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The English Triple Flageolet

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The first organological description of a flageolet was given by Marin Mersenne in his *Harmonie Universelle* of 1636.¹ Mersenne described a small (110–120 mm) duct flute with four finger- and two thumb-holes. This type, played and produced in France and England prior to the nineteenth century, eventually became known as the French flageolet. The term distinguished it from a later English type, initially similar to a recorder in having seven tone-holes and a thumb-hole; it also had a windcap containing a sponge to absorb moisture from the player's breath.² In 1803 the London maker William Bainbridge (fl1802–d1830) registered a patent for improvements to the flageolet, designing an instrument with d' notated as the six-finger note, after the fashion of the German or transverse flute. The "octave" size sounded an octave above notated pitch, the "tenor" size a fifth above notated pitch. In the following discussion, tone-hole names are discussed without octave designations, in conformity with maker's labels stamped into the flageolet's body.

Bainbridge also changed the bore and enlarged the fifth tone-hole to eliminate the need for fork-fingering in sounding the third degree of the scale.³ The first tone-hole was partially plugged to enable it to function as an octaving hole, and the thumb-hole was used only for C-sharp. The changes made by Bainbridge, in what became known as the "improved octave flageolet," simplified fingering for what was essentially an amateur's instrument, and also enabled the development of the maker's double flageolet and subsequently the triple flageolet.

The Double Flageolet

The Welsh bandmaster John Parry played on two single flageolets fixed together on a frame in 1804 "and shortly afterwards he added a third, and played 'Here's a health to all good lasses' in three distinct

1. Marin Mersenne, *Harmonie Universelle* (Paris, 1636), 234–6. Trans. R. E. Chapman as *Harmonie Universelle: The Books on Wind Instruments* (The Hague: Martinus Nijhoff, 1957), 301–03.

2. By the end of the eighteenth century, the soprano recorder was virtually extinct, although altos continued to be made, albeit in very small numbers.

3. William Bainbridge, British Patent No. 2693, 2 April 1803.

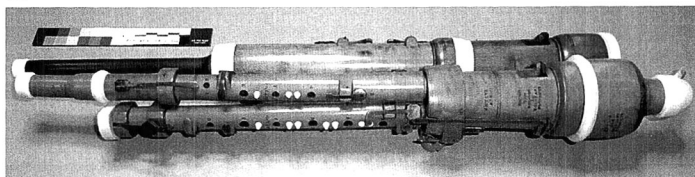
parts, at Covent Garden Theatre," presenting at least the concept of the double and triple flageolets to the public.⁴ Bainbridge subsequently developed his double flageolet, which consisted of two parallel pipes deriving their wind source from a common stock, which contained the block and labium assemblies. The instrument was fitted with up to thirteen keys. The technique of playing the double flageolet also applies to the right- and left-hand pipes of the triple. Either pipe could be silenced by a "wind-cutter" key, and the left-hand pipe functioned as a solo flageolet when the right-hand pipe was silenced.

Bainbridge designed the octave flageolet to play optimally in the key of G (the three-finger note of both pipes), the (transposing) tenor a fourth lower, in the key of D. In simple harmonies, as far as possible, the same fingers of each hand were employed; the fourth finger of the left hand sounded F-sharp on the left pipe (1234 ---), and the fourth finger on the right the note D (1234). Bainbridge's improved fingering removed the necessity for a cross-fingered F-sharp; without this modification the double flageolet could not function, as there would be insufficient fingers available to sound F-sharp with the original fingering of 123 - 56. Using 1234 -- for F-sharp on the left-hand pipe freed the right hand to cover the four holes on the right-hand pipe. Lifting successive fingers gave a scale of five intervals of a third, and by opening the octave key on the right-hand pipe, intervals of a sixth could be sounded by inversion. More advanced players could sound intervals of fourths, fifths, and octaves in addition to thirds and sixths but, inevitably, the fingering became increasingly complex. The problem arises above the fifth note, because at this point the right-hand pipe takes the upper note of the chord and the left-hand, the lower. Opening the octave key on the right-hand pipe gives the octave D and so on up the scale, while the left-hand pipe takes the lower part.

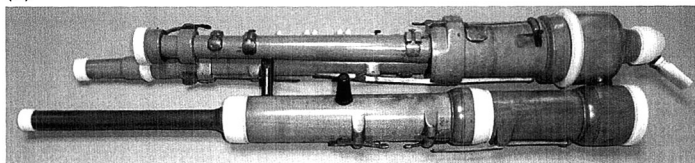
Life now becomes very complex for the double flageolet player, who not only has to handle different fingerings for each pipe, but also has to consider which pipe plays the upper note—a practice known as "hand-changing." I am inclined to think that this complexity is why so many double flageolets survive in excellent condition; the instrument seemed an attractive proposition but was too difficult for many amateurs. It is appropriate to note that, despite the stamp "PATENT" on most of his instruments, Bainbridge never registered a patent for the double flageolet (fig.1).

4. John Parry, "On Flageolets," *The Harmonicon*, part 1 (1830), 500.

(a)



(b)



FIGURES 2a–b. Triple flageolet by Bainbridge, Royal College of Music 0409; (a) front and (b) rear views. (photos: author).

The trio flageolet. Within these few years Mr. Bainbridge has added a bass joint to his double flageolet, the compass of which is from *g* to *e'* [illustrated in staff notation] and the tone resembling the lower notes on the German flute. The effect produced by the combination of three notes is very good and mellifluous. The bass joint is fixed at the back of the double flageolet; and the breath is conveyed by means of a tube; and by the introduction of what are termed stop keys [wind-cutters], a *solo*, *duet*, or *trio* may be instantaneously performed. The bass notes are produced by keys, pressed with the thumb of the left hand. [example of music—see below] This instrument being purely *English*, I consider it deserving of being recorded, as a very ingenious invention.⁹

The instrument never attained widespread popularity and only twelve examples survive (figs. 2a, 2b; appendix).

Like double flageolets, triple flageolets may be of octave or tenor size, the latter being more common. To aid the beginner, the note letters and appropriate finger numbers are often stamped beside the tone-holes and keys, and ivory spacing studs may be fitted to guide the fingers. Tenor instruments are transposing, the note sounded being a fourth below the note letter stamped beside the tone-hole.

9. Parry, *The Harmonicon*, 500.

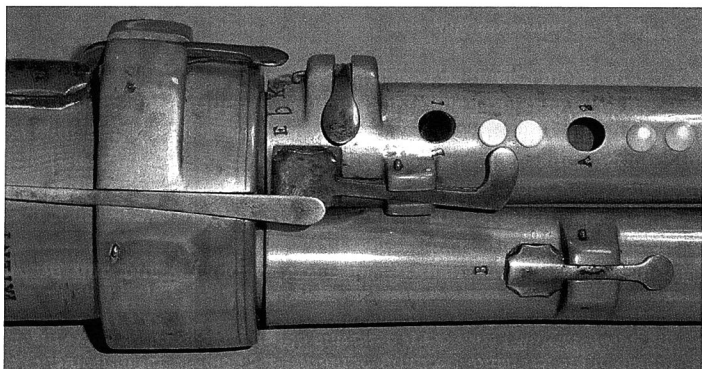


FIGURE 3. The stock and upper pipes of RCM 0409. The new C key is seen above the long touch for the windcutter; the partially-plugged first tone-hole, note letters and numbers beside the holes and keys and the ivory spacing studs (two broken) are shown. (photo: author).

Structure of the Instrument: Left-Hand and Right-Hand Pipes

The two melodic pipes resemble the standard Bainbridge double flageolet, with *d'* (notated) as the lowest note on both pipes. The right-hand pipe has four tone-holes, the left, six; there are no thumb-holes, this member being required to operate the wind-cutter mechanism or the keys on the third pipe (see below). The right-hand pipe has four or five keys, the left has between three and seven, and again, the pattern replicates the double flageolet; the sounding length of the left-hand pipe is approximately 330 mm on tenor instruments. Both pipes are fitted with wind-cutters.¹⁰ Some instruments (both octave and tenor) have an extended foot-joint on the right-hand pipe, extending the lower range of the instrument to B, with a sounding length of approximately 390 mm (fig. 2). All the surviving instruments have a “New C Key” on the stock, three also bearing a “New D Key”; these keys are opened to facilitate the highest notes, and are analogous to the *sifflot* key on the French flageolet (fig. 3).

10. Douglas MacMillan, “The Flageolet in England 1800–1900: the Instrument, Its Music, and Social Context,” unpublished DMus diss. (Royal College of Music, London, 2013), 129–33.

One instrument by Bainbridge has an unusual arrangement of only three tone-holes on the left-hand pipe, brass keys being provided for the notes of C-sharp, C, E, and F-sharp, as well as the standard keys for D-sharp, F, high D, and high E-flat.¹¹ This instrument appears to have been exhibited at the Royal Military Exhibition in 1890, the catalog describing "the usual five flat brass keys," although these keys appear to be unique to this flageolet.¹² The lowest notes of the three pipes are given in the catalogue as d", b', and g'.

The Third Pipe

The standard cap and windcap of a double flageolet was sometimes modified to permit the fitting of a tube to convey wind to the third pipe; three of the triple flageolets described in the following checklist appear to have been converted from doubles by such a modification.¹³ The third pipe terminates in a screw-in support which rests on the player's knee when playing seated; some instruments have holes through which a cord may be passed to stabilize the three pipes while playing, and a wind-cutter is fitted (fig. 4).

Although the standard pipes of the double flageolet are retained on the triple, the third pipe functions on an altogether different principle, obtaining its wind supply from a duct attached to the side of the windcap above the stock, and functioning, like the ocarina, as a Helmholtz resonator.¹⁴ The pitch of any note, altered by opening or closing tone holes, is dependent not upon the position of the holes but upon the size of the holes and the number open at any time. In the case of the ocarina or the third pipe of the triple flageolet, the tone is produced by means of a block and labium assembly; as a stopped pipe, it sounds an octave lower than an open pipe of similar dimensions.

The fundamental note of the one triple flageolet I have been able to sound is G, and all the triple flageolets I have studied have keys on the

11. GB-London-H 2004.835.

12. C. R. Day, *A Descriptive Catalogue of the Musical Instruments Recently Exhibited at the Royal Military Exhibition, London, 1890* (London: Eyre & Spottiswoode, 1891), 21-22.

13. US-DC-Washington 0721; US-DC-Washington 1170; GB-Brighton MS100162.

14. The Helmholtz resonator is classified as a vessel flute, functioning as a gas chamber with a sound generator, the tone sounded being dependent upon the ratio of surface area to the cubic volume of air in the vessel. The simplest example of a Helmholtz resonator is given by the sound produced when blowing across the top of an empty bottle; the edge tone thus produced is amplified and resonates within the bottle.

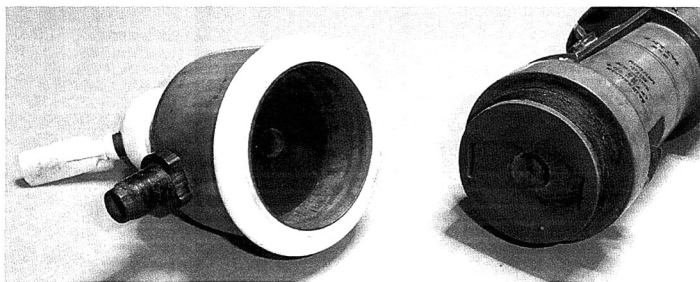


FIGURE 4. The windcap (left) and stock of RCM 0409; the (chipped) duct which conveys the wind to the third pipe is seen on the left, and the slightly-hollowed top of the stock is seen on the right. The hollow is to provide a reservoir for moisture and this minimize clogging of the windways. (photo: author).

third pipe for the notes A, B, C, and D, operated by the left thumb.¹⁵ Some instruments also have an elevated closed hole for F, operated by the little finger of the left hand. A wind-cutter is fitted to occlude the third pipe as required. Parry, in his letter to *The Harmonicon* in 1830, gives the compass of the third pipe as being from g to e', but clearly this could be extended to f' when the elevated hole is fitted.

The fingering is logical. The fundamental note g is produced without keys, the subsequent notes of A, B, C, and D being sounded by opening the appropriate key. When the C and D keys are opened together, the note E sounds. In the normal playing position, the F hole is closed, but when opened in conjunction with the C and D keys, the note F is sounded. Waterhouse adds: "When opened simultaneously in different combinations a part-chromatic range of nearly an octave (*doh* to *si*) can be obtained".¹⁶ The triple flageolet may be played with the third pipe silenced by the wind-cutter, and, in this configuration, does not differ from the standard double flageolet (fig. 5).

Use of the Third Pipe

Hunt asserted that the third pipe was used as a drone, while Waterhouse, quoted above, suggested that the pipe may play almost an

15. RCM 0409.

16. Waterhouse, "The Double Flageolet," 180, note 23.

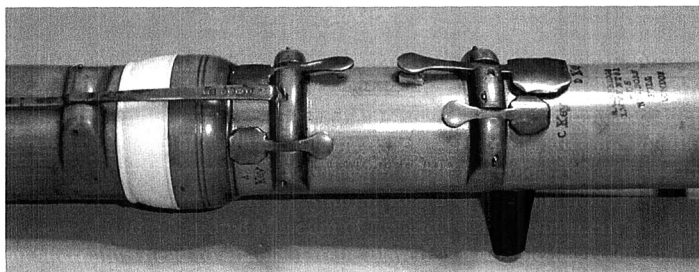


FIGURE 5. Four keys on the third pipe of RCM 0409. The long touch on the left of the image is the wind-cutter and the elevated f hole is seen in the center below the C key. (photo: author).

octave of notes.¹⁷ Elementary players probably settled for the simple expedient of a drone bass, but as only two pieces of music for the instrument have survived, this must remain a matter of conjecture. The common keys for flageolet music were G and D major, and the notes available on the third pipe would provide tonic and dominant drones in each of these keys. A tonic drone is available in the less-commonly used key of C, a dominant drone requiring G a fourth lower. Those instruments furnished with an F-natural hole could play a drone in that key, again with an inverted dominant. The notes of A, B, and E are also available, but these keys were seldom utilized in flageolet music. Parry's article in *The Harmonicon* illustrates an eight-bar extract in 6/8 time, the bass usually moving in dotted eighths but with a short passage in sixteenths (fig. 6).¹⁸

A further piece by Parry appears in his *Exercises and Duets* for the double flageolet (ca.1821). Unlike the single, double, and flute-flageolets, no treatises were published for the triple: the instrument is difficult to play and would probably have been considered to be beyond the competence of most amateurs. Very few triple flageolets were made, and the publication of a treatise would hardly have been a commercially viable proposition.

17. E. H. Hunt, "The Double Flageolet," *Recorder and Music*, 5/10 (1977), 323.

18. © The British Library, shelfmark R.M.8.a.4.

The image displays a musical score for a triple flageolet, consisting of two staves and three systems of music. The key signature is one sharp (F#) and the time signature is 6/8. The first system is marked *Andante.* and begins with a piano (*p*) dynamic. The second system includes a *cres.* (crescendo) marking and a boxed-in section of complex chords. The third system features a forte (*f*) dynamic and concludes with a *sc* (scordatura) marking. The notation includes various note values, rests, and dynamic markings.

FIGURE 6. Music example for the triple flageolet from Parry's letter to *The Harmonicon*.

Makers

The only makers of the triple flageolet in England appear to have been William Bainbridge, his successor Henry Hastrick (*f*1832–d1855), and John Simpson (*f*1826–1869), Bainbridge's erstwhile pupil and later son-in-law. It is unlikely that triple flageolets were made after the middle of the century. There is no evidence for triple flageolets being made in Edinburgh, but one triple by Andrew Ellard of Dublin (*f*1818–45) is preserved in the National Museum of Ireland.¹⁹ This instrument also has an alternative head to enable it to be played as a double flageolet, and a further triple flageolet head by Wilkinson and Corcoran (*f* early nineteenth century) is preserved in the same collection.²⁰

Other Forms of Triple Flageolet

Excepting the Irish instruments noted above, there is no evidence to suggest that the Bainbridge-type triple flageolet was built beyond the shores of England.²¹ A variant type of triple flageolet is preserved in the Germanisches Nationalmuseum in Nuremberg.²² The unstamped instrument is of boxwood with ivory mounts and brass keys: the right- and left-hand pipes are similar to the Bainbridge instruments, with four and six tone-holes and two and three keys respectively. The third pipe, however, is a true pipe rather than a Helmholtz resonator, and is furnished with four keys, operated by the player's thumbs. The museum's checklist suggests that the instrument is of English origin, but I am not aware of any other instruments of this pattern.

A separate type of triple flageolet appeared in France during the nineteenth century. These instruments consisted of three pipes fed from a common stock, the center pipe having the standard French flageolet arrangement of four finger-holes and two thumb-holes, while the two outer pipes only function as drones. The instruments measure *ca.*350 mm in length, but very few examples survive (fig. 7).²³

19. Ei–Dublin 226:1944. The head by Wilkinson and Corcoran is un-numbered.

20. Barra Boydell, "The Flageolet in Ireland. Aspects of the Repertoire, the Instrument, and Its Makers," *Irish Musical Studies 1: Music in Ireland* (Dublin: Irish Academic Press, 1990), 150–168.

21. Douglas MacMillan, "The English Flageolet Abroad," *Galpin Society Newsletter* 38 (2014), 4–8.

22. D–Nürnberg MIR 236.

23. US–DC–Washington DCM 0335 (Hippolyte Collin, *ca.*1780–*p*1836); GB–London–RCM 0099 (Laussedat, mid-nineteenth century); F–Paris E.641 (Claude Joseph David, *f*1836–37); F–Paris 2126 (anon).

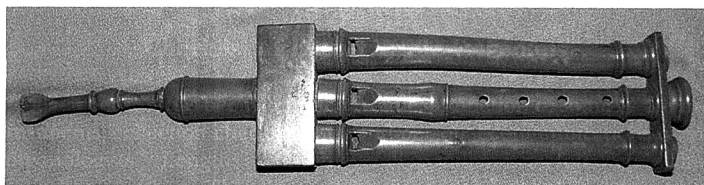


FIGURE 7. Triple flageolet by Laussedat. Royal College of Music Museum, RCM 0099. (Photo: author).

The Decline of the Triple Flageolet

Bainbridge died in 1830. Instruments by Hastrick and Simpson are unlikely to date from before then, even though some collection catalogs ascribe manufacture dates to the first quarter of the century. It is not possible to ascertain the latest date of manufacture of triple flageolets, as the instruments were not numbered. Hastrick lived until 1855, and Simpson until 1869, but no demand for the triple flageolet is evident after the 1840s. There is no mention of triple flageolets in the catalog of the Great Exhibition held in London in 1851.²⁴ A triple flageolet lent by Carl Engel was exhibited in the Loan Exhibition held at the South Kensington (now Victoria and Albert) Museum in 1872, the catalog noting: "Less common than the double flageolet, but equally useless for musical performance in the present day."²⁵ This flageolet is probably the instrument preserved in the Victoria and Albert Museum collection.²⁶ The International Inventions Exhibition of 1885 (held in the Albert Hall, London) contained an "Emmelian or Trio Flageolet" by Bainbridge, which was dated 1830.²⁷ As noted above, a further instrument was displayed at the Royal Military Exhibition of 1890.²⁸

24. Peter and Ann Mactaggart, *Musical Instruments in the 1851 Exhibition* (Welwyn: Mac & Me, 1986).

25. Carl Engel, *A Descriptive Catalogue in the South Kensington Museum*, second ed. (London: Eyre and Spottiswoode, 1874), exhibit 66, 317.

26. GB-London-VA 295.1881.

27. Alfred James Hipkins, *Guide to the Loan Collection And List of Musical Instruments, Manuscripts, Books, Paintings And Engravings, Exhibited In the Gallery and Lower Rooms Of The Albert Hall (1885)* (London: Willam Clowes and Sons, 1885), 52. The word "Emmelian" derives from the Greek *εμμελεις*, meaning "harmony."

28. Day, *A Descriptive Catalogue*, exhibit 41, 21-22.

The appearance of triple flageolets in late nineteenth-century exhibitions suggests that the instrument was of historical rather than practical importance by the 1870s. The notable French flageolet player Hubert Collinet, writing in 1860, castigated the double flageolet: "there was in vogue at one time a Double Flageolet, upon which a Duet *might* have been played by one performer. It is doubtful, however, whether any living being can remember to have heard such an achievement."²⁹ Collinet does not refer to the triple flageolet, but it seems likely that he would have consigned the triple to a similar fate. Christopher Welch, writing in the second edition of *Grove's Dictionary* (1904) noted that "The instrument, although still within the memory of some, have [sic] entirely and most deservedly gone out of use. No music of importance seems to have been composed for them," and by 1907–08 Thomas Lea Southgate noted that he "had never heard one."³⁰

Conclusion

Few triple flageolets survive, and it is apparent that the instrument, after a heyday in the third decade of the nineteenth century, soon faded into a historical curiosity. It is a cumbersome instrument to hold, and much more difficult to play than the already-difficult double flageolet. Its value as an instrument of music was modest, and little music appears to have been written for it. But it was "a very ingenious invention," as John Parry recognized, and "purely English" in its development and manufacture, except for two imitators in Dublin. As a testimony to the ingenuity of an instrument maker, the triple flageolet has few peers within the family of duct flutes.

29. Hubert Collinet, *Collinet's Handbook for the Flageolet* (London: Allen, ca.1860), 2. Italics original.

30. *Grove's Dictionary of Music and Musicians*, second ed. (London: Macmillan, 1904), s.v. Flageolet; Thomas Lea Southgate, "The Evolution of the Flute," *Proceedings of the Musical Association*, 34th session (1907–08), 165.

APPENDIX

Checklist of Extant Triple Flageolets

The checklist has been compiled from examination of some of the instruments, collection checklist data, and personal communications from organologists.³¹ Lengths are given overall in millimeters, followed by the sounding length, measured from labium edge to bell-hole, of the right-hand pipe and left-hand pipe; wc = windcap; wct = wind-cutter.

Data are incomplete for some of the instruments, but the checklist represents the most complete summary of English triple flageolets to date. Collection sigla follow the practice of *The New Langwill Index*. Tone-hole names, often stamped into the wooden body, are uniform across the two sizes of (transposing) flageolets. For ease of reference, a summary table precedes the checklist.

	Collection	Inventory no.	Maker
1	GB-Brighton	MS100162	Bainbridge/Hastrick
2	GB-London-H	2004.835	Bainbridge
3	GB-London -RCM	0409	Bainbridge
4	GB-Waterhouse	70.6	Bainbridge
5	GB-London-VA	295-1882	Hastrick
6	US-MA-Boston	17.1824	Bainbridge
7	US-DC-Washington	0721	Bainbridge
8	US-DC-Washington	1170	Bainbridge
9	US-NY-New York	89.4.902	Simpson
10	US-Coleman	?	Bainbridge
11	US-Sigal	2007.23	Hastrick
12	Ei-Dublin	226:1944	Ellard

1	
TYPE	tenor triple flageolet; extended foot on RH pipe
MAKER	Henry Hastrick, London
DATE	1832-40
LOCATION	GB-Brighton
COLLECTION ID	MS100162
LENGTH	535
MATERIALS	boxwood; 3rd pipe fruitwood
MOUNTS	ivory mounts and spacing-studs

31. I am indebted to Dr. Albert Rice for drawing my attention to the instruments in the Coleman and Sigal collections.

HOLES R PIPE	4+0; stamped with finger numbers and note letters
HOLES L PIPE	6+0; stamped with finger numbers and note letters
HOLES 3rd PIPE	elevated F-hole
KEYS R PIPE	low B (open), low C cross F, B, C (octave); key flaps; wct; brass
KEYS L PIPE	C-sharp (open), D-sharp, cross F, high D, high E-flat; wct
KEY on STOCK	new C key
KEYS on 3rd pipe	A, B, C, D; wct
KEY MOUNTS	wood block
STAMP	on stock: (crown)/WILLIAM/BAINBRIDGE/INVENTOR/35/ HOLBORN/HILL/LONDON/NEW/PATENT on 3rd pipe: HASTRICK/LATE/BAINBRIDGE/INVENTOR/35/ HOLBORN/HILL/LONDON/NEW/PATENT
PROVENANCE	ex Albert C. Spencer
NOTES	ivory mouthpiece; the ebony plug for the first tone-hole is missing, as is the foot-joint of left pipe; the third pipe is of a different wood, and appears to be an addition by Hastrick.
2	
DESCRIPTION	tenor triple flageolet; extended foot on RH pipe
MAKER	William Bainbridge, London
DATE	<i>ca.</i> 1825
LOCATION	GB-London-H
COLLECTION ID	2004.835
LENGTH	530/390/324
MATERIAL	boxwood
MOUNTS	ivory; ivory spacing studs
PIECES	8
HOLES R PIPE	4+0; marked with note letters and numbers
HOLES L PIPE	3+0; holes for LH 1, 2, 3 (note keys); plugged L1
HOLES 3rd PIPE	elevated f-natural hole
KEYS R PIPE	low B (open, R0), low C (open, R4); cross F, B, C (octave, R0); brass; octagonal key flaps; wct
KEYS L PIPE	D-sharp, F, interlocking keys for D, E, F-sharp; E-flat, D (octave); wct
KEYS ON STOCK	new C, new D
KEYS 3rd PIPE	C, D, A, B; wct
KEY MOUNTS	wood block
STAMP	on wc: BAINBRIDGE/INVENTOR/ HOLBORN/HILL on stock; (royal arms)/BAINBRIDGE/INVENTOR/ 35/ HOLBORN / HILL/LONDON/ NEW/PATENT on RH pipe: PATENT on foot (RH): BAINBRIDGE /INVENTOR/ NEW/ PATENT

on head of 3rd pipe: BAINBRIDGE/INVENTOR/
LONDON

on body of 3rd pipe: BAINBRIDGE/INVENTOR
/35/HOLBORN/ HILL/LONDON

PROVENANCE

ex Boosey and Hawkes collection, previously Rudall,
Carte & Co.

NOTES

The interlocking keys on the LH pipe appear to be unique, and were almost certainly a later addition to the instrument. They compromise open keys for D, E, and F-sharp, and are pivoted at the lower end on a brass mount fitted to the foot of the instrument: they are of inferior quality workmanship. All three touches depressed by L4 gives D, and lifting successive fingers gives E and F-sharp. The F-natural key (which would be operated by L4) could not be used with the extra keys, thus restricting the player to music in G or D. There is an added dark wood mount between holes 4 and 5, on which the spring of the d key would have rested (the key, broken off the instrument, is preserved). The F-sharp key has a different key-flap from the D and E keys (which themselves differ from other keys on the instrument) and may represent a poorly executed repair.

The third pipe has a solid foot with a screw fitting to base of the resonating chamber: it is pierced with two holes for cords to stabilize the three pipes together while playing.

This flageolet was almost certainly exhibited at the Royal Military Exhibition of 1890 (exhibit 41), the catalog noting "three long levers, which close the holes of f", e", and d".³² The instrument was lent by Rudall, Carte & Co.

3	
DESCRIPTION	tenor triple flageolet; extended foot on RH pipe
MAKER	William Bainbridge, London
DATE	ca.1825
LOCATION	GB-London-RCM
COLLECTION ID	0409
PITCH	RH and LH pipes a' (marked D)
LENGTH	538/390/330
MATERIAL	boxwood
MOUNTS	ivory; ivory spacing studs
PIECES	8
HOLES R PIPE	4+0; marked with note letters and numbers

32. Day, *A Descriptive Catalogue of the Musical Instruments recently exhibited at the Royal Military Exhibition, London, 1890*, 21–22.

HOLES L PIPE	6+0; plugged L1; marked with note letters and numbers
HOLES 3rd PIPE	elevated f-hole
KEYS R PIPE	low B (open), low C, F, B, C (8ve); silver with octagonal flaps; open keys have round flaps; wct
KEYS L PIPE	C-sharp (open), D-sharp, cross-F, D, E-flat; wct
KEYS ON STOCK	new C key
KEYS 3rd PIPE	C, D, A, B; elevated F-hole; wct
KEY MOUNTS	wood block
STAMP	on wc: BAINBRIDGE/INVENTOR/NEW/PATENT on stock: BAINBRIDGE/INVENTOR/3 /HOLBORN/ HILL / LONDON/ NEW/PATENT NEW C KEY on cap of 3rd pipe: BAINBRIDGE/INVENTOR/ LON- DON on body of 3rd pipe: BAINBRIDGE/INVENTOR/ 35/ HOLBORN/ HILL/LONDON on LH & RH pipes: PATENT
PROVENANCE	ex Hartley
NOTES	windcap very small, perhaps too shallow to contain a sponge; strut on third pipe is a replacement by James Howarth.

4	
DESCRIPTION	tenor triple flageolet; extended foot on RH pipe
MAKER	William Bainbridge, London
DATE	ca.1825
LOCATION	GB-Waterhouse (private collection)
COLLECTION ID	70.6
LENGTH	510/386/338
MATERIAL	boxwood
MOUNTS	ivory
PIECES	7
HOLES R PIPE	4+0; marked with note letters and numbers
HOLES L PIPE	6+0; plugged L1; marked with note letters and numbers
HOLES 3rd PIPE	none
KEYS R PIPE	low B, low C, D-sharp, B, C; ornate square key flaps; wct
KEYS L PIPE	C, D-sharp, long F, G-sharp, B-flat, D, E-flat; wct
KEYS ON STOCK	new C, new D
KEYS 3rd PIPE	C, D, A, B; wct
KEY MOUNTS	wood block
STAMP	on wc: BAINBRIDGE/INVENTOR/LONDON on stock: (royal arms)/BAINBRIDGE/INVENTOR/35/ HOLBORN / HILL/LONDON/NEW/PATENT on 3rd pipe: (top) BAINBRIDGE/INVENTOR; (lower) BAINBRIDGE / INVENTOR / 35 / HOLBORN / HILL/LONDON on R & L pipes: PATENT

NOTES	keys hallmarked; some stamped WB.
5	
DESCRIPTION	octave triple flageolet; extended foot on RH pipe
MAKER	Henry Hastrick, London
DATE	1834-55
LOCATION	GB-London-VA
COLLECTION ID	295-1881
LENGTH	485/266/218
MATERIAL	boxwood
MOUNTS	ivory
PIECES	7
HOLES R PIPE	4+0; marked with note letters and numbers
HOLES L PIPE	7+0; marked with note letters and numbers: 7th hole stamped c-sharp
HOLES 3rd PIPE	elevated F-hole
KEYS R PIPE	low B (open), C, D-sharp, B, C (octave): wct: brass with ornate square key flaps
KEYS L PIPE	D-sharp, long F, D, E-flat: wct
KEYS ON HEAD	new C key
KEYS 3rd PIPE	C, D, A, B: wct
KEY MOUNTS	B and C on RH pipe ring mounted: remainder wood block
STAMP	on cap: (royal arms)/BAINBRIDGE/INVENTOR/ HOLBORN/HILL/ LONDON on stock: NEW/PATENT/HASTRICK/ LATE/BAIN- BRIDGE/ INVENTOR/ 35/HOLBORN/ HILL/LON- DON/NEW/PATENT on 3rd pipe: HASTRICK/LATE/BAINBRIDGE/INVEN- TOR/ 35/ HOLBORN/HILL/LONDON/NEW/ PATENT [twice] on RH pipe: HASTRICK/LATE/BAINBRIDGE/ INVENTOR/NEW/ PATENT on LH pipe: HASTRICK/LATE/BAINBRIDGE/ INVENTOR
PROVENANCE	ex Engel
NOTES	The instrument was exhibited in the 1872 South Kensington Exhibition.

6	
DESCRIPTION	tenor triple flageolet; extended foot on RH pipe
MAKER	William Bainbridge, London
DATE	1830
LOCATION	US-MA-Boston
COLLECTION ID	17.1824
PITCH	A-flat and G-flat (collection catalog)
LENGTH	572

MATERIAL	boxwood
MOUNTS	ivory
PIECES	8+mp
HOLES R PIPE	4+0; stamped with numbers and note letters
HOLES L PIPE	6+0
HOLES 3rd PIPE	elevated f hole
KEYS R PIPE	low B (open), D, F, high B, C; silver; ornate square key flaps; wct
KEYS L PIPE	low C-sharp, D-sharp, long F, D, E; wct
KEYS ON HEAD	new C, new D
KEYS 3rd PIPE	A, B, C, D; wct
KEY MOUNTS	ring and wood block mounted
STAMP	on wc: BAINBRIDGE/INVENTOR/35/HOLBORN/HILL/LONDON/ NEW PATENT further stamp visible on 3rd pipe but not decipherable from illustration
PROVENANCE	ex Galpin: Leslie Lindsay Mason collection
NOTES	data taken from on-line collection catalog and illustration.
7	
DESCRIPTION	tenor triple flageolet; equal pipes
MAKER	William Bainbridge, London
DATE	1821-31 (collection catalog)
LOCATION	US-DC-Washington
COLLECTION ID	DCM 0721
LENGTH	612
MATERIAL	boxwood
MOUNTS	ivory
PIECES	7+mp
HOLES R PIPE	5+0; stamped with numbers and note letters
HOLES L PIPE	7+0
HOLES 3rd PIPE	none
KEYS R PIPE	4 (low C/C-sharp, D-sharp, B, ?C; not described but visible in illustration); brass with square key flaps; wct
KEYS L PIPE	3 (D-sharp, long F, D); wct
KEYS ON HEAD	new C key
KEYS 3rd PIPE	A, B, C, D; wct
KEY MOUNTS	wood block
STAMP	(royal arms)/BAINBRIDGE/INVENTOR/ 35 /HOLBORN/HILL/LONDON/PATENT on 3rd pipe: BAINBRIDGE/INVENTOR /35 /HOLBORN/HILL/ LONDON/PATENT on R & L pipes: PATENT
PROVENANCE	ex Van Raalte Collection
NOTES	data from on-line catalog; the length of 612 mm is unusual, and the instrument may have been measured from the mouthpiece to the end of the strut; described

as “composite” instrument; the original windcap appears to have been replaced to permit the fitting of the third pipe, which is of lighter wood.

8	
DESCRIPTION	(? tenor) triple flageolet; extended foot on RH pipe
MAKER	Henry Hastrick, London
DATE	1837–55 (catalog)
LOCATION	US–DC–Washington
COLLECTION ID	DCM1170
LENGTH	unknown
MATERIAL	boxwood
MOUNTS	ivory
PIECES	8
HOLES R PIPE	4+0
HOLES L PIPE	7+0; plugged L1
HOLES 3rd PIPE	elevated f-hole
KEYS R PIPE	low B, low C/C-sharp, ?D-sharp (missing), B, C; silver; square or round key flaps; marked with note letters; wct
KEYS L PIPE	low C (open, missing), D-sharp, cross F, D, ?E-flat; wct
KEYS ON HEAD	new C key
KEYS 3rd PIPE	A, B, C, D; wct
KEY MOUNTS	ring-mounted lower keys: remainder wood blocks
STAMP	HASTRICK/35/HOLBORN/HILL/LONDON/NEW PATENT on 3rd pipe: HASTRICK/LATE/BAINBRIDGE (on banner)/INVENTOR/HOLBORN/HILL/LONDON/NEW/PATENT
PROVENANCE	ex Hayes
NOTES	composite instrument, converted from a double flageolet; cords used to bind the pipes together when playing.

9	
DESCRIPTION	octave triple flageolet
MAKER	John Simpson, London
DATE	1826–30
LOCATION	US–NY–New York
COLLECTION ID	89.4.902
LENGTH	472
MATERIALS	boxwood
MOUNTS	ivory
PIECES	7
HOLES R PIPE	5+0
HOLES L PIPE	7+0
KEYS R PIPE	3; brass
KEYS L PIPE	2; brass
KEYS 3rd PIPE	4; nickel silver; wct

STAMP	SIMPSON/260, REGENT STREET/OXFORD STREET/ LONDON/ PATENT
PROVENANCE	Crosby Brown Collection
NOTES	limited data from collection checklist.
10	
TYPE	tenor triple flageolet; extended foot on RH pipe
MAKER	William Bainbridge, London
DATE	ca.1820–30
LOCATION	Ira B. Coleman (private collection)
MATERIALS	boxwood, stained yellow
MOUNTS	brass: ivory spacing studs
HOLES L PIPE	4
HOLES R PIPE	6
KEYS R PIPE	?B, C, D-sharp: brass; octagonal key flaps; wct
KEYS L PIPE	?C-sharp, long F
NOTES	limited information only.
11	
TYPE	tenor triple flageolet; extended foot on RH pipe
MAKER	Henry Hastrick
DATE	1832–55
LOCATION	Marlowe A. Sigal Collection
ACCESSION	2007.23
LENGTH	490/430/530 (overall)
PITCH	D
MATERIALS	boxwood
MOUNTS	unmounted: ivory spacing studs
HOLES R PIPE	4; marked with note letters and finger numbers
HOLES L PIPE	6; marked with note letters and numbers
HOLES 3rd PIPE	elevated f-hole
KEYS ON R PIPE	low C, low B, D-sharp, B, C; wct, silver
KEYS ON L PIPE	C-sharp, D-sharp, long F, high D, E-flat, wct
KEYS ON STOCK	new C key
KEYS on 3rd PIPE	A, B, C, D; wct
KEY MOUNTS	ring or wood block
STAMP	on stock: NEW PATENT HASTRICK/LATE/ BAINBRIDGE/INVENTOR/35/HOLBORN/HILL/ LONDON/NEW PATENT LH pipe: NEW PATENT//PATENT RH pipe: PATENT
NOTES	Rice notes that 3rd pipe is on left (personal communication, 2016)

12

DESCRIPTION	Triple flageolet
MAKER	Andrew Ellard, Dublin
DATE	1818-45
LOCATION	Ei-Dublin
COLLECTION ID	226:1944
LENGTH	490
MATERIAL	boxwood
MOUNTS	ivory
HOLES R PIPE	4+0; marked with note letters and numbers
HOLES L PIPE	6+0; plugged L1; marked with note letters and numbers
HOLES 3rd PIPE	elevated f-hole
KEYS R PIPE	7; wct
KEYS L PIPE	7; wct
KEYS ON STOCK	new C key
KEYS 3rd PIPE	4; wct
STAMP	Ellard 47 Sackville Street Dublin (unicorn)
NOTES	The data on this instrument have been taken from Boydell, 1990: see note 19.