

# The Art of Fingering in Piano Playing

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## Introduction

Fingering is a thoughtful determination of the exact order in which fingers will be used in a given passage.

Good or bad fingerings, therefore, are both thoughtful. The task of the intelligent pianist is to select between alternatives and, ultimately, with experience, to eliminate the trial and error process in arriving at the best solution.

The purpose of this book is to help the pianist in his endeavors by furnishing him with a theoretical basis for his deliberations. The theory is based on physiological and psychological factors, but always guided by the sight of the ultimate goal, which is expressive piano playing.

In the early days of keyboard music, advice on fingering was given with the purpose of facilitating muscular action, since expression on virginals, or harpsichords, was not possible in the sense that it is possible on the piano.

These instruments had a very light mechanism. At the same time, the music to be played was conceived in simple patterns with few leaps, and with little use of black keys. Yet the "correct" fingering was a preoccupation of the composer-pedagogue from the sixteenth century on. Examples of the earliest fingerings are available and are well known from music dictionaries.

Theorists such as Nicolaus Ammerback and Hans Buchner of the sixteenth century and Daniel Croner and Daniel Speer of the seventeenth century seemed to think that the use of the thumb in scale passages is undesirable in the right hand, but not in the left hand. The examples below are from a Brasov manuscript of the seventeenth century.

### Example 1

We notice in these examples of the F Major scale the crossing of long fingers over shorter ones, and the use by predilection of only two fingers.

The well-known treatise *L'Art de Toucher le Clavecin*, published in 1716 (revised version, 1717) by the great French harpsichordist Francois Couperin, brings the state of the art of fingering to a more advanced stage, as it recognizes the desirability of legato playing. In the two examples below, Couperin contrasts the old way with his new, modern way of fingering thirds, which affords a better legato touch.

### Example 2



The thumb-phobia of old still prevailing in the first part of the century prevented Couperin from recognizing that the physiological difficulty of his new fingering, which forces the 4th finger to lift while the 3rd and 5th fingers are held down, could have been avoided by using the thumb in place of the 3rd finger.

The most comprehensive treatise of the eighteenth century, *The Essay on True Art of Playing Keyboard Instruments*, was written by C. P. E. Bach. In the chapter on fingering he introduces the concept of using the thumbs, which "give the hand not only another digit, but (are) the key to all fingering."

It is known that J. S. Bach preferred crossing of fingers to turning under of the thumb, and began to change in this preference only later in life.

C. P. E. Bach recognizes that "there are two principal means whereby we can extend their range (of the fingers) as much as required, both above and below. They are the turning of the thumb and the crossing of the fingers."

For the scale of G Major he gives three possible fingerings. The highest row of fingerings, however, he considers the "least usual."

### Example 3



His lack of commitment to the full employment of the thumb like "another digit" is made clear in another paragraph, where he states that "from the study of the scales we learn that the thumb is never placed on a black key . . ."

Avoidance of the thumb on a black key is one of those prohibitions which, together with other beliefs emanating from the deep past of the keyboard instruments, form a veritable mythology even today.

A complete comprehension of fingering for the piano cannot be acquired in the absence of a correct understanding of the mechanics involved in tone production on this instrument. Piano technique evolved from the keyboard techniques of the organ, harpsichord and clavichord. While these instruments preceded, they were not the ancestors of the piano. Each one of these keyboard instruments represented a culmination of a technique in tone production: wind through pipes, plucked strings, and pressed strings, all set into vibration by a finger mechanism. These instruments evolved separately and parallel with the piano.

The piano, as an essentially stringed instrument consisting of a flat sounding board over which choirs of strings are stretched to be struck with soft hammers, is very ancient and differs little in tone production from the dulcimer, the Persian santur, the Hungarian cymbalom or the Chinese yang-ch'in. The immediate predecessor of the *clavicembalo per piano e forte* was the *Pantaleon*. An instrument four times the size of a dulcimer had been invented by Pantaleon Hebenstreit in 1690. It had two sounding boards, each with a scale of strings — one of cat-gut and one of wire. There were 185 strings in all. This was a chromatic instrument, capable of forte and piano.

Because accompaniments and a body of literature could be played interchangeably on the organ, clavichord, harpsichord and later the piano, by virtue of their polyphonic capabilities, specific techniques for these instruments were carried into the conception of technique as it applies to the piano. This confusion prompted controversies and the writing of innumerable treatises on weight, articulation, fingering, tone esthetics, etc. The idea of "perfect legato" has its roots in organ performance; evenness of tone, or plucked-like staccatissimo concepts, derives from the sound of the harpsichord; pressing into the key to extend or alter the sound after it has been produced originates with the clavichord, while the thought of the single beautiful tone is a transferred image from the human voice.



The great pianist-composers of the nineteenth century contributed to the evolution of fingering through occasional indications in their music, but were not preoccupied systematically with this issue. Theoreticians, in the profusion of writings covering all aspects of technique since the invention of the piano, have shown a comparatively marginal interest in the subject of fingering. This is a curious fact in light of the importance attached by many pianists to fingering. Said C. P. E. Bach:

"More is lost through poor fingering than can be replaced by all conceivable artistry and good taste. Facility itself hinges on it, for experience will prove that an average performer with well-trained fingers will best the greatest musician who because of poor fingering is forced to play against his better judgment."

Czerny, in *Letters to a Young Lady on the Art of Playing the Pianoforte*, wrote:

"You will already have remarked how necessary correct fingering is in playing. A single ill-chosen finger may often cause the complete failure of a whole passage, or at least, make it sound coarse, unequal, and disagreeable."

William Newman, in *The Pianist's Problems*, stated:

"The choice of, and adherence to, a fingering on a keyboard instrument can make or break a piece. It can profoundly affect memorizing, stage poise, technical mastery, speed of learning and general security at the piano. Why then, is fingering so commonly neglected?"

Franklin Taylor observed, in *Technique and Expression in Pianoforte Playing*:

"Among the essentials which contribute to the formation of a good technique, none can be of greater importance than a practical and systematic method of fingering."

Hoffman recognized in *Piano Playing* that

"The degree of perfection of finger technique is exactly proportionate to the development of the legato touch. The selection of a practical fingering is, of course, of paramount importance for a good legato touch."

This book proposes a number of rational principles by which the best fingering can be determined in several situations. In simple cases, where only one principle applies, the solutions can be predicted with almost scientific accuracy. Most cases, however, are complex, and contain problems in which contradictory principles apply. Science, then, gives way to the art of combining the principles in such a way as to minimize the difficulties and maximize the benefits.

It must not be assumed from the above that the whole "art of fingering" reduces itself to guess-work. Medicine and all other applied sciences are in effect arts for precisely the same reason. As in all problems with more than one element, judgment must be exercised in the prescription of medicine, to do some good and some harm, but to make sure that in the end the balance comes out favorably.



# 1. OBSERVATIONS AND DEDUCTIONS

*The seven statements below, explicative of the function of fingering, constitute the basic premise for the argument that follows.*

1. The function of a good fingering is to secure the maximum musical *expression* with a *minimum* of effort.
2. *Expression* results from skillful manipulation of *note durations* and *intensities* of the given pitches.
3. *Note durations* are the components of rhythm and tempo, legato and staccato.
4. *Intensities* — soft and loud playing, accents, crescendo and decrescendo — are the main components of phrasing.
5. *Effort* in piano playing is both physical and mental.
6. *Minimum physical effort* is that which results from the least amount of motion and the least amount of muscular strain.
7. *Minimum mental effort*, on the contrary, results from a maximum of mental activity directed towards the organization of all the elements involved in performance into simple patterns.

## ON PHYSICAL EFFORT:

*Some inquiry into the anatomy and physiology of the hand as it relates to the action on the keyboard will suggest immediately several ways for reducing physical effort:*

Observation: The hand has three fingers that are long and two that are short. The keyboard has white keys that are long and black keys that are short.

*Deduction:* The hand action requiring least effort is that which places the longer fingers on the short black keys and the shorter fingers on the long white keys.

Observation: The lateral movement of the thumb under the other fingers (adduction) increases in difficulty in direct ratio to the distance it has to travel.

*Deduction:* The thumb should turn, whenever possible, under a finger of lower numeral.

Observation: The distance between two fingers on adjacent white keys is greater than between two fingers on neighboring white and black keys.

*Deduction:* The thumb should turn, whenever possible, under a finger on a black key.

Observation: The fourth finger is less independent than the others because its extensor tendon is connected to the tendon of the third and fifth finger. This anatomic characteristic of the hand does not limit the flexing capability of the fourth finger (its playing power), but impairs its lifting ability when the adjacent fingers are down.

*Deduction:* The fourth finger is weakest in sequence with the third and fifth finger. This sequence should be avoided.

Observation: Extension of the hand is more difficult than contraction, since the normal state of the hand is contracted. Of all the fingers, the thumb is best equipped for the movement of abduction and adduction because its strength lies in the direction of opposing the other fingers.

*Deduction:* The thumb should play one of the notes of an interval involving extension of the hand.

Observation: In the vertical movement necessary to depress the key, the thumb is the weakest of all the fingers. In this action the movement of the thumb is comparable to the lateral movements of the other fingers. The thumb is strongest, however, when it is used as an inarticulate extension of the forearm or in conjunction with a motion of the wrist.

*Deduction:* The thumb should be used as an inarticulate extension of the forearm for accents and similar expressive purposes.



**Observation:** The act of depressing a key requires muscle contraction. When contraction is prolonged or repeated in quick succession, the muscle fatigues, i.e., lactic acid and other waste products accumulate in the tissue in excess of the ability of the circulatory system to remove them. A period of rest after each muscular contraction is then mandatory in order to permit the tissue to recover. (The heart, a muscle that works a lifetime seemingly uninterruptedly, takes in effect a period of rest after each contraction.) An additional cause of early fatigue in the hand, especially during public performance, is the stimulation of simultaneous contraction of opposing sets of muscles through nervous tension.

**Deduction:** The task of good fingering is to afford as much rest to each finger as possible, by providing recovery time between exertions through judicious distribution of the work between the fingers.

**Observation:** Longer fingers are stronger because of longer muscles. Shorter fingers are weaker.

**Deduction:** Longer fingers should be used more often than shorter fingers, because they will recover faster from the effort of depressing the keys.

**Observation:** Finger movement towards the center of the hand is more powerful than away from it. The sequence 1-2-3 or 5-4-3 is easier to accomplish than 3-2-1 or 3-4-5.

**Deduction:** Natural direction-movement of fingers should be exploited.

**Observation:** Nothing can contribute more to speed, accuracy and endurance than economy of motion. Limiting gestures, such as leaps, and shortening distances by moving in a straight line will increase security and prevent fatigue.

**Deduction:** A good fingering will permit the greatest economy of motion.

#### ON MENTAL EFFORT:

*Some inquiry into the habits of the mind will suggest ways of reducing mental effort:*

**Observation:** The highest principle of understanding and judgment is that all phenomena perceived will submit to a concept of order, and that a meaningful interrelationship between things will always be discovered.

In music of the classic period, where the ideal of symmetry and proportion prevails, the composed order and logic of the sounds is easily understood. Should a piece of music, however, be put together arbitrarily, or be constructed with deliberate purpose to avoid all repetition and otherwise to appear entirely chaotic, the mind of the observer will unfailingly find patterns and other intelligible relationships throughout the composition. This is so because the principle of order is not inherent in things but in the mind's ability to understand.

**Deduction:** Fingering patterns should conform to musical patterns in order to simplify and reinforce learning.

**Observation:** Understanding also demands that the discovered relationship be simple. The most extended and capricious tone rows must be reduced to blocks of notes highlighted by certain tones. These will act as an anchor in a sea of notes.

**Deduction:** Points of reference should be established in any intricate and prolonged passage and a definite finger should be assigned to those notes.

**Observation:** A mental habit derived from human anatomy is that of symmetric thinking. One visualizes more clearly fingers of both hands moving in opposite directions than in parallel motion. It is more natural to move simultaneously the fingers of identical numerals (two thumbs, two index fingers, etc.) than those which are not symmetric.

**Deduction:** When the hands move in opposite motion, the simplest pattern to conceive is that of identical fingerings in both hands.

**Deduction:** When the hands move up and down in parallel motion, the simplest organization is that of reciprocal fingerings, i.e., each hand uses the other's fingering when changing direction.

**Observation:** Maximum coordination of the playing mechanism can be achieved by mental and physical preparation. Preparation in this context means placing the fingers on or above as many keys as possible ahead of the time they have to be played. This action, as a translation of mental readiness, will also insure a tactile feed-back to the brain that will increase security in playing.

**Deduction:** A good fingering will assure the preparation of a maximum number of notes.

**Observation:** A finger which has just played a note is more prepared, in terms of tactile innervations, to play the next note than any of the other fingers.

**Deduction:** In jumps which involve a complex of horizontal and vertical motions use, when feasible, for the first note after the jump, the finger which played the last note before the jump.

#### ON MUSICAL OBJECTIVES:

*A correct understanding of the musical objectives in a given passage will determine the correctness of the fingering to be used.*

**Observation:** The entire duration of a note should be kept with the fingers when required. In polyphonic music, accuracy in this respect is critical in order to realize the full independence of voices.

**Deduction:** Determination of correct fingering must take into account the need for holding down keys for the prescribed duration.

**Observation:** Legato is the touch quality most often employed in piano playing. Staccato and non-legato touches usually constitute the elements of contrast to singing-like connected playing.

**Deduction:** The best fingering will insure the longest sequence of legato tones.

**Observation:** Patterns of notes of longer and shorter duration constitute rhythms. Short values, especially in dotted rhythms, are difficult to execute properly for a variety of reasons, not the least of which is the lack of manual dexterity.

**Deduction:** In rhythms involving notes of a very short duration, the fingers able to execute the quickest movement will be assigned to these notes.

**Observation:** Control of the extreme dynamics of *pp* and *ff* is easier to accomplish with those fingers which are stronger and more independent.

**Deduction:** Passages in the extreme ranges of dynamics will be assigned to those fingers most capable of accomplishing the task, that is, to the strongest and more independent fingers.

**Observation:** Large movements of the hand are more time consuming than small movements. Crossing of the fingers over the thumb is a large movement.

**Deduction:** The number of hand-crossings over thumb (or passing under of the thumb) should be reduced to a minimum in rapid playing.

#### ON TEN-FINGER PLAYING APPARATUS:

**Observation:** The postulate that strict observance of the printed score is fundamental to the performer's exercise of his creative talent is certainly a sound conception. One must take for granted that any symbol put on paper by the composer — to denote pitch, duration or volume — is intentional, therefore mandatory. Nevertheless, in written form, the work of the most meticulous composer is only a pale translation of his musical thought. He cannot indicate the minute details of coloration and fractional elements of time which give meaning to his notes and his forms, for music is not to be found in the notes themselves, but between them and beyond them.

Literalists would have us believe that the performer must observe not only what is written, but also what is not, in a most scrupulous way. A slight retard, a crescendo, or a touch of the pedal is greeted with an anquished "why?" implying that if it isn't written the performer has no right to surmise it.



One must expect the same reaction (but even more vociferous) if "right hand music" were to be played with the left hand, or vice versa. Treble clef, they say, is right hand, and bass clef is left, unless, of course, otherwise indicated. One has no right to use the lower staff hand to help the other in a difficult passage, even if it were idle at the time. This is "cheating," although the musical expression might benefit by it.

The author views this matter differently.

Musical composition is conceived as a whole on an expressive basis. The composer need not have a clear knowledge of how every detail of execution is going to be accomplished by the instrumentalist. This assertion can be more readily understood when we consider an orchestral score. The composer does not instruct the players how to arrive at the notes as long as they are theoretically possible.

We may assume the same to be true in piano music also. When in the printed form a piece has notes written in the treble and in the bass, this is done as a convenience which eliminates the need for many ledger lines. The pianist usually jumps to the conclusion that treble clef means right hand and bass clef means left hand.

In the same way, a melody which meanders above and below the middle of the keyboard is usually considered to belong to the hand that started it, i.e., to the right hand if above, to the left hand if below. If a melody is written in octaves and there is also an accompaniment, then both parts of the melody are assumed to be played with one hand. Tremolos, trills, appoggiaturas and all other embellishments are also believed to belong to one hand only. The piano composer may have in mind one hand or the other as he writes, but he is also concerned with the uninterrupted musical line and with how it looks on paper. He has a directional conception of his music that transcribes better in horizontal lines than in vertical zig-zags which would be representative of the mode of performance. *The score is then descriptive, not prescriptive.*

One of the reasons conductors seem more musical than many solo performers is that their musical thought is not handicapped by the physical limitations of producing the music. It follows that if a pianist could simplify his digital problems, he could devote more attention to the finer elements of his art.

The purpose of this lengthy observation is to suggest that the pianist is endowed with a ten-finger apparatus, not with just two hands with five fingers each. Although the equation may seem equal in both parts, in actual practise a playing mechanism composed of ten fingers amounts to more than twice five fingers, on which limitations and reticences have been imposed.

*Deduction:* Any division of the music between the two hands, however unorthodox, is justified if it makes playing easier and more efficient.

## THE EXAMPLES

The musical fragments in this book were chosen to exemplify the deductions of the first chapter. All the fingerings were worked out by the author.

A substantial number of these examples were extracted from Beethoven's works, because Beethoven's inventiveness in creating digital problems surpassed that of any other composer and because there seems to be a distinct advantage not to send the reader all over the piano literature when the evidence is in one place.

The reason for favoring at the same time some of his less well-known music (Triple Concerto, Choral Fantasia, Sonatas with Violin, etc.) is that this music is still largely unedited. Thus, the interested reader could, by investing in one volume like the Sonatas with Violin, analyze many of the examples found in this book in the total context of the music and without the prejudice of an editor's fingering.

Exactly the same reason led to the selection of the Preludes and Fugues by Shostakovich for the examples in the section on polyphonic playing. In addition, the author believes that the pianistic value of these fugues cannot be approached by any other polyphonic work written in the last two centuries.

## 2. SCALES

A scale is a ladder of tones, derived from the principal tones of a musical composition, arranged in ascending or descending order. Thus a scale is an analytical abstraction, not music.

In the exact form in which a pianist practices his scales, up and down the keyboard, without meter, dynamics, musical inference or communicative purpose, the literature of the piano is fortunately devoid of examples. This suggests a degree of futility in an exercise that does not deal with a musical reality. Hence, the many books of scales in which the "correct" fingering is dogmatically asserted have a doubtful value.

Any sequence of tones in music must have affective meaning in order to have validity. The fingering used will greatly contribute to producing the desired effect. No fingering, therefore, can be considered correct in the absence of ulterior purpose and a clear understanding of the function it serves.

Scales used for the primary purpose of warming the fingers — a subject that merits some discussion, but not in these pages — derive their fingerings from two concepts: *a)* every octave must have the same fingering, and *b)* the thumb and little finger must not play on black keys.

A diatonic scale is composed of seven different tones. When played over the length of the piano, the fingering is the same in every octave. Grouping the fingers by three (1-2-3) and four (1-2-3-4) is found to be most convenient since the sum is seven. Grouping by two and five (which also makes seven) would require the thumb to pass under 5, a rather difficult exercise on account of the shortness of the thumb.

Grouping by three plus four in either hand moving outward from the center of the piano is modified to four plus three when the thumb is forced to play on a black key, as in the case of F Major for the right hand and B Major for the left hand.

The same principle of fingering applies to the scales beginning on a black key, provided that the sequence 123-1234 or 1234-123 begins on the first white note of the scale. The only exceptions to this rule are B-flat minor and E-flat minor harmonic for the left hand. In these cases the grouping begins on the white note immediately preceding the first note of the scale, or on the second white key after the first note, whichever way one prefers to visualize this.

These fingerings have the advantage of simplicity, but they do not always conform to the demands of the hand. When scale passages appear in musical compositions as music and not as musical abstractions, these fingerings, as often as not, do not satisfy the expressive demands of the compositions either.

The most important physical demand of the hand is comfort. When notes "lie under the hand" the hand operates with maximum efficiency. In scale playing, the most difficult moment is the passing-under of the thumb. The difficulty increases in direct ratio to the numeral of the finger under which it must pass. The higher the number of the finger before the turn, the greater the thumb must contract. In any scale, therefore, turning after 4 is more difficult than turning after 3. The thumb must also contract more if the finger before the turn is on a white key. One must assume that with a minimum of practice, any fingering that is more comfortable will give better results than one that is less so.

When we check the usual fingerings for scales against this principle of least exertion, we find that the orderliness and consistency of these fingerings conflict in certain cases with the demands for comfort of the hand. We can find new and better fingerings for these scales through those deductions which state that turning the thumb after a black key is easier than turning after a white key, and that turning the thumb after a finger of low numeral is easier than turning after a finger of high numeral. Thus the scale of C minor harmonic can avoid the thumb turning after 4 on B by placing 4 on E-flat and 3 on A-flat. With this fingering the thumb will play only after black keys.

Expanding these deductions to include hand-crossing over thumb, we discover several scales which immediately benefit by the new fingering.

#### Example 4

C minor



L.H.



D major



D minor



D minor



L.H.



E minor





Example 4 (cont'd)

F major



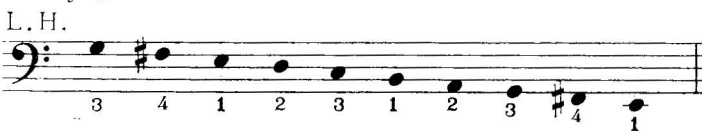
F minor



L.H.



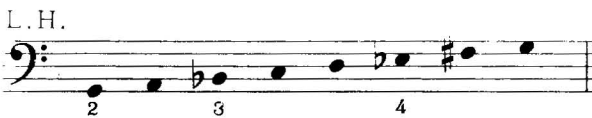
G major



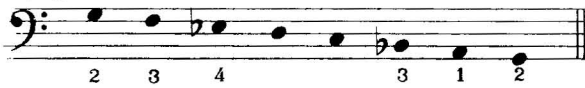
G minor



G minor



L.H.



B minor



B minor



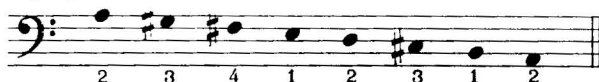
*Example 4 (cont'd)*

A major

L.H.



L.H.



A little practice with these fingerings, which are based on the natural propensities of the hand, will bring better results than long practice with the usual fingerings which are, in the last analysis, arbitrary, the sanction of tradition notwithstanding.

The choice of the word "arbitrary" may need explanation. The "normal" fingering bases its claim to usefulness primarily on simplicity and consistency: one must always use the order 1-2-3, 1-2-3-4 or 1-2-3-4, 1-2-3, and must always start with the thumb on the first white key. This, in actuality, is neither that simple nor consistent. As to lack of simplicity, ample proof is provided by the innumerable books on scales that are constantly printed, all apparently needed, yet showing the same fingerings, and also by the perennial state of confusion of many students on this issue.

The claim to consistency is even less well-founded. Saying that the fingering is 1-2-3, 1-2-3-4 *or* 1-2-3-4, 1-2-3 is to admit from the beginning a large body of choice. We observed earlier that there are also some exceptions to the rule of placing the thumb on the first white key. While it may be argued that all rules suffer from exceptions, it must be recognized that it is dogmatic to state that a scale must be started by the thumb if it begins on a white key, without explaining why this should be so, especially if difficulties arise from that.

The fingering proposed here for the scales has a physiological basis, and its own logic, that of least exertion. If the case is not well made, this approach will at least enlarge the alternatives for a successful fingering in a scale passage.

### 3. FINGER PATTERNS – MENTAL PATTERNS

#### GROUPING: C MAJOR SCALE

Fingering patterns should conform to musical patterns in order to simplify and reinforce learning. Several of the following examples conform to the C Major scale, but are part of musical compositions, and exhibit a variety of rhythmic structures.

Of all major and minor scales, C Major is the most amenable to a variety of fingerings, as dictated by musical considerations, because it is on white keys only. The even landscape of this scale makes it at once the most difficult to master and the most versatile. The first difficulty arises from the need to turn the thumb under fingers on white keys, the second from a lack of tactile differentiation between whole steps and half steps, which demands increased attention not only for tone but also for pitch, in order to help the player locate himself in the course of the scale.

The advantage of versatility stems from the second cause. Groups of three or four notes can be played with consistent fingerings since there are no black keys to interfere. There is no reason to conform the fingering to 1-2-3, 1-2-3-4 if the notes are grouped by three. On the contrary, consistent fingering for every group would help the proper accentuation (explicit or implicit) of the triplet.

Fingering Example 5 with 1-2-3, 1-2-3-4 will not only frustrate the musical intent, but would also require fingers 4-5-4 at the top of the scale with the resulting loss of brilliance.

#### Example 5

Beethoven, *Sonata*, Op. 49, No. 2, 1st mov't., development, m. 25

#### Allegro ma non troppo



A similar problem is resolved in similar manner. The added advantage here is that two 1-4 crossings are avoided.

#### Example 6

Beethoven, *Sonata*, Op. 49, No. 2, 1st mov't., development, m. 27

#### Allegro ma non troppo



The musical intent is brought out in both cases by the consistent use of the same finger at the beginning of every group. The kinesthetic problem of locating oneself on the keys is also solved by the fact that every group begins with 1, ascending and with 3, descending. This is a far simpler association to make between finger and key than that required by the regular fingering which would have begun the groups with 1, 1, 4, 3, ascending and 3, 4, 1, 1, descending.



Example 7 illustrates the same point. This fingering is furnished by Beethoven himself who must have been anxious to secure the proper expression in performance for this passage.

*Example 7*

Beethoven, *Sonata*, Op. 111, 4th m. from end of Sonata

Adagio

8va - - - - -

3 2 1 3 2 1 3 2 1 3 3 3 3 3 3 3

1 2 3 1 2 3 1 2 3 1 1 1 1 1 1 1

Grouping by four implies, as in grouping by three, a rhythmic accentuation on the first note of every group. Example 8 shows how that grouping can be achieved with two different fingerings.

*Example 8*

Beethoven, *Concerto No. 1*, 3rd mov't., m. 15

Allegro

R.H.

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

or: 2 3 4 1 2 3 4 1 2 3 4 1 4 3 2 1 4 3 2 1 2 3 5 4

More rarely one encounters groups of five notes. In Example 9 the sixteenths are played in very fast tempo. In such cases fewer turns over the thumb will increase velocity, while consistent fingering will help locate the beginning of every group.

*Example 9*

Prokofieff, *Concerto No. 1*, 1st mov't., m. 65

Allegro brioso

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

5

In cases of grouping by six, it must be determined first whether the subgroups are multiples of three or multiples of two. In the case below, the grouping would be four-plus-two, or two-plus-four.

*Example 10*

Beethoven, *Concerto No. 5*, 3rd mov't., m. 146

*Allegro*

When the musical passage contains a variety of groupings, as in much of Beethoven's music, the composer's intent can best be brought out by conforming the fingering to the visual pattern of the music.

*Example 11*

Beethoven, *Concerto No. 5*, 3rd mov't., m. 148

*Allegro*

(When later in the piece the same types of scales occur in other tonalities, the fingering problem is not so critical, at least in terms of tactile differentiation. The presence of the black keys, however, while alleviating one problem, would hinder consistency, thereby also hindering the proper expression in all its details.)

Another example will illustrate the point anew. The groups of five notes begin on 5, those of four notes on 4, and those of three notes on 3. There are no turns within the groups.

### Example 12

Beethoven, *Concerto No. 3*, 1st mov't., 16 m. before Cadenza

Allegro con brio

The musical score for Example 12 shows a piano solo entrance in C major. The right hand part consists of a series of ascending and descending scale-like figures. The fingerings are indicated by numbers 1-5 above the notes. The left hand part is a simple accompaniment. The tempo is marked 'Allegro con brio'.

This fingering will also help memorization of the groupings by shifting attention from the notes that begin each group (g, b, d, g, c, f, b, f) to numbers.

## GROUPING: OTHER SCALES

If diatonic sequences on white keys present some physical disadvantages for the hand, the pianist-musician can take comfort in his increased chances of making the music more meaningful through the application of a wide choice of fingerings.

Scales with black keys are basically more comfortable, but also less susceptible to inventiveness in fingerings. The more black keys are involved in any scale passage, the more limited the choice of fingerings will be.

Scales with up to three black keys can be fingered, as was shown, in a variety of ways. Those with more than three black keys will have only one efficient fingering. This calculation is based on the assumption that 1 and 5 will not be used on black keys.

Example 13 is recognized by many students as a difficult passage, because it requires perfect synchronization of the hands, rhythmic firmness, and considerable volume. There are six possible fingerings for the right hand and four for the left, yielding 24 combinations. The choice between these fingerings will influence both the horizontal and vertical relationship between the tones.

### Example 13

Beethoven, *Concerto No. 3*, 1st mov't., piano solo entrance

Allegro con brio

The musical score for Example 13 shows a piano solo entrance in C major. The right hand part consists of a series of ascending and descending scale-like figures. The fingerings are indicated by numbers 1-5 above the notes. The left hand part is a simple accompaniment. The tempo is marked 'Allegro con brio'.



The passage has eight notes, yet it divides as three-plus-four-plus-one. If the sixteenth rest is considered as a silent note, then the grouping by four can be seen more readily. The usual C minor fingering would group these notes as three-plus-five in the right hand and five-plus-three in the left hand.

To begin with 1 and 5 could lead to an undesired accent on the first note, which is not actually the downbeat. Conversely, ending with 5 on the *sf* in the right hand may not produce enough of an accent. Four-note grouping, however, requires for rhythmicity four-plus-four, hence the fingering (1)-2-3-4, 1-2-3-4, 1 in the right hand, and exactly the same fingering, considered downwards, in the left hand: 1-2-3-4, 1-2-3-4, (1). The simultaneous playing of 1 by both hands in the center, at the end, and by implication, at the beginning of the passage will add strength and security to the playing.

On white keys only, this almost identical passage suggests one more possible fingering for the left hand.

#### Example 14

Beethoven, *Piano-Violin Sonata No. 7*, 2nd mov't., m. 88

Adagio

Scale runs which do not have a metric structure indicated by the composer must be structured by the performer for reasons of mental organization. In actual performance this metric structuring need not be made evident. In Example 15 there is a slowing down before the highest note and before the last note of the passage. The next Example (16) has the triplets in a less conspicuous place. In both cases the fingering will correspond to the division by threes and fours of these thirty notes.

#### Example 15

Beethoven, *Concerto No. 5*, 1st mov't., opening Cadenza

Allegro

#### Example 16

Beethoven, *Concerto No. 5*

# SYMMETRIC THINKING

Passages in contrary motion which have identical configurations in both hands, should be played with identical fingerings for expressive purposes and because symmetric thinking is easier.

## Example 17

Beethoven, *Piano-Violin Sonata No. 9*, 3rd mov't., m. 169

Presto

Example 17 shows a piano and violin part in 6/8 time, marked Presto. The piano part has fingerings: *sf* 4 3 2 1 3 2, 1 2 3 1 2 3, *sf* 4 3 2 1 3 2, 1 2 3 1 2 3.

## Example 18

Beethoven, *Piano-Violin Sonata No. 10*, 4th mov't., 35 m. from end of Sonata

Allegro

Example 18 shows a piano and violin part in 2/4 time, marked Allegro. The piano part has fingerings: 4 4 4 4 2 4 1 2 5 1 2 1 2 5, (1) (1) (1) (1).

## Example 19

Beethoven, *Piano-Violin Sonata No. 10*, 1st mov't., m. 40

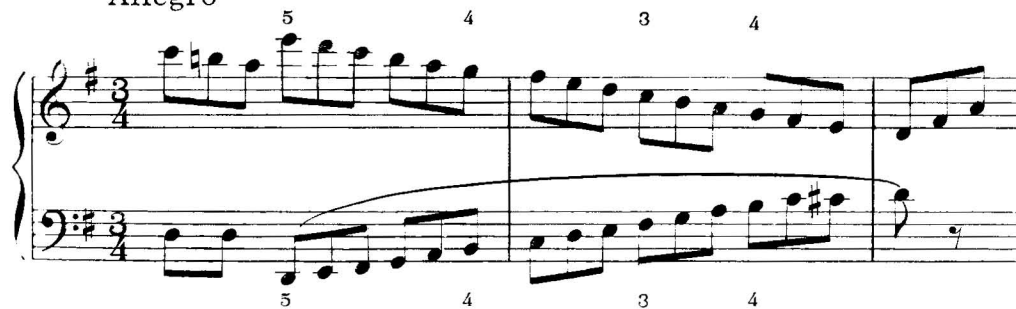
Allegro moderato

Example 19 shows a piano and violin part in 3/4 time, marked Allegro moderato. The piano part has fingerings: 5 4 3 3 4 1, 5 4 3 3 4 1.

## Example 20

Beethoven, *Piano-Violin Sonata No. 10*, 1st mov't., development section, m. 83

## Allegro



When two lines in contrary motion are not a perfect mirror of one another because of differences in the melodic intervals, identical fingerings should be sought if the configuration of the lines is similar enough.

## Example 21

Prokofieff, *Sonata No. 3*, 1st mov't., m. 32

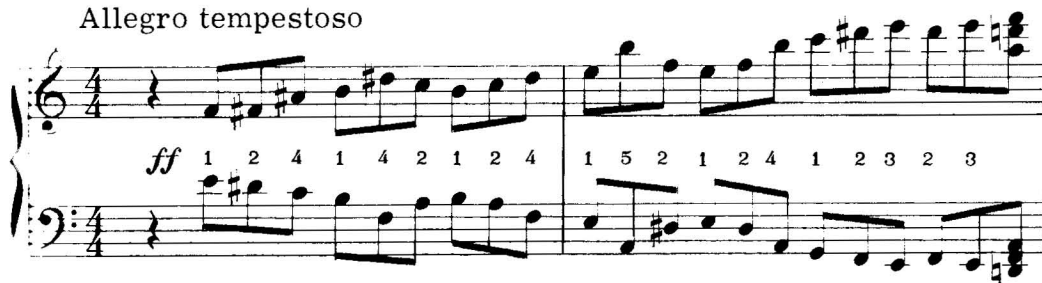
## Allegro tempestoso



## Example 22

Prokofieff, *Sonata No. 3*, 1st mov't., development section, m. 1

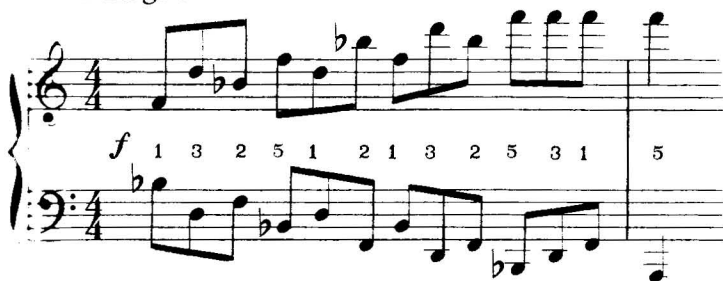
## Allegro tempestoso



## Example 23

Beethoven, *Triple Concerto*, Op. 56, development section, m. 11

## Allegro





Identical fingering in both hands can also be used in repeated notes.

*Example 24*

Beethoven, *Piano-Violin Sonata No. 9*, 3rd mov't., m. 233

For the second measure of the next example there are two possible fingerings, symmetrical in both hands, but each one having a different expressive purpose. The inside fingering will be preceded by a small pause because of the repeated finger, but will have a stronger attack. Outside fingering will be more fluent, but not so emphatic.

*Example 25*

Beethoven, *Sonata*, Op. 53, 1st mov't., last 2 m. before recapitulation

*Allegro con brio*

Deliberate use of reciprocal fingerings in parallel passages will have the same effect on the thinking process as will parallel fingerings in contrary motion.

*Example 26*

Beethoven, *Piano-Violin Sonata No. 4*, 3rd mov't., m. 20

*Allegro molto*

Example 27

Beethoven, *Piano-Violin Sonata No. 2*, 1st mov't., development section, m. 13

*Allegro vivace*

As clear a grouping by four as in Example 28 is given (inside fingering) by the eminent Edwin Fischer as three-plus-five in the right hand and five-plus-three in the left hand. A grouping by four has the advantage of reciprocal fingering in the two hands. This allows the possibility of accentuating the principal notes of the dominant-tonic cadence: g-d, c-g, g-d, c-g, with greater ease.

Example 28

Mozart, *Concerto K. V. 467*, 3rd mov't., m. 442-443, (end of Concerto)

*Allegro vivace assai*

The first two-measure motive of Example 29 is composed of an ascending scale-fragment and a descending scale-fragment. If a "natural" fingering were adopted in the right hand (1-2-3-4-5-4-3-2), the top notes and the important slur would be played with the finger sequence 4-5-4. Sensing that a problem exists, Fischer proposes the fingering 2-1-3-4-5-4-3-2 which does not solve the main difficulty. Furthermore, he writes for the left hand 5-4-3-2-1-2-3-4 thus showing no recognition of the vertical relationship between the two hands.

The reciprocal fingering takes into account both problems, of expression and of vertical coordination. The descending scale in the left hand has the same fingering as the ascending right hand scale, and vice-

versa (Example 30). The grace note in the third measure of the right hand takes 4 instead of 3, as in Fischer, in order to space the second playing of 2 one 16th longer.

*Example 29*

Mozart, *Concerto K. V. 467*, 3rd mov't., m. 21

*Allegro vivace assai*

Fischer

*Example 30*

## CONSISTENCY

Repetition of identically transposed formulae is seldom encountered in classical music of the past centuries. Transposition is more often relative, because of the exigencies of tonality. A change from a major to a minor interval in transposition does not require, in itself, a change in fingering. Examples 31 and 32 could be viewed as a progression in seconds. The inconvenience of 1 on black keys, in this case,

is of habitual nature rather than of physiological nature, for the fingers playing adjacent white keys can be placed in between the black keys.

*Example 31*

Beethoven, *Concerto No. 5*, 1st mov't., piano solo, 91 meas. after orch. intro.

[illegible]

*Example 32*

Beethoven, *Concerto No. 5*, 1st mov't., piano solo, 93 meas. after orch. intro.

L.H. **Allegro**

The musical score for the left hand is written on a grand staff with a bass clef and a common time signature. The key signature has two flats (B-flat and E-flat). The melody consists of eighth and sixteenth notes, with some beamed sixteenth notes. Below the staff, there are fingerings: 2, 1, 4, 2, 3, 1, 4, 2, 3, 1, 4, 2, 3, 1, 4, 2, 3.

An attempt to avoid 1 on black keys in Example 33 would have two disadvantages: lack of consistency in each hand and lack of consistency in the vertical relationship between hands, since the right hand would avoid black keys only twice and the left hand four times.

*Example 33*

Beethoven, *Concerto No. 5*, 1st mov't., piano solo, 95 meas. after orch. intro.

Allegro

5 2 5 2 1 5 2 1 2 1 2 1 2 1 2 1

1 1 1 2 1 2 1 2 1 2 1 2

The principle of consistency can be applied to patterns which, though different in each hand, repeat themselves in the course of the progression:

### Example 34

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., m. 52[illegible]





A simple three-note motive can be played with the same fingers whether the motive begins on a white key or on a black key. In view of the length of this piece it is not advisable to repeat fingers on repeated notes because any one finger can be easily overburdened. The equal duration of each note would also demand that a consistent fingering be maintained.

### Example 39

Bach, *Tocatta in D Major*, Fugue, m. 3



### Example 40

Bach, *Tocatta in D Major*, Fugue, m. 83



This seemingly simple passage requires some analysing in order to find a logically consistent fingering:

### Example 41

Schubert, *Impromptu No. 1*, Op. 142, m. 13

*Allegro moderato*



If every group of two notes is viewed vertically, we discover seven types of intervals in harmonic motion: a) repeated thirds; b) ascending thirds; c) tritone resolving to a third; d) descending thirds by thirds; e) fourth resolving to a fifth; f) fourth resolving to a third; g) descending thirds by step. Every-one of these harmonic relationships takes a fingering suited to itself: a) 1-4-2-4; b) 1-3-2-4; c) 1-5-2-4; d) 3-5-1-4; e) 2-5-1-5; f) 2-5-1-4; g) 2-4-1-3.

We notice that similar intervals have similar fingerings and dissimilar intervals have different fingerings.

### Example 42



This solution seems at first complicated, but it must be remembered that it reflects the contour of the melody, the harmonic implications, and the phrasing. The associations one can make between this fingering and the musical material will tend to simplify memorization and the proper interpretation of the music.

### FINGER CONSCIOUSNESS

In order to increase the finger consciousness in a case where "natural" fingering would lead to an indifferent expression, an unusual succession of fingers will prove advantageous.

#### Example 43

Beethoven, *Piano-Violin Sonata No. 6*,  
1st mov't., 11 m. from end of mov't.

**Allegro**

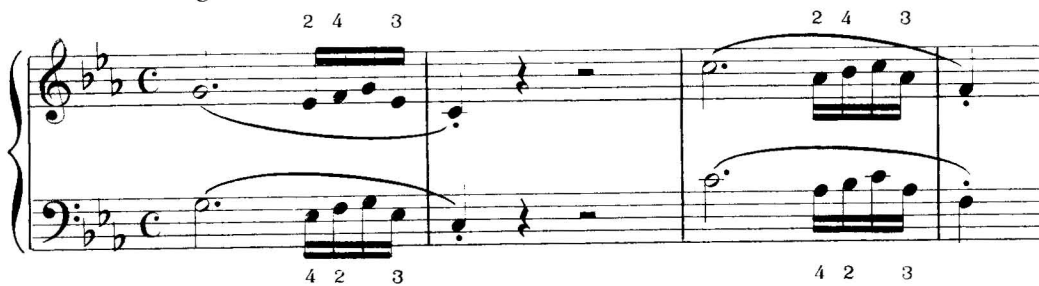


In two hands the procedure should be coupled with equivalence of fingers.

#### Example 44

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., m. 1

**Allegro con brio**



Large groups of notes which cannot be divided evenly by the notes in the other hand should be structured simultaneously with the fingering in such a way as to simplify learning and aid expression. Notice how the numeral of the finger beginning or ending each group will suggest the number of notes in that group.

#### Example 45

Chopin, *Nocturne No. 1*, Op. 9, m. 3

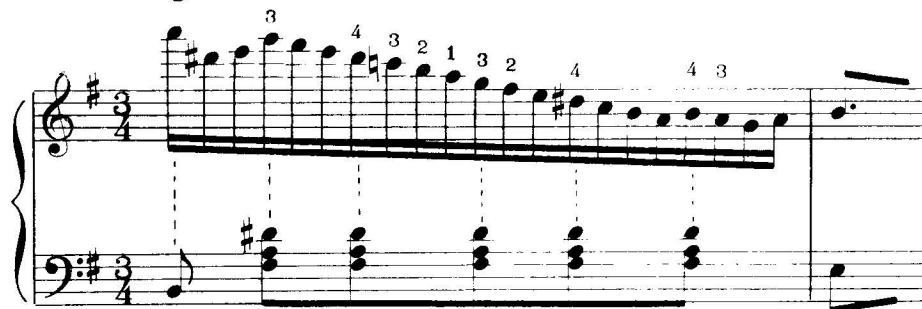
**Larghetto**



Example 46

Chopin, *Concerto No. 1*, Op. 11, 1st mov't., m. 23 after orch. intro.

Allegro

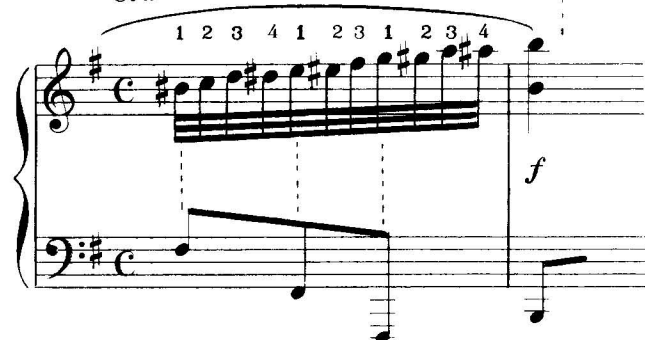


Example 47

Chopin, *Nocturne No. 1*, Op. 72, m. 36

Andante

8va - - -



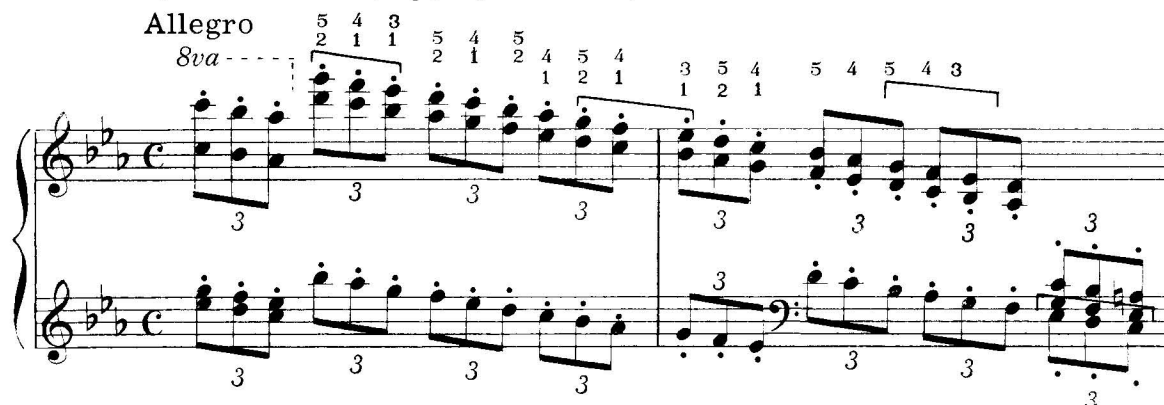
The next example poses an interesting problem. If the right hand fingering were to conform to the triplet:  $\begin{smallmatrix} 5-4-3 \\ 2-1-1 \end{smallmatrix}$ , for every group beginning with the second beat, the fingering in the first octave would not correspond with the notes in the second octave. If the fingering  $\begin{smallmatrix} 5-4, 5-4, \\ 2-1, 2-1 \end{smallmatrix}$  were to be used consistently, the same problem of non-correspondence would apply and, in addition, one would have difficulty in thinking in three while playing in two. The solution offered here combines the two possibilities to make the fingering identical in every octave, and to solve an intellectual dilemma.

Example 48

Beethoven, *Concerto No. 5*, Op. 73, 1st mov't., m. 12 after orch. intro.

Allegro

8va - - -



## 4. EXERTION AND RECOVERY

### CONSISTENCY AND RECOVERY

Example 49 demonstrates the principles of consistency and exertion-recovery.

#### Example 49

Mozart, *Trio*, K. 548, 1st mov't., m. 20

*Allegro*

First fingering above the notes appears at first natural. We observe, however, that a quantitative analysis will give for each measure the following table of finger occurrences:

1st finger	= 2 times
2nd finger	= 1 time
3rd finger	= 7 times
4th finger	= 3 times
5th finger	= 3 times

The third finger shows a disproportionately large number of occurrences. Furthermore, the sequence 3-4-5 appears twice at the top range of the passage.

In order to achieve more brilliance in the upper notes, the sequence 2-3-4 could be substituted (second fingering above the notes). Second finger replaced 3 at the beginning for the purpose of consistency.

The quantitative table shows:

1st finger	= 4 times
2nd finger	= 6 times
3rd finger	= 4 times
4th finger	= 2 times
5th finger	= 0 times

With this fingering 2 takes the heaviest burden. The first real problem would occur in the next measure, where consistency would have to be sacrificed in order to avoid 1 on F#.

The lower fingering, besides perfect consistency measure by measure (consistency by half measure is not appropriate in the first three measures since the last 16th of the second beat is followed by a higher note while the last 16th of the fourth beat is followed by a lower note) shows a more even distribution of the load between the fingers:

1st finger	= 4 times
2nd finger	= 4 times
3rd finger	= 4 times
4th finger	= 3 times
5th finger	= 1 time

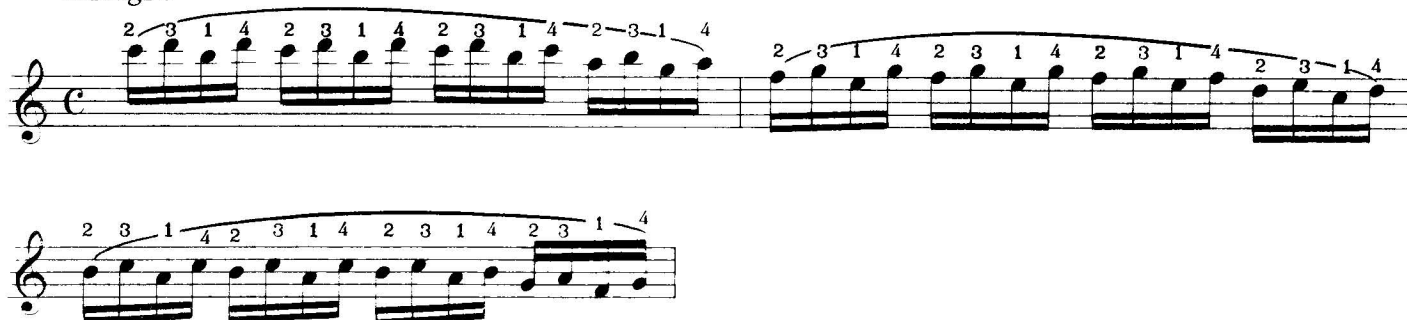
The table shows an even usage of the most able fingers with a slight sparing of the fourth (which is never used in sequence with 5) and a special use of the fifth finger as a pivot in the transposition.

The next example shows again perfect consistency and equal use of the fingers.

*Example 50*

Mozart, *Sonata in A minor*, 1st mov't., m. 23

**Allegro**



## REPEATED NOTES

Repeating a note with the same finger in fast tempo affords little opportunity for muscular recovery. When musical considerations permit, repeated notes should be played with different fingers.

A two-note formula takes a two-finger formula.

*Example 51*

Bartok, *Suite*, Op. 14, 3rd mov't., m. 13

**Allegro molto**



The comfort-value of this fingering can be appreciated a little later in the same piece when the repeated notes must be played with the same finger.

*Example 52*

Bartok, *Suite*, Op. 14, 3rd mov't., m. 38



Repeated notes by three are played best with a three-finger combination.

*Example 53*

Chopin, *Waltz*, Op. 18, m. 1

**Vivo**





## Example 54

Liszt, *Mephisto Waltz*, 2nd Section

Allegro vivace  $\text{♩}$  *8va* - - - - - 3 2 1

R.H.

In longer passages, the use of two fingers in repeated notes is more than a matter of comfort. It is a matter of being able to finish a passage.

## Example 55

Beethoven, *Piano-Violin Sonata No. 5*, 4th mov't., m. 82

Allegro ma non troppo *simile*

A note played four times requires a four-finger formula.

## Example 56

Chopin, *Waltz*, Op. 34, m. 1

Vivace

R.H.

A note repeated six times could be played with a three-finger formula, or with a four-plus-two formula. In Example 57, four-plus-two seems more appropriate because the meter is triple.

## Example 57

Chopin, *Waltz*, Op. 18, m. 22

Vivo

R.H.

Twelve notes can be divided by four groups or by three groups. The larger group is preferable.

### Example 58

Scarlatti, *Sonata in D major*, B Section, m. 35

#### Allegro

Even an occasional repetition of a note might benefit from changing of fingers. In this case, a prepared third finger can produce more effectively the necessary change in touch between the second note of the slur and the first note of the triplet, and between the last note of the triplet and the first note of the next measure.

### Example 59

Chopin, *Waltz*, Op. 69, No. 1, m. 5

#### Lento

Lightness of touch, speed and accentuation are helped by the changing of fingers on these repeated notes.

### Example 60

Chopin, *Grande Polonaise Brillante*, Op. 22, m. 1

#### Allegro

## TRILLS

A repeated two-note formula can be viewed as repeated single notes separated by an intervening note. A trill, for instance, can be thought of as a repeated note with a lower (or upper) neighbor separating the repetition.

Example 61 shows two fingerings for the trill. The first is more common, although the second is more comfortable because, the length of the second and fourth fingers being almost equal, the hand is in better balance.

*Example 61*



The fingering using three fingers relieves 2 of half its work by alternating 1 and 2 on the lower note.

*Example 62*



The four-finger trill, by alternating fingers on both notes, allows a recovery time for every finger equal to four times the exertion-time.

*Example 63*



A short trill can occur as part of a passage. Three or four fingers should be used whenever possible.

*Example 64*

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., m. 109

*Allegro molto*



*Example 65*

Beethoven, *Piano-Violin Sonata No. 6*, 1st mov't., development section, m. 32

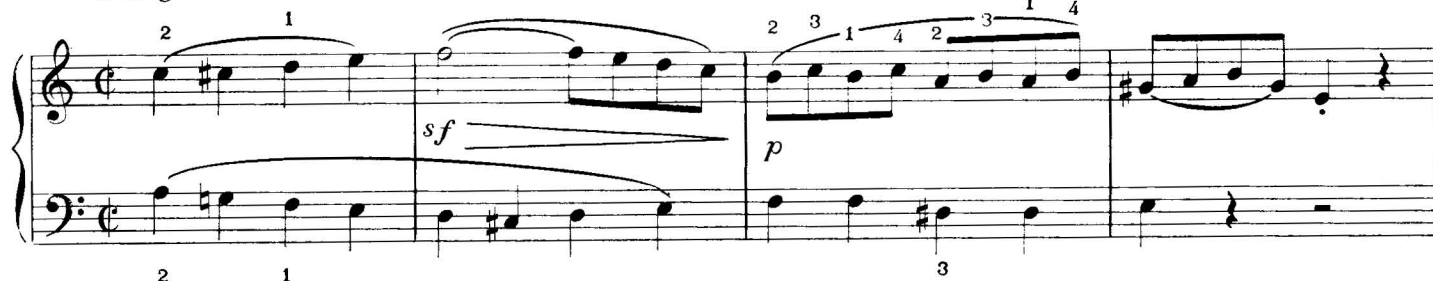
**Allegro**



*Example 66*

Beethoven, *Piano-Violin Sonata No. 4*, 3rd mov't., m. 5

**Allegro molto**



*Example 67*

Chopin, *Fantaisie-Improvisu*, Op. 66, m. 5

**Allegro**



Considerations of correspondence between hands and harmony may require an alternation between a two-finger and three-finger formula on a trill.

*Example 68*

Shostakovich, *Trio*, Op. 67, 2nd mov't., 45 m. from end of mov't.

**Allegro** (♩ = 108)



Alternation of two tones separated by an interval larger than a major or minor second poses the same problem of recovery as the trill.

The lower fingerings in Example 69 are equal from the point of fatigue and recovery. The upper fingering doubles the recovery time of the thumb and of the index.

*Example 69*

Beethoven, *Sonata*, Op. 53, 1st mov't., m. 14

**Allegro**

R.H.

4 1 4 2 4 1 4 2 4 1 4 2

3 1 3 1  
4 2 4 2

Example 70 shows that two fingerings based on the three-finger formula are possible.

*Example 70*

Beethoven, *Piano-Violin Sonata No. 9*, 1st mov't., m. 49

**Presto**

L.H.

3 1 2 1 3 1 2 1 3 1 2 1 3 1 2

2 4 1 4 2 4 1 4 2 4 1 4

In an alternation between two notes as far apart as an octave, finger changes are still applicable. The lower notes show a regular exchange between 1 and 2. The upper notes show a choice between 4 and 5 which is determined by the direction of the melody.

*Example 71*

Beethoven, *Trio*, Op. 1, No. 3, 3rd mov't., m. 14

**Prestissimo**

R.H.

5 1 5 2 4 1 5 2 4 1 4 2 5 1 5 2 (5)

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

Repeated notes can be hidden sometimes from early detection. When they are discovered, they should be fingered as in alternating notes.

*Example 72*

Beethoven, *Sonata No. 1*, Op. 14, 3rd mov't., m. 68

**Allegro**

R.H.

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



*Example 73*

Beethoven, *Piano-Violin Sonata No. 2*, 1st mov't., m. 34

**Allegro vivace**



**OTHER EMBELLISHMENTS**

Fast embellishments have the same effect on the exertion-recovery process as an immediate repetition of a note.

In the mordent, the principal tones should be taken with different fingers because, although they are separated by the upper neighbor, they succeed each other in the shortest possible time.

*Example 74*



The inverted mordent should be treated in like manner.

*Example 75*



The principle of using three fingers for a mordent is usable in pieces with mordent-like embellishments. The length and speed of the pieces from which the next examples are taken would overburden fingers that were repeated with a recovery time of less than two sixteenths.

*Example 76*

Beethoven, *Piano-Violin Sonata No. 6*, 1st mov't., development section, m. 122

**Allegro**



*Example 77*

Schumann, *Traumes Wirren*, Op. 12, m. 5

**Vivacissimo**



Example 78 poses the same problem for the left hand. This solution will help the clarity of execution in a muddy register of the piano.

### Example 78

Chopin, *Etude No. 4*, Op. 10, m. 6

L.H. **Presto**



If the first measure were played with the fingering offered by Tausig (in parentheses), the second finger would fall on C three times in succession. The fingering of the mordent alleviates this situation.

(For this passage there is an even better fingering possible than the one indicated here. Please see the chapter on Ten-finger Apparatus.)

### Example 79

Scarlatti-Tausig, *Sonata in E major*, m. 52



The turn, being similar to an inverted mordent, will change fingers on the repeated note.

### Example 80



A combination of mordent and turn would prove difficult and unreliable in execution. In Example 81 the first solution must use pedal, because B would have to be released. It is least tiring since no finger is used more than twice. In the fingering without pedal, 2 and 3 are used three times each.

### Example 81

Beethoven, *Concerto No. 3*, 1st mov't., 10 m. after orchestra introduction

**Allegro**



Fingerings of Examples 82 a, b, c, d are based on the principle that repetition of any finger should be delayed as long as possible.

*Example 82*



Avoidance of finger repetition will also insure greater differentiation in dynamics. (Example 83.) Besides the changing of fingers required by the repeated note within each group of four notes, the different emphasis of the first note in each group should be recognized through appropriate fingering when possible. Thus, in the first measure each count begins on the same note:  $\overset{>}{g} - \overset{\underset{\cdot}{\vee}}{g} - \overset{(>)}{g}$ . (Symbols above the notes indicate degree of stress.) Using fingers 2, 3, 1 for these notes will help when practising them individually, to match each finger with the desired degree of accent.

*Example 83*

Mozart, *Concerto*, K.V. 467, 1st mov't., m. 1 after orchestra introduction

**Allegro**

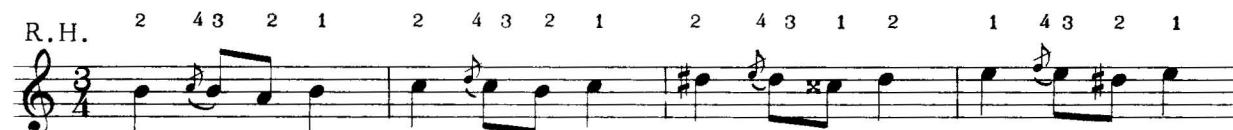


A grace note between repeated notes does not allow enough recovery-time. These repeated notes should best be played with different fingers.

*Example 84*

Beethoven, *Piano-Cello Sonata*, Op. 69, 2nd mov't., m. 66

**Allegro molto**



## DIRECTION – MOVEMENT OF FINGERS

Physical effort is smaller when fingers are used in a direction towards the third finger.

The short note values of dotted rhythms should be played in the natural direction of the fingers, i.e., toward the third finger.

### Example 85

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., m. 36

L.H. Allegro



### Example 86

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., 28 m. before end of mov't.

Allegro



The same principle applies to fast turns.

### Example 87

Beethoven, *Piano-Violin Sonata No. 2*, 1st mov't., m. 40

Allegro vivace



## 5. PREPARATION

Example 88 shows the preparation for the C major scale. Black notes indicate depressed keys. White notes are those that can be prepared. When C is depressed, D and E can be prepared. When D is played, E and F can be prepared, etc.

Example 88

Example 88 displays four staves of musical notation for the C major scale, illustrating fingerings for both hands. The notes are represented by black dots (depressed keys) and white dots (notes that can be prepared). The fingerings are indicated by numbers 1 through 5 below the notes.

Staff 1 (Right Hand): C4 (1), D4 (2), E4 (3), F4 (2), G4 (3), A4 (1), B4 (3), C5 (1), D5 (1), E5 (2), F5 (3), G5 (4), A5 (2), B5 (3), C6 (4), D6 (1), E6 (3), F6 (4), G6 (1), A6 (4), B6 (1).

Staff 2 (Left Hand): C4 (1), D4 (2), E4 (3), F4 (2), G4 (3), A4 (1), B4 (3), C5 (1), D5 (1), E5 (2), F5 (3), G5 (4), A5 (5).

Staff 3 (Right Hand): G5 (5), F5 (4), E5 (3), D5 (2), C5 (1), B4 (4), A4 (3), G4 (2), F4 (1), E4 (3), D4 (2), C4 (1), B3 (1), A3 (3), G3 (2), F3 (3), E3 (2), D3 (1).

Staff 4 (Left Hand): G3 (2), F3 (1), E3 (1), D3 (4), C3 (3), B2 (2), A2 (4), G2 (3), F2 (2), E2 (1), D2 (3), C2 (2), B1 (1), A1 (1), G1 (3), F1 (2), E1 (3), D1 (2), C1 (1).

Chart shows preparation graphically.

Example 89

Example 89 displays a musical score for five staves, illustrating a graphical representation of preparation. The notes are represented by black dots (depressed keys) and white dots (notes that can be prepared). The fingerings are indicated by numbers 1 through 5 below the notes. The graphical representation shows the preparation of notes for the C major scale, with lines connecting the notes to show the sequence of preparation.

Staff 1 (Right Hand): C4 (1), D4 (2), E4 (3), F4 (2), G4 (3), A4 (1), B4 (3), C5 (1), D5 (1), E5 (2), F5 (3), G5 (4), A5 (2), B5 (3), C6 (4), D6 (1), E6 (3), F6 (4), G6 (1), A6 (4), B6 (1).

Staff 2 (Left Hand): C4 (1), D4 (2), E4 (3), F4 (2), G4 (3), A4 (1), B4 (3), C5 (1), D5 (1), E5 (2), F5 (3), G5 (4), A5 (5).

Staff 3 (Right Hand): G5 (5), F5 (4), E5 (3), D5 (2), C5 (1), B4 (4), A4 (3), G4 (2), F4 (1), E4 (3), D4 (2), C4 (1), B3 (1), A3 (3), G3 (2), F3 (3), E3 (2), D3 (1).

Staff 4 (Left Hand): G3 (2), F3 (1), E3 (1), D3 (4), C3 (3), B2 (2), A2 (4), G2 (3), F2 (2), E2 (1), D2 (3), C2 (2), B1 (1), A1 (1), G1 (3), F1 (2), E1 (3), D1 (2), C1 (1).



## THUMB CROSSINGS AND ECONOMY OF MOTION

Finger preparation is, then, a conscious gesture, a translation into physical action of a mental state of anticipation. Preparation is more difficult to execute with precision in conjunction with the playing of the thumb, in either ascending or descending motion, because the entire hand is involved in the action as it moves over the thumb. It follows, therefore, that in rapid movement a fingering that reduces the number of thumb crossings will be advantageous to preparation.

The chromatic scale could have six notes assigned to the thumb. This fingering is useful for slow, strong playing.

### *Example 90*



With the thumb playing four times per octave, the scale can be played fast. The main advantages of this fingering are derived from the placing of 4 on A $\sharp$ , because A $\sharp$  and 4 act as a point of reference in this sequence of undifferentiated intervals. 1-2-3-4 can be played at one stroke with appreciable increase in speed in the overall passage.

### *Example 91*



An even faster fingering, also using the thumb four times, has, however, the disadvantage of being useful for only one octave.

### *Example 92*



The fastest fingering for the chromatic scale is that which reduces the number of crossings to three. From this point on the number of crossings cannot be further reduced. The scale in this form can be

viewed as being composed of three chords of five, four and three notes, respectively. Only three positionings of the hand are necessary for every octave and the same fingering can be repeated for the next octave.

### Example 93

3 thumbs  
R.H. 1 2 3 4 5 1 2 3 4 1 2 3

This passage of seventeen notes usually played fast can reduce the number of hand crossings to three by conceiving it as being composed of three chords of five notes each, with only one free note at the beginning and at the end.

### Example 94

Chopin, *Impromptu in A<sup>b</sup>*, B Section, m. 47

Sostenuto  
8va

R.H.

In very fast diatonic scales one must break with traditional fingerings and search for ways to literally cut corners, that is, help the hand move in a straight line. Speed is derived from fast finger action, but when an individual reaches his physiological limits in this respect, further increase in speed can be effectuated through reducing distances. This idea will suggest the advisability of reducing distances and motions at all times, even before we tax our physical strength to the limit.

The fingering proposed here reduces the number of turns for Example 92 from four to two in the first measure. The fingering in the second measure follows as a consequence of the first. Lower fingering shows what one may be tempted to do in slower motion.

### Example 95

Beethoven, *Sonata*, Op. 87a, 3rd mov't., recapitulation section, m. 40

Vivacissimamente (♩ = 126)

R.H.

In these sixteen notes the hand passes over the thumb only two times. A further bonus from this choice of fingers accrues from the fact that the notes of the tritone, the harmonic foundation of the passage, are played consistently with 1 and 5.

### Example 96

Mozart, *Trio*, K. 548, 2nd mov't., m. 31



The essential element in Example 97 is the rhythm. In a doubly dotted rhythm the slightest variation in the value of the 32nd note will be heard. A slowing down action, such as crossing the hand over the thumb, should not occur over the 32nd. In other words, the short value and the note following should always be prepared, i.e., fingers must be placed over these notes ahead of time.

### Example 97

Shostakovich, *Prelude No. 6*, Op. 87, m. 14

Allegretto

L.H.

A combination of dotted note values and delicate scale passages requires special care for preparation and consistency.

Each note is assigned a finger in order to insure preparation: C = 1; D-flat = 2; E-flat = 3; F = 1; G-flat = 4, 3, 4 (because of the repetition). All the notes can be thus prepared in ample time. After the first playing of F, 1 should be kept on that note to the end. In the quintuplet, all the notes can be touched at once.

### Example 98

Shostakovich, *Fugue No. 16*, m. 3

Adagio

R.H.

Although preparation is of the greatest importance in fast tempo, this good habit is effective in slower tempo also.

A fingering avoiding 1 on E-flat and B-flat would force two turns of the hand on the shorter notes.

*Example 99*

Shostakovich, *Prelude No. 17*, Op. 87, m. 10

*Allegretto*

a) R.H.

Not: 3 2 1 3 2 1 2

b) m. 3  
L.H.

Preparation and economy of motion are inseparable. Fast octaves should be taken as much as possible with sequential fingers. This will ensure accuracy and closeness to the keyboard for speed.

*Example 100*

Beethoven, *Piano-Violin Sonata No. 4*, 1st mov't., m. 9

*Presto*

Simultaneous jumps with both hands should be avoided when sudden changes of dynamics must be performed at the same time.

*Example 101*

Beethoven, *Piano-Violin Sonata No. 10*, 4th mov't., m. 113

*Poco allegretto*

The state of preparation can be improved by increasing the number of notes that can be covered by the fingers before they are played.

*Example 102*

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., m. 71

**Allegro molto**



*Example 103*

Chopin, *Fantaisie-Impromptu*, Op. 66, m. 7



## FUNCTION OF THE THUMB IN HAND EXTENSION

The thumb should play one of the notes in any interval involving extension of the hand. This will make the action more comfortable and will insure better finger preparation.

*Example 104*

Beethoven, *Piano-Violin Sonata No. 6*, 3rd mov't., Variation VI, 11 m. before end of Sonata



*Example 105*

Beethoven, *Piano-Violin Sonata No. 1*, 1st mov't., m. 21



## Example 106

Beethoven, *Piano-Violin Sonata No. 4*, 3rd mov't., m. 247

Allegro molto

Example 106 shows measures 247-252 of the 3rd movement of Beethoven's Piano-Violin Sonata No. 4. The tempo is *Allegro molto*. The score is in C major, 2/4 time. It features a grand staff with piano (*fp*) dynamics. The right hand has a melodic line with a large slur spanning measures 247-252, with fingering numbers 5, 3, 5, 4, 1 above it. The left hand has a bass line with a large slur spanning measures 247-252, with fingering numbers 1, 1, 1, 1, 1 below it. There are also smaller slurs and fingering numbers (1, 3, 4, 5) for specific notes.

Special efforts should be made to involve the thumb in leaps even when this may not seem possible at first.

## Example 107

Beethoven, *Piano-Violin Sonata No. 10*, 4th mov't., m. 33

Poco allegretto

Example 107 shows measures 33-40 of the 4th movement of Beethoven's Piano-Violin Sonata No. 10. The tempo is *Poco allegretto*. The score is in D major, 2/4 time. It features a grand staff with various fingering numbers (1, 2, 3, 4, 5) and dynamic markings (< >) indicating fingerings and accents for the right and left hands. The right hand has a melodic line with a large slur spanning measures 33-40, with fingering numbers 4, 1, 4, 1, 3, 2, 1 above it. The left hand has a bass line with a large slur spanning measures 33-40, with fingering numbers 5, 4, 5, 4, 3 below it. There are also smaller slurs and fingering numbers (1, 2, 3, 4, 5) for specific notes.



When the thumb cannot be used as the extensor finger in a leap, it is best to use it on both notes. The state of innervation of a finger as it departs from a note will maintain it in a state of preparation for attacking the next note.

*Example 108*

Beethoven, *Piano-Violin Sonata No. 3*, Op. 12, 3rd mov't., m. 39

**Allegro molto**

The musical score for Example 108 consists of two systems. The first system shows a piano part with dynamics *ff*, *p*, and *ff*, and a violin part with fingerings 1 and 1. The second system shows a piano part with dynamic *p* and a violin part with fingerings 1 and 1. The tempo is marked **Allegro molto**.

*Example 109*

Beethoven, *Piano-Violin Sonata No. 7*, 4th mov't., 19 m. from end of Sonata

L.H. **Presto**

The musical score for Example 109 shows a single system of a left hand piano staff. It includes dynamics *sf*, *cresc.*, and *f*, and fingerings 4, 3, 1, and 1. The tempo is marked **Presto**.

This is equally true of other fingers.

*Example 110*

Beethoven, *Piano-Violin Sonata No. 7*, 4th mov't., m. 192

**Allegro**

The musical score for Example 110 consists of two systems. The first system shows a piano part with dynamic *cresc.* and a violin part with fingerings 1, 3, 3, 1, 1, 3. The second system shows a piano part with dynamic *cresc.* and a violin part with fingerings 1, 3, 3, 1, 1, 3. The tempo is marked **Allegro**.

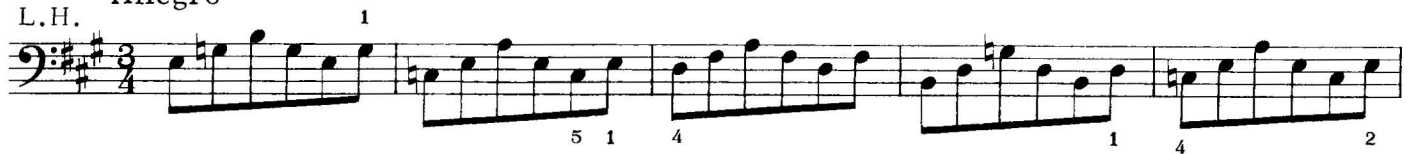
## THE THUMB AS SUBSTITUTE FINGER

The thumb can be used as a substitute for a finger which may be overburdened with repetition.

### Example 111

Beethoven, *Piano-Violin Sonata No. 2*, 3rd mov't., m. 54

L.H. Allegro



The thumb can also substitute in order to break a clumsy sequence between the third, fourth, and fifth fingers.

### Example 112

Beethoven, *Piano-Violin Sonata No. 2*, 1st mov't., m. 64

R.H. Allegro vivace



### Example 113

Beethoven, *Piano-Violin Sonata No. 4*, 3rd mov't., m. 9

R.H. Allegro molto



## THE THUMB ON BLACK KEYS

The thumb should be used freely on black keys for consistency,

### Example 114

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., m. 29

R.H. Allegro



for comfort,

*Example 115*

Beethoven, *Piano-Violin Sonata No. 3*, 1st mov't., m. 5



for reducing large motions of the hand in fast tempo,

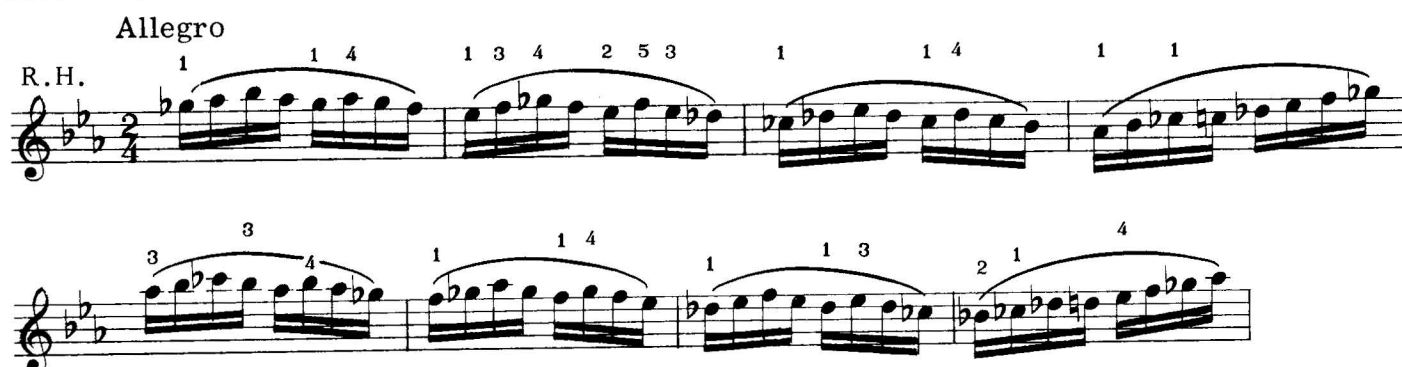
*Example 116*

Beethoven, *Piano-Violin Sonata No. 7*, 4th mov't., m. 153



*Example 117*

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., m. 139



and for expression.

*Example 118*

Shostakovich, *Concerto*, Op. 35, 4th mov't., beginning



## FINGER CROSSING

The action of playing more than five successive notes requires the passing-under of the thumb, or finger crossing, i.e., stretching a finger of lower numeral over a finger of higher numeral in order to play the next note in a direction away from the thumb, or stretching a finger of higher numeral over a finger of lower numeral in order to play the next note in the direction of the thumb.

This technique, once common practise, became obsolete during the late eighteenth century. Today we feel that nothing which works should be forbidden, and that anything which works is valid.

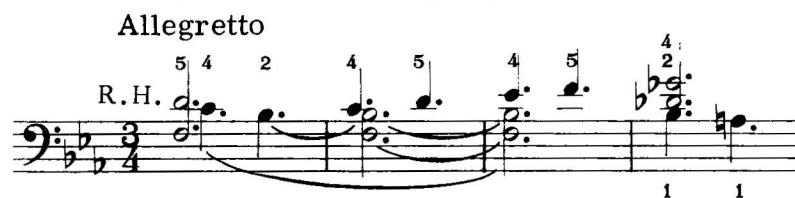
Passing a finger of higher numeral *under* a finger of lower numeral must also be called finger crossing because, for one instant, at the moment of the action, one finger of lower numeral is stretched over a finger of higher numeral.

Getting accustomed to finger crossing can solve many problems of legato which cannot be achieved by the finger changing method.

Because of unavailability of fingers due to held notes, 4 crosses over 5 in Examples 119 and 120.

### Example 119

Shostakovich, *Prelude No. 19*, Op. 87, m. 8



### Example 120

Beethoven, *Sonata*, Op. 26, 2nd mov't., m. 1



Another reason for finger crossing is tempo which does not allow the time for finger changing. Because of its length, 3 can cross over 5 as easily as 4.

### Example 121

Shostakovich, *Fugue No. 23*, m. 19



Passing 5 under 4 is the same as crossing 4 over 5.

*Example 122*

Shostakovich, *Fugue No. 22*, m. 19



*Example 123*

Beethoven, *Piano-Violin Sonata No. 3*, 1st mov't., m. 6 from end of mov't.



*Example 124*

Prokofieff, *Visions Fugitives No. III*, m. 2



Passing 5 under 3 is equivalent to 3 over 5.

*Example 125*

Shostakovich, *Fugue No. 22*, m. 37



Playing  $\frac{5}{3}$  directly under 4 presents more of a psychological than physical difficulty. Example 126 also illustrates the passing of 4 under 3.

*Example 126*

Shostakovich, *Fugue No. 22*, m. 29 from end of Fugue



The most difficult crossings are those of short fingers over long.

*Example 127*

Bach-Busoni, *Chorale-Prelude, Rejoice, Beloved Christians*, m. 21



Changing-tones in thirds are difficult because in the sequence  $\begin{smallmatrix} 4-5-4 \\ 2-3-2 \end{smallmatrix}$  the fourth finger is forced to lift while 3 and 5 are held down. By crossing 4 over 5, this situation can be avoided.

*Example 128*

Shostakovich, *Prelude No. 15*, Op. 87, m. 74



Although it is usually very difficult to improve on Bela Bartok's fingering, it is evident that in this piece finger crossing would help preparation.

*Example 129*

Bartok, *Mikrokosmos No. 115*, m. 1



A final example to show how running out of fingers can be prevented by finger crossing:

*Example 130*

Shostakovich, *Fugue No. 14*, m. 7 from end of fugue





## 6. LEGATO

### OCTAVES

Octaves cannot be played legato except in glissando. The illusion of legato can be produced by connecting one of the notes of the octave. The \* denotes glissando.

#### Example 131

Beethoven, *Piano-Cello Sonata*, Op. 69, 1st mov't., m. 55



In octaves moving by larger intervals there is the option of connecting the lower or the upper note.

#### Example 132

Beethoven, *Sonata*, Op. 53, 3rd mov't., m. 31



Legato in double octaves can be obtained through a redistribution of the notes between the hands.

#### Example 133

Beethoven, *Piano-Cello Sonata*, Op. 69, 1st mov't., m. 13

**Allegro**

Chords can also be connected in the same manner.

*Example 134*

Schumann, *Symphonic Etudes*, m. 1

Andante

Finger changing on depressed keys is a helpful device for connecting chords when the use of the pedal is not advisable. The changing of fingers proceeds from the lower notes up: By changing from 2 to 1 on E, 2 is liberated to take its position on G#, thus freeing 3 to replace 5 on B. In the third chord, changing of  $\frac{1}{2}$  to  $\frac{3}{1}$  can be accomplished simultaneously.

*Example 135*

Beethoven, *Sonata No. 2*, Op. 14, 1st mov't., m. 31 of development section

Allegro

The baroque-style four and five-part chorale in this nocturne is obviously intended as a contrast to the romantic sections preceding and following this part. Minimum use of the pedal seems to be in order, while at the same time a legato imitating the human voice is desirable.

Optimum legato in four parts can be achieved through a redistribution of the notes between the hands. In five parts, three notes are taken with the right hand. The fingerings offered are based on the following assumptions:

Sliding the thumb from black to white key produces satisfactory legato.

Sliding the thumb outwardly on adjacent keys results in acceptable legato.

Repeated notes sound more legato when played with the same finger.

Melody notes must always be connected even if legato is sacrificed in other voices in the process.

In the left hand octaves it is preferable to connect the lower tones rather than the upper tones.

### Example 136

Chopin, *Nocturne No. 1*, Op. 37

The image displays three systems of musical notation for Chopin's Nocturne No. 1, Op. 37. Each system consists of a piano (p) part in the left hand and a right-hand part. The piano part is written in bass clef with a key signature of two flats (B-flat and E-flat) and a common time signature (C). The right-hand part is written in treble clef with the same key signature and time signature. Fingerings are indicated by numbers 1-5 above or below notes. Some fingerings are written as pairs (e.g., 5-3, 2-1) indicating a transition. A 'cresc.' (crescendo) marking is present in the second system. A 'col 8' (coda) marking is present in the third system. The score is annotated with various fingering suggestions for both hands, including sequences like 5-3, 2-1, 4, 5-4, 3-2, 4-5, 2-3, 4, 1, 5, 4, 3-5, 5, 3, 5, 3-2, 3, 3, 3, 2, 1, 1, 4, 1, 2, 5, 4-5, 2, 1-2, 5-3, 5, 4, 3, 5, 3, 5, 4, 5, 4, 3-2, 2, 4-5, 4, 2-3, 2, 3-5, 4-5, 5, 2-3, 5, 2, 4, 3, 5, 3, 4, 5, 2, 2, 3, 1, 4-5, 4, 2-5, 2, 1, 1, 1-2, 5, 4, 5-3, 5-3, 5, 3, 5-2, 5-4.

## SLIDING

Sliding fingers from one key to another is helpful in achieving legato. Sliding is usually associated with the motion of the thumb from a black key to the adjacent white key, as is necessitated by octave playing.

*Example 137*

Brahms, *Concerto No. 2*, 2nd mov't., m. 48 of D major section, Piano part



In intervals smaller than the octave, other fingers can slide on adjacent intervals to a successful legato. Example 138 shows 5 sliding from white to white key, descending.

*Example 138*

Chopin, *Nocturne No. 2*, Op. 37, m. 3



Example 139 shows 5 sliding from white key to white key, and from white to black key, descending.

*Example 139*

Chopin, *Nocturne No. 2*, Op. 37, m. 6



Example 140 shows 5 sliding from black to white key, and vice versa, and also 1 sliding from black to white and black to black keys.

*Example 140*

Chopin, *Nocturne No. 2*, Op. 37, m. 9

Example 142 shows 2 sliding from black to white key, descending, and 1 sliding from a black key to another black key, a minor third lower.

*Example 142*

Chopin, *Nocturne No. 2*, Op. 37, m. 25

Andantino



A simultaneous slide of 2 and 1.

*Example 143*

Bach-Busoni, *Chorale-Prelude, Rejoice, Beloved Christians*, m. 26

Allegro



An ascending chromatic scale in fourths has two fingerings. One is based on the sliding of 2, while the other is based on the sliding of 1. The choice between these solutions will be determined by the shape of the hand. If the fingers can fit easily between the black keys, the fingerings are equal. If the fingers do not fit, the second fingering will provide a clearer articulation.

*Example 144*

Chopin, *Sonata in B-flat minor*, 2nd mov't., m. 37

$\text{♩} = 76$







## 7. POLYPHONY

Legato in polyphonic music can be obtained only through scrupulous observance of the note values in all the voices. Pedal is seldom of help in this fluid idiom. The most common problems in polyphonic playing are "running out of fingers" and having to stretch the hand beyond its limits.

The first problem is alleviated by finger changes and finger crossings.

The second can be solved only through redistribution of parts between hands.

By anticipating these problems, finger changes can sometimes be avoided.

### Example 147

Shostakovich, *Fugue No. 1*, m. 8

Moderato

Example 147 shows a musical score for Shostakovich's *Fugue No. 1*, measure 8. The tempo is Moderato. The score is in C major, 2/4 time. The right hand has a melodic line with a slur over measures 2-3. The left hand has a bass line with a slur over measures 2-3. Fingerings are indicated by numbers 1-5. The right hand has a slur over measures 2-3. The left hand has a slur over measures 2-3. Fingerings are: RH (1, 2, 1, 4, 3), LH (3, 2, 1, 2, 4).

When finger changes are unavoidable, this time-consuming maneuver should be done, where possible, on the notes of longer duration.

### Example 148

Shostakovich, *Fugue No. 4*, m. 11

Adagio

Example 148 shows a musical score for Shostakovich's *Fugue No. 4*, measure 11. The tempo is Adagio. The score is in D major, 3/4 time. The right hand has a melodic line with a slur over measures 2-3. The left hand has a bass line with a slur over measures 2-3. Fingerings are indicated by numbers 1-5. The right hand has a slur over measures 2-3. The left hand has a slur over measures 2-3. Fingerings are: RH (5-3, 4, 3, 5, 4-5, 2, 4-3), LH (3, 1, 2, 3, 1-3, 4).

When a tone held in one voice is repeated in another voice, it should be played with the same finger that holds the long note.

*Example 149*

Shostakovich, *Fugue No. 4*, m. 39

Adagio



When two voices meet on one tone, that tone should be played by the hand that carries the subject. Arrow indicates subject.

*Example 150*

Shostakovich, *Fugue No. 4*, m. 25

Adagio



When a common tone is of equal importance in both voices, it should be taken with the hand that can do it more easily.

*Example 151*

Shostakovich, *Fugue No. 12*, m. 41

Allegro



If the hand must jump in order to attack the first tone of the fugue-subject, the note preceding the leap should be taken by the other hand. This technique will insure the preparation necessary to produce the desired tone quality.

*Example 152*

Shostakovich, *Fugue No. 8*, m. 95

Andante

*Example 153*

Shostakovich, *Fugue No. 15*, m. 40

Allegro molto

*Example 154*

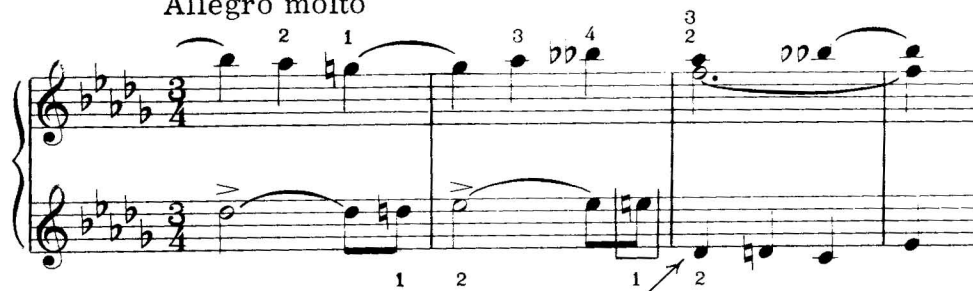
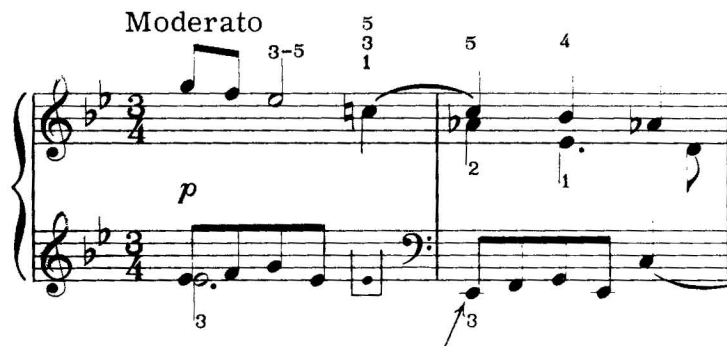
Shostakovich, *Fugue No. 15* m. 88

Allegro molto

*Example 155*

Shostakovich, *Fugue No. 15*, m. 101

Allegro molto

*Example 156a*Shostakovich, *Fugue No. 15*, m. 17**Allegro molto***Example 156b*Shostakovich, *Fugue No. 22*, m. 44**Moderato**

This procedure is useful even when a leap is not involved.

*Example 157*Shostakovich, *Fugue No. 8*, m. 76**Andante***Example 158*Shostakovich, *Fugue No. 10*, m. 87**Moderato**

The distribution of parts between hands in performance does not have to correspond to the visual image conveyed by the printed page. Any part, in either clef, can be played by either hand if a better execution is insured in this manner.

In contemporary polyphony, intervals larger than the octave between two adjacent voices are common. The difficulty can be met by taking the high note of the interval normally played by the left hand with the right hand, or the low note of a large interval in the right hand with the left hand.

*Example 159*

Shostakovich, *Fugue No. 10*, m. 91

Moderato

Running out of fingers in the course of legato playing can be avoided by borrowing fingers from the other hand.

*Example 160*

Shostakovich, *Fugue No. 4*, m. 76

Mosso (♩ = 120)

*Example 161*

Shostakovich, *Fugue No. 4*, m. 84

Mosso (♩ = 120)



Rhythm and accentuation are many times weakened in a passage which feels physically awkward. This situation can sometimes be remedied by removing a single note out of the trouble spot. That note, of course, would be played by the other hand.

*Example 162*

Shostakovich, *Fugue No. 2*, m. 32

*Allegretto*

*Example 163*

Shostakovich, *Fugue No. 2*, m. 50

*Allegretto*

Another awkward situation arises when two notes must be played with the same finger in quick succession. Playing two consecutive thumbs can be avoided by taking one of the notes with the thumb of the other hand. "Cheating" in this instance would improve the marcatisissimo effect (demanded by the composer at the beginning of the fugue) beyond anything that could be achieved with one hand alone.

*Example 164*

Shostakovich, *Fugue No. 15*, m. 50

*Allegro molto*

Three, four or more consecutive notes that must be played with the thumb of one hand can also benefit by the intervention of the other hand.

*Example 165*

Shostakovich, *Fugue No. 24*, meas. 38 of 2nd Fugue

$\text{♩} = 66$

*Example 166*

Shostakovich, *Fugue No. 16*, m. 33

Adagio 5

In Example 167, with the solution given, all the notes can be played legato, and all the notes sustained to the end without any touch of the pedal.

*Example 167*

Shostakovich, *Fugue No. 17*, Final measures

Allegretto

*ritenuto*

Example 168 is susceptible of two solutions.

*Example 168*

Shostakovich, *Fugue No. 17*, m. 40

**Allegretto**

Clarity in polyphonic playing is due not merely to the absence of pedal, but to a precise representation of the individuality of each voice. Note durations and dynamics (phrasing) are the most important elements to be considered to this end. A redistribution of notes between hands may help accomplish the task.

The hand playing the subject should be favored by relieving it of the need to play all the notes of the other voices assigned to it.

*Example 169*

Shostakovich, *Fugue No. 17*, m. 21

**Allegretto**

Arpeggios in sixths are obviously not the job for one hand, especially if a perfect legato is intended. The solution offered here completely solves the problem.

*Example 170*

Shostakovich, *Fugue No. 7*, m. 74

**Allegretto**

When the fugue-subject appears in an inner voice it may be difficult to bring it out clearly. In Example 171 the problem is complicated by the low register of the voices. The subject should be entrusted to the ablest fingers.

## Example 171

Shostakovich, *Fugue No. 17*, m. 43

*Allegretto*

Two examples from a five-part fugue illustrate problems in legato and the solutions through the two methods of finger changing and free exchange of parts between the hands.

## Example 172

Shostakovich, *Fugue No. 13*, m. 116

*Adagio a tempo*

## Example 173

Shostakovich, *Fugue No. 13*, m. 136

*Adagio*

## 8. ARPEGGIOS

The most common question in fingering arpeggios centers on whether to use the third finger or the fourth finger besides 1, 2, and 5. It is usually taught that in a triad for the right hand, if the upper interval is a fourth, the fingering is 1, 2, 3, 5. If the interval is a third, the fingering is 1, 2, 4, 5. In actuality, the fingering is also determined by the second interval.

*Example 174*

Another determining factor is the register in which the arpeggio occurs, since the hand position is different in the center of the piano from that in any other place toward the extremes of the keyboard. In the example below, we can see that the position of the hand in the lower octave will make the fingering 1, 2, 4 more comfortable.

*Example 175*

Beethoven, *Piano-Violin Sonata No. 2*, 3rd mov't., m. 218



A source of difficulty in most arpeggios extending beyond one octave is the turning under of the thumb, especially in tonalities with black and white keys, since the thumb is always assumed to play the white key. Reducing the number of turns will prove beneficial in fast playing. In the example below, this is accomplished by placing the thumb on a black key.

*Example 176*

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., m. 17 from end of mov't.

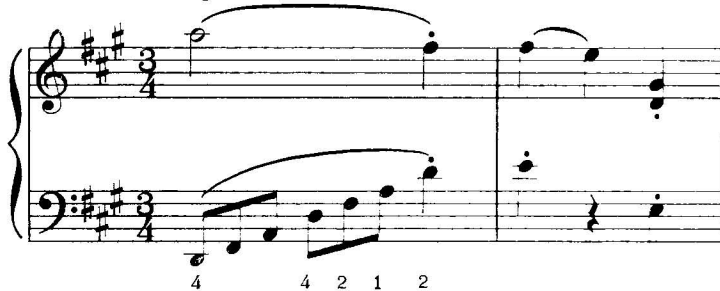


In fast playing, turns can be avoided completely by moving the hand in a straight line.

*Example 177*

Beethoven, *Piano-Violin Sonata No. 2*, 3rd mov't., 48 m. from end of Sonata

**Allegro**



Broken chords can be seen as another form of the arpeggio. The notes outlining the triad are taken with three different fingers as though they were played by themselves without the use of the thumb. This fingering is more meaningful musically and helps the player locate himself in the passage.

*Example 178*

Beethoven, *Concerto No. 5*, 1st mov't., m. 71 after orchestra introduction

**Allegro**



In the next examples, the principal notes of the arpeggio are formed by the lower tones.

*Example 179*

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., 69 m. before end of mov't.

**Allegro molto**



*Example 180*

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., m. 67

**Allegro molto**



Broken chords of longer sequence can be organized in such a way that the fingering is consistent in every octave, regardless of the metric structure. This arrangement reduces the number of turns and increases the kinesthetic sense of the player, particularly in cases where only white notes are played.

### Example 181

Schubert, *Impromptu No. 2*, Op. 142, m. 67

**Allegro moderato**



### Example 182

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., 39 m. from end of mov't.

**Allegro**



Broken chords of the dominant seventh will have a fingering constructed out of a four-note pattern.

### Example 183

Beethoven, *Piano-Violin Sonata No. 3*, 3rd mov't., m. 75

**Allegro molto**

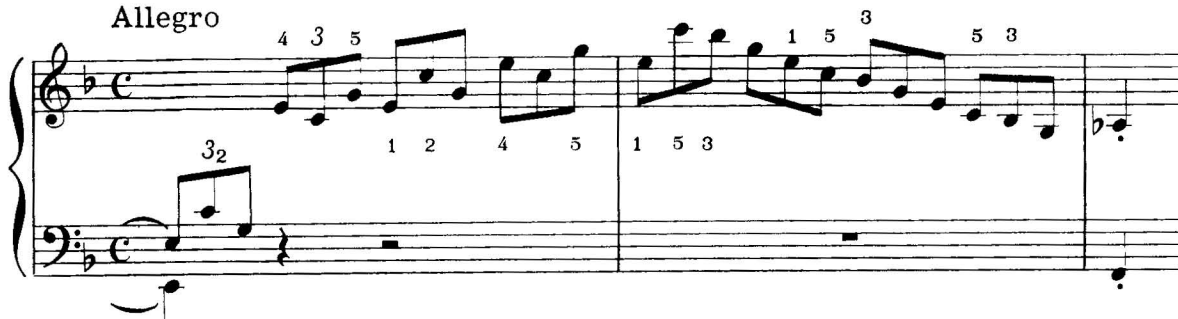


The next examples show that the dominant seventh arpeggio can be played with a more comfortable fingering by avoiding the use of the fourth finger.

### Example 184

Beethoven, *Piano-Violin Sonata No. 5*, 1st mov't., m. 15 of development section

**Allegro**





## 9. TEN - FINGER APPARATUS

By taking one note with the left hand the main difficulty in this passage, thumb on black key in conjunction with a quick change of hand position, is avoided.

### Example 185

Chopin, *Sonata No. 3*, 2nd mov't., m. 7

Molto vivace



By the same procedure two problems, the 1-2-1-2 sequence of unprepared fingers in the second measure, and the difficult 4-5-1-5 in the third, are solved in this next passage.

### Example 186

Chopin, *Sonata No. 3*, 2nd mov't., m. 17

Molto vivace



Example 187 is similar to the preceding one.

### Example 187

Chopin, *Sonata No. 3*, 2nd mov't., m. 25

Molto vivace



A hand too small to cover one octave between 2 and 5, or a hand with thick fingers, will find some difficulty in performing these two turns with the usual fingerings as given in parentheses. The solution immediately below the example avoids both problems and conforms with the principle stating that in hand extension, one of the notes at either end of the interval should be taken with the thumb.

### Example 188

Beethoven, *Choral Phantasie*, Finale

**Allegro**

Solution:

Division of labor in an arpeggio longer than one octave will tend to increase both accuracy and velocity.

### Example 189

Chopin, *Ballade No. 3*, 3rd m. of 3rd section      7th m. of 3rd section

**Allegretto**

Should one find it difficult to maintain the tempo in this passage which requires rapid adjustments of the hand from closed to open position, it is advisable to take some of the notes with the left hand at the place where two stretchings can be eliminated at once.

*Example 190*

Beethoven, *Sonata No. 1*, Op. 10, 2nd mov't., m. 28

*Adagio molto*



Similar problems can be encountered in this progression also, but because of the slower tempo and the fact that the left hand is entirely free to help, several solutions are possible, two of which are given here.

*Example 191*

Beethoven, *Concerto No. 5*, Cadenza



*Example 192*

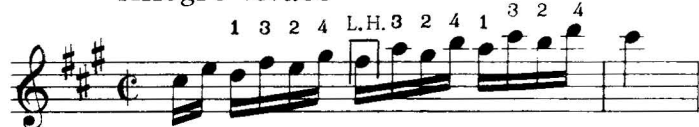


Taking one sixteenth out of a passage of some intricacy may reduce the fingering to simple patterns which would not have been possible had that note remained. By the simple procedure of taking F# with the left hand, an inconvenient 1 on a black key or an inconsistency in a progression of similar intervals was avoided.

*Example 193*

Beethoven, *Piano-Cello Sonata*, Op. 69, 4th mov't., m. 8

*Allegro vivace*

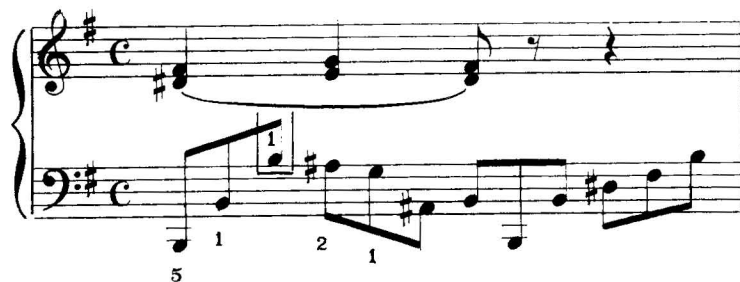


In the music of Chopin, Scriabine and other romantic composers who seek orchestral fullness in their harmony, the bass ranges over more than half the keyboard. Higher notes can be taken sometimes with the right hand if they fall under the hand. Legato and other elements of expression can thus be helped.

*Example 194*

Chopin, *Nocturne*, Op. 72, m. 5

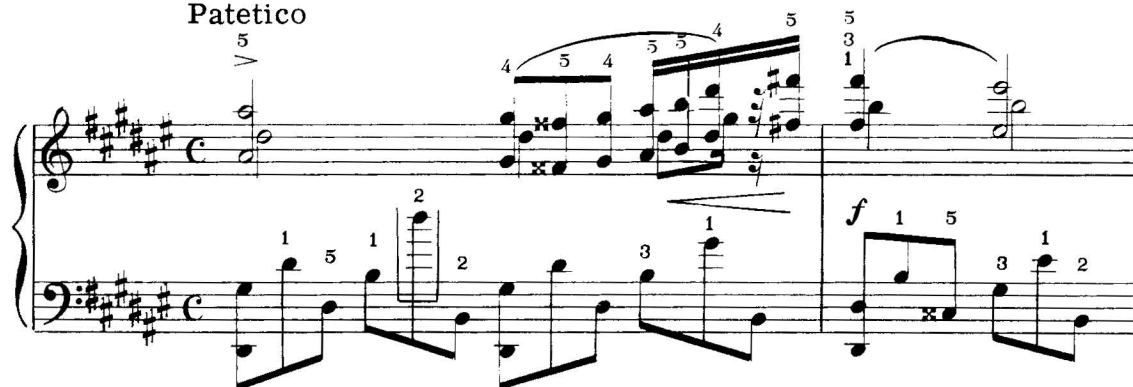
Andante



*Example 195*

Scriabine, *Etude No. 12*, Op. 8, m. 6

Patetico

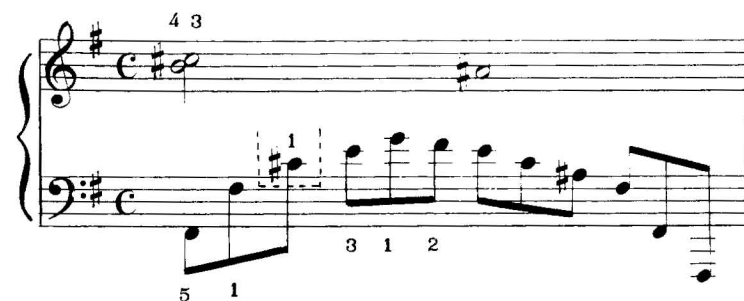


While the choice for the right hand was obvious in the preceding examples, the next one shows that the top notes are not the only ones to be considered.

*Example 196*

Chopin, *Nocturne*, Op. 72, m. 8

Andante



When one hand is forced to play the melody and part of the accompaniment at the same time, the other hand should take over the entire accompaniment whenever possible.

*Example 197*

Beethoven, *Sonata No. 1*, Op. 14, 1st mov't., m. 23 of development section

**Allegro**

*Example 198*

Liszt, *Concerto No. 1*, 1st mov't., m. 52

**Allegro**

On occasion, by taking only one note of the accompaniment away from the hand playing the melody, a much greater ease of execution can be accomplished.

*Example 199*

Chopin, *Ballade No. 3*, Op. 47, m. 1

**Allegretto**

The same idea of freeing the melody-playing hand from any additional chores is applicable in a situation in which all the notes of the harmony cannot be taken with the other hand. In these Chopin examples, the large intervals between the melody and the lowest note of the harmony in the right hand (up to an eleventh), and the fact that the thumbs of the two hands are forced to overlap, will tend to hinder the pianist's concentration on phrasing and tonal beauty. A re-writing of this passage will not only reduce the difficulty in the right hand but also, as a bonus, will reduce it in the left hand too.

### Example 200

Chopin, *Sonata in B-flat minor*, 2nd mov't., m. 5 of 2nd section

The original notation for Example 200 shows a piano piece in B-flat minor, 3/4 time. The right hand has a melody of half notes with a large interval between the melody and the lowest note of the harmony. The left hand plays a bass line of half notes. The notation is complex due to the large intervals and overlapping thumbs.

Rewrite:

The rewritten notation for Example 200 shows the same piece with simplified intervals and phrasing. The right hand's melody is now more accessible, and the left hand's bass line is simplified, making the piece easier to play.

### Example 201

Chopin, *Sonata in B-flat minor*, 2nd mov't., m. 30 of 2nd section

The original notation for Example 201 shows a piano piece in B-flat minor, 3/4 time. The right hand has a melody of half notes with a large interval between the melody and the lowest note of the harmony. The left hand plays a bass line of half notes. The notation is complex due to the large intervals and overlapping thumbs.

Rewrite:

The rewritten notation for Example 201 shows the same piece with simplified intervals and phrasing. The right hand's melody is now more accessible, and the left hand's bass line is simplified, making the piece easier to play.

Crossing hands is sometimes more inconvenient than crossing thumbs. Breaking the passage between the hands will avoid hand crossings, and will help the expression by enabling the right hand to take the top notes.

*Example 202*

Beethoven, *Sonata No. 1*, Op. 14, 1st mov't., m. 5

**Allegro**

The score shows two staves. The right hand (R.H.) plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand (L.H.) plays a sequence of eighth notes: F3, E3, D3, C3, B2, A2, G2. The original notation shows the hands crossing in measure 5. The proposed solution shows the hands breaking the passage, with the right hand playing the top notes and the left hand playing the bottom notes. Fingerings are indicated by numbers 1-5 above or below notes.

Hand crossings that can be outright dangerous to accuracy should be all the more avoided. The jump of more than four octaves of the left hand in Example 198 is rendered superfluous by the solution proposed here. By not indulging in posturing, a pianist may be amiss in showmanship, but may gain a few notes.

*Example 203*

Scarlatti, *Sonata in D major*, m. 78

**Allegro**  
**Allegro**  
Original version

The score shows two staves. The right hand (R.H.) plays a sequence of eighth notes: G4, A4, B4, C5, B4, A4, G4. The left hand (L.H.) plays a sequence of eighth notes: F3, E3, D3, C3, B2, A2, G2. The original notation shows the hands crossing in measure 78. The proposed solution shows the hands breaking the passage, with the right hand playing the top notes and the left hand playing the bottom notes. Fingerings are indicated by numbers 1-5 above or below notes.

**Solution**



The next example is similar.

### Example 204

Scarlatti, *Sonata in D major*, m. 51 of 2nd section

**Allegro**

Those who have trouble crossing hands even a little may try the solution given below. One must be cautioned, however, to listen carefully, when changing from the action of the forearm to that of the fingers, that the same touch quality is maintained.

### Example 205

Bach, *Concerto in D minor*, m. 66

#### Allegro

Original:

Solution:

### Example 206

Bach, *Concerto in D minor*, m. 78

Original:

Solution:

Simultaneous jumps in both hands can result in loss of tonal control. This simple rearrangement reduces the jumping to the left hand alone. The right hand is thus given time to prepare the accent.

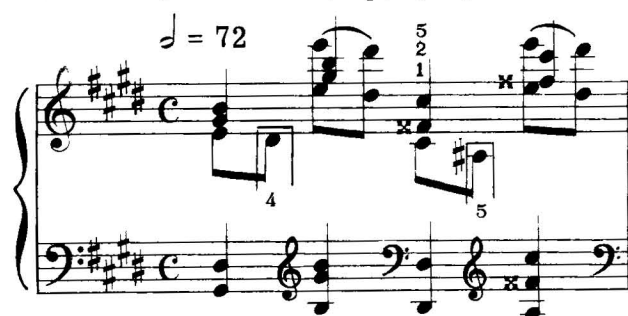
### Example 207

Bach, *Concerto in D minor*, 1st mov't., m. 2

Far more difficult jumps can be made almost accessible by jumping with one hand at a time.

*Example 208*

Scriabine, *Etude No. 5*, Op. 8, m. 5



The same procedure is used later in the same piece.

*Example 209*

Scriabine, *Etude No. 5*, Op. 8, m. 37

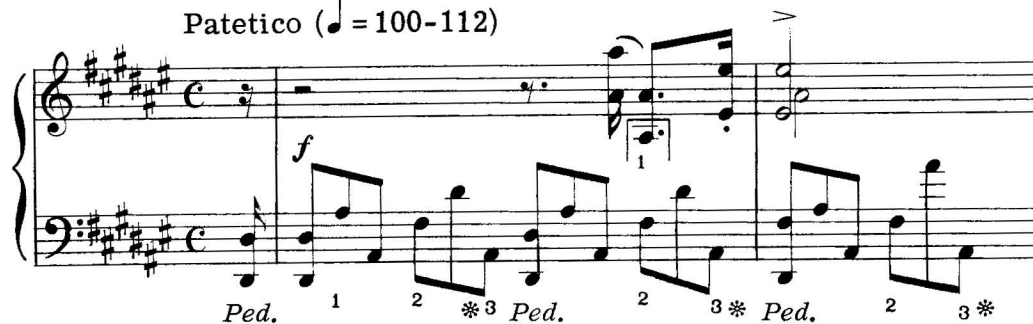


When one hand has to jump in octaves, the distance can be reduced by assigning one note of the octave to the other hand.

*Example 210*

Scriabine, *Etude No. 12*, Op. 8, m. 1

*Patetico* (♩ = 100-112)



Staccato broken chords can be played with more security by reducing the number of turns of the thumb and by placing the greatest number of keys under the fingers.

*Example 211*

Beethoven, *Triple Concerto*, Op. 56, m. 25 of Piano part in development section

**Allegro**

The musical score for Example 211 shows a piano part in development section. The tempo is marked 'Allegro'. The score is in C major, 2/4 time. The right hand plays a sequence of eighth notes, while the left hand plays a sequence of eighth notes. Fingering is indicated by numbers 1-5 above and below the notes.

Repeated notes in fast tempo can become sticky. This comfortable solution will also insure more brilliance to the playing.

*Example 212*

Liszt, *Concerto No. 1*, m. 70

**Allegro marziale**

Original version:

The musical score for Example 212 shows the original version of a piano part. The tempo is marked 'Allegro marziale'. The score is in B-flat major, 2/4 time. The right hand plays a sequence of eighth notes, while the left hand plays a sequence of eighth notes. Fingering is indicated by numbers 1-3 above and below the notes.

Solution:

The musical score for Example 212 shows the solution to the original version. The tempo is marked 'Allegro marziale'. The score is in B-flat major, 2/4 time. The right hand plays a sequence of eighth notes, while the left hand plays a sequence of eighth notes. Fingering is indicated by numbers 1-3 above and below the notes.



## Example 216

Chopin, *Impromptu No. 3*, Op. 51, m. 12

Tempo giusto

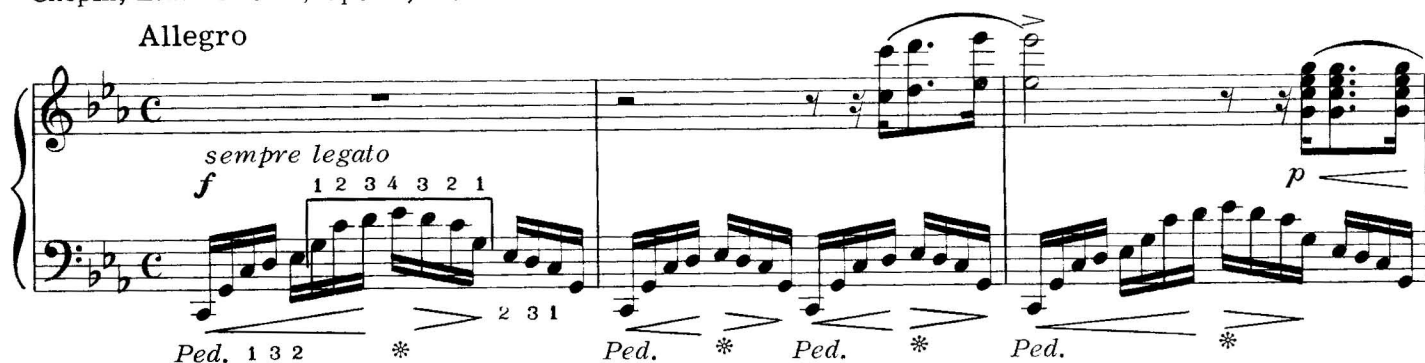


One may justifiably have some reluctance to intrude with one hand in the domain of the other in an etude, where the demonstration of digital prowess is an important object of the piece. Should, however, the musical content be overriding in importance, the desired sound should be obtained by whatever means. The example below proposes to divide the arpeggio when the left hand is completely exposed and the need for sound is greater. The pianist can salvage his pride by playing the same passage with one hand two measures later.

## Example 217

Chopin, *Etude No. 12*, Op. 10, m. 9

Allegro

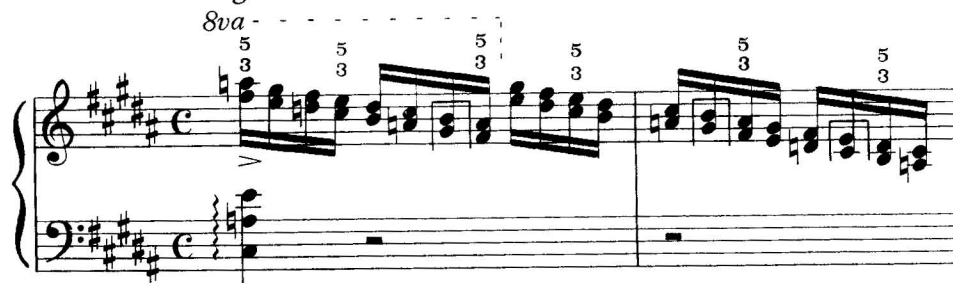


A little help from the left hand in this descending A major scale in thirds will allow a consistent fingering for all the notes taken in the right hand, will avoid thumbs on black keys and give a better chance for speed and clarity in performance.

## Example 218

Chopin, *Etude No. 6*, Op. 25, 18th m. before end

Allegro





## Example 222

Liszt, *Concerto No. 1*, 1st mov't., m. 86

A piacere



Passages recognized as "tricky," because of the many notes that have to be squeezed into a short unit of time, can be played more easily if the problem is considered as belonging to both hands.

## Example 223

Scarlatti-Tausig, *Sonata in E major*, m. 53

Vivace



or even:

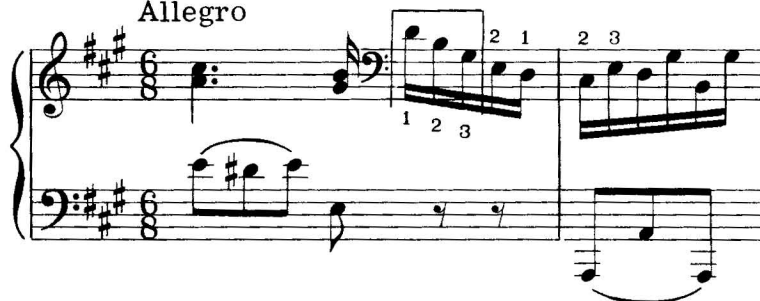


At the point of transition between passages of different figurations or different note values, special care must be employed to avoid abruptness. This can be accomplished by giving a moment of rest to the hand which begins the new patterns in order to allow it to prepare for the desired touch.

## Example 224

Beethoven, *Piano-Violin Sonata No. 6*, 3rd mov't., Var. VI, m. 8

Allegro







The problem of a leap in fast tempo can be solved by taking one of the notes with the other hand.

*Example 229*

Beethoven, *Piano-Violin Sonata No. 7*, 4th mov't., Coda, m. 4

**Presto**

The hand division in these diatonic scales suggests the possibility of dividing every group of eight notes not only twice, but three times, because of the *sforzando* on the last note.

*Example 230*

Beethoven, *Piano-Violin Sonata No. 7*, 3rd mov't., 19th m. from end

**Adagio**

A passage in broken octaves, as the one below, can be understood more easily if the fingering corresponds to the aural image it intends to give. This solution will help the proper accentuation as well.

*Example 231*

Beethoven, *Piano-Violin Sonata No. 6*, 1st mov't., 36th m. of development section

**Allegro**

**Solution:**

By the exact reverse procedure, a finger passage can acquire greater dramatic intensity by being played as alternate octaves.

*Example 232*

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., m. 113

**Allegro**

*p cresc. sf decresc. pp*

Solution:

The 'Solution' shows the original passage with the right hand playing in alternate octaves, indicated by a double line.

## 10. EXPRESSION

Since all the preceding examples were fingered with the purpose of achieving the proper expression, this chapter is intended only as a reiteration of some of the ideas contained in this book. The following two examples of music from different eras, similar in appearance, yet dissimilar in expression, require, nonetheless, identical fingering. Bartok demands absolute legato on the repeated notes. Liszt demands staccato. Legato repeated notes are played better with the same finger because the contact with the key can be maintained in between strokes. Staccatos are played more easily with changing fingers, but in this case the marcato nature of the theme will benefit from the emphatic sound produced by the thumb when used as an extension of the forearm.

*Example 233*

Bartok, *Mikrokosmos No. 145*, m. 1

*Example 234*

Liszt, *Sonata in B minor*, m. 13



An ascending scale, by tradition, implies a crescendo. A descending scale, a decrescendo. If fortissimo is the basic nuance, it is difficult to crescendo further, especially with the left hand. By introducing the right hand at the top of the scale, this element of expression can be realized.

*Example 235*

Beethoven, *Piano-Cello Sonata*, Op. 69, 4th mov't., 20th m. of



Scale passages that must be played with great power and brilliance demand a fingering that satisfies the demand for sound. Considerations for comfort should be of secondary importance. It will be noted that in Example 237 the strongest fingers are used with preponderance and that maximum use is made of the direction tendency of the fingers towards the center of the hand. Grouping, symmetry and reciprocity of fingerings between the hands were also calculated in arriving at this solution.

## Example 236

Beethoven, *Concerto No. 5*, m. 13 from end of concerto

**Più allegro**

The musical score for Example 236 shows a piano and violin duet. The piano part is highly technical, featuring numerous triplets and complex fingerings (e.g., 2 3 1 3, 2 1 3, 3 5 3 1, 3 2, 2 1, 2, 1 3). Dynamics include *f* and *sf*. The violin part has a melodic line with fingerings like 1 3 4, 1 4 3 2 1 3, 2 3 1, 2 3 1, 2 3, 3, 3 1, 1 3 1. The tempo is marked **Più allegro**.

The beginning of this Chopin Etude is an integral part of the composition. It recurs several times in different forms at crucial junctions in the piece. A fingering employing the thumb at the beginning and at the end of the motive will bring out more surely the proper accentuation of these notes.

## Example 237

Chopin, *Etude No. 4*, Op. 10, (a) = m. 1

(b) = m. 46

(c) = m. 50

**Presto**

The musical score for Example 237 shows three excerpts from Chopin's Etude No. 4, Op. 10. Excerpt (a) is m. 1, marked *f*, with a tempo of **Presto**. Excerpt (b) is m. 46, marked *ff*. Excerpt (c) is m. 50, marked *f*. The score includes complex fingering and dynamics. The tempo is marked **Presto**.

The Impromptu, Op. 90, No. 2, by Schubert can be played in many ways, although all too often it tends to sound like a scale exercise. If the performer wishes, however, to take a more moderate tempo and thereby take the time to bring out every triplet with its natural accentuation in the context of the 3/4 meter and of the two, four, or eight-measure phrase, a fingering must be well calculated in order to achieve these ends.

The fingering above the notes is standard and found in many editions. The fingering below the notes is designed to bring out the expression of the music through a conscious relationship between the mind, the finger and the requirements of phrasing.

## Example 238

Schubert, *Impromptu No. 2*, Op. 90

## Allegro

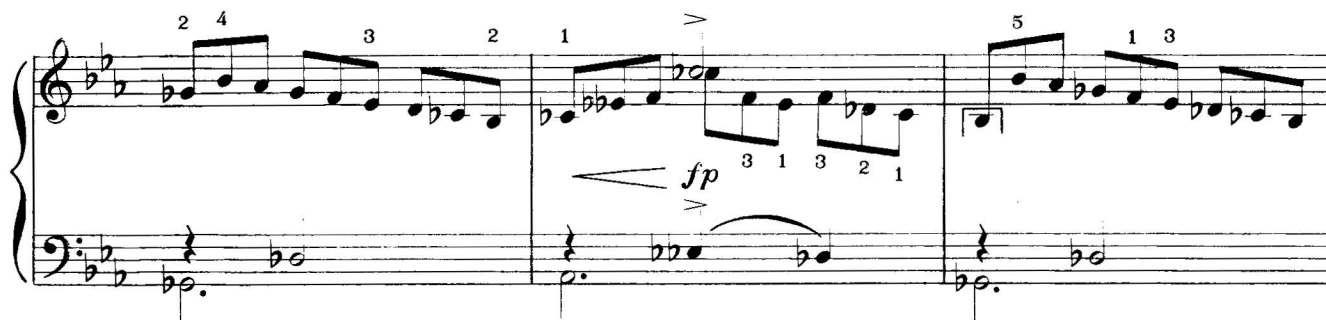
The musical score is written for piano and bass. It consists of six systems, each with a treble and bass staff. The key signature is B-flat major (two flats) and the time signature is 3/4. The tempo is marked 'Allegro'. The score includes various musical notations such as notes, rests, and fingerings. Fingerings are indicated by numbers 1-5 above or below notes. Articulations like 'p' (piano) and 'f' (forte) are present. The score is divided into measures by bar lines. The first system starts with a treble staff containing a series of eighth notes and a bass staff with a single note. The second system continues the melody in the treble staff with some chords in the bass. The third system shows a more complex melodic line in the treble with some chromaticism. The fourth system features a crescendo marking in the bass staff. The fifth system has a forte marking in the bass staff. The sixth system concludes the piece with a final chord in the bass staff.

1 4  
2 4 2 3 2 3  
p  
4  
3  
2  
3 1 2 2 3 4 1  
3 1 2 3 2 1 3 2  
1 2 3 4 2 3  
1 3  
1 1 1  
1 5 3 3  
2 5 4 3 2 1 3  
2 1 1 1  
3 4  
3 2 1  
3 1 2 3 4 1  
3 1 2 3 2 1 3 2  
1 2 3 4 2 3  
1 3  
1 1 1  
1 3 3  
2 2 2 3 5  
2 3 1 2 2  
cresc.  
3 4  
2 2 2  
2 1 3 2  
1 3  
1 3  
1 3  
1 3  
1 5 3 2 1 3 2 3  
1 5 4 3 3  
2 5 3 2 3 2  
2 5 4 3 2 1 3  
2 5  
3  
3

Several measures later in this composition there is a legato problem, which can be solved with the aid of the "Ten-finger" concept.

*Example 239*

Schubert, *Impromptu No. 2*, Op. 90, m. 25



The *sforzandi* in the closing cadences can be played more effectively by resorting to a solution derived from the same concept.

*Example 240*

6th m. before B section



While the *sforzando* in the preceding example was played with the thumb (the preferred finger for this kind of expression) simply because it was available, the power of 3 can be employed as the nearest substitute when the thumb is not available.

*Example 241*

m. 46



The next 4 examples are, from the point of view of the notes, almost identical. The key is C major in each case. The melodic formula is one: a progression of ascending broken thirds.

There is an essential difference, however, in the musical intent of these progressions. Example 242 is part of a virtuoso cadenza, in which speed is the only aim. A fingering with maximum recovery potential is therefore the best.

### Example 242

Beethoven, *Concerto No. 3*, 3rd mov't., 57th m. before end

**Cadenza**

R.H. 1 3 2 4 1 3 2 4 1 3 2 4 1 3 2 4 1 3 2 4 1 3 2 4 1 3 2 4 1 3

The next example is also virtuosic, but in a different way. The composer demands a feathery touch which is generally difficult to execute. The fingering is given by the composer.

### Example 243

Beethoven, *Sonata No. 1*, Op. 31, 2nd mov't., m. 74

**Adagio**

R.H. 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3

*leggieramente*

The slurs of the third example convey the image of bowing. A slight *détaché* between the two-note groups and an even attack on the first note of each group will be facilitated by a fingering which corresponds to the visual image of the music.

### Example 244

Beethoven, *Concerto in D* - Transcription of Violin Concerto by the composer,  
1st mov't., m. 9, recapitulation section

**Allegro**

R.H. 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4

A final example of this same passage shows a fingering which corresponds to the grouping of the notes by six.

### Example 245

Beethoven, *Piano-Violin Sonata No. 2*, 1st mov't., m. 9, development section

**Allegro**

R.H. 2 3 4 1 2 3 4 1 3



The necessary separation between the two-note slurs can be ensured by different fingering for each slur.

*Example 246*

Beethoven, *Piano-Violin Sonata No. 7*, 4th mov't., m. 83

R.H. Allegro

*Example 247*

Beethoven, *Piano-Violin Sonata No. 7*, 4th mov't., m. 1

L.H. Allegro

The two measures below are identical in expression. They should, therefore, have identical fingering. The fingering of the A major scale would be inappropriate because it would be grouping these notes as five and three.

*Example 248*

Beethoven, *Piano-Violin Sonata No. 2*, 1st mov't., m. 5

Allegro

For maximum control of expression, a short trill should be measured.

*Example 249*

Beethoven, *Piano-Violin Sonata No. 6*, 1st mov't., m. 34

Allegro

A measured trill should be played with the fingers which will ensure clear rhythmic grouping.

*Example 250*

Beethoven, *Piano-Violin Sonata No. 6*, Var. VI, 12th m. from  
end of Sonata



*Example 251*

Beethoven, *Piano-Violin Sonata No. 7*, 1st mov't., m. 9



## Conclusion

A pianist's view of the music he plays, his level of artistic discipline, his musicianship and technical know-how, are all so well reflected in his fingerings, that one could say without much fear of error: "Show me your fingerings and I will tell you how to play." This is by necessity so, because searching for an appropriate fingering is a creative process that is integrated with the search for expression and meaning in music.

A pianist who has a clear idea of the exact duration and intensity values for every note in a phrase will also know which finger plays each note.

From an ideal pedagogical viewpoint, it must be stressed that all fingerings should be decided upon from the outset when learning a new piece. Problems should be quickly identified and a judicious choice be made among the possible solutions. This will obviate the need for later corrections, which are always more difficult since they involve a superimposition of habits. Accordingly, even beginning students should be trained to think logically about musical and digital matters and about the ways to integrate these two.

There are some pedagogues who believe that fingerings should be made more difficult than necessary in order to strengthen the weaker fingers. They prescribe, for example, the repeated use of the sequence 4-5-4 in passages where other fingers would do better. The view held in this book is that such unnatural sequences should be avoided in a piece that is musical in intent. Exercises for the benefit of the tendons between the last three fingers can be devised for other times, and should be considered separately, outside a musical context. Problems of musical nature are so difficult to evaluate and clarify objectively that, with the addition of artificially created muscular difficulties, they may become insuperable.