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Playing at Sight

A Manual for Teachers and Students of the Pianoforte

By R. T. WHITE

Mus. Doc. Oxon.

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PREFACE.

This book is intended primarily for Teachers, to be used as a supplement to any ordinary Method. Harmony and Technique have been deliberately ignored—or, at any rate, have been but lightly touched upon. These subjects undoubtedly influence Reading at Sight, but to those students who are well advanced in those branches of study, their application will be quite obvious.

It has not, however, been possible to exclude some reference to elementary points of Notation, since my experience has convinced me that many pupils, while knowing a great many facts about Notation, are practically ignorant of the one essential fact which will enable them to translate immediately the written sign into finger-movement.

I here tender my grateful acknowledgment to those musical friends who have generously assisted me in the matter of revision, and especially to Mrs. Curwen, who has kindly placed so much of her unique educational experience at my disposal.

It may be noted that in the following pages "Playing at Sight" has not been interpreted in the limited sense of Playing at *first* Sight."

A preliminary glance at the printed copy before going to the instrument, so as to gain some notion of the general trend of the rhythms, modulations, and general expressional scheme will prevent any unfortunate *contretemps* arising, through the player being suddenly confronted with unexpected complexities.

Goldsmith's College, S.E. R. T. W.

CONTENTS.

INTRODUCTION.

As the word "Consciousness" will be often used in the following pages, it will be as well to explain at the outset in what sense it is employed. It is one of those terms which most people find intelligible enough, but which are difficult to define with exactness.

Consciousness has been explained as "mind *now*," *i.e.*, mental activity at the present moment. A state of consciousness presumes activity of mind; thought of some kind is going on.

It is characteristic of consciousness that it is essentially progressive; it is continually advancing, hence the apt phrase "*stream* of consciousness." Thoughts do not stand still; the thoughts of the present moment are identical neither with those of the past nor with those yet to come. We may think about the same *objects* more than once, but our thoughts about them are not the same thoughts. A common chord does not arouse in my mind exactly the same thoughts as it did years ago. The first crude perception has been supplemented on each repetition by a crowd of associated thoughts, many of which have persisted; these have modified and enlarged the earlier conception, bringing into prominence many new relations, so that the chord means something more than it originally did. Our mental, just as much as our physical life, implies unceasing change.

Thus, while we are conscious—*i.e.*, during most of the time we exist—we are always thinking about something, whether the object of thought be actually presented to our senses or only imagined. Now certain questions of interest suggest themselves. What can

we think about? Can we choose the objects of thought? What determines the choice, if there be one? How much can we think about at the same time?

First of all as to the extent of the field which consciousness can include. It is a matter of experience that we might think about a multitude of things, and also that within certain limits we are actually free to choose amongst these. In fact, the area of consciousness is bounded only by the limits of what we are able to conceive as our outside world. *Our* outside world, because each individual lives in a world of his own which is different from that of anyone else. Our field of choice, however, is under the influence of the law of interest; we think about those things which interest us, and exclude those which conflict with our interests at any moment. It may be that the interest is very remote, and that an effort of will may be necessary to direct the attention towards the desired object of contemplation; still, it is true that what does not interest us tends to fall away from our consciousness.

But, again, it is evident from experience that the field of consciousness does not embrace at any moment all those objects possible to consciousness. The number of sights, sounds, &c., whose contemplation comprises our consciousness is always comparatively small. While we are playing the piano, the rest of the objects in the room, and all those outside it, are still possible candidates for inclusion in consciousness, and may at some time in the past have been therein contained; but at present they are outside the conscious field, their existence has no interest for us now, and they are therefore ignored. We shall see presently that the art of sight-reading depends largely for its acquisition on the power of excluding from consciousness much that is presented to the eye.

Once more, it is a matter of common notice that the stream of consciousness is not like a deep and waveless river; it is more like a mountain torrent, whose surface is fretted with waves, some large and some less prominent, and whose bed is strewn with obstacles which constantly divert the current. Occasionally the former

placid condition may hold as, for example, when we are drowsy; but when our mental activities assert themselves vigorously, first one and then another object flashes into the foreground and demands notice. This focalisation of the mind upon one of all the many objects presented to consciousness is known as an act of Attention.

We now arrive at the particular point which bears so largely upon the subject under discussion. How many things can we attend to at a time, and for how long can the attention remain fixed upon an unchanging object? These problems have been attacked experimentally of late years, and the results of these investigations are educationally of great value.

The answer to the latter of these problems is rather startling. The longest stretch of attention to one unchangeable object of which we have any record is twenty-five seconds. The average time is four or five seconds. Very casual introspection reveals the fact that attention is constantly flitting from one object, or one aspect of it, to another. Let the student fix his gaze steadily on one note of a printed page of music and see how long he can keep his attention fixed on its oval shape alone. He will find the effort to do this very exhausting, and it can be sustained only for a few seconds. Since consciousness is progressive, it would indeed seem only natural that attention, which is so closely connected with it, should change also.

How many things can be attended to at one time? This question cannot be so accurately determined. We can attend, in a certain degree, to many things at the same moment, *e.g.*, we can "take in" as the phrase goes, a good many of the musical hieroglyphics on a page of music. On examination, though, we find that under normal conditions of mental activity, the attention selects a very few of these and places them in the foreground of consciousness, while the others recede into what Professor James aptly calls the *fringe*. But, as we have already seen, the attention is constantly calling out new objects into the foreground, so that the constituents of the fringe vary.

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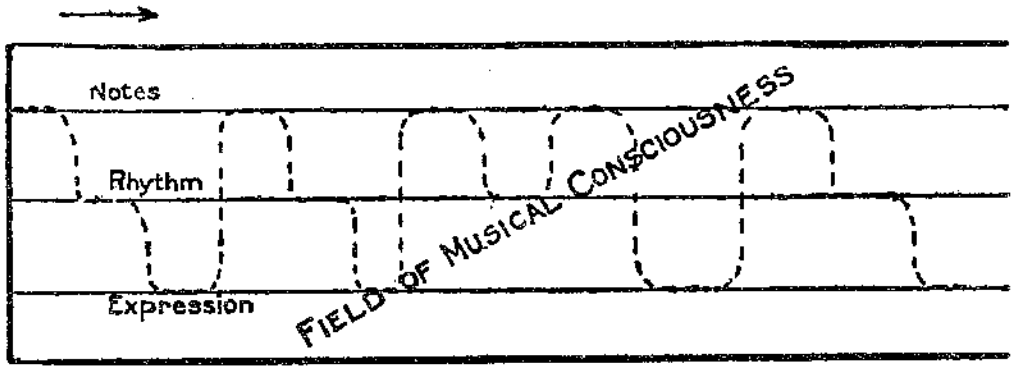
While many *objects* can enter the arena of consciousness, it is different in the case of *processes*. All of us have experienced the difficulty of attending to more than one process at once. For example, let the student try to sing "God save the King" whilst writing a letter. But it is possible, by practice, to get one process into an automatic stage, *i.e.*, to make a habit of it, so that it no longer needs attention, leaving the mind free to concentrate itself upon other processes. A great part of our education is devoted to the formation of habit. This is the prime object of continuous scale-practice and many another musical task. We are all tempted to shirk this because of its monotony; but monotony is a necessary stage in the formation of any habit.

The following diagram, although incomplete, may help to make some of these remarks more intelligible:—

FIG 1



(*The dotted line represents the Attention-wave.*)

In the "Field of Musical Consciousness" we include all that makes for a "musical frame of mind," but the attention cannot be concentrated on all the elements at once. Now it is focussed upon the notes, then upon the rhythm or expression, and so on. It may be objected that a practised player really can attend to all of these at the same time. It is, however, much more probable that, in his case, the deciphering of the notes and rhythm and the translation of these into finger movements on the keyboard have, by practice, become more or less automatic, and that consequently little attention to them is really necessary.

But it is certain that beginners are not so happily circumstanced.

Little with them is automatic. Notes, fingering, rhythm - all cry aloud for the whole of the attention. But to a beginner, who has not yet practised sufficiently to bring about a permanent connection between notes and fingering, these elements are really different *processes*, not parts of one process. As we have seen, to devote attention to more than one process at the same time is very difficult; hence the attention-wave flits from one process to another. True it may be that transference of attention can take place with lightning rapidity; but it is clear that, for a proper result, it is very necessary that this act of focalisation shall be completely under control.

Why does a pupil so often say about his scales, "I can get the notes right, but the fingering comes wrong"? For this reason—assuming that neither the selection of the notes nor the fingering have yet reached the automatic stage—the attention is constantly flitting from notes to fingering; when it ought to be devoted to the fingering it happens, perhaps, to be concentrated on the selection of the right notes.

Since it is impossible to attend to all the details at the same time which make up a musical phrase, the problem of fluent reading resolves itself into this—"What to see, and when to see it." Just as the formation of a good memory depends upon knowing what to forget, so good reading involves a refusal to see many of the objects presented, and their banishment to the proper place in the "fringe."

Beginners, as a rule, do not know what they ought to look at, consequently their attention is devoted to one aspect when it ought to be concentrated on another. It is suggested that teachers who are at all sceptical on this point should make an endeavour to ascertain *how* pupils decipher the printed notes. They will often be surprised at the result of such an inquiry.

The point to be aimed at is *Economy* of the Attention. We have seen that there is not an unlimited supply upon which to draw. A little introspection will convince the teacher that he himself does not really attend to a tithe of the signs on the printed page: they

may, many of them, be included in the field of consciousness, but by far the greater number are in the fringe and not in the foreground. The proper relation between foreground and fringe is one which the teacher must help his pupil to discover and maintain. In the farthest recesses of the fringe we must endeavour to place all such processes as the apprehension of rhythm, the selection of suitable fingering, and the judgment of interval distance. Of course, this desirable result will ensue when, by intelligent practice, these processes become almost automatic. Incidentally, it may be interesting to notice a point in Optics bearing on the question of "fringe." Helmholtz, in the "Preussische Jahrbucher" for 1868, says that "The field of vision for each eye separately is 160° laterally and 120° vertically; for both together somewhat more than two right angles from right to left." But the image of this field on the retina is exact over a very small surface only. This limited surface "corresponds in the field of vision to an angular magnitude which can be covered by the nail of one's forefinger when the hand is stretched out as far as possible." Within this space the power of vision is very accurate, but not more so than is necessary for differentiating the minutæ of musical notation. Outside of this area, vision becomes more or less blurred; the distinctness varying inversely as the distance from the focus.

A good deal is said in the following chapters about "mental images." There is perhaps a flavour of tautology about the phrase, as in one sense all images are mental. But, as the term is generally applied to the process which is here referred to, it has been retained as intelligible.

The construction of images, or in other words Imagination, occupies a large part of our mental life. The elements of which these images are composed must originally have been experienced as real sensations, and remembered. We may imagine a *sound*, *i.e.*, auditory imagination; or a *scene*, *i.e.*, visual imagination; or a *pressure* or *strain* with its concomitant ideas of hardness, temperature, &c., *i.e.*, tactual imagination. All of these forms of

Imagination are seldom or never possessed in an equal degree by one individual; usually one type predominates. To the pianist, all are important. That the first—auditory imagination—is so, is obvious; although ear-training, with which it is concerned, is only now beginning to assume its proper place in musical education. The third type—tactual imagination—is also essential, because many finger movements would be impossible unless the player had a preconceived idea or apperception of what they would feel like when properly executed. (See Chapter III.)

Then again, with regard to visual images. The author's opinion is that far too little stress is laid nowadays upon the essential importance of this. Most of us can play fairly complicated music without looking at the keyboard at all. How do we know where to place our fingers? The great majority of us undoubtedly keep an image of the keyboard more or less prominently in the foreground of our consciousness, and with the aid of tactual imagination—*i.e.*, a realisation of the sensations of pressure and strain which the correct performance of the movements should produce, we arrange our hands and fingers accordingly.

The word "image" is here used as the antithesis of actual "sight." A sight of the keyboard naturally involves looking at it, and consequently taking the eyes from t e copy, a course which everyone knows is fatal to fluent reading if carried to any excess. But pupils must know where to find the notes; *i.e.*, they must see them or imagine them in position.*

It is for these reasons that stress is laid in the following pages on the formation of visual images. Provided that the topography of the keyboard is studied very carefully with the eyes fixed thereon at first, the subsequent formation at will of an image of any section of the keyboard is not by any means difficult. The process should not be left to chance, but should be insisted upon from the very outset.

* Doubtless, especially where the parts move by small intervals, tactual imagination is prominent; but it is probable that even here, visual imagination is, or has been previously involved.

PLAYING AT SIGHT.

CHAPTER I.

Relationship between Stave and Keyboard.

EVERYONE will recognise that a perfect apprehension of the relationship which exists between stave and keyboard is an essential part of the equipment of a fluent reader. Unfortunately, experience shows that while many students possess encyclopædic knowledge about the intricacies of notation, comparatively few are able to assimilate just those few vital relationships which forge the link between symbol and object.

"When we are learning to walk, to ride, to swim, skate, fence, write, play, or sing, we interrupt ourselves at every step by unnecessary movements and false notes. When we are proficients, on the contrary, the results follow not only with the very minimum of muscular action requisite to bring them forth, but they follow from a single instantaneous cue. * * * A glance at the musical hieroglyphics, and the pianist's fingers have rippled through a shower of notes."*

This immediate sequence of "cue" and "muscular action" assumes that the cue is given to a mind controlling nervous centres which are already charged almost to the point of discharge. There is little or no time for any intermediate process of reasoning between the perception of the printed sign and the following muscular movement. This annihilation of the intermediate process is the final stage in the formation of a habit; and one of the essential conditions in the rapid acquisition of a habit is that all sensations which are not absolutely necessary to the action which we desire to make habitual shall be ignored from the very outset.

* JAMES—"Text-book of Psychology."

What are the essential features in the relationship of stave to keyboard?

I. That vertical position on the stave corresponds to horizontal position on the keyboard.

This is very clearly demonstrated by the so-called "vamping charts." Such aids, although never necessary, need not be despised by the teacher who finds any difficulty in making very young pupils understand the principle.

It seldom happens that this principle itself is misapprehended, but the beginner finds difficulty in realising the relation of the many varying positions on the stave to the corresponding ones on the keyboard. Five-finger exercises involve the application of the principle in its simplest form.

II. That the Complete Stave is a series of twenty-five* (not ten or eleven) lines, which with the intervening spaces provide a definite place for each note of the keyboard; and this stave is formed by appropriating a line for middle C and adding thirteen lines above and eleven below.

If this view of the stave be accepted, it seems to follow that the rational method of teaching the stave to beginners is to commence with a one-line stave (denoted middle C) and gradually to add lines above and below, until the "Great Stave" is complete. It is, however, important not to divorce the "leger lines" from their place as integral parts of the complete stave.

The "clefs" must be taught simply as representing that part of the complete stave from which the given group is taken.

There is no valid reason for excluding the group of lines denoted by the C clef  and, in fact, it greatly assists the pupil to grasp the continuity of the stave if a few exercises with it are given at an early stage.†

III. That the (approximate) middle key of the keyboard corresponds to the note written on the middle (C) line of the stave.

There are three notes which should be considered as "landmarks"—the note on the middle line of the Great Stave of eleven lines, that on the bottom line, and that on the top line. The whereabouts of these on the keyboard should be thoroughly

* For pianos of seven octaves.

† This is the plan adopted by Mrs. Curwen in her thoroughly scientific "Pianoforte Method," so also is that of treating certain leger lines as *borrowed.—(Vide infra.)*

grasped at the very outset. All other notes can be swiftly located by using the most convenient of these three as the starting-point in the calculation. Gradually, of course, calculation for other notes becomes unnecessary, as their location by continual repetition becomes automatic, as it were; *i.e.*, we are able to take any note as the starting-point. But at first attention in this respect should be confined to the middle and extreme notes.

If the student is seated normally at the keyboard, so that middle C is opposite the middle of his chest, and then places his hands in a natural position, while the arms almost touch the side of the body, it will be found that the extreme notes of the Great Stave lie approximately under the *middle* fingers of each hand. Attention to this point helps to fix a valuable relationship between keyboard and stave.

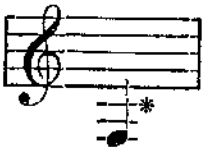
Leger Lines.

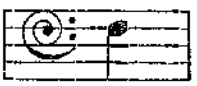
These should be considered as falling into one of two classes, viz.:—

(1) Those added above or below the Great Stave. Notes written on these will be located by using the top or bottom line of the Great Stave as starting-point.

(2) Those which occur in the middle of the stave (not, however, the middle C line, which is an essential of the Great Stave).

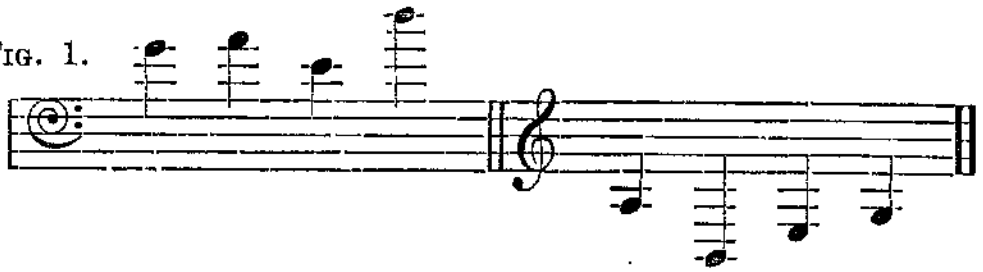
Beginners experience difficulty chiefly with the latter class of leger lines. If, however, these were treated as though they were *borrowed*, the difficulty disappears. Thus, the note is located in this way:—



The line marked * is middle C line, the other two lines are *borrowed* from the upper lines of the bass stave, thus the note is—  By subtracting one line (middle C line), therefore, the position of the note in the other section of the stave is at once apparent.

Exercise 1.—Adopting the above principle, locate the following notes by writing them with the other clef. Afterwards transfer to the keyboard.

Fig. 1.



It will be noticed that no mention has yet been made of the alphabetical names of notes, with the exception of "middle C." The experience of the author is that these are generally taught at too early a stage. Names are valuable in so far as they provide an alternative method for the location of a note, and also express symbolically the relationship between a note and its octave. But location by stave-position and by interval is in general much more serviceable. "Bottom-line note" is as good a name as G, especially as there are seven G's on an ordinary keyboard. Moreover, if a child once acquires what may be called the alphabetical habit, he is bound also to acquire the fatal habit of looking at the keyboard to locate nearly all notes. The chief use of alphabetical names appears when wide skips are involved.

One qualification of a good reader is that he shall be able to transfer notes from stave to keyboard without looking at the latter, unless the intervals are abnormally wide. The ability to do this assumes the power to keep a mental image of the keyboard in consciousness (see Introduction). That an image of some kind is essential is apparent from the tendency of young pupils to look so intently at the keyboard. They say that they must *see* whether they are playing the right note. But a "*mental* picture" serves equally well, besides leaving the eyes free to follow the printed notes. The teacher should devise some suitable exercises to ensure that these mental pictures are formed by the pupil. *E.g.*—

Exercise 2.—The pupil is to play middle E with the R.H. middle finger. He is then to remove the eyes from the keyboard and with the same finger to play the notes indicated by the teacher, thus:—"second-line note or G," "fourth-line note or D, sharpened," &c.

The pupil will probably "feel" his way over the notes (tactual imagination). If he has been through a course of ear-training he may also remember what the required note will sound like, and experience will teach him where to find this note on the keyboard, *i.e.*, he will use *auditory* imagination. Practised players do undoubtedly use this method very considerably, but beginners do so but seldom.

Conversely, a useful exercise is to strike a key on the piano, and *imagine* a stave with this note written upon it.

Exercise 3.—Let the pupil strike any note and say immediately on what line or in what space it would be written.

Here tactual and auditory imagination have little or nothing to do with the matter.

Grouping of Notes upon the Keyboard.

We have already spoken of certain "landmarks" on the stave. The grouping of the black notes of the keyboard into twos and threes, in accordance with the principle of the octave, give us certain *points d' appui* on the keyboard. Obviously, alphabetical names for notes would be meaningless but for this grouping. Many teachers are aware of the fact that young pupils seldom seem at home with the extreme sections of the keyboard, although they may be familiar with the middle part. Certainty in skips is assured only when all of the groups are equally well known. A short time devoted to such exercises as the following will help in this direction. The teacher must have ready a Great Stave extended by leger lines so as to embrace the entire keyboard.

EXERCISE 4.—Let the pupil play middle C and then *very rapidly* all the C's above. Then let him indicate on the stave where these would be written. Similarly with the C's below middle C.

The value of this exercise is proportional to the rapidity with which it is performed. N.B.—That it is the grouping of the black notes which makes the exercise possible at this stage. Later on, octaves can be played by apperception of the stretch required to span them (see Chapter III).

As a continuation of the exercise, let the pupil treat other notes than C in the same way.

Although there is little opportunity, especially in rapid *tempi*, of the employment of any kind of tactual imagination in wide intervals, a few exercises like the following are valuable, as they help to give the child that confidence in his ability to find notes without looking at them, which is so necessary to his progress in reading.

EXERCISE 5.—Close the eyes and find all the C sharps on the piano by feeling for the gaps between the groups of black notes, remembering that C sharp is at the left of each group of *two* black notes.

Proceed similarly with F sharp, G sharp, &c. The various white notes can be found by observing their position relative to the groups of black notes.

This is the method, of course, in which blind pianists are trained. Their imagination is purely tactual at first, and can never become really visual. Most children, even if their eyes are closed, will form a visual as well as a tactual image.

It should be noticed that while octaves on the piano are determined by similarity of position, octaves on the stave are by no means so easily identified (see, however, p. 29).

Dismemberment of the Great Stave.

Sometimes, especially in duet-playing, the parts for both hands are written in the same clef, *i.e.*, two treble or two bass staves are used. In such a case one should notice that similarity of position in the right and left hand parts now signifies *identity* of position on the keyboard.

It should also be observed that in duet-playing the position of the body of the player relative to the keyboard is altered. The performer who undertakes the *Primo* should now be seated so that the F written on the top line of the Great Stave is opposite the middle of the body, whilst the other player should have the lowest G of the stave immediately in front of him. The first player will now find that the notes immediately round middle C are covered by his L.H. held in its normal position, while the second player will have them immediately under his R.H. If this definite relationship between keyboard and body be borne in mind, the difficulty of taking wide skips will be minimised.

CHAPTER II.

Scales and Keys.

AMONGST the many mistakes made by beginners in scale-playing, one of the most frequent arises from the fact that, apart from the notes themselves, not nearly enough attention is usually paid at the outset to a certain movement which underlies all scale-playing. This is the alternate passing over of a *group* of three fingers, then a *group* of two; also the passage of the thumb under two fingers, then under three. This is undoubtedly a complicated series of movements, yet it is absolutely essential that it be made into a *habit*, so that little or no attention need be bestowed upon it. Fluency in reading at sight depends largely upon getting as many processes as possible into the automatic or habitual stage.

This can only be done by isolating any particular process, and performing it repeatedly, and in such a way that at first the mind is occupied wholly with this and nothing else. Movements practised thus soon become habitual. A simple test to ascertain whether a movement has become automatic is to ask the pupil to perform it while doing something else which requires attention. *E.g.*, if the pupil can play the scale of C (there is no attention required here for selection of notes) with closed eyes, repeating meanwhile, say, the multiplication table, we shall not be far wrong in assuming that the process of passing fingers over and thumbs under in the right order has become automatic.

It is better to think of passing over a *group of three fingers* than of passing the *fourth finger* over, and so on.

There are two methods by which the notes of a scale may be selected. One is by learning and remembering the interval (tone or semitone) between one note and the next; the other is by forming a mental image of the series of black and white notes forming the scale. Both these methods are employed in actual performance; generally speaking, the second is that adopted by practised players, although undoubtedly the first is sometimes combined with it.

The habit, when once established, of passing over the fingers also contributes towards the selection of the right notes, but this presumes that a considerable amount of scale-practice has taken place.

Tones and Semitones.

It is unnecessary here to explain the theoretical construction of the major and minor scales. From a practical standpoint, however, the following observations may be of service.

It is better to consider the semitone and not the tone the unit of interval distance. It is better still not to talk about tones or semitones at all in the early lessons, but to think rather of "steps," reckoning the semitone as one step. Thus the intervals of the major scale become 2 2 1 2 2 2 1. (*Cf.* this grouping with that of the black keys on the keyboard.)

When learning a scale for the first time the pupil should find its constituent notes for himself in accordance with the above formula.

Colour.

Observe that an interval of two steps, *e.g.*, C to D, or F♯ to G♯, involves no change of colour on the keyboard except at the gaps between the groups of black keys; while an interval of one step involves a black and a white key, except where B C or E F are in question.

If teachers will analyse the mental processes by which they themselves play, they will find that this question of colour, conjoined perhaps with that of remoteness (black), and contiguity (white) keys is actually present in consciousness, unless, of course, the automatic stage has been reached.

Visualisation applied to Scale Playing.

Until scale playing has become automatic, a sight or a mental image of the keyboard is indispensable. *E.g.*, not until a pianist has reached a high grade of perfection is he able, when playing the scale of D flat, to dispense with an idea that all the black keys and also two of the white ones will be employed. It is, therefore, desirable that each scale shall be definitely associated in the mind of the pupil with a certain grouping of the black and white keys. For example, take the scale of B major.

Exercise 6.—Let the pupil first point out with the R.H. first finger the notes forming this scale, thinking of the number of steps between each note.

Then let him repeat the process, writing down the order of the black and white keys. From this let him make a diagram like that below:—

Fig. 2.

Scale of B major.

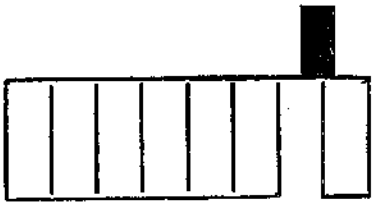
The next step is to play the scale *from this diagram* without looking at the keyboard, using the proper fingering. Now remove the diagram and tell the pupil to *think* about it (*i.e.*, to form a mental image) and to play the scale again without looking at the keyboard.

The diagrams should be carefully preserved and copied out neatly on a large scale for future revision.

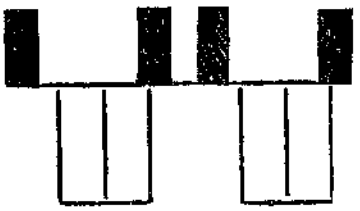
That most players practically adopt such a method is evinced by the fact that they find it easier to answer such a question as "How many black notes in the scale of B major?" than to say unhesitatingly the alphabetical names of the notes forming the scale.

SUPPLEMENTARY DIAGRAMS.

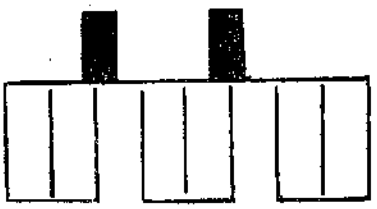
Scale of G major.



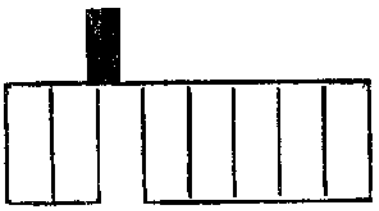
Scale of E flat major.



Scale of C minor.
(Harmonic.)

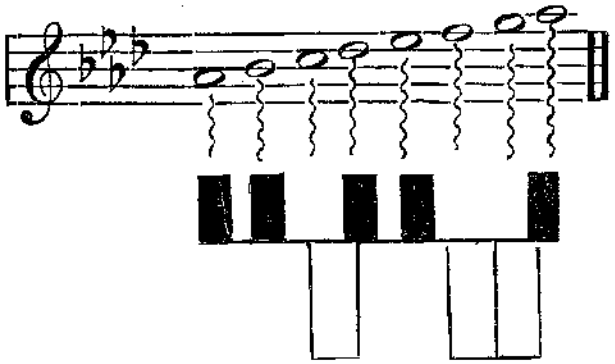


Scale of C minor.
(Melodic.)
Ascending.



Descending.

These diagrams should be compared with the written scale, thus:—



It should be noticed that the horizontal distance on the keyboard of tones and semitones is not symmetrical throughout. Thus, the distance on the keyboard between E flat and F is greater than that between F and G, although each of these intervals comprises a tone. This difficulty is not always appreciated by teachers.

Minor Scales.

The practised player, when actually playing minor scales, undoubtedly thinks of them as self-contained entities, and excludes all idea as to their relation to the corresponding Relative or Tonic Major. The general practice of teachers, however, is to treat a minor as derived from a major scale, so that the pupil will think of the harmonic form of A minor as *like C major*, with a certain difference. There is much to be said for adopting this method of linking the unknown to the known. In the case of the harmonic minor there is only one point of difference to be observed, *viz*, the gap of three steps between the 6th and 7th notes. Notice that this leap involves no change of colour if the notes B or E are concerned, otherwise it does. If the procedure recommended above be adopted, obviously the pupil must carefully compare his diagram of the major scale with its corresponding relative harmonic minor.

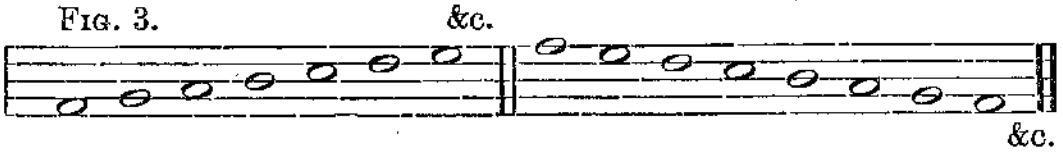
The case of the melodic minor scale is somewhat different. Here we have two necessary mental images to form, one for ascending and one for descending. Some teachers tell their pupils to think of the tonic major ascending and relative major descending. In the former case there is only one alteration to make, *i.e.*, in the case of the third note; in the latter there is no alteration necessary. Whatever procedure is adopted the corresponding diagrams must be carefully collated by the pupil.

Except for the purpose of reference in case of doubt, scale-books should be eschewed by the pupil. They should be regarded in fact as dictionaries and used as such. Scale-playing must become automatic as soon as possible, and dependence upon the written notes is opposed to this.

The Scales as Written.

Since all scales progress alphabetically as far as the names of the notes are concerned, it is clear that they will all look alike on the stave as far as the relative position of their notes is concerned. That is they will all appear thus, ignoring for a moment the sharps and flats.

FIG. 3.

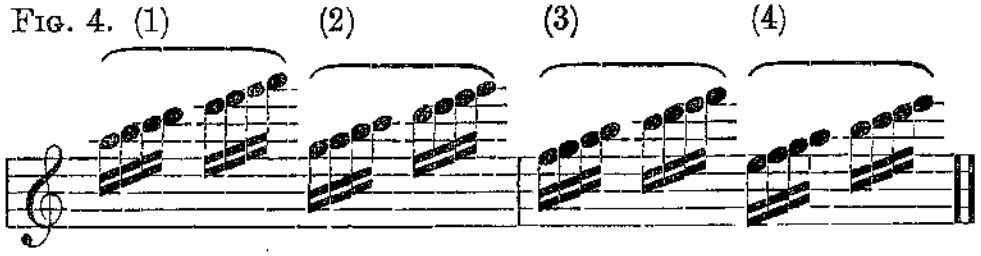


Any passage proceeding by single steps up or down the stave, and not complicated by the addition of accidental sharps, flats, or naturals, is either a complete scale or a fragment of one; this latter we will call a "Scale-passage."

This seems like insisting on the obvious, but the principle underlying it is, like other obvious things, frequently ignored. Fluent sight-reading, whether of music or written words, is dependent upon the recognition not of single notes or letters, but of *groups*. This principle will be developed presently; meanwhile the student must realise such passages as that given above, not as so many separate notes, but as if it were written "Scale-passage beginning on *x*, ending on *y*, ascending or descending."

For example, the following passage from Czerny

FIG. 4.



should be read thus:—

(1) Scale-passage of 8 notes (4+4) beginning on A.

(2) (3) (4) Scale-passage of 8 notes (4+4) beginning one note lower.

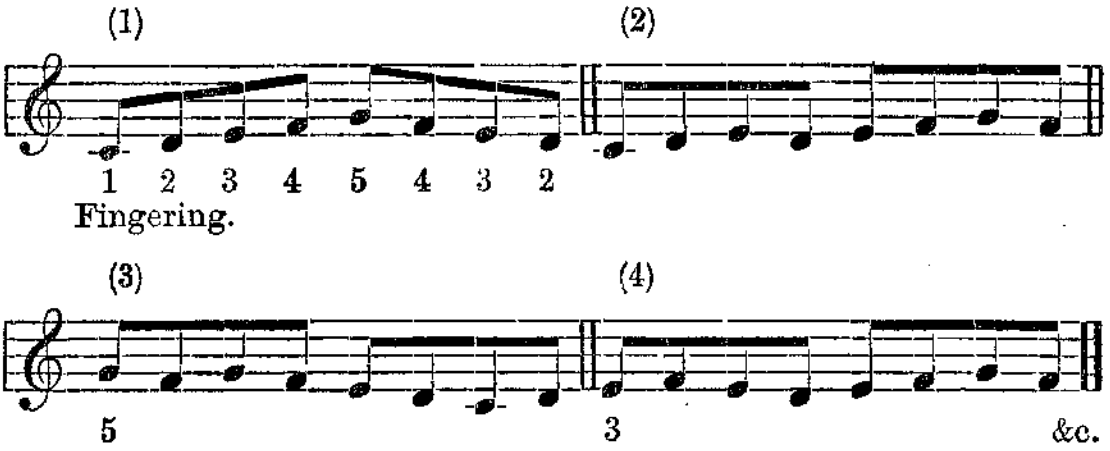
Notice that the only note that is read by *name* is the first one.

The number of variants which can be obtained from scale-passages is practically inexhaustible. As far as notes are concerned, all music, however simple or complicated, may be viewed as consisting of—

(*a*) Scale passages.
(*b*) Chords—perhaps spread out into *arpeggios*.
(*c*) Combinations of (*a*) and (*b*).

Scales in their completeness are not often met with; generally fragments are employed and the up and down movement is varied. For instance, from the five notes, C D E F G, it is possible to get a great many passages, preserving throughout the stepwise motion as

FIG. 5.



EXERCISE 6.—The above groups are to be played on the piano thus:—

(1) Grasp the fact that as we are in the key of C no black notes are used.

(2) Find the first note of each group either by name or stave-position.

(3) The other notes are not to be perceived separately, the *outline* of the group is rather to be noticed; *i.e.*, whether the progression is ascending or descending.

EXERCISE 7.—Take the copy away from the piano; look steadily at the *outline* of one of the groups; notice what the first note is, retaining meanwhile a mental picture of the outline; then go to the keyboard and play the group without looking at the copy. Treat the other groups in the same way.

*Such exercises could be multiplied indefinitely, but they need not be continued after the pupil has irrevocably formed the habit of playing scale-passages from their outline.

*See note at foot of p. 19.

The process becomes more complicated when other keys than C are employed, because, in addition, one has to form a mental picture of the keyboard arranged for the particular scale.

EXERCISE 8.—Examine No. 1, Book I of Czerny's "Kunst der Fingerfertigkeit," Op. 740.*

Pencil in hand we will go through the scale-passages in this study. For the first $8\frac{1}{2}$ bars these are in the L.H. part. Place the pencil point on the first note, notice that it is C, then let the pencil follow the course of the notes, thereby tracing the outline. Concentrate the mind on the movement of the pencil point. Be on the watch for any break in the symmetrical scale-movement; when it comes, call out the name of the following note. In the example in question, the first break occurs between bars 4 and 5; the student will therefore call out "G" or "fourth-space note."

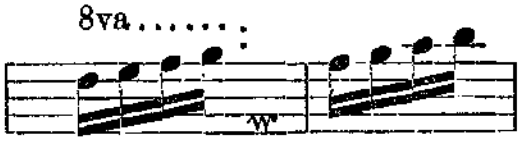
Trouble often occurs in going from line to line. This may be overcome by indicating with a "direct" *w* at the end of one line the position of the first note of the next line.

In the middle of bar 8 the scale motion is transferred to the R.H. and continues there until bar 24. The ledger lines in bars 21, *et seq.*, need cause not the slightest difficulty; the stepwise motion is broken only at the end of bars 22 and 24, and this is easily noticed because, in the first case, we have two notes both in spaces, and in the second two successive notes, both written on lines.

At bar 33, both hands have scale passages; these can be traced first separately and then with a pencil in each hand.

"8*va*" sometimes is responsible for illusions as to the progression. *E.g.*, between bars 62 and 63 there is, at first sight, no break in the conjunct movement, but in reality there is a big leap downwards. This may be shown thus .—

FIG. 6.



One or two other studies may be examined in the same way. No. 5, of the same set, is suitable, also Nos. 13, 17, and 25. For the present purpose, the accidentals may be ignored; we are concerned only with upward and downward motion.† When the pupil

*Most of the subsequent sight-reading exercises will be taken from this well-known work,

†The influence of outline of form upon the æsthetic value of melody is dealt with in Stainer's "Primer of Composition," Chap. V.

is far enough advanced to transfer these studies to the keyboard, he must still, while keeping in mind the key in which the piece is written, ignore the separate notes of the scale-passage, observing rather the ascending and descending motion and any breaks which occur in the stepwise progression.

When, in the course of a long scale-passage, a break occurs which is only small, such as that at the end of bar 22 in the Study just under examination, it is often helpful to add a distinguishing mark in pencil, as this will be the very place where a mistake will be made in rapid reading.

Identity.

Although it is rather travelling outside the subject of our chapter, this is a good opportunity of exercising this faculty of noticing quickly identity of notes and groups. Identity of single notes immediately following one another is obviously quite simple. Look at the seventh bar from the end of Study 7. It is quite easy to see that there are only four different notes in the R.H. part. The mind should not perceive the first group as "C C C C," but as "C, same, same, same" and so on. If another note intervenes between the repetitions, recognition is not quite so simple. The sixth note of the R.H. part of bar 14 from the end of the same Study should be grasped as being the same as the fourth note.

Exercise 9.—Turn to Study 46. Form a clear idea of the first R.H. group; go through the whole Study and point out how many times the same group occurs. Observe that nearly all the groups have the same *outline*, but they are not all identical in every respect. (See the next section.)

The mental process will be (1) to remember the position of the *first* note of the original group, (2) to remember and keep prominent in the mind the exact *outline* of the group. For our present purpose it is unnecessary to examine the other notes of the groups; if the first note and outline are identical, so are the whole groups.

Examine also the following Studies for identities:—

Study 42—R.H. part.
,, 40— ,,
,, 35— ,,
,, 15— ,,
,, 12—L. H. part.

The sonatinas and smaller sonatas of the older masters—*e.g.*, Clementi, Dussek—provide, especially in the L.H. part, abundant practice of this nature.

Figures in Sequence.

The repetition of a group of notes higher or lower in the scale is a frequent device of composers. Examine bars 48 and 49 of the Study referred to above. Notice as quickly as possible the identity of outline of the two bars, also that bar 48 begins one note higher in the scale. The mind should grasp bar 49 as the *same* as bar 48 with the exception just named.

This ability of the eye to recognise similarity of form must be exploited to the full in sight-reading. Until a high degree of facility in this is attained no fluency in reading can be expected. Luckily it is easily acquired. Turn to Study No. 7 of Czerny's set and look at bars 18 and 19 R.H. part. The only right way of reading this is to notice that all the eight groups are identical. That is when once the first group is played the mind withdraws from the contemplation of the following seven and can think of something else, perhaps the L.H. part.

This again seems only natural, yet this procedure is more seldom followed than many teachers imagine.

EXERCISE 10.—Take the following Studies and point out all groups which are identical in *form* with that named, but not in *pitch*.

1st group, L.H. part, Study 8.
,, ,, ,, 12.
,, R.H. part, ,, 29.
,, ,, ,, 35.

Other exercises on recognition of groups will be found in Chapter III.

Neumes.

It is interesting to note that graphic methods of indicating melodic outline have not yet entirely disappeared. In early liturgical books the melodic outline alone, not the notes themselves, were indicated, the figures so formed being called "Neumes." Some of the signs still used for ornaments, such as the shake ~~~~~~~, the mordent ∽, and the turn ∾, which show the *progression* intended by the composer, result from an application of the principle which determined the *shape* of the "Neumes."

Key-signatures.

Only so much of the question of key-signatures is here discussed as directly bears on sight-reading. It is assumed that the pupil is already familiar with their appearance.

The appearance of a certain key-signature ought at once to arouse in the mind a distinct notion of a key and a mental image of the keyboard as arranged for that particular scale. So it would in a perfect system of notation, but that in use is very imperfect in many of its details, and some editors make the most of the imperfections. However, it is of the utmost importance that the principal key of the piece should be firmly fixed in the mind at the very outset, and the aforesaid mental image of the keyboard formed and retained.

In consequence of the imperfections mentioned it is very difficult to formulate rules on the subject, although some are given in theoretical text-books.

Undoubtedly the anomalies of notation in the minor keys are great hindrances to rapid reading; and the existence of the two forms of the minor scale, especially as these are often used indiscriminately, only adds to the difficulties.

Moreover ear-training as well as eye-training enters largely into the matter, as very often one *feels* that the key is minor, although no accidentals appear, the key being defined by the harmony. As a matter of fact it is often impossible to tell the key of a passage except by harmonic analysis, and even here differences of opinion will arise. The deductions from this are—

(1) Beginners will often need a little help in determining the key of a passage.

(2) If many and various accidentals are present, the pupil should not be expected to determine by sight alone the key of the piece; he should say tentatively "It *looks* as if it were in Key —."

But there can be no question about the importance for sight-reading purposes of the pupil knowing in what key he is playing, and keeping the idea in consciousness, even if the teacher has to supply the information. If, for instance, he knows that he is playing in the key of A minor, he will be prepared for G sharp, and this "accidental" will not come as a surprise; moreover, if the note comes twice in a bar, he will not go wrong even if, as is usually the case, the accidental is only written once.

Modulation.

This again is as difficult as it is important. A proper grasp of the subject is impossible until some progress has been made in harmony, and considerable progress in ear-training. It is rather the ear than the eye which decides that a change of key has occurred, and the plentiful use of chromatic auxiliary notes nowadays would rather lead one to suppose that the less the eye is called upon to decide the better. However, some modulations are so obvious that they can be determined immediately.

When a piece of music is said "to modulate," a change of key is implied. This must of course be made apparent to the eye by an alteration in the signature or by the use of accidentals. We have already seen that the employment of accidentals does not always mean a change of key, *e.g.*, in the case of the minor scale. Chromatic auxiliary notes (see p. 37) also require accidentals, but they do not change the key. *Cf.* Czerny, Study 42, in which the first six bars are all in the key of F.

Apart from these two cases, accidentals do generally imply that the key is changed, and in many cases the eye is able to determine the direction of this change. *E.g.*, in the 13th bar of Czerny's Study No. 1 an F sharp occurs and persists till the 20th bar. We should therefore be justified in transferring it to the signature, which would show that we are in Key G. Between bars 13 and 20 therefore, the original idea of Key C is banished from the mind and that of G takes its place. Bars 20 and 21 obviously revert to the original key. A persistent B flat in the next six bars, which apparently might with propriety be placed in the signature, throws us into Key F, so that this new key must form "the background of our consciousness." The transition from one key to another is not always so abrupt as it is here; frequently the composer glides almost imperceptibly into the new key, leaving a narrow region of debatable ground which can scarcely be said to be characteristic of any key. Directly, however, the new key is unequivocally established the old key must be banished from the mind.

In learning a new piece of music the pupil should go through it carefully with the teacher, and with his help determine the places where a new key is established. The name of this new key should then be pencilled in.

EXERCISE 11.—Take Czerny's Study No. 5, examine it from the point of view of modulation, and mark it as explained above. Then let the teacher play it, while the pupil tries to keep an idea of the keys in his mind.

EXERCISE 12.—Czerny No. 17. Treat this in the same way. This is more complicated and illustrates the complex appearance of a piece which makes use of both forms of the minor scale. There are a few passages which the pupil can hardly be expected to unravel at present. We will therefore inform him that the A sharp in bars 13 and 14 may be regarded as not foreign to the prevailing key (E minor). Similarly in bars 21 and 22 the D sharp may be disregarded as far as its influence on the key is concerned,

and bars 23 and 24 must be regarded as being in A minor. N.B., the appearance of the scale of A minor in the last bar but one. A mere glance should identify it.

The two preceding sections have dealt only superficially with a very wide and, to beginners, a very difficult subject. In fact, it is useless to take up the subject with an idea of mastering it before going on with anything else. The sense of key-relationship comes slowly and develops in union with other sides of the musical faculty. It is somewhat analogous to a sense of colour-harmony, which comes to an artist only after a long course of training. But one fact stands out clearly: the player who wishes to read fluently must "know the keys." *He must recognise, chiefly through the printed copy, that he is playing in a certain key; this knowledge must call up in his mind an image of the keyboard as "arranged" for that key, and this image must be retained.**

After much intelligent practice this image will gradually become less distinct; there will be less necessity for it because the fingers accommodate themselves "automatically" to the key. That some pupils do not arrive at this desirable stage with the hoped-for celerity is due to the haziness which surrounded their early attempts at scale-playing.

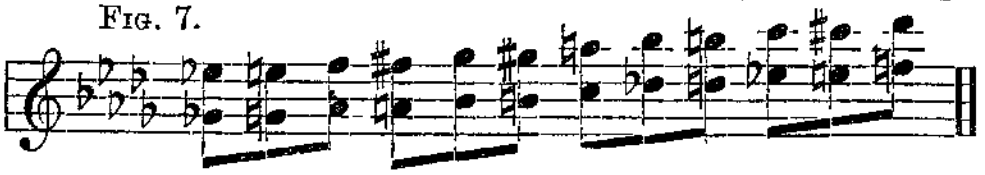
Practice in chord-playing (see pp. 33 *et seq.*) is even more valuable than scale-performance for thoroughly grasping the idea of key. The study of the two preceding sections may therefore usefully be combined with an examination of the subsequent pages named above.

The Chromatic Scale.

The chromatic scale, *i.e.*, the scale which proceeds by steps of a semitone, or in other words employs every note, black and white, on the keyboard within the limits prescribed, is very easy to play, but very difficult to write down. This arises from the fact that the stave is better adapted for a tonal than a semitonal system.

Its appearance on the keyboard is obvious, but on the printed page is bewildering. Theoretical text-books give numerous rules for writing it, but composers and editors seldom observe them, hence they will not be discussed here. Here is an example from Chopin:—

FIG. 7.

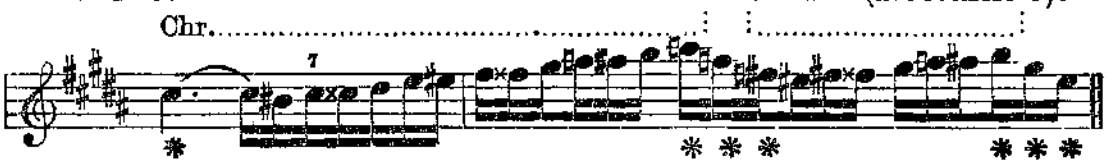


* It must be remembered that reading at sight implies that the eyes must be kept on the printed copy nearly all the time, hence the necessity for a "mental" image.

What actually happens when practised players encounter such a passage is that they assume (in psychological language they "apperceive") that the passage is chromatic, and keep the mind intent upon discovering the place where any divergence from the regular chromatic scale occurs. We might perhaps say that they get into a "chromatic frame of mind."

By far the safest plan for beginners to adopt is to go to the keyboard, play the passage slowly, and discover where the regular chromatic sequence begins and ends, and then pencil in some kind of indication. Thus:—

FIG. 8. CHOPIN (Nocturne 3).



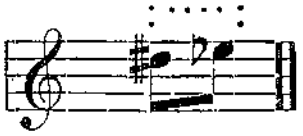
With the passage marked thus one need not worry about locating any notes except those marked *; all others proceed by single steps (see also p. 50). Hence in reading chromatic passages observe where the chromatic sequence begins and where it ends, bestowing only the minimum of attention (for purposes of rhythm and expression) upon the intervening notes.

There is only one chromatic scale; any note may be used for the initial and final notes.

The Enharmonic Scale.

This involves steps of less than a semitone and is, therefore, impossible on a piano. A kind of enharmonic interval is sometimes encountered in printed music; this requires care, as pictorially it is deceptive. For example:—

FIG. 9.



At first sight, this is an upward progression, but on the keyboard it signifies no progression at all. Beginners should mark such passages in some such way as suggested above.

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* A most valuable exercise to give to young pupils is this. Take about 20 blank postcards, and write upon each a short melodic phrase. Direct the pupil to select a card at random, and look at it for a few seconds, trying at the same time to realize what it will sound like. He is then to replace the card and play the phrase from memory. This procedure compels attention to be given to the phrase as a whole. The exercise can well be practised by the pupil at home.

CHAPTER III.

Intervals.

On the Keyboard.

FOR an explanation of Intervals in their theoretical aspect, the student is referred to any text-book on Theory. The pianist, as such, is not much concerned with the quality (major, minor, augmented, or diminished) of intervals. Rather he requires to be familiar with the intervals *as they occur in a scale*, regardless of their names.

Sight-reading assumes that the eye has to give most of its attention to the printed copy: the keyboard is mainly apprehended by the "mental eye." Distances on the keyboard are judged mostly by judging "the stretch" of the hand, but this in itself involves, especially at first, a sight "mental" or otherwise of the keyboard.

The eye is *the* space organ of ordinary life. The span of the hand is also used; and it is possible, besides, to judge distance by sensations of strain in muscle or tendon produced by moving a limb through a given space. But, as a general rule, the notions of distance gained through motion of a limb are very inaccurate unless they are also associated with the sense of "mental" sight. Let the pupil try to open his hand spontaneously, and without reference to the keyboard, so as to include a space equal to the interval of a 5th, 4th, &c. The error is generally very great. If, instead, the arm is required to move through such given distances, the error is most often greater. However, *with practice*, it is possible to judge distances with considerable accuracy by span, and this the pianist has to acquire. But at first the more accurate space organ, *viz.*, the eye, must be called upon to assist.

The process as adopted in playing is complicated by the use of more than one pair of fingers, there being ten different pairs available in either hand. Some of these pairs cannot be used for wide intervals, but all are available for the smaller distances.

With regard to the following exercises it may be observed that they need not be at all prolonged. Previous practice will in many cases have made the interval-stretch familiar. The teacher must use his own judgment as to the time which should be devoted to each interval. Pupils with very small hands will have to avoid some of the wider stretches.

EXERCISE 13.—At the keyboard. With fingers 2 and 3 of the right hand play middle C and D. Place the finger tips exactly in the middle of the keys. Close the eyes, lift the fingers, retaining

the stretch, try to form a mental image of the appearance of the notes, and also endeavour to realise the "feel" of these two fingers.* Now close the hand, then try to open it to its original shape. Keeping the eyes closed, place the two fingers anywhere on the keyboard and test whether the original stretch has been reproduced.

EXERCISE 14.—Perform a similar exercise with the following pairs of fingers 3 4, 4 5, 1 2. The pupil will probably feel a greater strain between 3 and 4 and a less strain between 1 and 2 than when 2 and 3 were employed.

In the scale of C the horizontal distance between any two adjacent notes is always the same. Although there is only one semitone between B and C, and E and F, the keyboard distance is the same as between any other two adjacent notes, although all these others are *two* semitones apart. (See p. 10.)

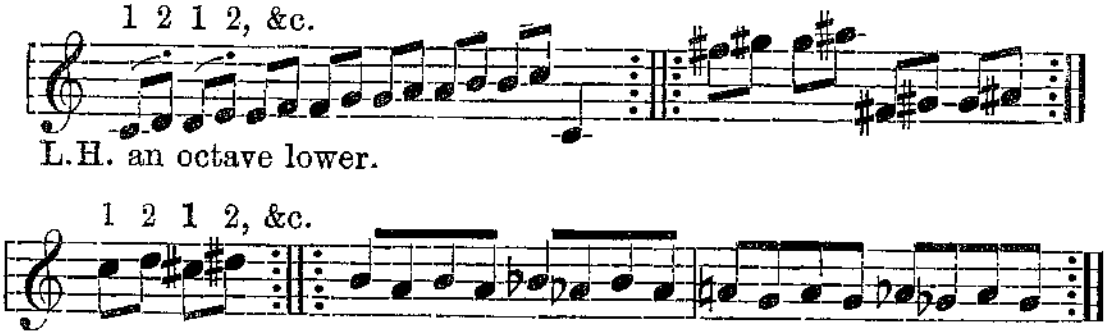
EXERCISE 15.—Perform a similar exercise with all pairs of fingers on these pairs of black notes C♯ D♯, F♯ G♯, G♯ A♯. It will be found on most pianos that the distance between the middle lines of the two black keys is a little greater than that between the middle line of two adjacent white keys.

This, perhaps, is partly responsible for the difficulty of playing *arpeggios* on the black notes cleanly. Then, again, the black keys are narrower than the white ones; hence practice in the "upper key" positions is the best way of acquiring the art of striking the key exactly in the middle.

The plan recommended above, of retaining the stretch while transferring it to another part of the keyboard, is helpful in learning the "wrist *staccato*."

EXERCISE 16.—Play the following as rapidly as possible with all pairs of fingers. Repeat each phrase with closed eyes, and endeavour to recall a mental image of the passage as printed :—

FIG. 10.



*The strain in this particular case is not easy to realise, as there is so little of it. Probably this accounts for the frequent inaccuracies which occur when young pupils have to play a rapid passage with a close position of the hand.

The pupil should now have a distinct idea of the "feel" of the stretch between any pair of adjacent fingers when playing two adjacent white or black notes.

Now we must consider the case of a white note followed by a black one and *vice versâ*.

EXERCISE 17.—Play middle C D flat with fingers 2 3 of the R.H. Raise the hand, retaining the stretch, and play all the C and D flats above. Repeat, with the L.H., proceeding downwards. Try also with these finger pairs 1 2, 3 4, 4 5. In case of any difficulty repeat the exercise for that particular pair of fingers on other similar pairs of notes such as F F♯, &c.

These exercises are not intended for regular practice, but are rather to be regarded as tests. Experience has shown that many mistakes made in reading are not due to the notes or intervals being *read* wrongly, but arise from over or understretching the interval. The fear of this is the chief reason why young pupils will persistently take their eyes off the copy and look at the hands, thereby "losing the place." In ordinary life we so seldom judge distance without the aid of the eye that there is an irresistible tendency to *look at* the stretch rather than to *feel* it. Such exercises as those explained above will help to demonstrate to the young pupil that he can do without the help of the eye after some little practice.

Pupils vary very much in their abilities in this direction, so that teachers may sometimes find that a small selection of such exercises is sufficient, especially as such training occurs naturally in the ordinary work of the keyboard; but whenever the teacher finds that an interval is over- or under-stretched he should devise an exercise like the preceding.

It is comparatively easy to play two consecutive notes with two consecutive fingers, but it becomes more difficult if other fingers are employed.

Let the pupil test himself by playing Fig. 10 with the following finger-pairs 1 3, 1 4, 1 5, 2 4, 2 5, 3 5.

Then again it is possible to play notes which are not adjacent with adjacent fingers (see below).

We have hitherto dealt only with adjacent notes, and it is remarkable how much stepwise motion one meets with in the course of a piece of music. However, other intervals must be considered. The stretch seldom exceeds an octave, but there are many intervals between the second and the octave. The following exercises are suggested as useful for acquiring these intermediate spans. The intervals here treated are those contained in the key of E flat. They should be practised in all keys, preferably while the

new scale is being learnt in the ordinary way. They may at first be played with the eyes upon the keyboard, but this help should be dispensed with as soon as possible, reliance being placed upon the mental image.

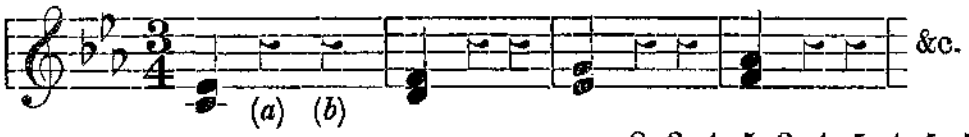
During the rests the following procedure must be adopted:—

At (*a*) raise the hand, retaining the span.

At (*b*) move the hand a little to the right, so as to bring it over the next pair of notes.

EXERCISE 18.—

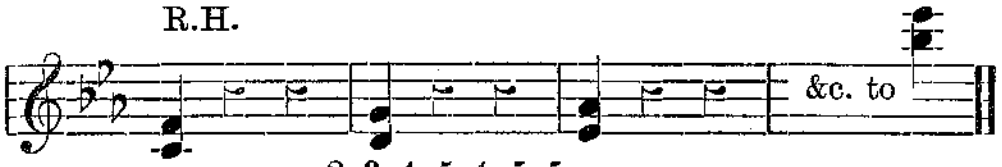
FIG. 11. R.H. through two octaves.



To be done with these finger pairs $\begin{matrix}2&3&4&5&3&4&5&4&5&5\\1&1&1&1&2&2&2&3&3&4\end{matrix}$

Similarly with the L.H. with all finger-pairs.

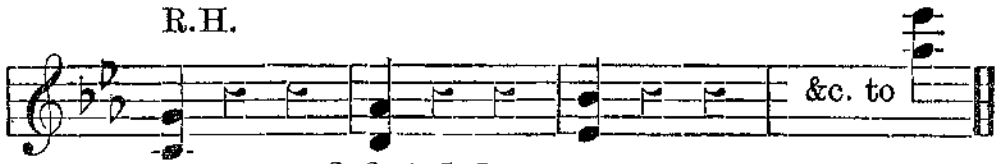
R.H.



With these fingers $\begin{matrix}2&3&4&5&4&5&5\\1&1&1&1&2&2&3\end{matrix}$

Similarly with the L.H.

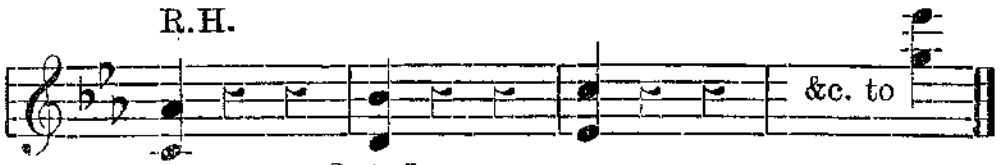
R.H.



With these fingers $\begin{matrix}2&3&4&5&5\\1&1&1&1&2\end{matrix}$

Similarly with the L.H.

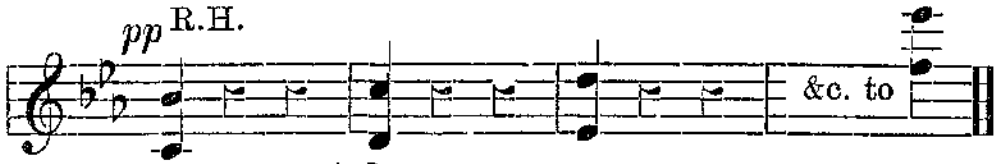
R.H.



With these fingers $\begin{matrix}3&4&5\\1&1&1\end{matrix}$

Similarly with the L.H.

pp R.H.



With these fingers $\begin{matrix}4&5\\1&1\end{matrix}$

Similarly with the L.H.

The octave is easy in one respect; both notes are either black or white and both are in the same position as regards the groups of black notes. Also the span for the octave is more easily realised and remembered because, for most people, it is just as much as they can comfortably span: *i.e.*, too big a stretch is at once noticed because of the uncomfortable sense of over-straining; too small a stretch is detected by there being no strain at all. Hands, of course, differ in size and elasticity, but the above is true of most hands.

Hence it is that octaves, as a rule, are more correctly judged than sixths and sevenths. It must be remarked, however, that a succession of octaves is likely to cause trouble, because the hand is inclined to relax so as to relieve the strain of remaining outstretched.

When once it is realised that a succession of octaves has commenced, withdraw the attention at once from one of the two notes forming the octave; think only of the thumb notes and keep the span fixed.

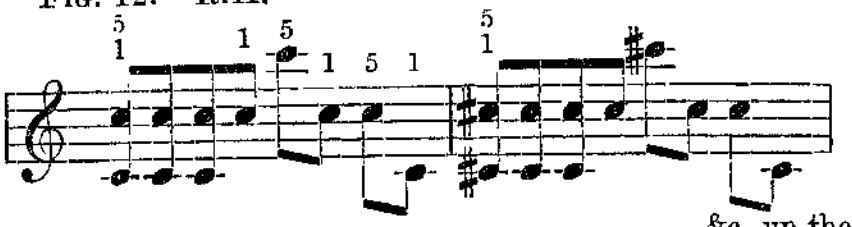
The octave has been affectionately treated by every composer of Studies, and for practice the student is referred to their works. Meanwhile the following is a comprehensive exercise.

EXERCISE 19.—Practise the following slowly, gradually increasing the *tempo*. Little benefit will be derived until the pupil can play it with closed eyes. When this can be done, it should be played in two ways—

(1) Form a mental image of the keyboard while playing.

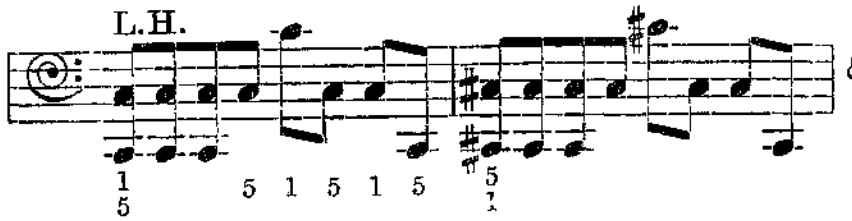
(2) Ignore the keyboard as much as possible, and instead, form an image of the printed passage.

FIG. 12. R.H.



&c. up the Chromatic Scale.

L.H.



&c.

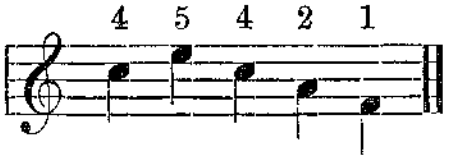
Examine also Czerny, Study 20.

Reading the Intervals.

It is one thing to be able to adjust the hand so that it will stretch any given interval; it is another to recognise the interval as written. We have here a problem somewhat similar to that treated under Exercise 8; but in this case we are not only concerned with the direction of the motion, but also more particularly with its extent. We have already, on pp. 21, 22, treated of the interval of a second, *i.e.*, that between *two* adjacent notes.

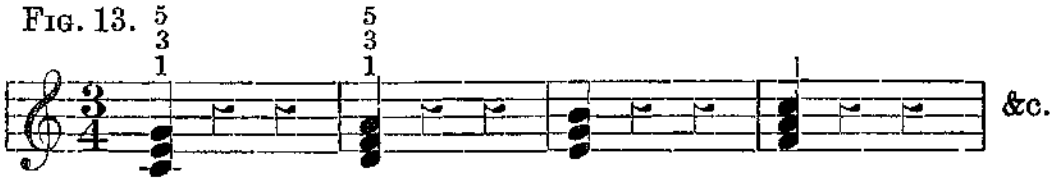
Interval of a Third.

Three notes are involved; two extremes and the intermediate one which is not played. This always appears on the stave in one of two forms, *viz.*, the notes are either in adjacent spaces or on adjacent lines.

In reading this, *e.g.*, 

having located the first note, we do not think of the following as E C A F, but simply as being *every alternate note* upwards or downwards.

Exercise 20.—

Fig. 13. 

&c.

Look at this figure. Observe (1) that the notes of the chords are at intervals of a third, *i.e.*, they are alternate notes; (2) that the lowest notes of the chords form an ascending scale of C major.

Play the exercise thus*—

(1) Look at the keyboard, find middle C and place the thumb on it. Raise the eyes to the copy and do not look at the keyboard again.

(2) Bearing in mind the alternate character of the interval of a third, find the other notes of this chord and play them.

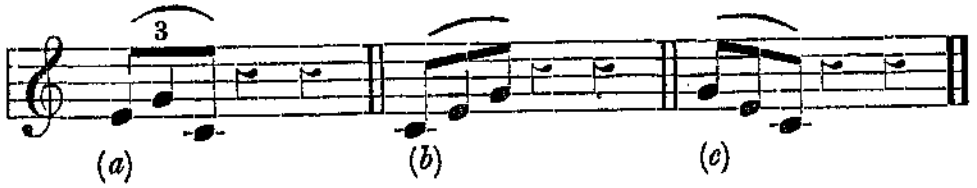
(3) During the first rest, raise the hand, preserving its shape.

(4) During the next rest, move the hand a little to the right so as to bring it over the next chord: and so on.

* These instructions apply to the next four exercises also.

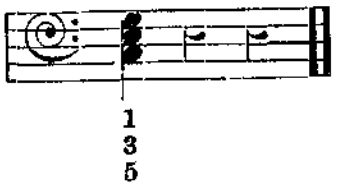
Repeat the exercise, disintegrating the groups thus—

Fig. 14.



Think of the chord as a whole, not of the separate constituents.

Exercise 21. — Perform a similar exercise for the L.H. beginning on—

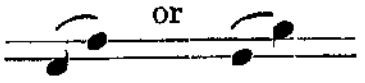


To make the exercise quite complete, it may be performed with other groups of fingers, *viz.*:— $\begin{matrix}5&3&4&5\\3&2&2&2\\2&1&1&1\end{matrix}$ in the R.H.; and $\begin{matrix}1&1&1&2\\2&2&2&3\\3&4&5&5\end{matrix}$ in the L.H. The sensations of strain will be different in each case.

Every scale, as it is encountered in the ordinary course of study, should be played at least once as the scale of C has been in the two preceding exercises.

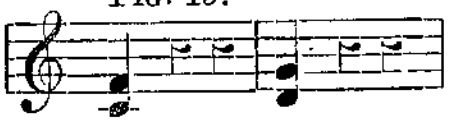
The essential feature of these and the following exercises is their performance with the eyes withdrawn from the keyboard. During the rests, the mind should give some thought as to what the hand *feels* like. This will probably engender a mental picture of what the hand *looks* like, but this should only be a *mental* image, *i.e.*, the eyes must not participate.

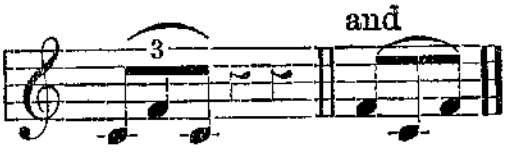
Interval of a Fourth.

The general formula for this is— 

Exercise 22.—

Fig. 15.



&c. Also 

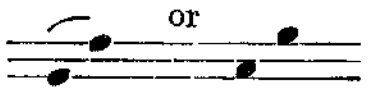
Play the above in accordance with the directions in the previous exercises; also in other keys.

These finger-pairs may be used— $\begin{matrix}5&4&3&2&5&4&5\\1&1&1&1&2&2&3\end{matrix}$ in the R.H.; and $\begin{matrix}1&1&1&1&2&2&3\\5&4&3&2&5&4&5\end{matrix}$ in the L.H.

This is not very pretty, and should be played very quietly. If the teacher is present, it will suffice if the pupil places his fingers on the right keys without pressing them. This applies also to the intervals of a fifth and seventh.

By adding thirds below the lowest note, a more agreeable combination is formed; but it is important, at first, to treat the intervals separately.

Interval of a Fifth.

This appears either as— 

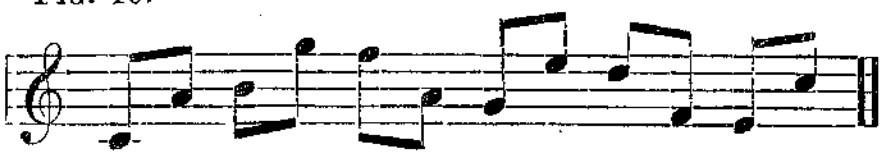
We have already met with this interval. By omitting the middle note of the groups in Ex. 20 and 21 these become available for practising the fifth. The fingering given above will also stand.

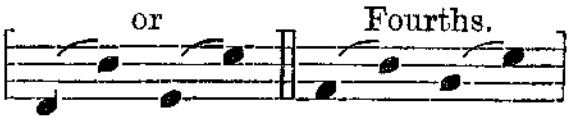
It is advantageous to treat a fifth as resulting from the superposition of two thirds. In forming early judgments as to the nature of this interval, the third from the lowest note may conveniently be thought of as a kind of half-way house, but the tendency of some pupils to think of *all* the intervening notes should be checked.

Interval of a Sixth.

Many pupils find this the most difficult interval to read, and it therefore will require extra attention. True, the frequent practice of scales in sixths tends to remove the difficulty somewhat. As a test, the pupil should endeavour to read the following, quickly :—

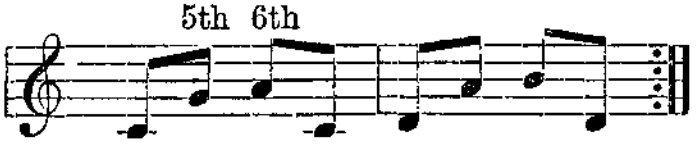
Fig. 16.



On paper the sixth appears thus :— 

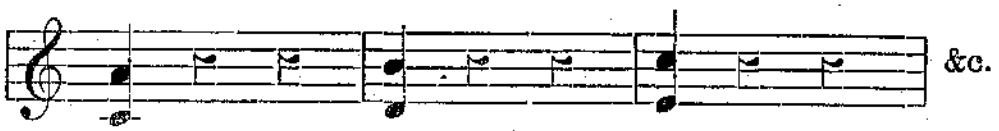
Compare it with the appearance of the fourth, fifth, and seventh. Very often pupils confuse it with the fifth. Play the following two or three times, keeping the eyes fixed on the copy :—

Fig. 17.



Notice that the notes forming the interval of a fifth are both on lines or in spaces.

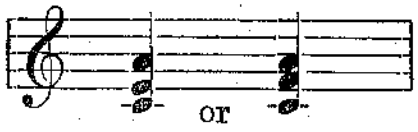
Fig. 18.



Exercise 23.—Play the above, according to the methods suggested for Ex. 22, with the following pairs of fingers $\begin{matrix}5&4&3\\1&1&1\end{matrix}$

If we add a third from the lowest or from the top note we shall get—

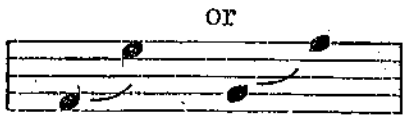
Fig. 19.



which will provide practice in sixths combined with thirds and fourths.

Interval of a Seventh.

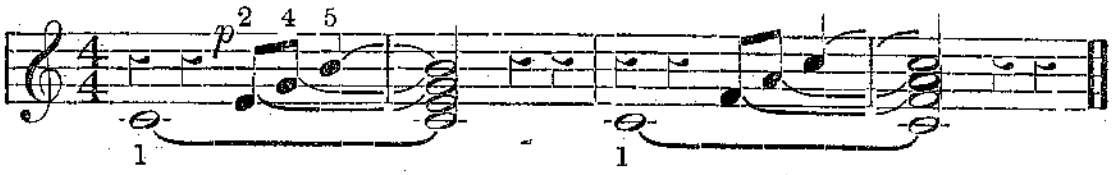
It appears thus :—



Notice that both notes are in spaces or on lines. At the outset learn it as if it were composed of superadded thirds, thus :—

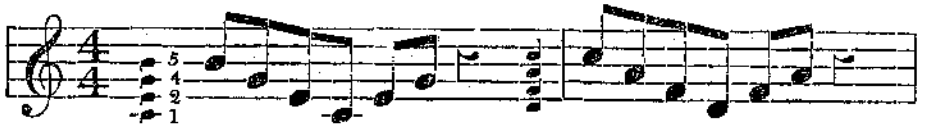
Instead of using a phrase similar in form to that in Ex. 22 substitute the following :—

Fig. 20.



Similarly for the L.H. ; also—

Fig. 21.

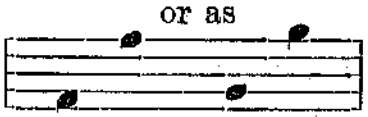


The small notes to be prepared.

$\begin{matrix}4\\3\\2\\1\end{matrix}$ may be employed instead of $\begin{matrix}5\\4\\2\\1\end{matrix}$

Interval of the Octave.

This appears either as— or as



It is very important that the appearance of this interval should be thoroughly mastered, as it so frequently occurs. Notice—

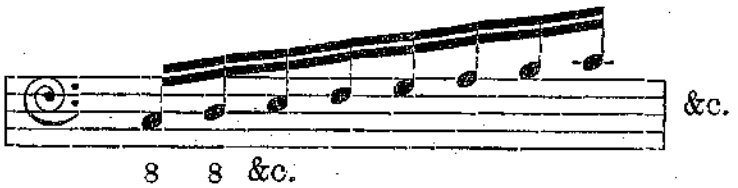
(1) That it occupies nearly the width of the stave, and four lines at least are involved.

(2) Like all the even-numbered intervals (2nd, 4th, 6th, 8th, &c.) one of the notes is on a line, the other in a space.

In reading a succession of octaves such, for instance, as occurs in Czerny's Study, No. 49, one should first of all be certain how far the octave motion is carried on (any deviation is easily noticed by the break in the parallelism of the imaginary lines running through the top and bottom notes), and should then determine which of the two notes is to receive the attention, because obviously one of the two can be ignored from the point of view of reading. Generally speaking, it is best to attend to the notes in the stave, if many ledger lines occur; if this latter difficulty does not arise, the thumb note had better receive notice, as this finger is often somewhat unruly.

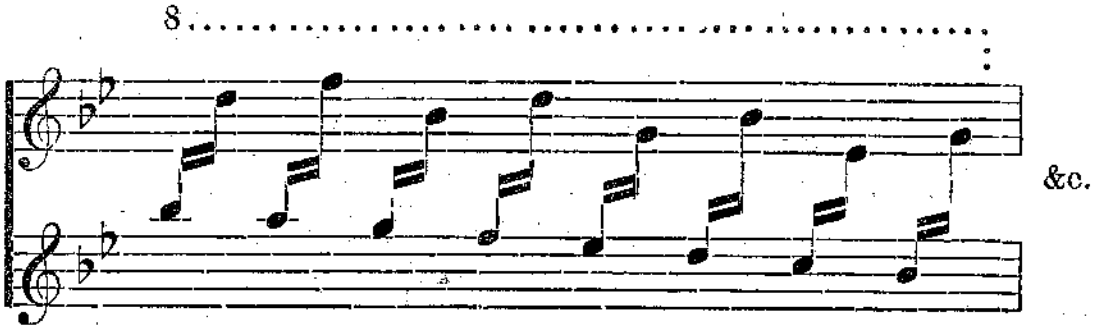
When octaves are split, as in the L.H. part of Study 8, bars 17, *et seq.*, the same procedure holds good; in this particular case one should conceive the passage simply as follows:—

Fig. 22.



Exercise 24.—Copy out the first ten bars of Czerny's Study, No. 38, reducing it thus:—

Fig. 23.

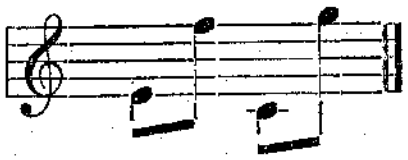


In rapid reading the eye practically reduces the passage to this, and, moreover, would perceive the L.H. part as the scale of B flat, and not as single notes.

Intervals beyond the Octave.

These are difficult to grasp as *Intervals*. They are generally determined either by finding the names of the notes and playing keys with corresponding names on the keyboard, or by applying the relationship existing between position on the stave and position on the keyboard.

FIG. 24.



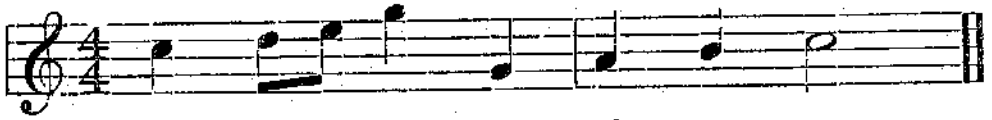
Thus, in the above passage, the reader will probably either say to himself E f, C g, and then find these on the keyboard, or will play 1st line note, top-line note, &c. Of course, it *is* possible to conceive the first pair of notes as forming an interval one greater than the octave.

Transposition by Interval.

The ability to transpose music into a different key from that in which it is written involves a considerable acquaintance with harmony, if the accompanying chords, as well as the melody, are to be transposed. However, transposition of a melody alone is not only comparatively easy but is excellent practice, and should be introduced very early into the course of instruction as, indirectly, it greatly helps sight-reading.

Suppose we have to transpose the following melody into key E:—

FIG. 25.



(1) Observe that the melody is in key C.

(2) It begins on the first note of the scale; and if the tune is to be altered in *pitch* alone (for this is what transposition means in a musical sense) each note must occupy the same relative position in key E as it now does in key C. Hence, we must begin on the *first* note of the new scale, *i.e.*, E.

(3) Beginning, therefore, on E, and fixing the scale of E firmly in our minds, we notice that the first three notes proceed stepwise up the scale, then comes a leap of a 3rd, followed by a drop of an 8ve, and an upward scale passage.

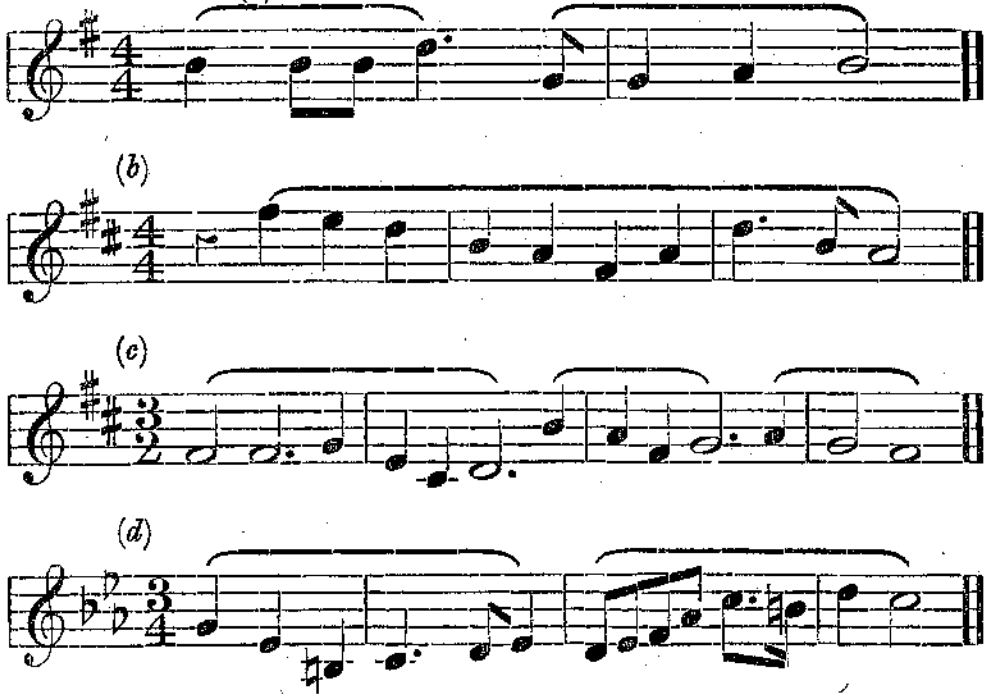
Observe (1) alphabetical names, after the first note, must not be thought of at all, because this will involve an immediate negation. The second note is *not* D in the new key; it must be regarded merely as a *symbol* of that note one degree above the first. Hence—

(2) Do not look at the piano while playing.

(3) Avoid the method by which some players would, in the above example, imagine every note written one space higher. Imagination of this kind is apt to run riot, especially if the melody is to be transposed much higher or lower. Besides, transposition is not so much a matter of stave-position as of change of scale; in other words, scale-relationship is the important feature. Those who transpose by the method here deprecated always have trouble with their "sharps and flats."

EXERCISE 25.—Transpose these, and other similar melodies, into various keys, preferably those much higher or lower than the given key.

FIG. 26. (*a*)



No trouble need arise with accidentals if it be remembered generally, that a sharp elevates by a semitone, a flat depresses by a similar interval, while a natural elevates in flat keys and depresses in sharp keys.

The best preparation for Transposition from the ordinary notation is playing from the Tonic Sol-fa notation. See the section on Transposition in "The Child Pianist" (Curwen).

CHAPTER IV.

Chords and Arpeggios.

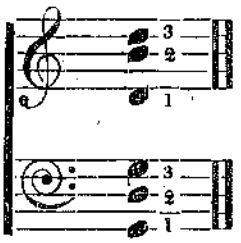
Isolated Chords.

At first it is essential that the pupil should have a *point d'appui* in reading a chord. Any other procedure generally ends in disaster. This point may be either the highest or lowest note of the chord, and the part for each hand ought to be considered separately.

If leger lines do not complicate matters, it is best to fix the *bottom* notes of the part for each hand, and get the other notes by interval distance.

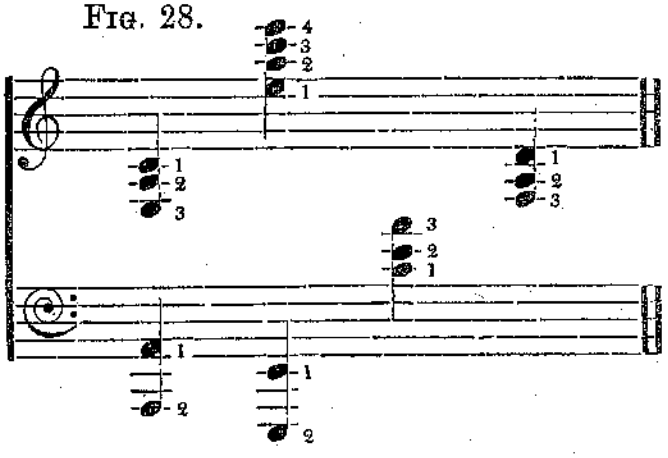
In this example, one first fixes the lowest note in each stave, and then extends the fingers so as to grasp the two intervals above. With practice these mental operations succeed each other so rapidly that they become practically instantaneous.

Fig. 27.



If many leger lines occur, it is safer to fix that note, whether highest or lowest, which is in or near to the stave, and calculate the others from this.

Fig. 28.



In the above example, the figures indicate the order in which the notes had better be read. Of course the only reason for

reading the first chord downwards is that in the R.H. part, middle C is more likely to be recognised than the low E; if, however, the pupil *can* recognise the latter at once, there is no reason why the chord should not be read upwards. The rule, therefore, is:—

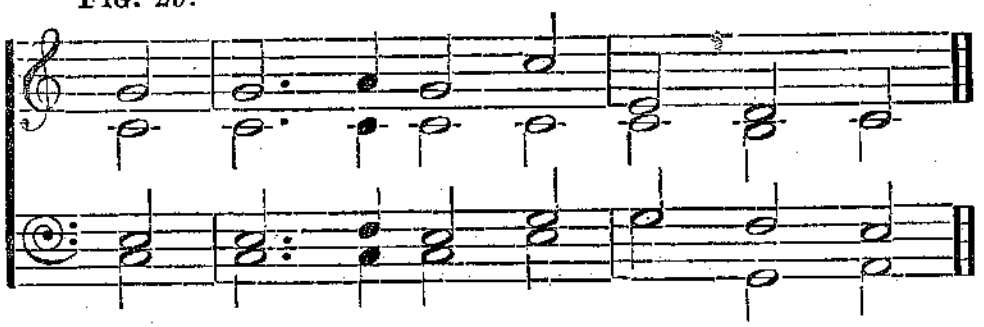
Fix the note—highest or lowest—which is most easily recognised: the others will generally take care of themselves.

Successions of Chords.

Here the "principle of motion" can be again utilised.

For learning to read successive chords quickly, nothing is better than to practise chorales or hymn-tunes. Incidentally, this gives the pupil great assistance in learning *keys*, which are never adequately grasped by scale-practice alone. It would seem superfluous to insist upon this point; yet from the amount of time which some teachers bestow upon scale-practice, one would think that they regard it as a panacea for all the difficulties of playing. It might be so if music were nothing but a succession of complete scales in octaves, thirds, sixths, or tenths. But, unfortunately, this is far from being the case, and the adequate grasp of a *key*, as distinct from a scale-passage in that key, is not obtained simply by practising the scale. To ascertain whether a pupil knows a *key* thoroughly, let the teacher direct him to play rapidly various intervals in the scale, as on p. 27; or let him play the melody of any tune he knows in any given key without hesitation.

FIG. 29.



The most economical, and therefore the best, way of reading such a passage as the above is to observe such relations as these:—

(1) The alto part is stagnant until the last note but one, when it descends one degree and then returns.

(2) The bass does not move until the fifth chord.

(3) The tenor part moves stepwise everywhere except at the fifth chord.

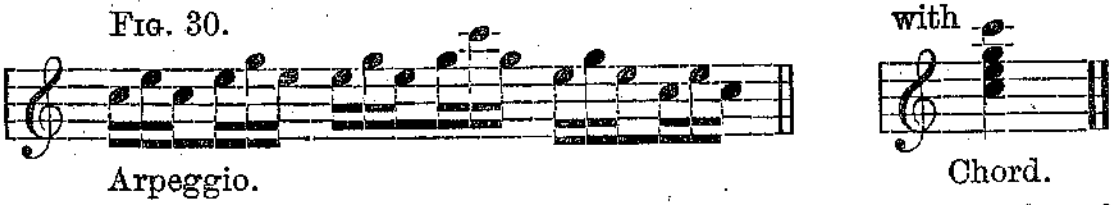
Hence attention can be almost entirely withdrawn from the alto part and, to some extent, from the bass. Every practised player, consciously or unconsciously, economises the attention in some such way; rapid reading is impossible without it.

For exercises the pupil should take some chorales, first connecting by a dotted tie ⌒ all repeated notes. It is comparatively seldom that two chords succeed each other without having at least one note in common.

Arpeggios.

These are chords of which the constituent notes succeed one another instead of being sounded simultaneously. *Primâ facie*, *arpeggios* ought to be as easily read and played as the chords themselves, but experience shows otherwise. *C.f.*, for instance—

Fig. 30.



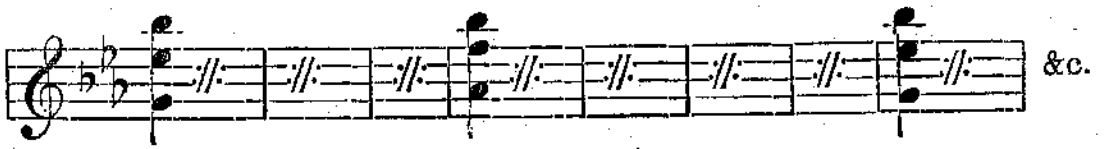
Arpeggio. Chord.

It ought to be superfluous to insist on the absolute necessity of pupils thinking of *arpeggios* "chordally," and yet it is a matter of frequent observation that whenever the *arpeggio* is extended or ornamented chromatically, many pupils lose grasp of the foundation chord. This is entirely due to defect of musical vision: the inability to transform mentally a horizontal series of notes into a vertical one. To a good reader the *arpeggio* in the preceding figure is as easy as the chord; a rapid glance assures him that the only notes concerned are the notes $\begin{matrix} C^2 \\ G \\ E \\ C \end{matrix}$, he mentally superimposes them and keeps this chord in the background of his consciousness while following with his fingers the melodic outline.

The best form of preliminary work in connection with *arpeggios* is both analytic and synthetic. We must, however, first examine the written page so that our attention need not be distracted by difficulties of fingering.

Exercise 26.—Take Czerny's Study No. 15, and transcribe the R.H. part of the first 16 bars according to the model below:—

Fig. 31.



The first *arpeggio* contains only the notes $\begin{matrix}B\flat\\E\flat\\G\end{matrix}$ and is continued through three bars; then follows the second chord for four bars, and so on. It takes a very short time to reduce all the *arpeggios* in both R.H. and L.H. parts in this way, and the exercise materially assists in the acquisition of the right method of regarding *arpeggios*.

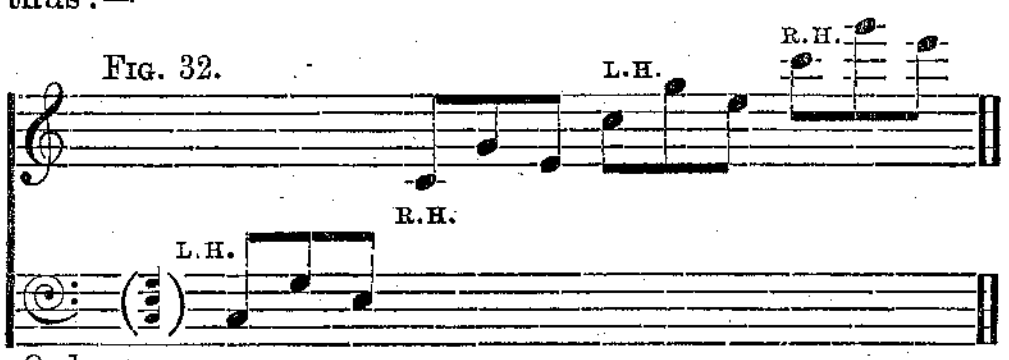
Study 46 may next be treated similarly.

EXERCISE 27.—Revert to Study 62. The first 14 bars of the R.H. part consist of *arpeggios* formed on chords of three notes only. We will assume these to have been reduced as in the last exercise. Now try to reverse the process, *i.e.*, endeavour to play the *arpeggios* from the reduced copy. Numbering the notes $\begin{matrix}3\\2\\1\end{matrix}$ it will be noticed that the *arpeggio* model is $\overset{\frown}{1\ 2\ 3\ 2\ 3\ 2\ 1\ 2}$ in every case.

All *arpeggios*, whenever they occur, should be reduced in this way, and whenever broken chords are met with they should be first played as *un*broken, unless they extend through too great a compass. Some excellent examples for practice will be found in "Exercises, Scales, and Arpeggios," by Dr. H. Fisher (J. Curwen & Sons Ltd., 2s.).

The student will possibly have been struck with the arbitrary nature of the series of numbers in the preceding paragraph. As a matter of fact, the notes may be taken in any order, any note may be repeated as many times as it seems advisable, and notes may be repeated in a different octave. Hence, the possible varieties of *arpeggios* which can be formed on a chord are almost infinite. Very interesting and valuable practice is obtained by taking any chord, and either at the piano or on paper inventing different forms of *arpeggio*. *E.g.*, by simply changing the order of the notes without any repetition, we may have 1 2 3, 3 2 1, 2 1 3, 3 1 2, 2 3 1, and 1 3 2. These may be repeated in different octaves, thus:—

FIG. 32.



Order 1 3 2

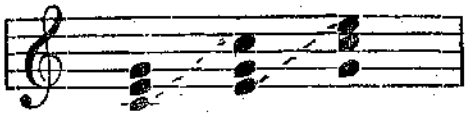
By repetitions and alterations in rhythm, a field of ingenuity of boundless extent is here open to the pupil.

The mental process in outline to be adopted in reading the above is "chord G E C, *same, same, same*" (8ve. higher in each case). The mental image of the chord as it appears on the keyboard in different octaves must, of course, be formed in advance.

Arpeggios on Inversions of Chords.

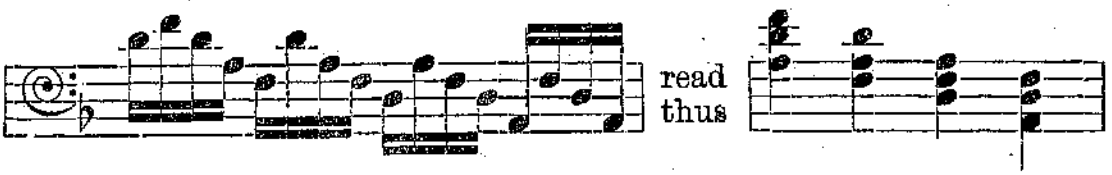
By taking the lowest note of any chord in its normal position and transferring it to an upper octave; or by transferring one of the higher notes to a lower position than the original lowest note, we obtain "inversions of chords."

This explanation differs in form, though not in substance, with that usually given; from the executant's point of view it is more intelligible.



The L.H. part of bar 15 of Czerny's Study No. 12 is:—

Fig. 33.



Here again the possibilities of variety are boundless, and any attempt at a catalogue would be futile. The one essential point is that as soon as the fact of a passage being merely formed from inversions of one chord is grasped, this *chord* must be prominently kept in mind, so that in addition to this, *outline* alone need be attended to.

Exercise 28.—Examine the following progressions and write down the chord or chords upon which each is founded:—

Czerny, Study 4, R.H. part, last 8 bars.
,, ,, 14, ,, ,, first 15 bars.
,, ,, 46, ,, ,, last 8 bars.

Exercise 29.—Examine the following; with a pencil place a slur ⌒ so as to group together all notes forming part

of the same chord. In other words, begin a new slur when the chord changes:—

Czerny, Study 28, whole of L.H. part.
,, ,, 15, first 15 bars, R.H. part.
,, ,, 46, R.H. part to double bar.

EXERCISE 30.—Answer the following questions as quickly as possible:—

1. (Czerny, Study 26.) How many times does the chord $\begin{matrix}E\\C\sharp\\A\end{matrix}$ or an inversion of it occur in the R.H. part?

2. Study 45. How many different chords in the last seven bars?

3. Study 15. How many bars contain the common chord $\begin{matrix}B\flat\\G\\E\flat\end{matrix}$ and nothing else in this Study?

4. Study 28. The two chief chords in the key of B minor are $\begin{matrix}F\sharp\\D\\B\end{matrix}$ and $\begin{matrix}C\sharp\\A\sharp\\F\sharp\end{matrix}$. How many bars are founded on each of these chords respectively?

The student will notice that, generally speaking, when one hand is playing an *arpeggio*, the other is playing a chord or another form of the same *arpeggio*. In practically every case *the arpeggio will be founded on the chord*, so that if we know the chord we can guess, with a reasonable amount of certainty, what notes the *arpeggio* will contain, and thus give attention to the *outline* rather than to the notes. *C.f.*, Study 28.

The above exercises are merely samples of what may be done to develop facility in reading *arpeggios*. Any *arpeggio* studies will provide further material.

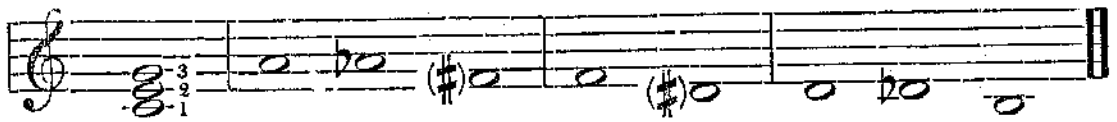
Nothing has been said in the three previous exercises about *playing* the *arpeggios*. Of course, if the pupil can play them he should immediately do so, but the exercises are quite suitable for beginners as they are.

Arpeggios with Ornamental Notes.

Modern composers have developed the *arpeggio* in this direction to a high degree of complexity. If the pupil understands the principles of the construction of such passages he will find little difficulty in reading them.

Any constituent note of a chord from which an *arpeggio* is formed may be ornamented on the following principle:—

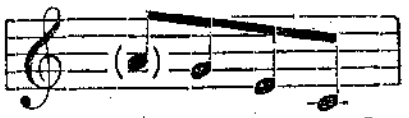
The essential note may be preceded by another which is either one degree higher or one degree lower in the scale. If this note is a whole tone from the essential note it may be chromatically altered so as to be only a semitone distant. In the case of the *lower* auxiliary note, this is nearly always done.



Chord. Auxiliaries to G.... to E ..... to C

FIG. 34.

EXERCISE 31.—Write out and play all the primary ornamental forms of the above chord. Begin thus:—



Each group will therefore consist of four notes. Retaining the order 3 2 1 we shall thus have ten variations. The order, however, can be varied as on p. 35 and notes can be repeated. Hence the field of invention is illimitable.

It is a most interesting and valuable exercise for the student when he comes across a new chord to form ornamental *arpeggios* from it.* In playing such *arpeggios* it is *the original chord* which must be kept prominently in mind, and the ornamental notes perceived as a semitone or tone above or below the chief notes.

It is not always easy to recognise these ornamented *arpeggios*, but whenever the pupil comes across a very complicated-looking passage containing many chromatically altered notes and proceeding by disjunct movement, he may be pretty certain that the passage is only an ornamented *arpeggio*.

Ornaments are sometimes added to single notes on the same principle.† In playing such, keep the mind fixed on the central note round which the ornaments are grouped. See L.H. part of Czerny, Study 8, and R.H. part of Studies 11, 29, and 42. While playing the first bar of the R.H. part of Study 29, the performer

*But little opportunity of exercising the inventive faculty—a very important educational principle—is afforded in the early stages of pianoforte instruction. Hence such a chance as occurs here should be utilised

†The "Turn" is, of course, formed in this way. It should be conceived as *one* central note ornamented, whether written in full or not.

thinks of the note A all the time, conceiving the others merely as satellites. A valuable exercise would be to write down these central notes and then to play the whole passage from the MS.

EXERCISE 32.—Point out (*a*) the chief notes of the chord; (*b*) the auxiliary notes in the following *arpeggios*:—

(*a*) Study 16, R.H., first 3 bars (the whole Study is worth analysis).

(*b*) Study 37, L.H., first 4 bars.

(*c*) Study 12, L.H., bars 7, 6, 5, 4, from the end.

The R.H. part of the greater portions of Studies 39 and 40 are also deserving of analysis. They could hardly be read at the given *tempo* without an application of the above principle.

Upon this principle of ornamental *arpeggio* passages, some of the most beautiful pages of pianoforte music have been written. See for example many of the "feathery" passages in Chopin's works and the accompaniments to Schubert's and Schumann's Lieder. All such passages look very difficult, but if rightly apprehended as regards their construction they are really easier to play than the simpler forms of *arpeggio*.

The following Etudes of Chopin illustrate some of the above points and may be advantageously studied:—

Op. 10	Study 1.—Inversions and extended forms of the chord.
	,, 6.—Ornamentation of a single note.
	,, 8.—Ornamentation of chords in *arpeggios*.
Op. 25	,, 1.—Plain *arpeggios*.
	,, 3.—Tone above top note of chord.
	,, 5.—Ornamentation of one note of a chord.*
	,, 11.—Combination of chromatic scale with *arpeggio*.
	,, 12.—Plain *arpeggios* with repeated notes.

Song Accompaniments.

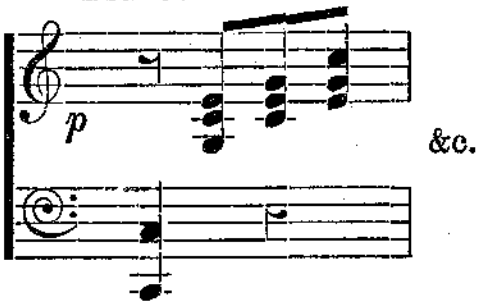
Into elaborate accompaniments to a melody, *arpeggios* generally enter largely. Since part of the accompanist's attention has to be devoted to the singer's part and also to the preservation of a proper balance of tone between voice and piano, it is obviously of great importance that the player should be able quickly to group mentally the notes forming the *arpeggio*. He should remember, too, that not only from the point of view of the reader, but also from the listener's standpoint "the chord's the thing," and unless

* See also p. 60, L.H. part.

some indication to the contrary is given, the notes of the *arpeggio* should not be made to stand out individually, but should, as far as possible, be merged into one another, so as to give the effect of a shimmering chord.

A common variety of accompaniment is—

Fig. 35.



In all such cases the L.H. note should be played so as to give a full, round, but not necessarily noisy tone, while the inverted chords in the R.H. should be played lightly, so that the general impression on the listener is that of *one* chord. Let the player keep the idea of *unity* in his mind while playing this, and he will probably produce that effect upon the listeners.

CHAPTER V.

Rhythm.

So many excellent treatises have been written on this branch of the subject that a few special points are all that need be considered here, and these will be treated from the standpoint of sight-reading.

Rhythm v. Time.

If we consider "Time" in music to be the arithmetical division of a bar, and "Rhythm" to signify the grouping of notes into metrical phrases; then if the importance of the principle insisted upon in previous chapters of *reading in groups* be conceded, it follows that an apprehension of "Rhythm" rather than "Time" is essential to fluent reading. Of course, a knowledge of the relative value of notes and rests and the meaning of time-signatures is indispensable as a preliminary equipment; but no certainty in reading can be hoped for until a mere glance at a rhythmic group at once arouses in the mind a definite idea, without it being necessary to go through a process of counting. The player must, as it were, *feel* the rhythm of a phrase in advance.

Rhythm may be regarded in two aspects (1) Rhythm of Movement; (2) Rhythm of Hearing.

The former of these is the more primitive and is by far the stronger in effect. The freedom of movement which is possessed by the limbs of the human body enables us to feel the rhythm of movement. But because the limbs of a pianist when he is actually playing are not free in this sense, he is peculiarly liable to neglect movement-rhythm altogether and to substitute "counting," which, by itself, is not rhythm at all.

In order therefore to gain a complete knowledge of any rhythm it should be *felt as movement* as well as heard. Suppose, for example, that a certain march-rhythm has to be learnt. First let the pupil examine the time-signature and thus discover the beat-unit. Then, taking a copy in his hand, let him march backwards and forwards across the room while the teacher plays the tune, keeping his eyes fixed on the copy. If the room is too small for

this purpose the pupil may "beat time" with his hand, but unless good long swings of the arm be made he will not feel true movement-rhythm.

The author has obtained excellent results from the plan of writing on a blackboard the rhythm of a piece to be played while the class is doing its ordinary musical drill. The class looks at the written rhythm whilst performing the exercises.

It is useless to expect a young pupil to unravel the difficulties of rhythm at the same time as he is grappling with the other complexities met with in a new piece. Rhythmic problems must be solved before any attempt is made to grapple with the other difficulties. That is, rhythm must, as far as possible, be relegated to the "fringe."

This is what the experienced reader does. A rapid glance at a rhythmic figure conveys to him a definite idea of the rhythm of the whole group; during the actual playing of the group no active attention is focussed on the rhythm, but it is bestowed elsewhere.

Owing to the abstract nature of Rhythm in itself, the mind is prone to associate it with something more substantial. This something may be, and usually is, a succession of syllables such as the French time-names, *taa*, *taatai*, &c. The advantage of these time-names is that each syllable is associated with one definite part of a beat; *taa* for a whole beat, *taatai* for two half-beats, &c.

Miscellaneous Hints.

1. Fictitious Time-signatures.—It is often advisable to bring time-signatures down to lower denominations; *e.g.*, slow $\frac{2}{4}$ is much more easily read as $\frac{4}{8}$.

If the beats are very much subdivided, as in the slow movements of many older masters, and also generally in compound times, it is well to pencil in some dotted bar-lines* so as to divide a bar into several shorter bars.

If any particular bar causes continued trouble on account of the use of demisemiquavers,† &c., re-write it, doubling values and adding extra bar-lines.

2. Equivocal Grouping.—If, at a preliminary examination, groups of six quavers or semiquavers are detected, find by reference to the signature whether they are to be played in twos or threes.

---

* It may be objected that this destroys the rhythmic foundation, but in reality bar-lines are more often inserted by caprice in such movements than in accordance with rhythmic laws.

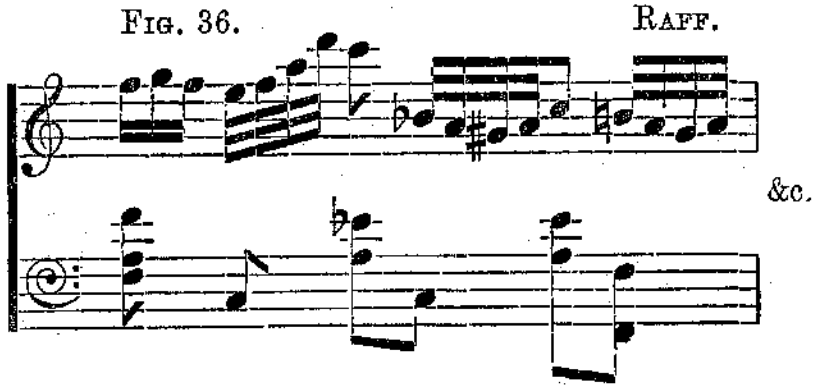
† Better named "thirty-second notes."

3. THE BEAT-UNIT.—Before commencing to read a new piece, decide what note is to be taken as the beat unit.

In part-playing it is sometimes better to think of a note as a *half-bar* or *whole-bar* note than as having a duration of so many beats. This applies especially to the inner parts.

4. It is seldom that both hands have complicated rhythms to perform at the same time. More often the rhythm is clearly marked in one hand. *E.g.*—

FIG. 36. RAFF.



Here a practised player will let the L.H. "mark time" for him, and will "fit in" the R.H. part accordingly. Hence, in reading, judge the rhythm by the *simplest* part, whether R.H. or L.H.

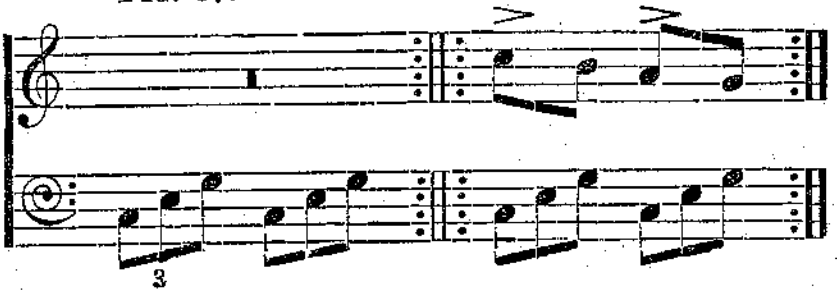
For purposes of reading, young pupils must synthetise as well as analyse. *E.g.*, the ability to recognise  as equivalent in time value to  is essential. This point is too often overlooked.

Combined Rhythms.

Some pupils find a difficulty in reading and playing two notes in one hand against three in the other, or three against four. Trying "to fit the notes between" is of little avail, and it is no advantage to try to split the consciousness so as to realise twos and threes at once. Rather get one of the groups out of consciousness, *i.e.*, automatic, as far as possible, and think of the other.

EXERCISE 33.—

FIG. 37.

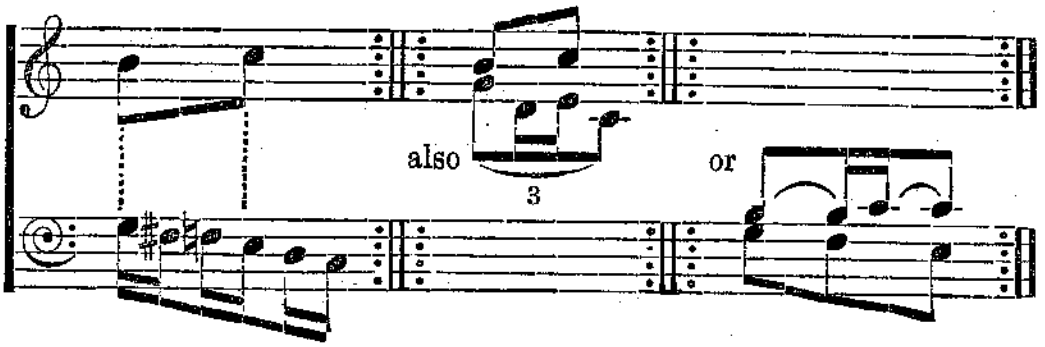


Play the first bar of the above pretty quickly, repeat it several times, and while doing so try to forget all about it. Then add R.H. part as in bar 2, allowing L.H. to go on automatically.

Another good method of treating "twos against threes" is the following:—

EXERCISE 34.—

FIG. 38.



CHAPTER VI.

Miscellaneous Suggestions.

Fingering.

IT is to be regretted that the difficulties of reading notes and rhythms, to say nothing of marks of expression, should be increased, as they so often are, by the inconsiderate methods often adopted in the indication of Fingering. The difficulties arising from this source may be classed as follows :—

(1) NO INDICATION OF FINGERING GIVEN.—This presupposes that the performer has, by dint of long practice, made his fingers so susceptible to the influence of the topography of the keyboard that they naturally, *i.e.*, unconsciously accommodate themselves to the passages given.

However, this stage of perfection can not be expected from ordinary pupils, and most players find that some indications must be added.

In doing this the following remarks should be borne in mind:—

1. When the fingering is obvious, as, for instance, in passages lying within the compass of five notes, do not add any indication at all, unless it be to the first note of the phrase.

2. Where there are several alternative methods of fingering, and all are easy, add nothing.

3. In a succession of detatched chords, add nothing.

4. In scale passages ascending in the R.H. or descending in the L.H., only add marks to show notes played by the thumb.

5. In descending scale-passages in the R.H. or ascending in the L.H. indicate the finger which is to follow the thumb; nothing else is necessary.

6. In *arpeggios*, the notes played by the thumbs are the principal ones from the point of view of fingering.

7. Any unexpected contraction or expansion of the hand should be noted.

The above hints may be summarised thus :—

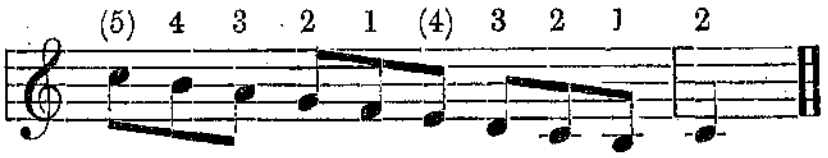
Add what is absolutely necessary, and nothing else.

The "necessary" fingering is as essential to a proper performance as the correct placing of the notes, and the indications ought to be printed large enough to catch the eye at once. Editors often forget this, hence the lead pencil must sometimes be requisitioned.

(2) Excessive Indications of Fingering.—Generally speaking, the greater the number of finger indications given, the less will they be observed. If the pupil has to play from a copy where nearly every note is fingered, let him mark in some way those which are necessary, and ignore all the others in performance.

Such an example as this is often met with:—

Fig. 39.

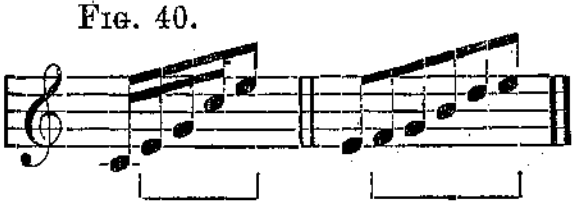


All these figures can be dispensed with except 5 and the second 4, which should be marked in some such way as shown.

While it is often advisable to use the thumb on the black keys, in cases where extended scale or *arpeggio* passages occur it is best to watch for an opportunity to put the thumb on a *white* key. The continual passing under of the thumb is certainly rather troublesome, but it is better to err on the safe side, as nothing is more annoying than to find oneself one finger short. Of course, if a preliminary examination can be made it is better to indicate the notes on which the thumb must be placed.

With a little practice it is easy to select on the spur of the moment fingering which will serve. *E.g.*, *arpeggios* of not more than five notes, and within the compass of an octave, can generally be played without change of position; *arpeggios* containing six or more notes, or extending beyond the compass of an octave, will require at least one change of position. In such cases, as regards fingering, one reads as it were backwards. For example:—

Fig. 40.



In both the above groups it is easily seen that the notes bracketed can be played with the hand unmoved, hence we should naturally

play the second note with the thumb and the first note with the second or third finger. After a time, the fingering of such passages becomes stereotyped in the memory, and indications of fingering are not wanted.

Only three pairs of fingers are available for octaves $\begin{matrix}5&4&3\\1&1&1\end{matrix}$. In reading at sight it is safest to use either $\frac{4}{1}$ or $\frac{3}{1}$ for black notes, and $\frac{5}{1}$ for white notes. *Staccato* octaves can be played with repeated $\frac{5}{1}$.

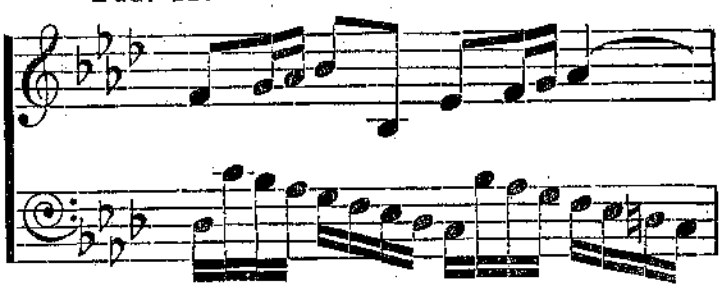
Polyphonic Music.

Music in which the parts are regarded as separate melodies—horizontal rather than vertical construction being the paramount consideration—presents certain peculiar difficulties both in reading and in execution.

Judged from the reader's standpoint two features must be carefully observed :—

(1) The principle of the recognition of outline of horizontal motion must be applied fully. *E.g.*—

Fig. 41.



In the above example one must endeavour to read as the composer wrote, *i.e.*, horizontally rather than vertically, especially noting the melodic outline of each part.

(2) The realisation of the length of notes compared with a bar must be kept more prominently before the mind than in music of other kinds.

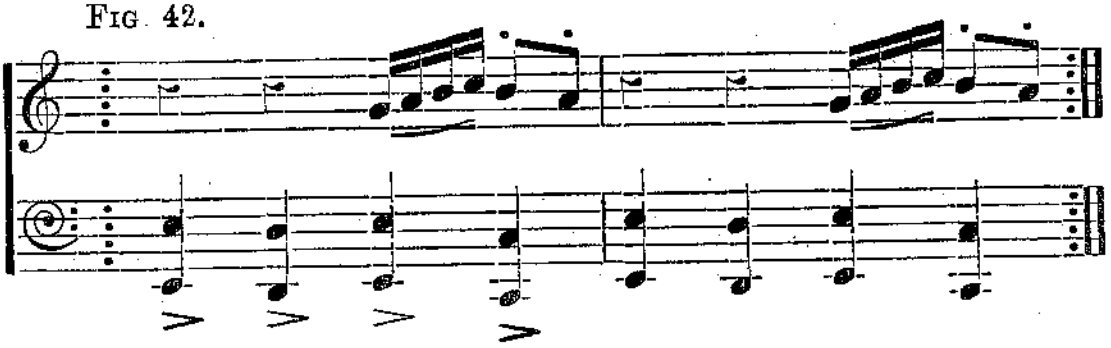
In regard to this second observation see p. 42. The student is advised to play some examples of sustained part-writing on the organ or harmonium, for on these instruments any such mistake as quitting a note before its proper time is immediately noticed.

From the performer's point of view, the chief difficulty arises from the necessity of splitting the consciousness, so to speak; of having a L.H. and a R.H. consciousness independent of each other. This is quite a different attitude of mind from that usually

assumed. How is it to be attained? Take two phrases of very definite character and sharp contrast, and assign one to one hand and one to the other. Thus—

EXERCISE 35.—

FIG. 42.

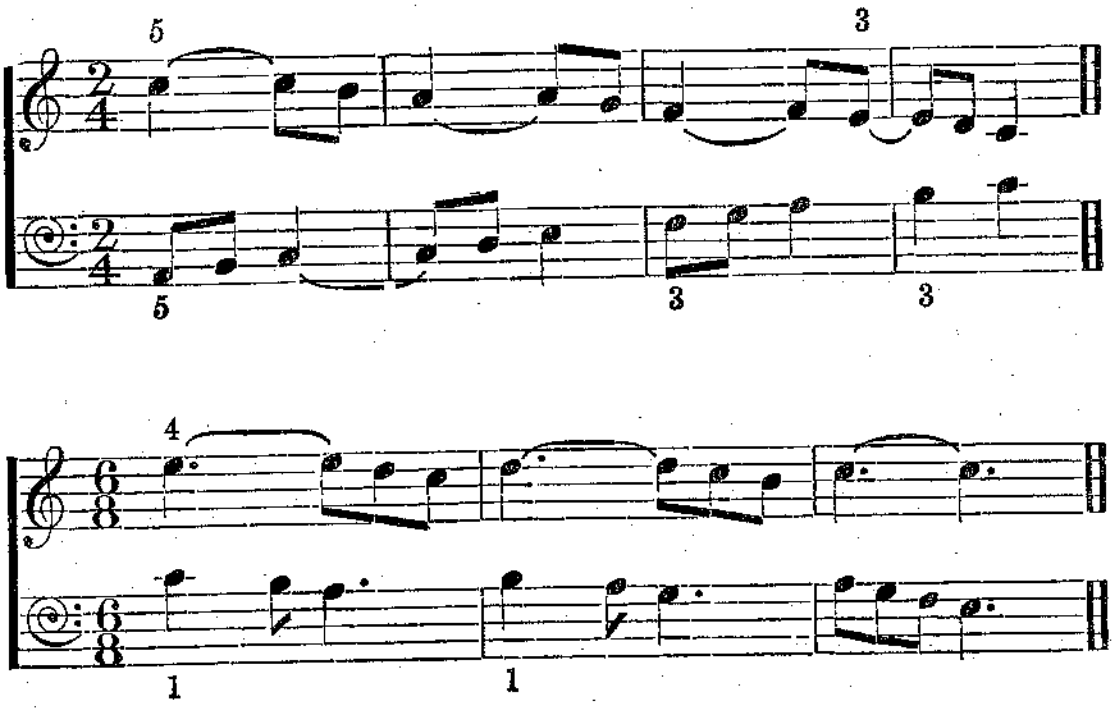


Play this ten times. The sharp hammer-like strokes of the L.H. part force themselves upon the attention by their very insistence, while the R.H. part also demands by its great contrast a distinct share of the attention.

To enable the pupil to acquire independent motion of the two hands some such sequential passages as the following should be devised. At first, no complications of keys and awkward fingering should be introduced:—

EXERCISE 36.—

FIG. 43.



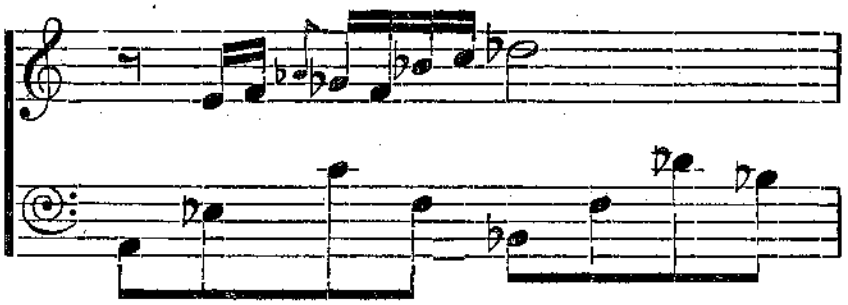
Splendid practice of this kind is to be found in a set of Canons in two parts, by Krug (Augener). None of these extend beyond the five-finger position.

Re-writing Passages.

Some teachers have a horror of touching printed notes, as if there were something sacrosant about them; forgetting that there are many alternative ways of writing passages, some easy to read, others difficult, and composers often choose the latter.

Take, for instance, bar 27 of Chopin's Nocture in B, Op. 32, No. 1. It is in B flat minor, but the notation is A sharp minor. There is small reason in allowing a pupil to stumble every time the bar is reached, when it can easily be learnt once for all by writing it thus:—

Fig. 44.



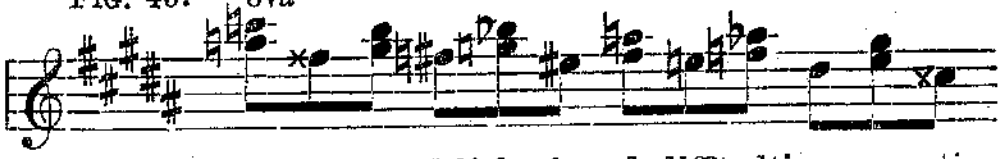
Of course, this should be done by the pupil himself, so that he may thoroughly grasp the fact of the identity of the two methods as far as result is concerned. This principle is of wide application, and has already been insisted on in the case of inconvenient time-notation.

Never allow a passage to worry a pupil continually. Find out the cause of trouble; most probably it is quite a gratuitous one, and can be obviated by re-writing the passage. Do not allow the pupil to continue to play wrong notes for want of application of the lead-pencil.

One need hardly give a list of glaring examples. They have often been pointed out. It need only be remarked that *the same difficulty in reading should not be allowed to occur twice.* The cause of the trouble should be discovered and some means devised for its immediate removal.

Occasionally, instead of re-writing a difficult passage, its notation may be ignored after this has once been examined and understood; the passage thereafter being remembered by its appearance on the keyboard. Examine the following cadenza by Chopin (Nocturne III):—

FIG. 45. 8va



Any player might be excused if he found difficulties every time he tried to read this, but when once it is apprehended that the double and single notes form a chromatic scale, all trouble disappears. There is no need to re-write the cadenza; ignore the copy and watch the keyboard.

A melody which dodges from one stave to another is more easily read if placed on a separate stave in the middle, or the notes forming the melody may be distinguished by marking with a blue pencil. Any method by which important notes are made to *look* important is legitimate. *Cf.*, Rubenstein's "Melody in F."

Some editors have an irritating habit of assuming that players will forget the key-signature, and they therefore overload the notation with sharps and flats which at first sight are accidentals, but are not really so, as they are already provided for in the key-signature. Others, again, crowd so many notes into a bar, that if an accidental occurs at the beginning of the bar the fact is forgotten before the end, so that on the recurrence of the altered note it is played as if it were in the key of the piece. In the former case, bracket thus (♯) all unnecessary accidentals if they are found to cause confusion at the first reading; in the second case, place an accidental *over* the note which recurs.

If in the course of a piece an extreme modulation occurs without an alteration of key-signature, thus involving many accidentals, find the name of the new key, write it clearly in the copy showing by a line how far it extends, and then on future readings think of the new key and ignore all accidentals. If, however, one of the accidentals is also accidental in the new key, mark it distinctly.

E.g., in Chopin's Nocturne, Op. 55, No. 1, all the accidentals in the last thirteen bars may be ignored if the signature of F major be understood. N.B., however, the D flat in the fourth bar from the end, and mark it.

The upshot of the remarks above is that each player must become his own editor. Difficulties of notation to one person are commonplaces to another. But it must again be urged that difficulties which arise from imperfect notation, when once discovered and apprehended as likely to cause trouble in the future, must be obviated in the only rational way, *i.e.*, by simplifying the notation either mentally or on paper.

Marks of Expression.

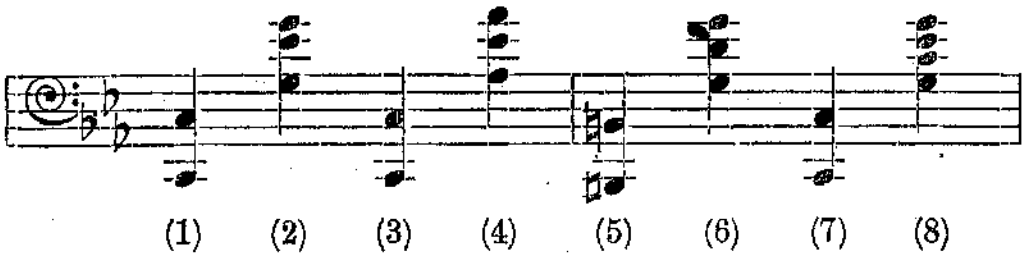
Here again do we often meet with gratuitous difficulties,* although most modern editors are more careful about expression marks than other signs. The reader should take a rapid glance at the printed copy and try to discover the *general expressional scheme*, as shown by the climaxes. It is important to observe where these occur, so that force may be reserved for the *dénouement* of the climax. At the first reading, this is all that can be observed by the average performer, but it is to be noted that the general scheme of expression is more important than a mere interpretation of local marks. These can be attended to on the second and subsequent readings.

Some modern composers use *ff* to mean not *fortissimo* but *fortiore*, while *fff* means *fortissimo*. It is important to decide this point before commencing to play.

Additional Suggestions.

1. A common form of accompaniment for the L.H. is—

FIG. 46. CHOPIN.

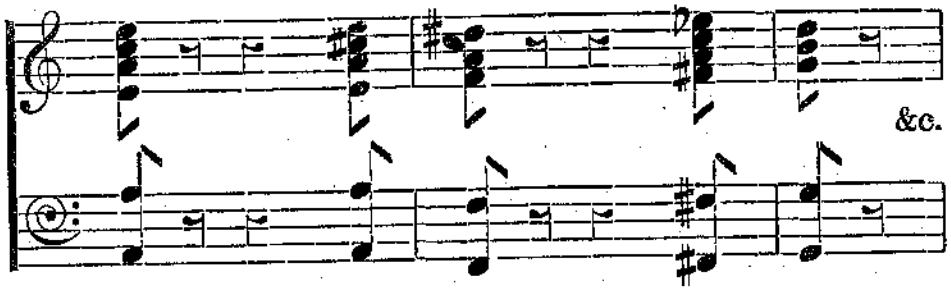


In reading this, one does not grasp the chords in numerical order, but rather perceives (1), (3), (5), (7) as a continuous melodic phrase, while chord (4) is apprehended from its relation to chord (2), not from its position with regard to (3). See also the L.H. part of Chopin's Nocturnes 6, 15, and 18. When a young pupil first attempts to read such a passage as the above, he should be directed to play chords 2, 4, 6, 8, as a continuous series.

* An irritating habit has lately made its appearance amongst some editors of adding some kind of expression-mark to nearly every note, even in *allegro* movements. For instance, a certain Mazurka, chosen as a piece for some local examinations, has no less than 107 of these marks, not counting slurs, in a passage of 16 bars! Even if it were possible to observe all these, it would be eminently undesirable. Such extravagances bewilder the eye and greatly increase the difficulties of sight-reading. Pieces for beginners should contain the minimum of marks of expression; the teacher himself can add to these when other difficulties have been conquered.

2. The occurrence of rests should not cause the loss of all connection between the notes or chords thus separated. Thus, in playing the following passage :—

FIG. 47.



it should be noticed that the first and second chords in each bar are nearly identical. The mind should not be a blank during the rests, but should be occupied in observing the relation between the chords. Rests in music do not imply periods of mental repose.

Concluding Remarks.

1. Facility in reading comes with regular practice founded upon a rational system.

2. Read something new at every practice, if only a short phrase.

3. The correct reading of a simple phrase is better than a tolerably correct rendering of a difficult piece. Hence, for reading, choose music several grades lower in difficulty than that used for detailed study.

4. Before commencing, look for *likely* places for mistakes; determine what the difficulty is likely to be and devise a method for its removal *before* succumbing to it.

5. Read in advance of the fingers. (See pp. 54, 55.) Do not leave one chord before the next is in the "mind's eye."

6. Try to throw yourself into the right mental attitude towards every phrase and part of a phrase; *i.e.*, read *arpeggios* as chords, and so on.

7. Analyse every error made, note the cause, remove it as much as possible, and play the passage again the next day.

8. The same error committed more than once shows that some general principle has been violated.

Examination of Chopin's Nocturne,

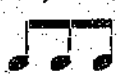
Op. 27, No. 1.

In this chapter it is proposed to deal with the difficulties which might be encountered by a performer of moderate ability in reading the piece named above.

First of all, a rough analysis of its main features should be made away from the keyboard. A hurried glance shows that it consists of three sections, the first and last being similar, while the middle one is strongly contrasted with the others.

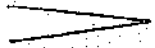
Let us examine the first section. We notice at once that the L.H. part has a rhythmic figure which persists throughout. Hence, when once the easy rhythm of the first group is grasped we can *withdraw the attention* entirely from this. Another look reveals the fact that nearly all of these groups have a similar melodic outline, *i.e.*, two upward, followed by three downward leaps. This is a still further assistance in the economy of attention. The exceptions to this in bars 17, 27, and 28 should be noted.

Looking again at the L.H. part, we notice that the low C sharp is very persistent, although occasionally the B below appears. In bar 13 a note involving three leger lines is found, and another involving four in bar 21. These might, perhaps, cause slight hesitancy, and should therefore be determined now. Both can be found by "interval distance" from the preceding note. No other difficulties are immediately apparent in the L.H. part, so that we now turn our attention to the R.H.

As far as position on the stave is concerned there are no difficulties, *i.e.*, leger lines cause no trouble. Moreover, there are no violent modulations; we can, therefore, turn our attention to the rhythm. We notice at once that the fact of the left hand playing four equal triplet groups throughout will serve to mark the four beats in the bar, so that we shall rely greatly on the L.H. to "count" for us. We observe, however, that occasionally we have  in the R.H. against  in the L.H., hence the  must come after the last note of the triplet.

In bars 21, 23, 25 we must remember that in common time  lasts through a whole bar. A group of five  in bar 22 must receive preliminary attention; we must get the first note on the 3rd beat, and the first note of the next group on the 4th, and if we have the idea of *evenness* in our minds the other notes may be left to themselves.

At bar 22 it is seen at once that there are two melodies in the R.H.

Looking again at the general scheme of expression we are struck by the apparent flatness of the musical landscape; the only relief which is at all striking is the *pp* followed by  in bar 9.

As far as Section I is concerned we are now prepared to go to the keyboard. We at once perceive that the chief executive difficulty will arise from the extended *arpeggios* in the L.H., and much lateral movement of the hand, using the wrist joint as a hinge, will be necessary. It is quite likely that an occasional glance at the keyboard will be unavoidable, but since the R.H. part is so simple, this will cause little inconvenience.

Obviously, our field of consciousness will be mainly filled with the idea of judging intervals in the L.H., therefore it is well that we are able to practically ignore some of the other elements. The R.H. part lies, for the most part, quite under the hand, and we shall certainly not require to look at that part of the keyboard.

The only other point to be settled is the key of the movement. We can discover this in the ordinary way to be C sharp minor. Hence we try to keep in our minds a mental image of the keyboard as arranged for this scale, not forgetting that B sharp, the raised seventh, is a white note.

Since the L.H. part contains all the technical difficulties, we shall endeavour to take in as many of the R.H. notes in one glance as we can; and as each group of L.H. notes is simply an extended chord, we shall try to grasp it as a chord, that is, we must mentally pile the notes one on top of the other.

The ability to include a *number* of melody notes in our mental vision, and to retain this group for a few seconds is easily acquired. Let the pupil occasionally set himself to look at a melodic phrase steadily for a second or two, and then reproduce it either on paper or at the keyboard. He will be surprised at his rapid progress in this direction. This is only another way of emphasising once more the importance of seeing groups, not individual notes. Most bad reading is due to the habit of "living from hand to mouth" and being content to starve the musical consciousness. There

must never be a moment during reading when the field of musical consciousness is empty; the mind must always have some musical material in stock in the shape of an idea of the notes which are about to be played. (See p. 52.)

A bar's rest does not signify that the mind is to be a blank meanwhile; it is an opportunity for storing up ideas of what is to come.

To inculcate the habit of reading in advance of the fingers, let the teacher take a piece of card and cover over the actual notes which the fingers are playing, so that the pupil can see only what is to be played later on. If the card is kept moving about two slow beats ahead of the fingers, this will be sufficient. Reading in advance is much more easily acquired than are most good habits.

Let us now examine Section II. We notice at once that the time changes to $\frac{3}{4}$, so that we have as a rhythmic atmosphere  instead of  . Referring to the L.H. part we again notice the triplets, but observe that the *arpeggios* have disappeared, and instead there is a bass note lasting the entire bar, with a semitonal circling round a central note. (See p. 38.) At bar 9 a new bass figure appears, but still containing the circling figure just spoken of.

There are eight bars constructed on this model. Then comes a bar of octave leaps, followed by three *arpeggios*. Here the key changes, and some pencil-mark had better record the fact that the first bass note of the next bar is E *flat*. These next two bars consist only of a version of the common chord on A flat; the one prominent feature in the musical consciousness here, therefore, is the group $\begin{matrix} E\flat \\ C \\ A\flat \end{matrix}$.

We now come to an *Agitato* section. Notice that the lowest note of the L.H. part for the next twelve bars is A flat, while the upper notes progress semitonally. We can, therefore, allow the L.H. part to recede almost entirely into the background of the field of consciousness; in other words we need pay only a minimum of attention to it. At the *con anima*, at bar 37, the R.H. and L.H. parts should be examined together. Reading will now proceed upon the lines suggested on p. 33, the stationary position of many of the L.H. chords being recognised. At the seventh bar of the *con anima* the key changes to that of C major. If this is noticed, the accidentals can be ignored. Three bars before the change of signature the progression assumes a chromatic character, but it is by no means regular, and nearly every note will require equal attention.

The sudden change of key-signature is rather disconcerting, but it may be observed that the relation between the chord before the double bar and that following it is very simple—each part progresses one semitone upwards. The next few chords once more bring the key of C sharp minor prominently before the mind.

A mere glance shows the cadenza to be in octaves; the eye, therefore, will follow the top notes alone.

The final Section begins exactly like the first, but at the eighth bar from the end we are thrown into the key of C sharp *major*, a key very easy to read if it is remembered that *every* note is sharp. If this idea is kept in mind, all the subsequent accidentals can be ignored.

As regards the expressional element in the Section II, a cursory examination shows that the first great climax is at bar 17. This should be marked in some way, or there will be a temptation to exhaust all the available force before this point is reached. There is a still more strenuous climax at bar 21, for which force must be reserved.

The *Agitato* section has a moderate climax in the middle, after which a *stretto* leads to the culminating point of the whole movement, where the key changes to C sharp minor.

A preliminary glance at the scheme of expression in Section III is absolutely necessary, or there will be a temptation to interpret the *ritenuto* in bar 9 from the end too liberally. It will be seen that the slackening of pace must be maintained for six bars further.

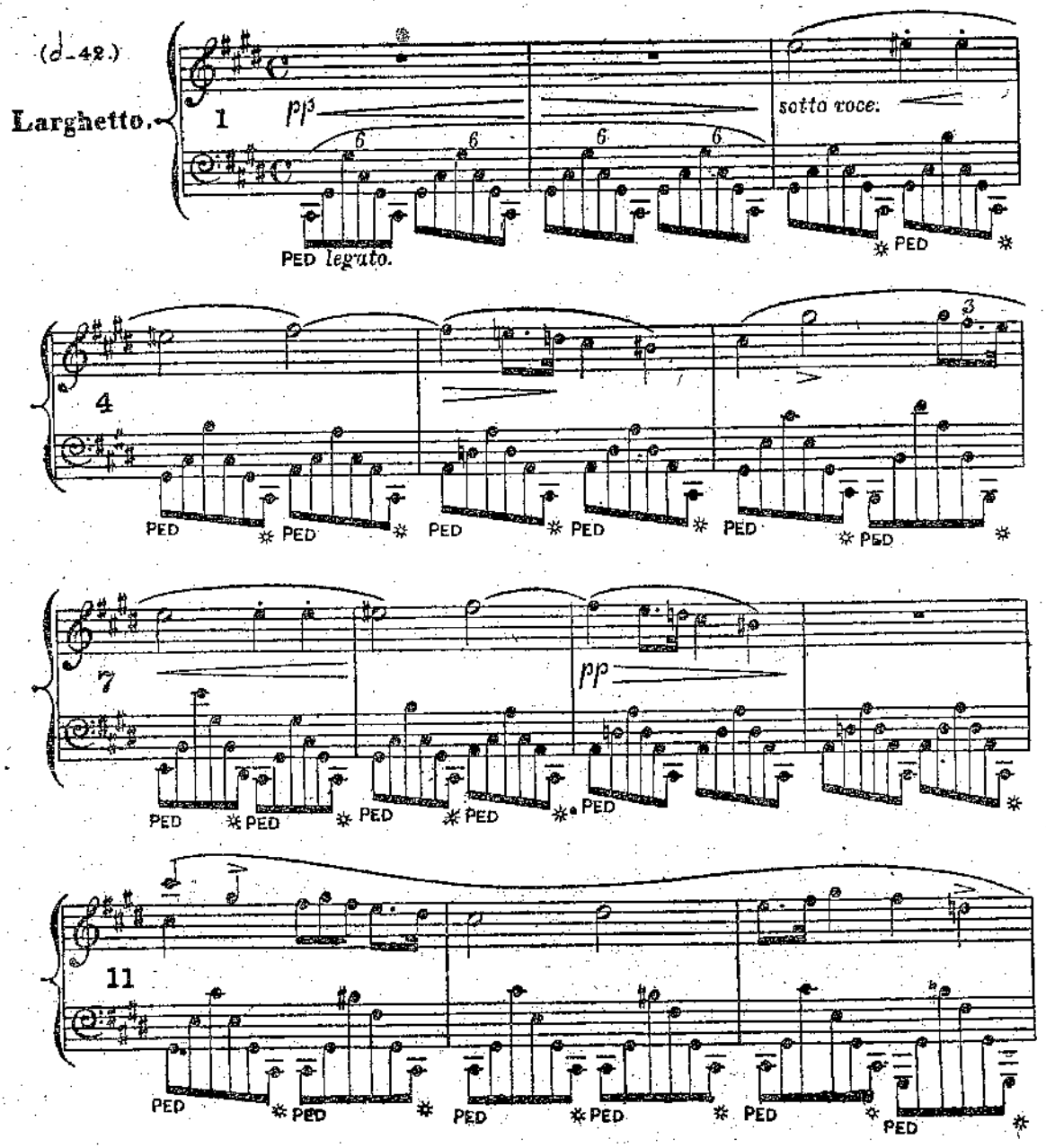
Now it is not pretended that all the features in the above analysis will be examined by every player before he begins to read the Nocturne. Many would be noticed during the course of performance, but the chief reason why so many players are bad sight-readers is that they neglect to give even a cursory preliminary glance at the piece they wish to read. From what has been already remarked it will be clear that reading music is a much more complicated proceeding than reading letterpress. In the latter case the grammatical construction of the sentence gives a clue to its subsequent course, and as the idea of the meaning of the words gradually unfolds itself, we form, by the help of our extensive experience, an apperception of the words in which that idea is likely to be expressed. In fact, the printed words take their proper place as mere symbols. Moreover, the number of elements of which the printed word is composed is very small compared with the complications of musical notation.

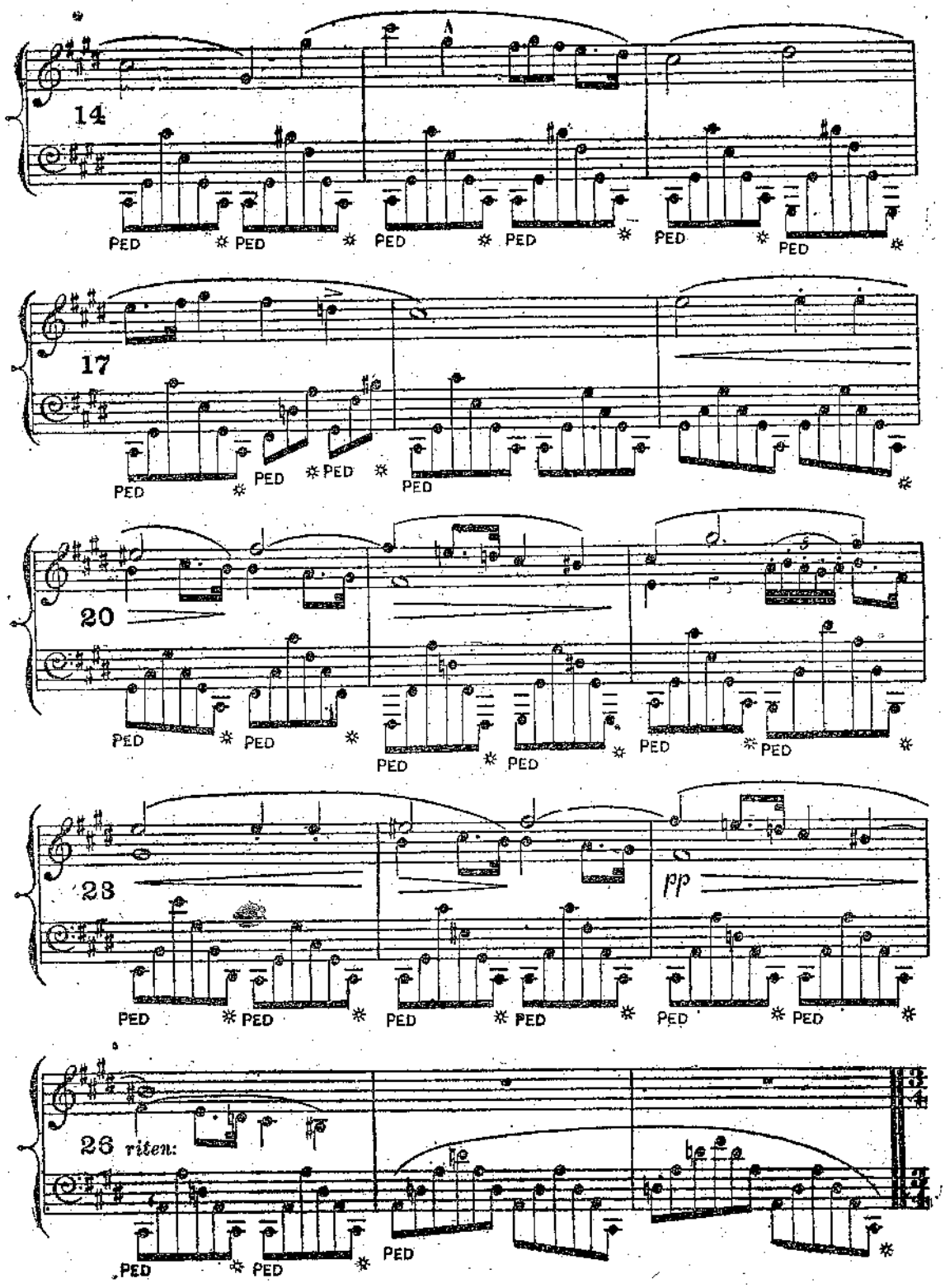
No doubt, in the case of experienced and well-equipped musicians, apperception in reading does play some part. Musical grammar demands that certain progressions shall be followed by certain others, and thus a knowledge of harmony very materially assists the reader. But these laws are infinitely more elastic than are the ordinary laws of grammar, and in much modern music are more often broken than observed. Add to this disadvantage the intricacies of key, fingering, &c., and the handicap under which the reader of music labours is apparent. Hence it is clear that some preliminary examination, with the object of discovering in advance the general idea upon which the music is founded, is eminently desirable.

It is hardly likely that this Nocturne will be read correctly at the first attempt. All mistakes should be carefully borne in mind, and an endeavour made to discover their cause. This should then be removed according to hints given in preceding pages.

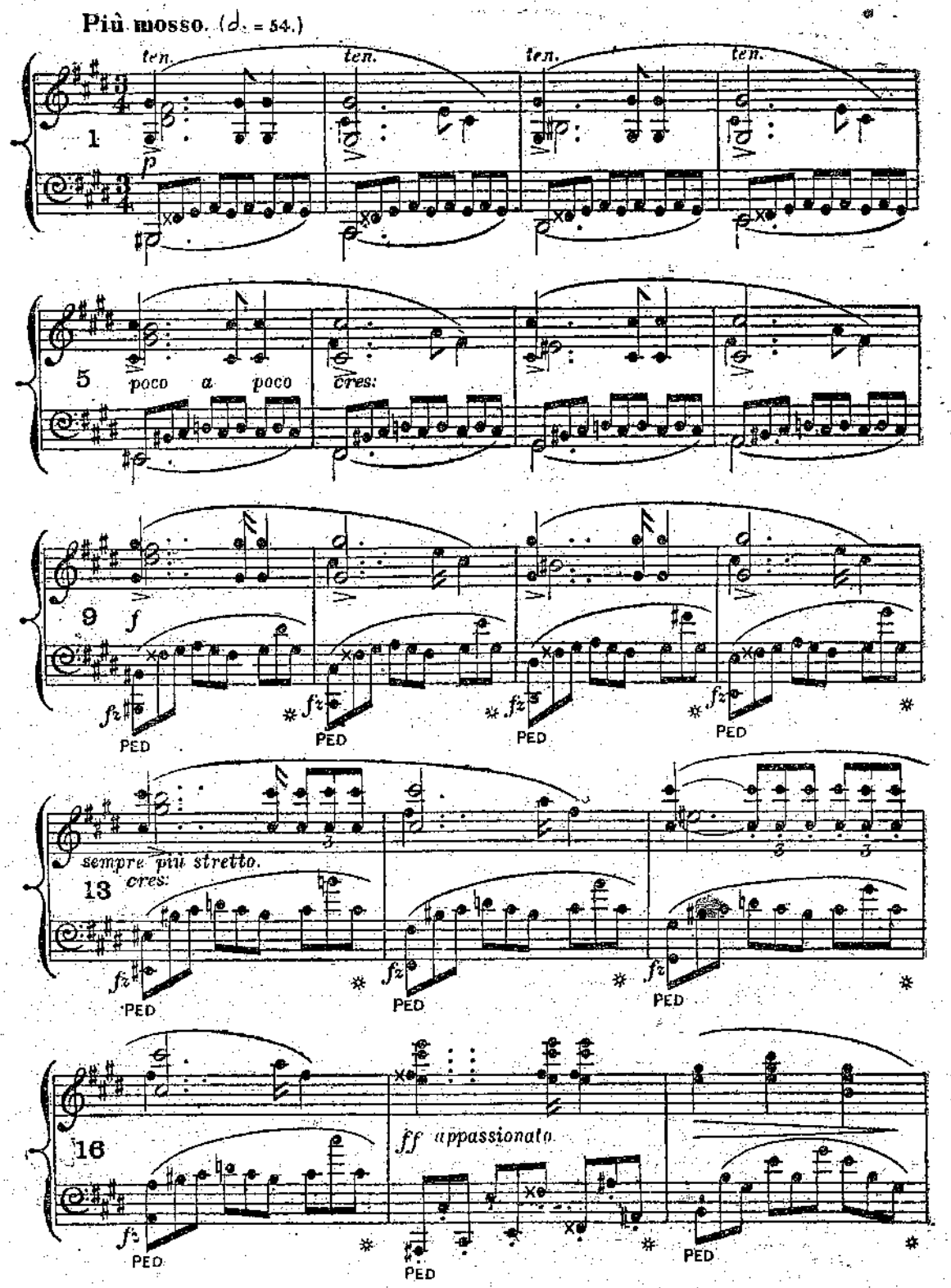
DÉDIÉE A Mme LA COMTESSE D'APPONY.

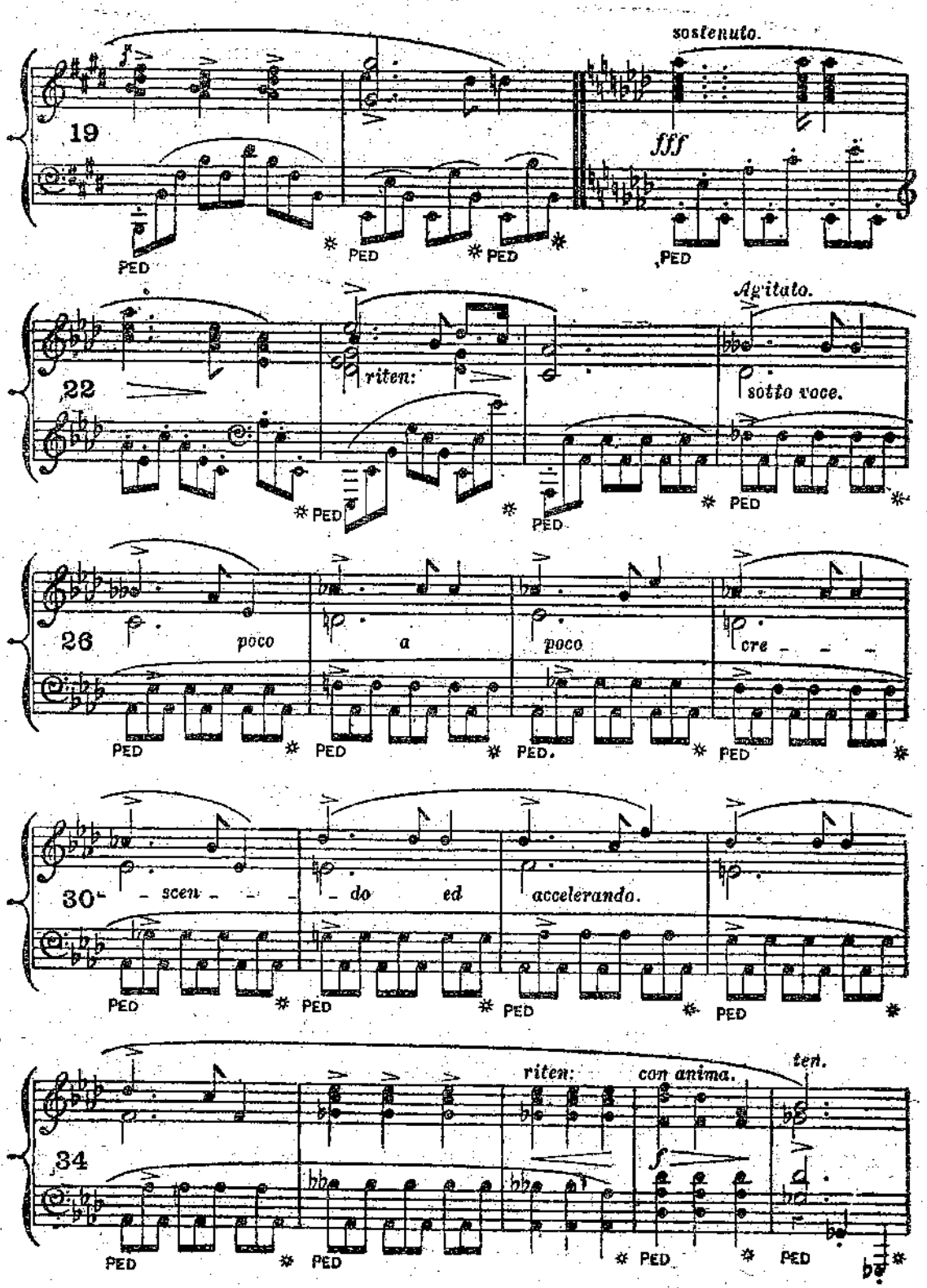
CHOPIN'S SEVENTH NOCTURNE.

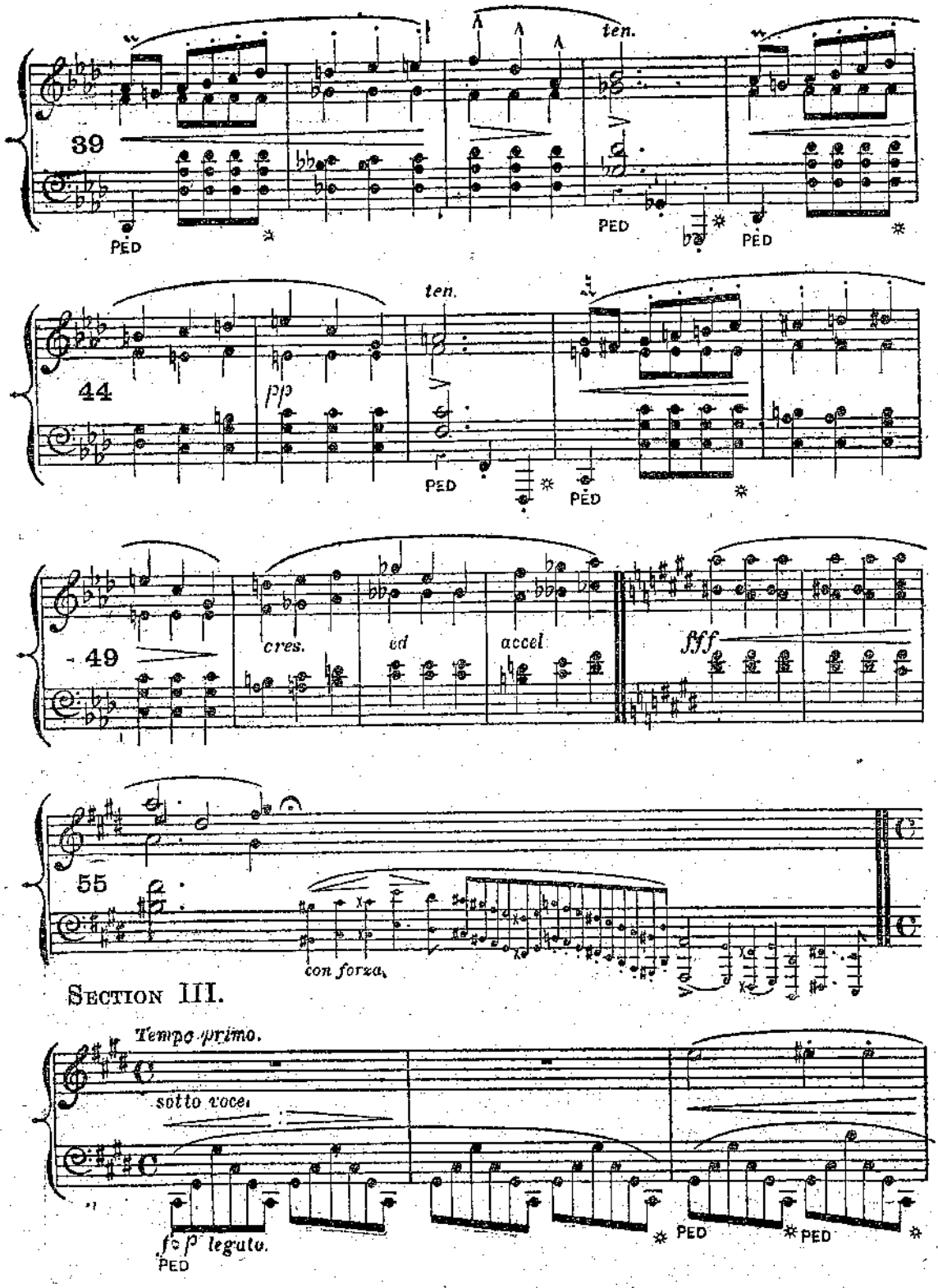



14
PED
17
20
23
pp
26 riten:

SECTION II.

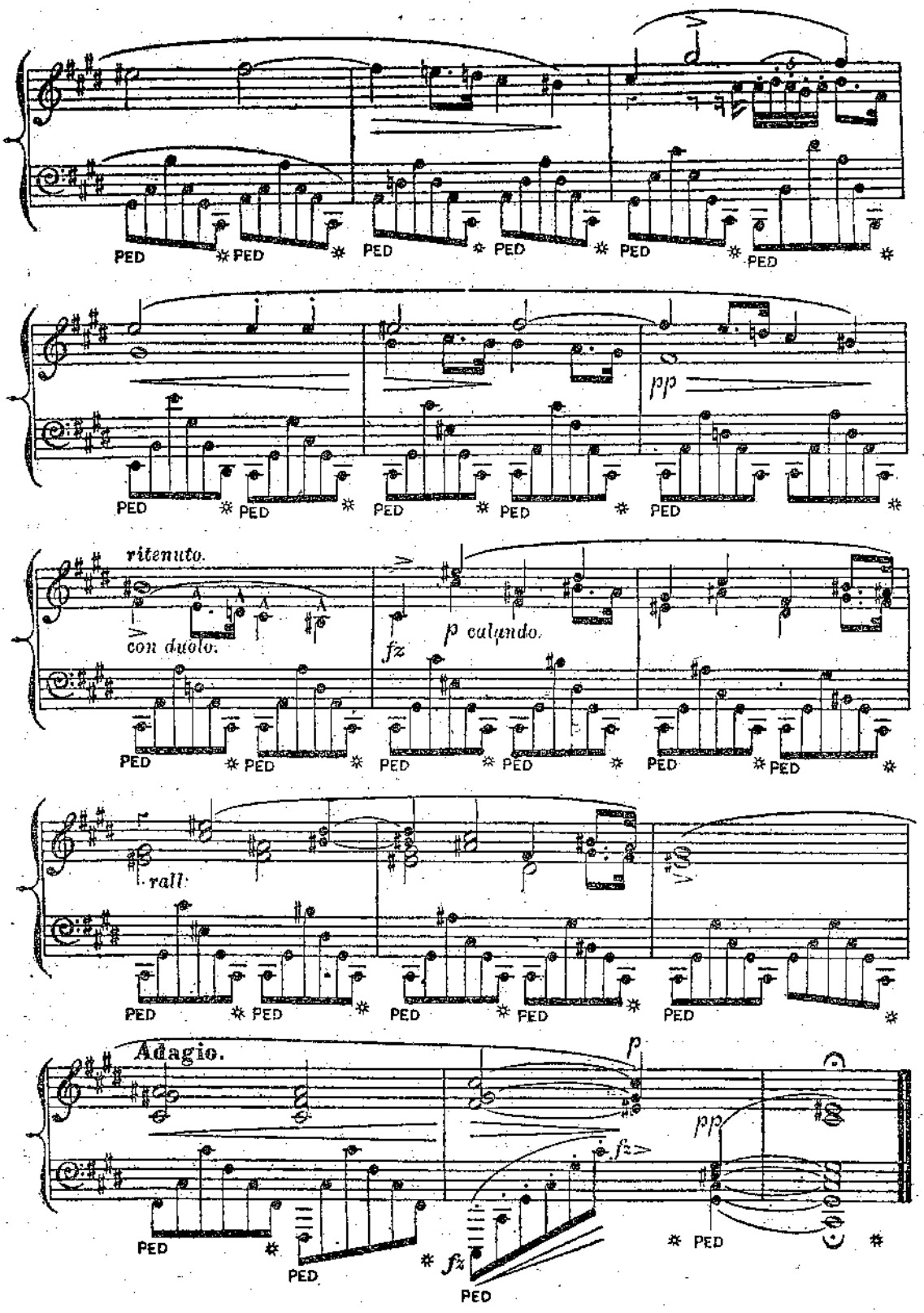

Più mosso. (♩. = 54.)
ten.
ten.
ten.
ten.
1
p
5
poco a poco
cres:
9
f
fz
PED
sempre più stretto.
13
cres:
16
ff appassionato.


sostenuto.
19
fff
PED
Agitato.
22
riten:
sotto voce.
26
poco
a
poco
cre - - -
30
- scen - - - do ed
accelerando.
34
riten:
con anima.
ten.
f


39
ten.
PED
PED
PED
44
ten.
pp
PED
PED
49
cres.
ed
accel.
fff
55
con forza.

SECTION III.

Tempo primo.
sotto voce.
fp legato.
PED
PED
PED


PED
pp
ritenuto.
con duolo.
fz
p calando.
rall.
Adagio.
p
pp
fz

INDEX.