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. 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 sacrified 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-

pose, if only for the sake of being able to appreciate the extent of departure from strict accuracy.

797.* When it is necessary to make the changes of rate indicated by the words *rallentando*, *accelerando*, or others of similar import, the required alteration must always be made gradually, and, for obvious reasons, extreme care must be exercised in order to prevent the value of any note from becoming a multiple or an aliquot part of that of a note of equal *written* value immediately preceding it. If the perpendiculars in *fig.* 21, §351, be considered as representing the lengths of notes of equal ostensible value, a fairly accurate notion of a *rallentando* may be gained by reading from left to right, and of an *accelerando* by reading from right to left. Of course the line formed by the upper ends of the perpendiculars may be altered to an almost unlimited extent, but it must be either a regular curve or an oblique straight line.

798. *Beating and Counting Time.* Although few persons are unable to appreciate musical rhythm, the gift of intuitive time-keeping is exceedingly rare, it therefore becomes necessary to have recourse to some mechanical aid. He who intends to become a flute-player must learn to beat time with his foot; he must also count mentally the number of beats. Counting alone will suffice for the experienced musician, but not for the learner. The best methods of beating the various kinds of time are simple in the extreme. Whether the player stand or sit the heel should rest on the ground; the fore-part of the foot should be raised about half an inch, and a series of smart, though not necessarily audible, taps should be made with the foot. The contact of the foot with the ground will constitute the beginning of the *down* beat, and the moment at which the foot attains its greatest elevation will be the beginning of the *up* beat. The arrest of the foot, in its upward motion, must be as sudden as its impact with the ground, so that the beginnings of the down and the up beats may be equally precise. In order to cause the sudden termination of the upward movement it will be found convenient to stiffen the instep.

The chief object of beating time is not the mere reckoning of the values of the notes in each bar, but the maintenance of an even rate of movement, therefore it is important that the foot should move at a convenient pace. Beating too quickly, besides being troublesome, is likely to cause confusion and irregularity, while beating too slowly renders the preservation of equal rate still more difficult, and gives rise to the manifestly improper habit of allowing the time of the beats to accommodate itself to that of the notes. The old method of beating time by moving the foot but twice in a bar, however slow the time, is no longer practised.

It is an invariable rule that *the foot shall fall at the beginning of every bar*, whatever may be the number of beats.

799. In slow 𝄵 time it is convenient to beat four times in a bar, or measure, the foot making eight movements. Counting *four*, mentally, will generally suffice, but in exceedingly slow and complicated time it is sometimes useful to count *eight*, that is, one to each movement of the foot.

In moderately fast 𝄵 or 𝄶 time it is better to beat twice and to count *four* to each bar. In very rapid music only one beat need be made and *two* may be counted. In $\frac{2}{4}$ time *four*, *two* or *one* may be beaten, according to the rate, and *four* or *two* may be counted. In $\frac{2}{8}$ time *one* must be beaten and *two* counted.

800. In the simple triple times, $\frac{3}{2}$ and $\frac{3}{4}$, the beats may occur six or three times in a bar, and *six*, or *three*, may be counted according to convenience. In very slow $\frac{3}{8}$ time *three* may be beaten and counted.

Moderate or rapid movements in $\frac{3}{4}$ or $\frac{3}{8}$ time require but one beat in a bar, but the player should always have a distinct perception of *three*, although it may not be necessary to think the words "one, two, three." It was once the custom in England to beat all triple time by a down beat at the beginning of the bar, and an up beat at the third division. I always found great difficulty in making my pupils perform this kind of beating regularly, even when the rate was moderately fast. The foot would often rise at the second division, and then it would almost

certainly fall at the third, and rise at the beginning of the next bar: thus three beats would occur in two bars, and the foot was worse than useless. About twenty years ago, with a view to preventing the premature rise of the foot, I devised the expedient of making a slight additional pressure at the second part of the bar, the action of the foot being: (1) *down*, (2) *press*, (3) *up*. This plan has proved entirely successful.

801. The compound common times, $\frac{6}{4}$ and $\frac{6}{8}$, may be marked, by six ordinary beats, with equal rise and fall, (counting *six*); by two beats, of the kind described in the last paragraph (counting *six* or *two*), or by one ordinary beat (counting *two*), according to the rate of the movement.

In $\frac{12}{8}$ time there may be four beats of *down*, *press*, *up* (counting *twelve*); two ordinary beats (counting *four*), or one ordinary beat (counting *four*).

The compound triple times, $\frac{9}{4}$, $\frac{9}{8}$ and $\frac{9}{16}$, may be marked by three beats of *down*, *press*, *up* (counting *nine*), or by one beat of the same kind (counting *three*).

802. *The Use of the Metronome.* The name of this instrument is derived from the words, *μέτρον*, a measure, and *νομὴ*, or *νομός*, division or distribution (not *νόμος*, a law, as has been stated). The name is in strict accordance with the use of the instrument, which is to measure the divisions of music and regulate the distribution of the notes. The metronome is too well-known to need description. With regard to its employment by the flute-player as a means for the maintenance of equal rate during his practice, which cannot be too strongly urged, it is only necessary to say that the beats of the metronome should be at least as frequent as the *movements* of the foot, and that the instrument should be regarded as a guide to the action of the foot, but never as a substitute for it.

Among a certain school of musicians, who affect to consider time-keeping as a vice, great prejudice has arisen against the use of the metronome, on the ground that it renders musical performance too mechanical. My views on the importance of learning to play in accurate time are given in §797, and the most

emphatic contradiction to those who object to the metronome as a means to that end, some of whom even go so far as to say that the end itself is undesirable, is given by the erratic and irritating manner of their playing. It may, indeed, be said that the strongest objectors to the use of the metronome are those who stand most sorely in need of its monitions.

803. Musical Accent is stress, of a peculiar kind, laid on notes which occupy certain positions in the bar, whereby such notes gain prominence over contiguous notes. The question whether notes are to be accentuated or not is determined solely by their relative positions with regard to time. There is no musical character by which true accent is indicated.

The particular kind of stress that is properly termed accent is made by slightly increasing the length of the accented note, if *legato* or otherwise sustained, or by increasing the length of the silence which necessarily follows a *staccato* note. By reason of the increased length of the accented note, or of the silence that follows it, the incidence of the succeeding notes of the bar is slightly deferred, but these notes are not necessarily shortened appreciably. Assuming the correctness of the above description of musical accent, which is based on high classic authority, it must be obvious that accent may fall on a rest as well as on a note.

An accent occurs at the beginning of every bar, and of every division and subdivision of a bar, provided there be two notes, or a note and a rest, in such bar, division or subdivision. As the number of the portions into which a bar may be divided is theoretically unlimited, the number of accents in a bar, though practically limited, must be theoretically unlimited.

The following examples will serve as rough indications of the ratios of the four crotchets in a bar of common time. In the first example the crotchet is supposed to be divided into sixty-four parts; in the second, into thirty-two.

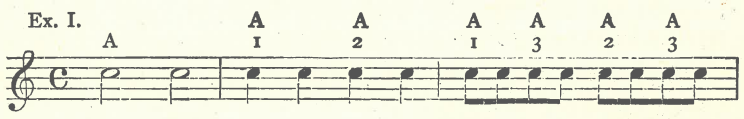
66 : 63 : 64 : 63
34 : 31 : 32 : 31

In practising with the metronome it will be desirable to make even less difference between the lengths of the accented and the unaccented notes than is indicated in the first of these examples. The metronome, however, by being very slightly tilted on one side, may be made to give alternate accentuated beats.

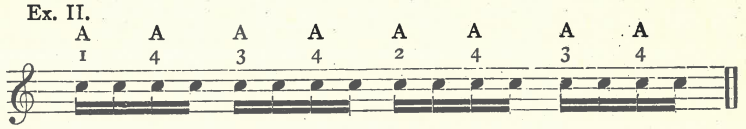
804. Accent is so exceedingly delicate and subtle in its nature that perfectly regular beats of a metronome, or a clock, may be easily arranged by the ear in any kind of rhythm. It should be the musician's aim to prevent his audience from being able to imagine the accents out of their correct places, and the only way in which this end can be achieved is by careful and sufficient marking. The amount of the stress that may be laid on accented notes must, of course, depend on the character of the music and the taste of the performer. As a general rule accents are less marked as their number increases. Exaggeration should always be most studiously avoided.

805. *The Accents of Simple Common Time* occur as shown below. The accented notes are marked A; the accompanying figures denote the relative importance of the accents.

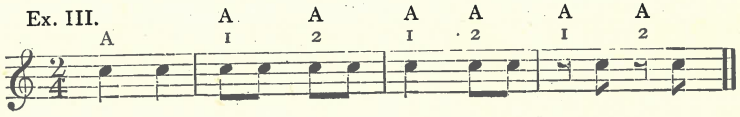
Ex. I.



Ex. II.

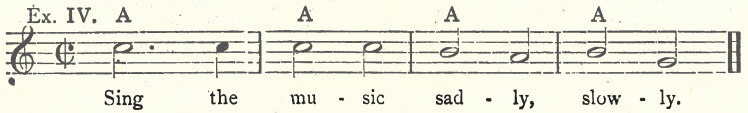


Ex. III.

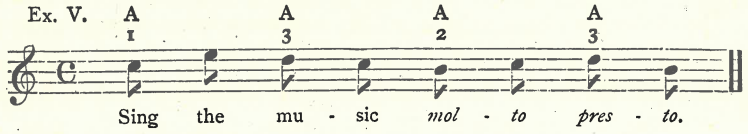


It is sometimes argued that a bar of common time can have but two accents, whatever number of notes it may contain. It will be seen that each bar of example IV has but one accent, while the single bar of example V has four.

Ex. IV.

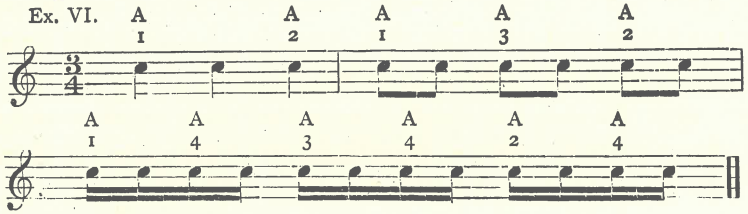


Ex. V.



806. *The Accents of Simple Triple Time* are as follows;

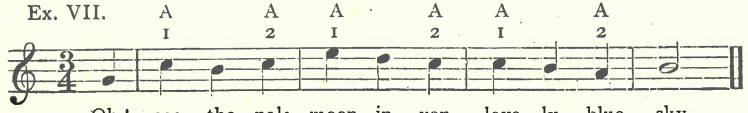
Ex. VI.



The accents of $\frac{3}{2}$ and $\frac{3}{8}$ times are the same as those of $\frac{3}{4}$.

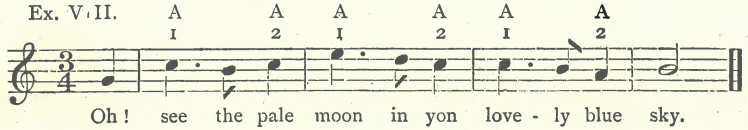
It is now commonly asserted that a bar of triple time, containing three notes of equal value, has but one accent. I venture to think that this assertion is completely disproved by the following simple passage.

Ex. VII.



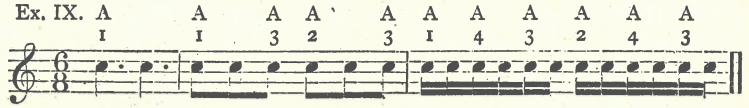
When the second note of the bar is shortened, the accent on the third becomes still more prominent.

Ex. VIII.

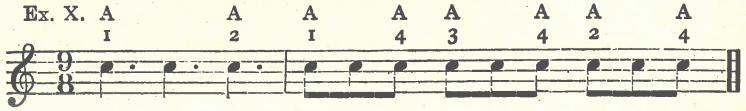


807. *The Accents of the Compound Times.* A bar of compound time is, in reality, a grouping together of two, three or four bars of triple time, *ex. gr.*, $\frac{12}{8}$ time consists of four bars of $\frac{3}{8}$ time. Examples IX, X and XI show the distribution of the accents of the chief compound times.

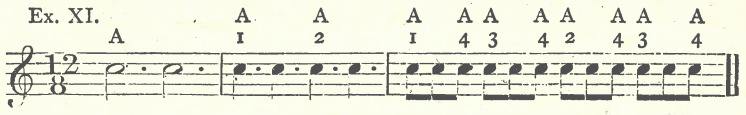
Ex. IX.



Ex. X.



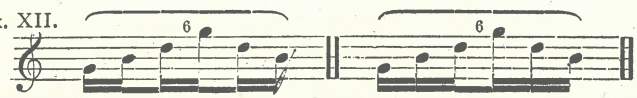
Ex. XI.



808. On comparison of the accents, indicated in the preceding examples, with the methods of beating time recommended in §§799-801, it will be found that the down beats coincide, as far as possible, with the notes that bear the principal accents, and the up beats either with the notes that are accented in a less degree, or with those that are unaccented.

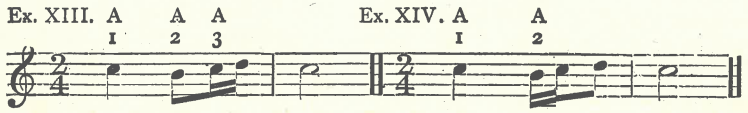
The notes of triplets are accented in the same manner as the crotchets of a bar of $\frac{3}{4}$ time. Groups of six notes in the time of four are sometimes played as the quavers of a bar of $\frac{3}{4}$ time, and sometimes as the quavers of a bar of $\frac{6}{8}$ time. The natural divisions of the bar sometimes afford sufficient indication of the composer's meaning, at other times the accentuation becomes a matter of discretion and taste. It is much to be regretted that composers do not, in all doubtful cases, avail themselves of the following simple methods of making known their intentions.

Ex. XII.



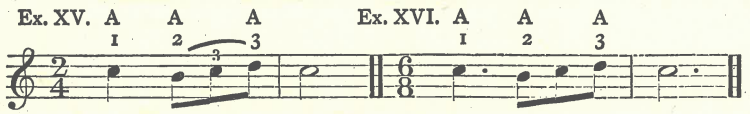
809. Passages such as the following are often misinterpreted by beginners, but error may be easily avoided by careful study of the differences in the time and in the incidence of the accents of examples XIII to XVIII. There is no practical difference between XV and XVI.

Ex. XIII.



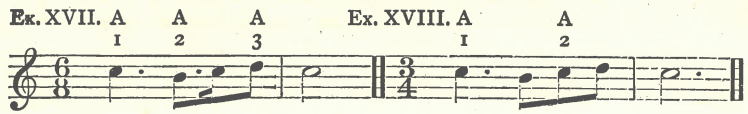
Ex. XIV.

Ex. XV.



Ex. XVI.

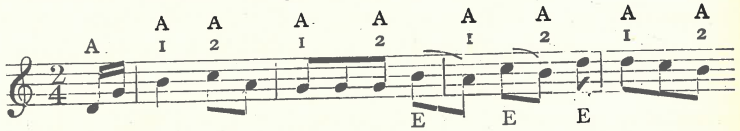
Ex. XVII.



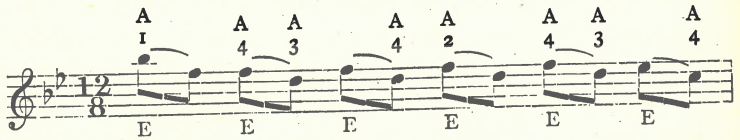
Ex. XVIII.

810. Emphasis is the sudden application of extra force at the moment of the production of a note in any part of a bar. It is indicated by the well-known signs: *f*, *fp*, *sf*, *fz*, >, ∧ and ∸, the meaning of the last being somewhat uncertain. The use of the letters *rf*, as a sign of emphasis, is common but improper, their true signification being reinforcement of tone, not necessarily sudden. Emphasis is often shown by a peculiar manner of grouping the notes. In the following examples the accents are marked by A, the emphases by E. The unusual grouping in the example XX does not convert the bar into one of $\frac{6}{4}$ time, therefore the beating should be, as usual, in accordance with the accent, and the greatest care should be exercised to prevent the accents from being thrown into confusion by the conflicting incidence of the emphases.

Ex. XIX. *Haydn's Symphony No.* 3. (*Salomon's*)



Ex. XX. *Beethoven's "Pastoral Symphony."*



811. Accent and Emphasis compared. The chief differences between accent and emphasis will be seen to be as follows:

I. Accent is marked by increased length; emphasis by increased strength.

II. Accent can only occur in certain situations; emphasis can occur in any part of a bar.

III. The nature of rhythm is determined by accent; rhythm is independent of emphasis.

Much confusion between accent and emphasis has arisen of late, on account of certain writers having treated these two different, though not incompatible things, as one and the same. Of many proofs that might be adduced, one will suffice to show that accent is independent of strength. There is positively no other means of accentuating notes on the organ, or any instrument of the same type, than by increasing their length, and yet a good organist marks the accents as clearly as a good pianoforte player does. Dr. Callcott (1817) writes: "In performing on the pianoforte, a great difference seems to exist between them [accent and emphasis]; since accent always requires *pressure* immediately after the note is struck, and emphasis requires *force* at the very time of striking the note." These remarks, though not original, show that Callcott had clearer musical perceptions than many later writers possess.

To place *equal* accents on several successive notes would be

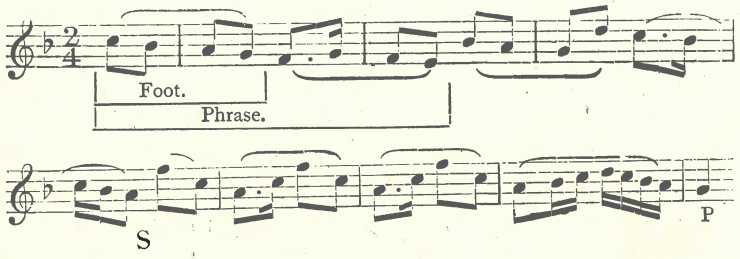
impossible, because the attempt to equally accentuate all would necessarily result in the accentuation of none. Emphasis, on the contrary, may be easily and effectively placed at the beginning of each note of a succession. There is, however, no reason whatever why the effect of the accentual stress should not be augmented by the emphatic stress, and such an augmentation is often desirable.

It would be well for the flute-player to remember that pure accent must be made by retarding the action of the fingers, of the tongue, or (in the case of certain octaves) of the lips, while pure emphasis must be made by increased power of the breath.

812. Phrasing. Besides the division of music into equal portions of time by means of bars, there are other species of rhythmical division which are equally important though not always so clearly or so precisely defined.

A certain number of notes, including one principal accent, the united value of which is equal to that of one bar, has been, by some authors, conveniently denominated a *musical foot*. Two feet, of moderate length, generally form a *phrase*. Two phrases may form a *section*. A *period* may consist of two or more sections, with or without additional feet or phrases. The following *Aria* by Mozart affords a good illustration of the foot, phrase, section and period. S shows the end of the section and P of the period.

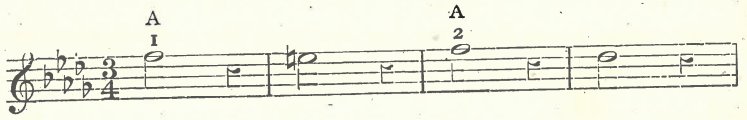
Ex. XXI. "*Batti, batti.*"



813. These terms are variously employed by different writers; they were used, as indicated above, by Dr. Callcott and others,

and I know of no better designations for the various rhythmical divisions of music, although, as will be seen at a glance, the feet are not always precisely analogous to those of poetry. Moreover, it must not be supposed that these divisions present any approach to constantly relative uniformity in length; for instance, a foot which is equal in value to a bar of $\frac{12}{8}$ time often constitutes an entire phrase, and four short bars, such as those of waltz time, frequently form the equivalent of a single foot of $\frac{12}{8}$ or $\frac{12}{4}$ time, as in example XXII, wherein the chief accent will be observed to fall on the first bar, and the second accent on the third bar, while the second and fourth bars are entirely without accent.

Ex. XXII. *Weber's "Invitation à la Valse."*



It is essential that all who aspire to become musicians should study the divisions of rhythm, the due observance of which, in performance, constitutes the art of phrasing. A knowledge of this art is especially important to singers and players on wind-instruments, as without it the selection of the proper places for inspiration would be impossible.

Musical rhythm is a matter that cannot be thoroughly understood without considerable acquaintance with the rules of harmony, but the preceding rudimentary outline of the principles on which the sentences of music are constructed, combined with careful study and some experience, should be sufficient to enable the flute-player to phrase correctly.

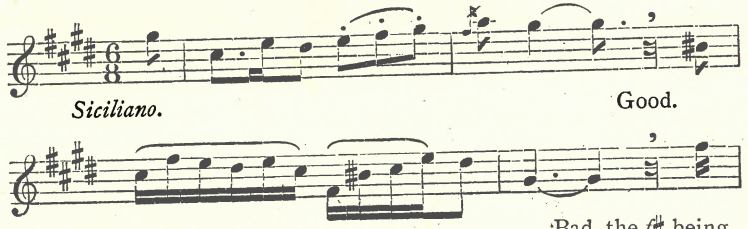
814. Respiration. In order to ensure the production of a good tone for a reasonable time, and independently of the question of phrasing, it is necessary not only to inflate the lungs fully but to take precautions that they shall never become nearly exhausted. Inspiration should always be effected without noise, or apparent effort, but if it be too long deferred a "gasp" is inevitable and loss of time is a probable consequence. Nothing

is more distressing to the flute-player than continuing to blow until at the last extremity, and exhaustion on the part of the player is always so unpleasantly obvious to the listener that it is impossible to derive any pleasure from a performance thus marred. If it be particularly desired to reach a certain point without interruption, any extra effort that may be necessary should be made at the previous inspiration; certainly not by striving to exhale the last remnant of breath.

Sometimes it is necessary to inflate the lungs very rapidly; in such cases the mouth should be well opened, but the lips should maintain their tension over the teeth. Breath should never be taken through the nostrils.

In taking breath between two notes that are not separated by a rest, the time for doing so must be taken from the end of the first note: never from the beginning of the second, because, as a rule, the beginning of a note must not be displaced.

Ex. XXIII. *Bach's Sonata. For Flute and Pianoforte*, No. VI.



Bad, the $f\sharp$ being a quaver in the original.

815. The only general rules that I can give for the selection of suitable places for taking breath are as follows:

I. Let the breathing be so regulated that the melodic divisions may, if possible, be rendered clear and intelligible by the slight necessary pause for inspiration. When thus ordered, inspiration may be positively conducive to good effect, constituting, in fact, musical punctuation.

II. Should it be impossible or inconvenient to continue expiration to the end of a division, select a place for inspiration

which is likely to cause the least disturbance to the flow of the melody.

III. Never pass a good place for inspiration without taking advantage of it, whether renewed breath be required at the moment or not. Indulgence in this practice would assuredly lead to bad phrasing and to vitiation of rhythmical perception.

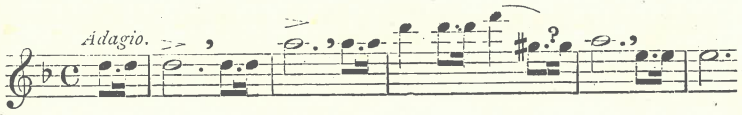
As a matter of course, breath may be taken during the time of a rest.

In the examples here given, the best places for taking breath are marked by commas; the notes of interrogation show where it may be taken in case of necessity.

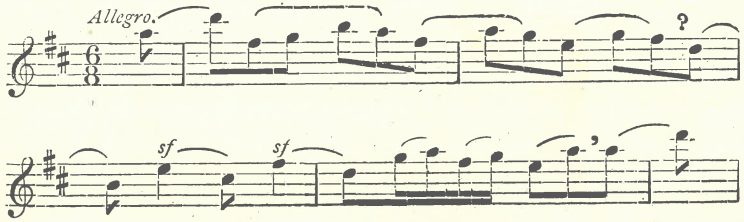
It will be observed that some of the phrases are curtailed by the introduction of a few notes which lead to the next phrase, and in fact form part of it, as in example XXVII. These leading passages are sometimes, not very aptly, called *codettas*. It would be manifestly improper to take breath between these passages and the notes to which they lead, but it is generally in perfect good taste to do so before the beginning, or after the first note, of such passages.

816. Examples of good Respiration.

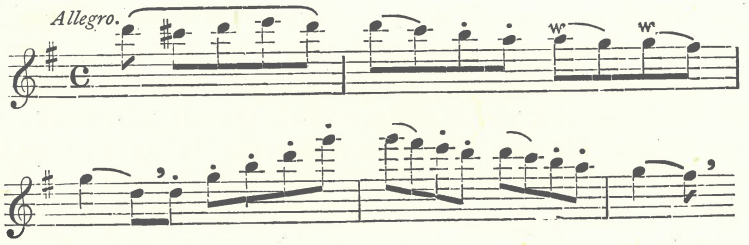
Ex. XXIV. *Kuhlau's Trio, Op.* 13. *No.* 1.



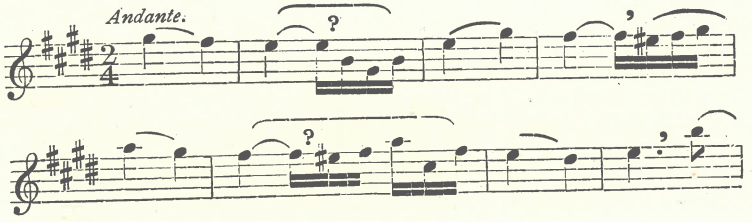
Ex. XXV. *Idem.* (*Rondo*).



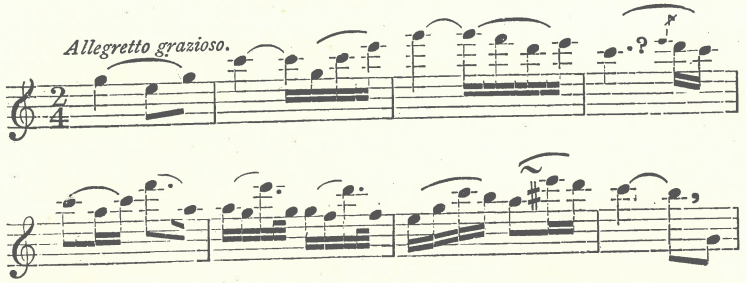
Ex. XXVI. *Kuhlau's Trio, Op.* 86. *No.* 1.



Ex. XXVII. *Walckiers' Quartet, Op.* 46.

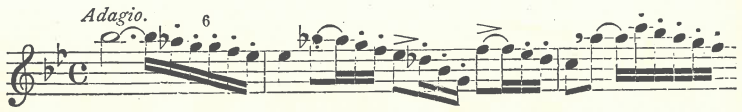


Ex. XXVIII. *Kalliwoda's "Grand Rondeau," Op.* 80.

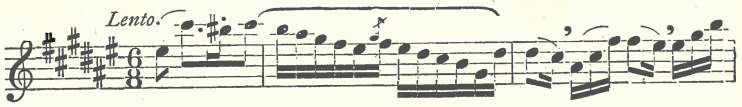


The notes of interrogation in examples XXVII and XXVIII show places in which, supposing it to be necessary to inhale, it would be desirable to sacrifice the slur for the sake of preserving the rhythm: see the last paragraph of §815.

Ex. XXIX. *Kalliwoda's "Grand Divertissement," Ob.* 52.

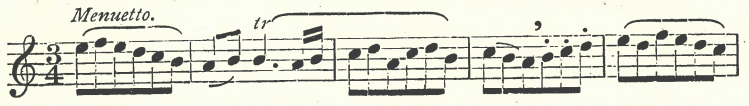


Ex. XXX. *Tulou's Ninth Solo, Op.* 91.

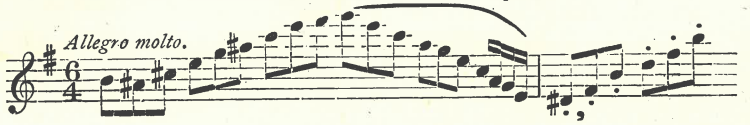


The preceding example shows a convenient method of indicating the places for breath-taking by the grouping of the notes.

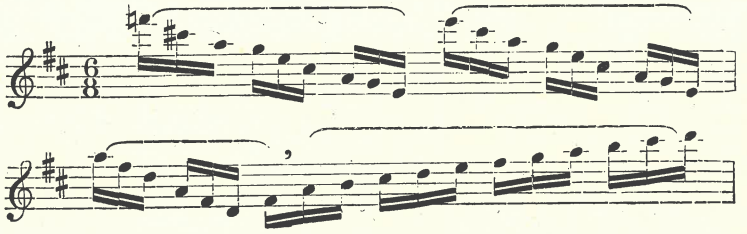
Ex. XXXI. *Bach's Sonata for Flute and Pianoforte. No.* IV.



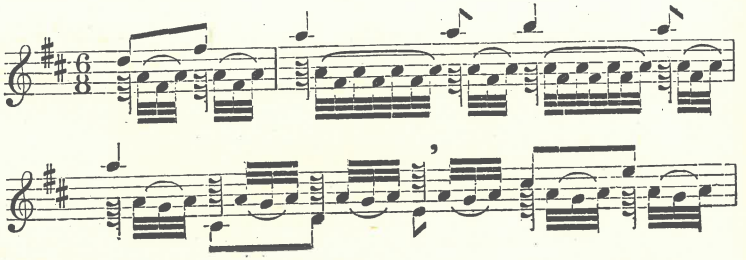
Ex. XXXII. *Kuhlau's Sonata, No.* III. *Op.* 71.



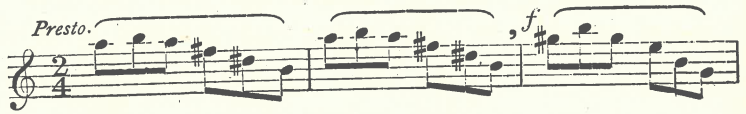
Ex. XXXIII. *Pratten's "Marie Stuart." Var.* I.



Ex. XXXIV. *Idem. Var.* IV.



Ex. XXXV. *De Jong's Rondo à la Tarentelle.*



In example XXXIV the three notes following the inspiration will have to be played almost as a triplet. In example XXXV the three notes before the inspiration must be made semiquavers, or nearly so, a short rest will therefore occur at the end of the bar. It is obvious that neither of these expedients can be adopted without the sacrifice of strict time, but it is also obvious that breath *must* be taken, and the places indicated above are certainly the least objectionable that can be selected.