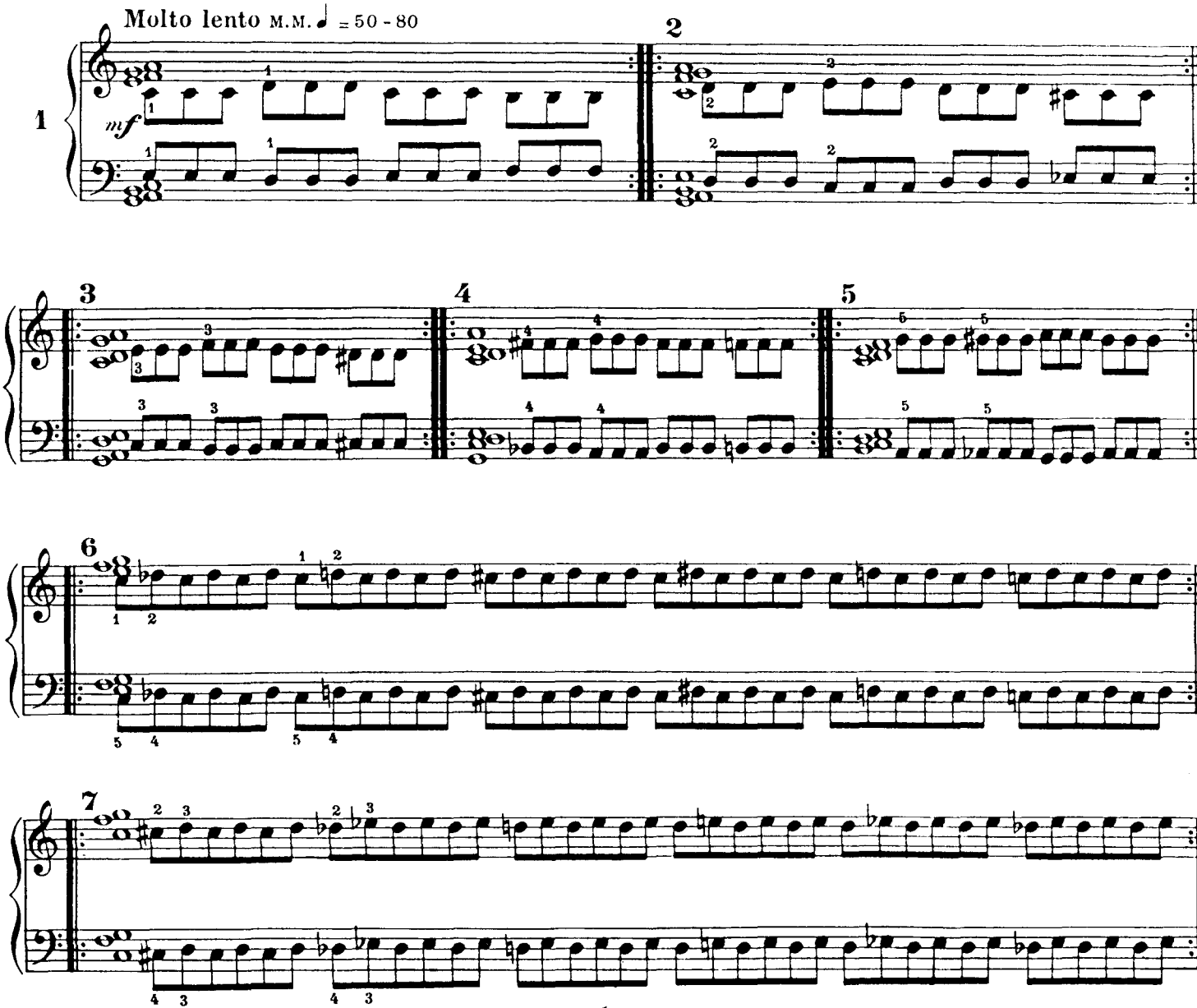
SCHOOL OF TECHNIC

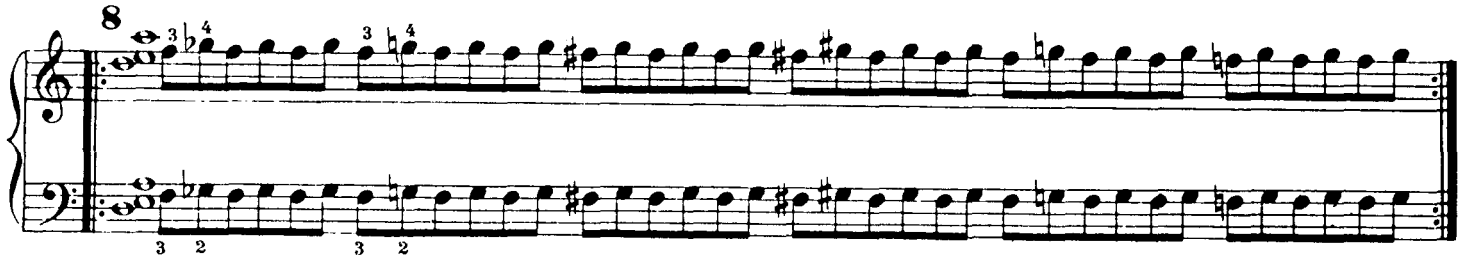
The following exercises are addressed to students of medium attainments. Those commencing the study of them are supposed already to have acquired the principles of piano technic, — elementary preparation at least — for this is not a part of the plan of our work.

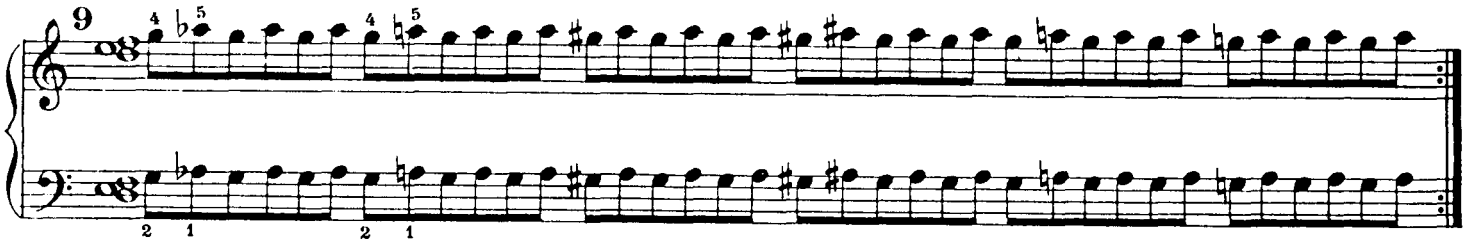
It is highly important to practice with the two hands separately as well as together, employing an active and vigorous finger stroke, and not accelerating the tempo until each exercise is well mastered. Above all it is important steadily to endeavor to acquire a round and full tone without producing muscular stiffness. The exercises practiced in various degrees of tone from *ff.* to *pp.*, will be found excellent for this purpose.

Those who are ambitious for the power to triumph over the difficulties which are found in each page of the masters, will especially devote themselves to the study of mechanism and of tone. A good mechanism, a beautiful tone, do not constitute talent, but they contribute powerfully to it.

FLEXIBILITY AND INDEPENDENCE OF THE FINGERS

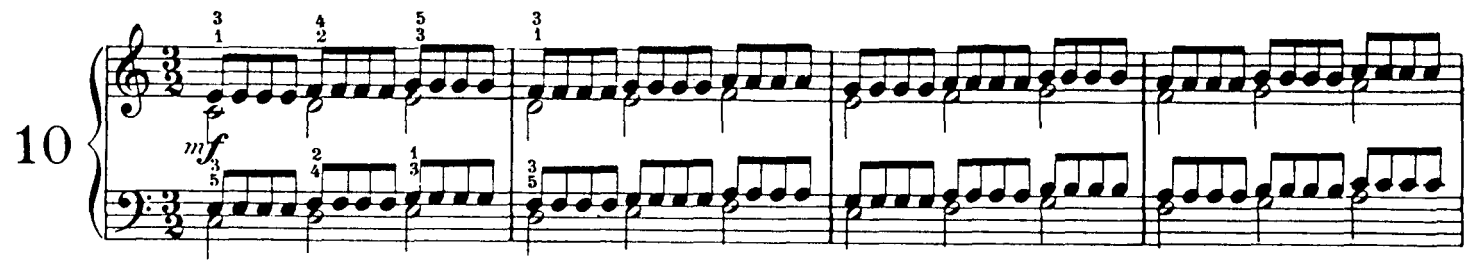


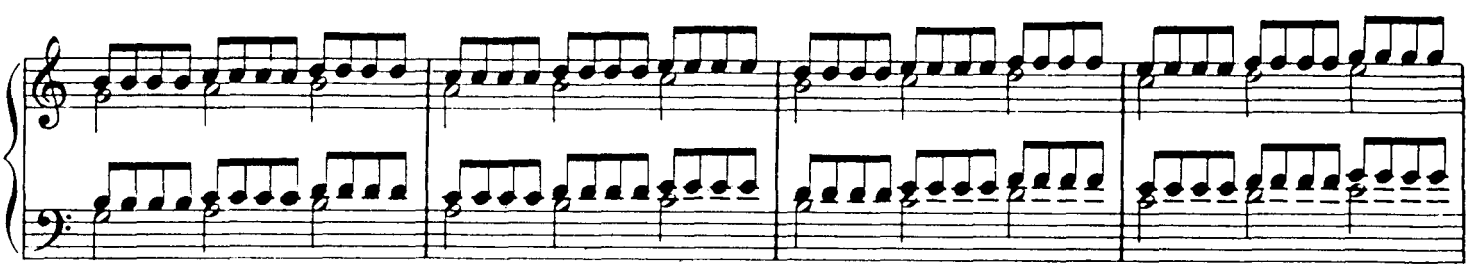


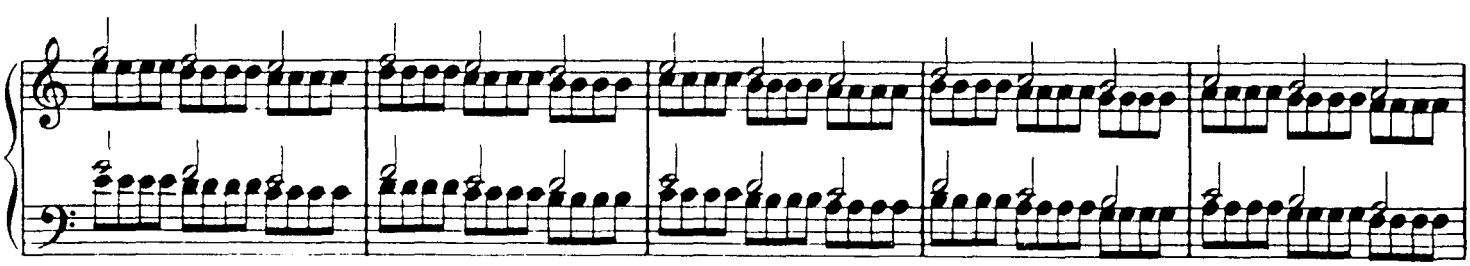


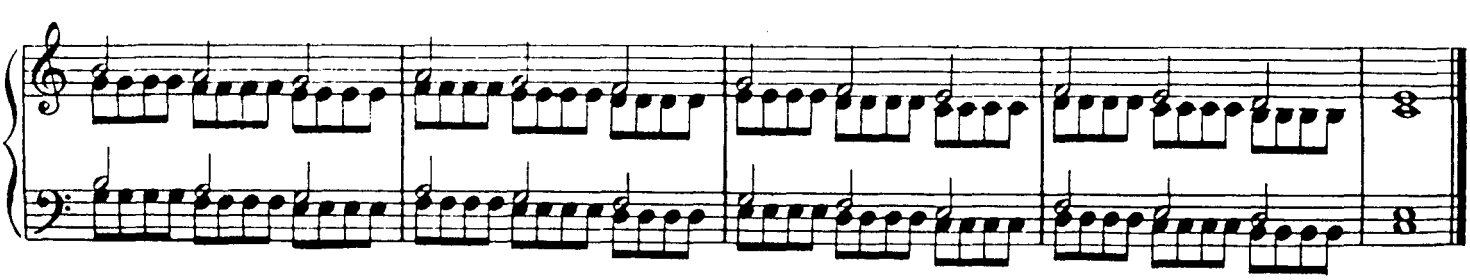
Through all keys.

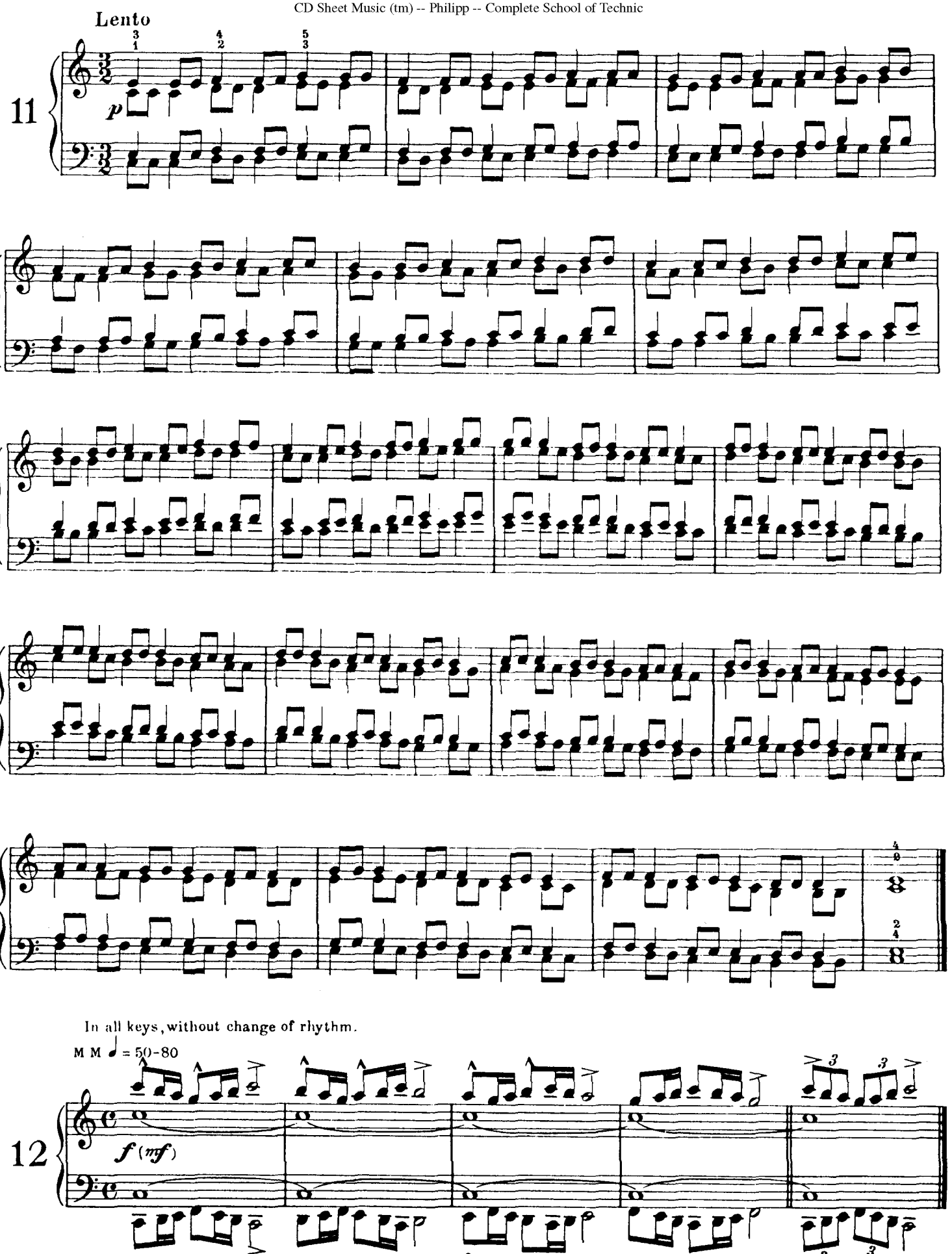
Lento







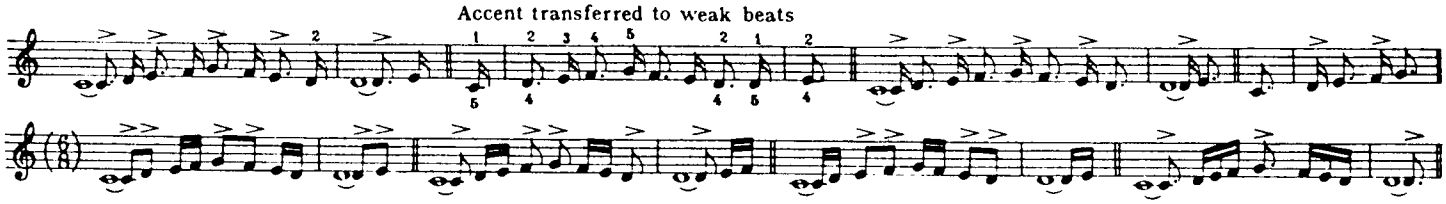



Lento
11
p
In all keys, without change of rhythm.
M M ♩ = 50-80
12
f (mf)

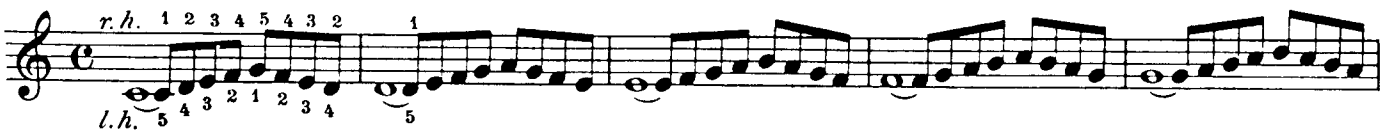
EXERCISES IN VELOCITY

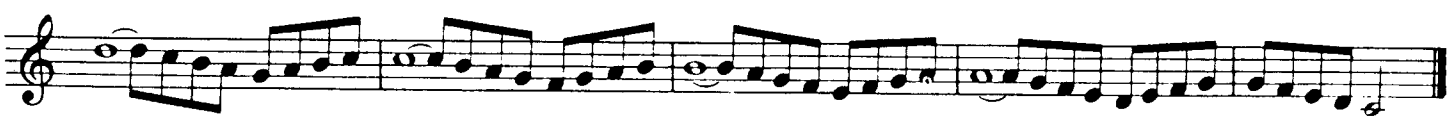
The following twenty-nine exercises are to be played separately, also with both hands together, one octave apart. The transposition into all keys should be done very gradually, a new key being attempted only after each preceding one is well learned. Practice legato, long and short staccato, evenly, without accent, also with the following rhythms. These rhythms are applied to each exercise regardless of the value of the notes,- whether eighths, sixteenths or thirty-seconds.

Accent transferred to weak beats

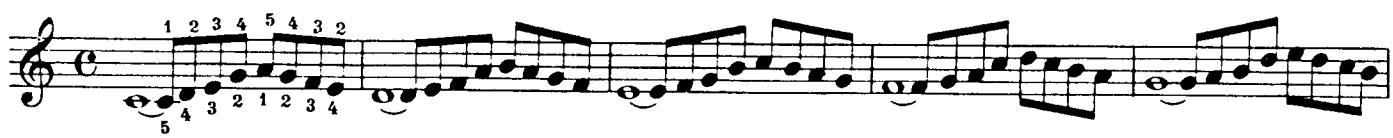


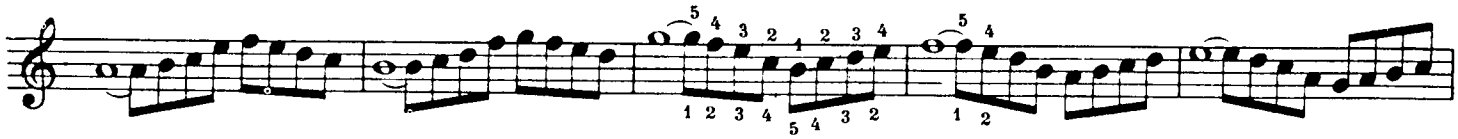
1

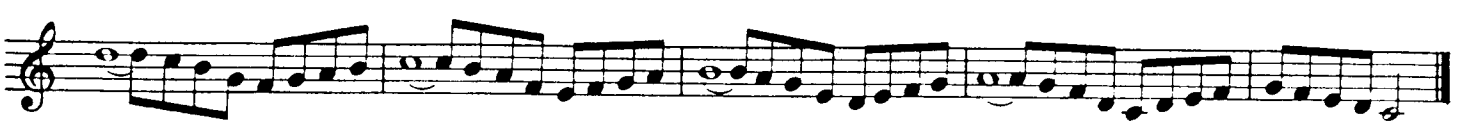




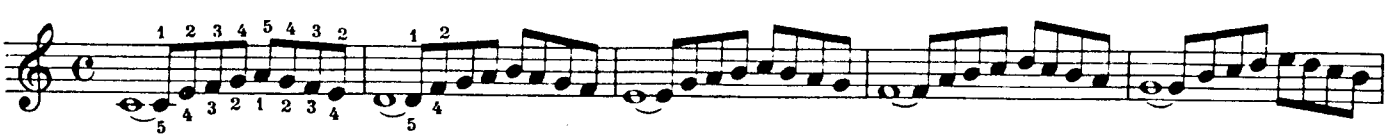
2

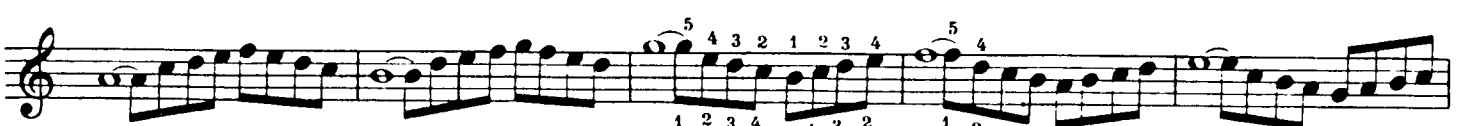


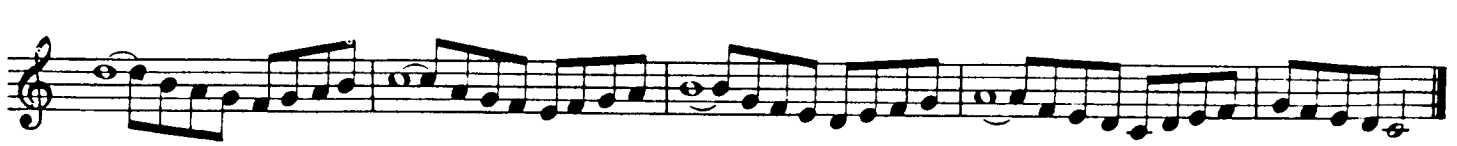


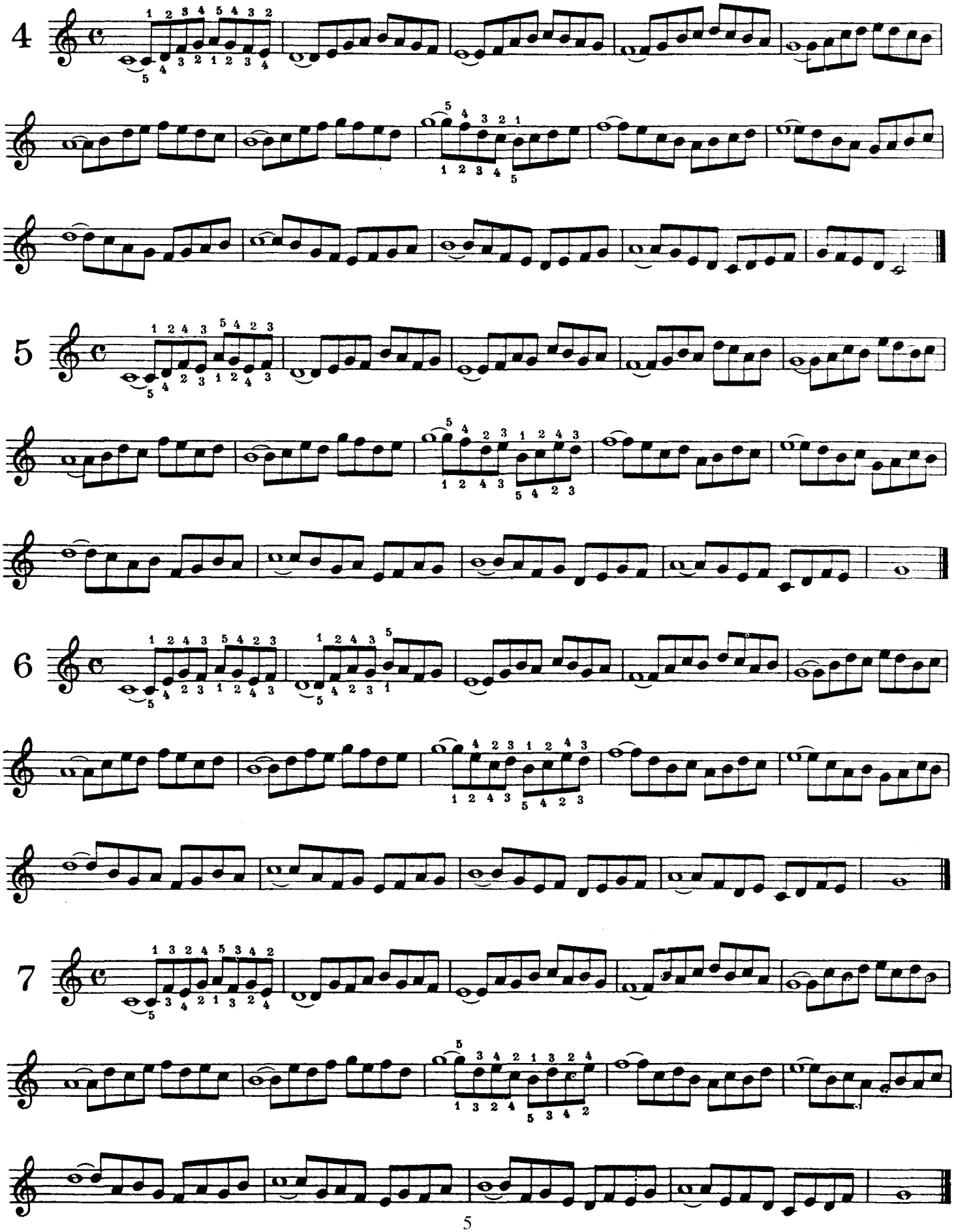


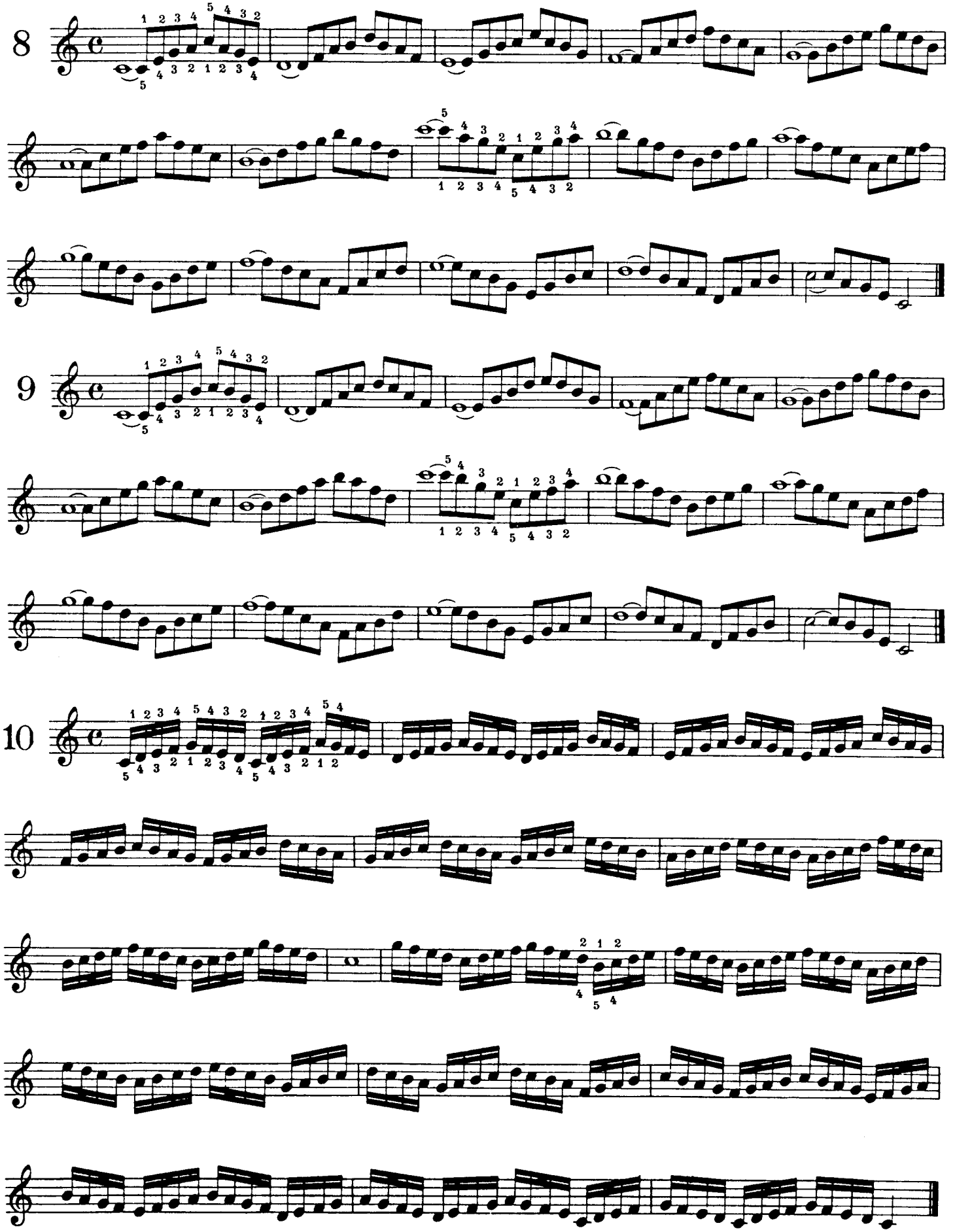
3

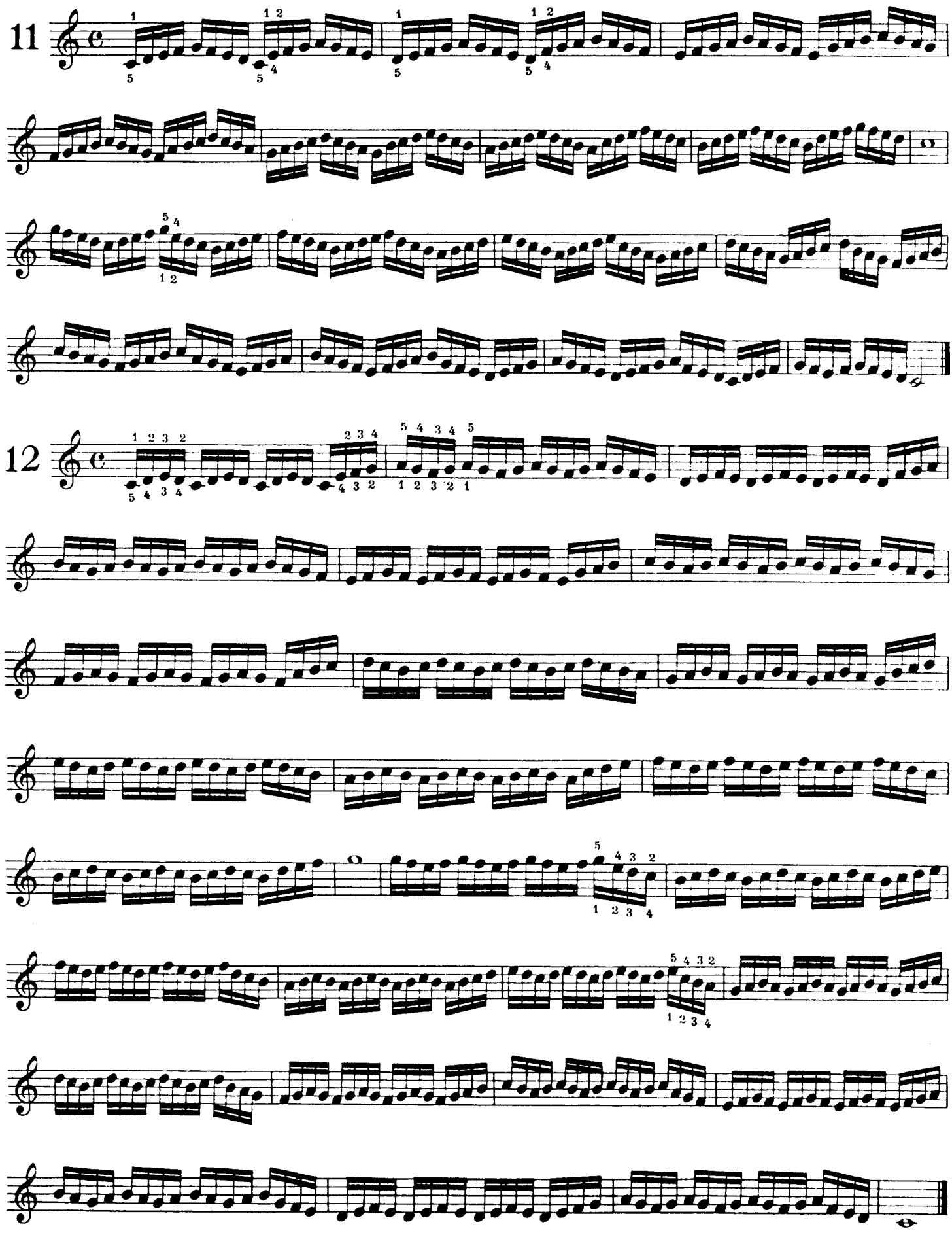


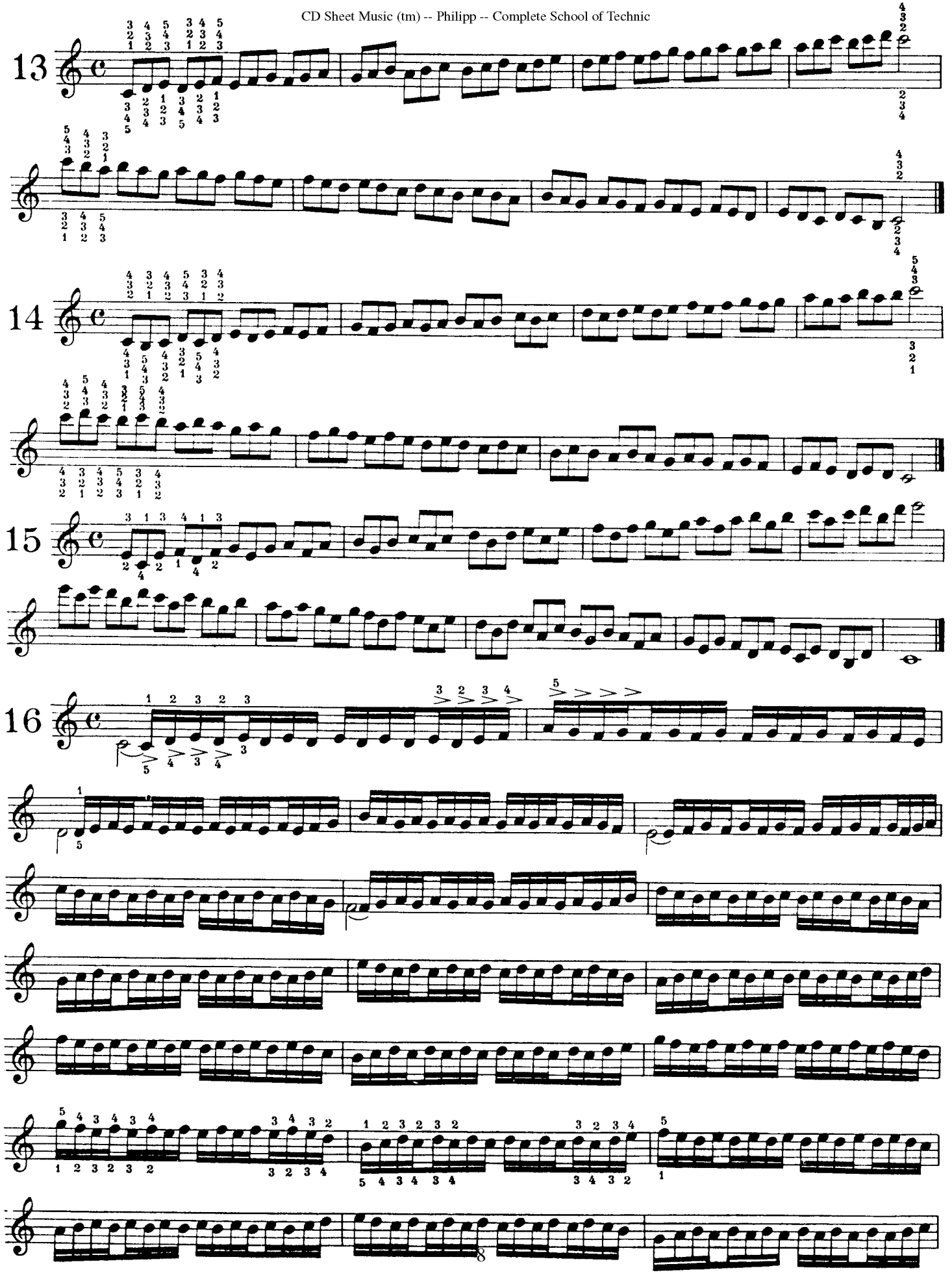


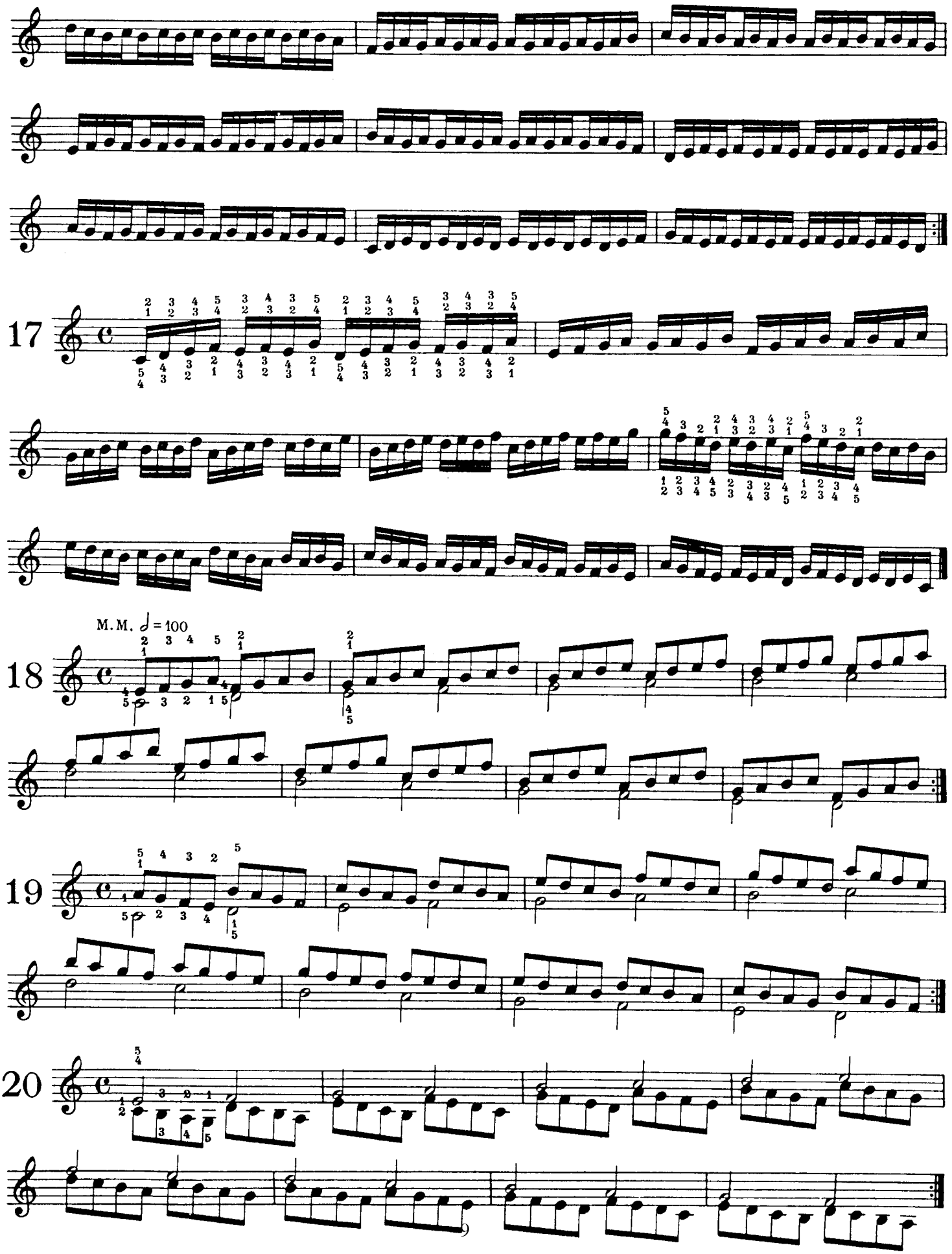



4
5
6
7

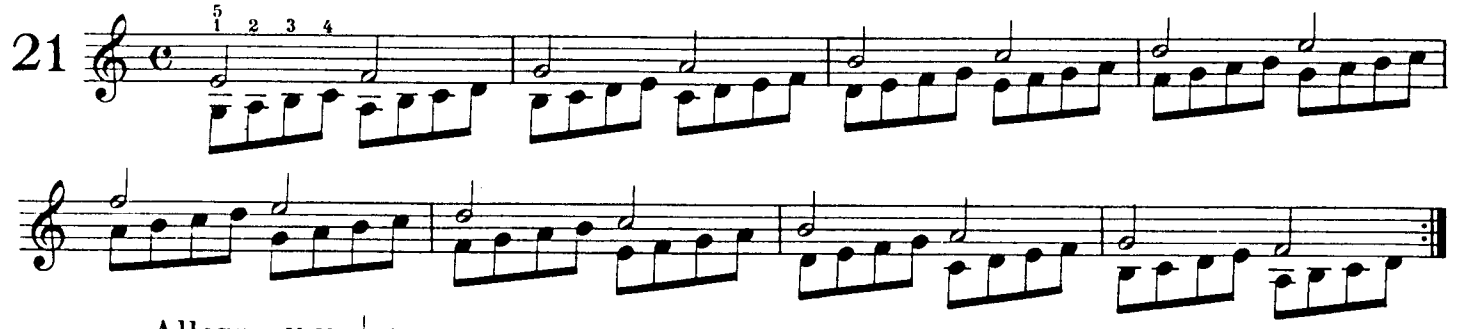

8
9
10


11
12


13
14
15
16

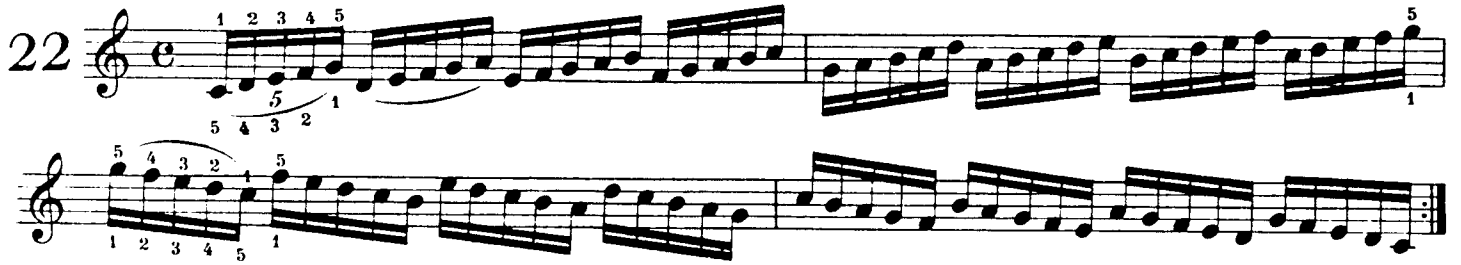

17
18
M.M. ♩ = 100
19
20

21

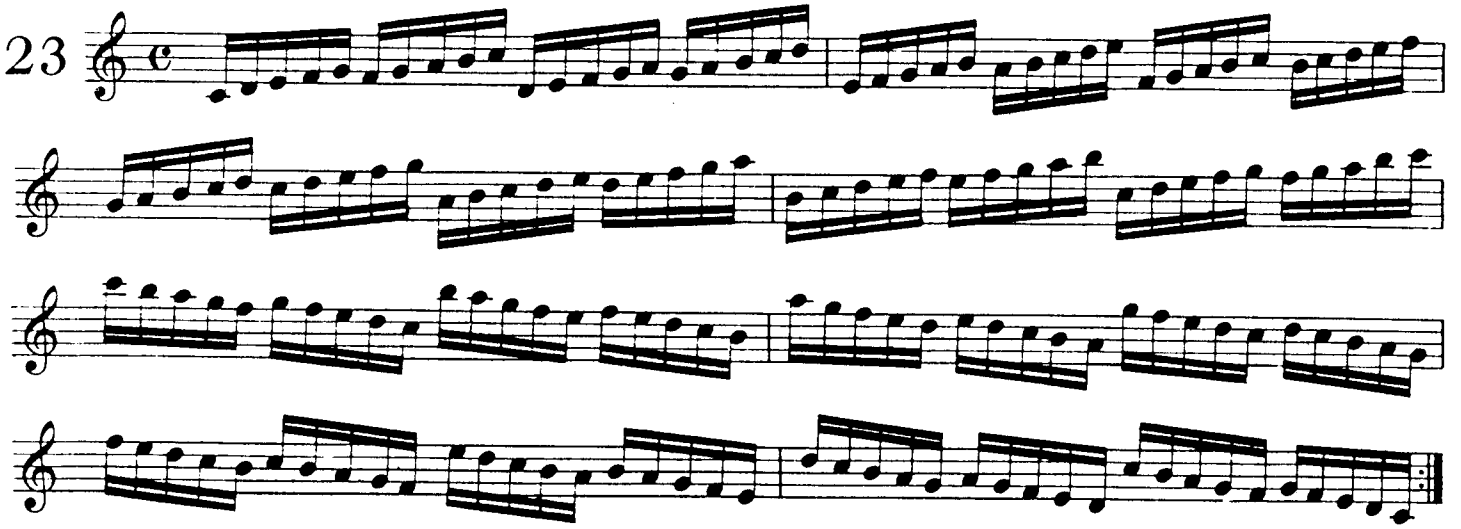


Allegro M.M. ♩=100

22

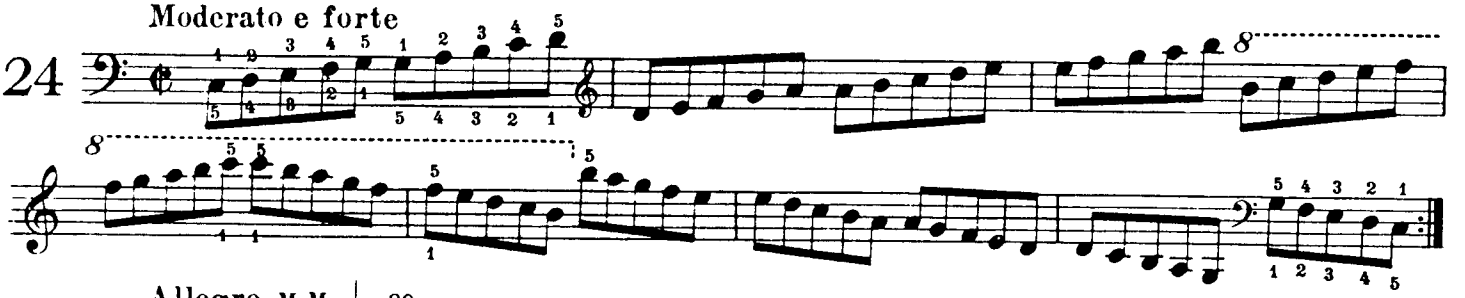


23



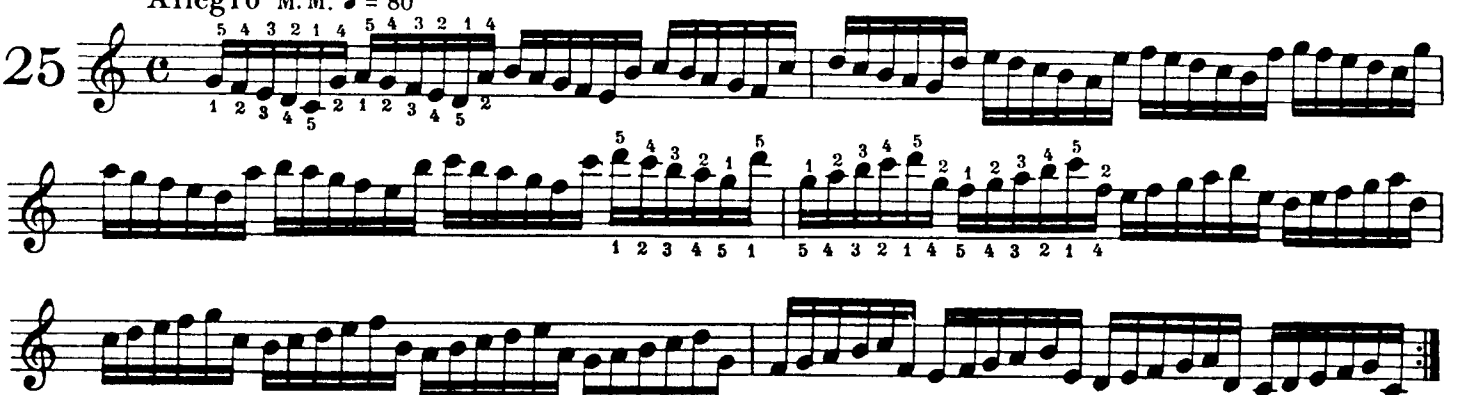
Moderato e forte

24

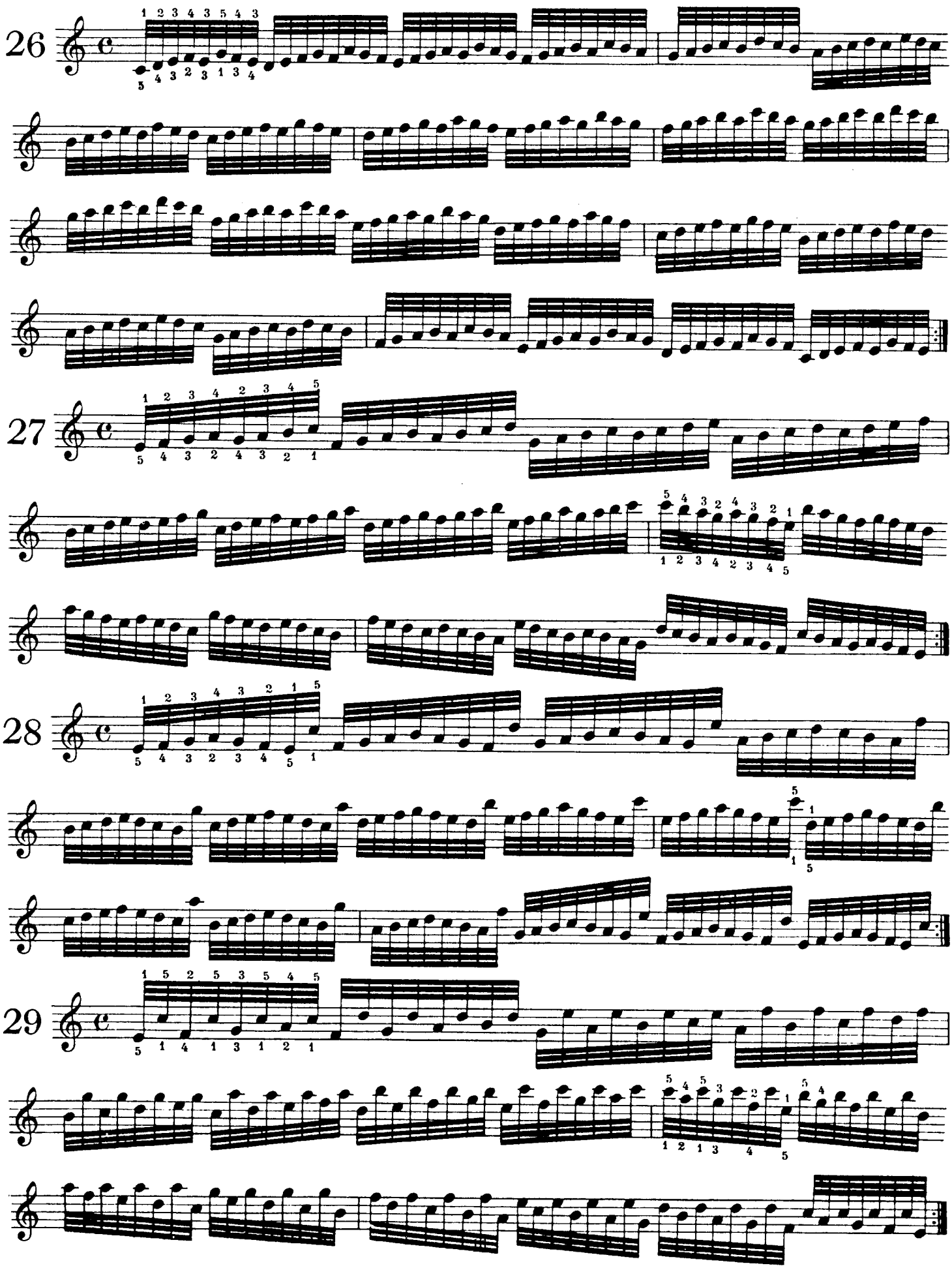


Allegro M.M. ♩= 80

25



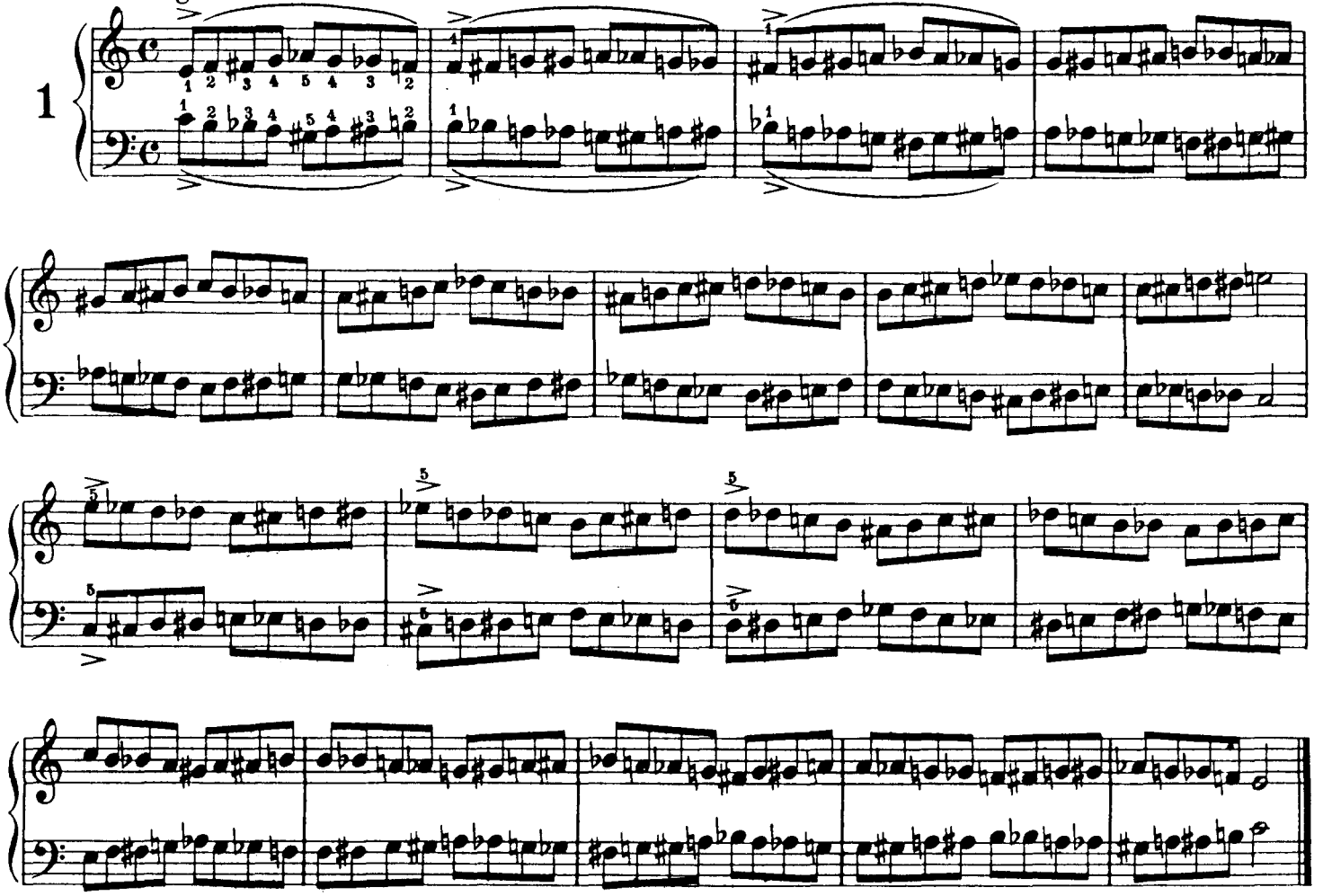
M.M. ♪ = 120



EXERCISES BASED UPON THE CHROMATIC SCALE

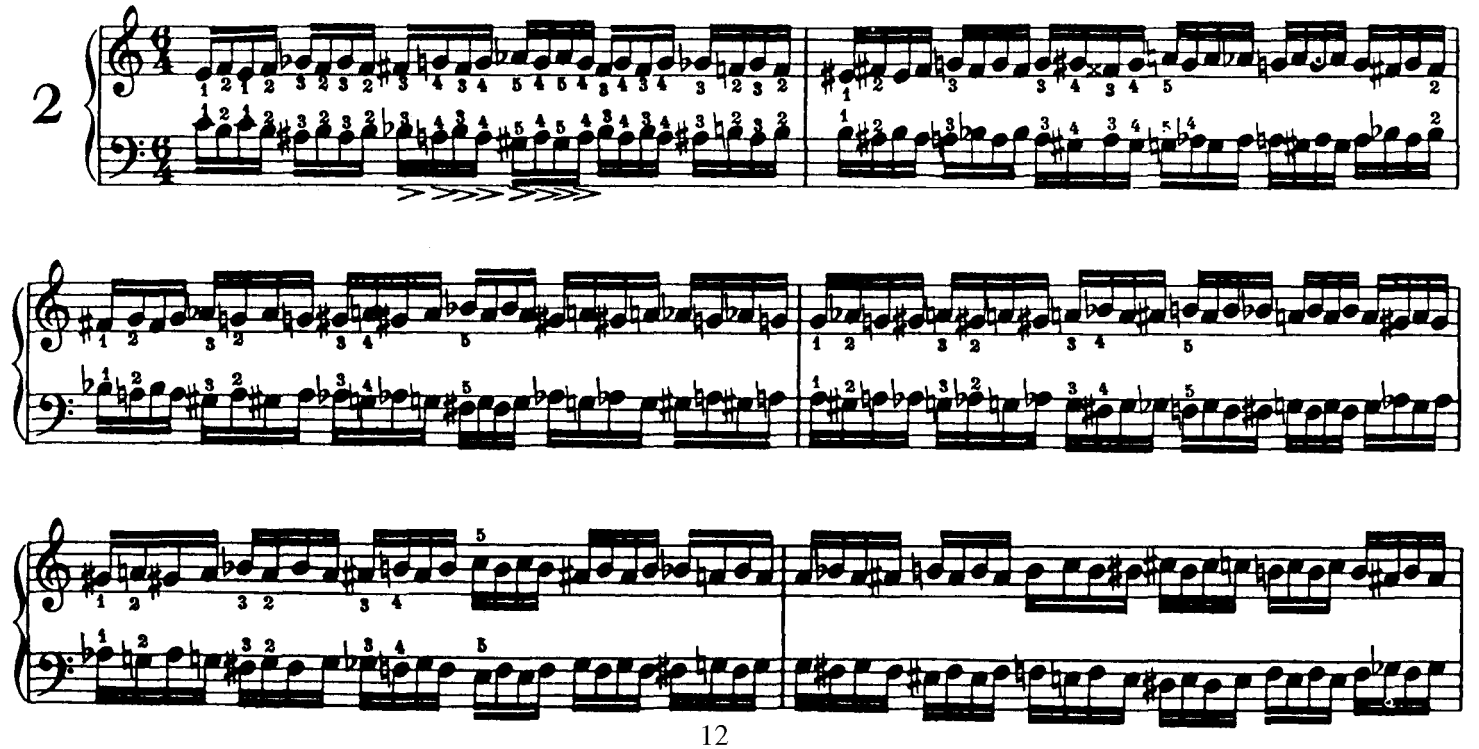
Legatissimo e lento M.M. ♩ = 60 - 120

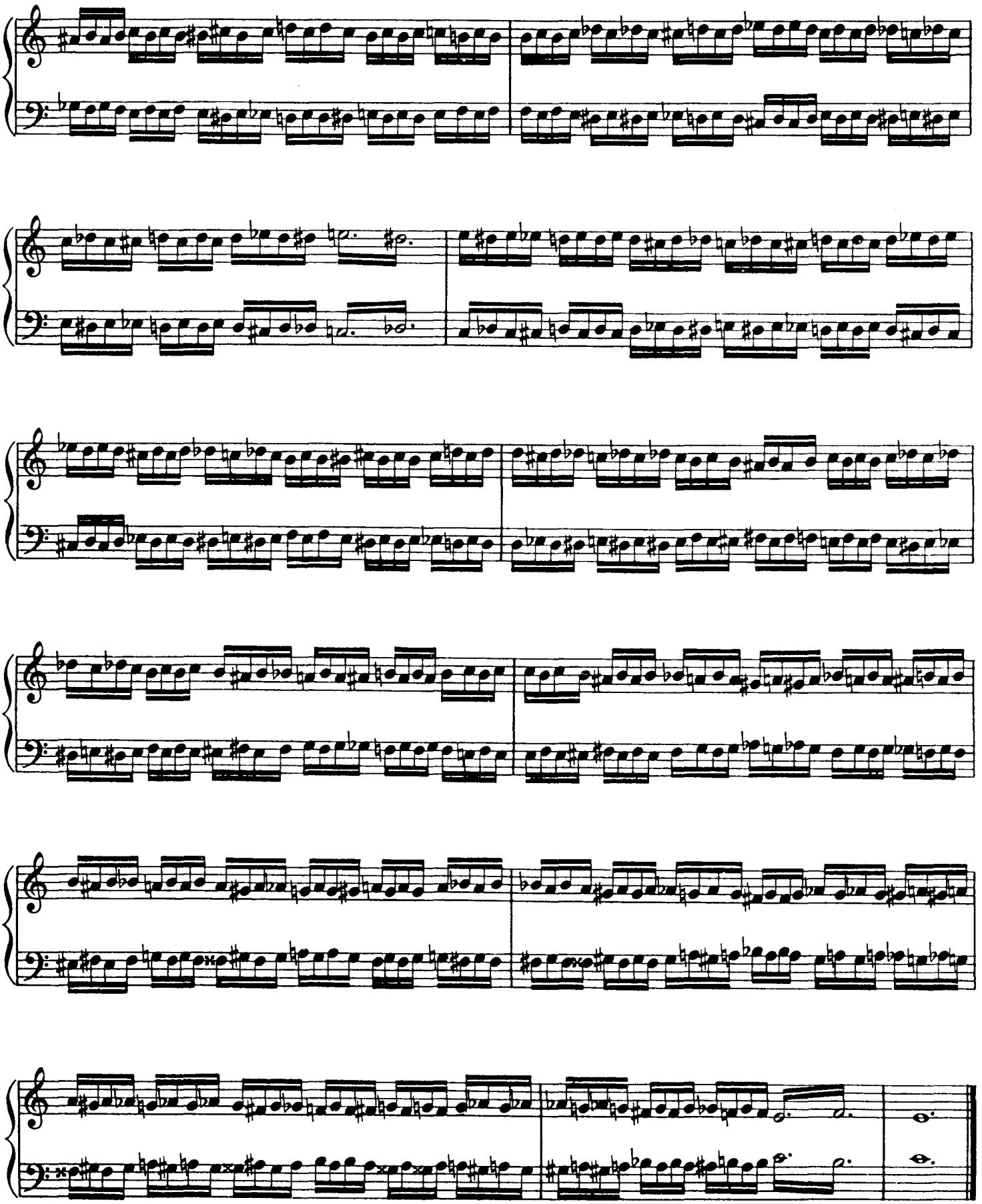
1

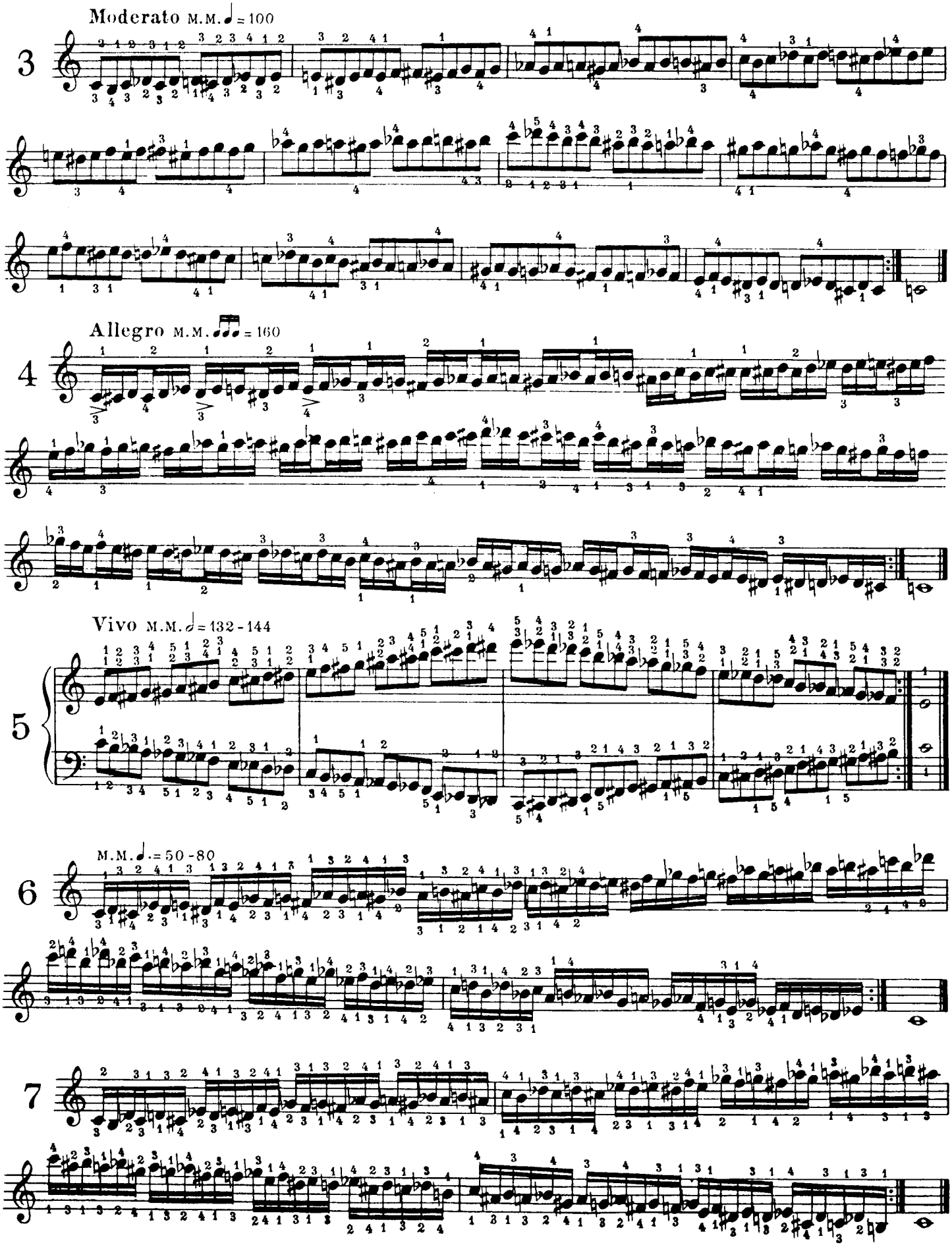


Legatissimo e poco allegro M.M. ♩ = 60 - 120

2





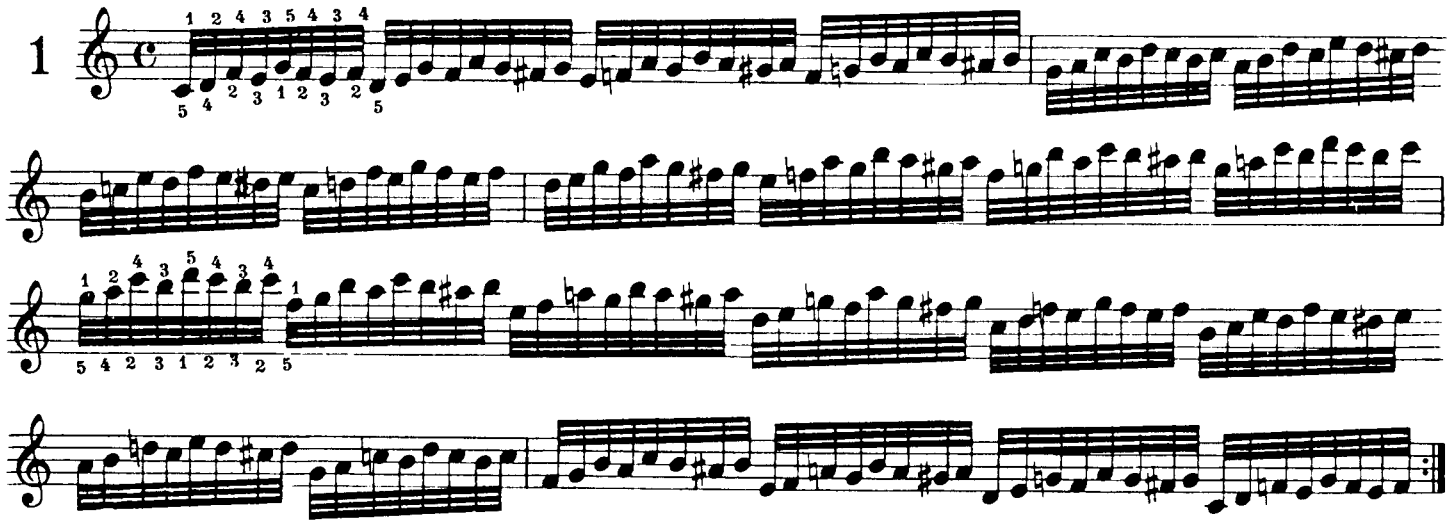

3
Moderato M.M. ♩ = 100
4
Allegro M.M. ♪♪♪ = 160
5
Vivo M.M. 𝅗𝅥 = 132 - 144
6
M.M. ♩. = 50 - 80
7

MISCELLANEOUS EXERCISES

For Strengthening the Fourth and Fifth fingers, and Increasing Hand Extension

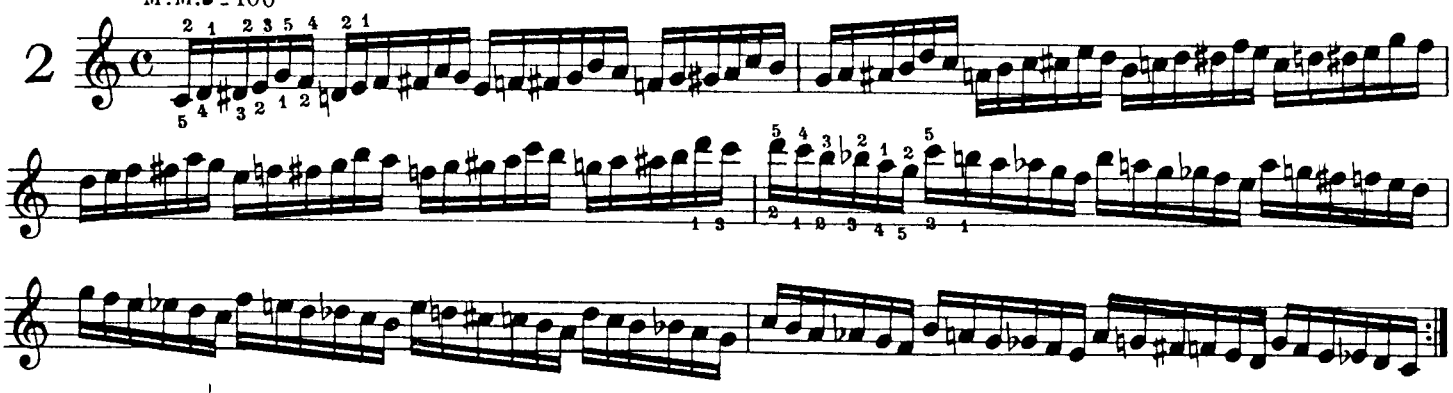
1

M.M. ♪ = 144



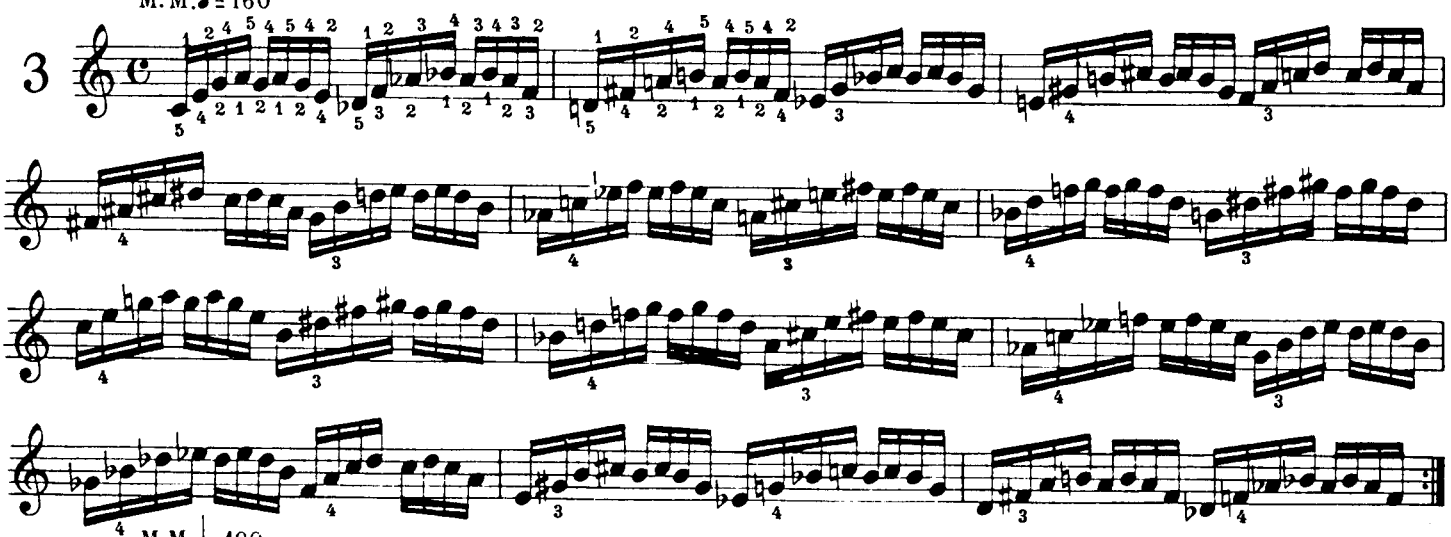
2

M.M. ♩ = 100



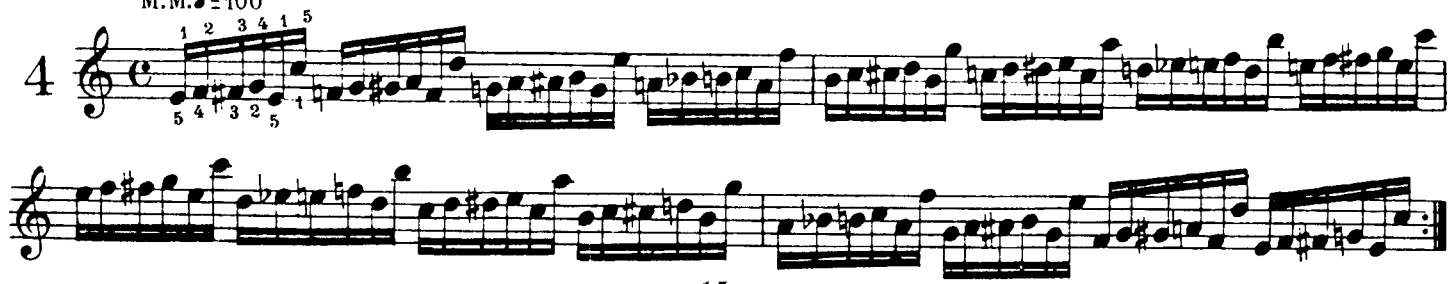
3

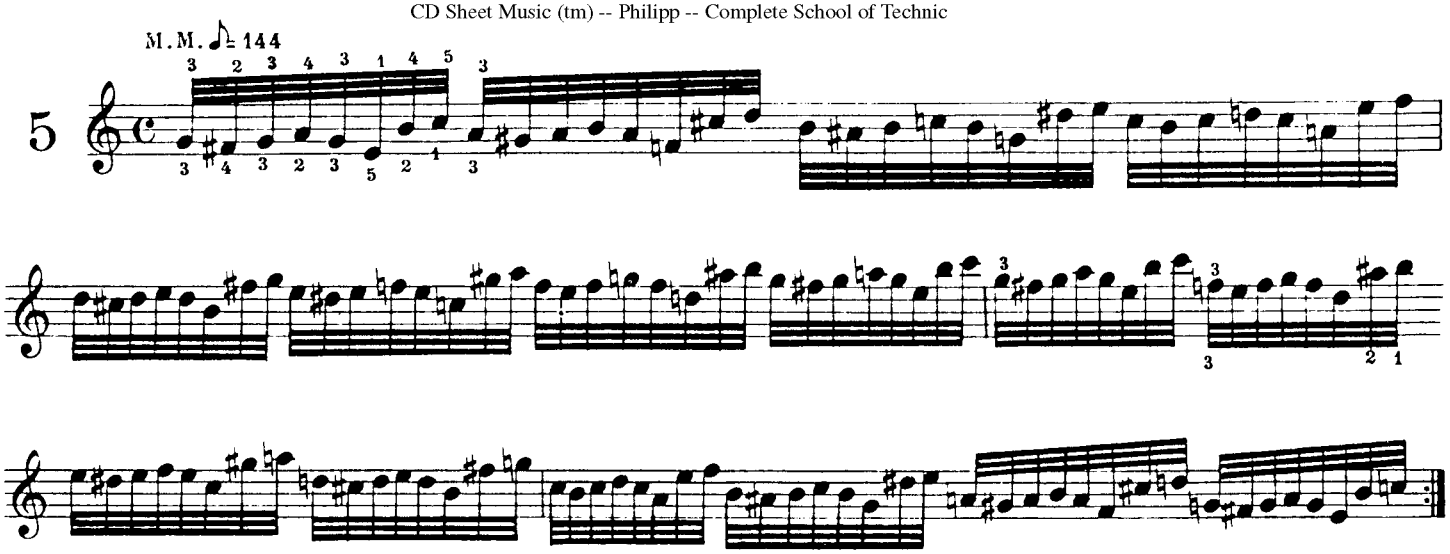
M.M. ♩ = 160



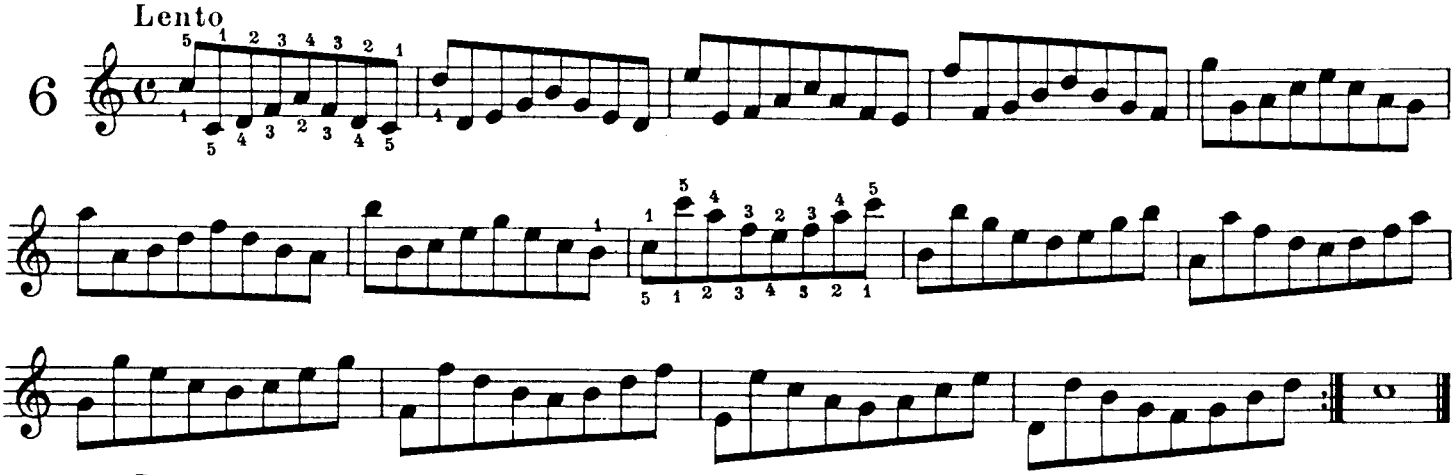
4

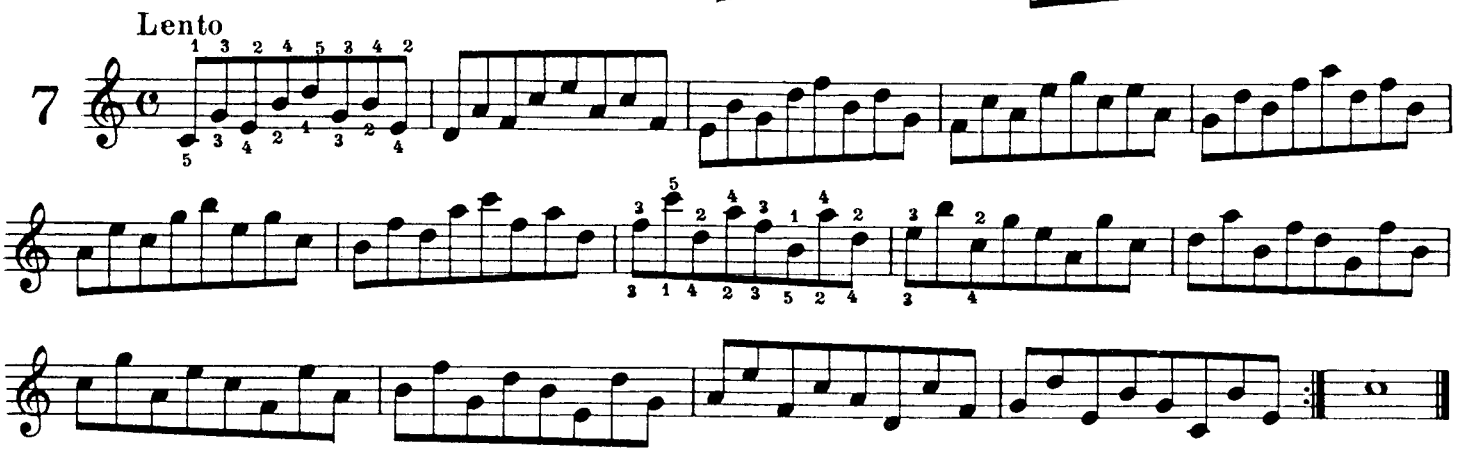
M.M. ♩ = 100

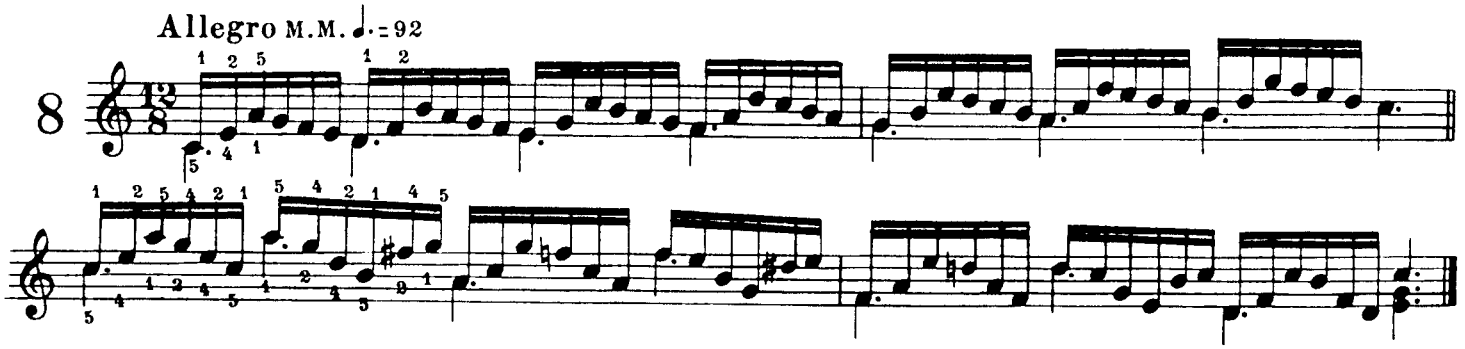


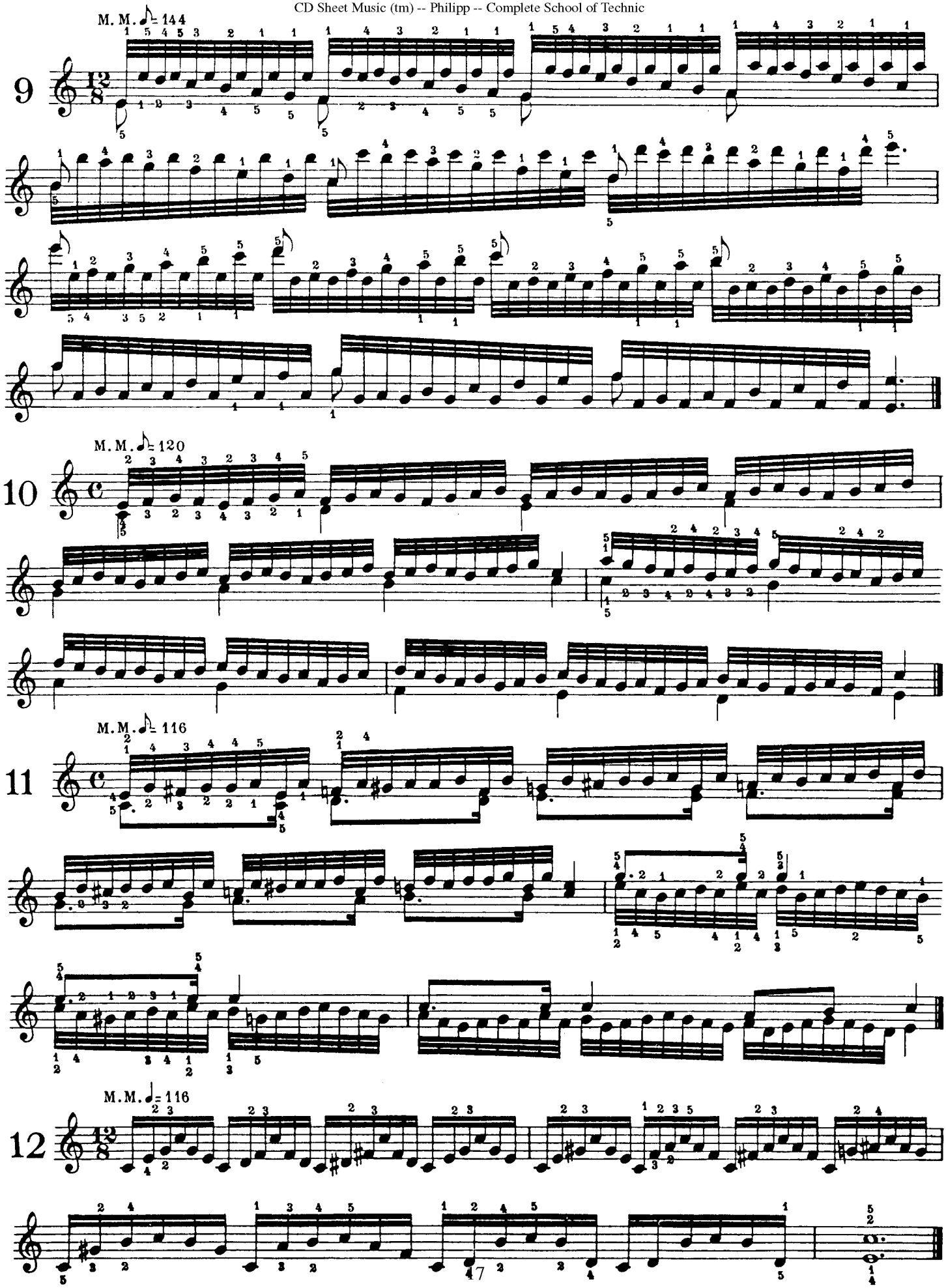


With a close, well-sustained touch.








9
M. M. ♪= 144
10
M. M. ♪= 120
11
M. M. ♪= 116
12
M. M. ♩= 116

CD Sheet Music (tm) -- Philipp -- Complete School of Technic

SCALES

Before proceeding with the scale studies, careful attention to the preparatory exercises below is advised. Here, the hand position and the thumb movements also are extremely important.

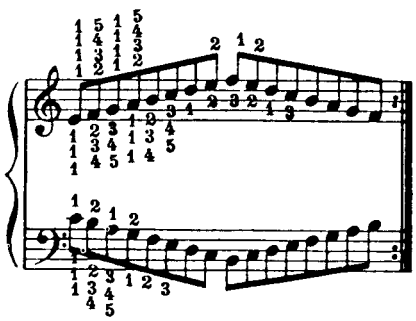
While practicing the preparatory exercises, the hands point in and the wrists are rounded out and about level. The knuckles are raised, and the fingers full-curved. The thumb tips are bent inward. When passing under, the movement comes equally from the ball of the thumb and its joints. The ball moves well toward the palm as the thumb goes under, and is kept loose and flexible. As the second finger is played, the thumb moves instantly under, its tip covering the next note it is to strike. As the thumb strikes, the hand glides quickly sidewise across the thumb, and the second, third, and fourth fingers immediately cover the next notes they are to play. They also retain their full curve, without straightening, or moving in a high semi-circle over the keys. The second finger requires especial watching, as it is the most likely to straighten. In moving along the keyboard the thumb does the work of shifting the hand from position to position, the fingers thereby being relieved from the necessity of reaching and consequently straightening. A finger playing a white key, preceding one which is about to play a black key, (as from E to F♯) strike close to the black, and the following finger strikes on the end of the black. In and out movements on the keys are thus avoided. In accomplishing these positions and movements, a close, light touch, without accents or rhythms, is at first most helpful. High finger movements are more safely employed later.

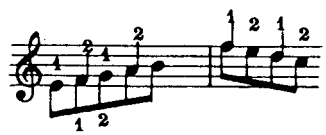
To insure a quiet hand and a good legato, the fingers often sustain their notes until the thumb passes under and strikes its note, the hand remaining in its inward, pointing position. Turning the hand from the wrist, first in, then out, seriously affects the evenness of the scale touch.

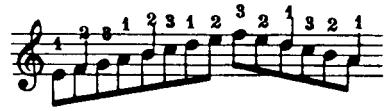
These positions and movements, and the rhythms of page 18 are applied to the following scale exercises, and to general scale practice.

M M ♩ =50-80. 𝅗𝅥=60-120

Preparatory Exercises



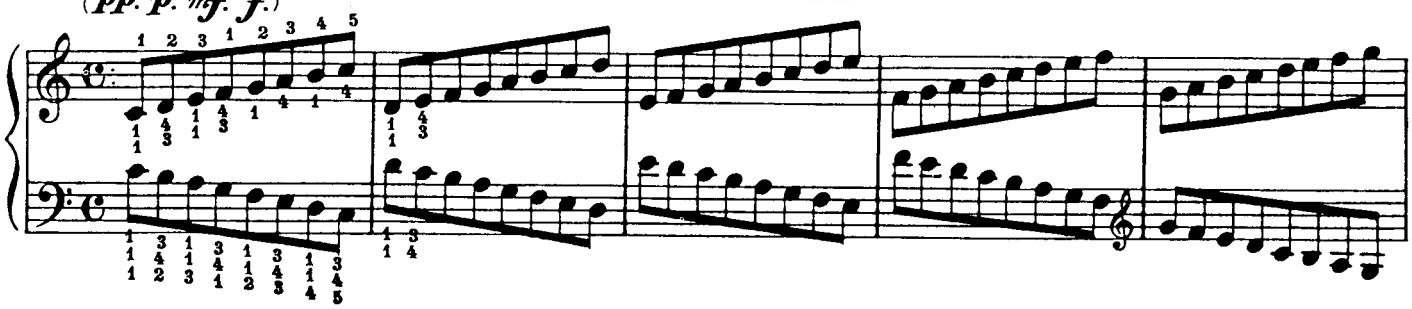


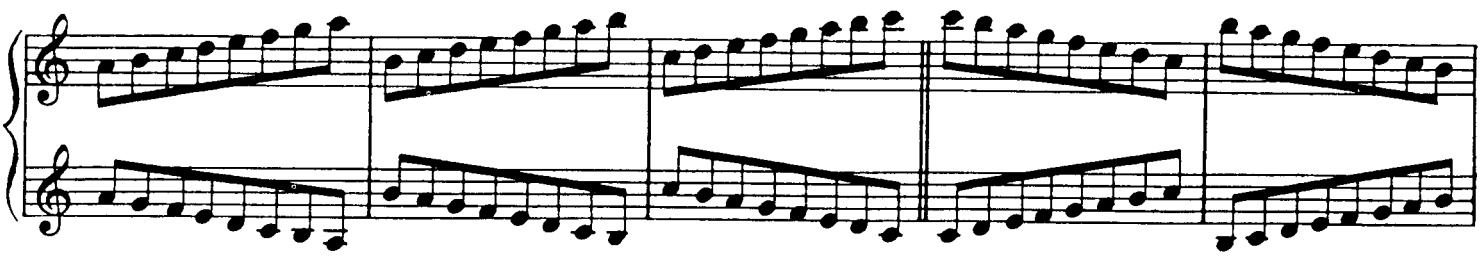


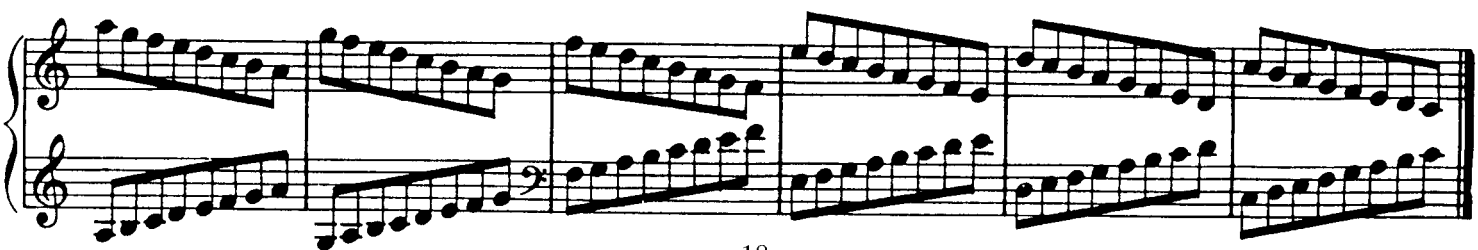
THUMB AND SCALE

(*pp. p. mf. f.*)

1

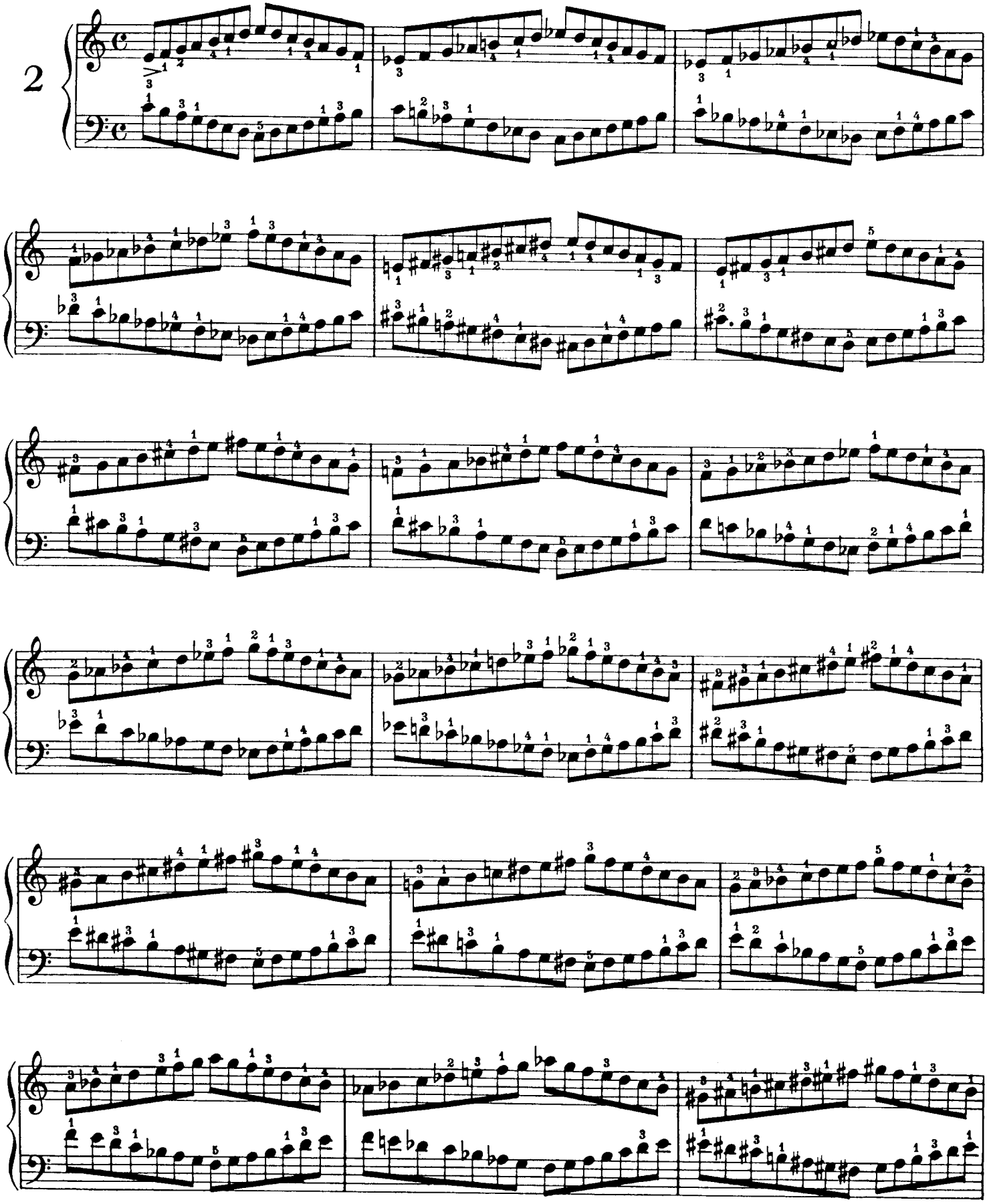


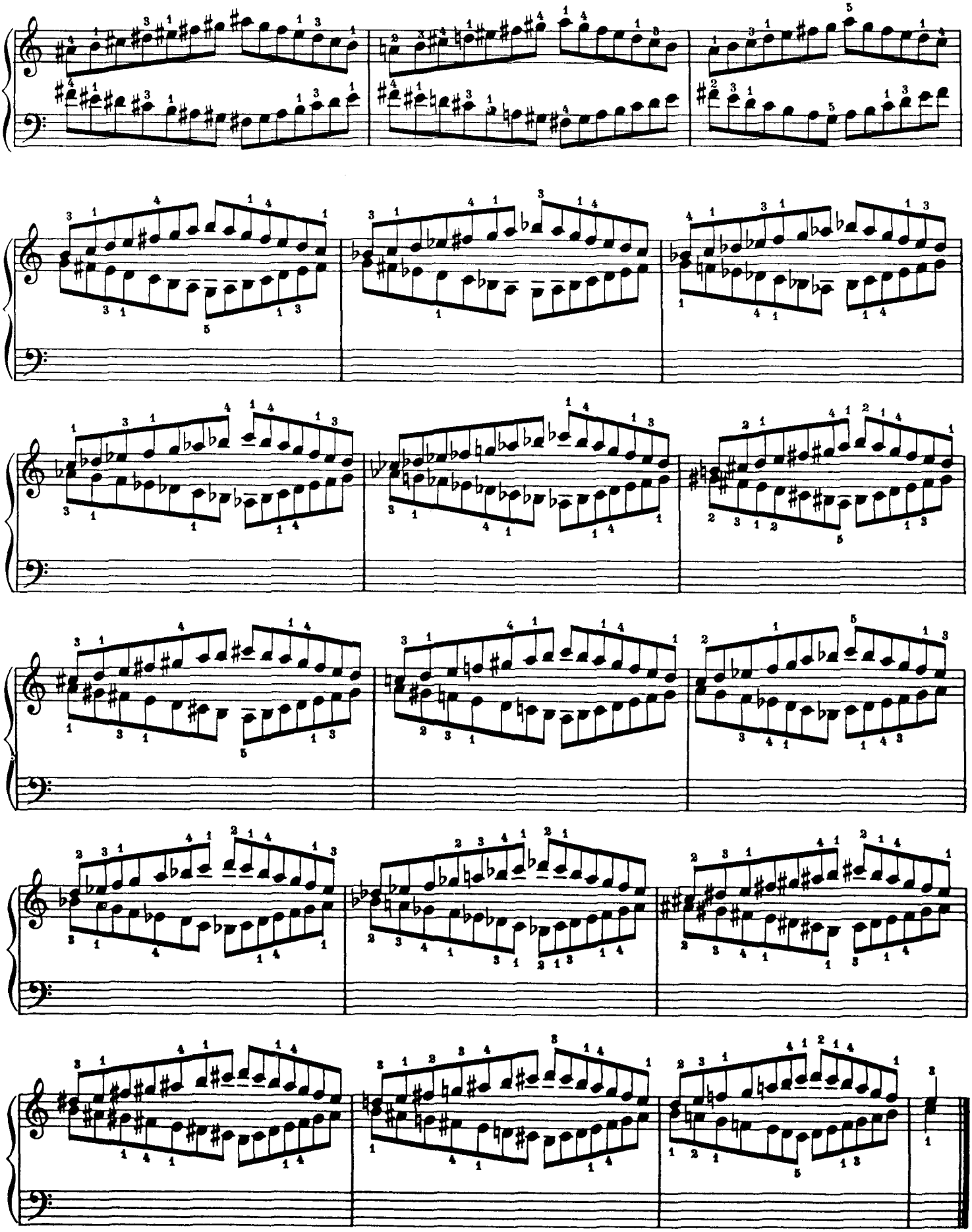




SCALES, NORMAL FINGERING

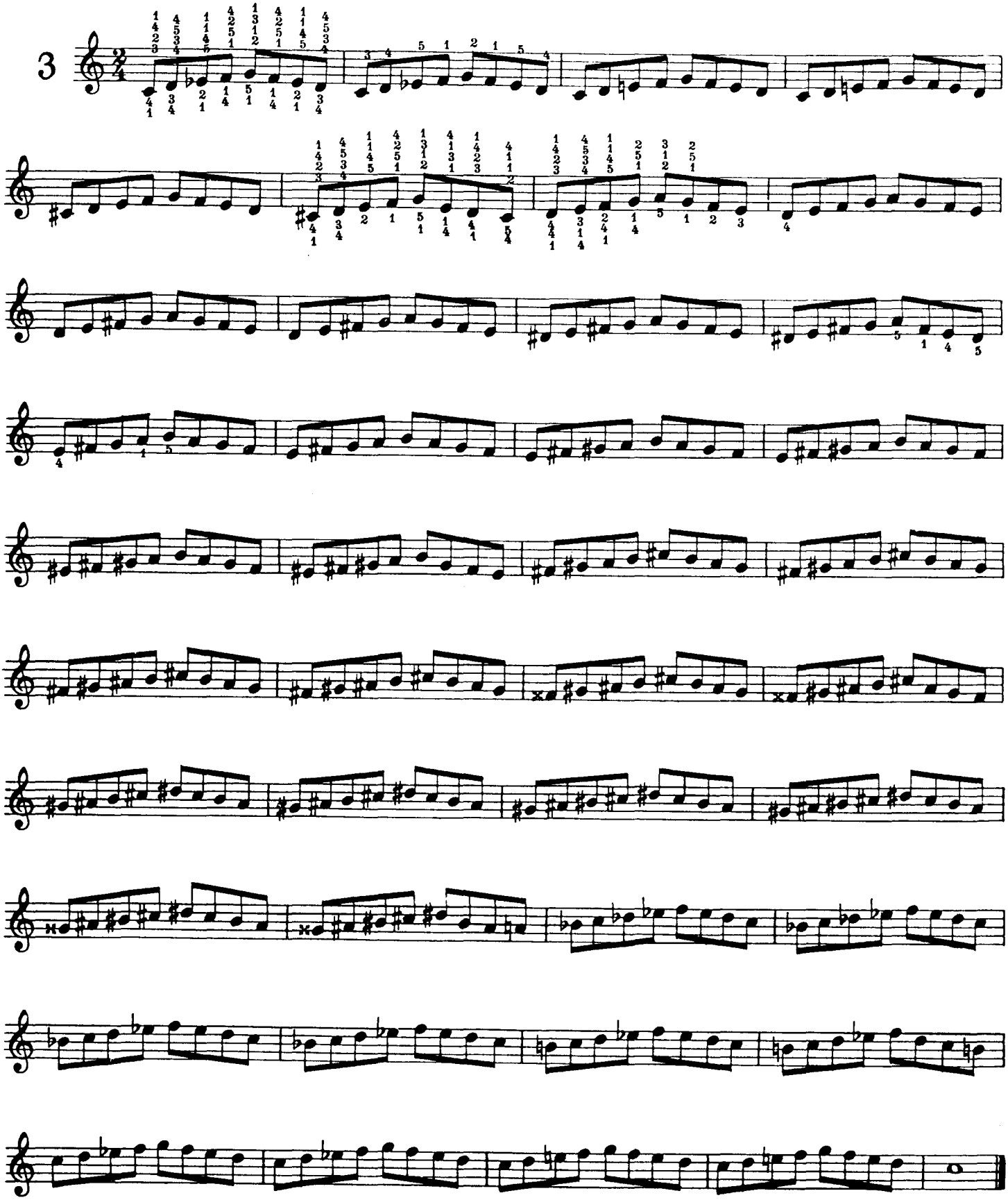
2



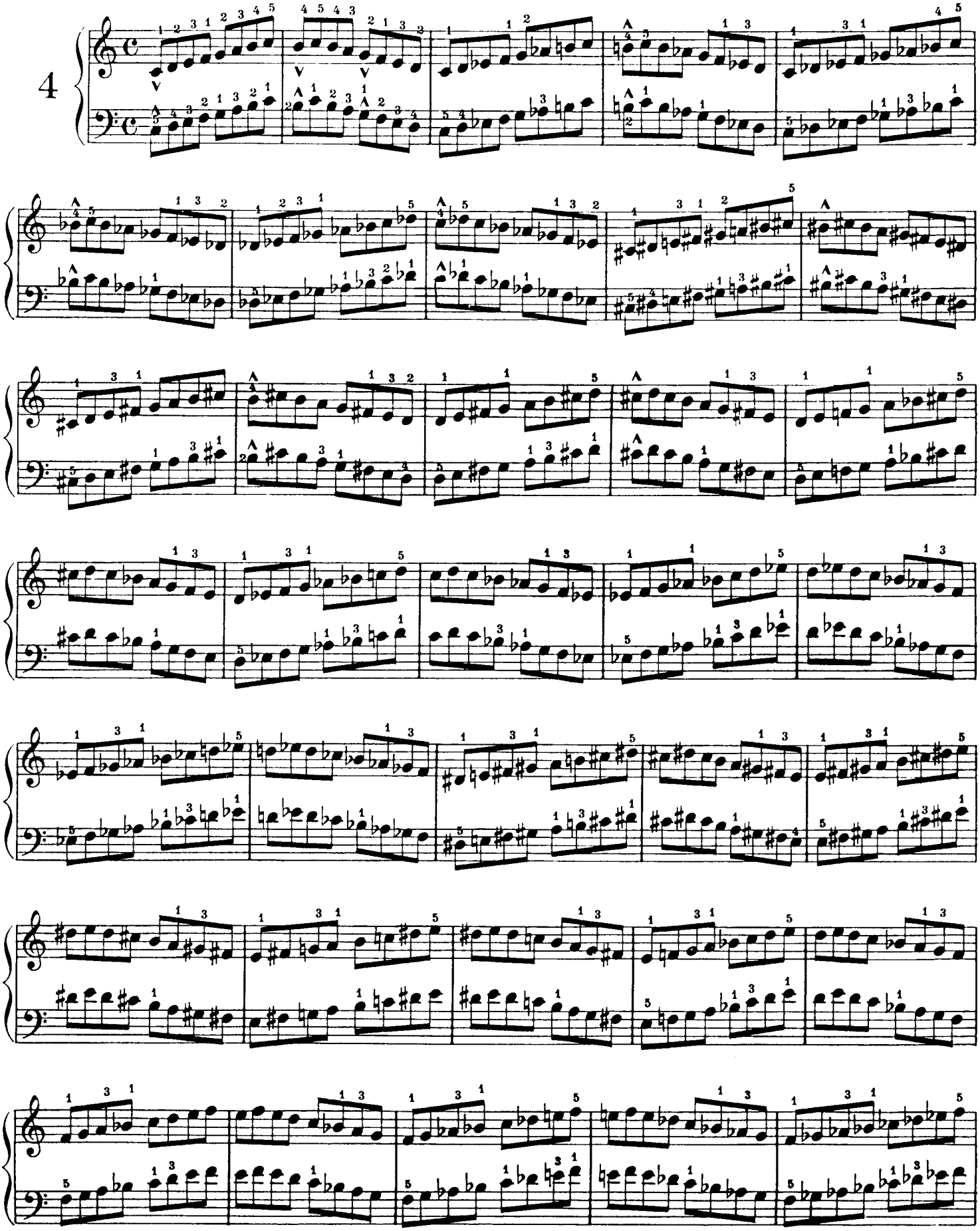


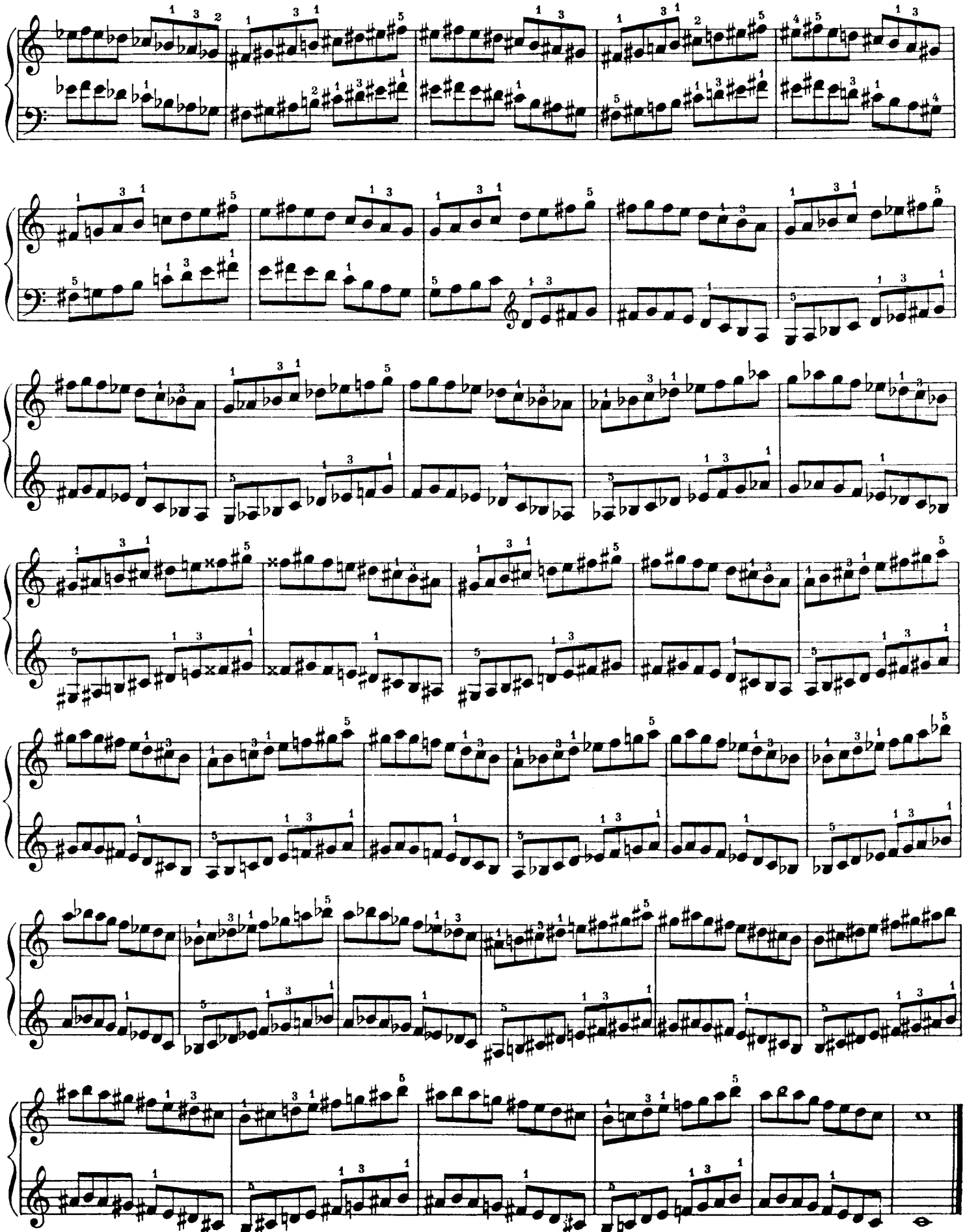
EXERCISE FOR PASSING THUMB UNDER, ON BLACK KEYS

Sustain at times, the notes preceding thumb notes.



MAJOR AND HARMONIC MINOR SCALES WITH FINGERING OF SCALE OF C.





RHYTHMIC EXERCISE

Transpose into various keys.

M.M. ♩ = 50-80. 𝅗𝅥 = 60-100

5

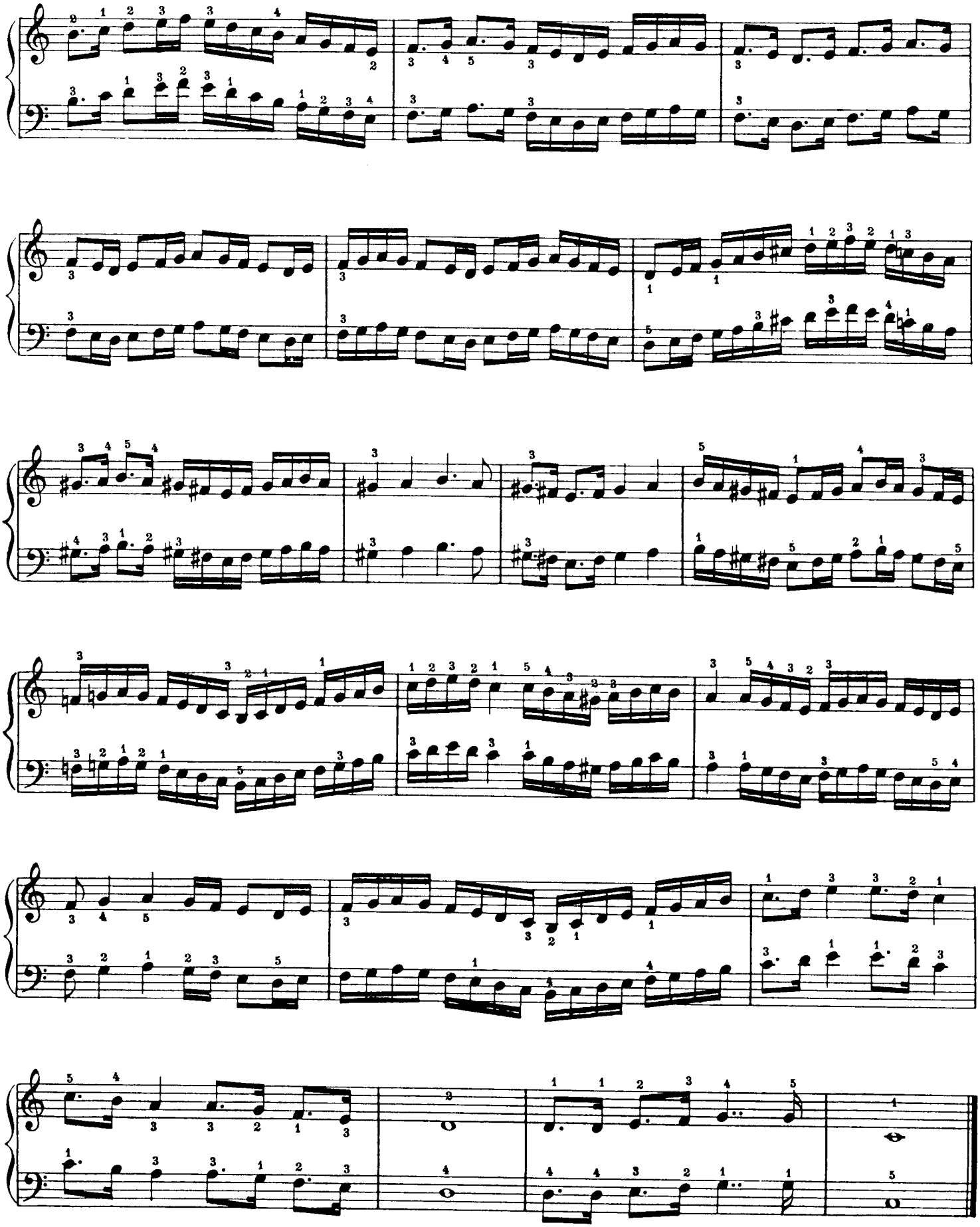
(*p. mf. f.*)

M.M. ♪ = 50-80. ♩ = 60-100

(after G. Mathias)

6

(*p. mf. f.*)



SCALES WITH THE NORMAL FINGERING

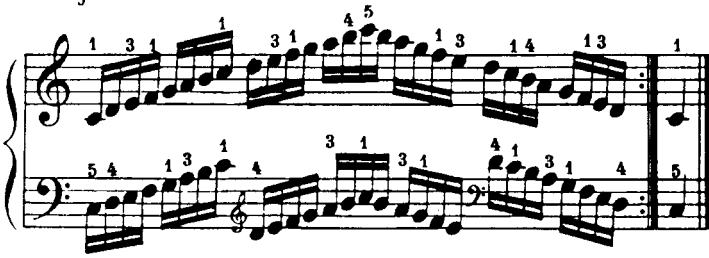
To be Extended through Two and Three Octaves

GENERAL TEMPI: M.M. ♪ = 50 - 80 ♩ = 60 - 132

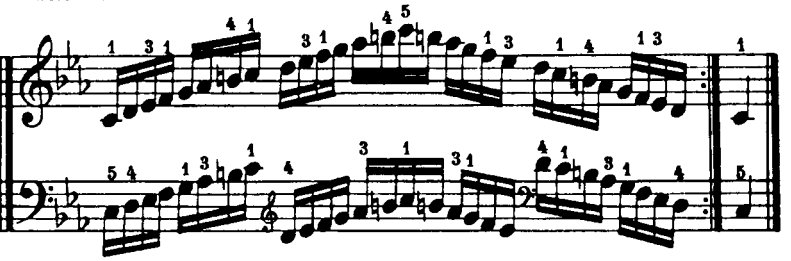
Separately and together: With and without the rhythms

Scale of C

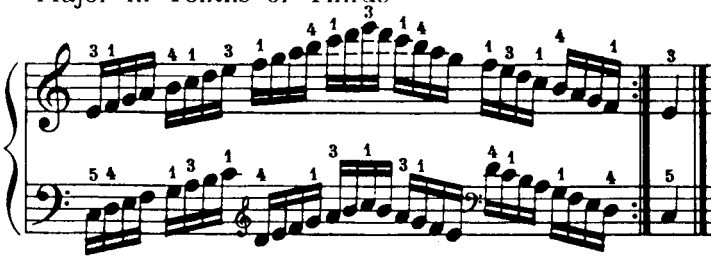
Major in similar motion



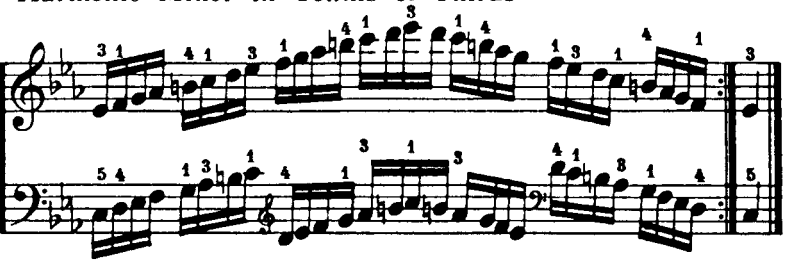
Harmonic Minor in similar motion



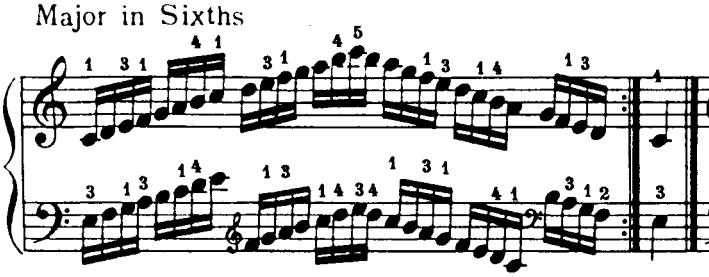
Major in Tenths or Thirds



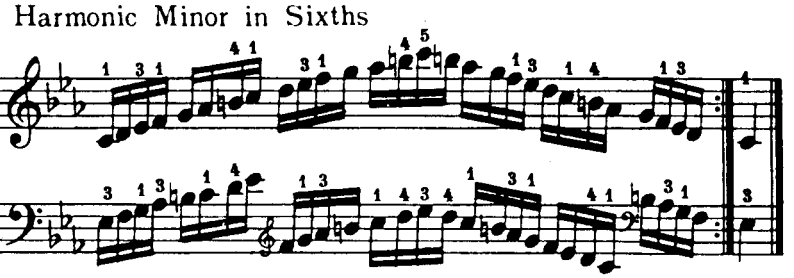
Harmonic Minor in Tenths or Thirds



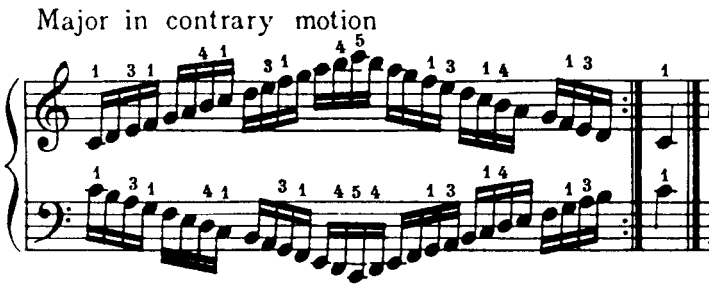
Major in Sixths



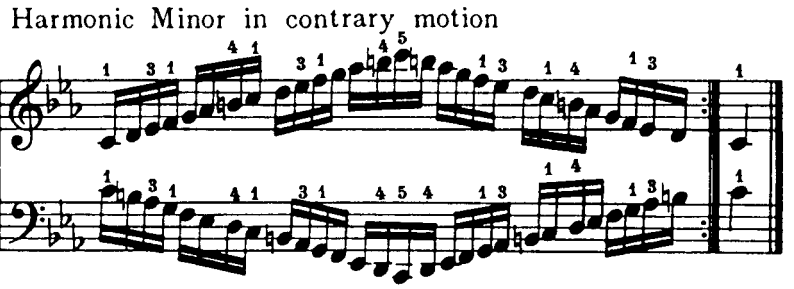
Harmonic Minor in Sixths



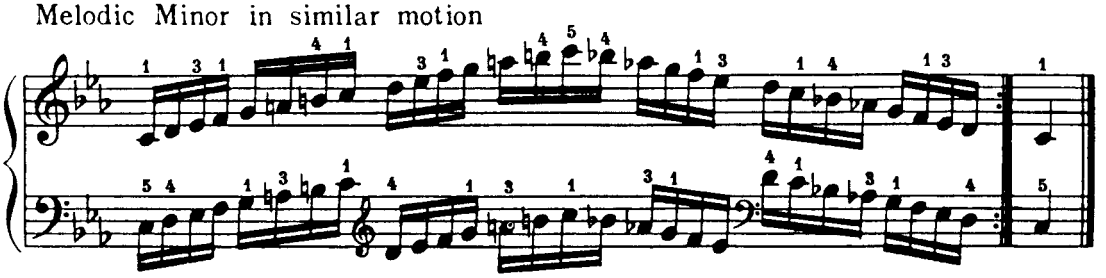
Major in contrary motion



Harmonic Minor in contrary motion

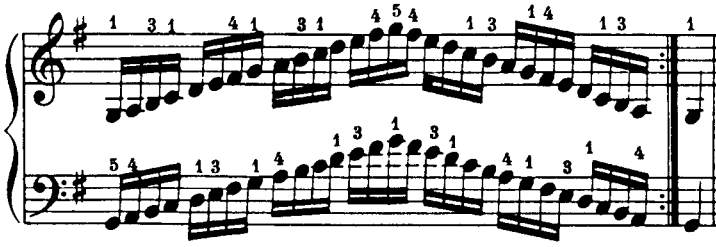


Melodic Minor in similar motion

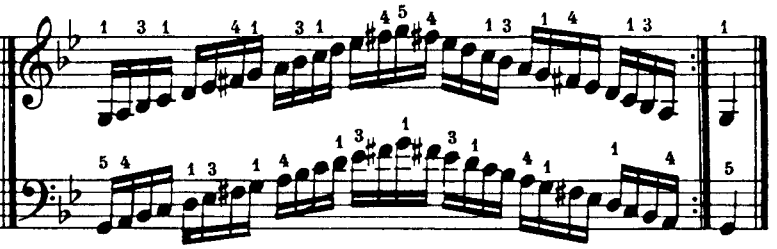


Scale of G

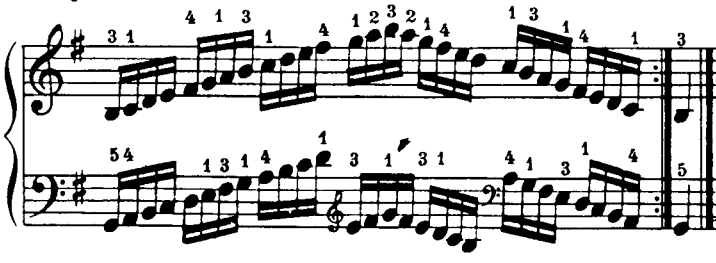
Major in similar motion



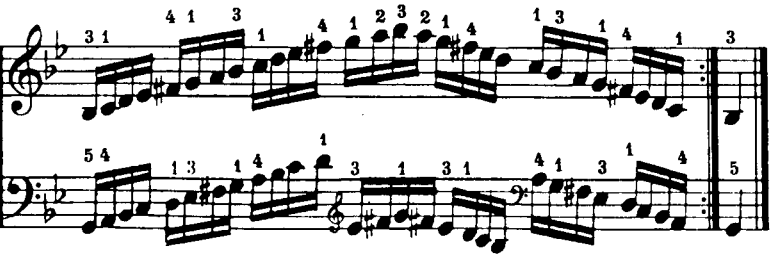
Harmonic Minor in similar motion



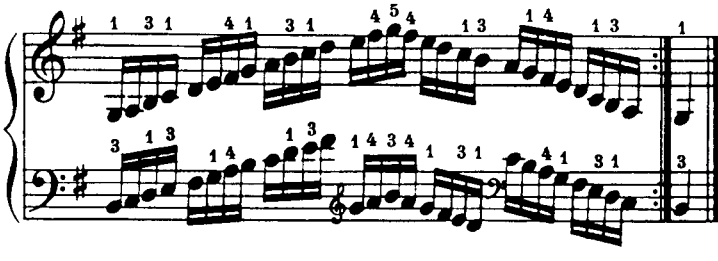
Major in Tenths or Thirds



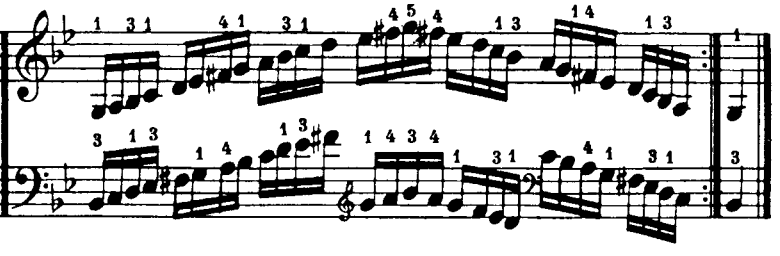
Harmonic Minor in Tenths or Thirds



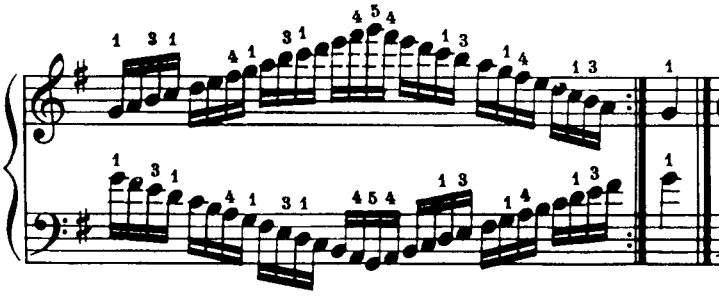
Major in Sixths



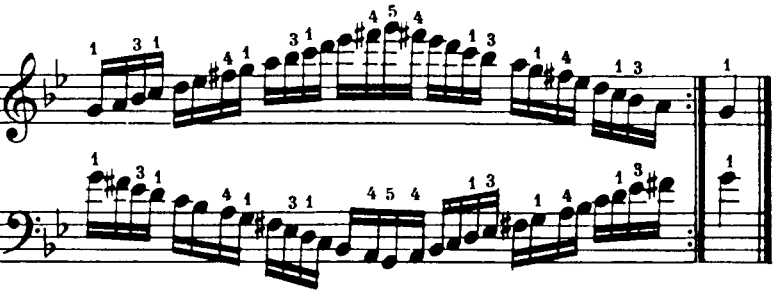
Harmonic Minor in Sixths



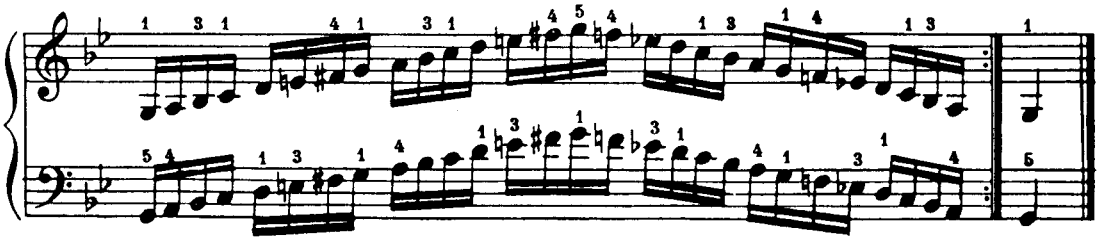
Major in contrary motion



Harmonic Minor in contrary motion

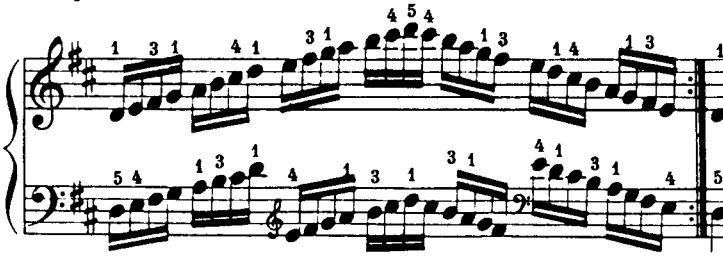


Melodic Minor in similar motion

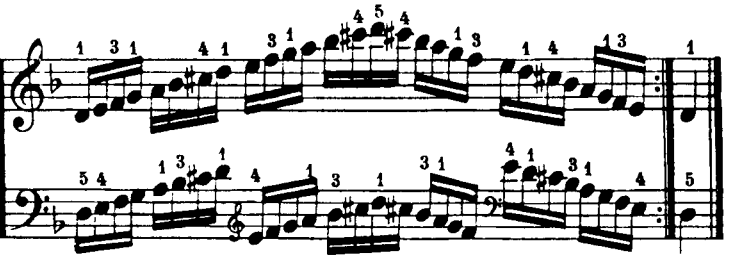


Scale of D

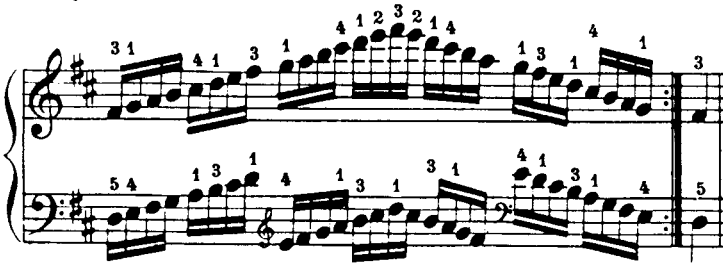
Major in similar motion



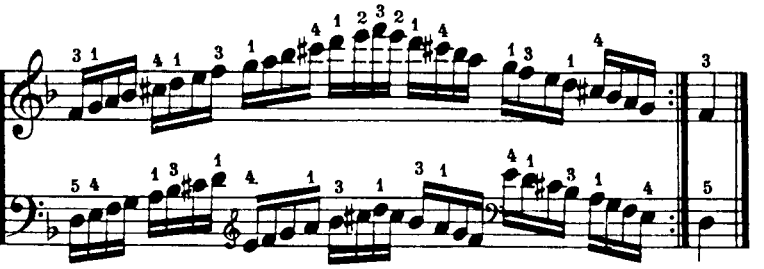
Harmonic Minor in similar motion



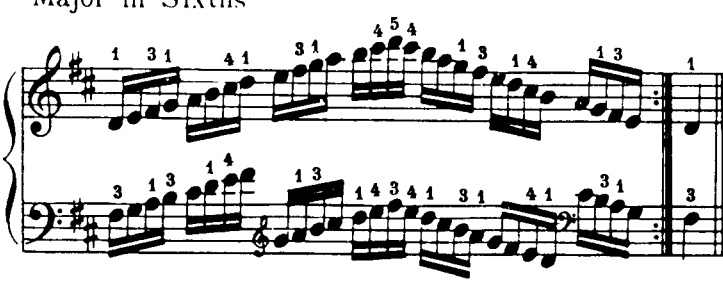
Major in Tenths or Thirds



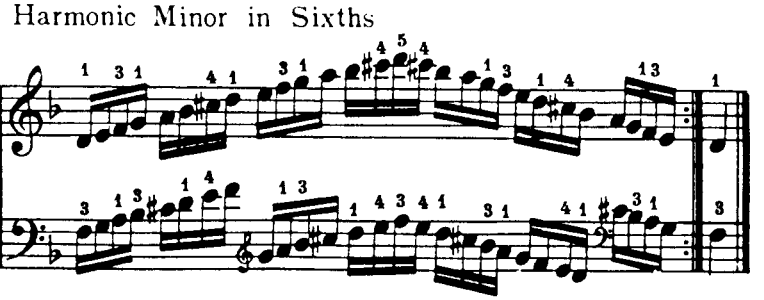
Harmonic Minor in Tenths or Thirds



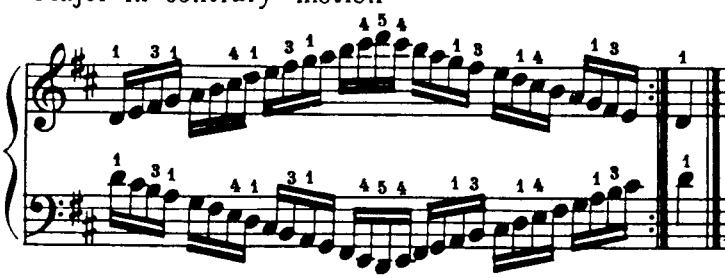
Major in Sixths



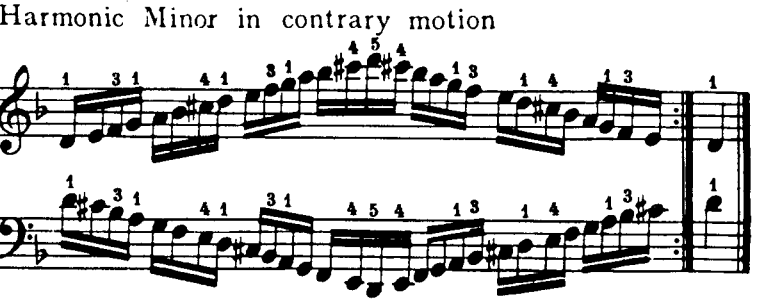
Harmonic Minor in Sixths



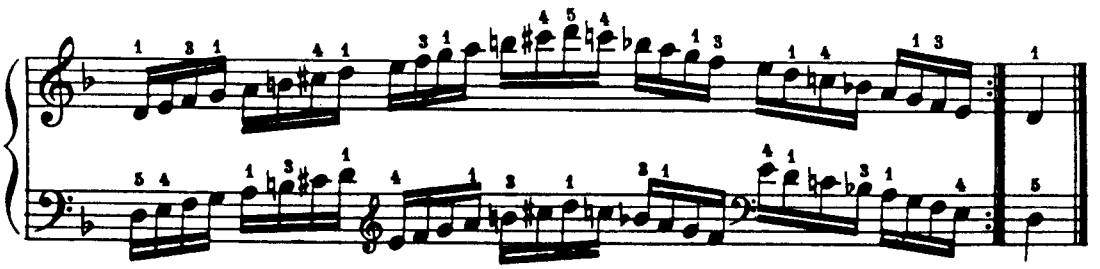
Major in contrary motion



Harmonic Minor in contrary motion

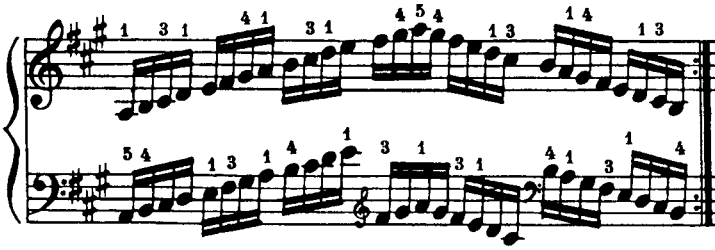


Melodic Minor in similar motion

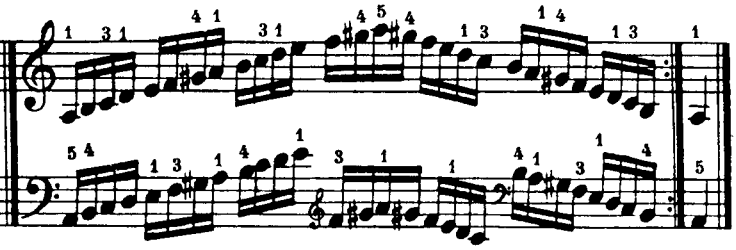


Scale of A

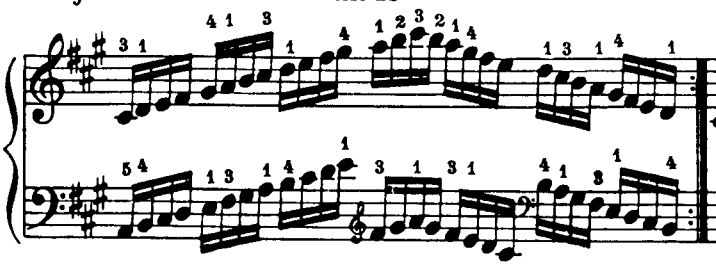
Major in similar motion



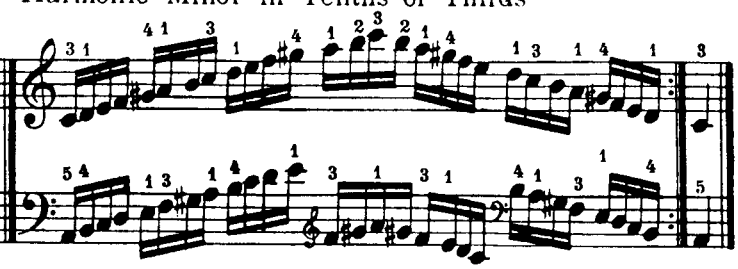
Harmonic Minor in similar motion



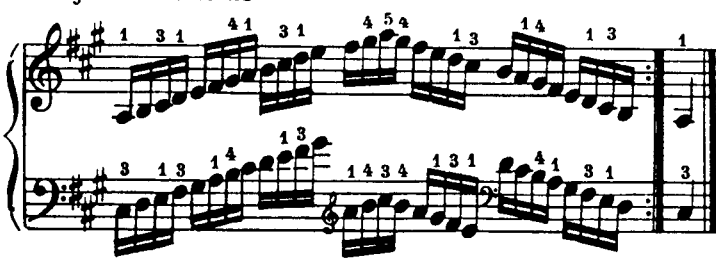
Major in Tenths or Thirds



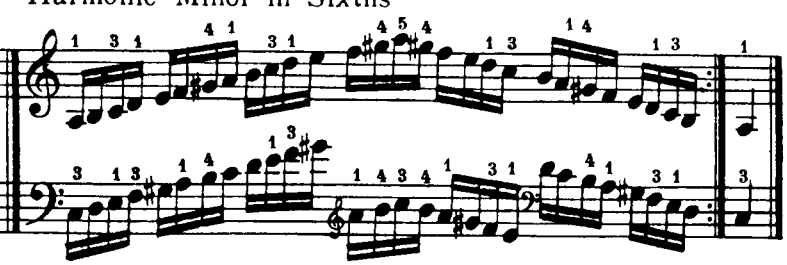
Harmonic Minor in Tenths or Thirds



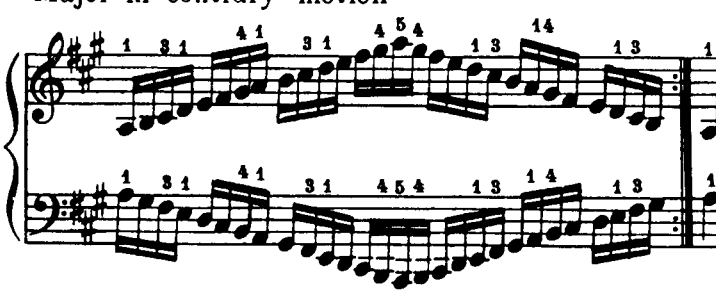
Major in Sixths



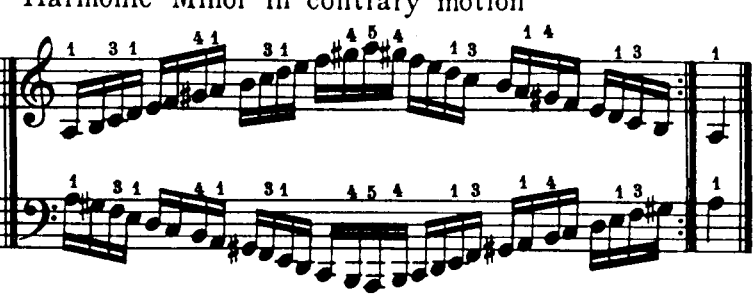
Harmonic Minor in Sixths



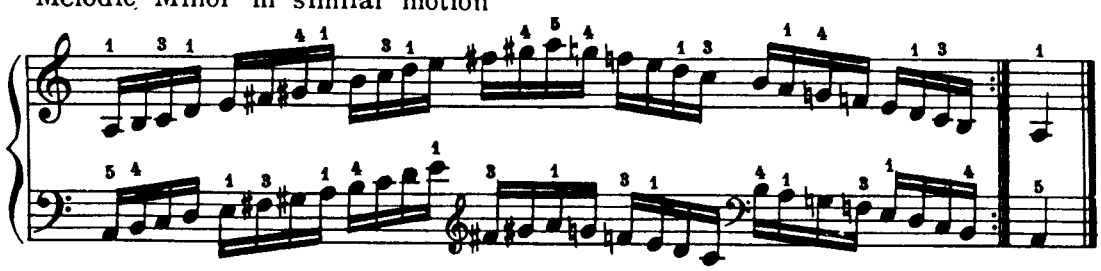
Major in contrary motion



Harmonic Minor in contrary motion

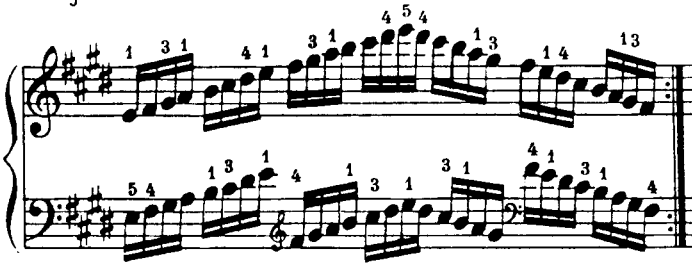


Melodic Minor in similar motion

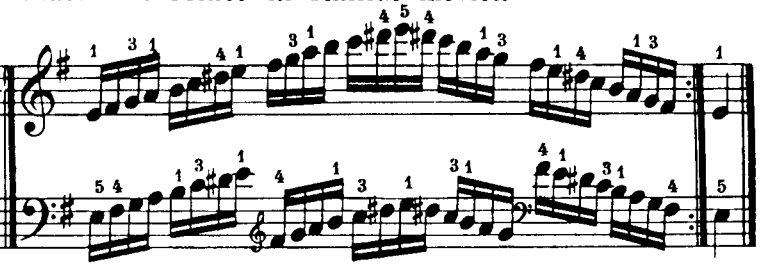


Scale of E

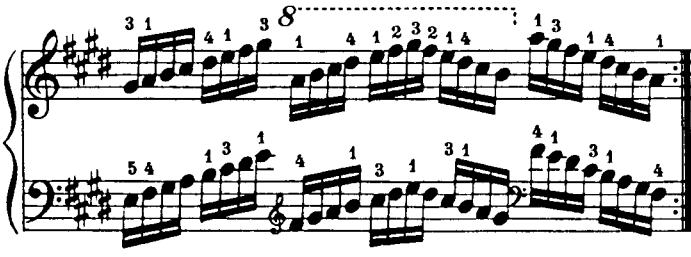
Major in similar motion



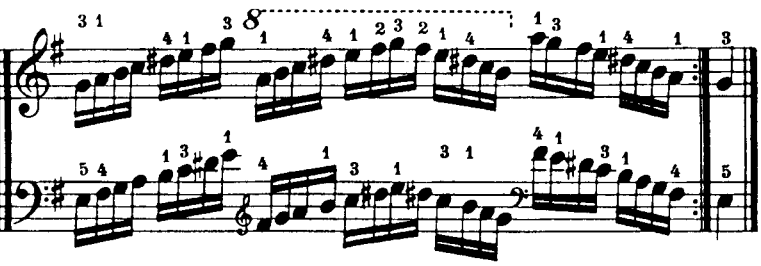
Harmonic Minor in similar motion



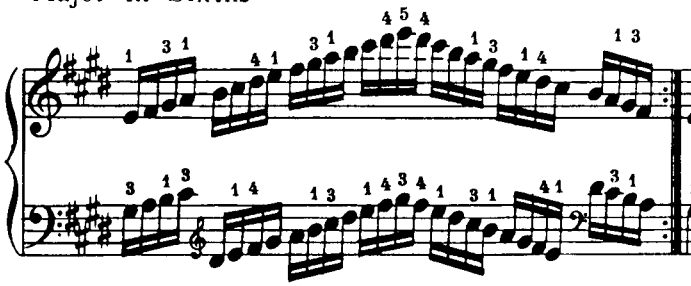
Major in Tenths or Thirds



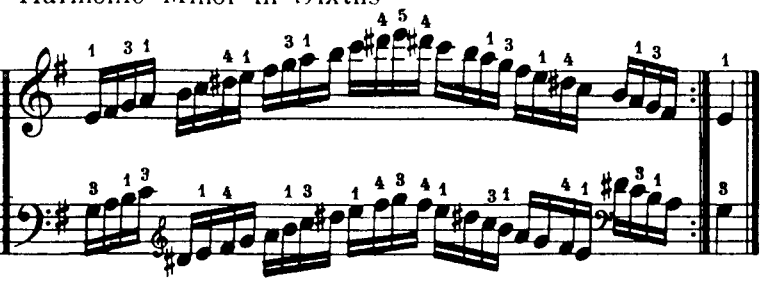
Harmonic Minor in Tenths or Thirds



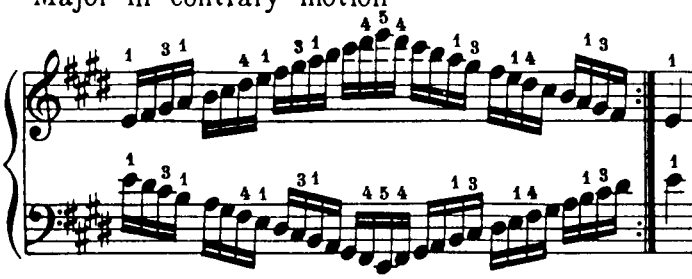
Major in Sixths



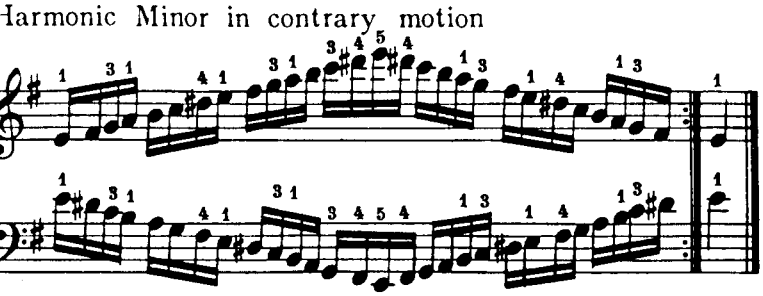
Harmonic Minor in Sixths



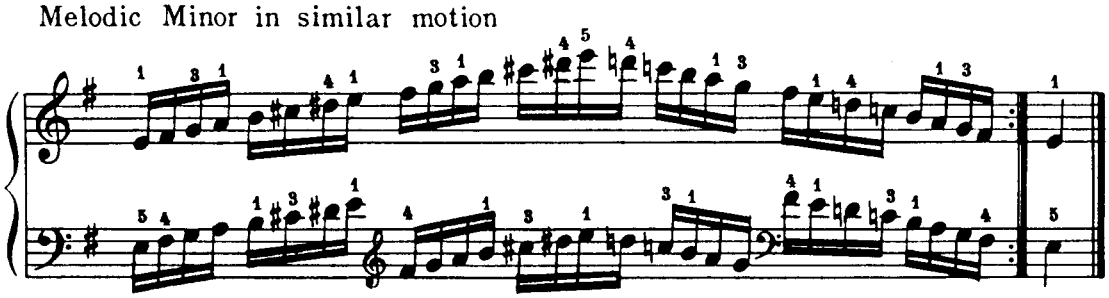
Major in contrary motion



Harmonic Minor in contrary motion

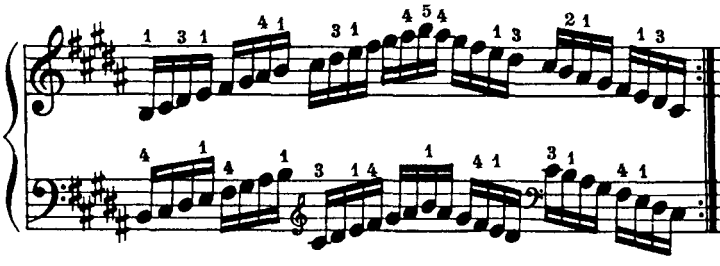


Melodic Minor in similar motion

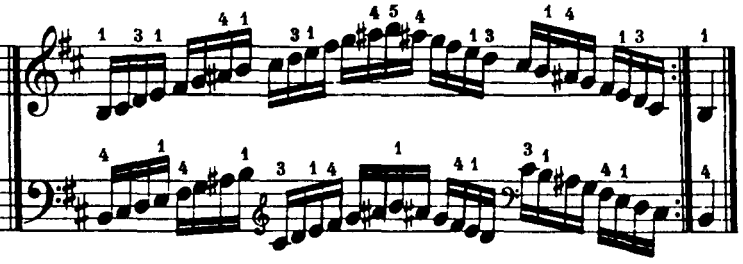


Scale of B

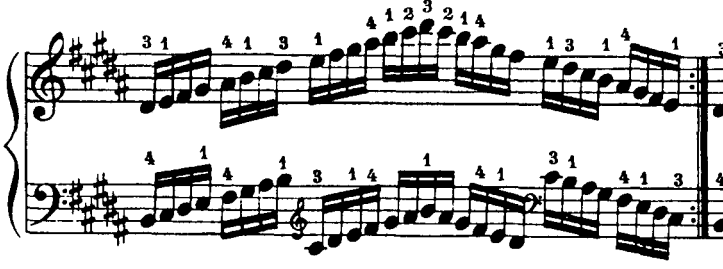
Major in similar motion



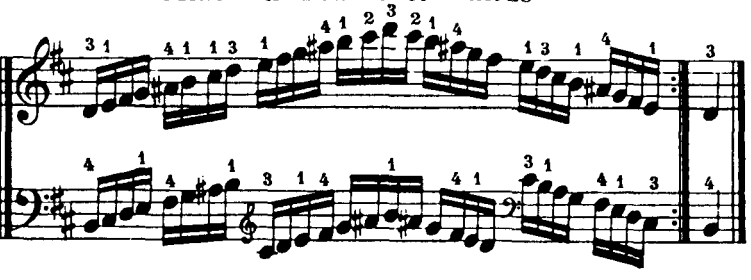
Harmonic Minor in similar motion



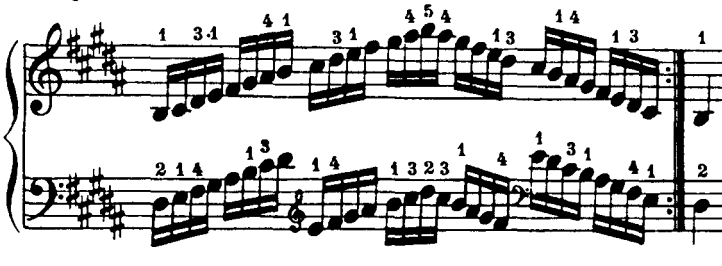
Major in Tenths or Thirds



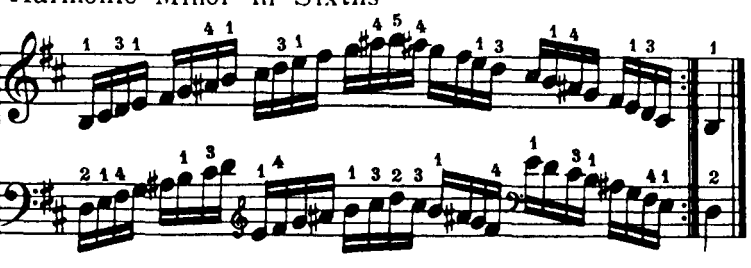
Harmonic Minor in Tenths or Thirds



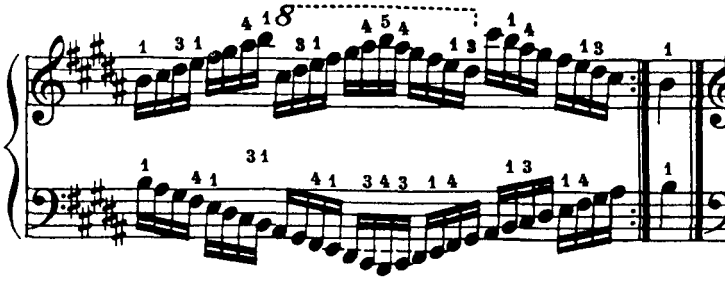
Major in Sixths



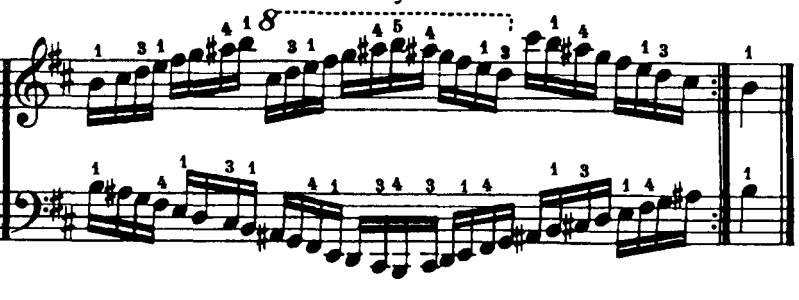
Harmonic Minor in Sixths



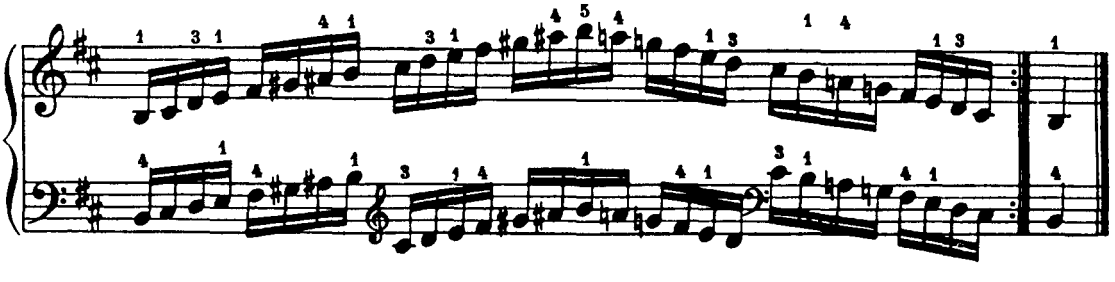
Major in contrary motion



Harmonic Minor in contrary motion

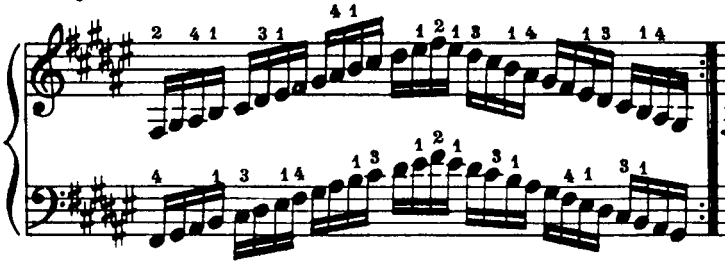


Melodic Minor in similar motion

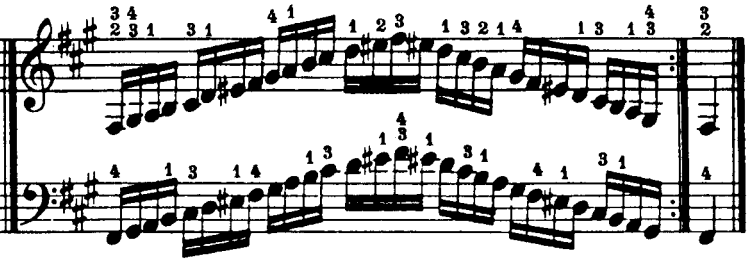


Scale of F sharp (Enharmonic G flat)

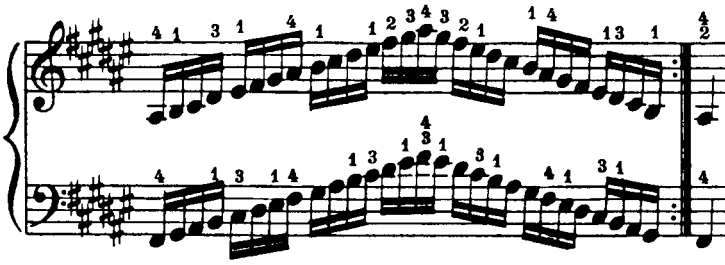
Major in similar motion



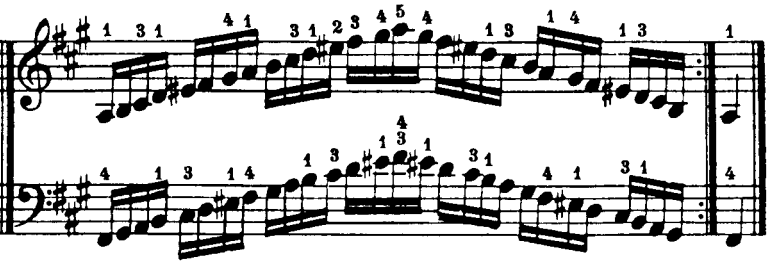
Harmonic Minor in similar motion



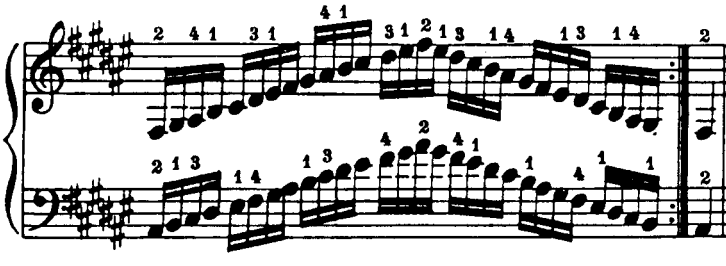
Major in Tenths or Thirds



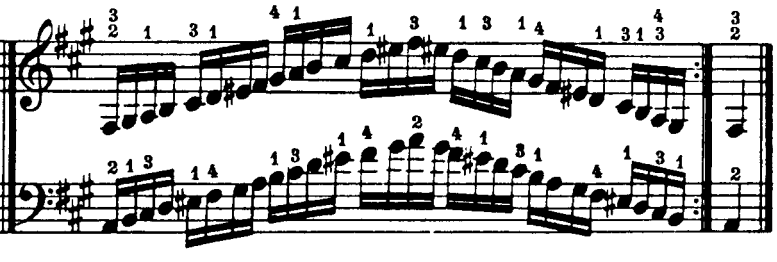
Harmonic Minor in Tenths or Thirds



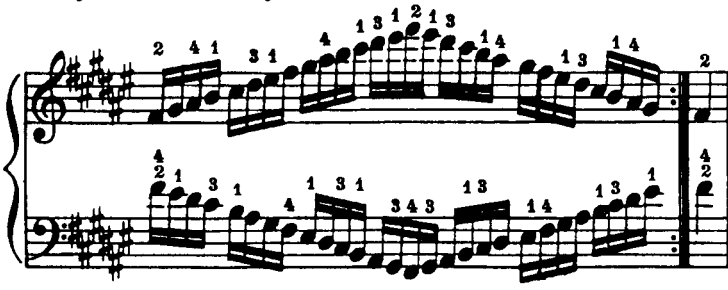
Major in Sixths



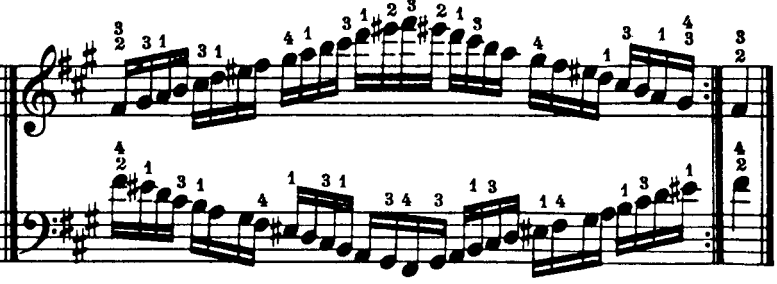
Harmonic Minor in Sixths



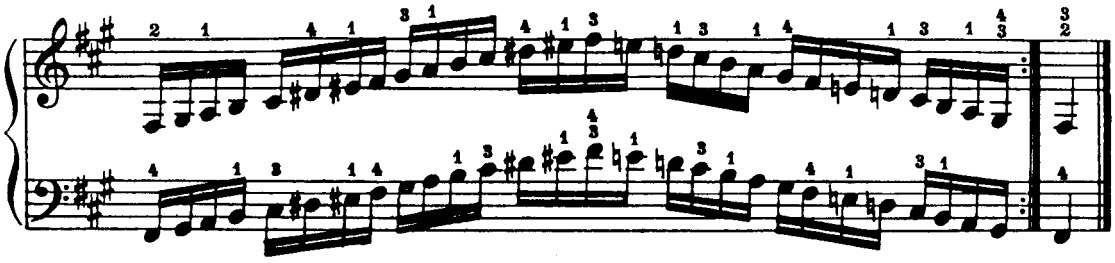
Major in contrary motion



Harmonic Minor in contrary motion

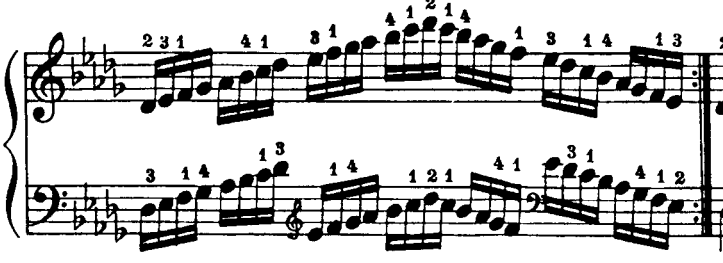


Melodic Minor in similar motion

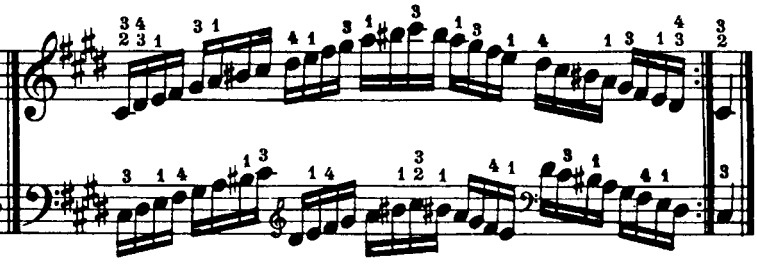


Scale of D flat (Enharmonic C♯) C sharp minor

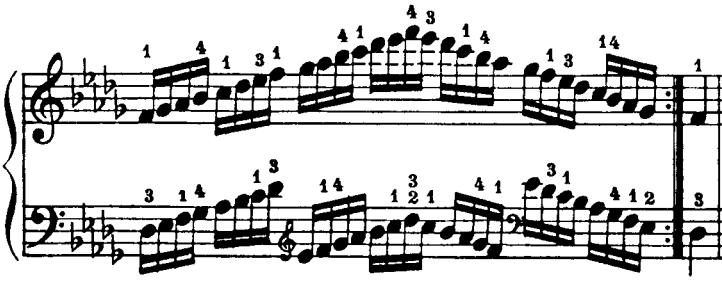
Major in similar motion



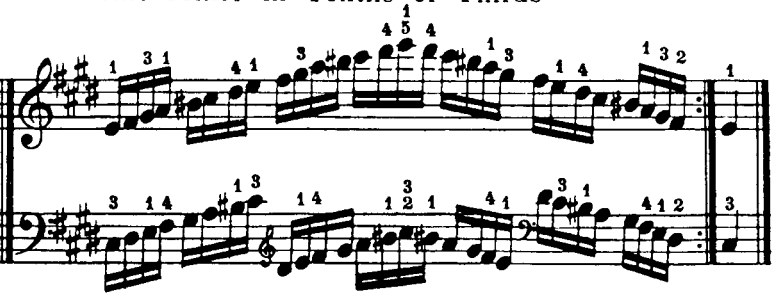
Harmonic Minor in similar motion



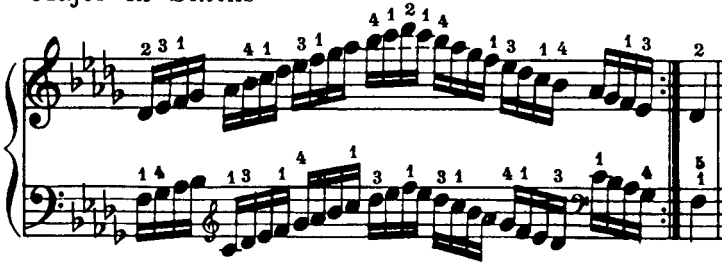
Major in Tenths or Thirds



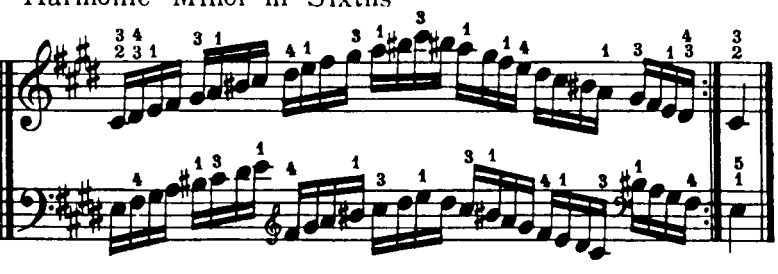
Harmonic Minor in Tenths or Thirds



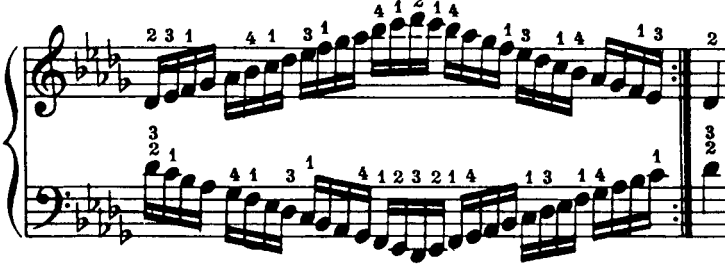
Major in Sixths



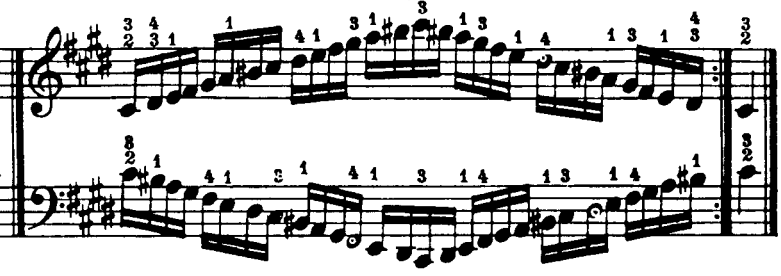
Harmonic Minor in Sixths



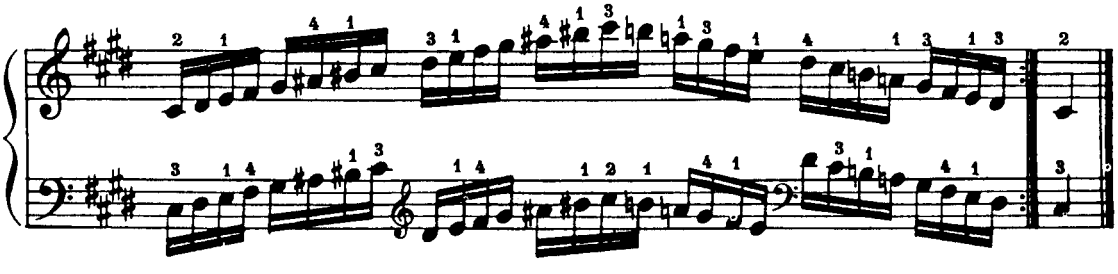
Major in contrary motion



Harmonic Minor in contrary motion

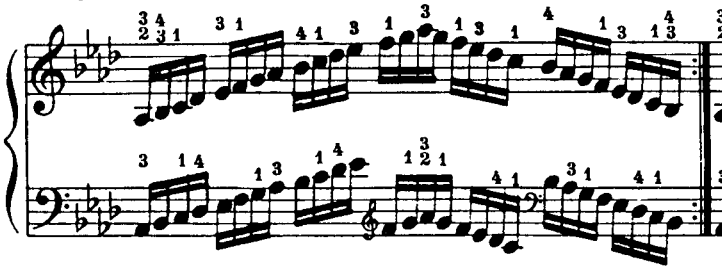


Melodic Minor in similar motion

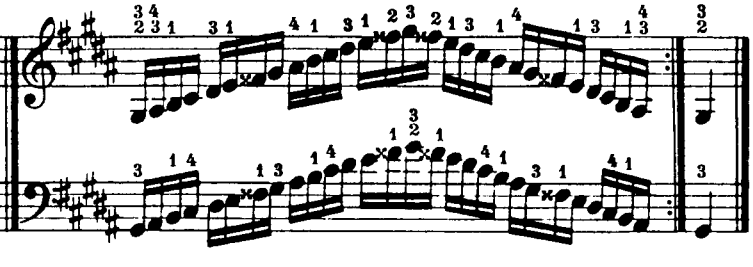


Scale of A flat (Enharmonic G♯) G sharp minor

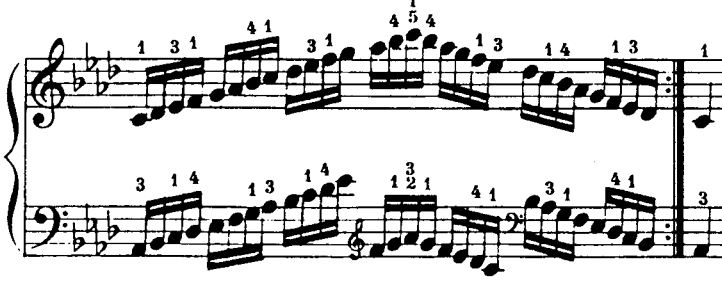
Major in similar motion



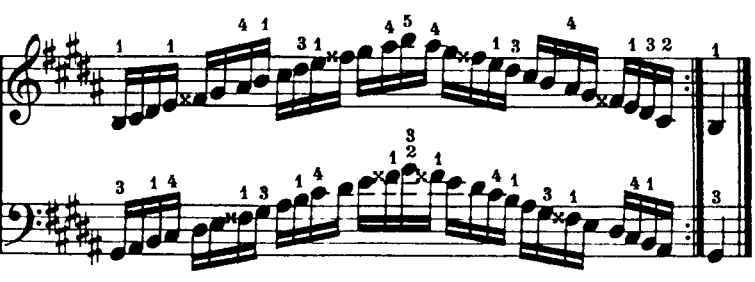
Harmonic Minor in similar motion



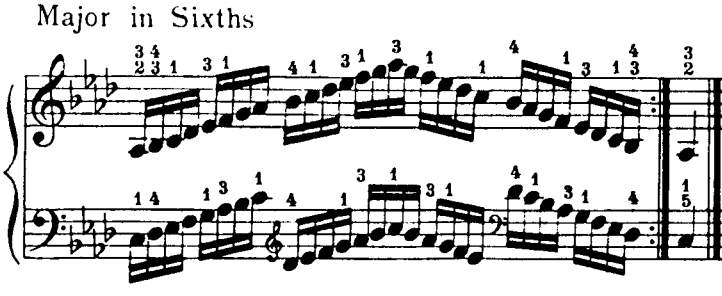
Major in Tenths or Thirds



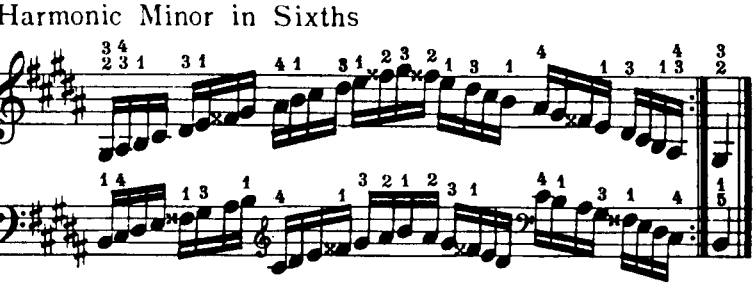
Harmonic Minor in Tenths or Thirds



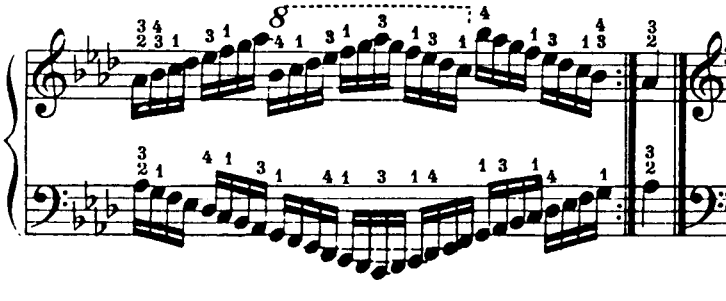
Major in Sixths



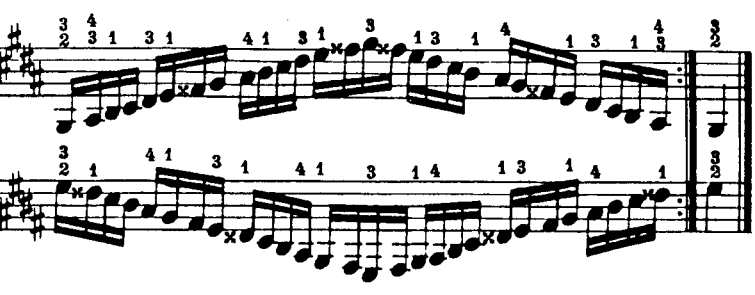
Harmonic Minor in Sixths



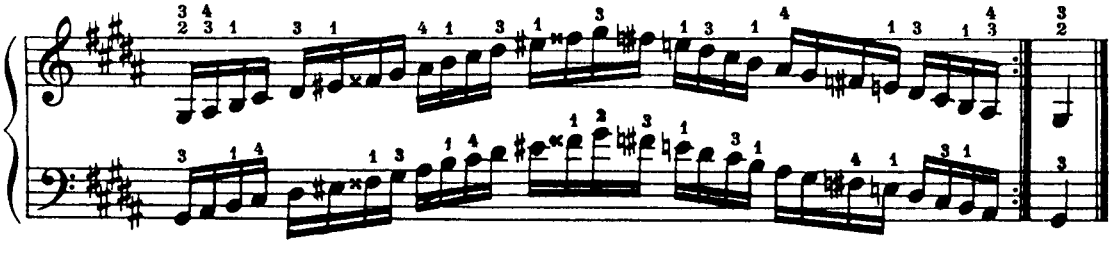
Major in contrary motion



Harmonic Minor in contrary motion



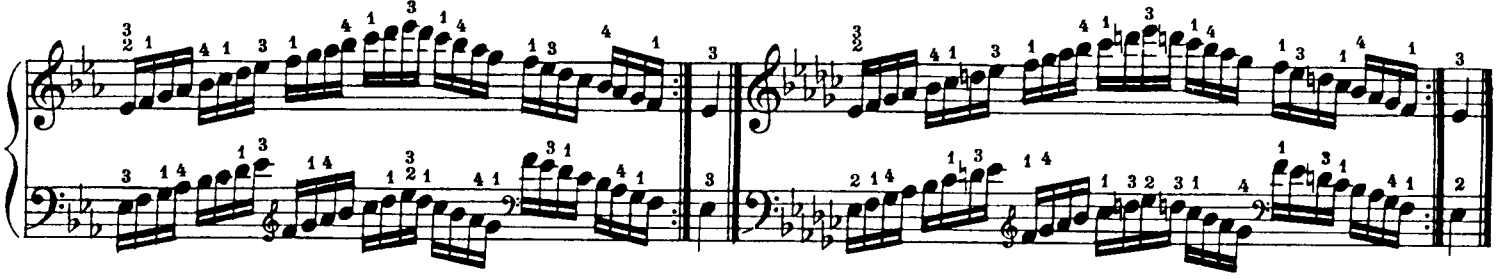
Melodic Minor in similar motion



Scale of E flat

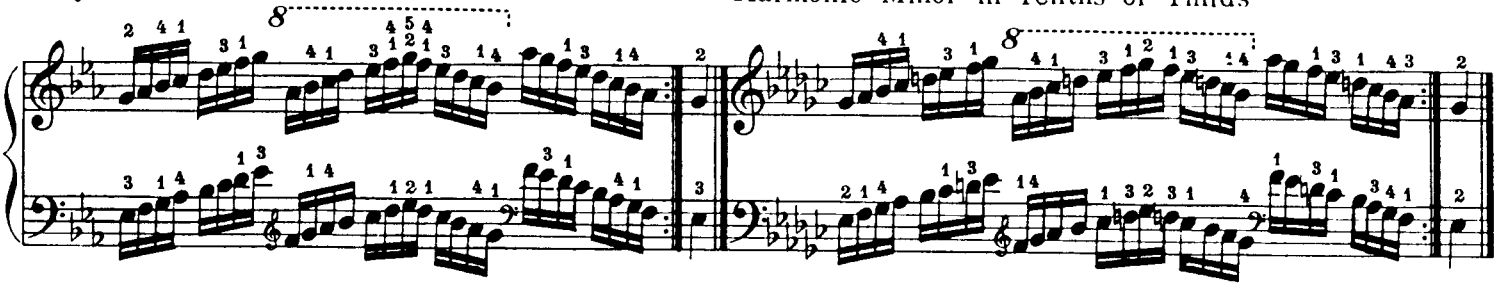
Major in similar motion

Harmonic Minor in similar motion



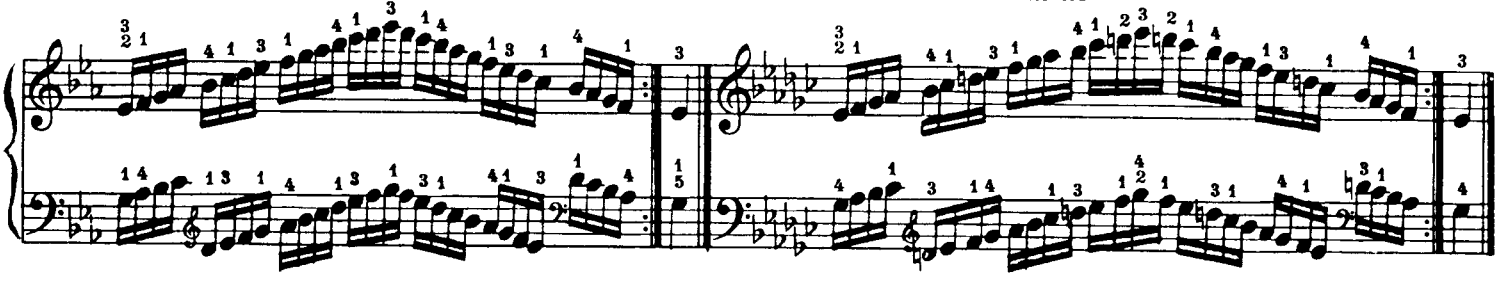
Major in Tenths or Thirds

Harmonic Minor in Tenths or Thirds



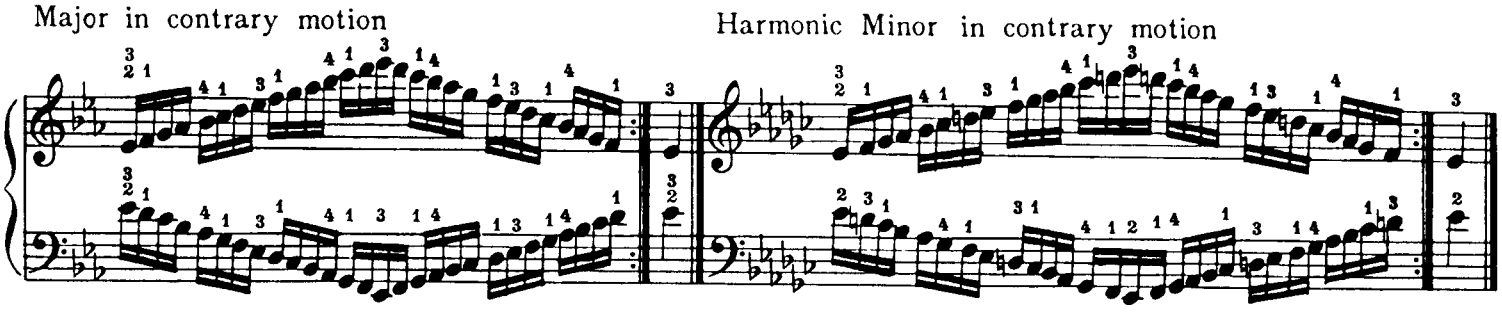
Major in Sixths

Harmonic Minor in Sixths

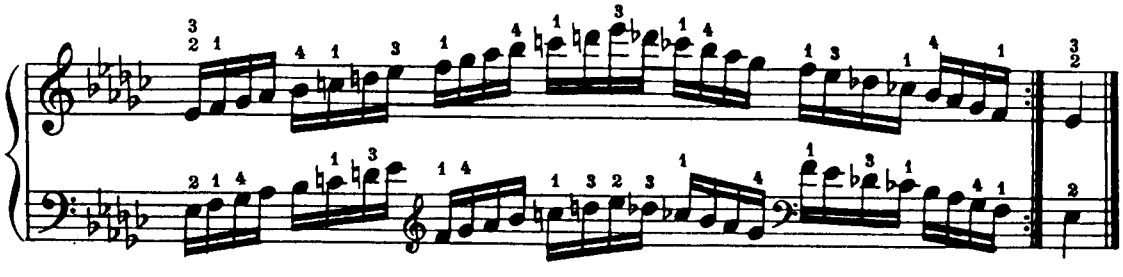


Major in contrary motion

Harmonic Minor in contrary motion

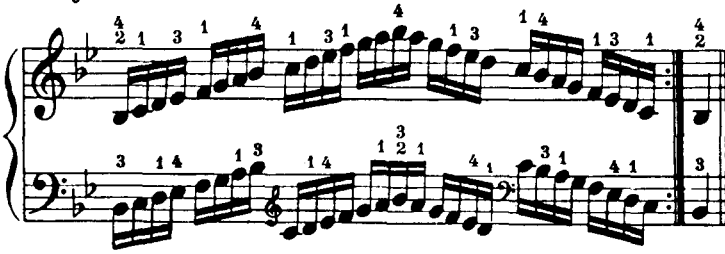


Melodic Minor in similar motion

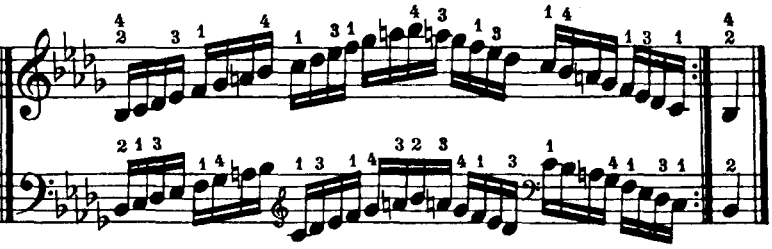


Scale of B flat

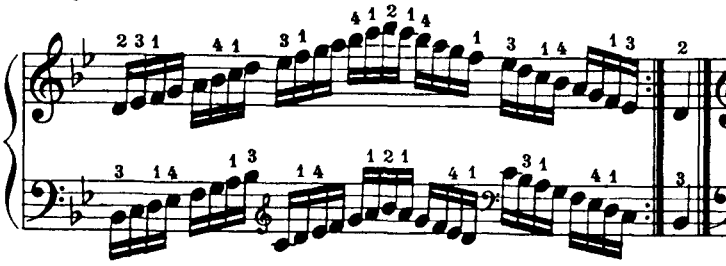
Major in similar motion



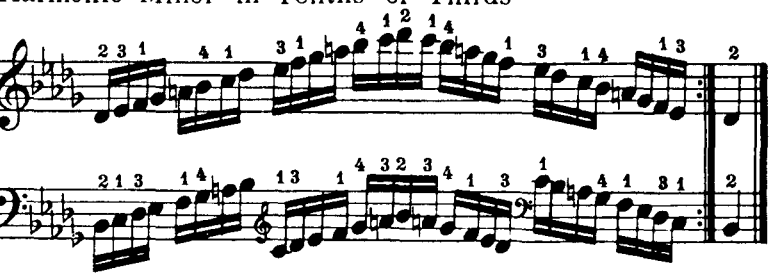
Harmonic Minor in similar motion



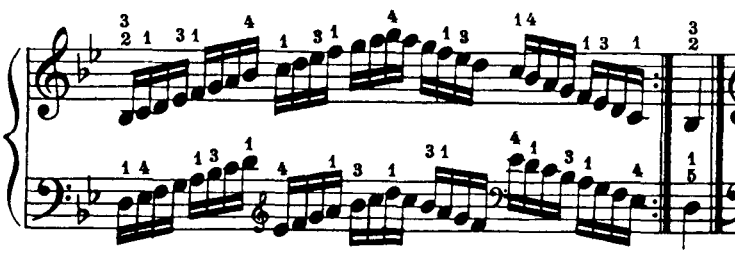
Major in Tenths or Thirds



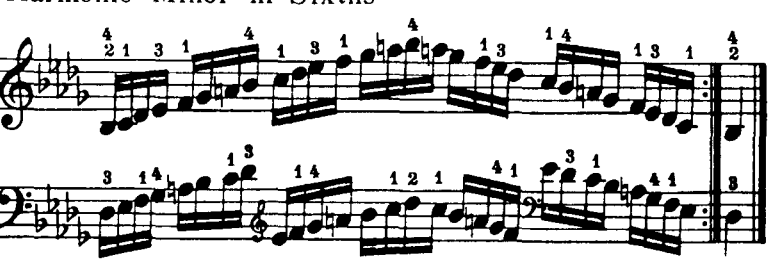
Harmonic Minor in Tenths or Thirds



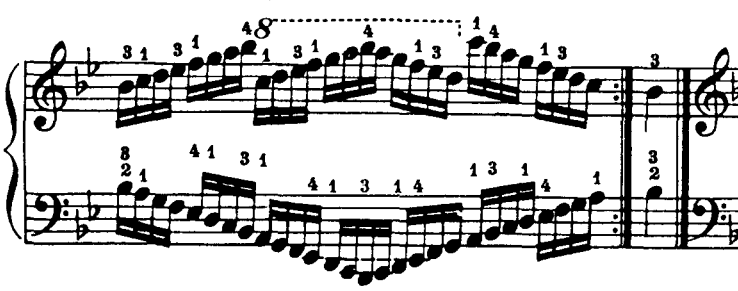
Major in Sixths



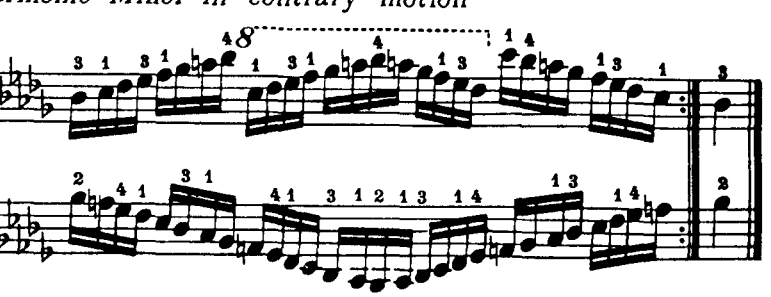
Harmonic Minor in Sixths



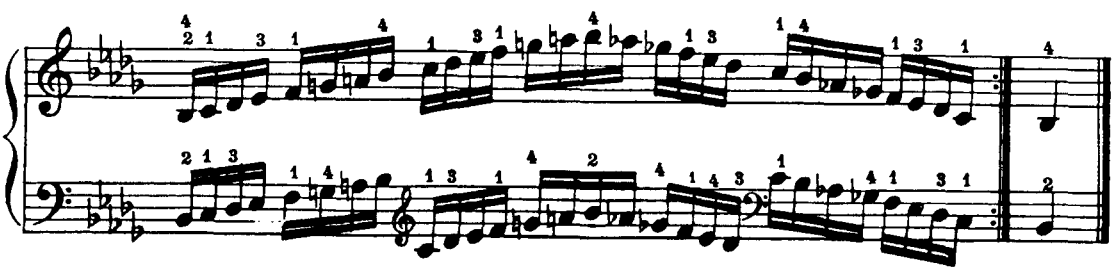
Major in contrary motion



Harmonic Minor in contrary motion

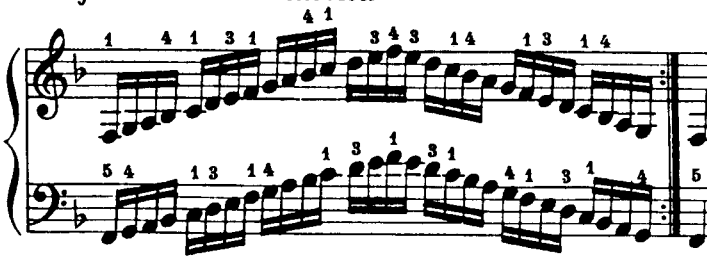


Melodic Minor in similar motion

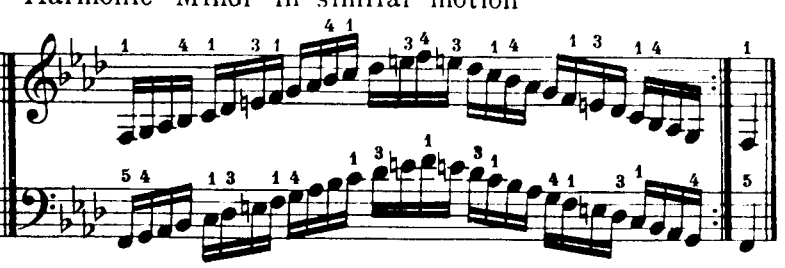


Scale of F

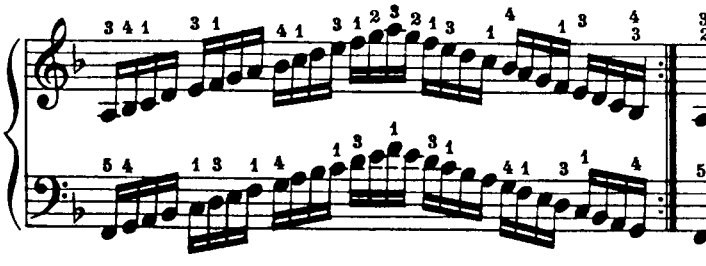
Major in similar motion



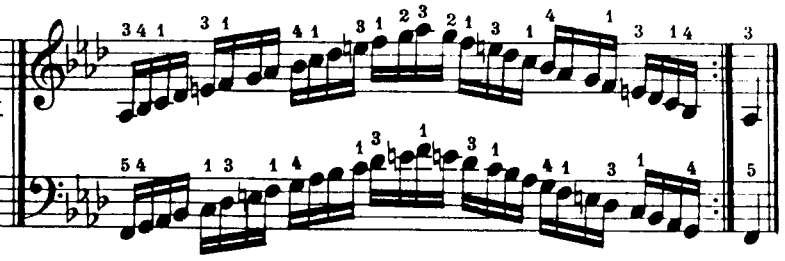
Harmonic Minor in similar motion



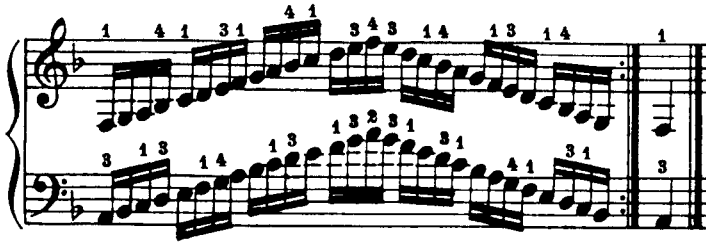
Major in Tenths or Thirds



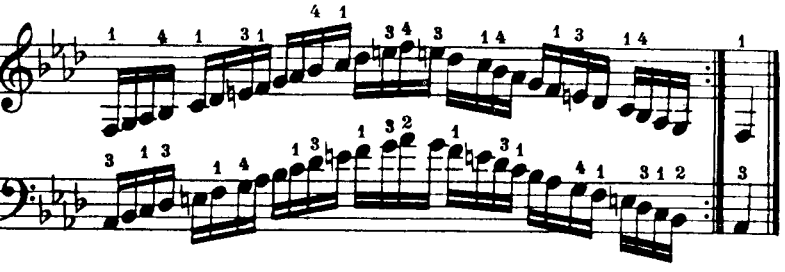
Harmonic Minor in Tenths or Thirds



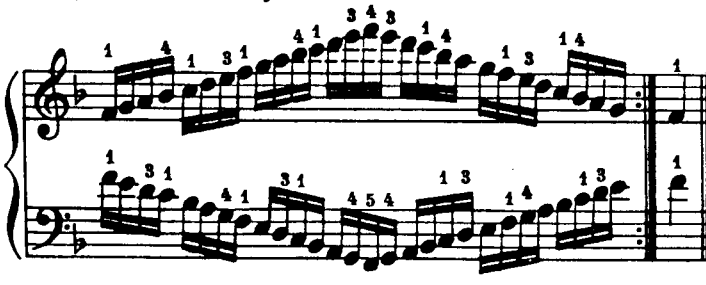
Major in Sixths



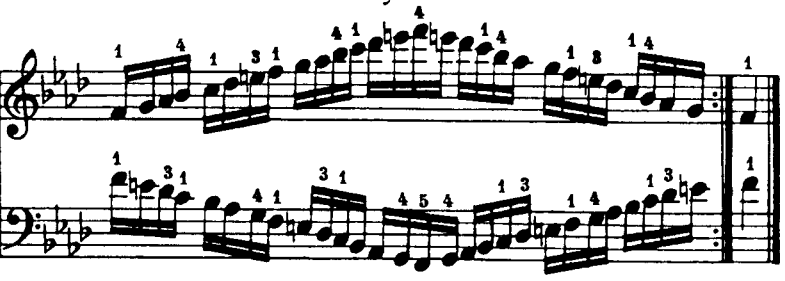
Harmonic Minor in Sixths



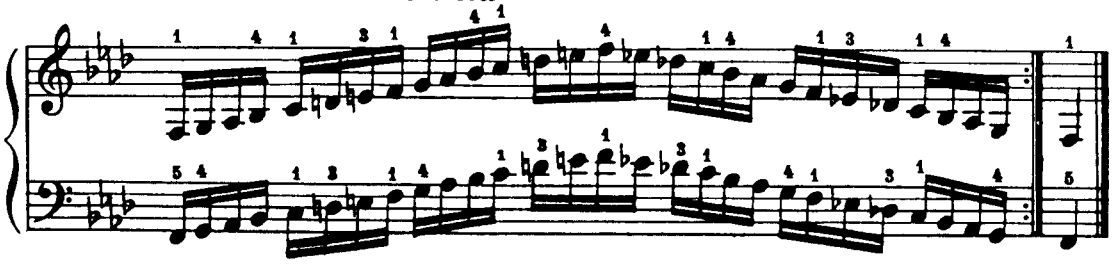
Major in contrary motion



Harmonic Minor in contrary motion



Melodic Minor in similar motion

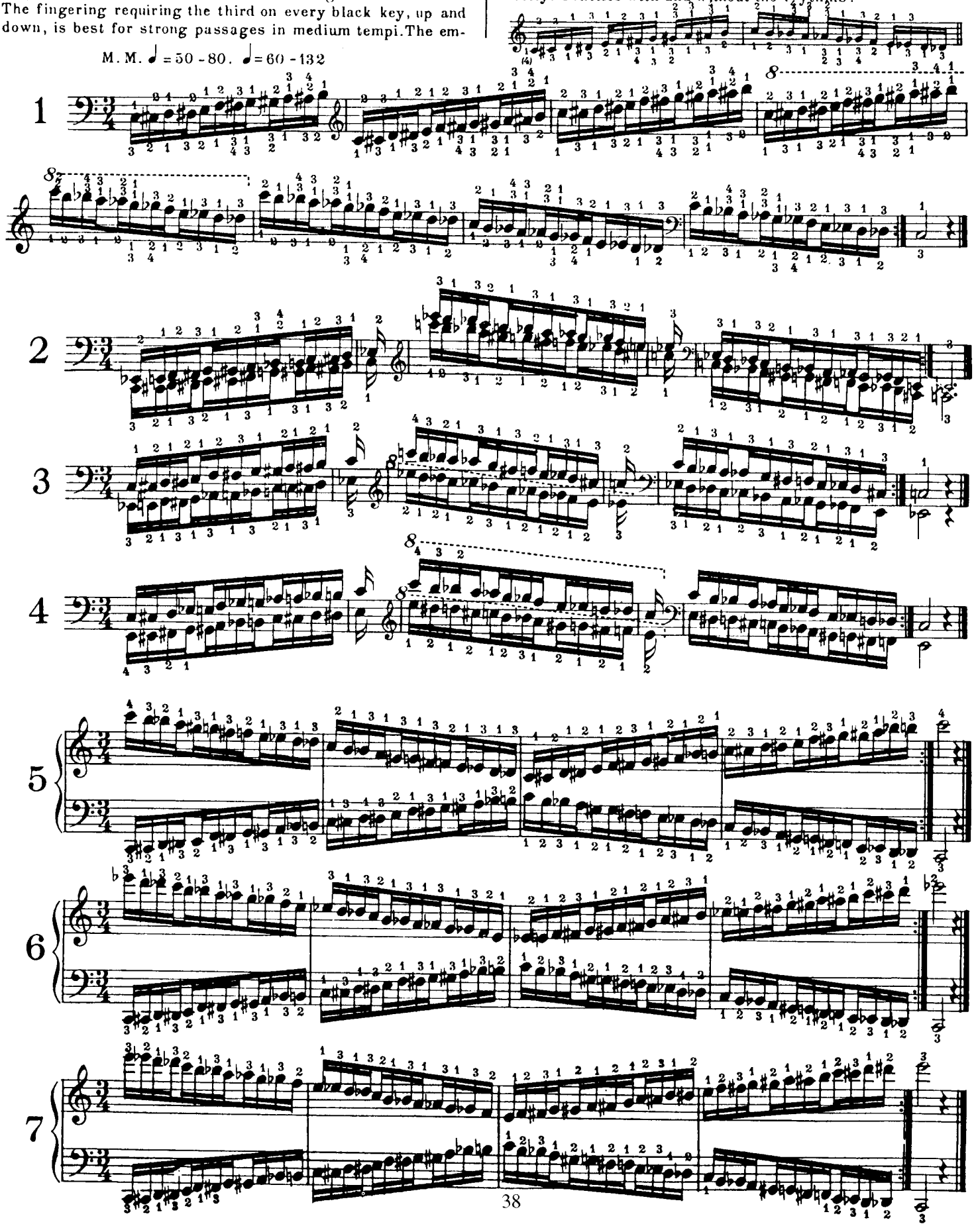


CD Sheet Music (tm) -- Philipp -- Complete School of Technic

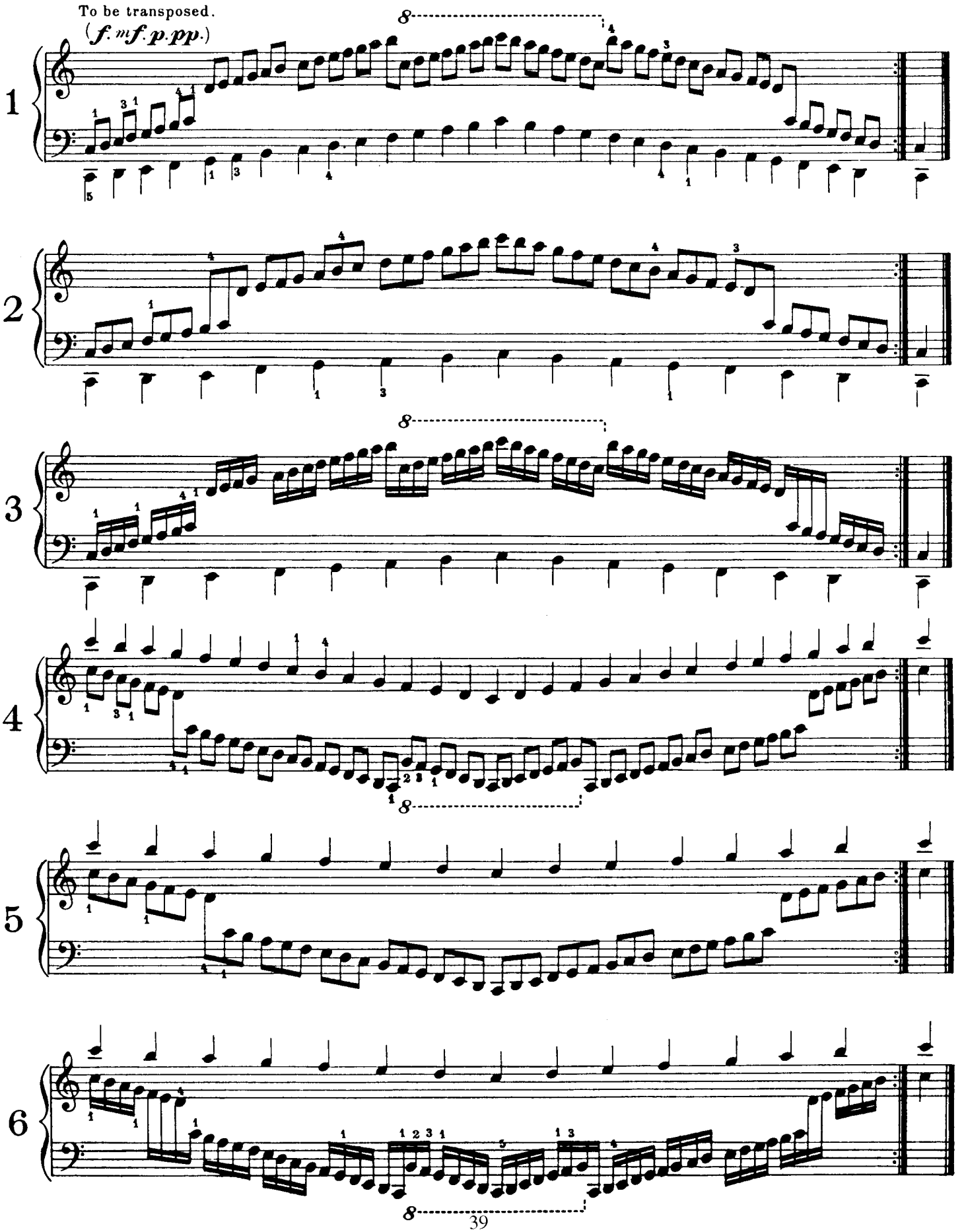
THE CHROMATIC SCALE

The chroma ic scale cannot be too assiduously practiced, being a great aid in the development of the thumb the second and third fingers. A bent thumb and full-curved fingers are essential. The fingering requiring the third on every black key, up and down, is best for strong passages in medium tempi. The employment of the second, third and fourth fingers at certain intervals is of distinct advantage in legato, and in extreme velocity. Practice with and without the rhythms.

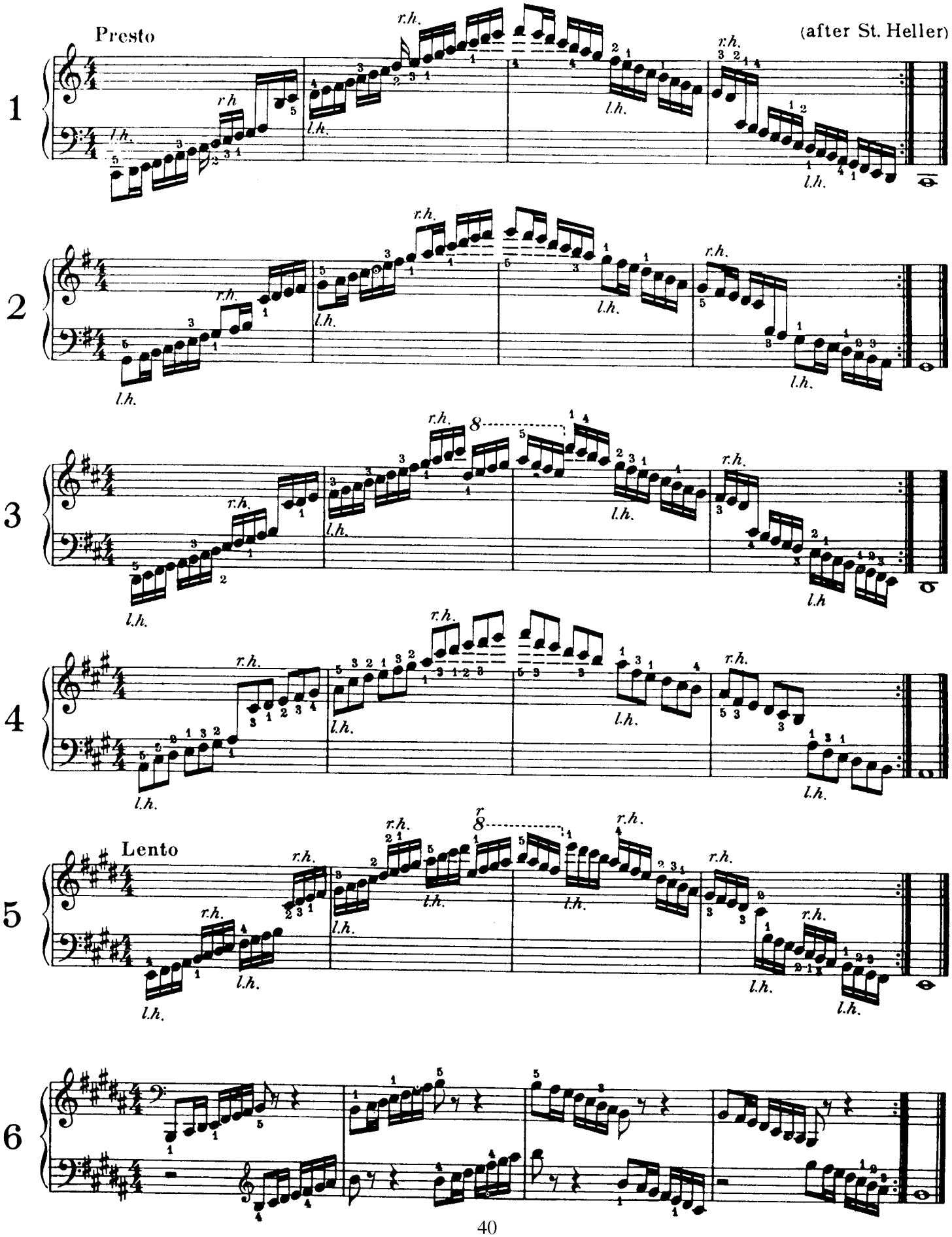
M. M. ♩ = 50 - 80. ♩ = 60 - 132

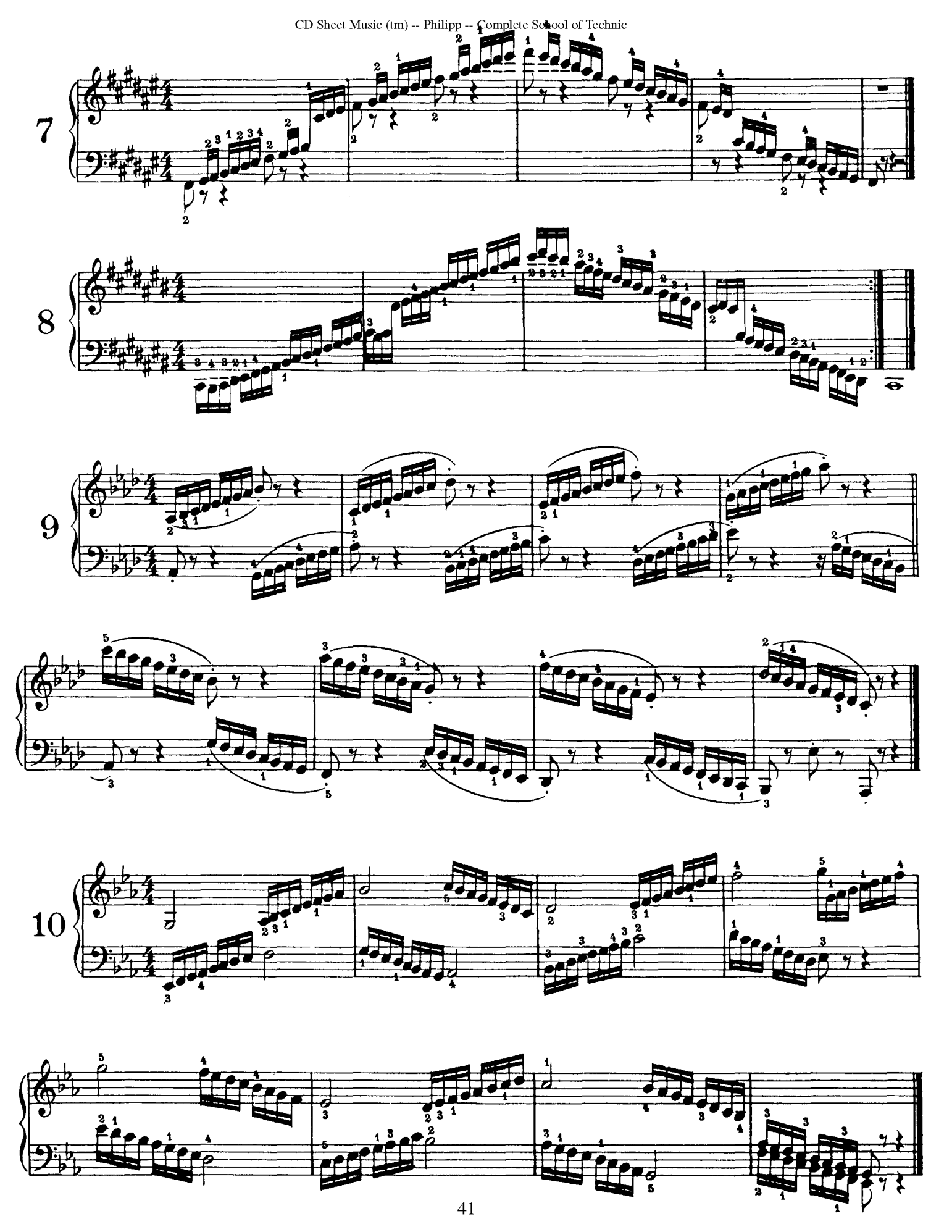


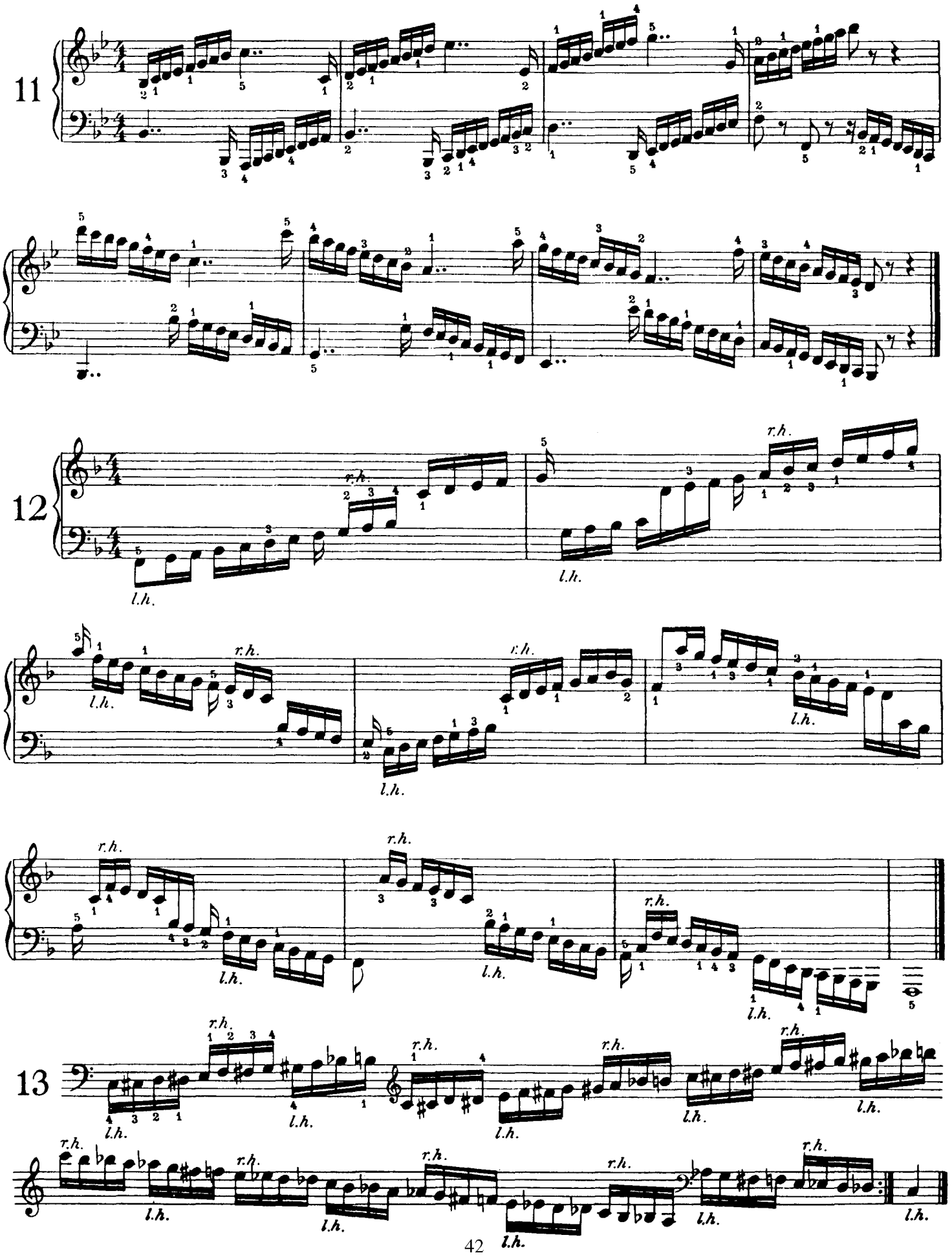
VARIOUS MODELS FOR SCALE PRACTICE



SCALES FOR BOTH HANDS ALTERNATELY



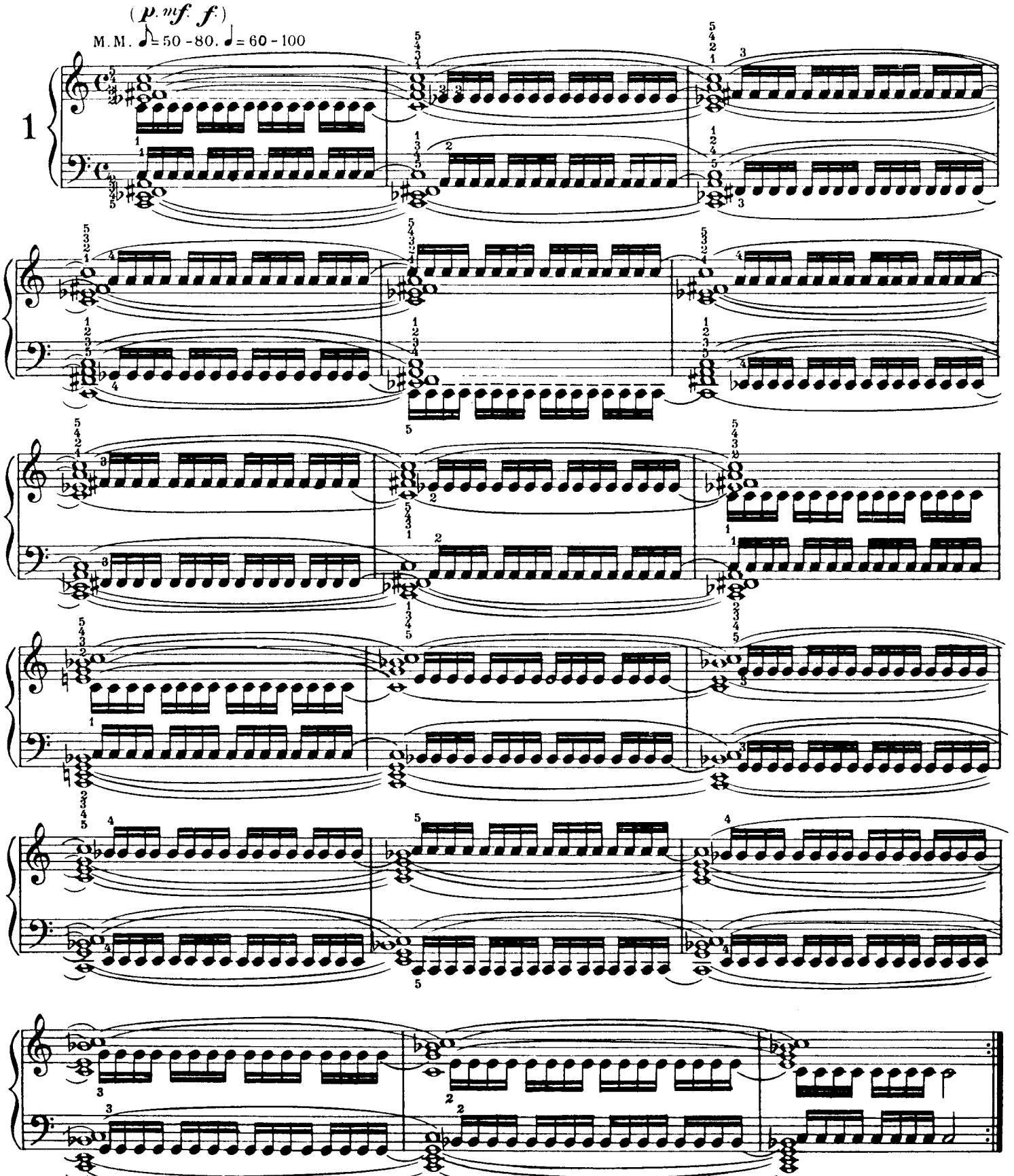

7
8
9
10

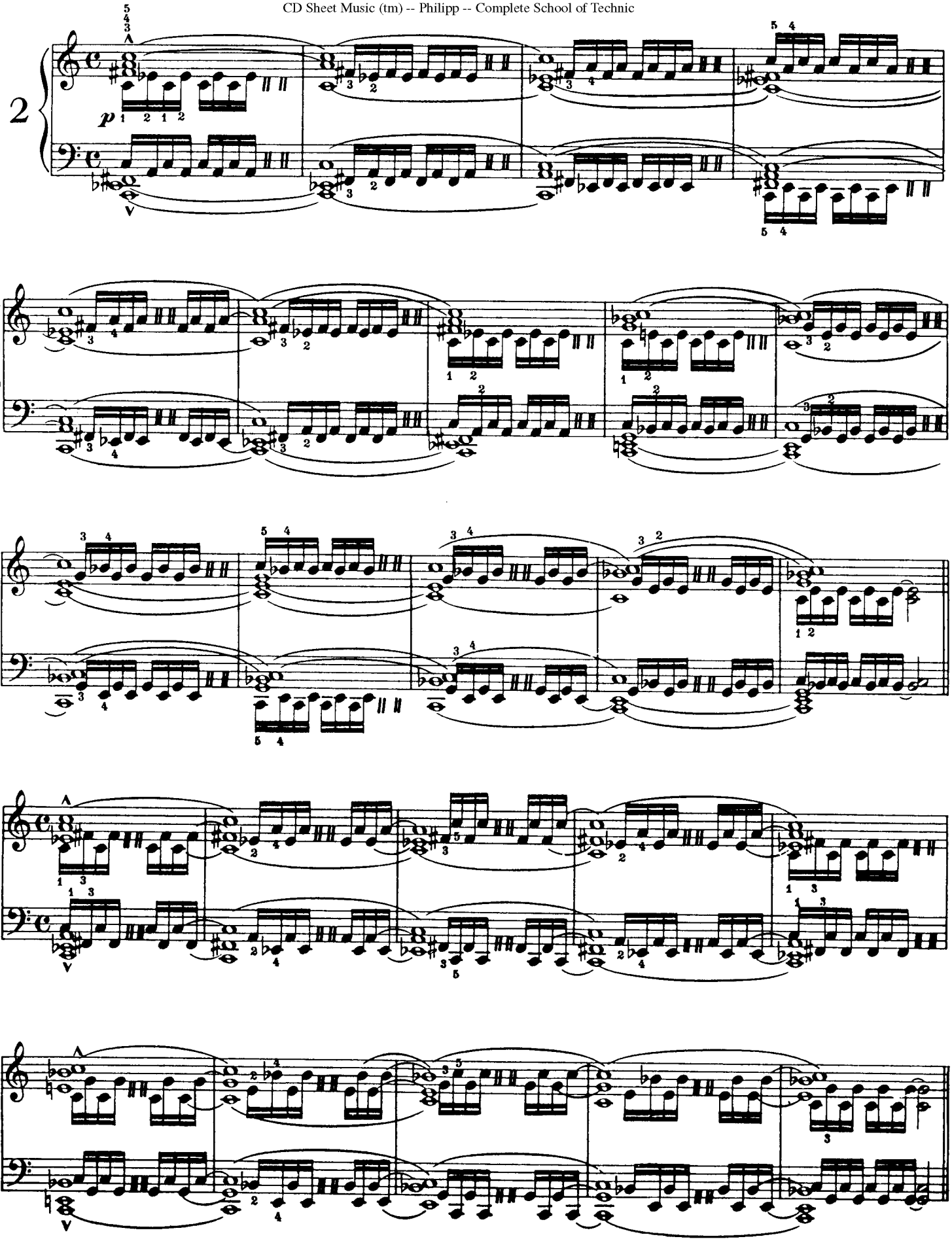

11
12
r.h.
l.h.
13

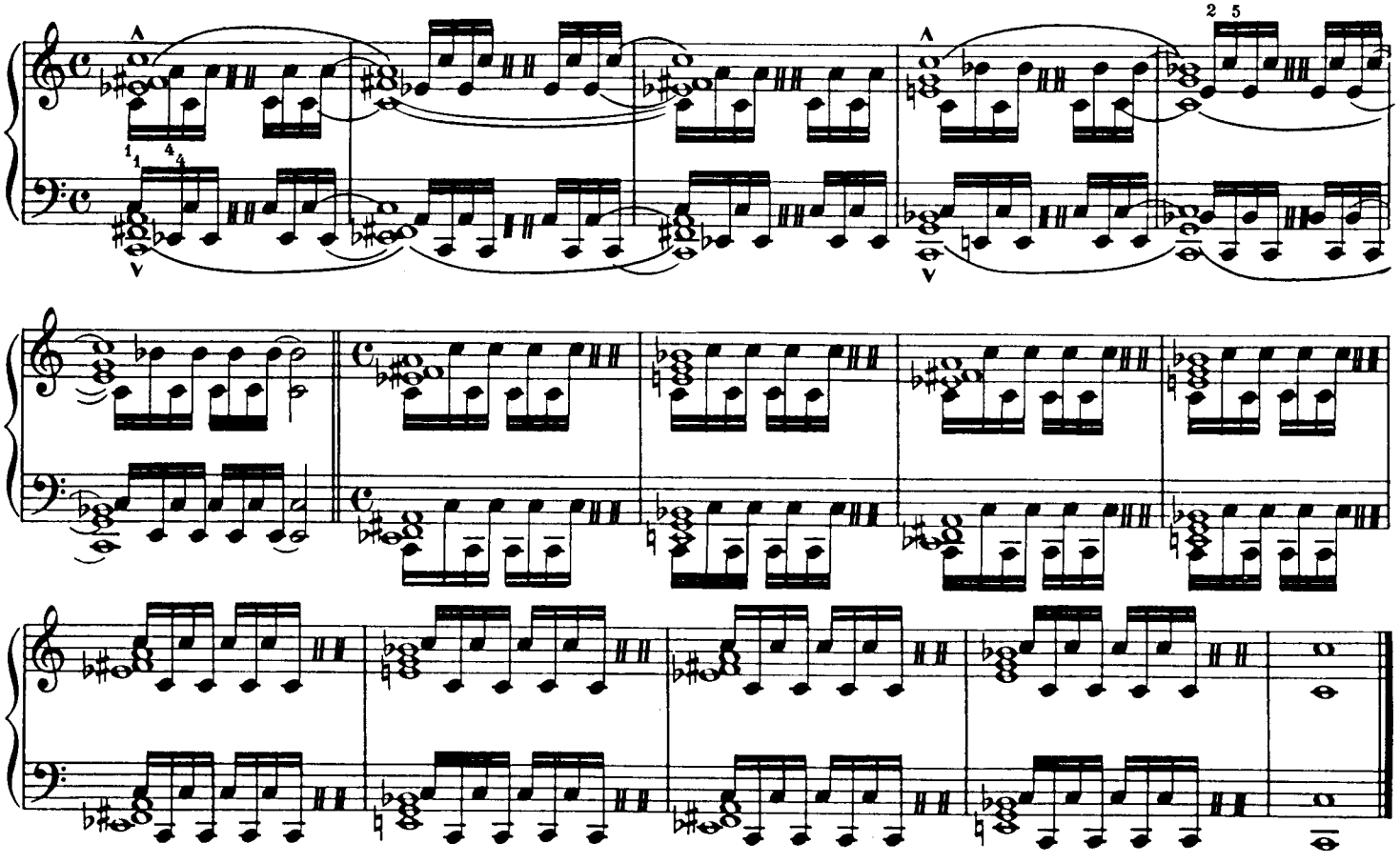
CD Sheet Music (tm) - Philipp - Complete School of Technics

FINGER EXTENSION, AND INDEPENDENCE

In cases where the chords are spanned with difficulty, the exercises for some time should be practiced *piano*, without the rhythms, and with a close touch. The less the effort made to hold the chords down and to move the fingers, the more freely the muscles will stretch. The fingers are curved as much as possible, the knuckles raised, the wrists at times elevated, at others held low. Transpose.



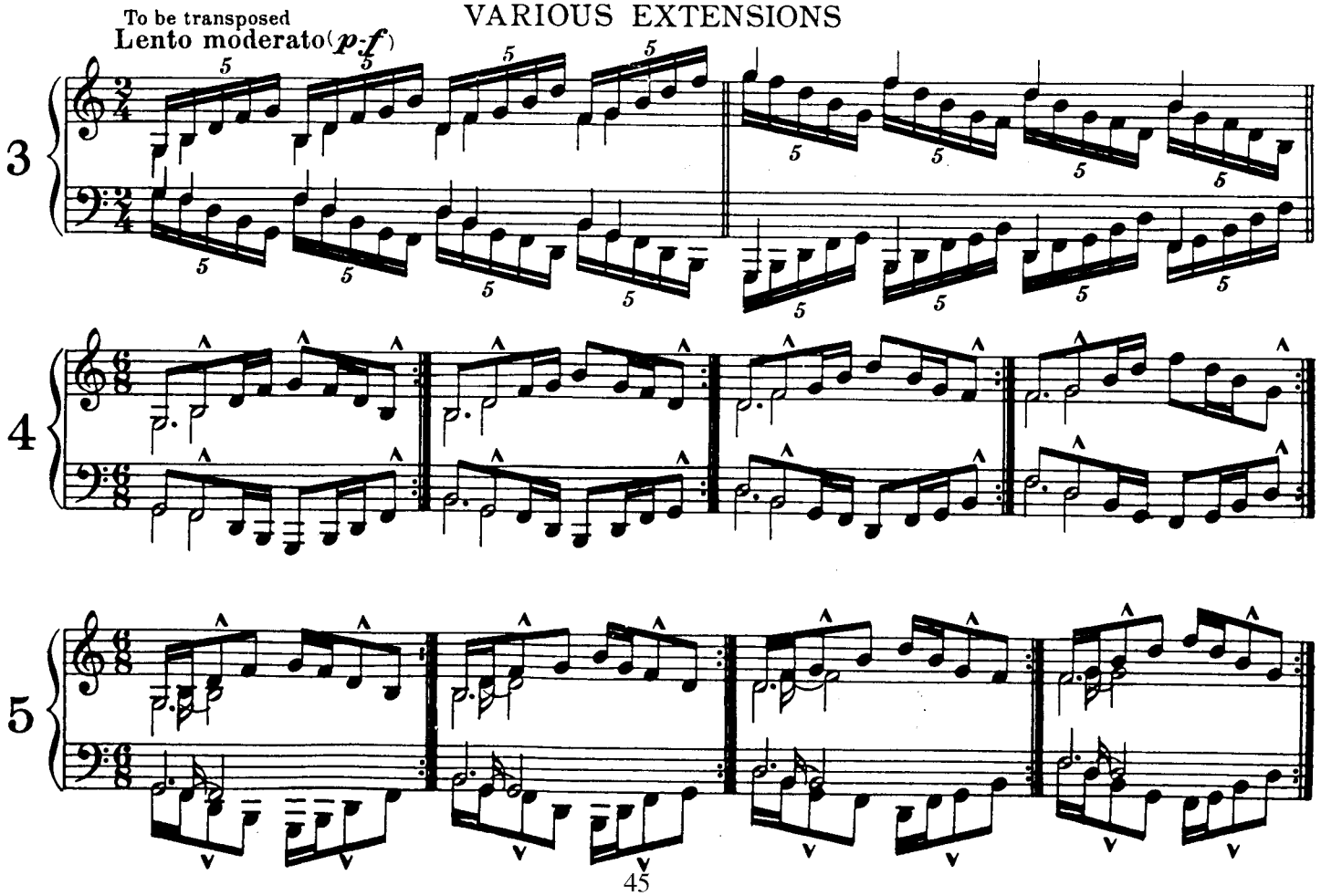


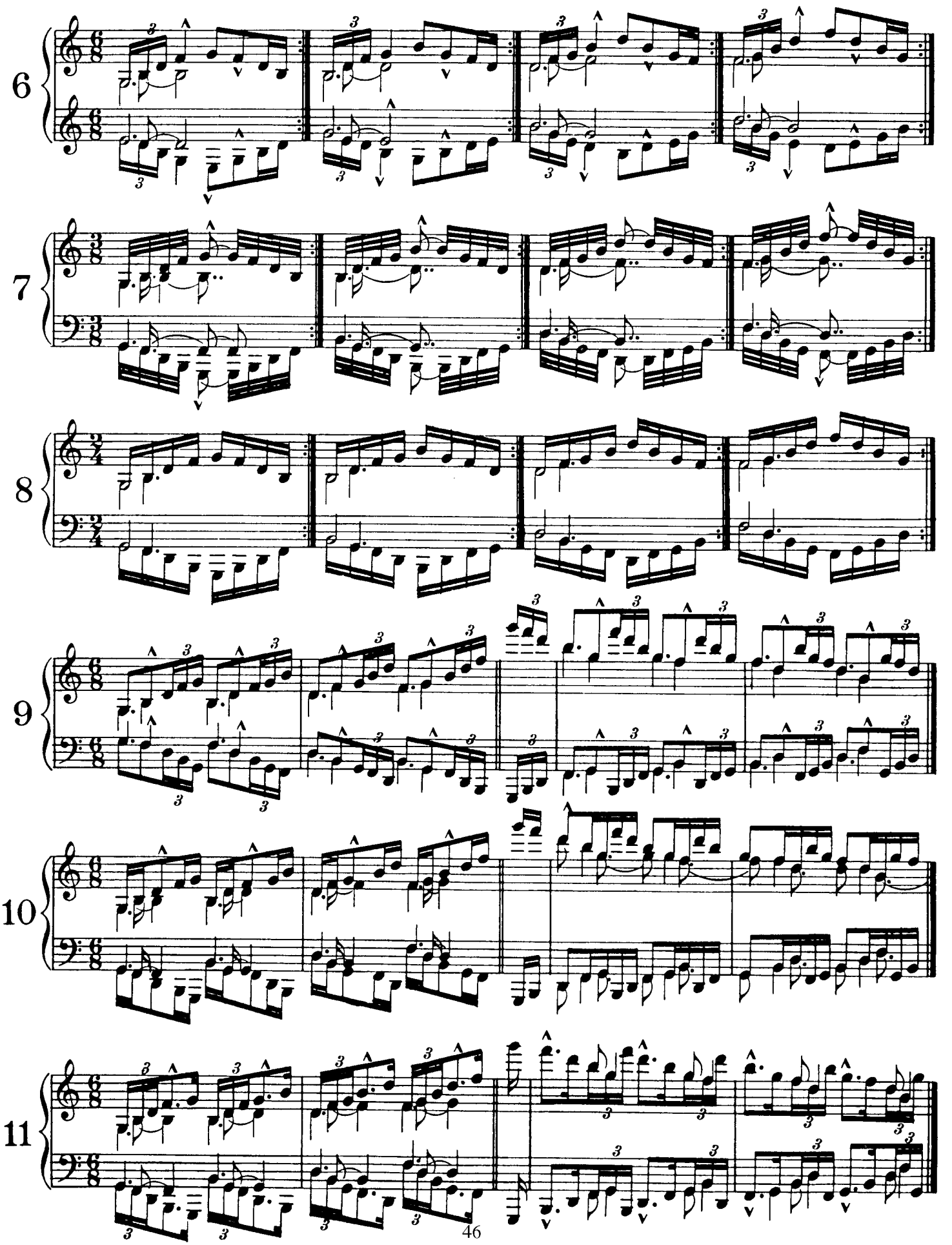


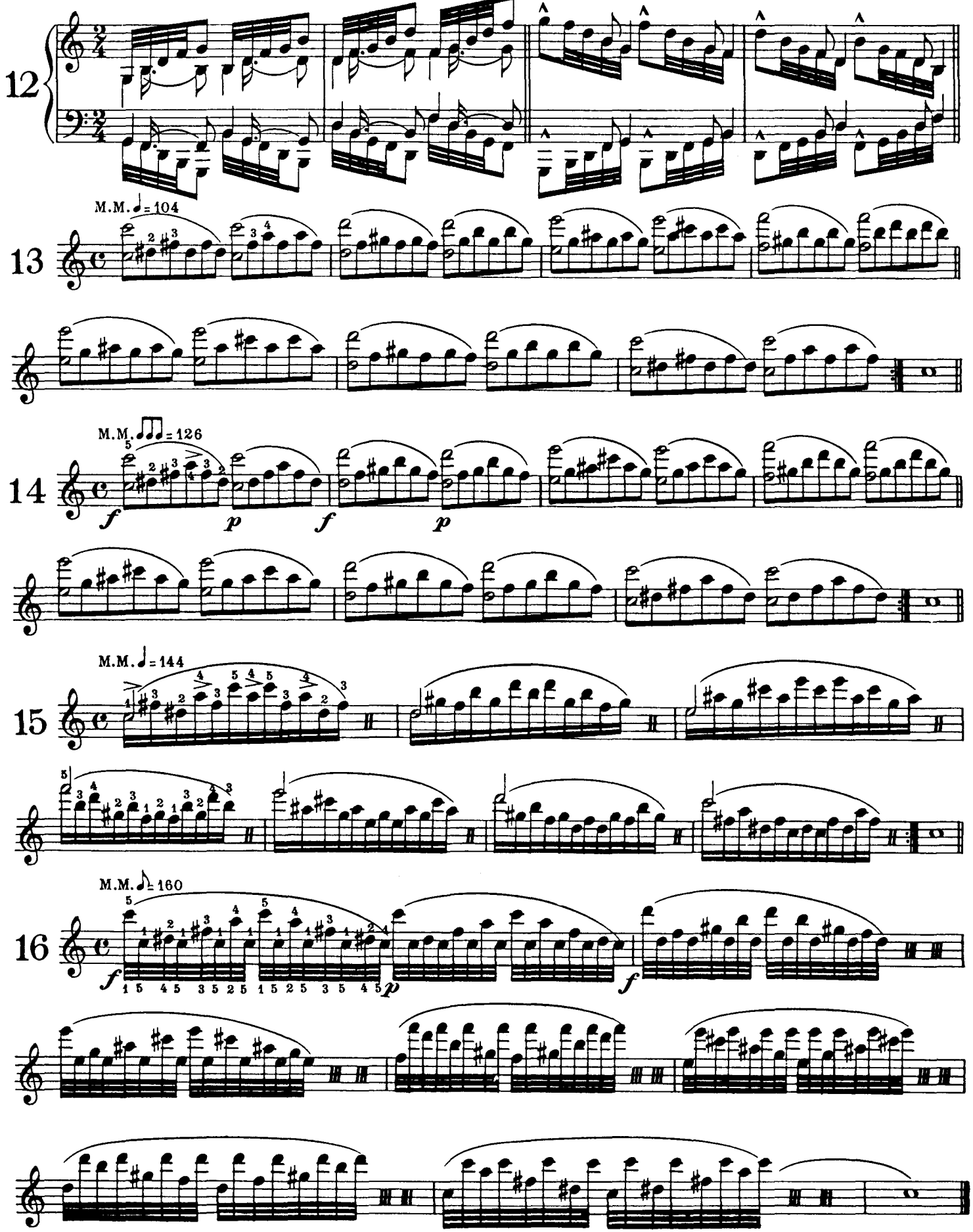
VARIOUS EXTENSIONS

To be transposed

Lento moderato (*p-f*)




6
7
8
9
10
11

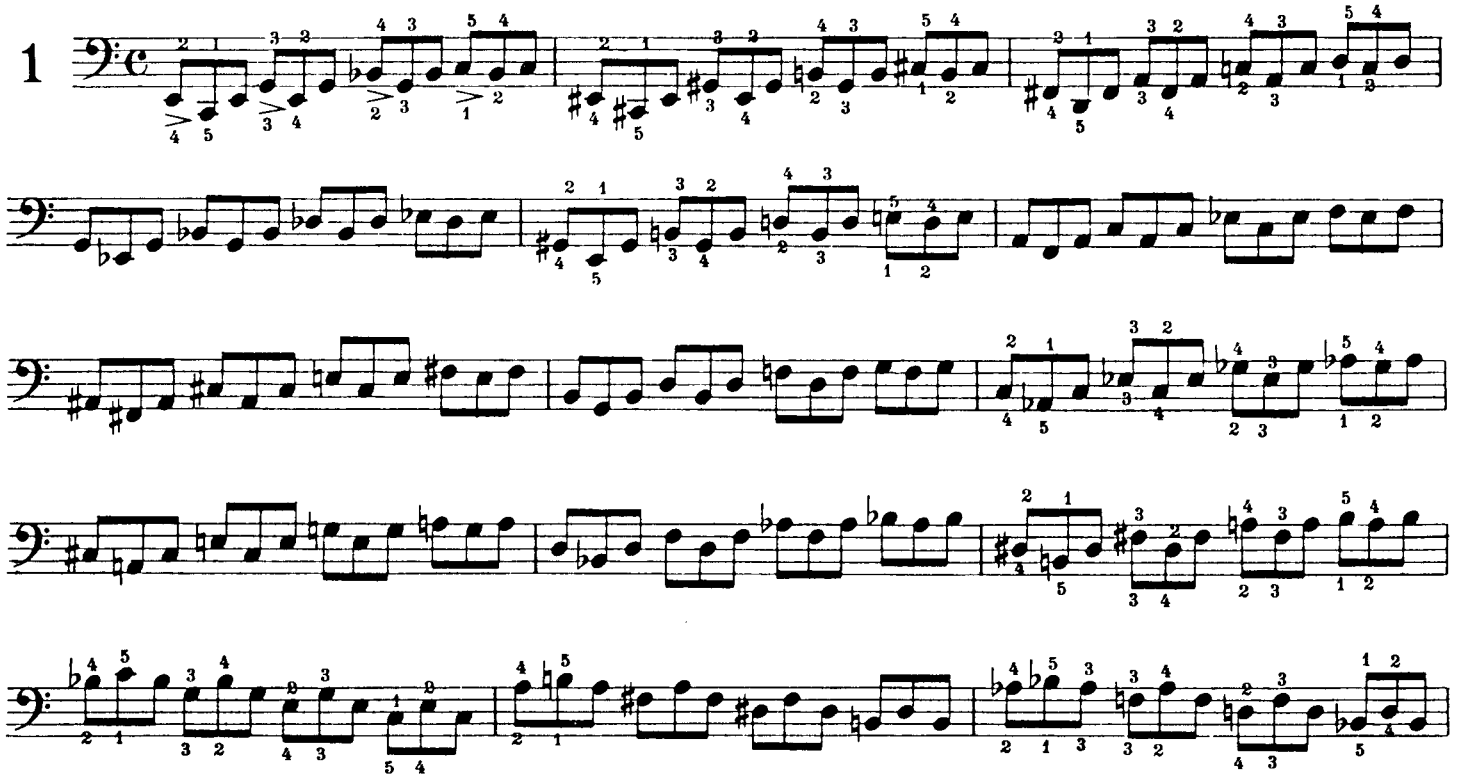

12
M.M. ♩= 104
13
M.M. ♪♪♪= 126
14
f
p
f
p
M.M. ♩= 144
15
M.M. ♪= 160
16
f
p
f

EXERCISES ON SHORT ARPEGGIOS

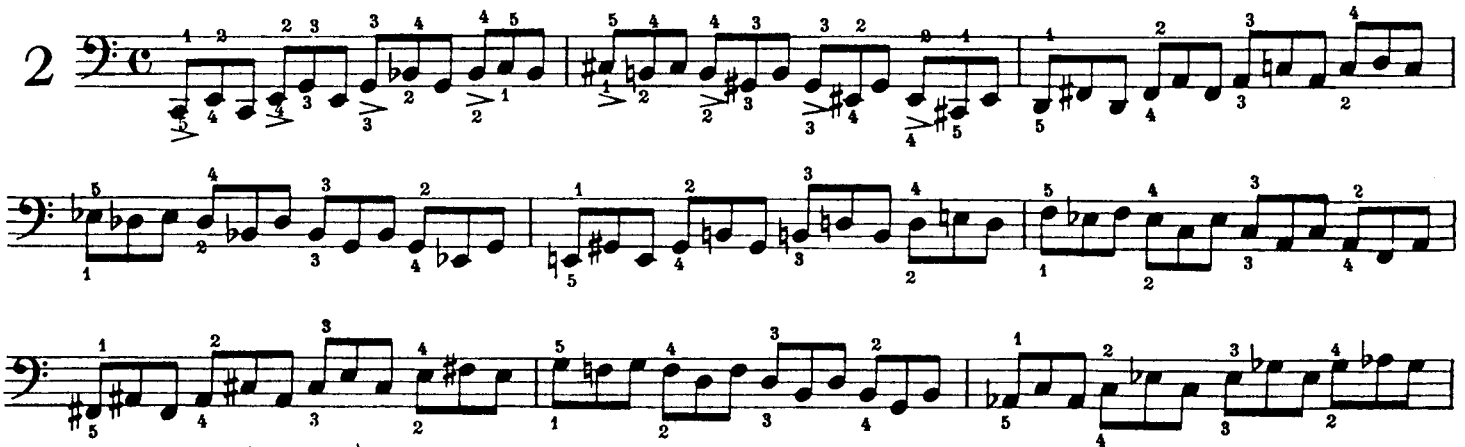
Also with the rhythms ❋

Right hand two octaves higher.

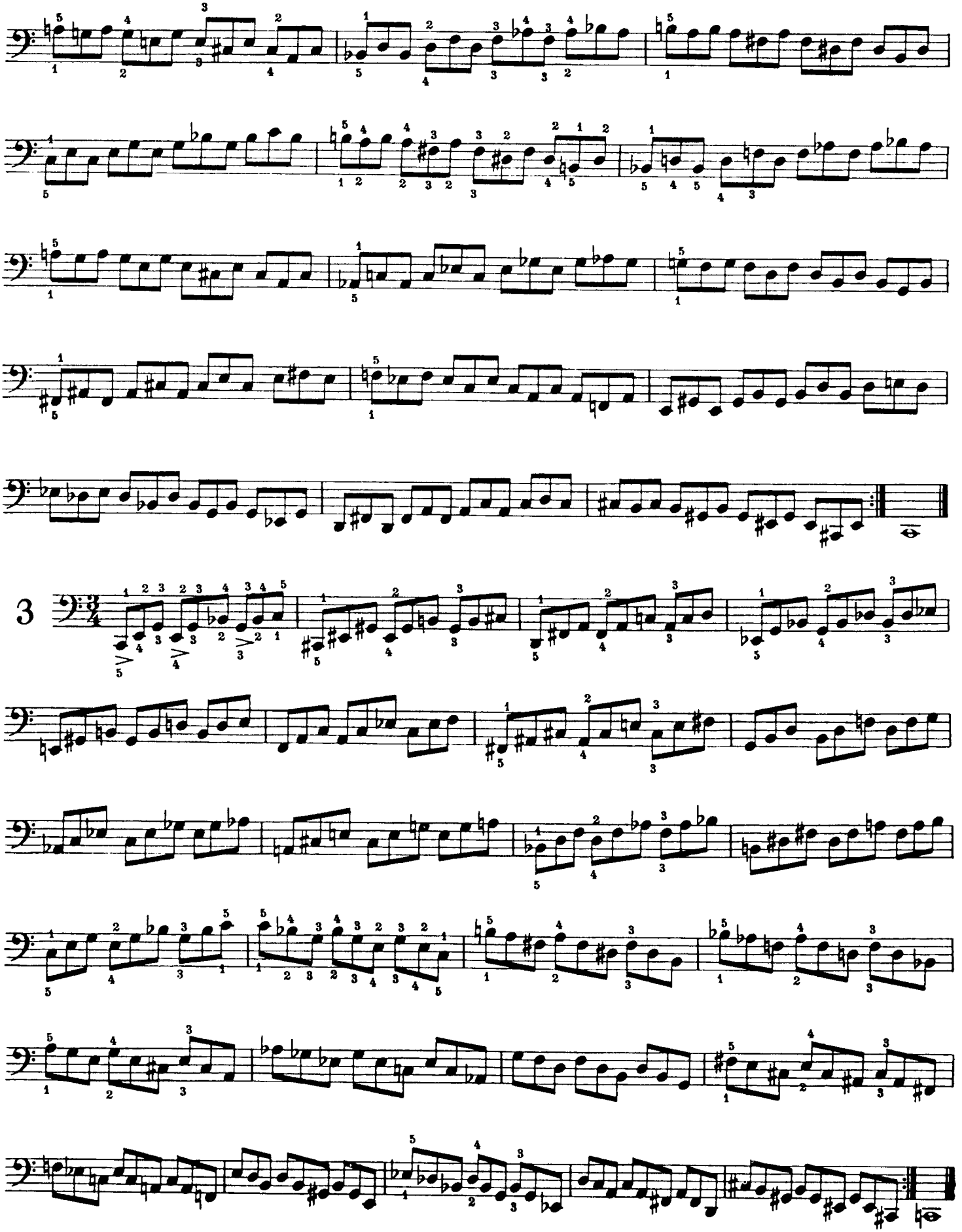
1

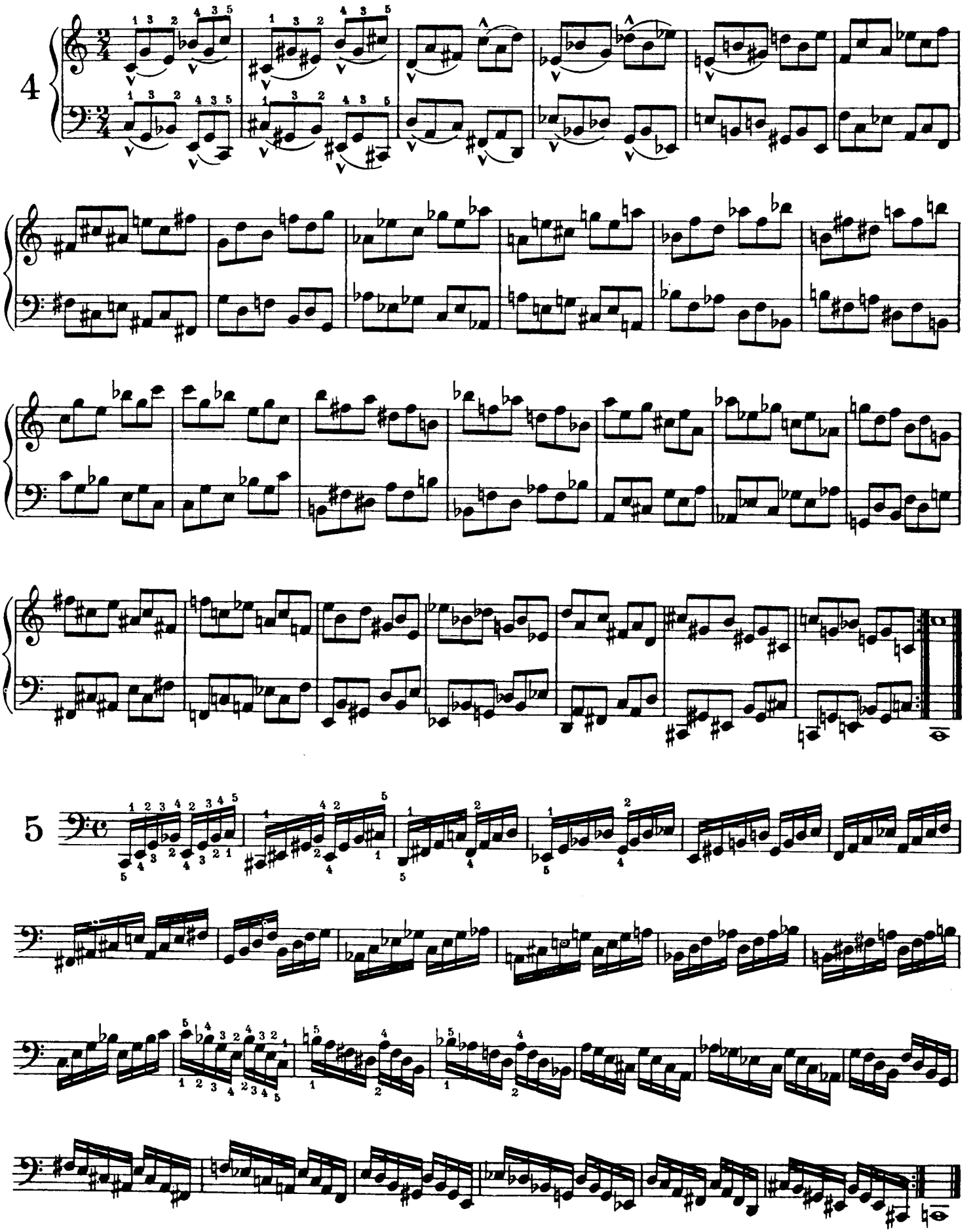


2



❋ Various rhythms




4
5

Arpeggios

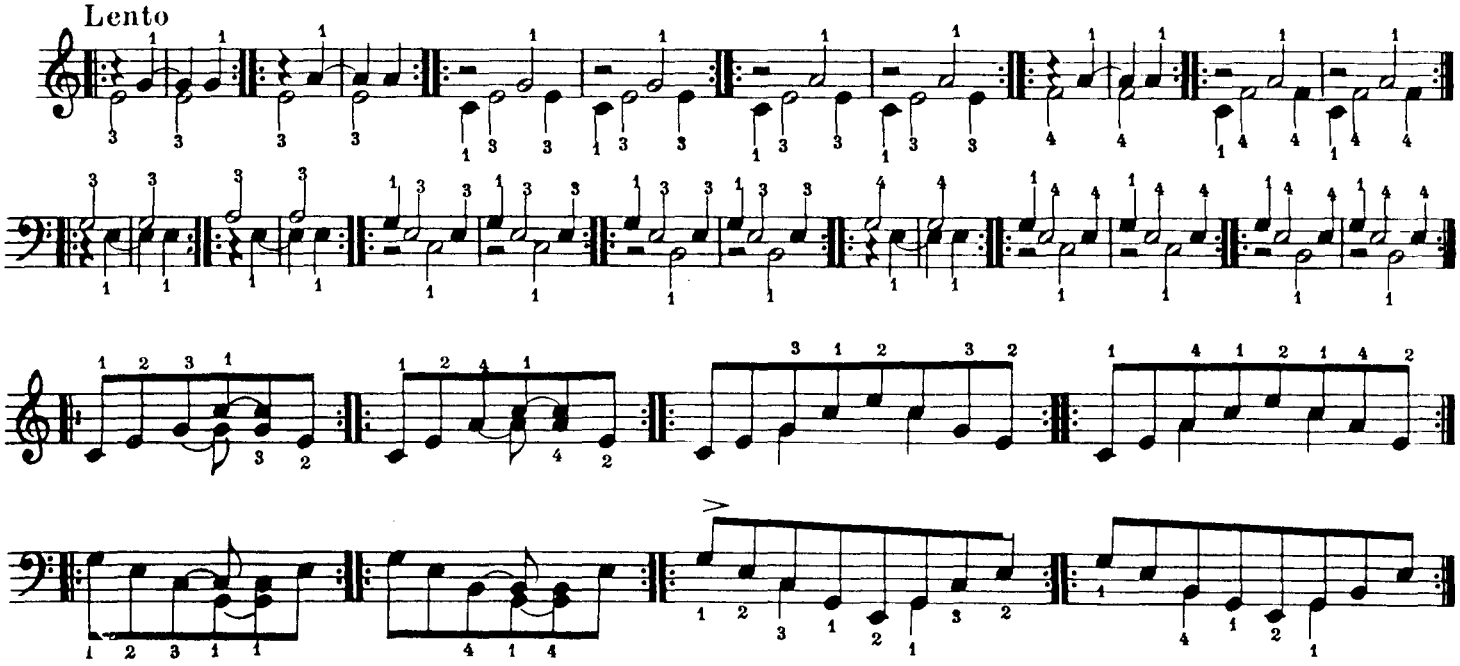
The manner of practicing the preparatory exercises for scale playing, applies equally to the following exercises for passing the thumb in arpeggio playing. The fingers generally, however, maintain a long, instead of a full-curve. It is best to avoid completely straightening them, as the touch then becomes weaker, and the tone dull.

In arpeggio velocity, no especial effort is made to sustain the thumb note until a crossing finger touches its key above or below. In the longer intervals, the thumb, in fact, often leaves its note before the next finger strikes, though not to the extent of causing a break in the evenness or continuity of tone. The mind should be centered upon the sensation of legato touch and the evenness of the tones.

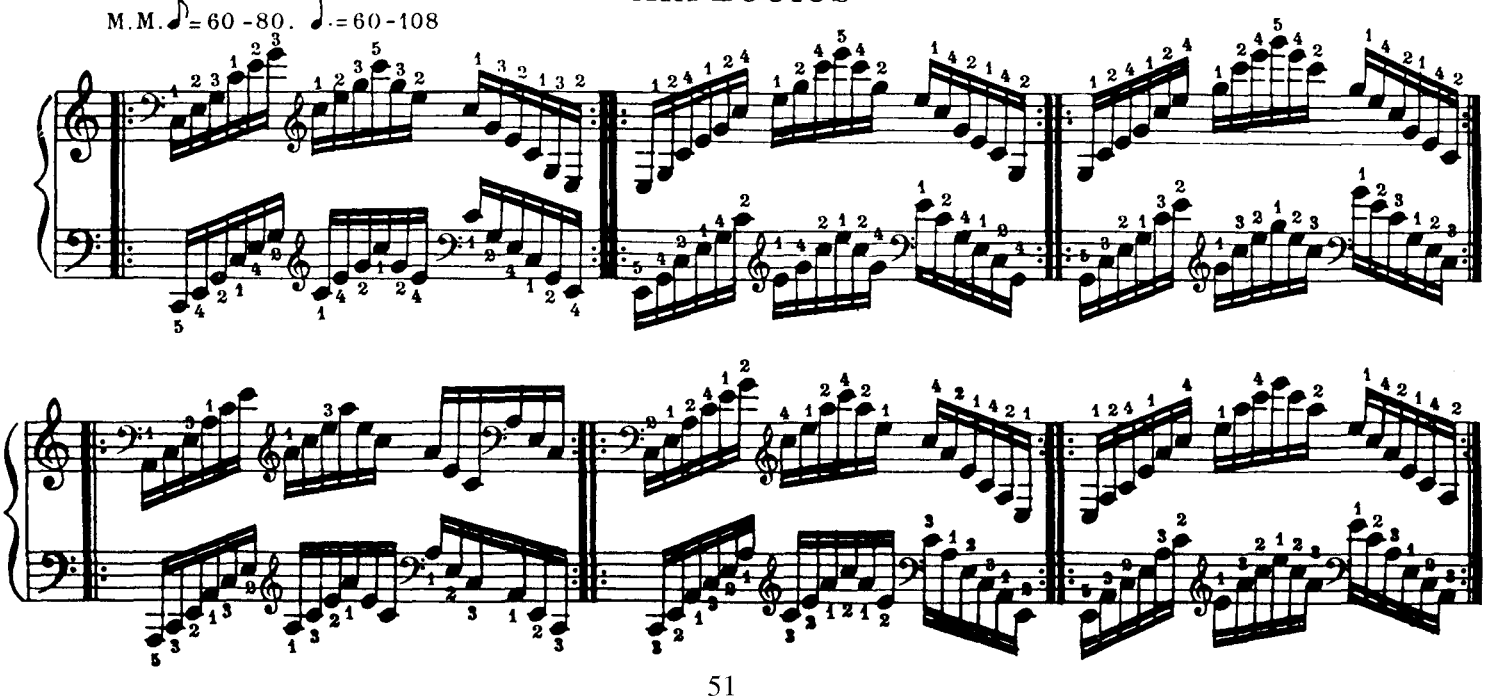
The rhythms accompanying the exercises in velocity are applicable here. Frequent pauses when practicing in quick tempi, as suggested in the introduction, are recommended.

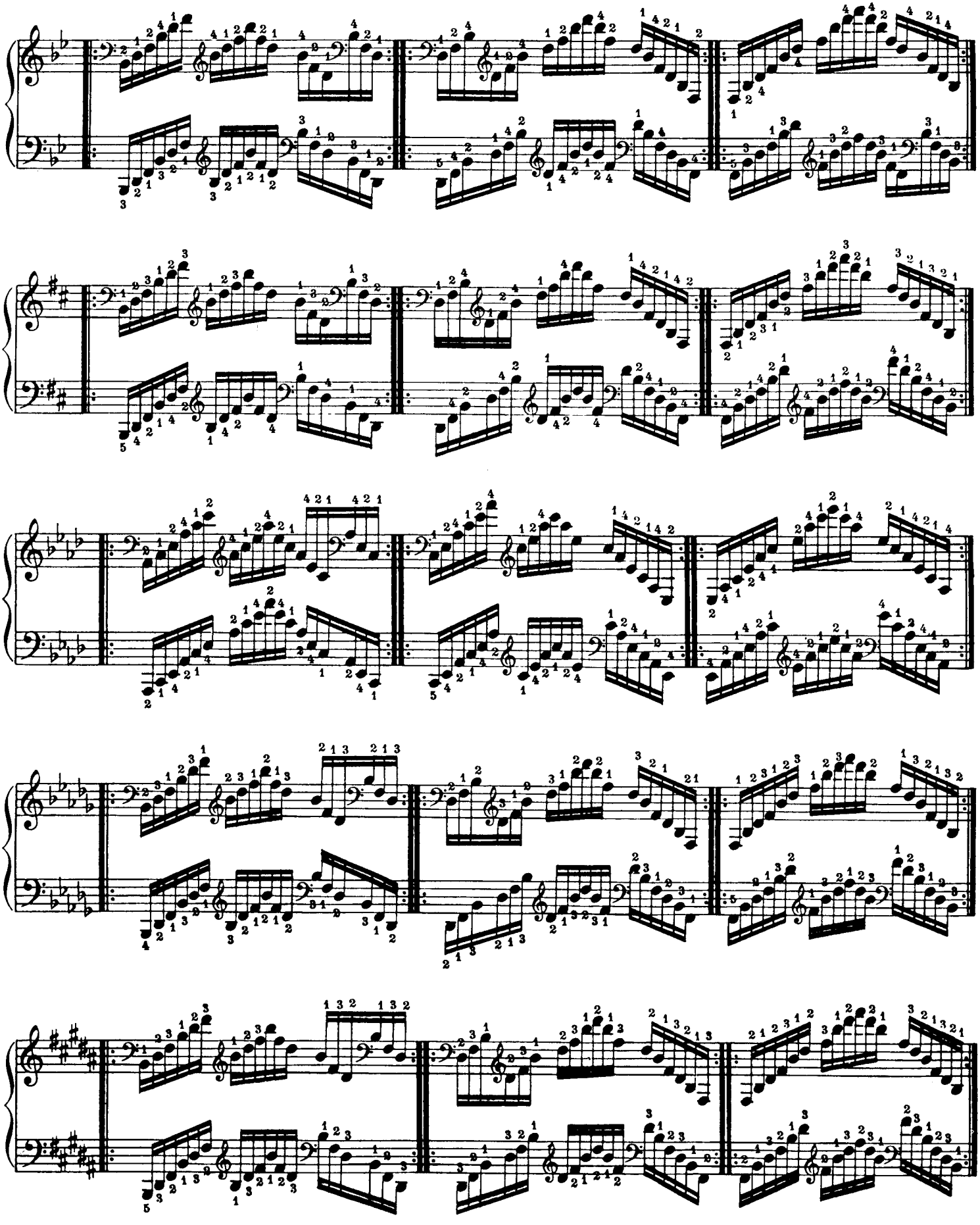
Detached groups may also be practiced staccato,—the fingers moving lightly, rather close to the keys, the wrist being held loose, and the hand vibrating freely, in sympathy with the finger movement.

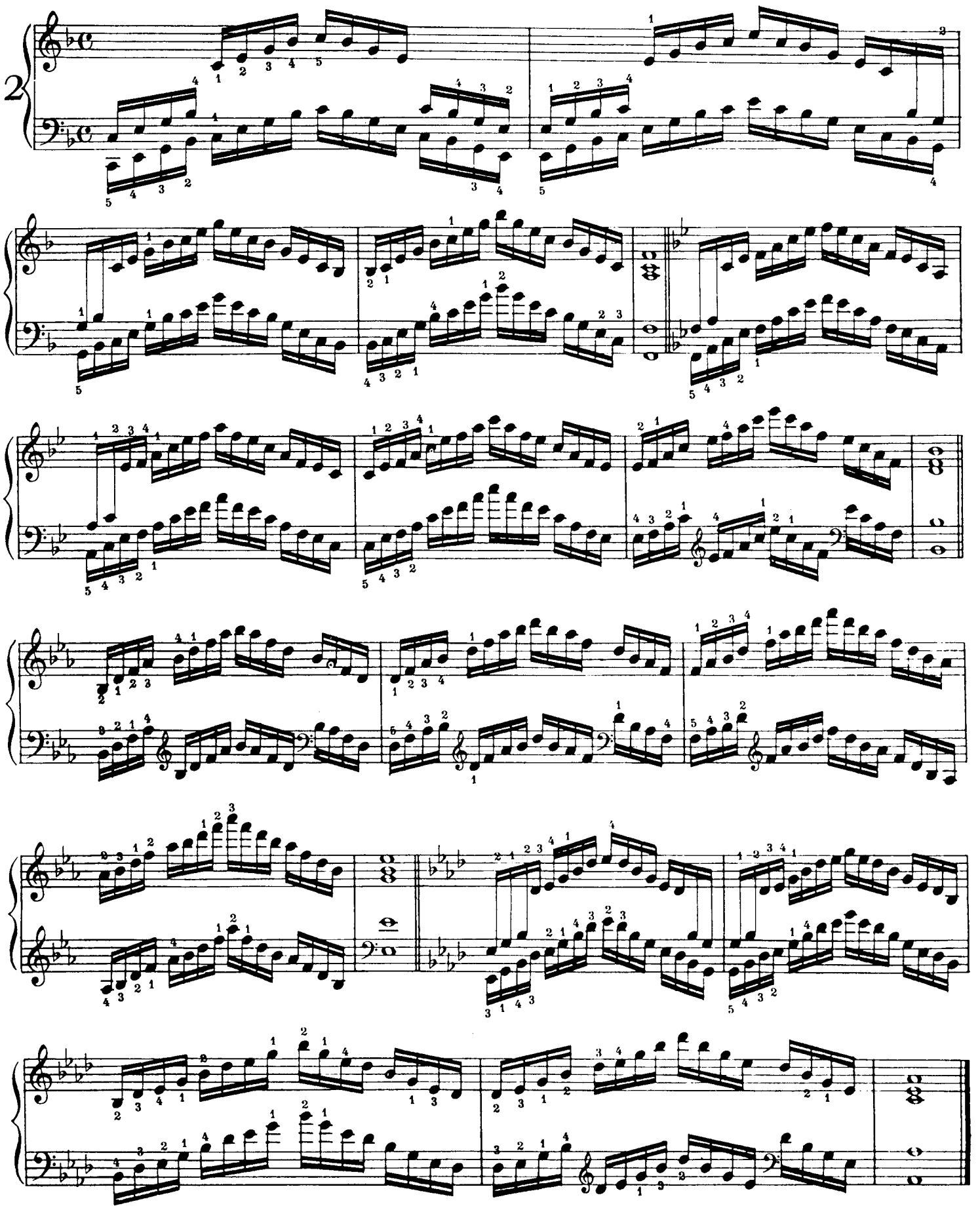
PREPARATORY EXERCISES FOR ARPEGGIO PLAYING

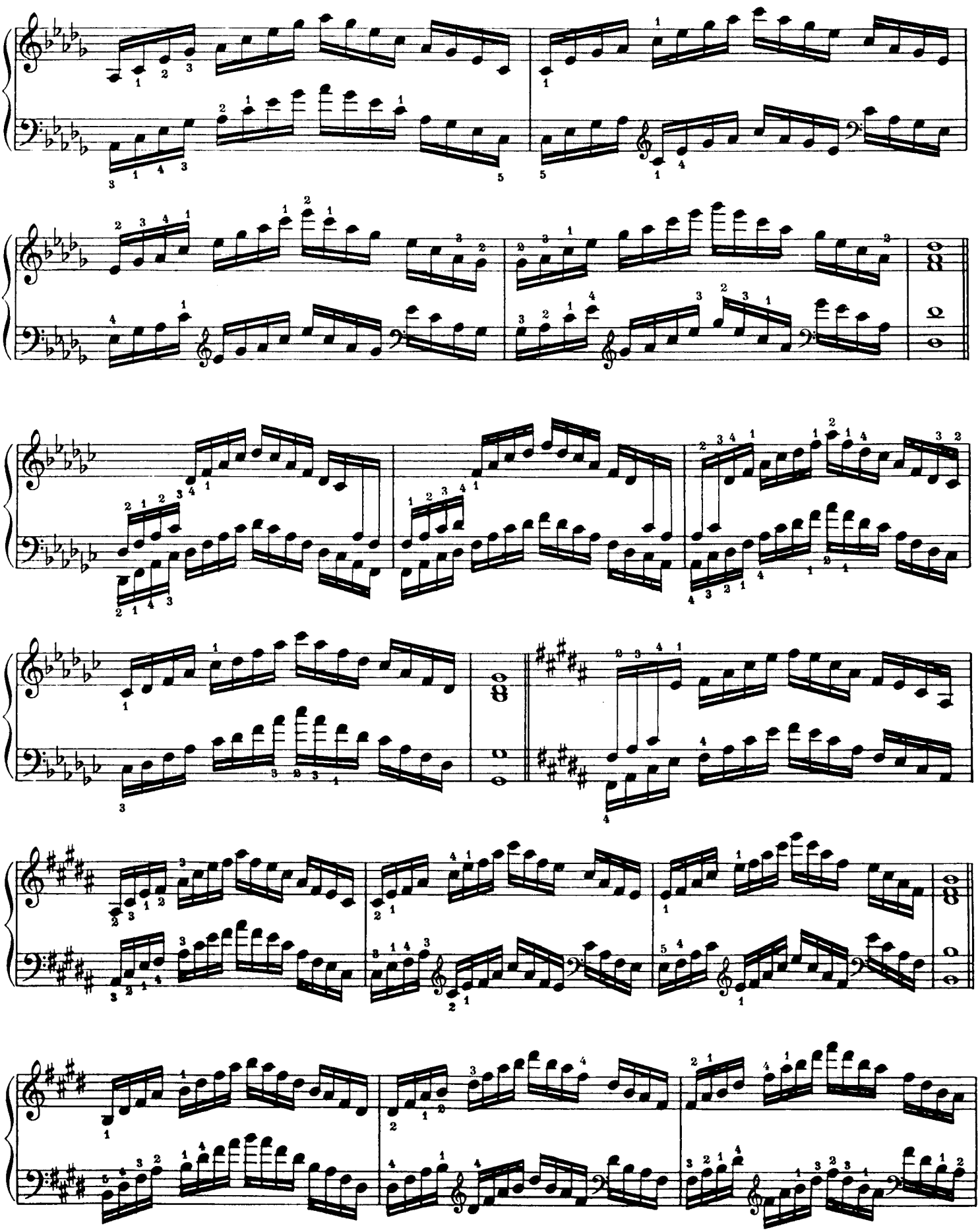


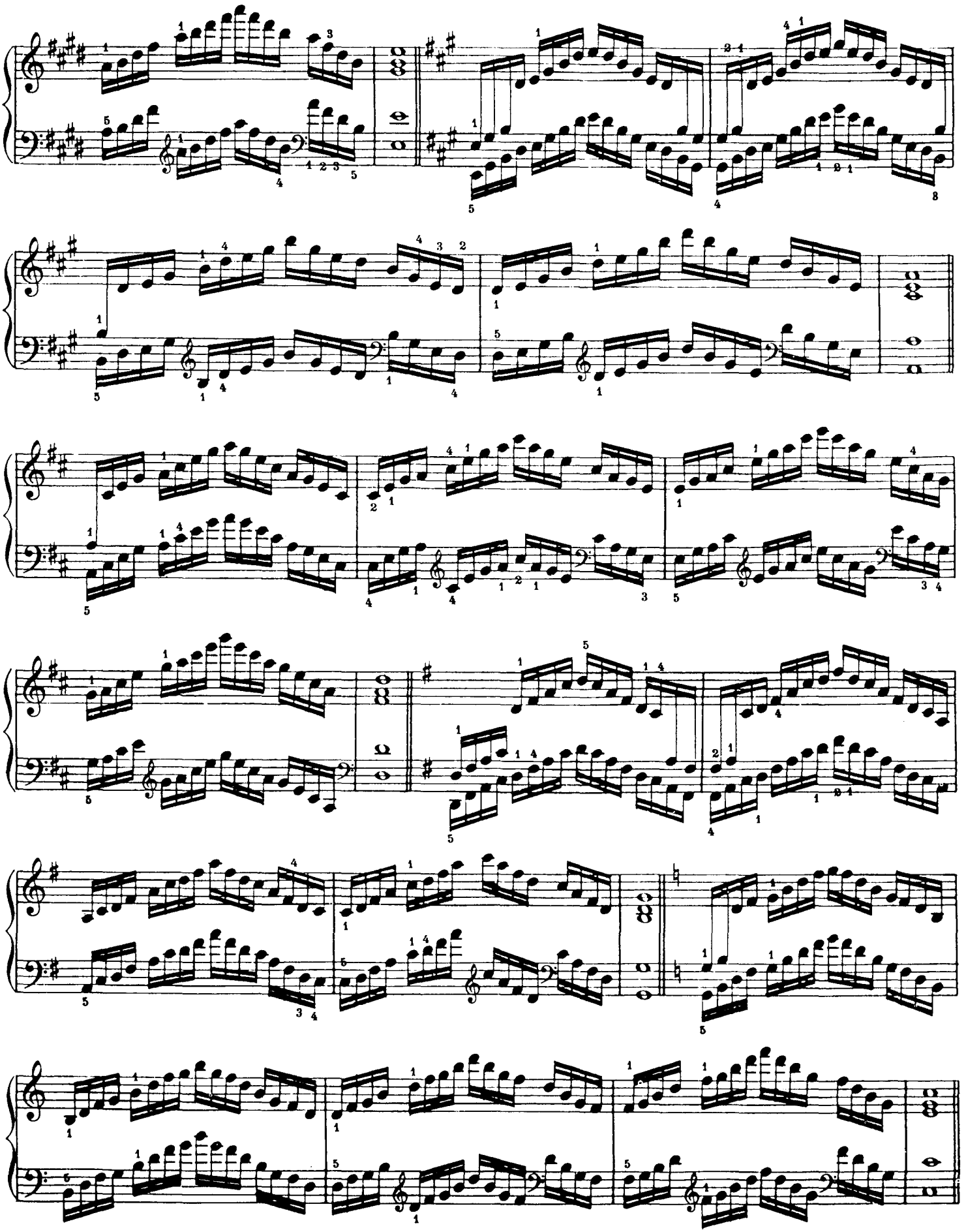
ARPEGGIOS

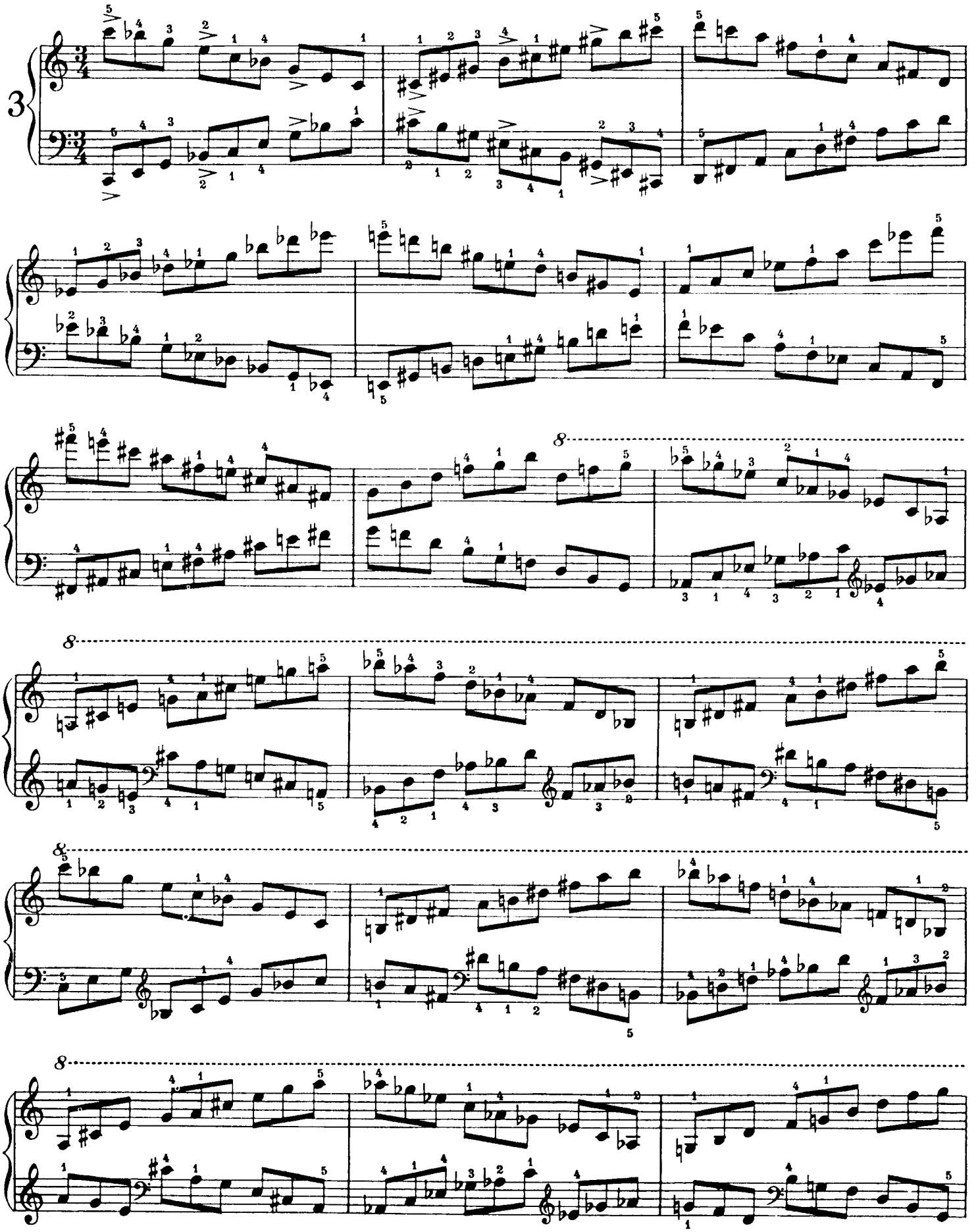


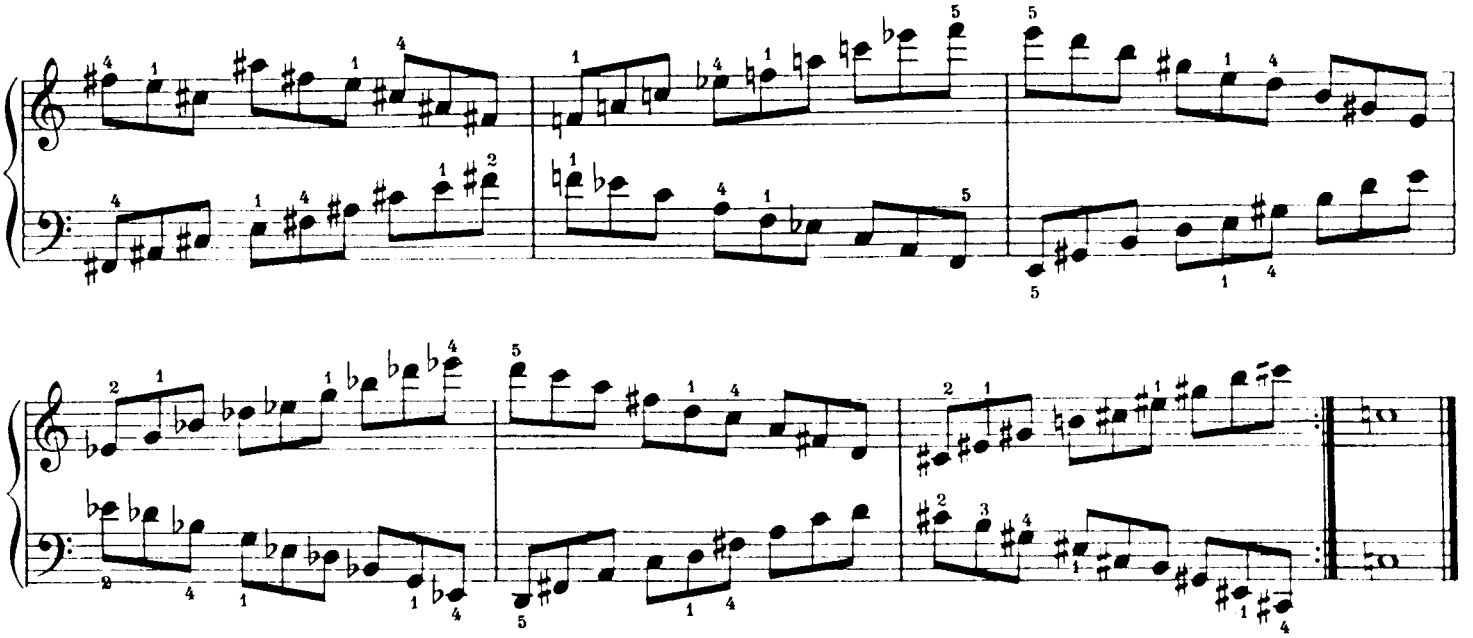


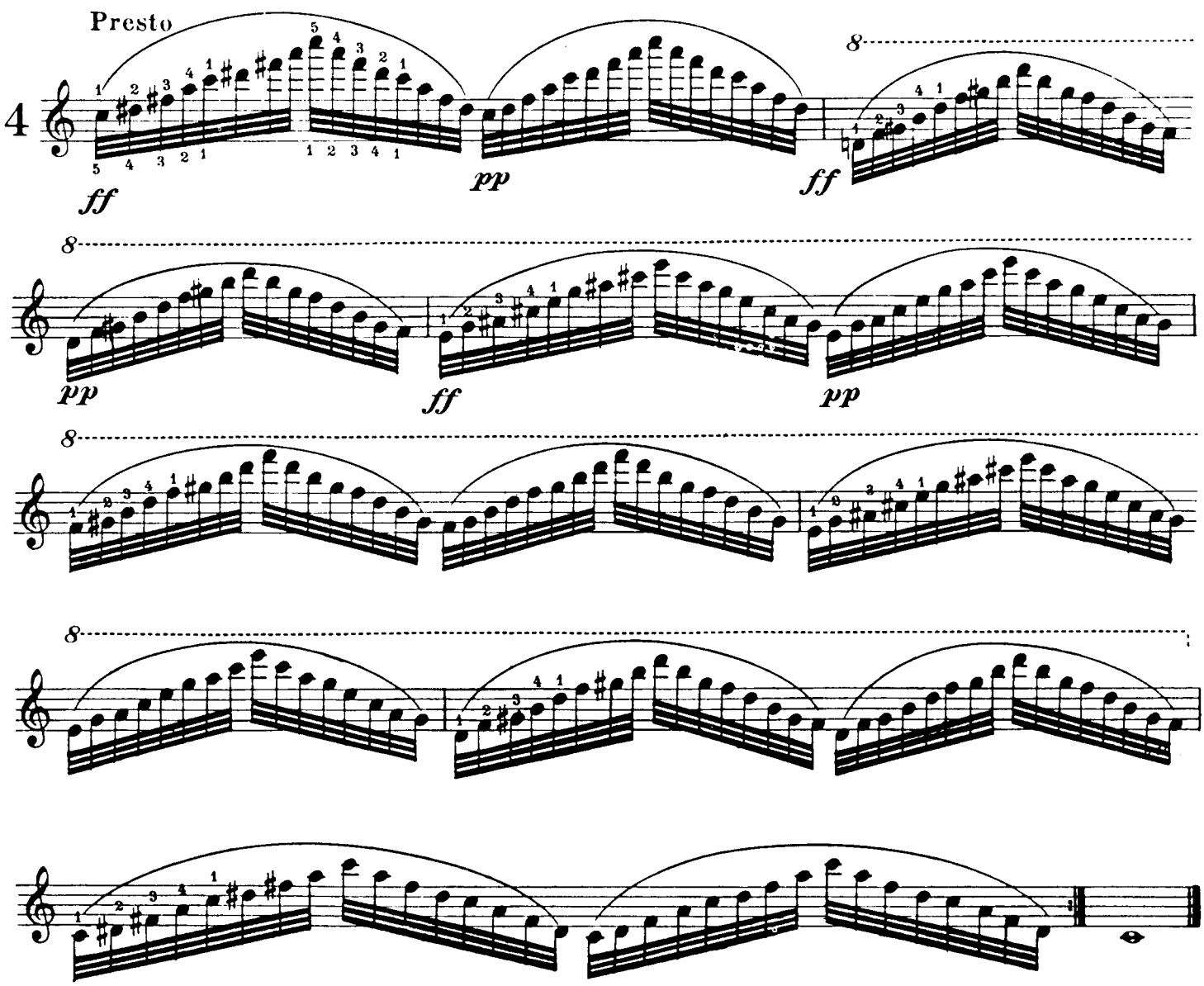











Presto
4
ff
pp
ff
8
pp
ff
pp
8
8
8

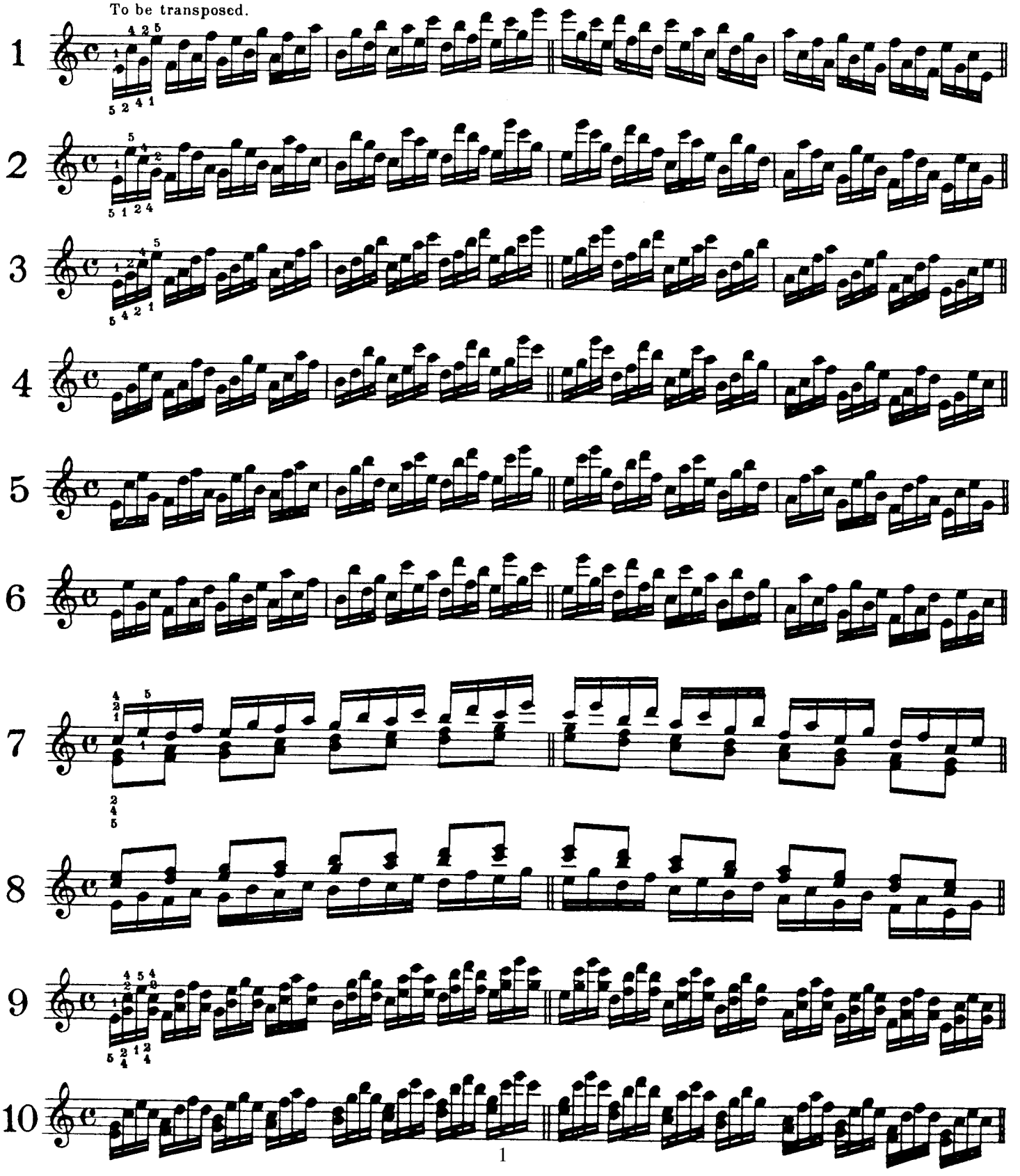
BROKEN CHORDS

These exercises are played in the various ways already suggested for others preceding. Practicing at times with a close touch,—often overlapping the tones,—increases sureness and accuracy. This form of arpeggio makes unusual demands upon the fifth fingers, and is therefore valuable for training them in strength and agility.

Numbers 9 and 11 of the preparatory exercises are easily extended into long arpeggios interspersed with double notes. See examples.

PREPARATORY EXERCISES

To be transposed.

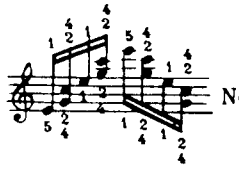
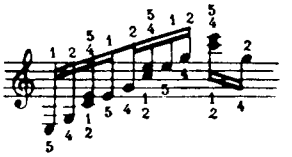


11

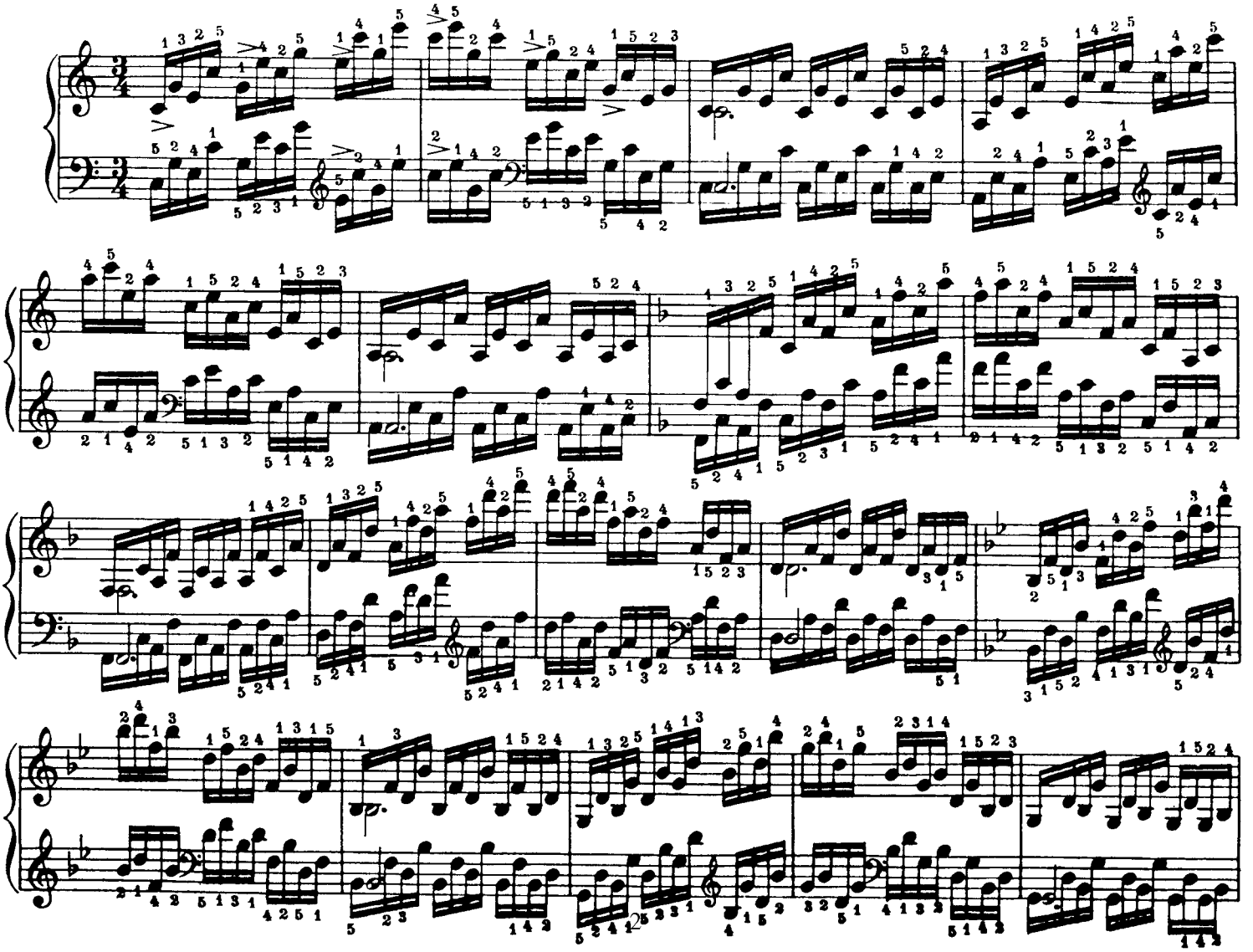
12

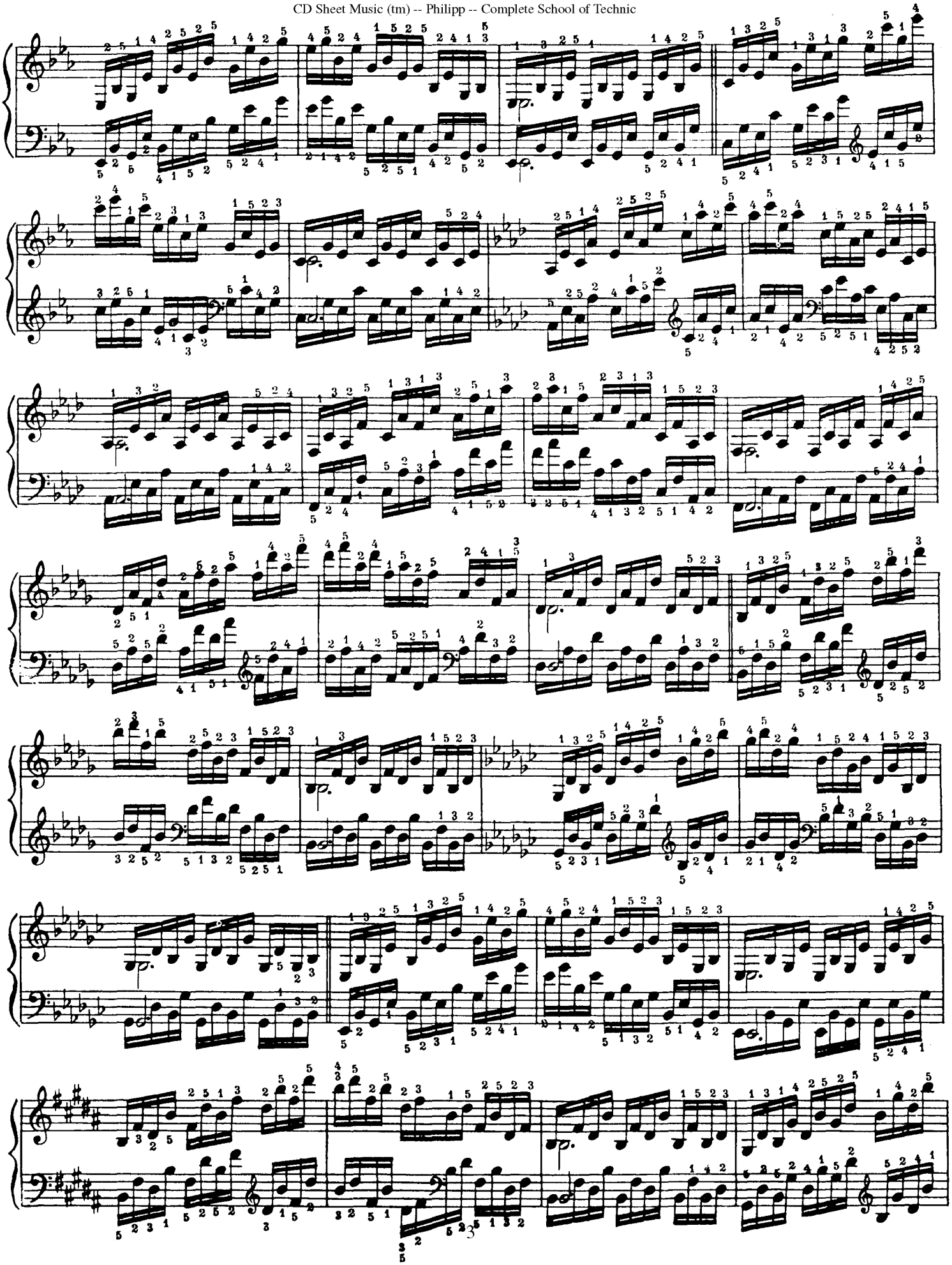
13

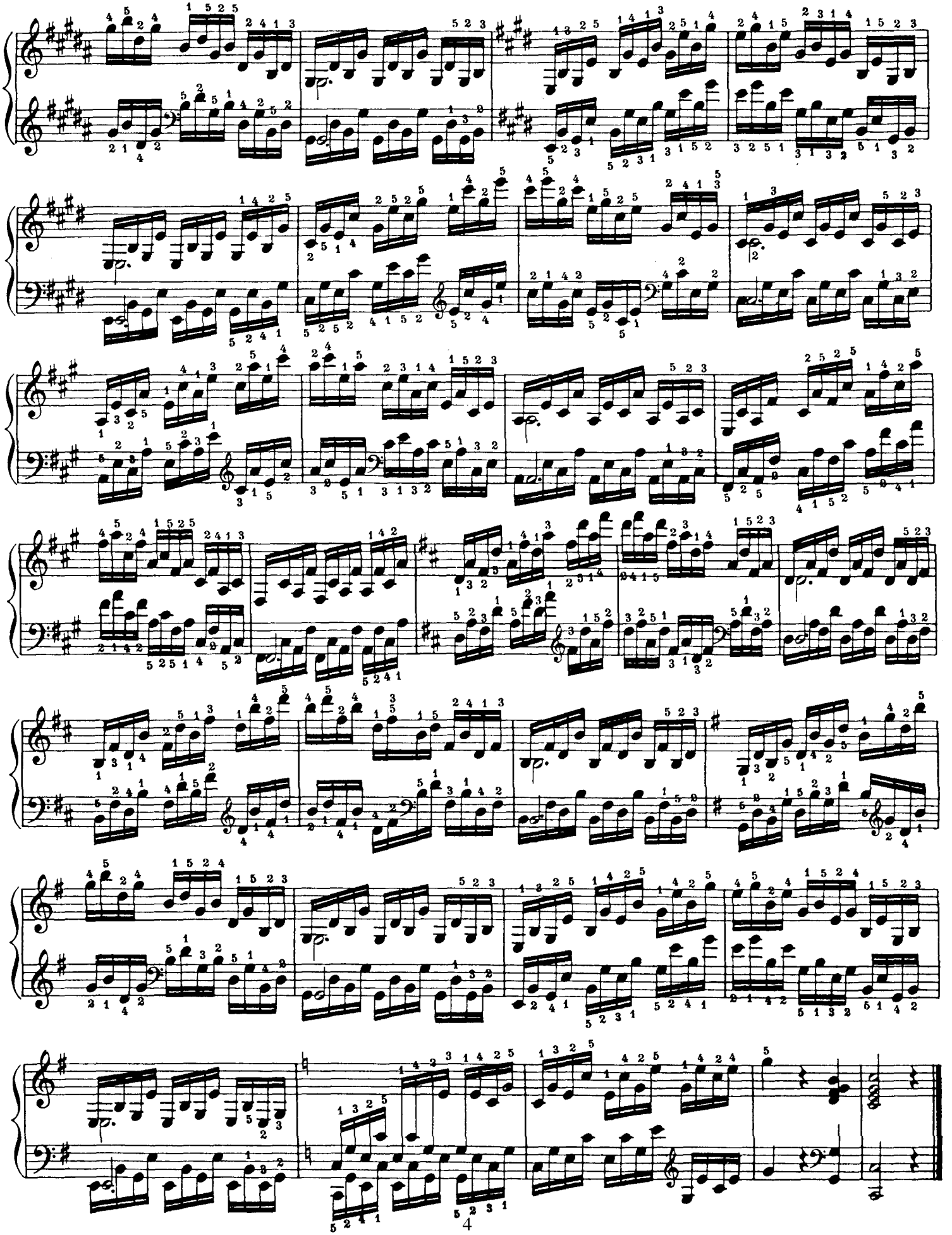
14

No.9  No.11 

EXERCISE IN BROKEN CHORDS







CD Sheet Music (tm) -- Philipp -- Complete School of Technic

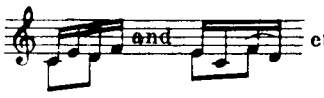
Double Notes

Through the practice of double notes, evenness of touch and general technical skill are materially advanced. The matching of strong fingers against weak, imposes continual restraint on the one, and extra effort on the other. After extended double note practice, the results of this equalizing process are quickly observable in the performance of single, as well as in double note passages.

The hand position remains nearly the same as in scale-playing. In the execution of double sixths the fingers take a long curve, and there is more or less unavoidable turning of the hand in and out from the wrist, which should be lessened as much as possible.

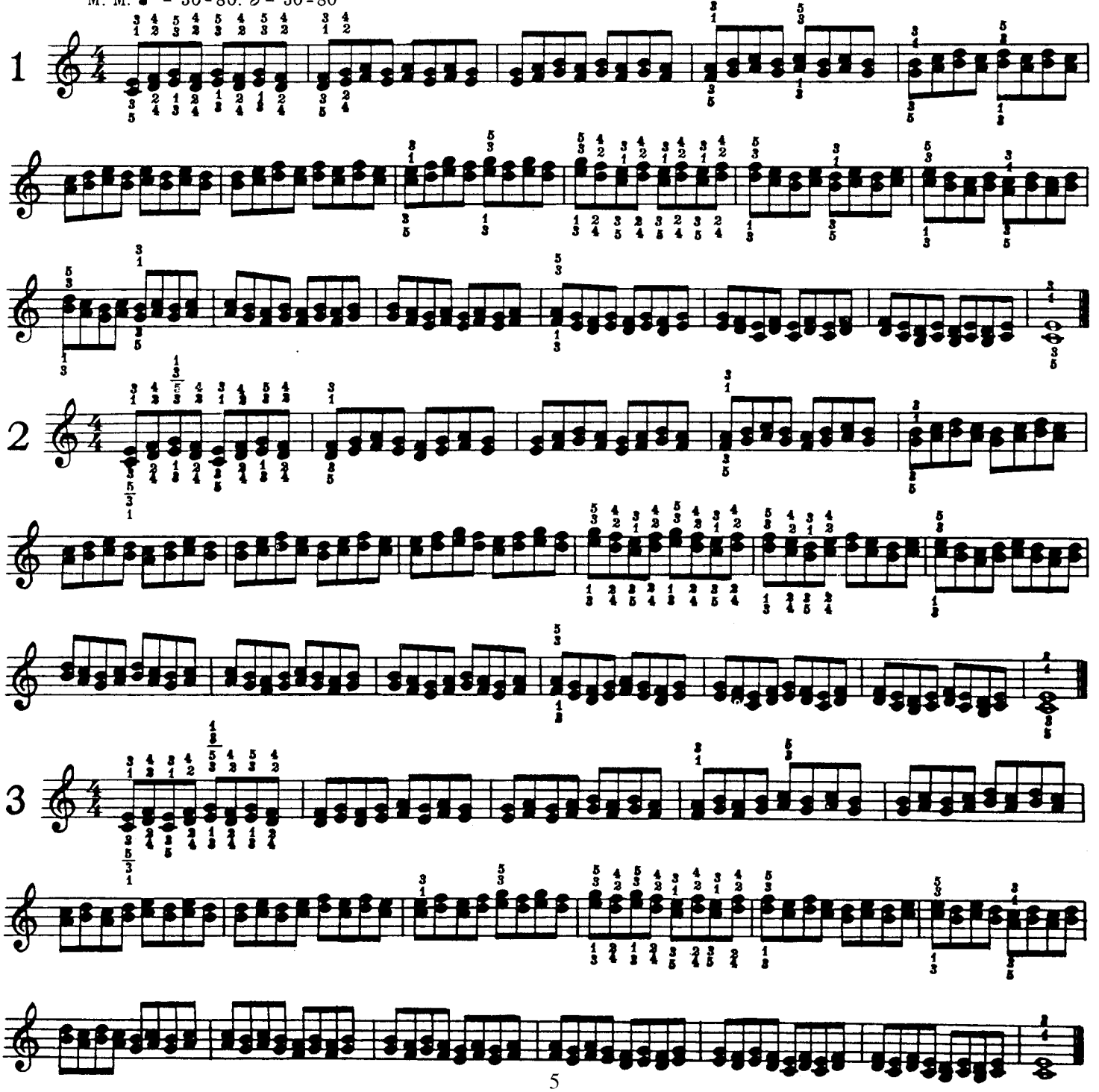
Practice at first legato, with a close, light touch, with and without rhythms, increasing in height and strength of finger stroke as seems advisable.

A free staccato (combining finger and wrist movements) employed on groups of 4, 6, or 8 notes, (pausing and relaxing the muscles between each group) largely facilitates progress in double note playing. Brilliant passages are more effectively rendered half-legato. Attention is called to the various fingerings of the chromatic scale in minor thirds. Transpose at discretion.

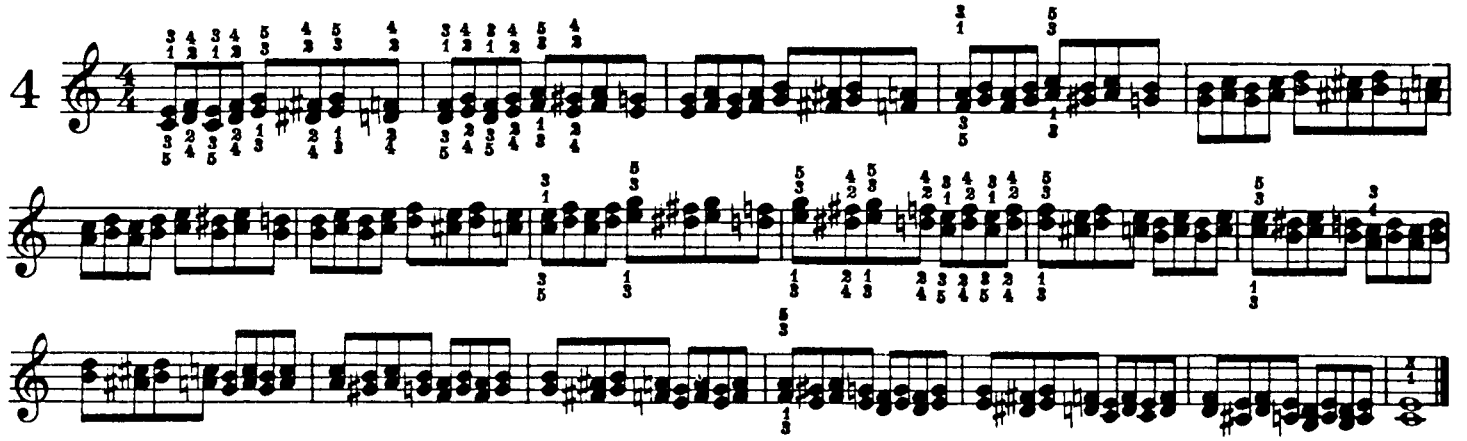
Practice also in broken thirds  and etc.

DOUBLE THIRDS

M. M. ♪ = 50-80. 𝅗𝅥 = 50-80

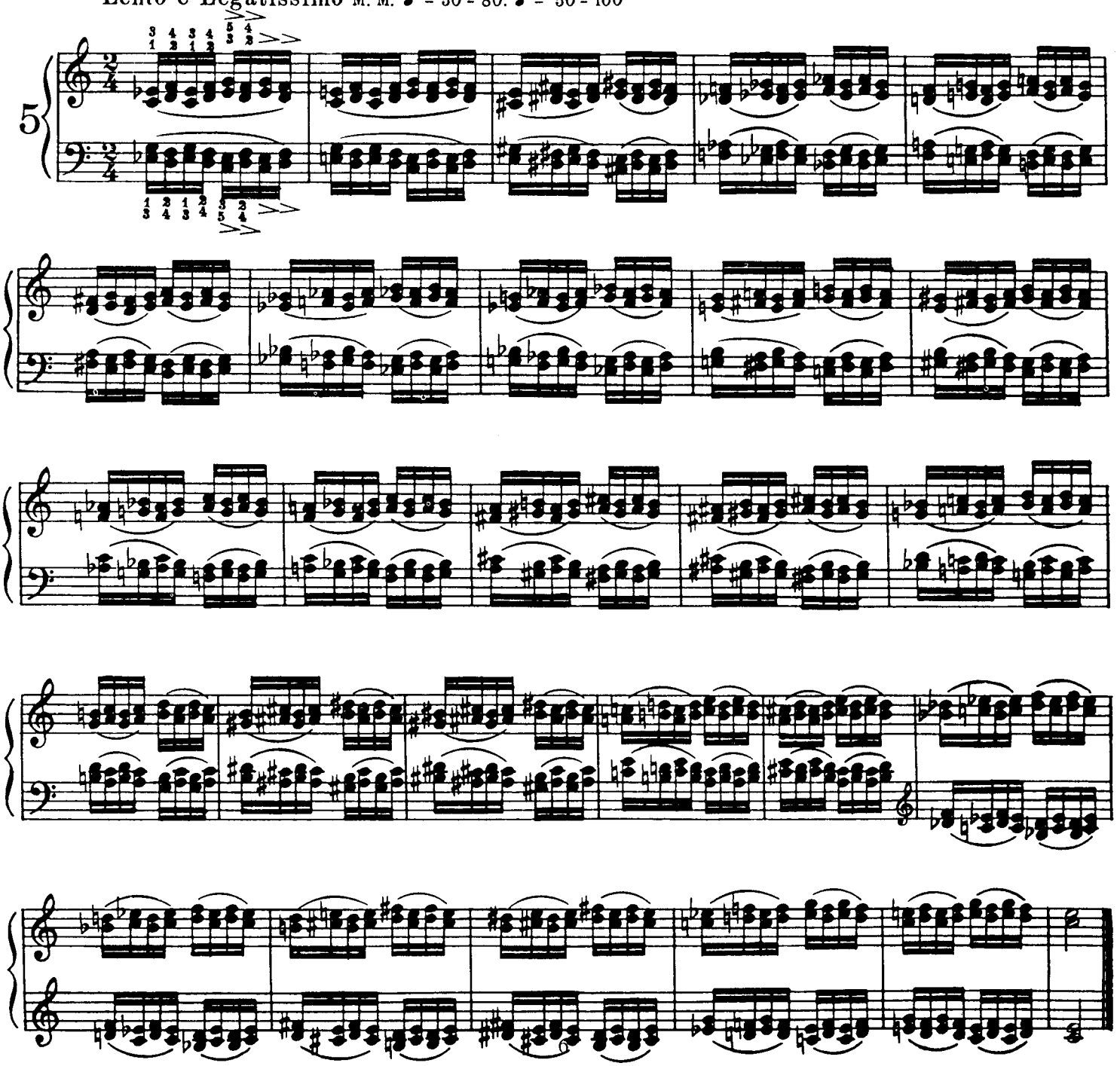


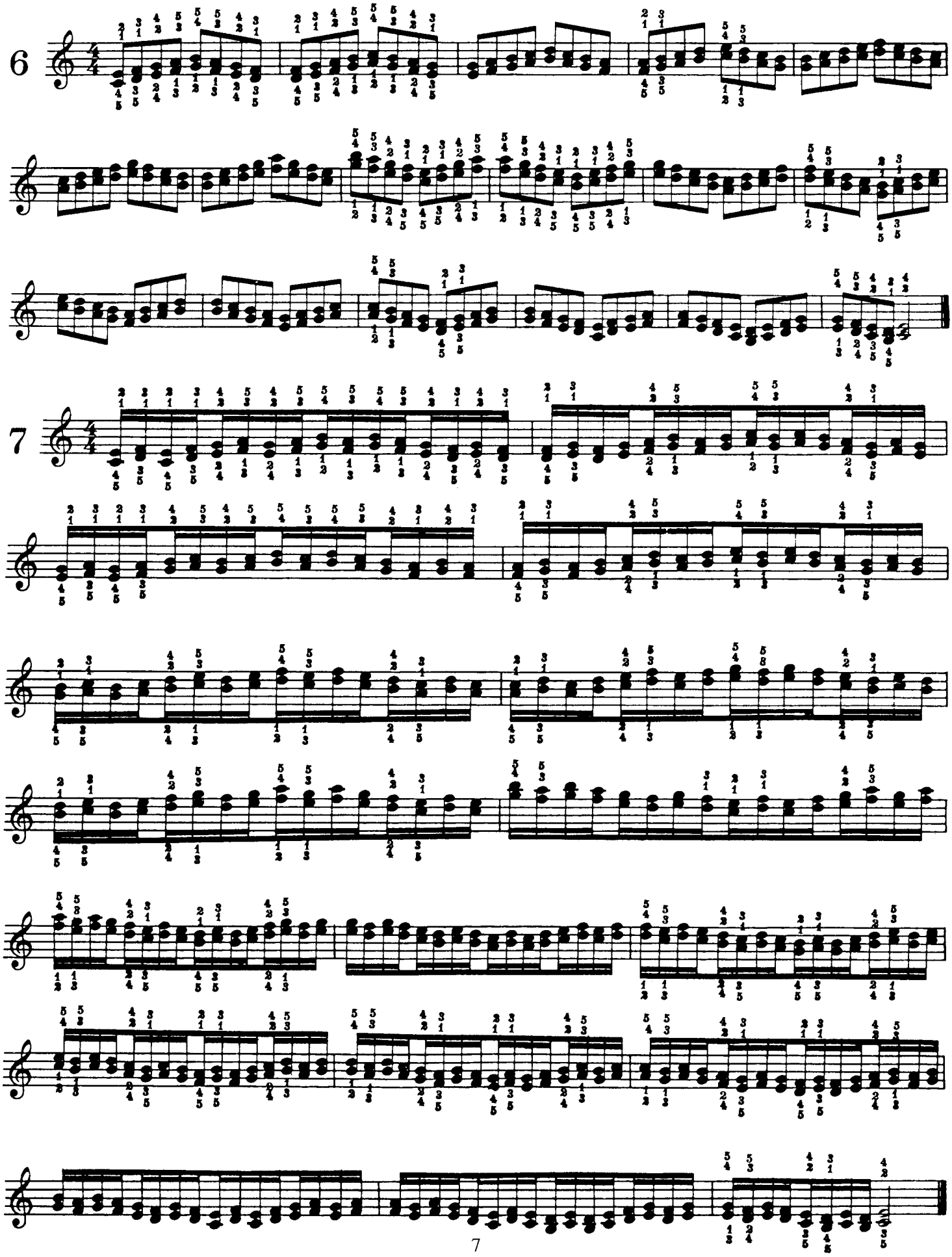
4

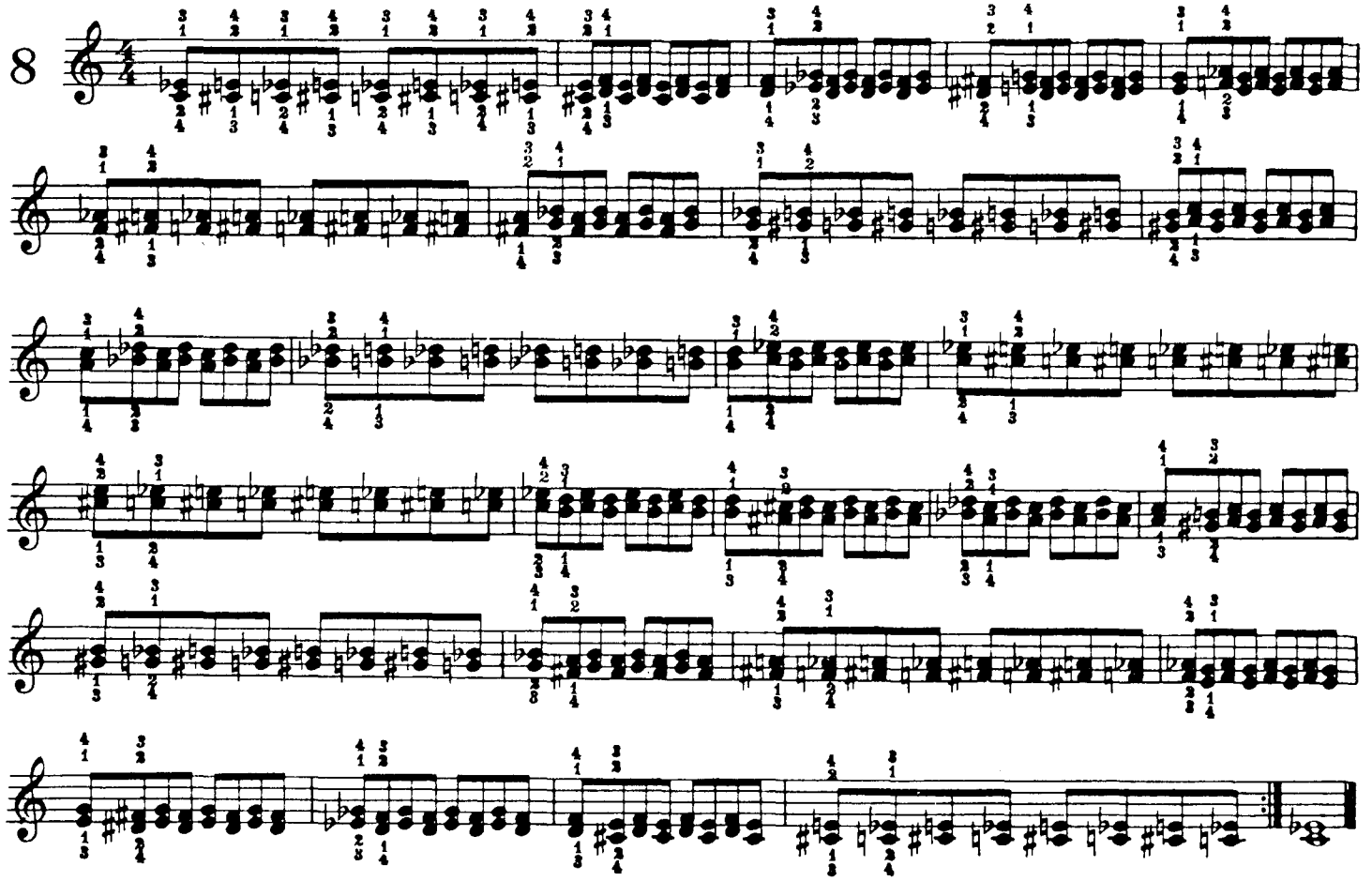


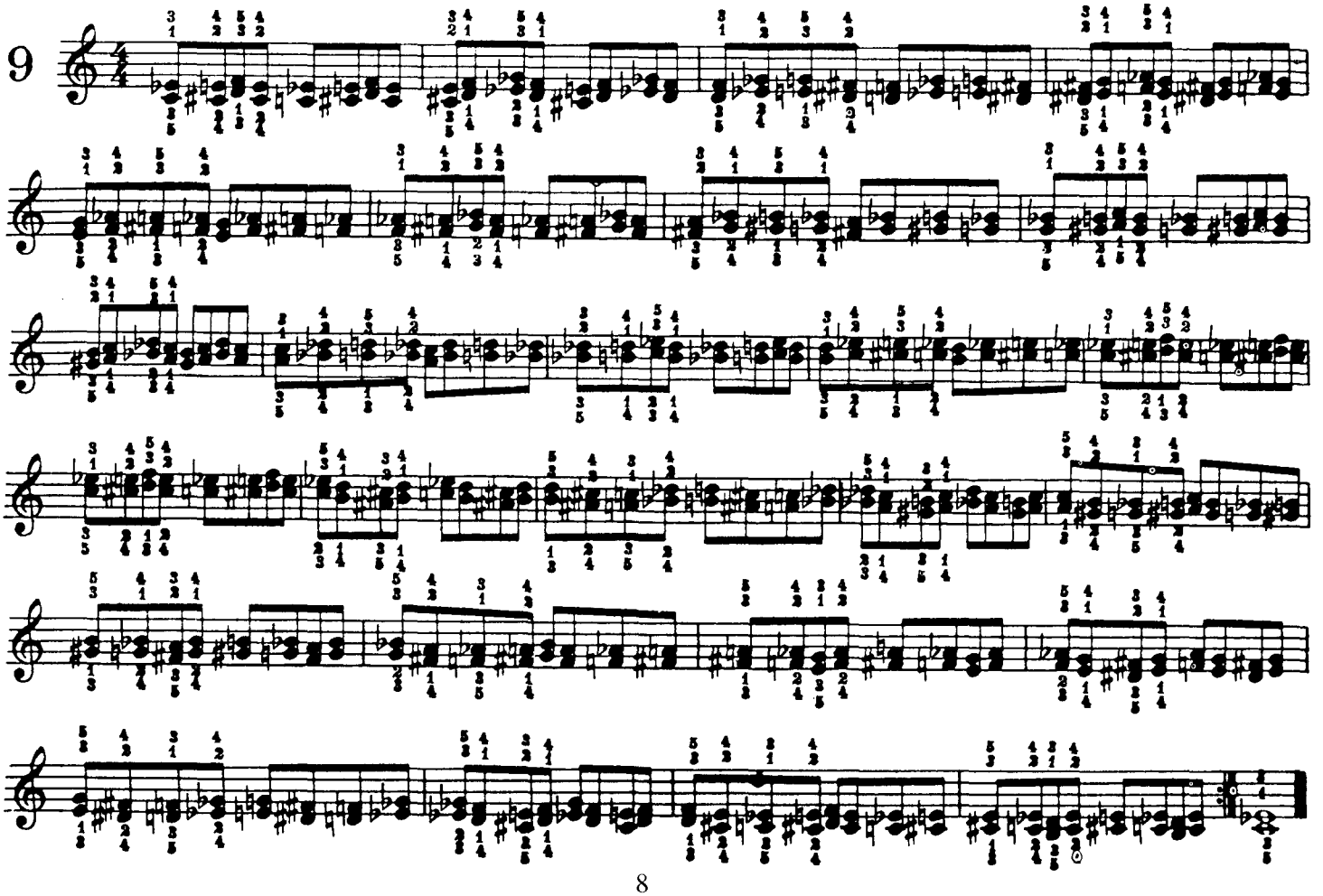
Lento e Legatissimo M. M. ♪ = 50 - 80. ♩ = 50 - 100

5

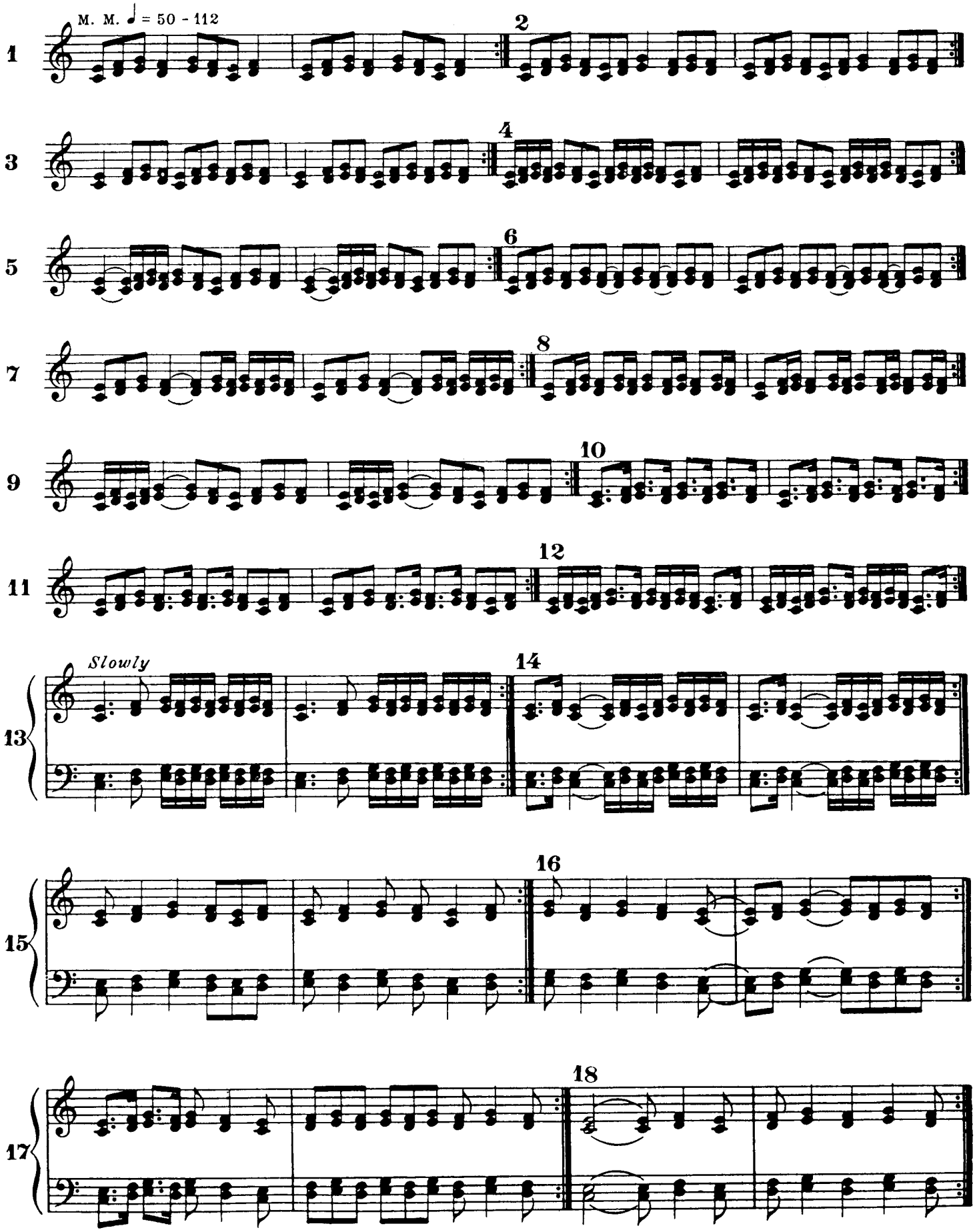


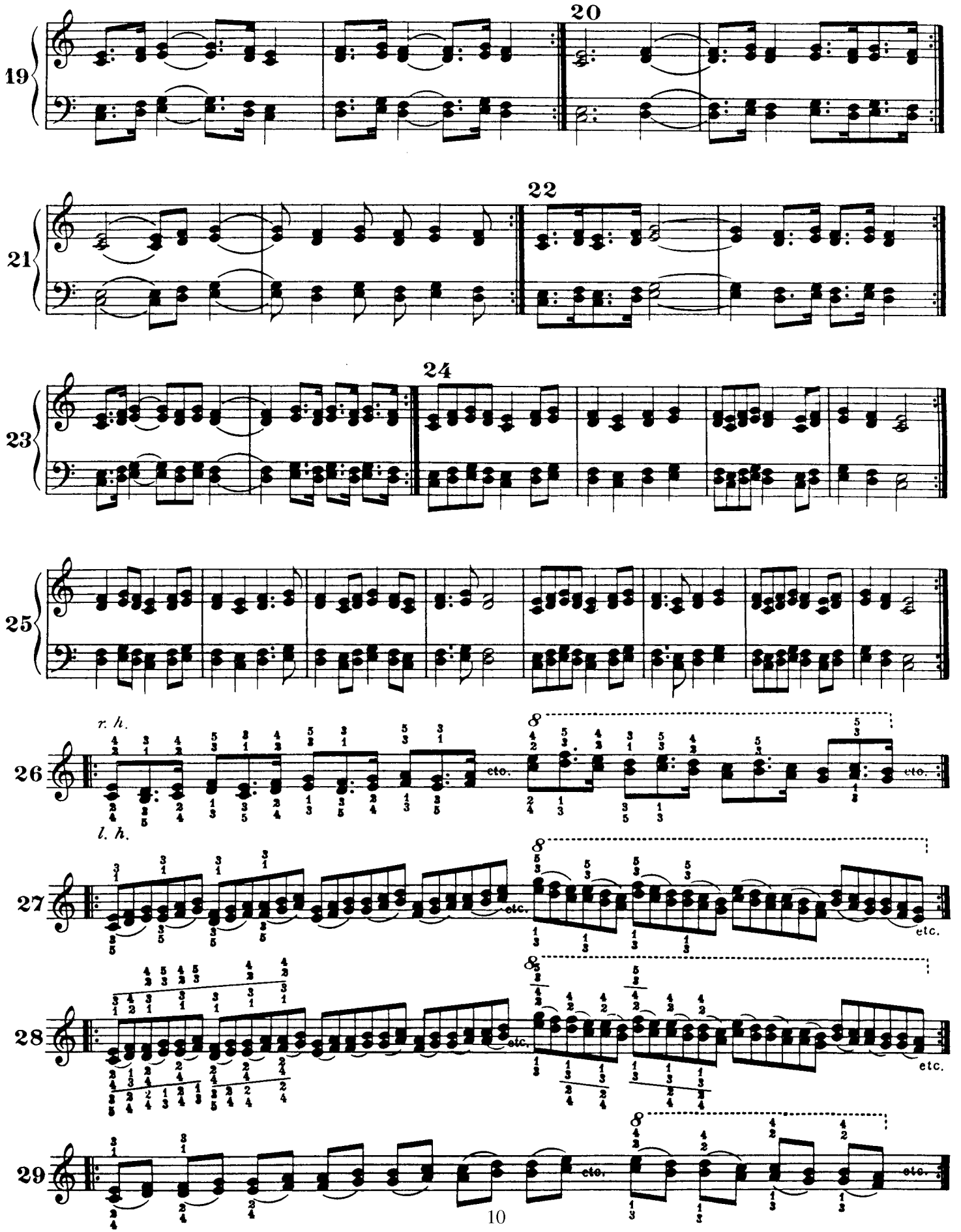

6
7


8

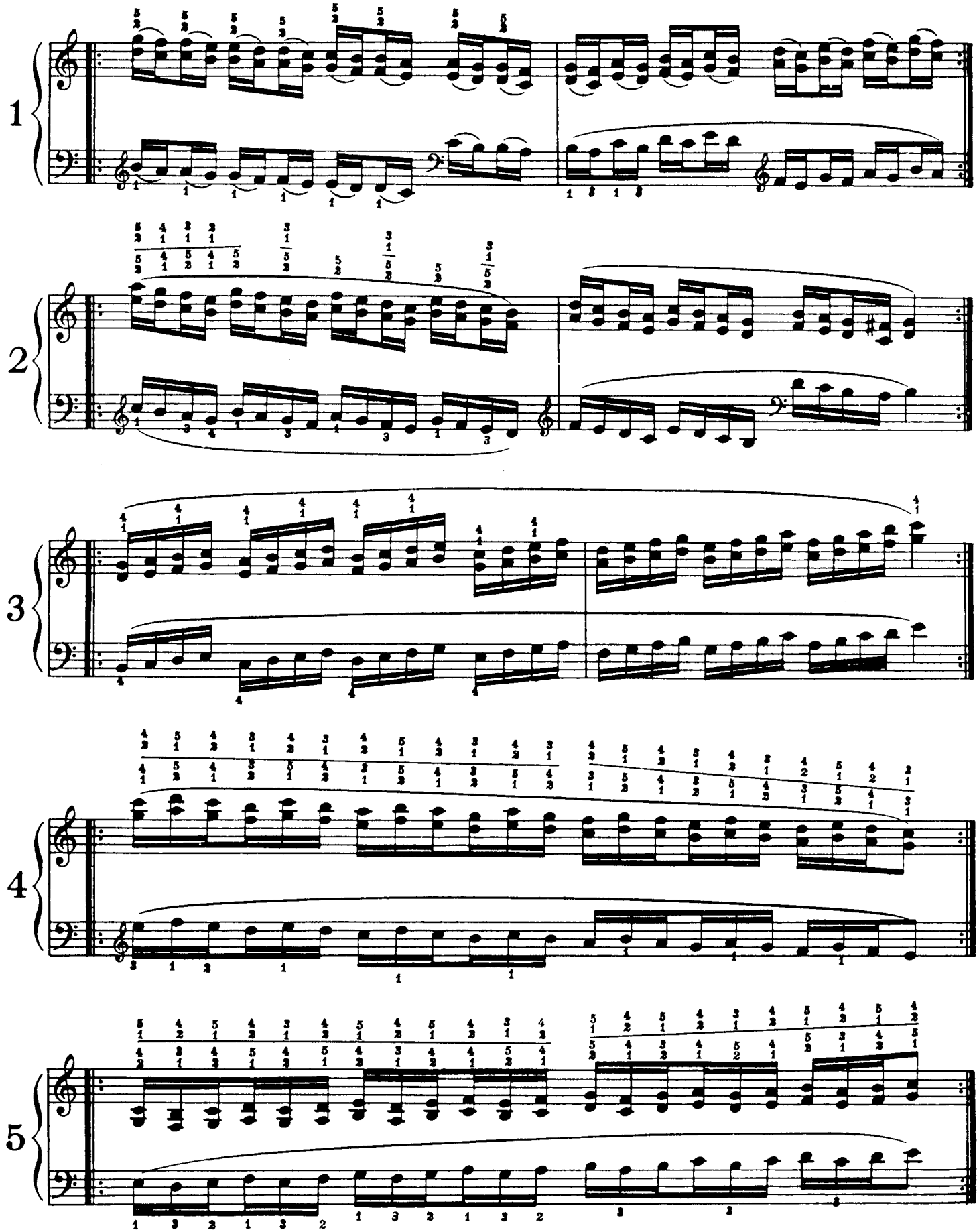

9

RHYTHMIC EXERCISES ON FIVE NOTES



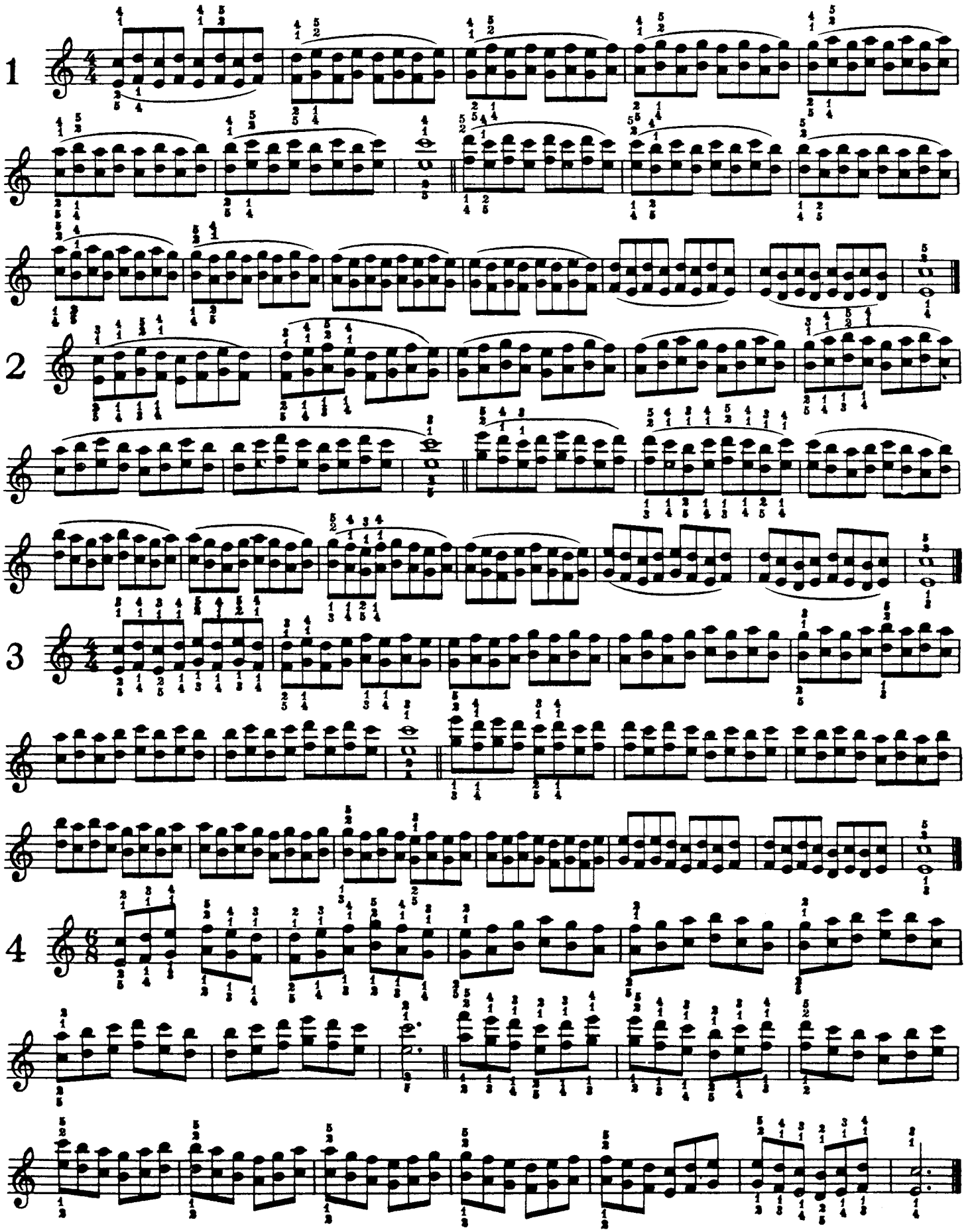

19
20
21
22
23
24
25
r. h.
26
l. h.
27
28
29
etc.

DOUBLE FOURTHS

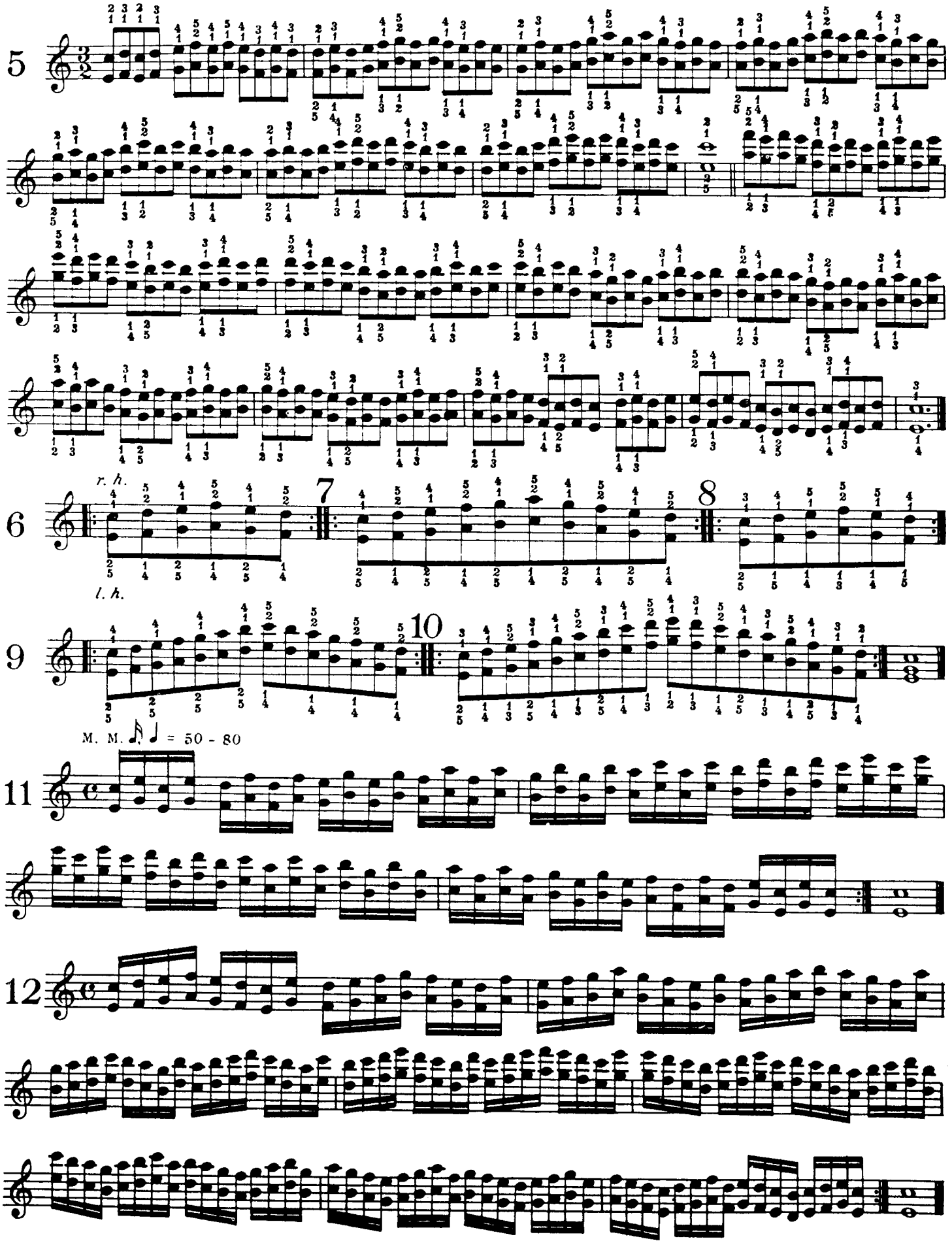


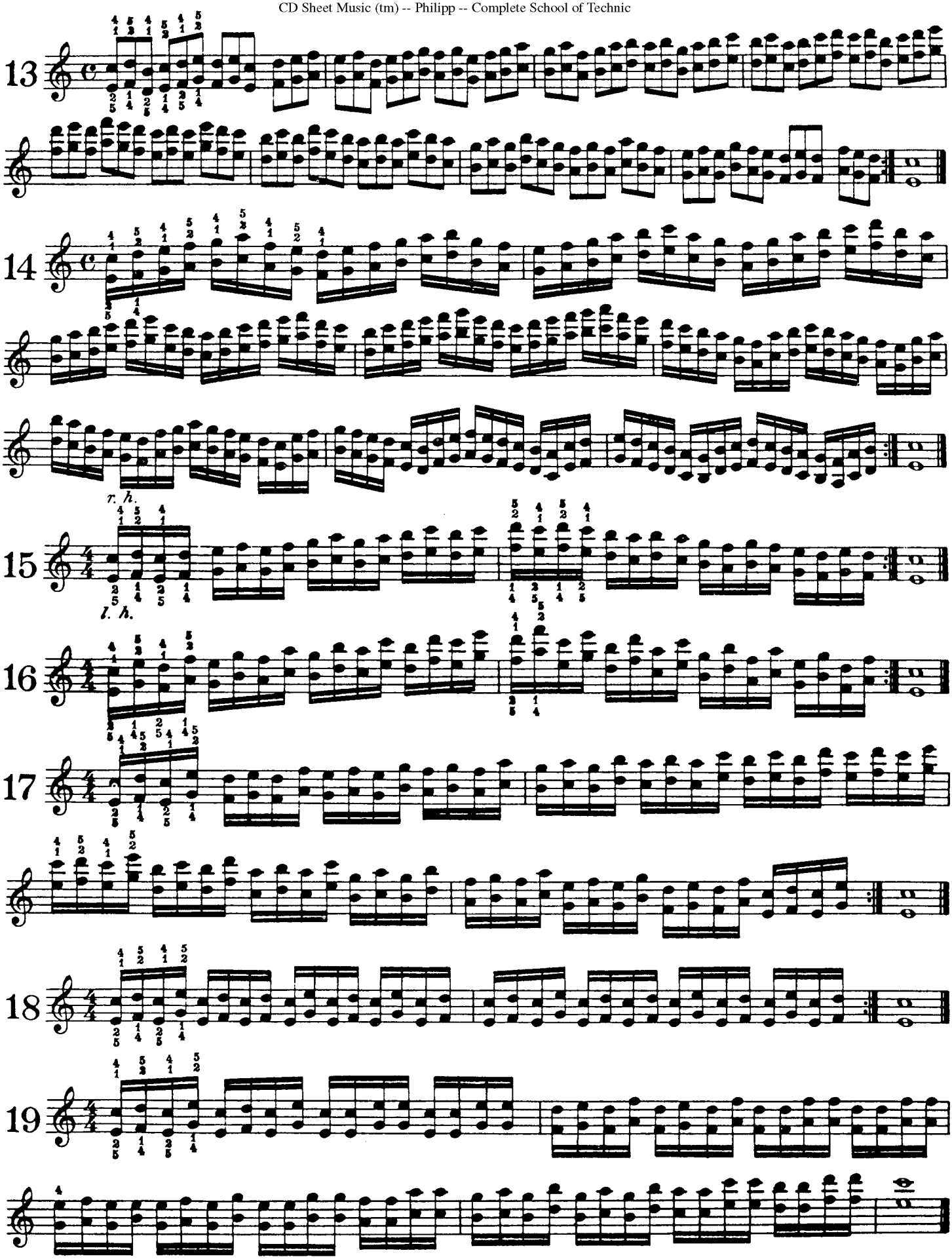
DOUBLE SIXTHS*

M. M. ♪, 𝅗𝅥 = 50 - 80

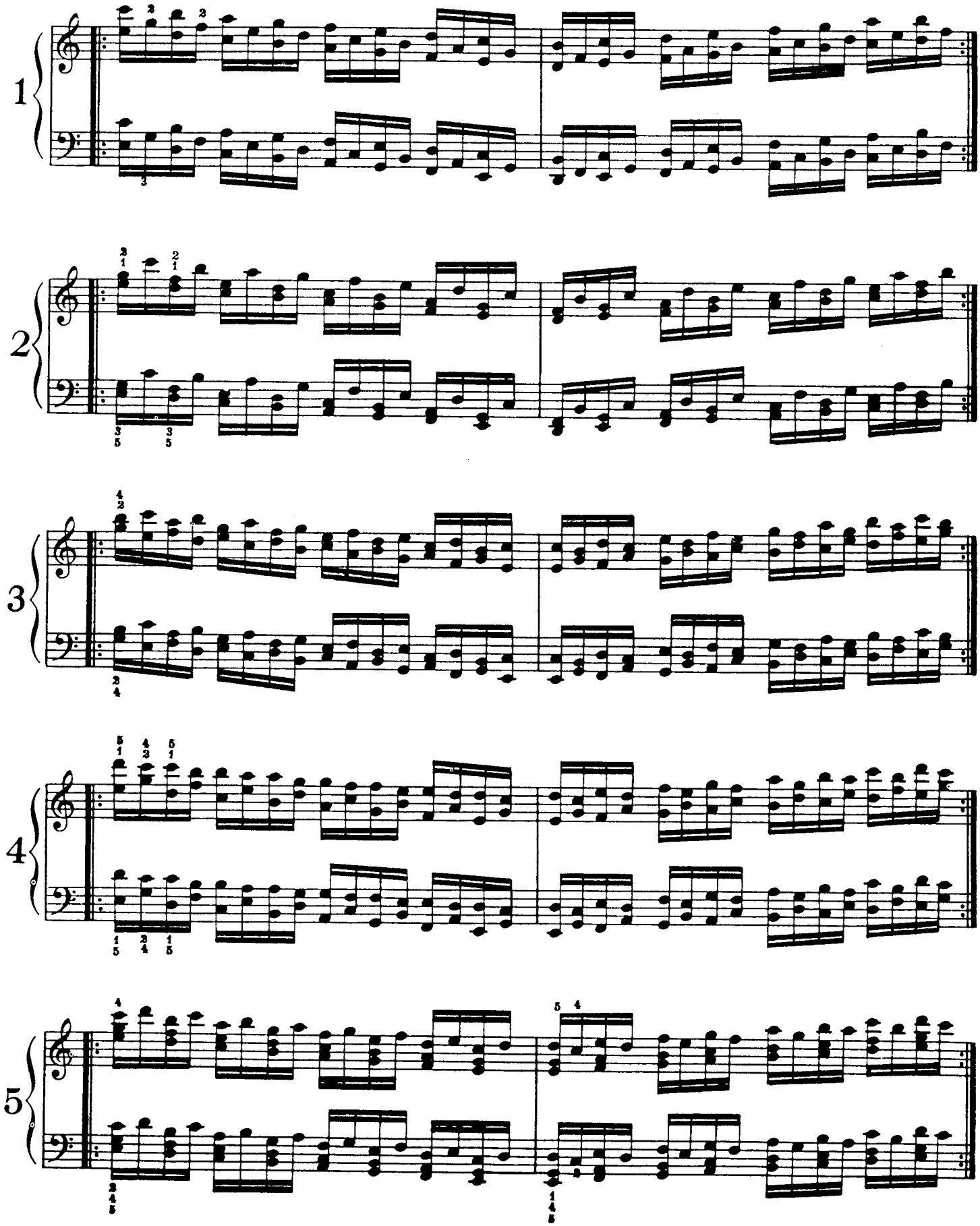


* Practice also in broken sixths.


5
r. h.
6
7
8
l. h.
9
10
M. M. = 50 - 80
11
12

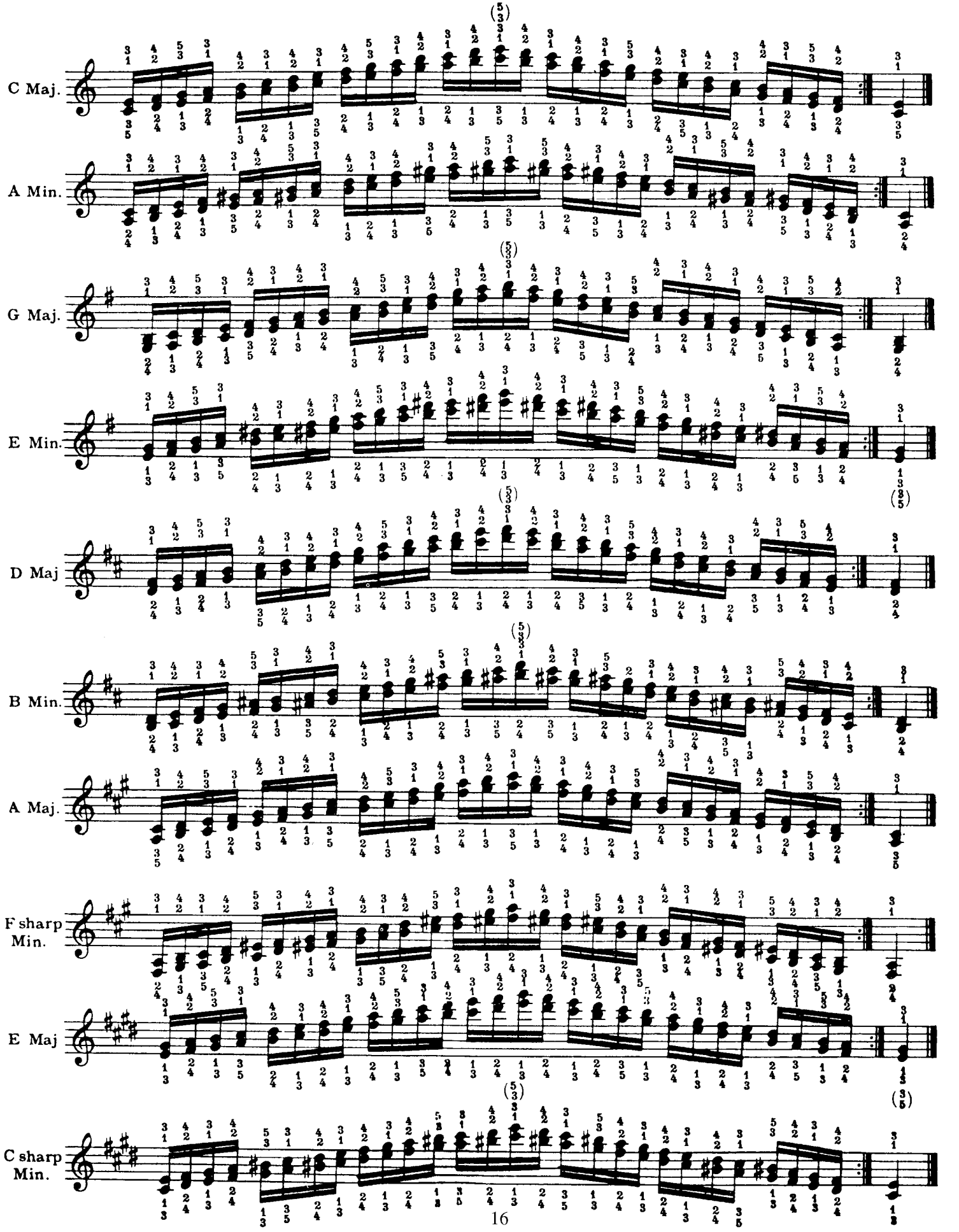

13
14
r. h.
15
l. h.
16
17
18
19

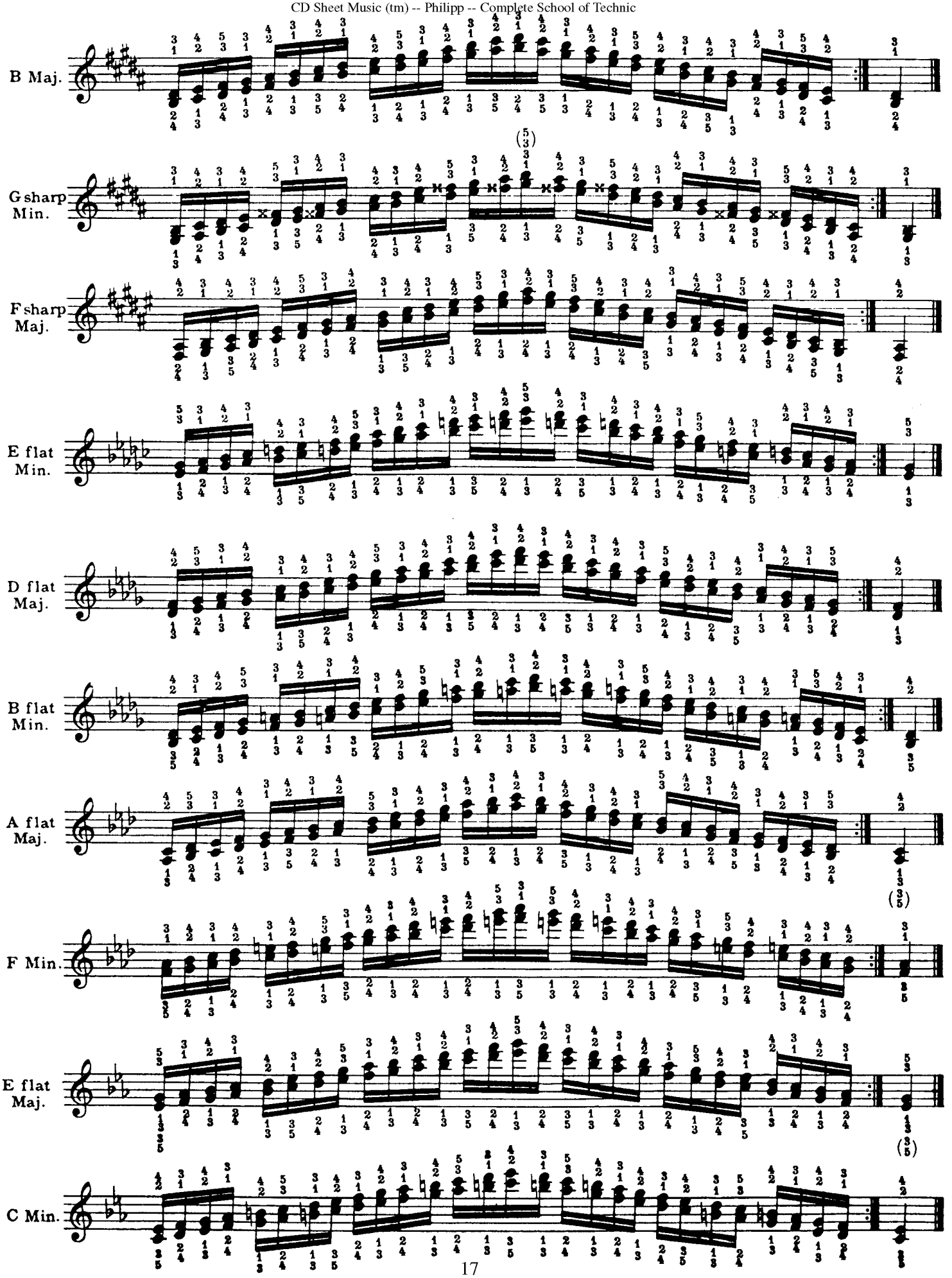
VARIOUS EXERCISES



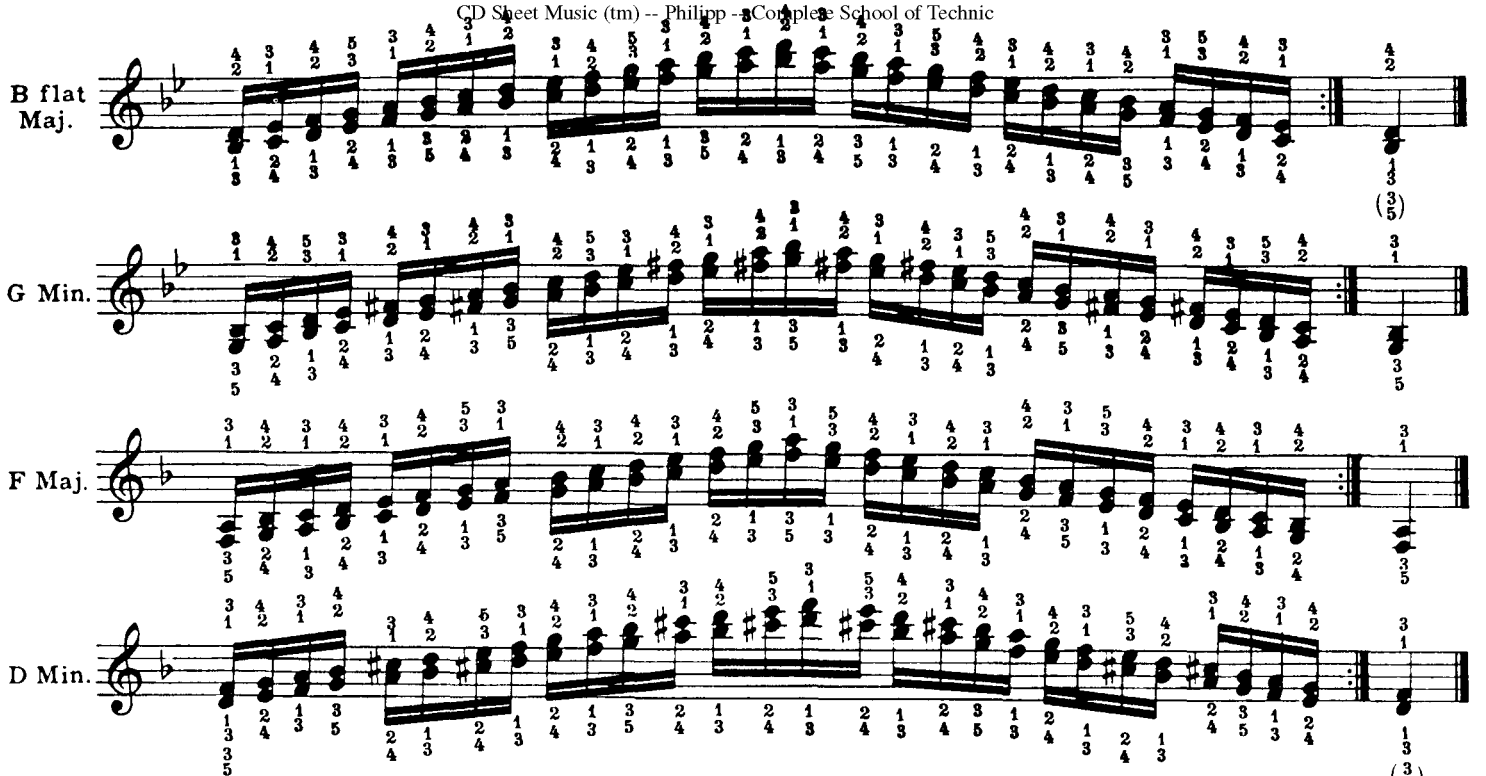
CD Sheet Music (mp) - Philipp - Complete School of Technic

MAJOR AND HARMONIC MINOR SCALES IN DOUBLE THIRDS

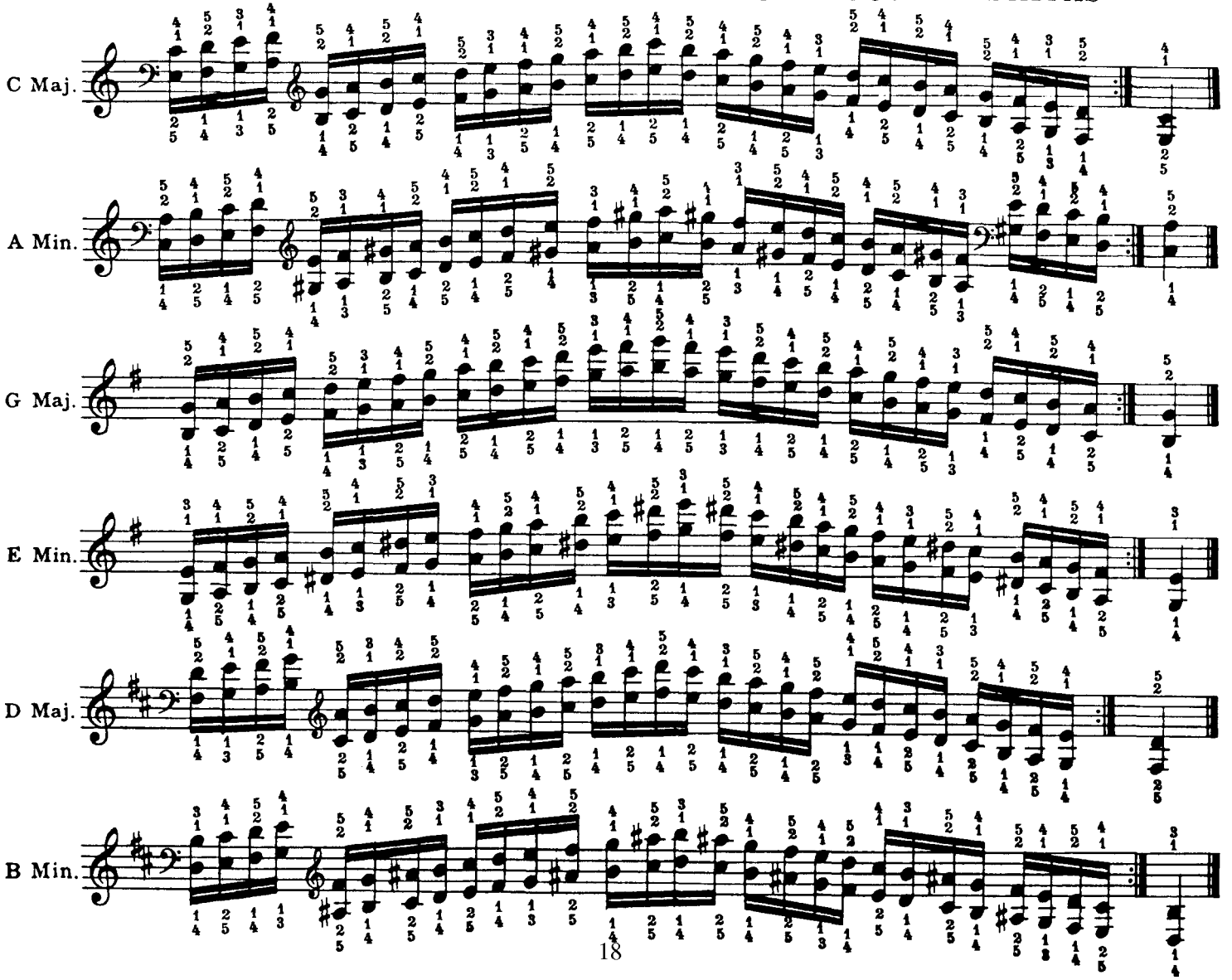


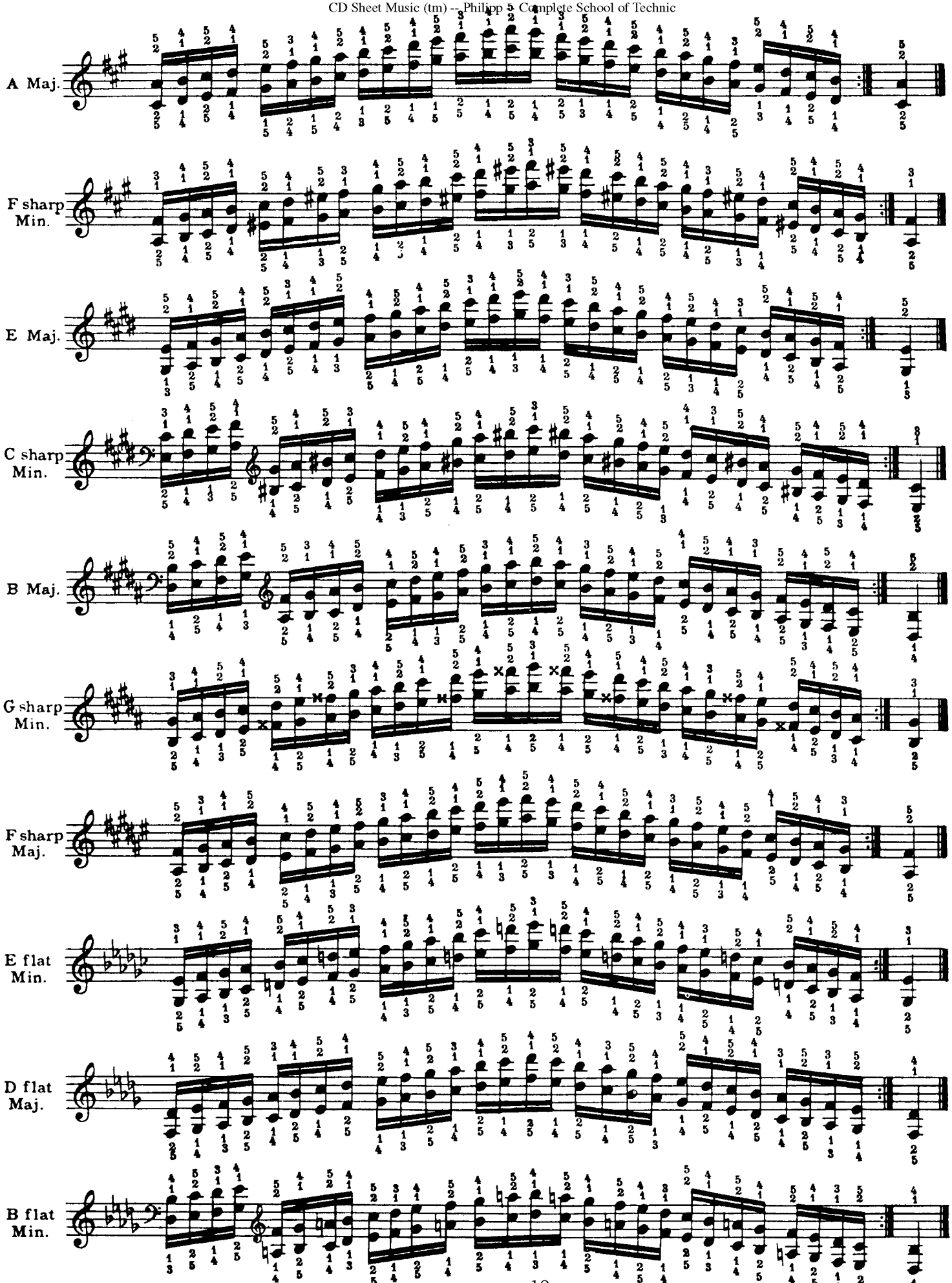

B Maj.
(5 3)
G sharp Min.
F sharp Maj.
E flat Min.
D flat Maj.
B flat Min.
A flat Maj.
(3 5)
F Min.
E flat Maj.
(3 5)
C Min.

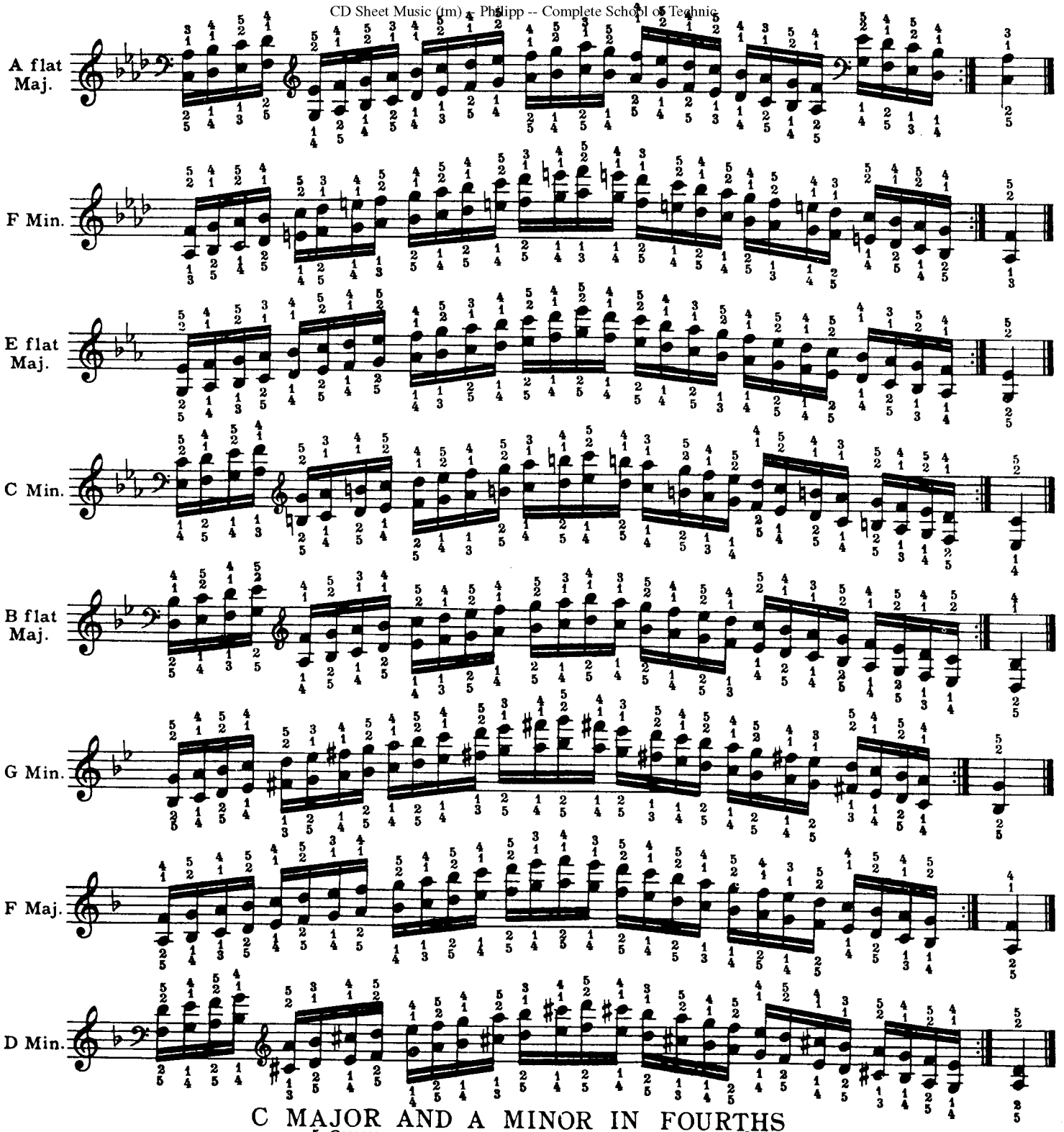
CD Sheet Music (tm) -- Philipp - Complete School of Technic



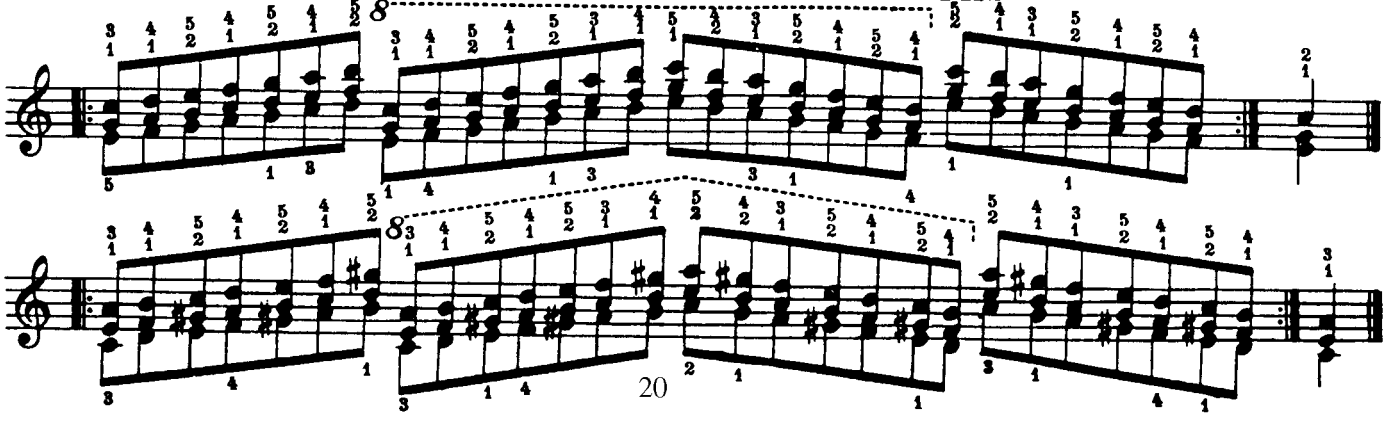
MAJOR AND HARMONIC MINOR SCALES IN DOUBLE SIXTHS




A Maj.
F sharp Min.
E Maj.
C sharp Min.
B Maj.
G sharp Min.
F sharp Maj.
E flat Min.
D flat Maj.
B flat Min.

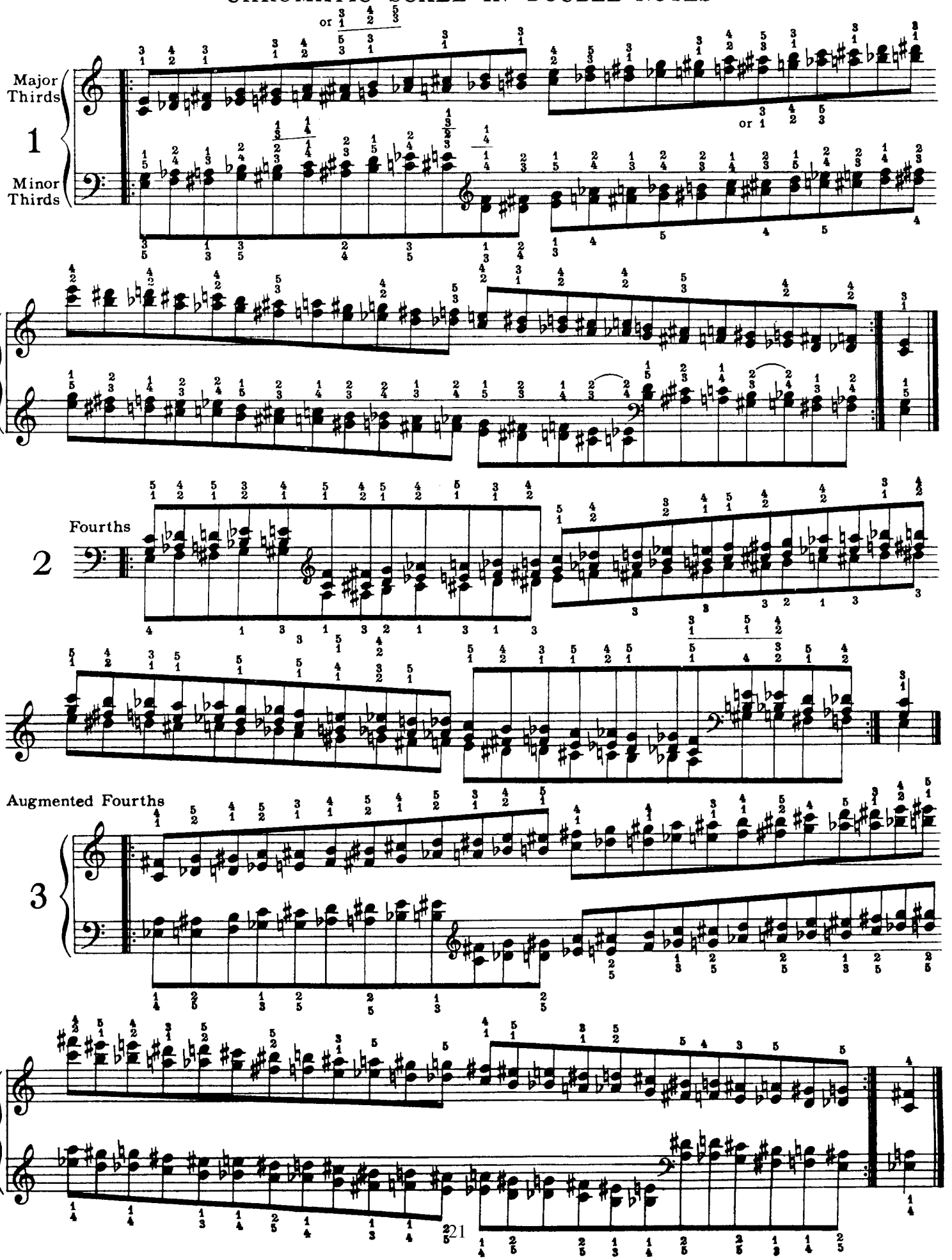


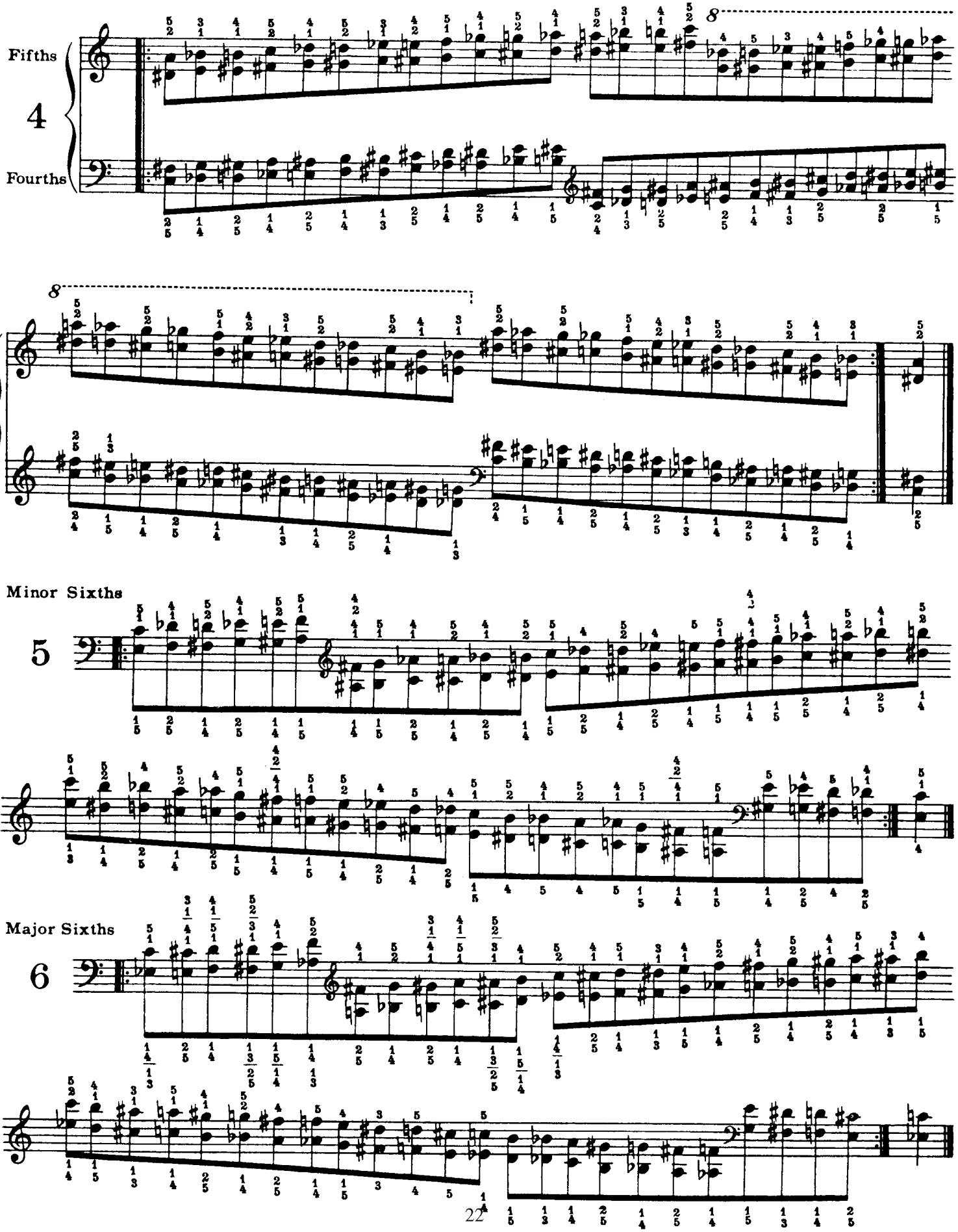
C MAJOR AND A MINOR IN FOURTHS



CD Sheet Music (mp3 - Philipp - Complete School of Technic

CHROMATIC SCALE IN DOUBLE NOTES




Fifths
4
Fourths
8
8
Minor Sixths
5
Major Sixths
6

7

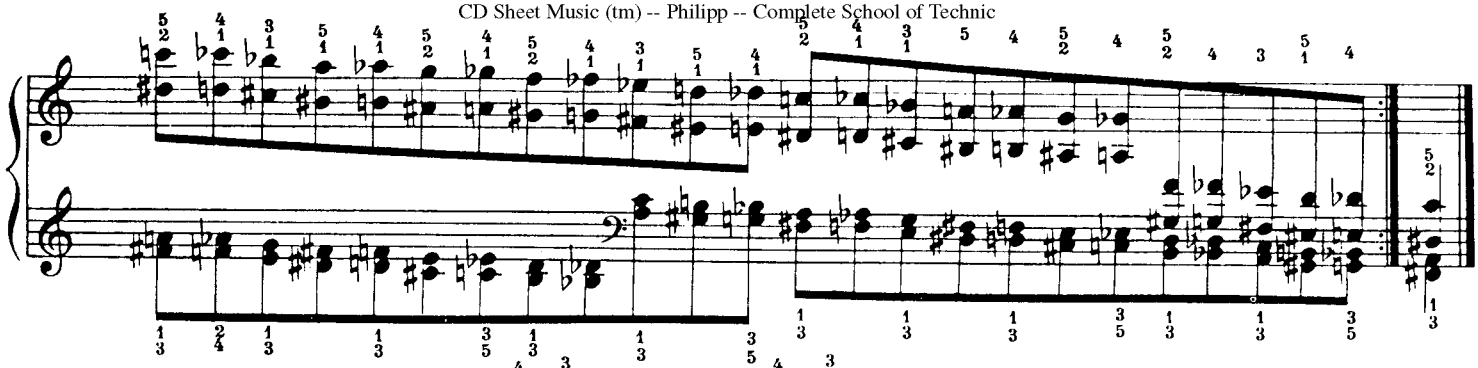
Seconds

8

Diminished Sevenths

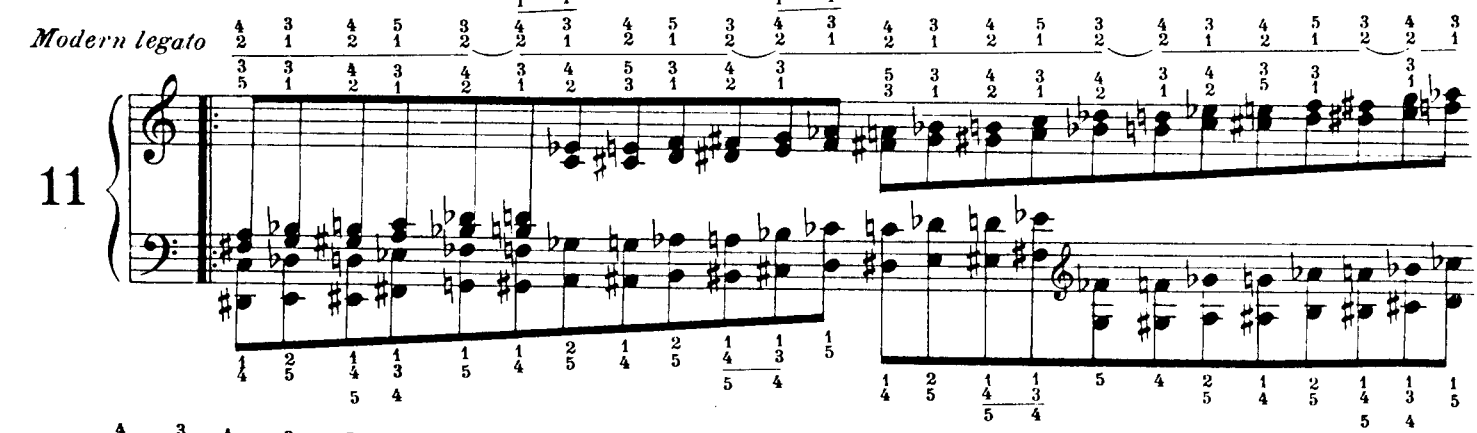
9

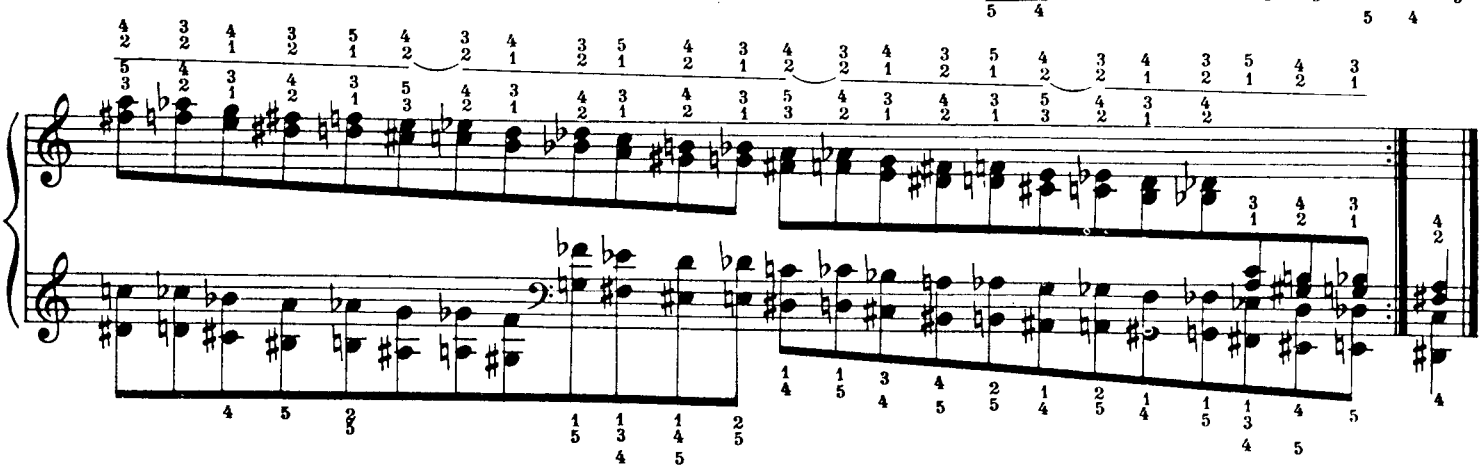
10



Modern legato

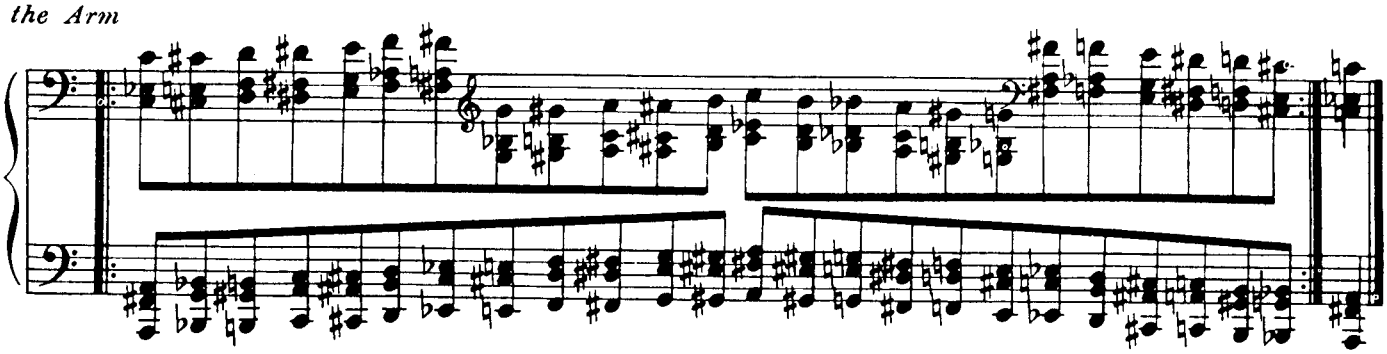
11



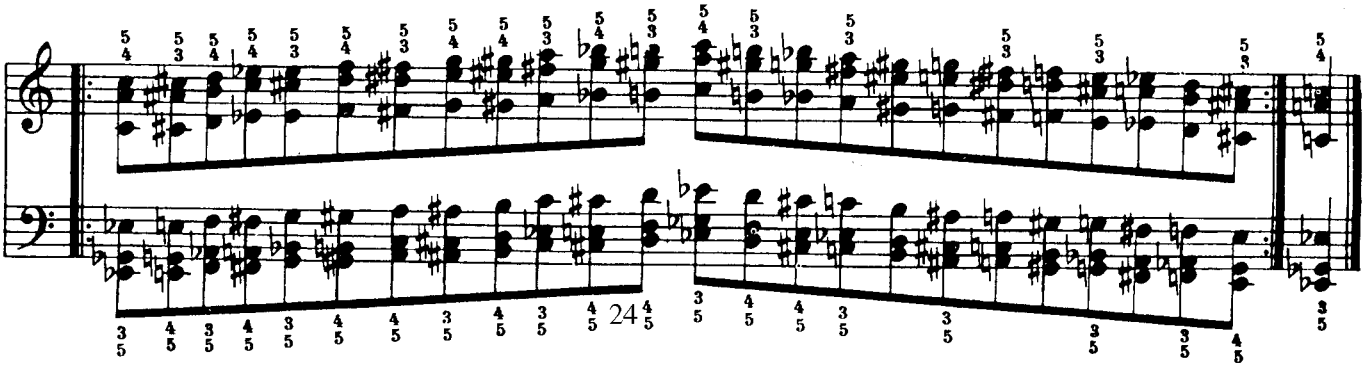


From the Arm

12



13



Double Notes and Octaves, from the Wrist

In the following wrist exercises it is necessary to preserve the full-curved finger position. The hand is moved from the wrist, and the fingers in use are held fixed while the others are drawn up, to avoid contact with the keys.

The exercises in double sixths are valuable preparation for octave playing, especially for small hands. The knuckles of the fifth fingers are here easily kept firmly rounded up and strengthened for the heavier task required of them in octaves. For the adequate execution of octave passages, the bent thumb, arched knuckles, and strongly resisting fifth fingers are all-important. In view of the danger of straining the muscles, practice should be limited to a few minutes at a time. Practicing frequently in short groups, with restful pauses between, safeguards from strain, and rapidly increases ones facility as well. The rhythms are applied as usual.

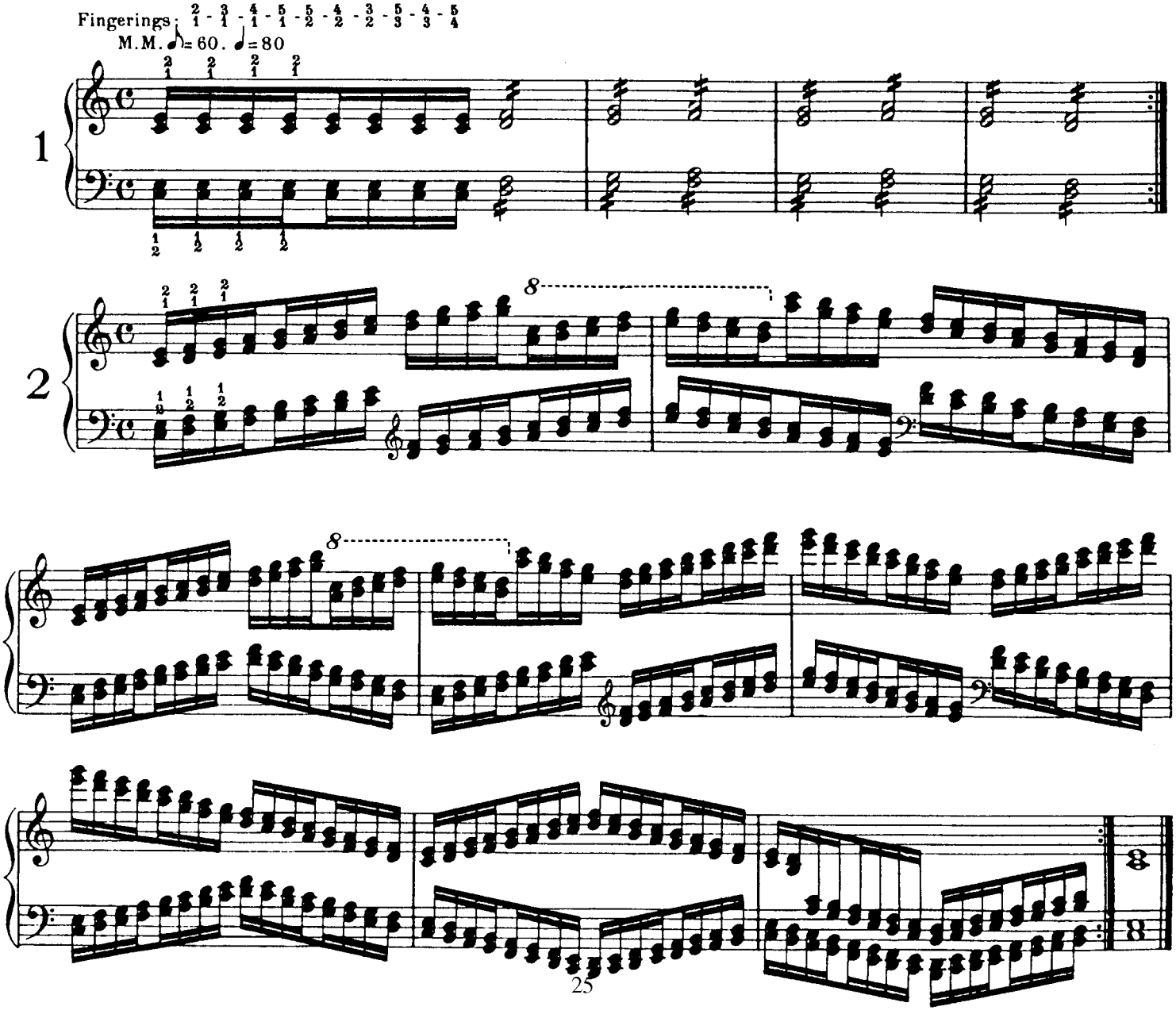
Various octave exercises, especially those in skips, are also practiced from the arm, the movement proceeding from the elbow with both wrist and fingers remaining fixed. Forte, or fortissimo octave passages are generally executed in this manner, or with a combined movement from the wrist and elbow. With the former method greater force can be attained, the latter insuring greater flexibility and less stiffness.

The legato octave exercises are played with a finger movement reinforced with pressure from the arm sufficient to sustain the tones. The shifting of the fourth and fifth fingers is made quickly, even in slow practice.

It is advisable, when practicing octaves, to form the habit of striking white keys close to black keys, and black keys on their ends. The awkward thrusting of the hands in and out, previously referred to, is especially detrimental to rapid octave playing.

Broken octaves are played from the fingers in combination with a slight side twisting movement from the forearm. This arm movement should be cultivated by practicing at times in slow tempo with an exaggerated side-twist, keeping the fingers motionless.

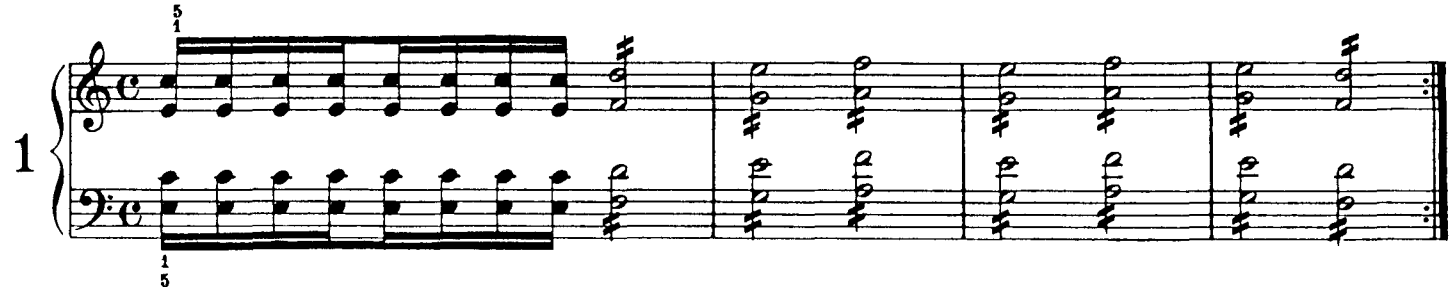
The exercises may be transposed at discretion.



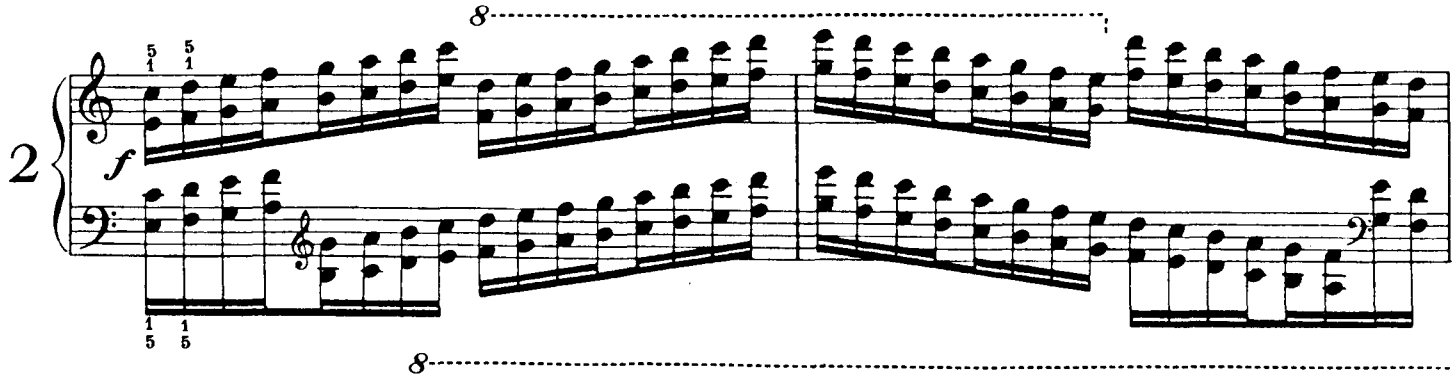
DOUBLE SIXTHS, FROM THE WRIST

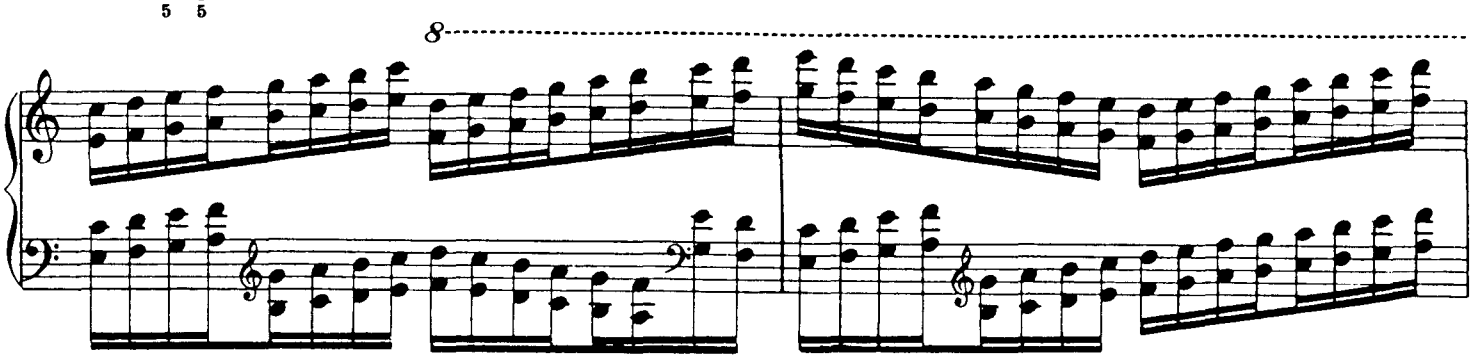
Fingerings: 5 - 4 - 3 - 5
1 - 1 - 1 - 2

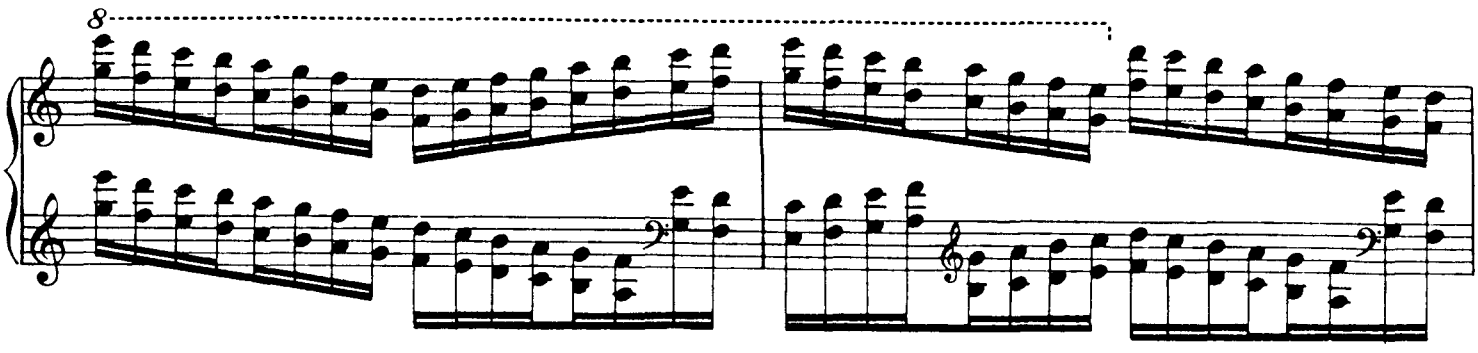
1

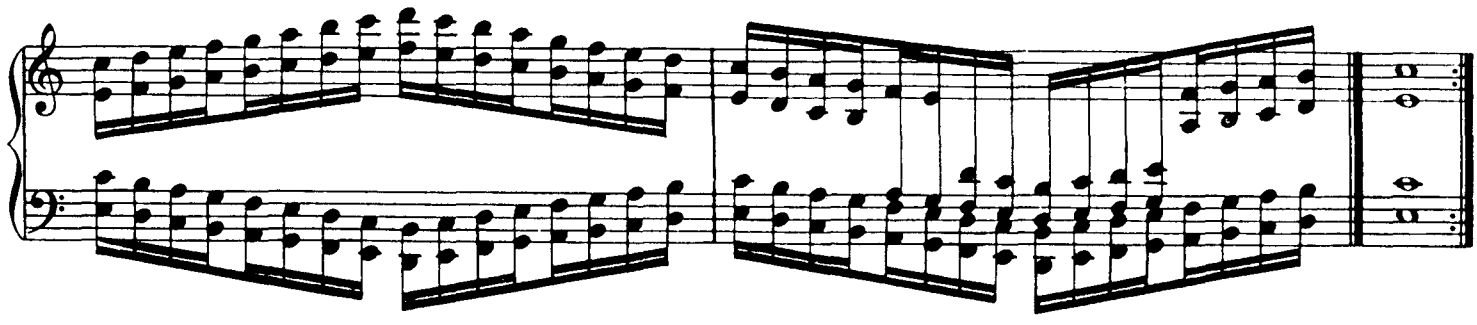


2









OCTAVES, FROM THE WRIST

(In all the Keys)

Fingerings: $\frac{5}{1}$ - $\frac{4}{1}$

1

2

8

8

8

8

8

M M ♩=60. 𝅗𝅥=80

3

4

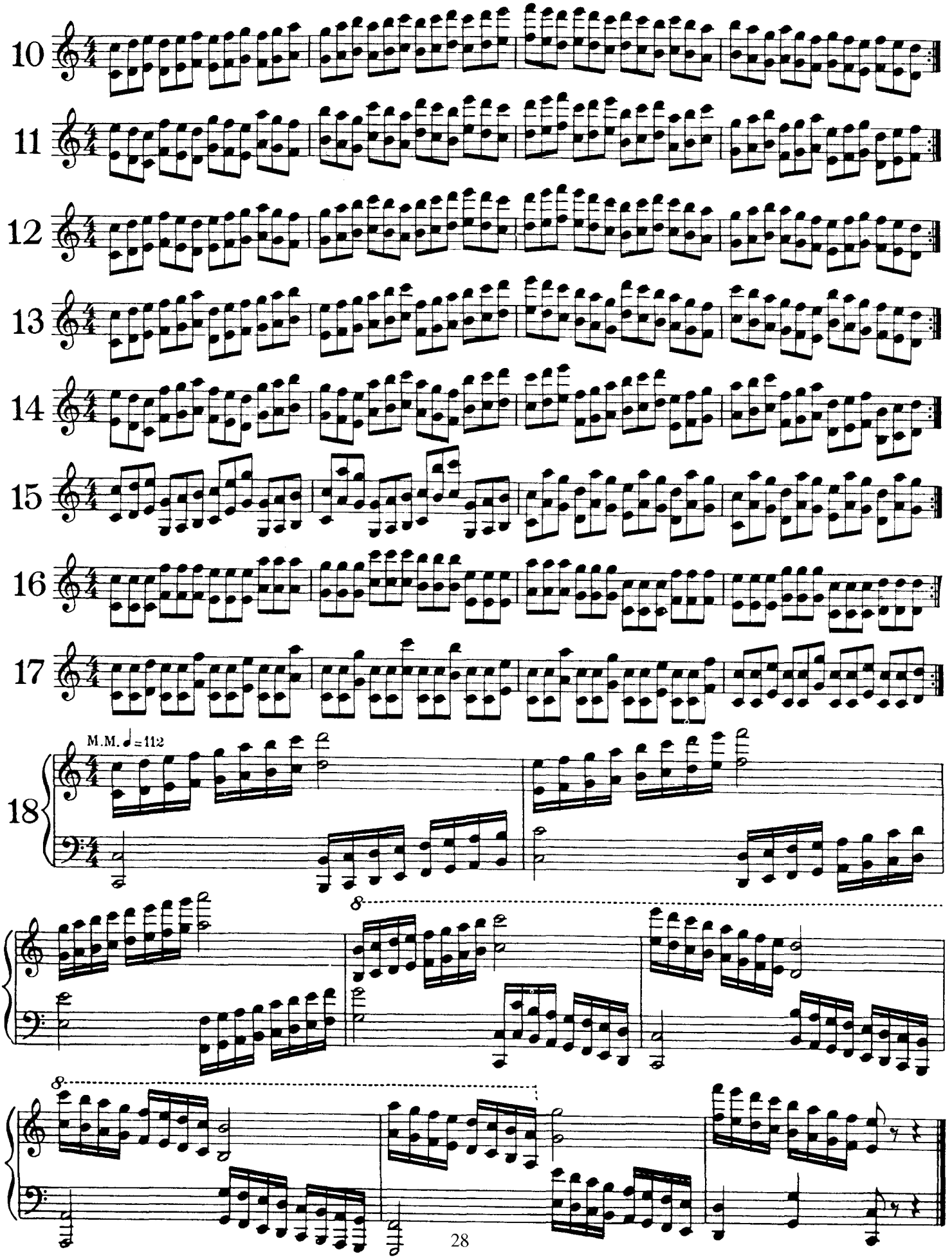
5

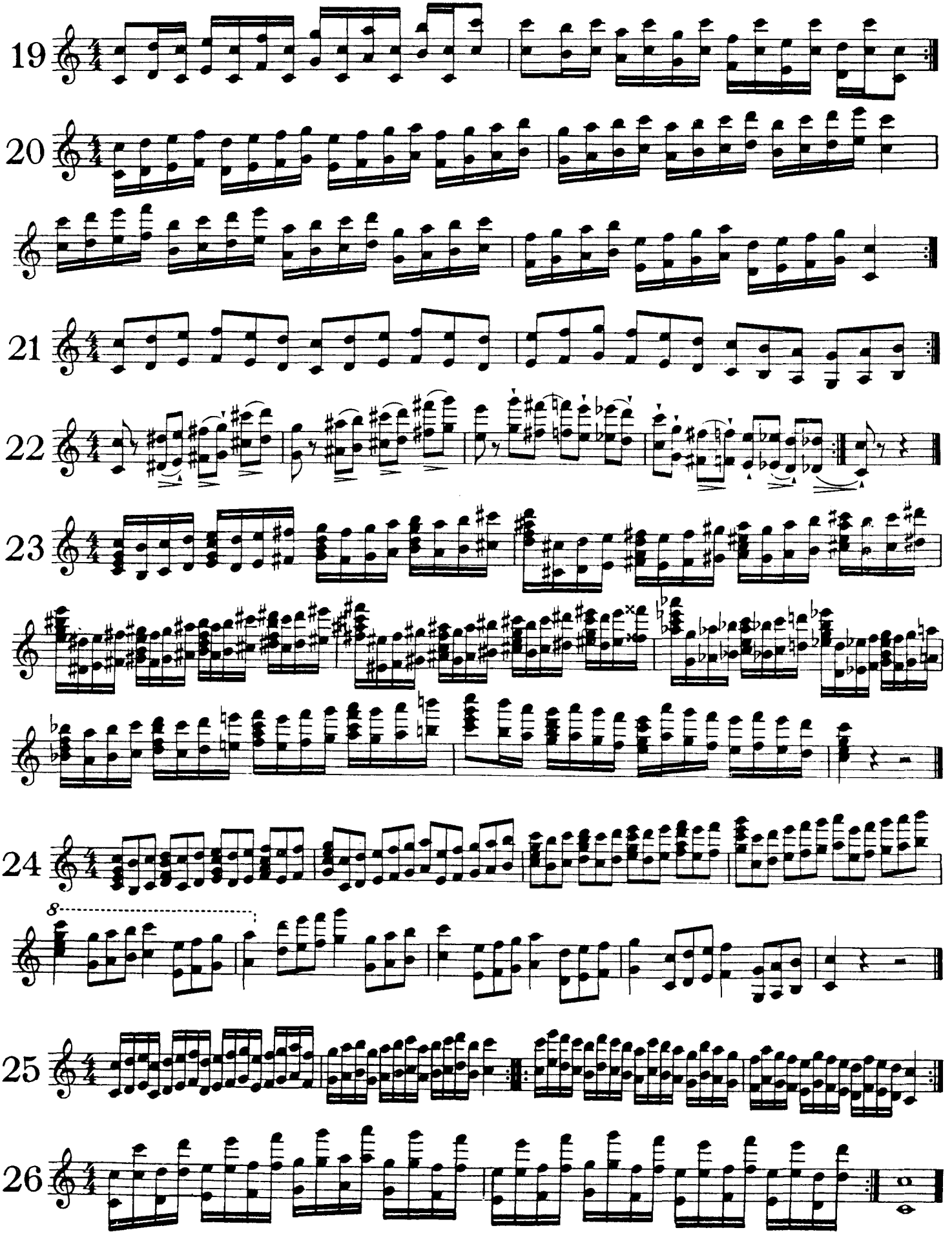
6

7

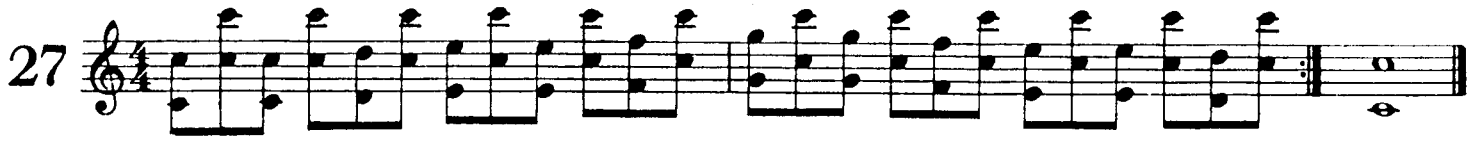
8

9

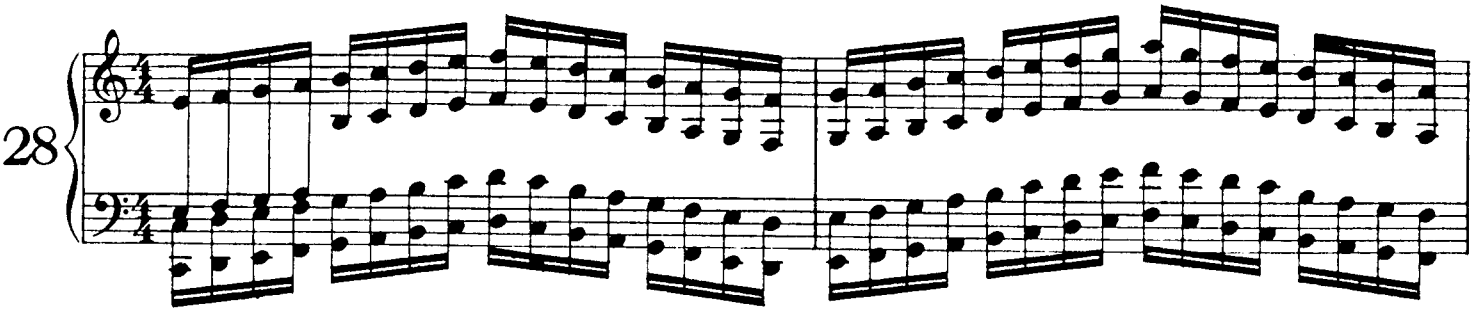

10
11
12
13
14
15
16
17
18
M.M. ♩=112
8
8

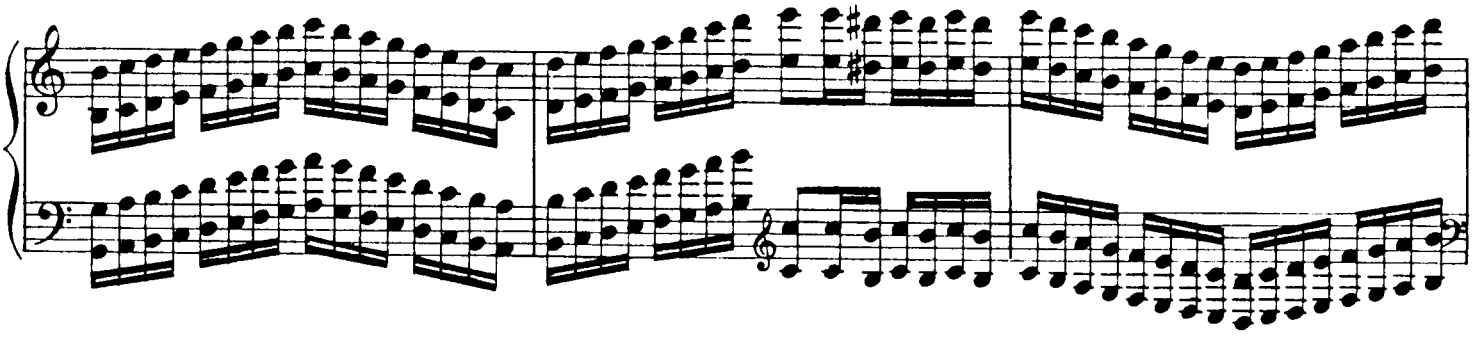

19
20
21
22
23
24
8
25
26

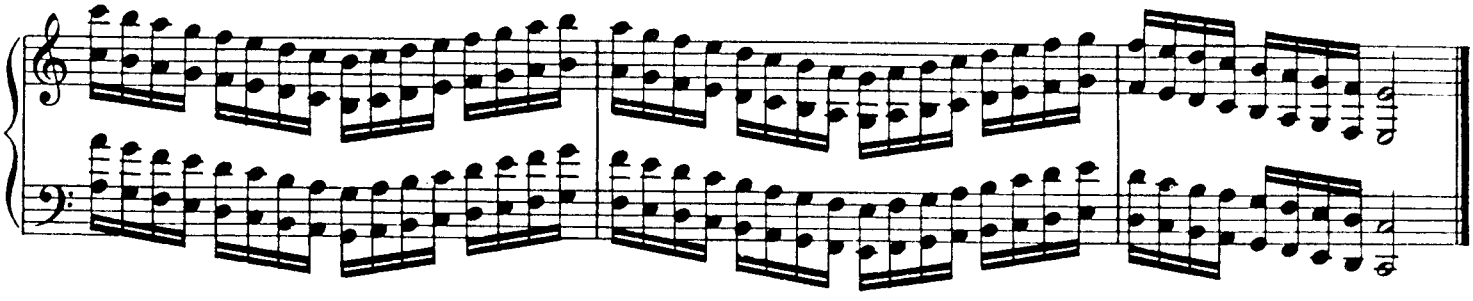
27



28

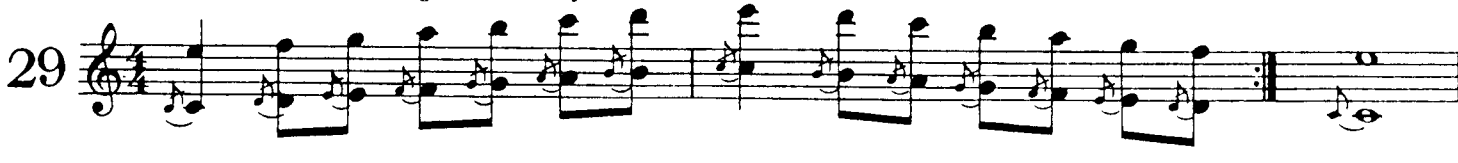




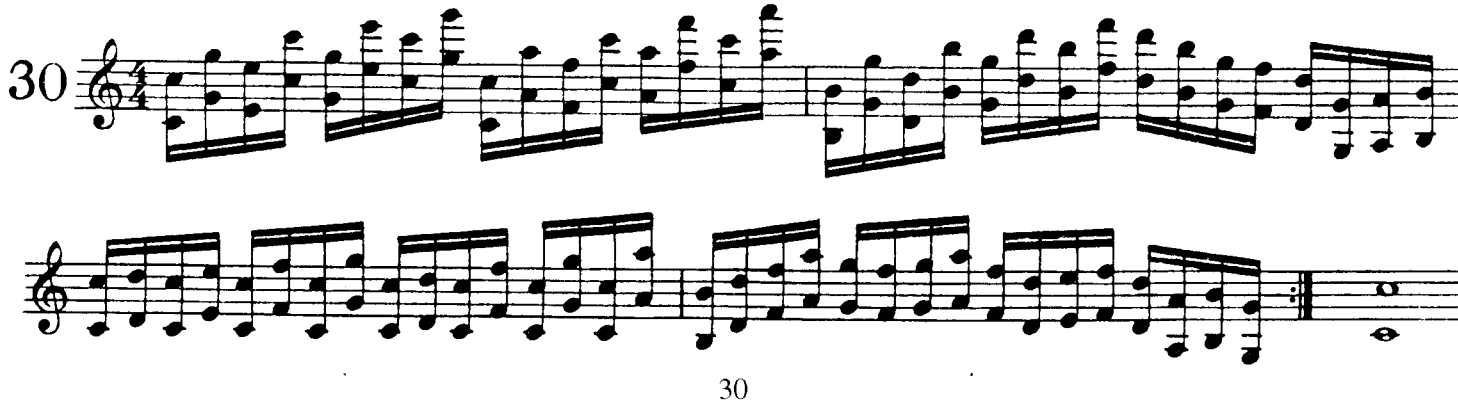


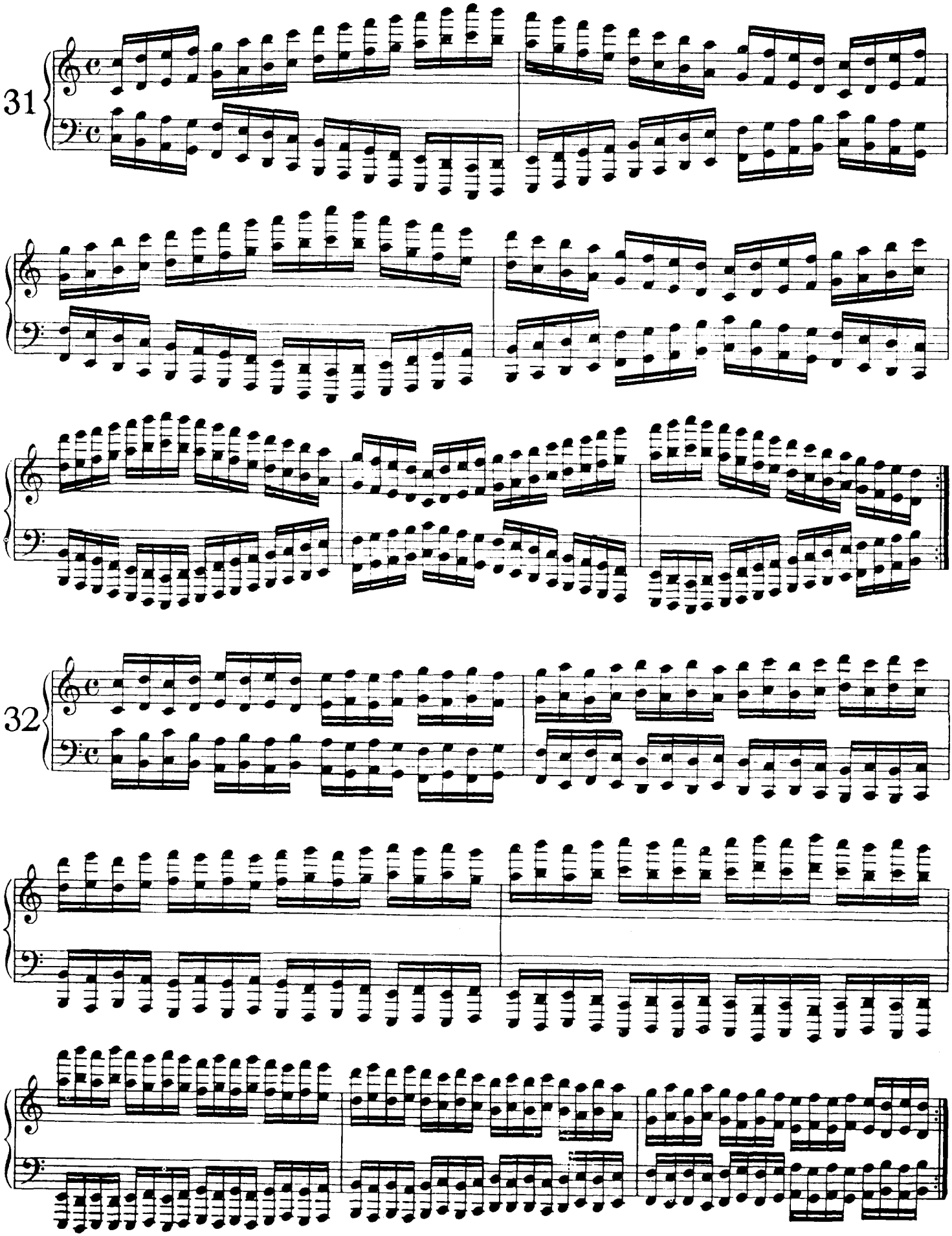
From the wrist (for large hands) very slow.

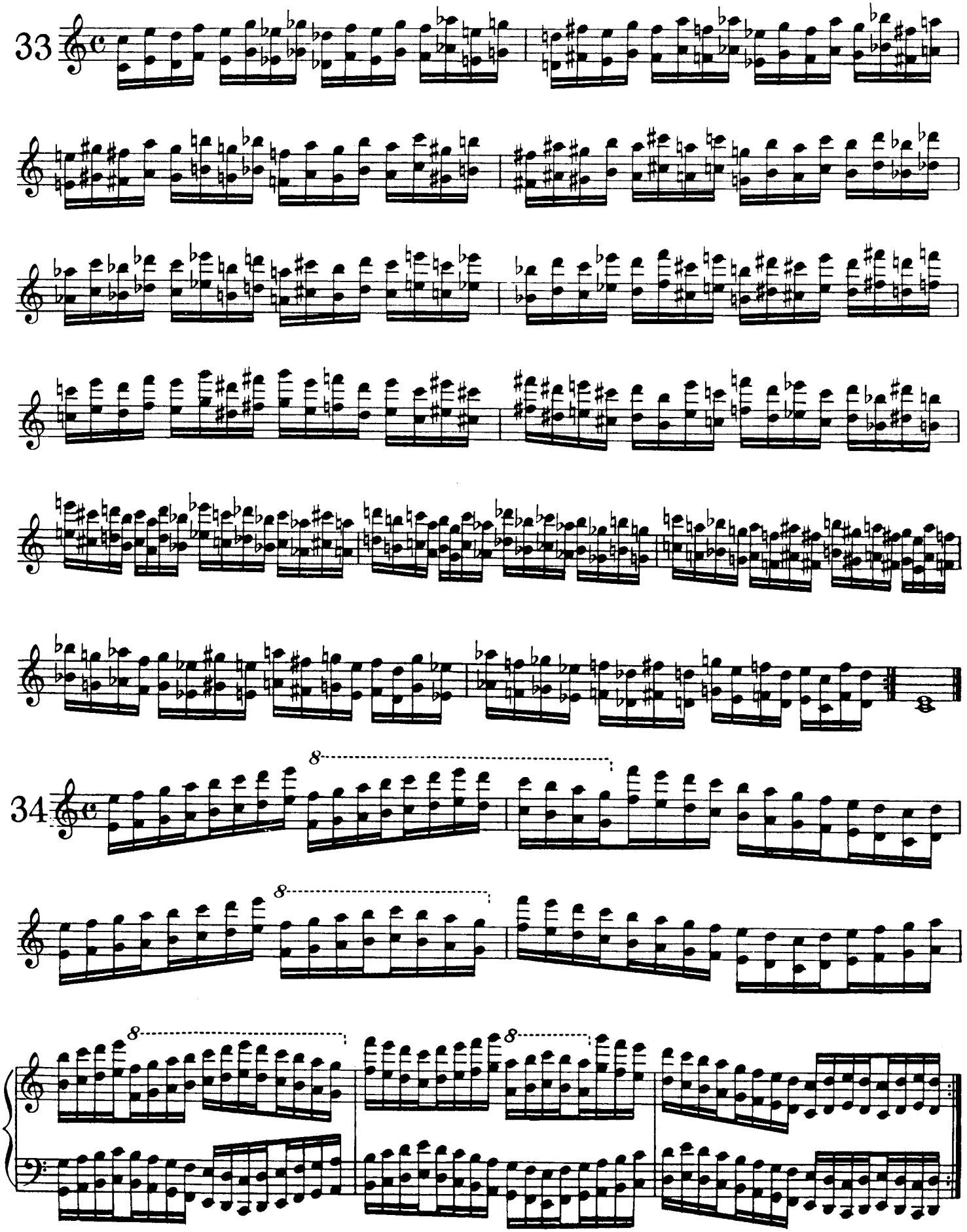
29



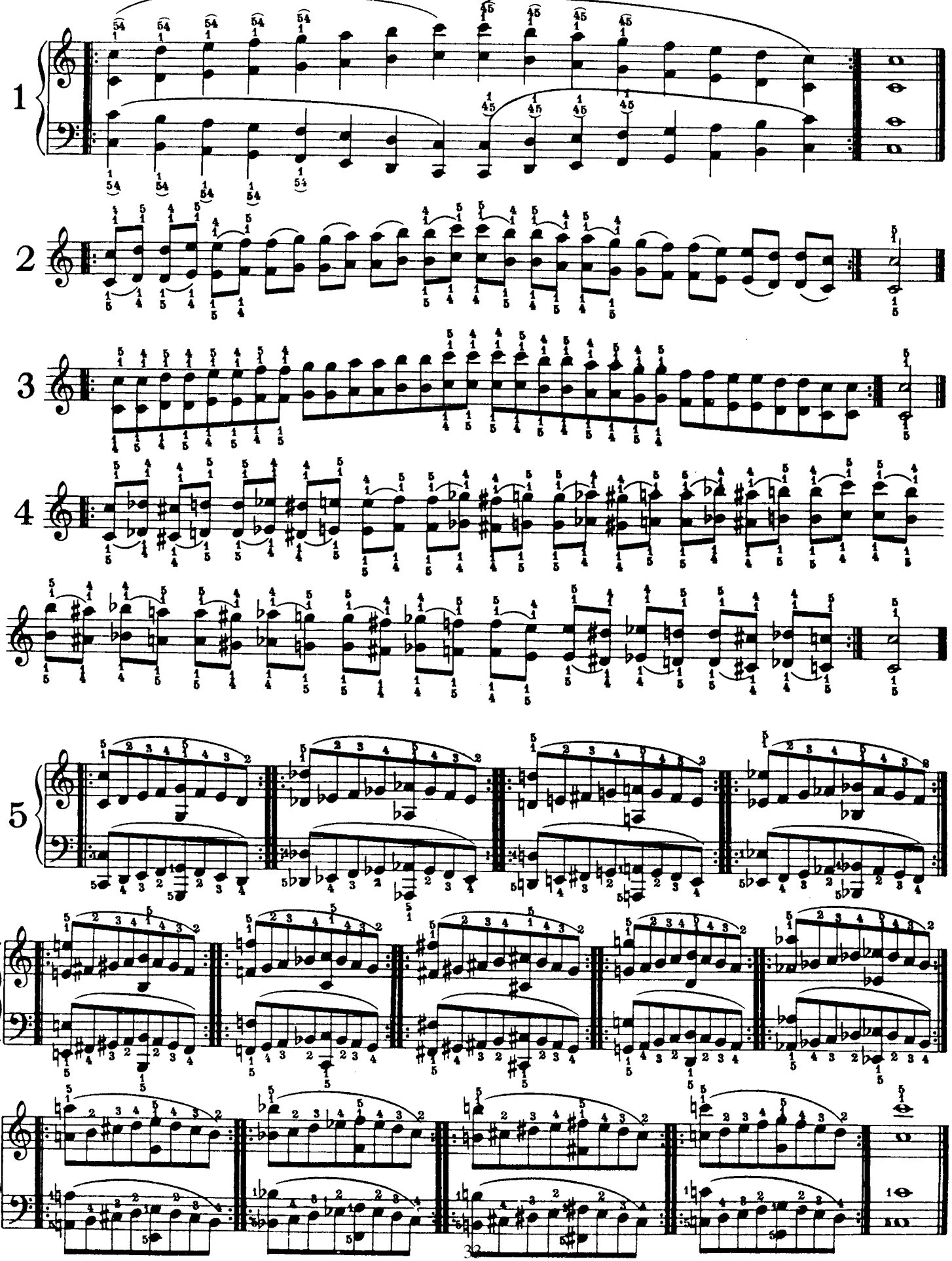
30



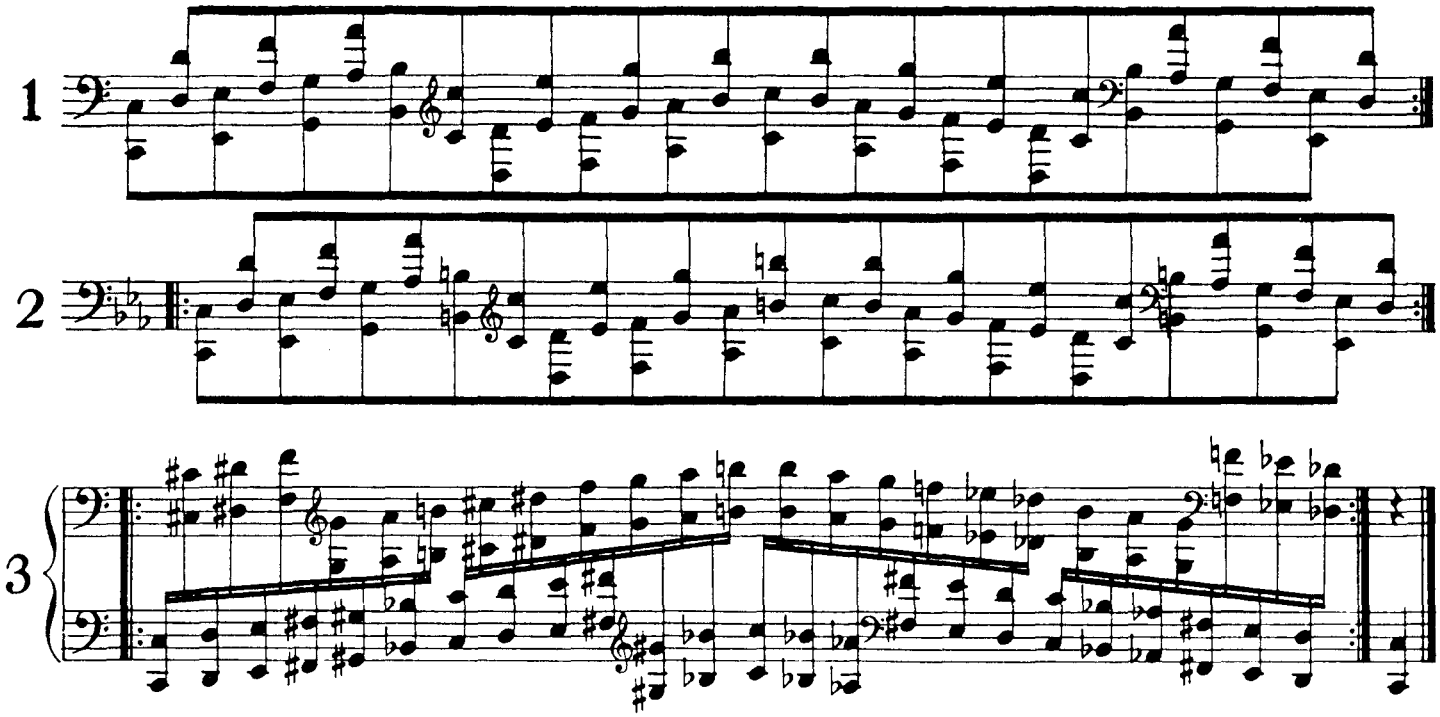

31
32


33
34
8
8
8
8

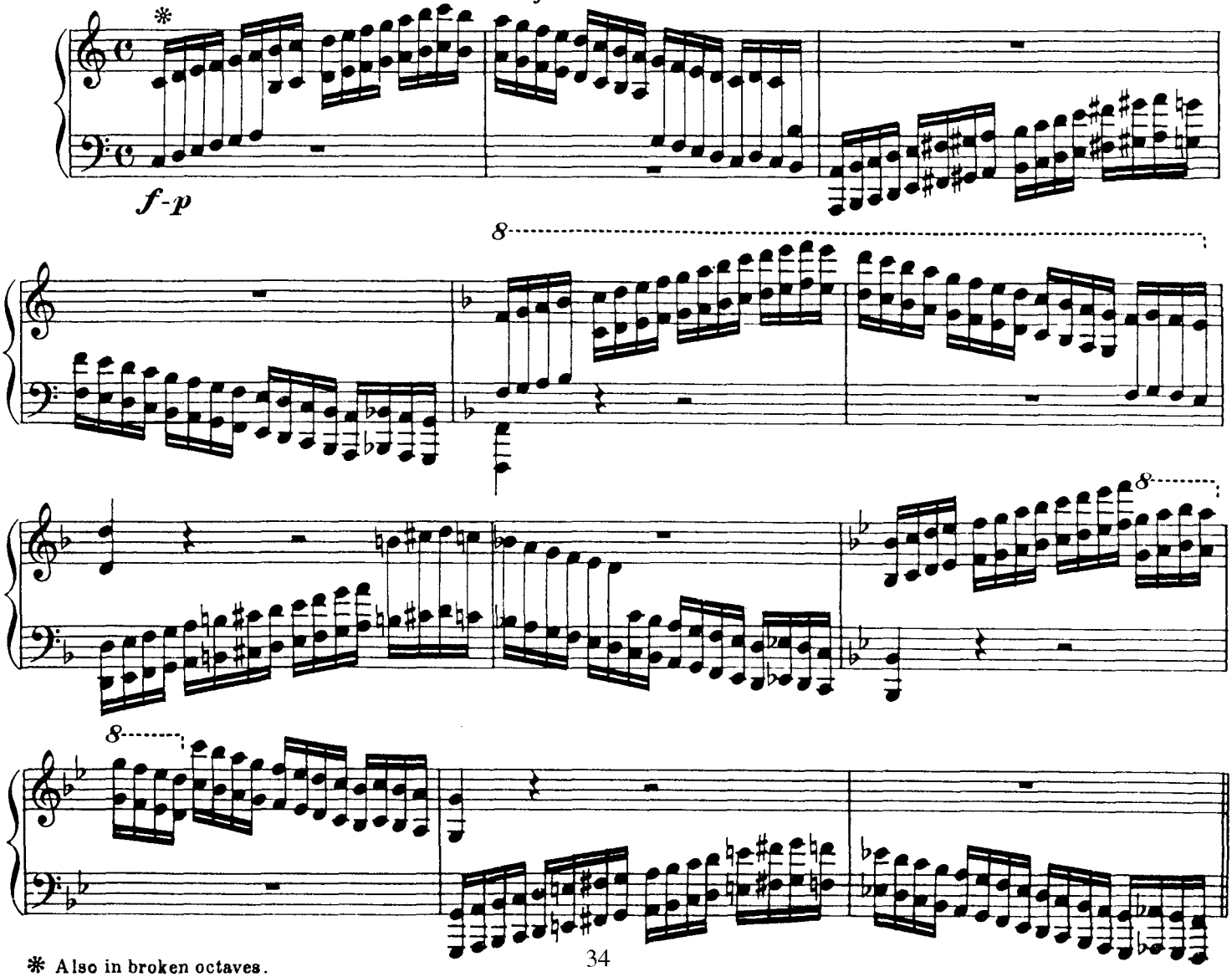
LEGATO OCTAVES



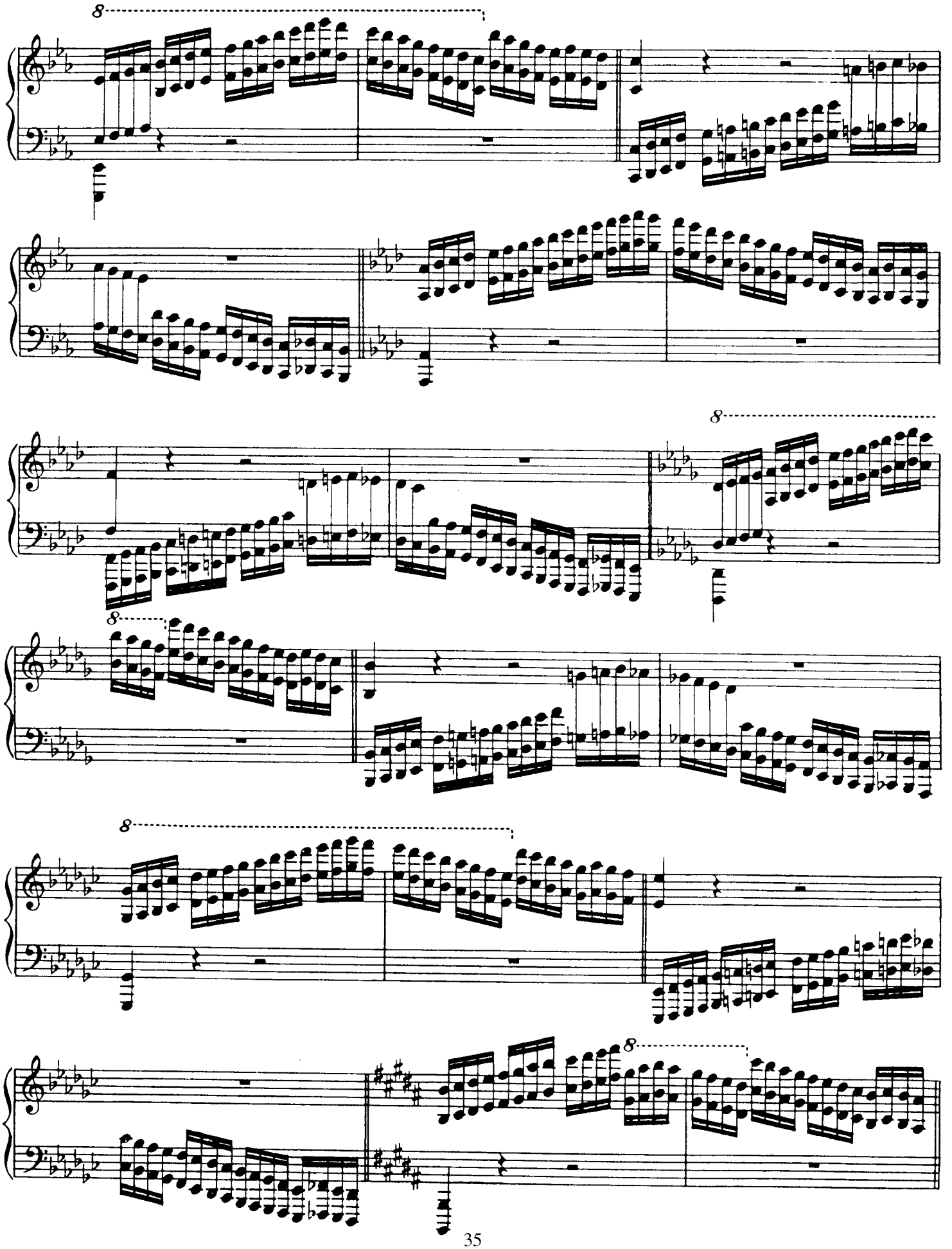
LINKED OCTAVES

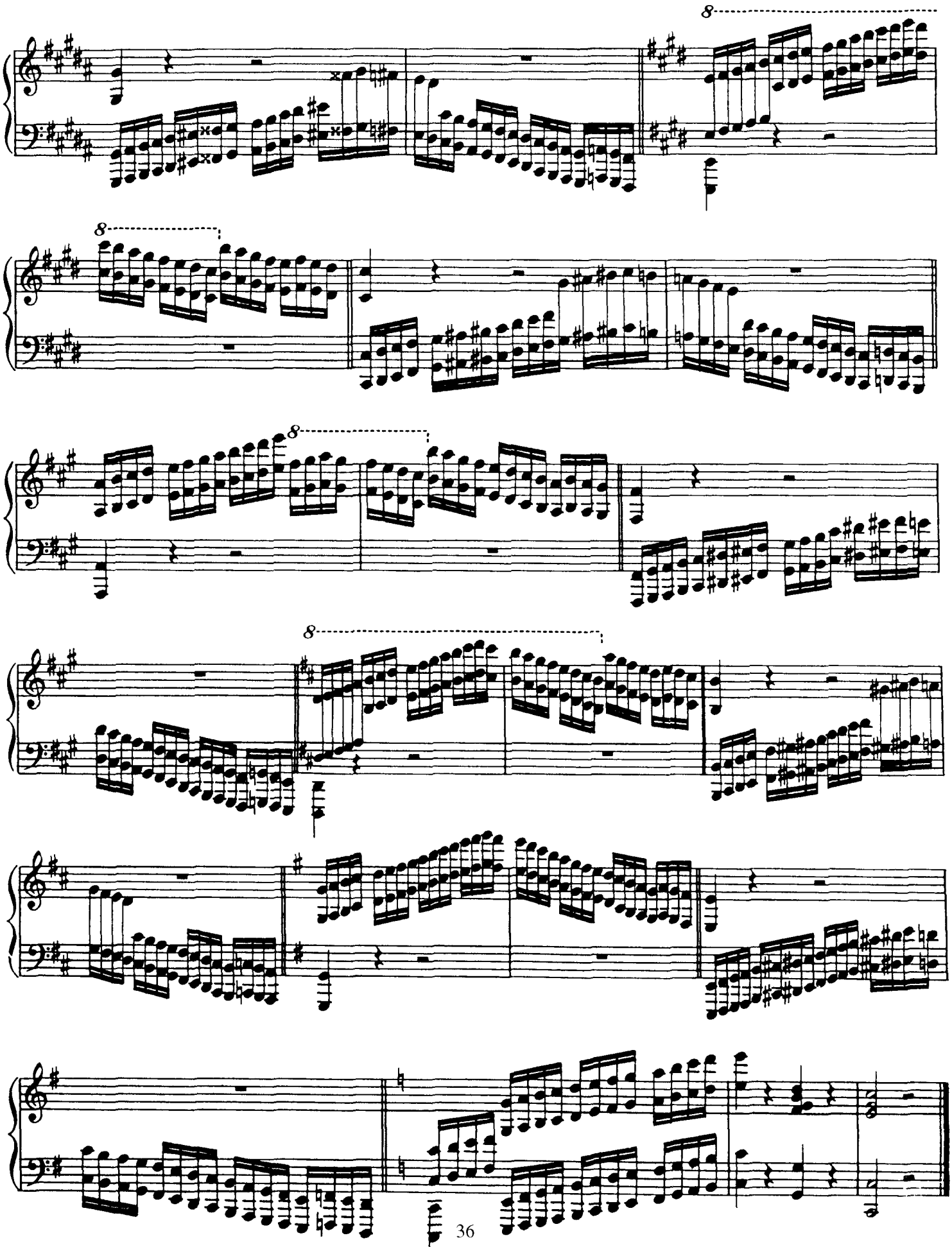


OCTAVE EXERCISE
on Major and Minor Scales



* Also in broken octaves.





Chords

The chord positions given below, vary in difficulty of execution according to the size of one's hand. Those that are easiest, therefore, may be selected for preliminary practice, gradually attempting the others as muscular extension increases. The exercises for extension and independence afford perfect preparation for shaping the hands to chord positions.

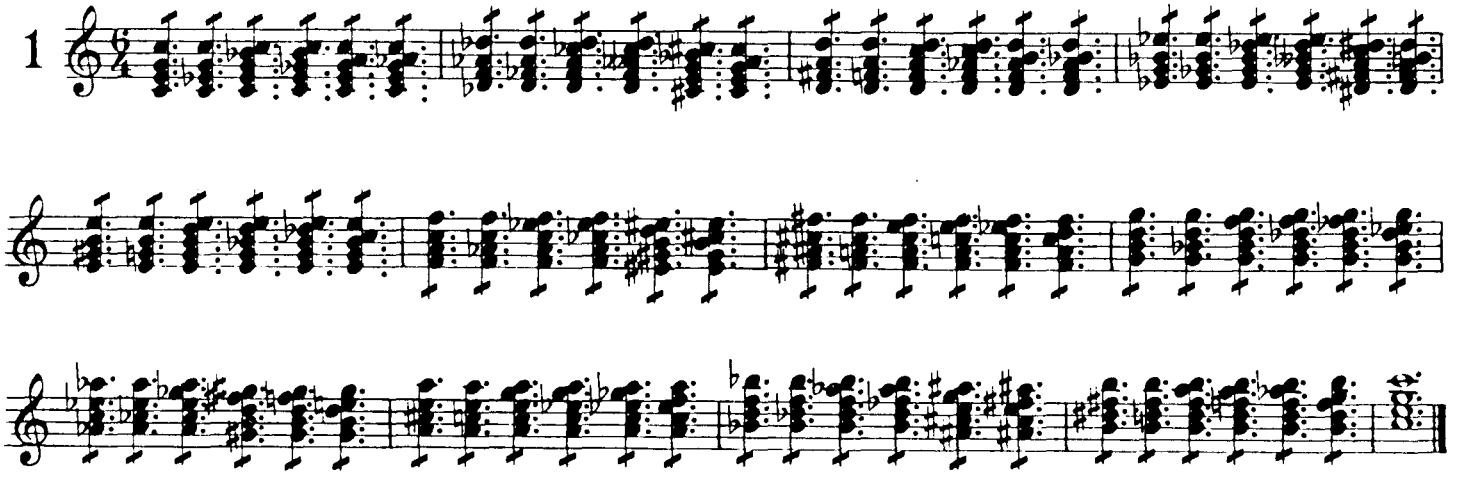
An elevated wrist, with knuckles and joints rounded out as much as possible are advised at the beginning. This position is also most permanently effective for small hands.

Chord repetitions, in accordance with the rhythms appended, should be made without incurring too much stiffness As with octaves, care must be taken to avoid muscular strains by limiting the minutes of practice.

The chords are practiced with and without the pedal. Great attention should be given to securing a full, rich quality of tone, for the production of which a correct attack, and constant listening are requisite.

The left hand two octaves lower, employing the following rhythms:

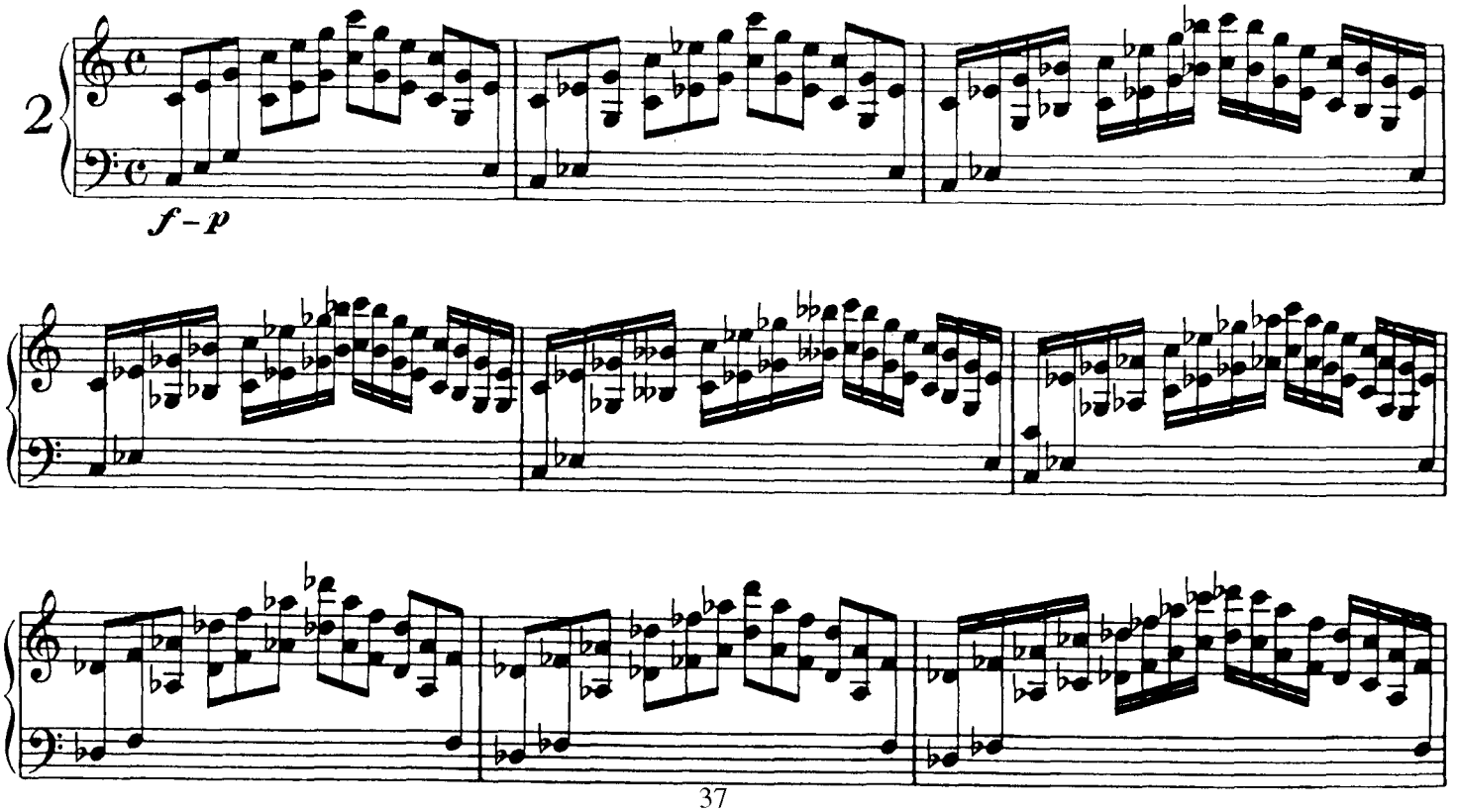
1



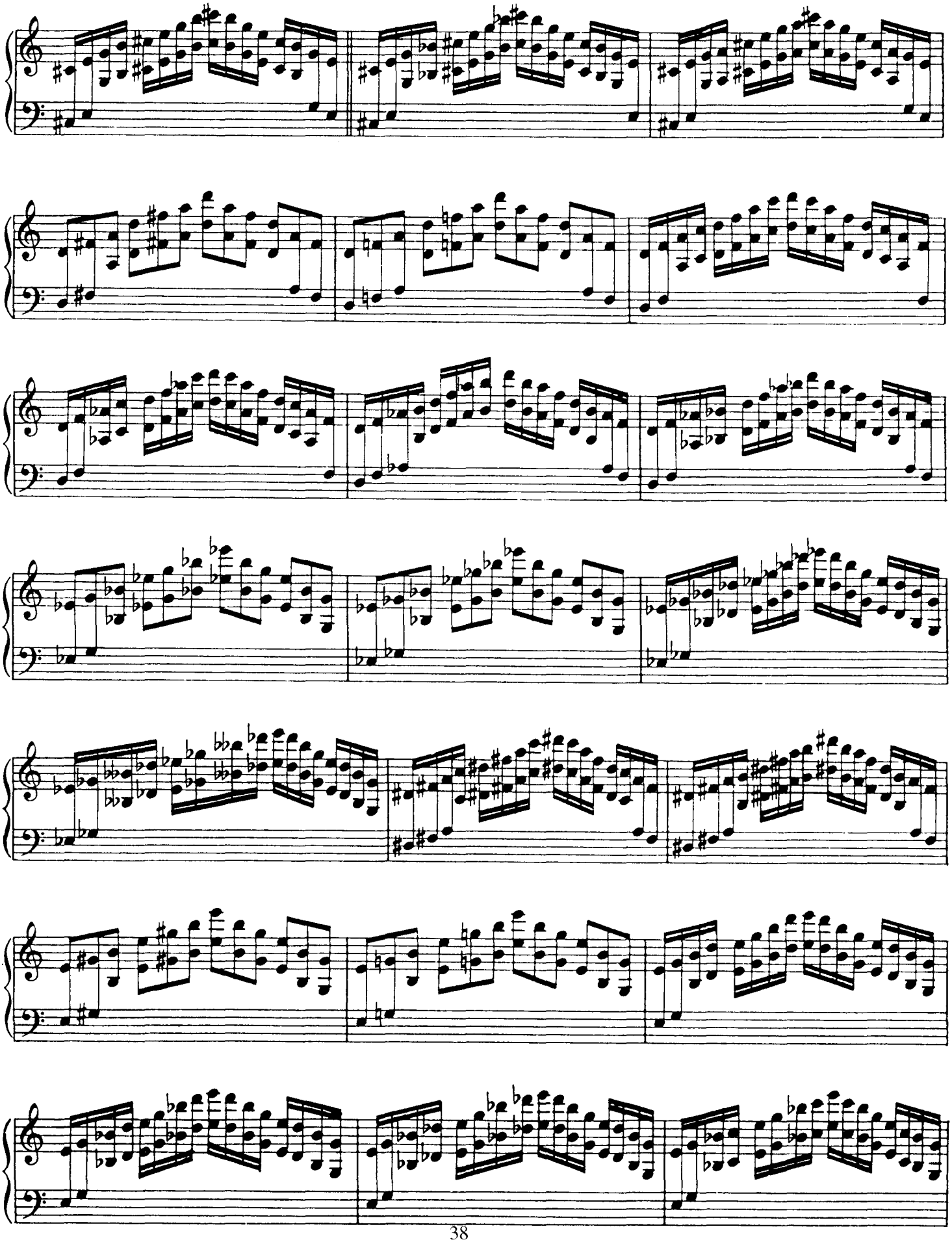
*ARPEGGIO EXERCISE ON THE PRECEDING CHORDS

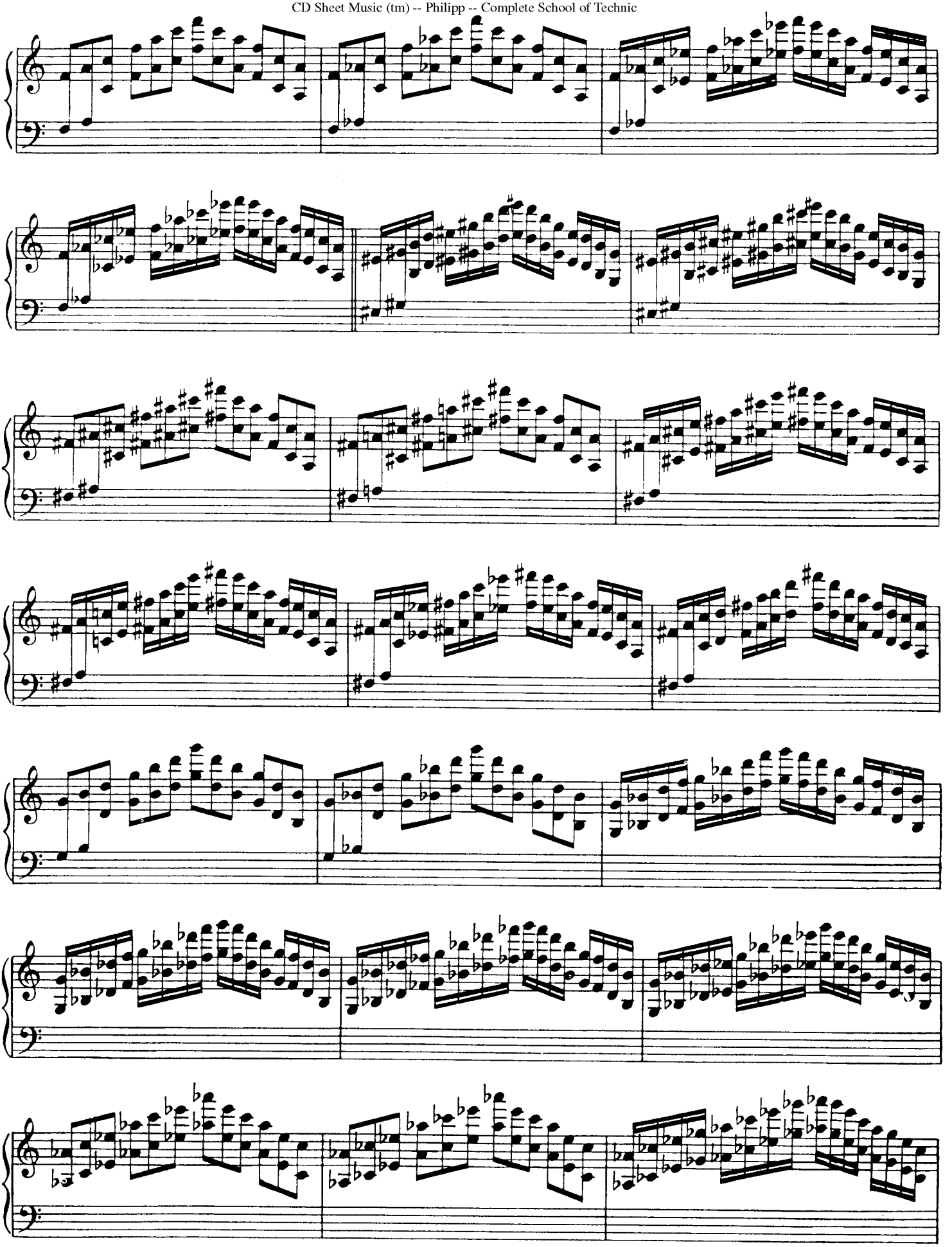
2

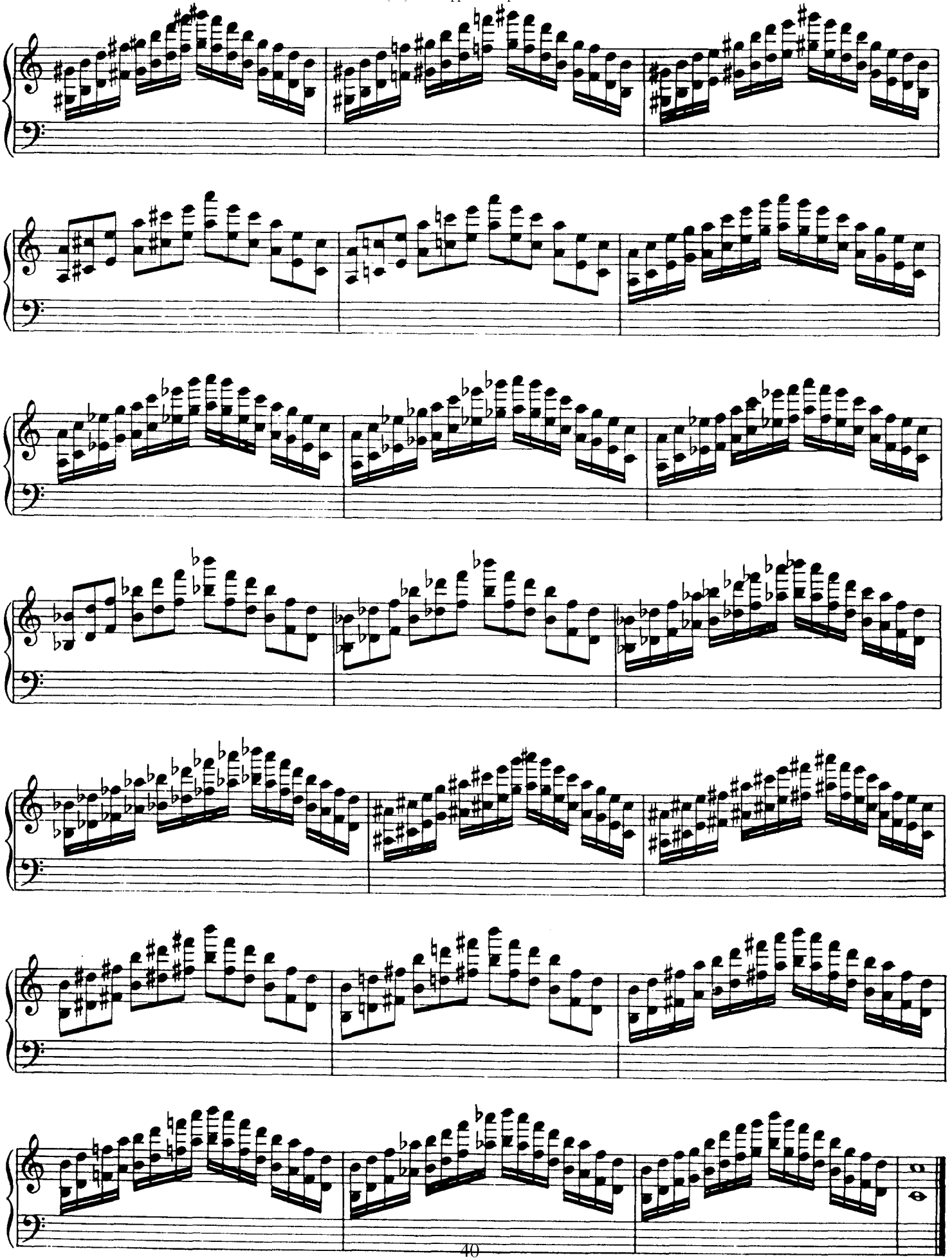
f – p



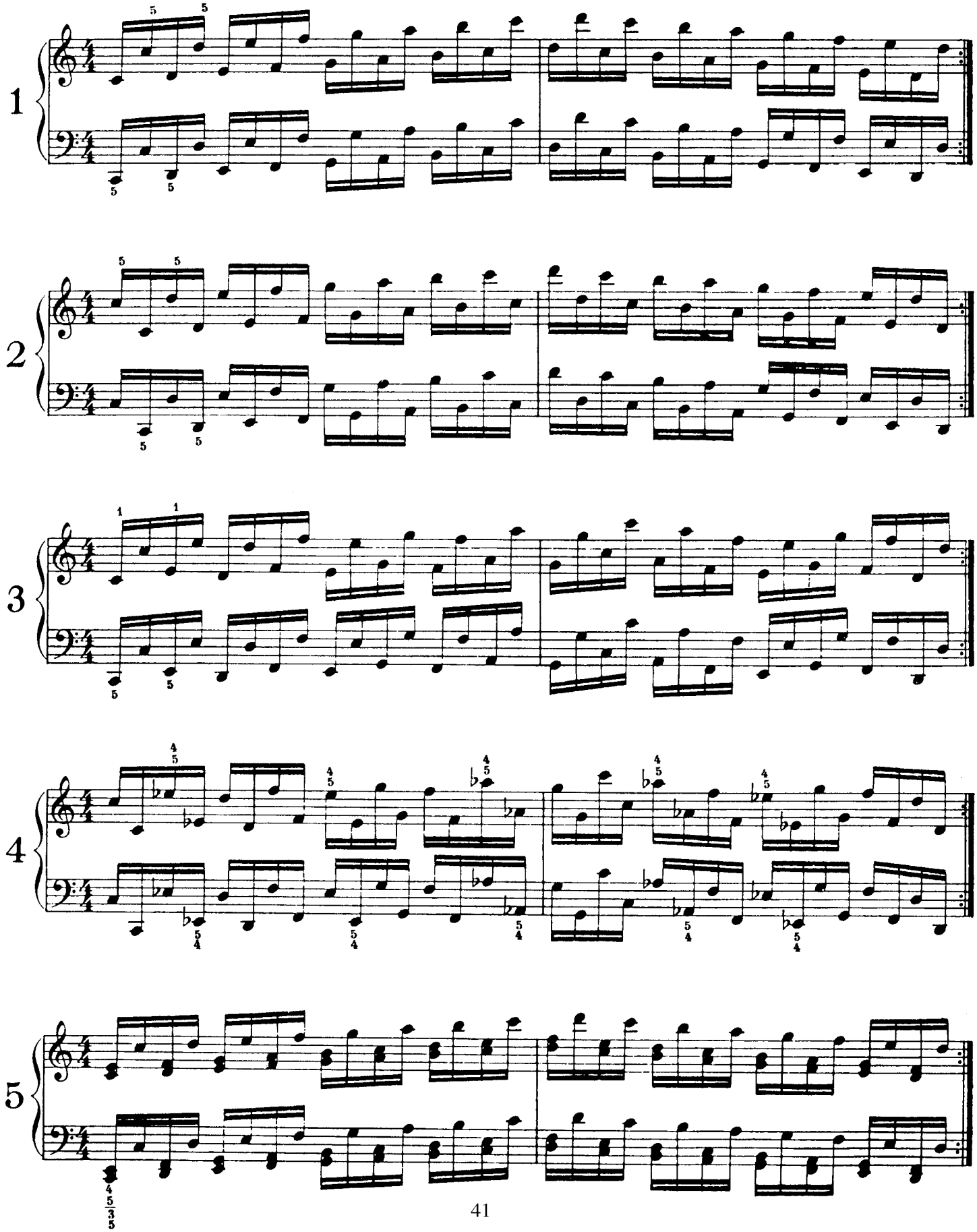
* Also in broken octaves, from high and low wrist.

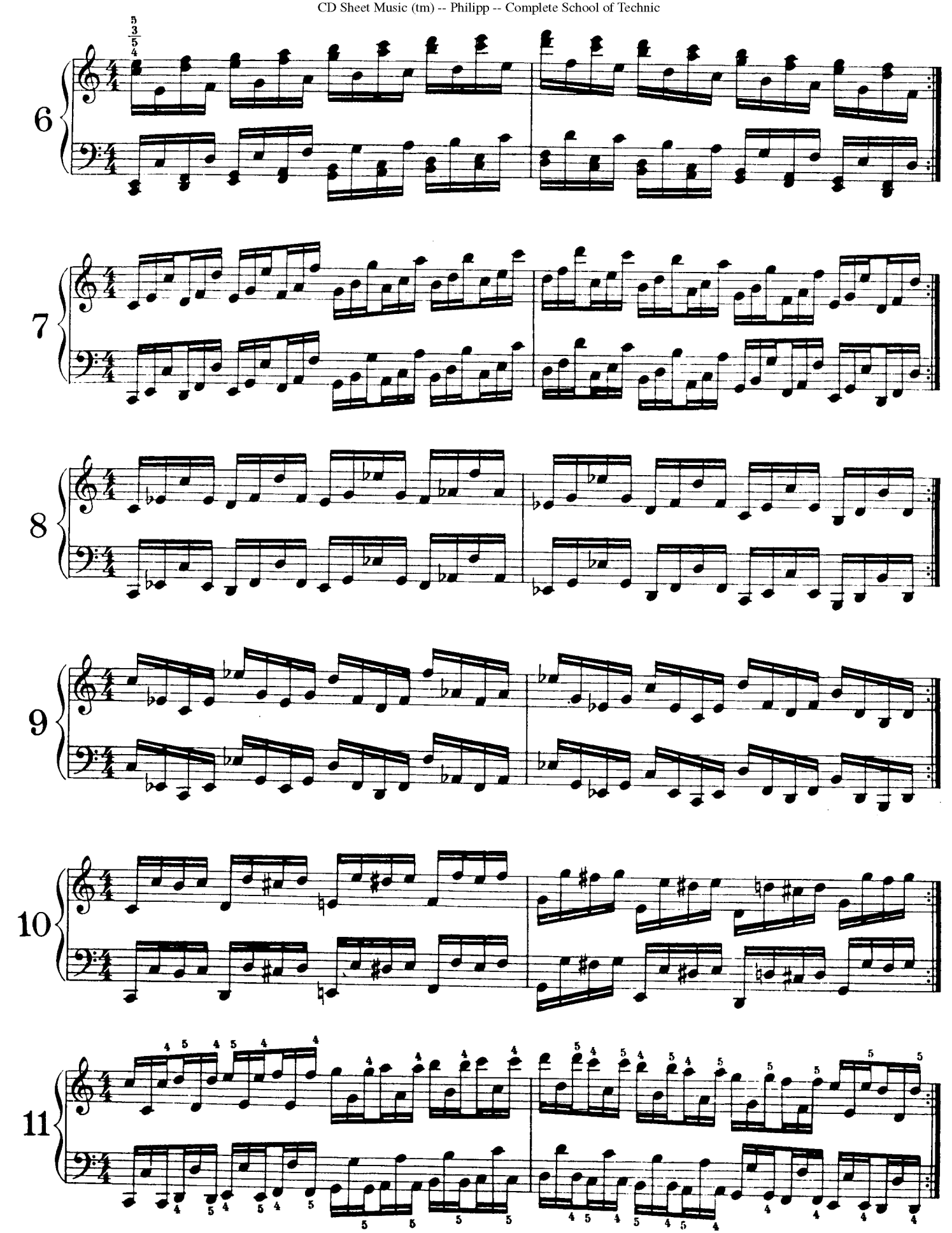






BROKEN OCTAVES




6
7
8
9
10
11

Trills

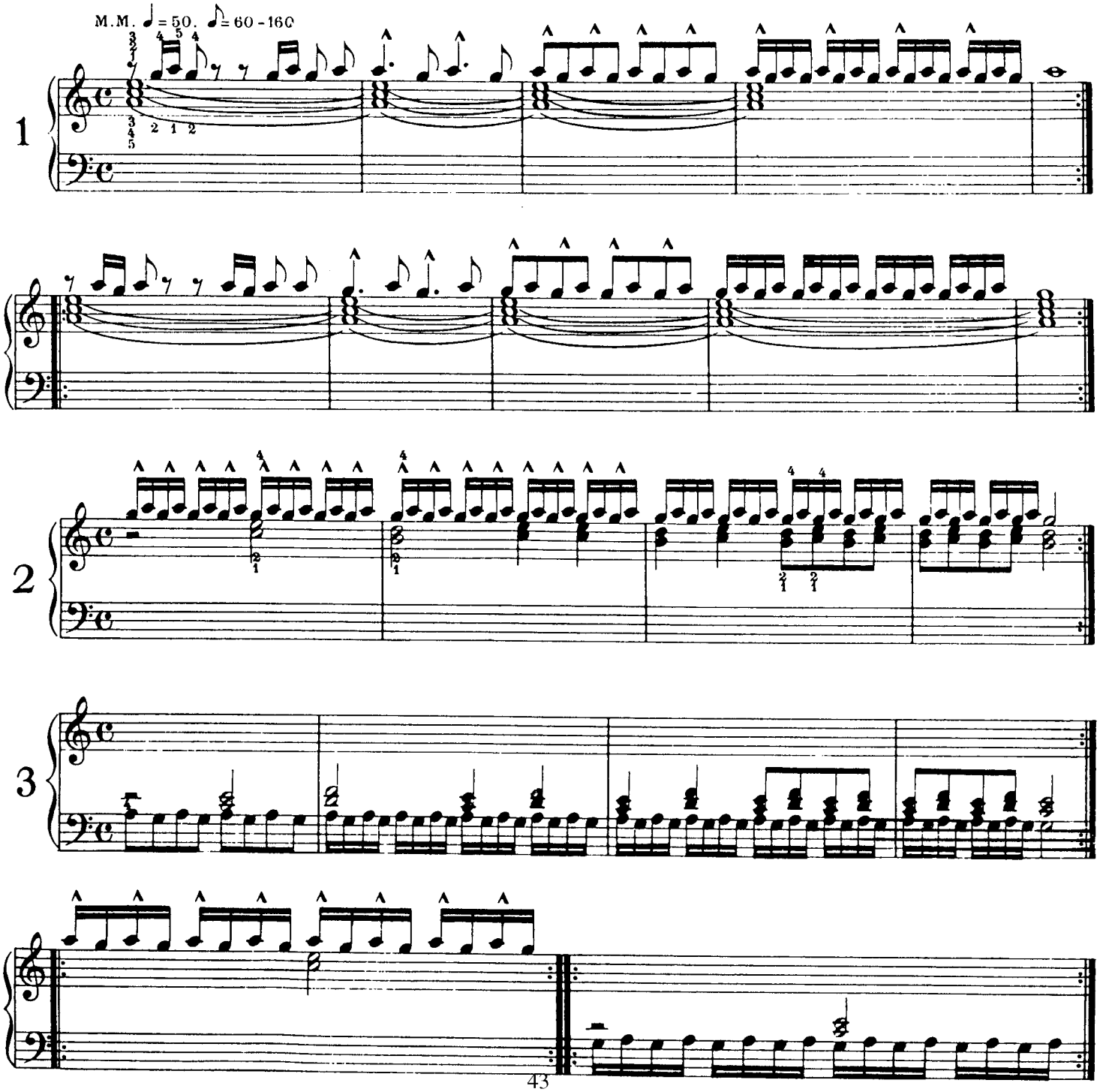
A good trill can be attained only by long-continued practice in moderate tempi. Too early attempts at rapid trilling tend to cramp the hands, and to impair free finger repetition.

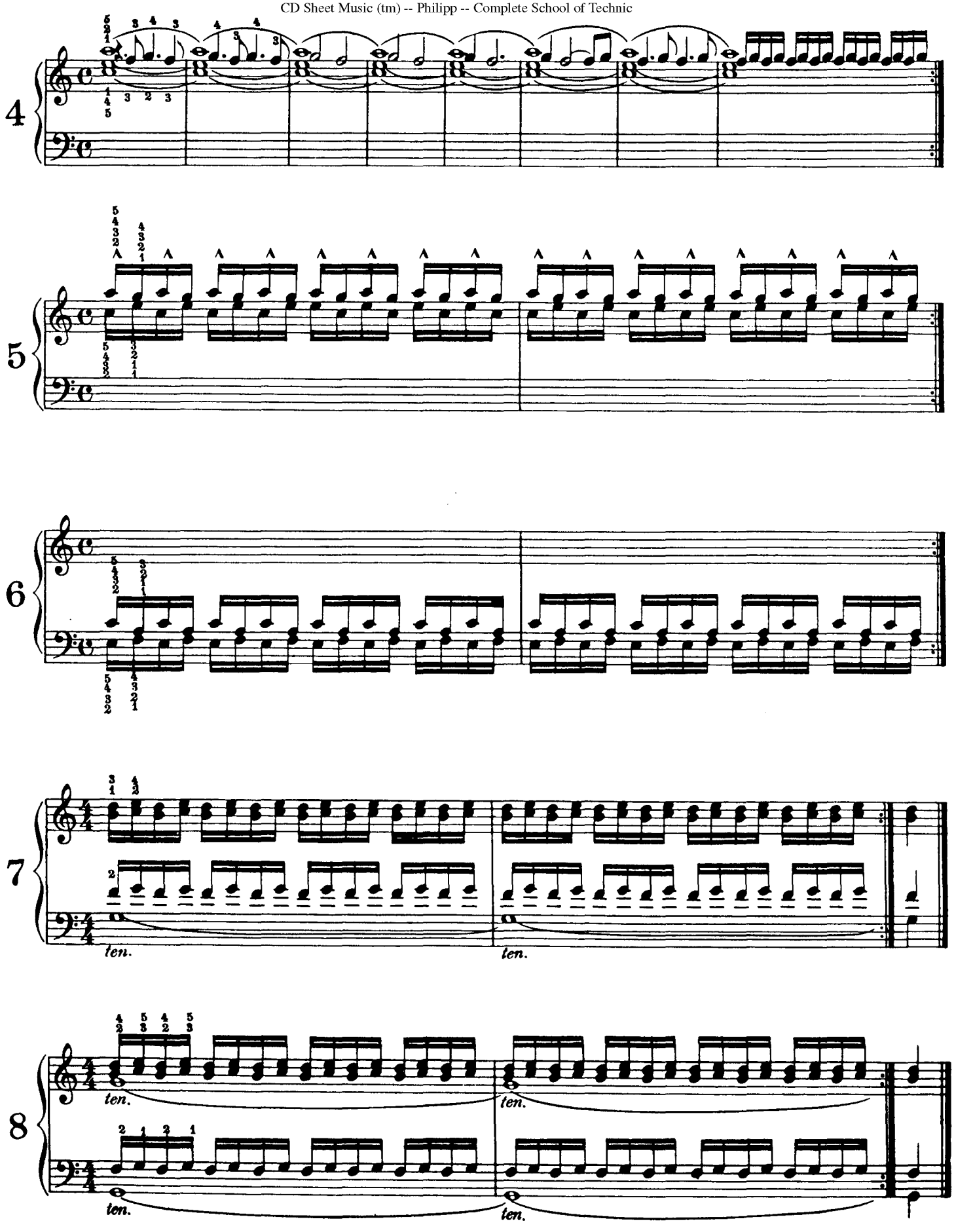
The rhythms, and a free staccato touch, in addition to the unaccented legato, are invaluable aids to the development of trill velocity.

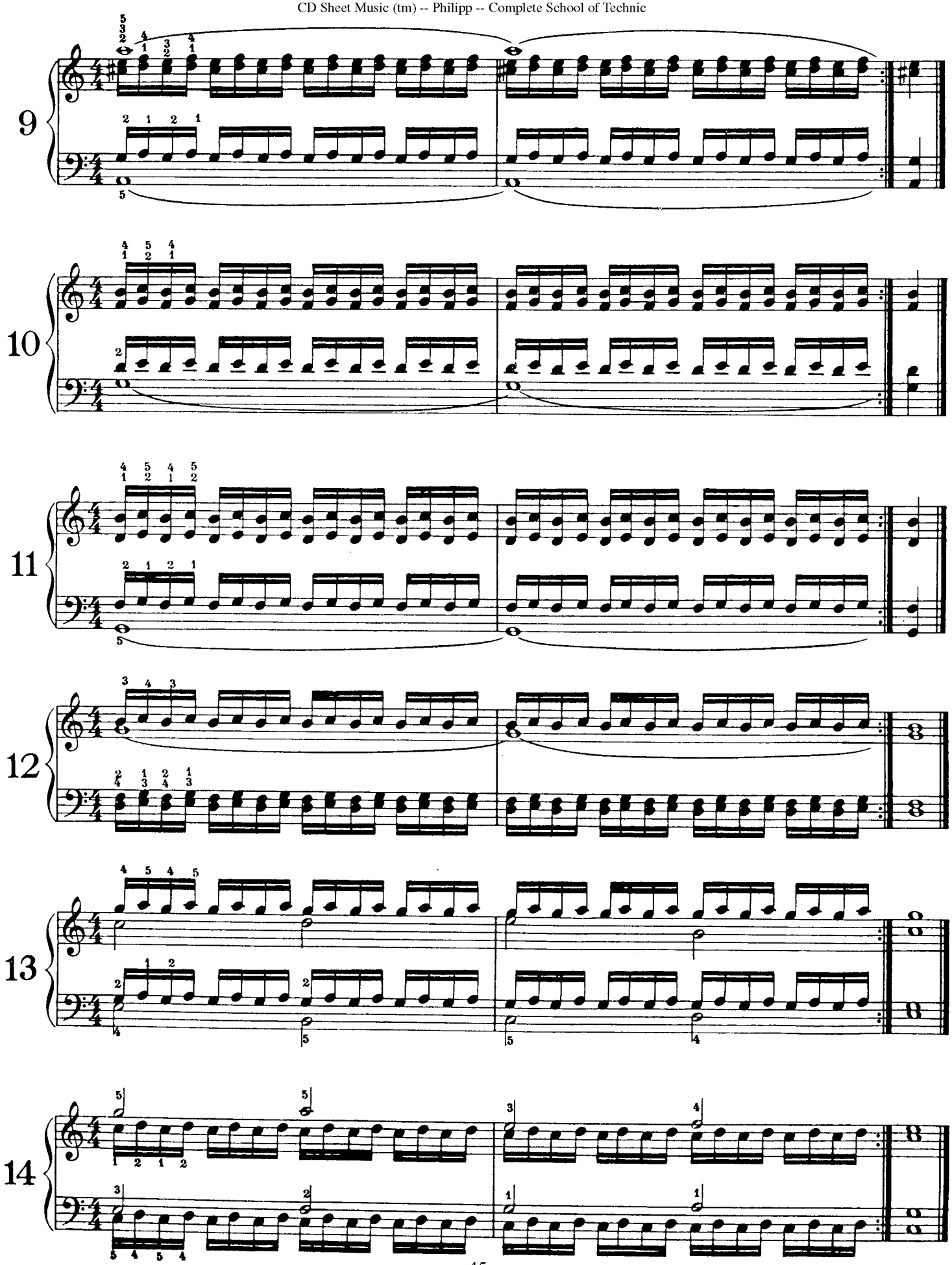
The linked trills, employing both hands, are played with a close vibrating movement from the wrist. The third fingers of each hand are projected below the other finger tips, and are held fixed with the assistance of the thumbs, which are braced against the inside of the fingers.

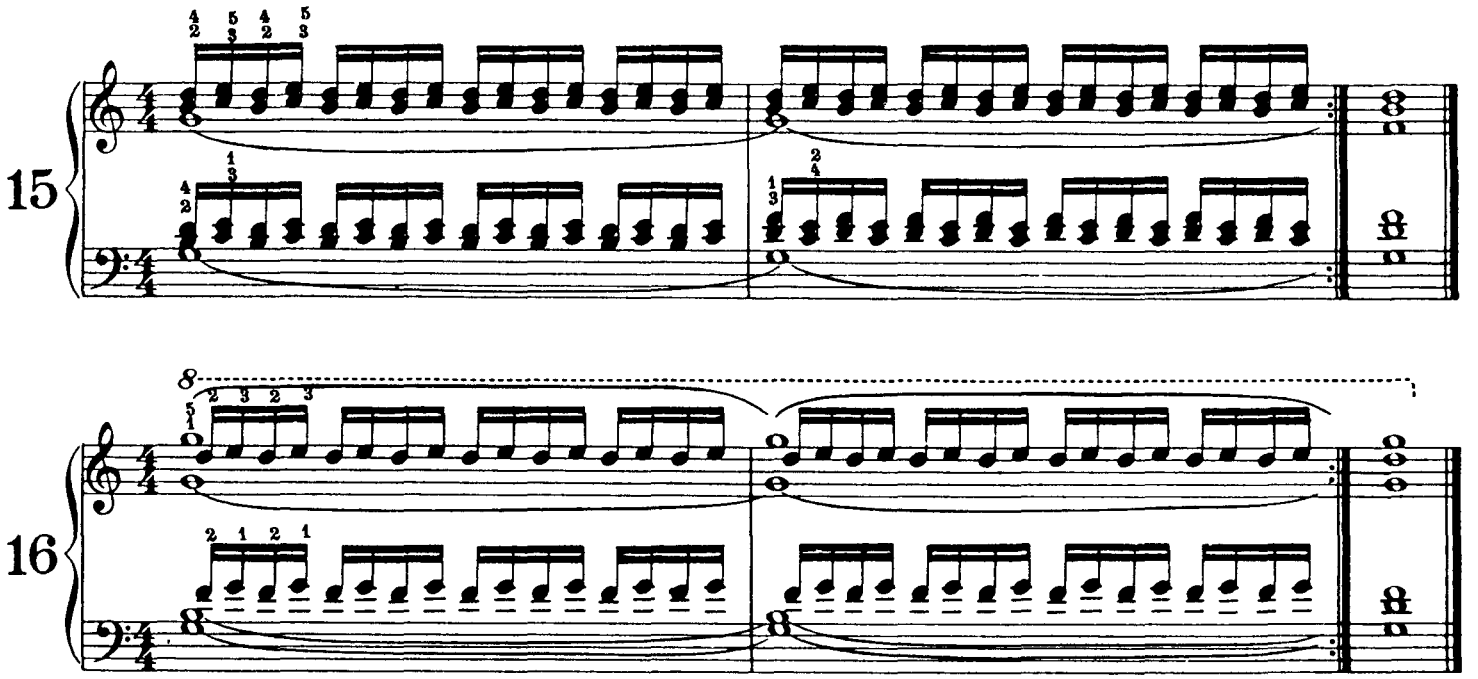
The trill tremolo is executed by combining the finger movement with a vibrating side-twist from the forearm. In chord tremolo, the finger movement becomes very slight, the execution proceeding almost entirely from the arm.

Tremolo on a single repeated note is practiced in two ways. In one, the finger tips strike the key and are instantly withdrawn one after the other towards the palm. In the other, each finger strikes the key and quickly makes room for the next by moving *sidewise* – not with the inward motion. The tremolo exercises on single repeated notes with octave extension, are particularly effective for thumb training

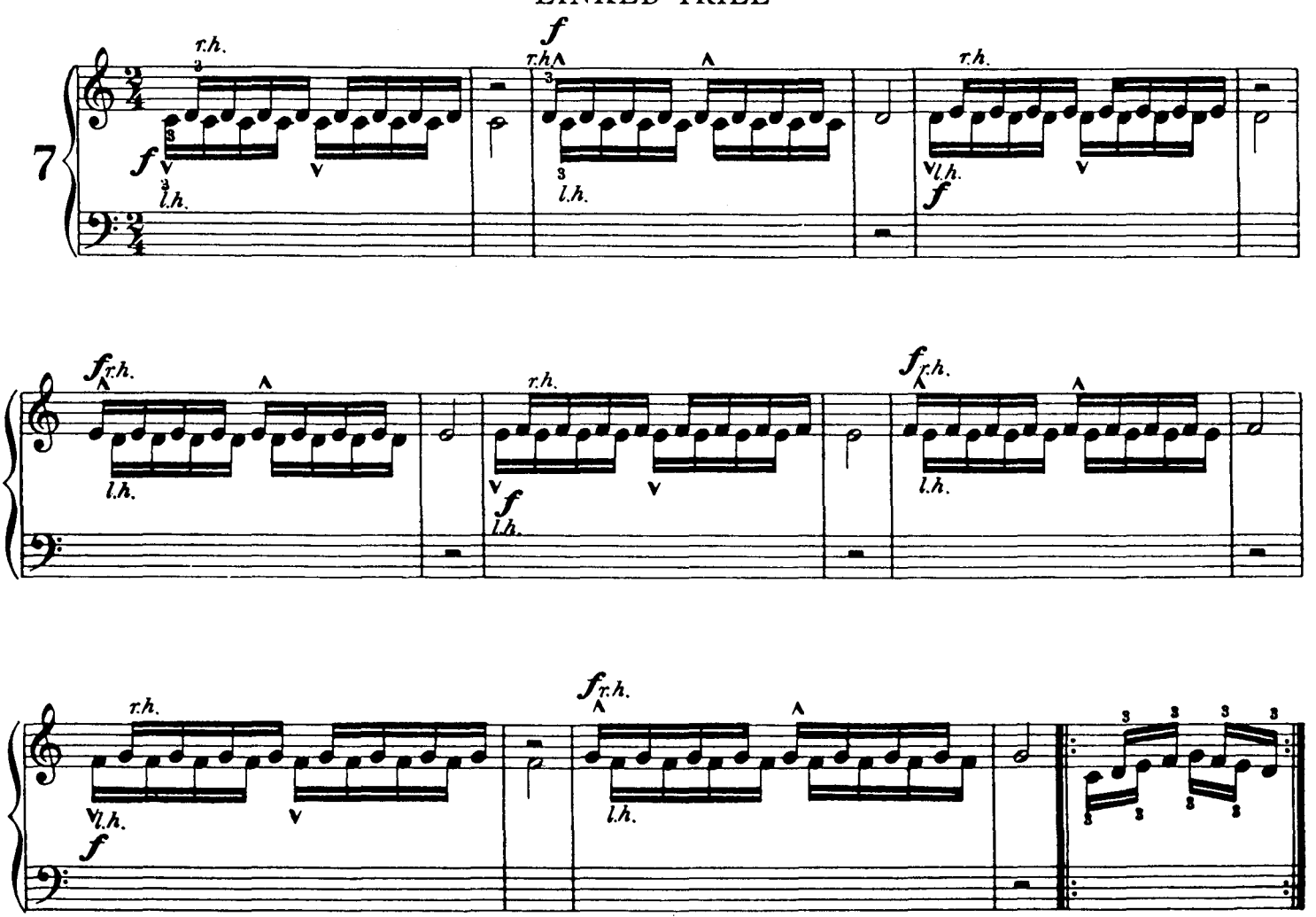


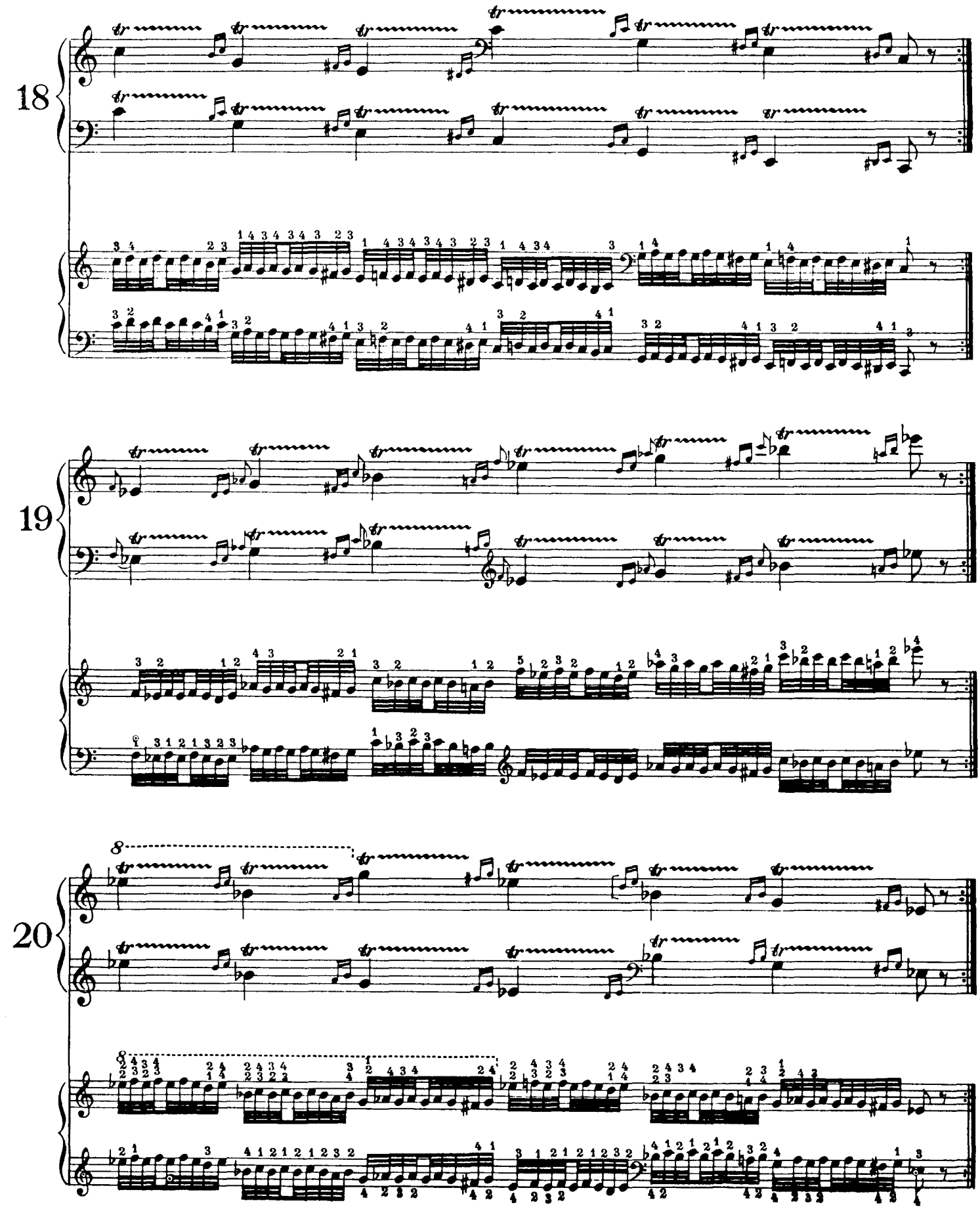

4
5
6
7
ten.
ten.
8
ten.
ten.
ten.
ten.


9
10
11
12
13
14

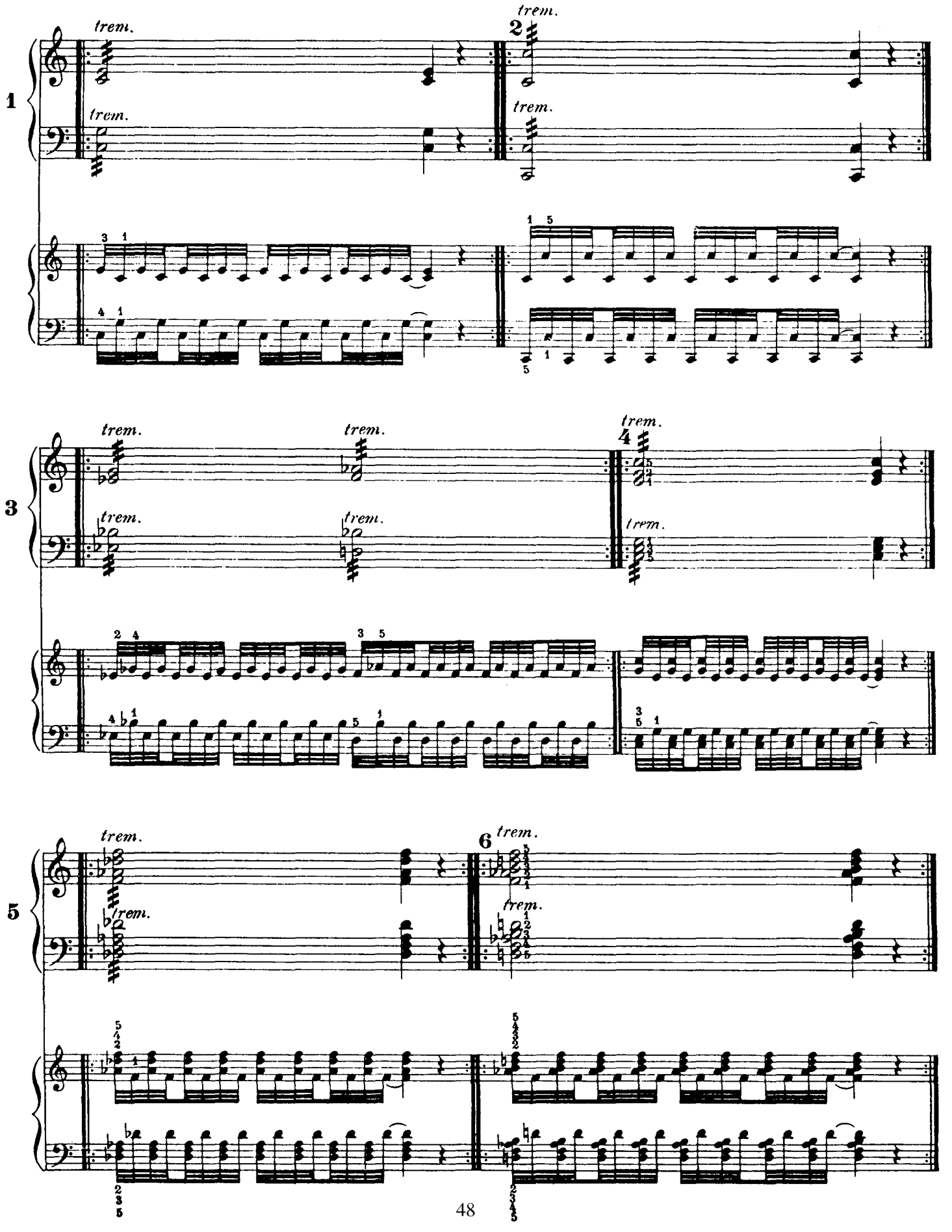


LINKED TRILL

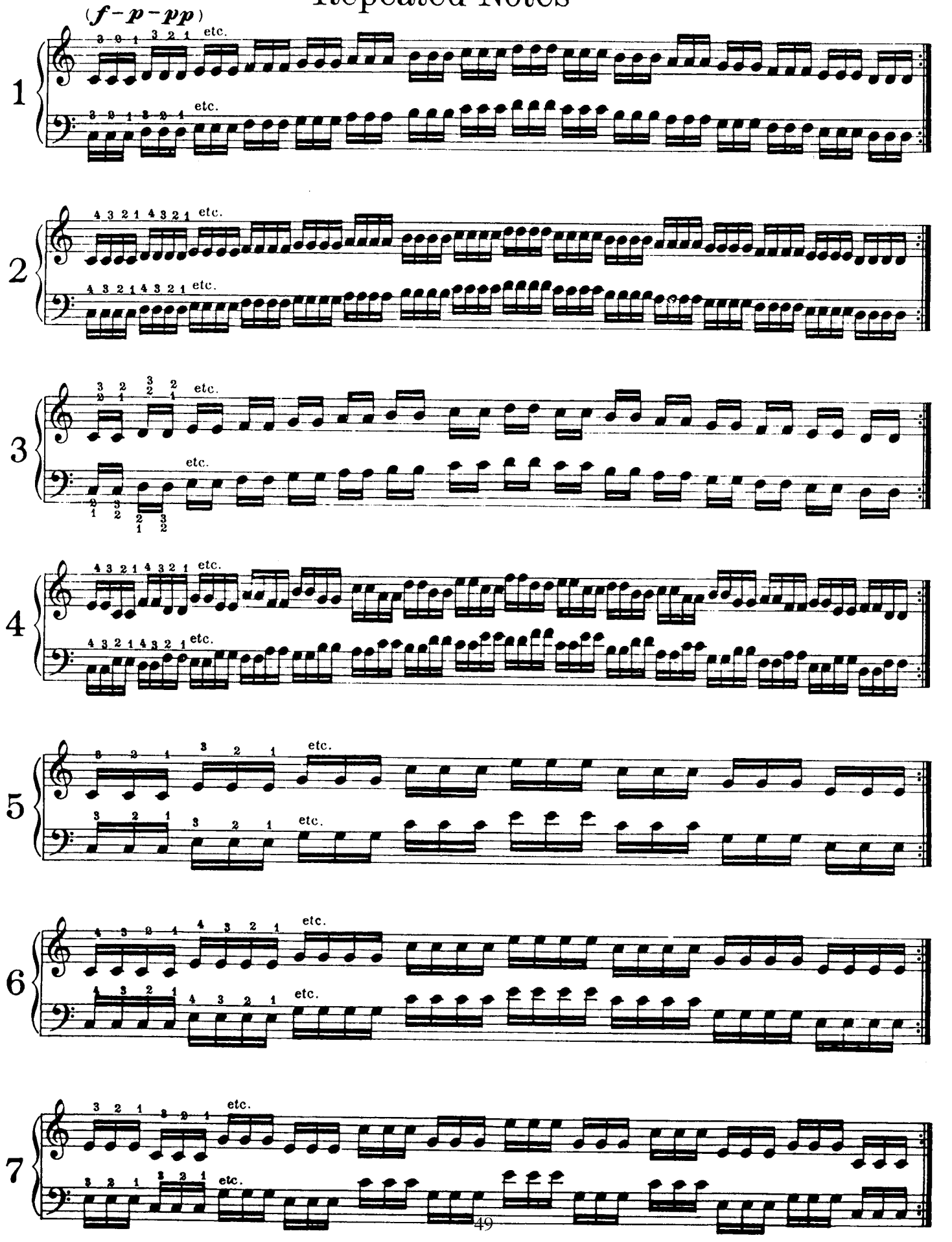


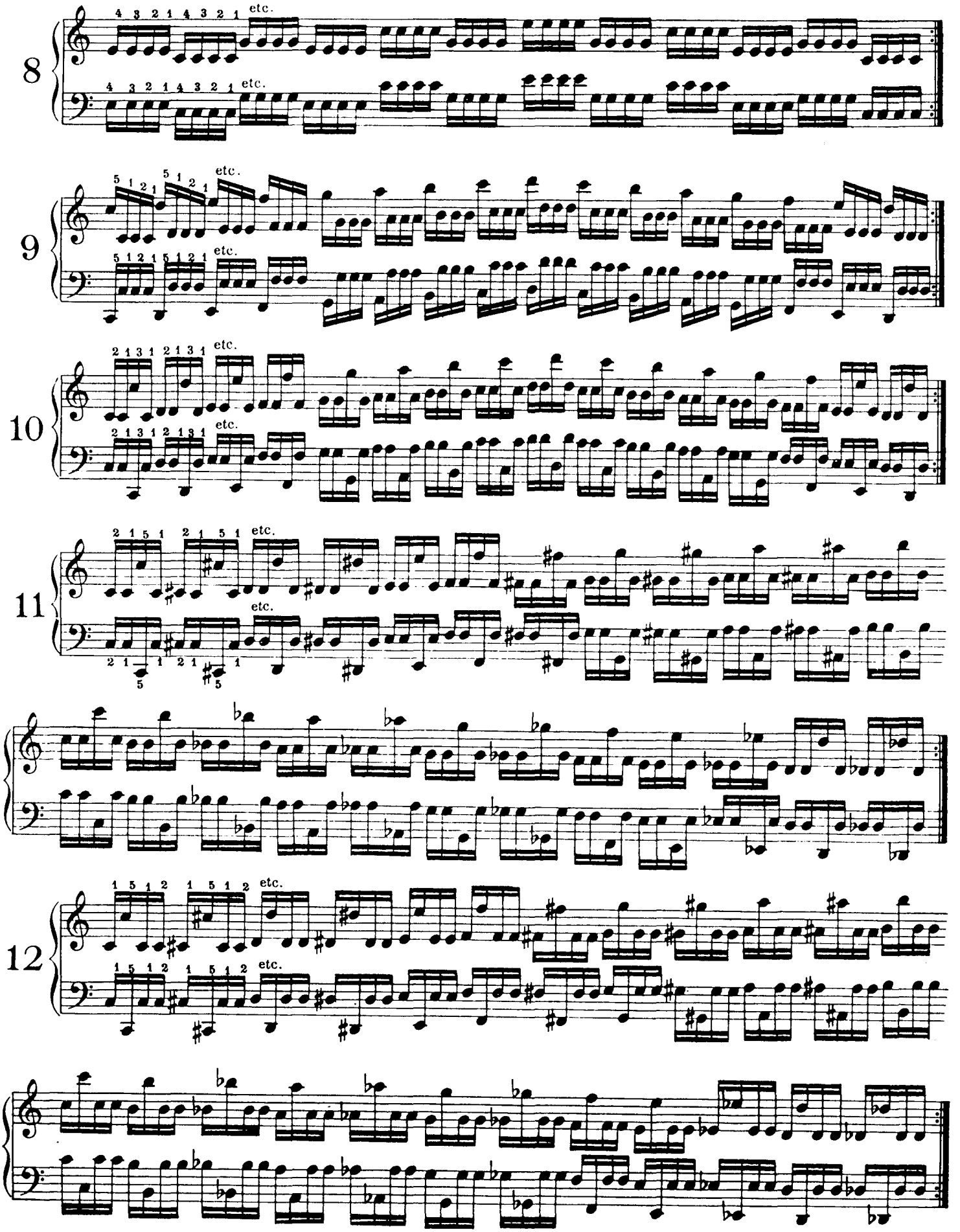

18
19
20

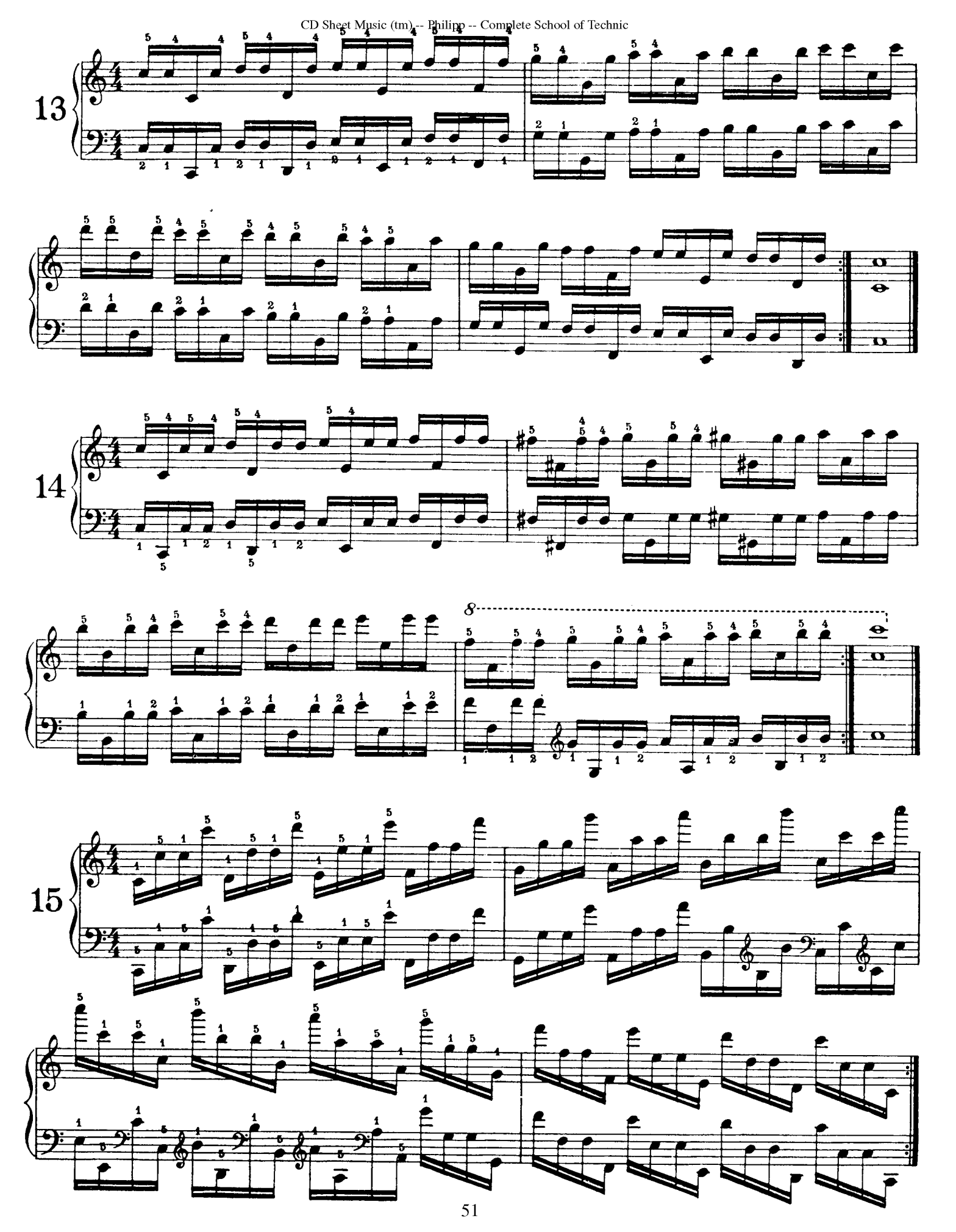
TREMOLO

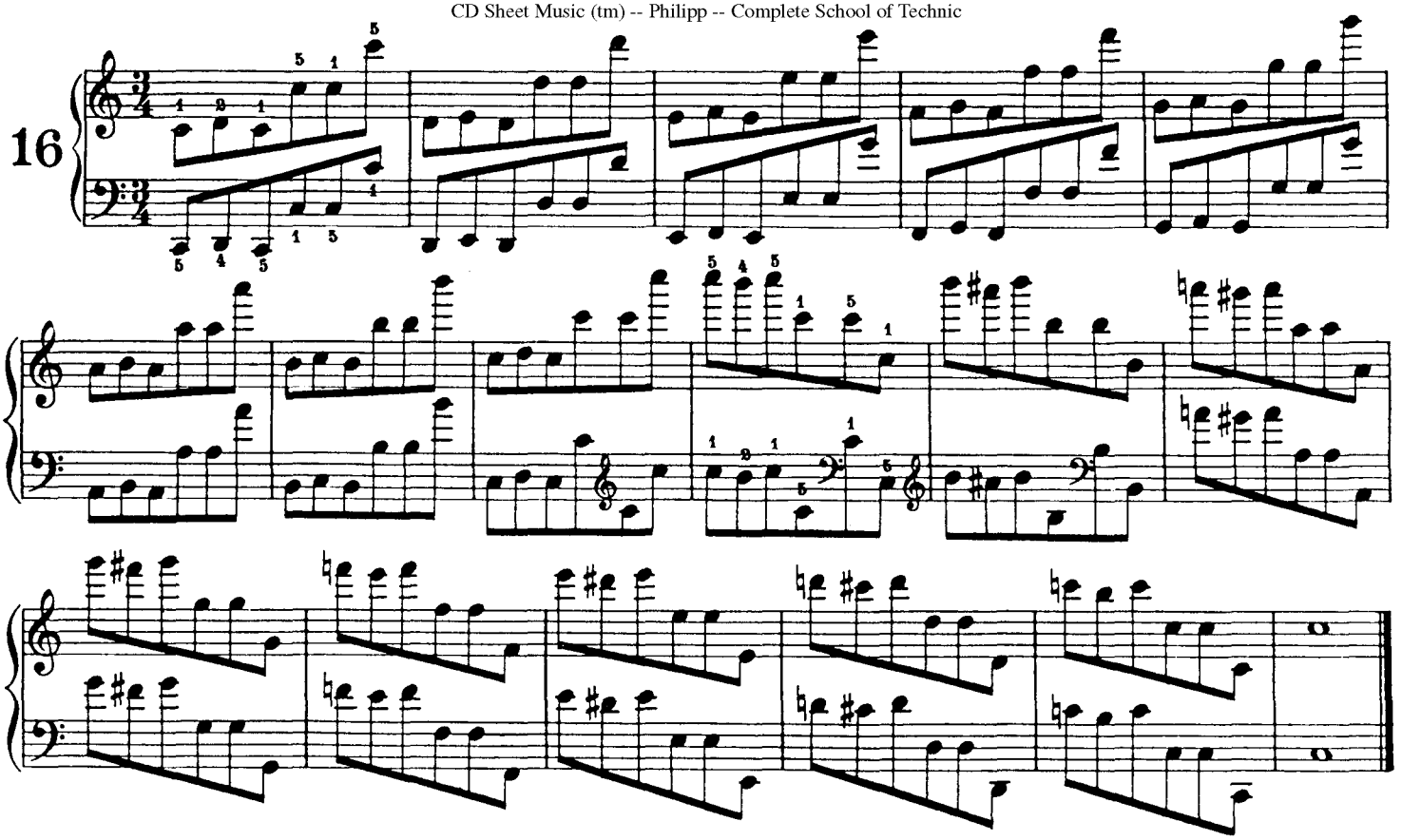

1
trem.
trem.
2
trem.
trem.
3
trem.
trem.
trem.
trem.
4
trem.
trem.
5
trem.
trem.
6
trem.
trem.

Repeated Notes




8
9
10
11
12
etc.


13
14
8
15

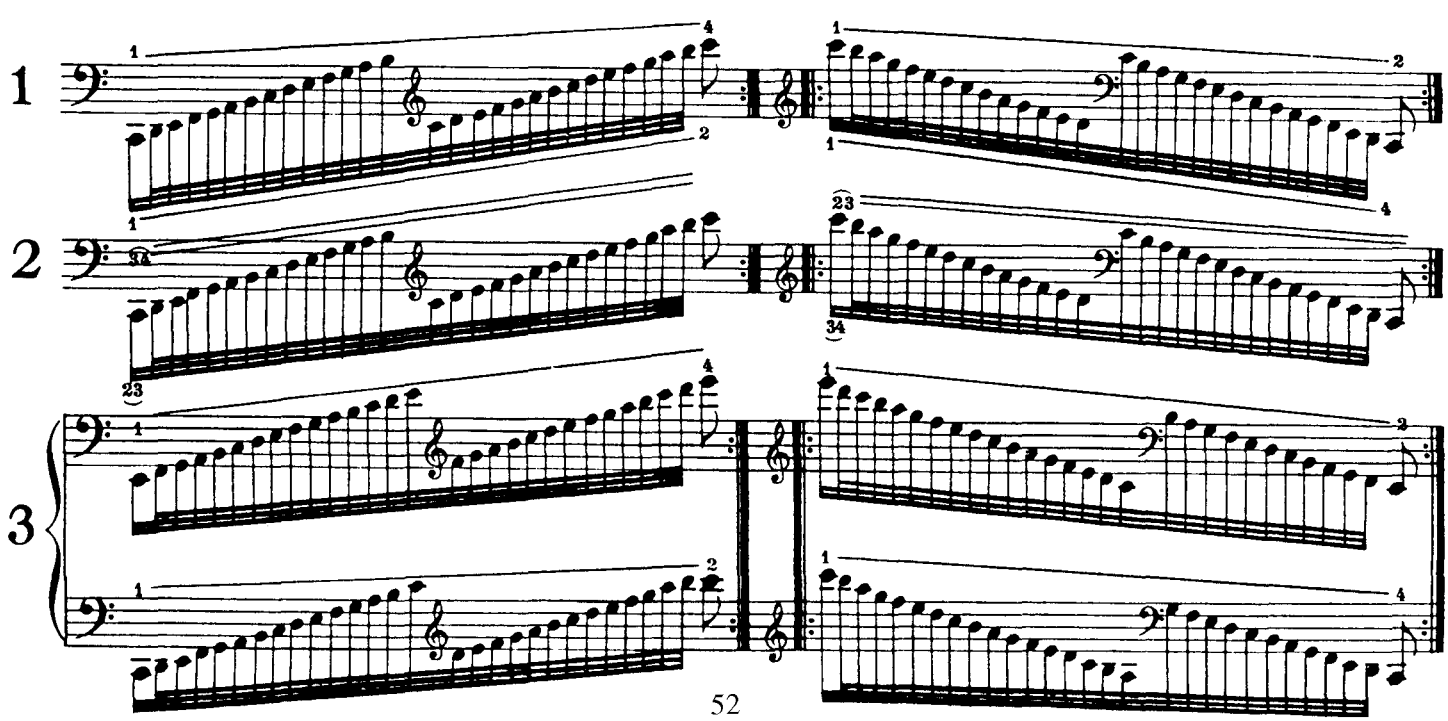
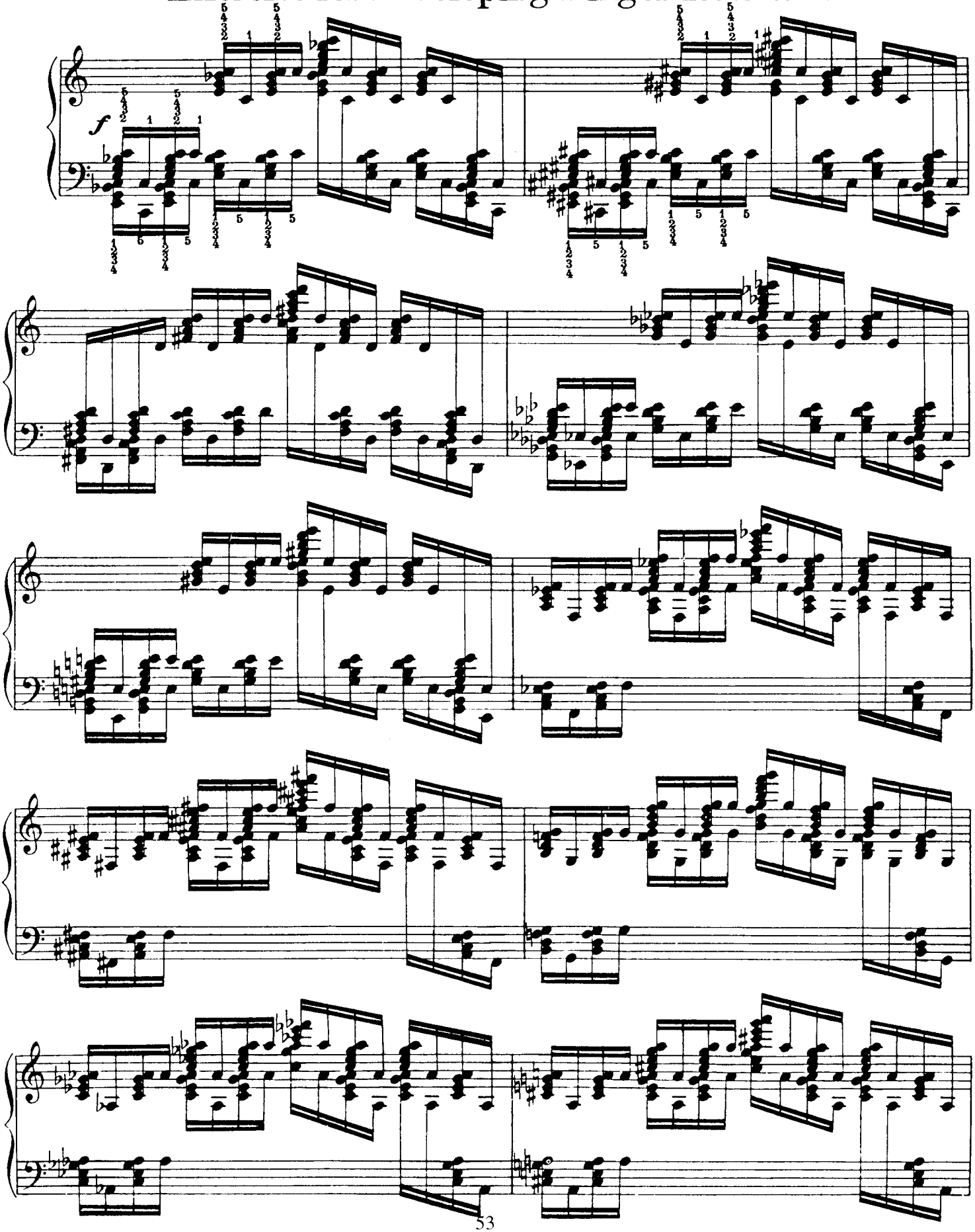
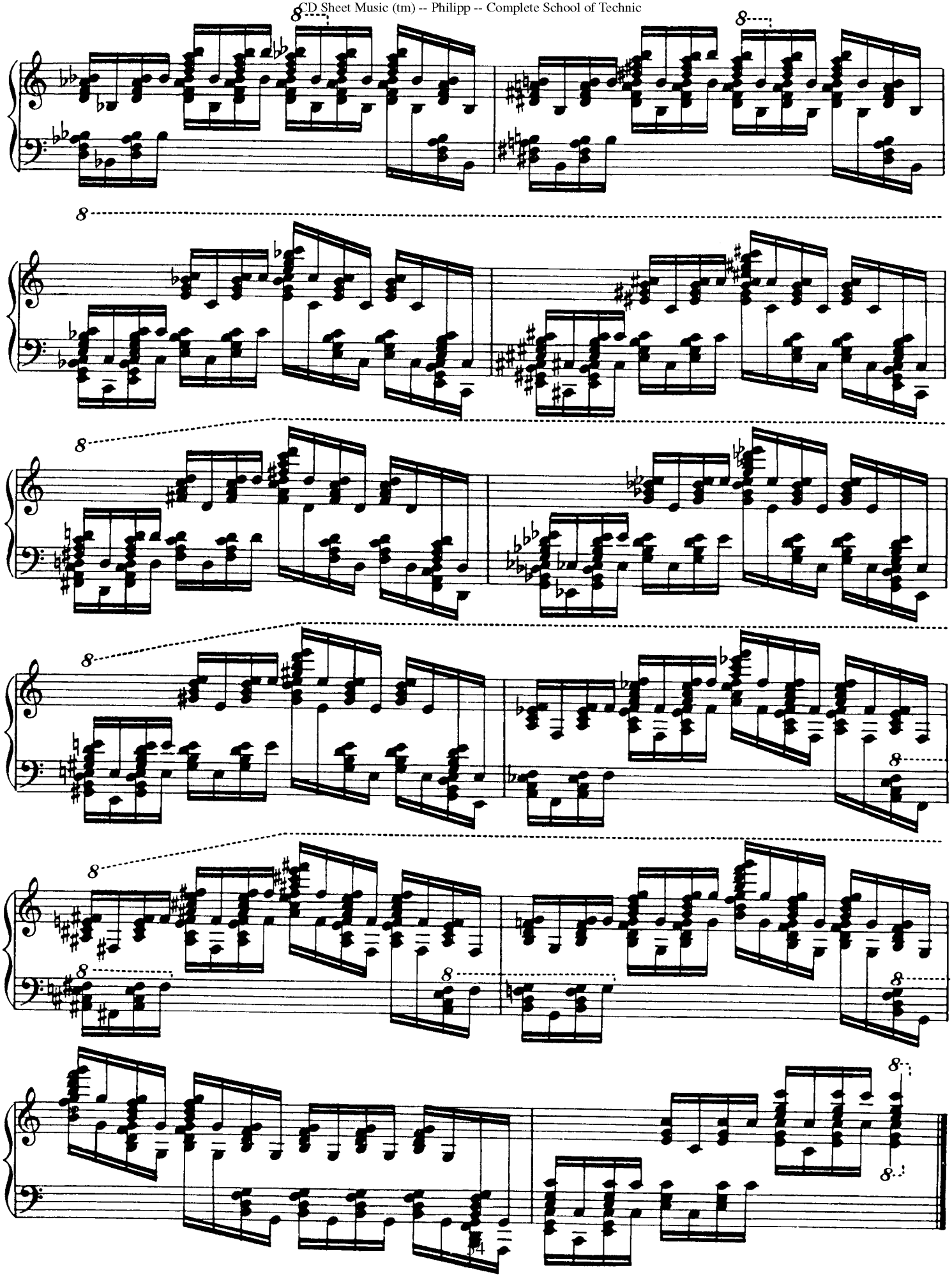


Glissando

The No.1 ascending scale, glissando, in the right, and the descending scale in the left, are executed with the nail of the thumb, except the final note which is played with the tip of the fourth finger. The hand is turned in and over, so that the thumb lies under the fingers and about parallel with the keyboard. The thumb nail is thus enabled to slide over the keys without the fleshy part touching, and the fourth finger is in exact position to take the final note.

In descending in the right, and ascending in the left, the thumb is curled under the hand, which maintains the ordinary playing position. The second finger overlapping the thumb, easily takes the last note. When practicing the glissando there should be as little bearing upon the keys as possible. The pedal is held throughout and is raised simultaneously with the last note.

Exercise No. 2 is played ascending with the nails of the third and fourth fingers, which are nearly straightened and held firmly together for mutual support. In ascending, the palm is turned upward; in descending it is turned down, the fingers being curled under sufficiently to bring the nails of the second and third in contact with the keys.



Exercise for Developing Finger Resistance