



Theodore Kullak

The School of Octave Playing

Part I: Preparatory Exercises

Preparatory Exercises.

Section I.

Preliminary Remarks.

(1) Dexterity in octave - playing is essentially dependent on the training of the wrist, the assistance of which is required in two different directions:

a. In *staccato* playing, in order that the rise and fall of the hand required by the separation of the tones, may be executed easily and without stiffness.

b. In *legato* playing, in order to facilitate the rising and falling of the hand, which has to serve as a weight augmenting the pressure required of the finger depressing the key, thus facilitating a sustained and connected style of execution. For this rising and falling are necessary to prevent overexertion and exhaustion. In contradistinction

to *legato* playing, which is based on the simple "finger-stroke from the knuckle-joint," we term this style "*legato* playing by the aid of the wrist."

(2) In the second place, we must consider the training of those fingers which are chiefly employed in octave-playing. The principal finger is the thumb; the fifth and fourth fingers are next in importance, the third and second being utilized only in a very subordinate capacity. The three principal fingers 1, 4 and 5, require special training (particularly for the *legato* execution of successive octaves), for the reason that they are obliged, by the distance between the lower and higher tones of the octave, to assume positions and perform duties at variance with those demanded by the simple finger-*legato*.

I. Staccato Playing.

Repeated striking of one and the same key; fingering 1-5; the simple wrist-stroke.

Assuming that the pupil knows the correct attitude of the body and position of the seat, as well as the correct angle between the forearm and upper arm, the simple form of the wrist-stroke requires independence of the hand of the arm, which latter must strive to retain its normal position.

The up-strokes and down-strokes of the

hand must be executed as evenly as possible. Accents require a higher up-stroke, so that the down-stroke may gain greater power. Each of the following exercises is to be repeated several times in succession in the same manner. The unemployed fingers should assume an easy attitude. With increasing facility, the *tempo* may be accelerated and various degrees of force (*p*, *f*, etc.) may be taken into account.

The musical notation consists of three exercises, labeled I. a., b., and c., arranged horizontally. Each exercise is written on a grand staff with a treble clef on the upper staff and a bass clef on the lower staff. Exercise I. a. shows a series of eighth notes on a single pitch in both staves. Exercise I. b. shows a series of eighth notes on a single pitch in both staves. Exercise I. c. shows a series of eighth notes on a single pitch in both staves, with a '3' above the notes in the treble staff, indicating a triplet.

(b) 2. (a) (b)

(c) (d)

3. 4.

5. (a)

(b)

etc., through the entire Chromatic scale.

6.

Also practise with the left hand, the right playing the same accompaniment.

II. Legato Playing.

(1) "Touch" is the technical term for "the development of tone" on the pianoforte. In teaching touch, three phases are distinguished:

- a. The preparatory--the up-stroke (lift).
- b. The tone-producing--the down-stroke.
- c. The tone-sustaining--the clinging pressure of the finger on the key, corresponding to the time-value of the note.

The height of the up-stroke is determined by technical and musical requirements. When the finger is perceptibly lifted from the key before the down-stroke, the hammer-touch (in the stricter sense) results. But if this lift is barely, or not at all, perceptible, we have what is called the "pressure-touch," because the sensation in the hand is rather one of pressure than of striking. Although this distinction may be termed more quantitative than specific, long experience in piano-teaching determines me to treat these two styles of touch as separate and distinct.

Musically considered, the pressure-touch is chiefly important by reason of the greater fullness and roundness of the *cantilena*. For technical reasons it becomes indispensable whenever one finger (e.g., the thumb) alone has to bind successive tones; because the slightest raising of the finger from the key would prevent the legato effect.

(2) Legato octave-playing belongs in the sphere of the pressure-touch. In this style, a strict binding

of the tones can be effected only when the fingers employed press down the keys, while the weight of the hand augments the power of the supporting fingers, bearing down on them during the rising and falling of the wrist. At the same time, the members of the arm are likewise affected; the forearm, more particularly, is obliged to participate in the movements of the hand. Even if the wide octave-stretches admitted of an easy legato by means of the "finger-stroke from the knuckle-joint," only fingers 3, 4 and 5 could fulfil the requirements of this style of touch, whereas the thumb, even at the lowest lift from the keys, would immediately destroy the smooth connection, strictly speaking.

(3) The movements which form the essential features of legato octave-playing, can best be illustrated and learned by pressing down an octave on the white keys with thumb and little finger, and then, without quitting the keys, raising and lowering the hand. The rise and fall should be as nearly equal in height as possible, and in strict rhythm (counted) and even tempo. When this has been learned, all that has to be done is, to retain these same motions while passing from one key to another. After brief study of Examples a, b, c, d, e, and f, choose,

(4) For the first exercise, a fragment of the chromatic scale (I). On the white keys, take fingers 1-5; on the black, fingers 1-4. The black keys being the higher, the hand should be low on the white keys, and high in the air on the black keys, e.g.,

on C – depressed,
 on C# – raised,
 on D – depressed; etc.

(5) For the second exercise, choose any fragment of a diatonic scale having only white keys, e.g., C-D-E-F-G; employ alternately the fingerings 1-5 and 1-4, lifting the hand each time for the latter, and depressing it for the former. (II).

(6) For the third exercise, choose the entire

chromatic scale. Now, we have neither an alternation of white and black keys, as in Ex. 1, nor a succession of similar keys, as in Ex. 2, but find, between E-F and B-C, two successive keys which call for the low position. Here the hand must either be shifted sideways, keeping the hand in the same position with a stiffer wrist, or the fingers must be quietly changed on the first key.

(7) For players whose hands permit of using the third finger in octave-stretches, we remark, that this finger is to be employed like the fourth.

(D indicates depression of hand; R, raising; SS, side-shift.)

Practise also with the left hand, the right hand playing the same accompaniment.

(a) (b)

(c) (d)

(e) (f)

Normal position of the hand (palm).

I. II. (a)

(b)

III.

III. Training of the separate fingers employed in Octave-playing.

The thumb is the principal finger, because it is employed for every octave, whether *staccato* or *legato*; then come the 5th and 4th, and finally, for large hands, the 3rd.

The hand can move in four directions: Upward, downward, from right to left, and from left to right; the two last are called lateral (or side) movements.

The hand itself, provided that at least one finger is actually in contact with the keys, can assume five positions:

(1) The normal position, i. e., parallel with the keyboard below it. To illustrate this, lay the hand flat on five or six white keys, so that the palm also touches the keys, with the fingers stretched out straight. Then draw up fingers 2 to 5 in such a way that they assume the shape of little hammers; the finger-tips, just next to the nails, resting on the keys, and the lower edge of the thumb (which is slightly curved inward) also pressing its key. Finally, without relaxing the pressure of any finger, draw back the hand until the palm no longer touches the keys, but stands out horizontally in front of the keyboard.

(2) In the second position of the hand, it is raised

above its normal plane, and stands at an angle to the keyboard instead of parallel with it.

(3) In the third position, it is below the normal plane.

(4) In the fourth position, assuming that a supporting finger is already resting on its key, the hand is set obliquely to the keyboard, and, on depressing the next key, makes a movement from left to right.

(5) In the fifth position, this movement (still assuming at least one supporting finger) is made from right to left.

The stroke of a finger in the normal position of the hand, or a stroke in the oblique position (comp. 4 and 5), can be effected without making the arm (the forearm, in particular is meant) leave its own normal position: it may remain quite passive. (Stroke after the hand has been set obliquely; the side-stroke.) This side-stroke is of special importance in arpeggio'd octaves (see Appendix).

Remark. The oblique turn of the hand affects the arm to a certain extent, by turning it slightly on its axis, but without changing its place.

A. Training of the Thumb.

(a) For staccato playing.

(1) Without supporting finger.

For striking white keys, the thumb bends its tip-joint somewhat inward, and uses, for the heavier and more vigorous strokes, the entire lower edge of this joint, employing for lighter strokes only the part next the tip. For striking black keys, it bends

its tip-joint outward, and strikes the key with the whole edge, the latter crossing the key. The stroke is the wrist-stroke; sometimes in the combined form in which elbow and wrist are employed together.

(2) With at least one supporting finger.

In this case the side-stroke is employed; i. e., the hand is lifted obliquely before the stroke, the line formed by the knuckles being no longer horizontal. The best supporting finger is the fifth, because the hand can then be raised highest on

the thumb-side. Although this side-stroke is not employed in free octave-playing, this mode of practising the following exercises is of utility to this branch of technic, because the thumb gains in certainty and skill.

(b) For legato playing.

The same exercises, with the difference, that no break in the smooth *legato* must occur, the thumb acquiring an unassisted *legato*. It can execute such a *legato* by employing only the pres-

sure-touch without any down-stroke proper, and by gliding smoothly from one white key to the next, or from a black key to a white one (*glissando*).

Practical Exercises for the Thumb-stroke.

Practise in three ways:

- (1) *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist.
- (2) *Staccato* with supporting finger;—side-stroke.

(3) *Legato*.

In the *staccato*, accented tones require a higher up-stroke and more vigorous down-stroke; in the *legato*, a firmer pressure on the key.

Right hand.

1. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (C major)

2. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (D major)

3. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (E major)

4. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (F major)

5. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (G major)

Left hand.

6. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (C major)

7. *Staccato*, without supporting finger; up-stroke and down-stroke from the wrist. (D major)

8. 9.

11. Right hand. 12. 13. 14. 15. 16. 17. 18. 19. 20.

22. Left hand. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32.

B. Training of the Fifth and Fourth Fingers (also of the Third).

(a) For staccato playing.

(1) Without supporting finger. First practise the following exercises without a supporting finger, and with each of the three fingers 5, 4, and 3 quite alone. The finger employed may be slightly stretched, so that in the down-stroke nearly the whole fleshy finger-tip touches the key. Keep the thumb at the distance of an octave from the practising finger. In accelerated tempo, only the wrist-stroke can be employed. In comparatively slow playing (the stroke from the finger-joint is forbidden!), the stroke from the elbow-joint, and also the combined form of the simultaneous elbow and wrist-stroke, can be practised.

(2) With (at least one) supporting finger. As in training the thumb, only the side-stroke can be employed. The best supporting finger is the thumb, because it permits the highest up-stroke of the 5th and 4th (or 3rd) finger. Each exercise is to be played with one finger only at a time (the 3rd only when the hand is suitably conformed.) We recommend these studies, and in part those under N^o 1, like the side-stroke of the thumb, because the general strengthening of the fingers is very helpful in octave-playing, although this particular form is not directly employed in the latter.

(b) For legato playing.

Pressure-touch. In order that no break may occur, there must be no lift from the key, the finger employed clinging constantly with its tip to the key. Raise the hand on black keys, depress it on white keys. Fingers 5, 4 (and 3) must alternate as much as possible. On black keys, the 4th (or 3rd) should be used. For two successive keys requiring the same position of the hand, either the side-shift, or the quiet change of finger on one and the same key, or the *glissando* from a black key to a white

one, is to be employed. Both the irregular passing of the 4th (or 3rd) finger over the 5th, and the irregular passing of the 5th under the others, requires special attention and training. As a supplementary exercise, the studies may be practised with the "hammer"-touch, but legato; for large hands can employ this style with good results even in legato playing.

Practical Exercises for training the 5th, 4th and 3rd fingers.

Practise in three ways:

(a) *Staccato*, without supporting finger. Up-stroke and down-stroke from the wrist. Each exercise to be practised with one and the same finger quite alone.

(b) *Staccato*, with supporting finger. Side-stroke. Twofold fingering: (1) For each exercise one and the

same finger, i.e., either the 5th or 4th (or 3rd, when suitable); (2) Using the fingers required by *legato* playing, as marked above the notes.

(c) *Legato*, with and without supporting finger. N.B. Exercises more than an octave in extent, can, of course, not be executed with a supporting finger.

Right hand.

1. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 2. 5 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5

3. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 4. 5 4 5 4 4 5 4 5 4 5 4 4 5 5 4 5 4 5 5 4 5 4

5. 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 6. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4

7. 4 5 4 3 5 3 5 4 5 4 5 5 4 3 5 4 3 8. 5 4 5 4 5 4 5 4 9. 5 4 5 4

etc. etc.

10. 5 4 5 4 5 4 5 4 11. 5 4 5 4 5 4 5 4 12. 5 4 5 4

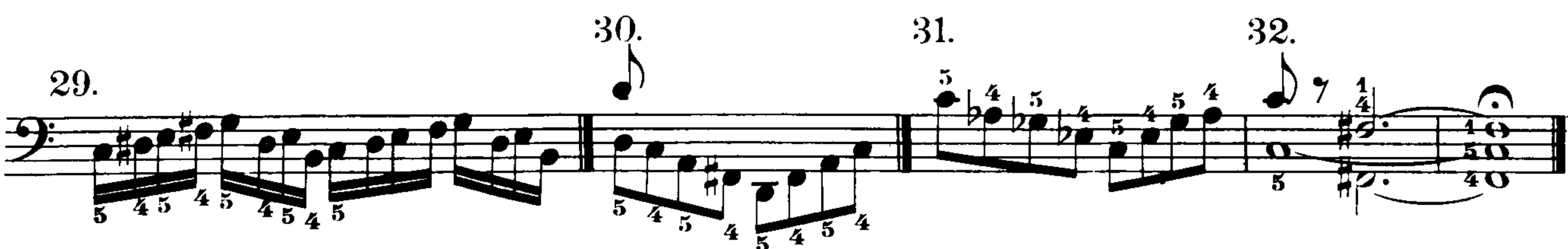
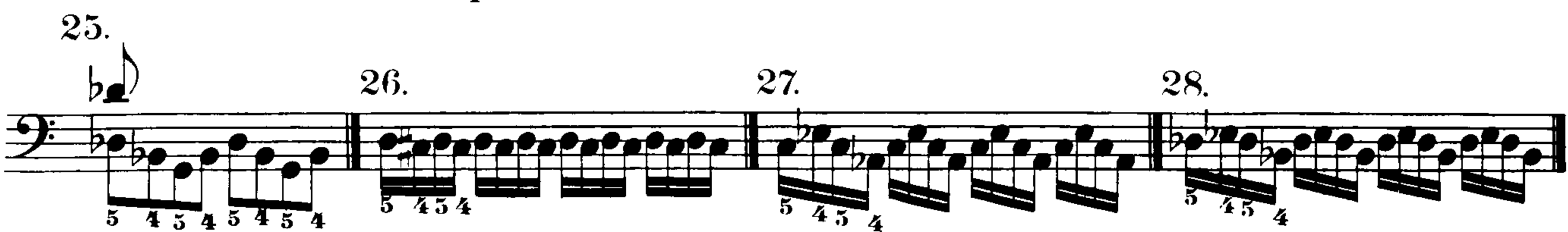
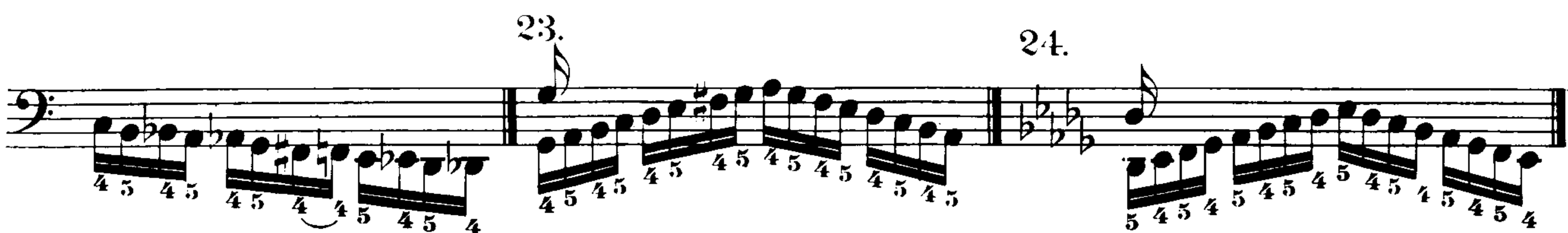
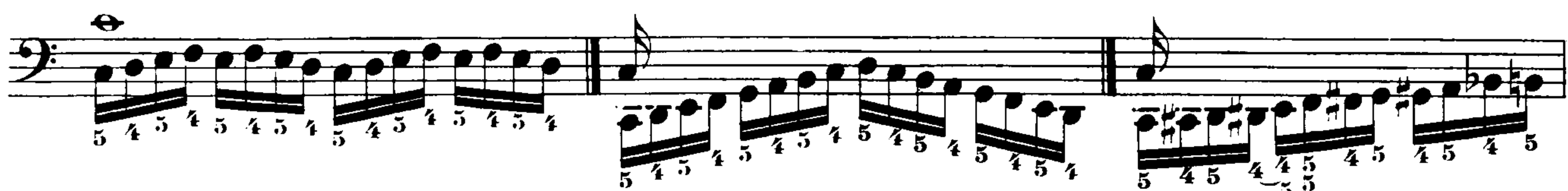
13. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 14. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4

15. 5 4 5 4 5 4 5 4 16. 5 4 5 4 5 4 5 4 17. 5 4 5 4 18. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4

19. 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4 5 4



20. Left hand.



IV. Both functions of the wrist combined.

For the hammer-touch, an up-stroke and down-stroke are employed; for the pressure-touch, the lifting and depressing of the hand with a supporting finger. By the latter, as already seen, we obtain the *legato* effect in octave-playing. But this lifting and depressing of the hand may likewise be effectively employed for *staccato* octaves, in simultaneous combination, especially for the execution of long and rapid octave-passages (e. g., Schubert's "Erlkönig", Liszt's Hungarian Rhapsody in D \flat —B \flat). Though strict rules cannot be formulated, some practical hints may be offered.

(1) On black keys, generally hold the hand high, using the 4th (or 3rd) finger, though the 5th is by no means forbidden.

(2) On white keys, generally hold the hand low, and use the 5th finger, though the other fingers

are by no means forbidden.

(3) With notes of equal time-value, when the same key (or a similar key) is struck repeatedly, let the lift and depression alternate as evenly as possible, i. e., take each group of 2, 3, 4 or more successive strokes with the hand in the same position (either high or low).

The skilful and well-considered utilization, and the greatest possible regularity in alternation, of lift and depression, is one of the best means of avoiding weariness and stiffness in the hand and arm during long octave-passages. A too arbitrary alternation in the position of the hand is apt to render the playing unquiet and uncertain.

The following exercises require no further commentary.

Practical Exercises.

R indicates the raising (high position) of the hand;
D, depression.

Exercises I (a) (b) (c) (d) (e) are to be practised in
succession without change of *tempo*.

I (a) **(b)** **(c)**

(d) **(e)**

II (a) **(b)**

The score is divided into two main sections, I and II. Section I contains five exercises (a-e) in treble and bass clefs. Exercises (a), (b), and (c) are in treble clef, while (d) and (e) are in bass clef. Each exercise consists of two staves. Exercises (a), (b), and (c) feature a sequence of notes with fingerings (1-5) and hand positions (D for depression, R for raising). Exercises (d) and (e) feature a sequence of notes with fingerings (1-5) and hand positions (D for depression, R for raising). Section II contains two exercises (a-b) in treble and bass clefs. Exercise (a) is in treble clef, and exercise (b) is in bass clef. Each exercise consists of two staves. Exercises (a) and (b) feature a sequence of notes with fingerings (1-5) and hand positions (D for depression, R for raising).

III. (a)

Musical notation for exercise III (a). The right hand (RH) plays a sequence of chords: D (5 1), R (4 1), D (5 1), R (4 1), D (5 1), R (4 1), D (5 1), R (4 1). The left hand (LH) plays a steady eighth-note accompaniment.

(b)

Musical notation for exercise III (b). The RH plays a melodic line with a slur over the first four measures. The LH continues with the eighth-note accompaniment.

IV. (a)

Musical notation for exercise IV (a). The RH plays a sequence of chords: 5 1, 5 1, 4 1, 4 1, 5 1, 5 1, 4 1, 4 1, 5 1, 5 1, 4 1, 4 1, 5 1, 5 1, 4 1, 4 1. The LH plays a steady eighth-note accompaniment.

(b)

Musical notation for exercise IV (b). The RH plays a melodic line with a slur over the first four measures. The LH continues with the eighth-note accompaniment.

V. (a)

Musical notation for exercise V (a). The RH plays a sequence of chords: 5 1, 4 1, 5 1, 4 1, 5 1, 4 1, 5 1, 4 1, 5 1, 4 1, 5 1, 4 1, 5 1, 4 1, 5 1, 4 1. The LH plays a steady eighth-note accompaniment.

(b)

Musical notation for exercise V (b). The RH plays a melodic line with a slur over the first four measures. The LH continues with the eighth-note accompaniment.

VI. (a)

Musical notation for exercise VI (a). The RH plays a sequence of chords: 5 1, 5 1, 4 1, 4 1, 5 1, 5 1, 4 1, 4 1, 5 1, 5 1, 4 1, 4 1, 5 1, 5 1, 4 1, 4 1. The LH plays a steady eighth-note accompaniment.

(b)

Musical notation for exercise VI (b). The RH plays a melodic line with a slur over the first four measures. The LH continues with the eighth-note accompaniment.

VII. (a)

Musical notation for exercise VII (a). The RH plays a sequence of chords: 5 1, 4 1, 5 1, 5 1, 4 1, 5 1, 4 1, 5 1, 5 1, 4 1, 5 1, 5 1, 4 1, 5 1, 4 1, 5 1. The LH plays a steady eighth-note accompaniment.

(b)

Musical notation for exercise VII (b). The RH plays a melodic line with a slur over the first four measures. The LH continues with the eighth-note accompaniment.

Section II.

Preliminary Remarks.

When the hands and fingers have been so trained by the foregoing exercises, that they can fulfil all functions demanded by octave - playing, the Second Section, containing octave - passages in manifold combination, may be taken up. In order the better to obtain a systematic view, the exercises are arranged under the following heads:

(1) All the scales, including the chromatic.

- (2) Octaves in progressive intervals.
- (3) Passages in broken chords.
- (4) Octaves mingled with full or partial chords.
- (5) Interrupted (simulated) octaves.
- (6) Overlapping octaves, the hands alternating.
- (7) Exercises on the Tremolo, Trill, Appoggiatura and Glissato.

I. Scales.

(a) The scales, like everything else that one would master, must, of course, be played very slowly and firmly at first. As to the fingering, all octaves may be struck, in *staccato* playing, with the 1st and 5th fingers, whether on black or on white keys, so long as the elbow maintains its position unchanged. Some celebrated pianists, like Alexander Dreyschock, have raised this simplest of fingerings to the dignity of a rule; however, I consider it practical to apply the fingering required in *legato* playing — taking note of what was said on this point in the preliminary remarks — to the *staccato* style. Therefore, practise all scales.

- (1) *Legato*.
 - (2) *Staccato* with the *legato* fingering; and
 - (3) *Staccato* with the 1st and 5th fingers throughout.
- (b) It is unnecessary to explain, that tempo, tone - power, rhythm, certain characteristic colorings (such as *maestoso*, *pomposo*, *tempestoso*, *appassionato*, *grazioso*, *caressando*, *scherzoso*, etc.) are essential in determining the height of the up-stroke and down-stroke, and of the raising and depression of the hand. As soon as the first mechanical study is accomplished, never lose sight of the principle, that for special artistic purposes deviations from the hard - and - fast rules of the school are allowed.

Remark The fingering given here is by no means exhaustive, although it is applicable both to the strictest and the less strict legato playing. Not only the stretching-power and other peculiarities of the hands must be carefully considered, but also the tempo and the accent. Consequently, hardly more than the general points (a) and (b), and the special points (c), (d), (e) and (f) can be adduced.

(a) In the strict *legato*, always try to alternate, or to glide:

(b) In the less strict *legato*, take all white keys with

the 1st and 5th, occasional black keys with the 4th finger, and alternate where several of the same kind follow in succession.

(c) On white keys, it is immaterial whether you change from 4 to 5, or from 5 to 4:

(d) When a white key is followed by a black one, the latter is almost invariably to be taken with the 4th finger.

(e) When a white key follows a black one, the latter is always taken with the 4th finger:

(f) On two successive black keys, the change is optional.

A fingering employing the 3rd finger is often the

handiest, but unfortunately, as already observed, not all hands can use it.

As no normal fingering, like that for the simple scales, can be adopted, it will be an excellent plan for the pupil to try, with the aid of the remarks under (a),(b),(c),(d) and (e), to concoct a fingering for himself, and then to compare it with the one which I have marked.

First system of musical notation, featuring a treble and bass clef. The treble clef staff contains a melodic line with various intervals and slurs. The bass clef staff contains a supporting line with many notes marked with numbers 3, 4, and 5, indicating fingerings. The system concludes with a double bar line and repeat dots.

Second system of musical notation, similar to the first. It continues the melodic and supporting lines with consistent fingering notation. The system ends with a double bar line and repeat dots.

Third system of musical notation. A dashed line above the treble clef staff indicates a section of eight measures. The notation includes complex fingering patterns and slurs. The system concludes with a double bar line and repeat dots.

Fourth system of musical notation. A dashed line above the treble clef staff indicates a section of eight measures. The notation includes complex fingering patterns and slurs. The system concludes with a double bar line and repeat dots.

Fifth system of musical notation. A dashed line above the treble clef staff indicates a section of eight measures. The notation includes complex fingering patterns and slurs. The system concludes with a double bar line and repeat dots.

Sixth system of musical notation. A dashed line above the treble clef staff indicates a section of eight measures. The notation includes complex fingering patterns and slurs. The system concludes with a double bar line and repeat dots.

System 1: Treble and bass clefs, common time signature. The treble staff contains a melodic line with various intervals and slurs. The bass staff contains a supporting line with many fingerings indicated by numbers 1-5. A repeat sign is at the end of the system.

System 2: Treble and bass clefs, common time signature. The treble staff contains a melodic line with various intervals and slurs. The bass staff contains a supporting line with many fingerings indicated by numbers 1-5. A repeat sign is at the end of the system.

System 3: Treble and bass clefs, common time signature. The treble staff contains a melodic line with various intervals and slurs. The bass staff contains a supporting line with many fingerings indicated by numbers 1-5. A repeat sign is at the end of the system.

System 4: Treble and bass clefs, common time signature. The treble staff contains a melodic line with various intervals and slurs. The bass staff contains a supporting line with many fingerings indicated by numbers 1-5. A repeat sign is at the end of the system.

System 5: Treble and bass clefs, common time signature. The treble staff contains a melodic line with various intervals and slurs. The bass staff contains a supporting line with many fingerings indicated by numbers 1-5. A repeat sign is at the end of the system.

System 6: Treble and bass clefs, common time signature. The treble staff contains a melodic line with various intervals and slurs. The bass staff contains a supporting line with many fingerings indicated by numbers 1-5. A repeat sign is at the end of the system.

First system of musical notation, featuring a treble and bass clef with a common time signature. The music includes various note values and rests, with fingerings indicated by numbers 1-5 above or below notes. A dotted line above the staff indicates a measure repeat.

Second system of musical notation, continuing the piece with similar notation and fingerings. A dotted line above the staff indicates a measure repeat.

Third system of musical notation, continuing the piece with similar notation and fingerings. A dotted line above the staff indicates a measure repeat.

Fourth system of musical notation, continuing the piece with similar notation and fingerings. A dotted line above the staff indicates a measure repeat.

Fifth system of musical notation, featuring a treble and bass clef with a 3/4 time signature. The music includes various note values and rests, with fingerings indicated by numbers 1-5 above or below notes. A dotted line above the staff indicates a measure repeat.

Sixth system of musical notation, continuing the piece with similar notation and fingerings. A dotted line above the staff indicates a measure repeat.

Seventh system of musical notation, continuing the piece with similar notation and fingerings. A dotted line above the staff indicates a measure repeat.

II. Octaves in Progressive Intervals.

In *staccato* playing, all these exercises will be executed with the 1st and 5th; wrist-movement as in the scales. With regard to the *legato*, Ex. 1 offers no difficulties. In Exercises 2-8 the 4th finger must be much bent, the 5th striking rather flat.

The succeeding exercises can be played only in an approximate *legato*; for the change of fingers indicated by the figures can be effected only in moderate tempo.

The image displays a musical score for piano exercises on octaves in progressive intervals, organized into three systems. Each system consists of two staves (treble and bass clef) joined by a brace on the left. The first system, labeled '1.', contains two measures of music. The first measure features a treble clef with notes G4, A4, B4, C5 and a bass clef with notes G3, F3, E3, D3. Fingerings '4 5 4 5' are written above the treble staff and '5 4 5 4' below the bass staff. The second measure continues the pattern with notes A4, B4, C5, D5 in the treble and A3, B3, C4, D4 in the bass. The second system, labeled '2.', also contains two measures. The first measure has treble notes G4, A4, B4, C5 and bass notes G3, F3, E3, D3, with fingerings '5 4 5 4' above and '4 5 4 5' below. The second measure has treble notes A4, B4, C5, D5 and bass notes A3, B3, C4, D4, with fingerings '4 5 4 5' above and '5 4 5 4' below. The third system, labeled '3.', contains two measures. The first measure has treble notes G4, A4, B4, C5 and bass notes G3, F3, E3, D3, with fingerings '5 4 4 5' above and '4 5 4 5' below. The second measure has treble notes A4, B4, C5, D5 and bass notes A3, B3, C4, D4, with fingerings '4 5 4 5' above and '5 4 5 4' below. The score concludes with a final measure in the third system, marked 'etc.' in the bottom right corner. The page number '19' is centered at the bottom.

4. $\overset{4}{4} \overset{5}{4} \overset{4}{5} \overset{4}{5} \overset{4}{5} \overset{4}{5}$

5. $\overset{3}{3} \overset{5}{5} \overset{53}{53} \overset{5}{5} \overset{1}{1}$
 $\overset{12}{5} \overset{12}{5} \overset{12}{5} \overset{1}{52} \text{ etc.}$

6. $\overset{12}{12} \overset{1}{1} \overset{12}{12}$
 $\overset{1}{53} \overset{5}{5} \overset{53}{53} \overset{5}{5} \text{ etc.}$

7. etc.

8. etc.

9. $\overset{53}{53} \overset{5}{5} \overset{53}{53}$
 $\overset{1}{1} \overset{12}{12} \overset{1}{1} \overset{12}{12} \text{ etc.}$

10. $\overset{5}{5} \overset{52}{52} \overset{1}{1} \overset{5}{5} \overset{4}{4}$
 $\overset{12}{5} \overset{12}{5} \overset{1}{53} \overset{12}{53} \text{ etc.}$

11. etc.

12. etc.

13. $\overset{52}{52} \overset{5}{5} \overset{52}{52} \overset{5}{5}$
 $\overset{1}{1} \overset{12}{12} \overset{1}{1} \overset{12}{12} \text{ etc.}$
 $\overset{13}{5} \overset{1}{53} \overset{13}{53} \overset{1}{53} \text{ etc.}$

14. $\overset{5}{5} \overset{52}{52} \overset{12}{12} \overset{1}{1}$
 $\overset{12}{5} \overset{1}{53} \overset{12}{5} \text{ etc.}$

15. etc.

16. $\overset{52}{52} \overset{12}{12} \overset{1}{1} \overset{52}{52} \overset{5}{5}$
 $\overset{12}{5} \overset{1}{52} \overset{12}{5} \text{ etc.}$

17. etc.

18. 19. 20. 21.

etc. etc. etc.

Detailed description: This system contains measures 18 through 21. Measure 18 features a treble clef with a key signature of two flats and a bass clef with a key signature of three flats. Measures 19 and 20 have a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. Measure 21 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. The notation includes eighth and sixteenth notes, rests, and accidentals. Vertical bar lines separate the measures. The word "etc." is placed below the staff in measures 18, 19, and 21.

Detailed description: This system contains measures 22 and 23. Measure 22 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. Measure 23 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. The notation includes eighth and sixteenth notes, rests, and accidentals. Vertical bar lines separate the measures.

Detailed description: This system contains measures 24 and 25. Measure 24 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. Measure 25 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. The notation includes eighth and sixteenth notes, rests, and accidentals. Vertical bar lines separate the measures.

24. 25. 26.

etc. etc.

Detailed description: This system contains measures 26, 27, and 28. Measure 26 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. Measure 27 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. Measure 28 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. The notation includes eighth and sixteenth notes, rests, and accidentals. Vertical bar lines separate the measures. The word "etc." is placed below the staff in measures 26 and 28.

27. 28.

etc. etc.

Detailed description: This system contains measures 29 and 30. Measure 29 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. Measure 30 has a treble clef with a key signature of one flat and a bass clef with a key signature of two flats. The notation includes eighth and sixteenth notes, rests, and accidentals. Vertical bar lines separate the measures. The word "etc." is placed below the staff in measures 29 and 30.

III. Passages in Broken Chords. *)

1. 2. 3.

4. Similarly in G and F. 5.

6. 7. 8. Similarly in A and E.

9. 10. 11.

12. 13. 14.

15. 16. 17.

18. 19. Similarly in A \flat and E \flat .

20. 21. 22.

*) Remark. For playing these passages *legato*, a normal fingering is as impracticable as for the scales, as in both cases too much depends on the peculiarities of the

player's hand, the tempo, and even the expression. Finally, all possible phases of the *legato* cannot be provided for in advance; for instance,

this is to be played thus
 but this is to be played thus

23. 24. Similarly in D and A.

25. 26.

27. 28. Similarly in Ab.

29. 30. Similarly in F.

The above exercises must also be practised in contrary motion; for instance,

31.

32. 33. The same for D major.

34. 35.

36. 37.

38. 39. The same for Bb and F.

40. 41. 42. 43. 44. 45. 46. 47. 48.

IV. Octaves mingled with full or partial chords.

The interspersed chords must not be taken by striking, but with the "pressure-touch." After the pressure, the hand must rise swiftly, so that the

following empty octaves may be played, as before, with a light hand-movement.

1. 2. 3. 4. 5.

6.

7.

8.

9.

10.

11.

12.

13.

14.

15.

16.

17.

18.

19.

20.

V. Interrupted (simulated) Octaves.

These are successions of octaves alternating with single tones. When played very rapidly, the effect of some of the examples below is like an uninterrupted succession of octaves.

In these exercises nearly all the fingers, and more especially the 2nd, are employed. Those which can be played *legato* are marked accordingly with slurs.

1. Right hand.

2.

3. 5 2 5 2

4. 2 5 2 5

5. 5 2 5 2 5 2 5 2

6. 1 2 1 2 1 2 1 2

7. I 1 2 1 2 II 1 1 1

8.

9. 2 1 2 1 2 1

10. 1 2 1 2 1 2 1 2

11. 2 1 2 1

12. etc.

13. etc.

14. 2 1 2 1 2 1

15. 2 1 2 1 2 1 2 1

16.

17. 1 2 1 2 1 2 1 2

18. 19. 20.

21. 22. 23.

24. 25. 26.

27. 28.

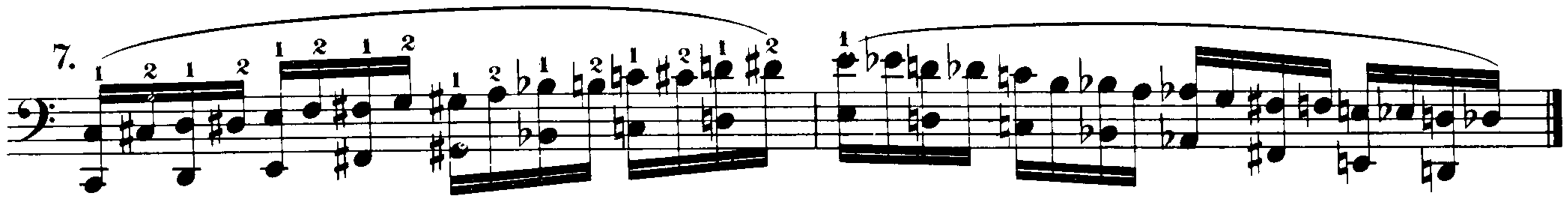
29. 30.

Left hand.

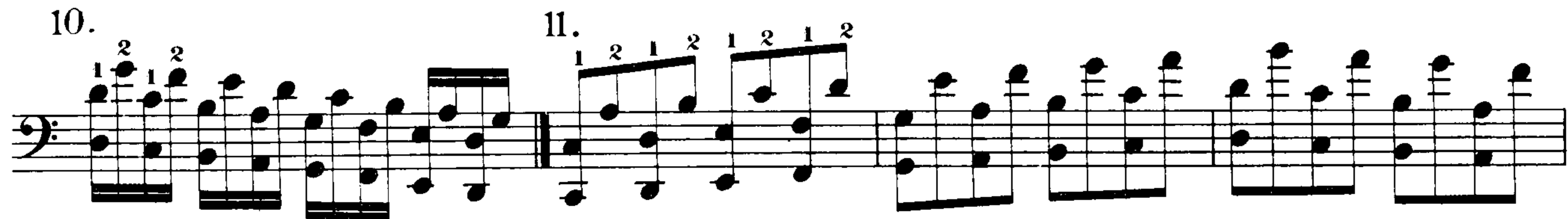
1. 1 2 1 2 2. 1 2 1 2

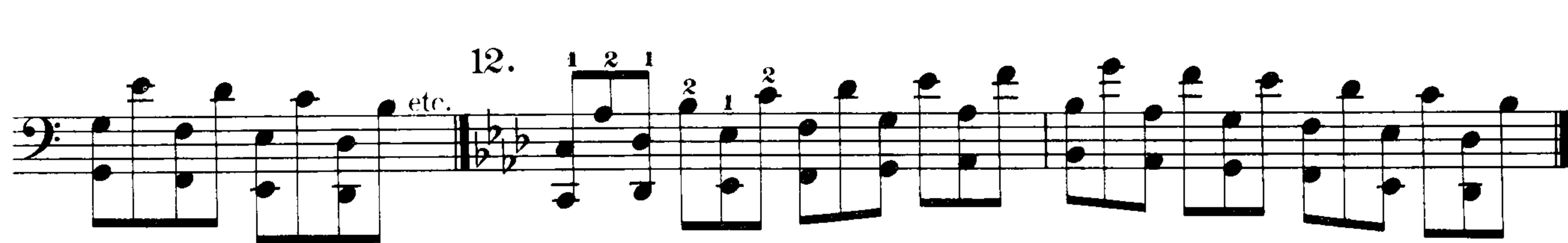
3. 1 2 1 2 4. 2 1 2 1 5. 1 2 1 2 1 2 1 2

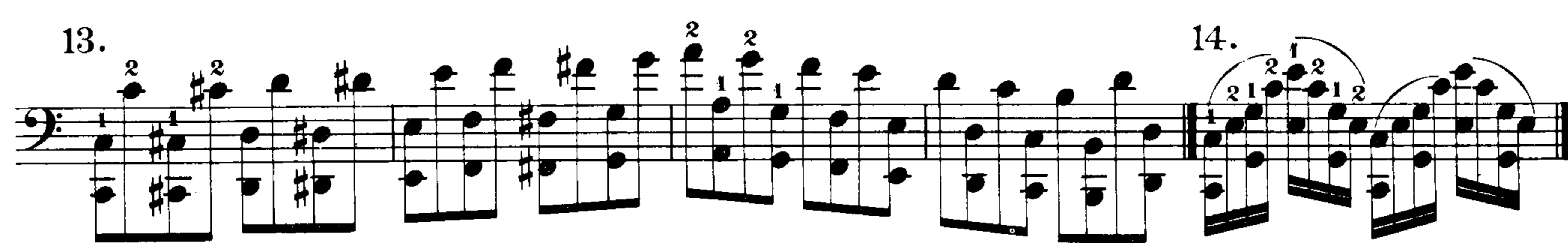
6.

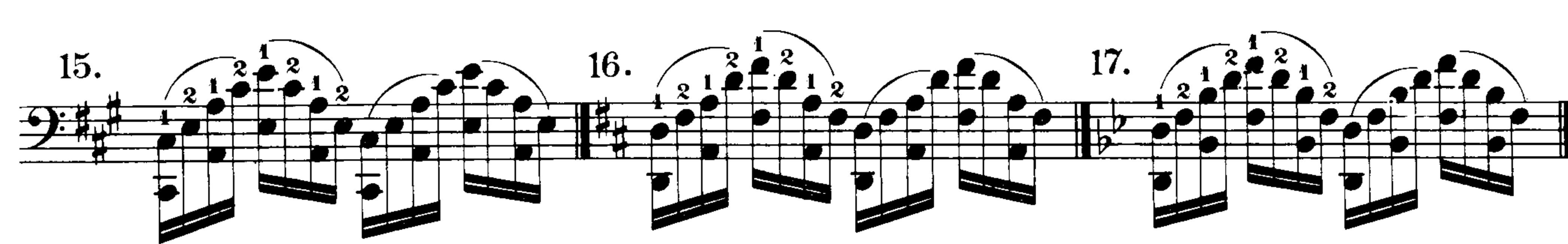
7. 

8. 

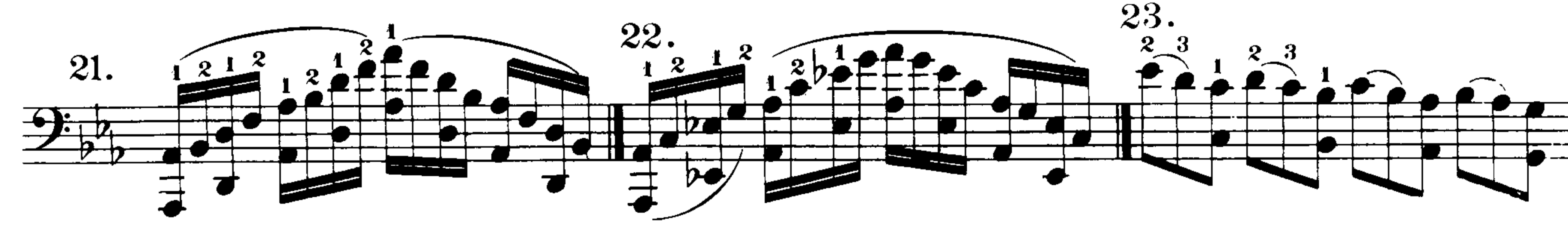
10. 

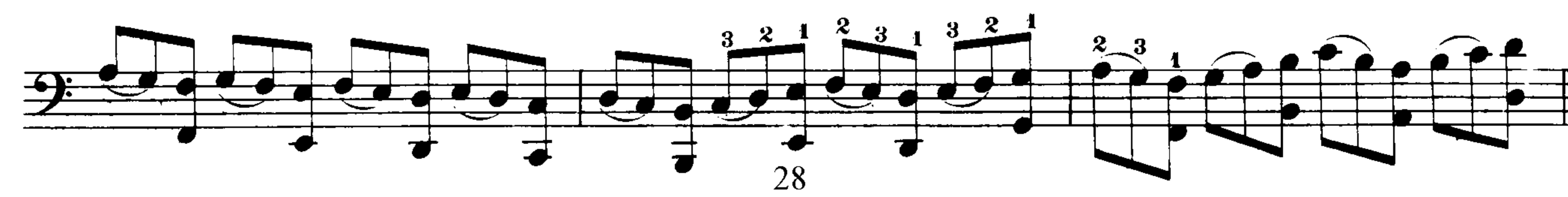
11. 


12. 

13. 

14. 

15. 

16. 

17. 

18.

19.

20.

21.

22.

23.

24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42.

This page contains 19 measures of musical notation, numbered 24 through 42. The notation is primarily in bass clef, with some treble clef notation in measure 26. The measures are organized into pairs: (24, 25), (26, 27), (28, 29), (30, 31), (32, 33), (34, 35), (36, 37), (38, 39), and (40, 41). Measure 42 is a single measure at the end of the page. The notation includes various musical symbols such as notes, rests, accidentals, and fingerings. The page is numbered 29 at the bottom center.

VI. Overlapping Octaves, the hands alternating.

These octaves are so termed, because the hands overlap each other (i. e., the thumbs). When rapidly executed, they are remarkably effective, and sound, like the interrupted octaves, as if double octaves were being played. Here the most important fingers are the two thumbs, which play the real connecting thread of the passage; they must, therefore, strike very confidently, and so evenly that the basic figure (the thread) is distinctly

recognizable. In the first examples, both the basic figure, and the part which each hand has to play, is given in small notes. It is a good idea, first of all, to analyze the figure, so as to find the "thread" and the intervals through which each hand has to pass. Of course, all octaves, except those bearing a principal accent, are to be played evenly with both hands.

Example 1: A musical exercise in G major, 2/4 time. The right hand plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand plays a sequence of eighth notes: G3, A3, B3, C4, B3, A3, G3. The two hands overlap, with the right hand's notes being an octave higher than the left hand's. The exercise is divided into two measures, labeled '1.' and '2.'.

Example 3: A musical exercise in B-flat major, 2/4 time. The right hand plays a sequence of eighth notes: Bb4, C5, Bb4, Ab4, Gb4, F4. The left hand plays a sequence of eighth notes: Bb3, C4, Bb3, Ab3, Gb3, F3. The two hands overlap, with the right hand's notes being an octave higher than the left hand's. The exercise is divided into three measures, labeled '3.'.

Example 4: A musical exercise in G major, 2/4 time. The right hand plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand plays a sequence of eighth notes: G3, A3, B3, C4, B3, A3, G3. The two hands overlap, with the right hand's notes being an octave higher than the left hand's. The exercise is divided into four measures, labeled '4.'.

Example 5: A musical exercise in G major, 2/4 time. The right hand plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand plays a sequence of eighth notes: G3, A3, B3, C4, B3, A3, G3. The two hands overlap, with the right hand's notes being an octave higher than the left hand's. The exercise is divided into two measures, labeled '5.'.

Example 6: A musical exercise in G major, 2/4 time. The right hand plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand plays a sequence of eighth notes: G3, A3, B3, C4, B3, A3, G3. The two hands overlap, with the right hand's notes being an octave higher than the left hand's. The exercise is divided into two measures, labeled '6.'.

Example 6: A musical exercise in G major, 2/4 time. The right hand plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand plays a sequence of eighth notes: G3, A3, B3, C4, B3, A3, G3. The two hands overlap, with the right hand's notes being an octave higher than the left hand's. The exercise is divided into four measures, labeled '6.'.

7.

con 8

8.

9. 10. 11.

12. 13.

14.

15.

Musical notation for measures 15 and 16. The system consists of two staves, treble and bass. Measure 15 features a complex chordal texture with many notes. Measure 16 continues this texture with some changes in voicing.

16.

17.

Musical notation for measures 17 and 18. Measure 17 shows a more active bass line with eighth notes. Measure 18 features a melodic line in the treble with slurs and accents.

18.

Musical notation for measures 19 and 20. Measure 19 has a complex chordal texture. Measure 20 features a melodic line in the treble with slurs and accents.

19.

Musical notation for measures 21 and 22. Measure 21 features a complex chordal texture. Measure 22 features a melodic line in the treble with slurs and accents.

20.

21.

Musical notation for measures 23 and 24. Measure 23 features a complex chordal texture. Measure 24 features a melodic line in the treble with slurs and accents.

VII. Exercises on the Tremolo, Trill, Appoggiatura, and Glissato.

The vibrations must succeed each other with extreme rapidity, like the roll of a drum, and with

even touch. Example 6 contains a full, but very difficult, trill.

1.

Exercise 1: A piano exercise in C major. The right hand plays a tremolo of eighth notes on G4, and the left hand plays a tremolo of eighth notes on G3. The exercise concludes with a trill on G4 in the right hand, marked *trem.*

2.

Exercise 2: A piano exercise in B-flat major. The right hand plays a tremolo of eighth notes on G4, and the left hand plays a tremolo of eighth notes on G3. The exercise concludes with a trill on G4 in the right hand, marked *trem.*

3. Left Hand over the right.

Exercise 3: A piano exercise in B-flat major. The right hand plays a trill on G4, while the left hand plays a tremolo of eighth notes on G3. The exercise concludes with a trill on G4 in the right hand, marked *trill.*

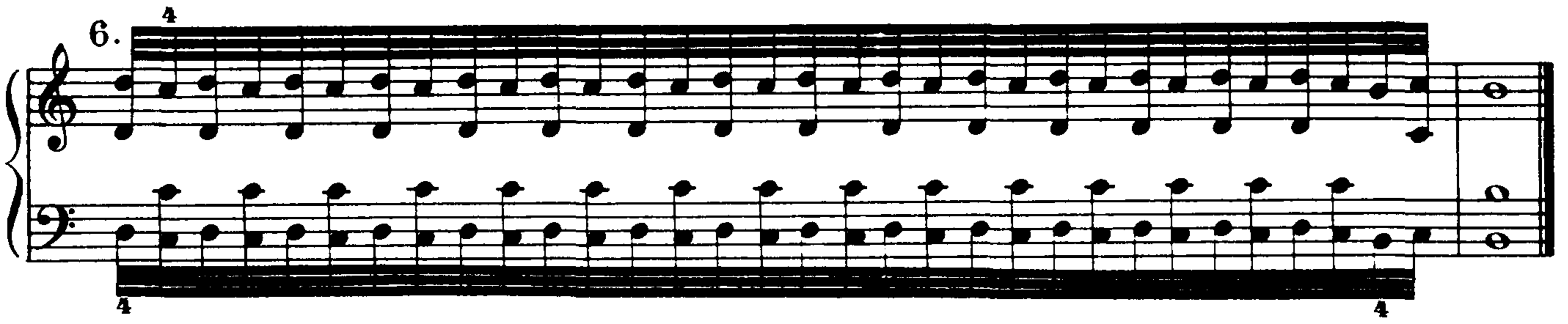
4.

Exercise 4: A piano exercise in 5/4 time. The right hand plays a tremolo of eighth notes on G4, and the left hand plays a tremolo of eighth notes on G3. The exercise concludes with a trill on G4 in the right hand.

5.

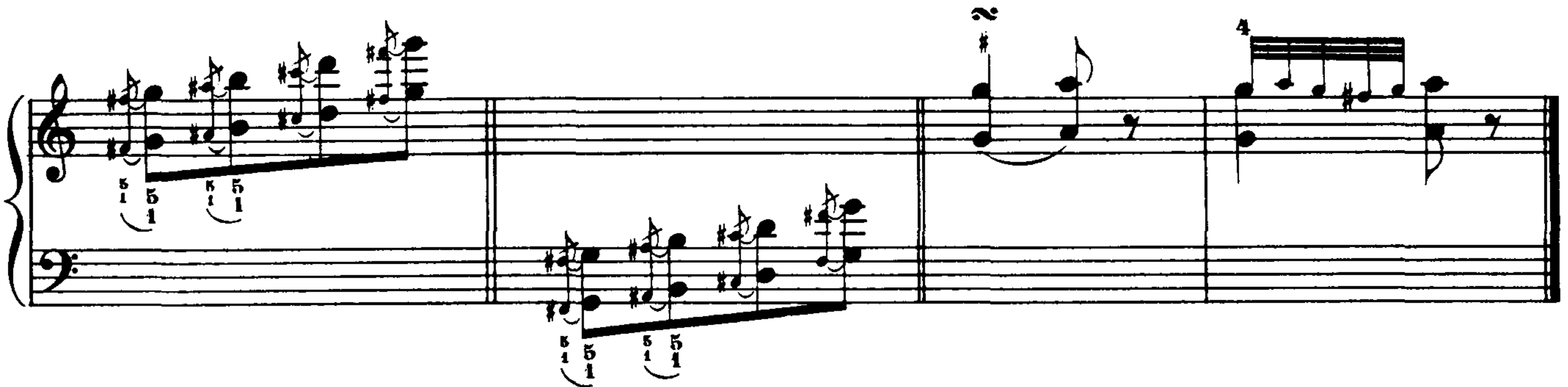
Exercise 5: A piano exercise in C major. The right hand plays a trill on G4, while the left hand plays a tremolo of eighth notes on G3. The exercise concludes with a trill on G4 in the right hand, marked *Almost like*.

• Played very rapidly the effect is almost like



In the appoggiatura-exercises 1-6, the 1st and 5th fingers are drawn lightly from the black to

the white keys.



The glissato in octaves is best performed by striking the first octave vigorously, and then gliding lightly (without pressure) over the keys, upwards

(right hand) with the little finger much bent; downwards with the bent thumb resting almost on the nail.



Appendix.

Within the domain of Octave-studies we may also include passages based on octaves, which however, are not in the form of "solid" octaves, but of a

succession of single tones formed by the resolution of the octave into its two parts: i. e., broken or arpeggio'd, octaves (a,) (b,) (c.)



So many such passages occur in early and recent piano-compositions (Beethoven, Op. 22, first movement; Schumann, Finale of the G minor Sonata, Op. 22; Liszt, Ballade in B minor), that most text-books take them into account, and explain their execution. (An excellent example in Clementi's "Gradus ad Parnassum," No 28, Tausig ed.)

It appears superfluous to add special exercises

for this species of octave-passage; it is only necessary to apply to broken octaves the rules for all the preceding exercises. The fingering goes according to the rules for playing solid octaves. We shall only remark, that such passages can be most rapidly and certainly mastered by executing them with the "side-stroke." (Compare "Preliminary Remarks" to the Preparatory exercises, on page 2.)