Collections, p. 22. Goulding clarinets and bassoons also exist, similarly marked.

<sup>174</sup>Jeremy Montagu, "New Grove DoMI: JM 6; Further Detailed Comments: The Gs," FOMRHI Quarterly, no. 45 (October 1986): 21.

<sup>175</sup>Musical Instruments: ...Day of Sale, Monday, 20th July 1981... (London: Sotheby Parke Bernet, 1981), Lot 2.

<sup>176</sup>Halton, in Poole, pp. 29-30.

<sup>177</sup>Kidson, p. 54.

## COMPARISON OF GOULDING HOLE DIAMETERS

Catalog number	<u>Finger Hole Diameters (in millimeters)</u>					
	I	II	III	IV	V	VI
<u>Goulding &amp; Co.</u>						
4611	6.4	6.7	6.0	6.7	6.7	5.1
3247	7.0	7.0	6.2	6.8	6.9	5.3
4292	7.0	6.8	6.2	6.8	6.8	5.2
<u>Goulding, D'Almaine, Potter</u>						
4431	7.1	7.1	6.8	7.4	6.8	5.0
<u>Goulding &amp; D'Almaine</u>						
4434	7.0	8.0	6.4	7.3	8.0	5.5

Catalog number	<u>Embouchure Diameters (in millimeters)</u>	
	Longitudinal axis	Latitudinal axis
<u>Goulding &amp; Co.</u>		
4611	9.8	9.3
3247	10.4	9.3
4292	12.0	10.9
<u>Goulding, D'Almaine, Potter</u>		
4431	10.2	9.6
<u>Goulding &amp; D'Almaine</u>		
4434 <sup>178</sup>	13.0	12.0

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<sup>178</sup>The embouchure of this flute has been enlarged.

## FLUTE

**Catalog number:** 4611

**Maker:** Goulding & Co. (Goulding Phipps & D'Almaine?)

**Date:** ca. 1798-1823

**Inscriptions:** Head joint: GOULDING & C<sup>o</sup> | LONDON  
Middle joints and foot: GOULDING & C<sup>o</sup>

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1989.

**Description:**1. Measurements

Overall length: 59.8 cm  
Embouchure: 9.8 mm x 9.3 mm  
Sounding length: 53.1 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory ferrules (head cap has been lost). Conical bore.

4. Mechanism

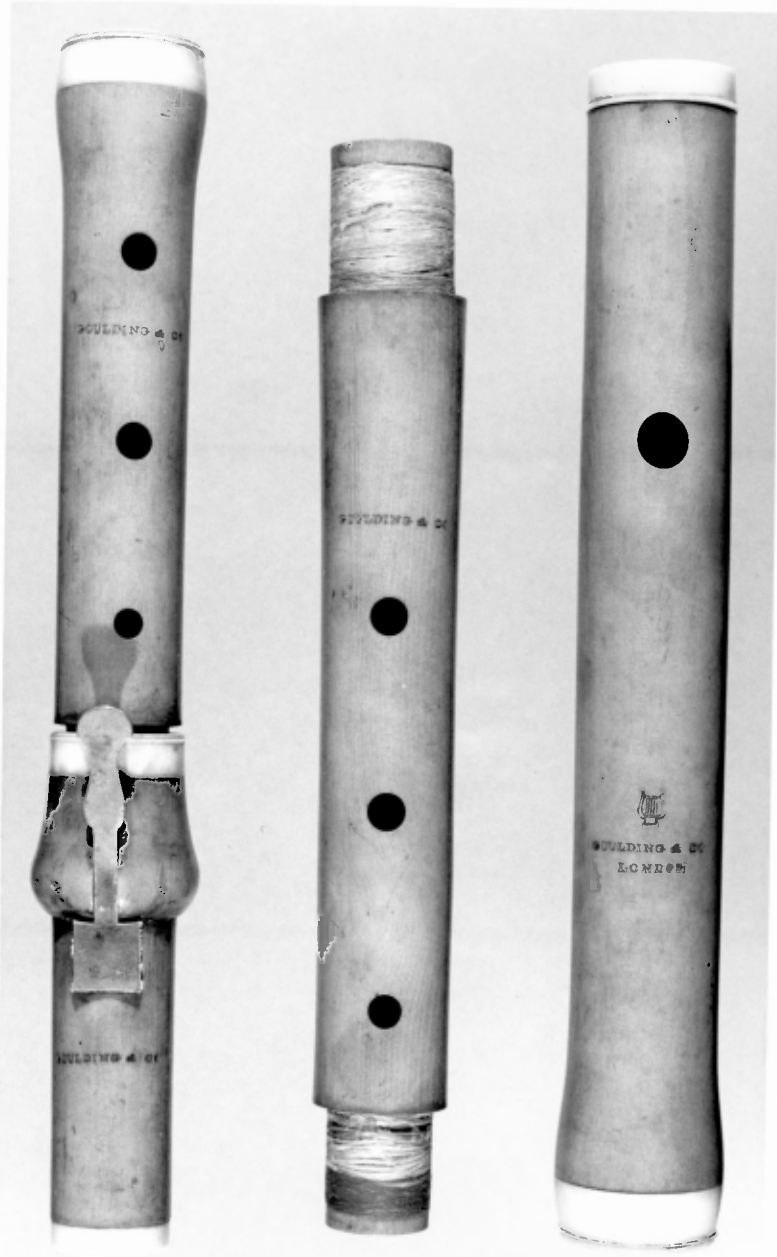
One brass key (D $\sharp$ ) is mounted on a turned ring. The key head is flat and square, with notched corners and beveled edges.

**Condition:**

The head cap is missing and the body is warped, but otherwise the flute is in good condition.

\* \* \* \* \*





No. 3247. Flute by Goulding & Co.

## FLUTE

**Catalog number:** 3247

**Maker:** Goulding & Co. (Goulding Phipps & D'Almaine?)

**Date:** ca. 1798-1823

**Inscriptions:** Head joint: [lyre] | GOULDING & C<sup>O</sup> | LONDON  
Middle joints and foot: GOULDING & C<sup>O</sup>

**Acquisition history:** The flute was purchased by the Shrine to Music Museum Foundation from J. David Holder of Paradise, California, in 1983. Holder acquired the flute in the mid-1960s.

**Description:**1. Measurements

Overall length: 60.9 cm  
Embouchure: 10.4 mm x 9.3 mm  
Sounding length: 53.8 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory rings and ivory head cap. Conical bore.

4. Mechanism

One brass key (D $\sharp$ ), with flat, square head is mounted on a turned ring.

**Condition:**

The condition of the flute is excellent. The instrument is only slightly warped, and all of its ivory is intact.

\* \* \* \* \*



No. 4292. Flute by Goulding & Co.

## FLUTE

**Catalog number:** 4292

**Maker:** Goulding & Co.  
(Goulding Phipps & D'Almaine or Goulding D'Almaine Potter & Co. at 117 New Bond or 124 New Bond)<sup>179</sup>

**Date:** ca. 1804-1811

**Inscriptions:** Head joint: GOULDING & C<sup>O</sup> | NEW - BOND S<sup>T</sup> | LONDON  
Middle joints and foot: GOULDING & C<sup>O</sup>

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>180</sup> Larson acquired the instrument from Philip Bate in 1948.

**Description:**1. Measurements

Overall length: 60 cm  
Embouchure: 12 mm x 10.9 mm  
Sounding length: 53 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Originally, the flute had four brass keys mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The G $\sharp$  key, however, has not survived. The key heads are flat and square. The heads of the B $\flat$  and F keys have beveled edges and notched corners.

**Condition:**

The flute is missing the touchpiece for the B $\flat$  key and the entire G $\sharp$  key, but is otherwise in good condition.

\* \* \* \* \*

<sup>179</sup>These street addresses are recorded in New Langwill Index (forthcoming).

<sup>180</sup>Arne B. Larson, unpublished inventory, no. 315.



No. 4431. Flute by Goulding, D'Almaine, Potter & Co.

## FLUTE

**Catalog number:** 4431

**Maker:** Goulding, D'Almaine, Potter & Co.

**Date:** ca. 1811-1823

**Inscriptions:** Barrel: 6 | [Prince of Wales feathers] | [banner] |  
GOULDING | D'ALMAINE | POTTER & C<sup>o</sup> | SOHO-  
SQUARE | LONDON  
Ivory ring adjacent to barrel: PATENT  
Middle joints and foot: GOULDING & C<sup>o</sup>

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson bought the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, along with twenty-four other wind instruments.

**Description:**1. Measurements

Overall length: 66.3 cm  
Embouchure: 10.2 mm x 9.6 mm  
Sounding length: 58.7 cm

2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

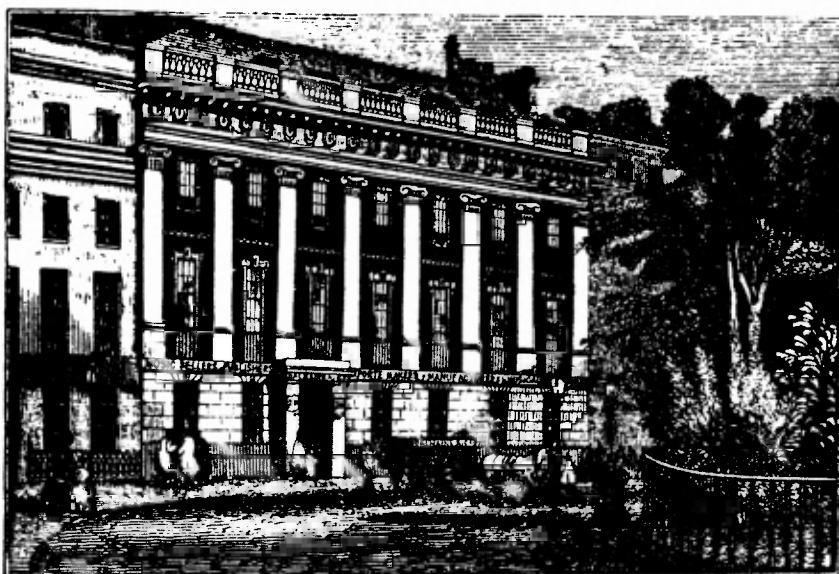
4. Mechanism

Six silver-plated keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , C). The channels of the turned blocks and ring are lined with a brass sleeve. The key heads are all pewter plugs which close over holes lined with metal. The shank of the C key vaults over the C $\sharp$  key.

The head joint is fully lined with metal and has a tuning slide and an ivory screw cork adjuster. The tuning slide is presently frozen in closed position, but it presumably has graduations marked 4 and 5.

**Condition:**

The head joint and one ivory ring on the foot are cracked.



The premises at 20 Soho Square ca. 1848. From *A Day at a Music Publisher's* (London: D'Almaine & Co., ca. 1848), reproduced in Poole, Plate II.



No. 4431. Detail of signature, showing Prince of Wales feathers.

**Notes:**

The Prince of Wales feathers in the signature is the badge that has been reserved for the heir-apparent to the throne since the beginning of the Stuart dynasty. It consists of three ostrich plumes and a coronet.<sup>181</sup> The badge is here a reference to the firm's appointment as "music-sellers to the Prince and Princess of Wales," sometime before 1811 (when the future George IV was Prince of Wales or Prince Regent).

The PATENT stamp on the head joint refers to Richard Potter's patent of 1785. As indicated in the signature, someone by the name of Potter, probably a relative of Richard's, was one of Goulding & Co.'s directors at this time. The patent protection was no longer in force, but the stamp may have been applied because of the firm's connection to the Potters, or just "...to give the impression that [they were] producing something new."<sup>182</sup>

\* \* \* \* \*

**FLUTE**

**Catalog number:** 4434

**Maker:** Goulding & D'Almaine

**Date:** 1823-1834

**Inscriptions:** Head joint: [curved] [floral spray] [crown] [floral spray] |  
[curved] GOULDING & D'ALMAINE | [italic] SOHO  
SQUARE | [reverse curved] LONDON  
Middle joints and foot: [crown] | GOULDING & C<sup>O</sup>  
Underside of foot joint, just below ferrule: ELECTRUM-  
KEY

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988.

**Description:**1. Measurements

Overall length: 59.6 cm  
Embouchure: 13 mm x 12 mm (embouchure has been enlarged)  
Sounding length: 51.9 cm

2. Pitch

Six-finger note: d  
Lowest note: d

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<sup>181</sup>Arthur Fox-Davies, The Art of Heraldry: An Encyclopaedia of Armory (New York: Arno Press, 1976), p. 335 and Plate 67.

<sup>182</sup>Jeremy Montagu to Amy Kreitzer, 2 July 1991.



3. Construction

Stained boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four keys are mounted on turned blocks and turned ring (B♭, G♯, F, D♯). The block mount for the F key is a later replacement. The F and D♯ keys are silver, while the B♭ and G♯ keys are German silver. The key heads are saltspoons.

The head joint is fully lined and has a graduated tuning slide and a graduated ivory screw cork adjuster. The foot joint also has a register.

**Condition:**

There are severe cracks in the head and foot joints. The lower middle joint also has a small crack.

**Notes:**

Other Goulding flutes marked **ELECTRUM-KEY** include one in the Edinburgh University Collection (no. 891), and a third flute which appeared at Sotheby's.<sup>183</sup> Electrum is an alloy of gold and silver, sometimes as much as two-fifths silver. It is naturally-occurring or man-made, and may contain other metals such as copper.<sup>184</sup> The keys on this flute appear to be silver and German silver, and do not have the yellowish cast of electrum.

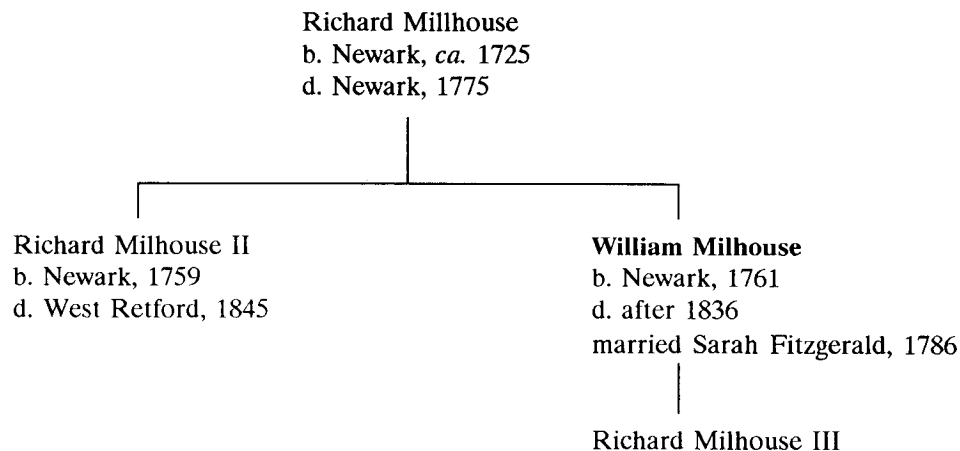
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<sup>183</sup>The Edinburgh instrument is a composite; the head joint was made by Key. Dick and Myers, p. 14; Arnold Myers, ed., Historic Musical Instruments in the Edinburgh University Collection: Catalogue of the Edinburgh University Collection of Historic Musical Instruments, Vol. 2, Part D, Fascicle ii, Transverse Flutes, by Edwina Smith (Edinburgh: Edinburgh University Collection, 1992), electronic version, file UCTD21; Highly Important Musical Instruments: ...Day of Sale, Thursday, 5th April 1984... (London: Sotheby Parke Bernet, 1984), Lot 135.

<sup>184</sup>Douglas M. Considine and Glenn D. Considine, eds., Van Nostrand's Scientific Encyclopedia, 6th ed. (New York: Van Nostrand Reinhold, 1983), s.v. "Electrum."

WILLIAM MILHOUSE

William Milhouse was the most notable member of a Newark, Nottinghamshire family of instrument makers:



William's father spelled his name Millhouse, and worked in Newark for about twenty-five years. When he died in 1775, his eldest son, Richard Milhouse II (who spelled his name with one l) inherited the business. Since he was only sixteen at the time, his father's will asked for a partner to assist him until he was of age.<sup>185</sup>

It is not known who Richard's partner was, or whether the younger brother William worked in the family business. William was fourteen when his father died, and would probably have begun his apprenticeship about that time. If he was an apprentice for seven years, and then a journeyman, he might have been active by *ca.* 1784. He must have then worked in Newark, since he married there in 1786. By the following year, he had moved to London, where he settled in Wardour Street, Soho.<sup>186</sup> Perhaps Newark was unable to support two musical instrument makers, prompting

<sup>185</sup>New Langwill Index (forthcoming); New Grove Dictionary of Musical Instruments, *s.v.*, "Milhouse," by William Waterhouse; and Langwill, Index, *s.v.* "Milhouse." Richard's working addresses alternated between Newark and London. He is known to have worked in Soho in 1805, but he was back in Newark from 1822-1836.

<sup>186</sup>Wardour Street was at this time known for its antique dealers and furniture makers. Thomas Sheraton worked not far from Milhouse at no. 106 from 1793-1795, then at nearby no. 98 from 1798-1800. Weinreb and Hibbert, *s.v.*, "Wardour Street." Metzler was also located nearby, at no. 105.

William to seek new clientele in the thriving musical life of London. However, only four years after the move to London, he advertised in the Newark Herald, offering his instruments for sale in Newark through the editor as sole agent.

William Milhouse certainly thrived in London. By 1797 he was able to move to Oxford Street in London's fashionable West End. As "Manufacturer to their Royal Highnesses the Dukes of Kent & Cumberland," his instruments were highly respected. He was especially well known for his fine bassoons. His clarinets, along with those of Cramer, were said to rank above all others. The Harmonicon in 1830 stated that "Great improvements have been made on [the oboe]...by Millhouse [*sic*], the only maker of any celebrity."<sup>187</sup>

Besides offering "Bassoons, Clarinets, Hautboys, German Flutes &c. Instruments neatly repaired. Wholesale and for Exportation", Milhouse printed and published music.<sup>188</sup> William's son Richard III (frequently confused with his uncle) became his father's partner *ca.* 1828. Unfortunately for the scholar, the firm's stamp remained **W. MILHOUSE | LONDON | 337 OXFORD ST<sup>T</sup>**, making it difficult to distinguish the instruments of W. Milhouse from W. Milhouse & Son. About 1837 William must have retired or died, since his son was then working alone. Richard III seems to have cultivated a different specialty: he is listed in 1836 as "French Horn- Bugle- & Trumpet Maker." Nothing is recorded of him after 1840.<sup>189</sup>

According to Nicholson, Milhouse flutes, along with those of Monzani and Potter, were among the most popular models in London. Andrew Ashe, who played flute in Salomon's orchestra

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<sup>187</sup>New Langwill Index (forthcoming) and New Grove Dictionary of Musical Instruments, s.v., "Milhouse," by William Waterhouse. Presumably, The Harmonicon was referring to William Milhouse, despite the spelling of Millhouse with two l's, since his deceased father and his brother, then working in Newark, were unlikely to be noticed by London writers.

<sup>188</sup>New Langwill Index (forthcoming), quoting Milhouse's trade card; Charles Humphries and William C. Smith, Music Publishing in the British Isles from the Beginning Until the Middle of the Nineteenth Century, 2nd ed. (Oxford: Basil Blackwell, 1970), p. 233.

<sup>189</sup>New Langwill Index (forthcoming).

and at the King's Theatre, apparently preferred Milhouse flutes.<sup>190</sup> Milhouse flutes are usually boxwood instruments having one to eight silver square-headed keys and ivory decoration. Like George Astor, James Wood, and some other makers, Milhouse's foot keys are frequently in the form of rocking key plates, with the shank engaging in a metal loop on one side of the key head. The Museum's earliest Milhouse flute, no. 4446, features a rocking key plate. Milhouse flutes do not feature tuning slides or pewter plug keys until after the move to Oxford Street, probably because Potter's patent protection lasted until 1799. But even after 1799, Milhouse flutes do not often have tuning slides or pewter plugs.<sup>191</sup> They more frequently seem to be equipped with *corps de rechange*. Unlike Cahusac and Potter, Milhouse rarely, if ever, made all-ivory flutes, as no ivory examples could be located during this project.

For the purposes of comparison, a table of the tone hole diameters of the Museum's Milhouse flutes follows. The flutes are listed in estimated chronological order. As might be expected, the hole diameters of the later flutes are somewhat larger than those of the earlier flutes (although there are some inconsistencies).

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<sup>190</sup>Nicholson, pp. 5-6. Nicholson, however, having his own ideas about flutes, disliked the width of the bore of both the Milhouse and Monzani flutes, which he felt made the upper notes resistant and the lower notes dull.

<sup>191</sup>However, the Museum's two later Milhouse flutes, nos. 4445 and 2651, both have tuning slides.

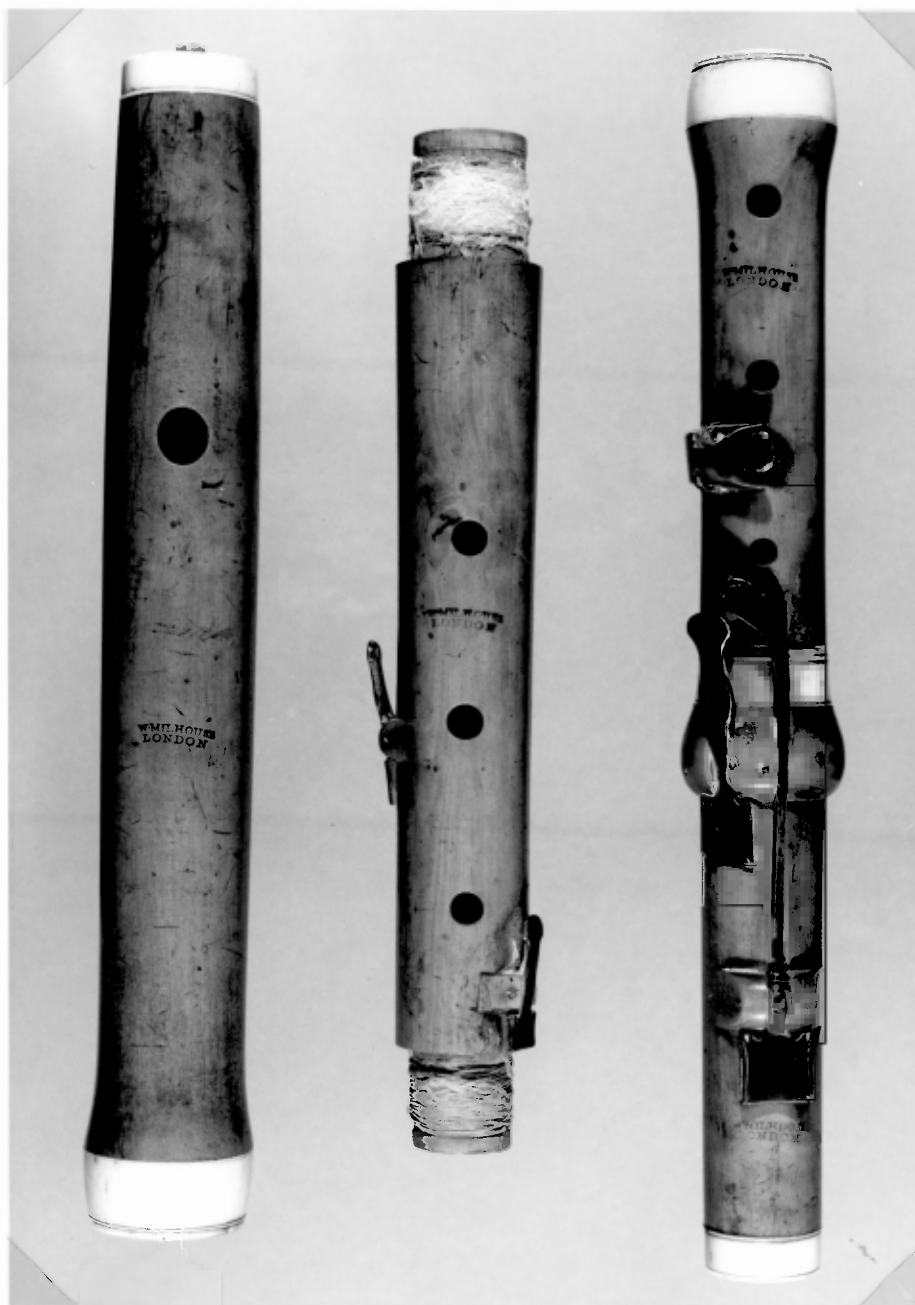
## COMPARISON OF MILHOUSE HOLE DIAMETERS

Catalog number	<u>Finger Hole Diameters (in millimeters)</u>					
	I	II	III	IV	V	VI
4446	6.9	6.8	6.1	6.3	6.0	5.0
2650	6.9	7.6	6.1	7.0	7.8	5.4
4445	7.0	7.8	6.4	7.5	7.9	5.2
2651	6.9	7.5	6.5	7.4	7.8	5.2

Catalog number	<u>Embouchure Diameters (in millimeters)</u>	
	Longitudinal axis	Latitudinal axis
4446	11.0	9.6
2650	10.2	9.3
4445	10.2	9.2
2651 <sup>192</sup>	10.2	11.0

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<sup>192</sup>These measurements are only approximate; the head joint of this flute has cracked across the embouchure.



No. 4446. Flute by William Milhouse.

## FLUTE

<b>Catalog number:</b>	4446
<b>Maker:</b>	William Milhouse
<b>Date:</b>	ca. 1787-1797
<b>Inscriptions:</b>	All joints: W · MILHOUSE   LONDON
<b>Acquisition history:</b>	Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson bought the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948 as part of a collection of twenty-five wind instruments.

**Description:**1. Measurements

Overall length:	64 cm
Embouchure:	11 mm x 9.6 mm
Sounding length:	56.3 cm

2. Pitch

Six-finger note:	d
Lowest note:	c#

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore. The tone hole undercutting is not as wide as in the Museum's other three Milhouse flutes.

4. Mechanism

Five silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ ). The G $\sharp$  is mounted on an applied block, evidently a later repair. The key heads are flat, square, with notched corners and beveled edges. The C $\sharp$  key is in the form of a rocking key plate.

There is a graduated ivory screw cork adjuster.

**Condition:**

One shoulder of the turned block for the F key has been chipped away and lost; otherwise, the flute is in good condition.

**Notes:**

This flute was probably made prior to the move to Oxford Street, since there is no address in its signature.

## FLUTE

**Catalog number:** 2650

**Maker:** William Milhouse

**Date:** ca. 1797-1828

**Inscriptions:** Head joint: [curved] W · MILHOUSE | LONDON | 337  
OXFORD ST<sup>I</sup>  
Middle joints and foot: [curved] W · MILHOUSE | LONDON

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>193</sup> Larson obtained the flute from someone in London in 1944.

**Description:**1. Measurements

Overall length: 60.3 cm  
Embouchure: 10.2 mm x 9.3 mm  
Sounding length: 53.7 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory ferrules. Conical bore.

4. Mechanism

The flute originally had one key (D#) mounted on a turned ring. The brass D# key presently on the flute is not original (its head does not quite fit the key bed). Three other brass keys were added later, mounted on applied wooden blocks (B♭, G#, F). The G# and F keys have since been lost. The block for the G# key is located on the same side of the body as the B♭ key. The key heads are flat, square, with notched corners and beveled edges.

It is difficult to ascertain whether or not the flute originally had a wooden screw cork adjuster. The head cap has been lost altogether.

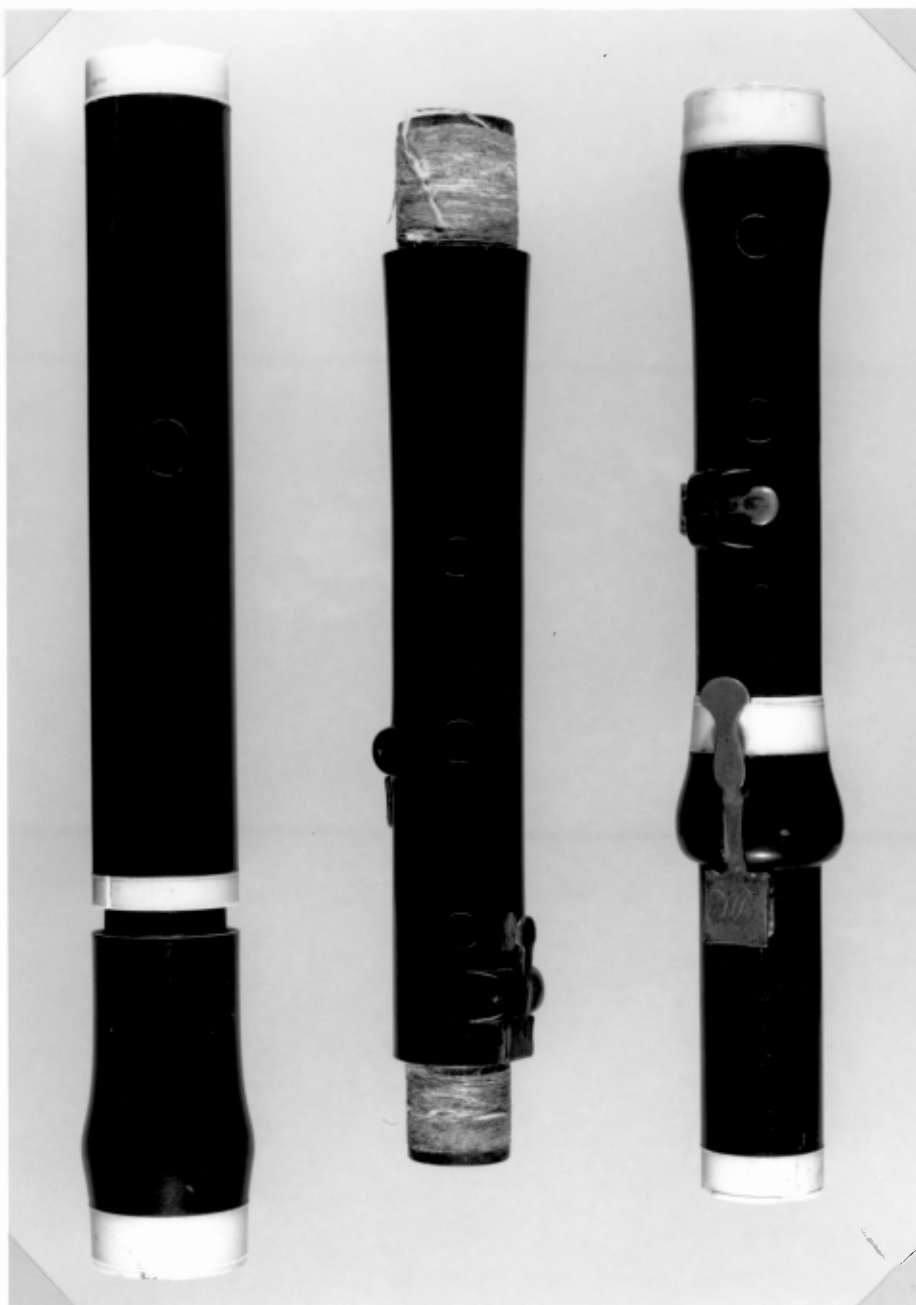
**Condition:**

The flute is in poor condition. The head joint and its ivory ferrule are cracked, and the head cap is missing. The G# and F keys and their mounts have been lost (except one shoulder of the block for G# survives). The D# key is not original.

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<sup>193</sup>Arne B. Larson, unpublished inventory, no. 310.





No. 4445. Flute by William Milhouse or William Milhouse & Son.

## FLUTE

<b>Catalog number:</b>	4445
<b>Maker:</b>	William Milhouse or William Milhouse & Son
<b>Date:</b>	ca. 1797-1837
<b>Inscriptions:</b>	Barrel with tuning slide extended: 4   5   6   [curved] <b>W · MILHOUSE   LONDON   337 OXFORD ST<sup>T</sup></b> Head, middle joints, foot: [curved] <b>W · MILHOUSE   LONDON</b> Monogram on head of D# key: [engraved script, difficult to read] <b>TCP</b>
<b>Acquisition history:</b>	Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson obtained the flute from Anthony Baines, London.

**Description:**1. Measurements

Overall length:	61.2 cm
Embouchure:	10.2 mm x 9.2 mm
Sounding length:	53.3 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Ebony body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The key heads are flat, square, with notched corners and beveled edges. The touchpiece for the B $\flat$  key has broken off and been lost.

The head joint is fully lined with metal and has a tuning slide with graduations numbered 4 and 5 (visible when the slide is extended). When the slide is completely closed, the only number visible is 6, which is stamped on the barrel above the signature. The bore is longest when extended to 4.

There is an ivory screw cork adjuster.

**Condition:**

The head joint and barrel are cracked, and the touchpiece for the B $\flat$  key is missing. Otherwise, the flute is in excellent condition.



No. 2651. Flute by William Milhouse or William Milhouse & Son.

**Notes:**

Since ebony was used less often for flutes after about 1810, this flute was probably made before that time.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 2651

**Maker:** William Milhouse or William Milhouse & Son

**Date:** ca. 1810-1837

**Inscriptions:** Barrel, with tuning slide extended: 4 | 5 | 6 | [curved]  
W·MILHOUSE | LONDON | 337 OXFORD ST<sup>T</sup>  
Head, middle joints, and foot: [curved] W·MILHOUSE |  
LONDON

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>194</sup> Larson obtained the flute from someone in Providence, Rhode Island, in 1938.

**Description:**1. Measurements

Overall length: 67.1 cm  
Embouchure: 11.5 mm x 11 mm (head joint cracked through embouchure)  
Sounding length: 59.1 cm

2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Seven silver saltspoon keys are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The channel of the turned ring for D $\sharp$  is lined with a brass sleeve. Two different types of key seatings are used. The keys heads on the middle joints close over the earlier hemispherical seating, while the key heads on the foot joint close over the later recessed seating.

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<sup>194</sup>Arne B. Larson, unpublished inventory, no. 482.

The head joint is fully lined with metal and has a tuning slide with graduations marked **4** and **5** (visible when the slide is extended). When the slide is completely closed, the only number visible is **6**, which is stamped on the barrel above the signature. The bore is longest when extended to **4**.

There is also a graduated ivory screw cork adjuster.

**Condition:**

The head joint and barrel are cracked, and the top tenon of the upper middle joint is partially broken away. The flute is otherwise in excellent condition.

**Notes:**

The dating of this flute takes into account the presence of the saltspoon keys, which were first used *ca.* 1810.<sup>195</sup>

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<sup>195</sup>Carse, p. 51.

### METZLER

The Metzler firm was founded at 105 Wardour Street<sup>196</sup> in London's West End in 1788 by Valentin Metzler, an emigré from Bingen am Rhein, Germany. Valentin began as a flute maker and brass instrument repairman, but the firm became increasingly diversified through the years. Eventually, it produced a wide variety of woodwind and brass instruments, as well as pianos and seraphines, and it published music. In 1816, Valentin's son, George Richard Metzler (1797-1867), joined the firm, and it was then named Metzler & Son. When Valentin died in 1833, the firm became Metzler & Co. From 1842-1920, the company occupied various addresses in Great Marlborough Street, Soho. George Richard's son, George Thomas (1835-1879), along with Frank Chappell, took over the business in 1866. The firm was finally bought by J. B. Cramer in 1931.<sup>197</sup>

Extant Metzler flutes are very numerous. Like many other Metzler flutes, the Museum's examples are signed simply, METZLER | LONDON, and it is difficult to determine under which configuration of the firm they were made. According to Langwill, "...the majority are doubtless nineteenth century products of the firm which became Metzler & Son, c. 1816."<sup>198</sup>

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<sup>196</sup>In Wardour Street, Metzler worked near Milhouse (at no. 100) until 1797 and near the furniture maker Thomas Sheraton (at no. 106, later at no. 98). Weinreb and Hibbert, *s.v.*, "Wardour Street."

<sup>197</sup>New Langwill Index (forthcoming); Langwill, Index, *s.v.* "Metzler"; New Grove Dictionary of Music and Musicians, *s.v.* "Metzler", by Niall O'Loughlin; Humphries and Smith, pp. 231-232; Rose, pp. 353-354.

<sup>198</sup>Langwill, "London Wind-Instrument Makers," p. 99.

**COMPARISON OF METZLER HOLE DIAMETERS**

(Flutes only)

Finger Hole Diameters (in millimeters)

Catalog number	I	II	III	IV	V	VI
4835	7.0	6.8	6.2	6.8	6.9	5.4
4435	7.2	7.9	7.0	7.2	7.8	5.2

Embouchure Diameters (in millimeters)

Catalog number	Longitudinal axis	Latitudinal axis
4835	11.0	10.1
4435	12.1	10.1



No. 4835. Flute by Valentin Metzler or Metzler & Son.



## FLUTE

<b>Catalog number:</b>	4835
<b>Maker:</b>	Valentin Metzler or Metzler & Son
<b>Date:</b>	ca. 1788-1816?
<b>Inscriptions:</b>	Head joint and lower middle joint: METZLER   LONDON   4 Upper middle joint: METZLER   LONDON   3
<b>Acquisition history:</b>	Higbee-Abbott Collection, 1989. <sup>199</sup> Dale Higbee of Salisbury, North Carolina, purchased the flute from Kurt Stein of Media, Pennsylvania, in 1963.

**Description:**1. Measurements

Overall length:	60.8 cm
Embouchure:	11 mm x 10.1 mm
Sounding length:	53.6 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Stained boxwood body in four joints. Four horn ferrules and horn head cap. The cork is a later replacement and is faced on either end with a metal disc. Conical bore.

4. Mechanism

One brass key, perhaps a later replacement, is mounted on a turned block (D#). Its head is a shallow round cup which closes over a round key bed with flat seating.

**Condition:**

The flute is in excellent condition, having only a few chips in the horn ferrules and head cap. According to his checklist, "Dale Higbee Instrument Collection," Higbee had the instrument overhauled in 1965.

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<sup>199</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.

**Notes:**

The numbers in these signatures are rather puzzling. The 4 might indicate that the instrument originally had *corps de rechange*. One Metzler flute is known to have *corps de rechange* (Dayton C. Miller Flute Collection, no. 511).<sup>200</sup> The 3 ordinarily appears on band flutes pitched in E $\flat$  (with a sounding length of 39-40 cm), but this flute is pitched in C. The 3 is not a serial number (Metzler flutes are not known to bear serial numbers). This is the only Metzler flute found to bear the numbers 3 and 4.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 4435

**Maker:** Valentin Metzler or Metzler & Son

**Date:** ca. 1800-1830?

**Inscriptions:** All joints: METZLER | LONDON

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson obtained the flute from Anthony Baines in 1949.

**Description:**1. Measurements

Overall length: 60.4 cm  
 Embouchure: 12.1 mm x 10.1 mm  
 Sounding length: 53.2 cm

2. Pitch

Six-finger note: d  
 Lowest note: d

3. Construction

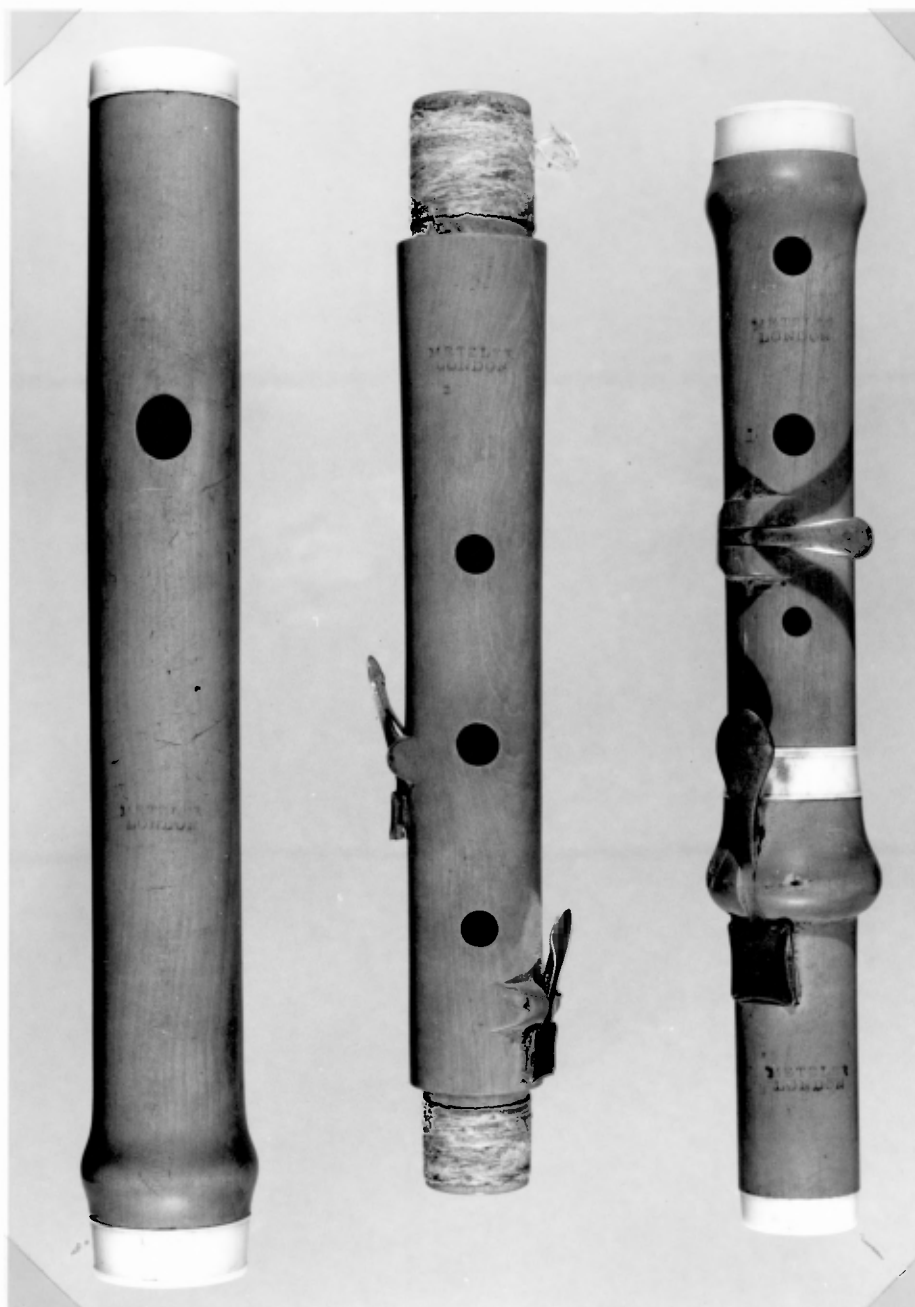
Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four brass keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The B $\flat$  key presently on the flute is a later replacement (it does not quite fit the key bed). The key heads are flat, square, with notched corners and beveled edges.

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<sup>200</sup>Gilliam and Lichtenwanger, p. 37.



No. 4435. Flute by Valentin Metzler or Metzler & Son.

**Condition:**

The flute is in good condition, having only a small chip off one shoulder of the block mount for the B $\flat$  key.

**Notes:**

Since the finger holes and embouchure of this flute are slightly larger than those of no. 4835, this flute (no. 4435) is probably the later of the two.

\* \* \* \* \*

**PICCOLO**

<b>Catalog number:</b>	2443
<b>Maker:</b>	Valentin Metzler or Metzler & Son or Metzler & Co.
<b>Date:</b>	ca. 1800-1850
<b>Inscriptions:</b>	Head joint: METZLER   LONDON Foot: METZLER   LONDON   8
<b>Acquisition history:</b>	Purchased by the Shrine to Music Museum Foundation from Harry Oster of Iowa City, Iowa, in 1978. Oster bought the piccolo from a bagpipe dealer in Edinburgh, Scotland.

**Description:**1. Measurements

Overall length:	32.2 cm
Embouchure:	8.2 mm x 7.1 mm
Sounding length:	26 cm

2. Pitch

Six-finger note:	d <sup>1</sup>
Lowest note:	d <sup>1</sup>

3. Construction

Boxwood body in three joints (lower middle joint and foot are integral). Conical bore.

4. Mechanism

One square brass key (D $\sharp$ ) is mounted on a turned ring.

**Condition:**

The instrument is in excellent condition.

**Notes:**

Most one-keyed piccolos were manufactured during the first half of the nineteenth century. The earliest symphonic use of the one-keyed piccolo was in Beethoven's Symphony No. 5 in 1807. Application of new keywork to piccolos lagged behind that of the flute, partly because the holes on the piccolo were closer together and within easy reach of the player. Four-keyed piccolos were introduced in the 1820s, and six-keyed piccolos became popular about 1850. Boehm piccolos were particularly slow to appear, the first 1832 model not appearing until the 1860s. The Boehm piccolo did not really catch on until the 1870s.<sup>201</sup>

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<sup>201</sup>Zartouhi Dombourian-Eby, "The Piccolo in the Nineteenth Century" (D.M. diss., Northwestern University, 1987), pp. 7-8, 387, and 395-397.

BLAND & WELLER

Ann Bland was a music publisher at 23 Oxford Street who published, among other things, songs, country dances, and a violin tutor. The piano maker E. Weller joined her *ca.* 1793 to form Bland & Weller. Bland retired or died about 1818, and Weller continued alone until *ca.* 1821.<sup>202</sup> Since Bland & Weller were primarily publishers and piano makers, they probably only distributed woodwind instruments.

\* \* \* \* \*

## FLUTE

**Catalog number:** 4336

**Distributor:** Bland & Weller

**Date:** 1798-*ca.* 1818

**Inscriptions:** Barrel, both middle joints, foot: **BLAND & WELLER**

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>203</sup> Larson obtained the flute from Philip Bate.

**Description:**1. Measurements

Overall length: 60.6 cm  
 Embouchure: 10 mm x 9 mm  
 Sounding length: 53.7 cm

2. Pitch

Six-finger note: d  
 Lowest note: d

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<sup>202</sup>Langwill, Index, s.v. "Bland & Weller", states that there is no connection between Anne Bland and another music publisher and instrument dealer, John Bland. Kidson, p. 12, had earlier stated that John was "probably a brother or other relative" of Anne. See also Humphries and Smith, p. 76, and New Langwill Index (forthcoming).

<sup>203</sup>Arne B. Larson, unpublished inventory, no. 316.

3. Construction

Boxwood body in five sections. Five ivory ferrules. Conical bore.

4. Mechanism

The flute originally had one pewter plug key<sup>204</sup> mounted on a turned ring (D#), but the key has not been preserved. However, a small part of the shank and the pin on which the key pivoted in its mount have survived.

The head joint is fully lined with brass and has a graduated tuning slide.

**Condition:**

The flute is in poor condition. Besides missing its key, the head and barrel are seriously cracked. The fourth finger hole is slightly chipped.

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<sup>204</sup>Although the key bed is square, the metal-bushed tone hole indicates the key was a pewter plug.

### JAMES WOOD

The woodwind instrument maker James Wood was active from about 1799 to 1832. He worked for a time with John Hale, and a number of his instruments are signed "Jas. Wood late J. Hale, London." He worked briefly at addresses in Covent Garden, St. James's Street in Westminster, and Lambeth before settling in 1816 in New Compton Street, Soho Square, where he remained for sixteen years. By at least 1821, his son George was a partner, the firm then becoming James Wood & Son. In 1833, the firm was taken over by George, who was later associated with Ivy.<sup>205</sup>

James Wood took out three patents. The first, no. 3797 of 1814, concerns double cylindrical tuning slides in flutes.<sup>206</sup> Tuning heads and registers had been in use for quite some time. Wood's innovation consisted in the application of tuning slides to each joint. The length of the head joint was adjusted by means of a slide at the socket, rather than the usual head and barrel arrangement patented by Potter. There was a second slide where the two middle joints came together, and a third slide between the lower middle joint and foot. The slides were marked # ♯ ♭, so that they could be made to correspond to one another. By this means, "...every part of the instrument bears a correct analogy and the same just and harmonical proportion as when tuned to concert pitch..."<sup>207</sup> Rockstro was critical of the design, and asserted that, "The only theoretically correct method of altering the pitch of the flute is to change the position of every finger-hole, and this is practically impossible."<sup>208</sup> While Wood could change the length of each section, the finger holes, of course, remained stationary. One of these 1814 patent flutes is now in the Dayton C. Miller Collection (no. 1411), and another appeared at a Sotheby's auction.<sup>209</sup> Wood's other two patents primarily

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<sup>205</sup>New Langwill Index (forthcoming).

<sup>206</sup>Patents for Inventions: Abridgements of Specifications Relating to Music and Musical Instruments, A.D. 1694-1866, 2nd ed. (London: Office of the Commissioners of Patents for Inventions, 1871; reprint ed., London: T. Bingham, 1984), pp. 74-75.

<sup>207</sup>Wood quoted by Rockstro, ¶527, p. 283.

<sup>208</sup>Rockstro, ¶325, p. 150.

<sup>209</sup>Gilliam and Lichtenwanger, p. 97; Highly Important Musical Instruments: ...Day of Sale, Thursday, 22 November 1984... (London: Sotheby's, 1984), Lot 139.



concern the addition of keys to the clarinet. These patents were no. 2381 of 1800, and no. 4423 of 1819.<sup>210</sup>

Part of Wood's business was devoted to supplying instruments to dealers, especially to Goulding & D'Almaine.<sup>211</sup> His flute output consisted principally of instruments having from five to eight keys. He seems to have favored beveled square key heads, with those of the low C and low C# keys being in the form of rocking key plates. As Dayton C. Miller describes them, the keys are "...flat flaps, hinged at one edge, closing down like a 'trap-door,' raised by a lever engaging in a loop on the upper side."<sup>212</sup> This feature is also present on the Museum's example and on a Wood flute in the Bate Collection (no. 136).<sup>213</sup> Rocking key plates are also found on flutes by Milhouse, Astor, and other makers.

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#### FLUTE

<b>Catalog number:</b>	4436
<b>Maker:</b>	James Wood
<b>Date:</b>	ca. 1799 to ca. 1821
<b>Inscriptions:</b>	Upper middle joint: [ <i>fleur-de-llys</i> ]   J-WOOD   LONDON   4 Head, lower middle joint, foot: [ <i>fleur-de-llys</i> ]   J-WOOD   LONDON Shank of low C key: WOOD FECIT
<b>Acquisition history:</b>	Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson bought the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948 as part of a collection of twenty-five wind instruments.

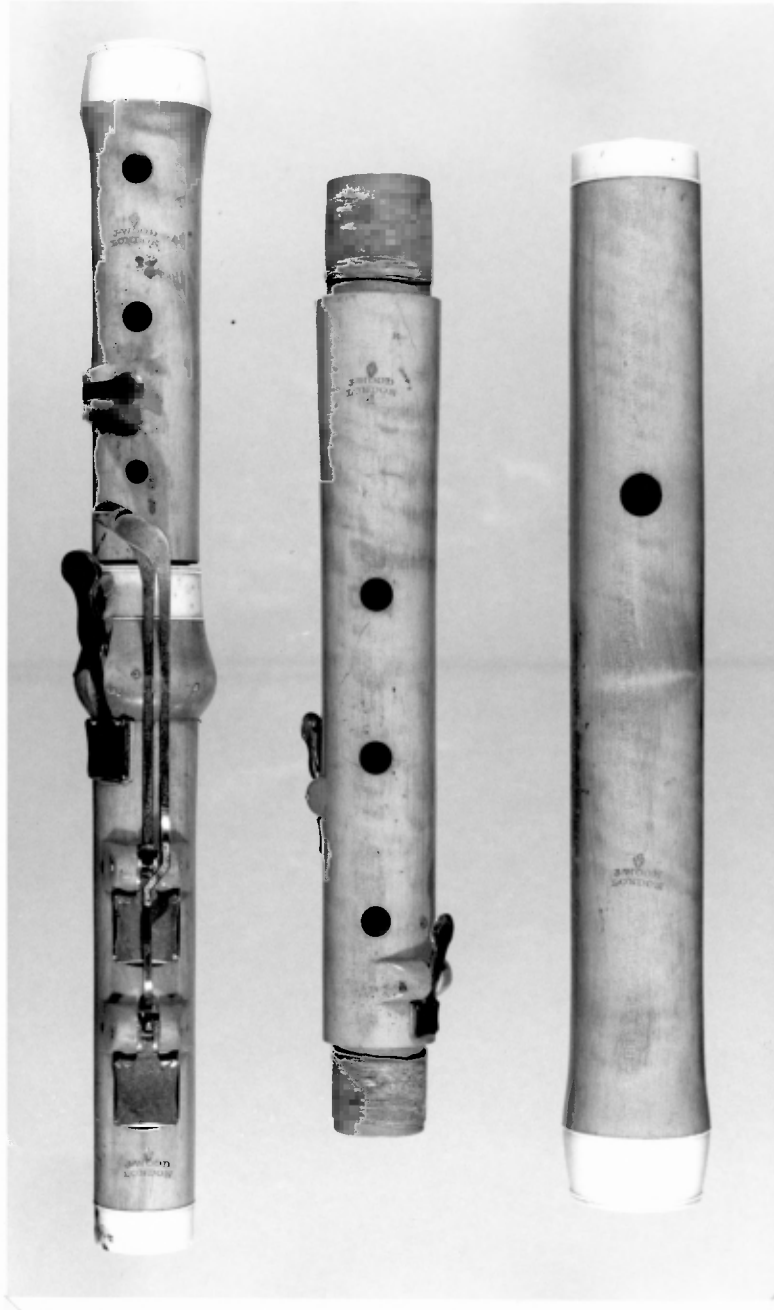
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<sup>210</sup>Patents for Inventions, pp. 35 and 85.

<sup>211</sup>F. G. Rendall, quoted by New Langwill Index (forthcoming). An overt example of this is the flute in the Robert A. Lehman Collection. Its barrel is stamped GOULDING D'ALMAINE | CO., but its foot is marked JAS-WOOD & SON | MAKERS. See Historic Flutes from Private Collections, p. 22.

<sup>212</sup>Dayton C. Miller quoted by Gilliam and Lichtenwanger, p. 33 (in connection with no. 453).

<sup>213</sup>Baines, Bate Collection, p. 8.



No. 4436. Flute by James Wood.



No. 4436. Detail of shank for low C key.

**Description:**1. Measurements

Overall length: 68.8 cm  
 Embouchure: 9.7 mm x 9.0 mm  
 Sounding length: 60.8 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Satinwood<sup>214</sup> body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Six silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The turned blocks for low C and C $\sharp$  are reinforced at their bases with pins. The key heads are square, with beveled edges and notched corners. The low C and C $\sharp$  key heads are rocking key plates. The shank for the low C key is vaulted over the C $\sharp$  key.

There is an ivory screw cork adjuster with graduations marked 4 (on the tip) and 5 (on the first graduation on the side of the screw).

**Condition:**

The instrument is in excellent condition.

**Notes:**

The 4 stamped below the signature probably indicates that the instrument originally had several *corps de rechange*.

The presence of the vaulted C key indicates this flute was probably made in the early years of the nineteenth century.

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<sup>214</sup>A surviving flute by James Wood in the Dayton C. Miller Flute Collection (no. 1156), is also of satinwood. See Gilliam and Lichtenwanger, p. 80.

CHARLES WIGLEY

Charles Wigley, a wind instrument maker, dealer, and music seller and publisher, set up business at Spring Gardens in Charing Cross in 1799. In 1801, he was in the partnership Wigley & Bishop at 6 Spring Gardens, adjoining the Academy of Fashion. He also worked as a jeweller at this same address, which he dubbed the "Repository of Fashion." From 1804 to 1811, he was again in business alone, having relocated to 204 Strand. In 1811, he and the flute inventor Malcolm McGregor formed Wigley & McGregor at 151 Strand. They moved to 84 Strand in 1816 and then to Regent Street in 1824, going out of business the following year.<sup>215</sup>

About 1810, Charles Wigley published Wigley's Pocket Companion for the Improved Octave Flageolet, Violin, and German Flute, the imprint of which reads, "London, printed for C. Wigley, at his musical instrument manufactory, 204, Strand."<sup>216</sup> Some of Wigley's publications around the year 1813 bore the imprint "London. Published by C. Wigley Panharmonicon Exhibition, Royal Great Rooms, Spring Gardens."<sup>217</sup>

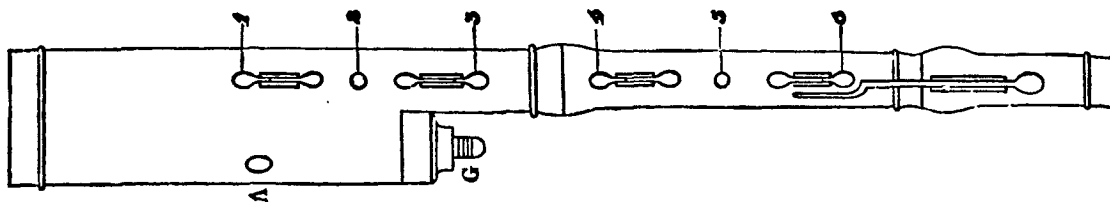
Wigley & McGregor manufactured a bass flute in C of McGregor's own design, patented in 1810. The main tube of this flute was boxwood, while the curved tube of the head was brass. A variation featured a wooden head, elliptical in cross-section, in which the bore doubled back on itself:

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<sup>215</sup>New Langwill Index (forthcoming); Langwill, Index, s.v., "Wigley, Charles" and "Wigley (Charles) & McGregor (Malcolm)"; Humphries and Smith, p. 333.

<sup>216</sup>Kidson, p. 153. Kidson also lists a John Wigley, a seller of music and musical instruments active in London around the turn of the eighteenth century, but does not mention any relationship between John Wigley and Charles Wigley. John Wigley appears with other sellers in the imprint of The Gentleman's Pocket Companion for the German Flute (ca. 1799).

<sup>217</sup>Humphries and Smith, p. 333.



McGregor's bass flute. Reproduced from Welch.<sup>218</sup>

Bessaraboff describes bass flutes of this design (which was also applied to alto flutes).<sup>219</sup> Rockstro gives a rather ungenerous evaluation of one of these bass flutes.<sup>220</sup>

The signature on the Museum's Wigley flute is curious, because one expects the firm to be identified as Wigley & McGregor at this address. Perhaps the flute was made after Wigley moved to 151 Strand, but before he was joined by McGregor. Another explanation, based on published information about surviving Wigley and Wigley & McGregor flutes, is that only the larger flutes were signed "Wigley & McGregor, Patentees," while concert flutes were signed simply "Wigley."<sup>221</sup> Perhaps the collaboration between Charles Wigley and Malcolm McGregor extended only to the production of the larger flutes. All of the larger flutes located for this study are signed "Wigley & McGregor, Patentees."<sup>222</sup> While a few other Wigley concert flutes were located, none were signed "Wigley & McGregor."

<sup>218</sup>Christopher Welch, History of the Boehm Flute with Dr. Von Schafh autl's Life of Boehm, and an Examination of Mr. Rockstro's Version of the Boehm-Gordon Controversy, 3rd ed. (London: Rudall, Carte & Co., 1896), p. 76.

<sup>219</sup>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 for the Museum of Fine Arts, 1964), pp. 59-60.

<sup>220</sup>Rockstro, ¶1513-516, pp. 275-277.

<sup>221</sup>Concert flutes signed "Wigley, 151 Strand" appeared at the following Sotheby's auctions: Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 208; Sotheby's Arcade Auctions...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 173; Musical Instruments: ...Day of Sale, Thursday, 23rd September 1982... (London: Sotheby Parke Bernet, 1982), Lot 2.

<sup>222</sup>Examples of alto and bass flutes by Wigley & McGregor survive in the Dayton C. Miller Flute Collection, the Museum of Fine Arts (Boston), the Metropolitan Museum of Art (New York), and the Musée Instrumental du Conservatoire Royal de Musique (Brussels).



No. 4841. Flute by Charles Wigley.

## FLUTE

<b>Catalog number:</b>	4841
<b>Maker:</b>	Charles Wigley
<b>Date:</b>	ca. 1811 and 1816
<b>Inscriptions:</b>	Head joint, upper middle joint, foot: [royal arms or crest?]   WIGLEY   151 STRAND   LONDON Lower middle joint: WIGLEY   151 STRAND   LONDON
<b>Acquisition history:</b>	Higbee-Abbott Collection, 1989. <sup>223</sup> Dale Higbee of Salisbury, North Carolina, purchased the flute from Philip Bate of London in 1962.

**Description:**1. Measurements

Overall length:	66.4 cm
Embouchure:	10.2 mm x 9.9 mm (head joint cracked across embouchure)
Sounding length:	58.9 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Ivory body in five sections. Five silver ferrules and silver head cap, all with engraved decoration. Conical bore.

4. Mechanism

Six silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , C). The channels of the turned blocks and turned ring are lined with brass sleeves. The key heads are pewter plugs which close over metal-lined tone holes.

The head joint is fully lined with metal, and has a graduated tuning slide and a graduated ivory screw cork adjuster.

**Condition:**

The flute is in good condition. There is a crack in the head joint running through the embouchure, a crack in the barrel, and a small crack in the socket of the lower middle joint.

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<sup>223</sup>"USD Museum Acquires Higbee Collection." Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.



MONZANI & HILL

Six of the Museum's flutes are from the Monzani & Hill workshop, which was renowned for its high standard of craftsmanship. These flutes were made over a period of twenty-five years and exhibit several of the firm's stylistic characteristics.

Like many Italian musicians of his day, the flutist Tebaldo Monzani (1762-1839) of Verona immigrated to London about 1785. Monzani held key orchestral positions such as first flute at the King's Theatre. He also played in Salomon's concerts, was a popular concerto soloist, and composed for the flute. He began his career with a one-keyed flute, but eventually progressed to an eleven-keyed flute.<sup>224</sup>

It was not easy to make a living even in London by playing the flute, so Monzani began publishing music by 1787 and making flutes *ca.* 1800. His business ventures proved so successful that, by choice or necessity, he later gave up many of his performance engagements. He formed a partnership with a fellow Italian, the composer Giambattista Cimadoro, which lasted until 1805. The year 1808 marked the beginning of a twenty-year association with the instrument maker Henry Hill. As Monzani & Co., the two produced a wide variety of finely crafted and innovative flutes and clarinets from addresses in Old Bond Street (1808-*ca.* 1814), Dover Street (*ca.* 1814-1819), and Regent Street (1820-1829). Monzani's son Willoughby was groomed to succeed his father, but Willoughby did not pursue a career in instrument making. Therefore, Hill, who was twenty years younger than the elder Monzani, continued the business alone as "Hill, late Monzani & Co." when his partner retired in 1829.<sup>225</sup>

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<sup>224</sup>Rockstro, ¶865, p. 565; Sainsbury, *s.v.* "Monzani"; and Eitner, *s.v.* "Monzani, Teobaldo." There is a portrait of Monzani in Goldberg, p. 70.

<sup>225</sup>New Langwill Index (forthcoming); Rockstro, ¶865, p. 566. It appears that Willoughby was active, however, as a flutist, if we may assume that the son mentioned by W. N. James is in fact Willoughby. In 1826, James stated that the younger Monzani was "...now, perhaps, the most promising performer in England." See W. N. James, A Word or Two on the Flute (Edinburgh: Charles Smith & Co., 1826; reprint ed., London: T. Bingham, 1982), p. 239. This promising flutist has been interpreted to be Willoughby in The New Grove and Tebaldo (Jr.?) in MGG (See Stanley Sadie, ed., The New Grove Dictionary of Music and Musicians (London: Macmillan, 1984; New York: Grove's

There has been some confusion in the Langwill Index regarding Hill's activities during the years 1829-1834. Before the end of the partnership, the firm was located at 28 Regent Street, Piccadilly. Hill is recorded as being independently established at this same address beginning in 1834.<sup>226</sup> Was Hill making flutes during the five intervening years? Apparently he was, judging from several extant Hill flutes (including the Museum's no. 2788) bearing hallmarks from the early 1830s.<sup>227</sup> Furthermore, in view of the firm's commercial success, it is unlikely that Hill would have abruptly left off instrument making. Hill eventually made his sons partners before he died in 1839 (coincidentally the year of Monzani's death).<sup>228</sup> For the next five years, his widow, Anne Hill, and one Frederick Hill (a London flutist,<sup>229</sup> probably Henry's son) continued the business. The firm's stock was finally sold at auction in 1845.

Monzani took out two patents, no. 3074 of 1807 and no. 3586 of 1812. The first patent concerns an important innovation in the design of key heads and pads.<sup>230</sup> Monzani was unimpressed by the new cupped saltspoon keys, perhaps because of the tendency of the pad to bulge into the tone hole and affect the quality of keyed notes.<sup>231</sup> Monzani also must have objected to pewter plug keys, whose action tended to be noisy. His alternative consisted of a key which had a screw, the head of which was riveted to the key head. A perforated flat leather pad was placed over the screw, and was secured to the screw by a silver button, or nut. This arrangement had the

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Dictionaries of Music, 1984), s.v. "Monzani, Tebaldo" by William C. Smith and Peter Ward Jones; Friedrich Blume, ed., *Die Musik in Geschichte und Gegenwart: Allgemeine Enzyklopädie der Musik*, (Kassel: Bärenreiter, 1949-1986), s.v. "Monzani, Tebaldo (Theobald)" by Charles Humphries.)

<sup>226</sup>Langwill, Index, s.v. "Monzani, Tebaldo."

<sup>227</sup>See list of extant Monzani & Hill instruments in the Appendix A (p. 280 ff.).

<sup>228</sup>Humphries and Smith, p. 179.

<sup>229</sup>Rockstro, ¶1925, p. 632.

<sup>230</sup>Monzani & Hill pricelist, issued from the 24 Dover Street address, ca. 1814-1819, preserved in the Dayton C. Miller Flute Collection at the Library of Congress, Washington, D.C.

<sup>231</sup>Bate, p. 219.

advantage of requiring little maintenance beyond occasionally changing the leather pad. Moreover, the button was said to render "the tone of the instrument more firm and brilliant."<sup>232</sup>

Not content to leave well enough alone, the firm was constantly trying to perfect this key design. As a result, several variations can be seen on its extant flutes. The Museum's earlier Monzani & Hill flutes (nos. 2491, 2490, 3784, and 3110) all feature this pad arrangement on flat key heads, either square or circular. The two later Monzani & Hill flutes (nos. 4447 and 2788) feature slightly cupped, round key heads with the screw-and-button arrangement. These heads are only loosely attached to their shanks, being cushioned by a buffer of some resilient material. The floating nature of these key heads allowed more flexibility of seating. The buffer on nos. 4447 and 2788 appears to be leather. The Shorey catalog for 1990 pictures a Hill flute made *ca.* 1836 with cork buffers on its floating key heads.<sup>233</sup>

Monzani's second patent of 1812 includes three main features. One of these was the "New Patent Regulating Embouchure." This consisted of a "nob," or raised wooden cusp, on either side of the embouchure hole. This feature was said to be "of the greatest assistance to beginners, & those who experience a difficulty in producing the lower Notes, as it keeps the Lips in a proper position & prevents them from Covering the Embouchure too much."<sup>234</sup> This innovation did not come into prevalent use, but the Museum's tenor flute in A $\flat$ , no. 3110, sports a pair of cusps. This is, however, one of only two examples that were discovered during the course of this project.<sup>235</sup> The idea of

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<sup>232</sup>"Directions for Monzani and Hill's Patent Flute Keys, &c.," signed by Henry Hill in 1834, reproduced in David Shorey, The 1990 Catalog of Flutes: Including a Complete Listing and Illustrations of Selected Instruments from The Gandalf Collection (Bowdoinham, Maine: David and Nina Shorey Antique Flutes, 1990), p. 11.

<sup>233</sup>Shorey, 1990 Catalog of Flutes, p. 14.

<sup>234</sup>Monzani & Hill pricelist, *ca.* 1814-1819, in the Dayton C. Miller Flute Collection.

<sup>235</sup>An unusual flute stamped **MONZANI & CO.** on the head joint and **RUDALL & ROSE | NO 15 PIAZZA | COVENT GARDEN** on the body also has cusps. It is now in the Edinburgh University Collection, no. 2016, and is hallmarked for the year 1814. Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

embouchure cusps was revived during the late nineteenth century by makers of German reform flutes.<sup>236</sup>

The other two features of the 1812 patent, silver sockets and cork-lapped tenons, and a combined lower middle and foot joint, were not original ideas.<sup>237</sup> Rather, they demonstrate how Monzani was influenced by Continental flute making. French makers for some time had been making silver socket and tenon joints. The idea was incorporated into Claude Laurent's patent of 1806 for his glass flutes, whose construction demanded metal sockets and tenons. In the case of wooden flutes, lining the sockets and tipping the tenons with silver had the advantage of strengthening the joint, making it really unnecessary to leave a bulge of wood around the socket. Monzani's flutes, therefore, could be turned down to a fashionably sleek contour. Furthermore, the silver socket and tenon did not absorb moisture, which caused ordinary sockets to swell and sometimes crack. Two of the Museum's Monzani & Hill flutes (nos. 4447 and 2788) have silver-lined sockets, but only no. 2788 has silver-tipped, cork-lapped tenons (although one of its tenons is currently thread-lapped).

With their combined lower middle and foot joint, Monzani & Hill patent flutes were divided into three joints rather than the then usual four. J. N. Capeller of Munich was also making three-jointed flutes at least by 1807, but his flutes had combined upper and lower middle joints.<sup>238</sup> Hamilton suggests that division into three joints was essential for the equal distribution of the tone holes, since it eliminated the need for a third socket and tenon, structural devices which complicated positioning the tone holes for correct tuning.<sup>239</sup> Three of the Museum's examples (nos. 2490, 4447, and 2788) all have integral middle and foot joints. The Museum's earliest Monzani (no. 2491) is in

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<sup>236</sup>Bate, pp. 9-10. According to Spohr, p. 83, "The 'Schwedler-embouchure' with raised sides was made from 1885 by Friedrich Wilhelm Kruspe, a registered pattern for the 'Reform-embouchure' was obtained in 1904 by Otto Mönnig, the 'Mollenhauer-embouchure' was introduced by Conrad Mollenhauer after 1912."

<sup>237</sup>Rockstro, ¶525, pp. 281-282.

<sup>238</sup>*Ibid.*, ¶521, p. 280; Dieter H. Förster, "Die Flöte im frühen 19. Jahrhundert: Zeugen und Zeugnisse," *Tibia* 4 (1979): 224.

<sup>239</sup>Amy Sue Hamilton, "The Relationship of Flute Construction to the Symphonic Role of the Flute and Orchestral Performance Practice in the Nineteenth Century" (D.M.A. diss., Northwestern University, 1984), p. 46.

four joints, as are its two tenor flutes in A $\flat$  (which were normally built in four joints anyway, presumably because of their greater overall length).

Monzani's flutes show the influences of Continental flute-making in other respects as well. For instance, he retained the traditional small tone holes, which were preferred on the Continent, even though Charles Nicholson's large tone holes were all the rage in England.<sup>240</sup> He was among the earliest of English flute makers to follow the lead of J. G. Tromlitz of Leipzig in fitting extra levers to keys.<sup>241</sup> Many of his flutes have both right-hand and left-hand touchpieces for the B $\flat$  key (present on the Museum's no. 4447), and a few have a lever so that the F and long F keys control a single hole (instead of two separate tone holes). Furthermore, he usually turned the mounts for his G $\sharp$  keys on the diagonal, which was characteristic of some German flutes. Conversely, Monzani influenced Continental makers such as Stephan Koch and Claude Laurent, who adapted Monzani's key head design.<sup>242</sup> Also, Monzani's flutes were preferred by at least one Continental flutist: Charles Saust, a professional flutist from Saxony who settled in London in 1800.<sup>243</sup>

Several other features typify Monzani & Hill flutes. As in Stanesby flutes, the tenons generally point downwards, with the head joint having a tenon which fits into the socket of the middle joint.<sup>244</sup> This is true of all of the Museum's Monzani & Hill flutes except for no. 2491, the earliest example. Fine, dark cocus or rosewood was the wood of choice. The firm also used silver exclusively for keys and for all other non-ivory fittings, and took such pride in the quality of their silverwork that they went to the trouble to have much of it tested for purity at the London assay office. Thus, many

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<sup>240</sup>However, Hill must have made at least a few large-hole flutes after he took over the business. Shorey, 1991 Catalog of Antique Flutes, p. 7, pictures one of Hill's surviving large-hole flutes. See the table of tone hole measurements for the Museum's Monzani & Hill flutes below. Incidentally, Nicholson, p. 6, notes that Monzani's instruments were among the most popular when he first arrived in London. Nicholson played on a Monzani flute for about a year before abandoning it for a flute made by Potter.

<sup>241</sup>Jeremy Montagu, "New Grove DoMI: JM 9; Further Detailed Comments: the Ls & Ms" FOMRHI Quarterly, no. 54 (January 1989): 34.

<sup>242</sup>Spohr, p. 81.

<sup>243</sup>Nicholson, p. 5; Sainsbury, s.v. "Saust (Charles)."

<sup>244</sup>Eric Halfpenny, "Stanesby, Major and Minor," Music and Letters 34 (January 1953): 44. According to Halfpenny, this feature "discourages the collection of moisture around this joint."

of their flutes bear hallmarks which suggest an approximate date of manufacture.<sup>245</sup> Most of the Monzani & Hill flutes are stamped with the device of a crown, which refers to the royal favor conferred on them *ca.* 1815.<sup>246</sup> The firm does not seem to have fitted their flutes with tuning slides until the 1820s. The Museum's Hill, late Monzani flute, no. 2788, has a tuning slide, with the head joint being only partially lined with metal, which is another Continental feature.

Monzani and Hill obliged their many wealthy clients by producing a fair number of ivory flutes and some ornately decorated flutes. During the 1820s and 1830s, many of their more expensive models featured a fluted body or head joint in the style of the turned chair and table legs of Thomas Sheraton or Henry Holland.<sup>247</sup> One ivory example attributed to Henry Hill is covered with carved Cantonese decoration.<sup>248</sup> Occasionally they sold expensive aristocratic house flutes in cases of three (including a concert flute in C, a third flute in E♭, and a tenor flute in A♭)<sup>249</sup>.

One of Monzani's wealthy friends was Willoughby Bertie, the fourth Earl of Abingdon, who was a patron of the arts and also a good flutist. The Earl composed a number of works which Monzani published. He also lent Monzani his manuscript for Haydn's second flute trio in G, so that Monzani could publish it.<sup>250</sup>

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<sup>245</sup>There is a provisional chronology of extant Monzani serial numbers based on hallmark dates in Appendix A (p. 280 ff.).

<sup>246</sup>Bate, p. 218; and Langwill, *Index*, s.v. "Monzani, Tebaldo."

<sup>247</sup>E. T. Joy, "Furniture," in *Late Georgian Period, 1760-1810*, The Connoisseur Period Guides to the Houses, Decoration, Furnishing and Chattels of the Classic Periods, vol. 4 (New York: Reynal & Co., n.d.), pp. 36, 38-39. An example of one of these flutes with fluted body can be seen in *Musical Instruments: ...Day of Sale, Thursday 22nd November 1990* (London: Sotheby's, 1990), Lot 139. Several examples of extant Monzani & Hill instruments listed in Appendix A feature fluted head joints, including serial nos. 2157, 2679, 2751, 3049, 3054, and 3070.

<sup>248</sup>See *Important Musical Instruments: ...Day of Sale, Thursday, 25 November, 1976* (London: Sotheby & Co., 1976), Lot 37. Such Chinese motifs found their way into much late Georgian and Regency period architecture and interior furnishings, and were associated with the cult of the Picturesque. See E. T. Joy, "Furniture," in *Late Georgian Period*, p. 36; E. T. Joy, "Furniture," in *The Regency Period, 1810-1830*, The Connoisseur Period Guides to the Houses, Decoration, Furnishing and Chattels of the Classic Periods, vol. 5 (New York: Reynal & Co., n.d.), p. 42.

<sup>249</sup>Shorey, *1990 Catalog of Flutes*, pp. 12-13. The third flute is so named because it is pitched a minor third above the concert flute.

<sup>250</sup>Young, p. 388; Landon, *Haydn in England*, pp. 271, 275, and 361. This trio is said to have been composed for the Earl himself.

It should be mentioned that another talented English flute maker represented in the Museum's collections, Cornelius Ward, was foreman under Monzani and Hill after about 1815. An example of his workmanship from this period is in the Bate Collection (no. 117), and is signed **MONZANI & CO. and Cornelius Ward fecit.**<sup>251</sup> A similar example surfaced at a Phillips auction.<sup>252</sup>

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<sup>251</sup>Baines, Bate Collection, p. 5.

<sup>252</sup>Old and Modern Violins, Violas and Violoncellos...[and] a collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 36.

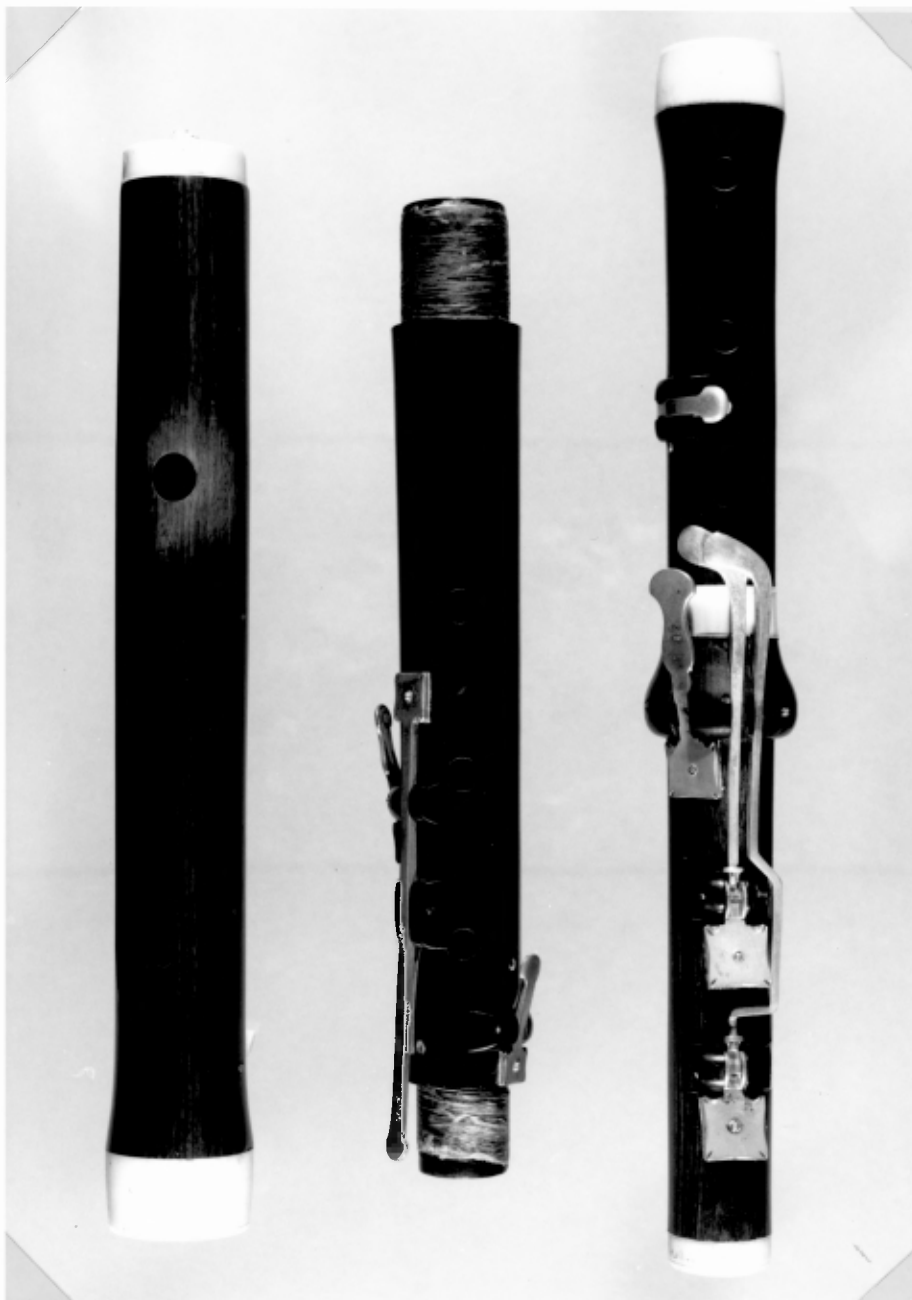
## COMPARISON OF MONZANI &amp; HILL HOLE DIAMETERS

Catalog number	<u>Finger Hole Diameters (in millimeters)</u>					
	I	II	III	IV	V	VI
<u>Flutes</u>						
2491	7.0	6.9	6.3	6.8	6.4	5.0
2490	7.4	8.0	6.9	7.2	8.8	5.8
4447	6.5	6.8	5.6	6.3	6.9	5.0
2788	7.0	8.1	6.8	7.8	8.0	5.7
<u>Tenor Flutes in A<math>\flat</math></u>						
3784	7.3	7.6	5.9	7.3	7.3	5.2
3110	7.7	7.7	6.0	7.0	7.3	5.0

Catalog number	<u>Embouchure Diameters (in millimeters)</u>	
	Longitudinal axis	Latitudinal axis
<u>Flutes</u>		
2491	10.3	9.3
2490	10.0	9.3
4447	11.2	10.0
2788	10.8	9.8
<u>Tenor Flutes in A<math>\flat</math></u>		
3784	12.1	10.3
3110	11.8	11.0

\* \* \* \* \*





No. 2491. Flute by Tebaldo Monzani or Monzani & Co.

## FLUTE

<b>Catalog number:</b>	2491
<b>Maker:</b>	Tebaldo Monzani or Monzani & Co.
<b>Date:</b>	ca. 1808-1810
<b>Inscriptions:</b>	Foot: MONZANI   3 OLD BOND STR   & 100 CHEAPSIDE   LONDON Head joint: MONZANI   LONDON   [in a circle] 81 Upper middle joint: MONZANI   LONDON   4 Lower middle joint: MONZANI   LONDON
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>253</sup> It is uncertain where Larson obtained this flute, but he may have acquired it from Philip Bate. Bate's name and address appear on an envelope which was found with the instrument, and which contains key shanks for some other flute.

**Description:**1. Measurements

Overall length:	67.2 cm
Embouchure:	10.3 mm x 9.3 mm
Sounding length:	60 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Cocus body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

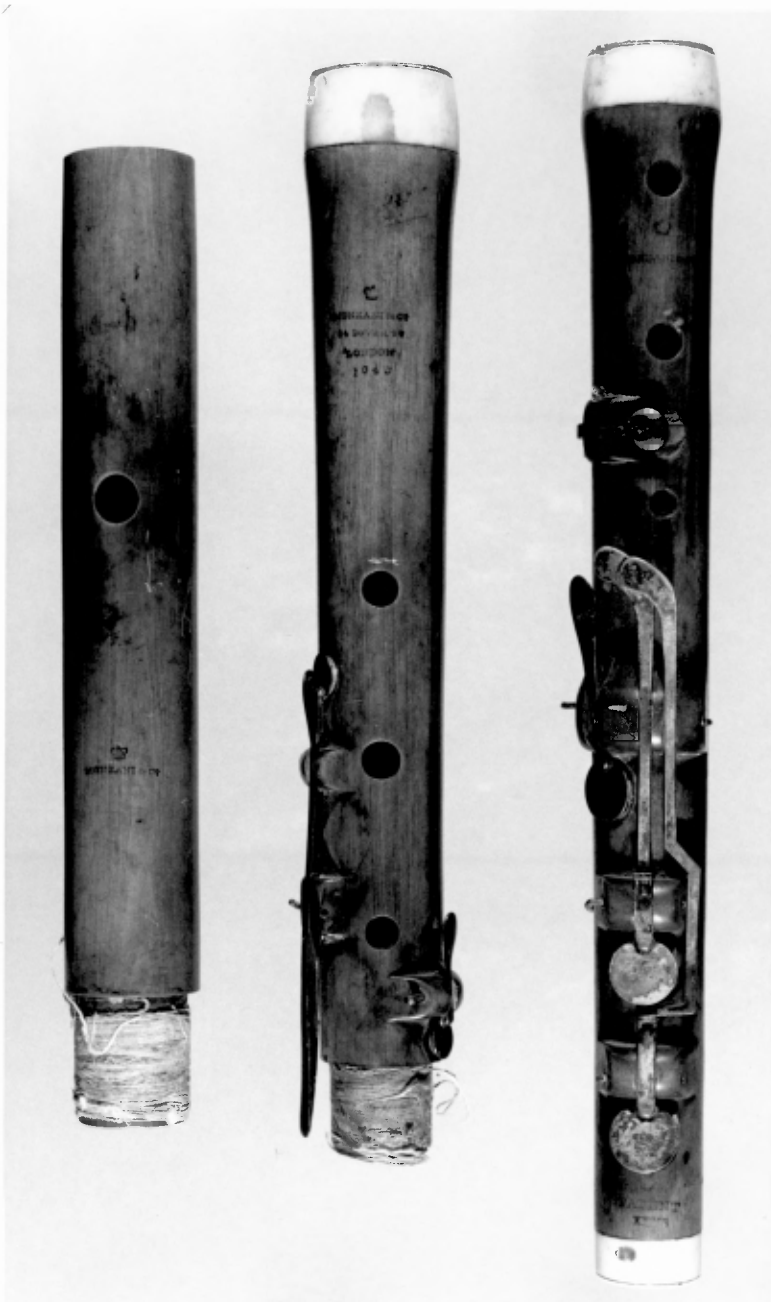
4. Mechanism

Seven silver keys are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The key heads are flat, square, with notched corners, beveled edges, and a raised boss in center. Pads consist of a flat piece of leather pierced by a screw attached to the boss, and secured by a disc-like button.

The head joint has a graduated ivory screw cork adjuster.

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<sup>253</sup>Arne B. Larson, unpublished inventory, no. 474.



No. 2490. Flute by Monzani & Co.

**Condition:**

The flute is in excellent condition. It was prepared for performance use by Gary M. Stewart, who replaced the missing touchpieces for the low C and C# and part of their turned ring, which had broken away and been lost. Stewart also replaced the pads and the broken spring of the G# key. The flute was played by David Eagle in the recital "Early Nineteenth-Century Music for Piano and Flute" at the Shrine to Music Museum, 28 February 1979.

**Notes:**

The 4 on the upper middle joint may indicate that this flute originally came with a set of *corps de rechange*, this being perhaps the longest of three. However, no Monzani flutes with extra middle joints are known to survive, although alternate head joints are frequently seen.<sup>254</sup>

This flute's serial no. (81) was the earliest serial no. seen among extant Monzani & Hill flutes during the course of this study.

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**FLUTE**

<b>Catalog number:</b>	2490
<b>Maker:</b>	Monzani & Co.
<b>Date:</b>	ca. 1814 <sup>255</sup>
<b>Inscriptions:</b>	Middle joint: [crown]   MONZANI & C <sup>o</sup>   24 DOVER ST   LONDON   1043 Head and foot joints: [crown]   MONZANI & C <sup>o</sup> Foot: [crown]   PATENT   KEYS The key heads are stamped with crowns.
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>256</sup> Larson possibly acquired the flute from Houghton Music Company of Blackpool, England, in 1939.

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<sup>254</sup>Several extant Monzani & Hill flutes listed in Appendix A have two head joints, including serial numbers 351, 744, 783, 912, 1063, 1085, 1135, 1136, 1304, 1368, 1501, 1516, 1548, 1752, 2113, and 2193. According to the pricelist issued from Dover Street, an extra head joint was standard with their best flutes.

<sup>255</sup>This dating was made on the basis of other extant flutes with serial numbers close to this one, which bear hallmarks for the year 1814. See list of extant Monzani & Hill flutes in the Appendix.

<sup>256</sup>Arne B. Larson, unpublished inventory, no. 311.

**Description:**1. Measurements

Overall length: 66.2 cm  
 Embouchure: 10 mm x 9.3 mm  
 Sounding length: 58.7 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in three joints (lower middle joint and foot joint are integral). Three ivory ferrules. Conical bore. Tenons point downwards (i.e., head joint carries tenon).

4. Mechanism

Seven silver keys are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The key heads are flat and round. The pads consist of a flat piece of leather pierced by a screw attached to the key head, and secured by a disc-like button.

**Condition:**

The flute is missing its head cap and any cork adjuster it might have had, but is otherwise in good condition.

**Notes:**

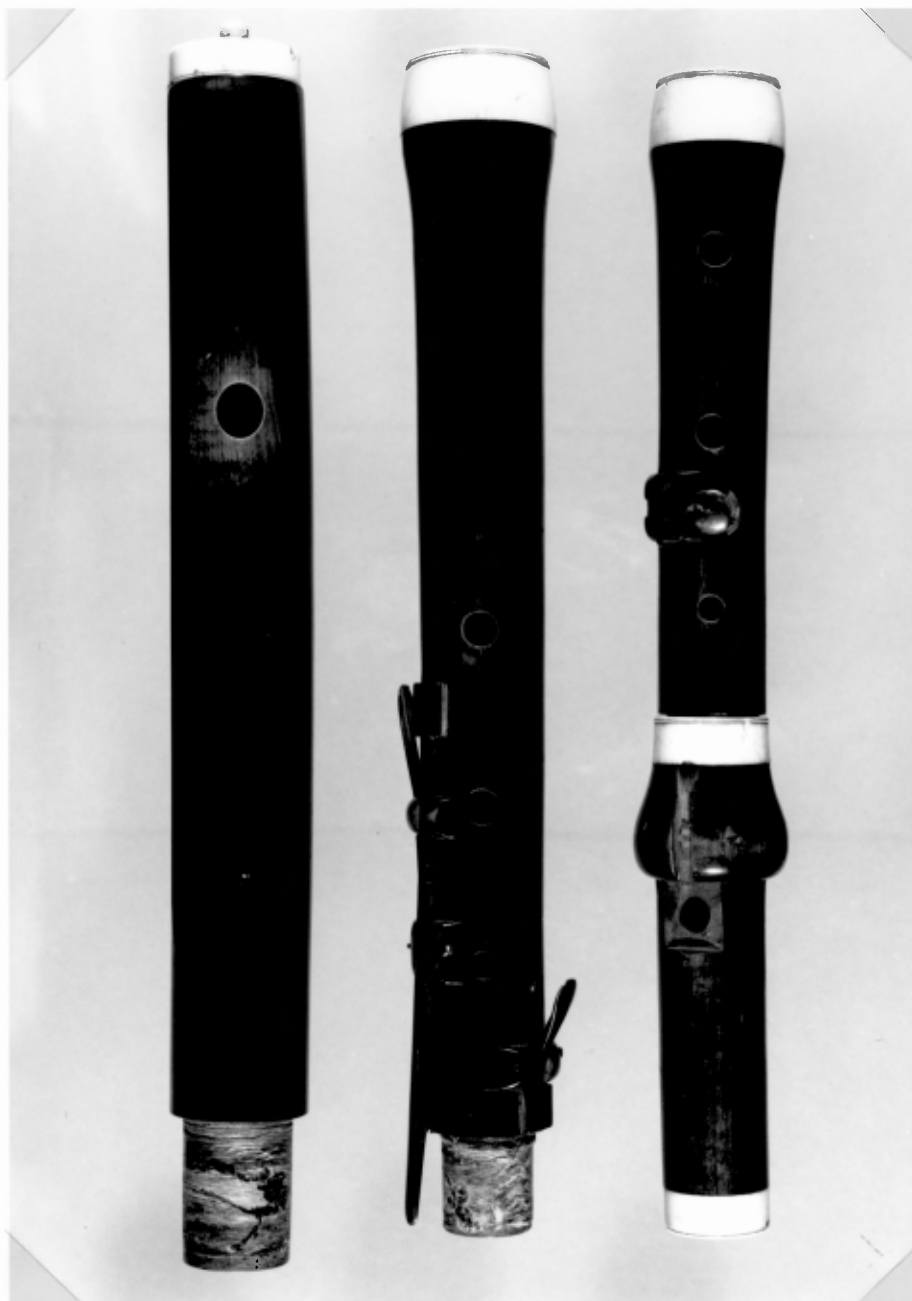
The **PATENT | KEYS** stamp refers to Monzani's key head design patented in 1807.

With the most expensive Monzani & Hill models costing between £12 12s and £17 17s, this flute was a less expensive model probably costing approximately £5 5s.<sup>257</sup>

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<sup>257</sup>Monzani & Hill pricelist, ca. 1814-1819, in the Dayton C. Miller Flute Collection.



No. 3784. Tenor flute in A $\flat$  by Monzani & Co.

TENOR FLUTE IN A $\flat$ 

<b>Catalog number:</b>	3784
<b>Maker:</b>	Monzani & Co.
<b>Date:</b>	ca. 1814-1820
<b>Maker's other marks:</b>	Head joint: [crown]   MONZANI   NO. 24 DOVER ST   LONDON   B Upper middle joint: [crown]   MONZANI'S   PATENT   KEYS   B Lower middle joint and foot: [crown]   MONZANI   B The key heads are stamped with crowns.
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>258</sup> Larson bought this flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, along with twenty-four other woodwind instruments.

**Description:**1. Measurements

Overall length:	76.7 cm
Embouchure:	12.1 mm x 10.3 mm
Sounding length:	68.1 cm

2. Pitch

Six-finger note:	B $\flat$
Lowest note:	B $\flat$ (written d)

3. Construction

Stained boxwood body in four joints. Three ivory ferrules and ivory head cap. Conical bore. Tenons point downwards.

4. Mechanism

Five silver keys are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The D $\sharp$  key has not survived. The key heads are flat and square. The pads consist of a flat piece of leather pierced by a screw attached to the key head, and secured by a disc-like button.

The head joint has an ivory screw cork adjuster.

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<sup>258</sup>Arne B. Larson, unpublished inventory, no. 554.

**Condition:**

Although the D $\sharp$  key has not been preserved, its pin is still present; otherwise, the flute is in good condition.

**Notes:**

This is the instrument Monzani and Hill advertised as "B $\flat$  Tenor Flute" in their pricelist issued from Dover Street:

B $\flat$ Tenor Flutes.	
<i>A Box wood Flute, with 4 Keys</i> .....	£3_13_6
<i>D<sup>2</sup></i> .....	<i>with 4 &amp; C<math>\flat</math> shake Keys</i> ..... 4_4_
<i>D<sup>2</sup></i> .....	<i>5 &amp; _____ D<sup>2</sup></i> ..... 5_5_
<i>Either of the above made of Ebony or Coca wood extra 2.2.0</i>	

This type of larger flute was popular in England in the early nineteenth century.<sup>259</sup> It was referred to as "B $\flat$  Tenor Flute" because its six-finger note was B $\flat$ . In modern nomenclature, this instrument is referred to as being "in A $\flat$ ," since that is its pitch in relation to C.

Monzani's tenor flutes have been variously called "alto flute," "flute in B $\flat$ ," "bass flute in B $\flat$ ," "*flûte d'amour* in A," "B $\flat$  flute in A $\flat$ ," and "flute in A $\flat$ ." They are frequently stamped with a B and have a consistent sounding length of approximately 67 to 68 cm. According to most writers, the six-finger note of the *flûte d'amour* is B, a minor third below the ordinary concert flute.<sup>260</sup> The six-finger note of Monzani's tenor flutes, however, is a major third below that of the concert flute. According to Montagu, "The *flûte d'amour* is not invariably pitched in A; some were in B, some B flat and some A (by "in" I mean the six-finger note)."<sup>261</sup> By this way of thinking, one might call these instruments *flûtes d'amour*. However, the *flûte d'amour* enjoyed its greatest popularity during the eighteenth century. Therefore, B $\flat$  tenor flute, or tenor flute in A $\flat$ , seems the more appropriate designation.

Whatever one calls them, these larger flutes were primarily used in chamber music, since they did not project well in the midst of a large group of instruments. Monzani published trios arranged for third flute in E $\flat$ , concert flute, and tenor flute.<sup>262</sup>

Judging from the Dover Street pricelist, the Museum's no. 3784 probably cost about £4 4s, while no. 3110 (see the next catalog entry), in more expensive cocus and silver, cost about £6 6s.

<sup>259</sup>Victoria and Albert Museum, Catalogue of Musical Instruments, Vol. 2, Non-Keyboard Instruments, by Anthony Baines (London: Her Majesty's Stationery Office, 1968), p. 90.

<sup>260</sup>Rockstro, ¶310, p. 139; Anthony Baines, Woodwind Instruments and Their History, revised edition (New York: Norton, 1963), p. 60; Bate, p. 13; Carse, p. 104; Bessaraboff, p. 53.

<sup>261</sup>Jeremy Montagu, "New Grove DoMI: JM no 5; Further Detailed Comments: The Fs" FOMRHI Quarterly, no. 44 (July 1986): 16.

<sup>262</sup>Peter Thalheimer, "Flauto d'amore, B flat Tenor Flute und 'tiefe Quartflöte': Ein Beitrag zur Geschichte der tiefen Querflöten im 18. und 19. Jahrhundert," Tibia 8 (1983): 339-340.



The PATENT | KEYS stamp refers to Monzani's patent of 1807.

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TENOR FLUTE IN A $\flat$

**Catalog number:** 3110

**Maker:** Monzani & Co.

**Date:** ca. 1816-1817

**Inscriptions:** Upper middle joint: [crown] | MONZANI & C<sup>O</sup> | 24 DOVER ST  
| LONDON | 1343  
Head joint: [crown] | MONZANI & C<sup>O</sup> | B  
Lower middle joint and foot: [crown] | MONZANI & C<sup>O</sup>  
Near sockets of middle joints: PATENT

All key heads are marked with crown stamp. Silver ferrules around the sockets of the two middle joints are hallmarked for the year 1816-1817<sup>263</sup> (stamped with the King's head, lion passant, date letter a, and Monzani's and Hill's initials).

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>264</sup> Larson obtained the instrument from Anthony Baines in 1947.

**Description:**

1. Measurements

Overall length: 76.5 cm  
Embouchure: 11.8 mm x 11 mm (embouchure has been enlarged)  
Sounding length: 68.3 cm

2. Pitch

Six-finger note: B $\flat$   
Lowest note: B $\flat$  (written d)

3. Construction

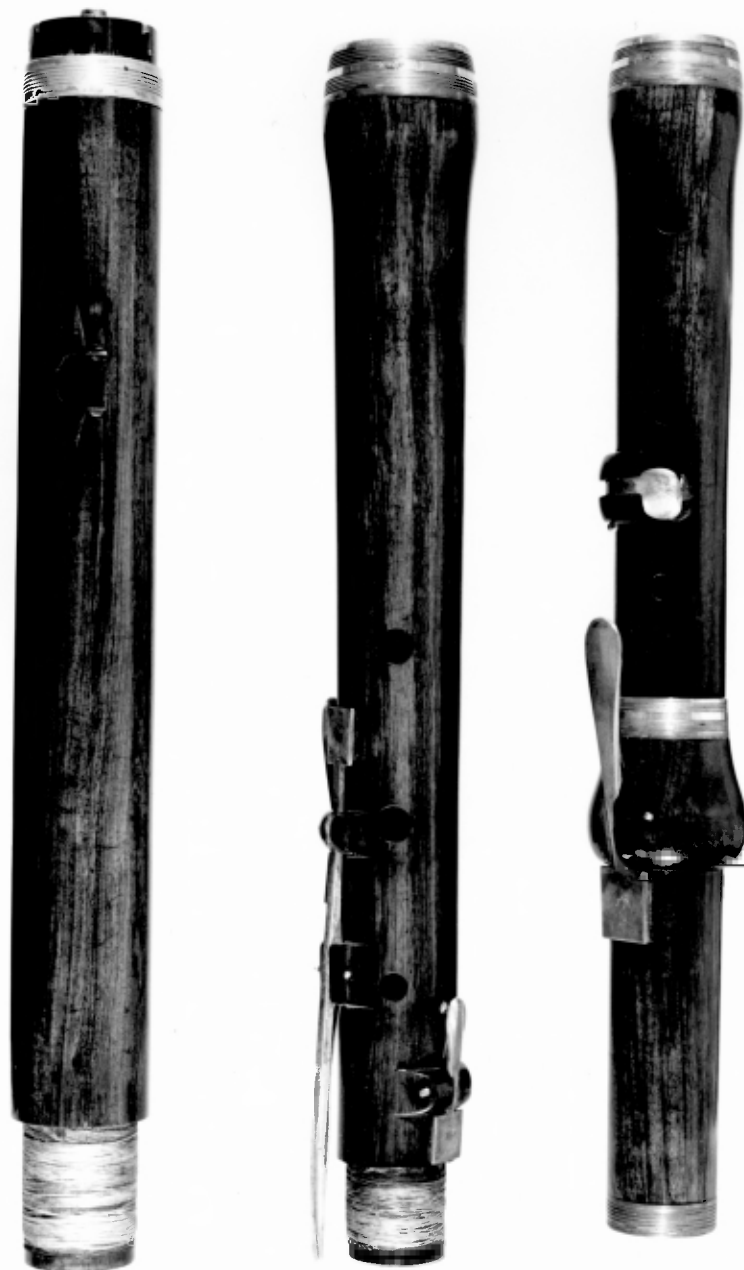
Rosewood or cocus body in four joints. Conical bore. Tenons point downwards. Five grooved silver ferrules (three of which are part of silver-lined sockets). On either side of the embouchure is a raised cusp, called "nob" in Monzani's patent of 1812,<sup>265</sup> the purpose of which was to help the player to position his lips properly for producing the lower notes.

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<sup>263</sup>William Chaffers, Hall Marks on Gold & Silver Plate, 10th ed. (London: Reeves & Turner, n.d.), p. 182.

<sup>264</sup>Arne B. Larson, unpublished inventory, no. 570.

<sup>265</sup>Rockstro, ¶1525, p. 282.



No. 3110. Tenor flute in A $\flat$  by Monzani & Co.

4. Mechanism

Five silver keys are mounted on turned blocks and turned ring (C, B♭, G♯, F, D♯). The key heads are flat and square. The pads consist of a flat piece of leather pierced by a screw attached to the key head, and secured by a disc-like button.

There is a graduated screw cork adjuster made of ivory and silver.

**Condition:**

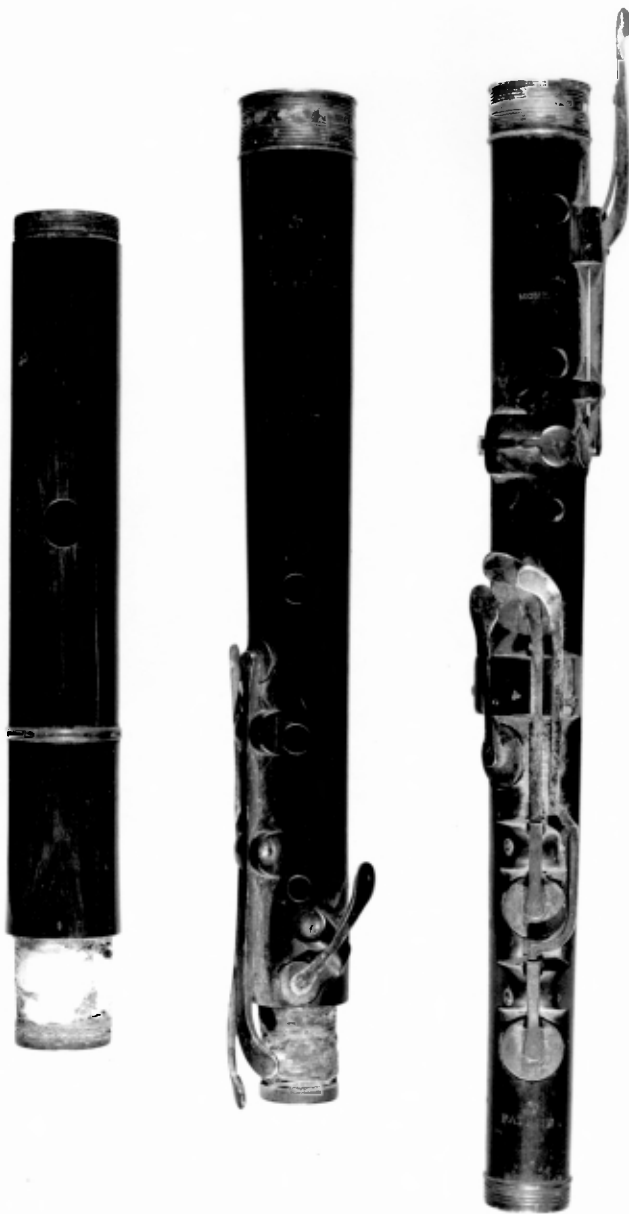
The flute is in good condition. There are three small cracks, each running downward from one of the silver-lined sockets, which illustrates one disadvantage of silver-lined sockets: the tendency of the surrounding wood to shrink and crack. The embouchure hole has been enlarged, and the cusps altered in the process.

**Notes:**

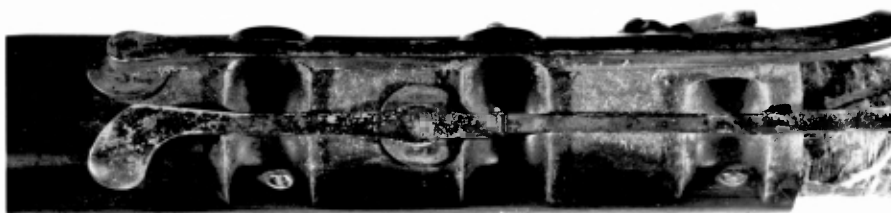
See the notes regarding tenor flutes in A♭ for the previous entry (no. 3784).

The PATENT stamps near the sockets refer to Monzani's patent of 1812.

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No. 4447. Flute by Monzani & Co.



No. 4447. Detail of duplicate B♭ levers.

## FLUTE

**Catalog number:** 4447

**Maker:** Monzani & Co.

**Date:** ca. 1824-1825

**Inscriptions:** Middle joint: [crown] | MONZANI & C<sup>O</sup> | 28 REGENT ST<sup>T</sup> |  
 PICCADILLY | LONDON | 2387  
 Head joint and foot: [crown] | MONZANI & C<sup>O</sup>  
 Middle joint: PATENT  
 Foot: [crown] | PATENT

The key shanks are each stamped with a crown at the point where they connect to the key heads. The ferrule around the socket of the middle joint is hallmarked for the year 1824-1825<sup>266</sup> (stamped with the King's head, lion passant, date letter i, and Monzani's and Hill's initials).

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson purchased the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, along with twenty-four other woodwind instruments.

**Description:**1. Measurements

Overall length: 67 cm  
 Embouchure: 11.2 mm x 10 mm  
 Sounding length: 59.5 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Cocus body in three joints (lower middle joint and foot joint are integral). Five silver ferrules. Conical bore. Silver-lined sockets. The thread-lapped tenons point downwards.

4. Mechanism

Nine silver keys (C, B $\flat$  with right-hand and left-hand touchpieces, G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C) are mounted on turned blocks. The block for the G $\sharp$  key is cut on the diagonal. The two

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<sup>266</sup>Chaffers, p. 182.

F keys control separate holes, the seating for the long F being on a slightly raised platform. The block mount for the long F key, which has been dovetailed into place, is a later repair. The pins securing the key shanks to their mounts are silver with a knob at one end, and are probably not original. The floating key heads are round, slightly cupped, with beaded edges, and are loosely attached to the key shanks by a screw encircled by a leather buffer to allow flexibility of seating. The pads consist of a flat piece of leather pierced by a screw attached to the key head, and secured by a disc-like button.

The head joint has an ivory screw cork.

**Condition:**

Each joint has a small crack. Head cap is missing. Part of the turned block for the foot keys has been broken away and lost.

**Notes:**

This nine-key flute is the model for which Monzani wrote his A New and Enlarged Edition of Monzani's Instructions for the German Flute, 3rd. ed. (London: Monzani & Hill, 1814). (The first edition appeared under the title Instructions for the German Flute in 1801.)<sup>267</sup>

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**FLUTE**

<b>Catalog number:</b>	2788
<b>Maker:</b>	Hill, late Monzani & Co.
<b>Date:</b>	ca. 1832-1833
<b>Inscriptions:</b>	Middle joint: [crown]   HILL LATE   MONZANI & C <sup>O</sup>   28 REGENT ST <sup>T</sup>   PICCADILLY   LONDON   3081 Head joint, barrel, and foot: [crown]   MONZANI & C <sup>O</sup> Middle joint: PATENT Foot: [crown]   PATENT
	The key shanks are each stamped with a crown at the point where they connect to the key heads. Several keys and the ferrules around the sockets are hallmarked for the year 1832-1833 <sup>268</sup> (the stamps, which appear in various order, are: the King's head, lion passant, date letter r, leopard's head, and Hill's initials).
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>269</sup> Larson bought the flute from Houghton Music Company of Blackpool, England, in 1952.

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<sup>267</sup>Eagle, p. 139; and New Grove Dictionary of Musical Instruments, s.v. "Monzani, Tebaldo," by Niall O'Loughlin.

<sup>268</sup>Chaffers, p. 182.

<sup>269</sup>Arne B. Larson, unpublished inventory, no. 1334.



No. 2788. Flute by Hill, late Monzani & Co.



**Description:**1. Measurements

Overall length: 67.5 cm  
 Embouchure: 10.8 mm x 9.8 mm  
 Sounding length: 58.6 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Cocus body in three joints (lower middle joint and foot joint are integral). Five grooved silver ferrules, two of which are part of silver-lined sockets. Silver-tipped tenons point downwards. The first tenon is cork-lapped, the second string-lapped.

4. Mechanism

Seven silver keys (C, B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C) are mounted on turned blocks. The turned blocks are reinforced by silver pins passing through the base of each block. The block mount for the G $\sharp$  key is cut on the diagonal. The touchpieces for the low C and C $\sharp$  keys dovetail. The floating key heads are round, slightly cupped, with beaded edges, and are loosely attached to the key shanks by a screw encircled by a leather buffer to allow flexibility of seating. The relatively thick stuffed skin pads may be later replacements.

The head joint is partially lined with silver, and has a tuning slide. When the slide is pulled out, a slight extension of the tuning slide is revealed, which is grooved to match the ferrules. There is a wooden screw cork adjuster.

5. Accessories

In period case, possibly original. Case is covered with tooled leather and lined with chamois. It has a brass lock, but no key survives.

**Condition:**

All three joints have small cracks. The block mount for the F key is also cracked.

CLEMENTI & CO.

Clementi & Co., founded *ca.* 1800, consisted of various partnerships formed between pianist and composer Muzio Clementi and Frederick Augustus Hyde, Frederick William Collard, Josiah Banger, and David Davis.<sup>270</sup> The main thrust of their business was piano making and music publishing,<sup>271</sup> but they were also dealers in wind instruments. The firm marketed the Nicholson model flute, the Gutteridge model clarinet, and "T. Harper's Improved Royal Kent Bugle."

Although not represented in the Museum's collections, it seems remiss not to discuss one of the firm's biggest sellers, the Nicholson model flute. Charles Nicholson, Jr., who was something of a Paganini of the flute, became the preeminent soloist *ca.* 1820 on account of his brilliant technique, peculiar ornamentation, and vibrant tone, which had remarkable carrying power. While other flutists played with a traditional small, sweet tone quality, Nicholson's tonal ideal was "...as reedy as possible, as much like that of the hautboy as you can get it, but embodying the round mellowness of the clarinet."<sup>272</sup> Nicholson touched off a veritable revolution in flute playing and flute making. He was able to produce more volume than other flutists because, like his father before him, he had enlarged the finger holes of his flute. This sparked a craze for large-holed flutes. Clementi & Co. seized this commercial opportunity and began marketing "C. Nicholson's Improved" model flutes, which were actually made by Thomas Prowse the elder. One extant example, now in the Royal College of Music Museum of Instruments, is clearly marked T. PROWSE FECIT LONDON,<sup>273</sup> but most are marked simply, CLEMENTI & CO. They feature large finger holes (although some examples

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<sup>270</sup>Since the flutes sold by the various partnerships were marked simply, CLEMENTI & CO., it is difficult to determine under which configuration of the company they were sold. New Grove Dictionary of Musical Instruments, s.v., "Clementi," by Margaret Cranmer and New Langwill Index (forthcoming) discuss the different partnerships.

<sup>271</sup>The extent of their publishing is shown by their music catalog of 1823, which was 217 pages. They published sheet music from Longman & Broderip's old plates, contemporary piano music, and Haydn's The Seasons, among many other compositions. Nicholas Temperley, ed., The Romantic Age, 1800-1914, The Athlone History of Music in Britain, vol. 5 (London: Athlone Press, 1981; Atlantic Highlands, New Jersey: Humanities Press, 1981), "Music Publishing," by D. W. Krummel.

<sup>272</sup>Nicholson, p. 3.

<sup>273</sup>Ridley, p. 17.

have medium-sized holes); a slightly narrower bore; an embouchure bushed with ivory for more incisive articulation; and small excavations in the exterior of the tube, lined with shark skin, which were supposed to make the flute easier to hold. The Nicholson model was usually made of cocus, and had six to eight keys.<sup>274</sup>

By 1822, Clementi & Co. claimed to have sold a thousand Nicholson model flutes. If their serial numbers are any indication of output, they probably sold many more: A "C. Nicholson's Improved" model, serial no. 3166, appeared at a Phillips sale.<sup>275</sup> The association with Clementi was particularly beneficial to Nicholson, who received royalties from the flutes sold, and who was supported by Clementi & Co. during his last illness (he died in 1837 at the age of 42).

The rest of the flutes stamped CLEMENTI & CO. are mostly boxwood or cocus instruments with one to eight keys. For the purpose of comparison, a table of measurements for the Museum's Clementi flutes follows.

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<sup>274</sup>Rockstro, ¶536-¶540, pp. 287-290.

<sup>275</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique and Modern Wind and Plucked Instruments...to be Sold by Auction on Thursday November 17th 1977... (London: Phillips, Son & Neale, 1977), Lot 13.

## COMPARISON OF CLEMENTI HOLE DIAMETERS

Catalog number	<u>Finger Hole Diameters (in millimeters)</u>					
	I	II	III	IV	V	VI
2355	7.0	7.0	6.3	7.2	7.0	5.1
2356	7.1	8.0	6.5	7.0	8.0	5.8
5411	6.2	7.0	5.8	6.5	7.0	5.0
5377	6.2	7.3	6.9	6.7	7.2	5.0

Catalog number	<u>Embouchure Diameters (in millimeters)</u>	
	Longitudinal axis	Latitudinal axis
2355	9.9	10.3
2356	10.8	10.0
5411	11.2	9.9
5377	11.2	10.0

## FLUTE

**Catalog number:** 2355

**Distributor:** Clementi & Co.

**Date:** ca. 1800-1831

**Inscriptions:** All joints: [curved] CLEMENTI | LONDON

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>276</sup> Larson acquired the flute from Anthony Baines, 1945.

**Description:**1. Measurements

Overall length: 60.4 cm  
 Embouchure: 9.9 mm x 10.3 mm  
 Sounding length: 53.7 cm

2. Pitch

Six-finger note: d  
 Lowest note: d

3. Construction

Stained boxwood body in four joints. Three ivory ferrules. Foot has later horn ferrule. Conical bore.

4. Mechanism

One brass key mounted on turned ring. The key head is square, with beveled edges and notched corners.

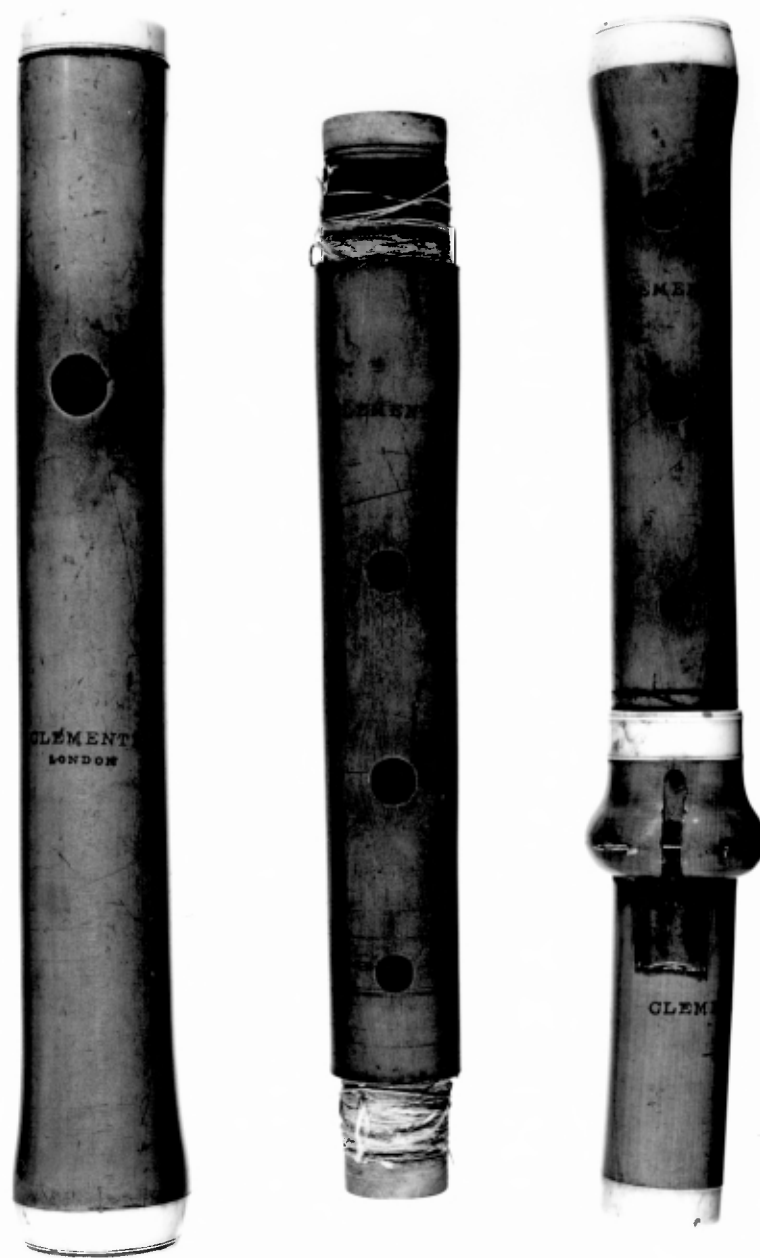
**Condition:**

The flute is missing its head cap and has cracks in the lower middle joint and foot.

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<sup>276</sup>Arne B. Larson, unpublished inventory, no. 209.



No. 2356. Flute sold by Clementi & Co.

## FLUTE

**Catalog number:** 2356  
**Distributor:** Clementi & Co.  
**Date:** ca. 1800-1831  
**Inscriptions:** Head joint: CLEMENTI | LONDON  
 Middle joints and foot: CLEMENTI  
**Acquisition history:** Arne B. Larson Collection, 1979,<sup>277</sup>

**Description:**1. Measurements

Overall length: 60 cm  
 Embouchure: 10.8 mm x 10 mm  
 Sounding length: 53.1 cm

2. Pitch

Six-finger note: d  
 Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

One brass key (D $\sharp$ ) is mounted on a turned ring. The chamfered key head is square, and has beveled edges and notched corners.

**Condition:**

The flute is in fair condition. The touchpiece of the key is missing. The body is warped, and there is an abrasion on the lower middle joint.

**Notes:**

The style of turning and the slightly larger tone holes of this flute suggest that it was made later than no. 2355.

\* \* \* \* \*

*Arne B. Larson Collection*

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<sup>277</sup>Arne B. Larson, unpublished inventory, no. 309.

## FLUTE

<b>Catalog number:</b>	5411
<b>Maker:</b>	Clementi & Co.
<b>Date:</b>	ca. 1800-1831
<b>Maker's marks:</b>	Head and lower middle joint: [curved] CLEMENTI & C <sup>o</sup>   [curved] LONDON Upper middle joint and foot: PATENT   [curved] CLEMENTI & C <sup>o</sup>   [curved] LONDON Ivory ferrule adjacent to barrel: PATENT
<b>Acquisition history:</b>	Arne B. Larson Collection, 1978. <sup>278</sup> Larson purchased the flute from Philip Bate in 1952.

**Description:**1. Measurements

Overall length:	67 cm
Embouchure:	11.2 mm x 9.9 mm
Sounding length:	59.5 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Boxwood body in five sections (head, barrel, upper middle, lower middle, foot). Ivory headcap and five ivory ferrules. Conical bore.

4. Mechanism

Six silver or silver-plated keys are mounted on turned block and rings (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , C). The key heads are pewter plugs which close over holes bushed with metal.

The head joint is fully lined with brass and has a tuning slide (presently frozen shut). There is also a graduated ivory screw cork adjuster

**Condition:**

The flute is in fair condition. The head and barrel are cracked and the B $\flat$  key is missing. Judging from the grain and color of the wood and from the way the joints fit together, this instrument is apparently a composite of at least two Clementi flutes.

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<sup>278</sup>Arne B. Larson, unpublished inventory, no. 498.



## FLUTE

<b>Catalog number:</b>	5377
<b>Maker:</b>	Clementi & Co.
<b>Date:</b>	ca. 1800-1831
<b>Maker's marks:</b>	Head and lower middle joint: [curved] CLEMENTI & C <sup>o</sup>   [curved] LONDON Upper middle joint and foot: PATENT   [curved] CLEMENTI & C <sup>o</sup>   [curved] LONDON Ivory ferrule adjacent to barrel: PATENT
<b>Acquisition history:</b>	Donated to the Museum by Chris Norman of Baltimore, Maryland, 24 November 1992.

**Description:**1. Measurements

Overall length:	67 cm
Embouchure:	11.2 mm x 10 mm
Sounding length:	59.5 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Figured boxwood body in five sections (head, barrel, upper middle, lower middle, foot). Ivory headcap and five ivory ferrules. Conical bore.

4. Mechanism

Seven silver keys are mounted on turned block and rings (C, B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , low C). The key heads are pewter plugs which close over holes bushed with metal.

The head joint is fully lined with brass and has a graduated tuning slide. There is also a graduated ivory screw cork adjuster.

**Condition:**

The instrument is in good condition, although it has a crack in the head joint.

### JOHN LONGMAN

The Longmans were music publishers and sellers of musical instruments. Although the instruments they sold (which included everything from harpsichords to trumpets to kettle drums) were marked with the Longman name, they were apparently made by other makers.<sup>279</sup> James Longman founded the business about 1767 at 26 Cheapside (see map, p. 42). He was joined by partner Lukey in 1769 and by Francis Broderip in 1775. Lukey left in 1776, and the firm was known as Longman & Broderip from that time until its bankruptcy in 1798.<sup>280</sup>

At some point, John Longman took James' place in Longman & Broderip. After the firm became insolvent, John Longman was briefly in partnership with Clementi before setting up his own shop at 131 Cheapside. It was from this address that this particular flute was distributed.

John Longman was succeeded by (Giles) Longman & (James) Herron in 1816. The firm is not known to have existed past 1822. In 1833, one George Longman, previously of Longman and Bates (organ and piano sellers on Ludgate Hill<sup>281</sup>) moved to 131 Cheapside. It is not known whether he was any relation to James, John, or Giles Longman.

The New Langwill Index lists a John Longman flute associated with Philip Bate, which may actually be the flute in this description.

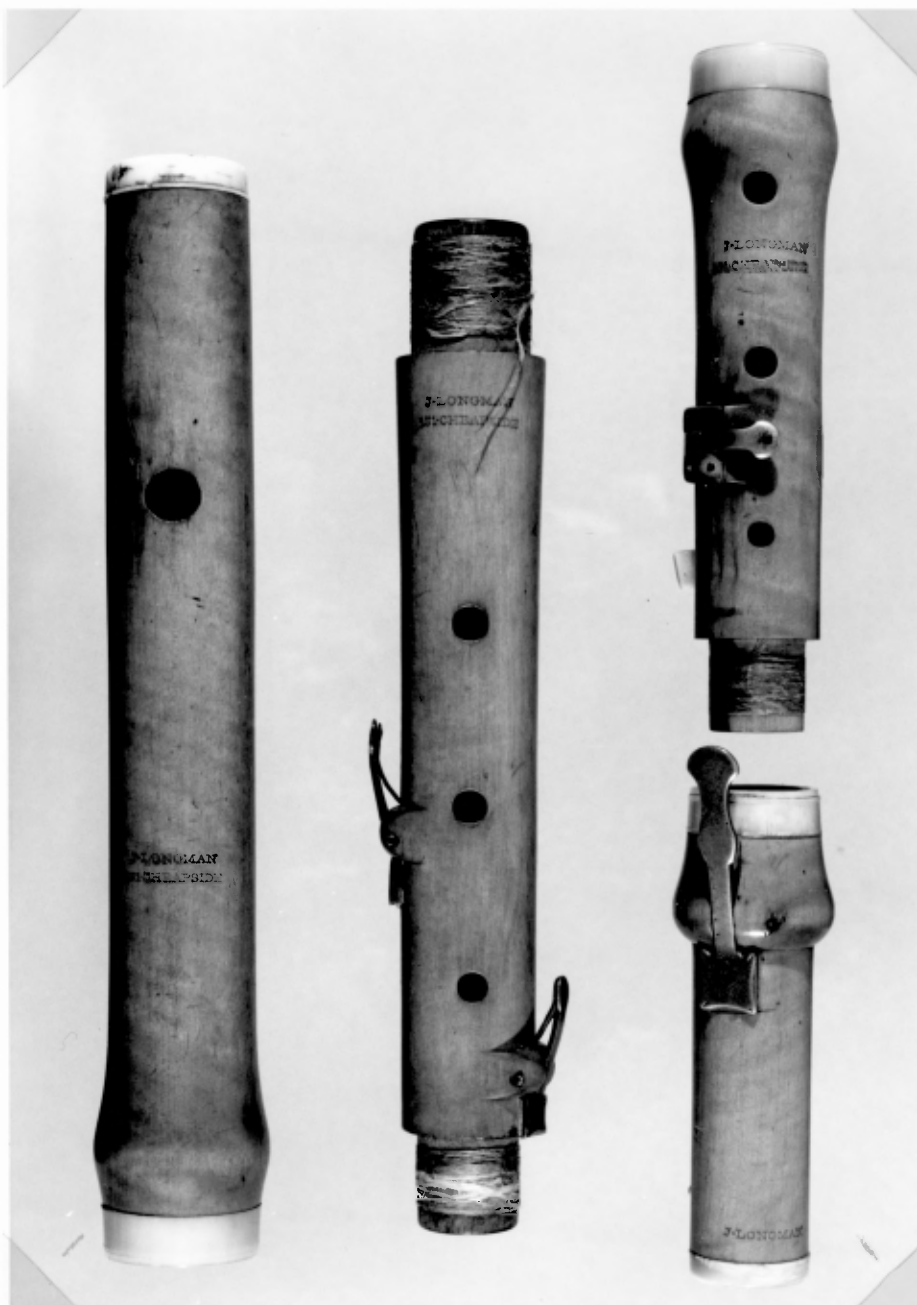
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<sup>279</sup>N. Whittock and others, The Complete Book of Trades, or the Parents Guide and Youth's Instructor... (London: Thomas Tegg, 1842), p. 5, specifically mentions that flutes stamped "Longman" are actually the work of other makers. Also see David Wainwright, The Piano Makers (London: Hutchinson, 1975), p. 38; Jeremy Montagu, "New Grove DoMI: JM 9; Further detailed comments; the Ls & Ms," FOMRHI Quarterly, no. 54 (January 1989), p. 33; New Grove Dictionary of Musical Instruments, s.v., "Longman & Broderip," by Peter Williams; and Raymond Russell, The Harpsichord and Clavichord: An Introductory Study, 2nd. ed. (New York: Charles Scribner's Sons, 1973), pp. 83-85.

<sup>280</sup>See New Langwill Index (forthcoming); Kidson, pp. 72-74; Humphries and Smith, pp. 215-218; and Rosamond E. M. Harding, The Piano-Forte: Its History Traced to the Great Exhibition of 1851 (Cambridge: Cambridge University Press; reprint ed., New York: Da Capo, 1973), pp. 398-399.

<sup>281</sup>Harding, p. 398.



No. 4839. Flute sold by John Longman.

## FLUTE

<b>Catalog number:</b>	4839
<b>Distributor:</b>	John Longman
<b>Date:</b>	ca. 1801-1816
<b>Inscriptions:</b>	Head, middle joints: <b>J-LONGMAN   131 CHEAPSIDE</b> Foot: <b>J-LONGMAN</b>
<b>Acquisition history:</b>	Higbee-Abbott Collection, 1989. <sup>282</sup> Dale Higbee of Salisbury, North Carolina, purchased this instrument from Philip Bate of London, in 1964.

**Description:**1. Measurements

Overall length:	59.6 cm
Embouchure:	10.1 mm x 11 mm
Sounding length:	53.3 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. The ivory does not appear to be elephant ivory. Conical bore. There is very little undercutting of the tone holes.

4. Mechanism

Four brass keys are mounted on turned blocks and turned ring (B♭, G♯, F, D♯). Key heads are square with beveled edges and notched corners. The B♭ and G♯ keys may be later replacements, since the workmanship of the keys and their springs is considerably cruder than that of the other two keys.

**Condition:**

The instrument is in good condition. The block mount for the F key was at one time broken off, and was repaired with two pieces of wood tacked on to the body.

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<sup>282</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.

THOMAS KEY

Thomas Key began making woodwind and brass instruments in 1800, and eventually became particularly well-known for his clarinets. His first known address was 2 Pall Mall, beginning *ca.* 1804, at which time he was in partnership with J. B. Cramer.<sup>283</sup> Key was in business on his own account at the same address from *ca.* 1808 until 1812 or 1813, when he removed to 20 Charing Cross, where he spent the remainder of his career. His business grew to be rather large. In 1834, forty men were employed in the brass instrument division alone.<sup>284</sup>

In 1853, the year Thomas Key died, his son Frederick took over the business, soon after entering into partnerships with Rudall, Rose & Carte. Rudall, Rose & Carte then bought out Key & Co., and Frederick disappears from record after the year 1858.<sup>285</sup>

A great many instruments by Key are known to survive. His flutes are all simple system instruments, a majority of them boxwood with ivory decoration.

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<sup>283</sup>Incidentally, this was the former address of Tebaldo Monzani, who worked here from 1798 to 1804. In 1807, Key would have witnessed London's first gas lighting in Pall Mall near the shop he shared with Cramer. Weinreb and Hibbert, *s.v.*, "Pall Mall."

<sup>284</sup>Rose, pp. 103-104.

<sup>285</sup>New Langwill Index (forthcoming); New Grove Dictionary of Musical Instruments, *s.v.*, "Key, Thomas," by Niall O'Loughlin; and Maurice Byrne, "George Miller and John Cramer," Galpin Society Journal 19 (1966): 134-136.



No. 1349. Flute by Thomas Key.

## FLUTE

**Catalog number:** 1349

**Maker:** Thomas Key

**Date:** ca. 1800-1830

**Inscriptions:** All four joints: KEY | LONDON | [unicorn]

**Acquisition history:** Arne B. Larson Collection, 1979. Larson apparently obtained the instrument from Philip Bate in 1949.<sup>286</sup>

**Description:**1. Measurements

Overall length: 58.1 cm  
 Embouchure: 10.8 mm x 9.3 mm  
 Sounding length: 50.3 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four brass keys are mounted on turned blocks and turned ring (B♭, G♯, F, D♯). Key heads are square, with notched corners and beveled edges.

**Condition:**

The instrument is in excellent condition.

*Arne B. Larson Collection*

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<sup>286</sup>Arne B. Larson, unpublished inventory, no. 308.

**CHRISTOPHER GEROCK**

Christopher Gerock, a woodwind maker, music seller, and publisher from Ritzfeld bei Weinsburg, was granted his freedom of the Musician's Company of London in 1804. Thereafter, he worked for thirty-two years within the City walls on three adjacent streets, within a square half mile. At various times, he was in partnership with Elizabeth Astor (the widow of George Astor, who had died in 1813) and with Robert Wolf, who eventually succeeded Gerock in 1837. The general history of the firm can be summarized as follows.<sup>287</sup>

<b>C. Gerock</b>		
76 Bishopsgate Within		1805-1823
Additional premises, 1 Gracechurch Street		ca. 1815-1821
<b>Gerock, Astor &amp; Co.</b>		
79 Cornhill (Astor's old address)		1824-ca. 1827
Additional premises, 76 Bishopsgate Within		1823-ca. 1827
<b>C. Gerock &amp; Co.</b>		
79 Cornhill		ca. 1827-1837
Also traded as <b>Gerock &amp; Wolf</b> , 79 Cornhill		1831-1832

Gerock's flute output consists primarily of boxwood instruments with ivory decoration and one, four, or six square keys. Like Astor, Cramer, and several other makers, Gerock stamped his work with a unicorn. He also used an English rose device (as on the Museum's Gerock flute), and occasionally had his silverwork hallmarked.

The partnership of Gerock & Wolf is best known for its connection to Theobald Boehm. In 1831, Boehm, in London while on tour as a flute soloist, had a prototype open-hole flute made at the 79 Cornhill workshop. Gerock & Wolf made great claims for this (unpatented) flute in their 1831 pamphlet, Scale and Description of Boehm's Newly-Invented Patent Flute. Although the firm claimed to sell these flutes, the 1831 Boehm model was probably never commercially produced.<sup>288</sup> By the

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<sup>287</sup>New Langwill Index (forthcoming); New Grove Dictionary of Musical Instruments, s.v., "Gerock, Christopher," by Niall O'Loughlin; Langwill, Index, s.v., "Gerock."

<sup>288</sup>Bate, pp. 117-118.



following year, Boehm was manufacturing his more mature 1832 model in Munich. Oddly enough, the two 1831 examples encountered during this study are both signed C · GEROCK | 79 | CORNHILL, not GEROCK & WOLF.<sup>289</sup>

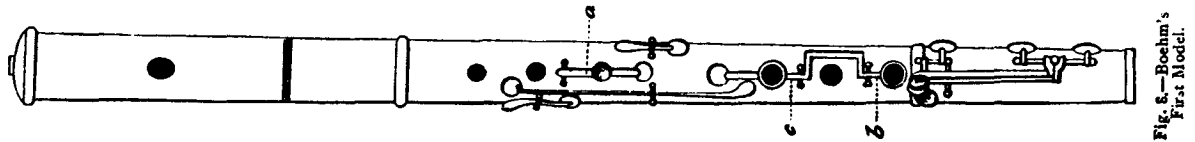


Fig. 8.—Boehm's First Model.

Boehm's 1831 design. Reproduced from Welch.<sup>290</sup>

Apparently, an earlier stage of the collaboration between Boehm and Gerock & Wolf is represented by a flute recently uncovered by David Shorey. It is a simple-system Gerock & Wolf flute, hallmarked 1831, which combines contemporary London flute design with Boehm's recent Munich innovations.

Theobald Boehm's famous 1831 model flute, made at Gerock and Wolf's, was obviously accompanied by this English version of his most advanced Munich flutes, with posts set directly into the wood (a revolutionary technique which Boehm pioneered), gold springs, and the rod-operated B♭ trill. The head joint is fitted with a French-style (partially lined) tuning slide (plated tube). This is a very rare example of what seems to have been Boehm's first English design. Known only through this and two or three other flutes, the date, make, and design of this instrument strongly suggests that Boehm made (Boehm's gift was supervision) an English version of his keyed flute. This could have been his first response to Nicholson's overwhelming power, and well may have been conceived before his more famous "open hole" 1831 design, whose inspiration led to the successful 1832 system.<sup>291</sup>

<sup>289</sup>One example is in the Munich Stadtmuseum (Spohr, p. 29), the other, in the collection of Karl Ventzke, Düren (Manfred Hermann Schmid, Theobald Boehm, 1794-1881: Die Revolution der Flöte; Katalog der Ausstellung zum 100. Todestag von Boehm, Musikinstrumentenmuseum im Münchner Stadtmuseum, Veröffentlichungen des Musikinstrumentenmuseums München, Band 1 (Tutzing: Hans Schneider, 1981), pp. 71-72.)

<sup>290</sup>Welch, p. 87.

<sup>291</sup>Shorey, 1990 Catalog of Flutes, pp. 15-16.

## FLUTE

<b>Catalog number:</b>	4834
<b>Maker:</b>	Christopher Gerock
<b>Date:</b>	ca. 1805-1823
<b>Inscriptions:</b>	Head joint: [English rose]   C · GEROCK   LONDON All other joints: C · GEROCK   LONDON
<b>Acquisition history:</b>	Higbee-Abbott Collection, 1989. <sup>292</sup> Dale Higbee of Salisbury, North Carolina, bought the flute from Philip Bate of London, in 1962.

**Description:**1. Measurements

Overall length:	59.7 cm
Embouchure:	9.8 mm x 9.1 mm
Sounding length:	53.1 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap (not original). The cork is a later replacement and is faced with a metal disc. Conical bore.

4. Mechanism

One brass key is mounted on a turned ring (D $\sharp$ ). The key head is square, with notched corners and beveled edges.

**Condition:**

The flute is in excellent condition. Philip Bate noted that the head cap is probably contemporary with the rest of the flute, but is not original.<sup>293</sup> According to his checklist, "Dale Higbee Instrument Collection," Higbee had the flute overhauled by Eugene Marteney of Harvard, Massachusetts, in 1965.

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<sup>292</sup>USD Museum Acquires Higbee Collection, Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.

<sup>293</sup>Philip Bate to Dale Higbee, 11 November 1962.



No. 4834. Flute by Christopher Gerock.

ANDREW KAUFFMANN

The woodwind maker Andrew Kauffmann was active from at least 1807 (the year he patented certain "improvements in the construction of the flageolette or English flute") until *ca.* 1827.<sup>294</sup> Three addresses are known for Kauffmann, partially accounting for the years 1821 through 1827. Two of these addresses were located in the City (4 Angel Court, Skinner Street, and 1 Halfmoon Passage, Aldgate Street), the other, in Southwark (13 Water Street, Black Friars Road). According to David Shorey, Kauffmann made ivory flutes for Drouet.<sup>295</sup>

A survey of available museum and auction catalogs located about a dozen examples of Kauffmann flutes. Nearly all of them are eight-keyed ivory flutes with silver keywork. Two of them bear a unicorn mark.<sup>296</sup>

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## FLUTE

**Catalog number:** 4842

**Maker:** Andrew Kauffmann

**Date:** *ca.* 1821-1827

**Inscriptions:** All joints: A. KAUFFMANN | LONDON

Above each signature, the faint initials TB (?) are scratched into the ivory, mostly obliterating what appears to be a unicorn device.

**Acquisition history:** Higbee-Abbott Collection, 1989.<sup>297</sup> Dale Higbee of Salisbury, North Carolina, bought the flute from Philip Bate of London, in 1960. Bate had acquired the instrument in 1945.

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<sup>294</sup>New Langwill Index (forthcoming); Patents for Inventions, p. 50.

<sup>295</sup>David Shorey to Amy Kreitzer, 15 May 1991.

<sup>296</sup>See list of extant Kauffmann flutes in Appendix B (pp. 315-316).

<sup>297</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.



No. 4842. Flute by Andrew Kauffmann.

**Description:**1. Measurements

Overall length: 65.4 cm  
 Embouchure: 10.1 mm x 9.8 mm  
 Sounding length: 58.8 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Ivory body in five sections. Ivory head cap. Five turned silver ferrules with beaded section in center. Conical bore. The tone hole undercutting is very wide.

4. Mechanism

Eight silver keys are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The key heads are round, flat, shallow cups. The F key and long F key control separate holes.

The head joint is partially lined and has a tuning slide and an ivory screw cork adjuster.

5. Accessories

Wooden (mahogany?) case with red velvet lining, lock, and key. Philip Bate believed this to be the original case.<sup>298</sup>

**Condition:**

The flute is in excellent condition. There are two small, nonprogressive cracks in the head joint near the barrel. The ivory screw for the cork adjuster has small chips at its end. Bate corked the tenons and repadded the keys with flat leather pads.<sup>299</sup>

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<sup>298</sup>Philip Bate to Dale Higbee, 23 September 1960.

<sup>299</sup>*Ibid.*

BLACKMAN

This firm was established by William Blackman in 1810 at 15 Union Street, Borough, Southwark. Apparently William was only a music seller and publisher of vocal music. It was not until his son, Josiah, took over the business in 1845 that the firm began manufacturing woodwind instruments. Josiah worked at 93 Blackfriars Road from 1845 to 1857, and at 120 Blackfriars Road from 1857 to 1882. Flutes marked **BLACKMAN** are simple system instruments with from one to eight keys, and may have been merely distributed by William or actually made by Josiah.<sup>300</sup>

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## FLUTE

**Catalog number:** 4441

**Maker:** Josiah Blackman?  
(possibly merely distributed by William Blackman)

**Date:** *ca.* 1850?

**Inscriptions:** Head joint and foot: **BLACKMAN | LONDON**  
Middle joints: **BLACKMAN**

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson bought the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, as part of a collection of twenty-five woodwind instruments.

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<sup>300</sup>See Kidson, p. 11; Humphries and Smith, p. 75; and New Langwill Index (forthcoming). Langwill, Index, s.v. "Blackman, William," however, identifies William as an instrument maker. The instruments are usually marked simply "Blackman, London", which is not particularly helpful in determining whether the father or the son applied the stamp. A few instruments, however, are marked "Blackman, 93 Blackfriars Rd" (for example, Bate Collection, no. 171), which would certainly indicate Josiah Blackman. See Baines, Bate Collection, p. 12.



No. 4441. Flute sold by Blackman, Southwark.



**Description:**1. Measurements

Overall length: 60.8 cm  
Embouchure: 11 mm x 9.5 mm  
Sounding length: 53 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four silver keys with square key heads are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ).

There is a graduated ivory screw cork adjuster.

**Condition:**

The instrument is in good condition, having only a few small cracks in the socket of the lower middle joint.

BILTON

Richard John Bilton was active in Lambeth during the second quarter of the nineteenth century. He had earlier been employed by Cramer, Thomas Key, and Florent, hence his signatures, "Bilton Fecit Late App<sup>ce</sup> and Foren to Cramer, London"; "Bilton late with Key"; or, "Bilton late Florent". In 1821, he established his own shop on 14 Mount Row, Westminster Bridge. From 1826 to 1856, the firm was located at 93 Westminster Bridge Road.<sup>301</sup>

There are listings for both Richard John Bilton and for a John Bilton at 93 Westminster Bridge Road from 1846 to 1855. John may have been Richard's son. It is difficult to say whether John was part of the firm at the time this particular flute was made. Possibly not, if one agrees with Philip Bate's statement: "The style of the keywork places this example, I think, within the first few years of Biltons [*sic*] known period."<sup>302</sup>

Most extant Bilton flutes are boxwood with ivory decoration and one, four, or eight keys. Clarinets, flageolets, bassoons, and brass instruments of Bilton's also survive. David Shorey has observed that Bilton flutes are of moderate quality, built for the amateur buyer.<sup>303</sup>

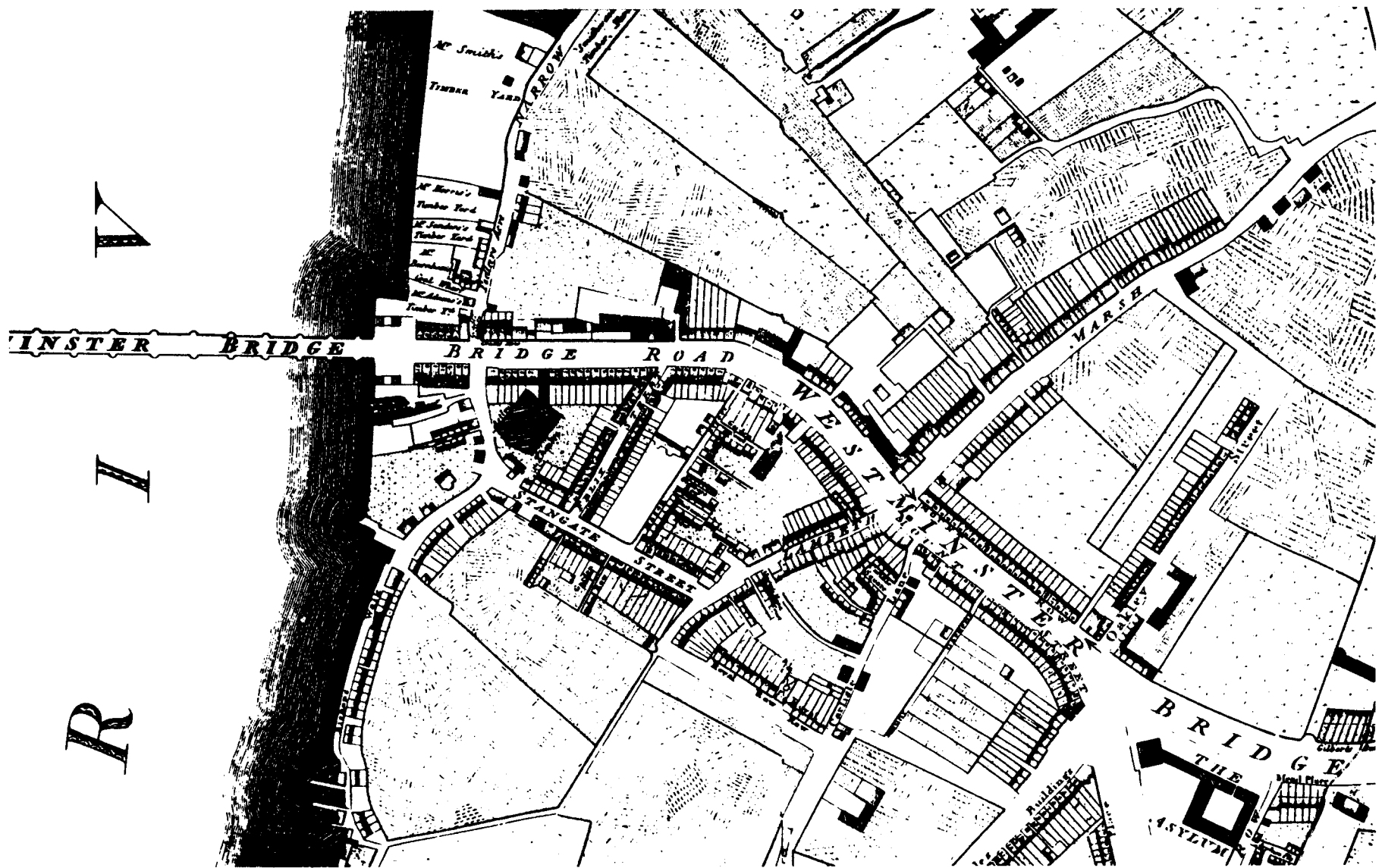
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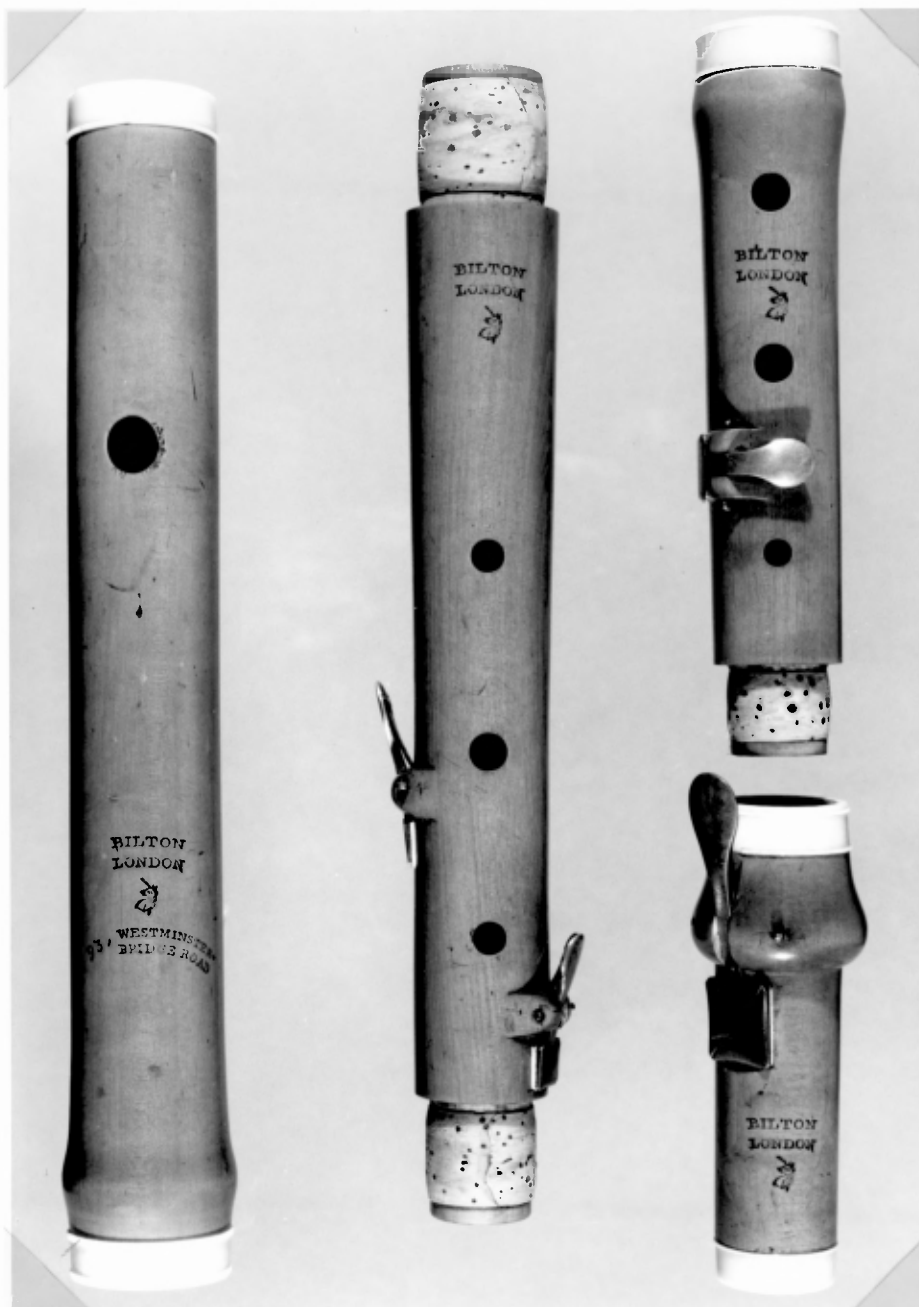
<sup>301</sup>New Langwill Index (forthcoming).

<sup>302</sup>Philip Bate to Dale Higbee, 12 May 1960.

<sup>303</sup>David Shorey to Amy Kreitzer, 15 May 1991.



Map of Lambeth showing Mount Row (marked with an arrow) and Westminister Bridge Road, where the Biltons worked.  
From Map: Part of Plan of the Cities of London & Westminister, the Borough of Southwark, and Parts Adjoining  
Shewing every House (London, 1792-1799). Reproduced in Barker and Jackson, p. 82.



## FLUTE

<b>Catalog number:</b>	4838
<b>Maker:</b>	Richard John Bilton or John Bilton
<b>Date:</b>	1826-1856
<b>Inscriptions:</b>	Head joint: <b>BILTON   LONDON   [unicorn]   [curved]</b> <b>93 WESTMINSTER-   [curved] BRIDGE ROAD</b> Middle joints, foot: <b>BILTON   LONDON   [unicorn]</b>
<b>Acquisition history:</b>	Higbee-Abbot Collection, 1989. <sup>304</sup> Dale Higbee of Salisbury, North Carolina, bought this flute from Philip Bate of London, in 1964.

**Description:**1. Measurements

Overall length:	60.3 cm
Embouchure:	10.5 mm x 9.6 mm
Sounding length:	53.5 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. The cork is a later replacement and is faced on both ends with metal discs. Conical bore.

4. Mechanism

Four brass keys are mounted on turned blocks and on turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The key beds are square with a scalloped bottom edge. The key heads are square, with beveled edges and notched corners.

**Condition:**

The flute is in excellent condition. There are a few small chips on the far side of the embouchure hole. According to his checklist, "Dale Higbee Instrument Collection," Higbee had the instrument overhauled by Eugene Marteney in 1965.

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<sup>304</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3. This flute is listed in Langwill, Index, s.v. "Bilton, Richard John."

### MONRO & MAY

Like Longman and other firms, Monro & May were sellers, not makers, of flutes. John Monro (1786-1851) was a Scottish composer, pianist, teacher, and music seller who settled in London. About 1810, he established a music shop at 60 Skinner Street, Snow Hill, Holborn, where he published a fair number of songs and country dances in sheet music form. He also published "The Gleaner, or Select Flute Miscellany..., compiled arranged, and partly composed by J. Monro."<sup>305</sup> Monro also made pianos.

About 1823, Monro joined another piano maker, Harry May, to form Monro & May. They continued selling music and musical instruments and making pianos until the partnership was dissolved in 1848. May remained in business alone until 1862. About 1839, Monro & May, who were then located at 11 Holborn Bars, near Middle Row, called their shop the "Western City Musical Repository," which refers to their location on the west side of the City of London.<sup>306</sup>

\* \* \* \* \*

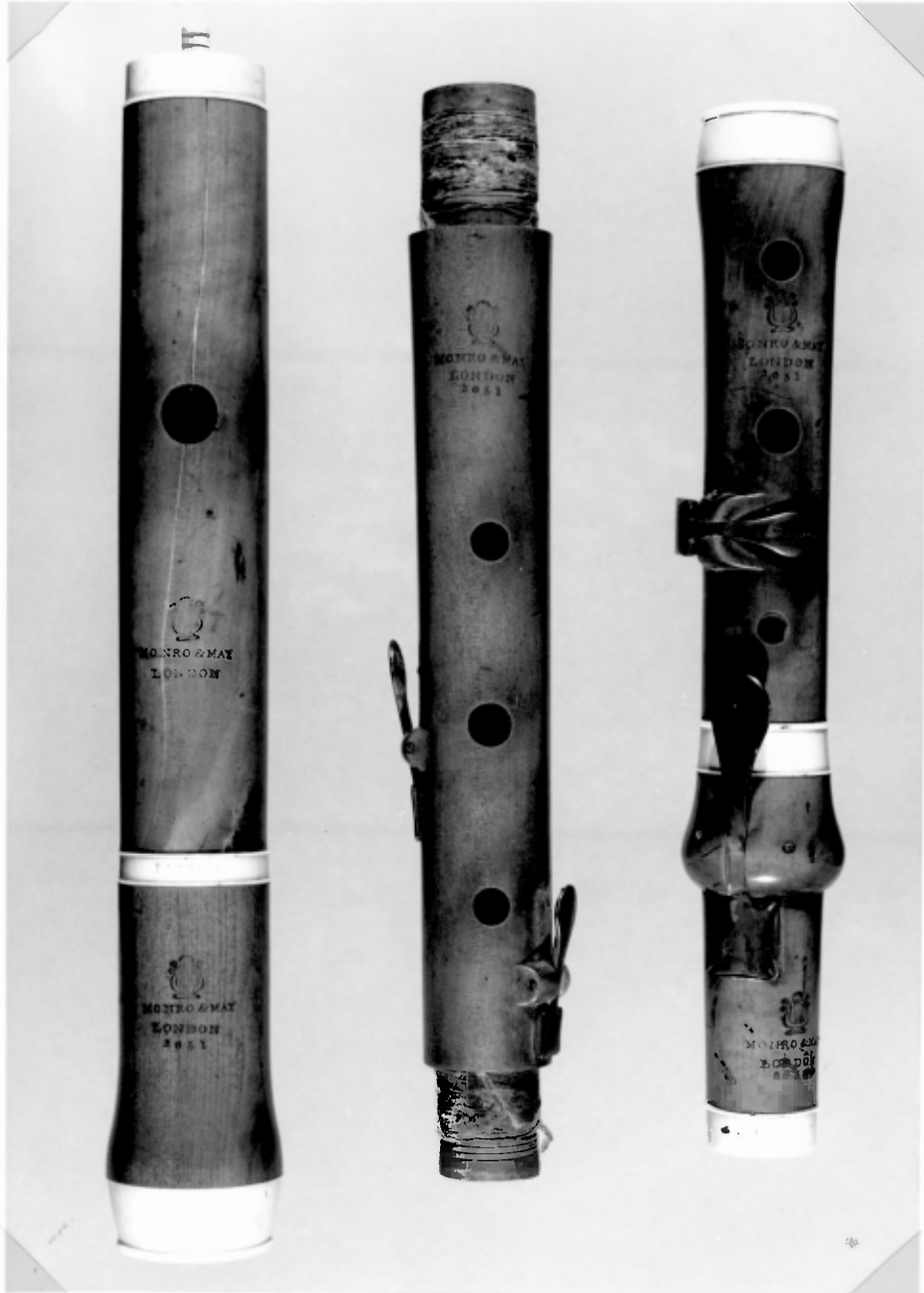
#### FLUTE

<b>Catalog number:</b>	4448
<b>Distributor:</b>	Monro & May
<b>Date:</b>	ca. 1823-1848
<b>Inscriptions:</b>	All joints: [lyre]   MONRO & MAY   LONDON   3051 Ivory ferrule adjacent to barrel: PATENT
<b>Acquisition history:</b>	Donated to the Museum by the Estate of Arne B. Larson, 1989. Larson bought this flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, as part of a collection of twenty-five wind instruments.

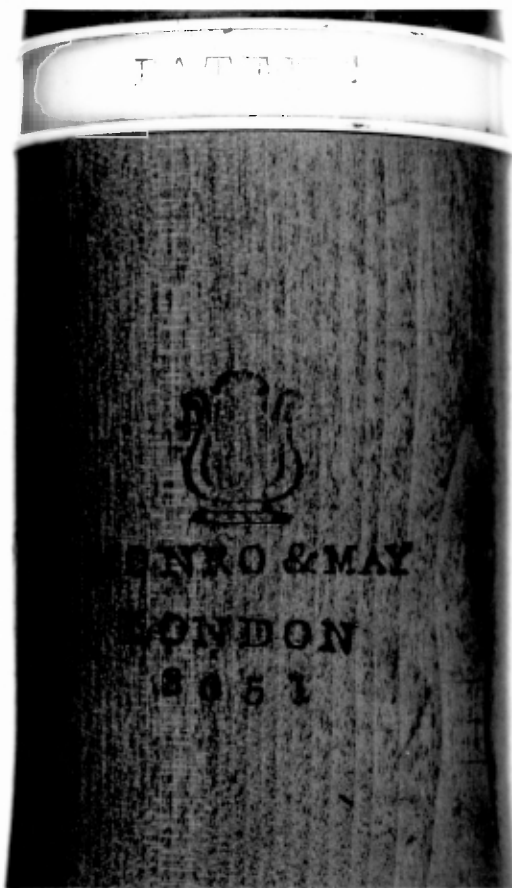
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<sup>305</sup>Kidson, p. 78.

<sup>306</sup>New Langwill Index (forthcoming); Langwill, Index, s.v. "Monro & May"; James Duff Brown and Stephen S. Stratton, British Musical Biography: A Dictionary of Musical Artists, Authors and Composers Born in Britain and its Colonies (London: William Reeves, 1897; reprint ed., New York: Da Capo, 1983), s.v. "Monro, John"; and Smith and Humphries, p. 236.



No. 4448. Flute sold by Monro & May.



No. 4448. Detail of signature with serial number.



**Description:**1. Measurements

Overall length: 59.7 cm  
Embouchure: 11.5 mm x 10.8 mm  
Sounding length: 52.7 cm

2. Pitch

Six-finger note: d  
Lowest note: d

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four silver keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The key heads are square, with beveled edges and notched corners.

The head joint is fully lined with metal, and has a tuning slide and a graduated ivory screw cork adjuster.

**Condition:**

The instrument is in good condition, although the head joint is cracked.

WILLIS & GOODLAD

Willis & Goodlad were in business at 25 Villiers Street, Strand, from 1825 to 1829. Prior to 1825, the business belonged first to John Willis and then to Jordan Willis.<sup>307</sup> John Willis was a maker of some repute who constructed George Rudall's first flutes.<sup>308</sup> In 1830, Jordan Willis dropped out of Willis & Goodlad, and the firm became Goodlad & Co.<sup>309</sup> Willis & Goodlad sometimes gave their flutes serial numbers, although the Museum's example lacks a number.

\* \* \* \* \*

## FLUTE

**Catalog number:** 1348

**Maker:** Willis & Goodlad

**Date:** 1825-1829

**Inscriptions:** Head joint: [lyre] | WILLIS & GOODLAD | 25 VILLIERS S<sup>T</sup> |  
STRAND | LONDON  
All other joints: [lyre] | WILLIS & GOODLAD

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>310</sup> Larson obtained the flute from someone in Liverpool, England, in 1949.

**Description:**1. Measurements

Overall length: 59 cm  
Embouchure: 11.4 mm x 10.2 mm  
Sounding length: 52.9 cm

2. Pitch

Six-finger note: d  
Lowest note: d

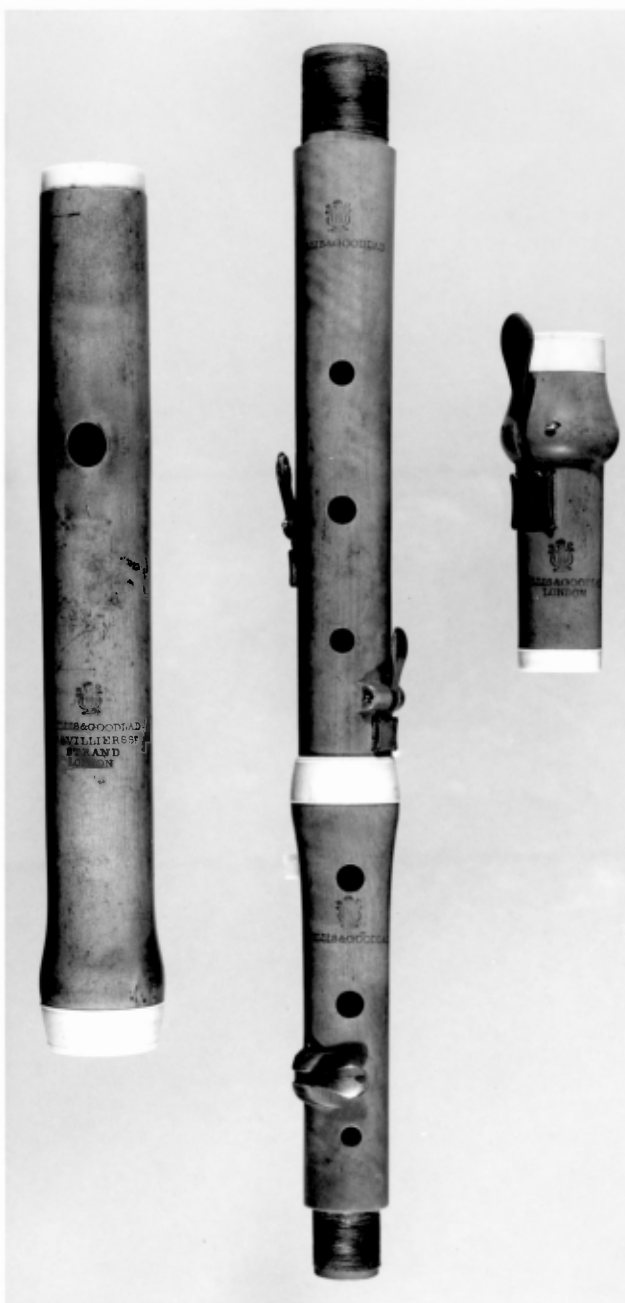
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<sup>307</sup>Langwill, Index, s.v., "Willis, John" and "Willis & Goodlad."

<sup>308</sup>Rockstro, ¶1535, p. 287 and ¶1877, p. 574; Langwill, Index, s.v., "Willis, John." Dayton C. Miller Collection, no. 1289 is signed "George Rudall" and "Willis Fecit" (see Gilliam and Lichtenwanger, p. 89). Another flute made by Willis for Rudall appeared at Sotheby's (Musical Instruments: ...Day of Sale, Thursday 14th June 1990... (London: Sotheby's, 1990), Lot 146.

<sup>309</sup>Langwill, Index, s.v., "Goodlad & Co."

<sup>310</sup>Arne B. Larson, unpublished inventory, no. 504.



No. 1348. Flute by Willis & Goodlad.

3. Construction

Boxwood body in four joints. Four ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Four brass keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). The key heads are square, with beveled edges and notched corners.

**Condition:**

The instrument is in excellent condition.

GEORGE IBBETSON

George Ibbetson was a woodwind and brass instrument maker active during the second quarter of the nineteenth century.<sup>311</sup> His workshop was located in Pentonville, further north than most other London flute makers.

\* \* \* \* \*

## FLUTE

**Catalog number:** 1350

**Maker:** George Ibbetson

**Date:** ca. 1826 to ca. 1840

**Inscriptions:** All joints: **IBBETSON | LONDON**

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>312</sup> Larson obtained the flute from an Englishman named Anderson in 1952.

**Description:**1. Measurements

Overall length: 65.6 cm  
 Embouchure: 11.2 mm x 10 mm  
 Sounding length: 58.9 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in five sections. Six ivory ferrules. Conical bore.

The finger holes are somewhat large:

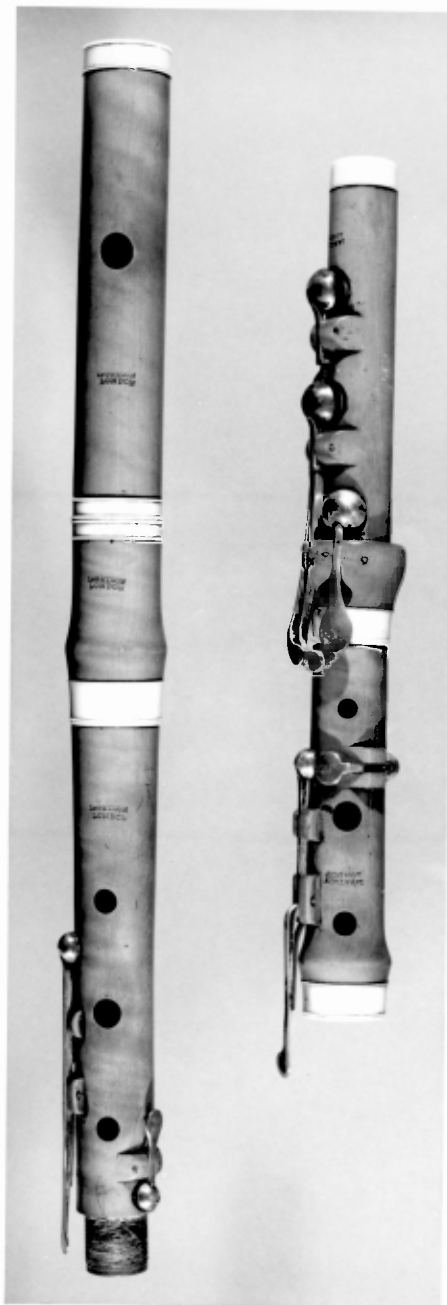
I	7.6 mm	IV	7.8 mm
II	9.2 mm	V	9.1 mm
III	7.7 mm	VI	6.1 mm

*George Ibbetson*

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<sup>311</sup>New Langwill Index (forthcoming).

<sup>312</sup>Arne B. Larson, unpublished inventory, no. 313.



4. Mechanism

Eight silver keys with saltspoon heads are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The F key and long F key control separate holes. The key beds are recessed, with a raised lip around the tone hole:



The head joint is partially lined with metal and has a tuning slide.

**Condition:**

The flute is in good condition, having only one cracked ferrule, a slightly warped body, and several minor abrasions.

MANZANE

Little is known of the identity of Manzane, but the name may have been invented to suggest Monzani to the undiscerning buyer.<sup>313</sup> The use of fake names to suggest reputable makers has been noted before, in connection with Potter. Flutes were evidently in so much demand that it was worthwhile for unscrupulous business persons to resort to dishonest tactics. The silverwork alone of this flute certainly does not compare to that of genuine Monzani flutes.

\* \* \* \* \*

## FLUTE

**Catalog number:** 4158

**Maker:** Manzane

**Date:** ca. 1830

**Inscriptions:** All joints: MANZANE | LONDON

**Acquisition history:** Arne B. Larson Collection, 1979. Larson obtained the flute from someone named Miller, of Chicago, in 1940.

**Description:**1. Measurements

Overall length: 66 cm  
 Embouchure: 10 mm x 8.5 mm  
 Sounding length: 58.8 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

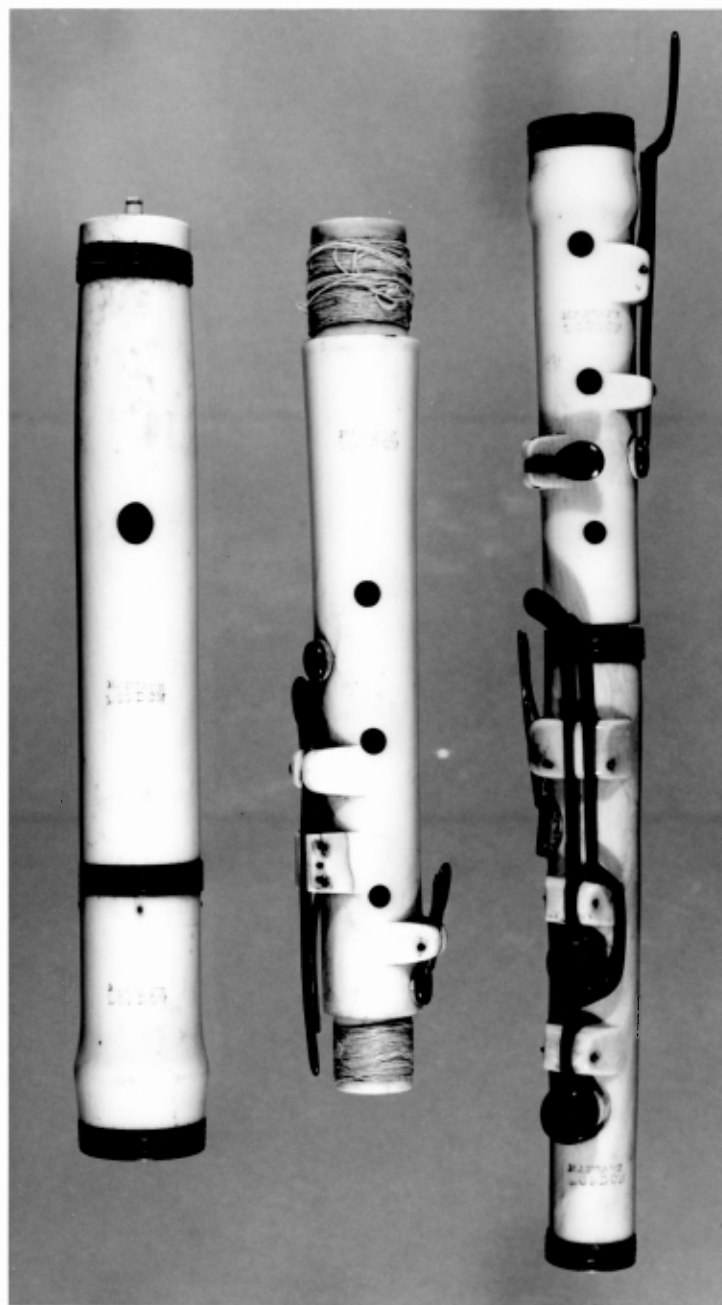
3. Construction

Ivory body in five sections. Six silver ferrules with turned decoration. Ivory head cap. Conical bore. The head joint tapers toward the cork.

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<sup>313</sup>Langwill, Index, s.v., "Manzane." Langwill indicates other instruments were marked "Mancane."





No. 4158. Flute by Manzane.

4. Mechanism

Eight silver keys are mounted on turned blocks (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The key heads are round with flat shallow flattened cups. The F key and long F key control separate tone holes.

The head joint is partially lined with metal, and has an ungraduated tuning slide and a graduated ivory screw cork adjuster.

**Condition:**

The flute is in fair to poor condition. The head and barrel are severely cracked (the crack was pinned at one time). The block mount for the high C key broke away and was repaired. One ferrule is dented.

WILLIAM CAMP

William Camp, a wood, ivory, and metal turner, worked early in his career for Rudall & Rose. In 1838 he established his own woodwind shop at 81 Tottenham Court Road, and in 1840 moved to 98 Regent's Quadrant (the former premises of maker William Card). Camp was in the partnership Camp & Gover from 1855 to 1879 at his original 81 Tottenham Court Road address.<sup>314</sup>

Eitner mentions a Louis de Camp, a flute virtuoso who came to London in 1778 and died in 1787, but does not indicate any connection between Louis de Camp and William Camp.<sup>315</sup> The Litchfield Historical Society (Litchfield, Connecticut) was consulted regarding any possible connection between Jabez Camp, an early nineteenth-century flute maker in Litchfield, and William Camp, since Langwill states that one of William's flutes survives in the Society's collections. However, the Society does not after all house any of William's flutes, and could not establish a connection between Jabez and William.<sup>316</sup>

\* \* \* \* \*

FLUTE

<b>Catalog number:</b>	4338
<b>Maker:</b>	William Camp
<b>Date:</b>	1837-1855
<b>Inscriptions:</b>	Barrel: CAMP   81 TOTTENHAM C <sup>T</sup> R <sup>D</sup>   LONDON Upper middle joint: CAMP   FROM   RUDALL & ROSE   81 TOTTENHAM C <sup>T</sup> R <sup>D</sup>   LONDON Lower middle joint and foot: CAMP   LONDON
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>317</sup> Larson obtained the flute from someone in Atlanta, Georgia, in 1948.

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<sup>314</sup>New Langwill Index (forthcoming); Langwill, *Index*, s.v., "Camp, Wm."

<sup>315</sup>Robert Eitner, *Biographisch-Bibliographisches Quellen-Lexikon der Musiker und Musikgelehrten christlicher Zeitrechnung bis Mitte des neunzehnten Jahrhunderts* (Graz: Akademische Druck-u. Verlagsanstalt, 1959), s.v. "Camp, Louis de."

<sup>316</sup>Nancy S. Beveridge, Administrative Assistant, to Amy Kreitzer, 23 September 1992.

<sup>317</sup>Arne B. Larson, unpublished inventory, no. 506.

**Description:**1. Measurements

Overall length: 66.9 cm  
 Embouchure: 11.6 mm x ? (Embouchure is badly chipped or crudely enlarged.)  
 Sounding length: 59.4 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Cocus body in five sections. Five German silver ferrules and German silver head cap. Conical bore.

4. Mechanism

Eight German silver keys are mounted in turned blocks (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The F and long F keys control separate holes. The key heads are saltspoons, except for C $\sharp$  and low C, which are pewter plugs closing over square metal plates screwed to the key bed. The key beds for the saltspoon keys have recessed seating.

The head joint is fully lined with metal, and has an ungraduated tuning slide and a graduated cocus screw cork adjuster.

**Condition:**

The instrument is in fair condition. The head joint and barrel are cracked. The embouchure hole has been altered, either accidentally or deliberately. One ferrule is missing from the head joint.

**Notes:**

This flute is similar in design to the Museum's Rudall & Rose flute, no. 1347, but the Camp flute is less highly finished and its holes are smaller in diameter.

JOHN BECKETT

John Beckett is the only maker represented in the Museum's collections who was active in northeast London.<sup>318</sup> From 1850 to 1873, he worked at 37 Green Street, Bethnal Green.<sup>319</sup> Little else is known of Beckett, except that he had earlier worked for Wood & Ivy (as borne out by the signature of the Museum's instrument).

\* \* \* \* \*

## FLUTE

**Catalog number:** 3898

**Maker:** John Beckett for Wood & Ivy

**Date:** ca. 1850-1873

**Inscriptions:** Barrel: [script] **Beckett** | [roman] **FROM** | [script] **Wood & Ivy** |  
[roman] **LONDON**  
Head and middle joints: [script] **Beckett**

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>320</sup>

**Description:**1. Measurements

Overall length: 52.5 cm (head and middle joints only; foot missing)  
Embouchure: 11.5 mm x 10 mm

2. Pitch

Six-finger note: d  
Lowest note: unknown, since foot doesn't survive

3. Construction

Cocus body. Head, upper middle joint, and lower middle joint survive. Three German silver ferrules. Conical bore.

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<sup>318</sup>New Langwill Index (forthcoming).

<sup>319</sup>Bethnal Green was a fairly rural, agricultural area in 1800, but by mid-century it had become part of a large manufacturing district. It was the poorest district of London during Victorian times, and a center of the weaving industry. Weinreb and Hibbert, *s.v.*, "Bethnal Green."

<sup>320</sup>Arne B. Larson, unpublished inventory, no. 437.

4. Mechanism

On the joints that survive, there are three German silver keys mounted in turned blocks (B $\flat$ , G $\sharp$ , and F). The F key is mounted on an applied block, probably a later repair. The keys have saltspoon heads.

The head is fully lined with brass and has a tuning slide and a wooden screw cork adjuster.

**Condition:**

Besides missing its foot, the flute has severe cracks in the head joint and barrel.

G. W. BONN

Little is known about G. W. Bonn. This is the sole instrument known to bear this signature, and Bonn is not listed in the sixth edition of Langwill's Index or in other known published sources. Bonn may have been one of the many Londoners of German descent employed in the music trade.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 1360

**Maker:** G. W. Bonn

**Date:** 19th century

**Inscriptions:** Foot joint: [curved, script] **G. W. Bonn** | [curved] **ST. MARTINS CHURCHYARD** | [lyre] | **LONDON**  
Middle joints: [curved] [script] **G. W. Bonn** | [lyre]  
Head joint: [nearly obliterated; may possibly read:]  
**NACH | BÖHM | HANNOVER**

**Acquisition history:** This instrument was purchased by André P. Larson from Frank's Folly Antique Shop of Hinton, Iowa, in October of 1975.

**Description:**1. Measurements

Overall length: 66.2 cm  
Embouchure: 10.8 mm x 9.5 mm  
Sounding length: approximately 57.5 cm (Head joint and upper middle joint do not fit flush.)

2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

Cocus body in five sections. The head joint, which is not original, has two German silver ferrules and German silver head cap. Body has three silver ferrules, all embossed with a floral design. Conical bore.



No. 1360. Flute by G. W. Bonn.



4. Mechanism

Eight silver keys with saltspoon heads are mounted on turned blocks (C, B $\flat$ , G $\sharp$ , long F, F, D $\sharp$ , C $\sharp$ , and low C). The two F keys control separate tone holes.

The head joint is fully lined with brass and has a tuning slide and a screw cork adjuster made of wood and German silver.

**Condition:**

The head joint is not original and is cracked. There are a few small cracks in the lower middle joint as well.

**FLUTES BY UNIDENTIFIED MAKERS**

The following instruments have not been precisely attributed. One of these, no. 702, is marked only LONDON, and may have been part of a batch of less highly finished, and therefore less expensive, flutes purchased for resale by a music seller or teacher.<sup>321</sup>

Two of these instruments, nos. 2359 and 4437, are marked POTTER, but are actually examples of spurious imitations. Certain makers, like Richard Potter, were so successful that others found it profitable to sell cheap imitations of their work. Rudall & Rose flutes were also subject to fakery, so George Rudall and John Rose attached signed certificates of authenticity inside their flute cases, an example of which states that they have "...discovered that Flutes are offered for Sale bearing their names & address which have not been made by them."<sup>322</sup> Monzani & Hill also included signed and dated certificates with their flutes. The Museum's no. 4158 is marked MANZANE, a name similar to Monzani, and may be another example of a cheap imitation.

\* \* \* \* \*

**FLUTE**

<b>Catalog number:</b>	2359
<b>Maker:</b>	[unknown]
<b>Date:</b>	ca. 1800-1825
<b>Inscriptions:</b>	Ivory ferrule adjacent to barrel: <b>PATENT</b> Barrel: <b>POTTER   LONDON   [space]   PATENT</b> Middle joints: <b>POTTER   LONDON</b> Foot: <b>POTTER   LONDON   [space]   PATENT</b>
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>323</sup> Larson obtained the flute from an Englishman named Anderson in 1952.

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<sup>321</sup>Hamilton, p. 17.

<sup>322</sup>Fine Musical Instruments and Important Musical Manuscripts...which will be Sold at Auction...on Tuesday, May 10, 1977... (London: Christie, Manson & Woods, 1977), Lot 43.

<sup>323</sup>Arne B. Larson, unpublished inventory, no. 314.

**Description:**1. Measurements

Overall length: 67.5 cm  
 Embouchure: 10 mm x 10.4 mm (head joint cracked across embouchure)  
 Sounding length: 59.5 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.

4. Mechanism

Six silver-plated keys are mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ , C $\sharp$ , C). The key heads are pewter plugs which close over metal-lined tone holes.

The head joint is fully lined with metal, and has a graduated tuning slide and a graduated ivory screw cork adjuster.

**Condition:**

The instrument is in fair condition. The head joint, barrel, and the ivory ferrule around the barrel socket are cracked.

**Notes:**

This instrument is undoubtedly an example of one of the many fake Potter flutes made by those seeking to capitalize on the success of Richard Potter's flutes. Several of its features are not consistent with the style of genuine Potter flutes. The undercutting of the tone holes is not as wide. The signature is not marked by a scroll, by **POTTER SENIOR**, or by the Johnson's Court address. The springs on the low C and C $\sharp$  keys are not in the characteristic "P for Potter" shape. The turned ring for the foot keys, which is squarish instead of rounded at the bottom, is not consistent with the style of the turning of genuine Potter flutes.

This flute also lacks other characteristics seen on most Potter patent flutes. Neither the tuning slide graduations nor the cork adjuster screw graduations are numbered. There are no score lines running at right angles to the body of the flute on the turned blocks.

\* \* \* \* \*

## FLUTE

**Catalog number:** 4437

**Maker:** [unknown]

**Date:** ca. 1800-1825

**Inscriptions:** Head joint and foot: POTTER | LONDON

**Acquisition history:** Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson acquired the flute from F. W. Fulton in 1946.

**Description:**1. Measurements

Overall length: 60.8 cm  
 Embouchure: 10.7 mm x 9.7 mm  
 Sounding length: 53.4 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Stained boxwood (?) in four joints. Three ivory ferrules. According to Gary Stewart, who examined the instrument in February of 1989, the ivory may be walrus ivory. It is certainly not the quality of elephant ivory. Conical bore.

4. Mechanism

One brass key (D#), probably not original, is mounted on a turned ring. The key head is flat and square, with beveled edges and notched corners.

**Condition:**

The head joint and lower middle joint are cracked, but otherwise the flute is in good condition.

**Notes:**

This is another fake Potter flute. Like no. 2359 above, this flute lacks Potter's characteristic tone hole undercutting, and bears none of the firm's usual signature stamps. The cheap ivory and knotty wood are not typical of the fine materials Potter typically used.

\* \* \* \* \*

## FLUTE

**Catalog number:** 702

**Maker:** [unknown]

**Date:** ca. 1830-1850

**Inscriptions:** Lower middle joint and foot: **LONDON**

**Acquisition history:** Arne B. Larson Collection, 1979.<sup>324</sup> Larson obtained the flute from someone in Bangor, Maine, in 1939.

**Description:**1. Measurements

Overall length: 65.4 cm  
 Embouchure: 12.5 mm x 11.4 mm  
 Sounding length: 57 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Rosewood or cocus body in five sections. Five German silver rings and German silver head cap. Conical bore.

4. Mechanism

Eight German silver keys are mounted on turned blocks and turned ring (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The key heads are saltspoons except for C $\sharp$  and low C, which are pewter plugs. The key beds for the pewter plugs are faced with a circular metal plate.

The head joint, which is not original, is fully lined with metal, and has a tuning slide. The head is also supplied with a wooden screw cork adjuster. The projecting German silver pin is permanently attached to the head cap, and is immovable. The adjuster has a wooden screw, which is not connected to the metal pin, and it is this screw which can be used to adjust the position of the cork.

**Condition:**

The flute is in poor condition. The head joint (not original) is cracked and is missing two ferrules adjacent to the tuning slide. The upper middle joint is cracked, and the block mount for the F key has broken away and been lost. The F key itself, however, does survive.

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<sup>324</sup>Arne B. Larson, unpublished inventory, no. 488.

FLUTE IN E $\flat$ 

**Catalog number:** 3933

**Maker:** [unknown]

**Date:** after *ca.* 1840?

**Inscriptions:** Barrel: [first two lines nearly obliterated] C[? ] | [? ]ET | F |  
IMPROVED | LONDON

**Acquisition history:** Arne B. Larson Collection, 1979.

**Description:**1. Measurements

Overall length: 51.3 cm<sup>325</sup>  
 Embouchure: 11 mm x 11 mm (head joint is cracked across embouchure)  
 Sounding length: 44.6 cm

2. Pitch

Six-finger note: f  
 Lowest note: f (written d)

3. Construction

Cocus (?) body in three joints. Five German silver ferrules. Conical bore.

4. Mechanism

Five German silver keys are mounted in turned blocks and turned ring (B $\flat$ , high C, G $\sharp$ , F, D $\sharp$ ). Cupped key heads.

The head joint is fully lined with metal and is supplied with a tuning slide, but no cork adjuster.

**Condition:**

The instrument is in good to fair condition, having a severe crack in the head joint and barrel.

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<sup>325</sup>This measurement was taken as if the tuning slide could be pushed in completely. Presently, it is frozen open approximately 5 mm.

**Notes:**

With the signature nearly obliterated, one can only speculate on the maker of this flute. Possibilities include Samuel Barnett & Sons, Thomas Bartlett, John Beckett, Garrett, and Knevett.

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### WALKING STICK FLUTES

The Museum's collection includes two walking stick flutes attributed to unknown English makers. Flutes in the form of canes date back at least to the thirteenth century, but were especially popular throughout Europe in the eighteenth and nineteenth centuries.<sup>326</sup> These portable instruments allowed the romantic wanderer to spontaneously express himself musically while outdoors and inspired by nature.<sup>327</sup> George Brown, in his advertisement in the Dublin Courant of 16 January 1747, claimed to offer "...excellent German Cane Flutes for the accommodation of those gentlemen that would recreate themselves abroad..."<sup>328</sup>

Walking stick flutes were frequently constructed in the form of a rustic knotty stick, with the keys disguised as knots in the wood. In addition to these naturalistic forms, there were also smoothly-turned models, such as the Museum's two examples. Finally, there were all sorts of canes combining flutes with other instruments or gadgets: pochette-flute canes, oboe-flute canes, clarinet-flute canes, flute-snuff box canes, flute-sword canes, to name a few.<sup>329</sup> The British flute maker Cornelius Ward was said to have owned a walking stick consisting of two flutes such that two players, linking arms, could perform a duet.<sup>330</sup> The British flutist John Clinton owned an umbrella-flute combination.<sup>331</sup> The possibilities were endless.

Many examples of cane flutes survive, including one at the Horniman Museum signed by Cahusac (no. 320).<sup>332</sup> By Rockstro's time, walking stick instruments had faded from fashion.

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<sup>326</sup>Catherine Dike, Cane Curiosa: From Gun to Gadget (Paris: Les Editions de L'Amateur, 1983), p. 124.

<sup>327</sup>Hermann Moeck, "Spazierstockinstrumente: Eine kurze Vorstudie zu folgendem Aufsatz," in Studia instrumentorum musicae popularis, III: Festschrift to Ernst Emsheimer on the Occasion of his 70th Birthday, January 15th, 1974, Musikhistoriska museets skrifter 5 (Stockholm: Nordiska musikförlaget, 1974), p. 149.

<sup>328</sup>Reproduced in Dike, Cane Curiosa, p. 125, and in Bate, Plate 4.

<sup>329</sup>Dike, pp. 129, 133-135, and 137.

<sup>330</sup>Rockstro, ¶530, p. 285.

<sup>331</sup>Moeck, p. 149.

<sup>332</sup>*Ibid.*



Indeed, he described them as "curious relics."<sup>333</sup> However, they can be appreciated as a reflection of the romantic idealization of nature, as well as for their ingenuity of design.

\* \* \* \* \*

#### WALKING STICK FLUTE

**Catalog number:** 4846

**Maker:** [unknown]

**Date:** Late eighteenth to early nineteenth century

**Inscriptions:** [unsigned]

**Acquisition history:** Higbee-Abbott Collection, 1989.<sup>334</sup> Higbee purchased the instrument from Fritz Spiegel, of Liverpool, England, in November of 1963. According to Higbee's checklist "Dale Higbee Instrument Collection," Spiegel was a British flutist touring the United States with the Royal Philharmonic.

#### Description:

##### 1. Measurements

Overall length: 85.2 cm (including handle and tip)  
 Embouchure: 9.4 mm x 8.3 mm  
 Sounding length: 52.3 cm (center of embouchure to first vent hole)

##### 2. Pitch

Six-finger note: d  
 Lowest note: d

##### 3. Construction

Boxwood body, smoothly turned, in two sections (handle section and flute section). There is one brass ferrule on the handle section, and a protective metal sheath at the tip. Conical bore.

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<sup>333</sup>Rockstro, ¶1530, p. 285.

<sup>334</sup>"USD Museum Acquires Higbee Collection," Newsletter of the American Musical Instrument Society 18 (October 1989): 2-3.

4. Mechanism

One brass key (D#) is mounted on a turned block. The key head is square, with notched corners and beveled edges.

**Condition:**

The instrument is in fair condition. One shoulder of the block mount has been chipped away and lost. There are a few small cracks, and the flute section is warped.

**Notes:**

This flute has smaller tone holes than does no. 1257 (described below), and is probably the earlier of the two.

\* \* \* \* \*

### WALKING STICK FLUTE

<b>Catalog number:</b>	1257
<b>Maker:</b>	[unknown]
<b>Date:</b>	19th century?
<b>Inscriptions:</b>	[unsigned]
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. <sup>335</sup> Larson possibly obtained this flute from Houghton Music Company, of Blackpool, England.

**Description:**1. Measurements

Overall length:	87.6 cm (including handle and tip)
Embouchure:	11.5 mm x 10 mm
Sounding length:	54.1 cm (center of embouchure to first vent hole)

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Smoothly turned cocus body in four pieces (head cap/handle, head joint, body joint, and tip). Three German silver ferrules. Conical bore. The tip is covered with a metal sheath which appears to be iron.

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<sup>335</sup>Arne B. Larson, unpublished inventory, no. 975.

4. Mechanism

One cocus key (D#) with round head is mounted on a turned block. The entire key is countersunk and lies flush with the exterior of the tube.

**Condition:**

The flute is in excellent condition except for its head joint, which has chips, abrasions, and a few cracks. One of these cracks was repaired with rather disfiguring glue.

## **Part II: From Simple System to Boehm System and Beyond: Rudall & Rose and Rudall, Carte & Co.**

If Potter set the standard for a generation of flute makers in the eighteenth century, then Rudall & Rose (later joined by Carte) were his successors in the nineteenth. Their diverse output was marked by unrivalled craftsmanship. As Rockstro puts it:

Rudall and Rose never restricted their efforts by constructing only one pattern of flutes; on the contrary, they made variety a special feature of their manufacture, but whether their flutes were made with large, medium, or small holes, all were the best of their kind.<sup>336</sup>

Not only did Rudall & Rose build superb simple system flutes, but with true commercial acumen, they secured the English rights to Boehm's new flute, and also manufactured some popular alternatives to the Boehm flute.

### **General History of the Firm**

The firm's beginnings lay with George Rudall (1781-1871), a one-time Devonshire militiaman and a largely self-taught flutist. Rudall settled in London in 1820 and taught the flute. As was the custom of the time, Rudall supplied his students with flutes marked with his name, which were actually made by John Willis, of Clement's Inn.<sup>337</sup> Two such flutes, made *ca.* 1820-1821, survive in the Dayton C. Miller Collection (nos. 89 and 1408).<sup>338</sup> Other examples are now in the Bate Collection (no. 1025),<sup>339</sup> at the Royal College of Music (no. 326 FL/40),<sup>340</sup> and the Edinburgh University Collection (no. 32).<sup>341</sup> Another example recently appeared at Sotheby's.<sup>342</sup> These examples are all seven- or eight-keyed simple system models.

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<sup>336</sup>Rockstro, ¶1535, p. 287.

<sup>337</sup>*Ibid.*, ¶1877, pp. 573-574.

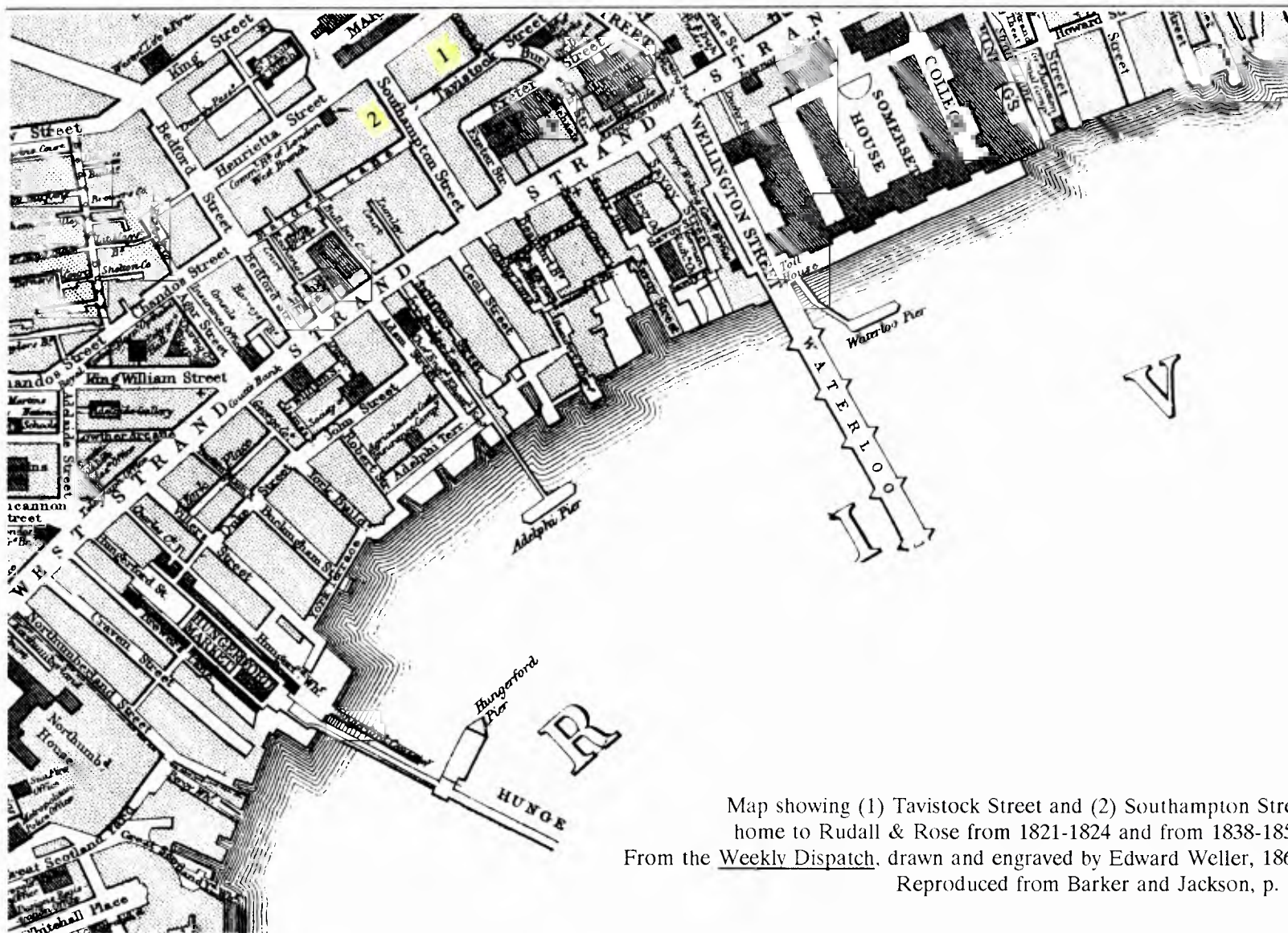
<sup>338</sup>Gilliam and Lichtenwanger, pp. 89 and 97.

<sup>339</sup>Baines, Bate Collection, p. 7.

<sup>340</sup>Ridley, p. 17.

<sup>341</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>342</sup>Musical Instruments: ...Day of Sale, Thursday 14th June 1990... (London: Sotheby's, 1990), Lot 146.



Map showing (1) Tavistock Street and (2) Southampton Street,  
home to Rudall & Rose from 1821-1824 and from 1838-1852.  
From the Weekly Dispatch, drawn and engraved by Edward Weller, 1861.  
Reproduced from Barker and Jackson, p. 130.

About 1821, Rudall heard of a young Edinburgh flute maker named John Mitchell Rose. Rose had completed an apprenticeship with the organ makers Wood & Co. of that city. An amateur flutist and a highly skilled mechanic, he had just set up his own shop.<sup>343</sup> One of Rose's flutes from his Scottish workshop, a six-keyed ebony instrument, survives in the Bate Collection (no. 142).<sup>344</sup> Rudall arranged to meet Rose, and the two soon entered into partnership in London. Under Rudall's supervision, Rose carried out the critical operations of boring and cutting of tone holes. The combination of a first-rate craftsman with a gifted flutist proved very successful.<sup>345</sup>

Rudall & Rose occupied a number of different addresses in Covent Garden, in the heart of the theatre district:<sup>346</sup>

11 Tavistock Street	1821-1824
15 Piazza, Covent Garden	1824-1837
1 Tavistock Street	1838-1847
38 Southampton Street	1847-1852

In 1852, a well-known flutist named Richard Carte (1808-1891), father of Richard D'Oyly Carte of Gilbert and Sullivan fame, entered the partnership to form Rudall, Rose & Carte. Carte was a former student of Rudall and a successful solo and orchestral player. He was also a teacher, one of his pupils being Rockstro. Carte brought a wealth of knowledge and a fresh spirit of enterprise to the firm, which began to diversify and manufacture all sorts of military instruments. After Rudall retired in 1856, leaving Carte in charge, Carte had ample opportunity to explore new commercial directions.<sup>347</sup> The firm left Covent Garden and relocated further west:

100 New Bond Street	1852-1857
Additional premises, 20 Charing Cross	1855-1857
20 Charing Cross	1858-1871

During the 1850s, Frederick Key (successor to his father Thomas Key) was briefly associated with the firm, before he sold Key & Co. to Rudall, Rose & Carte. This connection is the basis for Rudall &

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<sup>343</sup>Rockstro, ¶877, p. 574.

<sup>344</sup>Baines, Bate Collection, p. 7.

<sup>345</sup>Rockstro, ¶535, p. 287.

<sup>346</sup>New Langwill Index (forthcoming).

<sup>347</sup>*Ibid.*; Rockstro, ¶925, pp. 630-634.

Rose's claims to being established before 1800.<sup>348</sup> A six-keyed flute in D $\flat$  in the Edinburgh University Collection marked **KEY RUDALL & CO | 20 CHARING CROSS | LONDON | [unicorn]** is a product of this partnership.<sup>349</sup>

The firm became Rudall, Carte & Co. in 1872, following the death of John Rose. Rudall, Carte remained in Charing Cross until 1878, when it moved to 23 Berners Street, north of Oxford Street. Carte brought his eldest son Henry into partnership in 1880, then retired in 1883. Henry remained at the helm until he retired in 1926 and was succeeded by Montague George. Although the firm was bought by Boosey & Hawkes in 1955, Rudall, Carte retained its name, if not its former glory.<sup>350</sup> Newer makers like Albert Cooper and the Flute Maker's Guild have since come to the forefront.<sup>351</sup>

### **The Firm's Flute Output**

**Simple system flutes.** Rudall & Rose's simple system flutes were superb, and are still prized by traditional Irish musicians because of their full, powerful tone.<sup>352</sup> The Museum's Rudall & Rose flute, no. 1347, is a good example of one of their most popular models: an eight-key cocus flute with tuning head, adjustable stopper, and silver decoration. The key heads, as on this example, are frequently saltspoons, except for two pewter plug keys on the foot. When Rudall & Rose was founded, Charles Nicholson was active in London, so most Rudall & Rose flutes, as one might expect, had wider tone holes than those of Potter's generation. Rockstro asserted that the Nicholson-style flutes made by Rudall & Rose were of a higher quality than the ones actually marked "C. Nicholson's Improved," which were made by Prowse and marketed by Clementi & Co.<sup>353</sup> The Museum's flute

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<sup>348</sup>New Langwill Index (forthcoming); New Grove Dictionary of Musical Instruments, s.v., "Rudall, Carte," by Philip Bate.

<sup>349</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>350</sup>New Langwill Index (forthcoming).

<sup>351</sup>Jeremy Montagu, "New Grove DoMI: JM no. 5; Further Detailed Comments: the Fs," FOMRHI Quarterly, no. 44 (July 1986): 16.

<sup>352</sup>S. C. Hamilton, The Irish Flute Player's Handbook (n.p.: Traditional Music Shop for Breac Publications, 1990), pp. 8, 15.

<sup>353</sup>Rockstro, ¶1536, pp. 287-288.

no. 1347, with its large holes and its embouchure bushed with mother-of-pearl is somewhat Nicholsonian.

One of the features that set Rudall & Rose flutes apart from most was the design of their bores. Rudall & Rose were masters of *chambering* the bore--that is, expanding the bore in specific places to improve the quality and intonation of certain notes.<sup>354</sup> Another superior feature of Rudall & Rose flutes was the double spring, which offers better action and less friction than the ordinary single spring.

*Double Spring.*



Double flat spring. Reproduced from Rockstro, p. 200.

Rockstro believed Rudall & Rose introduced this feature. Spohr states that Clementi patented double springs in 1822, but such a patent does not appear in Patents for Inventions.<sup>355</sup> Rudall & Rose made their double springs of dissimilar metals (one leaf of steel, the other of brass), since this reduced the friction even further.<sup>356</sup> The Museum's Rudall & Rose flutes, nos. 614 and 1347, are both fitted with double springs. Besides chambering the bore and using double springs, Rudall & Rose tended to line their head joints with silver, which Rockstro felt was improvement over the usual tinned brass.<sup>357</sup>

In 1832, George Rudall and John Rose took out a patent for a special tuning mechanism for the head joint. As discussed earlier in connection with Potter (p. 56), when the flutist moved the tuning slide, it was also necessary to readjust the position of the cork stopper. Rudall & Rose's mechanism linked the cork stopper and the head joint tuning slide so that, when the head cap was

<sup>354</sup>Bate, p. 35.

<sup>355</sup>Spohr, p. 80.

<sup>356</sup>Bate, p. 225.

<sup>357</sup>Rockstro, ¶1318, pp. 143-144.

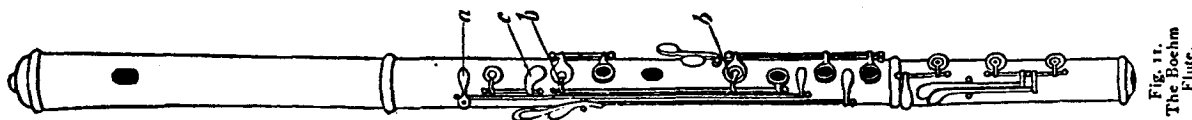


turned, the stopper and the length of the tube were simultaneously adjusted. This innovation, while ingenious, was not of lasting significance because it made the flute rather heavy.

**Boehm flutes.** In 1843, four years after Boehm had closed his factory, Rudall & Rose bought the English license to Boehm's 1832 model flute. This was the instrument which was to completely alter the course of flute making. Its entire history will not be detailed here, but the main features of the new Boehm flute included:

- Large tone holes placed in their acoustically correct positions
- A new key system on the open-standing principle, allowing maximum venting
- Ring keys
- Posts and axles
- Conical bore

Rudall & Rose brought Rudolf Greve of Munich, who seems to have actually constructed Boehm's flutes, to instruct their staff in the manufacture of the new flute.<sup>358</sup>



Boehm's system of 1832. Reproduced from Welch, p. 104.

There was at the time a raging controversy over whether Boehm's design was original, or whether he had appropriated the design of Capt. William Gordon. This issue has since been laid to rest, Boehm having been "acquitted," but the publicity must have been good for business. While amateurs tended to prefer the simple system flute, a number of London professionals of stature adopted Boehm's flute. These included Richard Carte, Richard Rockstro, John Clinton, Paul Camus, and even George Rudall (then in his sixties).<sup>359</sup> The switch to the new flute, with its new fingering system, required an effort, but the reward was increased power and evenness of tone.

<sup>358</sup>New Langwill Index (forthcoming).

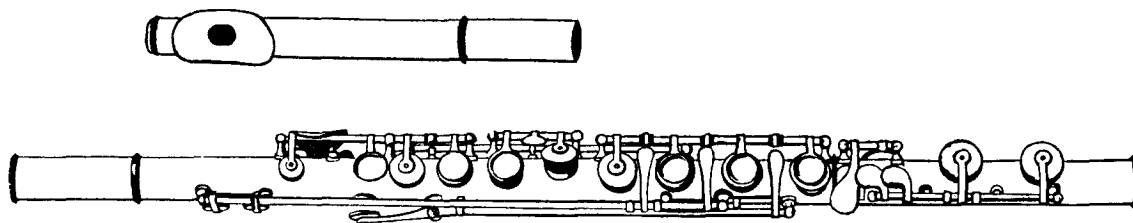
<sup>359</sup>Toff, p. 229.

The Museum's Rudall & Rose flute, no. 4345, displays the primary identifying features of the 1832 Boehm model: conical bore, ring keys, and a peculiar vaulted clutch over the B♭ and G keys (marked "b" in the above illustration). It has Boehm's open G♯ key, which the French particularly disliked (leading Vincent Dorus to design a closed G♯ key). Some Rudall & Rose conical Boehm flutes are fitted with the patented head joint, such as the example in the Edinburgh University Collection (no. 962).<sup>360</sup>

In 1847, Boehm introduced a revised model of his flute. Its principal features included:

- Cylindrical bore
- Parabolic head (*i.e.*, the bore tapers slightly toward the cork)
- Even larger tone holes, necessitating covered action instead of ring keys
- Sleeve and rod mechanism
- Silver tube (The 1847 model was also later made in wood.)

Rudall & Rose lost no time in securing the rights to this model as well, and John Rose took out a patent on 6 September 1847 for the metal tube, the cylindrical bore with parabolic head joint, and a brille mechanism for improving c<sup>1</sup>.



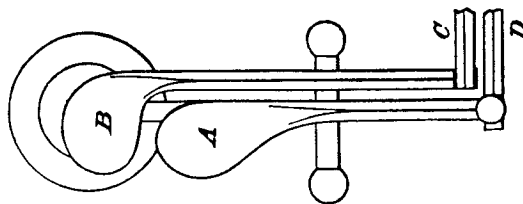
Boehm's system of 1847. Reproduced from Rockstro, p. 375.

The Museum owns a later 1847 model flute by Rudall, Carte (no. 3208), as well as an earlier transitional instrument, signed [script] Rudall & Rose | Patentees | 38 Southampton St | Strand, but attributed to the French maker Louis Lot (no. 3515). The Lot flute is essentially a cylinder flute with

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<sup>360</sup>Dick and Myers, p. 22.

the 1832 mechanism, but with French-style perforated keys. This flute also features a departure from Boehm's original in the way of a Briccialdi B♭ key, a lever operated by the left thumb. This lever was incidentally first applied by Rudall & Rose to a Godfroy flute in 1849 on Giulio Briccialdi's request, and has since become commonplace on modern Boehm flutes.<sup>361</sup>



Briccialdi's B♭ lever. Reproduced from Rockstro, p. 377.

In 1851, John Rose offered an improved conical bore as an alternative to Boehm's parabola and cylinder bore. After experimenting with proportions of the cone, Rose arrived at a solution which helped correct defective notes and improve tone.<sup>362</sup> In his 1851 pamphlet, *Carte* discusses Rose's design as well as a major difference between English and German flute making:

Now, it is to be observed, that Boehm having failed to obtain the [low] notes in question so perfectly with the conical bore, as he afterwards did with the Parabola and Cylinder, is no proof that these notes were not to be obtained with the old shape. On the contrary, there are reasons to be given why he might be expected to fail, in this respect. One reason is this. The Germans, although the original inventors of the ordinary flute, have ever been slow in experimenting with the bore. Experiments in this direction have been chiefly made in England... Now it may be easily conceived, that Boehm, who is a German, coming necessarily, as he did, to the subject, without much previous experience with regard to the bore, and falling upon, or turning his attention to, the more scientific mode of shaping the tube, before he had exhausted the resources of the conical tube, did not ascertain, to the fullest extent, the capabilities of the old shape. I am also convinced that this was the case, by experiments which have lately been made. As it was thought that flutes of wood, made of the parabolic and cylindrical shape, if made sufficiently thin to be held comfortably in the hands, would be liable to crack, and some preferred the tone of the wooden flute, while others could manage the embouchure of it better than that of the same flute in metal; strenuous efforts have been made by Mr. Rose so to vary the proportions of the cone, as to correct the defective notes mentioned as having

<sup>361</sup>Rockstro, ¶1658, p. 377. Briccialdi was an Italian flutist then living in London.

<sup>362</sup>*Ibid.*, ¶1665-667, pp. 382-383.

existed in the first of Boehm's flutes; and so successful have been his efforts, that not only are these notes rendered equal to the others, but, so much is the general tone of the instrument improved, that it becomes a matter of opinion whether the wood flute, with parabola and cylinder, or that with this improved conical bore, is now the better. This improved bore is therefore adopted, if required, for the two new Patent flutes, as well as also for the flute of Boehm.<sup>363</sup>

Rose's efforts point to a characteristic of English makers and flutists-turned-inventor: they believed the perfect flute was attainable, or at least worth continually striving for. They experimented with the sizes of tone holes, the dimensions of the bore, and the mechanism. Just as public sanitation, the Poor Law, and suffrage could be (and *were*) reformed in Victorian England, so could the flute. Some of the most prominent professional players spent so much time tinkering that it is a wonder they got around to making any music at all. Many who rejected the Boehm flute, and even some who did not, sought to improve upon it. Carte states:

The introduction into England of Boehm's first flute, in 1843, was the signal for the immediate appearance of others, upon which his principles were either partially or entirely carried out, but with a different mechanism and mode of fingering. Boehm's flute, however, has stood its ground up to the present time, evincing that it was not brought forward without much cautious consideration. Within the last two years, however,--that is, since the appearance of his Parabola head and Cylinder body, this attempt at rivalry has been again renewed. Numerous are the flutes which have been made and discarded during this period. Messrs. Rudall and Rose, alone, as manufacturers, have made not less than ten flutes for different contrivers within this period.<sup>364</sup>

One of these "contrivers" was Richard Carte himself.

**Carte system and other alternative system flutes.** The "two new Patent flutes" Carte mentions in the first quotation above are his own new designs of 1850 and 1851, which he describes in his Sketch of the Successive Improvements Made in the Flute. While Carte was an advocate of the Boehm flute, his goal was to design a flute "...which should retain the open keys and equidistant holes of Boehm's flutes, and yet secure a greater facility of fingering."<sup>365</sup> He particularly sought to free the thumb and the little finger of the left hand. One of his changes consisted of an open G# key

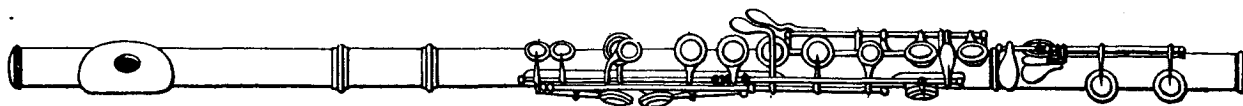
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<sup>363</sup>Richard Carte, Sketch of the Successive Improvements Made in the Flute (London: Rudall, Rose & Co., 1851), pp. 21-22.

<sup>364</sup>*Ibid.*, p. 23.

<sup>365</sup>*Ibid.*, p. 25.

articulated by the key for the right hand index finger, which preserved the open G# without the little finger constantly holding it down. Carte also made certain changes in the right hand fingering for F and F#. He took out a patent for this design on 7 September 1850, but by the following year had revised the left hand mechanism still more. In his Sketch he asserts that his design significantly reduces the number of cross fingerings, the number of times the left hand little finger moves, and the number of times the thumb moves.<sup>366</sup>



Carte's system of 1851. Reproduced from Rockstro, p. 381.

Carte's final version of 1867 was still another alteration of the right hand mechanism. It was called "Carte and Boehm Systems Combined," because it sought to combine the most useful fingerings of both Carte's 1851 system and the Boehm 1847 system. The 1867 model was commercially very successful, and is still played in some English-speaking countries today. The Museum owns a matched set of 1867 system flute and piccolo (nos. 3791 and 3792). This system is perhaps most easily identified by its double plates for the right hand index finger, which enabled either the simple system fingering or the Boehm system fingering for F and F#.<sup>367</sup>

<sup>366</sup>*Ibid.*, pp. 30-31.

<sup>367</sup>Rockstro, ¶661-662, pp. 379-380 and ¶684, pp. 396-398; Stuart-Morgan Vance, "Carte's Flute Patents of the Mid-Nineteenth Century and Related Systems," Journal of the American Musical Instrument Society 13 (1987): 89-106; Bate, pp. 147-148.



Carte's system of 1867. Reproduced from Rockstro, p. 397.

The 1851 pricelist issued from Southampton Street and reproduced on the following three pages gives the reader an idea of the wide variety of flutes available from Rudall & Rose at that time. "CARTE'S PATENT FLUTE, WITH OLD FINGERING" refers to his 1850 model. "CARTE'S PATENT FLUTE WITH NEW FINGERING" refers to his 1851 model. The Boehm flute advertised is the 1847 system. It is interesting to note that Rudall & Rose still supplied B $\flat$  tenor flutes (*i.e.*, tenor flutes in A $\flat$ ) at this late date. In addition to the previously-mentioned Boehm and Carte models, through the years the firm made a great variety of alternative system flutes including the following:

- Guard's model (Carte 1867 system with closed G $\sharp$ )
- Radcliff's model
- Rockstro's model
- Barbiton (James Mathews' prototype to his "Chrysostom" flute)
- Welch's model
- Martin's model

Of course, some of these models were made on commission and not extensively produced.

By Her Majesty's Royal Letters Patent.  
(TWO PATENTS.)



**RUDALL, ROSE, & CO.,**  
Flute and Musical Instrument Manufacturers,  
AND  
PUBLISHERS OF MUSIC.  
38, SOUTHAMPTON STREET, STRAND,  
LONDON,

HAVING made numerous experiments in order to apply the obviously correct principle of equally distributed holes and perfectly vented notes to the old as well as the new systems of fingering the Flute, beg to announce that they have at length fully succeeded in attaining this object, and now submit to the admirers of this fascinating and popular Instrument the following Flutes, which they can recommend with entire satisfaction.

**NO. I. CARTE'S PATENT FLUTE, WITH OLD FINGERING,**  
constructed of Wood, Silver, or other Metal. This is fingered like the ordinary Flute, and is designed for those who are indisposed to change their system of fingering. It has also some additional fingerings, which afford facilities in certain hitherto difficult passages.

**NO. II. CARTE'S PATENT FLUTE WITH NEW FINGERING,**  
constructed of Wood, Silver, or other Metal. The fingering differs from that of the ordinary Flute and Bøhm's Flute, but affords facilities for rapid and easy execution which are truly extraordinary, the difficulty of performing in the extreme keys being removed, while the familiar ones are rendered more facile than upon the old Flutes.

**NO. III. BOEHM'S FLUTE,**  
constructed of Wood, Silver, or other Metal. The fingering is Bøhm's system.

The recent splendid invention of Theobald Bøhm, of Munich, the Cylindrical Tube and Parabola Head, the Patent right of which has been purchased by RUDALL & ROSE, is applied to the Flutes Nos. 1, 2, and 3.

**NO. IV. RUDALL & ROSE'S ORDINARY FLUTE.**  
The principles upon which the Flutes Nos. 1, 2, and 3 are made, having been partially applied to this instrument, which was previously allowed to be the finest of its kind, considerable further improvements are the result, and it is now strongly recommended as the most perfect Flute that can be constructed upon the old principle.

## LIST OF PRICES.

**No. 1. Carte's Patent Flute with the Old Fingering.**

	£	s.	d.
In Cocoa-wood, with Silver Keys, Pillars, and Mountings, complete in Case	17	17	0
— Do. with Key to Shake O with D, and C sharp with D	18	18	0
A simpler kind of the above	13	13	0
In Silver, with Cylinder Tube, Parabola Head, and Silver Keys, &c.	25	4	0
— Do. with Key to Shake C with D, and C sharp with D	27	6	0
In German Silver, Electro-Silver plated, with Cylinder Tube and Parabola Head, &c.	18	18	0
— Ditto, with Key to Shake C with D, and C sharp with D	21	0	0

**No. 2. Carte's Patent Flute with New Fingering.**

In Cocoa-wood, with Silver Keys, Pillars, and Mountings, complete in Case	21	0	0
In Silver, with Cylinder Tube and Parabola Head, &c., complete in Case	26	5	0
The above, in German Silver, Electro-Silver plated, Cylinder Tube, &c., in Case, complete	21	0	0

**No. 3. Boehm's Flute.**

In Cocoa-wood, with Silver Keys, Pillars, and Mountings, in Case, complete	18	18	0
In Silver, with Cylinder Tube and Parabola Head, in Case, complete	26	5	0
The above, in German Silver, Electro-Silver plated, in Case, complete	18	18	0
Either of the above with closed G sharp Key extra	1	1	0
Briccialdi's Key to B flat, extra	1	1	0

**No. 4. Rudall and Rose's Ordinary Flutes.**

Having had a large and choice stock of well-seasoned Wood prepared for the Ordinary Flute before the introduction of the new Flutes, RUDALL & ROSE are now enabled to reduce the prices of this class of instruments, which will in future be as follows:—

MOST HIGHLY FINISHED IN COCOA, Ebony, or Box-wood, with Silver Keys and Mountings, Double Springs, Case, and Cleanser, complete—

8 Keys,	10	10	0
9 Keys, including the B flat Shake	11	11	0
10 Keys, including the lower B and B flat Keys	14	14	0
11 Keys, ditto including the Major Shake of high D	15	15	0
12 Keys, ditto including the Major Shakes on high D and B flat	16	16	0
13 Keys, ditto including the B flat, C sharp, and the D Shakes	17	17	0
Any of these Flutes with a Patent Head instead of the common one	2	2	0



## 46

	£	s.	d.
Cork Joints, with Silver Sockets, each Joint	-	-	0 10 6
FLUTE D'AMOUR, OR B FLAT TENOR FLUTE, with 8 Keys	-	-	12 12 0
THIRD OR F FLUTES, with 8 Keys	-	-	8 8 0
Ditto with 7 Keys	-	-	7 7 0
Ditto with 6 Keys	-	-	6 6 0
Ditto with 5 Keys	-	-	5 5 0
Ditto with 4 Keys	-	-	4 4 0

LESS HIGHLY FINISHED FLUTES, with Silver Keys  
and Mountings, without Double Springs or Case, &c.

In Cocoa-wood or Ebony, with 8 Keys	-	-	6 6 0
Ditto Ditto, with 7 ditto	-	-	5 15 6
Ditto Ditto, with 6 ditto	-	-	5 5 0
Ditto Ditto, with 4 ditto	-	-	3 3 0
Any of the above in Box-wood, less	-	-	0 10 6
Ivory mounted instead of Silver, less	-	-	0 10 6

EIGHT KEYED COCOA FLUTE, German Silver Keys  
and Mountings

The above in Box-wood, less	-	-	0 10 6
Ditto with large holes, extra	-	-	0 10 6

THIRD FLUTES, mounted in Ivory, with Silver Keys and  
Tube Head and Screw Cork :

8 Keys	-	-	4 15 6
7 Ditto	-	-	4 4 0
6 Ditto	-	-	3 3 0
5 Ditto	-	-	2 15 6
4 Ditto	-	-	2 2 0

FLUTE D'AMOUR, OR B FLAT TENOR FLUTE,  
Silver Keys, Ivory Mountings, with 8 Keys

with 7 Keys	-	-	8 8 0
with 6 Ditto	-	-	7 7 0
with 5 Ditto	-	-	6 6 0
with 4 Ditto	-	-	5 5 0

*N.B. Small Flutes of every description.*

A best Flute Case, with Cleanser and Paste-box	-	-	0 18 0
A Rose-wood Case, with ditto and ditto	-	-	0 10 6

RUDALL, ROSE, & Co. continue to supply the Army and Navy with complete sets of Clarinets, Oboes, Bassoons, Cornets, Trumpets, Horns, Trombones, Serpents, Ophicleides, Drums, Cymbals, &c. &c., with every modern improvement.

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*With Country Orders a Remittance is requested.*

## COMPARISON OF RUDALL &amp; ROSE HOLE DIAMETERS

(Simple System Flutes Only)

Catalog number	<u>Finger Hole Diameters (in millimeters)</u>					
	I	II	III	IV	V	VI
614	7.0	7.8	6.8	7.3	8.0	5.0
4442	7.0	7.7	6.8	7.0	7.7	5.0
1347	7.5	9.2	7.6	8.4	10.0	6.3

Catalog number	<u>Embouchure Diameters (in millimeters)</u>	
	Longitudinal axis	Latitudinal axis
614 <sup>368</sup>		
4442	11.9	10.0
1347	11.9	10.1

\* \* \* \* \*

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<sup>368</sup>Since the head joint of this flute is not by Rudall & Rose, these measurements are not recorded.

## FLUTE

<b>Catalog number:</b>	614
<b>Maker:</b>	Rudall & Rose
<b>Date:</b>	ca. 1824-1837
<b>Inscriptions:</b>	Upper middle joint: RUDALL & ROSE   N <sup>o</sup> 15 PIAZZA   COVENT GARDEN   LONDON   683 Barrel, lower middle joint, foot: RUDALL & ROSE   LONDON
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. Larson obtained the flute from someone in London named Anderson in 1935. <sup>369</sup>

**Description:**1. Measurements

Overall length:	66.4 cm
Embouchure:	11.3 mm x 11.5 mm (head joint cracked across embouchure)
Sounding length:	59 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Cocus body in five sections. Five silver ferrules. Two German silver ferrules on head joint. Conical bore.

The head joint, which is unsigned, appears to be from another flute: Its German silver ferrules do not match the ferrules on the rest of the flute, the grain of the wood is not as uniform as on the rest of the flute, and the turning of the head cap and cork adjuster is not as fine as on other Rudall & Rose flutes.

4. Mechanism

Nine silver keys are mounted on turned blocks (C, B $\flat$  with both right-hand and left-hand touchpieces, G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The F key and long F key control separate tone holes. The turned blocks are reinforced by silver pins passing through the base of each block. The key heads are saltspoons, except for those on the foot, which are pewter plugs. The saltspoon keys close over tone holes with hemispherical seating. The pewter plugs close over square metal plates screwed to the key bed. The springs are flat, some single, some double.

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<sup>369</sup>Arne B. Larson, unpublished inventory, no. 116.

The head joint is fully lined with brass, and has a tuning slide. The outer tuning sleeve on the Rudall & Rose barrel is silver.

There is also a wooden screw cork adjuster.

**Condition:**

The flute is in fair condition. Besides having a composite head/barrel joint, there are cracks in the head, barrel, and lower middle joints.

\* \* \* \* \*

**FLUTE**

<b>Catalog number:</b>	4442
<b>Maker:</b>	Rudall & Rose
<b>Date:</b>	ca. 1824-1837
<b>Inscriptions:</b>	Upper middle joint: RUDALL & ROSE   N <sup>o</sup> 15 PIAZZA   COVENT GARDEN   LONDON   1072 Barrel, lower middle joint, foot: RUDALL & ROSE   LONDON
<b>Acquisition history:</b>	Donated to the Museum by the Estate of Arne B. Larson, 1988. Larson bought the flute from Alec Hodsdon Limited of Lavenham, Suffolk, England, in 1948, as part of a collection of twenty-five wind instruments.

**Description:**

1. Measurements

Overall length:	60 cm
Embouchure:	11.9 mm x 10 mm
Sounding length:	52.6 cm

2. Pitch

Six-finger note:	d
Lowest note:	d

3. Construction

Boxwood body in five sections. Five ivory ferrules and ivory head cap. Conical bore.



No. 4442. Flute by Rudall & Rose.

4. Mechanism

The flute originally had four silver keys mounted on turned blocks and turned ring (B $\flat$ , G $\sharp$ , F, D $\sharp$ ). Two keys mounted on silver saddles (high C, long F) were probably added later. Neither the long F key nor its saddle have been preserved. The key heads are flat and round, with thin stuffed pads closing over recessed seating.

The head joint is fully lined with metal and has a graduated tuning slide and an ivory screw cork adjuster.

**Condition:**

The head joint is cracked and the long F key and its saddle are absent. The saddle for the C key has become loose.

\* \* \* \* \*

**FLUTE**

<b>Catalog number:</b>	1347
<b>Maker:</b>	Rudall & Rose
<b>Date:</b>	ca. 1824-1837
<b>Inscriptions:</b>	Upper middle joint: RUDALL & ROSE   N <sup>o</sup> 15 PIAZZA   COVENT GARDEN   LONDON   2868 Barrel, lower middle joint, foot: RUDALL & ROSE   LONDON
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. Larson possibly obtained the flute from Houghton Music Company of Blackpool, England, in 1941. <sup>370</sup>

**Description:**1. Measurements

Overall length:	66.7 cm
Embouchure:	11.9 mm x 10.1 mm
Sounding length:	58.9 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

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<sup>370</sup>Arne B. Larson, unpublished inventory, no. 105.



No. 1347. Flute by Rudall & Rose.

3. Construction

Cocus body in five sections. Seven silver ferrules. The embouchure hole is bushed with mother-of-pearl, and a silver lip plate encircles the body of the flute around the embouchure hole.<sup>371</sup> The finger holes are rather large in diameter.

4. Mechanism

Nine silver-plated keys are mounted on turned blocks (C, B $\flat$  with both right-hand and left-hand touchpieces, G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C). The block mount for the right-hand B $\flat$  touchpiece, which has been applied to the body, is evidently a repair or later addition. The F key and long F key control separate tone holes. The turned blocks are reinforced by silver pins passing through the base of each block. The key heads are saltspoons, except for the low C and C $\sharp$  keys, which are pewter plugs. The saltspoon keys close over recessed seating, while the pewter plugs close over square metal plates screwed into the wood. The springs are flat, some of them double.

The head joint is fully lined with metal, and has a tuning slide and a graduated screw cork adjuster made of ivory and silver.

**Condition:**

The instrument is in good condition. There is a crack in the barrel. Wood has been applied to repair two chipped shoulders of one of the block mounts for the foot keys. The touchpiece of the F key has been soldered.

\* \* \* \* \*

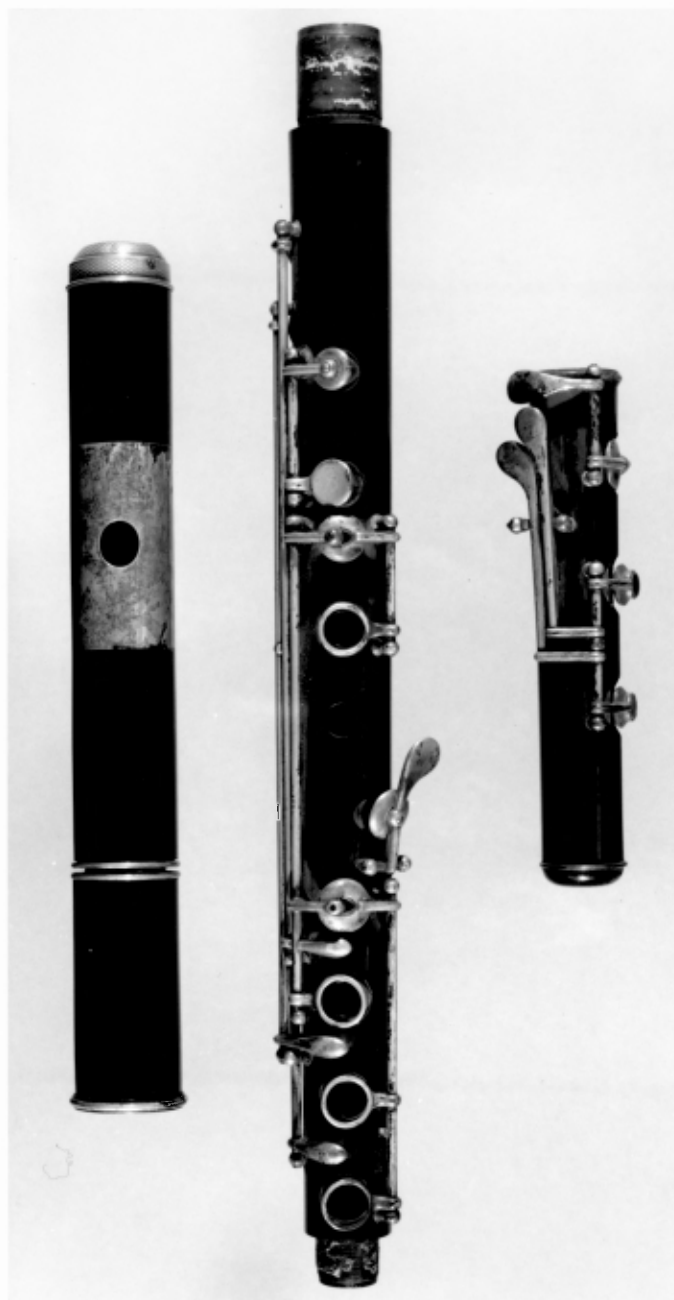
**FLUTE**

<b>Catalog number:</b>	4345
<b>Maker:</b>	Rudall & Rose
<b>Date:</b>	ca. 1843-1847
<b>Inscriptions:</b>	Middle joint: [quatrefoil]   [curved] RUDALL & ROSE   N <sup>o</sup> 1 TAVISTOCK STREET   COVENT GARDEN   [curved] LONDON   [quatrefoil]   191 Barrel and foot: [quatrefoil]   [curved] RUDALL & ROSE   LONDON   [quatrefoil]
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979.

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<sup>371</sup>This silver lip plate would have protected certain players who had a sensitivity to cocus from developing a lip irritation. See Rockstro, ¶1315, p. 142.





No. 4345. Flute by Rudall & Rose.

**Description:**1. Measurements

Overall length:	67 cm
Embouchure:	12.1 mm x 10.3 mm
Sounding length:	58.9 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Cocus body in four sections. Six silver ferrules, silver head cap with turned decoration. The sockets are lined with silver, and the upper tenon of the middle joint is tipped with silver. The body of the flute around the embouchure hole is encircled by a silver lip plate.<sup>372</sup> Conical bore.

4. Mechanism

Boehm 1832 system with open G#. Silver keys are mounted on posts and axles. The keys consist of shallow round cups, ring keys, and pewter plugs. The pewter plugs are used for low C and C#, and close over round metal plates screwed to the key beds. The springs are all flat springs, except for one needle spring on the rod carrying the ring keys for finger holes V and VI. This lone needle spring is probably a later replacement, since some later solder can be seen where the end of the spring is attached to the rod.

The head joint is fully lined, and has a tuning slide. The slide is frozen in a closed position, and it is not known whether the sleeve is marked with graduations.

Since the head cap is also frozen in place, it is not known if there is any type of cork adjuster.

5. Accessories

The instrument has a leather-covered and velvet-lined case, possibly original.

**Condition:**

The flute is in good condition. It has a crack in the barrel, and its head cap is dented.

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<sup>372</sup>See previous note regarding silver lip plates (in connection with no. 1347 above).



No. 3515. Flute attributed to Louis Lot; distributed by Rudall & Rose.

## FLUTE

<b>Catalog number:</b>	3515
<b>Maker:</b>	Attributed to Louis Lot of Paris
<b>Distributor:</b>	Rudall & Rose
<b>Date:</b>	ca. 1849-1850
<b>Inscriptions:</b>	Middle joint: [script] Rudall & Rose   Patentees   38 Southampton St Strand   London
<b>Acquisition history:</b>	W. Wayne Sorensen Collection, 1984. <sup>373</sup>

**Description:**1. Measurements

Overall length:	67.3 cm
Embouchure:	11.7 mm x 10.2 mm
Sounding length:	59.6 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Silver-plated German silver body in three joints. Raised lip plate around squarish-oval embouchure hole. Cylindrical bore.

4. Mechanism

Boehm 1832 system, with open G# and Briccialdi Bb. The keys are of the open-hole type, made from the same plated metal as the body, and are mounted on posts and axles. Both flat and needle springs are present.

5. Accessories

The instrument has a leather-covered and chamois-lined case, probably not original.

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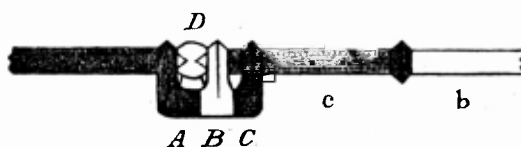
<sup>373</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1983): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.

**Condition:**

The plating is somewhat worn, but the flute is otherwise in excellent condition.

**Notes:**

The attribution to Lot is by David Shorey. A similar flute is pictured in David Shorey, The 1983 Sale Catalog of Historic Flutes (Bowdoinham, Maine: David Shorey Antique Flutes, 1983), pp. 13-16. The major differences between the Museum's flute and the flute in the Shorey catalog are: (1) On the Shorey flute, the A and G keys are carried on the same rod, whereas on the Museum's flute, they are carried on separate rods; (2) The mechanism of the G# key differs slightly between the two flutes; (3) Unlike the Museum's flute, the Shorey flute does not have the Briccialdi Bb. These flutes are important transitional instruments between Boehm's 1832 model, with its ring keys and vaulted clutches, and the modern French style flute, with its cylindrical bore, perforated keys, and Buffet-type clutches (see diagram of clutch below). A similar flute is now in the Bate Collection (no. 157),<sup>374</sup> and another unsigned example survives in the Valenza Collection.<sup>375</sup>



Clutch mechanism, designed by Auguste Buffet to reduce the number of rods necessary to mount Boehm system keywork. Reproduced from Rockstro, p. 363.

The dating for this flute takes into account the presence of the Briccialdi Bb, which Rudall & Rose first used in 1849.<sup>376</sup>

\* \* \* \* \*

<sup>374</sup>Bate, Plate 8; Baines, Bate Collection, p. 10; Montagu, Bate Collection, p. 9.

<sup>375</sup>David Shorey, The 1983 Sale Catalog of Historic Flutes (Bowdoinham, Maine: David Shorey Antique Flutes, 1983), p. 13; Historic Flutes from Private Collections, p. 9.

<sup>376</sup>Bate, pp. 129-130.

## FLUTE

<b>Catalog number:</b>	3791
<b>Maker:</b>	Rudall, Carte & Co.
<b>Date:</b>	ca. 1890-1894 <sup>377</sup>
<b>Makers' marks:</b>	Head joint and foot: [crown]   RUDALL   CARTE & C <sup>O</sup>   LONDON Middle joint: [crown]   RUDALL   CARTE & C <sup>O</sup>   23 BERNERS STREET   OXFORD STREET   LONDON   2470
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. Larson obtained the flute from N. L. Anderson of Haslemere, Surrey, in 1945. <sup>378</sup>

**Description:**1. Measurements

Overall length:	62.3 cm
Embouchure:	12 mm x 10.5 mm
Sounding length:	54.7 cm

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Cocus body in three joints. Four German silver ferrules. There is no tuning slide, but the head joint is fully lined with metal. The sockets are lined with German silver, and the tenons are tipped with German silver. The cork is faced with a metal disc. Cylindrical bore.

4. Mechanism

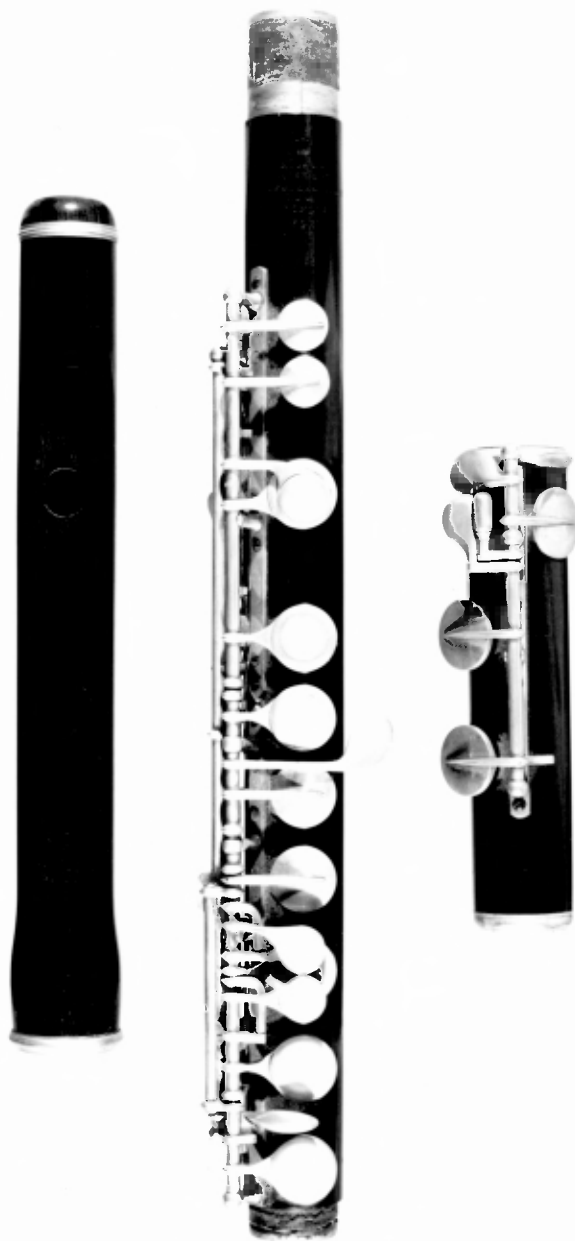
Carte 1867 system ("Carte and Boehm's Systems Combined") with open G#. Modern flat cup, closed keys in German silver, mounted on posts and axles. The posts are attached to metal straps screwed to the wood. Stuffed pads are attached with screws and washers. The touchpiece for low C is a metal roller. Both flat and needle springs are present.

There is a wooden screw cork adjuster. The end of the screw does not project through the wooden head cap.

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<sup>377</sup>This dating is based on the serial number chronology for Rudall, Carte & Co. in New Langwill Index (forthcoming).

<sup>378</sup>Arne B. Larson, unpublished inventory, no. 555.



No. 3791. Flute by Rudall, Carte & Co.

5. Accessories

The instrument has its original case (also containing Rudall, Carte & Co. piccolo, catalog no. 3792, serial no. 2998). The case is lined with velvet and bears a label marked: RUDALL, CARTE & C<sup>O</sup>, L<sup>TD</sup>. | 23, BERNERS STREET, | LONDON. | And DUBLIN.

**Condition:**

The flute is in good condition, having only a few small cracks in the head joint and foot.

\* \* \* \* \*

**PICCOLO**

<b>Catalog number:</b>	3792
<b>Maker:</b>	Rudall, Carte & Co.
<b>Date:</b>	1890-1900?
<b>Inscriptions:</b>	Head joint: [crown]   RUDALL   CARTE & C <sup>O</sup>   LONDON Body joint: [crown]   RUDALL   CARTE & C <sup>O</sup>   23 BERNERS STREET   OXFORD STREET   LONDON   2998 Head joint, toward cork end: M
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. Larson obtained this piccolo from N. L. Anderson of Haslemere, Surrey, in 1945. <sup>379</sup>

**Description:**1. Measurements

Overall length:	29.7 cm
Embouchure:	10.4 mm x 9 mm
Sounding length:	24.3 cm

2. Pitch

Six-finger note:	d <sup>1</sup>
Lowest note:	d <sup>1</sup>

3. Construction

Cocus body in two joints. Three silver-plated ferrules. There is no tuning slide, but the head joint is fully lined with metal. It has not been determined whether the socket is lined with metal, since the two joints are presently frozen together. The bore tapers from 11.2 mm at the cork end to 9.2 mm at the end of the foot, and may be an example of John Rose's improved conical bore.

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<sup>379</sup>Arne B. Larson, unpublished inventory, no. 556.





No. 3792. Piccolo by Rudall, Carte & Co.

4. Mechanism

Carte 1867 system ("Carte and Boehm's Systems Combined") with open G#. Modern flat cup, closed keys (except the key for VI is a ring key), silver-plated, mounted on posts and axles. Both flat and needle springs are present.

The screw cork adjuster is made of cocus and silver.

5. Accessories

The instrument has its original case (also containing Rudall, Carte & Co. flute, catalog no. 3791, serial no. 2470). The case is lined with velvet and bears a label marked: RUDALL, CARTE & C<sup>O</sup>, L<sup>TD</sup>. | 23, BERNERS STREET, | LONDON. | And DUBLIN.

**Condition:**

The piccolo is in excellent condition.

**Notes:**

According to New Langwill Index (forthcoming), the company numbered piccolos separately from its wooden cylinder flutes. Since this piccolo and the Rudall, Carte & Co. flute above (catalog no. 3791, serial no. 2470) appear to have been used as a matched set, it is likely that the two instruments were made about the same time.

\* \* \* \* \*

**FLUTE**

<b>Catalog number:</b>	3208
<b>Maker:</b>	Rudall, Carte & Co.
<b>Date:</b>	ca. 1898-1903 <sup>380</sup>
<b>Inscriptions:</b>	Head joint and foot: [crown]   RUDALL   CARTE & C <sup>O</sup>   LONDON Middle joint: [crown]   RUDALL   CARTE & C <sup>O</sup>   23 BERNERS STREET   OXFORD STREET   LONDON   3224
<b>Acquisition history:</b>	W. Wayne Sorensen Collection, 1983. <sup>381</sup>

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<sup>380</sup>This dating is based on the serial number chronology for Rudall, Carte & Co. found in New Langwill Index (forthcoming).

<sup>381</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1983): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.



No. 3208. Flute by Rudall, Carte & Co.

**Description:**1. Measurements

Overall length: 68 cm  
Embouchure: 12 mm x 10.9 mm  
Sounding length: 60.6 cm

2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

Rosewood or cocus body in three joints. Four silver-plated ferrules and cocus head cap faced with metal disc. The embouchure hole is squarish in shape. The sockets are lined with silver-plated metal, and the tenons are also tipped with metal (one is silver-plated, the other is brass). Cylindrical bore. The head joint tapers, the bore measuring 17 mm at the cork end and 18.6 mm at the socket end.

4. Mechanism

Boehm 1847 system, with closed G# and Briccialdi Bb. Silver-plated keywork is mounted on posts and axles. The posts are attached to metal straps which are screwed into the wood. Modern flat cup, closed keys. The touchpieces for low C and C# are metal rollers. Both flat and needle springs are present.

**Condition:**

The instrument is in good condition. There are small cracks in all three joints, and a few minute chips around the embouchure hole.

### Part III: Simple System Flutes With Covered Action

The following examples by Lafleur, Chappell, Hawkes, and Butler (with the exception of the two small flutes by Hawkes and Butler) represent an amalgamation of the old simple system flute and the new Boehm flute. Their general design is based on the previous work of two London flutists-turned-inventors, Abel Siccama and Robert Sidney Pratten.

Abel Siccama was a linguist and amateur flutist who regarded recent developments in flute design as over-mechanizing his favorite instrument. After his mixed success in designing a keyless flute,<sup>382</sup> in 1846 he presented a ten-keyed flute which he called the "Diatonic" Flute. This model was manufactured by Boosey & Co. and was adopted by two well-known professional flutists, Joseph Richardson and Robert Sydney Pratten. This model had the following features:

- Conical bore
- Well-placed (but not scientifically placed), large tone holes of equal size
- Standard eight-key fingering system
- Open-standing extension keys for holes III and VI, which had been moved farther down the tube, out of convenient reach
- One-piece middle joint<sup>383</sup>



Siccama's Diatonic Flute. Reproduced from Welch, p. 208.

Siccama's flute retained the old fingering system, while applying certain ideas of Boehm, namely,

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<sup>382</sup>This was his "Chromatic" model flute, which he patented in 1845. It had one key for  $c^1$  controlled by the right hand index finger. The G hole was moved around the other side of the instrument, where it was controlled by the right hand thumb. This model did not come into general use. Bate, pp. 137-138.

<sup>383</sup>Bate, p. 138; Toff, pp. 97-99.

enlarging and repositioning the holes and adding keywork so that the respaced finger holes were brought within reach.

Rockstro is rather severe on Siccama:

To Abel Siccama must be attributed the blame for having been the first to take the retrograde step of attempting to apply the new distribution of the holes to a flute of the old fingering; an unphilosophical and unnatural combination of two incompatible things which necessarily resulted in the loss of the best points of both.<sup>384</sup>

Rockstro admitted that Pratten played very well on a Siccama flute, but he seemed to think that was due to the player, not the instrument: "It really mattered little what flute he used, for such was his amazing command of the instrument, and so accurate was his ear, that he could have played with perfect intonation and a fine tone on almost any kind of flute."<sup>385</sup>

Robert Pratten (1824-1868) was renowned as a solo and orchestral player, and held key positions in the Philharmonic and the Italian opera. While he did not wish to learn the Boehm fingering, he went farther than Siccama in applying Boehm's principles to the old style flute. In the early 1850s, Pratten, who was then playing the Siccama flute,<sup>386</sup> experimented with the flute by widening the lower part of the bore, by further enlarging the holes, and by adopting his friend Rockstro's tone hole dimensions and positions. Furthermore, he covered all the finger holes with keys (some perforated), not just III and VI as on the Siccama flute. In 1856, Boosey & Co. began manufacturing Pratten's new flute. By the following year, Pratten had made a bolder alteration by transplanting the old fingering to a cylindrical bore.<sup>387</sup>

Since Boosey & Co. produced both Siccama and Pratten models, it is not surprising that, as time passed, the distinctions between them became blurred. As an example of the confusion, in 1892, Boosey & Co. sold both conical and cylindrical Pratten models. And in some present-day catalogs, late nineteenth-century *cylindrical* simple-system flutes with covered action are referred to as Siccama

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<sup>384</sup>Rockstro, ¶935, p. 644.

<sup>385</sup>*Ibid.*

<sup>386</sup>Toff, p. 229.

<sup>387</sup>Rockstro, ¶671-672, pp. 386-387; Bate, p. 144; Toff, pp. 109-111.

models. Since many other English players besides Pratten were reluctant to learn a new fingering system, this type of flute became quite popular. From the Museum's examples (none of them by Boosey), it is clear that other English and French makers rose to meet the demand by producing similar models. They were not specifically marked "Pratten" or "Siccama", and they are something of a mixed bag, but they share the characteristics of large tone holes and the old fingering system with covered action.<sup>388</sup> Cylindrical bores were common, but some, like the Museum's Lafleur flute (no. 3139), had conical bores. Since none of the Museum's examples are strictly Siccama's original design, they are identified in this catalog as Pratten system instruments.

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<sup>388</sup>J. L. Voorhees, The Classification of Flute Fingering Systems of the Nineteenth and Twentieth Centuries, The flute Library, vol. 15 (Buren, The Netherlands: F. Knuf, 1980), pp. 62-63.

**J. R. LAFLEUR & SON**

J. R. Lafleur & Son were musical instrument dealers and music publishers operating in Soho from 1870 until after 1910. They imported instruments chiefly of French makers, and this flute was probably one such import. A six-keyed piccolo now at the Royal College of Music, bears the inscription, LAFLEUR | PARIS & LONDON, which corroborates the firm's French connections.<sup>389</sup> The firm was later bought by Boosey & Hawkes Ltd.<sup>390</sup> The Lafleurs must have been of French extraction, but this writer has been unable to find any connection between this family and the family of Parisian bow makers by the same name.

\* \* \* \* \*

**FLUTE**

**Catalog number:** 3139

**Distributor:** J. R. Lafleur & Son

**Date:** ca. 1870 to ca. 1910

**Inscriptions:** Head joint and middle joint: J. R. LAFLEUR & SON | LONDON  
Scatched on the underside of C# key: VT

**Acquisition history:** W. Wayne Sorensen Collection, 1982.<sup>391</sup>

**Description:**

1. Measurements

Overall length: 62.2 cm  
Embouchure: 12.3 mm x 11 mm  
Sounding length: 53.7 cm

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<sup>389</sup>Ridley, p. 12.

<sup>390</sup>New Langwill Index (forthcoming); Rose, p. 357 and Langwill, Index, s.v. "Lafleur, J. R. & Son." Langwill gives the founding date of the firm as 1780, but this is surely in error, since J. René Lafleur, the founder, was not born until 1812.

<sup>391</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1983): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.



2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

Rosewood (?) body in four sections. Six German silver ferrules. The tenons are tipped with German silver. Conical bore.

4. Mechanism

Pratten system keywork. Simple system German silver keywork is mounted on posts and axles (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C, plus open-standing keys for finger holes I-VI). The F and long F keys control separate holes. The G $\sharp$  key is carried on the left-hand axle. Modern flat cup key heads. The touchpiece for low C is a roller. Both flat and needle springs are present.

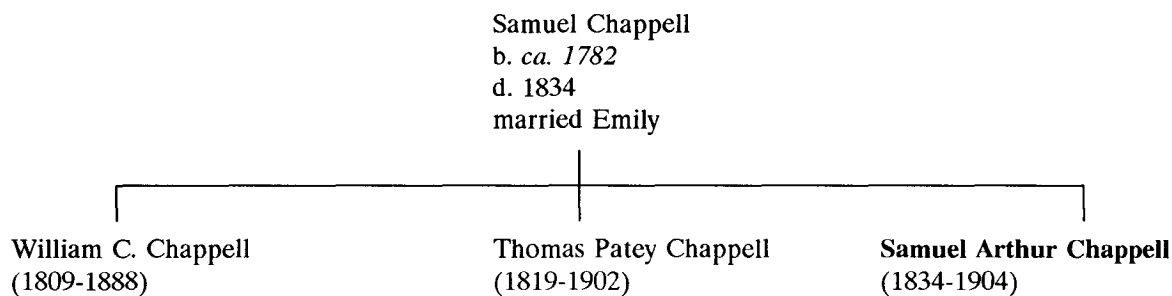
The head is fully lined with brass and has a tuning slide and a wooden screw cork adjuster.

**Condition:**

The flute is in good condition, having only a small crack in the foot.

S. A. CHAPPELL

(Samuel) Arthur Chappell was the son of Samuel Chappell, who in 1810 founded Chappell & Co., an important firm of music publishers, concert agents, and piano manufacturers. The Chappell family included:



Arthur's own firm, S. A. Chappell, took over Jullien & Co., and produced woodwind and brass instruments at addresses in New Bond Street from 1866 to 1901. His business also included importing instruments, especially those of Courtois and Albert.<sup>392</sup>

Arthur Chappell was perhaps better known as the director of the Pops concerts sponsored by Chappell & Co. beginning in 1858.<sup>393</sup> Known as "Uncle Arthur," he ran the Pops for forty years. In an age before easy access to music by way of radio and recordings, the Pops made the music of famous composers available to the ordinary public.<sup>394</sup> One of Robert Browning's sonnets celebrates Arthur Chappell's achievement:

Thanks, then to Arthur Chappell, thanks to him,  
Whose every guest henceforth not idly vaunts,  
    'Sense has received the utmost Nature grants,  
My cup is filled with rapture to the brim,  
    When, night by night--ah, memory, how it haunts!  
    Music was poured by perfect ministrants,  
By Hallé, Schumann, Piatti, Joachim.<sup>395</sup>

<sup>392</sup>New Langwill Index (forthcoming); Langwill, Index, s.v. "Chappell, S. Arthur"; New Grove Dictionary of Music and Musicians, s.v., "Chappell," by W. H. Husk and Peter Ward Jones.

<sup>393</sup>The head of Chappell & Co. by this time was Arthur's older brother, Thomas Patey Chappell, who financed the building of St. James's Hall, where the Pops were held.

<sup>394</sup>Carlene Mair, comp., The Chappell Story, 1811-1961 (London: Chappell & Co., 1961), pp. 17-18.

<sup>395</sup>Robert Browning quoted in Mair, p. 18.

Evidently, Arthur Chappell had quite a benevolent disposition. Algernon Rose states:

So well known is Mr. Arthur Chappell, as director of the London Classical Popular concerts--otherwise the "Saturday and Monday Pops"--that many people will express a doubt if you tell them that Mr. Chappell is also one of the best-known military instrument importers in this country, and a maker of such instruments to boot. From various sources it had been made evident to me that many a London orchestral player was under an obligation to Mr. Chappell. Not only did I hear of his having supplied needy musicians with instruments on long credit, but of his having given away valuable instruments to men of talent when in distress.<sup>396</sup>

\* \* \* \* \*

### FLUTE

**Catalog number:** 3136

**Maker:** S. A. Chappell

**Date:** 1879-1901

**Inscriptions:** Head joint: S.A. CHAPPELL | LONDON | 1844  
Middle joint: S.A. CHAPPELL | 52 NEW BOND S<sup>T</sup> | LONDON  
| 1844  
Foot: S.A. CHAPPELL | LONDON

**Acquisition history:** W. Wayne Sorensen Collection, 1982.<sup>397</sup>

**Description:**

1. Measurements

Overall length: 66.9 cm  
Embouchure: 11.8 mm x 10.9 mm (embouchure crudely enlarged)  
Sounding length: 59.3 cm

2. Pitch

Six-finger note: d  
Lowest note: c

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<sup>396</sup>Rose, p. 172.

<sup>397</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1983): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.

3. Construction

Grenadilla body in three joints. Four silver-plated ferrules. There is no tuning slide, but the head joint is fully lined with metal. It is likely that some sort of screw cork adjuster was originally present, since there is a hole in the head cap for a screw, now missing. The sockets are lined with silver, and the tenons are tipped with silver. Cylindrical bore.

4. Mechanism

Pratten system keywork. Ten silver-plated keys (C, B♭ with duplicate right-hand and left-hand touchpieces, G♯, F, long F, D♯, C♯, low C, B/C♯ trill, D/E trill) plus covered keys for tone holes I, II, IV, and V, and extension keys for III and VI. The keys have modern flat cup heads and are mounted on posts and axles screwed directly into the wood. The F key and long F key control separate holes. The touchpiece for the low C is a roller. Both flat and needle springs are present. There is a small key between holes I and II which is articulated by the keys for I and II.

**Condition:**

The instrument is in good condition. The head joint is cracked, and the embouchure has been crudely altered.

HAWKES & SON

Hawkes & Co. was founded in 1860 by William Henry Hawkes, who played cornet in the Queen's private band. The firm was initially located in Pimlico before it moved to Soho, its base of operations for thirty-five years. By the time William made his son Oliver a partner in 1886, the firm had gradually developed a thriving business in brass instruments, woodwind instruments, and music publishing. In 1895, Hawkes & Son moved to Denman Street in Piccadilly, employed approximately 100 hands, and operated a branch in Aldershot. The firm continued to grow, employing over 200 hands by the time it amalgamated with Boosey & Co. in 1930 to form Boosey & Hawkes.<sup>398</sup> Most of Hawkes' surviving flutes are Boehm-system instruments or simple system band flutes.

\* \* \* \* \*

## FLUTE

**Catalog number:** 3209

**Maker:** Hawkes & Son

**Date:** 1889-1895

**Inscriptions:** Head joint: HAWKES & SON | LONDON  
Body joint: HAWKES & SON | 28 LEICESTER SQ<sup>RE</sup>  
| LONDON

**Acquisition history:** W. Wayne Sorensen Collection, 1983.<sup>399</sup>

**Description:**

1. Measurements

Overall length: 66.1 cm  
Embouchure: 12.2 mm x 11.9 mm  
Sounding length: 58.1 cm

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<sup>398</sup>New Langwill Index (forthcoming); Humphries and Smith, p. 175; and Rose, pp. 269-271.  
<sup>399</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1983): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.



No. 3209. Flute by Hawkes & Son.

2. Pitch

Six-finger note: d  
 Lowest note: c

3. Construction

Rosewood or grenadilla body in three joints. Four German silver ferrules. The head joint is fully lined with metal, but there is no tuning slide. The sockets are lined, and the tenons tipped, with German silver. Cylindrical bore.

4. Mechanism

Pratten system keywork in German silver mounted on posts and axles: traditional eight keys (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , and low C) plus open-standing keys for finger holes I-VI. The keys for holes I and II are perforated. The keys for holes III, IV, and V are extension keys. The left-hand axle carries keys for holes I, II, and III; the right-hand axle carries keys for holes IV, V, VI and for F; and a single axle carries all three foot keys. There are two crescent-shaped clutches on the left-hand axle which enable the key for II to articulate the key for I and the key for III to articulate both I and II. The key heads are modern flat cups. The posts are screwed directly into the wood. Both flat and needle springs are present.

The head joint has a wooden screw cork adjuster.

**Condition:**

The flute is in good condition, having only a small crack in the foot.

\* \* \* \* \*

**FLUTE IN E $\flat$** 

**Catalog number:** 3138

**Maker:** Hawkes & Son

**Date:** 1889-1930

**Inscriptions:** Middle joint: [crown] | A Z | REGR N<sup>o</sup> | [? very faint]  
 381469 / 18 | HAWKES & SON | MAKERS | LONDON  
 | 3380  
 Head and foot joints: HAWKES & SON | LONDON  
 All joints: 3380  
 Near mount for long F key: 9 | 1

**Acquisition history:** W. Wayne Sorensen Collection, 1982<sup>400</sup>.

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<sup>400</sup>*Ibid.*

**Description:**1. Measurements

Overall length: 55.8 cm  
 Embouchure: 12.3 mm x 11 mm (head joint is cracked across embouchure)  
 Sounding length: 48.6 cm

2. Pitch

Six-finger note: f  
 Lowest note: f (written d)

3. Construction

Grenadilla or cocus body in three joints (foot and lower middle joint are integral). Ebonite barrel. Six German silver ferrules. Conical bore.

4. Mechanism

Originally, six German silver keys were mounted on posts and axles (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ ). However, the long F key and its mount are now absent, and the hole has been plugged. The key heads are modern flat cups. The posts are screwed directly into the wood.

The head joint is fully lined with brass and has a tuning slide.

**Condition:**

The instrument is in fair to poor condition. The head joint is cracked across the embouchure hole, the long F key and its mount are missing, and whatever head cap the instrument may have had is now missing.

**Notes:**

The barrel of metal-lined head joints frequently cracked when the wood contracted; an ebonite barrel would (and as can be seen here, has) resisted cracking.



GEORGE BUTLER & SONS

The Butler firm was founded by George Butler, Sr., in 1826, and produced both woodwind and brass instruments. The firm maintained offices in London until 1913, as well as offices in Dublin until 1927. In 1898, the firm became George Butler & Sons.<sup>401</sup>

\* \* \* \* \*

## FLUTE

**Catalog number:** 3137

**Maker:** George Butler & Sons

**Date:** 1898-1913

**Inscriptions:** Middle joint: G. BUTLER & SONS | 29 HAYMARKET |  
LONDON | AND | DUBLIN  
Head joint: G. BUTLER & SONS

**Acquisition history:** W. Wayne Sorensen Collection, 1982.<sup>402</sup>

**Description:**1. Measurements

Overall length: 66.7 cm  
Embouchure: 12.7 mm x 11.7 mm (head joint cracked across embouchure)  
Sounding length: 57.7 cm

2. Pitch

Six-finger note: d  
Lowest note: c

3. Construction

Grenadilla body in three joints. Four German silver ferrules. The head joint is fully lined with metal, but there is no tuning slide. There is a pin projecting from the wooden head cap

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<sup>401</sup>New Langwill Index (forthcoming) and New Grove Dictionary of Musical Instruments, s.v., "Butler," by Niall O'Loughlin.

<sup>402</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1988): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.

which appears to be merely decorative, since there is no cork adjuster. The sockets are lined, and the tenons tipped, with German silver. Cylindrical bore.

#### 4. Mechanism

Eight German silver keys (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C) plus two open-standing keys for holes III and VI are mounted on German silver posts screwed directly into the wood. The F key and long F key control separate holes. The G $\sharp$  key and open-standing key for hole III share an axle, as do the F key and open-standing key for hole VI. The foot keys are mounted on a single axle. The touchpiece for the low C key is a roller. The tone holes are large, and the key heads are modern flat cups.

#### **Condition:**

The flute is in good condition. There are cracks in the head and foot joints, and the long F key has been soldered.

\* \* \* \* \*

#### **FIFE IN A $\flat$**

<b>Catalog number:</b>	4616
<b>Maker:</b>	George Butler
<b>Date:</b>	1865-1898
<b>Inscriptions:</b>	Lower joint: BUTLER   HAYMARKET   LONDON   AND   DUBLIN Head joint: BUTLER
<b>Acquisition history:</b>	Donated to the Museum by the Estate of Arne B. Larson, 1988.

#### **Description:**

##### 1. Measurements

Overall length:	38.3 cm
Embouchure:	11 mm x 10 mm
Sounding length:	31.7 cm

##### 2. Pitch

Six-finger note:	b $\flat$ <sup>1</sup>
Lowest note:	b $\flat$ <sup>1</sup> (written d)

##### 3. Construction

Rosewood or cocus body in two joints. Two German silver ferrules (a third ferrule is now missing). Conical bore.

4. Mechanism

One German silver key (D#) with shallow cup key head is mounted on a turned block. The seating for the key is conically recessed.

**Condition:**

The instrument is in good condition. The lower (body) joint has a long crack which has been repaired.

**Part IV:**

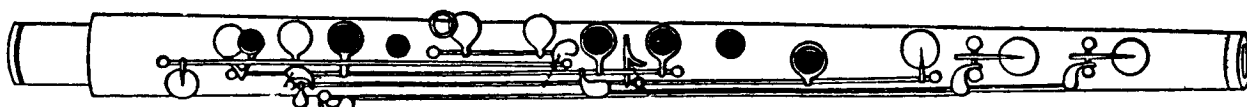
**Other Alternatives to the Boehm System Flute**

### CORNELIUS WARD

Cornelius Ward (ca. 1796-1872), in Rendall's estimation, was "a splendid workman, quite the best we have had in this country."<sup>403</sup> According to Rockstro, by the time Ward was nineteen, he was a foreman with Monzani & Hill. It is unclear how long he remained with Monzani & Hill. Two instruments from that workshop which are marked **C. Ward fecit** actually date from after 1829, when Henry Hill was in business alone. Yet, in 1818 Ward worked for Louis Drouet, the French flutist who for a short time operated a flute factory in London. And in 1831 Ward built a flute for Captain William Gordon. At any rate, Ward established his own workshop in Great Titchfield Street in 1836. He moved to Portland Street in 1859 and to Portland Road in 1860. He retired in 1870, and died in a workhouse in Marlebone two years later.<sup>404</sup>

In 1839, Ward began manufacturing pirated versions of Boehm's 1832 flute. He was actually the first manufacturer of Boehm flutes in London, and it was not until 1843 that Rudall & Rose began producing authorized models of Boehm's flute. The complexity of the Boehm fingering system led Ward to apply his considerable inventive talents to the design of a new flute. Ward's goal was to construct "a flute on the open-keyed system which should afford greater mechanical facilities than had been obtained by Gordon, Boehm, or Coche."<sup>405</sup>

The result of his labors was his patent no. 9229 of 1842 in which he describes no less than seven different conical flutes, all with different fingering systems. Ward continued to experiment, bringing out the final form of the Ward system flute in 1844, which he promoted in his The Flute Explained:



Body section of Ward's flute. From Ward's The Flute Explained, reproduced in Rockstro, p. 365.

<sup>403</sup>F. G. Rendall quoted by New Langwill Index (forthcoming).

<sup>404</sup>Rockstro, ¶1529, p. 284; New Langwill Index (forthcoming); New Grove Dictionary of Musical Instruments, s.v., "Ward, Cornelius," by Graham Melville Mason.

<sup>405</sup>Ward, The Flute Explained, quoted by Bate, p. 135.

The principal features of Ward's flute were:

- Traction levers. The left-hand thumb controlled the foot keys and the G# key by means of traction levers connected to their key heads by silver wires. This thumb controlled a total of five keys, but Rockstro states that this mechanism, which is similar to a bell crank, was quite trouble-free.<sup>406</sup> The idea for traction levers was originally Captain Gordon's. Welch candidly states that Ward "...secretly appropriated Gordon's crank and wire system."<sup>407</sup>

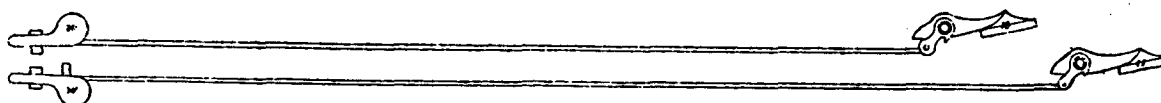


Fig. 1.—Crank and wire mechanism. From a drawing in the specification of Ward's patent. w, w, ends of keys acted on by the left thumb, the action carried by wires and cranks to 13, 14, the valves for the low C sharp and C natural.

Ward's traction levers. Reproduced from Welch, p. 38.

- "Terminator-Indicator". This was a tuning device which enabled the player to turn a dial on the outside of the head joint in order to adjust the cork to correspond to the position of the tuning slide:

Ward's "Patent Flutes" were furnished with graduated metal tuning slides, and to move the stoppers he provided, not a screw, but a sort of eccentric with a tiny connecting rod. An indicator mounted on the eccentric spindle outside the head showed the setting of the cork, and had to be matched with corresponding numbers on the slide.<sup>408</sup>

- Silver ring keys. These, of course, were a feature borrowed from Boehm's flute.

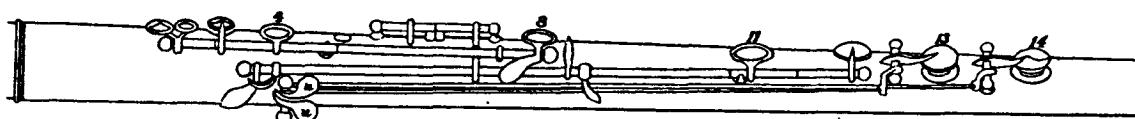


Fig. 45.—Side view of Ward's Flute. Reduced from a figure in the specification of his patent. 4, 8, 11, ring-keys. w, w, ends of keys pressed with the left thumb closing 13, 14, C sharp and C natural valves, the motion conveyed to them by wires and cranks.

Body section of Ward's flute, showing ring keys. Reproduced from Rockstro, p. 365.

<sup>406</sup>Rockstro, ¶1571, p. 314.

<sup>407</sup>Welch, p. 195. It is rather ironic that Ward accused Boehm of secretly appropriating Gordon's ideas, when he himself appropriated the inventions of other makers. Not only did he apply Gordon's concept of traction levers, but he made pirated Boehm-system flutes.

<sup>408</sup>Bate, p. 135. There is a diagram of the Indicator dial below in the description of the Museum's Ward flute. The Terminator-Indicator differed from Rudall & Rose's earlier patent head joint, which simultaneously adjusted the tuning slide and the cork when the head cap was turned. Rudall & Rose's ingenious mechanism, however, made the instrument uncomfortably heavy.

• Fingering system similar to Pottgiesser's. Since the left hand thumb controlled the foot keys and the G# key, four holes could be covered by the four fingers of each hand. These fingerings therefore gave the following pitches:

●	●	●	●	●	●	●	●
○	●	●	●	●	●	●	●
○	○	●	●	●	●	●	●
○	○	○	●	●	●	●	●
-	-	-	-	-	-	-	-
○	○	○	○	●	●	●	●
○	○	○	○	○	●	●	●
○	○	○	○	○	○	●	●
○	○	○	○	○	○	○	●
B	B♭	A	G	F#	F	E	D

In this respect the Ward flute is a revival of H. W. Pottgiesser's flute of 1803.

- Dorus-type mechanism for D# and G#. Ward borrowed yet another idea from another maker:
  2. A mode of closing the E flat key and the E natural hole at the same time with the little finger of the right hand, and by an additional lever allowing the same E flat key to be raised by the thumb of the left hand, while the E natural hole remains closed.
  3. Closing the G sharp and A natural keys at the same time by the little finger of the left hand, and by means of an additional lever allowing the G sharp key to be raised by the thumb of the left hand while the A natural keys remains closed.<sup>409</sup>
- Needle springs. Ward's patent flutes were the first English flutes to be fitted with needle springs, which were invented by Buffet of Paris in *ca.* 1837.<sup>410</sup>

Most of the Ward system flutes are made of cocus. Since cocus is a more stable wood than boxwood, it is more suitable for supporting the rods and axles. Ward eschewed boxwood, asserting that it was better suited to the "construction of a hygrometer than of a wind instrument."<sup>411</sup>

The Ward flute was briefly adopted by many amateurs, but by no professional flutists of any stature. Ward's key system apparently resulted in a number of awkward cross fingerings, so few saw it as a viable alternative to the old system flute or the Boehm flute.<sup>412</sup> Bate suggests that, if anything, the Ward flute stimulated interest in Boehm's 1832 flute, which rival makers Rudall & Rose

<sup>409</sup>Patents for Inventions, p. 138.

<sup>410</sup>Rockstro, ¶390.

<sup>411</sup>*Ibid.*, ¶312, p. 141.

<sup>412</sup>Toff, p. 89.

began to manufacture the year after Ward's patent. Flutists Carte, Clinton, and Rockstro rejected Ward's flute and adopted the Boehm flute. Eventually the Ward flute fell into complete disuse.<sup>413</sup> It is a testament, however, to the creativity and beautiful craftsmanship of its maker.

Ward did not confine his talents to flutes. He also made percussion and took out patents for a new tuning mechanism for the kettledrum (no. 7505 of 1837) and for a bass drum/cymbal combination (no. 141 of 1853).<sup>414</sup> He made the Queen's state kettledrums upon her accession in 1837. Despite taking Gordon's side in the Boehm-Gordon controversy, Ward, in cooperation with Giuseppe Tamplini, was the first to develop a Boehm-system bassoon (patent no. 140 of 1853).

\* \* \* \* \*

#### FLUTE

**Catalog number:** 3081

**Maker:** Cornelius Ward

**Date:** ca. 1844-1859

**Inscriptions:** Body joint, near tenon: [curved] CORNELIUS WARD |  
INVENTOR | & | PATENTEE | 36 | [reverse curved] GT.  
TITCHFIELD ST. | LONDON  
Body joint, near foot: [curved] CORNELIUS WARD | [reverse  
curved] FECIT  
Head: [curved] CORNELIUS WARD | [reverse curved]  
PATENTEE  
Barrel: [curved] CORNELIUS WARD | [reverse curved] LONDON

**Acquisition history:** W. Wayne Sorensen Collection, 1982.<sup>415</sup>

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<sup>413</sup>Bate, p. 136.

<sup>414</sup>Patents for Inventions, pp. 126, 185.

<sup>415</sup>"California Collector Donates His Collection," Shrine to Music Museum Newsletter 10 (October 1982): 4; "Wayne Sorensen Donates Distinguished Collection," Shrine to Music Museum Newsletter 11 (October 1983): 2-3; "The Wayne Sorensen Collection--35 Years of Collecting," Newsletter of the American Musical Instrument Society 12 (October 1983): 4.





No. 3081. Flute by Cornelius Ward.

**Description:**1. Measurements

Overall length: 66 cm  
 Embouchure: 10.9 mm x 10.9 mm (head joint cracked across embouchure)  
 Sounding length: 58 cm

2. Pitch

Six-finger note: d  
 Lowest note: c

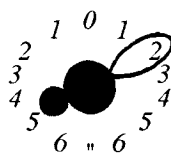
3. Construction

Cocus body in two joints. Five silver ferrules and silver head cap. The sockets are lined with silver, and the tenons are tipped with silver. The embouchure hole is squarish. Conical bore.

4. Mechanism

Ward's system. Silver keywork is mounted on posts and axles. Needle springs. The key flaps are round shallow cups. There is an engraved concave oval metal plate attached to the wood to protect the tracker wires to the low C and C# keys.

Terminator-Indicator cork adjuster. The Indicator dial the on exterior of head joint is marked:



The head joint is fully lined and has a tuning slide marked with graduations 0, I, II, III, IV, V, VI to correspond with the numbers on the Terminator-Indicator dial.

**Accessories:**

The instrument has a case and a cocus tenon cap with silver ferrule for use when storing the flute in its case.

**Notes:**

Another photograph of this instrument can be seen in:

The Shrine to Music Museum: A Pictorial Souvenir (Vermillion, South Dakota: The Shrine to Music Museum, 1988), p. 38.

JOSEPH WALLIS & SON

The Museum's collection includes a Giorgi flute made by Joseph Wallis & Son. The flute historian Christopher Welch said, "A flute without keys is a dream which has haunted almost every one who has attempted to apply his inventive powers to the instrument..."<sup>416</sup> In contrast to the complex mechanisms of Boehm, Ward, et al., the Italian Carlo Tomaso Giorgi, in collaboration with a Florentine dentist named Schaffner, designed a simple keyless flute in 1888. Giorgi obtained a British patent for this flute (no. 6515 of 24 March 1896), and demonstrated it in London in November of that year.<sup>417</sup>

The most distinctive feature of the Giorgi flute was its mouthpiece, which was fitted at the end of the tube so that the instrument was held vertically, like an oboe or clarinet, and end blown. This is arguably a more ergonomic design, since it removes the necessity for supporting the instrument on a level with the chin, a position which can tire the arms and strain the neck. The mouthpiece was also said to produce a "...far superior, clearer, and purer tone..." and to allow the flutist "...a greater capacity of lung, and in consequence, wind power..."<sup>418</sup>.

Despite being keyless, all twelve semitones could be produced on the Giorgi flute without resorting to cross fingering. This was accomplished by piercing the tube with eleven holes: the usual thumb hole and holes for each of the eight fingers, in addition to a hole to be stopped by the intermediate joint of the left hand index finger, and another hole to be stopped by the right hand thumb. There was consequently a hole for each half step from d (the instrument's lowest note) to d<sup>1</sup>. The Giorgi flute's bore was cylindrical and was normally made of ebonite.

Giorgi's ideas were not without precedent. End blown flutes existed in antiquity, and survive today in many cultures in the form of notched flutes, duct flutes, etc. Earlier in the century, Abel

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<sup>416</sup>H. Standish, "The Giorgi Flute," Proceedings of the Musical Association 24 (1898-1899): 61. This quote is extracted from the discussion by Welch and others following Standish's presentation.

<sup>417</sup>Langwill, Index, s.v., "Giorgi, Carlo Tomaso"; Carse, p. 101.

<sup>418</sup>Standish, pp. 57-58.

Siccama attempted to design a keyless flute which had two thumbholes (his "Chromatic" Flute," patented in 1845). Siccama's flute, however, had a conical bore and a single key for producing c<sup>1</sup>. Dr. Burghley of Camden Town, London, also experimented with keyless flutes in the 1840s.<sup>419</sup> Giorgi and Schaffner initially planned to reform all woodwind instruments, guided by the laws of physics. They were, of course, preceded by Theobald Boehm in his reform of the flute, which was based on acoustical principles. Welch relates an interesting anecdote regarding Boehm and vertically-blown flutes:

Boehm, whose name is so well known in connection with ring-keyed instruments, contemplated the idea of making a flute to be held straight. One day, when I was walking with him in Munich, not many months before his death, he put his walking-stick to his mouth, holding it as if he were playing on a Giorgi flute, and said: "If I were a younger man I would make a flute to be played like this. I suppose somebody will do it when I am gone." We immediately began to speak of something else, so that I did not learn from whence he derived the idea, how he proposed to construct the flute, or what was the object he had in view; but on going to the Italian Exhibition at Earl's Court some years afterwards, I saw the idea carried out. The instrument there exhibited was the Giorgi flute in its early form. It was not made of ebonite, like that now before us, but of metal, and, instead of being keyless, was constructed with square keys of immense size covering holes of the same shape, the fingering being quite different from that of the flute we are asked to examine, or any other flute.<sup>420</sup>

Besides its other advantages, the keyless Giorgi flute required little maintenance (having no mechanism which got out of adjustment) and only a small initial investment. One could expect to pay anywhere from £15 to £40 for a Boehm flute, while a keyless Giorgi flute could be had from Joseph Wallis & Son, the British makers and distributors of Giorgi flutes, for as little as £2 2s.

Giorgi claimed to have had his flutes rigorously tested in conservatories at Rome, Parma, Bologna, and Milan, whose professors were said to have agreed to the Giorgi flute's merits. Students of the Giorgi flute were thought to progress more quickly than students of the Boehm flute. Furthermore, the Giorgi flute was awarded medals at expositions in Bologna (1888), Paris (1889), and Chicago (1893).<sup>421</sup> Even the Scientific American noticed Giorgi's work:

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<sup>419</sup>Toff, pp. 95-97; Bate, pp. 136-140.

<sup>420</sup>Standish, p. 60.

<sup>421</sup>*Ibid.*, pp. 57-58; Toff, p. 103.

FLUTE.--Carlo T. Giorgi, New York City. This flute has a mouthpiece curved in direction of the length of the flute, with a mouth hole on its top and a resounding chamber extending below the line of communication between the mouthpiece and the body of the flute. It has all the eleven holes necessary to the chromatic scale, each hole being adapted to be closed independently without cross fingering, and keys are not necessary. The mouthpiece is at the upper end of the pipe, along with the air is blown straight, the notes being of perfect intonation and equality of sound from the lowest to the highest.<sup>422</sup>

With all its advantages and the recognition it received, why is the Giorgi flute little more than a collector's curiosity today? One reason may have been that, although the keyless flute was physically uncomplicated, it was nevertheless difficult to finger. Even H. Standish, who was so enthusiastic about this new flute, felt the need to make something of an apology for Mr. Green, flutist in the Grenadier Guards Band, who was to demonstrate the Giorgi flute during Standish's 1898 presentation for the Musical Association:

...Like all other first-class flautists, he has been in the habit of using covered holes, whilst the Giorgi flute on which he is going to perform to-night has perfectly plain holes, which makes rapid performances more difficult, as those of you who play the flute will be aware.<sup>423</sup>

Bate has pointed out that the existence of several examples of *keyed* versions of the Giorgi flute (an option specified in Giorgi's patent, and provided on request by Joseph Wallis & Son), indicate that some players were unable or unwilling to adjust to the keyless flute.<sup>424</sup> Indeed, the Museum's Giorgi flute, like another example at the Edinburgh University Collection (no. 56),<sup>425</sup> is actually a Pratten system instrument with a Giorgi mouthpiece. Part of the difficulty in playing the keyless flutes probably rested in the fact that the right hand thumb was responsible for stopping a finger hole, diminishing the thumb's ability to support and balance the instrument. Bate goes on to suggest that, by 1897, Boehm system flutes were too firmly established for the Giorgi system to compete.<sup>426</sup>

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<sup>422</sup>"Recently Patented Inventions," Scientific American 77 (1897): 396.

<sup>423</sup>Standish, pp. 58-59.

<sup>424</sup>Bate, p. 197. Giorgi himself, however, performed virtuosically on his keyless flute.

<sup>425</sup>Dick and Myers, p. 23.

<sup>426</sup>Bate, p. 197.

Perhaps that length of tubing between the cork and the embouchure hole in transverse flutes plays a critical acoustical role. To quote Welch once more:

The nature of the vibrations which are set up in the column of air between the cork and the mouth-hole are unknown, they never having, as far as I am aware, been subjected to examination by an acoustician. We know, however, that the length of this column of air has a great effect on the harmonics. Now Signor Giorgi claims, I understand, to have greatly improved the harmonics... Should it prove that he has spoilt our present high octave without perfecting the harmonics, few will be disposed to have his head-piece applied to their flutes.<sup>427</sup>

Joseph Wallis established his military instrument business in Southwark in 1848. In 1867, the firm moved to Euston Road, where it remained until 1928. The firm became Joseph Wallis & Son in 1884. Joseph Wallis exhibited flutes and flageolets at the Paris Exhibition of 1878, and was awarded an honorable mention.<sup>428</sup>

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<sup>427</sup>Standish, pp. 60-61.

<sup>428</sup>New Langwill Index (forthcoming).

# THE NEW FLUTE

(GIORGI'S PATENT).

CONCERT IN D,  
£2 2s.

Including Silk Cleaner  
and Scale.

Silk and Velvet  
Lined Cases,  
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Rich Tone.  
No Cross  
Fingering.  
Has no  
Keys.  
Chromatic  
Passages  
performed  
with  
Ease.



This Flute  
has with-  
stood the  
severest  
tests, and  
received  
the highest  
praise from  
the Con-  
servatoires  
of Music at  
Parma,  
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TELEGRAMS: "FIDDLESTICK, LONDON."

Advertisement for the new Giorgi flute made by Joseph Wallis & Son which  
appeared in William Lynd, A Popular Account of Ancient Musical Instruments and  
Their Development (London: James Clark, 1897).



No. 1345. Giorgi flute by Joseph Wallis & Son.



## FLUTE

<b>Catalog number:</b>	1345
<b>Maker:</b>	Joseph Wallis & Son
<b>Date:</b>	1897- <i>ca.</i> 1900
<b>Inscriptions:</b>	Giorgi mouthpiece: [curved] JOSEPH WALLIS & SON L <sup>TD</sup>   GIORGI PATENT   [curved] LONDON On one side of the Giorgi mouthpiece: [script] C. T. Giorgi On the other side of the Giorgi mouthpiece: [script] Wallis Body joint: J. WALLIS & SON   LONDON
<b>Acquisition history:</b>	Arne B. Larson Collection, 1979. Larson obtained the flute from Anthony Baines, England, in 1946. <sup>429</sup>

**Description:**1. Measurements

Overall length:	59.6 cm (with Giorgi mouthpiece) 65.9 cm (with transverse mouthpiece)
Embouchure:	13 mm x 11 mm (with transverse mouthpiece)
Sounding length:	57.9 cm (with transverse mouthpiece)

2. Pitch

Six-finger note:	d
Lowest note:	c

3. Construction

Ebonite body in four sections (mouthpiece, barrel, body joint, and foot) in addition to an alternate transverse mouthpiece.<sup>430</sup> Four German silver ferrules. The sockets are lined, and the tenons tipped, with German silver. Cylindrical bore. The part of the tube near the embouchure hole in the transverse mouthpiece is encircled by a wide German silver lip plate. The shape of this embouchure hole may have been altered.

4. Mechanism

Pratten system keywork in German silver mounted on posts and axles. Eight keys (C, B $\flat$ , G $\sharp$ , F, long F, D $\sharp$ , C $\sharp$ , low C) plus covered keys for finger holes I-VI. The keys for III, IV, and V are extension keys. The key for V articulates the key for IV. The G $\sharp$  is carried on the left hand axle. The F and long F keys control separate holes. The touchpiece for the low

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<sup>429</sup>Arne B. Larson, unpublished inventory, no. 634.

<sup>430</sup>This was the only surviving example located during the course of this study which has both a Giorgi mouthpiece and an alternate transverse mouthpiece.

C key is a roller. The posts are set into metal straps screwed into the body of the instrument. The key heads are modern flat cups. Both flat and needle springs are present.

There is a telescoping socket lining between the metal-lined barrel and the body joint, so that the length of the tube can be adjusted for tuning purposes. The transverse head joint has a screw cork adjuster made of wood and German silver.

**Condition:**

The instrument is in excellent condition.

**APPENDIX A**

**EXTANT MONZANI AND HILL FLUTES**

### Introduction

This appendix consists of information about certain extant Monzani & Hill flutes, located primarily through a search of printed sources (auction catalogs and catalogs of collections or exhibitions). The goal was to determine whether a chronology for Monzani & Hill serial numbers could be established on the basis of hallmark dates. As mentioned above, the silver fittings of many Monzani & Hill flutes were tested for purity at the London assay office, where the silver received a particular hallmark according to the year. If such a chronology of serial numbers could be established, it should be possible to date those flutes that had a serial number but no hallmark (such as the Museum's no. 2490, which bears the serial no. 1043, but no hallmarks).

Dating an instrument by its hallmark, however, is not a precise business. The silver keys and ferrules were probably cast in batches, taken for assay, stored in a bin back at the workshop, and used as needed. Keys with hallmarks for a few years' range could end up in the same bin. Moreover, it is difficult to say how long the keys remained in the bin before they were actually used.<sup>1</sup> A flute could have been finished considerably later than the date of its hallmark. On the other hand, perhaps there was a relatively short time lag between the hallmark date and the date the flute was finished, since it would have been expensive to have much capital tied up in excess silverwork.

All things considered, it seems that in most cases, one can assume at least an approximate date of manufacture for a hallmarked flute, especially if one takes into consideration the dates implied by the style of the firm and its address in the signature. For example, it seems reasonable to assume that the Museum's flute, catalog no. 2490, signed, **MONZANI & C<sup>O</sup> | 24 DOVER ST | LONDON | 1043**, was finished *ca.* 1814, since there are a few other Monzani flutes with serial numbers in the 1100s hallmarked for the year 1814-1815. With the Dover Street address, the latest this flute could have been made is *ca.* 1819, after which the firm moved to 28 Regent Street.

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<sup>1</sup>Jeremy Montagu, "A Query on the Habits of Instrument Makers," Galpin Society Journal 27 (1974): 137.

The serial number chronology becomes less clear however, with serial numbers from about the 2200s on. Not only are the hallmark dates not in a chronological succession, but there is no clear transition from the Monzani & Co. stamp to the Hill, late Monzani & Co. stamp. It seems that Hill was occasionally using old stock-in-hand left in the shop after the end of the Monzani & Hill partnership. Hill occasionally used silver hallmarked before 1829 (for example, serial no. 3176), the year the partnership was dissolved.

Hill might also have used some leftover turned wooden flute bodies. Assuming there were some earlier flute bodies in stock, it may be that they had already been stamped with a serial number once the turning was completed. Hill may then have added his signature upon final completion of the flute. This would explain why some flutes have a post-1829 hallmark and a Hill, late Monzani & Co. stamp, but a serial number implying a pre-1830 date. It is not clear exactly at what point in the manufacturing process the maker's stamp and serial number stamp were applied. At any rate, Hill does not seem to have started a new sequence of serial numbers.

A few additional observations remain. One is that the three serial numbers in the 5000s are inconsistent with the rest of the serial numbers, and probably were meant to be numbers in the 3000s. The stamps used in the workshop to mark the flutes may have been worn, or the wood may have become worn over time, rendering the serial number stamp nearly unreadable.

There appears to have been a single serial number sequence for all the firm's different sizes of flutes. The existence of both larger flutes and smaller flutes with serial numbers as high as the 2000s seems to support this. The output of these other sizes of flutes cannot have been as great as that for concert flutes, yet the odd sizes bear some fairly high serial numbers. Also, there are examples of different sizes of flutes having consecutive serial numbers:

**1116.** Tenor flute in A $\flat$ .  
**1117.** Third flute in E $\flat$ .

**1416.** Tenor flute in A $\flat$ .  
**1417.** Third flute in E $\flat$ .

**2590.** Third flute in E♭.

**2591.** Tenor flute in A♭.

In the final analysis, this list must remain provisional as long as it relies so heavily on printed sources, rather than on first-hand examination. It is hoped that it will provide the basis for a more complete understanding of Monzani & Hill serial numbers and manufacturing processes.

**List arrangement.** The list primarily includes all flutes discovered during the course of this research which are known to be stamped with serial numbers, hallmarks, or both serial numbers and hallmarks. The flutes are listed in order by their serial numbers, with those flutes bearing only hallmarks being interpolated into the sequence. The form of the company's name and address in the signature are recorded in a standardized form. The hallmark date recorded is the first year implied by the date letter of the hallmark. The date letter was changed each year at the end of May. Thus, the date for letter t, 1834-1835, is here recorded as simply 1834. If a range of hallmark dates or multiple hallmark dates are recorded, this means that the silverwork on the flute has hallmarks from two or more assay years. The source of information for each instrument, as well as a brief description of the flute, can be found in the corresponding endnotes following the list.

Selective List of Extant Monzani-Hill Flutes Arranged by Serial Number or Hallmark Date

<u>Serial Number</u>	<u>Hallmark Date</u>	<u>Signature</u>	<u>Address</u>	<u>Endnote Number</u>
81		Monzani	3 Old Bond Str. & 100 Cheapside	1
102		Monzani	3 Old Bond Str.	2
165		Monzani	3 Old Bond Str.	3
		Monzani**	3 Old Bond Str.	4
205	1810	Monzani**	3 Old Bond Str.	5
213 [?]	1809 [?]	Monzani		6
248		Monzani	3 Old Bond Str.	7
351	1813	Monzani & Co.	24 Dover St.	8
378	1813	Monzani		9
405	1813	Monzani	24 Dover St.	10
465		Monzani	3 Old Bond Str.	11
475		Monzani	3 Old Bond Str.	12
509		Monzani	3 Old Bond Str.	13
551		Monzani	3 Old Bond Str.	14
560	1809, 1812	Monzani	3 Old Bond Str.	15
564	1811	Monzani	3 Old Bond Str.	16
609	1811	Monzani	3 Old Bond Str.	17
654		Monzani	3 Old Bond Str.	18
693		Monzani	Sold London, Lond	19
744		Monzani	24 Dover St.	20
783		Monzani	3 Old Bond Str.	21
852		Monzani & Co.	24 Dover St.	22
899		Monzani	24 Dover St.	23
	1813	Monzani	24 Dover St.	24
	1813	Monzani	24 Dover St.	25
912	1813	Monzani	24 Dover St.	26
971		Monzani & Co.	24 Dover St.	27

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\*\*These flutes have a date stamp for 1810.

<u>Serial Number</u>	<u>Hallmark Date</u>	<u>Signature</u>	<u>Address</u>	<u>Endnote Number</u>
1030		Monzani & Co.	24 Dover St.	28
1043		Monzani & Co.	24 Dover St.	29
1063		Monzani & Co.	24 Dover St.	30
1085		Monzani & Co.	24 Dover St.	31
1101	1814	Monzani & Co.	24 Dover St.	32
1103		Monzani & Co.	24 Dover St.	33
1104		Monzani & Co.	24 Dover St.	34
1116		Monzani & Co.	24 Dover St.	35
1117		Monzani & Co.	24 Dover St.	36
1135		Monzani & Co.	24 Dover St.	37
1136	1814	Monzani & Co.	24 Dover St.	38
1215		Monzani & Co.	24 Dover St.	39
1227 [?]	1815 [?]	Monzani & Co.		40
1300		Monzani & Co.		41
1301 [?]	1816	Monzani & Co.		42
1304	1816	Monzani & Co.	24 Dover St.	43
1343	1816	Monzani & Co.	24 Dover St.	44
1351		Monzani & Co.	28 Regent Stt., Piccadilly	45
1368		Monzani & Co.	24 Dover St.	46
1370 [?]	1816	Monzani & Co.		47
1377	1816	Monzani	24 Dover St.	56
1376		Monzani & Co.	28 Regent Stt., Piccadilly	48
1416		Monzani & Co.		49
1417	1816 [?]	Monzani & Co.		50
1468		Monzani & Co.	24 Dover St.	51
1501	1816	Monzani & Co.	24 Dover St.	52
1504		Monzani & Co.	28 Regent Stt., Piccadilly	53
1516		Monzani & Co.	28 Regent Stt., Piccadilly	54
1548	1817	Monzani & Co.	24 Dover St.	55
1637	1818	Monzani & Co.	24 Dover St.	57
1690	1818	Monzani & Co.	24 Dover St.	58



<u>Serial Number</u>	<u>Hallmark Date</u>	<u>Signature</u>	<u>Address</u>	<u>Endnote Number</u>
1698	1819	Monzani & Co.	28 Regent Stt., Piccadilly	59
1736		Monzani & Co.	28 Regent Stt., Piccadilly	60
1738	1819	Monzani & Co.	28 Regent Stt., Piccadilly	61
1745		Monzani & Co.		62
1748		Monzani & Co.	28 Regent Stt., Piccadilly	63
1752		Monzani & Co.	28 Regent Stt., Piccadilly	64
1776		Monzani & Co.	28 Regent Stt., Piccadilly	65
1798		Monzani & Co.	28 Regent Stt., Piccadilly	66
1851		Monzani & Co.	28 Regent Stt., Piccadilly	67
1869	1820	Monzani & Co.	28 Regent Stt., Piccadilly	68
1870		Monzani & Co.	28 Regent Stt., Piccadilly	69
1882	1820	Monzani & Co.	28 Regent Stt., Piccadilly	70
1931 [?]		Monzani & Co.		71
1940		Monzani & Co.	28 Regent Stt., Piccadilly	72
2032	1821	Monzani & Co.	28 Regent Stt., Piccadilly	73
2049	1821	Monzani & Co.	28 Regent Stt., Piccadilly	74
2054	1822	Monzani & Co.	28 Regent Stt., Piccadilly	75
2062	1821	Monzani	28 Regent Stt., Piccadilly	76
	1822	Monzani & Co.	28 Regent Stt., Oxford St.	77
	1822	Monzani & Co.	28 Regent Stt., Piccadilly	78
2090	1822	Monzani & Co.	28 Regent Stt., Piccadilly	79
2095		Monzani & Co.	28 Regent Stt., Piccadilly	80
2113		Monzani & Co.	28 Regent Stt., Piccadilly	81
2142	1822 [?]	Monzani & Co.		82
2145	1822	Monzani & Co.		83
2157	1822	Monzani & Co.	28 Regent Stt., Piccadilly	84
2180	1828	Monzani & Co.	28 Regent Stt., Piccadilly	85
2193		Monzani & Co.	28 Regent Stt., Piccadilly	86
2195	1815	Monzani & Co.	28 Regent Stt., Piccadilly	87
2211		Monzani & Co.	28 Regent Stt., Piccadilly	88
2247		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	89

<u>Serial Number</u>	<u>Hallmark Date</u>	<u>Signature</u>	<u>Address</u>	<u>Endnote Number</u>
2285	1830	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	90
	1830 [?]	Monzani & Co.	28 Regent Stt., Piccadilly	91
2352		Monzani & Co.	28 Regent Stt., Piccadilly	92
2369	1830 [?]	Monzani & Co.	28 Regent Stt., Piccadilly	93
2387	1824	Monzani & Co.	28 Regent Stt., Piccadilly	94
2412	1832	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	95
2441		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	96
2456	1824	Monzani & Co.	28 Regent Stt., Piccadilly	97
2478	1824	Monzani & Co.	28 Regent Stt., Piccadilly	98
2498	1825	Monzani & Co.	28 Regent Stt., Piccadilly	99
2515	1834	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	100
2539	1835	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	101
2584		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	102
2590		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	103
2591		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	104
2593		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	105
2613	1825	Monzani & Co.	28 Regent Stt., Piccadilly	106
2627	1825-1826	Monzani & Co.	28 Regent Stt., Piccadilly	107
2672	1829	Monzani & Co.	28 Regent Stt., Piccadilly	108
2679	1827	Monzani & Co.		109
2746	1827	Monzani & Co.		110
2751	1827	Monzani & Co.	28 Regent Stt., Piccadilly	111
2817	1827	Monzani & Co.	28 Regent Stt., Piccadilly	112
2849	1828	Monzani & Co.	28 Regent Stt., Piccadilly	113
2905	1828	Monzani & Co.	28 Regent Stt., Piccadilly	114
2933	1828, 1829	Monzani & Co.	28 Regent Stt., Piccadilly	115
2954	1829	Monzani & Co.	28 Regent Stt., Piccadilly	116
3020	1830	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	117
3049	1830	Hill, late Monzani & Co.		118
3054	1830, 1831	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	119
	1831	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	120

<u>Serial Number</u>	<u>Hallmark Date</u>	<u>Signature</u>	<u>Address</u>	<u>Endnote Number</u>
3058	1831 [?]	Hill, late Monzani & Co.		121
3070	1831	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	122
3076	1831	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	123
3077	1831, 1832	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	124
3081	1832	Monzani & Co.	28 Regent Stt., Piccadilly	125
	1832, 1834	[Hill, late Monzani & Co.]	28 Regent Stt., Piccadilly	126
3122	1833	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	127
3164	1835	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	128
3176	1828	Hill, late Monzani & Co.		129
3198	1836	Hill, late Monzani & Co.		130
3203	1834-1836	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	131
3232	1836	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	132
3255	1837	Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	133
5115		Monzani & Co.	28 Regent Stt., Piccadilly	134
5954	1829	Monzani & Co.	28 Regent Stt., Piccadilly	135
5955		Hill, late Monzani & Co.	28 Regent Stt., Piccadilly	136

Endnotes to Selective List of Extant Monzani-Hill Flutes

The entries consist of the serial number (in bold), a short description of the instrument, and the source of the description.

1. **81.** Flute, six keys, cocus. Shrine to Music Museum, no. 2491.
2. **102.** Flute, four keys, boxwood. Expo Sussex, no. 20. Expo Sussex, Catalogue of the Musical Instrument Exhibition (Lewes, Sussex: Lewes Press, 1968), p. 4.
3. **165.** Flute in B $\flat$ , six keys. Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 72.
4. (No serial no.) Flute, eight keys, cocus. Small vent key below A hole. Important Musical Instruments, Including Instruments from the Collection of Frederick R. Selch, Tuesday, June 18, 1985... (New York: Christie's East, 1985), Lot 224.
5. **205.** Flute, seven keys, ebony. Musical Instruments...which will be Sold at Auction...on Tuesday, December 16, 1975... (London: Christie, Manson & Woods, 1975), Lot 13.
6. **213.** Flute, seven keys, cocus. Dayton C. Miller Flute Collection, no. 249. Gilliam and Lichtenwanger, p. 18. Serial no. and hallmark information courtesy of Robert Sheldon. The serial no. and hallmark stamps are faint.
7. **248.** Flute, five keys, blackwood. Edinburgh University Collection, no. 24. Dick and Myers, p. 15; Myers, Vol. 1, p. 69; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.
8. **351.** Flute, six keys, cocus. Made for Music: An Exhibition to Mark the 40th Anniversary of the Galpin Society for the Study of Musical Instruments at Sotheby's (London: Galpin Society, 1986), no. 64.
9. **378.** Third flute in E $\flat$ , six keys, cocus. Flageolet head. Shorey, 1990 Catalog of Flutes, p. 37; Shorey, 1991 Catalog of Antique Flutes, p. 8.
10. **405.** Flute, seven keys, rosewood. Royal College of Music Museum of Instruments, no. 326 FL/24. Ridley, p. 15.
11. **465.** Flute, six keys, rosewood. Important Musical Instruments: ...Day of Sale, Friday, 15th May 1981... (London: Sotheby Parke Bernet, 1981), Lot 435.
12. **475.** Tenor flute in A $\flat$ , four keys, blackwood. Shorey, 1991 Catalog of Antique Flutes, p. 8.
13. **509.** Tenor flute in A $\flat$ , four keys, rosewood. Highly Important Musical Instruments: ...Days of Sale, Wednesday, 8th November, 1978...Thursday, 9th November, 1978... (London: Sotheby Parke Bernet, 1978), Lot 106.
14. **551.** Flute, eight keys, rosewood. Important Musical Instruments: ...Public Auction, Thursday, March 18, 1982... (New York: Sotheby Parke Bernet, 1982), Lot 17.
15. **560.** Flute, eight keys, rosewood. Important Musical Instruments: ...Day of Sale, Thursday, 27th November 1975... (London: Sotheby Parke Bernet, 1975), Lot 34.
16. **564.** Flute, seven keys, rosewood. Made for Music, no. 63.
17. **609.** Flute, eight keys, ebony. Bate Collection, no. 122. Baines, Bate Collection, p. 6; Montagu, Bate Collection, p. 8.

18. **654.** Flute, six keys, cocus. Early Musical Instruments: ...Day of Sale, Thursday, 12th December, 1985... (London: Sotheby's, 1985), Lot 39.
19. **693.** Flute, six keys, cocus. Low C key inscribed "G. Longdon". Musical Instruments: ...Day of Sale, Monday, 20th July 1981... (London: Sotheby Parke Bernet, 1981), Lot 25.
20. **744.** Flute, seven keys, boxwood. The James MacGillivray Collection of Woodwind Instruments: ...Day of Sale, Thursday, 8th November, 1979... (London: Sotheby Parke Bernet, 1979), Lot 113.
21. **783.** Flute, seven keys, boxwood. Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 214.
22. **852.** Flute, eight keys, boxwood. Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 235.
23. **899.** Flute, seven keys, ebony. *Ibid.*, Lot 236; Gary Lewis, "Flute Collection Sale" (unpublished inventory, April 1992).
24. (No serial no.) Flute, six keys, rosewood. Important Musical Instruments: ...Day of Sale, Thursday, 27th November 1975... (London: Sotheby Parke Bernet, 1975), Lot 15.
25. (No serial no.) Flute, seven keys, ivory. Musical Instruments: ...Day of Sale, Thursday 22nd November 1990... (London: Sotheby's, 1990), Lot 139.
26. **912.** Flute, eight keys, rosewood. Highly Important Musical Instruments, Part II: ...Second Day of Sale, 3rd Session, Thursday, 4th November 1982... (London: Sotheby Parke Bernet, 1982), Lot 507.
27. **971.** Flute, seven keys, boxwood. Musical Instruments: ...Day of Sale, Monday, 20th July 1981... (London: Sotheby Parke Bernet, 1981), Lot 32.
28. **1030.** Tenor flute in A $\flat$ , five keys, cocus. Spohr, p. 19.
29. **1043.** Flute, seven keys, boxwood. Shrine to Music Museum, no. 2490.
30. **1063.** Flute, seven keys, rosewood. Musical Instruments: ...Day of Sale, Thursday, 31st March 1988... (London: Sotheby's, 1988), Lot 142.
31. **1085.** Flute, seven keys, cocus. Musical Instruments: ...Day of Sale, Thursday, 23rd September 1982... (London: Sotheby Parke Bernet, 1982), Lot 4.
32. **1101.** Flute, seven keys, ebony. Bate Collection, no. 124. Baines, Bate Collection, p. 6; Montagu, Bate Collection, p. 8.
33. **1103.** Flute, seven keys, boxwood. Bate Collection, no. x16. *Ibid.*; Montagu, Flute, pp. 9, 14.
34. **1104.** Flute, four keys, boxwood. Bate Collection, no. 125. *Ibid.*
35. **1116.** Tenor flute in A $\flat$ , five keys, cocus. Stearns Collection, no. 562. Borders, p. 20.
36. **1117.** Third flute in E $\flat$ , six keys, cocus. Stearns Collection, no. 563. *Ibid.*
37. **1135.** Flute, seven keys, boxwood. Early Musical Instruments: ...Day of Sale, Thursday, 12th December, 1985... (London: Sotheby's, 1985), Lot 2.
38. **1136.** Flute, eight keys, cocus. Musical Instruments: ...Days of Sale, Wednesday 23rd November 1988...Thursday 24th November 1988...Friday 25 November 1988... (London: Sotheby's, 1988), Lot 740.

39. **1215.** Flute, seven keys, boxwood. Important Musical Instruments and Printed Music...which will be sold at Auction...on Tuesday 11 November 1986... (London: Christie, Manson & Woods, 1986), Lot 15.
40. **1227.** Flute, nine keys, cocus. Dayton C. Miller Collection, no. 394. Gilliam and Lichtenwanger, p. 29. Serial no. and hallmark information courtesy of Robert Sheldon. Serial no. stamp is worn.
41. **1300.** Flute, nine keys, rosewood. Dayton C. Miller Flute Collection, no. 582. Gilliam and Lichtenwanger, p. 41. Serial no. and hallmark information courtesy of Robert Sheldon. Serial no. stamp is faint.
42. **1301.** Flute, nine keys, blackwood. Shorey, 1990 Catalog of Flutes, p. 32; Shorey, 1991 Catalog of Antique Flutes, p. 8. The second digit of the serial no. stamp is very faint.
43. **1304.** Flute, eight keys, cocus. Highly Important Musical Instruments: ...Day of Sale, Thursday, 4th July 1985... (London: Sotheby's, 1985), Lot 216.
44. **1343.** Tenor flute in A $\flat$ , five keys, rosewood. Shrine to Music Museum, no. 3110.
45. **1351.** Flute, four keys, boxwood. Musical Instruments: ...Day of Sale, Tuesday 9th June 1987... (London: Sotheby's, 1987), Lot 123.
46. **1368.** Flute, seven keys. Adam Carse Collection, no. 7. Horniman Museum and Library, Catalogue of the Adam Carse Collection of Old Musical Wind Instruments (London: London County Council, 1951), p. 27.
47. **1370.** Flute, seven keys, rosewood. Dayton C. Miller Flute Collection, no. 1198. Gilliam and Lichtenwanger, p. 83. Serial no. and hallmark information courtesy of Robert Sheldon. Serial no. stamp is faint.
48. **1376.** Flute, seven keys, cocus. Shorey, 1990 Catalog of Flutes, p. 32-33.
49. **1377.** Flute, eight keys, ivory. Edinburgh University Collection, no. 31. Dick and Myers, p. 16 (records serial no. as 1577); Myers, Vol. 2, Part D, Fascicle ii, file UCTD28 (records serial no. as 1377).
50. **1416.** Tenor flute in A $\flat$ , five keys, cocus. Dayton C. Miller Flute Collection, no. 251. Gilliam and Lichtenwanger, p. 18. Serial no. information courtesy of Robert Sheldon.
51. **1417.** Third flute in E $\flat$ , six keys, cocus. Dayton C. Miller Flute Collection, no. 250. *Ibid.*, p. 18. Serial no. and hallmark information courtesy of Robert Sheldon. Hallmark is faint.
52. **1468.** Flute, nine keys, boxwood. Shorey, 1990 Catalog of Flutes, pp. 10-11, 33.
53. **1501.** Flute, eight keys, blackwood. Important Musical Instruments: ...Day of Sale, Thursday, 8th May, 1975... (London: Sotheby & Co., 1975), Lot 9.
54. **1504.** Flute, six keys, rosewood. Old and Modern Violins, Violas and Violoncellos...[and] Antique Wood Wind...to be Sold by Auction on Thursday, June 12th, 1980... (London: Phillips, Son & Neale, 1980), Lot 20.
55. **1516.** Flute, six keys, ivory. Musical Manuscripts, Printed Music and Musical Instruments...which will be Sold at Auction...on Wednesday, January 24, 1979... (London: Christie, Manson & Woods, 1979), Lot 149.
56. **1548.** Flute, eight keys, cocus. Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 37.

57. **1637.** Tenor flute in A $\flat$ , five keys, cocus. Expo Sussex, no. 20. Expo Sussex, Catalogue, p. 4.
58. **1690.** Flute, eight keys, ivory. Bate Collection, x17. Baines, Bate Collection, p. 6; Montagu, Bate Collection, p. 8; Montagu, Flute, p. 8.
59. **1698.** Third flute in E $\flat$ , six keys, cocus. Shorey, 1990 Catalog of Flutes, pp. 12-13, 33-34; Shorey, 1991 Catalog of Antique Flutes, p. 8.
60. **1736.** Flute, ten keys, blackwood. Musical Instruments: ...Day of Sale, Thursday, 19th October, 1978... (London: Sotheby Parke Bernet, 1978), Lot 26.
61. **1738.** Tenor flute in A $\flat$ , five keys, cocus. Shorey, 1990 Catalog of Flutes, pp. 12-13, 34; Shorey, 1991 Catalog of Antique Flutes, p. 8.
62. **1745.** Flute, eight keys, ivory. Dayton C. Miller Flute Collection, no. 1169. Gilliam and Lichtenwanger, p. 81. Serial no. information courtesy of Robert Sheldon.
63. **1748.** Flute, eight keys, ebony. Gary Lewis, "Flute Collection Sale" (unpublished inventory, April 1992).
64. **1752.** Flute, eight keys, cocus. Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 248.
65. **1776.** Flute, six keys, cocus. Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 180.
66. **1798.** Flute, eight keys, rosewood. Musical Instruments: ...Day of Sale, Thursday, 31st March 1988... (London: Sotheby's, 1988), Lot 147.
67. **1851.** Flute, eight keys, rosewood. Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby's, 1981), Lot 99.
68. **1869.** Flute, eight keys, boxwood. Highly Important Musical Instruments: ...Day of Sale, Thursday, 5th April 1984... (London: Sotheby Parke Bernet, 1984), Lot 164.
69. **1870.** Flute, eight keys, cocus. Shorey, 1990 Catalog of Flutes, pp. 12-13, 34. This flute bears no hallmarks, but belongs to a set a flutes with serial nos. 1698 and 1738, both hallmarked for the year 1819.
70. **1882.** Flute, eight keys, rosewood. Important Musical Instruments: ...Day of Sale, Thursday, 17th July, 1975... (London: Sotheby & Co., 1975), Lot 8.
71. **1931.** Flute, nine keys, rosewood. Dayton C. Miller Flute Collection, no. 854. Gilliam and Lichtenwanger, p. 61. Serial no. information courtesy of Robert Sheldon. Serial no. stamp is faint.
72. **1940.** Flute, eight keys, blackwood. Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 248.
73. **2032.** Flute, eight keys, ebony. Bate Collection, no. 126. Baines, Bate Collection, p. 6; Montagu, Bate Collection, p. 8; Montagu, Flute, p. 14.
74. **2049.** Flute, eight keys, ivory. Important Musical Instruments: ...Day of Sale, Wednesday, 7th April 1982... (London: Sotheby Parke Bernet, 1982), Lot 28.
75. **2054.** Flute, eight keys, cocus. Musical Instruments: ...Day of Sale, Thursday, 29th September 1983... (London: Sotheby Parke Bernet, 1983), Lot 43.
76. **2062.** Flute, eight keys, ivory. Edinburgh University Collection, no. 30. Dick and Myers, p. 16; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

77. (No serial no.) Flute, seven keys, rosewood. Important Musical Instruments: ...Day of Sale, Thursday, 6th May, 1976... (London: Sotheby Parke Bernet, 1976), Lot 18.
78. (No serial no.) Flute, seven keys, rosewood. Musical Instruments: ...Day of Sale, Thursday, 25th January, 1979... (London: Sotheby Parke Bernet, 1979), Lot 8.
79. **2090.** Flute, eight keys, ivory. Highly Important Musical Instruments: ...Day of Sale, Friday, 25th November 1983... (London: Sotheby Parke Bernet, 1983), Lot 166.
80. **2095.** Flute, eight keys, cocus. Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 181.
81. **2113.** Flute, eight keys. Adam Carse Collection, no. 105. The Horniman Museum and Library, Catalogue of the Adam Carse Collection, p. 27.
82. **2142.** Flûte d'amour in A, six keys, boxwood. Dayton C. Miller Flute Collection, no. 301. Gilliam and Lichtenwanger, p. 22. Serial no. and hallmark information courtesy of Robert Sheldon.
83. **2145.** Flute, ten keys, cocus. Shorey, 1990 Catalogue of Flutes, p. 34; Shorey, 1991 Catalog of Antique Flutes, p. 8.
84. **2157.** Flute, eight keys, ebony. Bate Collection, no. 127. Baines, Bate Collection, p. 6; Montague, Bate Collection, p. 8.
85. **2180.** Flute, nine keys, rosewood. Musical Instruments: ...Day of Sale, Thursday, 25th January, 1979... (London: Sotheby Parke Bernet, 1979), Lot 1.
86. **2193.** Flute, eight keys, boxwood. Important Musical Instruments Including the Van Zuylen Collection of Early Instruments...which will be Sold at Auction on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 215.
87. **2195.** Flute, six keys, rosewood. Good Musical Instruments: ...Day of Sale, Tuesday, 12th December, 1978... (London: Sotheby Parke Bernet, 1978), Lot 15.
88. **2211.** Flute, four keys, ebony. Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 176.
89. **2247.** Third flute in E $\flat$ , five keys. Adam Carse Collection, no. 158. The Horniman Museum and Library, Catalogue of the Adam Carse Collection, p. 25.
90. **2285.** Flute, six keys, boxwood. Catalogue of Fine Musical Instruments: ...Day of Sale, Thursday, 13th February, 1975... (London: Sotheby & Co., 1975), Lot 22.
91. (No serial no.) Flute, six keys, ebony. Old and Modern Violins, Violas and Violoncellos...[and] Antique Wood Wind...to be Sold by Auction on Thursday, June 12th, 1980... (London: Phillips, Son & Neale, 1980), Lot 18.
92. **2352.** Flute, eight keys, cocus. Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 228.
93. **2369.** Flute, seven keys, rosewood. *Ibid.*, Lot 19.
94. **2387.** Flute, nine keys, cocus. Shrine to Music Museum, no. 4447.
95. **2412.** Flute, eight keys, cocus. Edinburgh University Collection, no. 36. Dick and Myers, p. 18; Myers, Vol. 1, p. 73; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.
96. **2441.** Flute, eight keys, rosewood. Important Musical Instruments which will be Sold at Auction...on Tuesday 20 May 1986... (London: Christie, Manson & Woods, 1986), Lot 7.



97. **2456.** Flute, eight keys, rosewood. Important Musical Instruments and Printed Music...which will be Sold at Auction on Wednesday 2 June 1982... (London: Christie, Manson & Woods, 1982), Lot 48.
98. **2478.** Flute, ten keys, cocus. Highly Important Musical Instruments: ...Day of Sale, Thursday, 4th July 1985... (London: Sotheby's, 1985), Lot 215.
99. **2498.** Flute, eight keys, ivory. Spohr, p. 23.
100. **2515.** Flute, seven keys, cocus. Musical Instruments, Part I: ...First Day of Sale, Wednesday, 3rd November 1982... (London: Sotheby Parke Bernet, 1982), Lot 5.
101. **2539.** Flute, eight keys, rosewood. Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 35.
102. **2584.** Flute, eight keys, rosewood. Shorey, 1990 Catalog of Flutes, p. 34.
103. **2590.** Third flute in E $\flat$ , five keys, rosewood. Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 326.
104. **2591.** Tenor flute in A $\flat$ , five keys, rosewood. *Ibid.*
105. **2593.** Flute, eight keys, cocus. Musical Instruments: ...Days of Sale, Wednesday 23rd November 1988...Thursday 24th November 1988...Friday 25 November 1988... (London: Sotheby's, 1988), Lot 669.
106. **2613.** Flute, eight keys, rosewood. Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 51.
107. **2627.** Flute, ten keys, cocus. Expo Sussex, no. 23. Expo Sussex, Catalogue, p. 4.
108. **2672.** Flute, eight keys, cocus. Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 220.
109. **2679.** Flute, nine keys, cocus. Shorey, 1990 Catalog of Flutes, p. 34.
110. **2746.** Flute, eight keys, cocus. *Ibid.*; Shorey, 1991 Catalog of Antique Flutes, p. 8.
111. **2751.** Flute, ten keys, cocus. Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 407.
112. **2817.** Flute, ten keys, cocus. Printed Music, Books and Musical Instruments...which will be Sold at Auction on Thursday, November 22, 1979... (London: Christie, Manson & Woods, 1979), Lot 63.
113. **2849.** Flute, eight keys, rosewood. Musical Instruments...which will be Sold at Auction...on Wednesday, November 8, 1978... (London: Christie, Manson & Woods, 1978), Lot 8.
114. **2905.** Flute, eight keys, rosewood. Important Musical Instruments: ...Day of Sale, Friday 27th March 1981... (London: Sotheby Parke Bernet, 1981), Lot 8.
115. **2933.** Flute, eight keys, rosewood. Good Musical Instruments: ...Day of Sale, Thursday, 1st July, 1976... (London: Sotheby Parke Bernet, 1976), Lot 5.
116. **2954.** Flute, eight keys, rosewood. Printed Music and Fine Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 25 March 1981... (London: Christie, Manson & Woods, 1981), Lot 95.

117. **3020.** Flute, eight keys, rosewood. Musical Instruments: ...Day of Sale, Thursday, 19th October, 1978... (London: Sotheby Parke Bernet, 1978), Lot 30.
118. **3049.** Flute, eleven keys, cocus. Shorey, 1990 Catalog of Flutes, pp. 34-35; Shorey, 1991 Catalog of Antique Flutes, pp. 6-8.
119. **3054.** Flute, ten keys, ivory. Shorey, 1990 Catalog of Flutes, p. 35; Shorey, 1991 Catalog of Antique Flutes, pp. 7-8.
120. (No serial no.) Flute, seven keys, rosewood. Good Musical Instruments: ...Day of Sale, Tuesday, 12th December, 1978... (London: Sotheby Parke Bernet, 1978), Lot 16.
121. **3058.** Flute, eleven keys, cocus or rosewood. Dayton C. Miller Flute Collection, no. 19. Gilliam and Lichtenwanger, p. 2. Serial no. and hallmark information courtesy of Robert Sheldon.
122. **3070.** Flute, ten keys, ivory. Important Musical Instruments: ...Day of Sale, Thursday, 25 November, 1976... (London: Sotheby Parke Bernet, 1976), Lot 35.
123. **3076.** Flute, eight keys, cocus. Shorey, 1990 Catalog of Flutes, p. 35; Shorey, 1991 Catalog of Antique Flutes, p. 8.
124. **3077.** Flute, ten keys, cocus. Historic Flutes from Private Collections (New York: André Mertens Galleries for Musical Instruments, Metropolitan Museum of Art, 1986), no. 39.
125. **3081.** Flute, seven keys, cocus. Shrine to Music Museum, no. 2788.
126. (No. serial no.) Flute, six keys, ivory. Attributed to Henry Hill. Important Musical Instruments: ...Day of Sale, Thursday, 25 November, 1976... (London: Sotheby Parke Bernet, 1976), Lot 37.
127. **3122.** Flute, eight keys, cocus. With a note from Henry Hill, "Flute bought Feb. 1834, HWH." Shorey, 1990 Catalog of Flutes, p. 35; Shorey, 1991 Catalog of Antique Flutes, p. 8.
128. **3164.** Flute, eight keys, cocus. *Ibid.*
129. **3176.** Flute, nine keys, cocus. Shorey, 1990 Catalog of Flutes, p. 35.
130. **3198.** Flute, twelve keys, rosewood. Dayton C. Miller Flute Collection, no. 1313. Gilliam and Lichtenwanger, p. 91.
131. **3203.** Flute, nine keys, cocus. Montagu, "Query," p. 136; Montagu, The World of Romantic & Modern Musical Instruments (Woodstock, New York: Overlook Press, 1981), p. 45.
132. **3232.** Flute, eight keys, cocus. Shorey, 1990 Catalog of Flutes, pp. 14, 35-36; Shorey, 1991 Catalog of Antique Flutes, p. 8.
133. **3255.** Flute, eight keys, rosewood. Good Musical Instruments: ...Day of Sale, Thursday, 1st July, 1976... (Lot 1).
134. **5115.** Flute, ebony. Old and Modern Violins, Violas and Violoncellos...[and] Brass and Woodwind Instruments...to be sold by Auction on Thursday, November 13th, 1980... (London: Phillips, Son & Neale, 1980), Lot 15.
135. **5954.** Flute, eight keys, cocus. Signed **Cornelius Ward fecit**. Bate Collection, no. 117. Baines, Bate Collection, p. 5.

136. **5955.** Flute, nine keys, rosewood. Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 36.

**APPENDIX B**

**ADDITIONAL EXTANT EXAMPLES BY OTHER MAKERS  
REPRESENTED IN THE CATALOG**

**SELECTIVE LIST OF ADDITIONAL EXAMPLES  
BY FLUTE MAKERS REPRESENTED IN THE CATALOG**

In order to learn more about the flute work of the makers represented in the Museum's collections, all available published descriptions of their extant flutes were examined and collated. Although this list is not comprehensive, it does provide an overall view of the number and general characteristics of the surviving flutes of these makers. Arrangement of makers is alphabetical.

**Astor**

*Flutes marked "Astor & Horwood" also survive.*

Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 124.<sup>1</sup>

Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 350.<sup>2</sup>

Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 909.<sup>3</sup>

Flute, one key, boxwood. Handel-Haus.<sup>4</sup>

Flute, one key, boxwood. Robert A. Lehman Collection.<sup>5</sup>

Flute, one key, boxwood. Sotheby's auction, 3 April 1985.<sup>6</sup>

Flute, one key, boxwood. Sotheby's auction, 25 November 1983.<sup>7</sup>

Flute, one key, boxwood. Sotheby's auction, 23 June 1983.<sup>8</sup>

Flute, one key, boxwood. Sotheby's auction, 23 June 1983.<sup>9</sup>

Flute, one key, boxwood. Christie's auction, 19 January 1983.<sup>10</sup>

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<sup>1</sup>Gilliam and Lichtenwanger, p. 9; Michael Seyfrit, comp. Musical Instruments in the Dayton C. Miller Flute Collection at the Library of Congress: A Catalog, Vol. 1, Recorders, Fifes, and Simple System Transverse Flutes of One Key (Washington, D.C.: Library of Congress, 1982), p. 131.

<sup>2</sup>Gilliam and Lichtenwanger, p. 25; Seyfrit, p. 132.

<sup>3</sup>Gilliam and Lichtenwanger, p. 64; Seyfrit, p. 130.

<sup>4</sup>Herbert Heyde, Historische Musikinstrumente im Bachhaus Eisenach (Eisenach: Bachhaus, 1976), pp. 342-343.

<sup>5</sup>Historic Flutes from Private Collections, p. 17. See also "Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12.

<sup>6</sup>Highly Important Musical Instruments: ...Day of Sale, Wednesday, 3rd April 1985... (London: Sotheby's, 1985), Lot 139.

<sup>7</sup>Highly Important Musical Instruments: ...Day of Sale, Friday, 25th November 1983... (London: Sotheby Parke Bernet, 1983), Lot 206.

<sup>8</sup>Musical Instruments, Part II: ...Day of Sale, Thursday 23rd June 1983... (London: Sotheby Parke Bernet, 1983), Lot 107.

<sup>9</sup>*Ibid.*, Lot 121.

<sup>10</sup>Important Musical Instruments: ...Public Auction, Wednesday, January 19, 1983... (New York: Christie's East, 1982), Lot 18.

- Flute, one key, boxwood. Christie's auction, 2 June 1982.<sup>11</sup>
- Flute, one key, boxwood. Sotheby's auction, 15 May 1981.<sup>12</sup>
- Flute, one key, boxwood. Sotheby's auction, 13 June 1983.<sup>13</sup>
- Flute, one key, boxwood. Sotheby's auction, 6 March 1979.<sup>14</sup>
- Flute, one key, boxwood. Sotheby's auction, 6 March 1979.<sup>15</sup>
- Flute, one key, boxwood. Sotheby's auction, 11 May 1977.<sup>16</sup>
- Flute, one key. Christie's auction, 4 May 1976.<sup>17</sup>
- Flute, four keys, boxwood. Shorey, 1989 catalog, no. 397.<sup>18</sup>
- Flute, four keys, boxwood. Sotheby's auction, 12 November 1986.<sup>19</sup>
- Flute, four keys, boxwood. Sotheby's auction, 5 April 1984.<sup>20</sup>
- Flute, four keys, boxwood. Christie's auction, 4 April 1984.<sup>21</sup>
- Flute, four keys, boxwood. Sotheby's auction, 5 November 1981.<sup>22</sup>
- Flute, four keys, boxwood. Sotheby's auction, 8-9 November 1978.<sup>23</sup>
- Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 1534.<sup>24</sup>
- Flute, six keys, boxwood. Metropolitan Museum of Art (New York), no. 17.53.1.<sup>25</sup>

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<sup>11</sup>Important Musical Instruments and Printed Music...which will be Sold at Auction...on Wednesday 2 June 1982... (London: Christie, Manson & Woods, 1982), Lot 42.

<sup>12</sup>Important Musical Instruments: ...Day of Sale, Friday, 15th May 1981... (London: Sotheby Parke Bernet, 1981), Lot 414.

<sup>13</sup>Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 222. (*Ex. coll.*, C. M. Champion)

<sup>14</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 6th March, 1979... (London: Sotheby Parke Bernet, 1979), Lot 1.

<sup>15</sup>*Ibid.*, Lot 40.

<sup>16</sup>Catalog of Printed & Manuscript Music, Autograph Letters of Musicians, Books on Music & Musical Instruments: ...Day of Sale, Wednesday, 11th May, 1977... (London: Sotheby Parke Bernet, 1977), Lot 303.

<sup>17</sup>Fine Musical Instruments, Manuscripts, Printed Music and Musical Miscellanea...which will be Sold at Auction...on Tuesday, May 4, 1976... (London: Christie, Manson & Woods, 1976), Lot 97.

<sup>18</sup>Shorey, Tenth Anniversary Catalog, no. 397.

<sup>19</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 223.

<sup>20</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 5th April 1984... (London: Sotheby Parke Bernet, 1984), Lot 167.

<sup>21</sup>Fine Musical Instruments and Printed Music...which will be Sold at Auction...on Wednesday 4 April 1984... (London: Christie, Manson & Woods, 1984), Lot 21.

<sup>22</sup>Important Musical Instruments: ...Day of Sale, Thursday, 5th November 1981... (London: Sotheby Parke Bernet, 1981), Lot 12.

<sup>23</sup>Highly Important Musical Instruments: ...Days of Sale, Wednesday, 8th November, 1978...Thursday, 9th November, 1978... (London: Sotheby Parke Bernet, 1978), Lot 116.

<sup>24</sup>Gilliam and Lichtenwanger, p. 100.

<sup>25</sup>Metropolitan Museum of Art, Department of Musical Instruments, Checklist, p. 8.

- Flute, six keys, boxwood. Eddy Collection, no. 52.<sup>26</sup>
- Flute, six keys, boxwood. Sotheby's auction, 13 November 1987.<sup>27</sup>
- Flute, six keys, boxwood. Sotheby's arcade auction, 14 June 1983.<sup>28</sup>
- Flute, six keys, boxwood. Sotheby's auction, 9 October 1981.<sup>29</sup>
- Flute, six keys, boxwood. Christie's auction, 16 July 1980.<sup>30</sup>
- Flute, six keys, boxwood. Phillips auction, 11 October 1979.<sup>31</sup>
- Flute, six keys, boxwood. Sotheby's auction, 25 November 1976.<sup>32</sup>
- Flute, six keys. Christie's auction, 7 December 1976.<sup>33</sup>
- Flute, six keys, rosewood. Sotheby's auction, 17 November 1977.<sup>34</sup>
- Flute, seven keys, ebony. Sotheby's auction, 4 July 1985.<sup>35</sup>
- Flute, seven keys, ebony. Sotheby's arcade auction, 14 June 1983.<sup>36</sup>
- Flute, eight keys, boxwood. Sotheby's auction, 24 June 1980.<sup>37</sup>
- Fife, keyless, boxwood. Bate Collection, no. x114.<sup>38</sup>
- Piccolo in E $\flat$ , one key, boxwood. Edinburgh University Collection, no. 3044.<sup>39</sup>
- Piccolo in B $\flat$ , four keys, boxwood. Edinburgh University Collection, no. 1231.<sup>40</sup>

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<sup>26</sup>New York Flute Club, The Flute from Hotteterre to Barrère (New York: New York Flute Club, 1980), no. IV-1.

<sup>27</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 243.

<sup>28</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 133.

<sup>29</sup>Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 26.

<sup>30</sup>Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 16 July 1980... (London: Christie, Manson & Woods, 1980), Lot 17.

<sup>31</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Woodwind and Plucked Instruments...to be Sold by Auction on Thursday, October 11th, 1979... (London: Phillips, Son & Neale, 1979), Lot 12.

<sup>32</sup>Important Musical Instruments: ...Day of Sale, Thursday, 25 November, 1976... (London: Sotheby Parke Bernet, 1976), Lot 2.

<sup>33</sup>Musical Instruments, Manuscripts, Printed Music and Musical Miscellanea...which will be Sold at Auction...on Tuesday, December 7, 1976... (London: Christie, Manson & Woods, 1976), Lot 79.

<sup>34</sup>Important Musical Instruments: ...Day of Sale, Thursday, 17th November, 1977... (London: Sotheby Parke Bernet, 1977), Lot 12.

<sup>35</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 4th July 1985... (London: Sotheby's, 1985), Lot 206.

<sup>36</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 131.

<sup>37</sup>Musical Instruments: ...Day of Sale, Tuesday, 24th June 1980... (London: Sotheby Parke Bernet, 1980), Lot 13.

<sup>38</sup>Baines, Bate Collection, p. 12; Montagu, Bate Collection, p. 5.

<sup>39</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

<sup>40</sup>Dick and Myers, p. 9; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

Flute in E♭, one key, boxwood. Bate Collection, no. 1000.<sup>41</sup>

Flute in E♭, one key. Dayton C. Miller Flute Collection, no. 1541.<sup>42</sup>

Flute in E♭, one key, boxwood. Sotheby's auction, 18 September 1980.<sup>43</sup>

### **John Beckett**

Flute, one key, boxwood. Sotheby's auction, 27 November 1975.<sup>44</sup>

Flute in E♭, one key, boxwood. Sotheby's auction, 15 May 1981.<sup>45</sup>

Piccolo, one key, boxwood. Phillips auction, 19 May 1977.<sup>46</sup>

Bird pipe. Dayton C. Miller Flute Collection, no. 724.<sup>47</sup>

Flageolet. Edinburgh University Collection, no. 237.<sup>48</sup>

### **Bilton**

Flute, one key, boxwood. Sotheby's auction, 16 May 1978.<sup>49</sup>

Flute, one key, boxwood. Christie's auction, 20 November 1984.<sup>50</sup>

Flute, four keys, boxwood. Sotheby's auction, 30 April 1987.<sup>51</sup>

Flute, four keys, boxwood. Sotheby's auction, 12 November 1986.<sup>52</sup>

Flute, four keys, boxwood. Sotheby's auction, 7 April 1982.<sup>53</sup>

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<sup>41</sup>Baines, Bate Collection, p. 15; Montagu, Bate Collection, p. 6.

<sup>42</sup>Gilliam and Lichtenwanger, p. 101; Seyfrit, p. 102.

<sup>43</sup>Musical Instruments: ...Day of Sale, Thursday, 18th September 1980... (London: Sotheby Parke Bernet, 1980), Lot 32.

<sup>44</sup>Important Musical Instruments: ...Day of Sale, Thursday, 27th November 1975... (London: Sotheby Parke Bernet, 1975), Lot 4.

<sup>45</sup>Important Musical Instruments: ...Day of Sale, 15th May 1981... (London: Sotheby Parke Bernet, 1981), Lot 416.

<sup>46</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Brass, Woodwind and Plucked Instruments...to be Sold by Auction on Thursday May 19th 1977... (London: Phillips, Son & Neale, 1977), Lot 11.

<sup>47</sup>Gilliam and Lichtenwanger, p. 52.

<sup>48</sup>Dick and Myers, p. 3.

<sup>49</sup>Important Musical Instruments: ...Day of Sale, 16 May, 1978... (London: Sotheby Parke Bernet, 1978), Lot 21.

<sup>50</sup>Important Musical Instruments and Printed Music...which will be Sold at Christie's Great Rooms on Tuesday 20 November 1984... (London: Christie, Manson & Woods, 1984), Lot 21.

<sup>51</sup>Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 204.

<sup>52</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 224.

<sup>53</sup>Important Musical Instruments: ...Day of Sale, Wednesday, 7 April 1982... (London: Sotheby Parke Bernet, 1982), Lot 38.



- Flute, four keys, boxwood. Sotheby's auction, 11 May 1977.<sup>54</sup>
- Flute, four keys, boxwood. Christie's auction, 21 June 1988.<sup>55</sup>
- Flute, four keys, boxwood. Christie's auction, 20 November 1984.<sup>56</sup>
- Flute, four keys, boxwood. Christie's auction, 21 March 1980.<sup>57</sup>
- Flute, four keys, fruitwood. Sotheby's auction, 16 February 1978.<sup>58</sup>
- Flute, five keys, boxwood. Christie's auction, 25 March 1981.<sup>59</sup>
- Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 713.<sup>60</sup>
- Flute, six keys, boxwood. Phillips auction, 21 June 1977.<sup>61</sup>
- Flute, six keys, ebony. Phillips auction, 14 October 1976.<sup>62</sup>
- Flute, eight keys, boxwood. Sotheby's auction, 27 November 1975.<sup>63</sup>
- Flute, eight keys, boxwood. Sotheby's auction, 17 July 1975.<sup>64</sup>
- Flute, eight keys, cocus. Edinburgh University Collection, no. 596.<sup>65</sup>
- Flute, eight keys, cocus. Center for Musical Antiquities catalog, 1980.<sup>66</sup>
- Flute, eight keys, ebony. Phillips auction, 19 February 1981.<sup>67</sup>

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<sup>54</sup>Catalogue of Printed & Manuscript Music, Autograph Letters of Musicians, Books on Music & Musical Instruments: ...Day of Sale, Wednesday, 11th May, 1977... (London: Sotheby Parke Bernet, 1977), Lot 331.

<sup>55</sup>Important Musical Instruments and Printed Music which will be Sold at Auction...on Tuesday 21 June 1988... (London: Christie, Manson & Woods, 1988), Lot 194.

<sup>56</sup>Important Musical Instruments and Printed Music...which will be Sold at Christie's Great Rooms on Tuesday 20 November 1984... (London: Christie, Manson & Woods, 1984), Lot 23.

<sup>57</sup>Fine Musical Instruments...which will be Sold at Christie's Great Rooms on Friday, March 21, 1980... (London: Christie, Manson & Woods, 1980), Lot 31.

<sup>58</sup>Musical Instruments: ...Day of Sale, Thursday, 16th February, 1978... (London: Sotheby Parke Bernet, 1978), Lot 10.

<sup>59</sup>Printed Music and Fine Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 25 March 1981... (London: Christie, Manson & Woods, 1981), Lot 92.

<sup>60</sup>Gilliam and Lichtenwanger, 51.

<sup>61</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Wind Instruments Including Ivory and Boxwood Flutes...to be Sold by Auction on Thursday June 16th 1977... (London: Phillips, Son & Neale, 1977), Lot 10.

<sup>62</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Wind Instruments...to be Sold by Auction on Thursday, October 14, 1976... (London: Phillips, Son & Neale, 1976), Lot 30.

<sup>63</sup>Important Musical Instruments: ...Day of Sale, 27th November 1975... (London: Sotheby Parke Bernet, 1975), Lot 2.

<sup>64</sup>Important Musical Instruments: ...Day of Sale, Thursday, 17th July, 1975... (London: Sotheby & Co., 1975), Lot 1.

<sup>65</sup>Dick and Myers, p. 18; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>66</sup>Center for Musical Antiquities, Catalogue 1980, p. 4.

<sup>67</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique and Modern Woodwind...to be Sold by Auction on Thursday, 19th February, 1981... (London: Phillips, Son & Neale, 1981), Lot 19.

- Flute, eight keys, rosewood. Sotheby's auction, 13 November 1987.<sup>68</sup>
- Flute, eight keys, rosewood. Sotheby's auction, 3 May 1979.<sup>69</sup>
- Piccolo, one key, boxwood. Sotheby's auction, 16 May 1978.<sup>70</sup>
- Piccolo, four keys, boxwood. Expo Sussex, no. 15.<sup>71</sup>
- Piccolo, four keys, rosewood. Sotheby's auction, 9 October 1981.<sup>72</sup>
- Flute in A♭, one key, boxwood. Christie's auction, 23 November 1988.<sup>73</sup>
- Flute in E♭, one key, boxwood. Sotheby's auction, 29 September 1983.<sup>74</sup>
- Flute in E♭, four keys, boxwood. Bate Collection, no. 1001.<sup>75</sup>
- Flute in E♭, four keys, boxwood. Royal College of Music Museum, no. 326 FL/11.<sup>76</sup>
- Flute in G, eight keys, boxwood. Dayton C. Miller Flute Collection, no. 594.<sup>77</sup>

### Blackman

- Flute, one key, boxwood. Sotheby's auction, 25 November 1976.<sup>78</sup>
- Flute, four keys, boxwood. Sotheby's auction, 12 November 1986.<sup>79</sup>
- Flute, five keys, cocus. Bate Collection, no. 110.<sup>80</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 1161.<sup>81</sup>
- Flute, eight keys, rosewood. Edinburgh University Collection, no. 597.<sup>82</sup>

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<sup>68</sup>Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 305.

<sup>69</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 3rd May, 1979... (London: Sotheby Parke Bernet, 1979), Lot 77.

<sup>70</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 16th May, 1978... (London: Sotheby Parke Bernet, 1978), Lot 10.

<sup>71</sup>Expo Sussex, Catalogue of the Musical Instrument Exhibition (Lewes, Sussex: Lewes Press, 1968), p. 3.

<sup>72</sup>Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 67.

<sup>73</sup>Important Musical Instruments...which will be Sold at Auction...on Wednesday 23 November 1988... (London: Christie, Manson & Woods, 1988), Lot 2.

<sup>74</sup>Musical Instruments: ...Day of Sale, Thursday, 29th September 1983... (London: Sotheby Parke Bernet, 1983), Lot 33.

<sup>75</sup>Baines, Bate Collection, p. 15; Montagu, Bate Collection, p. 6; Bate, Plate 10.

<sup>76</sup>Ridley, p. 13.

<sup>77</sup>Gilliam and Lichtenwanger, p. 42.

<sup>78</sup>Important Musical Instruments: ...Day of Sale, Thursday, 25 November, 1976... (London: Sotheby Parke Bernet, 1976), Lot 24.

<sup>79</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 239.

<sup>80</sup>Baines, Bate Collection, p. 4; Montagu, Bate Collection, p. 7.

<sup>81</sup>Gilliam and Lichtenwanger, p. 80.

<sup>82</sup>Dick and Myers, p. 18; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

Flute, eight keys, cocus. Edinburgh University Collection, no. 507.<sup>83</sup>

Flute, eight keys, cocus. Edinburgh University Collection, no. 560.<sup>84</sup>

Flute, eight keys, cocus. Sotheby's auction, 13 November 1987.<sup>85</sup>

Flute, eight keys, cocus. Sotheby's arcade auction, 14 June 1983.<sup>86</sup>

Flute, eight keys. Sheffield Festival Exhibition.<sup>87</sup>

Flute in A♭, one key, rosewood. Bate Collection, no. 171.<sup>88</sup>

Flute in A♭, four keys, cocus. Edinburgh University Collection, no. 1243.<sup>89</sup>

Flute in E♭, one key, boxwood. Sotheby's auction, 11 May 1977.<sup>90</sup>

Flute in E♭, four keys, cocus. Edinburgh University Collection, no. 895.<sup>91</sup>

### **Bland & Weller**

Flute, one key, boxwood. Bate Collection, no. 10.<sup>92</sup>

Flute, one key, boxwood. Sotheby's auction, 12 February 1976.<sup>93</sup>

### **G. W. Bonn**

*No additional examples by Bonn were located.*

### **Butler**

Flute, eight keys, rosewood. Sotheby's auction, 20 September 1979.<sup>94</sup>

Flute, Siccama system, silver. Shorey, 1991 Catalog, no. 550.<sup>95</sup>

Flute in A♭, one key. Edinburgh University Collection, no. 588.<sup>96</sup>

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<sup>83</sup>Dick and Myers, p. 19; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>84</sup>Dick and Myers, p. 19; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>85</sup>Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 113.

<sup>86</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 196.

<sup>87</sup>Jeremy Montagu, Musical Instruments of the World, 2nd ed. (Grinnell, Iowa: By the author, 1970; reprint ed., London: By the author, 1980), p. 11.

<sup>88</sup>Baines, Bate Collection, p. 12; Montagu, Bate Collection, p. 5.

<sup>89</sup>Dick and Myers, p. 10; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>90</sup>Catalogue of Printed & Manuscript Music, Autograph Letters of Musicians, Books on Music & Musical Instruments: ...Day of Sale, Wednesday, 11th May, 1977... (London: Sotheby Parke Bernet, 1977), Lot 317.

<sup>91</sup>Dick and Myers, p. 11; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>92</sup>Baines, Bate Collection, p. 2; Montagu, Bate Collection, p. 7.

<sup>93</sup>Fine Musical Instruments: ...Day of Sale, Thursday, 12th February, 1976... (London: Sotheby Parke Bernet, 1976), Lot 29.

<sup>94</sup>Musical Instruments: ...Day of Sale, Thursday, 20th September, 1979... (London: Sotheby Parke Bernet, 1979), Lot 12.

<sup>95</sup>Shorey, 1991 Catalog of Antique Flutes, p. 11.

<sup>96</sup>Dick and Myers, p. 10; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

Alto flute, eight keys, blackwood. Center for Musical Antiquities, 1980 catalog.<sup>97</sup>

Band flute, rosewood. Christie's auction, 2 April 1982.<sup>98</sup>

Band flute. Sotheby's auction, 7 February 1980.<sup>99</sup>

Fife, one key, cocus. Christie's auction, 21 March 1980.<sup>100</sup>

### Cahusac

Flute, two keys (later G# key), ivory. Bate Collection, no. 12.<sup>101</sup>

Flute, one key, ivory. Bate Collection, no. x10.<sup>102</sup>

Two flutes. Hawick Museum (Hawick, Roxburghshire, Scotland).<sup>103</sup>

Flute (by Cahusac?). Museum of London.<sup>104</sup>

Flute. Rimmer Collection (Wigan Heritage Service, Wigan, Greater Manchester).<sup>105</sup>

*The following flutes are signed CAHUSAC | LONDON.*

Flute, one key, boxwood. Bate Collection, no. 11.<sup>106</sup>

Flute, one key, boxwood. Royal College of Music Museum, no. 326 FL/4.<sup>107</sup>

Flute, one key, boxwood. Edinburgh University Collection, no. 16.<sup>108</sup>

Flute, one key, boxwood. Edinburgh University Collection, no. 1016.<sup>109</sup>

Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 148.<sup>110</sup>

Flute, one key, boxwood. Christie's auction, 16 March 1988.<sup>111</sup>

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<sup>97</sup>Center for Musical Antiquities, Catalogue 1980, p. 5.

<sup>98</sup>Fine Printed Music and Musical Instruments...to be Sold at Auction...on Friday, 2 April 1982... (London: Christie, Manson & Woods, 1982), Lot 38.

<sup>99</sup>Musical Instruments: ...Day of Sale, Thursday, 7 February 1980... (London: Sotheby Parke Bernet, 1980), Lot 15.

<sup>100</sup>Fine Musical Instruments...which will be Sold at Christie's Great Rooms on Friday, March 21, 1980... (London: Christie, Manson & Woods, 1980), Lot 29.

<sup>101</sup>Baines, Bate Collection, p. 2; Montagu, Bate Collection, p. 7; Bate, Plate 5.

<sup>102</sup>Baines, Bate Collection, p. 2; Montagu, Bate Collection, p. 7; Montagu, Flute, p. 3.

<sup>103</sup>Clifford Bevan, ed., Musical Instrument Collections in the British Isles (Winchester: Piccolo Press, 1990), p. 59.

<sup>104</sup>*Ibid.*, p. 76.

<sup>105</sup>*Ibid.*, p. 108.

<sup>106</sup>Baines, Bate Collection, p. 2; Montagu, Bate Collection, p. 7; FOMRHI Quarterly, no. 37 (October 1984): 17 (technical drawing); FOMRHI Quarterly, no. 68 (July 1992): 6.

<sup>107</sup>Ridley, p. 14.

<sup>108</sup>Dick and Myers, p. 13; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>109</sup>Dick and Myers, p. 13; Myers, Vol. 1, p. 68; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>110</sup>Gilliam and Lichtenwanger, p. 11; Seyfrit, p. 143.

<sup>111</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments...which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 198.

- Flute, one key, boxwood. Sotheby's auction, 3 April 1985.<sup>112</sup>
- Flute, one key, boxwood. Sotheby's auction, 7 April 1983.<sup>113</sup>
- Flute, one key, boxwood. Sotheby's auction, 20 March 1980.<sup>114</sup>
- Flute, one key, boxwood. Phillips auction, 9 March 1978.<sup>115</sup>
- Flute, one key, ivory. Edinburgh University Collection, no. 1014.<sup>116</sup>
- Flute, one key, ivory. Edinburgh University Collection, no. 2123.<sup>117</sup>
- Flute, one key, ivory. Dayton C. Miller Flute Collection, no. 1124.<sup>118</sup>
- Flute, one key, ivory. Metropolitan Museum of Art (New York).<sup>119</sup>
- Flute, one key, ivory. Sotheby's auction, 13 November 1987.<sup>120</sup>
- Flute, three keys, boxwood. Christie's auction, 17 November 1981.<sup>121</sup>
- Flute, four keys, boxwood. Sotheby's auction, 12 December 1985.<sup>122</sup>
- Flute, four keys, ivory. Sotheby's auction, 7 April 1982.<sup>123</sup>
- Flute, five keys, boxwood. Shorey, 1989 catalog, no. 469.<sup>124</sup>
- Flute, five keys, boxwood. Sotheby's auction, 13 November 1987.<sup>125</sup>
- Flute, six keys, ivory. Private collection (Frankfurt).<sup>126</sup>

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<sup>112</sup>Highly Important Musical Instruments: ...Day of Sale, Wednesday, 3rd April 1985... (London: Sotheby's, 1985), Lot 228.

<sup>113</sup>Highly Important Musical Instruments, Part II: ...Day of Sale, Thursday, 7th April 1983... (London: Sotheby Parke Bernet, 1983), Lot 246.

<sup>114</sup>Important Musical Instruments: ...Day of Sale, Thursday, 20th March 1980... (London: Sotheby Parke Bernet, 1980), Lot 210.

<sup>115</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son and Neale, 1978), Lot 6.

<sup>116</sup>Dick and Myers, p. 13.

<sup>117</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>118</sup>Gilliam and Lichtenwanger, p. 78; Seyfrit, p. 145.

<sup>119</sup>"Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12; Historic Flutes from Private Collections, p. 14. Formerly in the Lehman Collection.

<sup>120</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 68.

<sup>121</sup>Printed Music and Fine Musical Instruments...which will be Sold at Auction...on Tuesday 17 November 1981... (London: Christie, Manson & Woods, 1981), Lot 42.

<sup>122</sup>Early Musical Instruments: ...Day of Sale, Thursday 12th December, 1985... (London: Sotheby's, 1985), Lot 30.

<sup>123</sup>Important Musical Instruments: ...Day of Sale, Wednesday, 7th April 1982... (London: Sotheby Parke Bernet, 1982), Lot 30.

<sup>124</sup>Shorey, Tenth Anniversary Catalog, no. 469.

<sup>125</sup>Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 310.

<sup>126</sup>Spohr, pp. 16-17.

Flute, six keys, ivory. Shorey, 1991 catalog, no. 500.<sup>127</sup>

Flute, six keys, ivory. Christie's auction, 16 July 1980.<sup>128</sup>

Tenor flute in A♭, one key, boxwood. Victoria and Albert Museum, no. 22/4.<sup>129</sup>

Tenor flute in A♭, one key, boxwood. Phillips auction, 9 March 1978.<sup>130</sup>

Walking stick flute. Adam Carse Collection, no. 320.<sup>131</sup>

*The following flutes are signed CAHUSAC | 196 STRAND.*

Flute, one key, boxwood. Christie's auction, 13 June 1990.<sup>132</sup>

Flute, one key, boxwood. Sotheby's auction, 13 November 1987.<sup>133</sup>

Flute, one key, boxwood. Sotheby's auction, 7 April 1982.<sup>134</sup>

Flute, one key, ivory. Edinburgh University Collection, no. 1018.<sup>135</sup>

Flute, one key, ivory. Dayton C. Miller Flute Collection, no. 500.<sup>136</sup>

Flute, four keys, boxwood. Sotheby's auction, 20 November 1980.<sup>137</sup>

Flute, four keys, boxwood. Sotheby's auction, 8 November 1979.<sup>138</sup>

Flute, four keys, ivory. Christie's auction, 20 May 1986.<sup>139</sup>

Flute, four keys, rosewood. Bate Collection, no. 111.<sup>140</sup>

Flute, five keys, boxwood. Sotheby's auction, 22 May 1986.<sup>141</sup>

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<sup>127</sup>Shorey, 1991 Catalog of Flutes, p. 4.

<sup>128</sup>Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 16 July 1980... (London: Christie, Manson & Woods, 1980), Lot 21.

<sup>129</sup>Victoria and Albert Museum, Catalogue of Musical Instruments, Vol. 2, Non-Keyboard Instruments (London: Her Majesty's Stationery Office, 1968), p. 90.

<sup>130</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 5.

<sup>131</sup>Horniman Museum and Library, Adam Carse Collection, p. 24.

<sup>132</sup>Musical Instruments...which will be Sold at Auction...on Wednesday 13 June 1990... (London: Christie, Manson & Woods, 1990), Lot 4.

<sup>133</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 56.

<sup>134</sup>Important Musical Instruments: ...Day of Sale, Wednesday, 7th April 1982... (London: Sotheby Parke Bernet, 1982), Lot 5.

<sup>135</sup>Dick and Myers, p. 13; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>136</sup>Gilliam and Lichtenwanger, p. 36; Seyfrit, p. 144.

<sup>137</sup>Important Musical Instruments: ...Day of Sale, Thursday, 20th November 1980... (London: Sotheby Parke Bernet, 1980), Lot 84.

<sup>138</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 8th November 1979... (London: Sotheby Parke Bernet, 1979), Lot 126.

<sup>139</sup>Important Musical Instruments...which will be Sold at Auction...on Tuesday 20 May 1986... (London: Christie, Manson & Woods, 1986), Lot 8.

<sup>140</sup>Baines, Bate Collection, p. 4; Montagu, Bate Collection, p. 7.

<sup>141</sup>Musical Instruments: ...Day of Sale, Thursday 22 May 1986... (London: Sotheby's, 1986), Lot 156.

Piccolo, one key, boxwood. Phillips auction, 9 March 1978.<sup>142</sup>

Flute in A♭, one key, boxwood. Christie's auction, 2 April 1982.<sup>143</sup>

*The following flutes are signed CAHUSAC | JUNIOR.*

Flute, one key, ivory. Bate Collection, no. 1031.<sup>144</sup>

Flute, six keys, ivory. Christie's auction, 16 March 1988.<sup>145</sup>

*The following flutes are signed CAHUSAC | 41 HAYMARKET.*

Flute, one key, boxwood. Sotheby's auction, 6 March 1979.<sup>146</sup>

Flute, one key, ivory. Christie's auction, 19 November 1980.<sup>147</sup>

Flute, two keys, boxwood. Sotheby's auction, 3 November 1982.<sup>148</sup>

Flute, four keys, boxwood. Sotheby's auction, 20 July 1981.<sup>149</sup>

Flute four keys, ivory. Sotheby's auction, 13 November 1987.<sup>150</sup>

Flute, five keys, boxwood. Sotheby's auction, 13 February 1975.<sup>151</sup>

Flute, six keys, boxwood. Edinburgh University Collection, no. 2718.<sup>152</sup>

Fife, one key, boxwood. Christie's auction, 12 June 1979.<sup>153</sup>

### William Camp

Flute, one key, boxwood. Sotheby's auction, 27 March 1981.<sup>154</sup>

<sup>142</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 53.

<sup>143</sup>Fine Printed Music and Musical Instruments...which will be Sold at Auction...on Friday, 2 April 1982... (London: Christie, Manson & Woods, 1982), Lot 39.

<sup>144</sup>Baines, Bate Collection, p. 4; Montagu, Bate Collection, p. 7.

<sup>145</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 232.

<sup>146</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 6th March, 1979... (London: Sotheby Parke Bernet, 1979), Lot 49.

<sup>147</sup>Fine Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 19 November 1980... (London: Christie, Manson & Woods, 1980), Lot 7.

<sup>148</sup>Musical Instruments, Part I: ...First Day of Sale, Wednesday, 3rd November 1982... (London: Sotheby Parke Bernet, 1982), Lot 32.

<sup>149</sup>Musical Instruments: ...Day of Sale, Monday, 20th July 1981... (London: Sotheby Parke Bernet, 1981), Lot 18.

<sup>150</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 290.

<sup>151</sup>Catalog of Fine Musical Instruments: ...Day of Sale, Thursday, 13th February, 1975... (London: Sotheby & Co., 1975), Lot 1.

<sup>152</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>153</sup>Fine Musical Instruments...which will be Sold at Auction...on Tuesday, June 12, 1979... (London: Christie, Manson & Woods, 1979), Lot 26.

<sup>154</sup>Important Musical Instruments: ...Day of Sale, Friday, 27th March 1981... (London: Sotheby Parke Bernet, 1981), Lot 19.

Flute, six keys, boxwood. Sotheby's auction, 17 September 1981.<sup>155</sup>

### S. A. Chappell

Flute, Clinton-like system, rosewood. Royal College of Music Museum, no. 326 FL/30.<sup>156</sup>

Flute, Siccama system, cocus. Edinburgh University Collection, no. 2449.<sup>157</sup>

Flute, Siccama system. Montagu Collection, no. IV 202.<sup>158</sup>

Flute, Siccama system. Sotheby's auction, 22 November 1989.<sup>159</sup>

Flute, Siccama system. Sotheby's auction, 22 June 1978.<sup>160</sup>

Piccolo in D $\flat$ , six keys, cocus. Dayton C. Miller Flute Collection, no. 912.<sup>161</sup>

### Clementi & Co.

*Since dozens of flutes stamped CLEMENTI & CO. survive, this list is limited to those flutes in collections or exhibitions.*

Flute, one key. Dayton C. Miller Flute Collection, no. 590.<sup>162</sup>

Flute, one key, fruitwood. Museum of Fine Arts (Boston), no. 1979.550.<sup>163</sup>

Flute, four keys. Edinburgh University Collection, no. 1536.<sup>164</sup>

Flute, four keys, boxwood. Dayton C. Miller Flute Collection, no. 1384.<sup>165</sup>

Flute, six keys, boxwood. Edinburgh University Collection, no. 27.<sup>166</sup>

Flute, six keys, boxwood. Edinburgh University Collection, no. 966.<sup>167</sup>

Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 309.<sup>168</sup>

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<sup>155</sup>Musical Instruments: ...Day of Sale, Thursday, 17th September 1981... (London: Sotheby Parke Bernet, 1981), Lot 4.

<sup>156</sup>Ridley, p. 19.

<sup>157</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2M.

<sup>158</sup>Jeremy Montagu, The World of Romantic & Modern Musical Instruments (Woodstock, New York: Overlook Press, 1981), p. 47.

<sup>159</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 51.

<sup>160</sup>Important Musical Instruments: ...Day of Sale, Thursday, 22 June, 1978... (London: Sotheby Parke Bernet, 1978), Lot 5.

<sup>161</sup>Gilliam and Lichtenwanger, p. 65.

<sup>162</sup>*Ibid.*, p. 42; Seyfrit, p. 149.

<sup>163</sup>Museum of Fine Arts Musical Instruments Collection, Checklist of Instruments on Exhibition (Boston: Museum of Fine Arts, 1983), p. 45.

<sup>164</sup>Dick and Myers, p. 14; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21. Technical drawing published by the Collection, 1986.

<sup>165</sup>Gilliam and Lichtenwanger, p. 95.

<sup>166</sup>Dick and Myers, p. 16; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>167</sup>Dick and Myers, p. 16; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>168</sup>Gilliam and Lichtenwanger, p. 22.



Flute, six keys, ivory. Dayton C. Miller Flute Collection, no. 1406.<sup>169</sup>

Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 352.<sup>170</sup>

Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 748.<sup>171</sup>

Fife, pearwood. Dayton C. Miller Flute Collection, no. 994.<sup>172</sup>

Flute in E $\flat$ , one key, cocus. Edinburgh University Collection, no. 821.<sup>173</sup>

Tenor flute in A $\flat$ , one key, boxwood. Bate Collection, no. 1010.<sup>174</sup>

Tenor flute in A $\flat$ , four keys, box. Metropolitan Museum of Art (New York), no. 89.4.2031.<sup>175</sup>

Flute in G, seven keys, ebony. Dayton C. Miller Flute Collection, no. 826.<sup>176</sup>

*The following flutes are signed C. Nicholson's Improved.*

Flute six keys, cocus. Bate Collection, no. 112.<sup>177</sup>

Flute, seven keys, ebony. Royal College of Music Museum, no. 214.<sup>178</sup>

Flute eight keys, cocus. Bate Collection, no. x1048.<sup>179</sup>

Flute, eight keys, cocus. Edinburgh University Collection, no. 35.<sup>180</sup>

Flute, eight keys, cocus. Dayton C. Miller Flute Collection, no. 449.<sup>181</sup>

Flute, eight keys, cocus. Dayton C. Miller Flute Collection, no. 587.<sup>182</sup>

Flute, eight keys, boxwood. Glennis Stout Collection.<sup>183</sup>

Flute, eight keys, ivory. Adam Carse Collection, no. 304.<sup>184</sup>

Flute, eight keys, ivory. Edinburgh University Collection, no. 34.<sup>185</sup>

Flute, eight keys, ivory. Metropolitan Museum of Art (New York), no. 89.4.925.<sup>186</sup>

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<sup>169</sup>*Ibid.*, p. 97; Toff, p. 26.

<sup>170</sup>Gilliam and Lichtenwanger, p. 25.

<sup>171</sup>*Ibid.*, p. 54.

<sup>172</sup>*Ibid.*, p. 70; Seyfrit, p. 42.

<sup>173</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>174</sup>Baines, *Bate Collection*, p. 15; Montagu, *Bate Collection*, p. 9; Bate, Plate 11.

<sup>175</sup>Metropolitan Museum of Art, Department of Musical Instruments, *Checklist*, p. 10.

<sup>176</sup>Gilliam and Lichtenwanger, p. 59.

<sup>177</sup>Baines, *Bate Collection*, p. 4; Montagu, *Bate Collection*, p. 7; Bate, Plate 6.

<sup>178</sup>Ridley, p. 17.

<sup>179</sup>Montagu, *Flute*, p. 16; Montagu, *Bate Collection*, p. 7; Montagu, *World of Romantic*, p. 45.

<sup>180</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>181</sup>Gilliam and Lichtenwanger, p. 32.

<sup>182</sup>*Ibid.*, p. 42.

<sup>183</sup>*Historic Flutes from Private Collections*, p. 26.

<sup>184</sup>Horniman Museum and Library, *Adam Carse Collection*, p. 27.

<sup>185</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>186</sup>Metropolitan Museum of Art, Department of Musical Instruments, *Checklist*, p. 8.

**Christopher Gerock**

*Surviving flutes by Gerock are very numerous. This list is limited to flutes in collections and exhibitions and in recent auction catalogs. A number of flutes by Gerock & Wolf also survive.*

Flute, one key, boxwood. Museum of Fine Arts (Boston), no. 1980.647.<sup>187</sup>

Flute, one key, boxwood. Metropolitan Museum of Art (New York).<sup>188</sup>

Flute, one key. Christie's auction, 23 November 1988.<sup>189</sup>

Flute, one key, boxwood. Sotheby's auction, 13 November 1987.<sup>190</sup>

Flute, one key, boxwood. Sotheby's auction, 12 November 1986.<sup>191</sup>

Flute, four keys, boxwood. Bate Collection, no. 115.<sup>192</sup>

Flute, four keys, boxwood. Dayton C. Miller Flute Collection, no. 1101.<sup>193</sup>

Flute, four keys, boxwood. Sotheby's auction, 13 November 1987.<sup>194</sup>

Flute, six keys. Dayton C. Miller Flute Collection, no. 1172.<sup>195</sup>

Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 958.<sup>196</sup>

Flute, six keys, boxwood. Shorey, 1991 catalog, no. 503.<sup>197</sup>

Flute, six keys, boxwood. Shorey, 1990 catalog, no. 504.<sup>198</sup>

Flute, six keys, boxwood. Sotheby's auction, 30 April 1987.<sup>199</sup>

Flute, six keys, ebony. Dayton C. Miller Flute Collection, no. 1234.<sup>200</sup>

Flute, six keys, ivory. Valenza Collection.<sup>201</sup>

Flute, eight keys, ebony. Shorey, 1989 catalog, no. 452.<sup>202</sup>

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<sup>187</sup>Museum of Fine Arts Musical Instruments Collection, Checklist, p. 45.

<sup>188</sup>"Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12; New York Flute Club, no. IV-2. Formerly in the Lehman Collection.

<sup>189</sup>Important Musical Instruments...which will be Sold at Auction...on Wednesday 23 November 1988... (London: Christie, Manson & Woods, 1988), Lot 14.

<sup>190</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 279.

<sup>191</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 229.

<sup>192</sup>Baines, Bate Collection, p. 5; Montagu, Bate Collection, p. 7; Bate, Plate 6.

<sup>193</sup>Gilliam and Lichtenwanger, p. 77.

<sup>194</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 174.

<sup>195</sup>Gilliam and Lichtenwanger, p. 81.

<sup>196</sup>*Ibid.*, p. 68.

<sup>197</sup>Shorey, 1991 Catalog of Antique Flutes, p. 5.

<sup>198</sup>Shorey, 1990 Catalog of Flutes, p. 32.

<sup>199</sup>Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 222.

<sup>200</sup>Gilliam and Lichtenwanger, p. 85.

<sup>201</sup>Historic Flutes from Private Collections, p. 23.

<sup>202</sup>Shorey, Tenth Anniversary Catalog, no. 452.

- Flute, eight keys, ivory. Shorey, 1990 catalog, no. 502.<sup>203</sup>  
 Piccolo, one key, ivory. Yale Collection, no. 430.<sup>204</sup>  
 Piccolo, one key, ivory. Expo Sussex, no. 14.<sup>205</sup>  
 Flute in A♭, one key, boxwood. Bate Collection, no. 174.<sup>206</sup>  
 Flute in E, one key, boxwood. Dayton C. Miller Flute Collection, no. 1281.<sup>207</sup>  
 Flute in E♭, one key, boxwood. Royal College of Music Museum, no. 326 FL/6.<sup>208</sup>  
 Flute in E♭, one key, boxwood. Dayton C. Miller Flute Collection, no. 1193.<sup>209</sup>  
 Flute in F, one key, boxwood. Edinburgh University Collection, no. 10.<sup>210</sup>

### Goulding & Co.

- Flute, one key, boxwood. Bate Collection, no. 16.<sup>211</sup>  
 Flute, one key, boxwood. Bate Collection, no. 1030.<sup>212</sup>  
 Flute, one key. Dayton C. Miller Flute Collection, no. 1045.<sup>213</sup>  
 Flute, one key, boxwood. Eddy Collection, no. 48.<sup>214</sup>  
 Flute, one key, boxwood. Christie's auction, 23 November 1988.<sup>215</sup>  
 Flute, one key, boxwood. Sotheby's auction, 22 May 1986.<sup>216</sup>  
 Flute, four keys, boxwood. Royal College of Music Museum, no. 326 FL/10.<sup>217</sup>  
 Flute, four keys. Adam Carse Collection, no. 164.<sup>218</sup>  
 Flute, four keys, boxwood. Sotheby's auction, 22 November 1989.<sup>219</sup>  
 Flute, five keys, boxwood. Dayton C. Miller Flute Collection, no. 1087.<sup>220</sup>

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<sup>203</sup>Shorey, 1990 Catalog of Flutes, p. 32.

<sup>204</sup>Yale Collection of Musical Instruments, Checklist (New Haven: Yale University, 1968), p. 8.

<sup>205</sup>Expo Sussex, Catalogue, p. 3.

<sup>206</sup>Baines, Bate Collection, p. 13; Montagu, Bate Collection, p. 6; Bate, Plate 10.

<sup>207</sup>Gilliam and Lichtenwanger, p. 89; Seyfrit, p. 106.

<sup>208</sup>Ridley, p. 13.

<sup>209</sup>Gilliam and Lichtenwanger, p. 82; Seyfrit, p. 105.

<sup>210</sup>Dick and Myers, p. 11; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>211</sup>Baines, Bate Collection, p. 2; Montagu, Bate Collection, p. 7.

<sup>212</sup>Baines, Bate Collection, p. 3; Montagu, Bate Collection, p. 7.

<sup>213</sup>Gilliam and Lichtenwanger, p. 73; Seyfrit, p. 170.

<sup>214</sup>New York Flute Club, p. 7.

<sup>215</sup>Important Musical Instruments...which will be Sold at Auction...on Wednesday 23 November 1988... (London: Christie, Manson & Woods, 1988), Lot 31.

<sup>216</sup>Musical Instruments: ...Day of Sale, Thursday 22 May 1986... (London: Sotheby's, 1986), Lot 141.

<sup>217</sup>Ridley, p. 15.

<sup>218</sup>Horniman Museum and Library, Adam Carse Collection, p. 25.

<sup>219</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 59.

<sup>220</sup>Gilliam and Lichtenwanger, p. 76.

Flute, six keys, boxwood. Edinburgh University Collection, no. 939.<sup>221</sup>

Flute, six keys, cocus. Sotheby's auction, 22 November 1989.<sup>222</sup>

Flute, boxwood. Metropolitan Museum of Art (New York).<sup>223</sup>

Flute in E♭, one key, boxwood. Christie's auction, 16 March 1988.<sup>224</sup>

Flute in E♭, one key, ivory. Edinburgh University Collection, no. 9.<sup>225</sup>

#### **Goulding, D'Almaine, Potter**

Flute, one key, boxwood. Sotheby's auction, 12 November 1986.<sup>226</sup>

Flute, one key, boxwood. Sotheby's auction, 12 November 1986.<sup>227</sup>

Flute, four keys, boxwood. Royal College of Music Museum, no. 326 FL/12.<sup>228</sup>

Flute, four keys, boxwood. Edinburgh University Collection, no. 2294.<sup>229</sup>

Flute, four keys, blackwood. Sotheby's auction, 12 November 1986.<sup>230</sup>

Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 831.<sup>231</sup>

Flute, six keys, boxwood. Sotheby's auction, 13 November 1987.<sup>232</sup>

Flute, six keys, boxwood. Sotheby's auction, 13 November 1987.<sup>233</sup>

Flute, eight keys, boxwood. Sotheby's auction, 13 November 1987.<sup>234</sup>

Flute in E♭, one key, ivory. Adam Carse Collection, no. 240.<sup>235</sup>

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<sup>221</sup>Dick and Myers, p. 16.

<sup>222</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 50.

<sup>223</sup>"Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12. Formerly in the Lehman Collection.

<sup>224</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments...which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 230.

<sup>225</sup>Dick and Myers, p. 11; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>226</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 241.

<sup>227</sup>*Ibid.*, Lot 242.

<sup>228</sup>Ridley, p. 15.

<sup>229</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>230</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 238.

<sup>231</sup>Gilliam and Lichtenwanger, p. 59.

<sup>232</sup>Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 41.

<sup>233</sup>*Ibid.*, Lot 215.

<sup>234</sup>*Ibid.*, Lot 120.

<sup>235</sup>Horniman Museum and Library, Adam Carse Collection, p. 24.

Flute in E♭, four keys, boxwood. Christie's auction, 16 March 1988.<sup>236</sup>

Flute in E♭, five keys, boxwood. Edinburgh University Collection, no. 1601.<sup>237</sup>

#### Goulding & D'Almaine

Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 1149.<sup>238</sup>

Flute, four keys, boxwood. Bate Collection, no. 1064.<sup>239</sup>

Flute, four keys, boxwood. Sotheby's auction, 23-25 November 1988.<sup>240</sup>

Flute, six keys, ebony. Sotheby's auction, 22 November 1989.<sup>241</sup>

Flute, six keys, ebony. Metropolitan Museum of Art (New York).<sup>242</sup>

Flute, six keys, ebony. Sotheby's auction, 22 May 1980.<sup>243</sup>

Piccolo, one key, boxwood. Bate Collection, no. 176.<sup>244</sup>

#### Hawkes & Son

*Since surviving flutes by Hawkes & Son are rather numerous, only those described in museum or exhibition catalogs will be cited here.*

Flute, Siccama Diatonic System, ebonite. Stearns Collection, no. 1652.<sup>245</sup>

Flute, Siccama system. Valenza Collection.<sup>246</sup>

Piccolo in E♭, six keys, grenadilla and ebonite. Dayton C. Miller Flute Collection, no. 465.<sup>247</sup>

Piccolo, Boehm system, cocus. Royal College of Music Museum, no. 326 P/4.<sup>248</sup>

Piccolo, Boehm system, ebonite. Edinburgh University Collection, no. 506.<sup>249</sup>

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<sup>236</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments...which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 204.

<sup>237</sup>Dick and Myers, p. 74; Myers, Vol. 1, p. 74; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>238</sup>Gilliam and Lichtenwanger, p. 80; Seyfrit, p. 171.

<sup>239</sup>Jeremy Montagu, The World of Baroque & Classic Musical Instruments, p. 7.

<sup>240</sup>Musical Instruments: ...Days of Sale, Wednesday 23rd November 1988...Thursday 24th November 1988...Friday 25 November 1988... (London: Sotheby's, 1988), Lot 771.

<sup>241</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 74.

<sup>242</sup>"Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12; Historic Flutes from Private Collections, p. 22. Formerly in the Lehman Collection.

<sup>243</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 22, May 1980... (London: Sotheby Parke Bernet, 1980), Lot 31.

<sup>244</sup>Baines, Bate Collection, p. 13; Montagu, Bate Collection, p. 6; Bate, Plate 10.

<sup>245</sup>Borders, p. 24.

<sup>246</sup>Historic Flutes from Private Collections, p. 31.

<sup>247</sup>Gilliam and Lichtenwanger, p. 33.

<sup>248</sup>Ridley, p. 12.

<sup>249</sup>Dick and Myers, p. 9; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

- Piccolo, Carte 1867 system. Bate Collection, no. 1089.<sup>250</sup>  
 Flute in B♭, six keys, rosewood. Bate Collection, no. 1074.<sup>251</sup>  
 Flute in B♭, six keys, ebonite. Dayton C. Miller Flute Collection, no. 639.<sup>252</sup>  
 Flute in A♭, six keys, grenadilla. Dayton C. Miller Flute Collection, no. 486.<sup>253</sup>  
 Flute in A♭, six keys, grenadilla. Dayton C. Miller Flute Collection, no. 487.<sup>254</sup>  
 Flute in A♭, Boehm system, plated metal. Bate Collection, no. 199.<sup>255</sup>  
 Flute in E♭, six keys, rosewood. Royal College of Music Museum, no. 326 FL/41.<sup>256</sup>

### George Ibbetson

- Flute, four keys, boxwood. Phillips auction, 12 October 1978.<sup>257</sup>  
 Flute, eight keys, ebony. Sotheby's auction, 22 May 1980.<sup>258</sup>

### Andrew Kauffmann

- Flute, eight keys, ivory. Dayton C. Miller Collection, no. 1130.<sup>259</sup>  
 Flute, eight keys, ivory. Dayton C. Miller Collection, no. 1372.<sup>260</sup>  
 Flute, eight keys, ivory. Royal College of Music Museum, no. 207.<sup>261</sup>  
 Flute, eight keys, ivory. Edinburgh University Collection, no. 1019.<sup>262</sup>  
 Flute, eight keys, ivory. Edinburgh University Collection, no. 29.<sup>263</sup>  
 Flute, eight keys, ivory. Sotheby's auction, 22 November 1989.<sup>264</sup>  
 Flute, eight keys, ivory. Unicorn inscription. Sotheby's auction, 5 April 1984.<sup>265</sup>

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<sup>250</sup>Montagu, Bate Collection, p. 6.

<sup>251</sup>*Ibid.*

<sup>252</sup>Gilliam and Lichtenwanger, p. 45.

<sup>253</sup>*Ibid.*, p. 35.

<sup>254</sup>*Ibid.*

<sup>255</sup>Baines, Bate Collection, p. 13; Montagu, Bate Collection, p. 6.

<sup>256</sup>Ridley, p. 13.

<sup>257</sup>Old and Modern Violins, Violas and Violoncellos...[and] Wood & Brass Instruments Including Antique Woodwind to be Sold by Auction on Thursday October 12, 1978... (London: Phillips, Son & Neale, 1978), Lot 20.

<sup>258</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 22, May 1980... (London: Sotheby Parke Bernet, 1980), Lot 17.

<sup>259</sup>Gilliam and Lichtenwanger, p. 78.

<sup>260</sup>*Ibid.*, p. 95.

<sup>261</sup>Ridley, p. 16.

<sup>262</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>263</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>264</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 117.

<sup>265</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 5th April 1984... (London: Sotheby Parke Bernet, 1984), Lot 139.

- Flute, eight keys, ivory. Sotheby's auction, 4 June 1982.<sup>266</sup>
- Flute, eight keys, ivory. Unicorn inscription. Sotheby's auction, 15 May 1981.<sup>267</sup>
- Flute, eight keys, ivory. Sotheby's auction, 8 November 1979.<sup>268</sup>
- Flute, eight keys, ivory. Sotheby's auction, 8-9 November 1978.<sup>269</sup>
- Flute, eight keys, ivory, Sotheby's auction, 13 June 1983.<sup>270</sup>
- Flute, eight keys, ivory. Center for Musical Antiquities, 1980 catalog.<sup>271</sup>
- Flute, eight keys, boxwood. Metropolitan Museum of Art (New York), no. 63.221.1.<sup>272</sup>
- Flute, eight keys, ebony. Edinburgh University Collection, no. 1013.<sup>273</sup>
- Flute in A♭, one key, ebony. Phillips auction, 9 March 1978.<sup>274</sup>

### Key

- Flute, four keys, boxwood. Edinburgh University Collection, no. 22.<sup>275</sup>
- Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 1407.<sup>276</sup>
- Flute, six keys, cocus. Royal Military Exhibition, no. 86.<sup>277</sup>
- Flute, seven keys, boxwood. Sotheby's auction, 5 November 1981.<sup>278</sup>
- Flute, eight keys, ebony. Sotheby's auction, 29 September 1983.<sup>279</sup>
- Flute, eight keys, cocus. Sotheby's auction, 22 May 1986.<sup>280</sup>

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<sup>266</sup>Fine Musical Instruments: ...Day of Sale, Friday, 4th June 1982... (London: Sotheby Parke Bernet, 1982), Lot 24.

<sup>267</sup>Important Musical Instruments: ...Day of Sale, Friday, 15th May 1981... (London: Sotheby Parke Bernet, 1981), Lot 438.

<sup>268</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 8th November, 1979... (London: Sotheby Parke Bernet, 1979), Lot 108.

<sup>269</sup>Highly Important Musical Instruments: ...Days of Sale, Wednesday, 8th November, 1978...Thursday, 9th November, 1978... (London: Sotheby Parke Bernet, 1978), Lot 119.

<sup>270</sup>Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 244.

<sup>271</sup>Center for Musical Antiquities, Catalogue 1980, p. 5.

<sup>272</sup>Metropolitan Museum of Art, Department of Musical Instruments, Checklist, p. 9.

<sup>273</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>274</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 61.

<sup>275</sup>Dick and Myers, p. 14; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>276</sup>Gilliam and Lichtenwanger, p. 97.

<sup>277</sup>Day, p. 39.

<sup>278</sup>Important Musical Instruments: ...Day of Sale, Thursday, 5th November 1981... (London: Sotheby Parke Bernet, 1981), Lot 4.

<sup>279</sup>Musical Instruments: ...Day of Sale, Thursday, 29th September 1983... (London: Sotheby Parke Bernet, 1983), Lot 3.

<sup>280</sup>Musical Instruments: ...Day of Sale, Thursday 22 May 1986... (London: Sotheby's, 1986), Lot 146.

- Flute, eight keys, rosewood. Royal College of Music Museum, no. 328.<sup>281</sup>  
 Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 1200.<sup>282</sup>  
 Flute in A♭, four keys, boxwood. Dayton C. Miller Flute Collection, no. 462.<sup>283</sup>  
 Flute in E♭, seven keys, ebony. Bate Collection, no. 1009.<sup>284</sup>  
 Flute in G, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 1171.<sup>285</sup>

### **J. R. Lafleur**

- Flute, eight keys, cocus. Bate Collection, no. 156.<sup>286</sup>  
 Flute, Boehm system, cocus. Edinburgh University Collection, no. 545.<sup>287</sup>  
 Flute, Boehm system. Edinburgh University Collection, no. 2024.<sup>288</sup>  
 Flute, Boehm system, silver-plated. Sotheby's auction, 13 November 1987.<sup>289</sup>  
 Flute, Boehm system, silver-plated. Sotheby's auction, 12 December 1978.<sup>290</sup>  
 Piccolo, six keys, cocus. Royal College of Music Museum, no. 326 P/3.<sup>291</sup>  
 Flute in E♭, one key. Sotheby's auction, 13 November 1987.<sup>292</sup>

### **Longman**

*All examples found are signed Longman & Broderip.*

- Flute, one key, ivory. Dayton C. Miller Flute Collection, no. 1272.<sup>293</sup>  
 Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 217.<sup>294</sup>  
 Flute, six keys, boxwood. Sotheby's auction, 15 May 1981.<sup>295</sup>

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<sup>281</sup>Ridley, p. 18.

<sup>282</sup>Gilliam and Lichtenwanger, p. 83.

<sup>283</sup>*Ibid.*, p. 33.

<sup>284</sup>Baines, Bate Collection, p. 15; Montagu, World of Baroque, p. 6.

<sup>285</sup>Gilliam and Lichtenwanger, p. 81.

<sup>286</sup>Baines, Bate Collection, p. 10; Montagu, Bate Collection, p. 8; Bate, Plate 6.

<sup>287</sup>Dick and Myers, p. 23; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>288</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>289</sup>Early Musical Instruments: ...Day of Sale, Friday, 13th November 1987... (London: Sotheby's, 1987), Lot 154.

<sup>290</sup>Good Musical Instruments: ...Day of Sale, Tuesday, 12th December, 1978... (London: Sotheby Parke Bernet, 1978), Lot 10.

<sup>291</sup>Ridley, p. 12.

<sup>292</sup>Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 136.

<sup>293</sup>Gilliam and Lichtenwanger, p. 88; Seyfrit, p. 187.

<sup>294</sup>Gilliam and Lichtenwanger, p. 16.

<sup>295</sup>Important Musical Instruments: ...Day of Sale, Friday, 15th May 1981... (London: Sotheby Parke Bernet, 1981), Lot 451.



**Manzane**

- Flute, eight keys, ivory. Dayton C. Miller Flute Collection, no. 567.<sup>296</sup>  
 Flute, eight keys, ivory. Edinburgh University Collection, no. 1017.<sup>297</sup>  
 Flute, eight keys, ivory. Christie's auction, 2 April 1985.<sup>298</sup>  
 Flute, eight keys, ivory. Phillips auction, 20 July 1978.<sup>299</sup>  
 Flute, eight keys, rosewood. Phillips auction, 15 November 1979.<sup>300</sup>

**Metzler**

*This list is limited mainly to flutes in collections or exhibitions.*

- Flute, one key, boxwood. Edinburgh University Collection, no. 512.<sup>301</sup>  
 Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 1507.<sup>302</sup>  
 Flute, one key, maple. Robert A. Lehman Collection, no. 77.<sup>303</sup>  
 Flute, one key, satinwood. Dayton C. Miller Flute Collection, no. 1402.<sup>304</sup>  
 Flute, one key. Adam Carse Collection, no. 127.<sup>305</sup>  
 Flute, one key. Yale Collection, no. 455.<sup>306</sup>  
 Flute, four keys. Adam Carse Collection, no. 5.<sup>307</sup>  
 Flute, six keys, boxwood. Edinburgh University Collection, no. 965.<sup>308</sup>  
 Flute, eight keys, boxwood. Bate Collection, no. x141.<sup>309</sup>  
 Flute, eight keys, cocus. Dayton C. Miller Flute Collection, no. 569.<sup>310</sup>

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<sup>296</sup>Gilliam and Lichtenwanger, p. 40.

<sup>297</sup>Dick and Myers, p. 17; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>298</sup>Important Musical Instruments and Printed Music...which will be Sold at Christie's Great Rooms on Tuesday 2 April 1985... (London: Christie, Manson & Woods, 1985), Lot 17.

<sup>299</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Brass and Woodwinds Instruments...to be Sold by Auction on Thursday July 20th 1978... (London: Phillips, Son & Neale, 1978), Lot 17.

<sup>300</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Brass and Woodwind Instruments...to be Sold by Auction on Thursday, November 15th, 1979... (London: Phillips, Son & Neale, 1979), Lot 19.

<sup>301</sup>Dick and Myers, p. 13; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>302</sup>Gilliam and Lichtenwanger, p. 99; Seyfrit, p. 194.

<sup>303</sup>New York Flute Club, no. IV-6. See also "Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12.

<sup>304</sup>Gilliam and Lichtenwanger, p. 97; Seyfrit, p. 193.

<sup>305</sup>Horniman Museum and Library, Adam Carse Collection, p. 24.

<sup>306</sup>Yale Collection of Musical Instruments, Checklist, supplemental p. 2.

<sup>307</sup>*Ibid.*, p. 25.

<sup>308</sup>Dick and Myers, p. 16; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>309</sup>Montagu, Bate Collection, p. 8.

<sup>310</sup>Gilliam and Lichtenwanger, p. 41.

- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 1405.<sup>311</sup>
- Flute, eight keys. Dayton C. Miller Flute Collection, no. 511.<sup>312</sup>
- Flute, eight keys, cocus. Shorey, 1991 catalog, no. 344.<sup>313</sup>
- Piccolo, six keys, cocus. Shorey, 1989 catalog, no. 470.<sup>314</sup>
- Fife, boxwood. Museum of Fine Arts (Boston), no. 17.1860.<sup>315</sup>
- Fife, keyless, maple. Bate Collection, no. 180.<sup>316</sup>
- Flute in D $\flat$ , eight keys plus covered action, cocus. Edinburgh University Collection, no. 1221.<sup>317</sup>
- Flute in A $\flat$ , one key, boxwood. Dayton C. Miller Flute Collection, no. 1338.<sup>318</sup>
- Flute in E $\flat$ , one key. Royal College of Music Museum, no. 326 FL/7.<sup>319</sup>
- Flute in E $\flat$ , one key, boxwood. Edinburgh University Collection, no. 589.<sup>320</sup>
- Flute in E $\flat$ , one key, boxwood. Dayton C. Miller Flute Collection, no. 1314.<sup>321</sup>

### **William Milhouse**

*Additional examples may be found in:* Phillip T. Young, Twenty-five Hundred Historical Woodwind Instruments: An Inventory of the Major Collections (New York: Pendragon, 1982), pp. 87-88.

- Flute, one key, boxwood. Royal College of Music Museum, no. 326 FL/5.<sup>322</sup>
- Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 936.<sup>323</sup>
- Flute, one key. Yale Collection, no. 430.<sup>324</sup>
- Flute, one key, boxwood. Private collection (Groningen, The Netherlands).<sup>325</sup>
- Flute, one key, boxwood. Royal Military Exhibition, no. 87.<sup>326</sup>
- Flute, one key, boxwood. Christie's auction, 16 March 1988.<sup>327</sup>

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<sup>311</sup>*Ibid.*, p. 97.

<sup>312</sup>*Ibid.*, p. 37.

<sup>313</sup>Shorey, 1991 Catalog of Antique Flutes, p. 9.

<sup>314</sup>Shorey, Tenth Anniversary Catalog, no. 470.

<sup>315</sup>Museum of Fine Arts Musical Instruments Collection, Checklist, p. 48.

<sup>316</sup>Baines, Bate Collection, p. 13; Montagu, Bate Collection, p. 5.

<sup>317</sup>Dick and Myers, p. 22; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>318</sup>Gilliam and Lichtenwanger, p. 93; Seyfrit, p. 113.

<sup>319</sup>Ridley, p. 13.

<sup>320</sup>Dick and Myers, p. 11; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2S.

<sup>321</sup>Gilliam and Lichtenwanger, p. 91; Seyfrit, p. 110.

<sup>322</sup>Ridley, p. 14.

<sup>323</sup>Gilliam and Lichtenwanger, p. 66; Seyfrit, p. 195.

<sup>324</sup>Yale Collection of Musical Instruments, Checklist, p. 8.

<sup>325</sup>FOMRHI Quarterly, no. 49 (October 1987): 20-21.

<sup>326</sup>Day, p. 39.

<sup>327</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments...which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 231.

- Flute, one key, boxwood. Sotheby's auction, 22 November 1984.<sup>328</sup>
- Flute, one key, boxwood. Sotheby's auction, 23 September 1982.<sup>329</sup>
- Flute, one key, boxwood. Sotheby's auction, 9 October 1981.<sup>330</sup>
- Flute, one key, boxwood. Sotheby's auction, 27 March 1981.<sup>331</sup>
- Flute, four keys, boxwood. Edinburgh University Collection, no. 940.<sup>332</sup>
- Flute, four keys, boxwood. Sotheby's arcade auction, 14 June 1983.<sup>333</sup>
- Flute, four keys, boxwood. Christie's auction, 6 April 1983.<sup>334</sup>
- Flute, four keys, boxwood. Sotheby's auction, 17 September 1977.<sup>335</sup>
- Flute, five keys, boxwood. Bate Collection, no. x1081.<sup>336</sup>
- Flute, five keys, boxwood. Sotheby's auction, 7 April 1982.<sup>337</sup>
- Flute, five keys, ebony. Sotheby's auction, 13 June 1983.<sup>338</sup>
- Flute, six keys, boxwood. Bate Collection, no. 121.<sup>339</sup>
- Flute, six keys, boxwood. Made for Music, no. 66.<sup>340</sup>
- Flute, six keys, boxwood. Sotheby's auction, 22 November 1989.<sup>341</sup>

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<sup>328</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 22 November 1984... (London: Sotheby's, 1984), Lot 207.

<sup>329</sup>Musical Instruments: ...Day of Sale, Thursday, 23rd September 1982... (London: Sotheby Parke Bernet, 1982), Lot 14.

<sup>330</sup>Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 125.

<sup>331</sup>Important Musical Instruments: ...Day of Sale, Friday, 27th March 1981... (London: Sotheby Parke Bernet, 1981), Lot 54.

<sup>332</sup>Dick and Myers, p. 14; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>333</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 146.

<sup>334</sup>Fine Musical Instruments and Printed Music...which will be Sold at Auction...on Wednesday 6 April 1983... (London: Christie, Manson & Woods, 1983), Lot 26.

<sup>335</sup>Good Musical Instruments: ...Day of Sale, Saturday, 17th September, 1977... (London: Sotheby Parke Bernet, 1977), Lot 14.

<sup>336</sup>FOMRHI Quarterly, no. 39 (April 1985): 11; Jeremy Montagu, The World of Baroque & Classical Musical Instruments (Woodstock, New York: Overlook Press, 1979), p. 83; Montagu, Bate Collection, p. 8; Montagu, Flute, p. 8; FOMRHI Quarterly, no. 68 (July 1992): 6.

<sup>337</sup>Important Musical Instruments: ...Day of Sale, Wednesday, 7th April 1982... (London: Sotheby Parke Bernet, 1982), Lot 27.

<sup>338</sup>Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 250. (*Ex. coll.* C. M. Champion)

<sup>339</sup>Baines, Bate Collection, p. 6; Montagu, Bate Collection, p. 8; Montagu, Flute, p. 8.

<sup>340</sup>Made for Music, no. 66.

<sup>341</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 17.

- Flute, six keys, boxwood. Sotheby's auction, 13 June 1983.<sup>342</sup>
- Flute, six keys, boxwood. Christie's auction, 2 June 1982.<sup>343</sup>
- Flute, six keys, boxwood. Christie's auction, 17 November 1981.<sup>344</sup>
- Flute, six keys, boxwood. Sotheby's auction, 20 November 1980.<sup>345</sup>
- Flute, six keys, boxwood. Christie's auction, 16 July 1980.<sup>346</sup>
- Flute, six keys, boxwood. Sotheby's auction, 6 March 1979.<sup>347</sup>
- Flute, six keys, boxwood. Sotheby's auction, 8-9 November 1978.<sup>348</sup>
- Flute, six keys, ebony. Christie's auction, 10 May 1977.<sup>349</sup>
- Flute, six keys, fruitwood. Christie's auction, 19 November 1980.<sup>350</sup>
- Flute, seven keys. Yale Collection, no. 459.<sup>351</sup>
- Flute, seven keys, boxwood. Sotheby's auction, 13 November 1987.<sup>352</sup>
- Flute, seven keys, boxwood. Sotheby's auction, 30 April 1987.<sup>353</sup>
- Flute, seven keys, boxwood. Sotheby's auction, 12 November 1986.<sup>354</sup>
- Flute, seven keys, boxwood. Sotheby's auction, 20 July 1981.<sup>355</sup>

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<sup>342</sup>Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 264.

<sup>343</sup>Important Musical Instruments and Printed Music...which will be Sold at Auction...on Wednesday 2 June 1982... (London: Christie, Manson & Woods, 1982), Lot 45.

<sup>344</sup>Printed Music and Fine Musical Instruments...which will be Sold at Auction...on Tuesday 17 November 1981... (London: Christie, Manson & Woods, 1981), Lot 37.

<sup>345</sup>Important Musical Instruments: ...Day of Sale, Thursday, 20th November 1980... (London: Sotheby Parke Bernet, 1980), Lot 79.

<sup>346</sup>Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 16 July 1980... (London: Christie, Manson & Woods, 1980), Lot 15.

<sup>347</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 6th March, 1979... (London: Sotheby Parke Bernet, 1979), Lot 42.

<sup>348</sup>Highly Important Musical Instruments: ...Days of Sale, Wednesday, 8th November, 1978...Thursday, 9th November, 1978 (London: Sotheby Parke Bernet, 1978), Lot 118.

<sup>349</sup>Fine Musical Instruments and Important Musical Manuscripts...which will be Sold at Auction... on Tuesday, May 10, 1977... (London: Christie, Manson & Woods, 1977), Lot 41.

<sup>350</sup>Fine Musical Instruments...which will be Sold at Christie's Great Rooms on Wednesday 19 November 1980... (London: Christie, Manson & Woods, 1980), Lot 6.

<sup>351</sup>Yale Collection of Musical Instruments, Checklist, p. 2.

<sup>352</sup>Early Musical Instruments: ...Day of Sale, Friday, 13 November 1987... (London: Sotheby's, 1987), Lot 171.

<sup>353</sup>Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 199.

<sup>354</sup>Musical Instruments: ...Day of Sale, Wednesday, 12 November 1986... (London: Sotheby's, 1986), Lot 201.

<sup>355</sup>Musical Instruments: ...Day of Sale, Monday, 20th July 1981... (London: Sotheby Parke Bernet, 1981), Lot 8.

- Flute, seven keys, boxwood. Sotheby's auction, 25 November 1976.<sup>356</sup>
- Flute, seven keys, ebony. Royal College of Music Museum, no. 326 FL/19.<sup>357</sup>
- Flute, seven keys, ebony. Dayton C. Miller Flute Collection, no. 1192.<sup>358</sup>
- Flute, seven keys, ebony. Phillips auction, 12 October 1978.<sup>359</sup>
- Flute, seven keys, rosewood. Christie's auction, 16 March 1988.<sup>360</sup>
- Flute, eight keys, boxwood. Sotheby's auction, 8-9 November 1978.<sup>361</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 464.<sup>362</sup>
- Flute, eight keys, rosewood. Sotheby's auction, 22 May 1986.<sup>363</sup>
- Flute, eight keys, blackwood. Eddy Collection, no. 15.<sup>364</sup>
- Flute, eight keys. Dayton C. Miller Flute Collection, no. 1102.<sup>365</sup>
- Flute, eight keys, cocus. Christie's auction, 19 January 1984.<sup>366</sup>
- Piccolo in B $\flat$ , one key, boxwood. Edinburgh University Collection, no. 2000.<sup>367</sup>
- Flute in A, one key, boxwood. Dayton C. Miller Flute Collection, no. 1146.<sup>368</sup>

#### **Monro & May**

- Flute, one key, boxwood. Phillips auction, 15 December 1977.<sup>369</sup>

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<sup>356</sup>Important Musical Instruments: ...Day of Sale, Thursday, 25 November, 1976... (London: Sotheby Parke Bernet, 1976), Lot 9.

<sup>357</sup>Ridley, pp. 14-15.

<sup>358</sup>Gilliam and Lichtenwanger, p. 82.

<sup>359</sup>Old and Modern Violins, Violas and Violoncellos...[and] Wood & Brass Instruments Including Antique Woodwind...to be Sold by Auction on Thursday October 12 1978... (London: Phillips, Son & Neale, 1978), Lot 7.

<sup>360</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments...which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 205.

<sup>361</sup>Highly Important Musical Instruments: ...Days of Sale, Wednesday, 8th November, 1978...Thursday, 9th November, 1978... (London: Sotheby Parke Bernet, 1978), Lot 129.

<sup>362</sup>Gilliam and Lichtenwanger, p. 33.

<sup>363</sup>Musical Instruments: ...Day of Sale, Thursday 22 May 1986... (London: Sotheby's, 1986), Lot 144.

<sup>364</sup>New York Flute Club, no. IV-5.

<sup>365</sup>Gilliam and Lichtenwanger, p. 77.

<sup>366</sup>Important Musical Instruments: ...Public Auction, Wednesday, January 19, 1983 (New York: Christie's East, 1982), Lot 9a.

<sup>367</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

<sup>368</sup>Gilliam and Lichtenwanger, p. 79; Seyfrit, p. 114.

<sup>369</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Antique Woodwind and Plucked Instruments...to be Sold by Auction on Thursday December 15th 1977... (London: Phillips, Son & Neale, 1977), Lot 10.

- Flute, one key, boxwood. Phillips auction, 16 June 1977.<sup>370</sup>  
 Flute, one key, boxwood. Sotheby's auction, 11 May 1977.<sup>371</sup>  
 Flute, four keys, boxwood. Christie's auction, 19 July 1977.<sup>372</sup>  
 Flute, four keys, rosewood. Dayton C. Miller Flute Collection, no. 1195.<sup>373</sup>  
 Flute in E♭, one key, boxwood. Bate Collection, no. 1069.<sup>374</sup>

### **Monzani & Hill**

*See Appendix A.*

### **John Parker**

- Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 1126.<sup>375</sup>  
 Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 1374.<sup>376</sup>  
 Flute, one key, boxwood. Sotheby's auction, 25 November 1983.<sup>377</sup>  
 Flute, one key, boxwood. Sotheby's arcade auction, 14 June 1983.<sup>378</sup>  
 Flute, one key, boxwood. Also stamped "J. Thomson". Sotheby's auction, 27 March 1981.<sup>379</sup>  
 Flute, four keys, boxwood. Sotheby's auction, 3 May 1979.<sup>380</sup>  
 Flute, four keys, boxwood. Sotheby's auction, 27 November 1975.<sup>381</sup>  
 Flute, four keys, rosewood. Christie's auction, 21 March 1979.<sup>382</sup>

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<sup>370</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Wind Instruments Including Ivory and Boxwood Flutes to be Sold by Auction...on Thursday June 16th 1977... (London: Phillips, Son & Neale, 1977), Lot 10.

<sup>371</sup>Catalog of Printed & Manuscript Music, Autograph Letters of Musicians, Books on Music & Musical Instruments: ...Day of Sale, Wednesday, 11th May, 1977... (London: Sotheby Parke Bernet, 1977), Lot 321.

<sup>372</sup>Musical Instruments, Printed Music and Musical Miscellanea...which will be Sold at Auction on Tuesday, July 19, 1977... (London: Christie, Manson & Woods, 1977), Lot 38.

<sup>373</sup>Gilliam and Lichtenwanger, p. 83.

<sup>374</sup>Montagu, Bate Collection, p. 6.

<sup>375</sup>Gilliam and Lichtenwanger, p. 78; Seyfrit, p. 200.

<sup>376</sup>Gilliam and Lichtenwanger, p. 95; Seyfrit, p. 201.

<sup>377</sup>Highly Important Musical Instruments: ...Day of Sale, Friday, 25th November 1983... (London: Sotheby Parke Bernet, 1983), Lot 214.

<sup>378</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 148.

<sup>379</sup>Important Musical Instruments: ...Day of Sale, Friday, 27th March 1981... (London: Sotheby Parke Bernet, 1981), Lot 24.

<sup>380</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 3rd May, 1979... (London: Sotheby Parke Bernet, 1979), Lot 85.

<sup>381</sup>Important Musical Instruments: ...Day of Sale, Thursday, 27th November 1975... (London: Sotheby Parke Bernet, 1975), Lot 19.

<sup>382</sup>Musical Instruments...which will be Sold at Auction...on Wednesday, March 21, 1979... (London: Christie, Manson & Woods, 1979), Lot 14.

- Flute, six keys, boxwood. Phillips auction, 9 March 1978.<sup>383</sup>
- Flute, six keys, boxwood. Sotheby's auction, 13 February 1975.<sup>384</sup>
- Flute, eight keys, boxwood. Sotheby's auction, 21 June 1984.<sup>385</sup>
- Piccolo, one key, boxwood. Christie's auction, 23 November 1988.<sup>386</sup>
- Piccolo in E♭, one key, maple. Bate Collection, no. 181.<sup>387</sup>
- Flute in E♭, one key, boxwood. Christie's auction, 2 April 1982.<sup>388</sup>
- Flute in E♭, four keys, boxwood. Sotheby's auction, 3 April 1985.<sup>389</sup>
- Flute in E♭, four keys, boxwood. Sotheby's auction, 22 November 1989.<sup>390</sup>
- Flute in E♭, five keys, boxwood. Sotheby's auction, 18 September 1980.<sup>391</sup>

### **Richard Potter and William Henry Potter**

*Because of the large number of surviving Potter flutes, this list is limited primarily to instruments in collections.*

- Piccolo in E♭, five keys, cocus. Bate Collection, no. 182.<sup>392</sup>
- Flute in E♭, one key, boxwood. Bate Collection, no. 1004.<sup>393</sup>

*The following instruments are signed POTTER LONDON in a scroll.*

- Flute, one key, boxwood. Edinburgh University Collection, no. 17.<sup>394</sup>
- Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 518.<sup>395</sup>

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<sup>383</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, ), Lot 29.

<sup>384</sup>Catalog of Fine Musical Instruments: ...Day of Sale, Thursday, 13th February, 1975... (London: Sotheby & Co., 1975), Lot 7.

<sup>385</sup>Important Musical Instruments: ...Day of Sale, Thursday, 21st June 1984... (London: Sotheby Parke Bernet, 1984), Lot 92.

<sup>386</sup>Important Musical Instruments...which will be Sold at Auction...on Wednesday 23 November 1988... (London: Christie, Manson & Woods, 1988), Lot 4.

<sup>387</sup>Baines, Bate Collection, p. 13; Montagu, Bate Collection, p. 5; Bate, Plate 10.

<sup>388</sup>Fine Printed Music and Musical Instruments...which will be Sold at Auction...on Friday, 2 April 1982... (London: Christie, Manson & Woods, 1982), Lot 36.

<sup>389</sup>Highly Important Musical Instruments: ...Day of Sale, Wednesday, 3rd April 1985... (London: Sotheby's, 1985), Lot 213.

<sup>390</sup>Musical Instruments: ...Day of Sale, Wednesday 22 November 1989... (London: Sotheby's, 1989), Lot 86.

<sup>391</sup>Musical Instruments: ...Day of Sale, Thursday 18th September 1980... (London: Sotheby Parke Bernet, 1980), Lot 19.

<sup>392</sup>Montagu, Bate Collection, p. 5.

<sup>393</sup>Baines, Bate Collection, p. 15; Montagu, Bate Collection, p. 6; Montagu, Flute, p. 25.

<sup>394</sup>Dick and Myers, p. 13; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21. Technical drawing published by the Collection, 1986.

<sup>395</sup>Seyfrit, p. 184.

Flute, one key, boxwood. Museum of Fine Arts (Boston), no. R.55.45.<sup>396</sup>

Flute, one key, boxwood. Sotheby's auction, 21 June 1984.<sup>397</sup>

Flute, one key, boxwood. Sotheby's auction, 3 November 1982.<sup>398</sup>

*The following instruments are signed POTTER | SENIOR.*

Flute. Shorto Collection.<sup>399</sup>

Flute, five keys, ivory. Dated 1776. Sotheby's auction, 27 November 1975.<sup>400</sup>

Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 227.<sup>401</sup>

Flute, six keys. Chicago Historical Society.<sup>402</sup>

Flute, six keys (high C, B♭, F, D♯, C♯, C). Dated 1777. Adam Carse Collection, no. 193.<sup>403</sup>

Flute, six keys, ivory. Dated 1778. Dayton C. Miller Flute Collection, no. 405.<sup>404</sup>

Flute, one key. Dated "533" [sic]. Adam Carse Collection, no. 143.<sup>405</sup>

Flute, six keys, boxwood. Dated 1779. Made for Music, no. 61.<sup>406</sup>

Flute, three keys, boxwood. Dated 1779. Sotheby's arcade auction, 14 June 1983.<sup>407</sup>

Flute, six keys, boxwood. Dated 1779. Sotheby's auction, 13 June 1983.<sup>408</sup>

Flute, six keys, boxwood. Dated 1782. Bate Collection, no. 1028.<sup>409</sup>

Flute, five keys, ivory. Dated 1791. Valenza Collection.<sup>410</sup>

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<sup>396</sup>Museum of Fine Arts Musical Instrument Collection, Checklist, p. 44. This instrument is surely by Richard Potter, and not by William Henry Potter as stated in the Checklist.

<sup>397</sup>Important Musical Instruments: ...Day of Sale, Thursday, 21st June 1984... (London: Sotheby Parke Bernet, 1984), Lot 104.

<sup>398</sup>Musical Instruments, Part I: ...First Day of Sale, Wednesday, 3rd November 1982... (London: Sotheby Parke Bernet, 1982), Lot 12.

<sup>399</sup>FOMRHI Quarterly, no. 14 (January 1979): 4.

<sup>400</sup>Important Musical Instruments: ...Day of Sale, Thursday, 27th November 1975... (London: Sotheby Parke Bernet, 1975), Lot 25.

<sup>401</sup>Gilliam and Lichtenwanger, p. 16.

<sup>402</sup>Bowers, p. 42.

<sup>403</sup>Horniman Museum and Library, Adam Carse Collection, pp. 25-26.

<sup>404</sup>Gilliam and Lichtenwanger, p. 29.

<sup>405</sup>Horniman Museum and Library, Adam Carse Collection, p. 24.

<sup>406</sup>Made for Music, no. 61.

<sup>407</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 153.

<sup>408</sup>Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 246.

<sup>409</sup>Baines, Bate Collection, p. 7; Montagu, Bate Collection, p. 8; FOMRHI Quarterly, no. 68 (July 1992): 6; Bowers, "Mozart," p. 38.; FOMRHI Quarterly, no. 38 (January 1985): 15 (technical drawing).

<sup>410</sup>Historic Flutes from Private Collections, p. 20.



*The following instruments are signed POTTER LONDON.*

- Flute, one key, ivory. Royal College of Music Museum, no. 326 FL/9.<sup>411</sup>  
 Flute, one key. Adam Carse Collection, no. 3.<sup>412</sup>  
 Flute, four keys, boxwood. Dayton C. Miller Flute Collection, no. 586.<sup>413</sup>  
 Flute, four keys, boxwood. Metropolitan Museum of Art (New York).<sup>414</sup>  
 Flute, four keys, rosewood. Dayton C. Miller Flute Collection, no. 1226.<sup>415</sup>  
 Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 403.<sup>416</sup>  
 Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 1139.<sup>417</sup>  
 Flute, six keys, ebony. Dayton C. Miller Flute Collection, no. 1582.<sup>418</sup>  
 Flute, six keys, ivory. Dayton C. Miller Flute Collection, no. 331.<sup>419</sup>  
 Flute, six keys. Dayton C. Miller Flute Collection, no. 1140.<sup>420</sup>  
 Flute, seven keys, ebony. Dayton C. Miller Flute Collection, no. 636.<sup>421</sup>  
 Flute, seven keys, rosewood. Dayton C. Miller Flute Collection, no. 954.<sup>422</sup>  
 Piccolo in C, one key. Dayton C. Miller Flute Collection, no. 1166.<sup>423</sup>  
 Flute in D, one key, ivory. Expo Sussex, no. 18.<sup>424</sup>  
 Tabor pipe, ivory. Dayton C. Miller Flute Collection, no. 1339.<sup>425</sup>

*The following instruments are marked POTTER | LONDON | PATENT.*

- Flute, eight keys, boxwood. Royal College of Music Museum, no. 326 FL/17.<sup>426</sup>  
 Flute, eight keys, ivory. Museum of Fine Arts (Boston), no. 17.1848.<sup>427</sup>

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<sup>411</sup>Ridley, p. 13-14.

<sup>412</sup>Horniman Museum and Library, Adam Carse Collection, p. 24.

<sup>413</sup>Gilliam and Lichtenwanger, p. 42.

<sup>414</sup>"Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12; New York Flute Club, no. IV-3. Formerly in the Lehman Collection.

<sup>415</sup>Gilliam and Lichtenwanger, p. 85.

<sup>416</sup>Gilliam and Lichtenwanger, p. 29.

<sup>417</sup>*Ibid.*, p. 79.

<sup>418</sup>*Ibid.*, p. 103.

<sup>419</sup>*Ibid.*, p. 23.

<sup>420</sup>*Ibid.*, p. 79.

<sup>421</sup>*Ibid.*, p. 45.

<sup>422</sup>*Ibid.*, p. 67.

<sup>423</sup>*Ibid.*, p. 81; Seyfrit, p. 89.

<sup>424</sup>Expo Sussex, Catalogue, p. 4.

<sup>425</sup>Gilliam and Lichtenwanger, p. 93.

<sup>426</sup>Ridley, p. 14.

<sup>427</sup>Bessaraboff, p. 58; Day, p. 32; Museum of Fine Arts Musical Instruments Collection, Checklist, p. 47.

*The following instruments are marked POTTER | IOHNSON'S COURT.*

- Flute, one key, boxwood. Bate Collection, no. 18.<sup>428</sup>
- Flute, one key, boxwood. Shorey, 1989 catalog, no. 467.<sup>429</sup>
- Flute, five keys. Sheffield City Museums.<sup>430</sup>
- Flute, six keys, boxwood. Edinburgh University Collection, no. 28.<sup>431</sup>
- Flute, six keys, boxwood. Edinburgh University Collection, no. 977.<sup>432</sup>
- Flute, six keys, boxwood. Montagu Collection, no. II 8.<sup>433</sup>
- Flute, six keys, boxwood. Made for Music. no. 62.<sup>434</sup>
- Flute, six keys, boxwood. Shorey, 1990 catalog, no. 489.<sup>435</sup>
- Flute, six keys, boxwood. Shorey, 1989 catalog, no. 457.<sup>436</sup>
- Flute, seven keys, boxwood. Stearns Collection (Ann Arbor), no. 564.<sup>437</sup>
- Flute, eight keys, boxwood. Montagu Collection, no. IV 200.<sup>438</sup>
- Flute, eight keys, boxwood. Frank Jaap Collection (Amsterdam).<sup>439</sup>

*The following instruments are signed WILL<sup>M</sup> · HEN<sup>Y</sup> POTTER | IOHNSON'S COURT.*

- Flute, four keys. Yale Collection, no. 447.<sup>440</sup>
- Flute, four keys, boxwood. Edinburgh University Collection, no. 1537.<sup>441</sup>
- Flute, four keys, boxwood. Dayton C. Miller Flute Collection, no. 466.<sup>442</sup>
- Flute, five keys, boxwood. Bate Collection, no. 1063.<sup>443</sup>
- Flute, six keys, boxwood. Bate Collection, no. 1060.<sup>444</sup>

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<sup>428</sup>Baines, Bate Collection, p. 3; Montagu, Bate Collection, p. 8; Bate, Plate 5.

<sup>429</sup>Shorey, Tenth Anniversary Catalog, no. 467.

<sup>430</sup>Bevan, p. 98.

<sup>431</sup>Dick and Myers, p. 15; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21. The Checklist and the Catalogue attribute this flute to W. H. Potter, although the signature reads **POTTER | JOHNSON'S COURT**.

<sup>432</sup>Dick and Myers, p. 15; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21. The Checklist and the Catalogue both attribute this flute to W. H. Potter, although the signature reads **POTTER | JOHNSON'S COURT**.

<sup>433</sup>Montagu, World of Baroque, p. 83.

<sup>434</sup>Made for Music, no. 62.

<sup>435</sup>Shorey, 1990 Catalog of Flutes, p. 5.

<sup>436</sup>Shorey, Tenth Anniversary Catalog, no. 457.

<sup>437</sup>Borders, p. 21.

<sup>438</sup>Montagu, World of Baroque, p. 83; Montagu, Flute, p. 10.

<sup>439</sup>Spohr, p. 19.

<sup>440</sup>Yale Collection of Musical Instruments, Checklist, supplemental p. 1.

<sup>441</sup>Dick and Myers, p. 14; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>442</sup>Gilliam and Lichtenwanger, p. 33.

<sup>443</sup>Montagu, Bate Collection, p. 8.

<sup>444</sup>*Ibid.*, p. 8; Montagu, Flute, p. 10-11.

- Flute, six keys, boxwood. Edinburgh University Collection, no. 964.<sup>445</sup>
- Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 337.<sup>446</sup>
- Flute, six keys, boxwood. Dayton C. Miller Flute Collection, no. 424.<sup>447</sup>
- Flute, six keys, ebony. Edinburgh University Collection, no. 1021.<sup>448</sup>
- Flute, six keys, ebony. Dayton C. Miller Flute Collection, no. 853.<sup>449</sup>
- Flute, six keys, ivory. Sotheby's auction, 9 October 1981.<sup>450</sup>
- Flute, six keys. Adam Carse Collection, no. 101.<sup>451</sup>
- Flute, seven keys, boxwood. Dayton C. Miller Flute Collection, no. 215.<sup>452</sup>
- Flute, seven keys, boxwood. Handel-Haus.<sup>453</sup>
- Flute, seven keys, ebony. Bate Collection, no. 148.<sup>454</sup>
- Flute, seven keys, ebony. Dayton C. Miller Flute Collection, no. 781.<sup>455</sup>
- Flute, eight keys, boxwood. Edinburgh University Collection, no. 2714.<sup>456</sup>
- Flute, eight keys, ebony. Dayton C. Miller Flute Collection, no. 822.<sup>457</sup>
- Flute, eight keys, ebony. Dayton C. Miller Flute Collection, no. 1043-A.<sup>458</sup>
- Flute, eight keys, ebony. Bachhaus, no. I 130.<sup>459</sup>
- Flute, eight keys, ivory. Museum of Fine Arts (Boston).<sup>460</sup>
- Flute, eight keys, ivory. Shorey, 1990 catalog, no. 506.<sup>461</sup>
- Flute, nine keys, boxwood. Stearns Collection (Ann Arbor), no. 566.<sup>462</sup>
- Flute, boxwood. Metropolitan Museum of Art (New York).<sup>463</sup>

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<sup>445</sup>Dick and Myers, p. 15; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>446</sup>Gilliam and Lichtenwanger, p. 24.

<sup>447</sup>*Ibid.*, p. 31.

<sup>448</sup>Dick and Myers, p. 15; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>449</sup>Gilliam and Lichtenwanger, p. 61.

<sup>450</sup>Important Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 122.

<sup>451</sup>Horniman Museum and Library, Adam Carse Collection, p. 26.

<sup>452</sup>Gilliam and Lichtenwanger, pp. 15-16.

<sup>453</sup>Heyde, Handel-Haus, pp. 360-361.

<sup>454</sup>Montagu, Bate Collection, p. 8.

<sup>455</sup>Gilliam and Lichtenwanger, p. 56.

<sup>456</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>457</sup>*Ibid.*, p. 59.

<sup>458</sup>*Ibid.*, p. 73.

<sup>459</sup>Heyde, Bachhaus Eisenach, p. 215.

<sup>460</sup>Bessaraboff, p. 58; Day, p. 32.

<sup>461</sup>Shorey, 1990 Catalog of Flutes, p. 32.

<sup>462</sup>Borders, p. 23.

<sup>463</sup>"Met Exhibits Lehman Flutes," Newsletter of the American Musical Instrument Society 22 (February 1993): 12. Formerly in the Lehman Collection.

Flute in E♭, four keys. Signed POTTER | LONDON | PATENT | Fecit 1823. Adam Carse Collection, no. 4.<sup>464</sup>

Tenor flute in A♭, four keys, ebony. Museum of Fine Arts (Boston).<sup>465</sup>

### Preston

Flute, one key, boxwood. Dayton C. Miller Flute Collection, no. 1127.<sup>466</sup>

Flute, one key, boxwood. Sotheby's auction, 9 October 1981.<sup>467</sup>

Flute, one key, boxwood. Sotheby's auction, 18 October 1979.<sup>468</sup>

Flute, one key, boxwood. Sotheby's auction, 6 March 1979.<sup>469</sup>

Flute, four keys, boxwood. Christie's auction, 16 March 1988.<sup>470</sup>

Flute, four keys, boxwood. Sotheby's auction, 16 May 1978.<sup>471</sup>

Flute, four keys, boxwood. Sotheby's auction, 12 February 1976.<sup>472</sup>

Flute, six keys, boxwood. Sotheby's arcade auction, 14 June 1983.<sup>473</sup>

Flute, eight keys, boxwood. Sotheby's auction, 19 June 1979.<sup>474</sup>

*Due to the great number of extant flutes by Rudall & Rose, Rudall, Rose, & Carte, and Rudall, Carte & Co., this rather selective list is limited primarily to examples in museums and collections.*

### Rudall & Rose

Flute, eight keys, boxwood. Bate Collection, no. x100.<sup>475</sup>

Flute, eight keys, boxwood. Bate Collection, no. 132.<sup>476</sup>

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<sup>464</sup>Horniman Museum and Library, Adam Carse Collection, p. 25.

<sup>465</sup>Bessaraboff, pp. 58-59; Day, p. 33.

<sup>466</sup>Gilliam and Lichtenwanger, p. 78.

<sup>467</sup>Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 114.

<sup>468</sup>Important Musical Instruments: ...Day of Sale, Thursday, 18th October, 1979... (London: Sotheby Parke Bernet, 1979), Lot 25.

<sup>469</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 6th March, 1979... (London: Sotheby Parke Bernet, 1979), Lot 6.

<sup>470</sup>Important Musical Instruments Including the Van Zuylen Collection of Early Instruments which will be Sold at Auction...on Wednesday 16 March 1988... (London: Christie, Manson & Woods, 1988), Lot 217.

<sup>471</sup>Important Musical Instruments: ...Day of Sale, Tuesday, 16th May, 1978... (London: Sotheby Parke Bernet, 1978), Lot 13.

<sup>472</sup>Fine Musical Instruments: ...Day of Sale, Thursday, 12th February, 1976... (London: Sotheby Parke Bernet, 1976), Lot 13.

<sup>473</sup>Sotheby's Arcade Auctions...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 150.

<sup>474</sup>Good Musical Instruments: ...Day of Sale, Tuesday, 19th June, 1979... (London: Sotheby Parke Bernet, 1979), Lot 5.

<sup>475</sup>Baines, Bate Collection, p. 7.

<sup>476</sup>*Ibid.*, p. 7; Montagu, Bate Collection, p. 9.

- Flute, eight keys, boxwood. Edinburgh University Collection, no. 38.<sup>477</sup>
- Flute, eight keys, boxwood. Dayton C. Miller Flute Collection, no. 26.<sup>478</sup>
- Flute, eight keys, boxwood. Dayton C. Miller Flute Collection, no. 216.<sup>479</sup>
- Flute, eight keys, boxwood. Dayton C. Miller Flute Collection, no. 324.<sup>480</sup>
- Flute, eight keys, cocus. Bate Collection, no. 133.<sup>481</sup>
- Flute, eight keys, cocus. Edinburgh University Collection, no. 37.<sup>482</sup>
- Flute, eight keys, cocus. Edinburgh University Collection, no. 592.<sup>483</sup>
- Flute, eight keys, cocus. Dayton C. Miller Flute Collection, no. 365.<sup>484</sup>
- Flute, eight keys, cocus. Metropolitan Museum of Art (New York), no. 1976.7.3.<sup>485</sup>
- Flute, eight keys, cocus. Metropolitan Museum of Art (New York), no. 1976.7.5.<sup>486</sup>
- Flute, eight keys, cocus. Valenza Collection.<sup>487</sup>
- Flute, eight keys, cocus. Private Collection (Frankfurt).<sup>488</sup>
- Flute, eight keys, cocus. Shorey, 1990 catalog, no. 559.<sup>489</sup>
- Flute, eight keys, rosewood. Edinburgh University Collection, no. 39.<sup>490</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 323.<sup>491</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 496.<sup>492</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 825.<sup>493</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 956.<sup>494</sup>
- Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 1517.<sup>495</sup>

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<sup>477</sup>Dick and Myers, p. 18; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28. Technical drawing published by the Collection, 1986.

<sup>478</sup>Gilliam and Lichtenwanger, p. 2; Toff, p. 28.

<sup>479</sup>Gilliam and Lichtenwanger, p. 16.

<sup>480</sup>*Ibid.*, p. 23.

<sup>481</sup>Baines, Bate Collection, p. 7.

<sup>482</sup>Dick and Myers, p. 18; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>483</sup>Dick and Myers, p. 18; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>484</sup>Gilliam and Lichtenwanger, p. 26.

<sup>485</sup>Metropolitan Museum of Art, Department of Musical Instruments, Checklist, p. 9.

<sup>486</sup>*Ibid.*, p. 8.

<sup>487</sup>Historic Flutes from Private Collections, p. 25.

<sup>488</sup>Spohr, pp. 20-21.

<sup>489</sup>Shorey, 1990 Catalog of Flutes, pp. 16-17.

<sup>490</sup>Dick and Myers, p. 18; Myers, Vol. 1, p. 73; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>491</sup>Gilliam and Lichtenwanger, p. 23.

<sup>492</sup>*Ibid.*, p. 36.

<sup>493</sup>*Ibid.*, p. 59.

<sup>494</sup>*Ibid.*, p. 67.

<sup>495</sup>*Ibid.*, p. 99.

- Flute, ten keys, grenadilla. Dayton C. Miller Flute Collection, no. 22.<sup>496</sup>
- Flute, thirteen keys, rosewood or cocus. Dayton C. Miller Flute Collection, no. 440.<sup>497</sup>
- Flute, thirteen keys, rosewood. Dayton C. Miller Flute Collection, no. 696.<sup>498</sup>
- Flute, Boehm 1832 system, cocus. Bate Collection, no. 170.<sup>499</sup>
- Flute, Boehm 1832 system, cocus. Edinburgh University Collection, no. 1079.<sup>500</sup>
- Flute, Boehm 1832 system, cocus. Victoria and Albert Museum, no. 22/7.<sup>501</sup>
- Flute, Boehm 1832 system, cocus. Private Collection (Frankfurt).<sup>502</sup>
- Flute, Boehm 1832 system, cocus. Shorey, 1989 catalog, no. 412.<sup>503</sup>
- Flute, Boehm 1832 system, cocus. Shorey, 1990 catalog, no. 535.<sup>504</sup>
- Flute, Boehm 1832 system, cocus. Shorey, 1991 catalog, no. 534.<sup>505</sup>
- Flute, Boehm 1832 system hybrid, cocus. Valenza Collection.<sup>506</sup>
- Flute, Boehm 1832 system, cocus or rosewood. Dayton C. Miller Flute Collection, no. 398.<sup>507</sup>
- Flute, Boehm 1832 system, rosewood. Royal College of Music Museum, no. 326 FL/32.<sup>508</sup>
- Flute, Boehm 1832 system, rosewood. Edinburgh University Collection, no. 962.<sup>509</sup>
- Flute, Boehm 1832 system, rosewood. Dayton C. Miller Flute Collection, no. 890.<sup>510</sup>
- Flute, Boehm 1832 system, grenadilla. Munich Stadtmuseum, no. 78-31.<sup>511</sup>
- Flute, Boehm 1832 system hybrid, silver. Shorey, 1983 catalog.<sup>512</sup>
- Flute, Boehm 1832 system hybrid, gold-plated. Bate Collection, no. 157.<sup>513</sup>

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<sup>496</sup>*Ibid.*, p. 2.

<sup>497</sup>*Ibid.*, p. 32.

<sup>498</sup>*Ibid.*, p. 50.

<sup>499</sup>Baines, Bate Collection, p. 10; Montagu, Bate Collection, p. 9.

<sup>500</sup>Dick and Myers, p. 21; Myers, Vol. 1, p. 69; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2M.

<sup>501</sup>Victoria and Albert Museum, Catalogue of Musical Instruments, Vol. 2, p. 91.

<sup>502</sup>Spohr, pp. 28-29.

<sup>503</sup>Shorey, Tenth Anniversary Catalog, no. 412.

<sup>504</sup>Shorey, 1990 Catalog of Flutes, p. 26.

<sup>505</sup>Shorey, 1991 Catalog of Antique Flutes, p. 12.

<sup>506</sup>Historic Flutes from Private Collections, p. 34.

<sup>507</sup>Gilliam and Lichtenwanger, p. 29.

<sup>508</sup>Ridley, p. 18.

<sup>509</sup>Dick and Myers, p. 22; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2M.

<sup>510</sup>Gilliam and Lichtenwanger, p. 63.

<sup>511</sup>Manfred Hermann Schmid, Theobald Boehm, 1794-1881: Die Revolution der Flöte: Katalog der Ausstellung zum 100. Todestag von Boehm, Musikinstrumentenmuseum im Münchner Stadtmuseum, Veröffentlichungen des Musikinstrumentenmuseums München, Band 1 (Tutzing: Hans Schneider, 1981), pp. 76-77.

<sup>512</sup>Shorey, 1983 Sale Catalog, pp. 13-16. Shorey attributes this instrument to Louis Lot, Paris.

<sup>513</sup>Baines, Bate Collection, p. 10; Bate, Plate 8.

- Flute, cylindrical Boehm system, plated alloy. Bate Collection, no. 158.<sup>514</sup>
- Flute, Boehm system, silver. Dayton C. Miller Flute Collection, no. 1236.<sup>515</sup>
- Flute, Carte 1851 system, cocus. Edinburgh University Collection, no. 2023.<sup>516</sup>
- Piccolo in D $\flat$  (C?), six keys, cocus. Edinburgh University Collection, no. 542.<sup>517</sup>
- Flute in A $\flat$ , four keys, cocus. Dayton C. Miller Flute Collection, no. 1410.<sup>518</sup>
- Flûte d'amour in A, eight keys, rosewood. Edinburgh University Collection, no. 981.<sup>519</sup>
- Tenor flute in A $\flat$ , eight keys, cocus. Bate Collection, no. 1036.<sup>520</sup>
- Patented head joint, boxwood. Edinburgh University Collection, no. 3085.<sup>521</sup>

### **Rudall, Rose & Carte**

- Flute, eight keys, cocus. Edinburgh University Collection, no. 509.<sup>522</sup>
- Flute, eight keys, cocus or rosewood. Dayton C. Miller Flute Collection, no. 642.<sup>523</sup>
- Flute, eight keys, silver. Dayton C. Miller Flute Collection, no. 1134.<sup>524</sup>
- Flute, eight keys plus covered action, cocus. Dayton C. Miller Flute Collection, no. 111.<sup>525</sup>
- Flute, Boehm 1832 system, cocus. Dayton C. Miller Flute Collection, no. 438.<sup>526</sup>
- Flute, Boehm 1847 system, silver. Valenza Collection.<sup>527</sup>
- Flute, Carte 1850 system, silver. Glennis Stout Collection.<sup>528</sup>
- Flute, Carte 1851 system, silver. Bate Collection, no. x1057.<sup>529</sup>
- Flute, Carte 1851 system, silver-plated. Royal College of Music Museum, no. 326 FL/38.<sup>530</sup>
- Flute, Carte 1851 system, silver. Edinburgh University Collection, no. 52.<sup>531</sup>

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<sup>514</sup>Baines, Bate Collection, p. 10.

<sup>515</sup>Gilliam and Lichtenwanger, pp. 85-86.

<sup>516</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2M.

<sup>517</sup>Dick and Myers, p. 8; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

<sup>518</sup>Gilliam and Lichtenwanger, p. 97.

<sup>519</sup>Dick and Myers, p. 23; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.

<sup>520</sup>Montagu, Bate Collection, p. 9.

<sup>521</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2Z.

<sup>522</sup>Dick and Myers, p. 19; Myers, Vol. 2, Part D, Fascicle ii, file UCTD28.

<sup>523</sup>Gilliam and Lichtenwanger, p. 46.

<sup>524</sup>*Ibid.*, p. 79.

<sup>525</sup>*Ibid.*, p. 8.

<sup>526</sup>*Ibid.*, p. 32.

<sup>527</sup>Historic Flutes from Private Collections, p. 37.

<sup>528</sup>Vance, p. 91.

<sup>529</sup>Montagu, Bate Collection, p. 9.

<sup>530</sup>Ridley, p. 20.

<sup>531</sup>Dick and Myers, p. 23; Myers, Vol. 1, p. 69.

- Flute, Carte 1851 system, silver. Edinburgh University Collection, no. 3084.<sup>532</sup>
- Flute, Carte 1851 system, silver. Dayton C. Miller Flute Collection, no. 43.<sup>533</sup>
- Flute, Carte 1851 system, silver. Dayton C. Miller Flute Collection, no. 75.<sup>534</sup>
- Flute, Carte 1851 system, silver. Dayton C. Miller Flute Collection, no. 262.<sup>535</sup>
- Flute, Carte 1851 system, silver. Eddy Collection, no. 34.<sup>536</sup>
- Flute, Carte 1851 system, silver. Glennis Stout Collection.<sup>537</sup>
- Flute, Carte 1851 system, silver. Private Collection (Frankfurt).<sup>538</sup>
- Flute, Carte system, "1851 & 1862," silver. Shorey, 1990 catalog, no. 538.<sup>539</sup>
- Flute, Carte 1851 system, silver. Shorey, 1991 catalog, no. 537.<sup>540</sup>
- Flute, Carte 1851 system, cocus. Bate Collection, no. 159.<sup>541</sup>
- Flute, Carte 1867 system, silver. Dayton C. Miller Flute Collection, no. 14.<sup>542</sup>
- Flute, Carte 1867 system, silver. Valenza Collection.<sup>543</sup>
- Flute, Rockstro's model, cocus. Glennis Stout Collection.<sup>544</sup>
- Flute, Rockstro's model, silver. Bate Collection, no. x111.<sup>545</sup>
- Flute, Rockstro's model, silver. Shorey, 1991 catalog, no. 539.<sup>546</sup>
- Flute, Rockstro's model, gold. Munich Stadtmuseum, no. 81-45.<sup>547</sup>
- Flute, Mathews' Barbiton model, silver. Private Collection (Frankfurt).<sup>548</sup>
- Flute, Mathews' Barbiton model, silver. Shorey, 1990 catalog, no. 536.<sup>549</sup>
- Flute, Mathews' Chrysostom model. Bate Collection, no. 1039.<sup>550</sup>

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<sup>532</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>533</sup>Gilliam and Lichtenwanger, p. 3; Toff, p. 106.

<sup>534</sup>Gilliam and Lichtenwanger, p. 6.

<sup>535</sup>*Ibid.*, p. 19.

<sup>536</sup>New York Flute Club, no. IV-9.

<sup>537</sup>Vance, p. 93.

<sup>538</sup>Spohr, pp. 38-39.

<sup>539</sup>Shorey, 1990 Catalog of Flutes, p. 39.

<sup>540</sup>Shorey, 1991 Catalog of Antique Flutes, p. 13.

<sup>541</sup>Baines, Bate Collection, p. 10; Bate, Plate 8; Montagu, Bate Collection, p. 9.

<sup>542</sup>Gilliam and Lichtenwanger, p. 1; Toff, p. 114.

<sup>543</sup>Historic Flutes from Private Collections, p. 36.

<sup>544</sup>*Ibid.*, p. 30.

<sup>545</sup>Baines, Bate Collection, p. 11; Montagu, Bate Collection, p. 9.

<sup>546</sup>Shorey, 1991 Catalog of Antique Flutes, p. 14.

<sup>547</sup>Schmid, pp. 123-125.

<sup>548</sup>Spohr, pp. 40-41.

<sup>549</sup>Shorey, 1990 Catalog of Flutes, p. 28.

<sup>550</sup>Montagu, Bate Collection, p. 9.



Piccolo, six keys plus covered action, rosewood. Dayton C. Miller Flute Collection, no. 1312.<sup>551</sup>

**Rudall, Carte & Co.**

Flute, eight keys, boxwood. Dayton C. Miller Flute Collection, no. 1408.<sup>552</sup>

Flute, eight keys plus covered action, ebonite. Royal College of Music Museum, no. 365.<sup>553</sup>

Flute, eight keys plus covered action, cocus. Edinburgh University Collection, no. 1080.<sup>554</sup>

Flute, eight keys plus covered action, cocus. Dayton C. Miller Flute Collection, no. 149.<sup>555</sup>

Flute, eight keys plus covered action, cocus. Dayton C. Miller Flute Collection, no. 277.<sup>556</sup>

Flute, eight keys plus covered action, cocus. Dayton C. Miller Flute Collection, no. 638.<sup>557</sup>

Flute, Siccama system. Shorey, 1990 catalog, no. 541.<sup>558</sup>

Flute, cylindrical Boehm, cocus. Bate Collection, no. x108.<sup>559</sup>

Flute, cylindrical Boehm. Bate Collection, no. 1046.<sup>560</sup>

Flute, Boehm 1847 system, cocus. Edinburgh University Collection, no. 51.<sup>561</sup>

Flute, Boehm 1847 system, cocus. Dayton C. Miller Flute Collection, no. 833.<sup>562</sup>

Flute, Boehm 1847 system, silver. Victoria and Albert Museum, no. 22/9.<sup>563</sup>

Flute, Boehm 1847 system, silver. Dayton C. Miller Flute Collection, no. 5.<sup>564</sup>

Flute, Boehm 1847 system, silver. Dayton C. Miller Flute Collection, no. 432.<sup>565</sup>

Flute, Boehm 1847 system, silver. Dayton C. Miller Flute Collection, no. 531.<sup>566</sup>

Flute, Boehm 1847 system, silver. Klaus Nitschke Collection (Cologne).<sup>567</sup>

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<sup>551</sup>Gilliam and Lichtenwanger, p. 91.

<sup>552</sup>*Ibid.*, p. 97.

<sup>553</sup>Ridley, pp. 20-21.

<sup>554</sup>Dick and Myers, p. 22; Myers, Vol. 1, p. 69; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>555</sup>Gilliam and Lichtenwanger, p. 11.

<sup>556</sup>*Ibid.*, p. 20.

<sup>557</sup>*Ibid.*, p. 45.

<sup>558</sup>Shorey, 1990 Catalog of Flutes, p. 37.

<sup>559</sup>Montagu, Bate Collection, p. 8.

<sup>560</sup>*Ibid.*, p. 8.

<sup>561</sup>Dick and Myers, p. 23; Myers, Vol. 1, p. 69; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>562</sup>Gilliam and Lichtenwanger, p. 60.

<sup>563</sup>Victoria and Albert Museum, Catalogue, Vol. 2, p. 91.

<sup>564</sup>Gilliam and Lichtenwanger, p. 1.

<sup>565</sup>*Ibid.*, p. 31.

<sup>566</sup>*Ibid.*, p. 38.

<sup>567</sup>Spohr, pp. 58-59.

- Flute, Carte 1867 system, cocus. Bate Collection, no. 1067.<sup>568</sup>
- Flute, Carte 1867 system, cocus. Bate Collection, no. x1094.<sup>569</sup>
- Flute, Carte 1867 system, cocus. Royal College of Music Museum, no. 326 FL/37.<sup>567</sup>
- Flute, Carte 1867 system, cocus. Dayton C. Miller Flute Collection, no. 340.<sup>568</sup>
- Flute, Carte 1867 system, cocus. Dayton C. Miller Flute Collection, no. 581.<sup>569</sup>
- Flute, Carte 1867 system, cocus. Private Collection (Frankfurt).<sup>570</sup>
- Flute, Carte 1867 system, cocus. Shorey, 1983 catalog.<sup>571</sup>
- Flute, Carte 1867 system, cocus. Shorey, 1990 catalog, no. 542.<sup>572</sup>
- Flute, Carte 1867 system, boxwood. Heinz Prager Collection, Munich.<sup>573</sup>
- Flute, Carte 1867 system, ebonite. Victoria and Albert Museum, no. 22/8.<sup>574</sup>
- Flute, Carte 1867 system, ebonite. Edinburgh University Collection, no. 3119.<sup>575</sup>
- Flute, Carte 1867 system, plated alloy. Bate Collection, no. 160.<sup>576</sup>
- Flute, Carte 1867 system, silver. Edinburgh University Collection, no. 2839.<sup>577</sup>
- Flute, Carte 1867 system, silver. Stuart-Morgan Vance Collection.<sup>578</sup>
- Flute, Carte 1867 system. Bate Collection, no. x1055.<sup>579</sup>
- Flute, Carte 1867 system. Eddy Collection, no. 33.<sup>580</sup>
- Flute, Rockstro's model, ebonite. Dayton C. Miller Flute Collection, no. 4.<sup>581</sup>
- Flute, Rockstro's model, ebonite. Dayton C. Miller Flute Collection, no. 768.<sup>582</sup>
- Flute, Rockstro's model, ebonite. Private Collection (Frankfurt).<sup>583</sup>
- Flute, Rockstro's model, cocus. Bate Collection, no. x128.<sup>584</sup>

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<sup>568</sup>Montagu, Bate Collection, p. 9.

<sup>569</sup>*Ibid.*

<sup>567</sup>Ridley, p. 21.

<sup>568</sup>Gilliam and Lichtenwanger, p. 24.

<sup>569</sup>*Ibid.*, p. 41.

<sup>570</sup>Spohr, pp. 38-39.

<sup>571</sup>Shorey, 1983 Sale Catalog, pp. 18-19.

<sup>572</sup>Shorey, 1990 Catalog of Flutes, p. 29.

<sup>573</sup>Schmid, pp. 125-127.

<sup>574</sup>Victoria and Albert Museum, Catalogue, Vol. 2, p. 91.

<sup>575</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>576</sup>Baines, Bate Collection, p. 11; Montagu, Bate Collection, p. 8; Bate, Plate 8.

<sup>577</sup>Myers, Vol. 1, p. 70; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>578</sup>Vance, p. 99.

<sup>579</sup>Montagu, Bate Collection, p. 8.

<sup>580</sup>New York Flute Club, no. IV-11.

<sup>581</sup>Gilliam and Lichtenwanger, p. 1.

<sup>582</sup>*Ibid.*, p. 55.

<sup>583</sup>Spohr, pp. 38-39.

<sup>584</sup>Baines, Bate Collection, p. 11; Montagu, Bate Collection, p. 8.

- Flute, Rockstro's model, silver. Dayton C. Miller Flute Collection, no. 165.<sup>585</sup>
- Flute, Radcliff system, cocus. Edinburgh University Collection, no. 2555.<sup>586</sup>
- Flute, Radcliff system, cocus. Edinburgh University Collection, no. 2556.<sup>587</sup>
- Flute, Radcliff system, cocus. Dayton C. Miller Flute Collection, no. 234.<sup>588</sup>
- Flute, Radcliff system, rosewood. Royal College of Music Museum, no. 326 FL/34.<sup>589</sup>
- Flute, Radcliff system, ebonite. Private Collection (Frankfurt).<sup>590</sup>
- Flute, Radcliff system, ebonite. Shorey, 1990 catalog, no. 544.<sup>591</sup>
- Flute, Radcliff system. Bate Collection, no. x107.<sup>592</sup>
- Flute, Radcliff system. Stuart-Morgan Vance Collection.<sup>593</sup>
- Flute, Martin Model (elaboration of Radcliff system), plated metal. Bate Collection, no. x109.<sup>594</sup>
- Flute, Clinton Equisonant type. Glennis Stout Collection.<sup>595</sup>
- Flute, Welch's model, ebonite. Dayton C. Miller Flute Collection, no. 320.<sup>596</sup>
- Flute, Welch's model, ebonite. Dayton C. Miller Flute Collection, no. 342.<sup>597</sup>
- Piccolo in D $\flat$ , six keys, black wood. Edinburgh University Collection, no. 2739.<sup>598</sup>
- Piccolo, Boehm system, cocus. Edinburgh University Collection, no. 2308.<sup>599</sup>
- Piccolo, Boehm system, cocus. Dayton C. Miller Flute Collection, no. 81.<sup>600</sup>
- Piccolo, Boehm system, ebonite. Edinburgh University Collection, no. 2309.<sup>601</sup>
- Piccolo, Carte 1867 system, plated metal. Bate Collection, no. 196.<sup>602</sup>
- Piccolo, Carte 1867 system, rosewood. Munich Stadtmuseum, no. 81-46.<sup>603</sup>

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<sup>585</sup>Gilliam and Lichtenwanger, p. 12.

<sup>586</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>587</sup>Myers, Vol. 1, p. 70; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>588</sup>Gilliam and Lichtenwanger, p. 17; Toff, p. 118.

<sup>589</sup>Ridley, p. 21.

<sup>590</sup>Spohr, pp. 42-43.

<sup>591</sup>Shorey, 1990 Catalog of Flutes, p. 39.

<sup>592</sup>Baines, Bate Collection, p. 11.

<sup>593</sup>Vance, p. 103.

<sup>594</sup>Baines, Bate Collection, p. 11; Montagu, Bate Collection, p. 8.

<sup>595</sup>Vance, p. 105.

<sup>596</sup>Gilliam and Lichtenwanger, p. 23.

<sup>597</sup>Toff, p. 119.

<sup>598</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

<sup>599</sup>*Ibid.*

<sup>600</sup>Gilliam and Lichtenwanger, p. 6.

<sup>601</sup>Myers, Vol. 2, Part D, Fascicle ii, file UCTD2P.

<sup>602</sup>Baines, Bate Collection, p. 14; Montagu, Bate Collection, p. 6.

<sup>603</sup>Schmid, pp. 126-128.

- Piccolo, Carte 1867 system. Stuart-Morgan Vance Collection.<sup>604</sup>  
 Piccolo, Carte 1867 system, cocus. Shorey, 1990 catalog, no. 543.<sup>605</sup>  
 Flute in high G, Boehm system, cocus. Dayton C. Miller Flute Collection, no. 1037.<sup>606</sup>  
 Flute in D♭, eight keys, cocus. Metropolitan Museum of Art (New York), no. 1976.7.4.<sup>607</sup>  
 Alto flute, Carte 1867 system, silver. Stuart-Morgan Vance Collection.<sup>608</sup>  
 Tenor flute in A♭, six keys, cocus. Bate Collection, no. x124.<sup>609</sup>  
 Flute in low G, Boehm system, silver. Dayton C. Miller Flute Collection, no. 6.<sup>610</sup>  
 Bass flute, cylindrical Boehm, plated metal. Bate Collection, no. 1012.<sup>611</sup>

### Joseph Wallis & Son

*This list is limited to Giorgi patent flutes. A number of Wallis's ordinary simple system flutes of various sizes, with one, four, or eight keys, also survive.*

- Flute, Giorgi patent, keyless, ebonite. Bate Collection, no. 1020.<sup>612</sup>  
 Flute, Giorgi patent, keyless. Edinburgh University Collection, no. 2300.<sup>613</sup>  
 Flute, Giorgi patent, keyless, ebonite. Dayton C. Miller Flute Collection, no. 112.<sup>614</sup>  
 Flute, Giorgi patent, keyless, ebonite. Andreas Masel Collection (Munich).<sup>615</sup>  
 Flute, Giorgi patent, keyless, ebonite. Sotheby's auction, 22 November 1984.<sup>616</sup>  
 Flute, Giorgi patent, keyless, ebonite. Sotheby's auction, 29 September 1983.<sup>617</sup>  
 Flute, Giorgi patent, keyless, ebonite. Sotheby's auction, 7 April 1983.<sup>618</sup>  
 Flute, Giorgi patent, keyless, ebonite. Sotheby's auction, 9 October 1981.<sup>619</sup>

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<sup>604</sup>Vance, p. 101.  
<sup>605</sup>Shorey, 1990 Catalog of Flutes, p. 29.  
<sup>606</sup>Gilliam and Lichtenwanger, p. 72.  
<sup>607</sup>Metropolitan Museum of Art, Department of Musical Instruments, Checklist, p. 8.  
<sup>608</sup>Vance, p. 102.  
<sup>609</sup>Baines, Bate Collection, p. 16; Montagu, Bate Collection, p. 9.  
<sup>610</sup>Gilliam and Lichtenwanger, p. 1.  
<sup>611</sup>Baines, Bate Collection, p. 16; Montagu, Bate Collection, p. 9.  
<sup>612</sup>Baines, Bate Collection, p. 17; Montagu, Bate Collection, p. 9; Montagu, World of Romantic, p. 49.  
<sup>613</sup>Myers, Vol. 1, p. 71; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.  
<sup>614</sup>Gilliam and Lichtenwanger, p. 8; Toff, p. 100.  
<sup>615</sup>Spohr, pp. 46-47.  
<sup>616</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 22 November 1984... (London: Sotheby's, 1984), Lot 202.  
<sup>617</sup>Musical Instruments: ...Day of Sale, Thursday, 29th September 1983... (London: Sotheby Parke Bernet, 1983), Lot 32.  
<sup>618</sup>Highly Important Musical Instruments, Part II: ...Day of Sale, Thursday, 7th April 1983... (London: Sotheby Parke Bernet, 1983), Lot 232.  
<sup>619</sup>Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 45.

- Flute, Giorgi patent, keyless, ebonite. Sotheby's auction, 18 September 1980.<sup>620</sup>
- Flute, Giorgi patent, one key (for left hand index finger middle joint), ebonite. Bate Collection, no. 1021.<sup>621</sup>
- Flute, Giorgi patent, one key (for left hand index finger middle joint), ebonite. Sotheby's auction, 13 November 1987.<sup>622</sup>
- Flute, Giorgi patent, three keys, ebonite. Bate Collection, no. 1068.<sup>623</sup>
- Flute, Giorgi patent, three keys, ebonite. Dayton C. Miller Flute Collection, no. 481-A.<sup>624</sup>
- Flute, Giorgi patent, three keys, ebonite. Dayton C. Miller Flute Collection, no. 481-B.<sup>625</sup>
- Flute, Giorgi patent, three keys, ebonite. Sotheby's auction, 13 November 1987.<sup>626</sup>
- Flute, Giorgi patent, three keys, ebonite. Sotheby's auction, 22 November 1984.<sup>627</sup>
- Flute, Giorgi patent, three keys, ebonite. Phillips auction, 9 March 1978.<sup>628</sup>
- Flute, Giorgi patent, Pratten system keywork, ebonite. Edinburgh University Collection, no. 56.<sup>629</sup>
- Six Giorgi flutes. Horniman Museum and Library.<sup>630</sup>
- Flute, Giorgi patent. Maidstone Museum & Art Gallery (Maidstone, Kent).<sup>631</sup>
- Piccolo, Giorgi patent, six keys, cocus and ebonite. Dayton C. Miller Flute Collection, no. 402.<sup>632</sup>

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<sup>620</sup>Musical Instruments: ...Day of Sale, Thursday, 18th September 1980... (London: Sotheby Parke Bernet, 1980), Lot 28.

<sup>621</sup>Baines, Bate Collection, p. 17; Montagu, Bate Collection, p. 9.

<sup>622</sup>Early Musical Instruments: ...Day of Sale, Friday 13th November 1987... (London: Sotheby's, 1987), Lot 262.

<sup>623</sup>Montagu, Bate Collection, p. 9.

<sup>624</sup>Gilliam and Lichtenwanger, p. 35; Toff, p. 102.

<sup>625</sup>Gilliam and Lichtenwanger, p. 35.

<sup>626</sup>Early Musical Instruments: ...Day of Sale, Friday, 13th November 1987... (London: Sotheby's, 1987), Lot 409.

<sup>627</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 22 November 1984... (London: Sotheby's, 1984), Lot 244.

<sup>628</sup>Old and Modern Violins, Violas and Violoncellos...[and] a Collection of Flutes and Flageolets...to be Sold by Auction on Thursday March 9th 1978... (London: Phillips, Son & Neale, 1978), Lot 68.

<sup>629</sup>Dick and Myers, p. 23; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2N.

<sup>630</sup>Bevan, p. 61.

<sup>631</sup>*Ibid.*, p. 70.

<sup>632</sup>Gilliam and Lichtenwanger, p. 29.

**Cornelius Ward**

- Flute, eight keys, ivory. Sotheby's auction, 8 November 1979.<sup>633</sup>
- Flute, Ward's (first) system, cocus. Bate Collection, no. 163.<sup>634</sup>
- Flute, Ward's (first) system, cocus. Bate Collection, no. 168.<sup>635</sup>
- Flute, Ward's system, rosewood. Royal College of Music Museum, no. 326 FL/27.<sup>636</sup>
- Flute, Ward's system, blackwood. Edinburgh University Collection, no. 46.<sup>637</sup>
- Flute, Ward's system, cocus. Dayton C. Miller Flute Collection, no. 44.<sup>638</sup>
- Flute, Ward's system, rosewood. Dayton C. Miller Flute Collection, no. 572.<sup>639</sup>
- Flute, Ward's system, cocus. Dayton C. Miller Flute Collection, no. 1137.<sup>640</sup>
- Flute, Ward's system, rosewood. Dayton C. Miller Flute Collection, no. 1197.<sup>641</sup>
- Flute, Ward's system. Dayton C. Miller Flute Collection, no. 1260.<sup>642</sup>
- Flute, Ward's system, cocus. Royal Military Exhibition, no. 98.<sup>643</sup>
- Flute, Ward's system, cocus. Royal Military Exhibition, no. 99.<sup>644</sup>
- Flute, Ward's system, cocus. Sotheby's auction, 29 September 1983.<sup>645</sup>
- Flute, 1832 Boehm system, cocus. Bate Collection, no. 1023.<sup>646</sup>

**Charles Wigley**

*In addition, a number of alto and bass flutes by Wigley & McGregor survive.*

- Flute, four keys, boxwood. Sotheby's auction, 23 September 1982.<sup>647</sup>
- Flute, six keys, boxwood. Royal College of Music Museum, no. 326 FL/15.<sup>648</sup>

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<sup>633</sup>The James MacGillivray Collection of Woodwind Instruments: ...Day of Sale, Thursday, 8th November, 1979... (London: Sotheby Parke Bernet, 1979), Lot 7.

<sup>634</sup>Baines, Bate Collection, pp. 11-12; Montagu, Bate Collection, p. 9; Montagu, Flute, p. 20; Bate, Plate 9.

<sup>635</sup>Baines, Bate Collection, p. 12; Montagu, Bate Collection, p. 9.

<sup>636</sup>Ridley, p. 19.

<sup>637</sup>Dick and Myers, p. 20; Myers, Vol. 1, pp. 70-72; Myers, Vol. 2, Part D, Fascicle ii, file UCTD2M.

<sup>638</sup>Gilliam and Lichtenwanger, p. 3; Toff, p. 89.

<sup>639</sup>*Ibid.*, p. 41

<sup>640</sup>*Ibid.*, p. 79.

<sup>641</sup>*Ibid.*, p. 83.

<sup>642</sup>*Ibid.*, p. 87; Toff, p. 89.

<sup>643</sup>Day, p. 43.

<sup>644</sup>*Ibid.*, 44.

<sup>645</sup>Musical Instruments: ...Day of Sale, Thursday, 29th September 1983... (London: Sotheby Parke Bernet, 1983), Lot 22.

<sup>646</sup>Baines, Bate Collection, p. 12; Montagu, Bate Collection, p. 9.

<sup>647</sup>Musical Instruments: ...Day of Sale, Thursday, 23rd September 1982... (London: Sotheby Parke Bernet, 1982), Lot 2.

<sup>648</sup>Ridley, p. 15.

Flute, six keys, boxwood. Sotheby's arcade auction, 14 June 1983.<sup>649</sup>

Flute, six keys, ivory. Sotheby's auction, 30 April 1987.<sup>650</sup>

Flute, six keys, ivory. Sotheby's auction, 13 June 1983.<sup>651</sup>

Flute, eight keys, boxwood. Sotheby's arcade auction, 14 June 1983.<sup>652</sup>

Flute, eight keys, ivory. Adam Carse Collection, no. 265.<sup>653</sup>

### **Willis & Goodlad**

*In addition, a number of flutes by Willis and by Goodlad & Co. are extant.*

Flute, four keys, boxwood. Sotheby's auction, 9 October 1981.<sup>654</sup>

Flute, four keys, boxwood. Phillips auction, 10 March 1977.<sup>655</sup>

Flute, eight keys, rosewood. Dayton C. Miller Flute Collection, no. 1273.<sup>656</sup>

Flute, eight keys, cocus. Sotheby's auction, 3 April 1985.<sup>657</sup>

Flute, eight keys, rosewood. Sotheby's auction, 23 October 1975.<sup>658</sup>

### **James Wood**

*Numerous other flutes by James Wood & Son, George Wood, and Wood & Ivy also survive.*

Flute, five keys, ebony. Bate Collection, no. 137.<sup>659</sup>

Flute, five keys, boxwood. Royal College of Music Museum, no. 326 FL/13.<sup>660</sup>

Flute, five keys, boxwood. Dayton C. Miller Flute Collection, no. 1290.<sup>661</sup>

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<sup>649</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 173.

<sup>650</sup>Musical Instruments: ...Day of Sale, Thursday, 30th April 1987... (London: Sotheby's, 1987), Lot 208.

<sup>651</sup>Important Musical Instruments: Auction, Monday, June 13, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 255.

<sup>652</sup>Sotheby's Arcade Auctions: ...Public Auction, Tuesday, June 14, 1983... (New York: Sotheby Parke Bernet, 1983), Lot 134.

<sup>653</sup>Horniman Museum and Library, Adam Carse Collection, p. 27.

<sup>654</sup>Important Early Musical Instruments: ...Day of Sale, Friday, 9th October 1981... (London: Sotheby Parke Bernet, 1981), Lot 97.

<sup>655</sup>Old and Modern Violins, Violas and Violoncellos...[and] Antique Wood Wind Instruments...to be Sold by Auction on Thursday March 10th 1977... (London: Phillips, Son & Neale, 1977), Lot 11.

<sup>656</sup>Gilliam and Lichtenwanger, p. 88.

<sup>657</sup>Highly Important Musical Instruments: ...Day of Sale, Wednesday, 3rd April 1985... (London: Sotheby's, 1985), Lot 220.

<sup>658</sup>Good Musical Instruments: ...Day of Sale, Thursday, 23rd October, 1975... (London: Sotheby Parke Bernet, 1975), Lot 18.

<sup>659</sup>Baines, Bate Collection, p. 8; Montagu, Bate Collection, p. 9; Bate, Plate 6.

<sup>660</sup>Ridley, p. 14.

<sup>661</sup>Gilliam and Lichtenwanger, p. 89.

- Flute, six keys, ebony. Sotheby's auction, 27 March 1981.<sup>662</sup>
- Flute, seven keys, boxwood. Christie's auction, 2 June 1982.<sup>663</sup>
- Flute, seven keys, boxwood. Sotheby's auction, 17 July 1975.<sup>664</sup>
- Flute, seven keys, ebony. Bate Collection, no. 1071.<sup>665</sup>
- Flute, seven keys, ebony. Made for Music, no. 65.<sup>666</sup>
- Flute, seven keys, ebony. Sotheby's auction, 22 November 1984.<sup>667</sup>
- Flute, seven keys, ebony. Adam Carse Collection, no. 67.<sup>668</sup>
- Flute, seven keys, ebony. Adam Carse Collection, no. 8.<sup>669</sup>
- Flute, seven keys, rosewood. Sotheby's auction, 13 November 1987.<sup>670</sup>
- Flute, seven keys, satinwood. Dayton C. Miller Flute Collection, no. 1156.<sup>671</sup>
- Flute, eight keys, cocus. Bate Collection, no. 136.<sup>672</sup>
- Flute, eight keys, ivory. Royal College of Music Museum, no. 64.<sup>673</sup>
- Flute, eight keys, ivory. Dayton C. Miller Flute Collection, no. 453.<sup>674</sup>
- Flute, eight keys, ivory. Royal Military Exhibition, no. 72.<sup>675</sup>
- Flute, eight keys, ebony. Dayton C. Miller Flute Collection, no. 343.<sup>676</sup>
- Flute in A, five keys, ivory. Dayton C. Miller Flute Collection, no. 902.<sup>677</sup>
- Flute in A $\flat$ , five keys, boxwood. Edinburgh University Collection, no. 1600.<sup>678</sup>

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<sup>662</sup>Important Musical Instruments: ...Day of Sale, Friday, 27th March 1981... (London: Sotheby Parke Bernet, 1981), Lot 12.

<sup>663</sup>Important Musical Instruments and Printed Music...which will be Sold at Auction...on Wednesday 2 June 1982... (London: Christie, Manson & Woods, 1982), Lot 50.

<sup>664</sup>Important Musical Instruments: ...Day of Sale, Thursday, 17th July, 1975... (London: Sotheby & Co., 1975), Lot 13.

<sup>665</sup>Montagu, Bate Collection, p. 9.

<sup>666</sup>Made for Music, no 65.

<sup>667</sup>Highly Important Musical Instruments: ...Day of Sale, Thursday, 22 November 1984... (London: Sotheby's, 1984), Lot 139.

<sup>668</sup>Horniman Museum and Library, Adam Carse Collection, p. 26.

<sup>669</sup>*Ibid.*, p. 27.

<sup>670</sup>Early Musical Instruments: ...Day of Sale, Friday 13 November 1987... (London: Sotheby's, 1987), Lot 311.

<sup>671</sup>Gilliam and Lichtenwanger, p. 80.

<sup>672</sup>Baines, Bate Collection, p. 8; Montagu, Bate Collection, p. 9.

<sup>673</sup>Ridley, p. 16.

<sup>674</sup>Gilliam and Lichtenwanger, p. 33.

<sup>675</sup>Day, p. 36.

<sup>676</sup>*Ibid.*, p. 24.

<sup>677</sup>*Ibid.*, p. 64.

<sup>678</sup>Dick and Myers, p. 24; Myers, Vol. 2, Part D, Fascicle ii, file UCTD21.



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