

TEACHER'S MANUAL
OF
MASON'S
PIANOFORTE TECHNICS.

Henry C. Mason

A Guide to the Practical Application of the Mason
Exercises for Modifying Touch and Develop-
ing Superior Technic in Every Direction.

Together with a Discussion of the Principles upon which
Mason's System Rests, and Directions for Develop-
ing Many Additional and Important
Forms for Early Instruction.

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PREFACE.

In the following pages I have tried to clear up the chief misapprehensions appertaining to the intelligent administration of Dr. William Mason's System of Piano Technics; especially those which arise in the mind of experienced teachers, and those still in bondage to the insufficient treatment of technical material generally current in Europe.

Any intelligent teacher, who will attentively examine and test Mason's ideas, will find that a multitude of difficult points in his experience are there smoothed over and put in a new light, and the progress of pupils is promoted to an astonishing degree.

The novelties and peculiarities of the system form the subject of a preliminary chapter, to which the reader is referred.

In his latest exposition of his method, Touch and Technic, four volumes (Theodore Presser, 1890 to 1894) Dr. Mason carries condensation and suggestion to a point beyond the grasp of the majority of teachers throughout the country. Yet there is no system of technics which is at once so productive and so interesting for teacher and pupil alike as his. Its slow progress until the last decade, during a full generation since it was first published, is remarkable and illustrates the exceedingly imperfect understanding of the problems of the higher art of playing the piano, which the majority of piano teachers possess. Something, no doubt, is to be allowed for the

PREFACE.

over-estimation in which European ideas are held by so many of our younger teachers who have studied there but have not yet learned to properly estimate much that was taught them.

The value of a system of technics turns upon its relation to the finest and most artistic attainment in playing. Tested by this, Mason's system is entitled to be ranked as the most important contribution to piano pedagogy of the last fifty years. To prove this it is only necessary to apply it in actual work, according to the principles hereinafter unfolded.

Throughout the following pages, all references to exercises by number, as "Exercise 6," "Exercise 11," etc., refer to the corresponding exercise form in the volume of Touch and Technic just then under discussion, except where otherwise specified. Hence all such references in the chapters upon the Two-Finger Exercises are to be found in Volume I; those relating to Scales, in Volume II; those concerning Arpeggios, in Volume III; and those upon Octaves, Chords, Pedal, etc., in Volume IV.

W. S. B. MATHEWS.

INTRODUCTION.

PECULIARITIES OF MASON'S SYSTEM OF TECHNICS.

As compared with the usual books of piano technics, Mason's presents the following peculiarities:

First, the latest exposition of this work is published in four volumes, and never all in one volume. This often creates the impression among teachers that these books are to be taken successively, one after the other, in place of the practice being drawn from all four of the books simultaneously, the directions being repeated more than once that every day's practice should have something in it from each one of the four volumes. This is different from any other book.

Second, the exercises printed in Mason's work number but a small proportion of the actual number intended to be practiced. This point is not absolutely new with Mason, as several other collections of technical exercises suggest transpositions into other keys and the development of similar forms upon other chords or scales than those given. But with Mason this principle is carried to an extent which bewilders the young teacher who takes it up for teaching without having had practical experience with it herself. For example, in Volume III, the diminished chord and its derivatives is illustrated with thirty-five exercise forms, either printed out in full or indicated in notes. These thirty-five forms, if carried out in all varieties of measure, with units of from one to eight tones

to a beat, and applied to the diminished chords of G and D, besides those of C, give rise to no less than about a thousand different exercises. The whole question of this point is discussed later on in the part devoted to the arpeggio.

Third, Mason makes a vastly greater point of practicing every exercise in a variety of tempi and touch. This point has been made before by other technicians, but no other has placed it at the very foundation corner of the system, and no other has carried it so far nor applied it so intelligently.

Fourth, it is not peculiar to Mason to demand many repetitions of an exercise in practice; but Mason is the first who has shown a way of arriving at these innumerable repetitions without realizing their number or stupefying the musical sense. He accomplishes his result by the application of rhythm of all measure forms and units of various dimensions, thus creating forms practically the same as occur in actual advanced music for piano.

Fifth, all through the more advanced practice of the piano mental concentration and clearness are the conditions upon which endurance and certainty of finger depend; the finger must follow the mind and not precede it. Mason's system of developing forms according to settled plans gives this part of the practice the impression of original creation, and tends to strengthen the mind, enabling its longer and longer concentration upon a complicated figure or a rhythm, or as often happens upon both together. In this way it forms mental habits upon which the higher art of playing vitally depends. Nothing like this occurs in any other system.

Sixth, Mason alone of all technicians requires from the beginning a complete variety of the typical methods

of tone-production, preparing from the outset all the ways of arriving at tone-color, varieties of strength and shading, and thus furnishes the mechanism upon which expressive playing can be placed. All other systems ignore everything except the pure finger passage touch, with which running work is played, leaving the player without resources for expressive melody, very light and rapid playing, chords, octaves and bravoura. In Mason's system the hand, finger and arm are trained consciously from the very beginning. The result is to do away with the stiffness of wrist, which is the greatest obstacle to fine tone in piano playing.

Seventh, no other system provides as a part of the daily practice for the easy and natural carriage of the hand from a slow and heavy playing of a given pattern to the lightest and fastest possible playing of the same. In this exercise, according to Mason, the playing unit changes from a single tone to two, four and eight, with the corresponding modification of the touch and increase of speed upon a geometrical ratio of fourfold. The same principle is carried out in other ratios, by threes, and by combinations of two and three. This feature is peculiar to Mason. It is of frequent occurrence in all advanced playing, but all other technicians ignore it.

Mason has exemplified two different methods of velocity, both of which are new with him, and both contradictory to the principles often taught in this connection. Mason demands velocity immediately, almost as soon as a student has anything to play. Very early, at least three grades of speed are employed, and a fourth is added as soon as possible. This first method is by doubling up in graded rhythms, as already mentioned. His second way is by progressively augmenting the unit to be played within

a single beat of time. This method is nearly allied to the former, and often needs to be applied in connection with it. The two together make up a system of velocity entirely novel with Mason, although illustrated often in art-works of Chopin and Liszt. Contrary to this principle, the older technicians, when they say anything about velocity, teach that one is to arrive at it by progressively augmenting the speed, but never hurrying. Pupils with a talent and instinct for the piano will eventually arrive at velocity in this method; but the dull ones never will. It is the same principle as if one were to try to train a horse to trot very fast without ever allowing him to hurry. There are times when the very best thing the horse can do for his master is to hurry; so also in piano playing. It is worth while to know how to hurry. It is an art of itself.

Mason alone, of all technicians, entirely avoids the pianist's cramp by diversifying the practice upon a system involving first of all a much larger proportion of slow practice than any other system affords; second, the interchange of velocities according to a rational plan.

Third, by varying the weight and variety of touch; and fourth, by diversifying the practice material so as to relieve the hands. Thus, by giving the hands a much greater variety of material to practice than was usual before his time, and by practicing this in a far greater variety of ways, he attains results of superior quality without danger to the hands.

Owing to the fact that the great majority of piano teachers begin their work as teachers without having had instruction in methods of teaching, and commonly without having had any training in practical composition, and later having had their own training along some one

of the usual and purely mechanical systems of technics, the foregoing combination of novel elements for the teacher to master places them at a disadvantage in taking up such a system as that of Mason; although all the intelligent ones of them would very soon learn how to arrive at vastly superior results from this system to those which they usually attain, if only they understood what the principles were and in what manner they could best be adapted and combined for the practice of young pupils.

Having encountered these difficulties over and over again during the summer classes for teachers, extending now over thirty years, during all of which I have been applying Mason's system, I feel no hesitation in taking the elements of the Mason system one after another and of discussing the best ways of applying them in the different grades of progress; also of pointing out the vast material of exercise forms available within the first three grades, concerning which Mason is mostly silent, his own practice with post-graduate pupils affording him very slight indications along this part of the work..

ORIGIN OF NOVEL FORMS IN THIS SYSTEM.

In Vol. I of Touch and Technic, page 4, Dr. Mason gives an account of the origin of the two-finger exercise. Of the remaining forms it may be said in general that Mason's work consists in providing a systematic carrying out of devices proposed by different pianists for securing missing elements in the playing. The scale canons were proposed by Robert Schumann, in the Preface to his arrangements of the Paganini Caprices. The Velocity forms occur over and over again in the works of Chopin. (Long scale runs at the close of the G minor Ballade;

also in the A flat Polonaise; the same in arpeggio forms in many places, such as the second page of the Polonaise in C sharp minor, and many other places.) The development of forms by treating a duple motive in triple measure, or the reverse, is a favorite manner of awakening impressions of mystery in piano passages by Chopin and Raff and Liszt. While the same thing happens often in Schumann, it is always in the music itself and not in a mere passage—of which Schumann has none at all. Scales in thirds and sixths had been proposed and assiduously taught by Tomaschek, Dreyschock, etc., but Schumann perhaps was the first to arrive at them through canon; but while Schumann suggests accents, he provided no system of obtaining them.

The Tables of Graded Rhythm probably arose accidentally, an exercise being improvised for assisting a pupil to correct the rhythm in developing from pulse motions to different subdivisions of the pulse. Upon trying the same thing with other pupils it was found that the exact rhythmic multiplication was by no means a universal faculty, accordingly the great prominence given this principle in Dr. Mason's later practice. Dr. Mason himself tells that the application of long rhythms of 9's was first made in order to secure many repetitions from a careless and inexact pupil.

Thus while the actual forms here employed are not absolutely original in the sense of having been proposed by Dr. Mason for the first time; a still greater honor remains to him—namely, in this: That he has been the first to bring together into a single system so many forms and manners of practicing for arriving at the manifold qualities which enter into advanced and artistic piano playing. It was precisely his own peculiar position as

an artist and a pedagogue at the same time, and his American talent for analysis and for synthesis as well, together with his knowledge of the romantic music of Chopin, Schumann and Liszt (very rare among the best pianists in 1855, and wholly unknown among pedagogues), which enabled him to divine combinations so unprecedented in European piano pedagogics, and especially adapted for American use, since they have in them such a multitude of piano effects which a student foreign to artistic circles would never find out for himself.

PART FIRST. Tone Production.

CHAPTER I.

THE TWO-FINGER EXERCISES.

The place of honor in Mason's Touch and Technic is held by a form of exercise practically peculiar to him, called "the two-finger exercise." This exercise consists of a two-note motive repeated over and over upon the successive degrees of the scale or any arpeggio, and varied systematically as to the character of touch, speed and object in view. The original form of this exercise is said to have been that of No. 12 in Vol. I, without accent. In this form Liszt is credited with having occasionally employed it for his own fingers. Happening to observe the unusual proceeding of Liszt practicing an exercise (which he hardly ever did), Mason immediately began to experiment with the same form. The good effects were so obvious that he later on made it an important part of his technical apparatus, and as early as 1867 was using it in the fast form and also in a slow form, with a finger elastic touch. Later on a clinging legato form was added, in which the playing finger was replaced upon the key by a finger coming there silently, thus liberating the engaged finger, which went on to play the next note. Still later, arm touches were added, until at length the exercise assumed the systematic form shown in the practice sequences and in the standard combination hereafter explained.

The great value of the two-finger form lies in the frequent systematic exercise of a single pair of fingers and in the possibility by means of the different touches of laying a complete foundation for tone production and phrasing.

For many years the finger-training values of these exercises were foremost, and its incidental and necessary influence upon the tone-production accepted with little attention. Later, however, the training of the fingers in endurance and power and lightness, while great, has been realized to be of less importance than the many-sided outfit of expressive tone-production, which these forms finally develop. In the directions following the place of honor is given to the forms in which tone-production is the chief desideratum, the finger training forms being reserved for later consideration.

In the first edition of Vol. I of Touch and Technic, the directions were ample as to the second tone of each motive, but the manner of arriving upon the first tone was left to the discretion of the student. As a matter of fact, Mason has almost always arrived upon the first tone in the slow and heavy forms with an arm touch, but owing to the complete neglect of this part of the tone-producing apparatus in treatises upon technics, the fact had not been called to his attention. Meanwhile, certain once celebrated schools in Europe were teaching a tone-production for chords and heavy octaves by means of a hand stroke, such as artists never employ. Accordingly in the second edition of the volume Dr. Mason completed his directions at this important point and added also the exercises for arm; these, however, in a still later edition he relegated to advanced elements of touch, intimating that the arm could be neglected for a while. The present

writer believes the amendment a mistake, and that the arm should receive attention from the first, in order to secure a free and elastic condition of the entire tone-producing apparatus. Accordingly the four principal forms are included here in what is called the "Standard Combination of Two-Finger Exercises for Daily Practice." The other forms are left for special consideration as needed.

The present writer saw from his first acquaintance with Dr. Mason, in 1870, that the two-finger exercise was the central fact of his system, and, in part through his urging, it has been given a larger development than it had at that time; this has been done both for the sake of additional forms and also for making it more impressive upon the student than when it was included in a single printed page. An experience of thirty-one years in using this exercise in teaching has demonstrated its wonderful value as a modifier of touch, a strengthener of finger and a concentrated essence of piano practice. It must not be slighted.

PRELIMINARY OBSERVATION UPON CONDITIONS OF HAND.

Before proceeding to the details of tone-production, it is advisable to take a preliminary glance at certain nervous and psychological relations involved.

First, of Effort and Looseness.—Nearly all discussions of piano playing at the present time have something to say about "stiffness," "constriction" and their opposite, "looseness." Let it be observed, therefore, precisely what is meant in the use of these terms.

Effort.—There is no playing without effort. There can be no strong full tone without tension of nerve and tension of muscle.

Looseness.—The idea of "looseness," "limpness" and the like is inconceivable in connection with actual work. The part or parts which work are not at that moment loose, limp or "devitalized." On the contrary, they are vitalized, made tense, to precisely the degree necessary for giving the muscles involved the firmness for doing the work intended—which, upon the piano, is the production of single tones or chords of greater or less strength, or groups of very fast tones, where the sense of effort is still as lively as in the preceding forms, although the nerve tension is far more fleeting, a single impulse being sometimes distributed through an entire series.

Work.—The idea may be illustrated by the figure of a person carrying a heavy weight, say a sack of flour, up two flights of stairs. There is first the effort of raising the sack to the shoulder. Then one walks along the floor to the foot of the stairs. In this act there is a greater tension than in ordinary walking, because the muscles have to carry not alone the weight of the body to which they are so accustomed that under ordinary circumstances it is not realized as weight at all, but also the added weight of the sack of flour. During the walking a variety of muscles come into action and pass out of action. One step follows another. At every step certain muscles awaken to exertion, while others complete their work and become quiescent. During the whole there is to the person a consciousness of tension equal to that of the person and the added weight of the flour. This tension remains constant in consciousness, but as related to the muscles it is what we might call floating—i. e., transferred from one set to another by insensible degrees without leaving any record, except when the weight is too great for the per-

son carrying it, in which case the over-exertion will leave an after result of soreness.

When the carrier comes to the beginning of the first flight of stairs an additional tension is turned on, equal to the added exertion of raising the body of the person and the weight of the flour from one stair to the next. This tension remains floating until the top of the flight is reached, when the first tension is resumed, and the person walks along the level floor to the foot of the next flight; here the heavy tension is put on again and kept on until the top is reached.

During this entire process we have been doing work, but if it has been properly done there has been no stiffness. Suppose, however, that the tension turned into one leg to support the body had remained there when one desired to take the next step, then we would have had stiffness in that leg. Or suppose that tension is turned into a leg some time before it is to be used; then we have stiffness in advance of work.

There is no work without tension. Work well done is done with a minimum of tension.

Stiffness is a tension not concerned in work; a tension put on before the work is ready to be done, or retained after the work has been done. This is what is meant by stiffness in piano work.

Stiffness might also consist of unresponsive muscular condition, as of a muscle which has been overworked and is now sore in consequence, so that every contraction generates pain. Or so that a contraction requires abnormal exertion. But of these kinds of stiffness we rarely have examples among piano students, and then only in those who have undertaken the piano after hard manual work, or those who have over-practiced and generated inflammation of muscles.

Practically, among piano students, stiffness is merely tension prematurely turned on or retained too long. Work without tension is impossible.

What we have to learn, from this standpoint, is therefore to estimate correctly the tension capable of producing the tone wanted, and to employ the tension at the precise instant of the work and not the slightest instant longer. The exercises following, when properly administered, have this effect.

The Source and Quality of Tension.—All successful work is done from the mind and not from the muscles. Whether it be shoveling gravel, plowing, using a flail, sewing a seam or playing the piano, the source of the tension employed is mental and the impression in the mind is of work to do, and not of muscular contractions as such. The severity of the tension is also determined by the work to be done and not in the form of an effort to get a certain muscle to contract more forcibly. This rules throughout manual labor. All muscular work is without muscular consciousness as such. Take the case of chewing: When the morsel is hard or tough, one exerts more force; but the sensation of force is mental and related to the hardness of the morsel, and not in the form of directions to the supermaxillary muscles to contract with more force. So also in speaking to a person at a distance; the sense is that of throwing out the voice to a distance and not of contracting such and such muscles more violently.

In musical piano playing the work is determined by the conception of musical intensity existing in the mind, and never by a conception of muscular condition or tension. All forms of exercise in which positions and exertions are made the chief points

are suitable for the very exceptional use only, and then merely in order to correct certain bad habits; the sense of tone is the source of tension and tone-production and of tonal shading in all good piano playing. This is the reason that all good pianists fear the influence of touch machines, like the clavier or the technicon, since in these the tonal sense is neglected.

STANDARD COMBINATION OF TWO-FINGER EXERCISES.

The first thing for the student to do in trying Mason's system is to perform the exercises for improving the touch. The following is the complete schedule. There are four forms for daily practice:

I. EXERCISE FOR THE CLINGING LEGATO TOUCH. (This exercise is intended to prepare for melody playing.)

Begin with the second finger of the right hand, taking the first tone full but soft and mellow. An arm or hand touch may be employed for this tone, or it may be made by a pure finger stroke. The exercise proper begins with the second tone. Prepare the second tone by raising the finger high (at least an inch or more from the keys). When the tone has been sounded, it is to be sustained at least two beats (met. not faster than 60 to 72).

Preliminary Form.—Overlapping of Tones. Super-legato. When the second tone is sounded the finger is not instantly raised from the previous key, but is held there, so that two tones are now sounding together. After a short interval slide the point of the second finger over upon the next key, where the third finger is holding the tone. (Sec. 14. Figures 1a and 1b).

The object of this exercise is to promote a better pressure upon the key and consequently a more perfect melody

legato, and a more sensitive condition of the point of the finger. It is preliminary and, in the opinion of the present writer, is not to be made a part of the daily practice.

This exercise is carried out in all fingers.

Standard Form.—Pure Legato, not overlapping. The instant the second tone has been produced the 2d finger is released and raised high, as high as before playing. In this manner the exercise has the same finger-action as the well-known form called the "slow trill." The object is to promote finger independence and a larger action of adjacent fingers.

The tone is to be sustained for two beats (metronome not faster than 60 to 70). At the expiration of the first beat the 2d finger goes down softly and substitutes upon the key for the 3d finger which is now holding the tone. The 3d finger thus released rises high as at first, and upon completing the second beat sounds the next tone, in exactly the same manner as already described. This exercise differs from the "slow trill" only in being slower, the tone fuller and more melodious in quality, and in having always a sustaining pressure of the finger point upon the key, but always without any constriction or stiffening. Wrist low—lower than the knuckles. Palm of the hand high above the keys—at least an inch. Finger curved. The first joint must never bend inwards either in taking the tone or in sustaining it.

The foregoing to be played according to No. 1, in all fingerings. Also, immediately after, Nos. 46, 51 and 56. The exercise of the hand upon these combinations with black keys is advisable from the beginning. It tends to correct one-sided ideas concerning the relation of the hand to the keys.

NOTE.—The attentive student of Touch and Technic

will observe that the foregoing directions differ slightly from those which Dr. Mason gives in Sec. 14, Vol. I, p. 9. He continues the sliding of the finger across from its key to the new one, even in the pure legato movement. His object in this is to promote a more clinging cantabile touch and particularly a more sensitive condition of finger points. Observation of many hundreds of students has shown that the majority fail to perform this sliding in the manner directed by Dr. Mason, but instead of pulling the point of the finger across by a finger pull *jerk* it across to its new key by a sort of arm motion, the finger remaining firmly fixed, instead of being flexibly sustained.

Inasmuch as the primary object of the exercise for clinging touch is the better performance of melody, in which the exact succession of fingers and the distinct articulation of tones is of the greatest importance, I have taken the liberty of modifying the action at this point and of making it substantially the same as is necessary in all forms of two-finger exercise except those upon the white keys. Sliding across is impossible in melody playing except on white keys. I have therefore emphasized the finger articulation, which I believe to be one of the most important things to be gained just here. In case, however, the pupil should manifest insensibility of finger point, the sliding manner of change ought to be taken up for some time.

2. EXERCISES FOR ARM TOUCHES.

These forms of tone production are not generally employed in single tones, but are varieties of chord and octave touch. For elementary purposes it is advisable to practice them in single tones.

Down Arm Touch.—The arm is extended above the

keys, the hand hanging limp from it, very much shown as shown in Fig. 6a, only the hand should hang down a little more like Fig. 7a, but with the hand a little away from the keys.

The tone is produced by permitting the arm to fall (from the shoulder, not from the elbow merely), taking a key with a finger, say 2d finger, producing a full and strong tone.

At the moment when the tone is sounded the wrist is relaxed and while the finger holds the key the wrist sinks entirely loose into the position shown in Figure 7b, only the key is pressed as in Fig. 6b. The position in Fig. 6b is excellent, only we wish to go on with the next tone and for this reason retain the next finger upon the keys. Fig. 6 illustrates the complete relaxation of hand, which is the central point to be gained.

This touch will prove very easy to children and to all who have not been trained in a one-sided way. To those who have never been taught anything about the arm in playing and have carefully avoided using it for a series of years, it will be difficult at first. It is very important.

Note that the point of the finger remains holding the key quite earnestly, in a friendly manner, a living manner, and not in a merely limp and passive manner. The wrist nevertheless is entirely relaxed.

The Up-Arm Touch.—This touch consists of two elements. Prepare it by means of the preliminary exercise illustrated in Fig. 7a and b, Sec. 30. Observe Mason's directions in full.

To make the tone, prepare by the following exercise: To find out the mechanism place the point of the 3d finger upon your own knee and with the other hand grasp the upper arm, the points of the fingers reaching back be-

hind the elbow just above it (Figure 5), except that the fingers should reach farther behind the arm. Now press with the point of the finger and you will feel the triceps muscle behind the upper arm expand with the effort. Alternately press and relax, without removing the finger point from contact with the knee. You will discover that whenever there is a pressure the triceps muscle contracts; and when you relax it also becomes quiet. This is the motive power by means of which you will make the tone.

To Make the Tone.—Place the hand in the position of Figure 7b. Then with the point of the finger actually resting upon the key, but not depressing it, press with the triceps muscle, exactly as before when resting upon the knee. This will sound the tone.

Accompanying Motion.—At the same time you sound the tone spring up with the wrist first, as in traveling from the position in Figure 7b to that in Figure 7a, and continue the upwards motion of the arm until it is raised some distance above the keys, the hand now at the end of the operation being in the position like Figure 6, with the wrist a little more relaxed.

Cautions.

(a) Sound the Tone when the motion begins, and not when the hand is half way up or more.

(b) The sounding of the tone and the upwards spring of the arm are a single act, instantaneous in character.

(c) In the early stages let the teacher hold her own hand about ten inches or a foot above the keys and a very little forward (towards the name board of the piano) and require the pupil to spring up and hit her hand forcibly with the joint of the wrist. This should be done quite spitefully, as if to crack the varnish upon the teach-

er's hand. This sudden upward spring is the act which combined with the slight forward motion produces the tone.

(d) Be careful that on completing the act the hand falls limp from the arm, but is not drawn inwards much more than in Figure 7a. There is a tendency to draw it inward still more, making nearly or quite a right angle with the arm. This is wholly wrong. On completing the "Up-Arm Touch" the hand and arm are in the same position as when ready to make the "Down-Arm Touch."

(e) The fingers are not curved or drawn inwards in making this touch.

Observe that in Mason's system a "down" touch is a touch produced by a down motion, and not one produced with the wrist low; also an "up touch" is a touch produced by an upwards motion and not a touch produced by the wrist in a high position.

Carry out these touches with all fingers according to Nos. 1, 24, 47, 52, 57, and later Nos. 66 and 71.

3. THIRD FORM. HAND TOUCH AND FINGER ELASTIC.

The first tone of every pair is produced by a limp fall of the hand, which is, so to say, thrown by motive power coming from the upper arm, the wrist being held quite limp. The momentum of the hand is the motive power for the tone.

Trial Exercise, No. 1.—With the left hand take hold of the right fore arm, and place the arm above the knee; then with the left hand (the right arm remaining passive) give the right arm an upward motion so that in its falling back the hand swings free upon the wrist and strikes the knee, as Landon says, "like a whip-lash or flail"—not forcibly, just a gentle blow. This is the mechanism.

Trial Exercise, No. 2.—Placing the right hand upon the knee (instead of a little above it as before), the entire forearm resting along the lap, raise the hand without raising the forearm, and strike back upon the knee. This is the wrist touch generally taught, but it is not loose enough. Alternately perform trial exercise No. 1 and trial exercise No. 2 until you recognize that the wrist is much more limp in the first form.

Produce the first tone of every pair by the mechanism of trial exercise No. 1.

Cautions.—(a) Be sure that the hand moves considerably more than the forearm. It is a hand motion we are after. Also a perfectly limp and loose wrist.

(b) In this touch the arm and hand do not move in the same direction. It is wrong for the arm to come down with the hand. This makes it an arm touch. What we are after is a hand touch, free from the arm. The arm merely gives a swing, and the momentum of the hand does the rest.

(c) When the tone is sounded the point of the finger sustains it, in a positive and friendly manner, but without heavy pressure.

The second tone of every pair is produced by the *Finger Elastic Touch*, which is simply a very strong and exaggerated finger staccato. To perform it properly observe two cautions, or in my judgment three.

First Caution.—Prepare the tone by extending the next finger as high as possible and quite straight. Figure 2b or 2a. I prefer the unplaying fingers to be straightened a little and raised in sympathy with the playing finger, like Figure 8a, rather than to retain them curved as indicated in Figures 1a, 2a, 2b, etc. I think that this permanently curved position is natural only to

very mature and strong hands, and that we lose a good deal of strengthening exercise by requiring it too soon.

Second Caution.—Perform the tone by suddenly shutting the finger, carrying the motion so far that the playing finger touches the palm of the hand, almost like Figure 8b.

Third Caution.—Mason leaves the hand horizontal at the close of this touch, like Figures 1b, 2c, etc. In most, if not all, cases, however, I believe it better to bring the hand up a little, nearly as high as shown in Figure 8b. So again in preparing the finger elastic, the position in Figure 8a suits me better than the others. The great difficulty of leaving the hand at rest, like Figure 2c, is that the wrist is apt to remain constricted and the teacher has no certain way of knowing whether it is constricted or not.

Bowman's Stab Touch.—Where there is difficulty in securing a motion of the hand, owing to long habits of stiff wrists, the method of Bowman's stab touch may be followed, as explained in Sec. 35, and illustrated by Figures 8a and b.

In case of confirmed stiffness of wrist this form of Bowman's always succeeds in obtaining a wrist motion. When it is acquired, go back to the proper form as described above.

Carry out the Finger Elastic according to Nos. 2, 46, 47, 51, 57 and 24; later like 66.

Old hands, to whom this touch proves difficult, will secure the motion more easily in practicing it double sixths, like No. 66.

Caution.—(a) Hold the wrist low, the palm of the hand high from the keys. The wrist is a little lower than the knuckles. The joints between the fingers and the

palm of the hand are held higher than the second joints. This gives more power and elasticity.

(b) In all heavy exercises in sixths the tendency towards constriction of wrist is almost irresistible; for this reason the wrist is held abnormally low.

(c) In the single finger forms of the exercise for Hand Touch and Elastic Finger Touch, the wrist is held high, about level with the hand, *but not higher*. The forearm does not move in this exercise, nor does the wrist alternately sink and rise; it remains stationary.

This is the most useful exercise for acquiring the looseness of wrist upon which fast octaves depend, and for acquiring finger strength.

General Observation.—All the three forms of exercises thus far described belong to the super-vitalized order, and represent types employed when strong tone is needed. If practiced without observing the cautions to relax the tension instantaneously upon completing the touch they will create stiffness.

The following exercise is intended first of all to remedy this tendency by exercising the fingers while the hand is as little vitalized as possible.

4. FOURTH FORM. LIGHT AND FAST TWO-FINGER EXERCISES.

The first tone of every pair is produced by as slight a fall of the hand as possible. The wrist is entirely limp, the finger point not more than a quarter of an inch above the keys.

The second tone of every pair is made by the slightest possible fall of the finger, without drawing in the point of the finger perceptibly. Both tones are soft, mellow and as light as possible. There is only accent enough to

distinguish the first tone from the second and the beginning of the measure. In the early stages better omit the accented forms. Practice like Nos. 4, 6, 8, 18, 19, 21, 49, 54, 59, 61 and later Nos. 44 and 66.

The combination of the four forms of two-finger exercise above described tends to develop power, flexibility, strength of tone, ease and lightness, and lays the foundation for endurance.

After these qualities have been secured fairly well, apply the first three forms to Nos. 23, 24 and 26. Then go on with the light and fast forms in broken thirds, always playing them legato and never phrased, like Nos. 28 to 40. The same method may be applied to chromatic minor thirds and chromatic major thirds.

TWO-FINGER EXERCISES IN RHYTHM II.

In all the four forms of the standard combination of Two-Finger Exercises the second touch of every pair is performed at a disadvantage. For this reason in my own practice I require the second tone to be practically equal in power with the first, leaving merely enough difference to indicate the beat, but not enough for accentuation purposes.

When the hand is able to perform all varieties in this way, then go on to the Rhythm II, in which the second tone of every pair has the accent. Obtain this accent not by holding back something out of the first tone; on the contrary, give that strong and firmly; but urge the second tone into still greater power and resonance. Be careful in doing this not to impair the purity of the mechanism. After a little practice the pupil will learn how to attain this end; but do not assign it until after the first rhythm is well mastered.

In teaching Rhythm II to young pupils it is often easier to omit the single staccato tone at beginning. I have sometimes explained the change to a child by observing that the fast form in Rhythm I is like the accent "Sammy, Sammy, Sammy"; the second Rhythm like Marie, Marie, Marie," etc. Omitting the single staccato tone at beginning and putting the change in this light will make it easy to the youngest pupil.

CHAPTER II.

THE FOREGOING AS TONE-PRODUCTION.

The Two-Finger Exercise of Mason is at the same time an exhaustive study of tone-production and an apparatus by the use of which all the fingers are equalized and strengthened, the hand and arm brought into subjection to the sense of tone, and a foundation furnished for all the typical varieties of musical touch.

In the four forms of the Standard Combination, above described, there are seven different tone-productions.

1. The serious finger, for melody playing.
2. Down Arm, the mechanism for heavy chords and octaves. Very rarely if ever used for single tones.
3. Up Arm, the mechanism for heavy detached chords and octaves, where great power is required, and there is no sostenuto. Very rarely used for single tones.
4. Hand Touch with a free wrist, the mechanism for all varieties of fast octaves, quickly repeated chords, and a wrist condition for short phrasing, such as required in the first subject of the Beethoven sonata in D minor, op. 31, and the Chopin Waltz in C sharp minor, opus 64, etc.
5. The Finger Elastic, occasionally employed for very short and very emphatic final tones (very rarely, however, and never unless indicated in the most unmistakable way), many short and detached chords, and the like. The principal value of this exercise lies in its quality of strengthening the finger, which it does to a remarkable degree, thereby, while not directly entering into ordinary phrasing and expressive playing, conducing to hand

conditions of great importance. The application of this touch to the fourth and fifth fingers prepares in a very vital manner for successful octaves and chords.

6. The very light hand touch, the mechanism for very short and quick chords, many points of short and quick phrasing, and all very fast octaves.

7. The Very Light Finger, with or without a staccato. This is the mechanism for all sorts of vanishing tones, such as often close phrases ending in a two-syllable effect. It underlies a vast amount of tonal effect in the works of Schumann. For instance, the Entrance to the Forest, the Prophetic Bird, etc.

In my opinion the foregoing comprise all the radically different tone-productions there are. If any is missing it can only be the ordinary passage-finger tone-production, such as is used in all sorts of moderately quick scales, arpeggios and running passages generally. This use of the finger is contained in the fast forms in Broken Thirds, mentioned above, and constitutes the staple of all scales and arpeggios. Mason, however, does something more with his scales and arpeggios than to cultivate this practically negative touch, by assigning them in slow and heavy forms, to be played with the serious finger, exactly the same as in tone-production No. 1. He then lightens up the force and increases the speed through two and three additional doublings, and when it is designed to make the running work still lighter and more sparkling, he adds practice in finger staccato, the mild staccato, and all the forms taken together result in the flexibility and brilliancy belonging to the finest technic.

CHAPTER III.

ADDITIONAL FINGER TRAINING BY MEANS OF THE TWO-FINGER FORMS.

The various forms of the Two-finger Exercise grew up during a practical teaching experience of forty years, and in the course of the process quite a number of forms were invented which are later found to be a little outside the necessary field of this part of the practice, considered from the standpoint of tone-production. They belong to modifications of touch, and to passage forms. A careful examination of these forms will now be made, and their particular application pointed out. While a well-conducted beginner might be carried through the standard combination of this exercise, already defined, and never require any of the forms about to be explained, the very next pupil one receives might happen to have faults which some one of these additional forms would be the easiest and quickest method of relieving.

I. THE CLINGING LEGATO WITH OVERLAPPING TONES. SUPER-LEGATO.

This method of playing the two-finger exercise, carefully described by Mason in his "Directions," page 9, of Vol. I. The finger bears down heavily upon the keys, with an absolute weight proportioned to the strength of the hand. In a child the weight should not exceed a very few ounces; in a girl of twelve, perhaps eight ounces or a little more; and for a mature adult, perhaps a pound or over. The easiest way of arriving at these pressures

surely is through the graduated touch of practice clavier, if one happens to have the instrument handy. Otherwise it must be left to the muscular sense of the player.

The object of this exercise is to secure the heavy bearing down of the hand (from the triceps muscle in the arm), which is one of the essential conditions of securing a clinging *sostenuto*. If given unwisely, and care not be taken to keep the wrist as free and flexible as possible consistent with its carrying the weight, stiffness will result. Keep the wrist lower than the knuckles.

This form will be of great use in those cases where the touch is too light and a legato quality has not been established. Particularly of use in those cases where there is a confirmed *non-legato* as we sometimes find in the playing of those who have studied by themselves rather carelessly.

It is also of use in the case of a very weak touch.

Caution 1.—In applying this form of touch be sure that the finger is still raised high preparatory to producing the tone. The raising of finger has no immediate value in this instance, because the action which this exercise engenders is that of the triceps; but the finger action is so important that it cannot be overlooked, even in a case of this kind, where we do not actually need it.

Caution 2.—In sliding the point of the finger across to the other key without relaxing the pressure, take care that the motion be of the finger as such, the point drawing inwards to find its place on the new key; and not a stiff jerking over of the whole hand, the finger remaining inflexible. The latter method is almost always taken by those acquiring this exercise from the book alone. It is a very objectionable habit of hand, fatal finally to a true legato.

THE MILD STACCATO TOUCHES.

The mild staccato touches, combined with accentuation (Vol. I, page 11) are not available (at least not in my opinion advisable) for young pupils until the semi-passive performance of the light and fast forms has been acquired. Later on (third or fourth grade, perhaps) these touches may be employed in order to make the touch more telling.

SEQUENCE FORMS.

On page 13 Mason gives what he calls "Sequence Forms for Daily Practice." In these he proceeds from a movement of quarter notes to one of eighths and sixteenths, quite in the manner of the rhythmic tables in the succeeding volumes. In my opinion these forms are more useful to advanced students than to those in the earlier grades. And this for the reasons following:

In all the slow forms (the first three of the standard combination above given) the matter of first importance is to form repose and good holding quality upon the first tone; and a firm, resolute and strong performance of the second tone of the motive. The latter necessitates a period of gathering forces preparatory, and for both these reasons I advise always counting two to each tone of the slow forms until the repose and strength are made habitual. To count two, even at a faster rate of beating, means something different to the average pupil than to count one to absolutely the same duration. Putting in the second count emphasizes the fact of duration and promotes repose; whereas when the attention is fixed upon making a strong tone following, the young student is apt to get excited and neglect holding out the first tone. Nor does it seem to me that the danger is obviated entirely

by setting the metronome at a slower movement for the single beat. To count two in the same time induces more repose. This end might, however, be secured in sequence form, perhaps, by giving the slow forms at the additionally slow rate of two beats to each note and then of one beat to each note; from this the eighth notes, followed by sixteenths.

The Mason sequence is indefinite as to the kind of touches desired in the 2d slow form. What he probably intends is the hand touch and finger elastic.

An additional reason for regarding the practice sequence as undesirable for young students is the advisability, if not the absolute necessity, of keeping the four different types of tone-production (in reality seven radical tone-productions) in the standard combination given above, entirely separate and distinct from each other, in order to accentuate the differences and fix the types beyond danger of running into each other. To get these tone-productions pure is the first thing; to do them in a sequence for daily practice is a much later thing, to be undertaken only when the fundamental habits have become well established.

THE MODERATO FORMS.

Exercises Nos. 4 and 5 (Vol. I, page 21) are called moderato forms; they were invented to assist the transition from the slow and heavy forms preceding to the fast forms later on. They are occasionally useful, particularly that in the Rhythm II, in order to facilitate the idea of the change of accent. In a majority of cases, however, the wider distinction proposed between the slow forms as all being of the supervitalized character, requiring deliberation and effort, and the fast form as essentially an

undervitalized variety, to be done with a minimum of exertion, will lead to a correct transition from the slow to the fast forms more easily than when the distance is bridged over by means of these moderato forms. Therefore I do not consider them essential, except in those cases where pupils cannot perform the Rhythm II successfully, not grasping the idea of the change of accent, or unable to grasp it without making an over-exertion incompatible with the lightness and fastness desired.

ARPEGGIO OF DIMINISHED SEVENTH.

The exercises upon the diminished arpeggio (Vol. I, Nos. 56 to 64, and as many derivatives as one likes) have a peculiar value in many difficult cases. I advise every pupil to play the standard combination above not only in the diatonic scale and in the chromatic scale (Nos. 46 to 50), also in several of the derivative chords of the arpeggios (Chords I, II, III, etc., Vol. III, pages 6 and 7). The wide extensions of the arpeggio afford the fingers a more severe drill, and the variety of positions of white and black keys relatively afford very important experience in keyboard discipline.

The light and fast forms in the arpeggio (Vol. I, Nos. 59 to 64) have another use which has helped me many times. The movement of the hand along the keyboard promotes or facilitates the wrist motion which is desired as the source of phrasing in these exercises—i. e., in all the fast forms, except those in broken thirds. So when I have a pupil who fails to make the light hand motion for the first tone of every motive in the fast form, I go at once to the arpeggio form, and find that almost invariably the hand motion comes immediately. It is possible to play all the fast forms of the scale two-finger ex-

ercise with finger motions exclusively; but this is not the correct way, and if persisted in the proper foundation for phrasing is not formed. Moreover the light and free wrist is one of the objects of these exercises.

DOUBLE SIXTHS.

The exercises in Double Sixths, but played with the hands separately and not together (Vol. I, Nos. 65 to 69), are also useful for those cases where, owing to long habits of not using the wrist, the hand motions do not readily come. The slow forms promote these motions and the fast forms in sixths cannot be done without hand motions for each first tone of the motive. These exercises are of great value to all experienced players who have not formed an adequate arm, hand and chord technique. The heavy forms of the sixths require the same adjustment of the center of the hand as chords and octaves. This is the exercise to bridge over with, from the single note forms to chords and octaves.

TWO-FINGER FORMS IN OCTAVES.

The octave forms (Vol I, Nos. 70 to 74) give certain applications of the two-finger principles to octave extensions. These belong to adult players, or at least to players whose hands are somewhat mature. They afford invaluable preparation for the octave playing in Vol. IV.

MORDENT FORMS.

Upon page 28 of Vol. I are some "Mordent" forms which are capable of most invaluable applications. Indeed, when Dr. Mason had first written this page he showed it to me with the remark: "In that page alone there is a complete training of the fingers of a pianist." This remark is a little too broad for ordinary and daily

consumption, but there are certain uses of this part of the apparatus which the student will do well to note.

Nature of the Touches in Mordents.—In order to play the mordent properly in addition to the directions given by Mason, on the same page, the following are to be observed:

No matter how fast the movement, the first two notes of the mordent never occupy more than half the value of the principal note—i. e., the written note, the two preliminary auxiliary notes not being written. Generally the principal note must have at least three-fourths of its full time. Therefore the mordent is never a triplet.

The two auxiliary notes are to be played as quickly as possible—so quick that the effect is approximately the same as if all three of the notes are stuck together—or rather the two notes struck together and held. The last note is always held—no matter how short its duration, there is a moment when the hand rests upon the last note.

Practically a mordent is accented upon both the first note and the last. Or rather the mordent is the result of a single impulse, which is always of the hand, and never (or but very rarely, and then in polyphonic playing only) of the fingers alone.

Taking the first mordent written in No. 79, employ fingers 2 1 3, and repeat the figure upon the white keys only, up the scale an octave. Begin by taking with a hand touch (the same as in the beginning of the third two-finger form of the standard combination), and strike C and B together. Then with the same effort play the mordent, repeating the C as third note, with the fingering 2 1 3, so rapidly that the first two notes occupy an infinitesimal time, and that (this is the important condition) the last note still comes with the impulse with which the

hand took the first note. The embellishment, therefore, is a kind of velocity effect, in which a single impulse is so cleverly and so very quickly carried through the three fingers that while the first note has part of the force of the hand blow, the bulk of it remains for the last. The second note is a finger note pure and simple, but it has to be conceived not as a single touch, but as part of the combined touch of the whole mordent. The mordent, therefore, is in reality a melodic accent and should always be so.

The opposite of the true effect is obtained by playing the first two notes as preliminary grace notes with the fingers. This kind of effect (the "prall-trill") is not an accent; the preliminary grace notes come before the time of the principal note, whereas in the mordent the whole figure takes the hand stroke and the combined effect begins on the time of the principle note and ends so quickly that the principal note is not rhythmically retarded—or no more than frequently happens in good rhythmic playing.

A mordent played in this way requires a free wrist, a very quick stroke, and very expert changing of fingers, provided the modern manner of fingering is employed, using three fingers instead of two as in the old fashioned way.

Mason advises that some one particular pattern of mordent be taken (either a, b, c, or d, of No. 79), and that this be carried up and down the scale with each one of the fingerings given in the table. When the necessary quickness and solidity has been acquired in the use of adjacent fingers, then the complicated fingerings will be very useful, such as 135, 145, 315, 325, and so on. These in which the whole five fingers are included, such as 215, 325, 315, 415, are very improving to the hand. They

give great smartness to the touch. The left hand must on no account shirk its share. The smart stroke of the hand from the wrist is of great importance. Note also that this stroke is not such a one as seems to originate in the wrist, but comes farther up the arm and amounts to a free stroke.

Similar treatment should be carried through the fingerings and positions of No. 80, where each pattern means a melodic form to be carried up and down the scale with each fingering in turn.

The best way to use this part of the two-finger work is to give a lesson upon it the first time a mordent occurs in the piece or study the pupil is playing. Then after having taught the proper manner of the embellishment, carrying out the pattern occurring in the piece.

The rhythmic carrying out of the mordents after the pattern given in the single line at the bottom of page 28 is very important and will assist in acquiring the proper touch. Observe the slow tempo of the early measures, and be sure to mind the rests. These mordents so far apart are to be played with correspondingly greater force as spiteful as possible, but always hold the last note its time. To cling upon the last note is part of "the play."

BROKEN DIATONIC THIRDS.

A very important part of the two-finger work is that upon broken thirds, both diatonic and chromatic. (Vol. I, Nos. 23 to 40, and the same forms carried out in broken chromatic minor thirds. The latter are omitted from Mason's book, wherefore examples are given below.)

First observe the manner of giving the form for the clinging touch. In this the idea is of two voices, and the trick is to play them with two fingers and still not in-

errupt the voices perceptibly. There are two notes down at once all the time after the first beat, except during the imperceptible instant when the finger is moving to its next key. This is to be done with a finger motion, but with as little raising as possible. Just as legato as it is possible to move a finger from one key to the next. This motion consists of three elements: (a) releasing the finger; (b) moving the finger over on to the next key; (c) producing the next tone—the downward motion. These three motions are to be done so loosely and so quickly that they represent a single impulse and the legato is practically preserved without in any way jarring or moving the hand. The touches are pure finger touches, the wrist rather low, middle palm of hand high from the keys.

I am in the habit of employing this form for securing the clinging effect which Mason first gets by the super-legato form of exercise 1. Practically the effect here is about the same. Musically I think this form preferable. There is room for both, however.

Nos. 24 and 25 are played in the second and third manners of the standard combination. The only difference is that owing to the separation of the fingers this form gives additional strength; for this reason it should be assigned as soon as the fingers have made good progress in the original form.

The moderato forms (Nos. 26, 27) have little practical value now, since Mason rarely phrases the broken thirds, but uses them to take the place of the old five finger forms, which they more than do.

All varieties of the fast forms are useful, Nos. 28 to 40, particularly those like Nos. 28 to 33 and those in 9's and 12's, like No. 36 and the same carried out in 4-8

measure. The 12's, like No. 32, are a different matter. Both kinds of 12's are useful.

All these fast forms are better when carried out through two octaves, and in so playing them the top note and the bottom note are repeated at each turning. In Rhythm I the close is reached when the accent falls upon the bottom tone struck the second time.

BROKEN MINOR CHROMATIC THIRDS.

The same forms are carried out from the following patterns, and the same principle can be applied, if the teacher chooses, to broken major chromatic thirds.

The forms in broken minor chromatic thirds throw a great deal of light upon the construction of many cadenza passages in the works of Raff, Liszt and even Chopin.

In all broken thirds, repeat the top and bottom note at each turning, and carry out the fast forms through two octaves. All the broken thirds are played throughout with the same pair of fingers as beginning, one pair after the other until all in turn have had their discipline. Avoid stiffening the wrist; keep it low. In the moderate speeds raise the fingers quite high, in order to make the passage clearer. Apply also staccato touches at times, this makes them more sparkling. In short, carry out the general passage directions in Chapter VII.

EXAMPLE IN E FLAT MINOR.

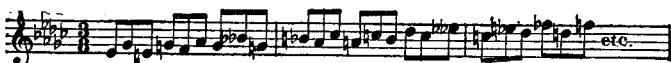
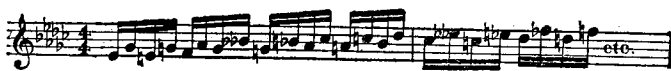
M. M. $\text{♩} = 84$ Very legato. Each pair of fingers in turn

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Rhythm I.



Rhythm II.



CHAPTER IV.

TONE-PRODUCTION CONTINUED: OCTAVES.

One of the most striking peculiarities of Mason's book is his Octave Method, which at first sight would be pronounced by almost any experienced teacher to be absurdly incomplete. Its whole compass in the book extends only from the beginning of Vol. IV to page 16, and of this no less than five pages are devoted to interlocking octaves, a virtuoso bravoura effect. There is a reason for this brevity. What Mason was after was to define the methods of octave touch and to give exercises for acquiring it in all its modes. These exercises, however, in place of requiring several volumes (as in the Kullak school) are here so brief because the firmness of finger, the resolution of hand and the wrist conditions upon which good octaves depend have been so completely prepared by the forms of the two-finger exercise. The octaves are merely other forms for applying methods of tone-production already well known.

In other books of technics this is not the case. When the pupil has learned only a passage touch for finger playing, as in Plaidy, for example, octaves present an entirely new set of problems, several of which require long and arduous preparation. Observe the time Kullak gives to educating the thumb, the fifth finger, and the hand grip (the clamp-like adjustment of the hand for octaves). All of these points are included in the two-finger exercises, excepting the octave extension itself.

The time of introducing special teaching in octaves is

a matter of doubt. My own opinion is that when a young pupil first comes to a few octaves in a piece the correct manner of playing them should be taught, but merely from the piece itself, and the octave exercises not taken up systematically until about the fourth grade. During the fourth grade give the octave exercises Nos. 11 to 24 and perhaps No. 32, in all keys, keeping them along as part of the daily practice for three months or more.

In the fifth grade apply the exercises involving contrary motion of the two hands together, in all keys. Exercises Nos. 25 to 34. In the sixth grade go through the inter-locking octaves, or sooner if some piece in study happens to involve the principle. Exercises 35 to 62. In this grade also the rotating and contracting exercises, Nos. 63 to 97, and later on add the supplementary octave studies in the closing pages.

OCTAVE TOUCHES.

All slow and heavy octaves are played with the down-arm touch. The principle is precisely the same as in the down-arm touch upon single notes, the only new difficulty being the octave stretch. Practice exercises 11, 12, 19, 20, at first in C then in other keys. Count three, then two, as directed. Observe that in counting three the wrist is relaxed and sinks at the second beat, and not sooner. The relaxation of wrist is to be instantaneous at the second count, and the firmness is purposely maintained without relaxing until this moment in the measure. The object is to gain control of this tension. It is subject to the will. There is absolutely no work done in the wrist; it is merely a joint, a hinge, and its normal condition is to be perfectly loose; whatever contraction there is is in the muscles along the arm.

In counting two relax the wrist-tension at the very moment when the tone is delivered. If the tension is relaxed too soon, the tone will not be so strong as it should be. Arm octaves should be heavy and firm. If the tension is not relaxed at the very moment when the tone has been made, we have too hard work. Observe the directions and the positions in the beautiful drawings of Childe Hassam, Figures 1 and 2. (These drawings are the handsomest in all the volumes, happening to have been made first, before the artist realized that what Dr. Mason was after was not so much an art-work as some working outlines of positions.)

The preliminary exercises in octave touches upon intervals of a sixth, Nos. 1 to 10, can be introduced as early as the teacher likes.

2. THE LIGHT AND FAST OCTAVES.

All light and fast octaves are played with the same wrist condition as that of the hand touch in No. 3, and the light and fast two-finger exercises. Mason's method of securing the looseness of wrist and the peculiar grouping of fast octaves is original with him and extremely productive in practice. Nothing at all like it has been offered by any other technician. The object is to secure a large impulse from the arm and to diffuse this one impulse into an entire group of notes. For instance, take No. 13, in which we have each note of the scale repeated four times. If now the first note be taken with the same kind of hand touch as in No. 3 of the two-finger exercises, and then let the hand bounce (like a ball) the other three times, we will have something of the kind we are after. Note the following cautions:

Caution One.—In producing the first tone the hand

falls upon the key with a loose wrist, but the arm does not at the same time have a downward motion; it is the hand which moves, not the arm. All that the arm does is to make a slight upward motion previously, in order to throw the hand up, and the hand falls loosely by its own weight, or it is swung down "like a flail" (to use Mr. Landon's form again).

Caution Two.—When the hand produces the first tone the points of the fingers do not lie upon the keys, as in the hand touch in the two-finger exercise, but bound away instantly. When a ball is going to bounce, it does not lie still a while and afterwards bounce; the bouncing is the expression of an elasticity which was in the ball at the moment when it struck.

Caution Three.—In producing these tones after the first, the hand rises but a very small distance above the keys, the less the better—a half inch or less.

Caution Four.—The four tones of the group are played with the one original impulse. There is a new impulse for each succeeding group.

Caution Five.—This method is precisely different from the manner of octave touch commonly taught. In order to realize this, play No. 13 in the manner following: Place the hand near the keys, then raise it (moving upon the wrist, the arm quiet) for each of the four touches. In this way each touch is an individual affair, whereas in Mason's way the four together make a group, to the arm and the muscular sense no less than to the feelings and to the eye. The manner of playing fast octaves by individual impulses is not employed by superior artists. The Mason way is the manner in which all fast octaves are played excepting very heavy and fast octaves, in which the arm element is added. The latter kind of octaves belong to

bravoura playing of artists; it is impossible for inexperienced hands. It has nothing to do with the present case.

Caution Six.—The grouping will be attained more easily by playing six notes upon each degree of the scale and playing them much faster—as fast as 60 or 70 of the metronome for each group. In this speed there is no time for the wrist to stiffen up or to make individual touches for each one of the six notes.

Proceed now to Nos. 15, 16, 17, 18, 21, 22, 23, 24, playing each group in the same manner as in the groups of six repeating notes.

Caution Seven.—Do not accent the last tone.

Caution Eight.—Play each group diminuendo.

Caution Nine.—Observe Mason's directions concerning swinging the hand and regaining perfect looseness of wrist after each group.

LATER OCTAVE PRACTICE.

The directions for the other forms of octave practice are so clear and definite that it is not necessary to add anything to them here. All that is needful is to carry out Mason's directions in full, when the pupil is ready for them. And to transpose all the exercises into other keys in order to secure sufficient practice material and to accustom the hand to all sorts of positions with reference to black and white keys.

For all octave passages and double touches generally, the attainment of the proper balancing of the hand is very important and difficult, the upper tone of the right hand and the lower of the left tending to be insufficient in power. To promote this easy transfer of weight from one side of the hand to the other, Mr. Leopold Godowsky advises a preliminary practice of octave scales, playing

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first the soprano voice with one tone at each degree, but the alto repeated with a finger motion. This necessitates a loose thumb or fifth finger. Then reverse the process, as at A and B below.

He applies the same treatment to thirds and sixths, as at C, D, E, and F below.

All passages in double notes will be improved by this treatment. It is one of the means by which this great artist has attained this marvelous expression in passages of thirds, sixths and octaves.

GODOWSKY EXERCISES.

A.

B.

C. Lower voice legato.
R.H. 1 2 3 1 2
L.H. 3 2 1 2 1

D. Upper voice legato.
R.H. 1 2 3 1 2
L.H. 3 2 1 2 1

E. R.H. 1 2 3 1 2
L.H. 3 2 1 2 1

F. Same fingering as E.

CHAPTER V.

TONE PRODUCTION CONTINUED. CHORDS.

Chords are played with a great variety of touches, according to the effect wanted and the connection in which the chords occur. In order to produce a good chord effect two things are necessary. First, that all the tones, of both hands, come exactly together and not scattered in one after another or one hand after the other. The latter effect is a vulgarism of most objectionable quality and is always to be avoided except at the very rare occasions when it is employed for expression. Second, the tones of the chord must bear the proper relation to each other in power. This does not mean that they should be equal in power, but rather that they should give due prominence to the tone representing the melodic thread (for there is almost always a melodic thread running through a chord or a series of chords) so that the melodic thread can be followed, yet without depriving the other tones of the chord of their just power and effect in the harmony.

The most common defect in the tonal balance of chords arises from the inherent weakness of hands, which have two strong thumbs lying between them, where power is very rarely required, and two very weak fifth fingers on the outside, where nine times out of ten extra power is wanted. The student will do well in playing chords to remember that there is a curious resemblance in sound between "thumb" and "thump." When one hears the latter it is well to think of the former.

EXERCISES FOR PROMOTING ARTISTIC BALANCE IN CHORD PLAYING.

For securing balance play No. 106 in three ways:

First Way.—Play with down-arm touches; take up the fingers from the quarter notes at the proper moment; hold the melody tones legato as far as possible (there is a break in getting the next tone). Later on cover this with the pedal, but just now leave it alone.

Second Way.—Play with hand touch, taking up the quarter-note fingers as before.

Third Way.—Play with finger touch, the melody always legato by means of substituting fingers, the quarter-notes staccato.

This exercise can be carried out in other keys. The effect is after a few days' practice to educate the ear to the proper balance of chords with reference to the place of the melodic thread.

SERIOUS CHORD PRACTICE. (NO. 112, VOL. IV.)

Mason gives three ways for practicing this exercise. See directions upon the top of page 23 (Chords with Elastic Touch). All of these ways are primarily finger chords, although the last has also the up-arm element. In additions to these ways I advise a variety of others, some of which are Arm chords, as also is the last of his, although the fingers are also active. Observe then the following manners of practice:

Down-Arm Chords.—These are played upon exactly the same principles as the down-arm octaves already described. It is very difficult to do this with full chords at first, and it requires a strong hand and plenty of courage. In case the pupil cannot get the free down-arm

touch when the chords are near together, repeat each chord three times successively an octave higher. In moving an octave in a speed at least as fast as 72 of the metronome, the down-arm mechanism is practically the one naturally taken.

Up-Arm Touches.—The up-arm touch is exactly the same as that in the two-finger exercise and octaves. The fingers are placed in contact with the keys and then the tone is produced by means of the push of the triceps and the springing up of the arm to a height of at least ten inches from the keys after each tone. The pedal is always used for this form of touch, but only for the duration of an eighth note. In playing the up-arm chords look out for the tonal balance and the true harmonic value of the chord.

Triceps Touch.—Placing the fingers in contact with the keys, produce the chord by biting in (suddenly pressing the keys) from the triceps, the fingers not actively moving but transmitting the triceps impulse. Hold the fingers upon the keys for at least an eighth note. When this touch is properly made it gives a soft, full, round tone, very musical and satisfactory. This is the essential touch of almost all good chords. Artists perform this touch accompanied with a very slight fall of the arm, the fingers instead of being placed in contact with the keys being held a very little above them (a quarter to a half inch). All the preceding forms of chord depend upon the same co-operation of the triceps. In playing the down-arm chords the fingers hold firmly upon their notes when they get the chord, and are not relaxed and permitted to slide around loose. The triceps has something to do with this holding firmly upon the keys. In the up-arm the triceps does all the work of producing the

tone, the upward spring of the arm being merely for wrist condition and greater strength. The higher you spring the more powerful the tone, provided the upward spring and the tone-producing be simultaneous.

Elastic Finger Chords.—Carry these out in the three ways described in Mason's directions. Observe, however, certain cautions:

Caution One.—Be careful not to push the chord from the arm, but get the tone by drawing the fingers inward toward the palm of the hand without any kind of push of arm. The tone will be rather delicate and sensitive and will not have the forceful quality appertaining to the arm. Should the latter quality appear in the tone it is sure evidence that the tone production is not pure. The triceps does not co-operate in this form, nor yet in the second of these.

Caution Two.—Mason's third way accompanied by an upward springing of the arm, is really the up-arm touch and the fingers merely reinforce it and make the tone more intelligent and less brutal. In fact this combination is the proper way of playing all very strong and detached chords, although it is not necessary for the hand to be drawn under at all times so much as represented in Figure 12.

Finger Arpeggio Chords.—All arpeggio chords are spread from the bottom to the top, and not beginning with both hands together. All the arpeggio effect takes place as an anticipation and the chord is completed with its top note at the beat, and not retarded some time after the beat. Nor when both hands do not spread are any of the later tones of the middle voices brought in after the soprano voice has been heard. The entire spreading effect takes place before the beat. Observe farther that

the spreading is done with extreme rapidity, so that the whole time consumed in playing one of these chords with both hands arpeggio is no more than the total time of one single sixteenth note, so quickly do the tones follow each other.

Caution One.—In the finger arpeggio chords the tone remains soft and delicate. If the brutal arm element appears in the tone you are pushing in place of employing the inward pull of fingers only. At the completion of the arpeggio take the position like Figure 11. The arm remains quiet.

Caution Two.—Finger arpeggios are used for soft effects, but their main use in the present connection is for finding out the difference between this method and that of the bravoura arpeggio of chords, to be explained presently.

Bravoura Arpeggio.—In order to acquire this, begin by playing the chords with the up-arm mechanism, exactly like the second form above. Then add the finger contraction and the spreading to it. The result will be a very strong chord, rich from a harmonic standpoint, yet the tones are spread, and are also sensitive despite the force with which they are delivered. The great difference between a chord of this character and a purely finger arpeggio chord lies in the superior harmonic solidity of the bravoura chord, and the separation of fingers in spreading the chord does not break up this harmonic solidity.

The total result of practicing chords in all these different ways is to produce a musical and sensitive quality of chord playing.

With reference to the choice of methods for playing a given chord passage the following observations are as near precise rules as it is possible to go.

(1) When chords follow each other rapidly, and especially if they skip about a good deal, as often happens in bravoura playing, the down-arm mechanism is practically the only one available; the chord is made musical in these passages by holding the chord firmly, when it is taken, even if it is possible to do this but for a moment. The arm rests upon the finger points, the wrist being relaxed a little just the infinitesimal moment after the attack.

Caution.—Observe that in a series of chords, following quickly after each other, the fingers are not loosened up between the chords, but the hand preserves a chord adjustment, merely changing the extension of the fingers from one chord to another as the place of the tones may require. To completely relax the fingers after each chord loses the firmness properly belonging to the chord effect.

(2) All very heavy chords detached, or semi-detached, are played with the up-arm touch.

(3) Ordinary serious or emphatic chords, especially in connection (prolonged series) are played with the triceps' mechanism, with or without the added fall of the arm as described above.

(4) Very delicate and soft chord passages are mainly finger chords.

(5) Arpeggio effects are never to be employed unless indicated by the composer.

Largo, Beethoven, Op. 2, No. 2, first subject. Chords by down-arm mechanism, held. Staccato basses, finger. Farther along, coda of same (in B flat) heavy bass octaves, down-arm, firmly held. Sfortzando chords, the same.

Theme of Etudes Symphoniques, Schumann, Op. 13. Practically by triceps mechanism.

Octave variation in Canon, triceps mostly. The down-arm mechanism is possible at this speed safely to very mature and strong hands only.

Octaves in bass in middle part of Chopin Polonaise in A flat, opus 53; light hand action.

Chopin Prelude in C minor, Vol. IV, Ex. 115, mainly triceps.

CHAPTER VI. THE PEDAL.

The proper use of the pedal is misunderstood by the great majority of teachers and proper instruction concerning it is postponed until so late a period in the progress of the student that it is seldom fully mastered. Let it be understood, once for all, that the damper pedal is one of the most important parts of the tone-producing apparatus of the pianoforte. While it is of course impossible to produce a tone by working the pedal alone, it is nevertheless so important an assistant to tone-quality, sustaining after fingers have left the key, and imparting a sort of atmospheric effect to the playing, that the great artists use the pedal constantly throughout their playing and in a great variety of manners and for various purposes. Naturally a part of the tone-production so innate to the piano as this, cannot be acquired in a day, nor yet in many of them. What we have to do is to establish in the early years of instruction the elementary uses of the pedal, and to go on from them in the more advanced playing to acquire one after another of the devices of artists in this province.

In Vol. IV of *Touch and Technic*, Dr. Mason has four pages of pedal instruction which contain the germs of the main uses of the apparatus. He begins by first illustrating the sympathetic resonance of the piano, the faculty through which any open string vibrates in sympathy with any other in tune with it, either in the octave, unison in the principal harmonic intervals. This response of one string to another follows certain laws. Every vibrating

string not only sounds its full note, but also a number of aliquot parts of its length, such as its octave, twelfth, double octave, the third, fifth, flat seventh octave, ninth and tenth above. And if either of these relatives of the open string be sounded the open string vibrates in sympathy, so much that its note can be heard. For instance, let the low C (second added in line below the bass) be held down without sounding. Now if the octave above be sounded and immediately discontinued, the still open string will be heard giving out quite a strong tone, in the octave just heard. The twelfth above will respond in the same way; occasionally the twenty-second above, the seventeenth, nineteenth, and even the twenty-third will always respond upon a Steinway piano. Nos. 99, 104 (a) and (b) are intended to illustrate such responses by sympathetic vibration. No. 104 (b) will only answer, as here set down, upon a grand piano of unusually free tone and in good tune, but 104 (a) will respond upon almost every instrument. These are but a very small example of the relations of sympathetic vibration illustrated upon a good piano, but they may serve to call attention to one of the most important phenomena connected with the instrument.

The pedal is used for three purposes:

- (1) To prolong tones after the finger has left the key.
- (2) To improve the quality of melody tones, in particular, by raising the dampers and leaving the natural sympathy of the instrument to respond to the sounding tone.
- (3) To connect bass tones with their chords, sounded sooner or later. The latter is a part of (1), but as it is very important it is repeated in this enumeration.

(4) The pedal is also held open in very loud cadenzas, where mere mass of sound is the first quality desired. The dissonances created by holding the pedal while an entire scale is played very loud, are not so impossible as one would at first suppose. In a large hall the clashings mostly kill each other, and only an impression of the harmonious tones and a great sonority remain. Liszt's music abounds in this kind of effect. It belonged to his early experiences as public player.

Therefore, in order to use the pedal judiciously, one has first of all to learn to control the foot, in order that the pedal may be put on and taken off promptly at the moment, and learn also to depend upon the pedal for tone sustaining in all places where the fingers have to attend to something else. This part of the playing has to be brought to such an automatic condition of response that the foot will volunteer for this office without conscious ordering from the mind; and do this so sensibly that it will let up the pedal the very instant that confusion is likely to occur. This means that the ear will control the pedal. Until the ear does control and the various mechanism concerned work automatically, there will be no good pedaling.

For sustaining tone there is no better exercise than that of Dr. Mason's No. 101 and 102, in which the foot takes up the whole note at a precisely determined part of the measure. Begin by holding the finger in half notes, and finish with half-note pedal tones, the whole in such a manner that the substitution of foot for finger will not be noticed, and (this is a very important point) that there is no lack of legato between successive tones of the scale, nor yet the slightest mixing or overlapping.

This kind of exercise can easily be developed farther by the teacher, but after all if the pupil carry it out for sev-

eral lessons in succession, in various scales, the knack of its operation will have been mastered.

No. 103 is a pedal exercise to be played entirely (all three voices) with a single finger, any finger called for by the teacher. The pedal here is for the benefit of the legato in the melody. Owing to the finger which plays the melody having immediately to go down and put in a bass note and then go up and play a treble note, the pupil is in no manner of doubt as to what instrumentality is doing the legato of the melody. The intention is to clear up the pupil's consciousness. This is one of the best little exercises ever offered.

No. 105 is not quite correctly noted, the second "Ped." being placed a little too early. The verbal directions are quite clear. Do not let up the pedal until the fingers have been placed upon the silent chord; then let it up, but immediately put it down again. The effect is to cut off all notes outside the four in the silent chord. These continue from the first arpeggio. Then change chords and so on. This little piece involves quite a little art and it belongs to the advanced repertory of the pianist, although it is not at all difficult.

The teacher who cares to carry this part of the instruction farther can do so by means of the following well-known studies:

For melody sustaining:

Heller, Op. 45, No. 17 in D major.

Heller, Op. 45, No. 15, in D minor. A grand study.

Schumann, Papillons, No. 7, in F minor and in A flat major.

Gottschalk's Last Hope.

Wm. Mason's Silver Spring.

Schumann's Kreisleriana, Op. 16, No. 1, middle part.

For sympathetic resonance:

Schumann's Kreisleriana, No. 1.

Schumann's Entrance to the Forest, Wayside Inn.

For connecting basses with their chords:

Chopin's Nocturne in E flat major. Nocturne in B major.

Schumann's Kreisleriana, No. 2, first subject.

Schumann's Warum.

The teacher must understand and cause the pupil to realize the fact that the pedal cannot be correctly used with exclusive regard to the marks in the music. It must always be regulated by the ear of the player. The action of different pianos gives quite a range of pedal action and the ear of the player is the only safe guide. For instance, in the Klindworth edition of Chopin, and in most other editions of that author, the pedal must be materially shortened from what is marked, since upon our modern pianos confusion arises much sooner than upon the pianos of meager vibration to which Chopin was used. Liszt's pedal marking is generally fairly exact. But after all Schumann's "Ped." once for all at the beginning of a movement is enough, or nearly so. The intelligent and sensitive ear of the player is the real guide.

Certain pedagogues have tried to introduce a different marking for pedal uses, a line below the staff. This is good for some purposes, and more determinate than the ped. But it is doubtful whether after all it is any real advance over the customary sign Ped.

Later on, most likely, we will use a large "Ped." to denote the complete depression of the foot, and a small sign "ped." to denote the partial depression of the foot, just enough to unsettle the dampers in the bass and promote sympathy of tone,

PART SECOND. Passage Forms and Passage Treatment.

CHAPTER VII.

RATIONAL METHODS OF PASSAGE-PRACTICE

In the opinion of experienced pianists a large part of the time occupied by young pianists in practicing passages (arpeggios, scales and the brilliant parts of compositions) is wasted or inadequately invested for want of rational treatment of the work. Dr. William Mason tells how he used to practice five-finger exercises for an hour at a time, meanwhile having a novel open before him upon the piano desk, in which he read while his fingers were making the multitudinous repetitions required of each little form. He now sees that during that time he in reality lost both parts of the experience: The mind failing to supervise the fingers, nothing came of their work, and the same value following the reading, the mind being still too much occupied with running the fingers through the form to permit rational reading. Fortunately this kind of effort to minimize the dryness of practice has gone out. However little we now know of the essence of piano playing, we at least know that it cannot be learned without applying mind to it.

Still, we are far from being out of the woods; while mind is now applied to piano practice (nominally at least) it still remains true that the greater part of the passage practice of young pianists fails of adequate practical re-

sult for want of intelligent mental supervision and a skillful adaptation of practice methods to the ends intended to be reached. Our students do not consider how many different things they have to do before they can play the brilliant parts of their pieces with the full effect belonging to them. A few good points they attain; the others remain lacking. This is the question of the present paper: What are the elements of superior passage playing? And how are those good qualities to be severally prepared in the practice?

Passage playing upon the piano is sometimes very fast, sometimes moderate, sometimes loud, sometimes inconceivably light and fast; sometimes long successions of notes fall in like a zephyr, without the slightest organization of measure or harmony; at other times a harmonic figure underlies them and the measure rhythm is implacable. Sometimes the notes are practically of equal force; at others they differ widely, very strong melody tones being interspersed between quite long groups of very light and fast notes.

The following is a fairly complete summary of the good ends to be attained in passage practice. First, from the standpoint of touch gradation, one aims at developing:

Sonority.

Distinctness and Lightness.

Brilliancy.

Evenness.

Differentiation.

Versatility. (The ability to change easily from one of the foregoing adjustments to any other.)

Passages also have certain other good qualities which we about as much mental as muscular, and in the devel-

opment of which the mental training cuts perhaps as large a figure as the purely finger study. They are:

Reliability and Sureness.

Continuity.

Velocity.

Endurance.

Each one of the foregoing good qualities of passage playing is developed by a certain method of practice. Some in one way, some in another. The point is to unite all methods in such a way as to cover the whole ground. All good artists, in proportion as their playing covers all these various excellencies, have found out ways of practicing for attaining them. For instance, sonority can only be attained by cultivating an economical attack with the finger point and with enough force to produce the breadth of tone desired. Accordingly when it is a question of this merit an artist practices very forcibly and consequently not fast. To play loud and fast at the same time is an advanced accomplishment for the pianist; it involves a quick attack and a very quick release. The extra force employed in all heavy playing comes from the arm; and as the arm is rather sluggish, it takes a great deal of work to bring it up to the point where it can be suddenly drawn upon at speeds in which finger work would be the natural method. The great virtuoso, Moritz Rosenthal, illustrates resplendent accomplishments in this direction.

For securing evenness of finger probably Mr. Virgil's clavier is as productive a device as has ever been invented; the only trouble is that in actual playing the tonal sense has to rule, and the clavier does not recognize such an organ as an ear hearing tone. Still it does recognize an ear hearing clicks, and in the absence of clicks the

ear thus put upon the quest will probably accept the tones themselves as an indifferent substitute for the more determinate click, so that the clavier practicer will be likely to acquire this merit at least from the machine. In default of such an apparatus there is no way but to repeat passages many times over with attention to the exact equality of tones in power. It then turns upon the quickness of the student's attention.

Distinctness is one of the most indispensable qualities in good passage practice, since the effect often depends upon a cumulative impression of a long series of notes in a certain rhythmic motion, such as half, quarter or eighth of pulse. When a note falls out of such a series, it is like a missing tooth in a comb, no great thing lost in itself, but the impression of completeness is fatally impaired. For attaining this quality perhaps a finger staccato is the best method of practice. Without pedal, play the passage many times through, heavy, moderate in time, and then fast and light, but always staccato, listening to be sure that every note shows up as due.

Staccato practice is also one of the steps towards lightness, since in this method of playing the hand does not ride upon the keys but is carried along by the arm. A complete release of the fingers from the staccato intensity combined with complete relaxation will enable a student to pass from a moderate speed staccato to a fast speed, without staccato; meanwhile the fingers will retain much of the distinctness and sureness of the previous forms.

Brilliance depends upon tone-volume and quality. It combines force and sparkle. The latter quality is a residuum which is left over after staccato practice. Working for force alone is apt to leave the tone heavy

and (as cooks say) soggy. It can be sharpened up by staccato work. This puts life where it is most needed, namely, in the very tip of the finger. Hand staccato will not do this work for the student. It must be a staccato of finger-tip moving quickly inwards at the touch, a little as if the run were picked out of the keyboard.

Still another advance is marked when in addition to all these excellencies the player has good differentiation of tone values, and is able to drop his melody notes with sufficient force in the midst of fast running work, which is nevertheless not interrupted in the least. It permits all sorts of fortzandos and heavy emphasis upon tones which come so unexpectedly that no formal preparation can be made for them. All of these excellencies are mainly those of the touch, and the mind has to learn them and learn when to demand them, but the mind is not generally the place where friction most shows itself. It is different with the excellencies of the remaining list. Let us see.

Reliability arises first of all from distinctly knowing what it is that one proposes to do; then from the reliability of the muscles to respond many times in succession. And this, again, involves the quick application of mind. When reliability is well developed it becomes continuity, but this merit, as here meant, involves the continuity which arises from the thought (and the fingers after the thought) passing fluently from one musical pattern to another, meanwhile maintaining the rhythm. It includes the maintenance of several threads at once—the rhythmic, the harmonic, the melodic (if any) and each perfect after its kind.

A good short example of this sort of thing occurs in the second Intermezzo of Schumann's second Kries-

leriana; here there is a melodic idea and a steady motion of sixteenths in arpeggio forms. The trick is to bring out the melodic motives without interrupting the continuity of the sixteenth motion; Schumann also adds to your trouble by enriching the bass with long appoggiaturas which produce the mental feeling of harmonic false notes. This, while short, is a good example of mental difficulties where the purely mechanical are of no great stress.

Velocity playing is another form of accomplishment which many players fail of, for want of proper conception more often than for want of muscular adjustment. The method of attaining this will be discussed later.

Endurance is yet another excellence which does not come by accident. It depends upon cultivation, taking care that the many repetitions requisite for developing it be so managed as to give rise to the same difficulty as in musical pieces requiring this method of work.

Up to this point good players are substantially agreed, and the question is to so manage our passage practice as to attain as many as possible of these excellencies of playing in a single sequence or practice-form. If we examine any of the standard systems of technical exercise published in Germany (or elsewhere) such as those of Plaidy, Zwintscher, and the like, we find everywhere the same thing, succinctly as follows: First, a lot of exercises in five-finger positions. The theory of five-finger practice is that by this method the fingers are trained exclusively and made independent of each other and a "correct position of hand" is soon attained. Teachers differ greatly in their requirements at this point. Some, like the old school at Stuttgart, depress the back of the hand so that the fingers already exhaust their range of

upward motion in avoiding to sound the keys. They then go on to try to develop still greater amplitude of raising the finger preparatory to the blow. This of itself is a form of exercise very difficult; in the effort to accomplish it the wrist is generally stiffened, and it is impossible to develop power in this way unless the student acquires the trick of deriving his power from the arm. When he does this he inevitably establishes the wrist stiffening already mentioned, and very few students well trained in this form of exercise ever develop a musical touch or a pleasant method of playing. The confirmed five-finger practicer goes on and adds farther difficulty by holding one or more tones while playing a moving figure with the other fingers. With this form of work he always stiffens the wrist, and a surer way of destroying a musical touch it would be difficult to find.

Dr. Mason made an attempt to apply rhythmic treatment and accentuation to five-finger practice and succeeded in mitigating the difficulties to some extent; but after some years of experiment he has, I believe, finally decided to leave out five-finger practice altogether.

After the five-finger exercises, formerly supposed to be fundamental to the study of the piano, most technicians go on with various extensions with quiet hand; and then proceed to arpeggios, scales, etc.—all treated in the same way—i. e., not treated at all. Innumerable repetitions without rhythm, tone-quality, or any kind of system, being the almost invariable rule. A few speak of the desirability of varying the touch, but they afford no systematic method of doing this; and none of them give forms corresponding in musical quality to the passage forms occurring in brilliant pieces.

Mason illustrates the exact opposite of this. Passing

for the present the significant fact of his masterly and exhaustive series of exercises in tone-productions, or quality of touch, let us take his arpeggio and scale systems of work, and what do we find? First, in the arpeggios, a figure employing all the fingers, saving, of course the little finger, which is saved for the top notes. He places at the foundation of his method what he sometimes calls a table of graded rhythms, meaning thereby the performance of the figure in quarter notes at the rate of 100 to the minute, then in eighths, sixteenths and thirty-seconds in succession, at precisely the same movement, making the thirty-seconds follow at the rate of 800 notes per minute. When for any reason the student finds it impossible to attain this not inconsiderable speed he permits temporarily a slower movement, such as 84, which still brings the 32d notes at the rate of upwards of 675 notes per minute. Even the quite slow rate of 60 gives 32d notes running 480 notes per minute.

Here at the very beginning of the system we have something of profound bearing upon technical attainment. First of all, a rate for slow playing, and it is by no means easy to give four repetitions of the quarter note table at strict tempo. Young students experience an almost irresistible impulse to hurry the speed, which, of course, must not be done—whether the rate be 60, 84 or 100. This impulse to hasten is not satisfied with the first doubling up to the 8th note motion. This is still a slow rate of playing, and it conduces wonderfully to repose and solidity if it is carried out according to Mason's directions, forte and fortissimo in the quarters and eighths.

Even the 16ths in this movement are not particularly difficult; but with the 32ds the trouble really comes thick

and fast. In all the early practice it is probably better to slightly accent each beat in the 32ds in order to insure a little more accurate perception of the measure.

When this table of rhythms is applied to the scale in four octave forms and carried out at the metronome mark of 100, the effect upon the playing is remarkable. The hand adopts the peculiarly light and easy motion in which alone velocity is possible, and does not confuse the mechanism by attempting to bring into these extreme forms the heavy touch common in the slow forms.

Mason is not altogether consistent in the arpeggio volume in carrying out his rhythmic tables, the one beginning with four quarter notes, being the only one completely logical which he has. His second rhythmic table begins with two quarter notes in a measure and goes from this to triplets of eighths; so far it is logical enough, provided it is understood that we are working up multiples of 2 and 3 together. But after the two triplets he proceeds to a 9-8 form, three triplets in a measure, which has no proper relation to the 6-8. What he ought to have had at this point, in order to be logical, is a 6-8 in 16th notes, two to each of the former triplets; or, in case he desired to double up with a 3, an 18, consisting of six triplets, one to each of the original triplet notes.

A fully logical and fundamental rhythmic table of the factor 3 begins with a 3-4, goes on to a 9-8, and from that to a 9-8 in triplets of 16ths. This gives us 3's, 9's, and 27's—a geometrical progression of the ration 3. (Vol. II, No. 4.)

The combinations of 2 and 3 are innumerable, and they occur in so many forms in modern music that it would

be better to work out more of them, like, for instance, the following:

- (a) 2-4, 2-4 in triplets of 8ths, 12s, 16ths.
- (b) 2-4 quarters, 2-4 6s of 8ths, 2-4 of 18s (triplets on triplets).
- (c) 3-4 quarters, 3-4 two notes to each beat, 3-4 two triplets to each beat, in 16ths.

The application of the method of graded rhythms for developing velocity is one of Dr. Mason's most distinguished services to piano technics. It followed after his early invention of velocity exercises as first published in the Mason & Hoadley Method, in 1867, and repeated with modifications in all his later publications. In this way a pupil begins with a short run, short enough to be easily grasped and performed. The player begins with a long tone, over one beat, and just before the time has expired runs rapidly across the intervening notes to the final tone of the series, which is played exactly upon the third beat. The run, therefore, falls between beats and is done rapidly but at first lightly. As facility is gained the run is extended until two or more octaves of scale or arpeggio are included within a single beat. In this way a familiar passage is taken and the unit successively enlarged, the attention being always fixed upon the final note and the run falling in as an incident. The result is to develop speed to a marked degree. The method is subject to the disadvantage that many pupils do not adhere to the same tempo, but gradually extend the time as the run gets longer. The method by graded rhythms takes the problem first of all from the rhythmic point of view and avoids this difficulty, provided the metronome be relied upon to keep the beat steady.

The older velocity practice (Vol. II, Exercises 6 to 10, 12 to 14, 28, 29, 62 to 68; Vol. III, Exercises 9 and 40), is especially advisable whenever the pupils fail to play with sufficient lightness to accomplish the speed required in the 32d notes. Then go through the forms above cited.

In administering the velocity it is better to take each hand alone and beginning with a convenient run (five or six notes) play it in the movement required. Answer this by a similar run played in the opposite direction with the left hand alone. Then the right hand increases the run by adding a note; the left answers again in the new distance, and so on until the complete distance is gained. In arpeggio practice the velocity has gone sufficiently far when the run extends one or two notes over two octaves. This gives the unit larger than required for the 32d notes.

In acquiring certain qualities of scale-playing the older velocity practice is very useful, if it be carried out with a crescendo. The velocity tends to diminish the individuality of the notes in the run and to give the passage the character of something more like a glissando, where the finger is slid along the keys. This quality is often desirable, and the velocity method is the easiest way of getting it.

CHAPTER VIII.

METRICAL TREATMENT OF EXERCISES.

The most inexhaustible pedagogic resource of the Mason system is furnished by his method of treating exercises metrically. By this is meant taking the exercise, whatever it may be, in some kind of measure and continuing to repeat it over and over until the measure completes itself with the last tone of the exercise, the principal measure accent returning to the same tone as that upon which it started. (In this method the secondary accents are ignored.) This return of the accent to the starting point will occur after one or more repetitions, according to the relation between the compass of the exercise and the number of notes in a measure. Most accents of threes and sixes return the third time around; nines generally return after nine times, but in some cases in three; twelves return in three times, generally. Fours, eighths and sixteens return in from one to eight repetitions.

The first object in treating an exercise metrically is to secure many repetitions for the benefit of the fingers, while still concealing the number of repetitions from the mind. When the attention is fixed upon the rhythm, one makes many repetitions with hardly more fatigue than with one or two repetitions played without musical interest. To put an exercise into meter is to impart to it something of musical interest—rhythm. A second benefit of this treatment is found in the strong accent at the beginning of the measure. This tends to fall upon differ-

ent fingers in turn, and therefore strengthens one finger after another, and this from a musical impulse rather than from the standpoint of mere muscle. It is one thing to produce a strong blow as a mere act of muscle, and quite another to do this from a musical necessity. The latter is the motive power in all good playing, and muscle as such cuts but a very small figure in the playing consciousness.

The whole system of metrical treatment travels along two different lines, appropriate the one to the earliest stages of the pianistic education; the other to later periods.

The first way consists of a systematic going through of all the measure forms (i. e., all manners of counting), from 2 to 12; and this in every kind of unit in turn; from one tone to a beat to six or even eight.

This method of applying rhythm turns upon the idea that while young pupils especially talented for music have by nature a sense of rhythm sufficient to carry them through all ordinary demands, there are many in whom this sense of number is imperfect or almost dormant. There is a routine in measure which in these pupils has to be established. For instance, to count only two, three, four, six, nine, or twelve, as one begins; to keep straight through at the rate begun, without ever making a mistake and turning back to "one" prematurely.

Then almost any pupil will be able to go through in a given kind of measure, so long as there is but one tone to a beat; most will go through equally well with two tones to a beat; but when we take three tones to a beat, there are very many pupils who will not be able to carry out these rhythms correctly until after considerable practice. Those with a sluggish mathematical sense will gen-

erally find it difficult to carry measures of two or four beats with three tones to a beat. All this has to be made a matter of habit. Four tones to a beat, again, generally come easily; six belongs to the more advanced attainments. Then, too, the faster these passages are played, the more difficulty many pupils have with them, except the multiples of two by two.


Therefore, in the early stages of training it is wise to carry the pupil through all this systematic metrical experience, to the end that he may be prepared for every kind of measure and every even subdivision likely to occur. The means for doing this are illustrated later on. All these forms are omitted from Touch and Technic, although they were discussed quite thoroughly in Mason's Pianoforte Technics (1878) and in Mason & Hoadley's Method (1867). As these forms are the foundation of all the larger forms, such as those in Rhythmic Tables 1, 2, and 3 (Vol. II, Exercises 1, 2, 3), it seems advisable to give them complete, for experience shows that the majority of teachers do not realize how much there is of this fundamental material between the first preliminary exercises which Mason gives in his Scales and Arpeggios and the rhythmic tables which immediately follow.


The second way of applying meter to exercises is that which Mason has placed in the foreground for daily use, called his "Rhythmic Tables" (Vol. II, Exercises 1, 2, 3; Vol. III, Exercises 6 and 7).


What he calls a rhythmic table is a rhythmic sequence, beginning with some kind of measure in quarter notes (pulse notes), followed by eighths, sixteenths and perhaps thirty-seconds, to be played quite through at the same rate of speed, according to a metronome figure given, with certain repetitions of each grade and certain


modifications of intensity appropriate to emphasis or speed. The treatment of rhythmic tables is not uniformly logical as it stands in Vol. III, but in Vol. II the logic is better. The following are the proper and natural rhythmic tables:

Rhythmic table 1—4, 8, 16, 32.

Grade 1. $\frac{4}{4}$ 

Grade 2. 

Grade 3. 

Grade 4. 

Rhythmic table 2—3, 6, 12. (Ex. 3, Vol. II.)

Rhythmic table 3—3, 9, 27. (Vol. II, Ex. 4.)

Grade 1. $\frac{3}{4}$ 

Grade 2. 

Grade 3. 

Rhythmic table A—2, 6, 12. (Or 18.)

Grade 1. $\frac{2}{4}$ 

Grade 2. 

Grade 3. 

Rhythmic table B—2, 6, 9. (Vol. III, Ex. 7—This is illogical.)



The following are some of the reasons which make these tables of unique pedagogical importance: They require the proper habit of firm playing in slow and emphatic passages, a lighter playing in faster passages, and a very light playing in extremely fast passages. They develop speed upon a mathematical ratio, steadied by the metronome, by means of which the pupil arrives at speed much more quickly than by any other means, and at the same time the pupil becomes able to double up his speed correctly, whether the ratio be 2 or 3. This faculty is very rare among amateur players, who almost universally fail to carry out the finer pulse divisions in a movement at precisely the same rate as the slower passages. In fact, an important difference is almost always to be noticed between the amateur, who generally slows up to the tempo a little in the difficult places, but accelerates in the easy places, and the artist who almost invariably plays the difficult passages faster than the easy ones. The reason being that easy passages are those in which the composer holds musical expression as his main intention; whereas in the difficult passages he thinks of bravoura, and goes a little faster in consequence.

This apparatus of rhythmic tables, therefore, addresses itself at once to several of the most important technical strategic points: To the grade of touch, the light or

heavy carriage of hand, the versatility of touch, the exact doubling of speed, and the ability to make numerous repetitions at any grade of speed required. They are exactly as important in the repetitions of the slow form as in those of the fast, it being quite as difficult to make several repetitions at a slow rate with repose and authority as to go rapidly through several repetitions at a high speed.

The principles of this part of the system are explained by Dr. Mason with great clearness in Sec. 7 to 13, in Vols. II and III (the explanations being identical in the two volumes).

Advanced players, or more properly experienced teachers, especially those living in the country, who have not made special studies for public playing, almost universally find these rhythmic tables impossible at first, both in the slow speeds to get repose and steadiness, and in the fast speeds for lack of lightness and celerity. It will be found, however, that a little practice, with a good metronome, will remedy the difficulty.

Those who cannot realize the long units in the tables will arrive at that ability by first taking up the velocity forms and extending these until the unit desired is passed. (Vol. II, Ex. 12 to 14; Vol. III, Ex. 9.)

For a complete list of forms desirable in the metrical treatment of exercises, see Appendix A, p. 116.

CHAPTER IX.

THE SCALES.

During the whole course of a student's piano lessons, from beginning to graduation, the scales ought to be gone through carefully and thoroughly at least four times, as follows:

FIRST TIME THROUGH THE SCALES.

In the first and second grades. Here the scales should be introduced harmonically, perhaps in the manner illustrated in the *Primer of Music* by Dr. Mason and the present writer. Also in my "Twenty Lessons to a Beginner."

The object is, first of all, to establish the key in the mind of the pupil, and also to lay foundation for harmonic perception, by associating each scale tone with the radical from which it is generated. Then, from a keyboard standpoint, to familiarize the hand with the selection of white and black keys which belong to each signature. The mature hand placed upon the keyboard to play according to a given signature, makes the selection of the necessary black keys without conscious thought, and this accuracy continues through several octaves and as long as no modulation takes place. This hand habit is a very important one to form, and scale practice is the best way of beginning it.

A second object of scale practice at this stage of progress is to begin to finger properly, after the custom of each key. Accordingly, the scales are taught harmonically, by chords, first of all, to establish the harmonic

THE SCALES.

foundation; and then in groups, according to the system of fingering. See classification in Vol. II, *Touch and Technic*, page 32. I advise giving the fingering of the entire group of scales (C, G, D, A and E) at one lesson, in order to establish the similarity of the fingering. So also the second group and the third group. Then take up each scale in turn, with each hand alone (in order not to complicate the young pupil too much) and require the fingering to be correct.

In what way to treat the scales this first time, whether to assign one octave, two octaves or four, and in what rhythms, is a question upon which teachers will differ. I have been in the habit of giving but a single octave, and applying to this simple rhythms, taking one note to a beat and carrying the scale through all the varieties of measure. As soon as the hand becomes a little habituated to the keys, introduce two notes to a beat and carry every scale through all forms of measure. Later three notes to a beat. This will be as far as the pupil will be able to go during the first two grades. In case unusual aptitude for rhythm should appear, four notes to a beat may be given.

Dr. Mason says that a pupil able to play one octave of a scale can just as well play four. This is true in part; but when rhythm is applied the four octaves give rise to rather long forms, and the length seems to me objectionable at this stage.

A beginning should be made, at least in the second grade, at the table of graded rhythms, and the quarters, eighths and sixteenths, worked at, each hand alone. The use of this is to begin to form a habit of proportionate rhythmic values, giving each note its own relative length, a point which commonly has to be educated in children.

The Minor Scales should be given also at this stage. I prefer to give each minor key as a mode of the tonality. For instance, we have the key of C in major mode and in minor mode. In order to obtain the latter we flat the third and sixth of C. This gives us our minor tonic and subdominant triads. It gives the harmonic form of the minor scale, which should be the one first taught. The fingering of the major and minor scales upon the same tonic is the same, so that this gives the pupil an excellent start in the minor. It also affords ground for distinguishing between major and minor in pieces, since it is necessary only to analyze the harmony to determine accurately which is which.

THE SECOND TIME THROUGH THE SCALES.

This occurs in the third grade, and should be devoted mainly to the Canon forms. (Scales, Ex. 20 to 21.) The object of the canon forms is to render the hands more independent of each other and to establish the fingering of the scales. Nothing is so productive of scale solidity (mental) as this form of practice. Use all the Canon forms given by Mason in Exercises 20 and 21. In the minor forms it will be noticed that Mason gives the melodic license of a major sixth in ascending. I believe this form to be incorrect in Canon forms of the minor. Dr. Mason justified himself by Chopin's example at the end of the First Ballade in G minor, where rapid scales in tenths are given with major sixths. I do not think that this justifies the canons, as in Chopin's case the scale is so fast that no harmonic relations come to perception; whereas in scale canons in rhythm harmonic relations are almost constant. The teacher will employ either way preferred. All the older scales in thirds and tenths (the Tomaschek scales) adhered to harmonic forms.

The Rhythmic Treatment of the Canons will be that of different forms of measure and as large units as the pupil can manage successfully. I do not think that the principle of graded rhythms applies to the canons, but some of them will work well enough in two or three grades. The main object of the canons is to secure the fingering, and the teacher must take great care that the proper finger is put over at each crossing, whether the scale is continued beyond that point or turns there. Always use the finger required by the rule.

The scale canons are the invention of Mason, and their use in the manner above described is of great importance and very productive, both mentally for the pupil and for the hand upon the keyboard. The canons will occupy all the third grade and perhaps run a little into the fourth.

In this time through the scales some use may be made of forms involving contrary motion, like Exs. 15, 16, 17, in rhythms like Nos. 32 to 37. These will afford agreeable relief from the canons, being easier.

THIRD TIME THROUGH THE SCALES.

The third time through the scales begins in the fourth grade, and here all forms given by Dr. Mason, Exercises 1 to 14, and perhaps to 19, should be worked at—not necessarily all in any one key, but all forms in whatever keys the teacher directs.

What key should first be assigned is a matter for the teacher to decide. The selection of D flat in Touch and Technic was mainly accidental. From a keyboard standpoint this is the easiest scale of all. But when the scales are assigned for familiarizing the hand and the eye with keyboard tonality, it will generally work better to have the scales in the same key as the pieces or studies. Therefore it will generally be preferred to follow the order

of the keys, beginning with C, in the old manner. There is no law upon this subject, and every teacher is free to begin anywhere preferred, but the work must be continued until all keys have been covered, the minor mode as well as the major.

FOURTH TIME THROUGH THE SCALES.

At this point the teacher should make selection of various patterns and give them such treatment as those indicated by Dr. Mason, Exercises 30 to 41. If the directions concerning touch are observed, the pupil will derive great benefit from this part of the work, which will go through the fifth grade or more.

The Double Scale in Thirds and Sixths should be taken up, the thirds as early as the fifth grade, with especial reference to preserving the legato as completely as possible. The sixths may be introduced in the sixth grade and should then be thoroughly worked at; first, for establishing the fingering, according to the principles explained by Dr. Mason (page 36), and then by means of graded rhythms to arrive at a quicker and more flexible performance.

The Chromatic Scale may be introduced at any point desired. Mason gives it first of all, and as it is purely a keyboard form, this is as good a way as any. See pages Exercises 42 to 68—to be used ad libitum—more or less according to the needs of the pupil.

CHAPTER X.

THE PIANISTIC QUALITIES OF GOOD SCALE-PLAYING.

The pianistic qualities of good scale playing vary according to the speed and the meaning of the passage. A slow scale always has melodic force and weight, accordingly Mason's directions for playing forte should be observed. When the speed is doubled (8th notes), the weight is less and the fluency greater. Accordingly the hand rides more lightly upon the keys, but the precision of the successive tones and their quality are of first importance. When the speed is again doubled, we still fall short of a velocity scale, and the proper style is to have every note distinct, pearly and of equal weight with the preceding and following, except where an accent intervenes.

In the early stage of my study of the Mason system I happened to observe that Mason played the accented notes many times heavier than the unaccented ones. I had the curiosity to inquire how much heavier. I found that playing a long scale in 9's he employed only light touch, about two ounces; into this rapid succession of notes he would drop an accent which represented a finger stroke of about four pounds. The accent protruded tremendously, as a melody tone in the midst of running work, and it is this great range of power which enables the virtuoso to make his playing so effective. The student, however, is not to work for any such force. It belongs to a very mature, powerful hand. It is not alto-

gether a question of muscular exertion, but rather of nerve quickness and responsiveness of muscle. Momentum is the product of the force into the speed. A smaller force moving more rapidly generates as great a momentum as a much larger force moving more slowly. The powerful accents of virtuosi are due mainly to the speed of their attack.

An easy manner of promoting hand conditions in scales is to practice them upon the practice clavier. If an eight-ounce touch be taken for the quarters, the clicks will not come unless the finger moves very quickly and resolutely. A four-ounce touch for eighth notes, and a two-ounce touch for sixteenths, will establish something like the requisite hand weights. The practice clavier also promotes evenness of finger to a great degree, and this is its most excusable use. A moderate use of it is to be recommended where available.

The brilliant and sparkling quality in scale running work depends upon great liveliness of the finger points, and is to be attained by other means than those already mentioned. For securing this part of good playing the practice of finger staccato is of great importance. See upon this subject in the chapter upon "The Productive Treatment of Passage Practice."

The complete opposite of the distinct and heavy (pesante) effect of a scale in quarters, forte, or even a rhythmic scale in 16ths, is furnished by the velocity run, or by the graded rhythm in 32d notes at the metronome of 100. In this form of playing the notes do not stand out clearly and individually, but glide after each other, the final effect being almost that of a glissando, as if the scale were produced by sliding the finger along the keys. This quality has been described as that of "all-together-

activeness." One of the most conspicuous and famous examples of this kind of run occurs at the close of Chopin's first ballade.

The teacher who will carry out Mason's book of Scales according to the schedule here outlined, will find that a pupil after about six years' study will arrive at an even, finished scale, an agreeable touch and a variety and mastery in running work very rare in experience. Some of Mason's private pupils play scales like virtuosi.

The question has been raised by some teachers why scales should continue to occupy so large a proportion of the practice when scale runs from so very small a proportion of modern piano music. Since Schumann, scale runs occur more and more rarely. To this the answer is twofold: First, that no other device is more advantageous in improving the touch; and, second, that the practice of scales confirms the student in the keys, a quality which underlies all his music. Moreover, the accented treatment of scales and the practice of staccato, tend to form a sensitive responsiveness of finger which lies at the very foundation of attractive, intelligent, and pianistic playing.

The amount of time to be devoted to scale practice cannot be definitely prescribed. It will depend upon the total practice time, the stage of student, and the condition of the playing. See chapter on "Proper Division of Practice."

GENERAL VIEW OF SCALE TREATMENT IN MASON'S VOL. II.

Owing to the small number of pages in Vol. II of Touch and Technic, the unaccustomed teacher will easily underestimate the amount of material herein opened to his use. Let us pass cursorily through the program:

After a slight preliminary exercise he begins with the Rhythmic tables, of which there are three, Ex. 2, 3 and 4. In Ex. 37 and 38 we have two tables applied to canons. Ex. 40 and 41, other applications of meter to the four octave forms involving contrary motion.

Consider also the very large number of practice patterns, or outline figures of scale forms, to which rhythm is to be applied, at the discretion of the student. Such patterns occupy Exercises 15 to 27, there being in this compass no less than thirty-seven different scale patterns, some canon, some in four octave forms with contrary motion, and so on. Observe also that if each of these forms be carried out in no more than four different kinds of meter, this gives us 148 forms in a single key, additional to the printed exercises in which the rhythm is written out. If the foregoing be carried out in all the twelve keys of the chromatic scale, it gives rise to the large number of 1656 scale exercises.

CHAPTER XI.

THE MASON ARPEGGIOS.

As we have seen, Mason addresses himself first of all to reforming the Touch and imparting to it the variety due to properly employing all parts of the playing apparatus, according to the nature of the musical expression required. In this way the two-finger, octave and chord exercises eventually reach all the varieties of tone-production which belong to good playing.

For the development of brilliant and fluent playing he depends, as all teachers of fine technique have always done, upon the scales and arpeggios. In these he is not content to work for mere fluency, due to familiarity with the standard passages and the finger celerity due to many thousands of repetitions, he works still more for expressive qualities, versatility of style, and the mental comprehension upon which fine playing depends.

Mason's Arpeggio System is a most remarkable and fruitful apparatus—the most fruitful in the lower grades of study of any known to the piano pedagogue.

He begins with what he calls the C Position of the diminished chord, using this term to cover the simplest possible notation (C E flat, F sharp, A C) a position of the diminished chord of F sharp. Taking this wholly as a keyboard form, arrived at by placing the lower finger upon C and touching successively each third key to the right, the chord is easily taught any child in a few minutes, and if the same formula be carried out upon D, E, F and F sharp, the child will have no difficulty in

remembering it. From this fundamental keyboard position of a four-note chord, the notes equally separated, he arrives at fourteen derivatives by the mechanical expedient of removing one finger at a time one key to the right or left, two fingers, then three fingers. (See Chapter I, Vol. III.) The chords thus resulting are of various kinds; some are merely dominant sevenths of different keys, others are various altered chords of the seventh. Their key relationship is not of importance in this instance; the whole is purely a keyboard matter, and finger fluency is the first good quality desired. Up to this point Mason's service of pedagogy is that of offering a mechanical system of keyboard changes, which amounts finally to a complete summary of four note positions. And all, despite their unusual harmonic relations, convenient and possible to the youngest student—not of course if given in a lump, but if given leisurely one after the other.

The treatment of these arpeggios is as wonderful as the system of harmonic changes itself. Working still from the keyboard standpoint, he first uses the hands in what he calls *direct motion*, i. e., playing towards the strong fingers, ascending with the left, descending with the right. After any number of exercises in this direction, which must always be taken as the beginning of good arpeggio playing, he takes what he calls the *reverse direction*, in which the hands play towards the weak fingers, the left hand descending, the right hand ascending. Up to this point the hands are used separately, in order to bring them into competition and to demand of the left hand just as much as from the right. All kinds of speed are here in question and all varieties of touch, heavy and light, slow and fast. Accentuation is applied in a

score of ways, two score is nearer. To carry the derivatives of the chord of C through the different kinds of measure and units running from one tone to a beat up to four, gives rise to no less than 360 exercises, besides the rhythmic tables in the book, which add thirty more. This of itself affords a vast amount of arpeggio practice, and it progresses so easily from the simple to the more complex that a child passes through it without difficulty if not hurried. Of course it is not necessary to carry every chord through all the rhythms. The student undergoes an education in rhythm, beginning with one tone to a beat, then two tones, then three, four, six. Meanwhile the chord is changed at pleasure of the teacher, in order to relieve the attention of the student and provide apparently new material while still the same process of rhythmic education is going on.

The immediate advantages of changing chords are the following: First, it secures attention to the precise matter of the passage. Many pupils think that if in a chord they get three notes out of four right, it is as near as one ought to ask. Here we have fifteen chords, generally differing one from the other by but one note. When the student advances to a point where the change of chords fails to occupy his attention, Mason has what he calls "Rotations," in which at each going up and down a new chord comes, while at the same time the rhythm goes on until the entire series has been completed according to the demands of the rhythm. A rotation of four chords in 6's gives rise to three repetitions, or twelve times up and down the keyboard. This is not a difficult exercise for the second grade. A rotation of seven chords in sixes takes twenty-one times up and down the keyboard. In nines a rotation of four chords

runs 36 times up and down; a rotation of seven chords runs 63 times up and down; and a rotation of the whole 15 runs 135 times up and down. The teacher exercises his pleasure in assigning these rotations, but the shorter ones of four chords are among the most powerful means possible for sharpening attention to the exact substance of what one is playing. The first attention is directed to the chord sequence; meanwhile the rhythm goes on relentlessly.

The second advantage of changing chords is found in the different separation it gives the fingers. And finally, the rotations exercise the mental technique and the concentration of attention exactly after the manner of actual music, and entirely different from the effect of any other exercises whatever.

Returning again to the keyboard standpoint of arpeggios, when the reverse directions have been mastered, the student goes on to the two-hand positions, in which both hands work together in sixths (these exercises are never given in octaves) and the whole ground is gone over again, with the result that the student masters the whole art of arpeggio playing and forms a resolute, fluent and satisfactory style.

Applied in grades, the direct arpeggios belong in the first and second grades, unless they have been left out there, in which case you take them up as soon as possible.

The reverse directions occupy the third grade, and perhaps a little into the fourth.

The two-hand positions occupy the fourth and part of the fifth grades. The result of the whole is to make the player equal to the demands of persistent runs, and a bold and brilliant player, provided the accentuation has been diligently and well applied.

The possible number of arpeggio exercises from Mason's book is absolutely impossible to compute. We have in the simple derivatives of the C position, and the simple measure treatments of units rising to six notes to a beat 450 exercises. Add rotations of four elements, each in different rhythms and we might add hundreds more.

What the teacher has to do is to keep the student at his work along both lines simultaneously: New chords, varied rhythms. Complicate either element at pleasure; make a rotation, thus complicating the harmonic element, while the rhythm remains unchanged, the student's sense being in this point perhaps a little slow. Or complicate the rhythm, by working along the rhythmic tables. (Ex. 6, Vol. III, and Ex. 3 and 4 of Vol. II—these two tables are not given in the arpeggios), while keeping the same chords. The flexibility can go no farther, and each change is a musical change, relating to something which may meet the student in his very next piece.

PRACTICAL LESSON SCHEDULES OF ARPEGGIO WORK

First Grade. Beginning. Teach the C position; the same position from G, also from D. Return to C position. Play four octaves up and down, the hands alternately. Introduce counting, 4, as in lesson Ex. 1. Do not require much accent.

Lesson 2: Teach the knack of accenting by raising the finger preparatory to making the accent. Meanwhile be sure that the previous finger holds its key, so that the legato is preserved. Work for No. 1 with a clear but not strong accent.

Lesson 3: Introduce transfers of accent, Exercises 2, 3, 4.

Lesson 4: C position continued, counting 2, 3, 4, and 6.

Lesson 5: C position continued, counting 9 and 12. Always one tone to the beat. Have the accent clear, always legato, but not very strong. The most important point is to continue the exercise until the pupil anticipates the accent and raises the finger that is about to make the accent.

Lesson 6: First derivative (Chord II), all varieties of measure.

Lesson 7: Chord II, especial work on 6's, 9's, and 12's. A slight quickening of speed.

Lesson 8: Chord III, all varieties of measure, one tone to beat.

Lesson 9: Same chord, or Chord IV. Same rhythms.

Lesson 10: Chord V. At this point, if everything seems to be going well, one might introduce two tones to a beat. Count 2, 3, and 4.

Lesson 11: Same chord, same unit (two tones to a beat); count 6 and 9.

Lesson 12: Same chord, 9 and 12. Greater speed, two tones to a beat.

Lesson 13: Chord VI, two tones to a beat, all varieties of measure.

Lesson 14: Chord VII, same rhythms.

Lesson 15: Chord I again, three tones to a beat, count 2 and 3.

Lesson 16: Chord II, same rhythm, count 4, 6 and 9.

Lesson 17: Chord III, three tones to a beat, count 9 and 12. Hasten the speed.

Lesson 18: Chord IV, four tones to a beat, count 2, 3 and 4.

Lesson 19: We now take the first four chords in rotation, in 6's, counting 2; also in 12's, counting 4 (three tones to a beat).

Lesson 20: Same rotation in 9's, three tones to a beat.

Lesson 21: Begin with Graded Rhythms, according to Table I, quarters, eighths and sixteenths. Chord I.

Lesson 22: Same table in Chord II.

Lesson 23: Same rhythmic table, transfer accent to fourth finger, Chord III.

Lesson 24: Same continued. It is difficult to bring out the accent when it has to be made with the fourth finger.

Lesson 25: Rotation of Chords I, V, VI, VII, in 6's and 9's, three tones to a beat.

Lesson 26: Same continued for greater speed.

Lesson 27: Chords VIII and IX, in all varieties of measure, two tones to a beat.

Lesson 28: Same continued.

Lesson 29: Chords X and XI, same rhythms.

Lesson 30: Chords XII and XIII. 6's, 9's and 12's, three tones to a beat.

Lesson 31: Chords XIV and XV, first rhythmic table (three grades).

OUTLINE OF COURSE IN REVERSE DIRECTION ARPEGGIOS.

(The pupil is supposed to be a beginner who has gone through the course in direct motion arpeggios above and is now just entering the third grade.)

Lesson 1: Introduction to reverse motion. Exercises like Nos. 1 to 6, with the hands reversed, the right hand beginning upon the low bass note. Fingering like Ex. 11. (Note—I prefer beginning the right hand at the bottom, rather than to begin with the left hand up high, as Mason does in Ex. 11, because I think the right hand sets a better pattern and we get more out of the left hand in this way. Later the model of Ex. 11 should also be followed. It is necessary to practice both ways.)

Lesson 2: Chords II, III in all forms of measure, two notes to a beat.

Lesson 3: Chords IV and V in three notes to a beat, counting 2, 3 and 4.

Lesson 4: Rotation of Chords I, II, III, IV, in 6's and 9's, three notes to a beat. (Observe, six and nine notes in a measure, not in a beat.)

Lesson 5: Chords V and VI, three notes to a beat, counting 6 and 9.

Lesson 6: Chords VI and VII, three notes to a beat, counting 9 and 12.

Lesson 7: Rotation of Chords I, V, VI and VII, in 6's counting two.

Lesson 8: The same in 9's, counting three.

Lesson 9: First rhythmic table applied to Chord I.

Lesson 10: First rhythmic table (Ex. 6), Chords II and III.

Lesson 11: Second rhythmic table (Ex. 3, Vol. II) in Chord IV.

Lesson 12: Same, Chord V.

Lesson 13: The same, Chord VI.

Lesson 14: Third rhythmic table (Ex. 4, Vol II), Chord VII.

Lesson 15: Third rhythmic table, Chords I and II.

Lesson 16: Rotation Chords I to VII, in 9's, counting three.

Lesson 17: The same continued.

Lesson 18: Velocity practice, according to Ex. 9, as much as necessary and in whatever chords show the need of such practice.

The foregoing may require more time; in this case allow any lesson to run over through a second period. In case all require this additional time, the whole will occupy 36 lessons. The foregoing ground should all be covered in the third grade, but the metronome need not be carried up higher than about 84 for quarters, and a little less will do. The main point is to secure an even and smooth arpeggio, which will require a certain care in passing from one octave to another. In order to perfect this point give the following lesson early in the work:

LESSON FOR SMOOTH REVERSE ARPEGGIO.

Observe that in passing from one octave to another the arm has to be moved along the keyboard about nine inches. According to some old-fashioned teachers the art of doing this consists in retaining the original position until the latest possible moment and then in moving all of a sudden the whole distance, about the time that the fourth finger is playing its note.

In the proper method the motion takes place as follows: Begin by placing the right hand upon the octave of the C position of Chord I, each finger covering its note. In this position the wrist is about half way along in the octave. Now play the lower C with the thumb; then E flat with the second finger. At the moment when E flat is played move the arm towards the right so far that the thumb instead of remaining at C is at D, the end of the thumb at D; do this without moving the thumb itself, but solely by moving the arm along; play F sharp with the third finger, and at the same moment move the arm along until the end of the thumb is at F, the thumb moving along the keyboard by the lateral movement

of the arm; play A with the fourth finger and at the same moment move the arm a little farther towards the right and also pass the thumb under the finger so that the end of the thumb is upon the C it is immediately to play, the finger still holding A.

Recapitulation.—The foregoing directions amount to saying that the arm motion with the second note is enough to bring the thumb to D; with the third note to F; and with the fourth it moves farther and the thumb passes entirely under the fourth finger and takes its place above C, which it immediately has to play; when C is played by the thumb the arm moves along into the position in the second octave and all the fingers assume their places, covering their places in the next octave. The plan of dividing the lateral movement equally among all the notes within the octave is not *new*; it is practically the plan of Plaidy, who directed that in scales and arpeggios the elbow be carried along with every note.

This motion, when easily done, gives an easy and pleasant looking arpeggio. The left hand does the same thing in reverse direction.

This instruction in moving the arm in reverse arpeggios should be given with the first giving of an exercise of this kind and be brought up again and again whenever hitching motions occur in a figure of this character.

In actual playing the hand goes to a following position as soon as possible in preference to remaining upon its old position as long as possible, excepting when there are other notes below to play, making it necessary to retain the first position; in that case the new position is taken as soon as it can be assumed. The jerky arpeggio is mainly due to postponing the lateral

motion too long and then constricting the wrist. In the correct manner the wrist remains free to swing laterally without raising or lowering.

In addition to the exercises of Dr. Mason, I advise the following for securing the free lateral movement of the arm: Holding the first finger upon A, play C below and C above alternately, with the thumb without letting go of the A. Do not permit the wrist to rise. The motion is to be easy and quick.

CHAPTER XII.

TRIAD ARPEGGIOS.

From the standpoint of their frequent occurrence in pieces the arpeggios founded upon the three positions of triads are of even more practical importance and necessity for practice than those upon the derivatives of the diminished chord. These figures occur in shorter or longer form in almost every piano piece one takes up. The same ends are subserved in mastering them as in mastering all other forms of frequent occurrence. Moreover, the triad arpeggios are nearly related to the tonality and the study of them accompanied by a little elementary training in harmony, will materially assist the student in recognizing the key in which he is playing, even when a modulation has taken place and he is no longer in touch with his signature.

From a finger standpoint the triad arpeggios demand the same kinds of treatment, as to degrees of force, accentuation, graded speeds and the like, as the arpeggios of the diminished seventh.

PREPARATORY EXERCISES.

For attaining the proper motion in passing from one octave to another the same principles prevail as in the arpeggios in reverse directions, already explained. The little exercise just preceding can be modified for triad practice, according to the position. For example, suppose we are working upon the first position of the chord of C. Then take G with the right hand third finger and hold it, and play with the thumb alternately the C

below and the C above, moving the arm laterally, but not raising or lowering the wrist, especially do not raise the wrist, but move it horizontally. For this second position, the right hand holds C with the fourth finger and plays alternately the E above and the E below with the thumb. For the same position the left hand holds G with the fourth finger and plays alternately the E above and below with the thumb. In the third position the right holds E with the fourth finger and plays the upper and lower G with the thumb; the left hand holds C with the third finger and plays the upper and lower G with the thumb.

FINGERING OF TRIAD ARPEGGIOS.

Upon the fingering of triad arpeggios, aside from those of C, Touch and Technic is unfortunately indefinite. Observe that all triad arpeggios, for practice, are to be fingered according to the model of the key of C, whether this brings the thumb upon a white key or upon a black. The following table gives the fingering for all positions:

First Position.	Second Position.	Third Position.
Right Hand—		
5	5	5
3	4	4
2	2	2
1	1	1
Left Hand—		
1	1	1
2	2	2
4	4	3
5	5	5

The Triads are classified by Mason as follows: Consisting of white keys only, C. F. G. A minor, E minor,

D minor. White keys with a black key for third: D, E, A, C minor, F minor, G minor. Black keys, with a white key for third: D flat, E flat, A flat, C sharp minor, F sharp minor, G sharp minor. Entirely of black keys: F sharp major and D sharp minor.

All of these are to be worked out with the fingering given above. This work should begin quite early, the pupil taking a vacation from the arpeggios of the diminished chord and working for a few weeks upon triad arpeggios, selecting first those in immediate demand, but carrying the practice through all the positions of at least one or two chords of each of the classes above, in order that the fingers may learn to feel at home even in the less usual combinations.

Caution.—In playing arpeggios upon black keys, with or without a white key for third, the hand remains well in over the black keys, even in those parts where a white key only is played.

Caution 2.—Be sure that the fingers are well curved, especially the fourth finger, even in playing arpeggios. Many pupils permit them to lie nearly straight, and in consequence of this it is impossible to put the thumb under perfectly and to pass smoothly from one octave to another.

RHYTHMIC TREATMENT OF TRIAD ARPEGGIOS.

There is no objection to carrying the triad arpeggios through the rhythms of all measures and units, exactly as suggested for the arpeggios of the diminished chord derivatives. But as the triad contains but three notes, there is a tendency in all forms containing triplets for an accent to remain entirely upon the same finger as

one begins, or to return to it often; for this reason the finger training will advance more rapidly when forms containing groups of four are employed. In this respect the triad arpeggios are the exact opposite of those upon the diminished chord. The simplest forms, therefore, are such as these: 2-4 measure, 3-8 measure, in 16ths, two notes to a beat; 3-8 measure in triplets; 4-4 measure in two notes to a beat; the same in four notes to a beat, and 6-8 in triplets is also a useful form. However, if the triad arpeggios be begun very early, as soon as the chords are given in forming the scale, then the systematic application of all forms of measure can go on as well in these as in the other work.

Mason begins with the second rhythmic table, 3's, 6's, 12's, the same as Exercise 3 in Vol. II. (Vol. III, Exercise 37.) This table might have been continued through another grade for advanced students the Grade 3, Meter of Twelves, to be followed by a Grade 4, Meter of Twenty-fours. The Meter of Eighteens, which immediately follows the Twelves on page 26, has no logical connection with the Meter preceding. It is merely a useful form to be given at discretion of the teacher.


THE RHYTHMIC TABLES.


Mason gives but two rhythmic tables for triad practice. The first, Exercise 37, admits of an additional grade, as indicated above. The second, Exercise 38, is the First Rhythmic Table, of the earlier part of the book. It is very useful indeed.


There are also at least three other tables which it will be advantageous for the student to play.


Supplementary Rhythmic Table, No. A.—This is the same as third Rhythmic Table, Exercise 4, Vol. II. It

consists of 3—9—27, and gives rise to the note-values following:

Grade 1. 

Grade 2. 

Grade 3. 

Grade 4. 

Supplementary Rhythmic Table, B.—2—6—12. Note-forms:

Grade 1. 

Grade 2. 

Grade 3. 

Directions for practice: Count two, divide into triplets for grade 2, and each triplet note into two for grade 3.

Supplementary Rhythmic Table C.—2—6—18.



Directions for practice: Count two, divide into triplets for grade 2 and each triplet note again into a triplet for grade 3. These sub-divisions are very important.

BROKEN CHORD FORMS.

As soon as the triad fingering is well established the forms in broken chords are to be worked out, in any

key advisable for immediate effect upon the playing of the pupil. For instance, when a pupil is about to study the so-called "moonlight" sonata of Beethoven, the teacher gives a heavy dose of broken chords, upon the triads of C sharp minor, G sharp minor, and F sharp minor, one or two lessons previously. These are expected to facilitate the learning of the finale.

In the terminology here used an "arpeggio" is a chord figure which passes directly up and down the full compass in the same position of the chord in which it begins.

A chord figure taking every position successively in every octave Mason calls "broken chords." These forms are more difficult than those upon single positions, and accordingly are left over until some time later in the course. The forms in canon, such as Exercises 44, 45, 47, are very difficult; therefore they will hardly come in earlier than the fourth or fifth grade, perhaps even later. In fact No. 47 will not be easily done earlier than the sixth grade. In carrying out the broken chords the original fingering of the positions must be scrupulously adhered to.

BROKEN CHORDS IN FOUR NOTE POSITIONS.

The broken chords derived from the diminished chord, as illustrated in Exercises 48, 49 and 50 are to be given at any point of the course where they may be useful and of direct bearing upon some piece or study in immediate use. Probably there will be little occasion for them earlier than the fifth grade, or even later. They belong to the resources of the advanced pianist, and therefore must not be omitted entirely from the practice.

CHAPTER XIII.

RECAPITULATION.

The teacher who has now read through this little handbook up to this point is in position to glance backwards over the whole ground traversed, in order to realize something like a perspective of the work. Observe that the entire first part deals mainly with "tone-production" and the distinctions between the different exercises are first of all distinctions in their tone-producing qualities. All the finger-training elements in the first part are accessory and incidental, except in so far as finger training consists in more ample and varied qualities of touch. This is true not alone of the many forms of the Two-finger Exercise, but also of the Octaves, Chords, Mordents, etc. All of this part depends at bottom upon qualities already included in the standard combination for daily practice. At every failure or mistake, therefore, the teacher has to recur again to this fundamental form, whether the failure be in the two-finger exercise itself or in the octaves or chords. All come back to the touches in the standard forms. The pupil, therefore, who has mastered the four forms in the combination, has practically the whole matter, and everything else will follow with but little difficulty.

The second part consists practically of Metrical Treatments of Passage forms, the treatment being the main thing and the form, whether any kind of arpeggio or scale, a matter of convention between the teacher and pupil. Necessarily all scales and arpeggio forms need

to be played sooner or later; but the metrical treatment and the Rhythmical Tables are the most important part of this division of the book, since all good teachers know the scales and standard arpeggio forms.

The teacher must understand that a pupil never outgrows the need of the two-finger exercise. This is the way to keep the hand in condition. Scales and arpeggios are of great importance in the first five or six grades; later if the pieces and studies are well chosen, they will require but little attention. The double thirds take their place and then the double sixths. After that it is a question of the form one has to make use of in the pieces in hand.

So also with metrical treatment of passage forms. For the beginner and young student it is their education in rhythm; later, by the sixth or seventh grade, it is used merely for the sake of bringing the stress upon each finger in turn. The rhythmic education as such is supposed to have been completed.

It makes little practical importance whether during any quarter of lessons the education in rhythm be carried on by means of scales or arpeggios; the main thing is the progress in rhythm and in finger-command. All that is necessary is that the choice of material be so systematized that in the course of a year the student gets his training in scales and arpeggios of all kinds.

To return to the tone-producing exercises. Here also the young student has to master the principles of octaves, chords, the pedal and the like. Later on octaves and chords will not occasion trouble, except where difficult positions hamper the tone-production and proper balance of tone. All such must be studied as they occur. But the standard combination of the two-finger exercises can-

not wisely be left out of the daily practice for long at a time.

The present writer once had an advanced pupil who was a concert player; this girl had a great respect for anything German. Accordingly she made great use of the Tausig daily exercises; the present writer was always able to tell from the playing when this neglect of Mason's exercises had lasted a fortnight or three weeks—merely by the tameness of the tone-quality. This was due to Tausig's neglect of hand and arm forms, to the consequent detriment of the touch. The two-finger exercise is something which ought to be heard in the playing of every pupil who is properly taught to practice it. It forms a good touch.

APPORTIONMENT OF DAILY PRACTICE.

The apportionment of practice time between the various demands upon it is a question to which the teacher must give very careful attention. While the most advanced educators are not sure whether any considerable attention can be bestowed upon mere exercises without running the risk of losing in artistic directions as much as the pupil gains from the superior training of fingers as such, which the exercises provide, this doubt is much less significant with regard to the Mason system than to any other. The methods of practicing in this system and the fundamental musical relations of the exercise forms, give this system a very different standing from that of any other exercises whatever. All the forms of treatment advised in this work are such as occur over and over again in the most advanced compositions of the greatest masters of the piano.

In general it may be stated that not over one-third the

practice time should be devoted to exercises, and frequently less is better. Namely, when the pupil is obtuse upon the musical side, or when the practice periods are so short as not to admit of effective subdivision. As a general rule, therefore, let one-third the time for technics be the rule.

Mason is clear in desiring to have something from all four of his volumes practiced every day by every pupil, and he declares that the practice should not be concentrated upon any one form to the exclusion of the others. This direction is wise and practical, but it applies to those cases only which have an amount of practice time rising to what any good teacher would call normal—which when the highest attainments are proposed cannot well be less than from three and a half hours to four hours a day. This limit is often exceeded by virtuosi. The most distinguished technician now before the public, Mr. Leopold Godowsky, practiced from five to eight and ten hours a day for years. The present writer chanced to visit him upon one occasion at about ten at night. He had taught five hours that day and practiced nine hours. Something of the like absorption must be true of Rosenthal, whose attainments represent an incredible amount of time.

Supposing the practice time to be four hours a day, and the student at least as far along as the sixth grade (which in general may be taken as the lowest stage in progress where so long practice will be advisable, owing to the lack of firmness in the muscular apparatus) it will be possible to give the technics about ninety-five minutes. Of this I would recommend a half hour for the different forms of the two-finger exercises, thirty minutes on arpeggios, and fifteen upon material from

the fourth volume (selected for its appropriateness in relation to the other material of practice—the pieces) and twenty minutes upon the scales.

Suppose, however, that the pupil has but two hours a day, and is just entering upon the fourth grade. In his case the best results would be reached by giving ten minutes to two-finger exercises, twenty to scales, and ten to arpeggios, or ten to scales and twenty to arpeggios. At times, when the arpeggios or scales show special faults, it is better to devote the whole half hour to either the one or the other. When material from the fourth volume is assigned, intermit the two-finger exercises. To divide this small amount into four periods of ten minutes each and to devote one to each of the four volumes would be to fail of making any very definite impression upon the new forms.

Suppose, however, the student has but an hour and a half. Here at most a half hour is all that the technics can have. If the stage of progress be about the third grade, the best results will be attained (supposing the touches to have been already thoroughly learned) by concentrating at least twenty minutes upon scales or arpeggios, according to the judgment of the teacher. The remaining ten minutes can be given either to two-finger exercise or any other missing ingredient.

By far the larger proportion of very young pupils are able to devote no more than an hour a day to the piano. What should they undertake in technics? And how much time ought they to give it? At first the young pupil must give about ten minutes to the two-finger exercises, and the teacher must not fail to hear them at each lesson, or at each alternate lesson, until at least the beginning of the third grade. Then the arpeggios or

scales (preferably, in my opinion, the arpeggios) should have about fifteen minutes, most of it devoted to the one difficult form last taken up. The remainder of the hour must be devoted to studies or pieces—not both together, since the time is too short to accomplish much with both.

It is evident upon reflection that a young pupil working at technics but twenty minutes a day cannot make any very determined advances in rapidity and strength. Still, if the work is properly diversified from one lesson to another, and if the teacher takes care to continue any unexpectedly difficult form until it is mastered, whether it requires one lesson or six, the progress will be uniform and very good. While these pupils will not for quite a long time show any very great speed or power, they will gradually acquire handiness upon the keyboard, the eye will acquire the habit of following notes, the memory will become quicker and more retentive, and all of a sudden, after some years, the teacher will wake up to the fact that this pupil, not regarded as among the shining lights, has become able to play neatly and with expression. At this point the selection of a very suitable and congenial piece will often stimulate the pupil to unprecedented exertions, and thus in a very short time unexpected progress will appear.

In the abnormal cases, where for lack of strength the pupil devotes less than an hour a day to the piano, the teacher will probably accomplish the best results by now and then concentrating a whole lesson upon technics, upon some one particular form, such as the rotation arpeggios, or any form which the pupil has reached, but which as yet represents attainments still to be made. By concentrating upon it an impression will be made and the hands get a real start towards velocity and power.

There are a few cases where pupils are mechanical in disposition and do not easily manifest any expression in their playing. These must be given the touches with care and persistence until they master them; because without a mechanism they cannot express anything. Then the actual life is put into the touch by means of some congenial piece which they happen to fancy. While such a piece is in its early stages the technics can be omitted, but must be taken up very soon again.

In short, the teacher is like a physician who has to find out what medicine will probably be most appropriate to the patient's case; decide upon the dose and frequency, and watch the effect.

The guiding principles of the piano physician are such as these:

First of all the pupil must take an interest. If she is in such a state that she cannot take interest in exercises, awaken it by means of pieces. Studies in such cases have little effect. Later apply interest to exercises, as shown in the pages previously.

Second, the command of keyboard must go steadily on, and be so directed that the pupil is all the time becoming more sided and more capable.

Third, the pupil must always have something to play. This means that something is to be well learned and from one to six pieces kept within reach.

APPENDIX A.

SUMMARY OF FORMS FOR DEVELOPING SENSE OF MEASURE AND PULSE DIVISION, ACCORDING TO FOREGOING DIRECTIONS.

I. One Tone to Each Beat, All Kinds of Measure.

2-4, Ex. 2, Vol. II, grade 1, divide measures counting two twice.

3-4, Arpeggio, Ex. 7, Vol. III, grade 1.

3-4, Scale, Ex. 3, grade 1, carried out four octaves, if desired; Arpeggio, no example.

4-4, Scale, Ex. 2, grade 1, Arpeggio, Ex. 6, grade 1.

6-4, Scale same as Ex. 4, grade 2, barred once in six notes (but written in quarters instead of eighths); Arpeggios, same as Ex. 7, grade 2, counted six in measure and written in quarters.

12-4, No example. Count twelve; ignore the triplet accents for the present. The point is to accustom the pupil to count any kind of measure desired.

II. Two Tones to a Beat.

2-4, Scale, Ex. 2, counted twice two in a measure, grade 2; Arpeggio, same as Ex. 6, counted two twice in a measure, making two measures of each one, grade 2.

3-4, Scale, Ex. 3, grade 2; Arpeggio, no example.

4-4, Scale, Ex. 1, grade 2; Arpeggio, Ex. 6, grade 2.

6-4, No example. Count six, play two notes to a beat.

9-4, No example. Count nine, play two notes to a beat.

12-4, No example. Count twelve, play two notes to a beat.

APPENDIX A.

III. Three Tones to a Beat.

2-4, Scale, no example; Arpeggio, same as Ex. 7, grade 2.

3-4, Scale, Ex. 4, grade 2; Arpeggio, Ex. 7, grade 3.

4-4, Scale, no example. Arpeggio, no example. Count four, play three tones to a beat.

6-4, No example. Count six, play triplets to each beat.

9-4, No example. Count nine, play three tones to a beat.

12-4, No example. Count twelve, play three tones to a beat.

IV. Four Tones to a Beat.

2-4, Scale, no example; Arpeggio, no example. Count two, play four notes to a beat.

3-4, Scale, Ex. 3, grade 3; Arpeggio, no example. Count three, play four tones to a beat.

4-4, Scale, Ex. 2, grade 3; Arpeggio, Ex. 6, grade 3.

6-4, No example. Count six, play four tones to a beat.

9-4, No example. Count nine, play four tones to a beat.

12-4, No example. Count twelve, play four tones to a beat.

V. Six Notes to a Beat. (Two Triplets.)

2-4, No example, Arpeggio, same as Ex. 7, grade 2, taking a whole measure for each beat. Count two.

3-4, Scale, same as Ex. 5, counting three in a measure. Arpeggio, no example. Count three, play six notes (two triplets) to each beat.

4-4, No example. Count four, play six tones (two triplets) to each beat.

6-4, No example. Count six, unit as before.

9-4, No example. Count nine, unit as before.

12-4, No example. Count twelve, unit as before.

VI. Six Tones to a Beat. (Three Twos.)

2-4, To obtain the unit, count three and play two tones to a beat. This measure is the single beat in the form we now begin.

Observe that the mental effect is entirely different from that of two triplets. No example. Count two, play six notes to a beat.

Carry out this unit in all forms of measure, but be careful that it does not imperceptibly change into a two-triplet formation. The difference between a sextolet of two triplets and a sextolet of three twos is important.