

CHAPTER XIX.

ON FINGERING.

§781. GENERAL REMARKS ON FINGERING.—783. THE FINGERING OF THE EIGHT-KEYED FLUTE.—784. *THE SHAKES OF THE EIGHT-KEYED FLUTE.*—785. THE USES OF CERTAIN KEYS OCCASIONALLY ADDED TO THE OLD FLUTE.—786. FINGERINGS SUITABLE FOR THE PSEUDO "OLD-FINGERING FLUTES."—787. THE "HARMONICS" OF THE FLUTE.—789. THE FINGERING OF MR. CARTE'S FLUTE OF 1867.—790. *THE SHAKES OF THE FLUTE OF 1867*—791. THE FINGERING OF THE FLUTE OF GORDON (INCORRECTLY TERMED THE "BOEHM FLUTE") INCLUDING THAT OF THE "ROCKSTRO-MODEL FLUTE."—793. *EXAMPLES ILLUSTRATING THE USES OF THE EXTRA FINGERINGS.*—794. *SOME NOTES FINGERED BY MEANS OF THE PERFORATIONS IN THE KEYS.*—795. *THE SHAKES.*—796. SOME ADVANTAGES ACCRUING FROM THE TUBULAR EXTENSION OF THE *c*'[#] HOLE.

781. General Remarks on Fingering. The principles on which the notes of the flute are changed by means of certain lateral apertures, called finger-holes, are explained in §§143 to 153, and in chapter XII. The ordinary fingerings for the notes of the different kinds of flutes are given, in more or less detail, in chapters XIII, XIV and XV. It is, however, sometimes absolutely necessary to employ different methods of fingering in order to obtain smoothness in execution, and there are occasions on which it would be almost impossible to play, on any flute, certain rapid passages of music without the use of these extra fingerings. This is especially the case in alternations of notes, such as shakes and turns. The altered semitones mentioned in §§767-8 also require, as a rule, special fingerings, and it is sometimes extremely convenient to change the fingering in order to preserve correct intonation in the extremes of *forte* or *piano*. As there is nothing more bewildering to a student than a long array

of different fingerings without adequate directions for their judicious employment, I have given, in all the tables of this chapter, at least one good reason for the employment of every extra fingering. I am aware that some persons are opposed, in theory, to any departure from the ordinary fingering of a flute, but as all the best flute-players, from the time of Hotteterre, have been glad to avail themselves of all the resources of their instruments, and as not one of the opponents of the use of extra fingerings has been able to carry out his ideas with success, it must be accepted as a fact that occasional changes are indispensable.

782. In the selection of extra fingerings the following general rules should be observed:

I. Never use different fingerings, which cause an alteration of pitch, for similar notes that are near each other.

II. Do not select a sharp fingering for one note, and a flat fingering for another which is adjacent to it, but on the contrary, choose a set of sharp, or a set of flat notes, so that all may be corrected together by a slight change in the method of blowing.

IV. For slow music, select the fingerings which give the best notes, no matter how difficult they may be. Indifferent notes may occasionally be tolerated in very rapid passages, for the sake of smoothness and facility.

V. Avoid all unnecessary changes. The chief object of extra fingerings being the preservation of smoothness, they will be needed comparatively seldom in *staccato* passages, for which many of them would indeed be wholly unfitted.

VI. Use the harmonics (unassisted by vent-holes) of the second and third series, only as a last resource. The uses and abuses of these notes are explained in §§787-8.

VII. Any finger-holes may be kept closed during the performance of rapid passages, provided no appreciable injury to intonation or tone be caused by such closing.

The following tables include all the most useful fingerings; it will be readily understood that the number of these is small compared to that of the possible changes.

783. The Fingering of the Eight-keyed Flute. A representation and description of this flute, with an explanation of the signs used to indicate the keys, are given in §555.

The fingerings marked I are those ordinarily used.

NOTE. It is generally advisable, though not absolutely necessary, to keep the short *f* key open for all the notes of the two lower octaves between *f* and *b* inclusive. Of course this will not, as a rule, be necessary when the long *f* key is in use.

The notes with sharps or flats must be taken as the equivalents of the corresponding notes with flats, sharps or naturals.

d' and *d''*. These notes are always too flat.

e' I. To be used when practicable. The note is often too sharp.

II. A badly veiled note, but much easier to finger than I in connection with *e'* or *e''*, or in alternation with *d'*.

f II. As a rule this fingering should be used when *f'* occurs next to any note which requires the closing of the *e* hole. In the sequence *g''*, *f'*, *d'* it is easier to use the short *f* key.

III. Easier when *f'* is next to *e'* or *e''*, or in repeated alternation with *d'*.

IV. To be used in the sequences *a''b'*, *f''d''b'*, and *a''b'*, *f'*, *e'*.

f'' I. Much better than III, especially on flutes with small holes. All the *f''*s require, as a rule, to be sharpened.

II. To be generally used when *f''* occurs next to any note which requires the *e* hole to be closed.

III. Generally much too flat, but on flutes with large holes it will pass fairly well in rapid passages.

IV. Useful in rapid alternation with *d'*.

V. Difficult to use, but far the best fingering on flutes with small holes. Good as a sensitive note to *g'*.

g' II. Sometimes easier than I, see rule VII, §782.

b' II. Sometimes necessary between two *c''*'s I.

e'' I. This note varies much, both in pitch and quality of tone, on different flutes, but it is the most generally useful.

II. Much better than I, but in many combinations difficult to use. Good and easy in alternation with *b'* or *e''*, and when next to *e'''*. It should always be used in connection with *d''*2.

III. Very easy in connection with *g'*, *g''*, *a'*

or *b''*, but as it is always too sharp, and very weak, it must only be used in quick passages. This note is far inferior to I, which affords a curious example of the improvement of tone by additional veiling: see §347.

IV. Rather too flat, and coarse in tone, but useful as an octave to *c'*.

V. May be used in rapid alternation with *d'*. It is inferior to I but better than III.

VI. On most flutes a far better note than I. It gives an excellent octave with *e'''* VI: it is little known, and less appreciated, but it is extremely useful.

d'' I. The generally accepted fingering, but seldom better than III. The *d''* key makes little or no difference.

II. Very good as a sensitive note to *d''*. May be used in the scales of *d* and *a* when *c''* I or III is intolerably flat, which is not infrequently the case.

IV. Sometimes used in connection with *c''* II, but generally too sharp.

d'' I. Always a strong note, but generally rather flat.

II. A bad note, but often necessary in reiterated alternations.

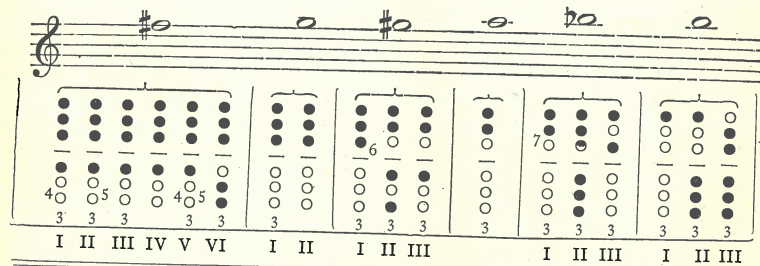
d'' II. Always flat; generally better in tone than II.

III. Must be used in many alternations, and on some flutes it is the only *d''* that will sound, but it is always bad, both in pitch and tone.

e''. See the remarks on *e'*.

f'' I. to IV. See the remarks on *f'*.

V. On flutes with very small holes, this "fork-fingering" may be employed with advantage, particularly in the shake *e''b'-f''*.



f[♯] I. to V. See the remarks on *f*[♯].
 VI. Useful on flutes with very small holes, especially as a sensitive note to *g'*. The flatness of the *f*[♯]'s I to IV is on some flutes exceedingly difficult to overcome.

g' I. and II. See the remarks on *g'*.

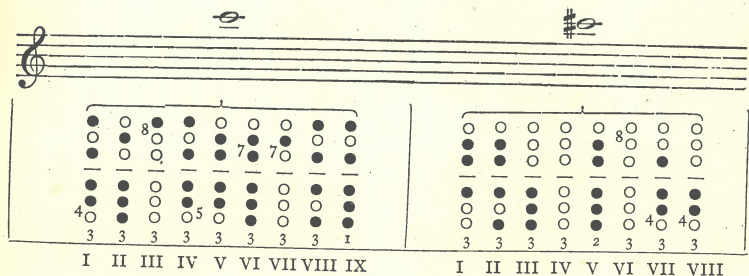
g[♯] II. On flutes with small holes this is often better than I, in alternation with *a*. On flutes with the smallest holes it is useful in the sequence of *e''*[♯], *f'*, *a''*[♯], and if taken without the key, in that of *d''*, *f'*, *a''*[♯].

III. On flutes with the smallest holes, this may sometimes be used instead of II.

b''[♯] II. Good in alternation with *c'''* II, or *b''* II.

III. A good sensitive note to *b''* I on flutes with very small holes.

b'' II. Useful with *c'''* II or *b''*[♯] II.
 III. Good, on flutes with small or medium-sized holes, between two *c'''*'s I or II. May sometimes be used with advantage in the shake, *b''-c'''*'s.



c''' I. The best and most generally useful on flutes with holes of large or medium size.

II. Generally rather flat, but useful in connection with *e'''* I, or *d''*[♯] III.

III. Chiefly used in alternation with *b''*, or as an octave to *c''* II.

IV. Often easier than I. See the remarks on *f*[♯] II.

V. Very good as *b*[♯] between two *c'''*'s I.

VI. Good on most flutes, particularly as an octave to *c''* VI.

VII. Useful in alternation with *b''*[♯] I.

VIII. May be used in a *piano* on those flutes which have not a good *c'''* I.

IX. Useful in the sequence *c'*, *c''*, *c'''*.

c'''[♯] I. This will pass in the scales of *d* and *a*, also in the chromatic scale with *c'''* I, but on most English flutes it is too sharp. Generally bad for *d''*[♯].

II. Better than I on flutes with large or medium-sized holes.

III. May be used for *d''*[♯] in connection with *c'''* II.

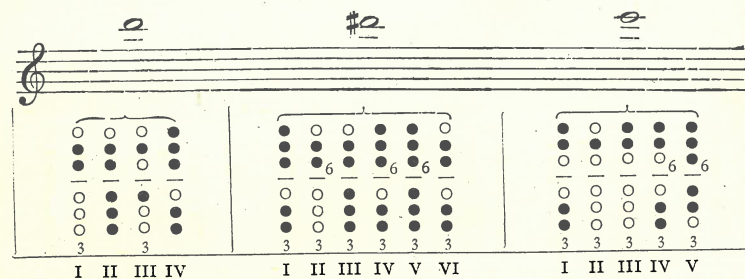
IV. May be used on large-holed flutes in alternation with *b''*, but it is always too flat.

V. Good as an octave to *c'''*[♯] II.

VI. Useful between two *c'''*'s III.

VII. Excellent in connection with *c'''* I, on most flutes.

VIII. Sometimes better in tune than VII. Good with *f'''* II.



d''' II. Good as an octave to *d''* I.
 III. Good on some flutes in connection with *c'''* II. It will sometimes give a shake with *c'''* II.
 IV. May be used with *d*[♯] IV.

V. Useful in connection with *e'''* V. The best on some flutes.
 VI. Better, on some flutes, than I.

e''' I. Always too flat, but the most commonly used fingering.

II. Good on some flutes, between two *d'''*'s I, on others it will not give any sound.

III. May be substituted for II.

IV. Good in connection with *d'''*[♯] IV. Often a better note than I, particularly in a *piano*.

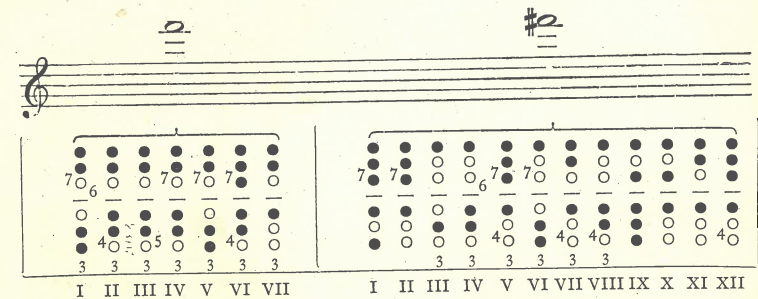
V. Useful in connection with *d'''*[♯] V, and with *f'''* IV.

d'''[♯] I. Too flat on most flutes, but sometimes the best.

II. Often better than I; always more convenient in alternation with *d'''*. On some flutes it is too sharp, on others too flat.

III. May be used as an octave to *d'''*[♯] I. It gives a bad tone.

IV. Good between two *e'''*'s I or IV. Often used in the scale of *e*, and with *d* IV.



f''' I. Generally the best fingering.

II. Often easier than I. Good in connection with *f'''* I or *c'''* I.

III. Sometimes easier than II, *ex. gr.* with *f'''* II or *c'''* IV.

IV. The easiest good *f'''* between *c'''* I, or *e'''*[♯] I, and *g'''*.

V. May be substituted for I if the latter be found too sharp. Useful in the shake *e'''-f'''*.

VI. May be used in alternation with *f'''*[♯] II or V.

VII. A very bad note, but still used on flutes with small holes.

f'''[♯] I. Generally the best fingering.

II. Sometimes easier to finger than I but seldom as good.

III. Useful between two *e'''*'s I. On some

flutes the first finger of the right hand must be on.

IV. Often good between two *e'''*'s V.

V. May be used in alternation with *f'''* VI.

VI. Good in alternation with *f'''* I. On some flutes it is better with the *g*[♯] key open.

VII. Good, on some flutes, in alternation with *f'''* II.

VIII. Often better than VII with *f'''* II.

IX. Good as a sensitive note to *g'''* I or II. On some large-holed flutes of recent make it gives the best *f'''*.

X. Good, on some flutes, as a sensitive note to *g'''* I.

XI. Much used on flutes with very small holes.

XII. Used with *f'''*, harmonic of *f'*. A favourite fingering in the chromatic scale.

g^{III}. II. Good between two *f*^{III}♯ I. On many large-holed flutes it is more easily produced than *g*^{III} I.
 III. Sharper than I or II. Useful in a *piano*.
 IV. May be used in alternation with *f*^{III}♯ I.
 V. Sometimes useful in alternation with *f*^{III}♯ II.

g^{III}♯. II. On some flutes better than I. Easy between two *f*^{III}♯ I.

III. Rather sharper than I or II. Good in a *piano*.
 IV. Useful in connection with *e*^{III}♭ I or *e*^{III} I.
 V. May be used in alternation with *a*^{III} III.

a^{III}. II. Easier than I on some flutes, and often better in tune.
 III. May be used with *g*^{III}♯ V.

b^{III}♭. One or more of these fingerings must be selected as may best suit the flute. I and II are good on large-holed flutes only.

b^{III}. See the remarks on *b*^{III}♭. On some flutes

with small holes, V. is the only fingering that will give the note.

The notes above *a*^{III} have very little musical value, but the practice of them, in moderation, tends to strengthen the lips.

784. *The Shakes of the Eight-keyed Flute which require the use of extra Fingerings.* In these tables the sign *tr* shows, by its position, the hole, or holes, which it is necessary to open and close in order to produce the shakes. The signs *β*, *β*, etc., indicate certain keys which are to be used for the same purpose.

Both the upper and lower notes of the shakes are to be understood as naturals unless the contrary is indicated.

a. The best shake, but rather difficult.
 b. The same in sound as I, but easier to some persons.

c., d. Easy, but not to be used on flutes with small holes.
 e., f. Bad shakes; there is no good way of making them.

Ig. IIh. Ii. IIj. Ik. III. Im. IIn. Io. II. III. IV

g. The only good shake.
 h. May be used by those who are unable to shake with *IL*.
 i. A bad shake, but there is no better.
 j. Worse than I, but easier to some persons.
 k. I. Both are bad. There is no good shake or these notes.

m. For a flute with large or medium-sized holes.
 n. Better on a flute with very small holes.
 o. See the remarks on these shakes in the lower octave.

Ia IIb. IIIc. IVd. Ie. IIIf IIIg. Ih. IIIi. Ij. IIk. Il. IIIm. IIIn.

a. b. For a flute with large or medium-sized holes. II is slightly truer than I, as both notes may be sharpened.
 c, d. These are better for flutes with very small holes.
 e, f, g. I is the best for flutes with large, II with medium, III with small holes.
 h. For large-holed flutes.
 i. For flutes with medium-sized or small holes.

j. Useful, on flutes with small holes, for those who cannot shake the thumb.
 k. A good shake if the holes be not too large.
 l. Often much out of tune, but sometimes fairly good.
 m. Sometimes better than I.
 n. Only suitable for a flute with very small holes.

Io. IIp. IIIq. Ir. IIs. IIIIt. IVu. Vv. Iw. IIx. IIIy. IVz. Va. Ib. IIc. IIIId. IVe.

o. Nearly always good.
 p. Sometimes better than I.
 q. May be used on a flute with the largest holes.
 r. The best on many flutes.
 s. Useful for short shakes.
 t. This "harmonic" shake is sometimes the best.
 u. On a flute with small holes IV may be better than III.
 v. Sometimes better than I.
 w. Nearly always good.

x. Occasionally more convenient than I.
 y. Useful in cases when it is desirable to take *c'''* with this fingering.
 z. Easy. Well suited for a *piano*.
 a. Good on some flutes.
 b. Well in tune but the tone is bad.
 c. Easier than I but not so good. Quite useless with small holes.
 d. Always the best tone, but sometimes badly out of tune.
 e. Often good in a *piano*.

Ia. IIb. Ic. IIId. IIIe. If. IIg. IIIh. Ii. IIj. IIIk. Il. IIIm. In. II III

a. The best on a large-holed flute.
 b. Better than I on flutes with small holes.
 c. Generally the best.
 d. May be used on a flute with very large holes.
 e. Sometimes the best.
 f. Rather difficult but always fairly good.
 g. Easy. Sometimes as good as I.
 h. May be used, on large-holed flutes, instead of II.
 i, j, k. All bad. I is the least objectionable if it will sound.
 l. A good *forte* shake.
 m. Better than I in a *piano*.
 n. These may be tried. There is no good shake for these notes.

Io. IIp. Iq. IIr. IIIs. It. II III IV Iu. IIv. IIIw. IVx. Vy.

o. Generally the best.
 p. Better than I in a *piano*.
 q. Often the best.
 r. Sometimes better than I.
 s. May be useful for a short shake.
 t. All these are generally fairly good, and may be used as found convenient.
 u, v. Generally the best in tune.
 w, x. May be used on some flutes with large holes.
 y. Sometimes useful in passing shakes.

Iz. IIa. Ib. IIc. Id. IIe. IIIf.

z, a. II may occasionally be found easier than I.
 b, c. Equally good on most flutes. II has an easy turn with 2R.
 d. Generally good.

e. Sometimes easier to sound than I.
 f. Good in a *piano*.
 With the exception of that on *a'''*, the last five shakes are so imperfect and so difficult to produce that they are almost useless.

785. The Uses of the Eleven extra Keys and Levers, occasionally added to the "Old Flute," are sufficiently explained in §559. These keys are seldom used in England at the present time, but some of them are still occasionally applied to the better class of "old flutes" in France, Germany, Austria and Italy. Flutes are now very seldom made to descend below *b*, and not often so low.

786. A few Fingerings suitable for the pseudo "Old-fingering-flutes," including that of the "Siccama-flute." See sections 652 and 660.

- 1. Often the best to use in connection with *e'''*.
- 2. Sometimes the best.
- 3. The ordinary *d'''#*'s are nearly always too flat on these flutes.
- 4. The other *e'''*'s are generally too flat or too sharp for ordinary use, but IV (§783) is sometimes the best.
- 5. Nearly always the best. Key $\frac{3}{3}$ may be open or closed.
- 6. Often the only good *f'''#*.
- 7. The ordinary fingering for *g'''* will seldom sound. This is generally good.
- 8. Often a good note when other fingerings are too flat.
- 9. The *a'''* is always a refractory note on these flutes, but one of the above fingerings will generally answer.

10. These are often fairly good.

787. The "Harmonics" of the Flute. The sounds usually known to flute-players as "harmonics" are the *twelfths* and *fifteenths* of the fundamentals, unassisted by the opening of vent-holes: see §357. The use of these unassisted harmonics is to facilitate the execution of certain rapid sequences of high notes that would otherwise be impossible to many players and difficult to all. The abuse of these notes is their employment excepting as a last resource. It is not only the presence of the lower attendant sounds that renders them objectionable, but the partials are so obtrusive, particularly in the *fifteenths*, that the consecutive *fifths* are quite painful to the ear. In the following diagram, the chief sounds are represented by the semibreves; the most prominent lower attendants and partials by the crotchets below and the *directs* above, respectively. The minims show the fundamentals.

In the *forte* passages of orchestral music the lower attendants and the partials are more or less obscured, and occasions may arise when even the *fifteenths* may be tolerated, but the greatest care must at all times be exercised to prevent flatness of pitch in all unassisted harmonics of the second or third series, and in *staccato* passages the player should be more than ever chary of their use.

788. The following passages will serve to illustrate the legitimate use of the harmonics. Few of these are of any use on the old flute.

The small notes are to be fingered, the large ones sounded.

From C. Nicholson's 12th Fantasia. The harmonic *fifteenths* are often used (on the old flute) in this passage, for the notes from $d''\sharp$ to $f''\natural$ inclusive.

789. The Fingering of Mr. Carte's Flute of 1867. The greater part of the following fingerings are almost literally transcribed from some tables which I compiled for Mr. Carte in 1868, and which, until lately, formed part of his instruction-book. The explanations of the uses of the various fingerings appear now for the first time. A representation of the flute, with description, is given in §684.

Explanation of the Signs used in the following Tables.

- The four fingers of each hand are indicated by the figures 1, 2, 3, 4
 $\frac{1}{2}$ shows that the *upper* small key, for 1R, is to be used.
 $\frac{2}{2}$ shows that the *lower* small key, for 1R, is to be used.
 $\frac{1}{2}$ indicates the use of *both* these keys by 1R.
 1 shows that 1R may be on *either or both* of these keys.
 $\frac{3}{3}$ shows that the closed *f* key is to be opened by 3R.
 $\frac{2}{2}$ shows that the last-mentioned key is to be opened by 2R.
 °, in the place of any other sign, shows that the finger (or the thumb) represented by that sign *must* be raised. When a finger (or the thumb) *may be on or off*, according to convenience, the sign representing that finger (or the thumb) is omitted.
 + indicates the use of the *upper* thumb-key.
 ° indicates the *lower* thumb-key.
 + indicates *both* thumb-keys.
 x shows that it matters not whether the thumb be on the *upper* key or on *both*.
 κ^1 and κ^2 indicate the use of the $d''\sharp$ and $d''\natural$ shake-keys, respectively. These are always opened by 1R.
 The use of the $d''\sharp$ key is indicated by 4 alone.
 $\frac{4}{4}$ indicates the use of the key generally called the $c''\sharp$ key.
 $\frac{4}{4}$ indicates the use of the key generally called the $c''\natural$ key.
 * The fingerings marked I are the most generally useful.

NOTE. The notes with sharps or flats must be taken as the equivalents of the corresponding notes with flats, sharps or naturals.

The fingerings of the notes, *c*, *c*#, *d*, *d*#, *e* and *f*, which are marked I, II, respectively, should be taken in connection with those fingerings which require *1R* to be in the same position, *ex. gr.* *e* I-*f* I (2); *e* II-*f* II (1).

The fingerings of the first-mentioned six notes, which are marked III, are useful when it is necessary to change the place of *1R*, which is

frequently the case: *ex. gr.* in the sequence *f* I, *d* III, *f* I.

These remarks will apply to many of the fingerings of this set of tables.

e. IV. Used with *d* in shakes, and generally with *c* or *c*#.

f. IV. May be used in connection with *g*#. V. For alternation with *c*, *c*#, or *d*.

VI. For use in combinations of *e*#, *f* and *f* II with *d*' or *d*'#. etc.

VII. Convenient in making the sometimes unavoidable slip, with *3R*, from the closed *f* key to the key of the *e* hole.

VIII., IX. Often useful between two *f* II or I. Better in tune than *f* VI. The positions of *2R* should be noted.

f#. II. May be used at any time excepting when next to *e*. Very easy in the sequence *d*#,

f#, *a* III. etc., and in diatonic scales or chromatic passages with *f* I.

III. Useful with *f* II.

IV. For alternation with *d* II.

V. Generally easier, for the last-mentioned purpose, than IV. Very useful in the sequence *d*, *f*#, *a* IV, etc.

g. II. For alternation with *f* II. Easy in chromatic passages with *f* II. In the latter case *3R* should remain on the closed *f* key for all the notes between *f* and *b*2 inclusive.

g#. II. See the remarks to *g*' II. III. For rapid alternation with *f* II. On large-holed flutes, this is a fairly good note, though slightly veiled.

a' II. For alternation with *f* I or V, and for the sequence *d*, *f*, *a*, *f*, etc.

III. For alternation with *f* II, and for the sequence *d*#, *f*#, *a*, *f*#, etc.

IV. For the sequence *d*, *f*#, *a*, *f*#, etc.

*b*2. I. Not to be used when next to *b*' I, *b*' I or *f* II.

II. To be used with *b*' I or *b*' I or *f* II, in those keys which require *1R* to be on *f*.

III. To be used with *b*' etc., in those keys which require *1R* to be on *g*.

IV. Useful in alternation with *b*' II, etc.

V. For the sequence *b*2, *d*'2 II, *c*' II, *d*'2.

b'. II. Useful with *b*'2, I, etc. III. For the sequence *b*', *c*'#, II, *b*'#, *c*'#.

c'#. II. For alternation with *c*'#. II. III. For the sequence *g*', *c*'#, *d*'#2 III, etc.

IV. For alternation with *b*'2 II.

V. Necessary in the quick turn, *d*'', *e*' (or *e*'#), *d*'', *e*'', *d*'', etc.

c'#. I. Never to be used in connection with *c*'.

II. Generally to be taken with *c*'.

III. See *c*' III, and the remark upon it.

IV. Useful between two *d*'s I, or as an *acciacatura*.

V. Often useful with *b*' II, etc.

VI. Easy between two *d*'#.s. *1L* need not be on.

VII. For alternation with *c*'.

VIII. Too flat, but must sometimes be used in connection with *b*2 I.

d''. I, II, III. See the remarks on the *d*' I, II and III.

IV. Only to be used in rapid alternation with *e*'', *f*'', etc.

V. The "open *d*." Easy in alternation with any notes fingered by the left hand only. It should never be used in slow passages as it gives an unpleasant tone.

VI, VII, VIII. Very useful in shakes with *c*' I, *c*'# I, *c*'# II, respectively.

d^{###}. I, II, III. See the remarks on the *d*[#], I, II, III.
 IV. To be used in alternation with *e*[!], *f*[!], etc.
 V, VI. Indispensable in the shake *c*^{##}-*d*^{##}.
 VIII. Easy in the shake *d*^{!!}-*e*^{!!}.

The fingerings (and the remarks upon them) for all the notes of the first octave, from *e* to *b* inclusive, apply also to the corresponding notes of the second octave.

c^{!!}. I to IV. See the remarks on the corresponding fingerings of *c*[!].
 V. This fingering gives a charming quality of tone in a *piano*. The note is very easily produced in tune.
 VI. Sometimes useful between two *d*^{!!}'s I.

c^{###}. I, II, III. See the remarks on *c*^{##} I, II, III.
 IV, V. Convenient and good between two *d*^{!!}'s I, or as an *acciacatura*.
 VI. Often used with *b*[!] II, etc.
 VII. May be used effectively with *c*^{##} IV, in passages of octaves.

IV. For the shake with *c*^{!!} I.
 V, VI. For the shake with *c*^{##} I and *c*^{###} II.
 VII. May be used, very quickly, between two *e*^{!!}'s II. On flutes with small holes *iR* must be raised.
d^{###}. I. To be used in those keys which require *iR* to be on *f*.
 II. To be used in those keys which require *iR* to be on *e*.
 III. For alternation with *d*^{!!} I.
 IV, V. For shakes with *c*^{##} I and II.
 VI, VII. For shakes with *d*^{!!} I and

d^{!!}. I. Always to be used when not too difficult.
 II. See *d*^{!!} V.
 III. Good only as an octave to *d*^{!!} I, II or III.

e^{!!}. I. To be used with notes which require *iR* to be on *f*.
 II. To be used with *f*[#] I, and generally in keys with from one to five sharps.
 III. For alternation with *d*^{###} I.
 IV. For alternation with *d*^{###} II.
 V. For alternation with *d*^{!!} I.
 VI. A flat note: useful in a *forte*.
 VII. For the shake *d*^{###}-*e*^{!!}, etc.
 VIII. May be used between two *f*^{!!}'s, on flutes with small holes only.

III. Often convenient when it is desirable to change the place of *iR*.
 IV. May be used in connection with any *g*[#].
 V. For alternation with *e*^{!!} I.
 VI. For alternation *e*^{!!} II.
 VII. For alternation with *e*^{!!} IV. Not always so good as *f*^{!!} V.
 VIII. A flat note: useful in a *forte*. Sometimes convenient in the sequence *e*^{!!} II, *f*^{!!} VIII, *g*^{!!} II. May be used for a short note between two *f*^{!!}'s II.
 IX, X. Better, but more difficult, than VIII between two *f*^{!!}'s II or I. The positions of *iR* should be noted.

f^{!!}. I. To be used with notes which require *iR* to be on *f*.
 II. To be used with notes which require *iR* to be on *e*.

f^{###}. I. To be used in passages which require *iR* to be on *f*.
 II. To be used in passages which require *iR* to be on *e*.
 III. May be used in alternation with *d*^{###} I.
 IV. Useful between two *e*^{!!}'s II.
 V. Useful between two *e*^{!!}'s III or IV.
 VI. May be used as a very short note between two *g*^{!!}'s I. This note is often improved by opening the *f* key, †
g^{!!}. I. Generally used but rather too sharp for a *forte*.
 II. Very useful in alternation with *f*^{###} II. Good in a *forte*.
 III. Not a good note, but occasionally indispensable between two *f*^{###}'s I.
 IV. To be used quickly between two *f*^{!!}'s V.

V. May be used as a very short note between two *g*^{###}'s I or III.
 VI. May be used in connection with *e*^{!!} III and *f*^{###} V.
 VII. Slightly sharper than II, but flatter than I. Good in a *forte*.
g^{###}. I. Generally the best.
 II. Good in passages when next to *a*^{!!}, otherwise too sharp.
 III. Convenient when next to *e*^{!!} II.
 IV. Very useful between two *a*^{!!}'s I.
 V. Easy between two *f*^{###}'s II, or two *g*^{!!}'s II.
 VI. May be used quickly between two *g*^{!!}'s I.
 VII. For alternation with *a*^{##} V.

I IIa.	Ib. IIc. IIIId. IVe. Vf.	Ig. IIh.	iII. IIIj.	Ik. III.	

- a. Easier than I but not so good.
- b. To be used with a δ turn.
- c. To be used with a $\delta\sharp$ turn.
- d. Easy for a long shake: $4L$ reduces the strength of the spring.
- e, f. May be used instead of I or II.
- g. To be used with a δ turn.
- h. To be used with a $\delta\sharp$ turn.

- i. May be used with d'' I, II, III or IV.
- j. Much easier than I, but not so good in tone.
- k, l. The comparative excellence of these shakes varies according to the position of the $c''\sharp$ hole (see §§363, 688 and 796) II is generally preferable for a passing shake. II may be used with d'' I, II or III.

Im. IIIn.	I IIo.	Ip.	IIq.	

The shakes from $c''\sharp$ to f'' inclusive, are made in the same manner as those of the octave below, and the remarks apply equally well to both octaves.

See the fingering, and the remarks, to the $c''\sharp$ shake.

- m. The more perfect shake.
- n. Easier than I.
- o. Easier than I.

- p. To be used with a δ turn.
- q. To be used with a $\delta\sharp$ turn.

Ia. IIb. IIIc. IVd.	Ie. IIIf.	Ig. II IIIh.	Ii. II	Ij. II	Ik. II

- a. The best shake.
- b. Easier than I.
- c. Sometimes more brilliant than II.
- d. Sometimes convenient, but not so good as the others.
- e. The better shake.
- f. Easier to some persons.
- g. Neither I nor II is perfectly in tune, but both are in general use, and will pass fairly well.

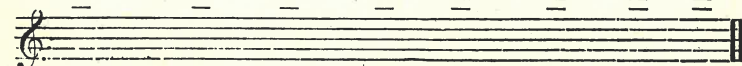
- h. This would be a brilliant shake on a flute with the tubular extension of the $c''\sharp$ hole (see §§363, 688 and 796).
- i. Either of these shakes may be made with $2L$ only.
- j. Equally useful. One is sometimes more convenient than the other.
- k. The first is the more convenient with a $d\sharp$ turn.

II. IIIm. IIIIn. IVo.	Ip. II	III IVq.	Ir. IIIs.	It. IIu.

- l. Well in tune, but too difficult for a long shake.
- m. Easy, but not well in tune.
- n. The best shake. See the remark to the $f-g''\flat$ shake II.
- o. A brilliant forte shake, with an easy e or $d\sharp$ turn.
- p. The fingerings I, II and III have about equal merit. II and III have the best turns.

- q. Often used, but the g is too flat in comparison with the f .
- r. Must be used when rR is on δ .
- s. A better shake than I.
- t. May be made with g'' I or II. On some flutes KI gives a better shake.
- u. A good and useful shake.

tr tr 2tr 2tr tr tr tr tr



x	x	x	k2	k2	+2	+2	+2	+2	+2	tr+o	tr+o
o	o	o	o	x	o	o	o	o	o	o	o
8	8	o	o	x	o	o	o	o	o	o	o
4	4	o	o	o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o	o	o	o	o
o	o	o	o	o	o	o	o	o	o	o	o
3	o	o	o	o	o	o	o	o	o	o	o
4	4	4	4	4	4	4	4	4	4	4	4
Ia. IIb. IIIc.	Id. IIc.	If. IIg.	Ih. II	Ii. II							

- a. A useful short shake.
- b. May be used as a passing shake.
- c. This harmonic shake is useful in a forte.
- d. May be made also with g'''II.
- e. Useful on flutes without the extra shake-keys.
- f. May be made also with g'''II.
- g. Useful on flutes without the extra shake keys.
- h. Equally good. One is sometimes more convenient than the other.
- i. I is the better shake, but II is more easily sounded.

791. The Fingering of the Flute of Gordon (incorrectly termed the "Boehm-flute") including that of the "Rockstro-Model." See the description of the improvements, given in §§681 to 683, and 688.

The following tables, though intended for the complete flute, may be adapted to the cheaper form of the instrument and to the original Gordon ("Boehm") fingering, by simply ignoring the fingerings in which the extra keys are directed to be used.

For a flute with the "closed g# key" it will only be necessary to remember that the third finger of the left hand closes both the g# and a holes, and that the fourth finger opens the g# key. The fingerings in which the g# hole is closed while the a hole remains open need not be noticed, but with the latest form of the closed g# key, one g# hole is always closed by the first finger of the right hand, and the independent duplicate hole is also closed, unless opened by the left hand little finger.

When several fingerings are given for the same note, that marked I is to be generally used, unless, as in the instances f'#, f'## and f'''##, there is an explained reason to the contrary.

792. Explanation of the Diagram, and the Signs used in the following Tables.

I, II, III, IV. The usual places for the four fingers of the left hand.
 I, II, III. The usual places for the first three fingers of the right hand.
 These seven keys are indicated in the tables by o when they are intended to be open; by • when they are to be closed.

o shows that the hole in the key is to be left open, the finger being pressed on the edge of the key.

1. The a''# key, used by 1R. Its lever is at 1+.
2. The a'' keys, which are inseparable. Their lever is at 2+; it is used by 1 or 2R. See 681, X.
3. A key for thL, giving c'' when open, b when closed.
 ‡ The Briccialdi b♭ lever for thL. As a rule, this lever is used constantly, instead of the key marked 3, in keys with b♭.
4. The b lever, pressed by 1R, giving b when thL is removed.
 ‡ An extra arm to the lever 4, pressed by 1L. See §681, IX.
5. The f# lever, for 3R. See §673.
6. The a''# key. 6? shows that the key may be open or shut according to convenience.
7. A key giving c'# when closed.
8. A key giving c' when closed.

NOTE. The notes with sharps or flats must be taken as the equivalents of the corresponding notes with flats, sharps or naturals.

FIG. 67.

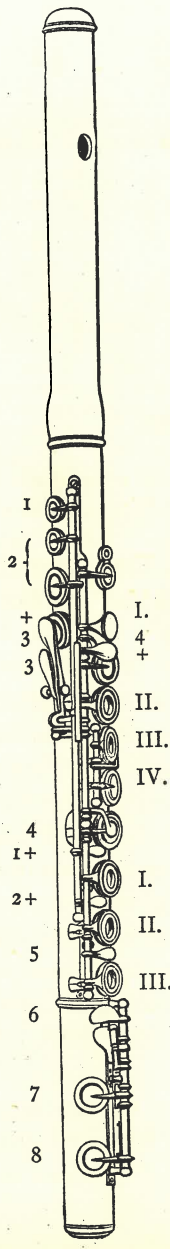


Diagram showing fingerings for notes on a modified flute. The staff contains notes with various accidentals. Below the staff are four groups of fingering diagrams, each with four rows (1L, 2L, 3L, 4L) and four rows (1R, 2R, 3R, 4R). The diagrams use dots to indicate finger placement and numbers (1-4) for specific fingers. The groups are labeled I, II, III, and IV at the bottom.

e'. II. Used with *d'* in shakes, and generally with the *c'* or *c''*.
 III. For alternation with *f''* II.
f'. II. For alternation with *f''* II.
 III. For alternation with *c'*, *c''*, or *d'*.
 IV. For use in combinations of *e''* and *f''* I, with *d'*, or *d''*, etc.

f''. I. Used with *d'* or *d''*. See examples, §793.
 II. The most generally useful. See examples.
 III. Used in alternation with *d'*. See examples.
 IV. For rapid passages when next to *e'*. See examples.

Diagram showing fingerings for notes on a modified flute. The staff contains notes with various accidentals. Below the staff are four groups of fingering diagrams, each with four rows (1L, 2L, 3L, 4L) and four rows (1R, 2R, 3R, 4R). The diagrams use dots to indicate finger placement and numbers (1-4) for specific fingers. The groups are labeled I, II, III, and IV at the bottom.

g''. II, III, IV. For shakes and turns with *f''*.
a'. II. For alternation with *f'* or *b''* I. See examples, §793.
 III, IV. For alternation with *f''*, see examples.
b'' I. The original fingering. It is seldom used, excepting when next to *b'* or *f''*.
 II. This must not be used next to *b'* or *f''*, unless these notes be fingered with the

extra *b* lever, 4+, or the lever 4. See examples.
b'. II. This is made with the *b* lever. See explanation and examples.
 III. For shakes, or when next to *b''* I.
c'. II. For the octave to *c'*. This requires the extra *f''* lever. See §681, XI.
 III. For a shake or a turn on *b''* I.
 IV. Used in a very quick turn on *d''*.

Diagram showing fingerings for notes on a Rockstro model flute. The staff contains notes with various accidentals. Below the staff are three groups of fingering diagrams, each with four rows (1L, 2L, 3L, 4L) and four rows (1R, 2R, 3R, 4R). The diagrams use dots to indicate finger placement and numbers (1-4) for specific fingers. The groups are labeled I, II, III, IV, V, VI, and VII at the bottom.

c''. II. Used between *d''*'s or as an *acciacatura*. A perfect sensitive note.
 III. Used between *d''*'s.
 IV. For alternation with *e''*.
d''. II. Used in rapid alternation with *e''* II, *f''* III, etc.
 III, IV, V, VI, VII. For alternation with *a'*, *b''*, *b'*, *c''*, or *c''*. See examples. III, IV, and

V are only useful with the extra *d''* key.
d''. II. For alternation with *e''*, etc. It should be avoided if possible.
 III, IV, V, VI. For alternation with *b''*, *b'*, *c''* or *c''*. See examples. III and IV are not good without the extra *d'* key.
 VII. For flutes without the extra *d''* key.

Diagram showing fingerings for notes on a Rockstro model flute. The staff contains notes with various accidentals. Below the staff are three groups of fingering diagrams, each with four rows (1L, 2L, 3L, 4L) and four rows (1R, 2R, 3R, 4R). The diagrams use dots to indicate finger placement and numbers (1-4) for specific fingers. The groups are labeled I, II, III, IV, V, VI, and VII at the bottom.

c'''. II. This fingering gives a charming quality of tone in a *piano*. The note is very easy to produce in tune.
 III. Sometimes useful between two *d''*'s I or *c''*'s III.
 IV. For a shake or a turn on *b''* I.
c''. II. Good between *d''*'s. An excellent *piano* note.
 III. Better than II as a *piano* sensitive note, or as an *acciacatura*.
 IV. Used between *d''* or *d''* and *d'''*. An excellent sensitive note to *d'''*.
 V. Good between two *d''*'s.

VI. Produces a good effect with *c''* II, in passages of octaves.
d'''. II, III, IV. For alternation with *b''*, *c''*, or *c''*. II and III cannot be used without the extra *d''* key.
 V. Only to be used on flutes without the extra *d''* key.
 VI. Used between two *e''*'s when very quick. On small holed flutes the *c''* hole should be open.
 VII. Good only as an octave to *d''*.

*d*⁴#. II, IV. For alternation with *d*⁴ I. The fingerings III, IV, V, for *d*⁴#, are also useful.
 III. For alternation with *e*⁴#.
 IV. Good in a shake with *d*⁴ I.

*e*⁴. II. A flat note: very useful in a *forte*.
 III. For alternation with *d*⁴# I. or *f*⁴# IV.
 IV. For alternation with *d*⁴ I.
 V. For the shake with *d*⁴# I.

VI. May be used on flutes with small holes only, as a sensitive note to *f*⁴ I.

*f*⁴. II. A flat note: very useful in a *forte*. Sometimes used between *e*⁴# and *g*⁴#.
 III, V. For alternation with *e*⁴.
 IV. For alternation with *e*⁴#.
 VI, VII. For alternation with *f*⁴# I and III.

*f*⁴#. I, II, and III. See the remarks on *f*⁴. See also examples, §793. These three fingerings can be made with key 4 or 4+ instead of with *thL*. III is useful in a *forte*.
 IV. Must be used instead of V or VI on flutes with large or medium holes, without the extra *f*⁴# lever. Key 6 may be used if desired.
 V, VI. For alternation with *e*⁴ on flutes with the extra *f*⁴# lever, or with small holes. VI is useful also between *d*⁴# and *e*⁴.
 VII. May be used between two *g*⁴'s I.

*g*⁴. I. Good on flutes with the extra *f*⁴# lever without which the note is generally rather sharp in a *forte*, and VII may be substituted.
 II, III, IV. For alternation between *f*⁴#s I, II, and III. Good in a *fortissimo*.
 V. For alternation with *e*⁴ or *f*⁴ V.
 VI. Very useful as a short note with *f* III: it is really a harmonic of *e*⁴.
 VII. For use between two *g*⁴#s II.
 VIII. Good between *g*⁴#s III.

*g*⁴#. I. Only good in passages when next to *a*⁴, otherwise too sharp.
 II, III, IV. The best for general use. With the small extra vent-hole the best of all the fingerings is III.
 V. Very useful between two *a*⁴'s. A good sensitive note.
 VI, VII, VIII. For alternation between two *f*⁴#s III, I or II.
 IX. For alternation with *g*⁴.

X. For alternation with *a*⁴# VII.
*a*⁴. II. Necessary when *a*⁴ is next to *e*⁴ or *c*⁴.
 III. Useful in a *piano*.
 IV, V, VI, VII. For alternation with *g*⁴ or *g*⁴#, by means of the extra *d*⁴ key.
 VIII. Sometimes useful with *g*⁴ on flutes not having the extra *d*⁴ key.
 IX. May be used instead of I, if more convenient.

*b*⁴. II or III may be taken if I be too difficult, which is rarely the case on flutes provided with the extra *b* lever.
 IV. For alternation with *a*⁴.
 V. For alternation with *g*⁴# I.
 VI. For use with *c*⁴ or *c*⁴#.
 VII. For alternation with *g*⁴# X.

*c*⁴. II. For alternation with *b*⁴ II.
*c*⁴#, *d*⁴, *d*⁴# and *e*⁴. These notes have very little musical value, but the practice of them, in moderation, tends to strengthen the lips. *d*⁴# II is for the flute without the extra *d*⁴ key.

*b*⁴. II. Only useful in passages where key 1 cannot be used.

793. Examples showing some of the Uses of the extra Fingerings in the preceding Table. These examples should be well practised and, if possible, committed to memory. It will be obvious that many of them may be played an octave higher.

e II.

f III. a II. f III. b I.

Keep down 1R..... No d# Key.
No d# Key.....

e III. e# II. f# II. gb II.

f# I. a IV. f# II.

Keep down 3R..... III.

f# III. a III. f# IV.

3R.....
No d# Key.....

f# IV. g# IV.

2R.....

b II., with the extra b lever.

Key 5.....
a# II. is always to be used with b II.

Key 5..... From Doppler's "Airs Valaques."
Rapid scales, etc., with five or six sharps are much facilitated by the use of the b lever.

d III. d IV.

d v. and vi. From Kuhlau's Trio in G minor, 3rd flute part.

eb III. d# IV.

c''# II. e''' IV. c''# VI. d''' VII.

II.

f''' # I. *f'''* # II. *f'''* # III.

IV. II. II. II.

** These *f'''* #s should be fingered with the lever 4 or 4+, instead of with *thL*.

f''' # V. *f'''* # VI. *f'''* # VI.

From Demersseman's "Armide." III. III.

g''' # III. *g'''* # VI.

II. III. VII.

Key 5 to be kept down.

a''' # V.

II. II. I.

c''' # II. *c'''* # II.

II. II. II. IV. II. II. II. III.

794. *Some Notes fingered by means of the Perforations in the Keys.* Considerable command of the instrument will be necessary, before these fingerings will be of much service; those marked *s* are only to be used as sensitive notes, and some of these are useful in *piano* passages only. The fingerings marked *f* are useful only for very strong notes, as they would be too flat if played at ordinary strength: on the other hand, they may be blown with great force without fear of their becoming too sharp.

pp

s *s* *s* *s* *s* *s* *s*

s *f* *s* *f* *s* *s* *s*

795. *Table of those Shakes which require the use of extra Fingerings.* In this table the sign, *tr*, shows, by its position, the hole, or holes, which it is necessary to open and close in order to produce the shakes. The signs *B*, *A*, etc., indicate certain keys which are to be used for the same purpose. Both the upper and lower notes of the shakes are to be taken as naturals unless the contrary is indicated.

Trills on the modified flute. The notation shows six trills: *tr*, *tr*, $\sharp tr$, $\flat tr$, $\sharp tr$, and $\flat tr$. Below each trill is a fingering diagram showing finger positions on the keys (numbered 1-6) and trill (tr) marks.

I IIa I IIb I c II III I II d

- a. Easier than I, but not so perfect.
- b. Not so good as I, but easy with an *rt* turn.
- c. See the remarks to $\flat tr$ in the first table.
- d. Easier than I, but not so perfect.

Trills on the modified flute. The notation shows six trills: $\flat tr$, *tr*, *tr*, $\sharp tr$, *tr*, and *tr*. Below each trill is a fingering diagram showing finger positions on the keys (numbered 1-6) and trill (tr) marks.

I II I II I II I IIc III

e. II and III are impracticable without the extra *b* lever.

Trills on the modified flute. The notation shows six trills: $\sharp tr$, *tr*, *tr*, $\sharp tr$, and *tr*. Below each trill is a fingering diagram showing finger positions on the keys (numbered 1-6) and trill (tr) marks.

If IIg I Iih I IIIi IIIk IVl Vm I IIn

The shakes from $\sharp tr$ to $\flat tr$, inclusive, are made in the same manner as those of the octave below, and the remarks apply equally well to both octaves.

- f. For flutes with the extra *d''* key: a perfect shake.
- g. For flutes without the extra *d''* key.
- h. See §796.
- i, k. Can be used only with the extra *b* lever.
- l. May be used on flutes without the extra *d''* key.
- m. Generally too flat, but may sometimes be used on flutes with the extra *d''* key.
- n. This is necessary on flutes without the extra *d* key.

Trills on the modified flute. The notation shows six trills: $\sharp tr$, $\sharp tr$, $\flat tr$, *tr*, $\sharp tr$, and $\flat tr$. Below each trill is a fingering diagram showing finger positions on the keys (numbered 1-6) and trill (tr) marks.

I IIo I II IIIp I II See §796 I II Iq IIr

- o. Good in a *pianissimo*.
- p. For flutes without the extra *d''* key. I gives the best tone.
- q. With a $\sharp tr$ turn.
- r. With a $\flat tr$ turn.

Trills on the modified flute. The notation shows six trills: $\sharp tr$, $\flat tr$, *tr*, $\sharp tr$, $\sharp tr$, and $\flat tr$. Below each trill is a fingering diagram showing finger positions on the keys (numbered 1-6) and trill (tr) marks.

Is IIt IIIu IVv I IIw I II IIIx I II III I IIy I II III IVz

- s, t. Only available on flutes with the extra *f''* lever, or with small holes. The first is better with a $\sharp tr$ turn, the second with a $\flat tr$ turn.
- u, v. For flutes without the extra *f''* lever. The first is bad; the second is too difficult for a shake of any length, but good in a passing shake.
- w. With an *rt* turn.
- x. Only good for a rapid passing-shake.
- y. With the extra *b* lever.
- z. For flutes without the extra *d''* key

Trills on the modified flute. The notation shows six trills: *tr*, $\sharp tr$, $\flat tr$, $\flat tr$, *tr*, and $\sharp tr$. Below each trill is a fingering diagram showing finger positions on the keys (numbered 1-6) and trill (tr) marks.

I* II III IV I II III I II I II I II

*I, II, and III require the extra *d''* key; IV is the best substitute, but being a double octave harmonic, the tone is bad.

796. Some Advantages accruing from the Tubular Extension of the $c''\sharp$ Hole. Although the small tube added to the $c''\sharp$ hole (described in §363) is entirely automatic in its action, the reader should be made acquainted with certain special advantages that are gained by it, in addition to the improvement of the thirty-two notes mentioned in §360 as being dependent on the $c''\sharp$ hole.

The chief of these additional advantages is afforded in the shake on d'' with e'' , which has hitherto been the worst shake on all flutes of modern construction. This may now be made with the $c''\sharp$ hole open, and through the action of the tube it is rendered fairly good and brilliant. The shake $d''\sharp-e''$ may also be made with the $c''\sharp$ hole open, which is sometimes convenient.

The next great advantage, gained by means of the tube, is the simplification of the fingering of $g''\sharp$ when in connection with $f''\sharp$ and a''' , as in the scales of a and e . In this position, as well as in several others, the $g''\sharp$ may be played without removing the thumb, much cross-fingering being thereby avoided. Previous to the enlargement of the $c''\sharp$ hole, only rendered practicable by the tube, the $g''\sharp$ could not be produced with certainty unless the c'' hole was opened.

The small tube also perfects the shake $d''\sharp-e'''$, and at the same time simplifies the fingering of both shake and turn. The shake is made by the third finger of the left hand, as formerly, but by using the $e''\flat$ III of §789, or the $e''\flat$ II of §792. The fingering for the tone or semitone turn will be self-evident.

CHAPTER XX.

ON TIME, ACCENT, EMPHASIS, PHRASING AND RESPIRATION.

§797. TIME.—798. BEATING AND COUNTING TIME.—802. THE USE OF THE METRONOME.—803. ACCENT.—805. ACCENTS OF SIMPLE COMMON TIME.—806. ACCENTS OF SIMPLE TRIPLE TIME.—807. ACCENTS OF THE COMPOUND TIMES.—810. EMPHASIS.—811. ACCENT AND EMPHASIS COMPARED.—812. PHRASING.—814. RESPIRATION.—816. EXAMPLES OF GOOD RESPIRATION.

797. Time. Correct time-keeping may be considered as at once the most essential, the most neglected and the most easily acquired of musical qualifications. A moment's reflection should be sufficient to convince anyone that no musical performance, worthy of the name, could be sustained without some approach to just time-keeping, for of what avail would be all other points of excellence if the notes were not played in their proper places?

The causes of the neglect of time are manifold: chief amongst them may be placed the indulgence of a pernicious habit of wilfully sacrificing time for the sake of a spurious, sickly kind of expression. This habit is largely on the increase, and Robert Schumann well said that the performance of some musicians reminded him of "the gait of a drunken man." If persons will give way to this absurd custom before having acquired the art of keeping just time, it may become almost impossible for them to play correctly, for the ear may eventually become completely vitiated, and the sense of rhythm, which is implanted in most persons, lost past recovery. Even supposing it to be desirable that time should be sacrificed to expression, which I am far from admitting to be generally the case, it would be necessary to learn to play *in* time before venturing to play *out* of time on pur-