SECOND EDITION.

THEORETICAL & PRACTICAL

ESSAY.

ON THE

Boehm Flute.

Intended for those who have a

PREVIOUS KNOWLEDGE OF THE OLD FLUTE.

Written & Dedicated

TO THE

CURATE.

By

JOHN CLINTON.

(PROFESSOR OF THE FLUTE AT THE ROYAL ACADEMY OF MUSIC)

London: Published only by Messrs. R. COCKS & C. 6, NEW BURLINGTON STREET.

Music Sellers (by authority) to Her Most Gracious Majesty

QUEEN VICTORIA I.

Price 6d.

WANTED by the above Author

ELEMENTARY INSTRUCTIONS FOR THE Boehm FLUTE INTENDED FOR BEGINNERS
DEDICATION

TO

THEOBALD BOEHM, ESQ.

(Of Munich.)

My Dear Sir,

When, in after ages, the future historian of the Flute, in tracing its progress from infancy to maturity, shall enumerate those whose talents and exertions have successfully contributed to its perfect development, your name will stand conspicuously prominent in the list. He will point, with peculiar satisfaction, to your achievements, and this our day will be characterised by him as the commencement of a new era in the history of the instrument. And when he shall contrast the capabilities of the Flute, in his time, with the recorded imperfections of that of former generations, the name of Boehm will be transmitted in grateful remembrance to posterity, as the originator of the wondrous and triumphant change.

To whom, then, can I, with equal propriety, dedicate a work, the object of which is, to introduce to English Flute Players, this monument of your genius, already so fully appreciated by the great body of Continental Professors and Amateurs?  

Wishing you many years of health and happiness, in the enjoyment of that fame which is so justly your due,

I have the honor to subscribe myself,

Your very obedient and faithful servant,

J. CLINTON.

London, May 1843.
Perhaps there is no undertaking more difficult of accomplishment than that of bringing about a radical change in the principle of any art or science; but my own thorough conviction of the truth of Boehm’s system, induced me to entertain a hope, that, when the nature and advantages of that system should be fully explained, the public would not be reluctant to acknowledge its merits.

It is a source of pride and pleasure to me, to find that, so far from my hope being disappointed, it has been realized to the fullest extent; and the success which has hitherto attended my efforts, yields me the gratifying assurance of having now established the new system upon such a solid foundation, as will, ere long, ensure its general adoption.

Since my Essay was published, I have been constantly employed in teaching the Boehm Flute; and, in every instance, I have rigidly adhered to the gradus and contents of this work, and with the most satisfactory results.

It is therefore with the utmost confidence I venture to assure performers on the old flute, that the contents of the following pages will enable them to obtain a speedy and certain mastery over the Boehm Flute, and that the longer the instrument is played upon, the more will the practiser be pleased with it. I may with truth declare that the testimony to the merits of the Boehm Flute, which I have received from all quarters, has been uniformly of the highest and most flattering character. With these few observations, and with increasing confidence, I now submit this edition of my Essay to the Flute-playing Public.

J. CLINTON.

14, Greek Street,
Soho Square.
A THEORETICAL AND PRACTICAL ESSAY ON THE BOEHM FLUTE.

BY JOHN CLINTON.

The Flute, one of the most ancient of musical Instruments, had, for Centuries, but one key; and many of the present generation remember the gradual addition of the others, which, although a great improvement, met with much opposition at first; arising partly from a doubt of any advantage being gained, and partly from prejudice, or a fear to encounter the trouble of acquiring their use; their utility however was so manifest, in as much as the semitones were rendered better in tone, and greater scope was afforded for the execution of brilliant passages, that their superiority was ultimately acknowledged, and they were generally adopted.

The Flute has since however undergone various alterations, such as the holes being enlarged, to increase the power of tone, and to render the Harmonic fingerings more available. The size, form, and situation of the keys, have also been altered, to accommodate the size of the Performers' hands, and duplicate keys on various plans have been added; but the only alteration that could render the Instrument perfect, appears to have been neglected, although it has been a subject of speculation and attempt for many years, viz, in respect of the situation and size of the holes, which is the basis of Intonation.

Previous to the following critical examination of the old Flute, it may not be superfluous to remind the reader, of the well known fact, that, the larger the hole, and the nearer it approaches to the top (or Embouchure) the sharper the note is rendered, and vice versa.

The three lowest holes, that is, the holes covered by the two C keys, and the D♭ key are nearly the same size, and almost at equal distances, consequently the following notes are tolerably correct: The fourth hole, which when open gives E♭, is nearly double the distance from the G♯ hole in proportion to the others, and considerably smaller; the result is, E♭ is much too sharp, because the hole is too high, and extremely weak, because the hole is too small. On the old system, there is no remedy for this defect, as if the hole were put in its proper position, the finger could not reach it; and if it were made as large as the others, it would be still sharper, and yield F♯.

We will now take the primitive notes, which are as follow: The above semitones, are (in the system of equal temperament, as in a well tuned Piano forte) nearly at equal distances apart; it necessarily follows, that to produce them upon any Instrument, a just equality must be observed. If they were produced by 14 Organ Pipes, each pipe would gradually, and in equal proportion, decrease in length and diameter, to produce them upon a string of the Guitar, each Fret, would be arranged in proportionate gradations; if played upon one string of a Violin, a similar equality would be observed in the movement of the fingers; and to render them perfect on the Flute, a corresponding equality must be observed in the arrangement of the holes; thus, they should gradually and in equal proportion, decrease a little in size and distance, as they approach the widest, or top part; but the basis of the arrangement should be, equality in size and distance.

In speaking of the holes, it is to be understood, that those covered by the keys are included, except the duplicate key F ♭ F♯, D ♭ D♯, E♭ E♯, G♭ G♯, B♭ B♯, H♭ H♯, which are named from the lowest keys upwards.

It is necessary to observe, that the second and third Octaves of the Flute, are merely Harmonics of the first.
A reference to the old flute, will be sufficient to prove, how much this natural law has been violated; all the holes, whether for the fingers, or keys, being of different sizes, and placed at unequal distances, and the upper holes larger, than some of the holes lower down.

I will now point out some of the defects in the machinery, commonly known by the name of "the keys." It being found impossible to pass to F'\(_4f\) (in a slur) from any note which required the third finger on the hole below it, a second key has been applied, called the long F\(_4f\) key, and that certainly removed the obstacle, although its use demanded much practice, and gave an extra office to the fourth finger of the left hand, already no more than sufficiently strong to manage the G\(_5\) key; but this did not provide for passages like the following:

Let us now take the following note \(\text{\g-c-o}\\). The natural fingering for this note, is by opening the 12\(^\text{th}\) hole (at the same time closing the 13\(^{\text{th}}\)) but as that is done by the first finger of the right hand acting upon the key, called the shake key, it is rendered unavailable for general purposes. We are therefore compelled to adopt a false fingering, thus \(\text{\g-c-o}\\) which is little better than the fingering of the one-keyed Flute for B\(_5\), thus \(\text{\g-c-o}\\) or F\(_4f\), thus \(\text{\g-c-o}\\) besides which, it undergoes constant alteration, as seen in the following passages, if played rapidly and legato.

Each of the notes produced by the above fingerings, is different in pitch, strength, and quality of tone, and they would be intolerable if sounded together; it must therefore be evident, that some, at least, can not be true when used separately.
There are many other notes in a similar predicament, too well known to require further comment. The unreflecting may meet these incontrovertible assertions, by saying, that the performer should "blow the notes in tune;" now although I conceive this would be an acknowledgement, that the old flute is in itself, as an Instrument, out of tune, and consequently requires reformation, let us for a moment consider this point a little further. If the performer possess an acute Ear, and flexibility of Lip, the notes may, after long practice, be played in tune, but the unnatural distribution of the holes, causes the notes, if sounded in "tune," to be still imperfect in quality, somewhat like the notes on a false string of a Violin. Assuming, then, that talent and perseverance, could render the notes perfect as regards "tune," there is yet another difficulty.

If the Player use precisely the same force of breath, he cannot then render the notes equal in strength; that is, as full a tone cannot be produced from C, \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \) when fingered thus \( \cdot \cdot \) as when fingered thus \( \cdot \cdot \cdot \cdot \cdot \cdot \cdot \) or thus \( \cdot \cdot \cdot \cdot \cdot \cdot \cdot \) as from \( E \end{array} \) \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \) \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \) among others, nor can as full a tone be produced from \( E \) \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \) as from \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \) neither can as full a tone be produced from \( A \end{array} \) \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \) as from \( \begin{array}{c|c|c} \hline & 1 & 2 \\ \hline 1 & 0 & 0 \\ 2 & 0 & 0 \\ \hline \end{array} \).

In short, the situation and size of the holes, render it impossible to have any two notes exactly alike in strength or quality of "tune;" or, as the French say, "there are not two notes upon the old Flute, which appear to belong to the same family." We have now offered to us, a Flute, invented by Boehm (of Munich) Manufactured by Messrs. Rudall & Rose, which is in accordance with the principles of acoustics, having the size and situation of the holes arranged in their natural order. This demanded a new system of machinery, in lieu of the former keys, and by which system, each finger is enabled to act simultaneously upon two or more holes, and whereby we obtain "Perfection of Tune," "Increase of Power," "Superior quality of Tone," "Greater susceptibility of sweetness," "Equal strength upon every note," "A very considerable increase of facility in producing all the sounds." Much less extension of the Fingers, and perfect control over all the keys &c., &c. I am well aware how reluctant some persons will be to acknowledge, or if not to acknowledge, to adopt these improvements; because many years of habit, often reconciles to imperfections, and create an unwillingness to depart from them, although we may be fully sensible of their existence; besides which, there is frequently a spirited (shall I add too, an interested?) opposition to all great inventions, especially where they are likely to supplant any established system, they are looked upon as mere innovations, infringing upon vested rights; I would therefore venture to suggest the propriety of a dispassionate consideration, whether or not, the improvement when tested, does not offer more than an equivalent, for the small portion of trouble its adoption and use will occasion.

Footnotes:

1. Note, the report made, from the result of a critical examination of the old and new Flutes, at the Royal Academy of Music, by Messrs. Cherubini, Patti, and others. Holley, Catel, &c., &c.

2. In saying, "Perfection of Tone," I must be understood to imply, as far as a wind Instrument can be made perfect.
If it were possible for any Flautist, to have the perfections of Boehm's system, applied to the Flute he has been accustomed to play upon, without causing any change of fingering, he would be astonished and delighted, because he would as if by magic, find himself possessed of a full, rich, and mellow tone, with facility of producing it, and every note alike in strength and quality, in addition to the Instrument being rendered perfectly in tune, and affording the means of executing with facility, passages which under the old system, would, by reason of its imperfections, be most difficult; it may therefore be reasonably supposed, that no consideration would induce him to relinquish those advantages, and, by a parity of reasoning, that no prejudice should prevent their acquisition. As the appearance and structure of the new Flute might induce many to imagine, that it requires a totally different system of fingering, and that its adoption would involve the trouble of recommencing, I have, in order to remove this erroneous impression, composed the first Six exercises in this work, so that they must be fingered precisely as on the old Flute; the altered fingerings I have introduced gradually, so that with a moderate share of Industry and Patience, a perfect control over the new Flute, may be obtained in a short space of time.

Those who have already adopted it, feel its superiority in a much greater degree than would be experienced in playing upon an Eight key'd Flute, after an Instrument with but one key, because the addition of keys only improved, but the system of Boehm perfects the Instrument. I myself practised upon the old Flute, from Boyhood, yet when I became acquainted with Boehm's system, I was so struck with its advantages, that I eagerly adopted it; and as I am neither the Inventor nor Maker of the new Flute, I trust I shall not be considered as actuated by any selfish motive, in recommending its trial, which I feel persuaded will lead to its adoption as eagerly by others. As a sincere lover of the Art of which I am a Professor, I conceive it to be a duty, to make known publicly, a system which tends so materially to the advancement of that art, and thereby to dispense to others, the means of a pleasure and gratification, similar to that which I have derived from the study of it.

How far I may have succeeded in demonstrating that system, and affording those means of gratification, will be judged of by the following pages; and should my humble efforts realize my sanguine expectations, a still greater source of pleasure will be opened to me; I feel convinced, that Boehm's system, will cause the Flute to hold a much higher rank in the estimation of Professors and Amateurs, then it has hitherto, and that the Art itself will be benefitted.

The utility of the new system, may possibly be as much doubted at first, as was the adoption of keys to the old Flute, but the present invention being so strictly consonant in its properties, with Musical principles, must ultimately prevail against all attempts at opposition. Some experiments have been made here, and on the Continent, as an alteration of Boehm's system, the professed object being the acquisition of greater simplicity; but the theoretical and practical experience of the Inventor, and the principal Continental Professors and Instrument Makers, has abundantly proved that it will allow of no compromise without losing its best qualities, namely Tone and Intonation, and I therefore conceive that Messrs. Rudall & Rose, have wisely determined to preserve the perfection of the system in their manufactures.

The annexed plate points out to the Student, where the fingers are to be placed &c &c.
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In putting the Instrument together, the middle joint should be grasped near the top, to avoid an unnecessary pressure upon the machinery. It is held like the old Flute, except that the left hand Thumb must be placed upon the Key, to keep it shut. As this thumb has been placed against the Instrument (being one of its supports) it can make no difference to the player, to place it upon the key, instead of the side of the Flute; but in the action of the key, we gain an important advantage, having now merely to detach the Thumb, whereas it formerly required two movements, viz. one to detach it from the Flute, and the other to open the B♭ key. This point requires constant attention, for if the key be open, the proper sound cannot be produced.

Undue pressure upon the Rings, should be avoided, as it would retard the neatness and rapidity of execution. In stopping the holes for the Right hand, be careful not to touch the shake keys, which are placed between them, particularly that which is situated where the former F♯ key was placed.

The Instrument is perfectly in tune in every key, with one fingering for each note; this, I shall call, the Natural fingering; still to facilitate some passages, it (like every other Musical Instrument of any pretensions) sometimes requires a change, which I shall call Exceptions. The tone is produced upon precisely the same principle as the old Flute, covering the Embouchure less than half; but ere the Student commences to blow, he should fix upon his mind, one main point of difference between the two Instruments, namely this, the notes of the old Flute, varied so much in Pitch and strength, that performers were obliged to alter the direction of the stream of air, as well as to increase and decrease its velocity; but as all the notes of the Boehm flute, are pure and equal, they necessarily demand equal blowing. Although this is an obvious advantage, it requires practice, or rather Habit; the notes which were formerly too flat, will very probably be considered too sharp, at first, and vice versa; the Student must learn to play them in tune, by simply blowing equally, and without any exertion, and then they will be found perfect.

These changes, added to the somewhat different feel of the Instrument in the hands, by having the fingers intercepted by the Rings, and the left hand thumb kept steadily upon the key, may be rendered quite familiar by the following exercises, the fingering of which will be found to correspond with the natural or common fingering of the old Flute, using the D♭ key as usual, for all the notes, except the lowest and middle D♭, and the two lowest notes. The D♭ key may be forsaken (as on the old Flute) in passages like the following:

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[Music notation]
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Note. To prevent the possibility of an error, perhaps it would be as well, if the student were at first to practice the notes in No. 1, without any reference to time, but merely as a first step, towards blowing into the Flute properly.
Do not forget to keep the thumb key shut.
N° 4.
Ambiente
con
espressione,

N° 5.
Allegro.

N° 6.
Moderato.
ON THE ALTERED FINGERINGS.

The first is $F^\#$; and by this alteration we at once rid ourselves of all its former difficulties.

The second altered fingering ($C^\flat$) the most imperfect and difficult of all the notes on the old Flute, is now placed on an equality with the others. Need I say what a decided advantage is derived from these alterations? Two of the greatest difficulties and imperfections removed.

We now have splendid notes, in lieu of the most imperfect; and settled fingerings, instead of constant alterations.

The acquirement of the new fingering for $F^\#$, is a mere matter of memory, but the new fingering for $C^\flat$, demands a little practice and patience.

The Student should not feel discouraged, if he cannot immediately conquer it; I know by experience, that it soon becomes perfectly easy. When we reflect, that the difficulty of this fingering, is occasioned by using the thumb key, with a novel (although much easier) movement, and by its yielding $C^\flat$, instead of $B^\flat$ as formerly, our reason will dictate, that it only requires a little time and habit, to render it quite familiar.

The notes $F^\#$ and $C^\flat$ are fingered alike in both octaves, thus

I must here offer a few words of advice, viz., To progress rapidly, practise slowly; and let no day pass without some practice.

The following scale should be played many times, until a tolerable knowledge of the new fingering is acquired.

\[\text{N°7. Sons pleins. ~ Andante.}^{\text{\textcopyright}}\]
The next two altered fingerings are F♯ and C♯, fingered alike in both octaves.

The fingering of F♯ differs but little from the old system, and that of C♯ still less, as were it not for having the thumb key open, it would be precisely similar; therefore the acquirement of these two will offer no difficulty.

The new fingering for C♯ removes the former difficulties of this note, as may be seen by the following example.
We have now but one more altered fingering to render the two first octaves complete, namely B♭, fingered alike in both octaves.

This fingering offers many advantages, although its use requires habit, to ensure a simultaneous movement of the fingers. It may be first practised in the following passages, in which some of its facilities are apparent.

Allegro.

If the following passage be played rapidly, the D♯ key should not be used.

Presto.

In the following groups, it changes its nature to A♯, but of course, fingered like B♭.

The following examples will render it more familiar.

No. 15.
Ambinente.

No. 16.
Adagio.
The fingering of the notes in the third octave may now be learned; they will be found to differ but slightly from the octave below.

At first they may be considered too sharp, especially D₂ and E₂, for as the Notes of the third octave on the old Flute were very flat, and demanded great pressure of the lips to produce them, the Student may not be enabled to divest himself immediately of his former habits. It should be remembered, that they yield freely, without exertion. The D₂ key being required for all of them, (except the two highest,) they will hereafter be found much easier of execution, than the third octave on the old Flute.

Although the Student has now learned every note upon the Instrument, he should diligently study the general Scale of fingering, page 64, where he will find them under different names. It is printed on a Fly leaf, so that in subsequent study, it may be opened, and appear to view at every exercise, in case the memory should fail. This may appear a recapitulation, but many years experience as a Teacher, convinces me how indispensable it is, that the fingering of each note, should be known without reference to, or association with any other; for example, the fingering of Gᵇ, should present itself to the mind, without thinking that it is fingered like F₂, for although their sound is (in modern practice) the same, their nature is entirely different, as F₂ cannot exist in a Scale which requires Gᵇ, and vice Versâ.

Neglect of this system of study leads Amateurs into innumerable errors.

When a tolerable knowledge of the fingering is established, the following lessons may be practised, in which the altered fingerings are employed indiscriminately, and in different Major and Minor keys, so as to afford the Student a general knowledge of the natural fingering. The greater part of all the subsequent exercises will be found to consist of favourite melodies, and selections from the most esteemed works for the old Flute.
Having obtained a tolerable command of the Natural fingering, the Student may now proceed with the "exceptions," practising the Scales &c. &c. alternately as written.

It is always difficult to unite, rapidly and legato, all passages of Flute Music, where the break of the Octaves occurs.

It would be impossible to remove the above difficulties entirely, but they are to a great extent obviated on the New Flute, by Two extra holes at the Top, which are acted upon by the keys for the Right hand, marked in the plate page 6, &c. Performers should however accustom themselves to unite the above passages, by using the Natural fingering, because there are some Passages, in which the keys B.C. can not be made available.

The only new difficulty for the Student, on that part of the Boehm Flute, is in passing quickly from C\textsuperscript{#} to D\textsuperscript{#}, but after a little habit, it offers no greater difficulty, than in passing from B\textsuperscript{b} to D\textsuperscript{#} on the old Flute. No person should expect to conquer it immediately, it requires time and patience; because the left hand thumb, has hitherto performed a different office.

The following group should be practised, until it can be played legato, in about the movement of Semiquavers in an Andante. Subsequent practice will render this fingering quite easy.

The following Scale Exercises should be repeated many times, varying the Articulation, as in the Study of the old Flute. A lesson is given in every key for the exceptions, and the letter E marked over those notes, where the exceptions should be employed; in all other cases, the natural fingering should be used. Some of the altered notes require a slight modification of the stream of Air, but it will be found very trifling.
A rapid succession of C.D. in the second and third octaves, as in a Shake or Turn, or passages of a similar nature, is facilitated by using the key, letter B. The small notes fingered, are the notes of which the shake is composed.

In the third octave, passages like the following, are facilitated by an alteration of fingering.
When E is the accented note, No. 1, of the preceding fingerings should be employed, but if the accent should be on F, No. 2, would be better. The practical use of the foregoing exceptions, is exemplified in the following lesson.

No. 35.  
Moderato.  

Scale of G.  

Exercises in the Scale.  

Common chord.  

Exercise on the common chord.  

Chord of the 7th  

Exercise on the chord of the 7th
In the following, the fingerings of F in the three octaves is specially indicated.

The fingerings should be employed only to render passages legato and to indicate:

The Prelude of the above exceptions is exemplified in the following lesson.

In passages like the following, the fingering of F in the three octaves is specially indicated.
The following exception, is very useful in many cases.
There is another means of taking B♭, which is extremely useful in many passages, viz., by sliding the first finger of the left hand on to the key, marked Z in the plate, page 6, stopping both Y and Z at the same time, and with the same finger.

In passages like the following, the first finger should be placed upon Y, Z, at the commencement, and remain upon them during the whole of the passage; it then becomes needless to employ the first finger of the right hand, as the act of shutting the holes Y and Z makes B♭.

To obtain a judicious and ready use of the above fingering, requires practice and experience.

In a legato passage like the following, the first finger of the left hand may be raised for the middle E♭, but it should return to Y, Z, at the next note. If the passage be played rapidly, the first finger need not be moved.

A better idea of the use of this fingering, may be obtained by comparing the following passages, which are both alike, but differently fingered:

Natural fingering, very difficult.

Y Z, very easy.

I would here advise the student to practice the following Major and Minor Scales, and Arpeggios of Chords (slowly at first) until he obtains a command of the natural fingering, as the best means of ultimately establishing a perfect mastery, over what might be termed the groundwork of fingering.

The exceptions facilitate the passages, so palpably, that their acquirement will present no difficulty. However as scale practice only, is rather uninteresting, the examples from page 91 to page 48 may be advantageously studied, in conjunction with the Scales.

The natural fingering must be employed, except when marked otherwise.

Some pieces for Flute and Piano-forte might also be studied, but not without the superintendence of a master, as passages might be met with, appearing insurmountable, although very easy, if taken with the proper fingering.
The 3rd Octave should be practised separately, and very slowly.

In a subsequent page, fingering will be given to render the preceding octave legato, and easier of execution.

[Music notation]
From No. 2 of Dronet's Recollections of Italy.

No. 39.

From No. 1 of Kummer's Caprices Op: 12.

No. 40.
From Ribas's "Studio di Modulazione."

No. 41.
Largo.

From Kummer's 6th Caprice Op: 12.

No. 42.
Allegro con tanto.

mezza 'vece.
cres.
dim.

roll. p p
f'a tempo.
From No. 2 of Berbigier's Studies.

No. 43.
Allegro.

From Kuhlau's Grand Solo Op. 54.

No. 44.
Andantino quasi Legretto.

Nº 48.
Adante
Grazioso.

From Ribas's Studio di Modulazione.

Nº 50.
Allegro.
From No. 2 of Furstenau's exercises Op: 15.

No. 51.

Moderato.
From Furstenau's Op: 30.

No. 56.
Allegro
poco
vivace.

From one of Four Fantasias by Jo: Fährbach Op. 49.

No. 58. Allegretto.

Another Exercise from the above Fantasia.

No. 59. Moderato.

Prelude from Coche's Méthode.

No. 60.
From Coché's Méthode.

Nº 61.

Delicatamente leggero.

Poco a poco animato.

Ben tenuto.

passe"
From Weiss' 200 Studios.

Nº 64. Minuetto. 3\. Mod.

Original key, G.

From Nicholson's O Dolce Concerto.


Da Capo
Senza replica.

See Scale page 49.
From Nicholson's 13th Fantasia.

Sempre Staccato.

No. 66.
Con Brio.
We now arrive at the study of the fingering known by English flautists, as "Harmonics." In this, the Boehm Flute offers resources hitherto unknown, for the execution of passages in the third octave.

Many of our best Artistes have rejected this fingering on the old flute, because the primitive sounds, were frequently heard at the same time, producing the effect of consecutive fifths.

Thus:

![fingering](image)

The unnatural distribution of the holes, affected the Harmonics in the third octave, even more than the other notes, as it not only caused the effect of the double sounds in the above example, but rendered many others entirely unavailable.

That Harmonics are indispensable, I have ever felt thoroughly convinced; as a proof of their being so, I may mention that there are some passages in my own works for the flute, which cannot be played with any other fingering; still I do not advocate their employment, where the passage can be played legato, with the Natural fingering, because I conceive the quality of Tone (produced by the Harmonics) to be inferior; somewhat of a smothered nature, not unlike the sound of a Human Voice, if shut up in a Box. This defect, although considerably lessened on the Boehm flute, exists to a trifling extent; performers however may avail themselves of a judicious use of the Harmonics, without offending the most refined Ear, because the equality of the holes in size and distance, which renders the primitive sounds perfect, extends its influence to all derivative sounds. As the third octave, was, at first, considered too Sharp, the Harmonics may be thought too flat.

In practising them, the Student must propel the stream of Air, with increased Velocity, by giving much greater pressure to the Lips than he was accustomed to do, for the Harmonics on the old flute; this will render them in Tune, and almost entirely obviate that smothered quality of Tone (which I conceive to be so objectionable) and will place them near an equality with the sounds produced from the Natural fingering. The following Table exhibits the Harmonics (or derivative sounds) of the twelve semitones in the first octave (or primitive sounds), their practical use is exemplified in subsequent exercises.

![table](image)
From the preceding Table, the following Scales are deduced. Some of them will be found difficult to produce; those however which are required to facilitate passages, are easy of production, after a little practice: the others, I conceive to be more curious, than useful.
When the Harmonic fingering can be made available, it will be denoted, by the primitive sounds being written under, in small notes.

thus: \[ \text{\includegraphics{harmonic_1.png}} \] or thus: \[ \text{\includegraphics{harmonic_2.png}} \]

which will imply, that the large notes are to be fingered like the small notes, but the sound of the large note, is to be produced, by pressure of the lip, as before stated. I would advise the Student to practice the fingering of the Harmonics in the subsequent exercises, mentally, before he attempts to produce the sounds, in order that his undivided attention may be given to the Tone and Intonation.

Flute Solo in the Overture to La Gazza Ladra.

\[ \text{\includegraphics{fluteSolo.png}} \]

From Mehul's Overture "Les deux Aveugles."

\[ \text{\includegraphics{mehul.png}} \]

From Cherubini's Overture to Anacreon.

\[ \text{\includegraphics{cherubini.png}} \]

From the Overture to Tancredi.

\[ \text{\includegraphics{tancredi.png}} \]


From the same Duo.

From the same Duo.
From the same Duo.

The Harmonic fingerings in No. 65, are marked as they used to be for the old Flute, but need not now be employed, as the natural fingering offers no difficulty in that situation.

In the Introduction of the Fantasia from which No. 65 is taken, there is a passage of a similar nature in which the Harmonic fingering is indispensable; it runs thus,

From Nicholson's 12th Fantasia.

No. 65.
In passages like the following, the Harmonic fingering might be used, but I cannot recommend it, nor would I use it myself, because, by employing the exception for C\# thus \( \bullet \bullet \mid \bullet \bullet \bullet \), the other parts become easy.

It might be rendered still easier, by the following fingering,

Var. 8, from Drouet's God save the Queen.
When the Chromatic Scale is played rapidly, the Harmonies might be advantageously employed, as in the following example.

![Musical notation diagram](image)

A little practice will render the above Scale very easy.

Should the two highest notes be required, they may be fingered as under:

![Musical notation diagram](image)

When the Student has acquired a tolerable facility of the above, the following exercise from Nicholson's 2nd Fantasia may be practised, the 2nd and 6th Bar of which are alike, but differently fingered.

The fingering of the 6th Bar is preferable.
From Nicholson's 2nd Fantasia.

N. 67.
Allegro
con Brio.
There is another way of fingering some notes, viz., by placing the finger upon the outer or inner edge of the ring, without stopping the hole under the ring; for example, if any of the rings for the right hand be acted upon in this manner, it shuts the 7th hole, and

(with the finger of the left hand down as in playing C;') makes F3, when this fingering is required it will be denoted by having a cut through the hole, thus

- - - | o |, which implies that the finger is to act upon the outer or inner edge of the ring, instead of stopping the hole, as hitherto.

The Variety of passages in Music being almost infinite, an instrumentalist cannot be possessed of too many fingerings, or in other words, "should be thoroughly familiar with all the resources of his Instrument", in order that he may be prepared for every style of passage. The Natural fingerings, and the exceptions already given, will serve for ordinary purposes; still I would advise the Student to peruse attentively, the fingerings in the following passages, for even if their use be of unfrequent occurrence, it is possible that the perfect performance of some passages, might be marred in their absence. I do not mean to be inferred that a thorough knowledge of them is indispensable, but I offer them, as additional resources, hitherto unknown on the old flute, as an amusing study, as a means to heighten the effect of flute music generally, consequently to elevate the character of the instrument, and as an inducement to the Studious and Talented Flautist, to explore still further, the vast resources offered in Boehm's system.

Some of them must be employed in Piano passages only, and others, in Forte passages, consequently they will require an alteration of the lip, as on the old flute.

The notes which are not fingered, are to be taken with the Natural fingering, and in every case, the first and last note of each group, are to be fingered alike.

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*This is precisely the same fingering for F as the old flute, in respect to the number of holes acted upon.

*When the ring is acted upon instead of the hole, it causes the note to be a little sharper. The following passages contain examples for its use, likewise some other novel fingerings, and a few exceptions before given, but in a somewhat altered form.
The following Scale of Shakes should now be studied; it will be found to contain a shake for every note upon the Instrument, whether to the full tone or semitone.

Where a choice is available, the student should select that which is most convenient to himself, but with a due consideration of the style, or nature of the passage in which the shake is introduced, as some of them will be found serviceable in forte passages only, and others, in piano passages. Those which may (from their novelty) present a difficulty, should be practised a little every day, until an equal and brilliant movement of the fingers be established. The first fingering of each, is the most approved.

It is my intention to write studies for every major and minor key; the shakes, the staccato &c &c, in which the various fingerings will be introduced, and marked.

They will be published in Two Books, and entitled "Études Caractéristiques."

**Scale of Shakes.**
Exercise for the Shakes. (From Bach's Studies Op. 15.)

No. 68.
Moderato.