THE THEORETICAL AND PRACTICAL METHOD FOR CELLO BY MICHEL CORRETTE: TRANSLATION, COMMENTARY, AND COMPARISON WITH SEVEN OTHER EIGHTEENTH CENTURY CELLO METHODS

VOLUME I

Thesis for the Degree of Ph. D.
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CHARLES DOUGLAS GRAVES
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This is to certify that the

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THE THEORETICAL AND PRACTICAL METHOD FOR CELLO BY MICHEL CORRETTE: TRANSLATION, COMMENTARY AND COMPARISON WITH SEVEN OTHER EIGHTEENTH CENTURY CELLO METHODS

presented by

Charles Douglas Graves

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THE THEORETICAL AND PRACTICAL METHOD FOR CELLO BY MICHEL CORRETTE: TRANSLATION, COMMENTARY, AND COMPARISON WITH SEVEN OTHER EIGHTEENTH CENTURY CELLO METHODS

Volume I

and

Volume II

By

Charles Douglas Graves

AN ABSTRACT OF A THESIS

Submitted to
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ABSTRACT

THE THEORETICAL AND PRACTICAL METHOD FOR CELLO BY MICHEL CORRETTE: TRANSLATION, COMMENTARY, AND COMPARISON WITH SEVEN OTHER EIGHTEENTH CENTURY CELLO METHODS

By

Charles Douglas Graves

The Methode Theorique et Pratique pour...Violoncelle, 1741, by Michel Corrette is the earliest complete tutor for cello in existence. Its preface discusses the new prominence which the cello had attained and the reasons why it was becoming preferred to the viola da gamba. The second section deals with the principles of music helpful to the cellist and contains information relating to performance practices of the time. The main section of the Method treats the technical aspects of playing the instrument.

The purposes of this paper are:

1) to present this work in its entirety in an English translation. Most publications concerned with the development of the cello in the 18th century mention the Corrette Method. However, the only part of the work that is discussed is his unique method of fingering which is usually condemned or dismissed as an eccentricity without attempting to understand it. A complete translation will permit the English reader to make a complete evaluation of the work.

2) to comment on all aspects of the method and discuss in what manner it gives evidence of the use of the cello in the middle of the 18th century.

3) to compare Corrette's Method with those of his contemporaries. The works of Pierre Hyacinthe Azais, Jean Baumgartner, Robert Crome, François Cupis, John Gunn, Salvatore Lanzetti, and Joseph Bonaventure Tillière are compared with the Corrette Method and appear in the Appendix.

The Commentary section of this paper is limited to facts presented by Corrette. The aim of the Comparison section is to make general comparisons rather than detailed commentary on each of the seven other methods.

In this thesis the modern term "cello" is used rather than the antiquated "violoncello" which is no longer in common usage. Since the shortened form without apostrophe is now widely accepted, it seemed appropriate for both the translation and the subsequent sections of this paper.

An attempt has been made to provide as literal a translation as possible in order to preserve the style of the original manuscript.

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The acquisition, compilation, and organization of the material in this thesis has been the result of a cooperation of efforts. It was the assistance of many concerned and knowledgeable people giving selflessly of their time which made the completion of this project possible.

Sincere thanks are extended to the staff of librarians at the Bibliothek der Gesellschaft der Musikfreunde, Vienna; the Bibliothèque du Conservatoire Nationale de Musique, Paris; the Bibliothèque Royale, Brussels; and the Library of the British Museum, London. The method books which form the Appendix were made available from their collections.

Two members of the Department of Romance Languages at Michigan State University were of great assistance—Mrs. Ursula Franklin for her translations of several German texts and Mr. Leonard Rahilly for his reading and verification of the author's translations.

Special thanks are due Dr. Hans Nathan who suggested the topic of the thesis and gave me advice and encouragement in my work, and whose microfilm of the Corrette method and enthusiasm for the project inspired the work to its completion; Mr. Louis Potter, whose advice and counsel on cello pedagogy have provided the insight necessary to deal with the major problems of the paper; and Mr. Richard Klausli,

whose keen observations and perceptive comments helped the author maintain direction in his work.

Without the technical assistance of the above and the understanding and sympathy of my wife, Rolande, this task would have been impossible.

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THEORETICAL AND PRACTICAL METHOD

For learning, in a short while, the Violoncello to perfection

CONTENTS

The principles of music with some exercises for one and two violoncellos.

The division of the string in order to place, if one wishes in the beginning, some lines across the fingerboard of the violoncello.

Moreover, a small method particularly for those who play the viol and who wish to play the violoncello.

Composed by Michel Corrette

Opus XXIV

Price 6 pounds in silver

Available from: The Author — Rue St. Honoré, across from the Auditorium next to the Villa Constantinople. Mr. Boivin — Rue St. Honoré at the Regle d'Or. Sr. LeClerc — Rue du Roule at the Croix d'Or. At Lyon from Mr. deBrotonne — Rue Mercière

With the privilege of the King 1741

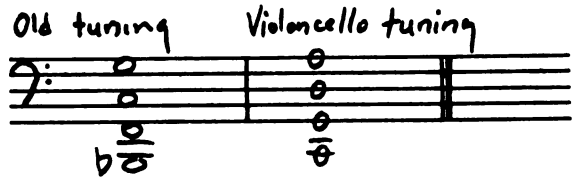
Noble Soutien de l'harmonie
Qu'avec Majesté tu nous sers,
Par ta divine Mélodie
Tu donnes l'Ame à nos Concerts.

PREFACE

For 25 or 30 years the large bass violin tuned in "G" has been abandoned for the violoncello of the Italians, invented by Bononcini, presently Kapellmeister to the King of Portugal, its tuning being one tone higher than the old bass which gives it a much wider range.

This instrument is actually at the octave below the alto of the Italians or the laquinte de violon of the French which plays on the "C" clef positioned on the third line. This also, although always neglected in solos (le Concert) is, however, very useful in the orchestra (les Concertos).

Example 1



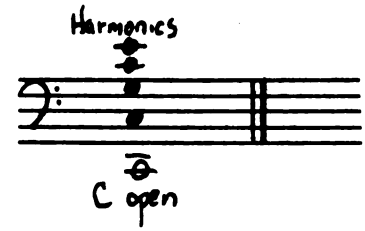
The cello is much easier to play than the old bass violin its ancestor, being smaller and as a consequence the neck less thick which gives complete freedom to play the difficult bass parts and even to execute some pieces which sound as well on this instrument as on the viol.

Although most composers of sonatas and cantatas from the beginning of the century composed the bass parts for the viols (because before the cello was invented the large basses mainly played music for large chorus), that does not keep the cello from playing them with applause. This is

not meant to diminish the success of the viol which has shone in France since Ste. Colombe, master of the viol, added the 7th string until the happy introduction of the cello in Paris by Mr. Batistin Struck and L'Abbé—both virtuosos.

Presently at the King's Chapel, at the Opera, and in concerts it is the cello which plays the basso continuo.

Example 2



It is true that the sound of this beautiful instrument carries much farther than all others. This can be noticed when one listens to a concert at night at a distance and the cello is the first to strike the ear. If one bows on one of the open strings, especially the fourth, one hears, besides the principal note of the string, the octave, the twelfth, the fifteenth, and the major seventeenth which follow the plan shown by the numbers: C(1), C(2), G(3), C(4), E(5). But the fundamental sound of the string is C—that which carries the best, because for the others it is necessary to listen closely.

However, it is certain that the perfect tuning, which is composed of the third, fifth and the octave, gets its origin only from harmonic sounds that the principal sound of a bowed open string gives by its vibration and rebound. Because when the sound C vibrates, the octave(2) sounds, the 12th(3), the 15th(4), and the 17th(5) also sound. Thus a single open string sounding makes audible all the consonances—that which all reasonable and harmonic bodies cause

to sound—but especially on the fourth C string of the cello and on the four strings of the contrabass.

If all countries give preference to the cello to play the basso continuo it is not without reason, the bass being the foundation of the harmony. It is thus necessary to choose the bass instrument which is the most sonorous and with which one can play all sorts of music: powerful, simple, figured, etc. Because a music which lacks a strong bass becomes insipid in such a way that the music without bass always leaves much to be desired by the ear.

Those jealous of the cello will always lose their arguments against the progress which it makes every day. To all others, the cello satisfies ears sensitive to harmony. Also, voices are charmed to be accompanied by it, realizing that nothing makes them shine like the accompaniment of this sonorous instrument which articulates so well its tones and speaks so distinctly — so different from the instruments which only make cymbal-like and nasal sounds to which it is necessary to ask each minute the name of the note which they have just played, the ear having heard only a confused noise which forbids hearing all the beauty of the harmony of which the bass is the principal object.

It relates itself also very well to the transverse flute; and the violin could never be better accompanied than by the cello which is its true bass being of the same family.

Since until now there has not been a Method published

for this instrument which is so useful to music, I believe that the public will not be angry to have the true approach which is used now by the great masters. I even give a new way to learn its fingerboard which seems to me very easy, since by the knowledge of the fingering of a single string one will know the others which are all tuned in fifths. This will be explained and demonstrated in Chapter 6.

I give the division of the string so that in the beginning one can have his luthier mark the notes or make an engraving with ivory or mother-of-pearl with horizontal lines on the fingerboard in following the division that I have marked beside the string in fractions. This will give much facility in learning to play correctly in a short period of time.

If one wishes to follow this method for two or three months only, and until the ear can sense at what distance from the nut the notes are fingered, it will be possible to advance more than one could in six months while learning to finger the notes by chance.

Also notice that those who play the viol learn the fingerboard of the cello more easily than the others, having already the mechanism of the fingers and nearly the positions of the cello, which they have acquired by the use of frets which are on the neck of the viol.

Thus I do not see what scruples one could have in the beginning when everything seems difficult, against marking on the fingerboard the 12 half-steps of the octave.

It gives to the student the facility to be able to study alone the lessons which his teacher has given him which he would absolutely not be able to do when he is obliged to search hesitatingly for the tones and half-tones on the fingerboard where he sees nothing marked. In the case he is already an accomplished musician the ear can guide him.

Thus, wishing to act without fault to anyone and without prejudice, by following this system one will no longer see students quitting the cello after a dozen lessons—the most part of them disgusted by having had to work blindly and by chance.

To the rest of those whom new discoveries never please in spite of the good which results, they can also learn the fingerboard of the cello in Chapters 4 and 5 where the old method is found which can be useful to teach them.

I also give another position which derives from the old basses tuned to G which some have applied to the cello having left the large bass violin without having left its position. This group forms several sects among the cellists. But the most general and the best approach is that of Bononcini of which the expert masters of Europe avail themselves.

Lastly, I have attempted to put in this Method all which appeared to me to be useful to students and to those who are already advanced. It remains to me to wish that under pretext of abridging it somewhat, a plagiarist dares rob it of its content—the honor which they conferred upon my Method for Flute.

Catalogue of the Works of M. Corrette

Solos for Flute or Violin with Bass

1. Method for violin
2. Opus I solo
3. Opus XIII solo for flute
4. Opus XIX solo for flute
5. Method for treble viol (pardessus de viole)

Pieces for clavecin and for organ

1. Opus XII for clavecin
2. Opus XVI for organ
3. Opus XXV sonatas for clavecin with an accompaniment for violin or viol
4. Book of Noels for organ or for clavecin
   The Amusements on Parnassus
   Evening songs and pretty popular airs with variations for clavecin
5. Method for clavecin
6. Method for clavecin Book II
7. Second book for organ

For the Musette or Vielle

1. Opus V Duo and Solo
2. Opus VI Trio
3. 20 Comic Concertos
4. Opus VII 6 Concertos
5. The Master of the Clavecin for the art of accompaniment containing lessons for singing with clavecin accompaniments

Sonatas for Two Flutes or Violins

1. Method for Flute
2. Opus II
3. Opus XXI
4. Opus XXII
5. Opus XXIII
6. English songs arranged for two flutes

Trio Sonatas for Flutes or Violins

1. Opus X
2. Opus XIV
3. Opus XV

Sonatas for Violoncello

1. Method for Violoncello
2. Opus XX for two Basses
3. Phoenix Concerto for four Basses

Catalogue - continued

Vocal Airs

1. Opus IX
2. Opus XI
3. Opus XVII
4. Jeanne, cantatille
5. The Relaxations of the Spirit
   Book I
   Book II
   Book III
6. The Birth of the Musette, cantatille
7. The Return of the King, cantatille
8. The Butterfly, cantatille

Concertos for Flutes or Violins

1. Opus III
2. Opus IV
3. Opus VIII — Comic Concertos
4. 20 Concertos
5. 5 Christmas Concertos
6. 6 Sonatas from Opus I of Giovanni Mossi arranged as a Concerto Grosso for 4 violins, viola, violoncello obligato and organ

Pieces for French horn or Trumpet

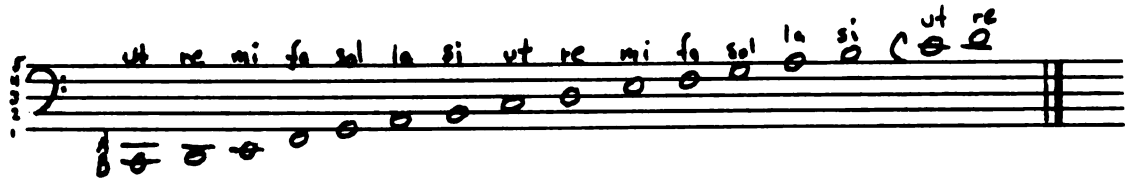
1. Hunting Calls
   First Collection
   Second Collection

PRINCIPLES OF MUSIC FOR THE VIOLONCELLO

Chapter I

The clef which is used most often for the cello is the "F" clef situated on the fourth line.

Example 3

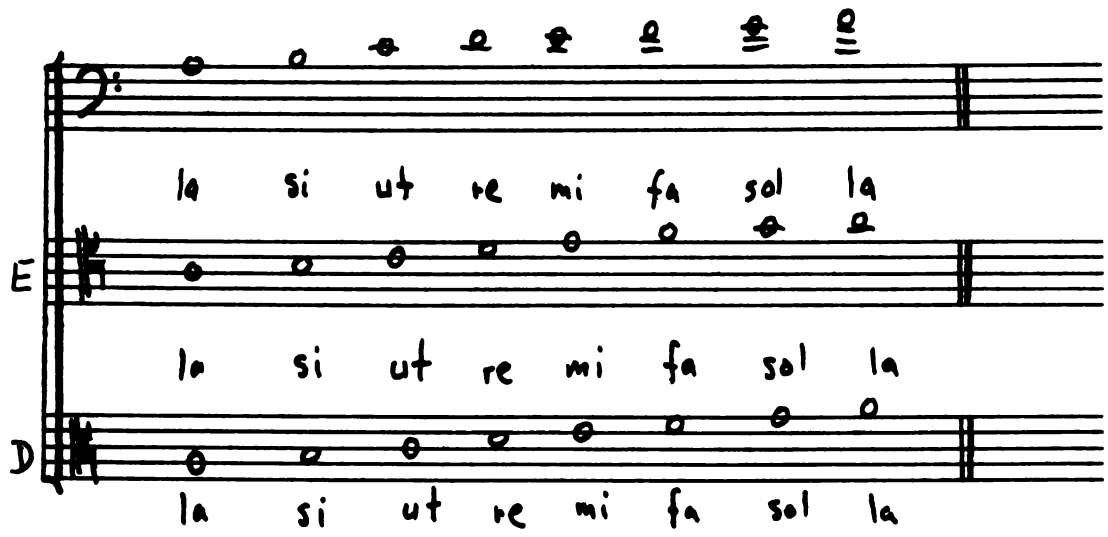


The range of the cello without shifting; that is to say without moving the hand toward the bridge, is a sixteenth.

The lines (A,B&C) above and below the five of the staff are to fill out the range of the cello. The lines at A and B are for notes on the large string which is called the fourth or C string. And those [lines] added above are for the high notes on the first string called the chanterelle. But when there are many notes higher, one uses one of the four clefs to avoid putting so many lines above the staff. This makes it easier to read the high notes. Thus it is well to know two C clefs: one placed on the third line (ex.D) which the French use most often, and the other placed on the fourth line (ex.E) which the Italians use. See Corelli, Albinoni, Vivaldi, Valentini, etc. The other

two C clefs — one on the first line and the other on the second — are hardly ever used on the cello.

Example 4

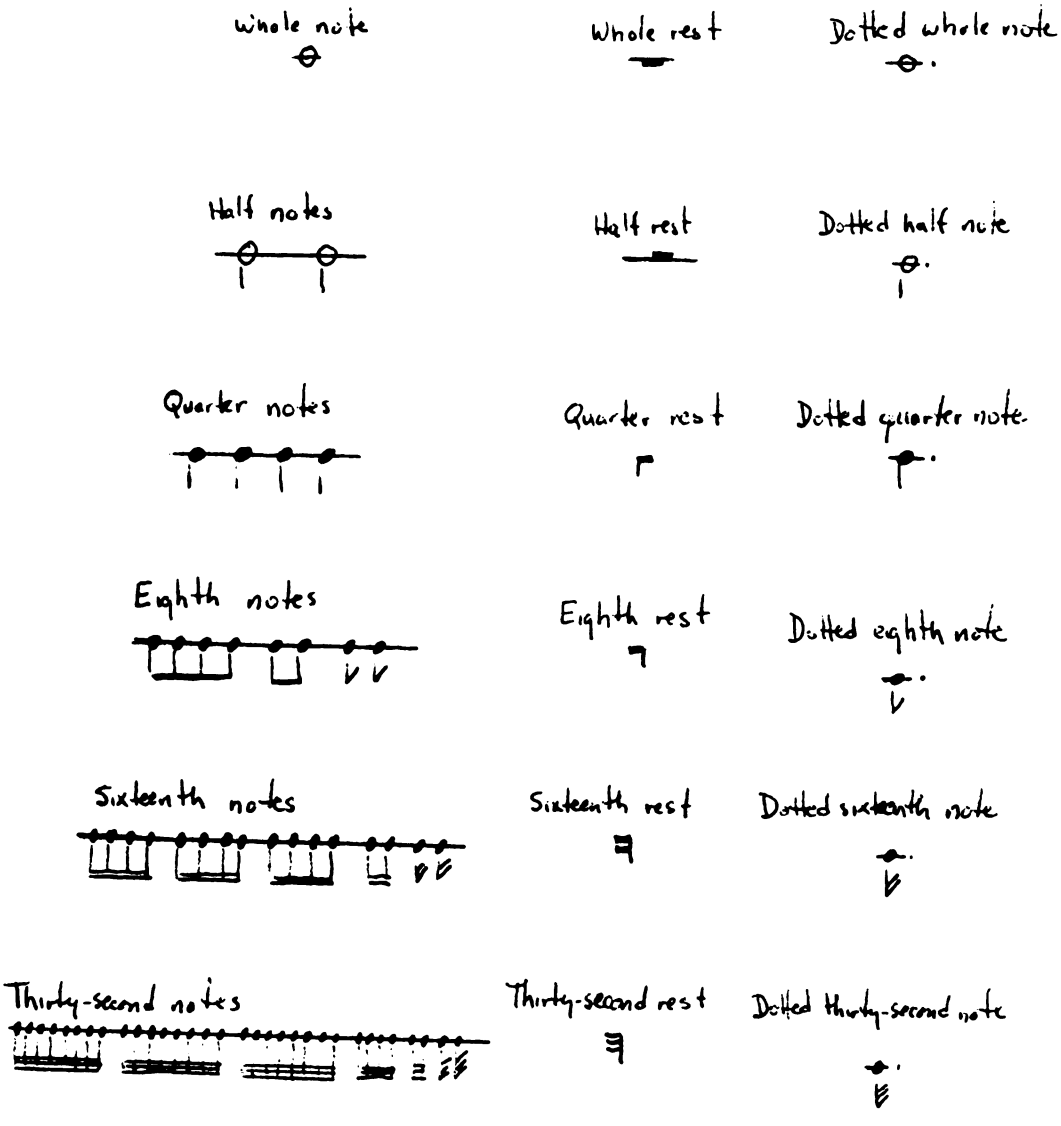


Chapter II

The Values of Notes and Rests

The notes are divided into six different values: whole, half, quarter, eighth, sixteenth, thirty-second. The longest is the whole note.

Example 5

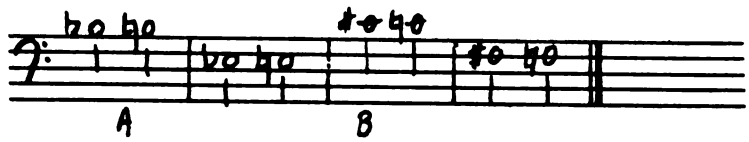


Chapter III

Sharps (#), Flats (b), and Naturals (♮)

The sharp raises the note and the finger a half-step. The flat lowers the note and the finger a half-step. The natural returns the note to its natural form. Thus the natural raises the note A flat and the same natural lowers the note B sharp.

Example 6



The sharps and flats near the clef sign at the beginning of the piece serve for all the notes which are placed on the staff and for those an octave higher and lower.

Remark on the Natural

The Italians put the natural sign at the beginning of a measure when they wish to change from major to minor mode in the same key in the same piece. See the First Book of Sonatas of Mr. Geminiani, page 30, in the first Adagio, third measure——London edition, and page 32——Paris edition.

Chapter IV

The Signs Used in Music

The barlines, (|) mark off the measures. The double bars with dots (𝄆 or 𝄇) mark off the middle or the end of a piece. Each half is played twice.

The return means to begin again at the place where one finds the same sign elsewhere.

Sometimes the word da capo is found at the end of ariettes, cantatas and at the end of concertos in the place of the return  . It means, like the return, to begin again at the beginning of the piece and play until the word "fin" is reached.

The guidon is put at the end of the lines to indicate the note which is found on the following line.

(For the cadence or tremblement see Chapter X.)

Chapter V

The Measure

The measure is beat with the foot and always on the note which follows the bar-line.

There are three types of measures: those having two beats, three beats, or four beats. All the other ways of counting a measure [may be] reduced to these three.

The Measure with Two Beats

The measure with two beats is indicated in French music by a 2 in putting four quarter notes [in a measure] or the equivalent.

In this measure the Italians hardly ever use this method to mark the measure with two beats, writing, understandably, two beats as the half of four beats. Thus, they mark 2/4 with two quarter notes or the equivalent. This is why this method is without doubt the easier: the quarters and eighths are played as in a four-beat measure which

will be explained below. See also the exercise on page 28 for the example of measures in two.

The two-beat measure marked in 2 is used in French music for rigaudons, branles, vaudevilles, cotillions, gavottes, etc.

It is necessary to play the second note faster.

The Measure with Three Beats

This measure is marked in Italian music by 3/4 and in French music by a 3 alone, three quarter notes or the equivalent. In each measure the eighths are played equally in Italian music as in the Courante of the Seventh Sonata of Corelli.

In French music, the second eighth note on each beat is played faster as in the Chaconne of Phaeton of Mr. Lully, but they are sometimes played equally when there are sixteenth notes. That is frequently found in the chaconnes and passacaglias of which examples are the Passacaglia from Armide of Mr. Lully and in the Chaconne from Les Indes Galantes of Mr. Rameau. See page 28 for different ways of writing measures in three.

The Measure with Four Beats

The measure with four beats is marked with a C. The eighth notes are played equally and the sixteenths are joined in groups of twos. That is to say that the first of each beat is long and the second short. They are sometimes played equally in adagios, allegros, and prestos of sonatas and concertos. See the Adagio of the Fourth Sonata of my Opus

XIV Trios in the cello part—page 6, measure 12. This measure contains two measures of 2/4.

In order to more easily play the adagios and largos with four beats in a measure one can beat twice. That is to say, divide the measure in two and beat on the third beat after having beat on the first. But in the fast movements it is useless to divide the four-beat measures.

The ¢ measure is played with two beats by the French and in the fugues da capella of the Italians, but some composers designate the four-beat measure with a ¢. See the works of Guglielmo Fesch and the first Allegro of the XIth Concerto, Opus VII by Antonio Vivaldi—Holland edition.

The Measure with Two Compound Beats

The first type is that which is marked 6/4 and has three quarters or the equivalent for a beat. This measure has the appearance of a ternary measure but is beat like a binary measure or in two. This measure is used for slow pieces like the loure; the Italians use it very seldom.

The second type of measure with two compound beats is that which is marked 6/8. It has three eighths or the equivalent for one beat. This measure is used for gigues and other fast pieces. See the exercise on page 28 where the examples of two and four compound beats are found.

Note

In all types of movements which one would call lopsided, it is necessary to emphasize the third note of each beat a little more with the bow—the first two executed

a little more gracefully than the third, especially in the pieces in a slow tempo like adagio, largo, andante, affettuoso. Examples are the affettuosos of the sonatas of Mr. Senaillé and Mr. Aubert.

Gigues in Three

Gigues with three beats per measure are notated ordinarily with 9/8. There are three eighth notes per beat. This measure contains one and one-half measures of 6/8 or three-quarters of a 12/8 measure. See page 29.

The sign 3 above or below three notes means that they are given the value of one beat.

Chapter VI

Ties

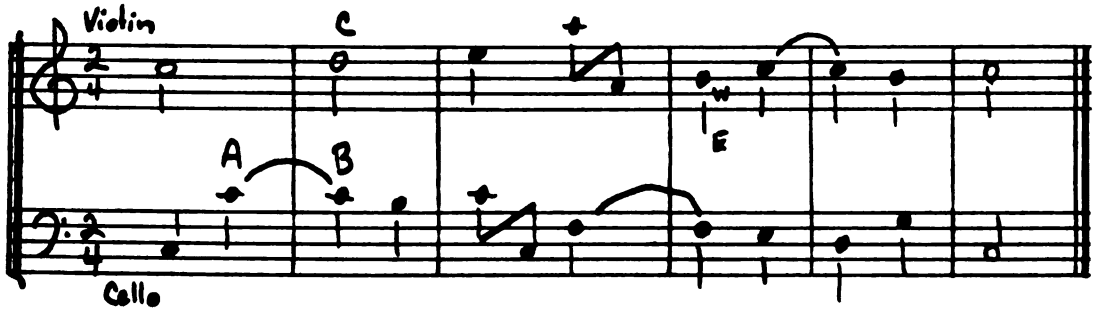
A tie is the name of the mark ⁀ above or below two notes situated on the same scale degree. The first note is found on the up-beat and the second on the down-beat. This sign shows that it is necessary to hold the same stroke of the bow but giving a little more force on the second note to highlight the dissonance which is always found above.

1. If the tie is found on the tonic note, the note above the second tied note produces the interval of a second (ex.c).

2. When the tied note is the fourth [note of the scale], the note above it forms an augmented fourth called a tritone or sometimes a second which is the accompaniment of this sound.

There are tied passages which are difficult to execute.

Example 7



CELLO METHOD

Chapter I

How to Hold the Cello

Article 1

In order to play the cello well, it is necessary to sit on a chair or stool of a size proportional as much as possible to one's height so as not to be seated too close to the edge. Then one must place the cello between the two calves, hold the neck with the left hand and slant it a little to the left side. Hold the bow in the right hand and see that the instrument does not touch the ground, since that would dampen the sound. Sometimes a stick is put at the bottom to hold the instrument when it is played standing up. Not only is this position not very handsome but it is also the most contrary for difficult passages. Thus the best way to hold the cello is in the seated position holding the body erect, the head straight, and the feet pointed out. Never point them straight ahead. See the illustration.

Article II

The neck must be held between the thumb, which is held straight, and the second finger of the left hand. It is necessary to curve the hand which holds the neck only as much as necessary for the fingers to touch the strings. Because, to play correctly, it is necessary that

the fingers press down firmly so that one does not make harmonics sound—like the tromba marina.

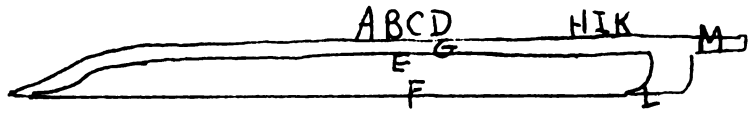
If the hand holds the neck too tightly, the fingers won't be able to work with freedom in fingering the pieces. Besides, sometimes one has to put the thumb on the strings for certain unusual positions. This will be explained in chapter XIII.

The most ordinary position of the hand is to place it near the nut which we will call first position. The hand, in this position, can encompass two octaves and a whole tone from the C of the fourth string (open) to the D on the first string. And when the hand moves from its usual place it is called shifting. That is to say, when the hand descends toward the bridge. In playing on the fourth string one can extend the range forward especially on final notes and when the bow stroke is down-bow.

Chapter II

How to Hold and Move the Bow

Article I



It is necessary to hold the bow in the right hand. One may hold it in three different ways. The first, which is the way used most often by the Italians, is to place the second, third, fourth, and fifth fingers on the stick at points A,B,C, and D with the thumb below the third finger

at E. The second way is also to place the second, third, and fourth fingers on the stick at A,B, and C, the thumb on the hair at F and the little finger poised on the stick opposite the hair at G. The third way of holding the bow is to place the second, third, and fourth fingers on the side of the frog at H,I, and K, the thumb underneath the hair at L and the little finger on the side of the stick at M. These three different ways of holding the bow are equally good and it is best to choose that with which one has the most power. To play the cello it is necessary to have power in the right arm to pull out the sound.

When one is bowing it is necessary that the wood of the bow leans a little towards the fingerboard so that the right hand which holds it will be less impaired. But it is also necessary to be careful that it does not lean too much.

Those who already play the violin easily learn the cello, the bow stroke being the same. But for those who play the viol, they have a little more difficulty in the beginning—the bow stroke being the opposite of that of the viol. That is, what the viol achieves in pulling, the cello does in pushing; and what the cello does in pulling the viol does in pushing. But a little practice easily surmounts this difficulty. Even so, those who play the viol have many advantages in playing the cello, being already in the habit of playing bass parts. Three or four months with a good teacher should suffice.

Article II

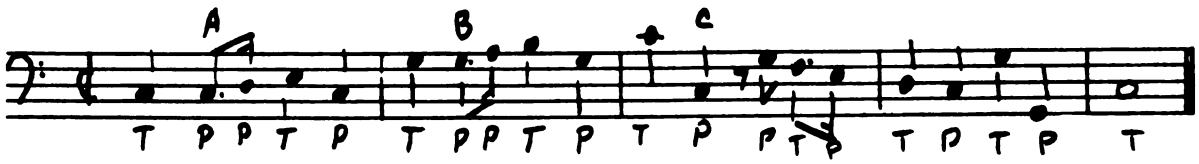
It is necessary to play at the middle of the bow, to bow back and forth without stiffening the arms, pulling and pushing with large, firm strokes of the bow so that the sound will be distinct. Be sure also to bow on the string at three or four fingers above the bridge; bowing too close to the bridge makes the tone dull and false. Ordinarily one plays the notes by pulling and pushing alternatively when the notes are of the same value. However, there are certain times when it is necessary to push two notes in the same bow stroke; and other times when it is necessary to pull two; but the latter is less frequent.

Article III

The Bow Strokes One Makes by Pushing

One pushes two times in the same bow stroke for two eighths or double eighths when the first is required to be pushed (see example at A & B).

Example 8

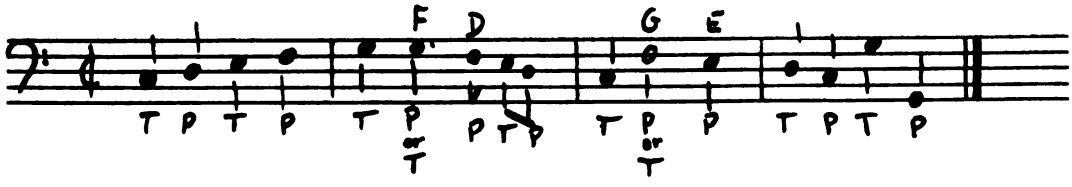


If, at the end of a phrase of a song (as in the example below at C), the last note is pushed and followed by an eighth rest, the eighth note following will always be pushed, the eighth rest representing, in this occasion, the silence

of an eighth note. Thus, all eighths or double eighths must be pushed; the bow stroke which one gives in pushing being naturally shorter than that which one gives in pulling.

When one pushes twice in succession for two notes it is not necessary to retrieve the arm to make the second note. That is to say that the bow stroke divides into two equal parts with this difference. If it is for two eighths, then it will be necessary to bow faster on the second part of the stroke to express the short eighth. If, in the course of a piece a dotted quarter is pushed, it is necessary again to push the following eighth (see D). One also pushes a quarter preceded by a half note played by pushing (E). However, these same passages can be executed by pulling twice in a row then the second bow stroke pulling will be for the long notes (F,G). Thus the two pushed notes in the same bow stroke are found only in the case of two eighths or double eighths when the first of the two is pushed (A,B).

Example 9

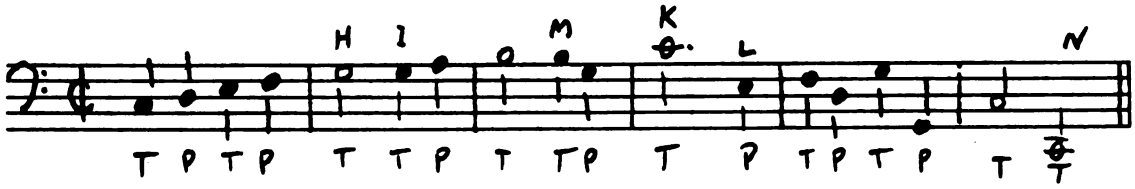


Article IV

The Bow Strokes One Makes by Pulling

Regarding the execution of two successive pulled bow strokes, when at the end of a phrase of a song, the last note is pulled (H). As this note represents one of a pair, it is necessary to pull the one that follows which is also one of a pair (I). But, to the contrary, if at the end of a phrase of a song, the note is not one of a pair (K), the bow stroke of the following note is in the ordinary manner (L). Thus two successive pulled notes are found at the end of a phrase only when the first note is one of a pair and the second is also (L,M,N).

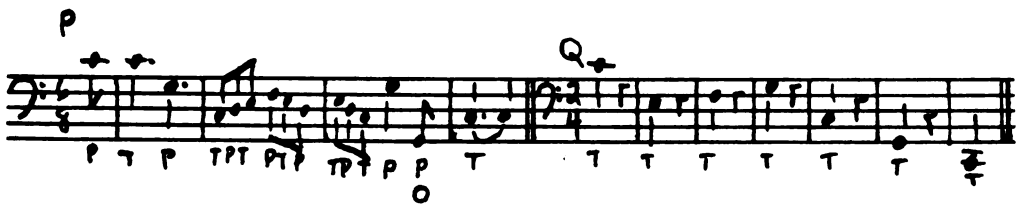
Example 10



In 6/8, 9/8, and 12/8 time the bow strokes alternate. However, if there is a quarter note on the first or second beat of the measure and it is pushed it will be better to push the eighth which follows (O) especially when it leads to the end of a phrase or the end of a piece. It is also necessary to say that if the piece begins on an anacrusis it is more proper to push the first note rather than to pull (P). One also pulls on all notes after quarter rests, half rests and entire measure rests (Q) which are found

quite often in concertos. Besides, it is not necessary in such movements to be a slave to the bow strokes provided that one observes the note values. It matters little to those who listen how the bow stroke is made. I have even heard some Italians who play as the bow strokes come without being concerned about pulling and pushing twice according to the rules that we have just given. Others, to the contrary, sometimes play seven or eight notes in the same bow stroke either up or down as Lancetti, the famous cellist, does. All that goes to show that there is hardly any rule without exception.

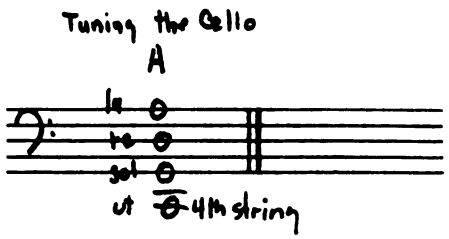
Example 11



Chapter III

Tuning the Cello

Example 12

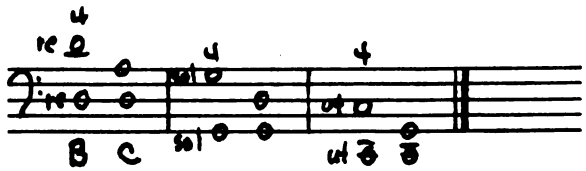


The cello has four strings tuned in fifths. The first is tuned to A, the second to D, the third to G, and the fourth to C. It is on the A of the first string that one

takes the tone from the other instruments. Then one tunes the other strings in fifths. Two different ways are given by which one will be able to hear if the instrument is in tune.

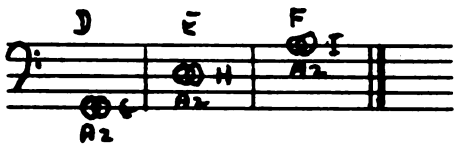
First Method: Place the little finger on the first string at the place where one will have already learned to make D. Then touch with the bow the first and second strings together which should sound octave Ds (see example at B). But if the octaves are not right, it is necessary to raise or lower the second string until one has found the true octave which is, according to Zarlino—Italian author of the sixteenth century—the most perfect consonance. The tuning of the first two strings having been tested by the octave Ds, one will next sound the two open strings so that the ear will become accustomed to the fifth (see example at C). Then one will test the tuning of the other strings in the same manner (see example).

Example 13



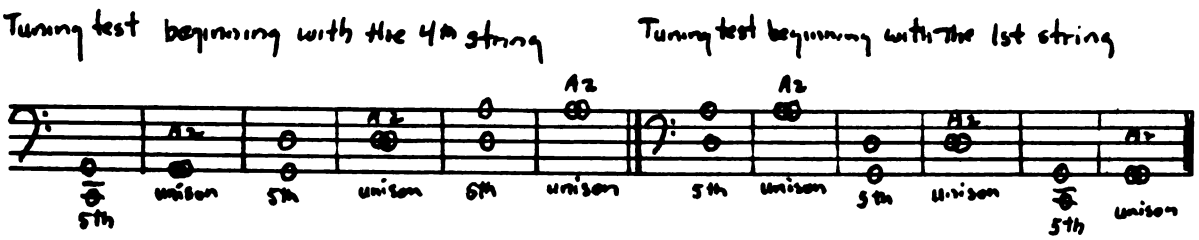
Second Method: One may also test the tuning of the cello by use of the unison (see example at D,E, and F) on the three unisons possible on the cello.

Example 14



It is necessary to shift and put the first finger at the third position and make a unison with the second finger. See chapter VII for the positions. The word unison means the same sound bowed together on two strings without alteration or augmentation of a schisma which is the thirteenth part of a tone or half a comma, according to M. de Brossard. See his dictionary under the word comma. Thus the unison is made on two strings bowed together—one open and the other fingered with the second finger, the hand in third position. When one plays final notes on G,D, and A, it is good to make a unison. That doubles the sound of the final note.

Example 15

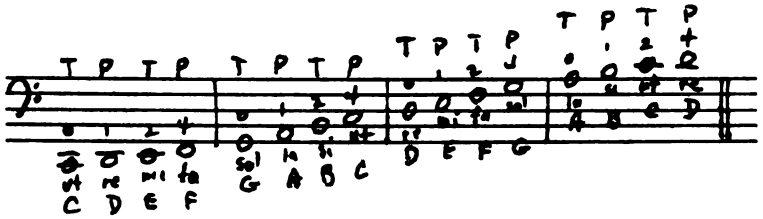


Chapter IV

Demonstration of the Diatonic Range of the Cello

The numbers show the fingers which are necessary to use to play the notes written in the example below.

Example 16



Fourth String

C is the open string—that is to say, without using any fingers of the left hand. D—the first or index finger; E—the second or middle finger, and F—the little finger.

Third String

G is the open string. A—the first finger, B—the second, and C—the little finger.

Second String

D is the open string; E—the first finger, F—the second, and G—the little finger.

First String or Chanterelle

A is the open string; B—the first finger, C—the second, and D—the little finger.

One must notice that to play the C on the first string and F natural on the second string, it is not necessary to advance the second finger as much as to play the

B on the third string and E on the fourth string which are also played, as demonstrated above, with the second finger.

It is necessary to be sure to play with the bottoms of the fingers and see that they touch only one string at a time except when one plays some pieces with chords or when the fingers and bow play on two strings.

It is also necessary to guard against raising the fingers too high. That hinders execution with precision.

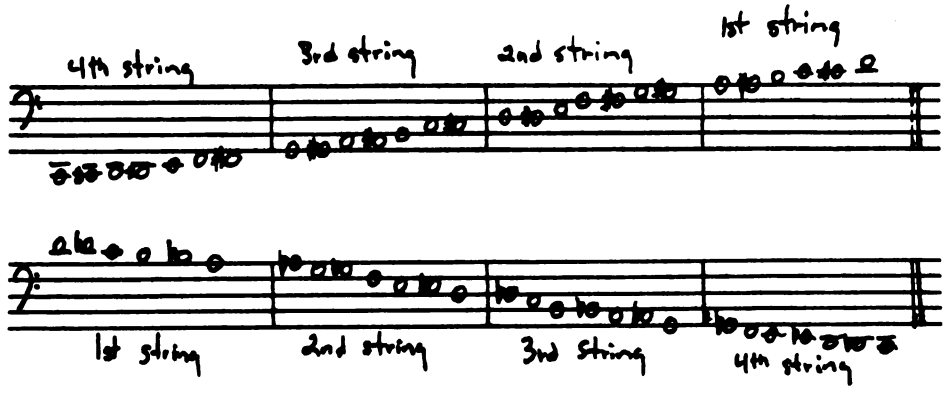
Chapter V

Demonstration of the Diatonic and Chromatic Range of the Cello

where the manner of playing all the steps and half-steps is explained.

It must be pointed out that each finger may raise the sound of the string by a half-step.

Example 17



Fourth String

The fourth string open gives C. One makes the string sound D, which is one step higher, by using the first finger. By putting the finger back a half-step towards the nut, one will play C# or Db. The second finger at the interval of one step from D plays E. Between D and E, Eb is played by pulling the second finger back towards the nut. D# can be played by advancing the first finger a half-step towards the bridge from its usual place. Thus the same place between D and E natural is for D# or Eb. By placing the little finger a half-step above E, one gets F; and if the finger is raised again by a half-step towards the bridge, one will get F# or Gb. See chapter VI.

Third String

The third string open gives G. The first finger positioned a whole tone from the nut gives A and the same finger is used to produce G# or Ab by pulling it back a half-step towards the nut. The second finger at the distance of a whole step from A natural in the direction of the bridge gives B; and by pulling the same finger a half-step in the direction of the nut, Bb is played. A# is played in the same place according to the tempered system. The little finger a half-step above B natural gives C and by advancing it again a half-step towards the bridge, the C# or Db is made.

Second String

This open string gives D. The first finger placed

at the distance of a whole tone from the nut raises the string to E; and the same finger brought back a half-step towards the nut gives Eb or D#. The second finger placed a half-step above E natural gives F; and the same finger advanced a half-step towards the bridge gives F#. The little finger a half-step above F# gives G. To make Gb it is necessary to pull the little finger back a half-step. That is to say, place it on the same place as F#. To play G# or Ab it is necessary to advance the little finger a half-step above G natural. But most often one shifts to play it. This will be explained in the following chapter, article IV.

First String

The first open string gives A. The first finger at the distance of a whole tone from the nut gives B natural and the finger pulled back a half-step towards the nut gives Bb or A#. The second finger at a half-step above B natural gives C and the same finger a half-step higher gives C#. Then the little finger placed a half-step above C# gives D. To play Db it is necessary to pull the little finger back a half-step which will be on the same place as C#. When the little finger is on D natural it is still possible to play D# by raising the little finger a half-step towards the bridge. But it is better to shift to play it with the first finger when it is followed by E or F#. But when the music goes only to E it is necessary to put the first finger in the second position which begins on C

in order to play D with the second and E with the fourth finger. If the music rises to F or G, it is necessary to put the first finger in third position which will be on D— the second finger will be on E, the third on F and the fourth on G. See chapter VII, then it is possible to pass on to the exercises on page 25; but first see the following system.

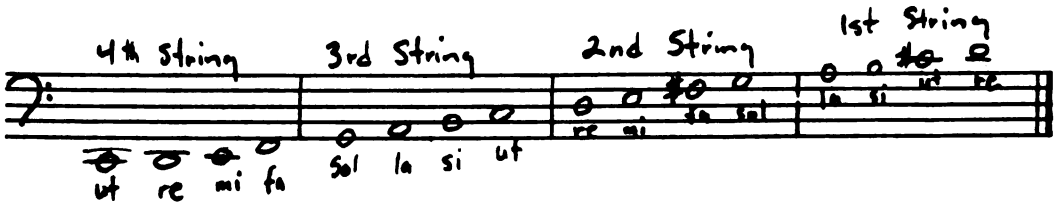
Chapter VI

New Presentation of the True Cello Position

Article 1

According to the presentation which I give here, it is necessary to know how to finger only one string to know the others. The same fingering of the first position on the fourth string which gives C open, D with the first finger, E with the second and F with the little finger, gives on the third string G,A,B,C; on the second string D,E,F#,G; and on the first string it gives A,B,C#,D.

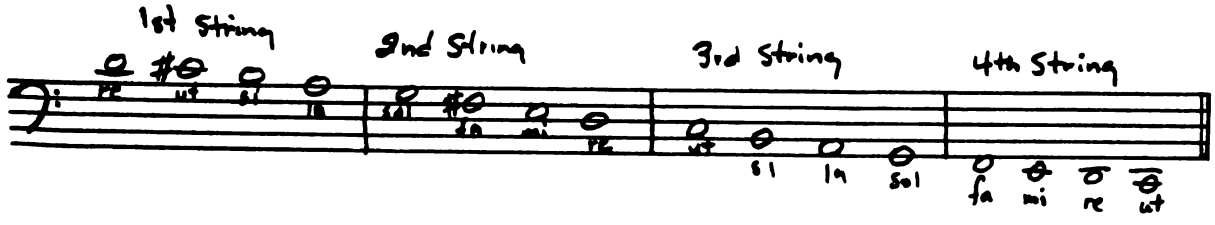
Example 18



This manner of learning the scale is very easy since this instrument is tuned in fifths. It is easy to see that the first finger which plays D on the fourth string will give A, which is a fifth higher than D, when placed on the third

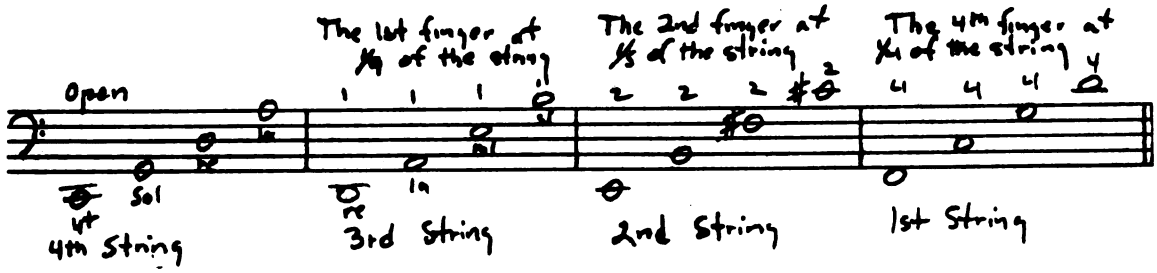
string on the same horizontal line—that is to say, without changing position. That same finger placed on the third [sic] string also in the same position as the preceding notes will give E which is a fifth from A of the third string. Finally, the same finger in the same position played on the first string will give B natural which is a fifth from E of the second string. The same observation may be made for the E of the fourth string which is played with the second finger. At the same distance from the first finger on the third string, B is played which is a fifth from E. The same finger at the same position on the second string will give F# and the same finger placed in the same position on the first string will give C#. In like manner, the position of the fourth finger placed on the fourth string which plays F, also gives C on the third, G on the second, and D on the first. By this system which uses only three fingers in the same position on the four strings, one already knows how to play the sixteen notes above which make two octaves and a tone.

Example 19



When one has thoroughly studied these sixteen notes scale-wise ascending and descending, one will play them next in fifths which will illustrate the simplicity of the system.

Example 20

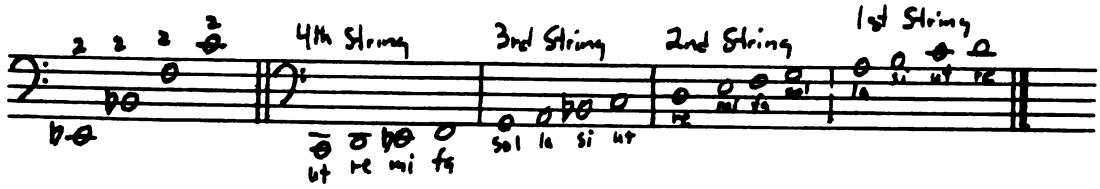


Article II

At present the only other thing to learn is how to finger the Eb on the fourth string, the Bb on the third, the F on the second, and the C natural on the first string. This is easily done by backing up the second finger a half-step towards the nut and the fingers in the same position on the same horizontal line of the fingerboard makes the four notes without changing the hand's position.

Exercise to learn the Eb on the fourth string, the Bb on the third string, the F natural on the second, and the C on the first string.

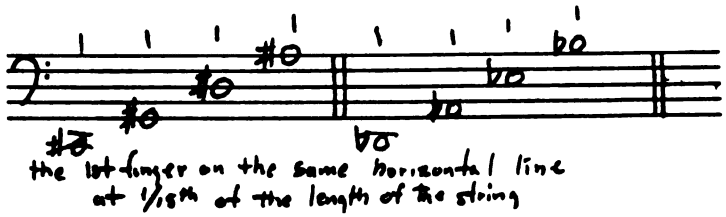
Example 21



Article III

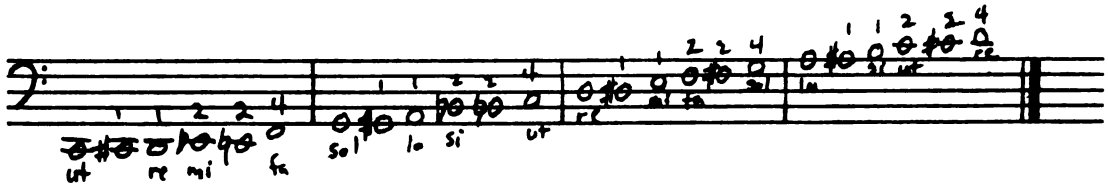
To play C# or Db on the fourth string, the G# or Ab on the third string, the D# or Eb on the second, and A# or Bb on the first string; it is necessary to stretch the first finger back a half-step towards the nut. The first finger in the same position on the same horizontal line will give the four notes of the following example which ascend in fifths.

Example 22



Exercise to practice the C# on the fourth string, the G# on the third string, the D# on the second, and the A# on the first string.

Example 23

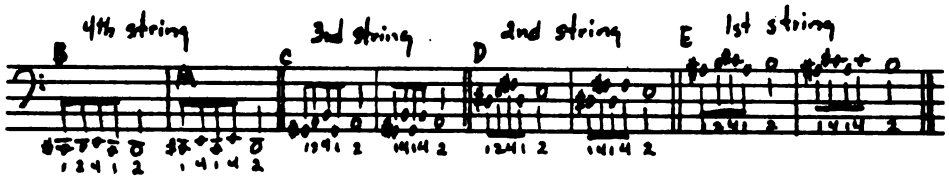


Realize that the natural sign serves to return the note and the finger to the natural note.

It is necessary to move the hand towards the nut to

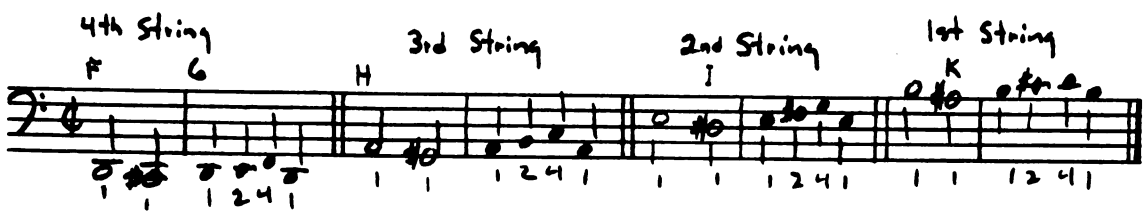
play C#, G#, D#, and A#. The hand in this position can still play two additional notes scalewise.

Example 24



This technique is very useful when it is necessary to return to one of the four sharps through groups of thirds (see example at A) or through roulades (B) after having played the C# on the fourth string with the first finger, the D with the second finger and the E with the little finger. The same position is used on the other three strings (see C,D,E). But if one of these sharps is found as an accidental on only one long note and this note is followed by one or several notes ascending scalewise, one can play the sharped note (see example at F) and the following note (see G) with the same finger; that is to say, by raising the finger a half-step towards the bridge which will be in regular position.

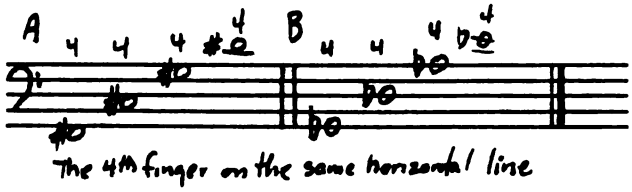
Example 25



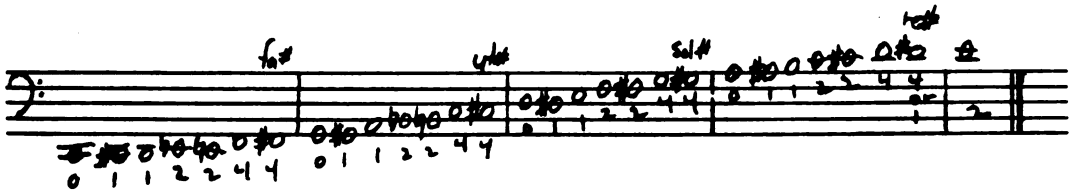
Article IV

For the F# or Gb on the fourth string, the C# or Db on the third, the G# or Ab on the second, and the D# or Eb on the first string, it is necessary to raise the little finger a half-step towards the bridge. The finger placed on the same line will play the four notes (see example at A or B), but it is necessary to advance the hand from its normal position to do it easily.

Example 26



Exercise 27 containing the preceding notes



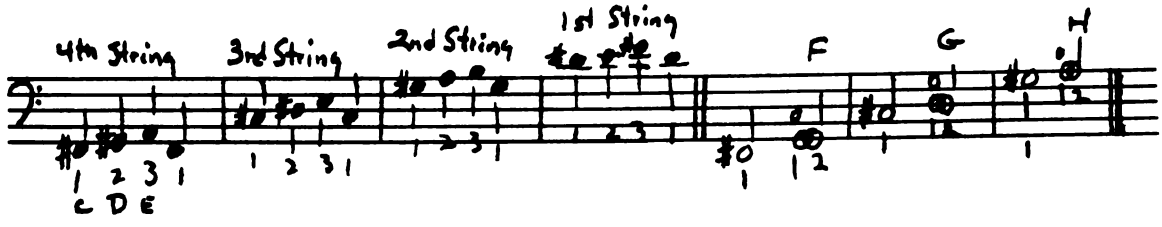
Now all the steps and half-steps have been demonstrated—that which is necessary to study until the hand is accustomed to play them well and the ear to hear the difference between one half step and another. After that one can pass on to the exercises on page 25.

There are some passages where it is necessary to shift to play F# on the fourth string, C# on the third

string, G# on the second string, and D# on the first. For that, it is necessary to place the first finger a half-step above the third position—on the same horizontal line the four sharps are found. This manner of playing the four sharps with the first finger may be practiced:

1) When it is necessary to follow these notes with three stepwise notes (see example at C,D,E) of which the first and third notes make the interval of a third.

Example 28

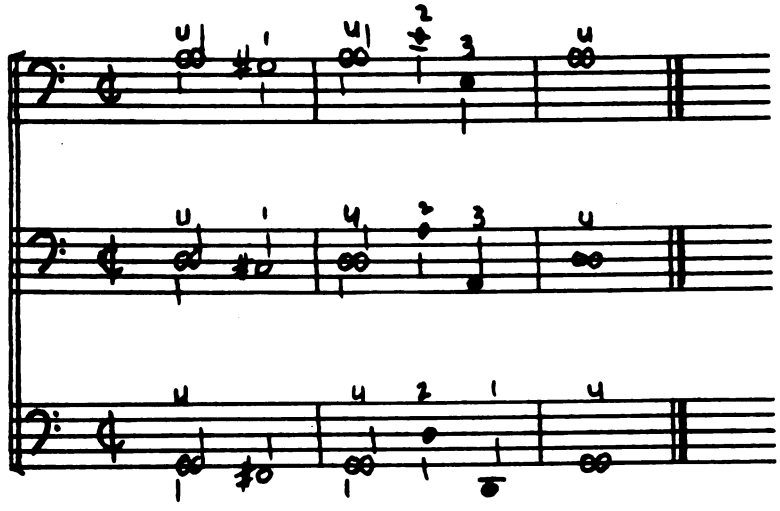


2) When the F# on the fourth string, the C# on the third string, the G# on the second are played with the first finger in order to make a unison with the neighboring string to the left with the second finger (see pages 13 and 22).

3) After having played the double unison on the tonic note, the dominant may be played on the next string without returning the hand to first position. This may be done on the string to the left with the second finger when the music rises a fifth and on the string to the right when the line descends a fourth. This rule is infallible when playing in the keys of D and A, but when the line descends a fourth after a double unison on G, it is necessary to return to the first position in order to play D on the fourth string

with the first finger.

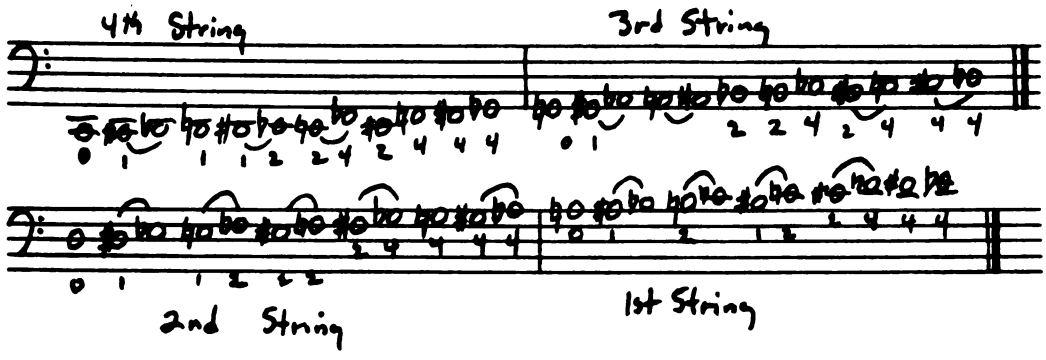
Example 29



Demonstration

On the manner of notating steps and half-steps

Example 30



The slur on the two notes in the above example is to show that the two notes are played on the same place on the string, the change of fingering being only for facility of execution.

As a result, the sharps and flats are played on the same horizontal line in the tempered system which all fingered instruments follow, such as viols, lutes, guitars, theorboes, contrabasses, etc.

Information

In the beginning one may mark the twelve half-steps of the octave on the fingerboard of the cello according to the division below. Marking horizontal lines on the fingerboard will show immediately on which line to play each note. In order to hear the fractions I have put on the side of the string, it is necessary to know that the figures below the bars called the denominators, show in how many equal parts it is necessary to measure the string; and the numerator, or the figure above the bar shows the part which is necessary to cut back toward the nut.

It is necessary to begin with the twelfth, fifth and seventh lines because the twelfth horizontal line which gives the octave above the open string is found by measuring the string into two equal parts. The fifth line divides the string into four equal parts and the first division (1/4) transposed back to the nut gives the fifth line which is a quarter of the string and gives a fourth above the open string. Then, to place the seventh line, divide the string

in three equal parts and go back to the first division close to the nut—that is a third. This will give a fifth above the open string. Thus the others follow by fractions.

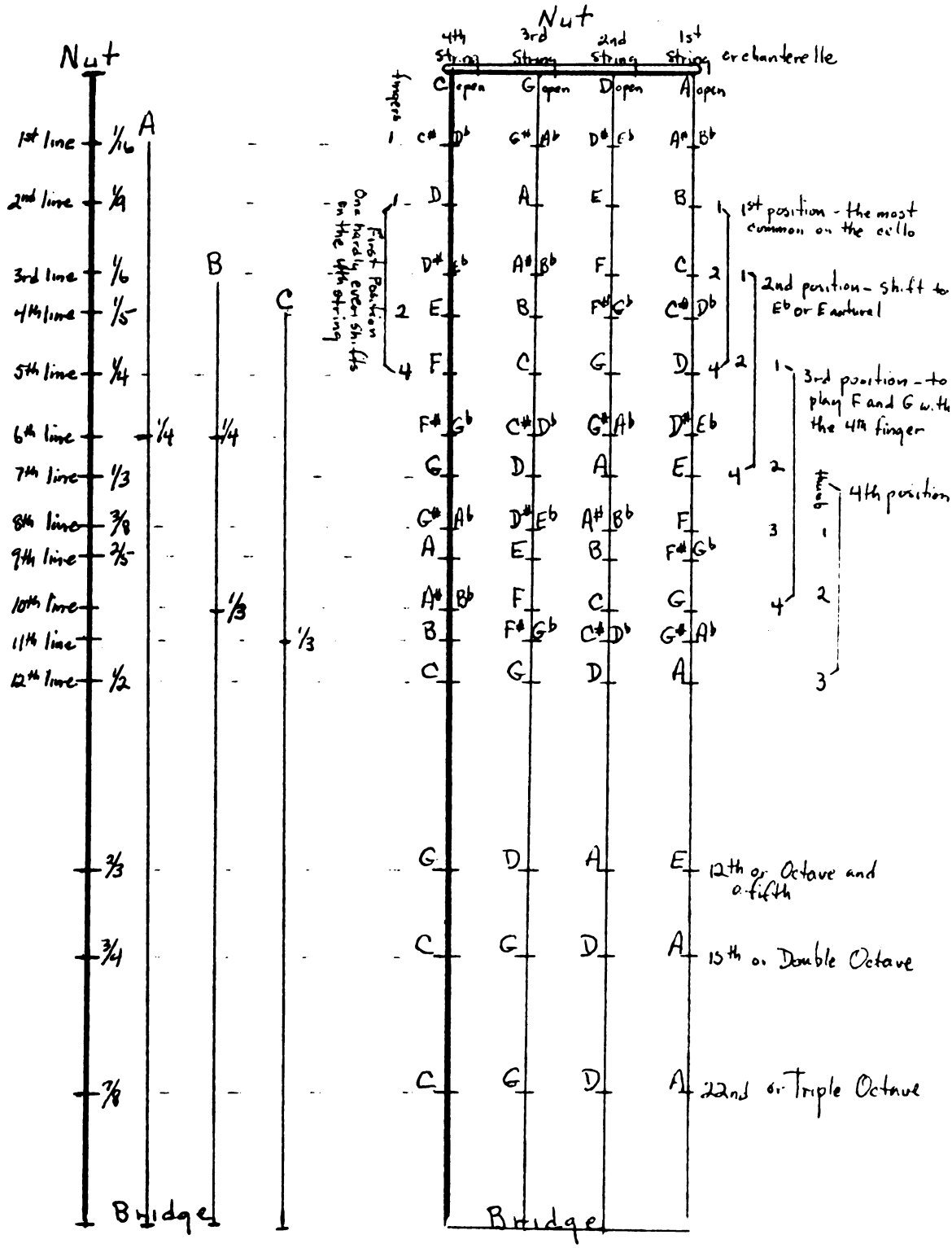
The sixth, tenth, and eleventh lines are placed last since to get the sixth line it is necessary to divide the string from the first line (A) to the bridge into four equal parts and to move back to the first division from A.

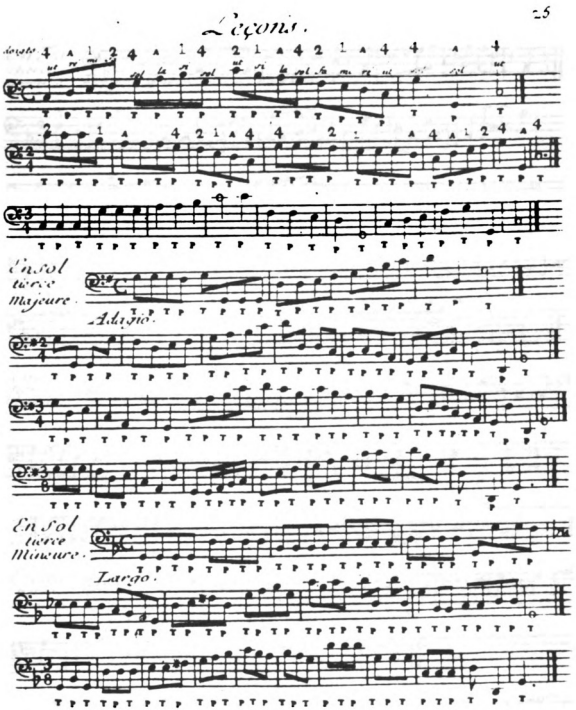
For the tenth line it is necessary to divide the string from the third line (B) to the bridge into three equal parts and the third near line B will give a minor seventh above the open string. To get the eleventh line it is necessary to measure from the fourth line (C) to the bridge in three parts and the third near C will give the eleventh horizontal line.

It is necessary to note that the first three lines are the most essential because the others are used only when one shifts which hardly ever happens on the fourth, third, and second strings but quite often happens on the first string when the line passes the D above the F clef.

Division Of The String

In order to place horizontal lines on the neck of the cello and all other stringed instruments

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25
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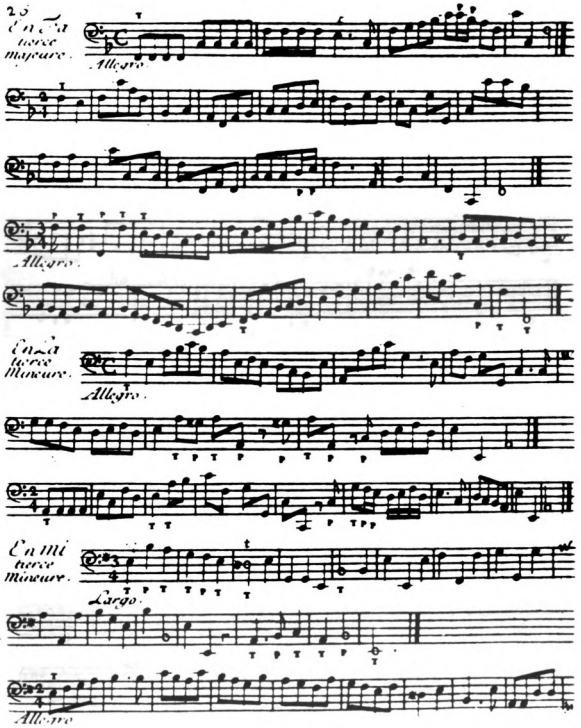
En sol tierce majeure.
Adagio.
En sol tierce Mineure.
Largo.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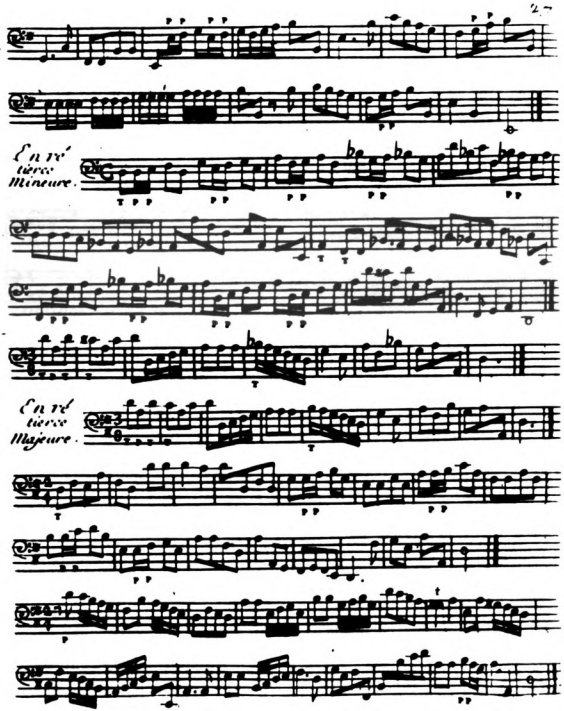
Allegro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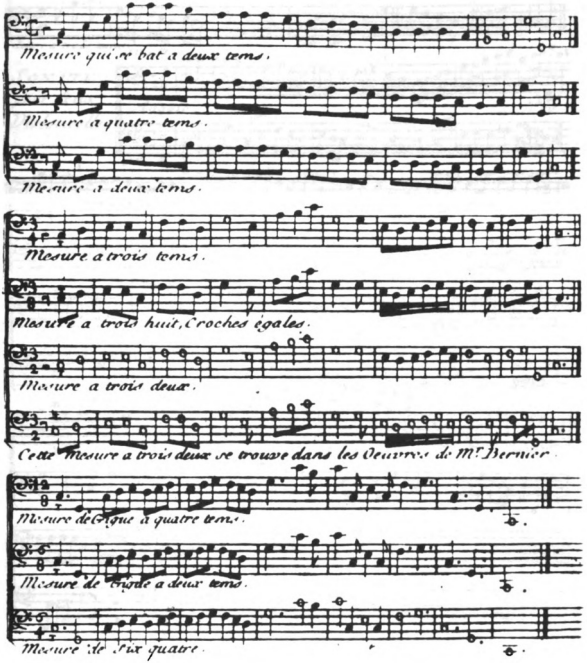
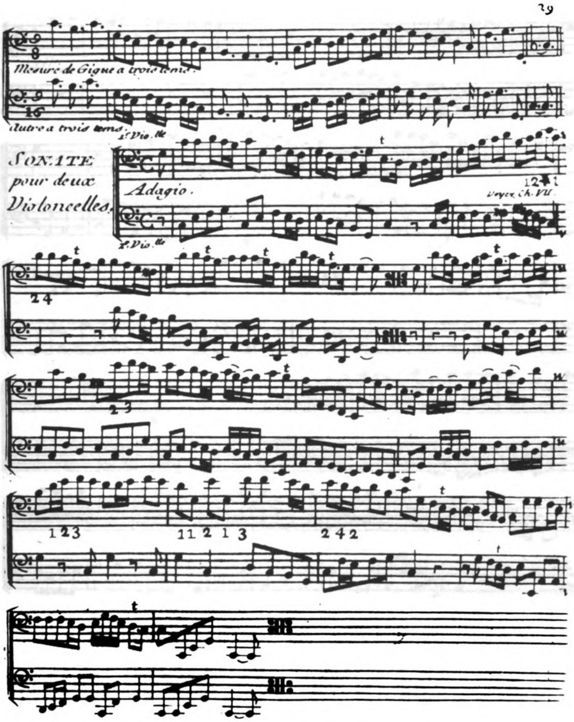
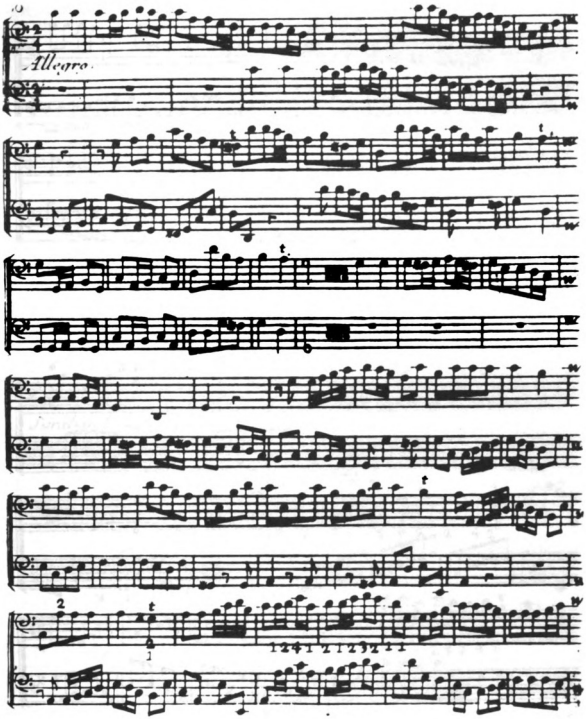
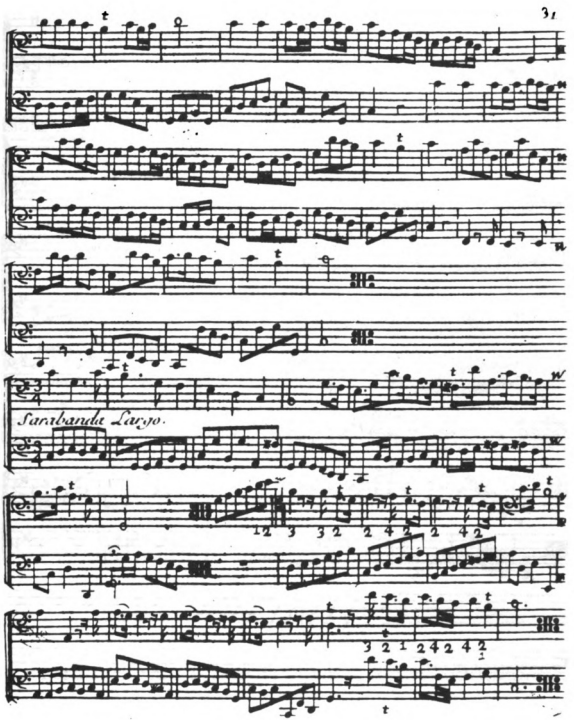
28

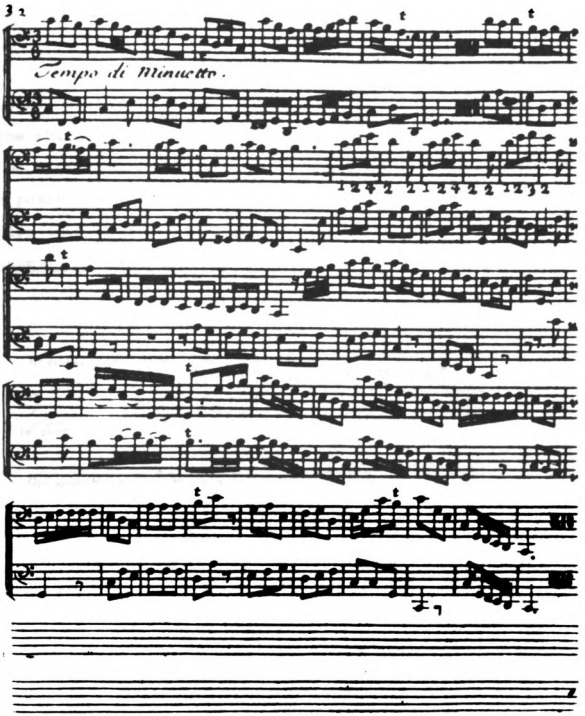
Rapports des différentes manieres de Marquer les Mouvemens.




29
Mesure de Gigue a trois tems.
Autre a trois tems.
SONATE
pour deux
Violoncelles.
Adagio.
Voyez Ch. VII.


Allegro


31
Sarabanda Largo.


Tempo di Minuetto.

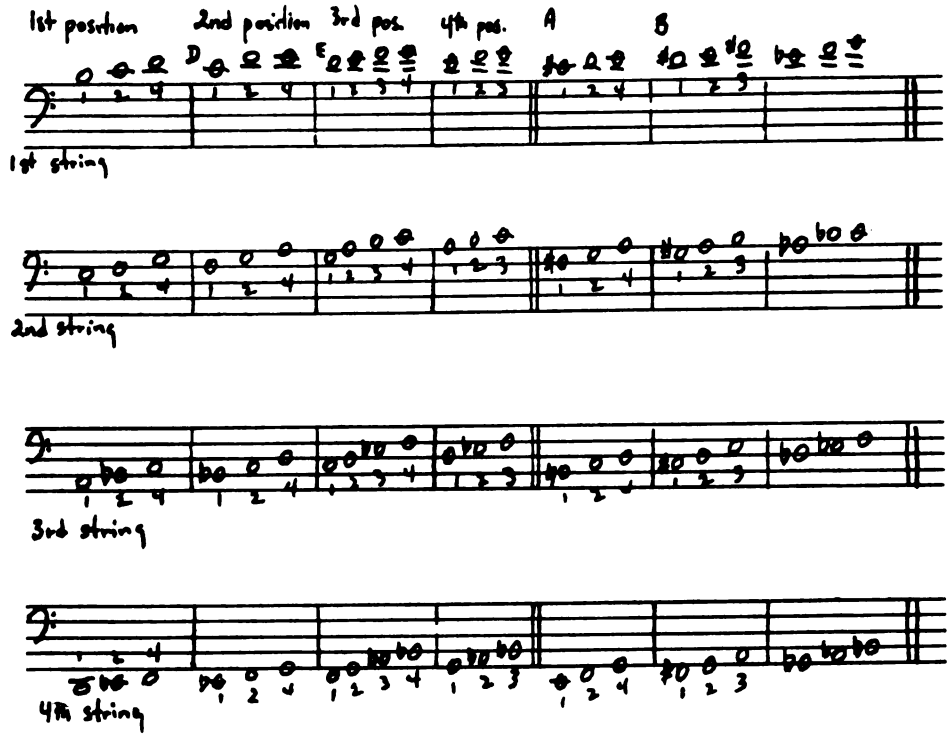
Chapter VII

How to Shift and the Names of the Positions

Article 1

Each position begins with the first finger and is begun on diatonic tones except for the second position on the third and fourth strings which begin with a flat. On the first and second strings, when the first finger begins a position on a sharp or a flat, it is called a false position (see example at A, B, and C).

Example 31

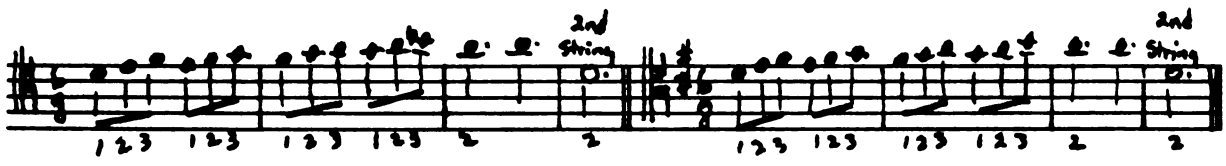


The second position (see D) is found at the half-third or 1/6 of the string which gives the minor third above the open string. The third position (E) at 1/4 of the string which gives a fourth above the open string; and the fourth position (F) is at 1/3 of the string which gives a fifth above the open string. Consequently all the horizontal lines on the fingerboard which give the third, the fourth, or the fifth above the principal note of the string gives the same intervals in fifths on each one of the other strings. On the first string one often shifts, especially when one plays on the C clefs. On the others one shifts only rarely.

Note

In placing the fingers beginning with the first finger on the third position, the little finger plays G; but since the fingerboard keeps getting wider towards the bridge and the little finger being shorter than the others, it may be used at the end of the fingerboard only by rearranging the arm; so for that reason the little finger becomes useless past the first, second, and third positions. If it is necessary to go higher than the G, put the first finger a third below the written note and one will never make a mistake—the three fingers easily playing the interval of a major or minor third for the fourth position.

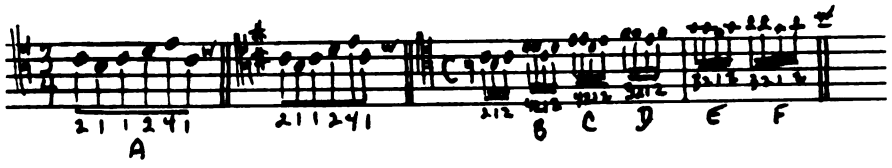
Example 32



Article 2

When shifting up from one position to another, one often plays both notes by shifting with the same finger (see example at A), but when there are two notes on the same degree, one can change the finger on the second note in order to shift (B,C,D,E,F).

Example 33

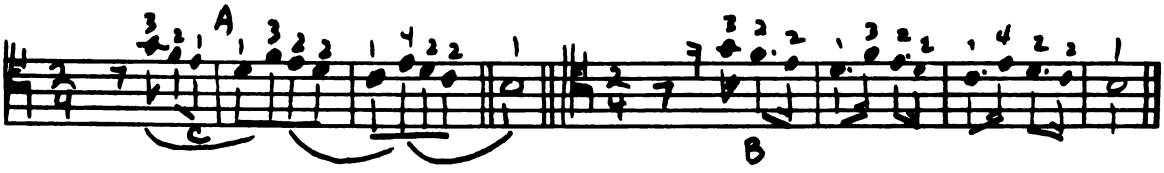


Chapter VIII

How to Return to First Position by Degrees of Steps and Half-steps After Having Shifted

Sometimes the second finger plays two notes when descending by steps, especially on the first string on which one shifts the most. That must be done when one has shifted and the line descends a fourth by steps (B).

Example 34



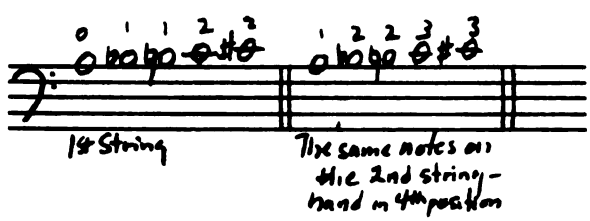
One may also descend two steps with the first finger (A) but it is better to do it with the second finger, since the first may be too short (C) and since it is much easier to shift back on the long note rather than the short. In order to play the two notes well with the same finger, it is necessary to shift the hand back towards the nut, by degrees of step and half-step according to what the music demands. Thus when the notes climb, the hand descends, and when the notes descend, the hand climbs either by scale degrees or all at once—the hand returning to the usual position (some call this "sault de main") according to the interval from one note to the other.

Chapter IX

Some Intervals One Can Make from One String to Another Without Changing the Position of the Hand

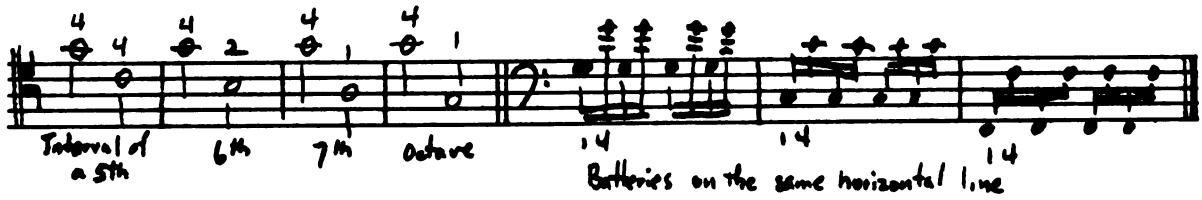
The hand, in whatever position it might be, can play the intervals of a fifth, sixth, and seventh by playing the lower note of each interval on the neighboring string to the right on which one finds easily and without moving the hand from its position, five notes in common with those on the other string—that is, three diatonic and two chromatic notes.

Example 35



For example, if the line moves the hand to the third position on the first string to play a fifth from G to C, the fourth finger, which will have played G on the first string will also play C on the second string, being on the same horizontal line on the fingerboard. This C will be the same or a unison with the one the hand would have played with the second finger on the first string if it would have shifted back toward the nut to its ordinary position. The interval of an octave by repeated figures is played also with the first and fourth fingers (see example at E).

Example 36



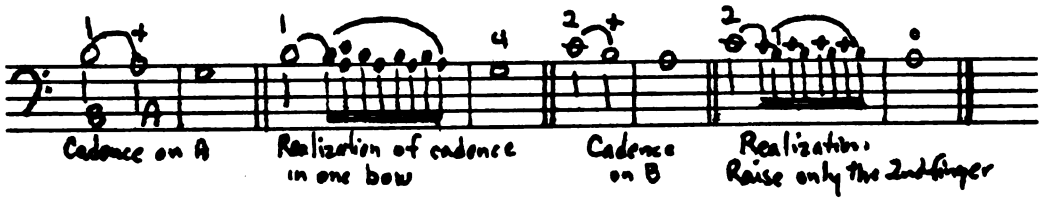
Chapter X

How to Play Cadences and Pincés

The cadence is composed of two tones struck alternatively. It is marked by a "t" in Italian music and by a "+" in French music. It is necessary to begin the execution of the cadence on the upper note. For example, if there is a cadence on A on the open first string (see example at A), it is necessary to place the first finger on the B (B) to prepare it and then raise and lower the finger until the end of the cadence which is long or short according

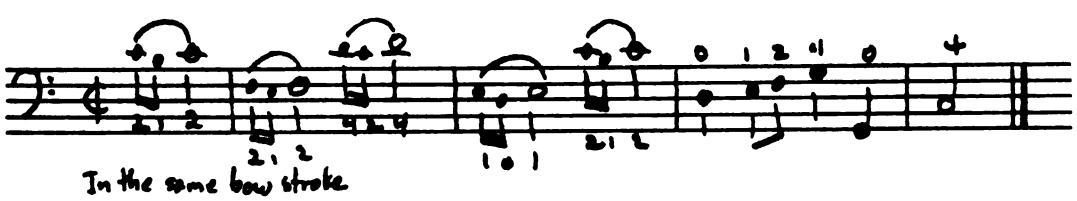
to the value of the notes. For the cadences on D on the first string, G on the second, C on the third, and F on the fourth, it is necessary to shift.

Example 37



The pincé is the alternation of two tones struck two or three times according to the value of the note. It differs from the cadence only in that it uses a half step below the principal note. The pincé can be played on notes of long duration. It is never marked in cello music.

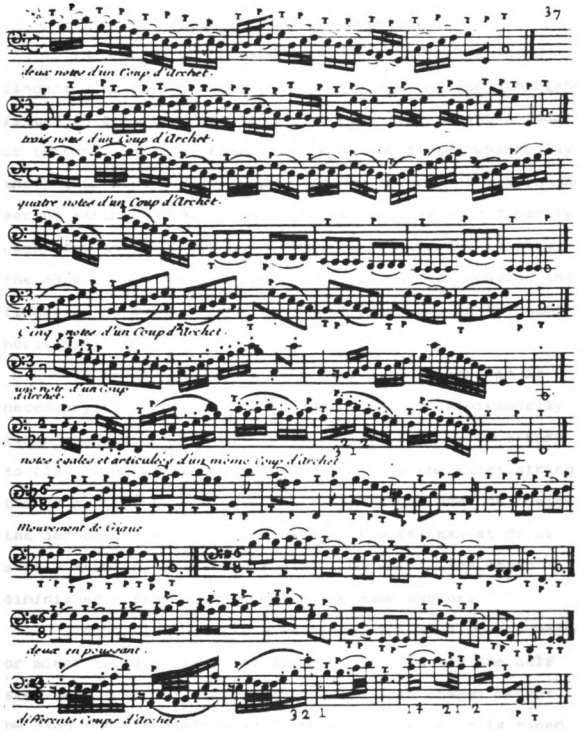
Example 38



Chapter XI

Demonstration of Different Bow Strokes

All the notes below or above the slur are played with the same bow stroke and the dots above or below the notes show that it is necessary to articulate and detach them well in the same bow stroke.


37
deux notes d'un Coup d'archet.
trois notes d'un Coup d'archet.
quatre notes d'un Coup d'archet.
cinq notes d'un Coup d'archet.
une note d'un Coup d'archet.
notes égales et articulées d'un même Coup d'archet
Mouvement de Gigue
deux en poussant.
différents Coups d'archet.

Chapter XII

Chords Which Necessitate a Change of Fingering and the Arpeggio

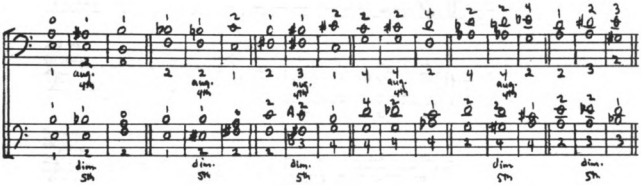
The chords which make a change from the ordinary fingering necessary are the augmented fourths and diminished fifths in the first position. To play the augmented fourth or tritone, it is necessary to raise the finger which plays the higher note a half step. But for those on the E on the second string and A# on the first string, it is ordinarily necessary to put the second finger on E in order to play the A# with the first string. That is called crossing the finger. The same is true for those which are on the same horizontal line.

To play the chord of the diminished fifth, it is necessary to cross the finger above that which ordinarily plays the perfect fifth. For example, if it is necessary to play F# on the second string with C on the first string, the F# must be played with the third finger and the C with the second as usual (ex. A) because the F# (ex. at B) is a half step above the horizontal line of C. The other diminished fifths are played in the same manner.

The diminished fifth is always followed by the major or minor third. Since the diminished fifth has one half step less than the perfect fifth, the same finger cannot be used for the diminished fifth since the cello is tuned in fifths and as a consequence, a finger being in a horizontal line on the fingerboard, it always plays perfect fifths.

On the fourth string chords are hardly ever played, the sounds being very low and consequently too indistinct.

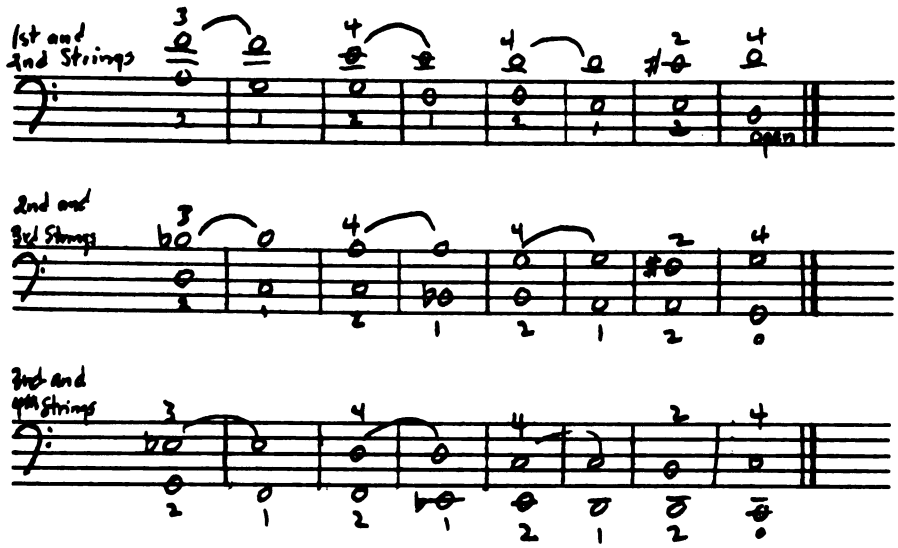
Example 39



Note that the same fingering for the augmented fourth on E on the second string is used also for the diminished fifth chord of the same notes. The same is true for the other diminished fifths which I have put below the augmented fourths in the above example (see also p. 43). Thus the augmented fourth and diminished fifth are played on the same horizontal line according to the tempered system.

To descend by sixths and sevenths, it is necessary to move the hand toward the nut by degrees of whole steps or half steps according to the notes. It is also necessary to note that the finger doesn't change on the tied note. These passages are sometimes found in batteries.

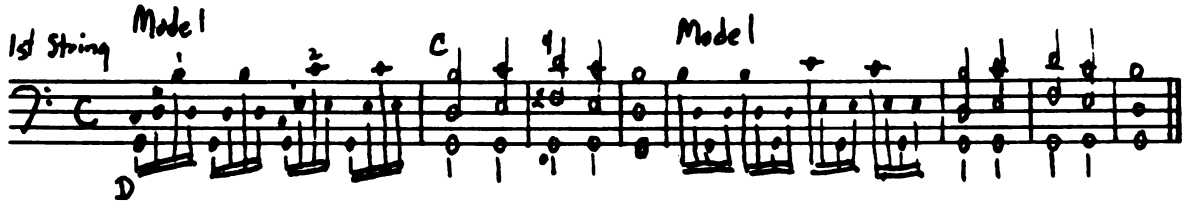
Example 40



The Arpeggio

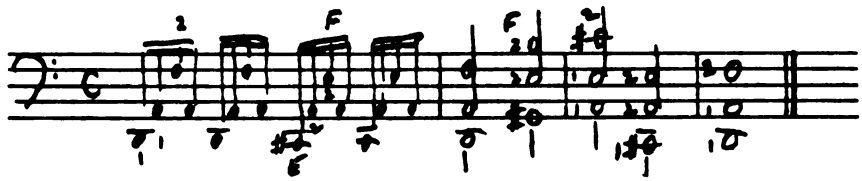
The arpeggio is notated as chords (C) and is played as batteries (D). But since one can arpeggiate a chord in several different ways, composers sometimes notate the first measure of the arpeggio according to how they want the arpeggio played. This serves as a model for the rest of the notated chords which are to be arpeggiated as the following examples will easily show.

Example 41



When the fundamental note of the arpeggio begins with C# on the fourth string or G# on the third string, it is necessary to move the hand a little towards the nut; thus the notes (E,F) which are ordinarily played with the first finger are played with the second.

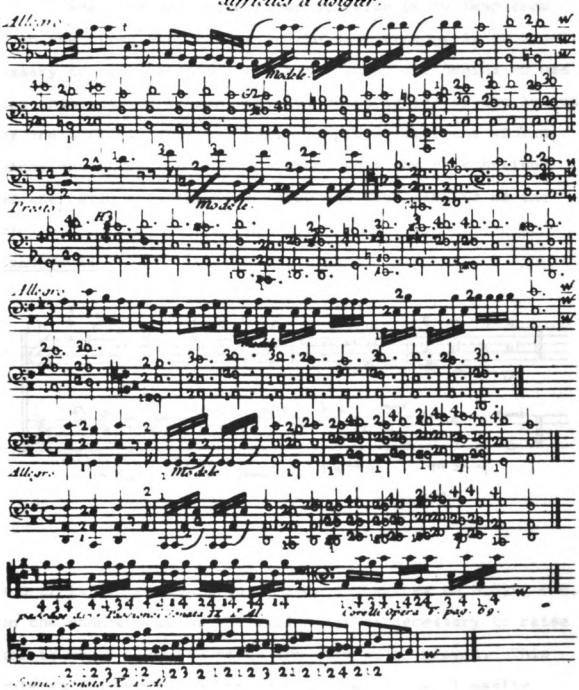
Example 42



If the two upper notes of the arpeggio make the interval of a diminished fifth (G) or augmented fourth (H), it is necessary to cross fingers as we have mentioned above.

Pieces to illustrate the arpeggio with some passages with difficult fingerings.

40 *Pièce pour s'exercer sur l'Arpegio avec quelques passages difficiles à doigter.*

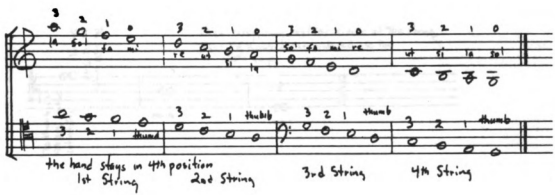


Chapter XIII

When to Use the Thumb and How to Play in the Upper Register of the Cello

When the bass line rises stepwise or by leap from E on the first string to A on the same string, it is necessary to put the thumb on the E. Thus, one begins to use the thumb at the fourth position which is 1/3 of the length of the string. Then the cello is played like the violin, since the thumb, in this position, puts the four strings of the cello at the octave below the four strings of the violin.

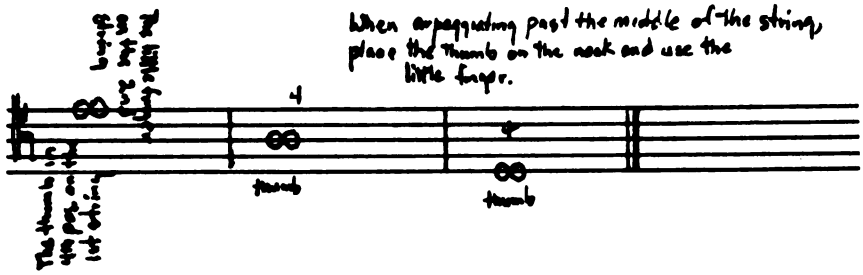
Example 43



And if it is necessary to go even higher, as to B,C,D, etc., on the chanterelle of the violin, it is necessary to raise the thumb to a fourth below the note to be played. This rule is foolproof. By using the thumb one will easily play the range of the violin sonatas—the thumb taking the place of the nut; this gives complete freedom to the

three following fingers. This would not happen if the index finger is preferred to the thumb, because then it would be necessary to use the little finger which becomes useless, as already stated, past the first three positions—being too short. However, one can use the little finger without moving the thumb from fourth position for B or Bb on the first string (as on the chanterelle of the violin); in like manner the little finger can be used for the Eb on the second string, Ab on the third and Db on the fourth—all without moving the thumb from the fourth position, as stated before. One can play on the cello, with the thumb in fourth position, the three unisons which are played on the violin.

Example 44



When one plays arpeggios past the middle of the string, it is necessary to place the thumb at the side of the fingerboard and use the little finger.

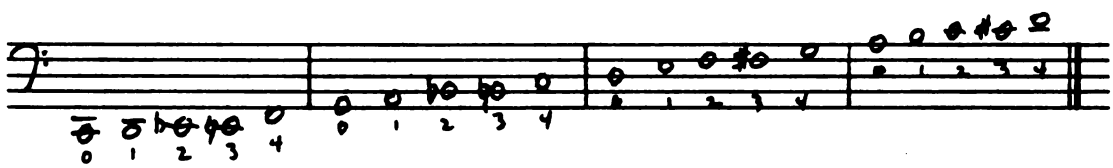
Chapter XIV

Regarding Another Position

This position differs from that which we have just demonstrated in the preceding chapters only in the first position which its advocates call "premier manche." And

this difference is only in putting the third finger in the place of the second to play E on the fourth string, B on the third, F# on the second, and C# on the first which is always in a progression of fifths as in the other manner of fingering. Thus, according to this position, the first finger will be, as in the other manner of fingering, at the distance of a whole step from the nut; the second finger is used to play a half step above the first, the third finger at the distance of a whole tone from the first finger, and the little finger a half step above the third finger. According to this rule, all four fingers are used.

Example 45



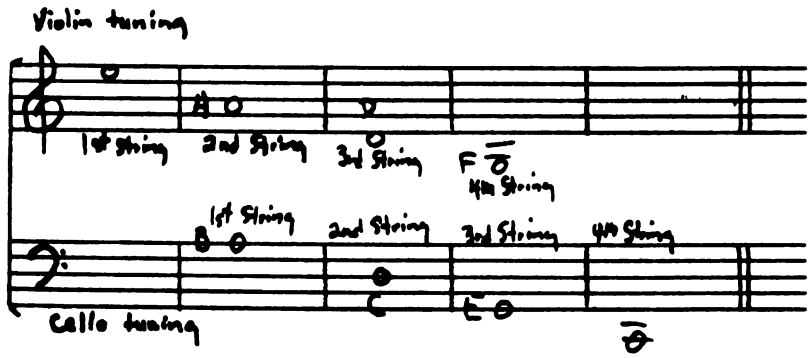
Note on This Position

Those who play the violin can hardly get accustomed to this position which is completely contrary to that of the violin instead of the other which resembles it—that which was clearly demonstrated in chapters IV, V, and VI with this one difference: that on the violin one plays A on the chanterelle or first string with the third finger, D on the second, G on the third, and C on the fourth—all with the third finger. On the cello, in the place of the third finger one uses the little finger to play D on the

first string, G on the second, C on the third, and F on the fourth. It is necessary to note that the chanterelle or first string of the cello is an octave below the second string of the violin (see example at A,B).

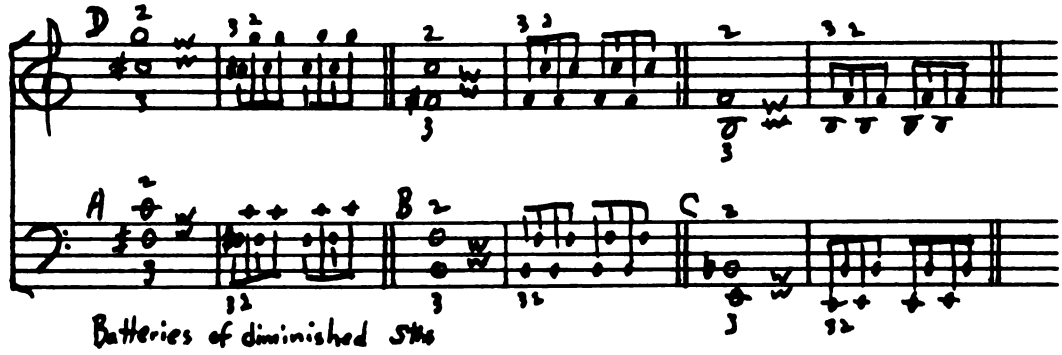
By using our first position explained in chapters IV, V, and VI, those who play the violin only have to learn the fourth string of the cello, the other three being an octave below the last three of the violin. The first string of the cello (B) being an octave from the second of the violin (A). The second of the cello (C) at an octave from the third of the violin (D) and the third string of the cello (E) also at an octave from the fourth of the violin (F).

Example 46



This second position which one could call false is useful only in playing the interval of the diminished fifth, whether by batteries or as chords. The diminished fifth is composed of three whole steps and the perfect fifth of three whole steps and a half.

Example 47



Therefore, this position is useful in giving facility to play F# with C (see example at A), B natural with F natural on the third and second strings (B) and E natural with Bb on the fourth and third strings. This false position is relative to that of the violin which one uses when one crosses the third finger above the second to play the diminished fifth chord (D). Thus the position of the ancients can be admitted only in the case of the diminished fifth because in all other occasions it falls short when speed is necessary. But as we have already said in the Preface, this position is a gothic remnant from the bass violins tuned in G which are excluded from the Opera and all foreign countries.

Chapter XV

Useful for Those who Know how to Play the Viol and who Wish to Learn the Cello

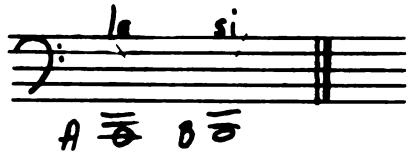
Since most people who play the viol are now interested in playing the cello, I believe that in giving them the range

of the two fingerboards in parallel it will facilitate their learning the fingering of the cello. It is certain that in glancing at the demonstration of the two fingerboards pictured below, one will recognize in a moment the relationship between the seven strings of the viol and the four strings of the cello on which one plays the notes with even more facility than on the seven strings of the viol; the bow articulating better and pulling more sound on the four strings than on the seven. Also, in concert one cello alone makes more effect than six viols.

Nothing is simpler than the fingerboard of the cello which is composed of four strings tuned in fifths—C,G,D,A. On each string one can play four diatonic steps without moving the hand from its position. The fourth string begins with C—the same note which is played on the seventh string of the viol. The D, E, and F on the sixth string of the viol are played also on the fourth string of the cello by placing the first finger on the D, second on E, and the little finger on F. The G, A, and B on the fifth string of the viol are played on the third string of the cello; the G played open, A with the first finger and B with the second. The C which is played open on the fourth string of the viol is played with the little finger on the third string of the cello. The D on the fourth string of the viol is played open on the second string of the cello. The E, F, and G on the third string of the viol is also played on the second string of the cello—the E with the first finger, the

F with the second and the G with the little finger. The A, B, and C on the second string of the viol is played on the first string of the cello—the A open, B with the first finger and C with the second. The D,E,F,G, and A on the first string of the viol are all played on the first string of the cello—the D with the little finger and all others above D are played by shifting which is explained in chapter VII. Thus the viol has very little that the cello does not have. The range is the same except for the A and B on the seventh string which the cello does not have. But these two notes are hardly ever found in cantatas, sonatas, and concertos of Italian composers who have always written their bass lines according to the diapason or the range of the cello which begins on C and not on the seven stringed viol.

Example 48



Chapter XVI

What the Cello Must Observe in Concert with Regard to Accompaniment and Rhythm

When the cello accompanies a cantata it is necessary to follow the voice in the recitative. This demands much sensitivity on the part of the cello because it must correctly strike the bow note which supports the chord, otherwise

the recitative is poorly accompanied. Those who know the composition have much more advantage in accompanying the recitative even though they might realize a mediocre execution. It is not a question of embellishing or doubling and tripling the bass; it is necessary, to the contrary, to play the notes just as they are written and have an attentive ear for the harmony. This cannot be done if the ear is not accustomed to the sounds of different chords and the manner of preparing and resolving the dissonances which the composition calls for. However, one can accompany the recitative passably without knowing the composition by following the words and the notes of the singer. The cello is also obliged to follow the voice in the more strictly measured airs when the singer does not sing in rhythm.

The cello observes the same things when it accompanies a sonata for a high instrument which is not sure of the rhythm because the bass follows the upper line more often than the upper line follows the bass. The reason is that the upper line is more easily carried by the melody or has difficult passages to play which makes it rush the rhythm if it does not pay attention—the upper line always being more melodious and melismatic than the bass. That is to say, the cello holds the reins at a concert, making itself heard better than all other instruments by its harmonious sounds. In a solo concerto or in a violin sonata, if the upper line rushes the rhythm, the cellist, being a good musician, must play with force and beat out the pulse for a measure or two

in holding firmly to the same tempo which began the piece. That will return the upper line to correct rhythm and keep it from going any faster. Although the capable violinists play the Adagios and Largos without beating the time, this does not mean, however, that they do not play in time. This the cellist must also do. The Italians do this so well that they beat time only in music for large chorus.

END

COMMENTARY

Biography

The following biographical information is a translation of the article by Eugène Borrel which appears in Die Musik in Geschichte und Gegenwart, volume 2, pp. 1692-1695 (Kassel:1952).

Corrette, Michel, born 1709 in Rouen, died January 22, 1795. His father Gaspard, born in Delft, date of birth unknown, place and date of death unknown. Only little is known about the life of Michel Corrette. In 1726 he applied for the position of organist at Saint Mary Magdalen Church; on January 8, 1733, he married Catherine Morizet; in 1737 he was organist to the Grand Prior of France. From 1750 on, he called himself Knight of the Order of Christ and organist of the Jesuits. This title he maintained although in 1759 he calls himself organist to the Prince of Condé. In 1780, he became organist to the Duke of Angoulême.

His work is considerable. It includes a number of works with opus numbers and many works which are dated but include no opus number. All were published in Paris. Many of Corrette's works are lost; for this reason it is impossible to form a complete picture of his capabilities. It is known that he became wealthy through his profession and that he, by reason of this fact, aroused jealousies. Boisgelou states: "Corrette has written a great deal, but all his works have died before him." This opinion

has been held by the newer critics as well. Corrette devoted himself especially to teaching. Fifteen instructional works, most of which appeared in numerous editions, testify to this. Gaviniès who was unable to refrain from joking even at the expense of his friends coined an untranslatable pun in calling Corrette's students "anachorètes" (asses of Corrette). In the Mercure de France of 1775 it is said of Corrette: "His name is well-known and his reputation is well established." Gerber praised his Canons Lyriques highly. His Ecole d'Orphée offers a valuable collection of older pieces for the violin by various composers. His instruction books almost all contain historical remarks and information about the music of his time. From a pedagogical point of view, the total of these instructional works offers a summary of the instructional practices in France during the second half of the 18th century. He is, for example, responsible for the introduction of scordatura violin tuning to France which Tremais and Lemaire used in their works. From a purely musical point of view, it is important that the Fifth Sonatille of his opus 9 (about 1739) is clearly bi-thematic. Corrette helped to popularize the concerto in France by publishing several works under this title or by arranging the works of Mossi as concertos. Finally, he gives evidence of how the symphony has developed. In his twenty-second and last comic concerto La Prise de Port-Mahon (1756) for Violins, Flutes, Oboes, or Pardessus de viole, and Bass, he makes the following comment, very informative

for us: "In order to properly execute this concerto with a large orchestra, it is necessary to add kettledrums and side drums. The composer will be pleased to play the trumpet and drum parts." These sentences are very enlightening for the history and performance of the symphony of this period.

The Preface

In the Preface to the Cello Method Corrette makes interesting observations on the status of the cello in 1741. He correctly refers to the bass violin [not the viola da gamba] as the predecessor of the cello. Bass instruments of the violin family developed in conjunction with, and not after, the treble member of the family. As early a writer as Zacconi[1] gives a complete violin family with the same tuning for the bass (BBb,F,c,g) that Corrette describes. This same bass violin is described by Mersenne[2] and he gives an identical tuning. The type and size of bass violins was not standardized even by the time Leopold Mozart wrote his treatise on violin playing.

> The seventh kind (of fiddle) is called the Bass-Violin or, as the Italians call it, the violoncello. It is customary to play the bass parts on this instrument and although some are larger, others smaller, they differ but little from each other excepting in the strength of their tone, according to the fashion of their stringing.[3]

These and similar references to the bass members of the violin family give the impression of a lack of standardization of size and nomenclature even as late as the middle of the 18th century. Yet the term "violoncello" had begun

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[1]Lodovico Zacconi, Prattica di Musica (Venice, 1592), fol. 218.

[2]Marin Mersenne, Harmonie Universelle (1636), Livre Quatriesme des Instruments, Prop. I (p. 180).

[3]Leopold Mozart, A Treatise on the Fundamental Principles of Violin Playing (Salzburg, 1756), translated by Edith Knocker (London: Oxford University Press, 1948).

to be applied to a specific instrument and Corrette realized the distinction between it and the older bass violin tuned a whole step lower.

The reason for Corrette's attributing the invention of the cello to Bononcini is difficult to understand. Giovanni Battista Bononcini (or Buononcini), the member of the family to whom he refers, was a cellist, although his greatest fame was achieved as an opera composer and competitor of Handel's in England. He received lessons from his father, Giovanni Maria, from G. P. Colonna in Bologna, and from the renowned Giorgio before becoming cellist at San Petronio in 1687. At the age of twenty-three he was cellist in the Imperial Chapel of Emperor Ludwig in Vienna. Corrette undoubtedly made his acquaintance after Bononcini left England in 1732 for Paris. Bononcini is said to have played cello before Louis XV in 1740 during a performance of a motet which he wrote for the King. Van der Straeten reports that in 1735 he paid a prolonged visit to Portugal and instructed the King in cello playing.[4] Bononcini's style and technique undoubtedly influenced Corrette to such an extent that he gives him credit for the "invention" of the instrument as well as for being the master of the finest school of players.

The Mr. Batistin Struck whom Corrette credits with the introduction of the cello to France is Johann Baptist

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[4]Edmund S. J. Van der Straeten, History of the Violoncello (London: William Reeves, 1915), p. 151.

Struck, born at Florence in 1680 of German parentage. Since he appears to be the first cellist to play in the orchestra of the Paris Opera Orchestra (1709), the assumption that he was responsible for the instrument's introduction is well founded. The nickname Batistin may have been due to his small stature or to an attempt to relate his name to that of the "grand Batiste," Lully.

L'Abbé was the nickname given to both Philippe and Pierre de Saint-Sevin. The elder Philippe was often called L'Abbé Aîné (the elder) and his brother L'Abbé Cadet. This name was applied during the time they were both church musicians at Agen and, consequently, had to wear clerical dress. Philippe traveled to Paris in 1727 where he was appointed cellist at the Opera and seated next to Batistin. Pierre joined his brother in 1739 and the three so demonstrated the superiority of the cello in this type of ensemble that the gamba lost its place in spite of attempts to degrade the cello by such persons as Hubert LeBlanc.[5]

While praising the merits of the cello highly, Corrette does not openly speak disparagingly of the viola da gamba. The cello's smaller size and thinner neck made it easier to play than the old bass violins, which were used mainly to accompany choral music. As a solo instrument it sounds as well as the viol and has replaced it in the Chapel Royal, the Opera, and in concerts. Yet his preference

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[5]Hubert Le Blanc, Défense de la Basse de Viole, reprinted "Revue Musicale," vol. IX, 1928.

is made clear when he begins to extoll the sonority and clarity of the cello. Being the true bass of the violin family, it is the best instrument to accompany the violin and the transverse flute. He does not name the instruments which he refers to as making "cymbal-like and nasal sounds," but seems relieved that the cello has superseded them.

Corrette advocates the use of frets, either marked on the fingerboard or engraved in the wood. He considers it a great aid to the beginner and goes to the trouble of constructing a table showing the exact places to mark. However, he does confine the use of frets to the beginner and says that the ear of the accomplished musician can be his guide. Quantz, in his Flute Method of 1752, does not consider frets necessary on the cello. However, he does advocate their use on the bass violin—not as an instructional aid, but to raise the string when the finger presses on the space between them. This would eliminate the buzz of the string against the fingerboard which often happened when the early basses with their lower, flatter bridges were played loudly.[6]

Principles of Music

Corrette's "Principles of Music for the Violoncello" gives interesting insights into what a cellist of this time was expected to know about music theory and practice.

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[6]Johann Joachim Quantz, On Playing the Flute, translated by Edward R. Reilly (London: Faber and Faber, 1966).

Throughout his discussion of rhythm Corrette alludes to the French practice of "notes inégales." His first mention of playing notes of equal value in an unequal fashion is in his description of the two-beat measure used for rigaudons, branles, vaudevilles, cotillions, gavottes, etc. He simply says to play the second note faster. He cautions against playing "inégale" in Italian music marked 3/4. The eighth notes should be played with equal value, as in the Courante of the Seventh Sonata of Corelli. In French music marked 3, however, the second note on each beat is played faster while sixteenths are sometimes played equally. Examples from Lully and Rameau are mentioned. In his explanation of the four-beat measure, he explains that the eighth notes are played equally but the sixteenths are played unequally—the first long and the second short.

Another interesting performance practice mentioned by Corrette is the emphasizing of the third and sixth eighth notes in 6/8 time. This is done especially in slow movements. Examples of the affettuosos of the sonatas by Senaillé and Aubert are given. He also advocates emphasizing tied notes where a dissonance occurs on the note above.

The Method

The Method proper begins with instructions on how to hold the cello. Corrette's remarks on the seating position of the player are concerned with the size of the chair or stool. He cautions the player to find one of a size relative to his height so that he won't be seated too close

to the edge. This should not be taken to mean that Corrette advocates sitting far back on the chair—only that it would be unwise to choose a stool so high that it would be impossible to place the feet on the floor without the hazard of falling off the front edge. On the other hand, a chair which is too low would hamper the proper holding position. Corrette mentions the possibility of using a stick placed in the bottom of the cello when the cello is played in a standing position. He does not prefer this playing position and considers it unattractive as well as a hindrance in difficult passages. It is remarkable that the idea of using an endpin in the seated position did not occur to him and waited for another hundred years to be adopted by Adrien François Servais.[7] The reader is referred to the illustration which appears on the frontispiece as a demonstration of the correct position—the body erect, the head straight, and the feet pointed out.

In reference to left hand technique, Corrette warns against making sounds like the tromba marina,[8] which could happen if the fingers are not properly curved. Yet, grasping the neck too tightly would hamper the freedom of the fingers. He is not specific about the placement of the left hand except to say that first position is near the nut.

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[7]Gordon James Kinney, The Musical Literature for Unaccompanied Violoncello, vol. I, unpublished Ph.D. dissertation, 1962, pp. 169-170.

[8]The medieval stringed instrument whose entire technique was based on the playing of harmonics by using the thumb and third finger—much as artificial harmonics are played on the cello today.

Bowing

None of Corrette's three ways of holding the bow coincides with 20th century practice. The first method places the fingers a third of the length of the stick from the frog, with the thumb below the fingers grasping the stick. The second method positions the fingers at the same place (except that the little finger is now on the side [of the stick], rather than on top), but the thumb is on the hair. The third method resembles modern practice to a greater degree than the other two. The fingers are closer to the frog, but the thumb is placed under the frog. Each of these methods employs the overhand grip which permits more weight to be applied to the strings than was possible with the gamba bow grip. In fact, Corrette does not seem to prefer any one of these methods to another. He advises the player to choose the one which allows him the most power. Another departure from gamba bow technique is his advice to lean the wood of the bow towards the fingerboard rather than to play with the hair flat against the string. This allows more freedom and comfort to the right hand and also helps to produce a more "centered" tone quality.

Corrette comments on the relative ease with which a violinist learns to bow the cello, compared to the viola da gamba player whose technique is contrary to that of the violin family. On the other hand, the viol player is afforded the consolation that a little practice surmounts

this difficulty. Besides, he has an advantage over the violinist in being acquainted with the execution of bass parts.

Corrette advises the cellist to play at the middle of the bow, pulling and pushing with firm distinct strokes. The player should bow at the distance of three or four fingers above the bridge. No mention is made of the necessity for connecting alternate strokes in a legato manner. Therefore, it must be assumed that a legato effect was not a primary concern and would be achieved only through slurring.

Corrette's explanation of when to push (up-bow) and when to pull (down-bow) are quite detailed, but at the end of his instructions he warns against becoming a slave to the rules—what is more important is that one observes the note values. His basic concern is that the primary accents receive a down-bow. The items below summarize his rules for bowing.

Bowing Rules

Up-Bow

1. When the first of a group of two eighths is played up-bow or an eighth note is preceded by an eighth rest, the second eighth must also be played up-bow.
2. When an eighth note is preceded by a dotted quarter note, it must be played up-bow.
3. When playing two eighths up-bow, the bow must be divided into two equal parts unless they are to be played "inégale."

4. A quarter note which precedes a half note may be played up-bow.

5. Anacruses should be played up-bow.

Down-Bow

1. When a phrase ends on a weak beat and is preceded by a down-bow on a strong beat, the last note should also be played down-bow.

2. The first beat of every measure should be played down-bow.

3. In compound meter (6/8, 9/8, 12/8), the eighth note following a quarter note should be in the same direction as the quarter note.

Corrette notes that some Italians play all notes single-bow without regard to where they occur. However, Lanzetti is mentioned as a cellist who plays seven or eight notes in one bow, either up or down.

A compilation of bow strokes, including the slur and detached notes in the same bow, appears in Chapter XI.

Tuning the Cello

In his discussion of ways to tune the cello, Corrette shows his acquaintance with musical reference sources. He cites Zarlino as a theorist who described the octave as the perfect consonance, and refers the reader to de Brossard's description of a schisma as 1/13th of a tone, or half a comma.[9] This minute and inaudible interval is used by Corrette when

[9]The interval of two cents in modern calculation.

he discusses the unison, which should be perfect without even a deviation that slight.

The first method he gives for tuning the cello assumes the student's ability to find, in good tune, the fourth note in first position on each string. The A string is tuned to the other instruments, then the open D string to the fourth finger on the A, the open G to the fourth finger on the D, and the open C to the fourth finger on the G string.

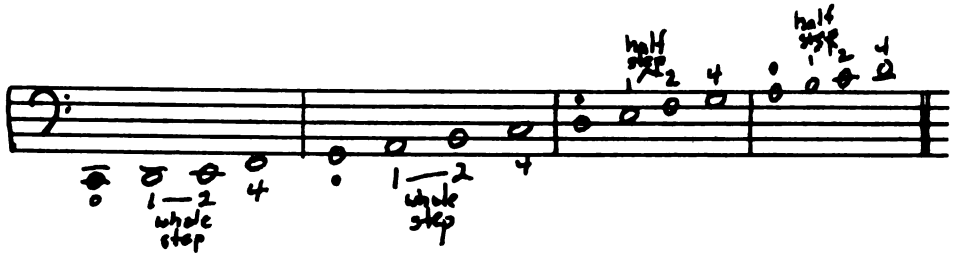
According to the second method, the second finger in third position will play in unison with the next higher open string. Both methods for tuning seem difficult—perhaps more difficult than the present method of tuning in fifths. But it must be remembered that Corrette advocates fretting the cello. On a fretted cello both his methods are highly efficient.

Fingering

In Chapters IV, V, and VI, Corrette presents a system for fingering the cello. In the Preface he states that he has presented in Chapter VI a new way to learn the fingerboard which is easier than the older method. He has also presented the old way for the use of those who favor the traditional approach. The difference between these two systems lies not in the use of the fingers but in the presentation of the material—the fingering in both cases being the same. The old system first presents, in chapter IV,

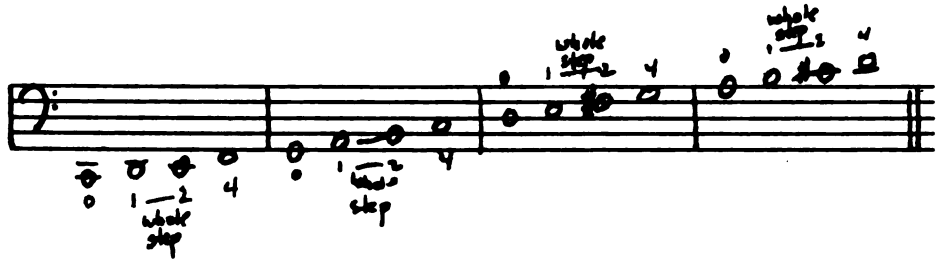
the fingering for the diatonic notes in C major from the open fourth string to the fourth finger (D) on the first string. Since the hand position is different on the two higher strings than on the lower two, the student must remember at this stage to change the position of the hand—from the spacing of a whole step between the first two fingers to that of a half step on the upper two strings (see example 1).

Example 1



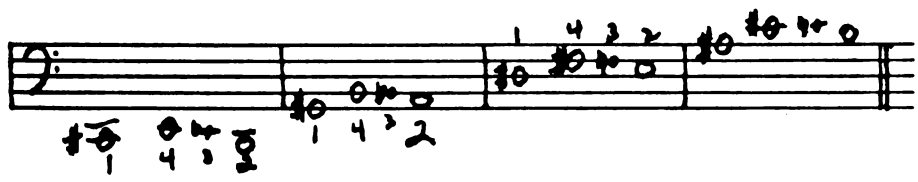
In Chapter V the old system completes the scale by explaining the chromatic tones on each string. Corrette obviously sees shortcomings in this presentation and attempts to simplify it in Chapter VI. Instead of using the diatonic scale as a point of departure he presents a hand position—a whole step between the first and second fingers and a half step between the second and fourth. This hand position is then applied to all four strings. Instead of resulting in a C major scale for two octaves and a tone, the student learns a C major scale for one octave and a one octave D major scale (example 2).

Example 2



After the student is able to play these sixteen notes ascending and descending, he is directed to play them in fifths across the string. The next step is to learn the notes which the second finger plays at the distance of a half step from the first finger (Eb, Bb, F, C). The technique is to move the second finger a half step towards the first without changing the position of the other fingers. An exercise is given to illustrate. Following the mastery of this technique the student learns to extend the first finger back to play the chromatic notes which are a half step below the first finger's usual position. In addition to this backward extension Corrette realizes the need for a true half position—that is, a position in which the whole hand moves back a half step to enable the execution of the minor third and intervening notes without shifting or using an extension of the hand (example 3).

Example 3



The last notes to be demonstrated are those a half step between the fourth finger in first position and the next higher open string (F#, C#, G#, D#). These notes are played by extending the little finger forward a half step. The student is advised that this extension is made easier by advancing the hand a little. This completes the demonstration of all the chromatic tones which can be played in half and first positions. Corrette advises the student to practice these examples until he can play them well and in tune, then proceed to the exercises to be found before Chapter VII.

While he is dealing with these notes (F#, C#, G#, D#) in Chapter VI, Corrette proceeds to explain the circumstances under which one would shift to play them with the first finger, rather than extend the fourth finger. Chapter VII would seem to be a more appropriate place for this information since shifting is discussed there. However, it seems as though Corrette is mentioning it prematurely in order to complete his discussion and doesn't wish the student to practice it at this point—having just directed him

to practice the more simple exercises preceding Chapter VII. Chapter VI closes with a demonstration of all the chromatic notes with their fingerings in first position. It is to be noted that Corrette is inconsistent in his use of the slur to indicate enharmonic notes.

The system for fingering notes in first position which Corrette presents in these three chapters is the aspect of his Method which has evoked the most comment. His avoidance of the third finger in first position seems unexplainable to the modern cellist since its use is such an integral part of today's technique. Although Gertrude Shaw[10] attempts to link it to double bass technique, this seemingly logical conclusion is ruled out by Corrette's own description of the possible use of the third finger under another system. In the Preface he mentions his inclusion of this system using the third finger and describes it as being used by players of the old bass violins tuned in G. In fact, he includes it in the Method precisely for those players who have "left the large bass violin without having left its position." In Chapter XIV, which is devoted to this position, he describes it as "a gothic remnant from the bass violins tuned in G which are excluded from the Opera and all foreign countries." Therefore, we have the ironic situation of Corrette's cello fingering system

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[10]Gertrude Jean Shaw, The Violoncello Literature in France During the Eighteenth Century, unpublished Ph.D. dissertation, 1963, p. 23.

resembling the modern bass technique, while the old bass technique is closer to today's cello fingering system. Corrette obviously saw his system as an improvement upon this older technique, which has become universally accepted, despite his opposition.

Van der Straeten seems on firmer ground when he states that "Corrette's first position fingering was taken from the violin."[11] Corrette himself implies this in Chapter XIV when he writes that the bass violin system using the third finger is difficult for the violinist to adopt—whereby the system he advocates resembles the violinist's own fingering system.

It is most natural for the violinist learning the cello to want to retain the slanted position of his hand and his habit of playing a whole step between the first two fingers. However, for all but the violinist with extremely long fingers, the slanted hand does not permit the player to adapt his old position to the cello since the third and fourth fingers cannot be used conveniently in this position on the larger instrument. Squaring off the fingers so that they are at right angles to the fingerboard and putting the thumb under the hand allows both fingers to be used. However, the problem of playing a half step between the second and third fingers is aggravated by this squared-off position. The natural inclination for the third finger to

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[11]Van der Straeten, op. cit., p. 269.

remain close to the second is made more acute by this hand arrangement. In fact, it takes a special effort and much practice to be able to get the separation between the second and third fingers needed to play a half step in first position on the cello. This is even more true when the first finger must stretch back in order to play a whole step between the first and second fingers. Corrette, in all probability, noticed this problem and, rather than prescribe practice for the adult violinist whose muscles and bones were already set, suggested his system to overcome it. By positioning the second, third, and fourth fingers lightly touching each other in first position, a half step is played accurately by most cellists[12]—thus eliminating the need for the use of the third finger. While one might argue with Corrette's solution, it is entirely feasible and does facilitate transfer from the violin to the cello. It is also to his credit that Corrette includes in this Method the system using the third finger, even though he does not prefer it. His chief concern is clearly with popularizing the cello and making it more accessible to more players—violinists, gambists, and players of the older bass violins. This purpose is more to be commended than condemned.

Fretting the Fingerboard

Between Chapters VI and VII Corrette gives an

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[12]These three fingers of the author, who has what might be considered an average-sized hand, span 1 3/4" and can physically adapt to the Corrette fingering with ease.

explanation and diagram which explain how to mark off the fingerboard in the twelve half steps of the octave for the purpose of placing frets there. Since the divisions are given in fractions of the string's sounding length rather than in specific numbers of centimeters, these directions would apply to any stringed instrument regardless of size. While it is suggested that all twelve lines be added, Corrette mentions that the first three from the nut are the most important. By this statement he emphasizes his point that frets are intended as an aid to the beginner.

Exercises

Following the instructions for fretting the cello some exercises (leçons) have been inserted. These eight studies progress in difficulty of technique and key. They are followed by an elementary sonata for two cellos which is at the same level of difficulty as the last of the exercises. In the first three exercises each bowing is given. Fingerings are given for only two-thirds of the first exercise. As the difficulties and, hopefully, the proficiency of the student increase, fewer indications are given.

Shifting

Corrette names his positions as we do today by assigning a new position number each time the first finger moves to another note name. For example, on the A string one is in first position when the first finger is on B or Bb, second position when the first finger is on C or C#,

third position when the first finger is on D or D#, etc. However, he makes a fine distinction by calling the positions beginning on chromatic notes false positions. In his system the fourth finger is not used past the third position. The reason given is that the little finger is shorter than the others and can be used on this portion of the fingerboard only by rearranging the arm. It is common today to avoid use of the fourth finger only above fifth position. The difference of two positions is due mainly to the different dimensions of the neck of the cello of Corrette's time with that of today. The table below shows some of the essential differences between the 18th century cello and the modern instrument.

Comparison of Laborde Dimensions with Modern Measurements[13]

	Laborde 1780	Modern	Change
Neck length	10 1/6"	11 1/4	-1 1/12
Neck overlap on top	3/4"	3/8	-1/3
Top shoulder to bridge foot	14 2/3"	16"	1 1/3
Top width of fingerboard	1 1/6	1 1/4	1/12
Bottom width of fingerboard	2 1/4	2 5/8	3/8
Length of fingerboard over belly	8 5/6	12 3/8	3 13/24
Length of fingerboard	19"	23 3/4	4 3/4

[13]Shaw, op. cit., p. 7.

Corrette's general rule for arranging the hand in a higher position is to have the first finger placed the interval of a third below the highest note; then a major or minor third may be played. He advocates shifting on the same finger or changing fingers on a repeated note. His preference for shifting back on the second finger reveals another possible influence from violin technique. The reason given is that the first finger may be too short to move back a whole step. This seems to indicate that the thumb did not move with the finger as is common practice on the cello today, but that the finger stretched back and was followed by the rest of the hand.

The short chapter following the two concerned with shifting and positions points out to the student some of the intervals which may be played on two adjacent strings. It is surprising that Corrette only demonstrates the fifth, sixth, seventh, and octave (in third position), since it is also possible to play the intervals of a second, third, and fourth in the same position by "crossing the fingers"[14] as illustrated below.

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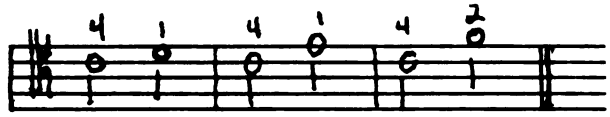
[14]That is, by using a low finger on a higher string and a higher finger on a lower string. An example would be playing B on the A string with the first finger while fingering or playing F on the D string with the second finger.

Example 4



Ornaments

The only two ornaments Corrette mentions as applying to cello music are the "cadence" and the "pincé." The former resembles the modern trill which begins on the next diatonic note above the principal note. The pincé is identical with the short mordent marked ~~~.[15]

Chords and Arpeggios

In Chapter XII Corrette gives the one situation where he advocates using the third finger in first position. This use is permissible when playing the interval of a diminished fifth such as F# on the D string with C on the A string. He states that this interval is always followed by a major or minor third. Therefore, a proper resolution of the dissonant interval is facilitated. If Corrette's preferred fingering system were used the player would have to finger the upper note with the first finger and the lower note with the second. When resolving to the major or minor third the

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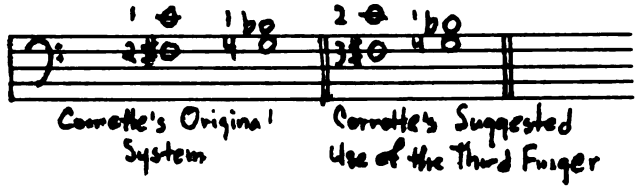
[15]Frederick Dorian, The History of Music in Performance (New York: W. W. Norton Company, Inc., 1942), p. 103.

first finger would have to extend backward towards the nut for either a half or a whole step (in the case of the minor third). While not difficult to execute by modern standards, the technique suggested by Corrette which uses the third finger is much easier and, in fact, the one most commonly used today.

Example 5



Corrette recognizes the augmented fourth as the same interval as the diminished fifth but with a different notation. His examples showing the fingering of this interval are given in both notations.

Thumb Position

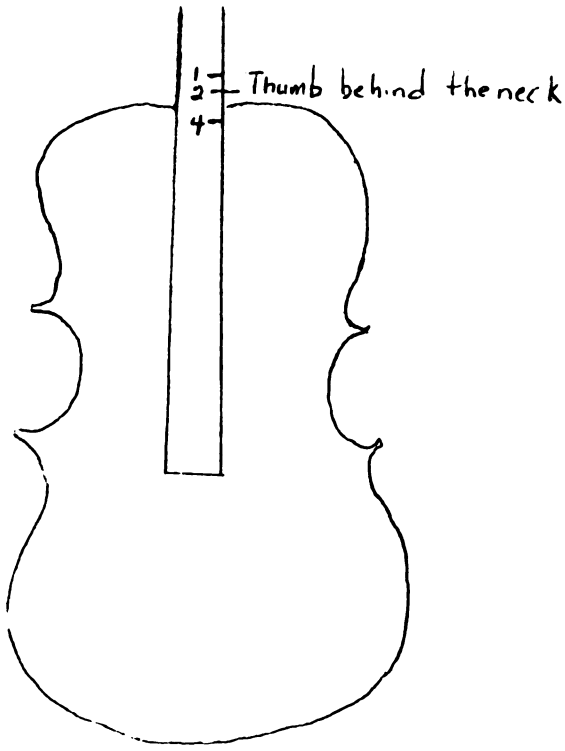
Corrette again illustrates the kinship of the cello and the violin in his demonstration of the use of thumb position on the cello. He advocates beginning the use of the thumb on the note E a fifth above the open A string. In this way the cello has the use of an E string like the violin's, since his thumb may serve as a movable nut. The cellist, using this position, may now play many violin sonatas (one octave lower) since his range may be extended even further upward by moving the thumb to A—an octave

higher than the open string—or to any note a fourth below the highest note to be played.

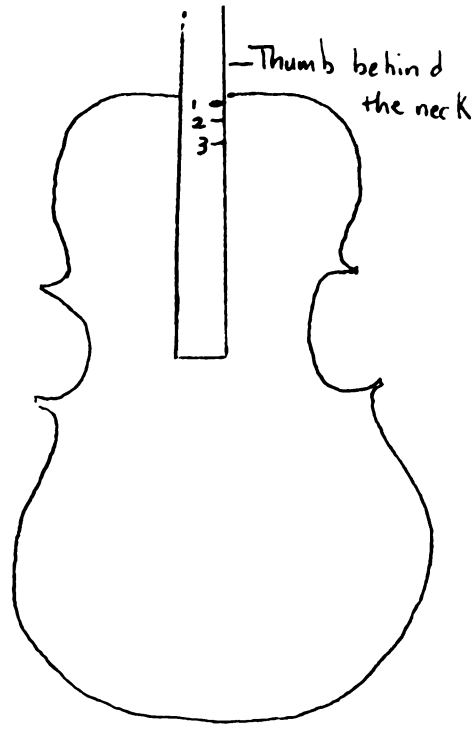
Corrette, in this instance, makes an exception to his prohibition of the fourth finger above third position. When the thumb is used in fourth position on the A string, the fourth finger may be used to play B or Bb. Higher than this, however, only the thumb and first three fingers are used.

While Corrette's prime reason for beginning the use of the thumb in fourth position may have been to simulate violin technique and range, he might have chosen this place because of the dimensions of the 18th century cello. As was shown earlier, the neck of the 18th century cello was shorter than the neck of the present-day instrument. Therefore, while it is comfortable for today's cellist to leave his thumb on the back of the neck opposite the second finger in fourth position, the 18th century cellist's thumb would have been behind where his fingers had to be placed to play E, F, and G on the A string.

Illustration



Fourth position on a 20th century cello



Fourth position on an 18th century cello

By placing the thumb on the fingerboard behind the fingers, as is done today in seventh position, the stretch of the fingers ahead of the thumb would be eliminated and the position would be as Corrette describes as the thumb position on E.

Another use of the fourth finger above third position is suggested when playing arpeggios past the middle of the

string. In this case, the thumb would rest at the side of the fingerboard so that all four fingers could be used.

Viol Players

In Chapter XV, Corrette observes that most viol players are now interested in learning how to play the cello and provides them with an aid in doing so. He gives a diagram which shows the ranges, open strings, and fingerings of both the cello and the seven-string bass viola da gamba paralleling one another. Thus it is easy to compare the techniques of the two instruments. After praising the cello over the viol he gives a thorough explanation of the differences in the fingering systems. The only notes that the viol has which are not playable on the cello are AA and BB. However, Italian composers hardly ever write these notes—adopting C as the lower limit of their range.

Accompanying

In his hints to the cellists with reference to accompanying, Corrette stresses the need for following the soloist and playing the notes without embellishment. He emphasizes both the obligation of the cellist to follow when a singer or violinist makes a mistake in rhythm—their part usually being more difficult than the cellist's—and his duty to hold the ensemble together and keep the others from rushing by playing forcefully and beating out the pulse.[16]

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[16]This is understood to mean literally giving an indication with the body—not merely counting.

He notices that some capable violinists play without beating time, but this does not mean that they play in good rhythm. In the last sentence of the Method, the Italians are praised for their ability to play in time without beating—except in music for large chorus.

COMPARISON

Principles or The Technique of the Violoncello in All Keys in The Easiest Manner, 1736, by Salvatore Lanzetti is the only cello instruction manual found to predate the Corrette Method. However, rather than being a comprehensive method dealing with many aspects of performance, the Lanzetti work is primarily a fingering guide. Thirteen scales with fingerings indicated are followed by one, two, or three exercises in the same key.

Lanzetti gave the cello a somewhat higher range than Corrette. Lanzetti's F major scale reaches f" while Corrette's highest note is an a'—a minor sixth lower.

Lanzetti's fingering system in first position is the same as that which Corrette describes as belonging to the old basses. As such, it resembles the system in use today with each adjacent finger placed one-half step higher than the preceding finger. The lower voice in many of Lanzetti's exercises gives evidence of the whole step extension between the first and second fingers. His third position fingering resembles the system preferred by Corrette. This may be evidenced by comparing Lanzetti's fingering for the second octave of the G major scale with Corrette's third position fingering given in Chapter VII, Article I. Both encompass the interval of a fourth between the four fingers. While this is rarely done in present-day practice, it would be comfortable and convenient on the 18th century cello. Corrette considers the fourth finger useless above third position, Lanzetti uses it extensively in the upper range

of the cello.[1]

In summary, Lanzetti's work shows evidence of a more advanced technique—his range more extended and his exercises more difficult than Corrette's. Yet its lack of narrative and its limited scope make it less informative to the present-day reader.

The Complete Tutor for the Violoncello, 1764, by Robert Crome resembles the Corrette method to a greater degree than the others discussed in this study. In Crome's brief Preface he comments, as does Corrette, on the growing popularity of the cello and explains that this popularity has caused the viols to be laid aside. The reason given in both cases is that the bass of the violin family is more powerful than the bass viola da gamba and, therefore, more suited to accompany the violin.

Surprisingly, in the first paragraph Crome advocates the use of the end pin for the beginner, but suggests that it be removed when the player progresses enough to be able to hold the instrument without it.

In the second paragraph Crome presents his fingering system which is identical to Corrette's. He explains his avoidance of the third finger in first position by stating that it is too short to span the necessary distance.[2]

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[1]See the second exercise in G major, the second exercise in A minor, and the scales of Bb major and B minor.

[2]The fact that Crome was a violinist at the Covent Garden Theater in London is documented by Edmund van der Straeten in The History of the Violin, vol. I, p. 405. This

Crome, possibly following Corrette's example, advocates fretting the cello as an aid to the beginner in tuning and placing the fingers properly.

His discussion of bowing presents only one method of holding the bow. This direction is not very detailed and is not accompanied by an illustration. However, his explanation of different types of bow strokes is more complete than Corrette's. His regular bowing is comparable to modern détaché; slurring is the same as the technique practiced today; feathering the bow is similar to portato bowing. It is unfortunate that Crome did not make an attempt to explain the execution of the springing bow. While he mentions this type of bowing, he concludes that it can only be explained by demonstration. In addition to the indications backward and forward (b. and f.) for the direction of the bow, Crome gives directions for the foot (down and up) to beat time.

A rudimentary example of shifting technique is given. Only the fingering for a major scale on each string is presented without any real explanation of the technique.

Forty-four short pieces are added as exercises and recreation for the student. They are moderate in difficulty of both left hand and bow technique, with the highest note written being an f#'.

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would explain his preference for this particular fingering system. It is also interesting to note that an owner of the copy which appears as Appendix C changed the fingering on page 7 to conform to the more modern system.

The similarities between the Crome and Corrette methods seem almost more than coincidental. While Crome might have arrived at the same solutions to pedagogical and technical problems as Corrette, it is also quite possible that he had access to a copy of the Corrette method. Van der Straeten states that parts of Crome's violin method The Fiddle New Model'd were taken from The Art of Playing on the Violin by Peter Prelleur.[3] Crome might have again followed this not uncommon practice in the case of his cello method. However, another possibility is that both Crome and Corrette were influenced by the playing and teaching of the same person—Giovanni Battista Bononcini.

Jean Baumgartner had a dual purpose in writing his Instructions in Theoretical and Practical Music for the Use of the Violoncello, 1774.[4] As stated in his Preface, he wished to make his teachings available to more than just his own students. However, his dedication to Prince William of Orange hints that he may also have hoped for some support

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[3]Edmund van der Straeten, The Romance of the Fiddle (London: The London Press Company, 1911), p. 207.

[4]Although 1774 is the publication date of this work, Baumgartner's remark concerning the Prince's coming of age which appears in the dedication would place the date of writing approximately eight years earlier. According to Hendrik Willem van Loon in The Fall of the Dutch Republic, (Boston: Houghton Mifflin Co., 1924), Prince William came of age on March 8, 1766, after being under the guardianship of the Duke of Brunswick since the death of his mother in 1759.

from the young Prince.[5] He also offers a tribute to Jean-Jacques Rousseau whose Dictionary was of assistance to him.

Baumgartner's concern with the theoretical aspect of music is evidenced not only by the title of his method but by his allotment of the first seven chapters to a discussion of the rudiments of music. He gives more attention to an explanation of the major and minor modes, the intervals which make up the various degrees of these scales, and consonance and dissonance than does Corrette.

Baumgartner's approach to fingering is identical to that of Lanzetti, except that he gives an alternate fingering in third position which avoids the two whole step stretches used by both Lanzetti and Corrette.

Baumgartner attempts to impress the reader with the importance of the knowledge of a good shifting technique but gives few instructions on its execution. His only advice is to shift in groups of twos if the notes are so arranged and in threes if that is the grouping. On the other hand, his instructions for the playing of double stops are detailed—giving the fingering for each chord and its resolution.

The thumb position technique illustrated by Baumgartner is quite advanced. He extends the range to a'' and includes double stops for each interval from the second through the tenth. One example is given to illustrate shifting with

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[5]Upon arriving at the age of 18 he was besieged by many artists and politicians seeking favors. It is entirely probable that Jean Baumgartner was one of these.

the thumb which he calls "capo tasto volante."

No advice is given on how to hold the bow but the importance of the contact point between the bow and the string in determining quality is stressed. While Corrette states that the best spot to place the bow is three or four fingers from the bridge, Baumgartner advises the student that the quality of the sound will change depending on how close to the bridge the bow is positioned. He gives an illustration of the different bowing marks (||| , ⌒ , ⌒ , ...) but there is no instruction given on their execution.

The most interesting and perhaps controversial section of Baumgartner's method contains his instructions for accompanying a recitative. Corrette's suggestions for accompanying consist mainly of warning the cellist to follow the soloist, to help keep time by accenting when the soloist rushes, and to play the notes simply without improvisation. No special rules are given with regard to recitatives of interpreting the bass line. However, Baumgartner discusses the technique for both the accompanied and ordinary recitatives—the latter in special detail. In the accompanied recitative, in which many instruments realize the figured bass, the cellist sustains the bass note only if the word "sostenuto" is present. When there is no sostenuto indication the notes should be played as in the ordinary recitative. In the ordinary recitative the cellist plays dry, detached chords. A table is given which shows which notes may be added to the bass and solo parts when no

numerical symbols are provided. His figure 9 for Chapter 14 shows his realization of the bass and gives a clear indication of how this type of accompaniment was to be performed.

The material in the last chapters gives further evidence of Baumgartner's concern with harmony. In fact, his treatment of this aspect of music overshadows his regard for the practical necessities for learning to play the instrument. While this information for the cellist regarding music theory is informative and especially valuable today as a clue to what the 18th century cellist was expected to know, it is regrettable that he does not explain more of the technical aspects of playing the instrument. On the other hand, Corrette provides only what seems necessary from a theoretical standpoint but explains in detail all technical matters presented in detail.

François Cupis makes no attempt to explain the rudiments of music in The New and Systematic Method to Learn to Play the Violoncello, 1768. However, the practical and technical aspects of playing the instrument are treated sufficiently and succinctly. His instructions on holding the instrument are very clear but, unlike Corrette and Crome, he does not mention any possible use of an end pin. Cupis' method of holding the bow resembles the first, or Italian, style described by Corrette. He advocates placing the fingers close enough to the center of the stick that the second and third fingers may touch the hair. Since he

does not give further indication that these fingers actually touch the hair or manipulate it while playing, it is assumed that this instruction is given solely as a guide in positioning the fingers. His advice to raise the elbow enough to give the wrist more facility, his warning to avoid constraint in the arm, and his instruction to keep the fingers down whenever possible indicate a high level of sophistication.

Cupis' fingering system is more modern than any of those discussed so far. It avoids the whole step stretch between the second and third or third and fourth fingers in third position. He also gives a slightly more thorough explanation of the extension between the first and second fingers by stating that in order to play a major third between the first and fourth fingers, the second finger moves up to take the place of the third.

The range as represented in the examples given in the text and in the exercises at the end of the method extends only to a'—the same limit placed by Corrette. There is no discussion of thumb position.

The Method for the Violoncello, 1774, by Joseph Bonaventure Tillière follows the plan of the Lanzetti tutor in giving scales and exercises in the most common keys but with little narrative. There is no information given on the use or acceptance of the instrument; neither are there instructions on how to hold the instrument or bow. Since Tillière was himself a cellist and student of

Bertau,[6] he probably intended the book for the use of his own students whom he would guide in these preliminaries himself.

His fingering system is the most modern encountered thus far. He extends the range to a''. This is demonstrated in his thumb position scales.[7] The exercises are thorough and challenging; they include every conceivable technical problem which a cellist of this time would encounter. A comparison between these studies and those presented in the Corrette method show how much the technique had advanced in thirty-six years.

The Bass Method...for the Violoncello, 1790, by Pierre Hyacinthe Azais incorporates the narrative style of Corrette with the scale and exercise presentation of Lanzetti and Tillière. All technical details presented in the exercises have been fully explained and demonstrated in examples throughout the text.

Holding the instrument and the bow, the proper left hand position, fingering, shifting, and thumb position are all clearly illustrated. Special attention is given to bowing technique with great emphasis placed on using the forearm and wrist. The student is advised to bow with large strokes using the entire length of the bow, and to

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[6]Eduard Nogué, Le Violoncelle, jadis et aujourd'hui (Paris: 1937), p. 106.

[7]See exercise 23, measure 25, of his method which appears as Appendix G.

bow closer to the bridge in the higher positions.

The forty-six exercises are comparable in difficulty to those in the Corrette method. The highest note given in the scales is b'; the highest note which appears in the exercises is e'.

While Lanzetti's tutor contains less than what would be expected in an instrumental method book, John Gunn's Theory and Practice of Fingering the Violoncello, 1795, contains much more. The first thirty-three pages, "Dissertation on the Origin of the Violoncello," discuss the history of stringed instruments from their possible beginnings to the 18th century with special attention given to the cello. The next seventeen pages, "The Theory of Fingering," present a thorough explanation of the acoustics of a vibrating string, the construction and fingering of the twelve major and minor scales, and general rules of fingering. "The Practice of Fingering" constitutes the most practical section of this long treatise and treats each aspect of technique in great detail. Gunn criticizes the scale-and-exercise approach of earlier methods, stating that they progress too far too soon and lead the student into bad habits. His solution to this is to give, as exercises, the bass parts of suitable literature, allowing the student to concentrate more easily on the fundamentals of tone production, finger placement, and the study of rhythm. The remainder of this method concentrates on these exercises in explaining how to use them to their best advantage.

Included are excerpts from the bass parts of works by Corelli, Haydn, and Marcello as well as those of lesser known composers.

This is by far the most exhaustive and inclusive 18th century text useful for acquiring information about the cello and for learning the technique of playing it. While its length and cumbersome format would make it difficult to use and less practical than most of the tutors discussed above, it could serve as a complete reference and guide to the student who does not have the advice of a teacher.

In the second edition of this work the contents are abridged—the "Dissertation on the Origins of the Violoncello" omitted entirely—and the explanations of playing technique include examples to illustrate what is explained in the text. This constitutes a great improvement in clarity over the first edition and renders it even more useful to the student wishing to learn to play the cello. On the other hand, the first edition would be more valuable to the scholar interested in studying the pedagogical and playing technique of the cello during the 18th century.

In comparison with the other 18th century cello methods discussed in this paper, the Corrette method is distinguished as the first comprehensive method for cello which gives information to the present-day reader pertaining to the status of the instrument, its playing technique, and its use as a solo and ensemble instrument in the 18th

century. While many of its ideas are outdated and seem to have had little effect on succeeding generations of players, it is interesting because this method presents unique solutions to cello technique at this point in history in which the manner of playing the instrument was in its formative stage. Contrary to what might be assumed at a more cursory glance, Corrette had firm bases in constructing his fingering system. It was designed for the mature violinist who wanted to study the cello and proved practical in facilitating the switch to the larger instrument. Thus, it should be viewed as an early attempt to provide a means of popularizing this instrument which was becoming recognized as being more suitable than the bass viola da gamba for providing the bass voice in the string ensemble. This was the stated purpose of Michel Corrette which he executed admirably.

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BIBLIOGRAPHY

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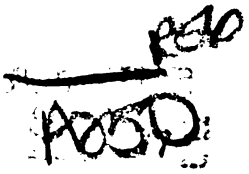

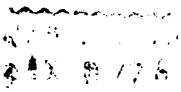

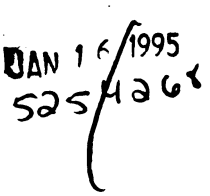
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THE THEORETICAL AND PRACTICAL METHOD FOR CELLO BY MICHEL CORRETTE: TRANSLATION, COMMENTARY, AND COMPARISON WITH SEVEN OTHER EIGHTEENTH CENTURY CELLO METHODS

Volume II

By

Charles Douglas Graves

A THESIS

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in

Applied Music, Literature, and Theory

Department of Music

1971

APPENDIX A

APPENDIX A

Principles

or

The Technique of the Violoncello

in all keys

in the easiest manner

composed by

Lanzetta

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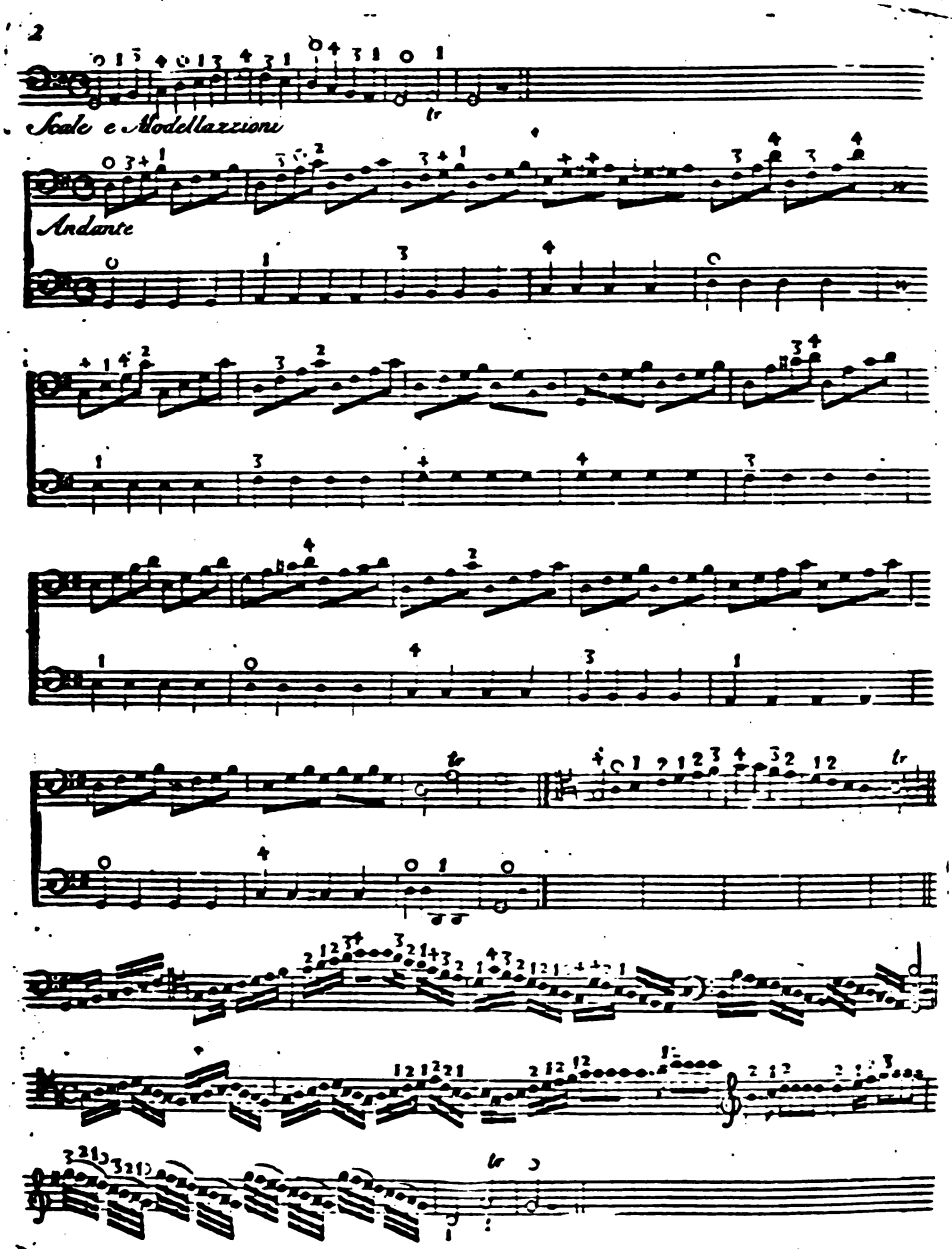
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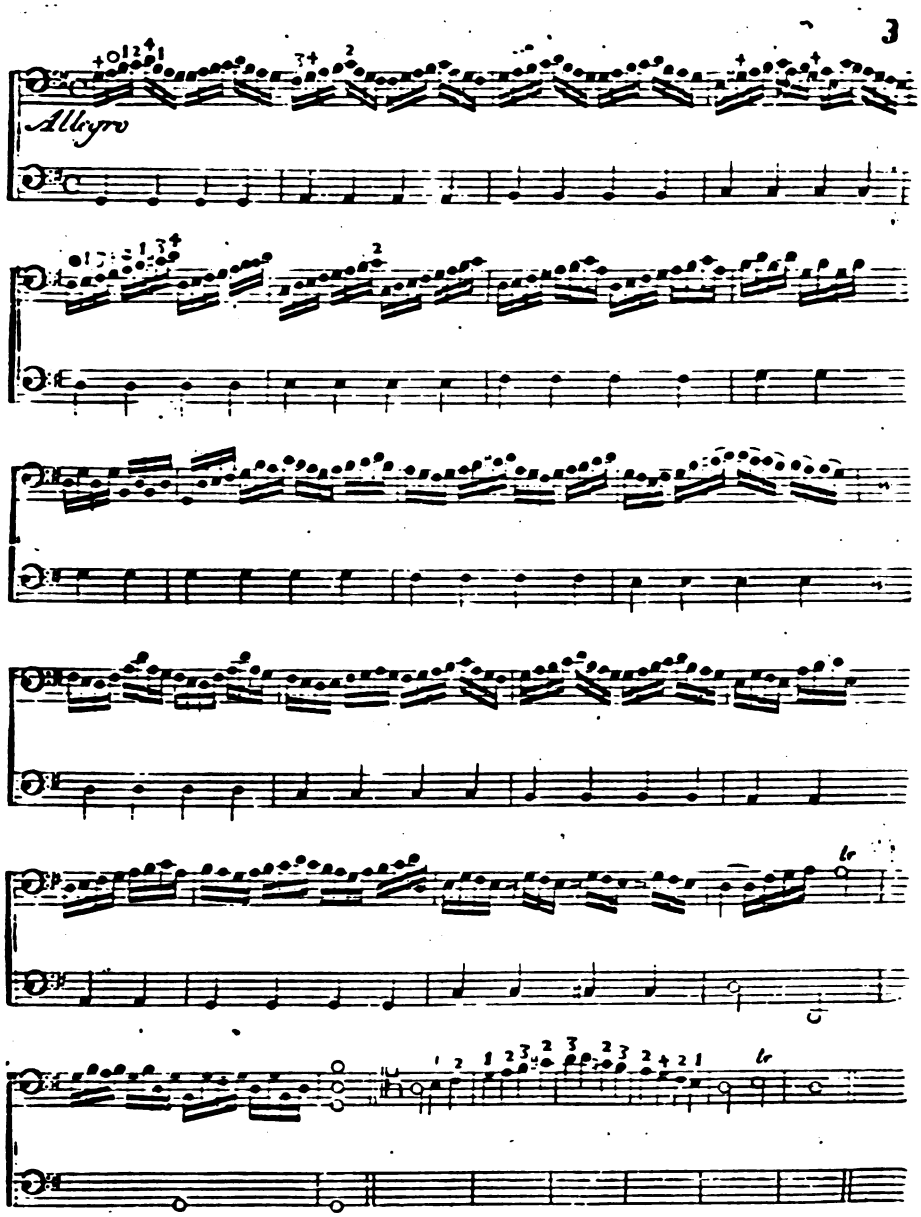
Andante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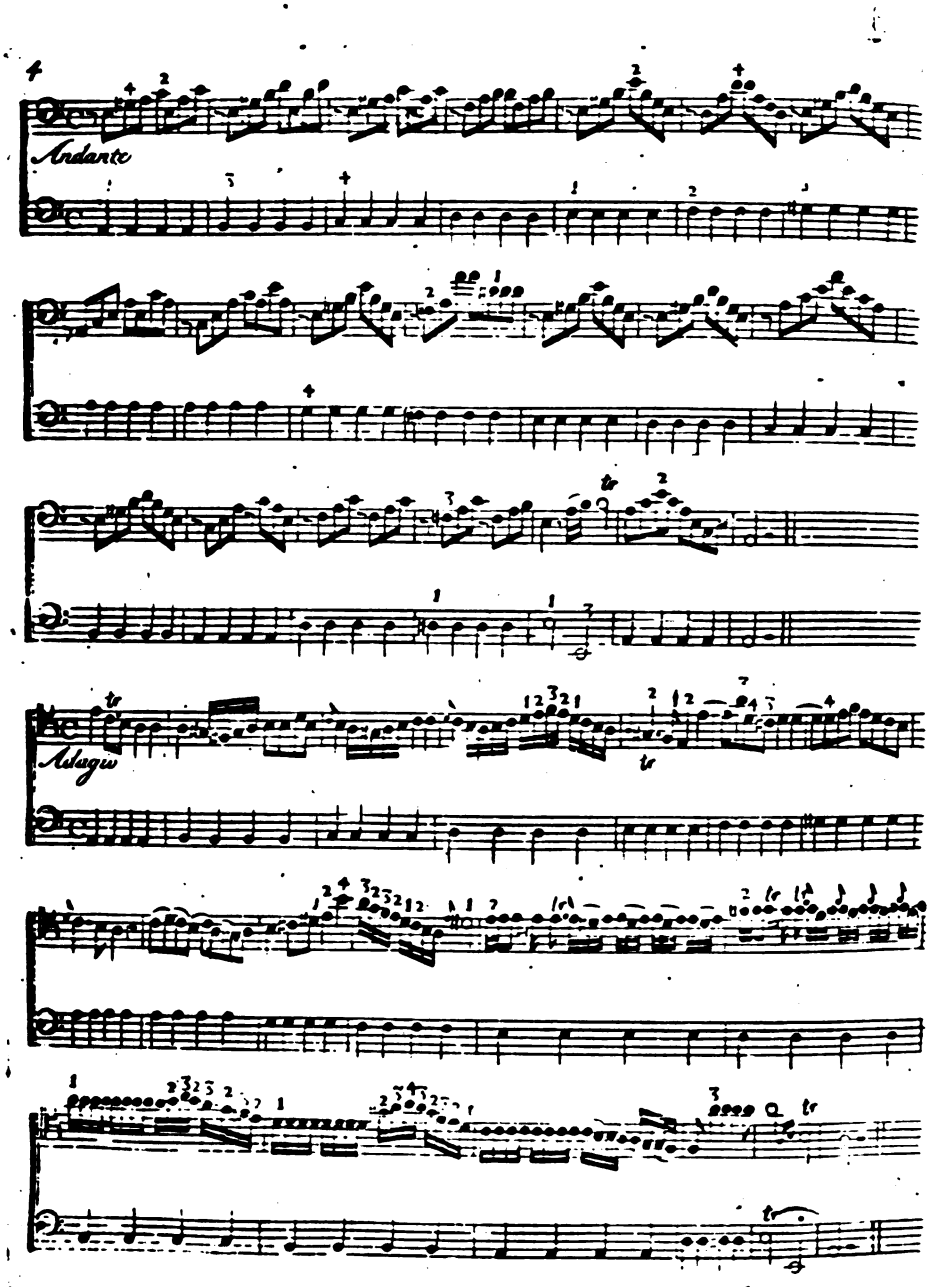
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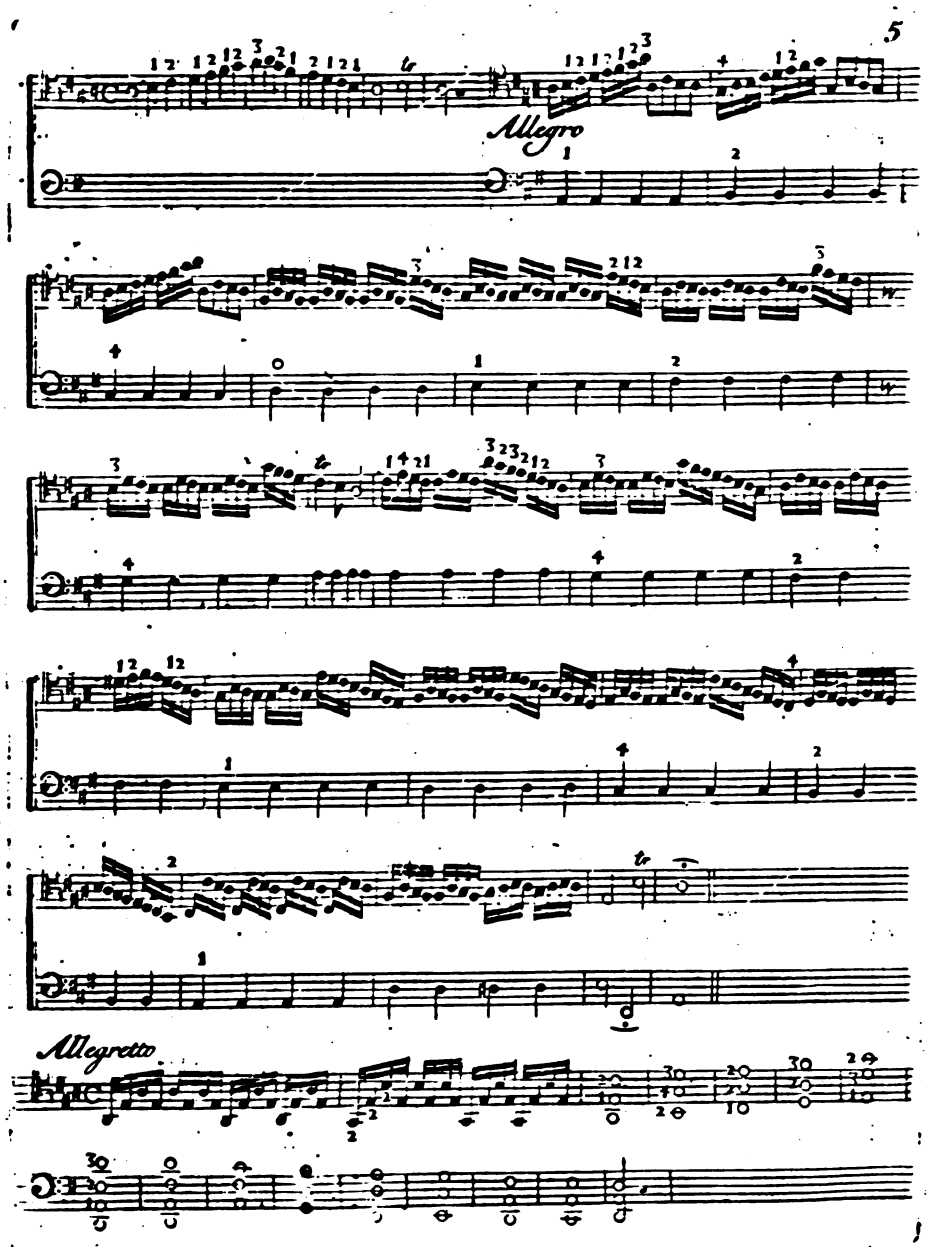
Adagio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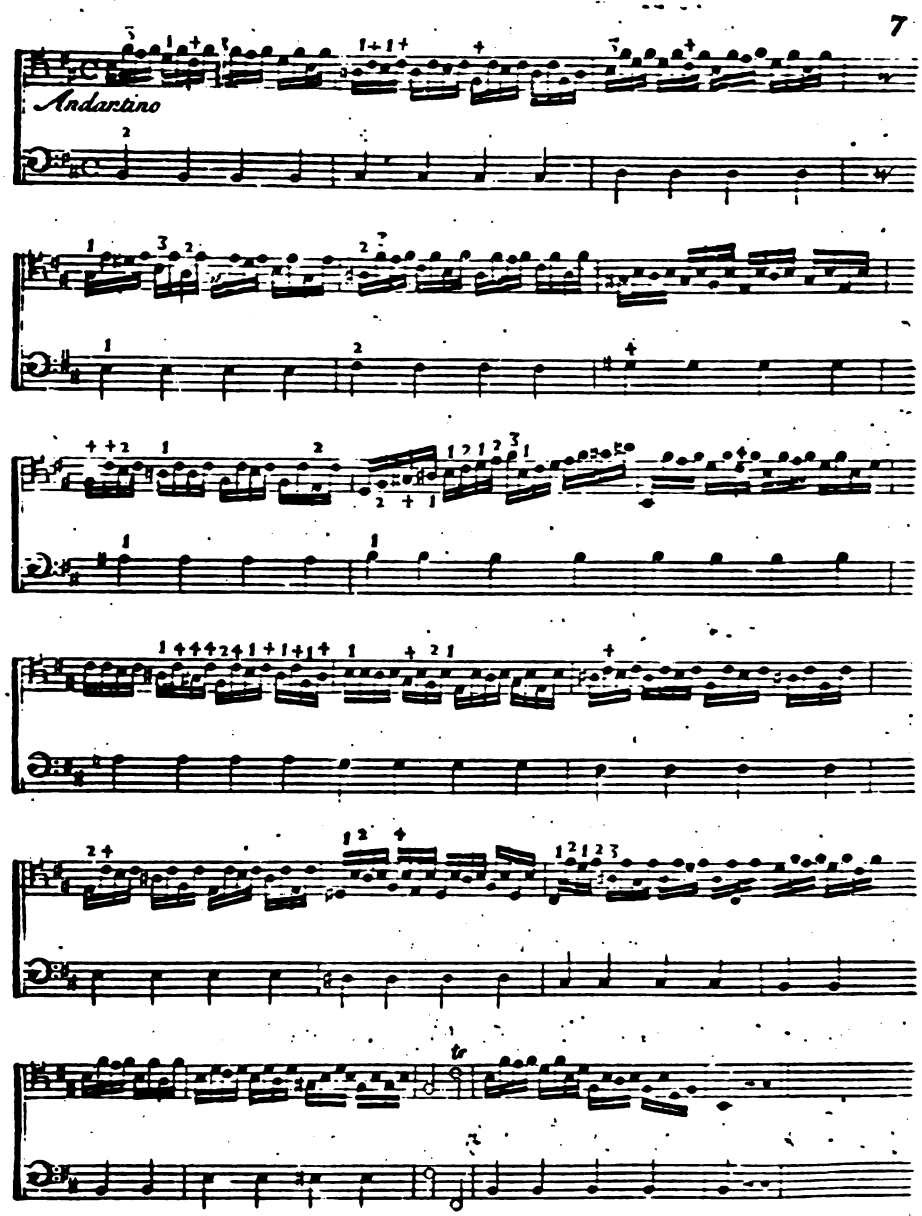
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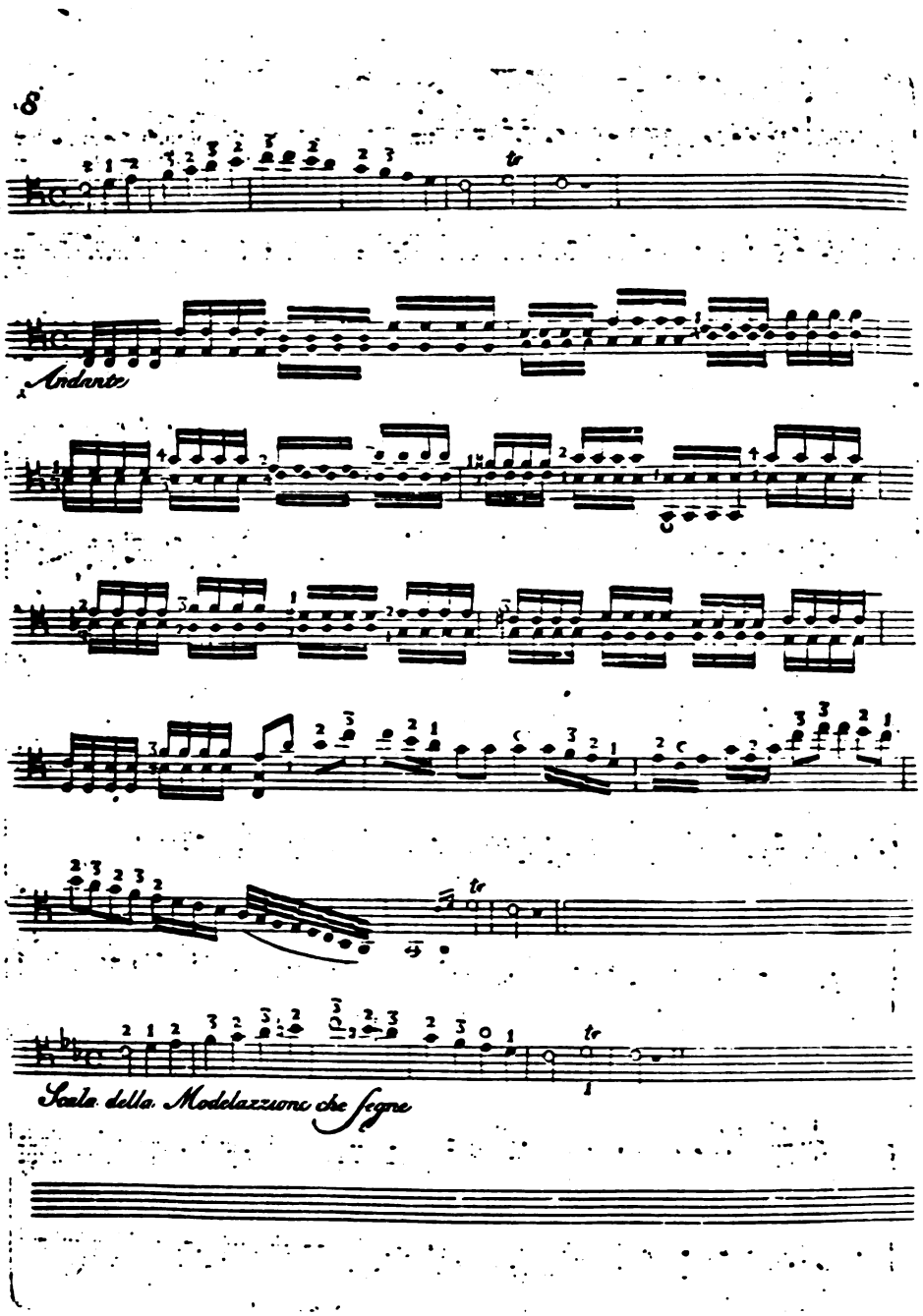
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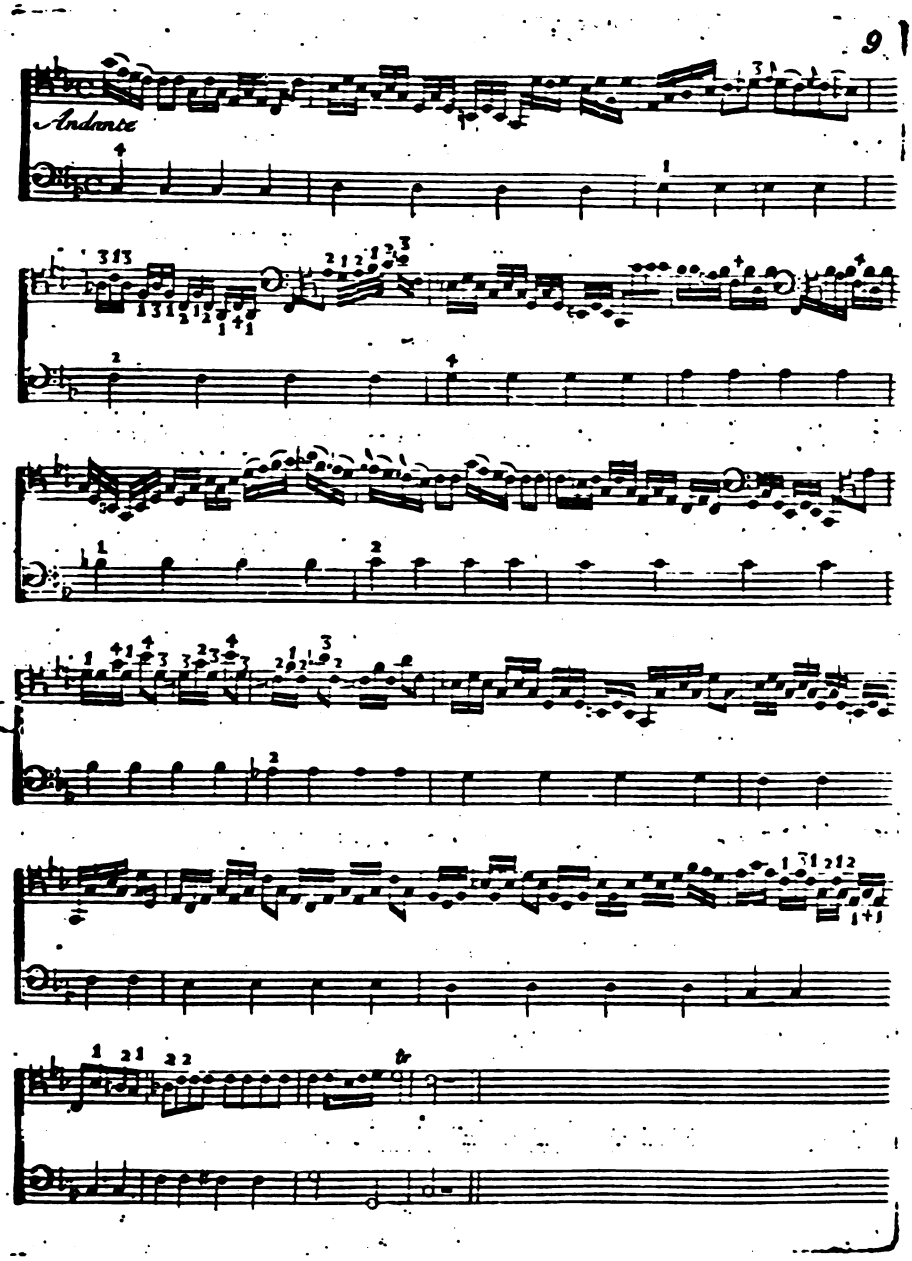
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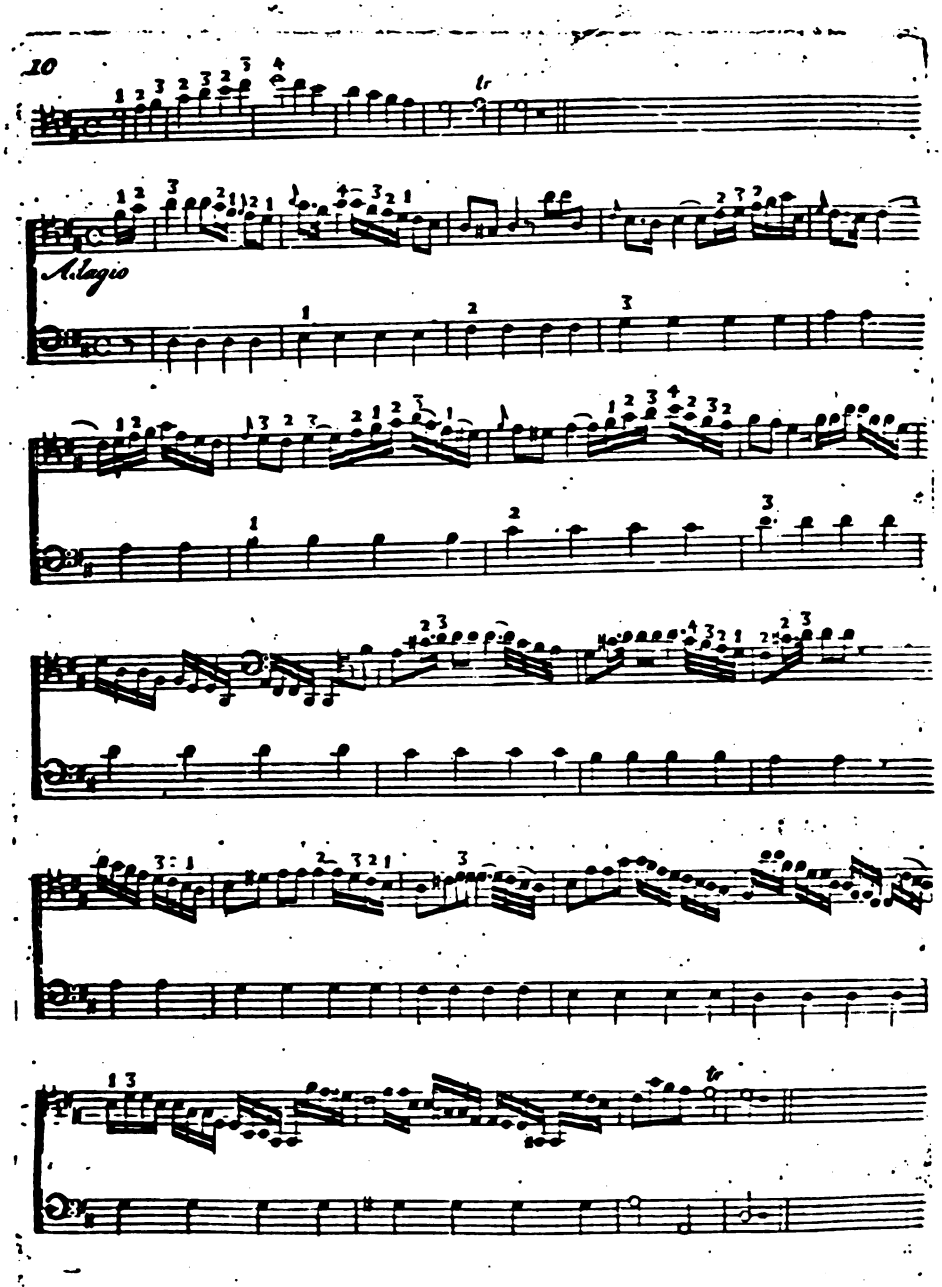
Andante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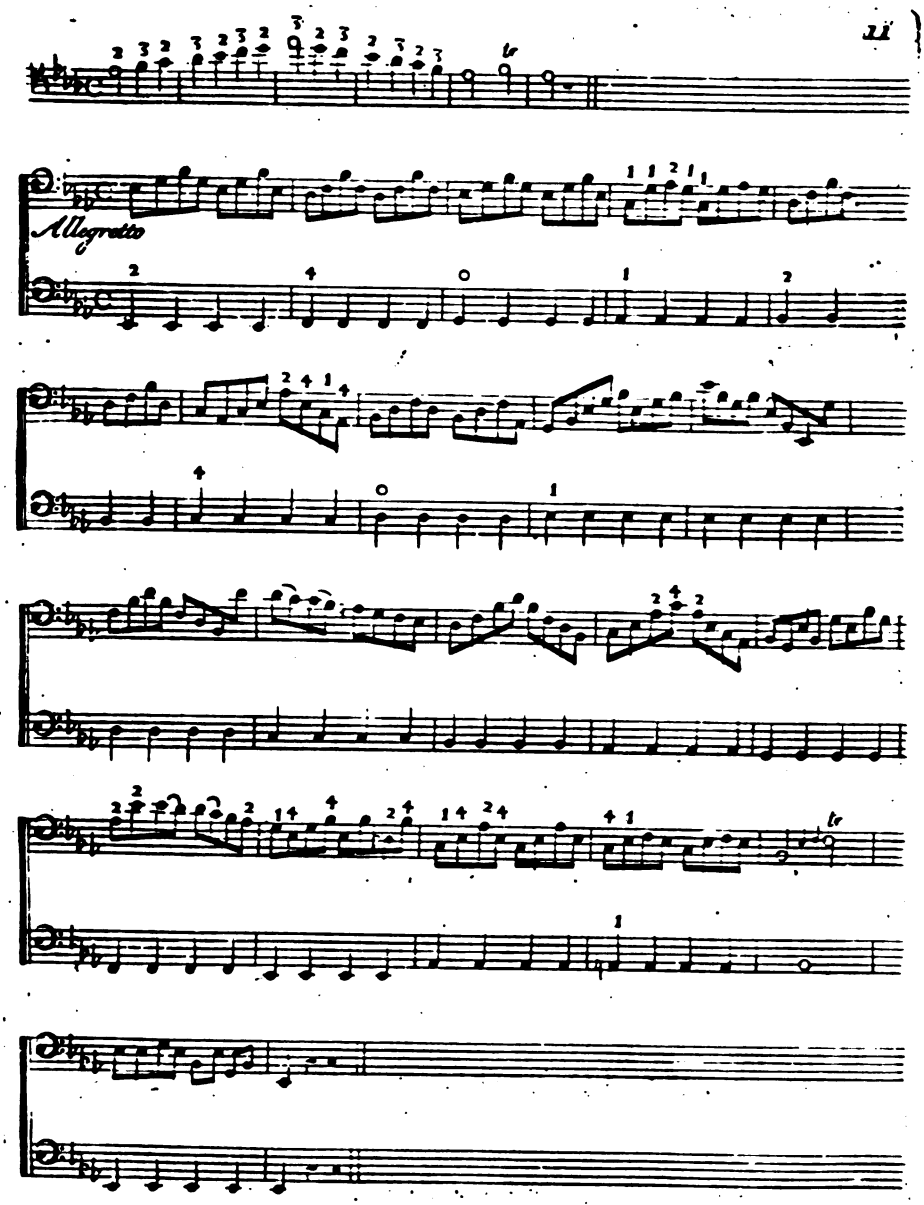
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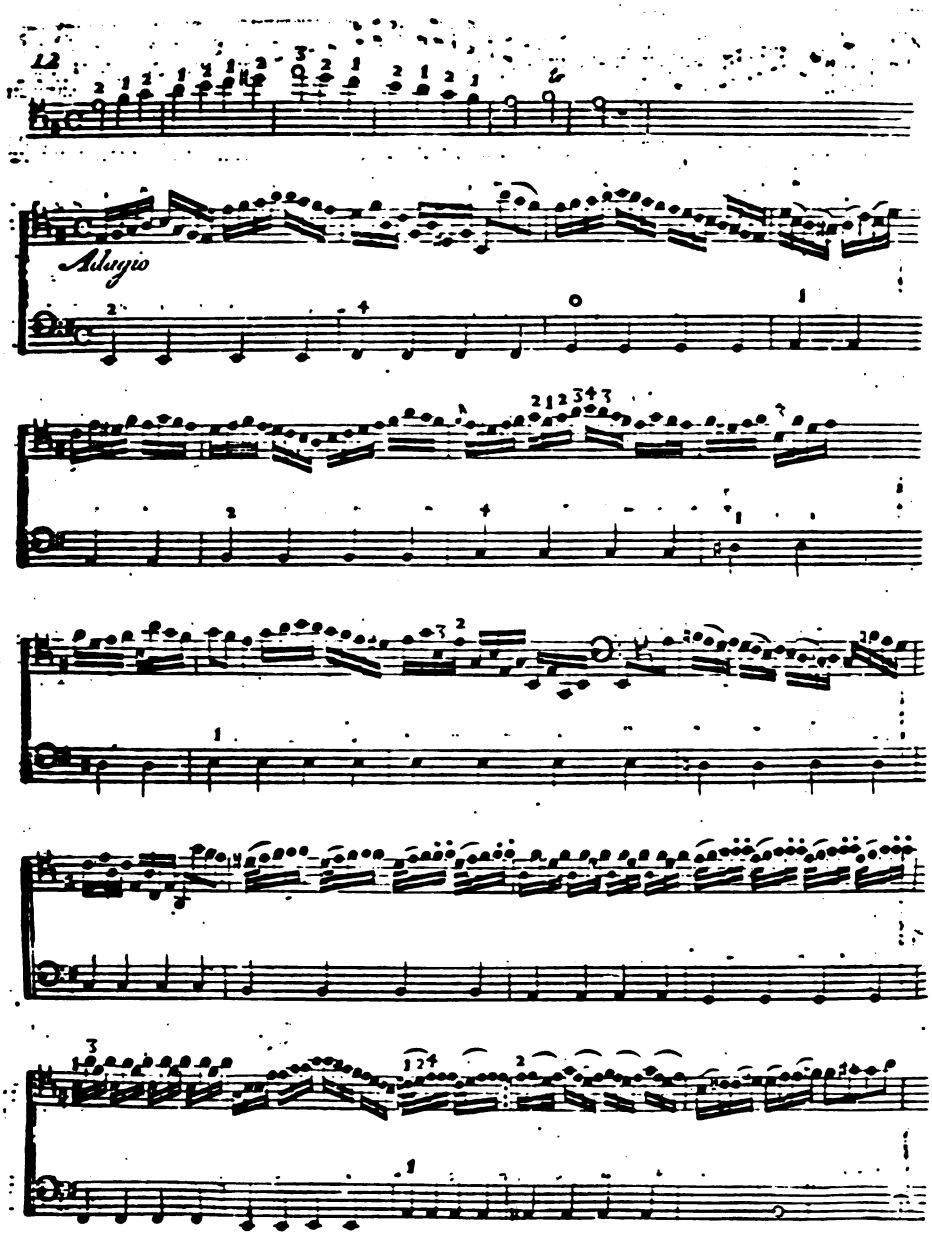
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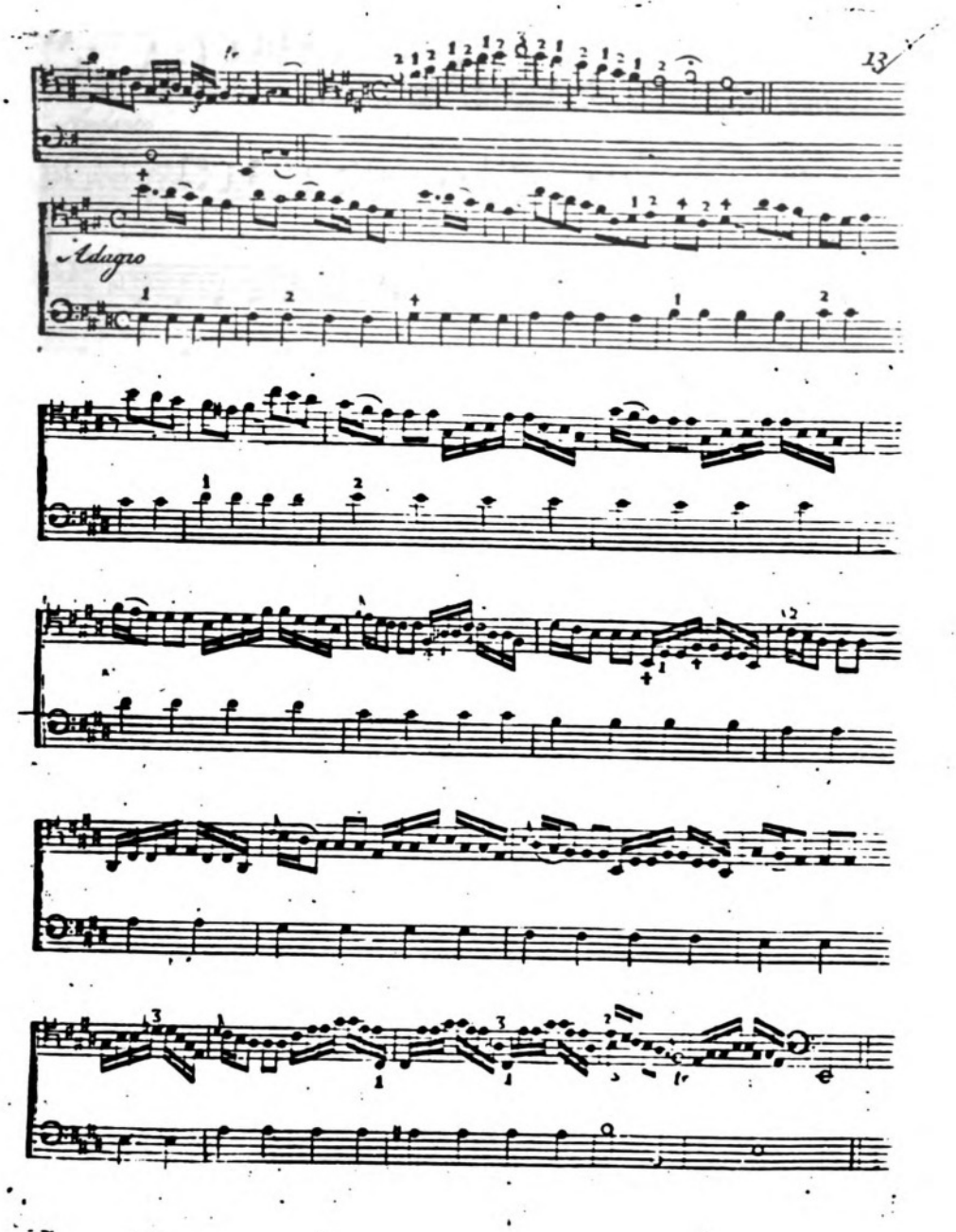
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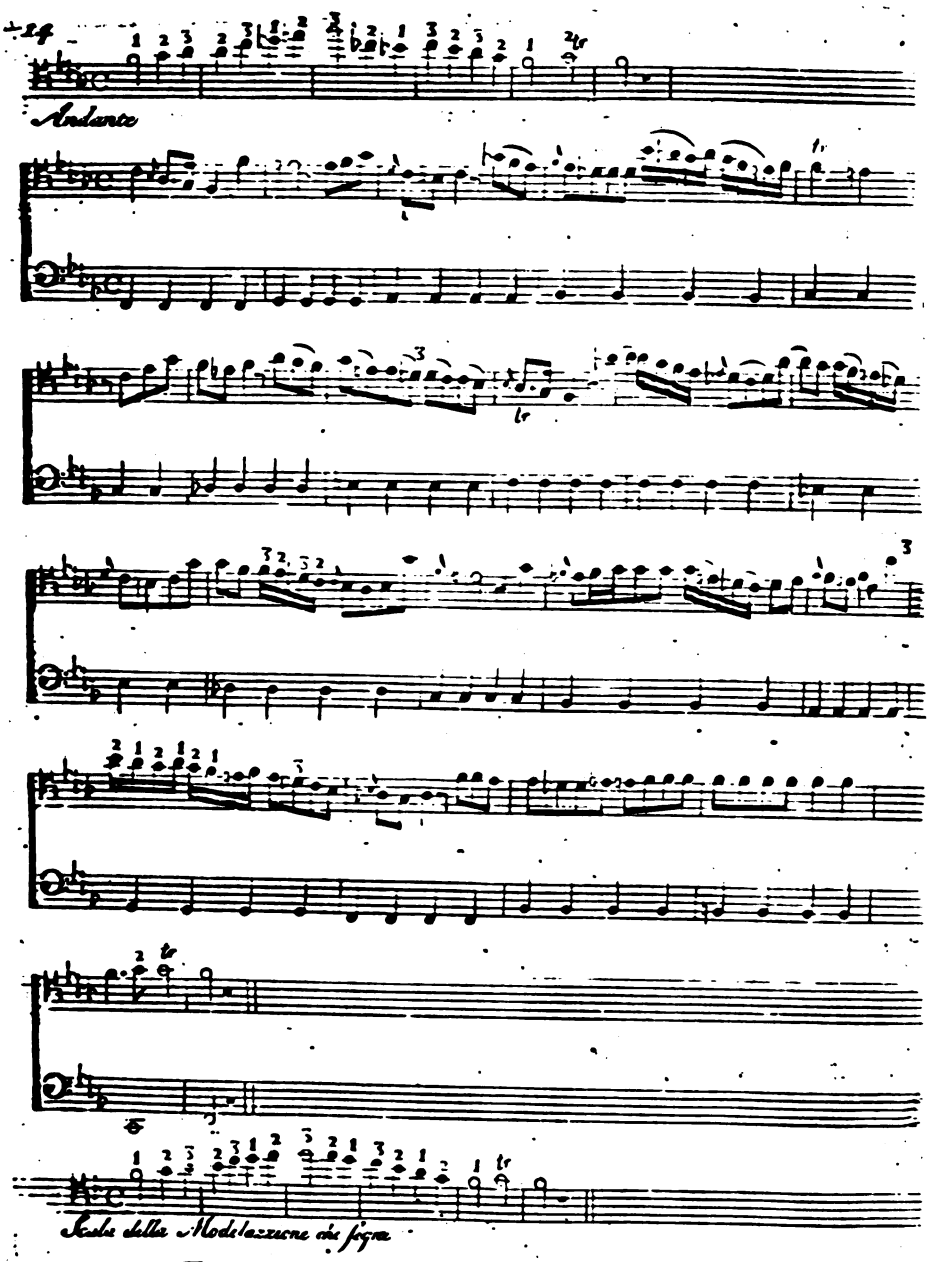
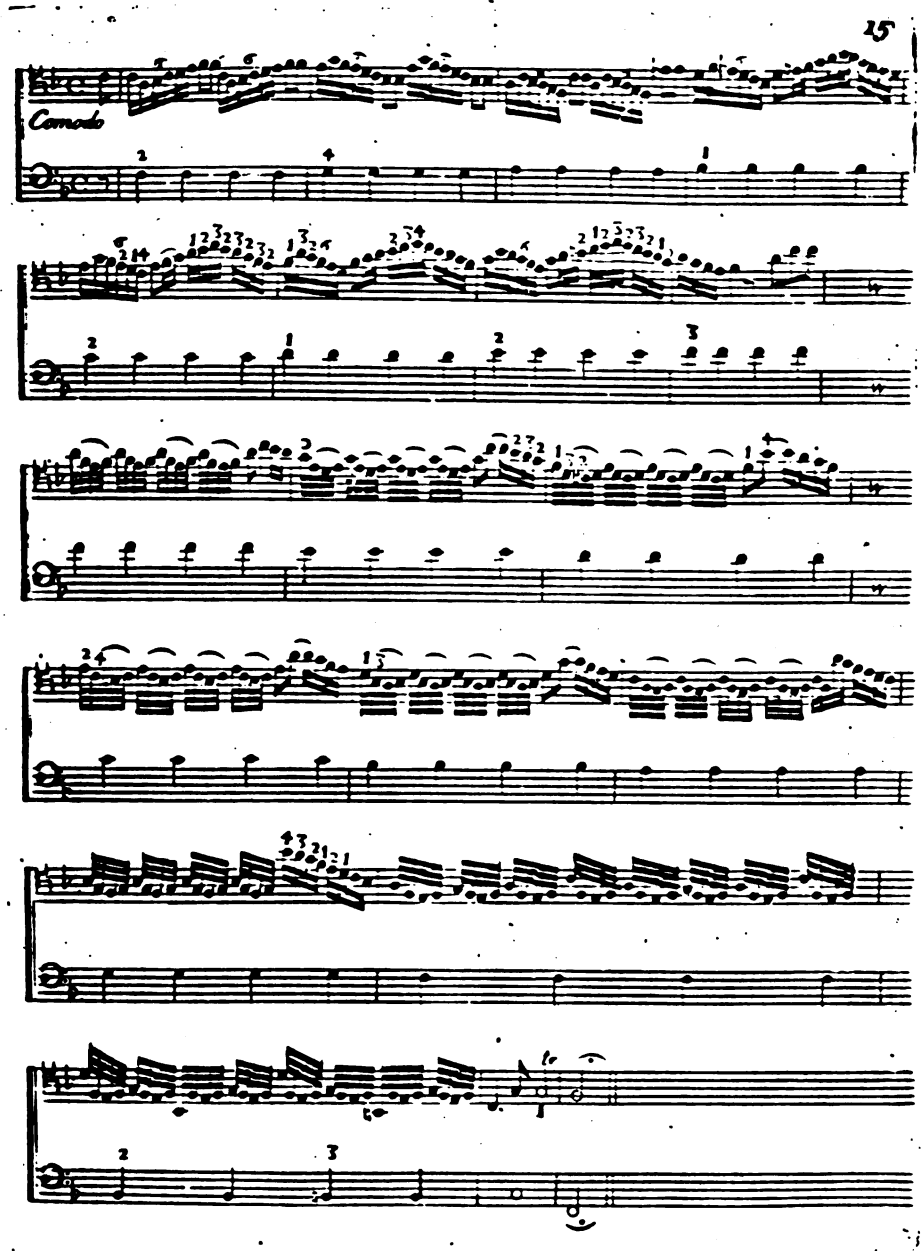

Andante
Scala della Modulazione dis sopra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Comodo

APPENDIX B

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THE

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PREFACE

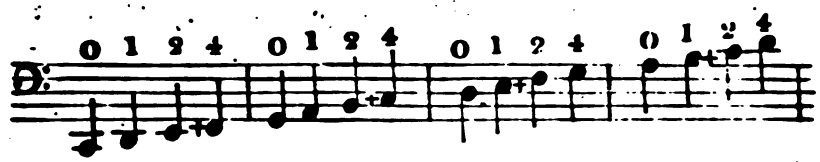
As the Baſs Violin is in great Eſteem I have here given ſome uſeful and plain Inſtructions for the Learner, as this Inſtrument appears to be Built on the Ruins of another; I mean the Viol or ſix ſtring'd Baſs, which in the laſt Century was held in great Eſteem, and of general uſe in Concerts. Viols where of three ſorts, Viz. Baſs Viols, Tenor Viols, and Treble Viols; The Violin in thoſe Days was look'd on as a contemptible Inſtru-ment; it was harſh and too loud, they cou'd not bear to have their Viols over power'd; however as the Violin became more general it was Judg'd neceſſary to uſe Baſs Violins or Vio-loncello's, (that is four ſtring'd Baſſes) as being much more powerful and ſuitable to the Fiddle, and ſince theſe laſt have been in ſuch frequent uſe, the former have been entirely laid aſide, Tho' there are Books of Inſtructions in all the liberal Siences and Grammars in all Languages, yet the Lear-ner will advance but ſlowly without a Preceptor; but as Verbal Inſtructions will be of great uſe when ſeconded by A Tutor, ſo theſe Inſtructions, I flatter my-ſelf will be of great Service to thoſe, who from their ſituation or cir-cumſtances in Life cannot conveniently have the aſſiſtance of a good Maſter.

INSTRUCTIONS
for the
VIOLONCELLO.
or
BASS VIOLIN.

The **Violoncello** is an Excellent Inſtrument, not only in Concert, but alſo for playing Leſſons &c. This Inſtrument may be Conſiderd as a Large Fiddle only held the contrary way, and the fourth String is next the Bow-Hand, as the Body is turnd downward, the lower part is to reſt on the Calves of the Leggs ſupported with the Knees, but for the greater eaſe of a Learner we would advize him to have an hole made in the Tail-pin and a Wooden Peg to ſcrew into it to reſt on the Floor which may be taken out when he Pleaſes. And firſt it will be very neceſſary for the Learner to get the Names of the Notes in the Gamut, alſo what line and ſpace each Note ſtands on, as deſcribd in the manner following.

2

The Gamut for the Violoncello



CC. DD. EE. FF. G. A. B. C. D. E. F. G. A. B. C. D.

The Learner will obſerve that O over any Note in the Gamut is open, or no Finger: the figure 1 is the fore Finger: 2 the ſecond: and 4 the little Finger. the reaſon we omit the third Finger is, becauſe the diſtance is great, and the Finger ſhorter. If your Inſtrument is perfectly in Tune, (for 'tis to be ſuppoſ'd the Learner is not able to tune it himſelf,) you may try to play off the Natural Notes of the Gamut; you muſt obſerve there are four Notes belonging to each String, Thoſe on the 4th or great String are Double C, double D, double E, and double F. the loweſt Note, or double C, is play'd open, which is done by drawing the Bow croſs the 4th String about 2 Inches from the Bridge; double D is ſtop'd with the firſt Finger about three Inches from the Nut; Double E is ſtop'd with the Second Finger nearly the ſame diſtance from the firſt Finger or rather leſs, Double F is ſtop'd with the fourth Finger about an Inch and quarter from the Second, the reaſon why the diſtance of the laſt is ſhort is, becauſe it is but a Semitone or half Note.

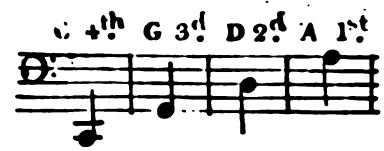
Thoſe on the third String are G, A, B, and C. G, is play'd open: A, is ſtop'd with the firſt Finger: B, with the Second: and C, with the 4th. Finger, at the ſame diſ--tance as on the 4th. String. Thoſe on the Second String are D, E, F, and G. D, is play'd open: E is ſtop'd with the firſt Finger about three Inches from the Nut; F, with the Second Finger about an Inch and half from the firſt, F being but a Semitone or half a Note above E: G, is ſtop'd with the little Finger about two Inches and quarter from the Second. Thoſe on the firſt String are A, B, C, and D. A, is play'd open: B, with the firſt Finger: C, with the Second: and D, with the little Finger at the ſame diſtance as on the Second String. By theſe direc--tions the Learner may ſoon ſtop the Notes in tune: The Learner muſt obſerve that the + between the Notes E and F, likewiſe between B and C are only Semitones, or half Notes, as they fall in the Natural Gamut: but we will hereafter introduce a perfect Scale of Natural and Artificial Semitones, which we may com--pare to a Magazine or Store Houſe of Sounds, and to take and diſpoſe of Occaſionally; for the Scale muſt be form'd into Keys and then the fingering will alter as the Key changes: All Muſic is known by the firſt ſeven letters of the Alphabet, and the Eighth is the ſame, ſuch as from C to C, from D to D, from E to E, from F to F, from G to G, from A to A, and from B to B, together with their Semitones.

4

Of tuneing the Violoncello

The Violoncello (as the Fiddle) is tuned by fifths in the following manner: the 4th or biggeſt String open when in tune is double C. the 3d open is G. the Second is D. and the Firſt is A.

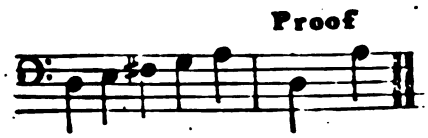
Example



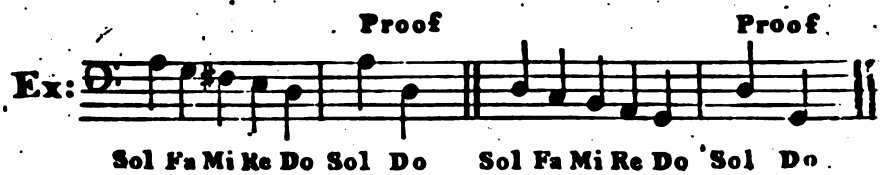
But if you cant put your Inſtrument in tune by theſe direc-tions you muſt have recourſe to the Repreſentation of the Finger Board following (which from Nut to Bridge ſhould be 26 Inches and half) with lines drawn acroſs and mea-ſure out the 7th or laſt line from the Nut, and when you have got the exact diſtance, tye a piece of Fiddle String tight on the Neck under the Strings, which will make a Frett, and will be a ſtandard for tuneing all the Strings. And firſt, you muſt ſcrew up the firſt String till it is in tune with the upper A in the Baſs of the Harpſicord, or the upper A of the Baſſoon, or an Eighth below an A, tune-ing Fork. then ſcrew up the Second till by putting the Finger juſt below the frett on the Second String it has the ſame ſound as the firſt String open, then if you ſtrike the Second open it will be D. the ſame Method will do for the Third and Fourth Strings. But the beſt way of learning to tune is by the Ear, that is, by Solmiſation if the Learner has any kind of Ear or Voice to Sol-fa five Notes aſ-cending or deſcending, if he has not, we can give him but ſmall encouragement to learn this Inſtrument. If he

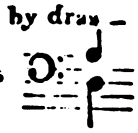
has an Ear, in the firſt place he muſt ſcrew up the Second String to be in tune with the middle D in the Baſs of the Harpſicord, or Baſſoon, which is the ſound required, next he is to get the firſt String in tune to the Second, Solfaing thus

Example



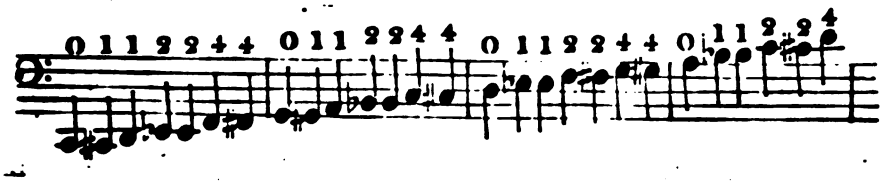
Do, the ſound given, Sol the ſound required; the Learner muſt practiſe continually till he can ſing the five ſounds well in tune which are aſcending, and then ſing them deſcending, thus



Now by Singing the Notes deſcending the Learner will be enabled to tune the third and fourth Strings by fixing the Sol on D, thus, for tho' the Voice might not reach ſo low as G, yet he will be able to diſtinguiſh the ſound required. The only thing now is to prove whether the Second and firſt Strings are in tune to each other, which is done by the Ear diſtinguiſhing what we call Concord or a perfect agreement of ſounds between the two firſt Strings, and is done by drawing the Bow croſs the two Strings at the ſame time thus  if there is a perfect agreement all is right.

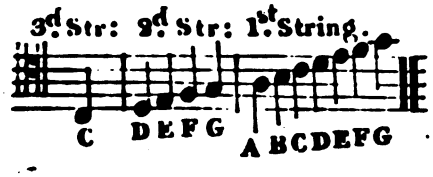
6

A perfect Scale for the Violoncello.

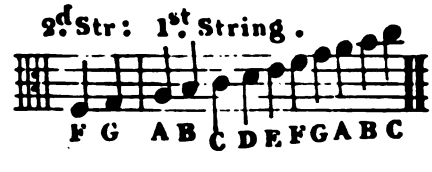


These are all the Notes Natural and Artificial neceſsary for a beginner in the Baſs Cliff, the Artificial are call'd Flatts and Sharps, a Flatt thus ♭, a Sharp thus ♯, and a Natural thus ♮, which brings the Note to its place after a ♯ or ♭. But there are two other Cliffs, Tenor, and Counter Tenor, and as they are very ufefull will ſet them both, The Tenor tranſpoſes the Notes a fifth higher, the Counter Tenor a ſeventh, but are very ſeldom uſ'd on the 4.th String.

Tenor



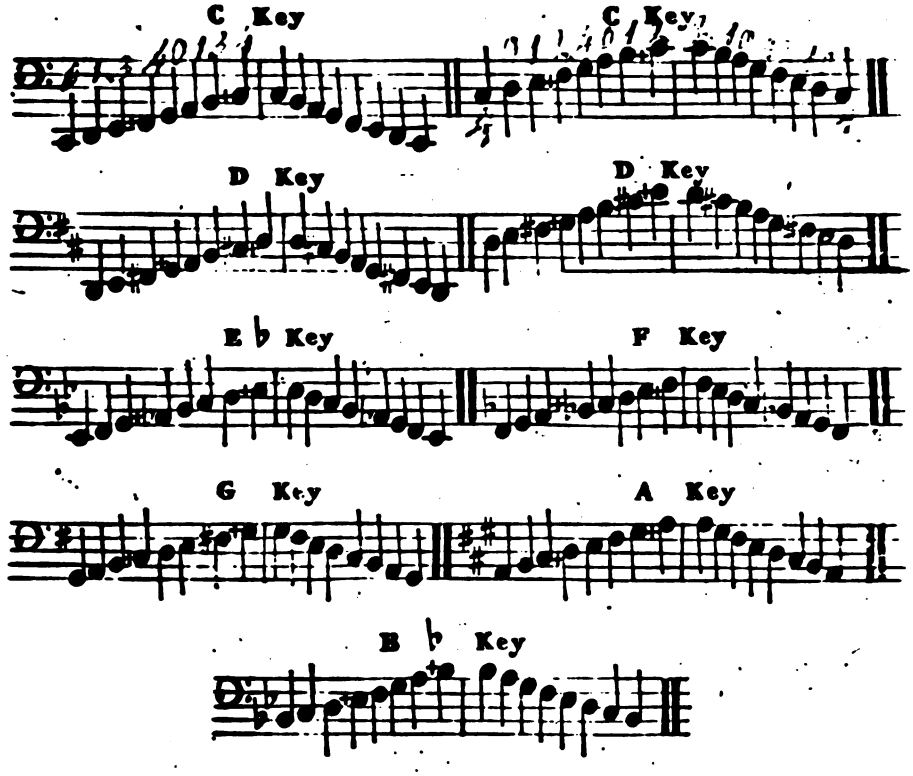
Counter Tenor



Of Stopping the Notes in Tune.

Tho' the Learner may have a good Ear, it will be ſome time before he can ſtop the Notes perfectly in tune, and therefore it will be a great help to him at firſt to have his Finger board Fretted, like that of the Guittar, and when the Fingers

are acquainted with the Finger board, have the Fretts filed down; but for playing off the Gamut, and to shew the right use thereof, we will form it into Octaves, which are call'd Keys, in order to introduce all the Semitones properly, ascending, & descending, thus



These are the practical Keys where the Learner may see how the Fingers differ in stoping the Notes in the different Keys; which this Representation of the Finger board will explain as having all the Semitones or half Notes drawn cross with lines. and tho' we have sufficiently explain'd the tuneing part, it is not possible to teach it by rule.

Of Time

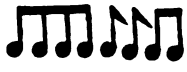
Time is the great Foundation on which all Muſical Perfor-
-mances are Built, and the want of it is the reaſon why ſo many are caſt away, having no foundation to build on. Time in Muſic is difficult except it is begun very early, but Time in itſelf is ſimply plain, ſuch as in our ordinary Walking, for tho we think nothing of it when we Walk, yet we keep pretty regular Motion. we ſhall call each ſtep a unit, or one time, but before we proceed further we will introduce a Time Table of Muſical Notes, with the proper Name and the Length of each Character.

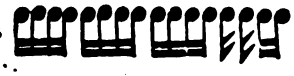
Time Table.

A Semibrieve  is as long as one can moderately count 4 or walk 4 ſteps.

Minims  as 2 each

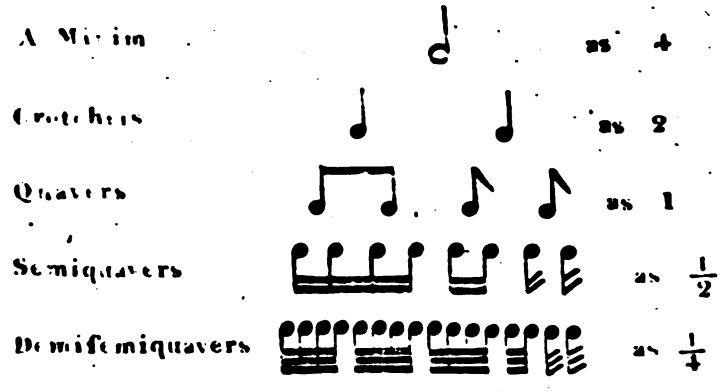
Crotchets  as 1 each or the unit

Quavers  as $\frac{1}{2}$ each or 2 to a time

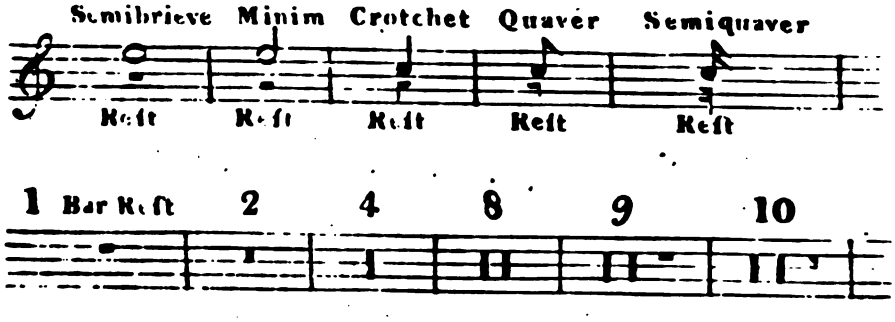
Semiquavers  as $\frac{1}{4}$ each or 4 to a time

But this is no fixd Rule, as the Notes often increaſe and decreaſe in their value of Time, for which reaſon it will be neceſſary to introduce a Second Time Table where the longeſt Note will be the Minim, as follows

A Second Time Table.

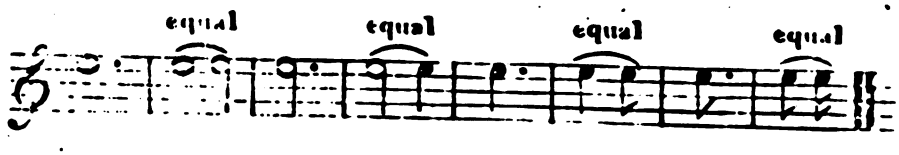


Example of Rests or marks of Silence.



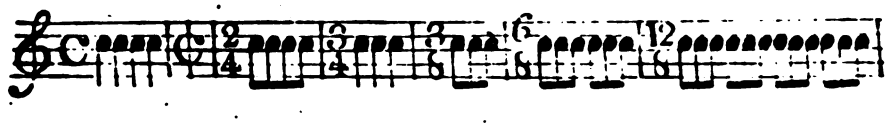
A Point or Dot (.) after any Note makes it half as long again as before.

Example



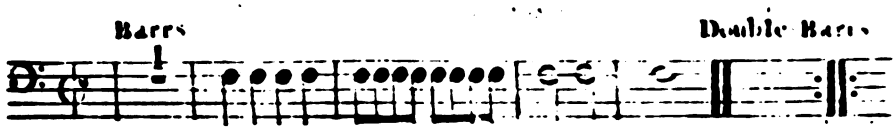
10

The reason of the Notes increase, and decrease in the Time is by introducing new Characters instead of the old ones, which in a course of many Years are quite out of use and the shape almost forgot, for in the Antient Music their longest Character was call'd a Large, 2d a Long, 3d a Brief, which by the appellation is short, 4th a Semibrieve, 5th a Minim little or shortest Time but tho' the Characters differ yet we may suppose Time to be always the same, and now most modern Music is play'd by the Second Table. Time must be equal, even, exact, like the ballance of a good Clock, whether the Notes be long or short or none at all: Common Time, or even Time contains 4 units or steps of Time which are call'd Bars so $\frac{4}{4}$ the whole tune is divided into fours, and is the standard of Time, it has this C Sign. Triple Time, or odd Time is a Fraction or part of the Common, and has this $\frac{3}{4}$ Sign, the others differ but little except in appearance.



The Learner will see that all other Times are a Fraction of Common Time, that they are of two sorts proper and improper, and indeed we may make any number in a Barr with an improper Fraction such as $\frac{6}{4}$ $\frac{9}{4}$ $\frac{9}{8}$ $\frac{16}{8}$ $\frac{24}{8}$ &c. only they contain so many more in a Barr but Fractions are generally play'd from the Second Table of Time. A Pause is mark'd thus 𝄐 it is for all Instruments to stop short a moment in order to join again with

the greater effect, it is alſo ſet at the finiſhing of a Song or Leſſon.



The Single Barrs divide the Time equally, the Double ends the part, and if dotted that part is to be playd twice.

Of Bowing.

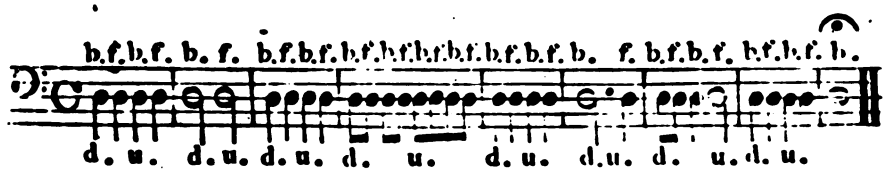
As the uſe of the Bow is practiſd various ways by different performers and being of the greateſt Conſequence we will endeavour to put the Learner in a regular way; The Bow may be conſidered as the Tongue of the Inſtrument as all the Expreſſion is from the Bow; the Bow in playing is always in Action, but the Fingers are often of no uſe; there are various ways of uſing the Bow, but the principal ways are four. Bowing, which is drawing the Bow backward and forward for every Note, Slurring, which is by drawing the Bow but once for two or any number of Notes; Feathering the Bow, which is done like the Slur, only it muſt be taken off the String after touching it: The Spring, which laſt cant be explaind but by Demonſtration. the Bow muſt be held near the Nutt with the Thumb and fore Finger, and ſupported with the other Fingers near the end at a ſmall diſtance from each other, The Bow muſt be drawn croſs the Strings parallel to the Bridge at the diſtance of an Inch & half or thereabouts backward and forward as ſmooth as you can to bring the Tone out, but without any Fingers on the Strings at firſt, that you may not ſtrike two Strings together, for in ſo doing you will foul each String out, and not ſtrike one String for another.

12

Of Beating and Counting Time.

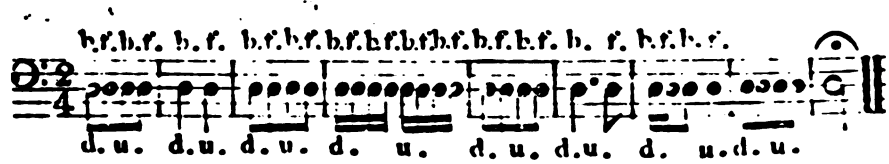
There are two ways of Learning Muſic, that is, by Rule of Time keeping, and by Ear, if by Rule, the Performer can't fail of becoming a juſt Player, if by Ear, he can never play but by himſelf. All Muſical Performances muſt be done by the Rule of Time keeping either with the Hand or Foot, but on an Inſtrument with the Foot, In Common Time you muſt beat down the fore part of the Foot when you count one, and let it remain till you have counted two, then take it up and count three, and remain up till you have counted four, thus

Common Time by the firſt Table.



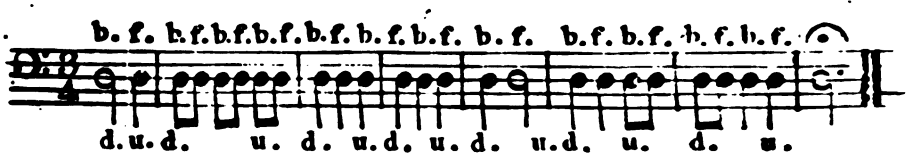
The letters over the Notes are for the bowing, b, for drawing the Bow backwards, and the f, for drawing it forwards, the letters under the lines d, for beating the Foot down, and u, for taking it up, which the Learner muſt practice continually, for if he neglects at firſt he will find it very difficult to do hereafter; the Learner may obſerve this Example is play'd from the firſt or Common Time Table, we will now ſet the ſame by the Second Table, thus

Common Time by the Second Table.



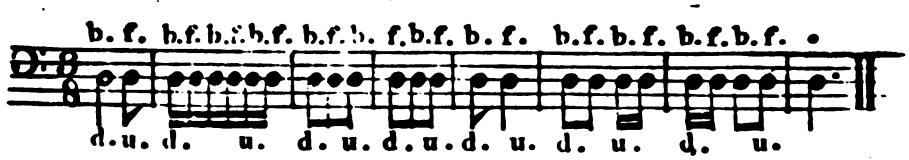
Here the Learner might think this Example was as fast again, and so it would if it was play'd from the Common or First Time Table, he may now see how necessary it is to introduce a Second Time Table, and indeed it put many Performers to a stand not knowing the value of the Notes. We will now introduce an Example in Triple Time. In Triple Time you must beat down the Foot when you count one, and let it remain till you have counted two, then take the Foot up & count 3, thus

Triple Time by the First Table.



The Letters over and under are us'd the same way as in the former Example, We will set the same Example to be play'd from the Second Table, thus

Triple Time by the Second Table.

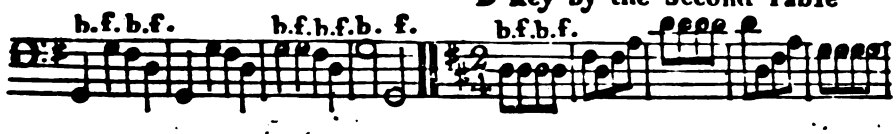


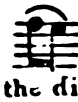
It is needless to make any further observations on the foregoing Examples, only we may compare them to the intervals of Time in beating the Drum, and it is as impossible to learn Musick without Time, as for a Carpenter to Work without his Rule, or a Pilot to Steer without a Compass; and tho' the foregoing rules may be useful, yet any one will be deceiv'd if he thinks he can learn himself with buying a 2 Shilling Book: However we will set some few useful Examples and such as the Learner will be able to play, for Instruction Books are generally stuff'd full of difficult Lessons which can be of no use to the Learner.

14

G Key by the Firſt Table

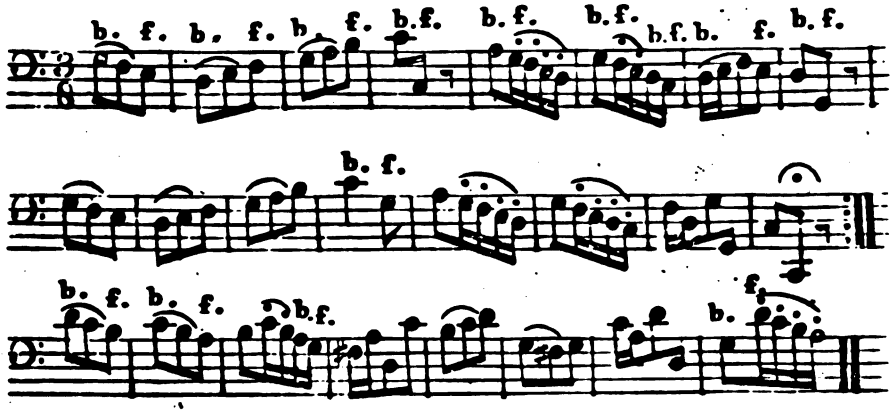
D Key by the Second Table



We will now give ſome further directions for the Bowing, the Slurring, and the Feathering the Bow. When the number of Notes in a Barr are equal or even, ſuch as 2, 4, 8, &c. the Bow muſt be drawn backward and forward continually, the Arm keeping in motion like the Pendulum of a Clock. The firſt Note in each Barr is to be play'd with a back Bow as may be obſerv'd in the foregoing Examples. we will now ſet an Example for Slurring and Feathering the Bow; the Slur is known by this ſemicircle put over the number of Notes it contains, thus  the ſame ſign ſerves for the Feather, only dotted  the difference is this, for the Slur; the Bow is to keep on the String, and for the Feather; it is juſt taken off the String, but with the ſame Bow. We will ſet an Example which will explain both, in the manner following.

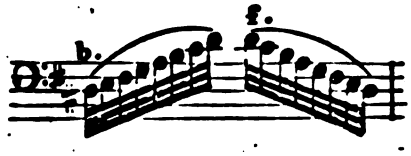
15

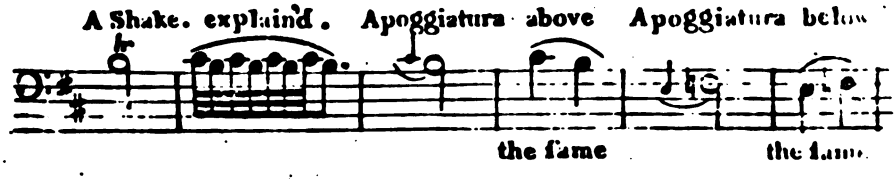
Minuet in C Key by the Second Table.



Da Capo, or begin & end with the first Part.

By this Example it will appear how neceſsary it is to regulate the Bow, and tho' ſome may think the Bow is of no great Conſequence they may be aſsur'd 'tis much more difficult than the Fingering, after the Fingers have rightly found their places, for the Fingers ripen much ſooner than the Bow, and indeed we can perform with the Fingers what is not poſſible to be done with Bowing, which we can make appear by the following Octave.





16

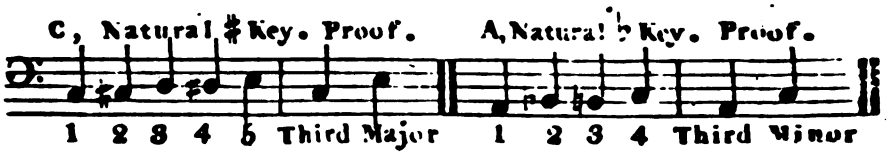
Of Ornaments or Graces.

The Notes in Baſſes ſhou'd be always play'd plain, Tune, and Time are all that is requir'd; the only and principal Grace we ſhould make uſe of is the Shake, which borrows the ſound from the Note above it, as in the foregoing Example. The Apoggiatura is a kind of Slur, ſometimes from the ſound above, and ſometimes from the ſound below, and takes half the Time of the Note it ſtands before; which if it does, would it not be the ſame without? I mean to ſet it plain, as in the Example. for ſuppoſe it is a Minim with an Apoggiatura, is not two Crotchets with a Slur the ſame? moſt certain. for we look upon the Apoggiatura as unneceſsary and Anſwer no end except puzzling the cauſe, the Apoggiatura generally is a retardation of ſome Diſcord, and may be done as well with the plain Notes.

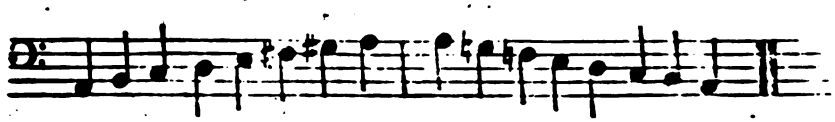
Of Sharp Keys and Flat Keys.

We have ſufficiently explain'd what is meant by the Key, namely, the degrees of an Octave in which are two Semitones. But properly ſpeaking, there are two Natural Keys in Muſic, that is, the Flat Key, and the Sharp Key, which two Keys are to produce two Melodies or Harmonies in order to expreſs the two Paſſions, Chearful, and Melancholy, the Sharp Key to expreſs the Chearful, and the Flat Key the Melancholy Muſic. Sharp Keys are proper for Trumpets and Horns, which are confin'd to the Sharp Key only. The Flat Keys are more ſoothing and complaining, yet they are frequently mix'd one with the other in the Modulation. All Keys are known, not by the Flats, nor the Sharps ſet at the beginning of the Staves, but by the third and ſixth of the Key, a greater third,

or Third Major contains five Semitones, and is call'd a Sharp Key. a leſſer Third, or Third Minor, contains but four, and is call'd a Flat Key, which we ſhall explain by the following Examples

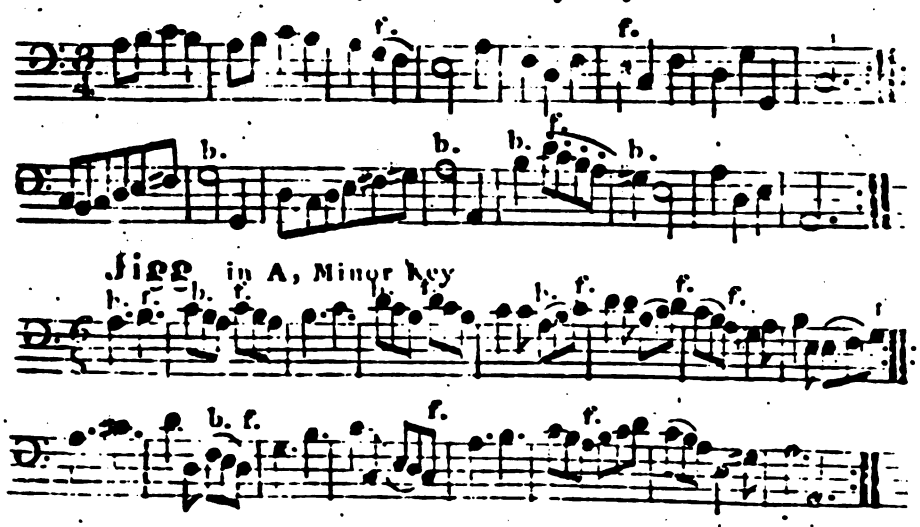


All other Keys are only a Tranſition from theſe Natural Keys, it is to be obſerv'd that in aſcending in a Flat Key, the 6th. and 7th. of the Key muſt be Sharp, but in deſcending all muſt be Natural, thus



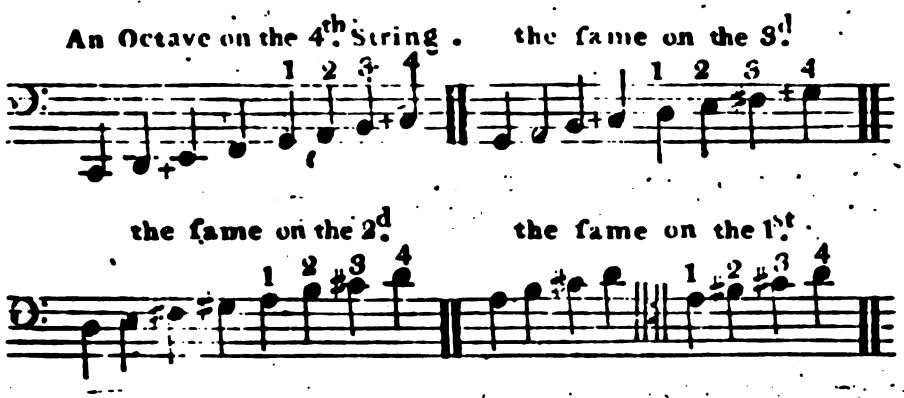
As we have ſet a Number of Examples in the Natural Key of C, Major, or greater Third, we will ſet one in the Natural Key of A, Minor, or leſſer Third, thus

Minuet in A, Minor Key. by the 1st. Time Table.

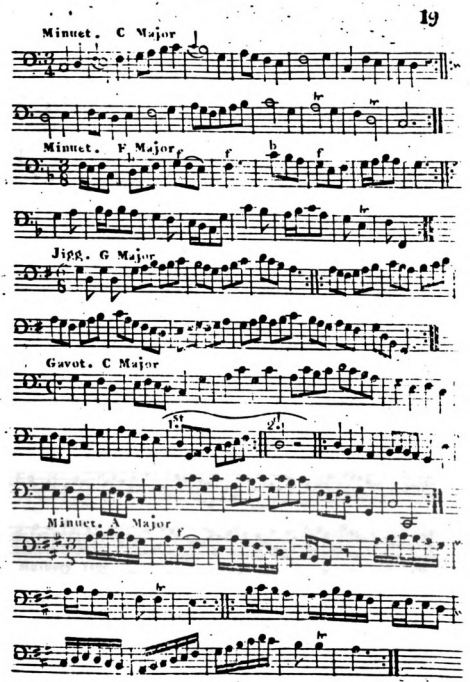


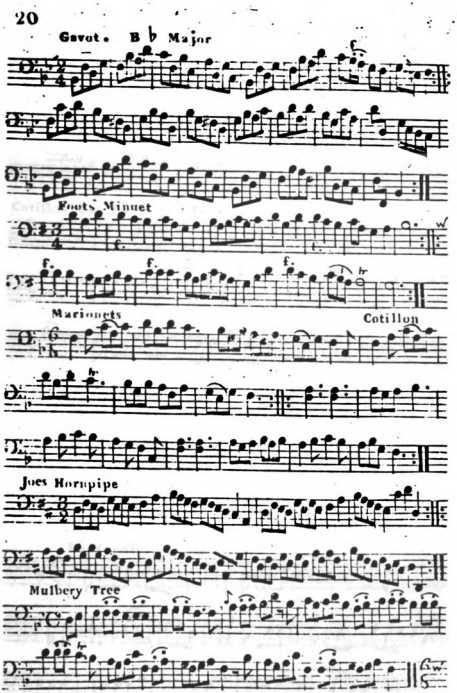
18

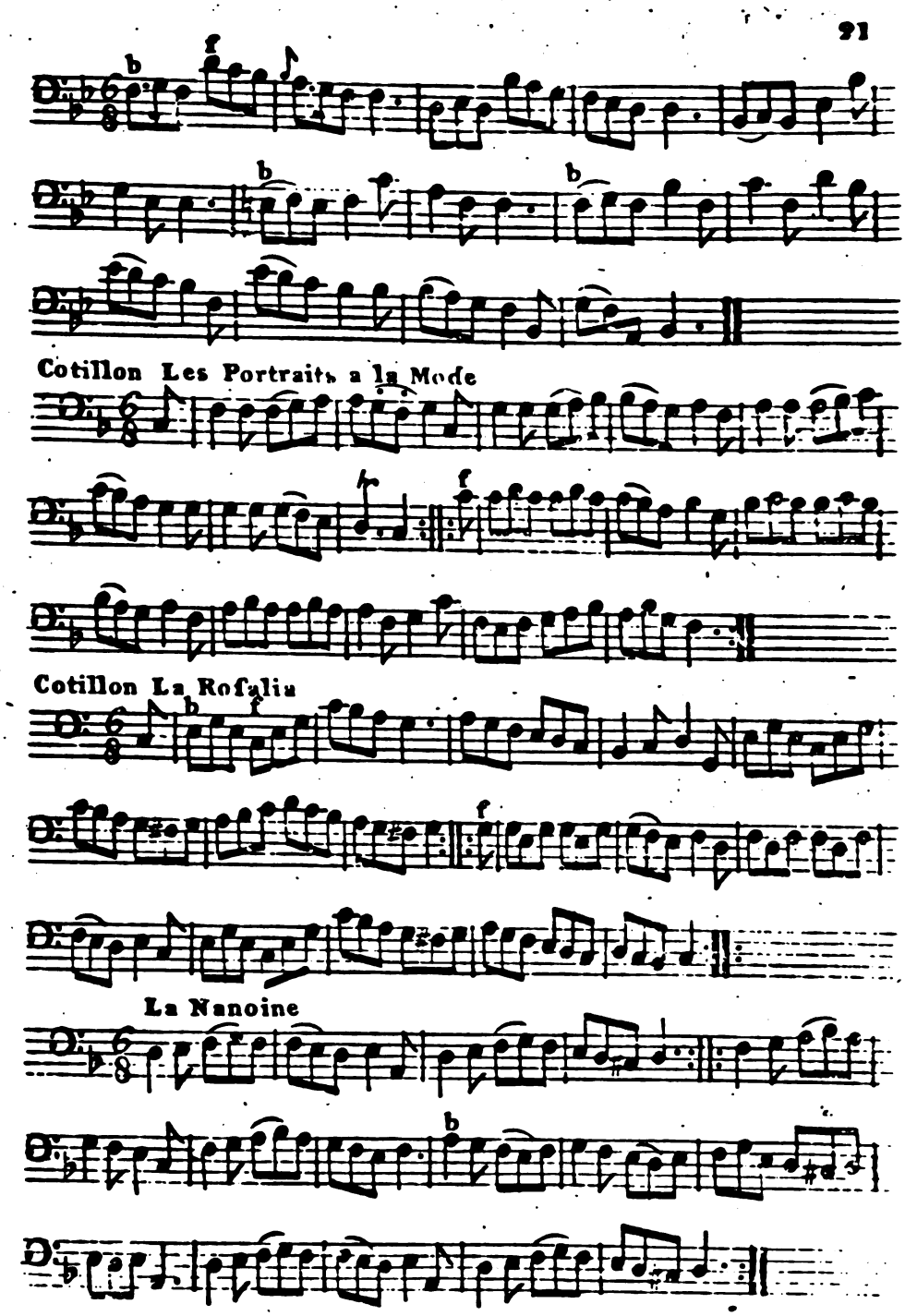
It may be obſerv'd that we have ſet but few Leſſons that require the ſhifting the hand, yet we will form each String into an Octave, which is done by Tranſporting or ſhifting the hand higher up the Finger Board, as will be ſeen by the following Example, which will give the Learner an Idea of Shifting.

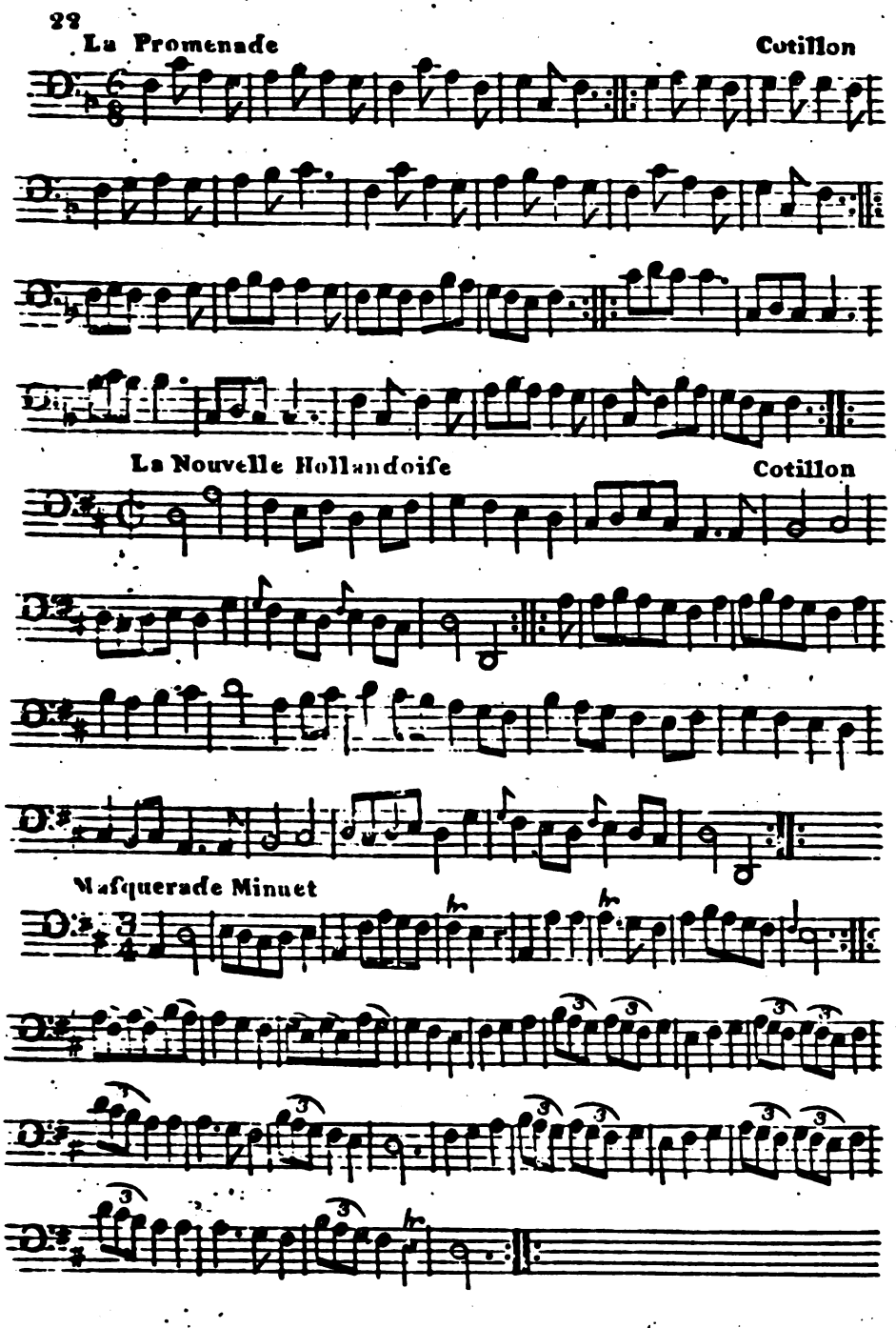


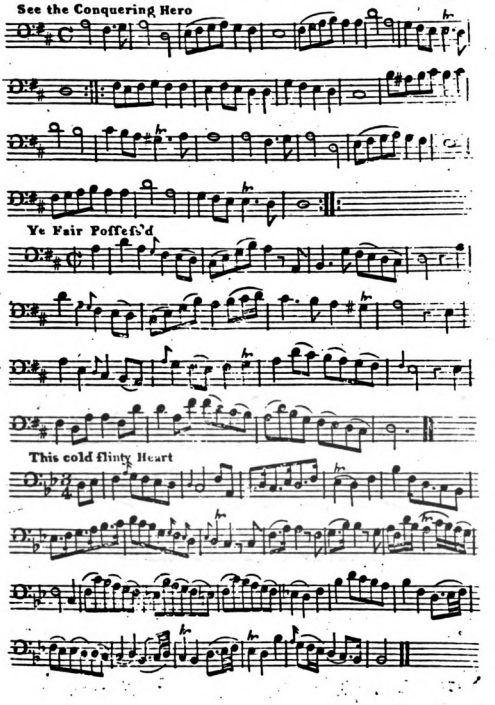
To play the Eight Notes of C, Key on the fourth String, the Learner muſt play the loweſt four as they ſtand as before mentiond, then he muſt Shift his hand ſo as to make the fourth String an uniſon with the Third String open, which 4th. String is to be ſtopd now with the firſt Finger; the Second Finger is ſtopd almoſt two Inches from the firſt, the third Finger is to be ſtopd about an Inch and half from the 2d. and the little Finger is to be ſtopd about an Inch from the Third Finger. As forming the Octaves on all the other Strings are done the ſame way, they need no further Explanation.

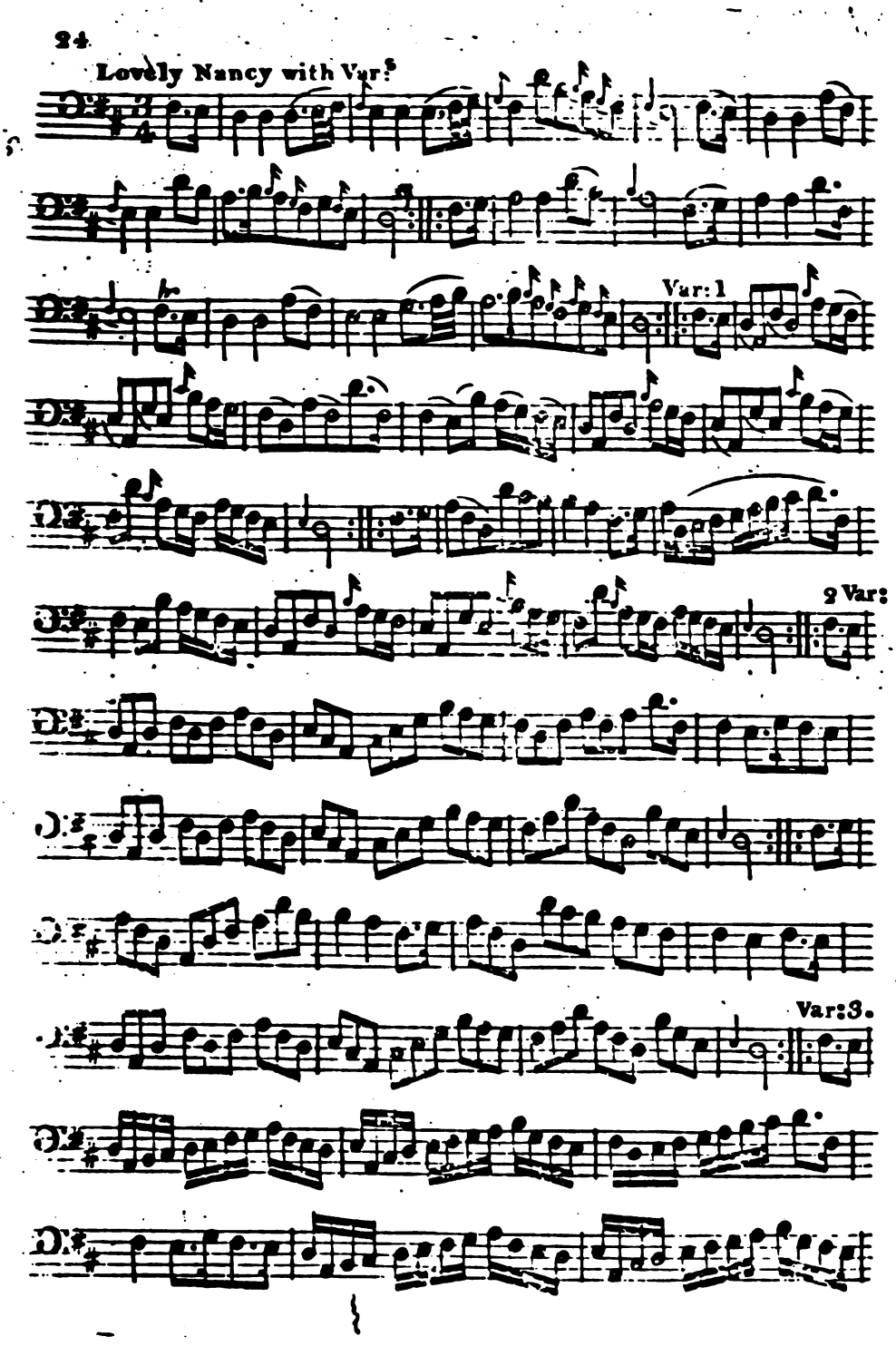

Minuet. C Major
Minuet. F Major
Jigg. G Major
Gavot. C Major
Minuet. A Major

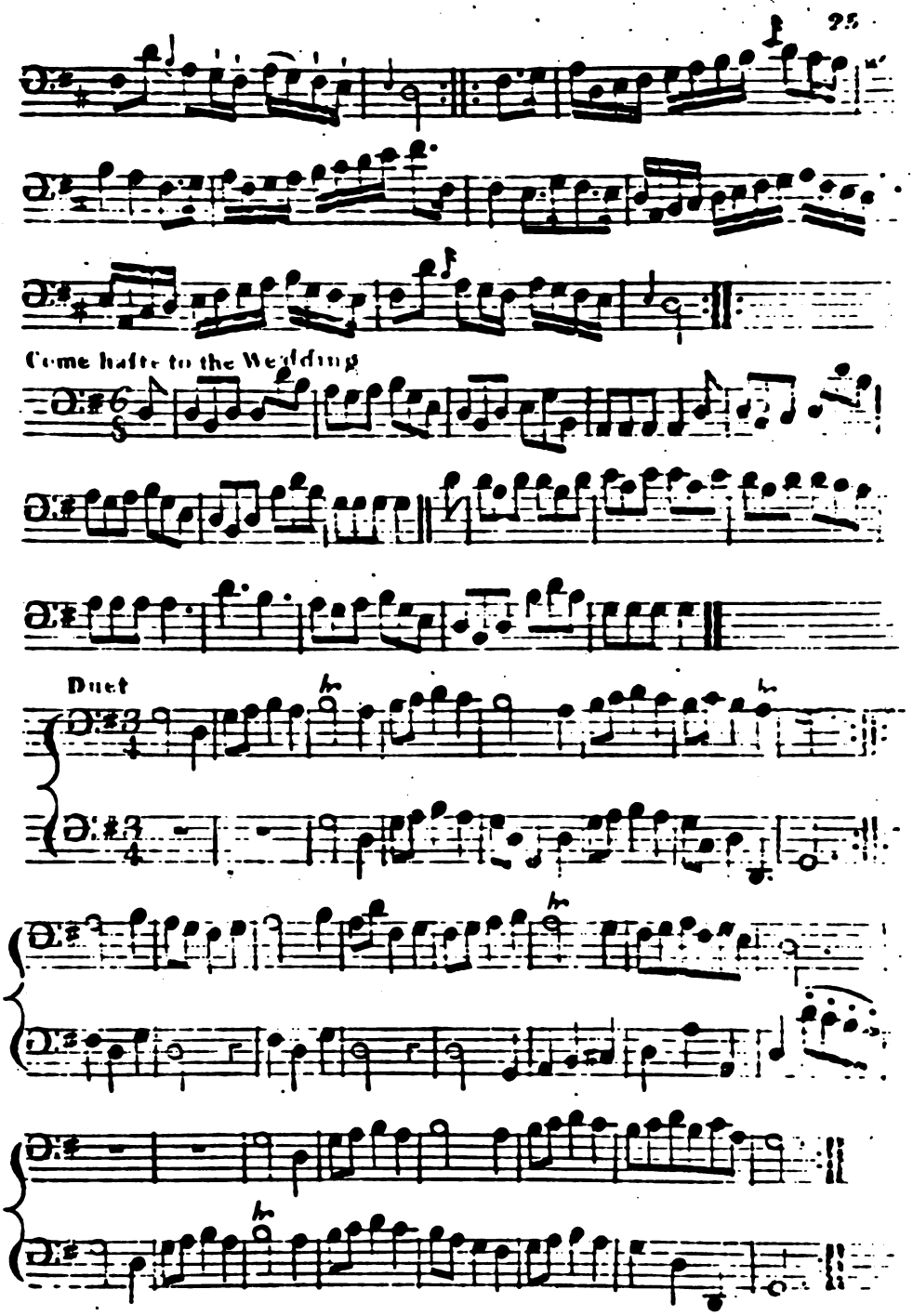

20
Gavot. B♭ Major
Foots' Minuet
Marionets
Cotillon
Joes Hornpipe
Mulbery Tree

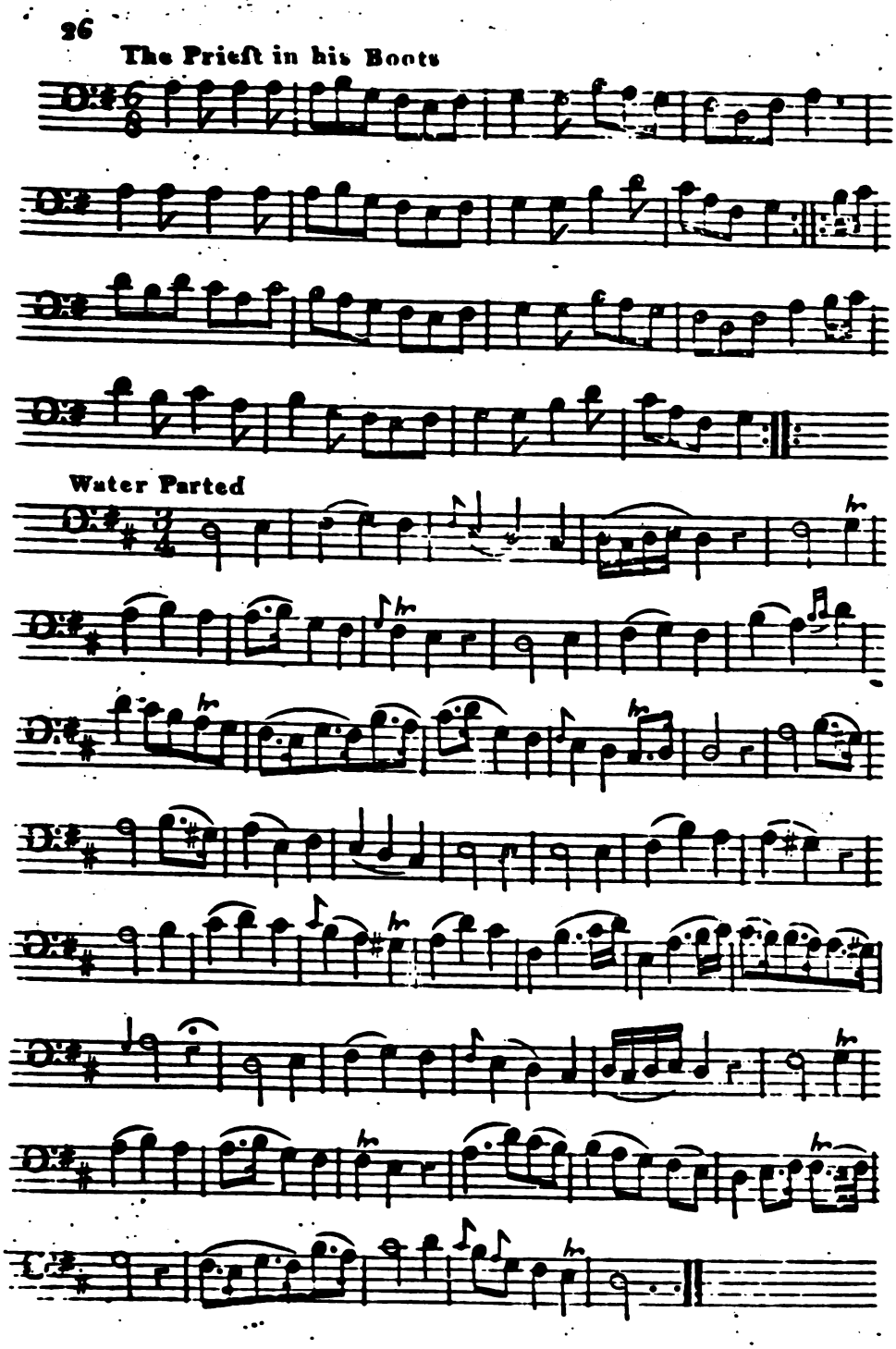

21
Cotillon Les Portraits a la Mode
Cotillon La Rosalia
La Nanoine

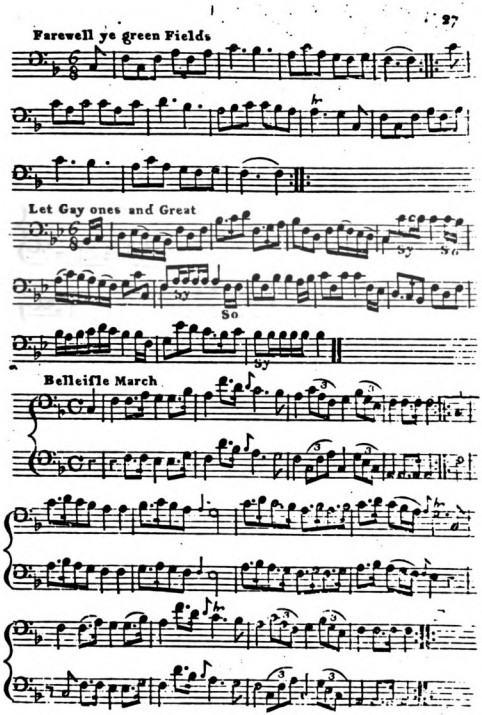

22
La Promenade
Cotillon
La Nouvelle Hollandoiſe
Cotillon
Maſquerade Minuet

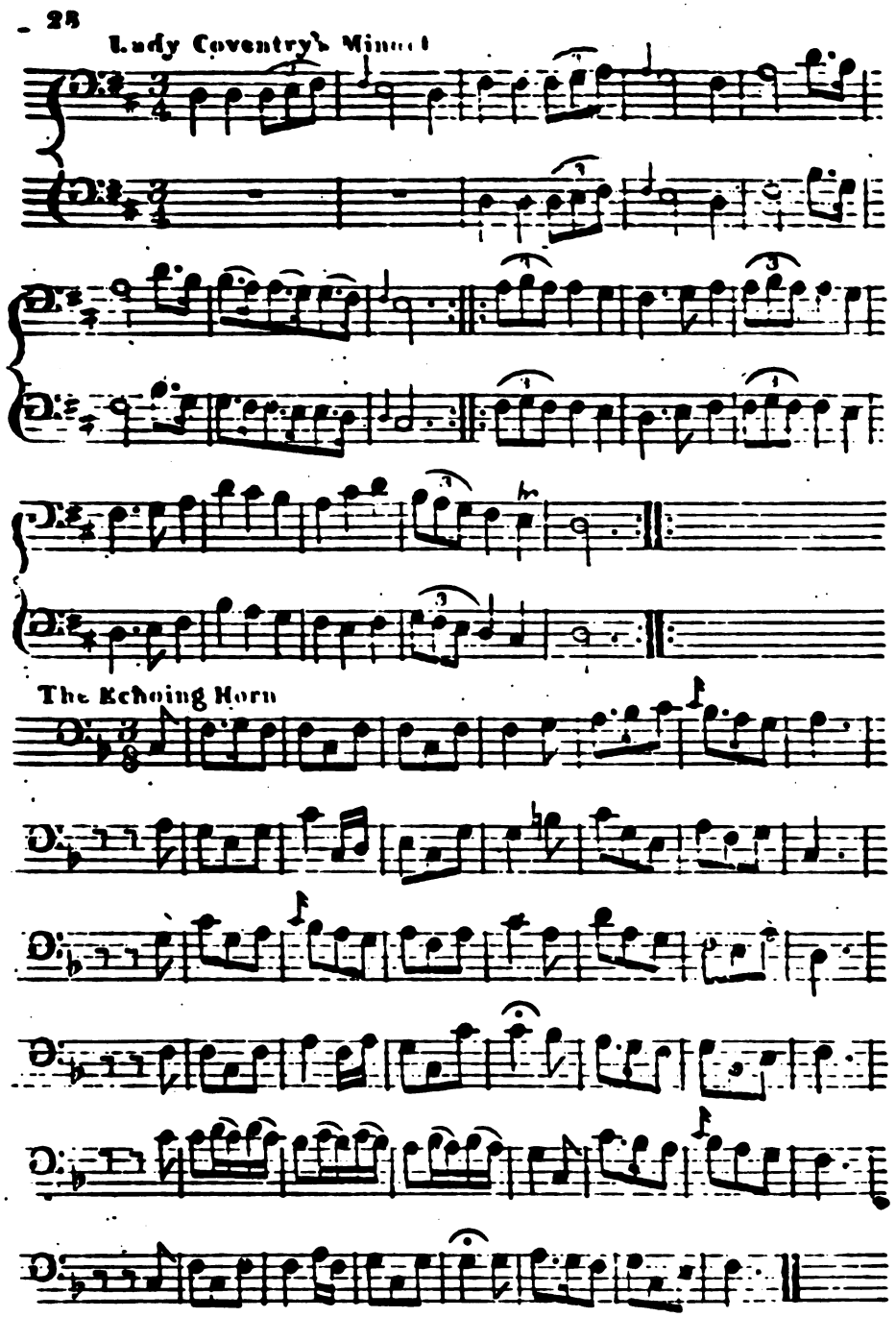

See the Conquering Hero
Ye Fair Poffefs'd
This cold flinty Heart

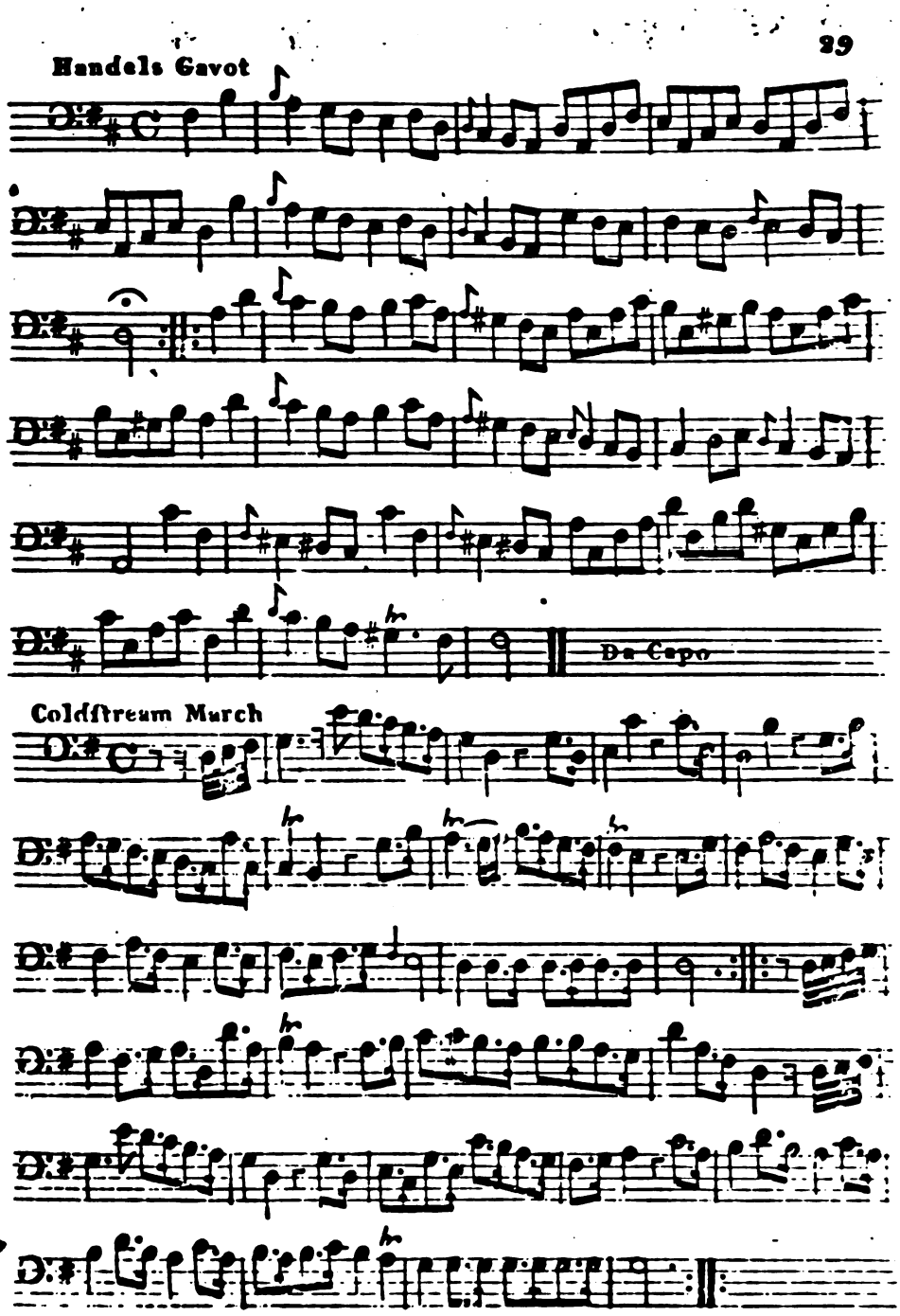

24
Lovely Nancy with Var:s
Var: 1
2 Var:
Var:3.

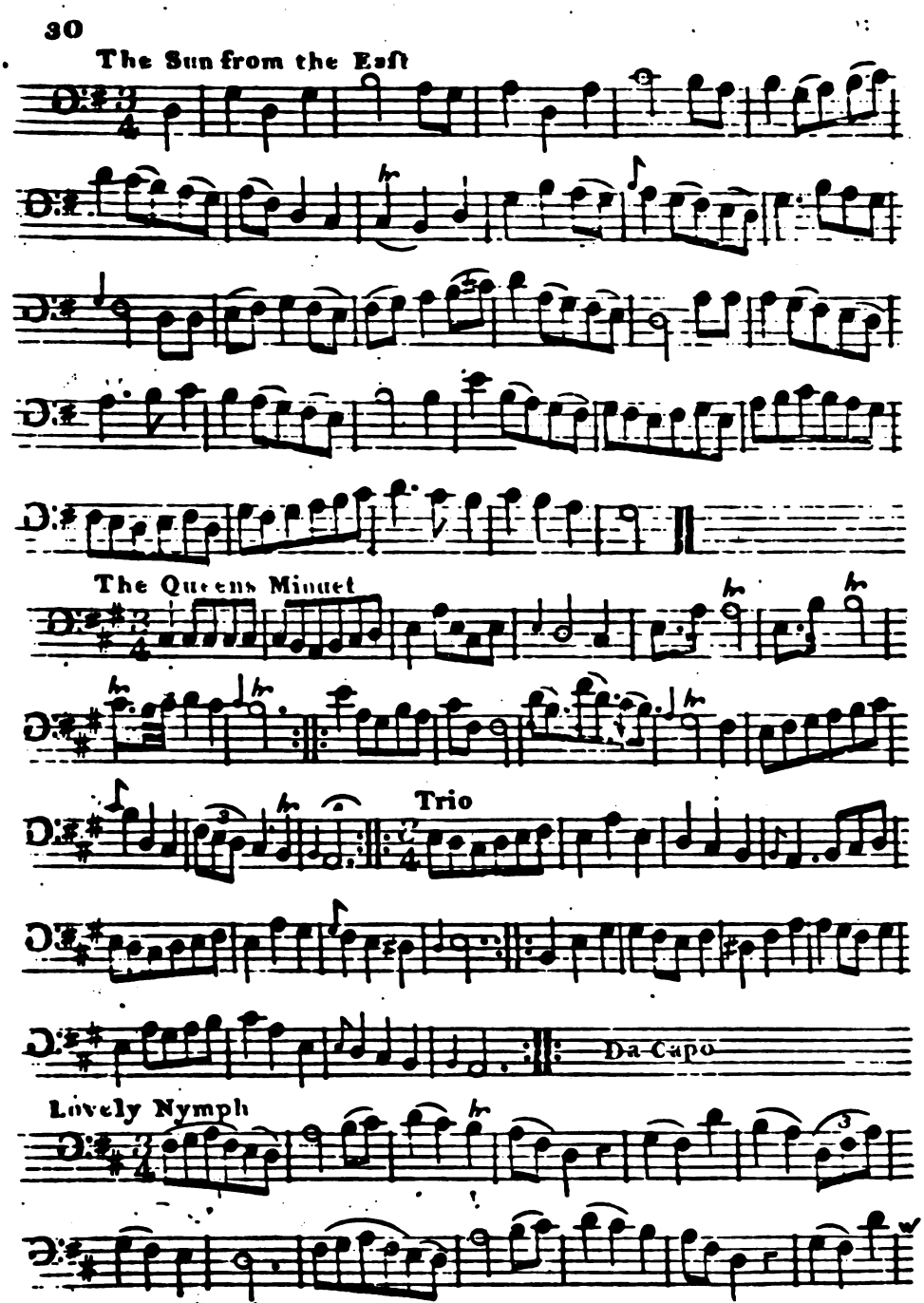

Come haste to the Wedding
Duet

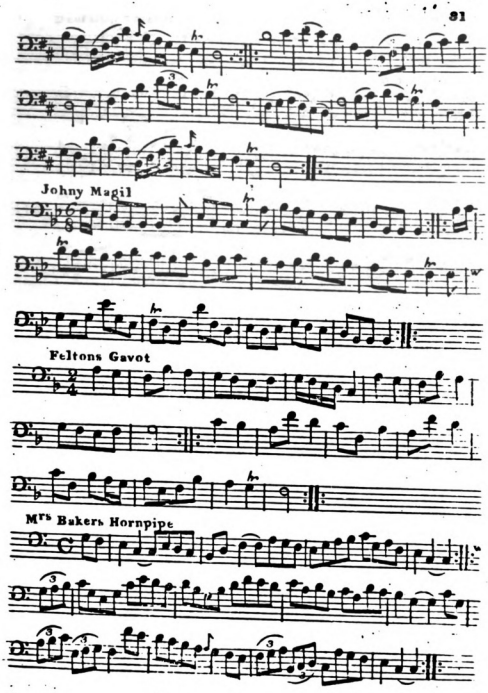

26
The Prieſt in his Boots
Water Parted

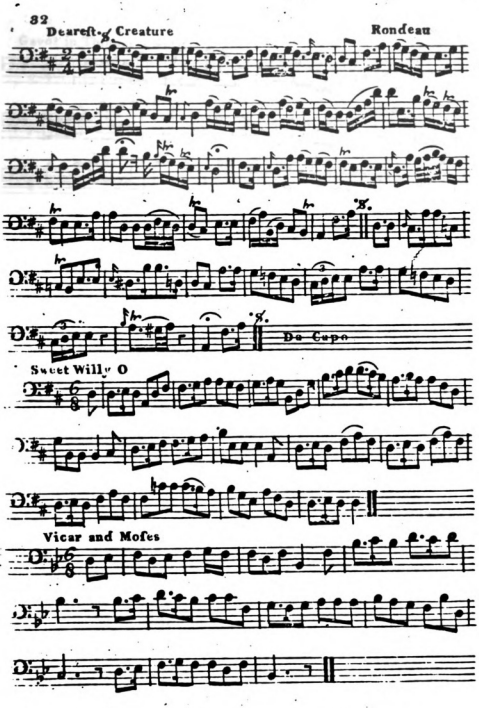

27
Farewell ye green Fields
Let Gay ones and Great
So
Belleifle March

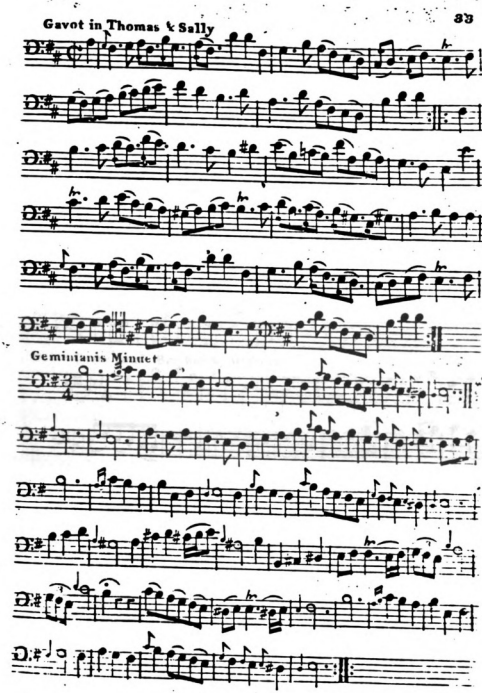

28
Lady Coventry's Minuet
The Echoing Horn

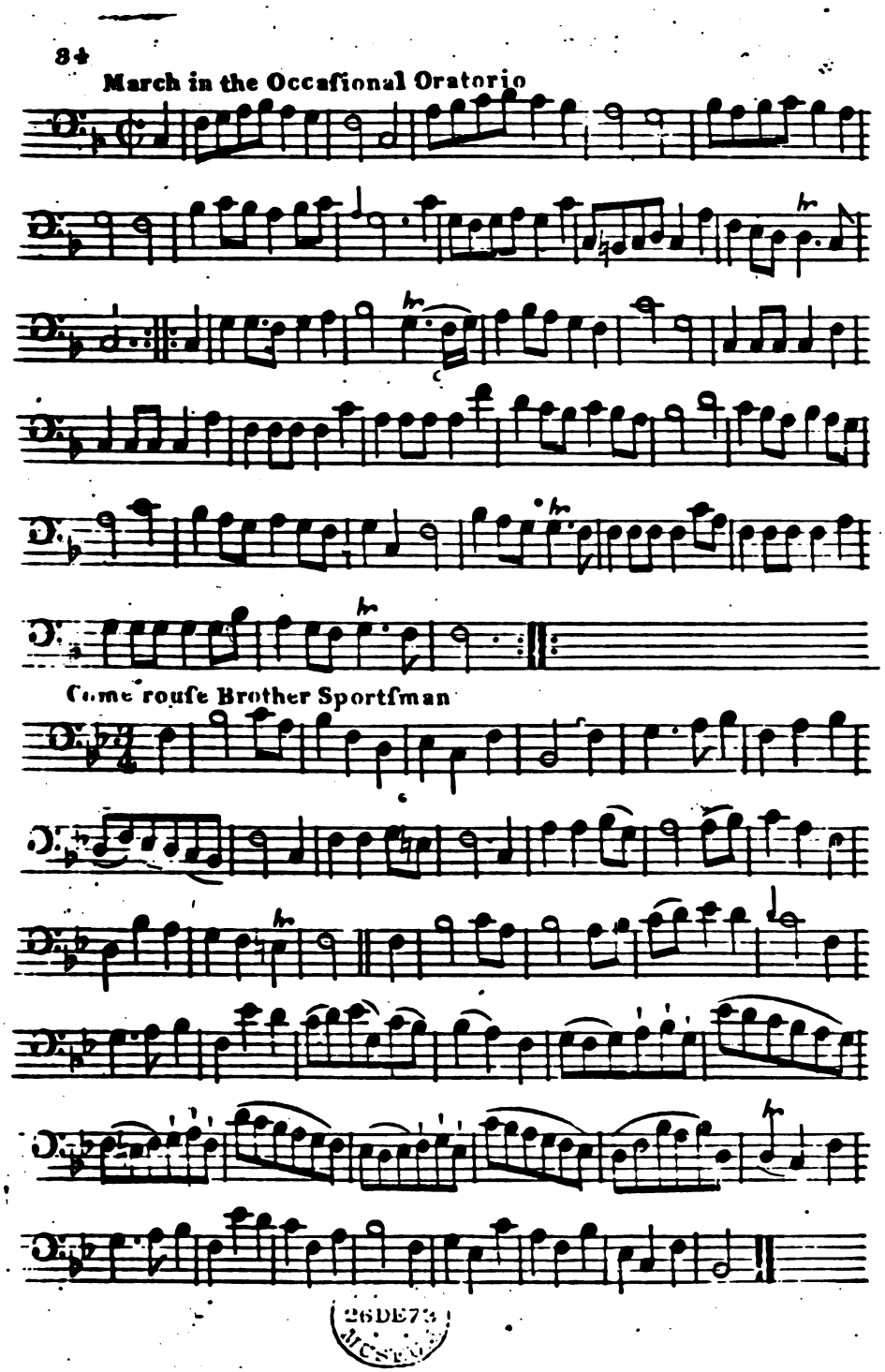

Handels Gavot
29
Da Capo
Coldstream March


30
The Sun from the East
The Queens Minuet
Trio
Da Capo
Lovely Nymph


31
Johny Magil
Feltons Gavot
Mrs Bakers Hornpipe


82
Dearest Creature
Rondeau
Da Capo
Sweet Willy O
Vicar and Moses


Gavot in Thomas & Sally
33
Geminianis Minuet



A DICTIONARY

Explaining ſuch Greek, Latin, Italian, and French Words, as generally occur in Muſic.

A

Adagio. a ſlow Movement
Affettuoſo. very tenderly
Allegro. Briſk or Quick
Alto Viola. Counter Tenor
Andante. ſignifies that all the Notes muſt be play'd equal & diſtinctly.
Aſſai. enough

B

B. C. or Baſſo Continuo. the thorough Baſs for the Organ, Harpſicord, or Spinnet &c.
Bene placito. at Pleaſure

C

Canto. the firſt Treble
Canzonetta. a Song in general.
Camera. Chamber. as Arie de Camera Chamber Airs

D

D. C. or Da Capo. begin again and end with the firſt Strain

E

Ecco. or Ecchus. in Imitation of a natural Ecco, this Word is ſometimes uſed inſtead of Piano

F

F. or Forte. ſignifies loud or ſtrong
FF. or piu Forte, louder than Forte
Fortiſſimo. very loud
Fuga. or Fuge. is when ſome of the Parts begin a certain Air, and the other Parts begin ſome time after that, imatating the firſt & repeating the ſame Air throughout all the Parts.

G

Galliarda. Gay, Briſk, Lively, &c
Grave. a ſlow Movement
Gratioſo. Slow and Pleaſing

L

Largo. very Slow
Larghetto. not ſo ſlow as Largo
Lent. Lento. or Lentemento. Slow

M

Men. ſignifies leſs as Men Allegro not ſo quick as Allegro
Mod.o or Moderato. Moderately

N

Non. not. as Non troppo Preſto. not too quick.

O

Organo ſignifies properly an Organ but when it is written over any Piece of Muſick then it ſignifies the Thorough Baſs

P

P. Pia. or Piano. Soft
Pianiſſimo. or PPP. very ſoft
Piu Allegro. more briſk than All.o
Poco Allegro. not ſo briſk as All.o
Preſto. faſt or quick
Preſtiſſimo. very faſt

R

Recitativo. or Rec.o to expreſs a ſort of ſpeaking in Singing
Ritornello. a ſhort Symphony

S

Senza. without as Senza Violino without Violins
Solo. alone as Violins Solo the Violin alone
Spirito. with Spirit
Steccato. or Staccato. in a plain and diſtinct manner
Subito. Quickly
Symphony. that which commonly begins or ends a Song

T

Tutti. all. or all together
Tacet. ſignifies let it be ſilent

U

Uniſoni. all the Parts alike

V

Vivace. with Life and Spirit
Volti Subito. turn over quickly

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A TABLE

Of all the Tunes contained in this Book

B

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Come haſte to the Wedding - - 25
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Fultons Gavot - - - - - 31
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G

Gavot in Thomas & Sally - - 33
Geminianis Minuet - - - - 33

H

Handels Gavot - - - - - 29

I

Joes Hornpipe - - - - - 20
Johny Magil - - - - - - 31

L

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La Noville Holandoise - - - 22
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Les Portraits - - - - - 21
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Let Gay ones & great - - - 27
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M

Mulbery Tree - - - - 20
Maſquerade Minuet - - - - 22
March in the Occ: Oratorio - 34
Mrs Bakers Hornpipe - - - 31
Marionets - - - - - - 20

S

See the Conquering Hero - - 23
Sweet Willy O! - - - - - 32

T

This cold flinty Heart - - 23
The Prieſt in his Boots - - 26
The Echoing Horn - - - - 28
The Sun from the Eaſt - - 30
The Queens Minuet - - - 30

V

Vicar & Moſes - - - - 32

W

Water Parted - - - - 26

Y

Ye fair Poſſeſs'd - - - - 23

APPENDIX C

APPENDIX C

Instructions in Music
Theoretical and Practical
for the use of the Cello

Dedicated very humbly to His Most Serene Highness
The Hereditary Prince of Orange and Nassau
etc., etc., etc.

by

Jean Baumgartner

Printed in the Hague by Daniel Monnier on the Hof-Cingel

Monseigneur

Being flattered to be the first to have the honor of offering some evidence of his talent to Your Serene Highness, it is also with a great deal of pleasure that I offer you this small work. I hope, Monseigneur, that having arrived at a mature age You will dare take it under Your protection and that Your Serene Highness, following the example of His Illustrious Ancestors, would wish to encourage all those who devote themselves to the Arts and Sciences when they read the name of such a great prince on the title page of a work of which the author would never have ventured to flatter himself.

He has the honor, Monseigneur, with the most profound respect and devotion to subscribe himself, Monseigneur,

The most respectful and the most humble servant,

Jean Baumgartner

To the Reader

The cello or the bass, being of all the instruments that with the most extended use, I have found it necessary as well as beneficial to compose this little work in favor of my students who would wish to be instructed in the discoveries and principles founded on theory and practice. Since the work has appeared clear and methodical to them, I have resolved to bring it up-to-date in order to be useful and render service not only to my students but also to other amateurs and to those who wish to make a profession of this instrument and do not have the occasion or the means for instruction. Since no one, as far as I know, has taken the pains to treat the practice and use of this instrument in depth, I give in this method the most sensible and easiest approach, not only to play pieces but even to accompany well since that is its primary role and consequently the essential thing to know. I have felt necessary, in favor of true amateurs of music in general and of the cello in particular, to analyze this instrument. It is true that there are a very few among the amateurs and even among the musicians who take pains to read books which deal with music. However, I know of few arts where reading and speculative thinking are more necessary.

The good masters who join solid theory to successful practice are not found everywhere; and if they are found, they do not all have the patience and do not always take

the trouble to instruct their students as is necessary. I have thought that such a work as this one would be precisely what could diminish their trouble, if ambition and jealousy does not prevent their using it with their students. Meanwhile, I desire that my work, composed for the use of my students, may serve other amateurs of the cello as well.

I have applied myself to it in favor of not only those who wish to limit themselves to a simple accompaniment, but also of those who wish to progress to substantial pieces. I have furnished them with the necessary insights to be able, with a little diligence and exercise and with the aid of their well-intentioned masters, to play some music which is given to them—to read it exactly and fluently and to execute it according to the rules, the applications, and the most proper positions. I have taken the care to prove and to illustrate each one of my teachings with an example so that all beginners who have the natural dispositions which are necessary for music with the aid of this treatise and the help of an intelligent master, may learn to play, according to the best practice and with the best positions, all the diverse passages which will present themselves in whatever key they might be. I will guarantee them all this success if they read and apply my principles often, in the same order with the same attention and the same zeal for art with which I have written them. If I have succeeded, I must wait for time and the good taste of a respectable public to bestow the justice which is due good ambition.

I owe to the memory of Mr. Rousseau, this wise and illustrious man, a tribute of recognition. It is he who lent me assistance and enlightened me with reference to what I needed concerning articles and terms which are found in his Dictionary of Music which I recommend to all amateurs of music and to musicians no matter how great they might be.

Opus laudat Magistrum

Chapter I

On Notes

The notes which are used in writing music are seven in number:

	ut	re	mi	fa	sol	la	si
in German:	C	D	E	F	G	A	B or H

The notes have a double object in representing sounds

1. According to their diverse intervals of lowness and highness which make up melody and harmony
2. And according to their relative durations of slow and fast which determines tempo and meter.

In order to read notes there are many things to consider—for example: the clef and its position; the sharps and flats which may accompany it; the position of each note—its interval, its shape which determines its value (see fig. 1); the tempo in which it is found and the place it occupies; the dot, which is worth one-half the note which precedes it (see fig. 2); the sharps, flats, or natural accidentals; the type of measure and the character of the movement. All that without counting the accent or the expression suitable to the sentiment to be expressed. The omission of just one of these observations can throw it out of tune.

Chapter II

On the Relation of the Clefs

The clef sign is put at the beginning of a staff to determine the degree of elevation of this staff and to indicate the names of all the notes which it contains in

the lines of this clef.

There are three clefs: the F or fa clef, the C or ut clef, and the G or sol clef (see the example, fig. 1). Figure 2 is the scale of notes in unison in all clefs.

Chapter III

On the Measure

The measure is a division of the duration or time into several equal parts. Although there are only two kinds of measures in our music, there are so many subdivisions that one can count at least thirteen types of which these are the signs:

Z or C,2 2/4, 6/8, 6/4, C,12/8 3, 3/2, 9/4, 3/8, 3/4, 9/8

But there are really only two kinds of measures in music—those in two and those in three equal beats. As each beat can be divided into two or three equal parts, that makes a subdivision which gives four types of measure. We do not have any more.

It is very difficult to learn how to play in time; it requires much practice. I will give you advice and a way by which you will learn easily and with little pain how to play exactly in time. For example, since you are not able to use your hand to learn to keep time, as those learning to sing do, it is necessary for you to use the foot in the following manner: realize that in a long, slow measure—when accompanying or playing adagio, it is necessary to tap your foot for all the eighth notes and to pay attention to

the value of each note. In short measures or in allegros, you will tap your foot for all the quarters. If you follow my counsel, you will become good in rhythm. (See figs. 1 & 2.)

Chapter IV

On Sharps and Flats

Modulation and transposition from one key to another are reasons for having to use sharps or flats to correct the differences between keys. Although there are three types of sharps, the enharmonic, minor, or simple sharp is only used chromatically. The sharp, as with the flat, is placed always to the left—before the note of which it is a part. The sharp raises the note a half step. The flat lowers it a half step. The natural renders the note natural (see the transposition table).

The half tone or semitone is the smallest of all the intervals admitted in modern music; it has the value of nearly half a tone. Those which are marked by a flat or a sharp and hardly change the degree are called minor semitones. Those which form the interval of a second are called major semitones. Although a difference is made between the two semitones in the manner of notating them, there is none, however, on the organ or clavecin and the same semitone is either major or minor according to the key used.

Chapter V

On Modes

The mode is a regular disposition of the melody and accompaniment relative to certain principal tones on which a piece of music is constructed. The third determines the mode and modifies the entire scale on this fundamental sound.

The essential chords of a mode are three in number and together form a perfect accord: 1) the tonic which is the fundamental chord of the key and of the mode, 2) the dominant—a fifth from the tonic, 3) finally, the mediant which properly constitutes the mode and is a third from the tonic. As this third may be of two types, there are also two different modes. When the mediant forms a major third from the tonic, the third is major; it is minor when the third is minor (see the example of transpositions).

The mode being determined, all the tones of the scale take a name relative to the fundamental, appropriate to the place they occupy in that mode. Here are the names of all the notes relative to their mode, taking the octave from C as the example of major mode and that from A as an example of minor mode.

ut	re	mi	fa	sol	la	si	ut
la	si	ut	re	mi	fa	sol	la
tonic	second note	mediant	fourth note or subdominant	dominant	sixth note or subdominant	seventh note	octave

It should be noted that when the seventh note is only a semitone from the octave, that is to say, when it makes a major third from the dominant--as B natural in major or G sharp in minor—the seventh note is called the active (sensible) tone because it announces the tonic and indicates the key.

Not only does each degree take an appropriate name, but each interval is determined relative to the mode. Here are the rules established for that:

1) The second note is a major second from the tonic, the fourth and fifth dominant are perfect fourths and fifths in both modes.

2) In the major mode, the mediant or third, the sixth, and the seventh must be major intervals from the tonic—this gives the character to the mode. By the same reason, these three intervals must be minor in the minor mode; however, as it is necessary to recognize also an active tone which cannot be made without false relation with the sixth note as it is also minor, that causes exceptions which one takes into account in the course of the melody and the harmony. But it is necessary always that the key with the transpositions gives all the intervals determined with regard to the tonic according to the type of mode (see the examples with transpositions).

Chapter VI

On Intervals

The interval, of which there are seven, is the difference between one tone and another in highness or lowness: the second, the third, the fourth, (the fifth), the sixth, the seventh, and the octave. The second is major or minor: the major consists of a whole tone, the minor of a half tone (see fig. 1). The third is also major or minor: the major consists of two steps, the minor of a step and a half (see fig. 2). The fourth is perfect or imperfect: the perfect consists of two and a half steps, the imperfect is called tritone and consists of three steps (see fig. 3). The fifth is also double (perfect or false); the perfect consists of three and a half steps—the false of two steps and two half steps (see fig. 4). The sixth is major or minor: the major consists of four and a half steps, the minor of three steps and two half steps (see fig. 5). The seventh is also major or minor: the major consists of five and a half steps, the minor of four steps and two half steps (see fig. 6). The octave is produced when a note is placed five steps and two half steps above the other (see fig. 7).

Chapter VII

On Consonances and Dissonances

Consonance is the effect of two or several tones heard at the same time whose chord is pleasing to the ear. There is only a small number of them which produce consonances;

all the others shock the ear and therefore are called dissonances. There are only several of these which are not used in harmony but they are used only with precautions which consonances, always agreeable in themselves, do not require.

The consonances are the unison, the third, the fourth, the fifth, the sixth, and the octave—double or triple; and the many transpositions of all the other intervals without exception within the range of the sixteenth. One can distinguish between the consonances which are perfect and imperfect—which can be major or minor. The perfect consonances are the octave, fifth, and the fourth; the imperfect ones are the thirds and sixths (see fig. 1).

The dissonances are the second, the fourth in its use in the outer parts, the tritone, the false fifth, and the seventh (see fig. 2).

Chapter VIII

On the Position of the Fingers

The principal rule in fingering concerns the different positions of the left hand on the neck; it is that which makes the same passages seem easy or difficult according to the position and according to the strings on which the passages may be taken. Thus, it is necessary to be able to play quickly, with accuracy and precision in all different positions in order to have a good technique. The cello is not difficult to deal with when one has rules for the

positions and techniques.

The fingerboard and the strings are long and, as a consequence, the spaces from one tone to another are large, especially in the first regular position. Therefore, it is necessary to know where to place the fingers and how to move them in such a manner that it does not impede the technique. In order to move the fingers on the cello with ease and without tiring the nerves, it is necessary to place the fingers in the following manner: (see fig. 1—Scales in major mode according to the order of ut, re, mi, fa, sol, la, si).

Note

The figures indicate the fingers to be used and the 0 indicates the open strings. You will find all sorts of ways to finger—it is necessary to know when to choose the best because there is hardly any rule without exception.

Chapter IX

On Technique and Shifting

In order to play all sorts of figures and passages well and with ease without being hampered, it is necessary to know the technique of shifting and the places to shift of which I will give you the rules.

1) It is always necessary to reflect on the chords if there are any, and on the highest note in order to prepare for it.

2) When the notes are grouped in threes, whether in ascending or descending, one can also shift in groups of threes

(see fig. 1).

3) When the notes ascend or descend in twos, it is convenient to shift also in the same manner (see fig. 2).

4) The tremblements also have their proper execution. One always puts the second finger on the note of the tremblement and with the third or little finger, plays the tremblement (see fig. 3).

Rules on the Execution of Double-Stops

It is difficult to play double stops because it is necessary to finger very accurately; and to learn to finger accurately it is necessary to practice double notes. When fingered inaccurately, it can be heard more easily when playing on two strings than on one. I will give you the rules for playing chords with two notes.

The unison may be played with any finger depending on the position and execution. It is usually played with the second finger and an open string (see fig. 4).

Seconds are played with any finger but the first, since the resolution is to the third. It is necessary also to use an open string and usually the little finger is placed on the lower note (see fig. 5).

The thirds, major or minor, are always played with the first finger with the little finger on the lower note. When the higher note descends to the open string, the hand stays in the same position (see fig. 6).

Fourths are always played with the little finger and the second finger since the resolution is to the third.

The lower note is played with the little finger and the higher note with the second (see fig. 7).

The tritone is played differently according to its position. It must resolve to the sixth (see fig. 8).

Fifths may be played with any finger according to the position because the instrument is tuned in fifths. As a consequence, the fifth is played with one finger (see fig. 9).

False fifths may be played in only one way if the hand does not stay in its ordinary place. The third finger is used for the lower note and the second finger for the higher note. The false fifth resolves to the third (see fig. 10).

Sixths may be played with any finger except for the little finger on the lower note (see fig. 11).

For the seventh, if there is no open string, play the lower note with the first and the higher note with the little finger or the third finger in higher positions. The seventh resolves to the sixth or the third (see fig. 12).

Octaves are always played with one open string (see fig. 13).

Since you have now been instructed in the techniques for playing notes on two strings, I recommend the exercise (fig. 14) where you will find all kinds of chords or double notes because it is not sufficient to know the rules. It is also necessary to have the technique which is the effect of exercise and practice which depends on you and not me.

Chapter X

On the Capo Tasto

That is, The Application of the Thumb in Playing

Because the cello has such a wide range, it uses all four clefs—G clef and C clef for the high notes.

If cello pieces were written only in the F clef, one would not be able to read the notes in the high passages since it would be necessary to draw many lines under the heads of the high notes and would inconvenience the player, especially if he were given a piece to play at sight.

In order to play solos, one must pay attention to the facility of execution and the ease of the hand in order to express all sorts of passages and figures. Most require a particular way of fingering and there are passages especially high which necessitate the use of the thumb. Thus, it is necessary to know the rules for the use of the thumb in order not to be impeded in attitude and execution.

Ordinarily, the thumb is placed an octave below the highest note of the passage (see fig. 1) according to the plan ut,re,mi,fa,sol. Sometimes there is no need to change the capo tasto; when there are one or more notes higher out of the capo tasto, one can jump with the third or first finger, leaving the thumb in place (see fig. 2).

Double stops have their own technique; as long as one observes the following rules they will be easy in all cases.

There is only one way to play unisons. Use the

thumb and the third finger which is placed one step higher than usual (see fig. 3).

There is also only one way to play seconds. Use the thumb for the higher note and the third finger for the lower (see fig. 4).

Thirds may be played in any position (see fig. 5). When there are many thirds following one another either ascending or descending, then the position is changed for each third until the last two, but it is always necessary to note whether the third is major or minor (see fig. 6). In each position there are three to play which comprise the tritone (see fig. 7).

Whenever there are fifths, it is necessary to use the thumb (see fig. 8). In each position or capo tasto, two false fifths can be played. For the higher note use the finger, according to the position, which is on the place and for the lower note use the nearest. For the resolution to the third, return to position (see fig. 9).

Three sixths may be played in each position (see fig. 10).

Two sevenths may be played in each capo tasto with their resolution to the sixth (see fig. 11).

There is only one way to play octaves (see fig. 12).

For tenths, put the thumb on the lower note and the third finger on the higher (see fig. 13).

For the Capo Tasto Volante see Figure 14

There are also techniques or positions which you will not play easily, but remember the open strings (see fig. 15).

Chapter XI

On Bow Strokes

There are many things to observe in guiding the bow because everything depends on the arm and the right hand. It is with the bow that a good tone is pulled from the instrument and accent and expression are given to each note—fortes and pianos, crescendos and diminuendos, etc.

It is possible to pull several qualities of tone from the instrument; it depends on the spot on which the bow is placed. When the bow is pulled near the fingerboard, a sweeter sound will result; this is good for playing piano. Sometimes this tone quality is used while playing pieces to achieve a change of tone or to play some passages more tenderly. In playing, one can bow near the bridge producing a more penetrating sound—especially when pulling and pushing quickly with long bow strokes. In addition, it is necessary to observe the signs which are found above the notes, for example:

When there are none, one may usually pull one note and push the next, but it is necessary to know which to choose because it is claimed that both the accompanist and soloist should have the same competency in bowing.

Practice makes perfect.

One pulls the first note of the measure and, consequently, the last is pushed. When the notes are unequal, which always happens when there is a rest before one or three notes, or a half rest before one or three half notes, then one pushes (see fig. 1).

Exercises

In all types of bow strokes (see fig. 3) the T means pull and the P means push.

Chapter XII

On the Accompaniment of Recitatives

There are two kinds of recitatives—accompanied recitatives and ordinary recitatives. The accompanied recitative is that to which, besides the basso-continuo, one adds an accompaniment of violins and other instruments. This accompaniment is usually made up of long notes sustained over the entire measure. The word sustenuto is written on all the parts, especially the bass. Without sustenuto, the bow strokes on each change of notes would be dry and detached as in the ordinary recitative which I will treat later. In accompanied recitatives it is necessary to sustain the sounds according to the full value of the notes. If you wish, you may play a figure with the bass note; but that is not necessary in this sort of recitative since the chord is already complete and filled by the other instruments. Just pay attention to the words and the first violin so that you will play together.

The accompaniment of ordinary recitatives is more difficult, especially for the amateur or the musician who does not ordinarily play the bass, because of the chords which must be played. However, I will give you a guide by which, aided by practice, you will be able to surmount this great difficulty.

Guide in Learning to Accompany Ordinary Recitatives with Chords

In the beginning it is necessary to notice in which clef the melody is written because it is necessary that you know how to read the notes in all the clefs quickly and exactly. Otherwise, it is not possible to accompany with chords except when the figures are written.

When you are very competent in all techniques and you play correctly enough to accompany recitatives, begin the recitative by giving the singer the note which I will give in the later examples.

It is against the rules to sustain the tone in this type of recitative. It is necessary to wait until the bass note changes. While waiting, you will look for the note which follows. Wait for the last word then give a dry stroke with your bass note at the same time as the principal chord note of the melody. You have enough spare time while following the melody to search for your concordant note. But it takes a great deal of practice for that.

Changing the note of the basso continuo in the fundamental bass is not permitted; it is always necessary

to play the note as written. When the bass note is written high, it is permissible to play the note an octave lower because otherwise you would not be able to play a chord.

It is not always necessary to use a triple stop since you will be extremely constrained and liable to play false. Instead of playing a triple stop, use a double stop.

Be careful not to play a wrong chord; that would make a bad effect. If you do not know how to find or to play the chord quickly, then play the single note. In addition, it is always necessary to observe major and minor.

It is good, when accompanying recitatives with chords, to know the common rules of accompaniment.

Table of Accompaniment with Each Figure

The second is accompanied with the fourth and the sixth

The third with the fifth

The fourth with the second and the sixth when the ligature is in the lower part. When the ligature is in the upper part with the fifth and the octave

The tritone is treated as the fourth with the ligature in the bass

The fifth is accompanied by the third

The false fifth by the third and the sixth

The sixth with the third

The seventh with the third and the fifth and sometimes also with the octave

The ninth with the third and the fifth and it can also exist with the seventh

Explanation of Cadence Chords

Cadence chords are nothing other than the passage of a dissonant chord to a consonant one since one can never leave a dissonance except by an act of cadence. But since every harmonic phrase is necessarily joined by expressed or assumed dissonances, it follows that all harmony is no more than a string of cadences.

That which is called an act of cadence always results from two fundamental sounds of which one announces the cadence and the other ends it.

Finally, there are hardly any dissonances without cadences and there are hardly any cadences without dissonances expressed or understood.

Consonant chords are the perfect chord and its derivatives. All the other chords are dissonant. Here is the table of all chords accepted in harmony.

Table of All Chords

Fundamental Chords

The Perfect Chord and its Inversion (see fig. 1)

This chord determines the key and is only played on the tonic. Its third may be major or minor and it is that which determines the mode.

Active or Dominant Chord and its Inversions (see fig. 2)

None of the tones of this chord may be altered

Seventh Chord and its Inversions (see fig. 3)

The third, fifth, and seventh of this chord may be altered

Diminished Seventh Chord and its Inversions (see fig. 4)

None of the tones of this chord may be altered

Chord with Added Sixth and its Inversions (see fig. 5)

Augmented Sixth Chords (see fig. 6)

This chord is never inverted and none of its tones may be altered. This is really a chord with a major sixth, sharped by accident and in which a fifth is sometimes substituted for the fourth.

There are many other chords; for example, the chords of substitution, which I do not list here because they require too long an explanation and it is not my intention to discuss composition. But if you wish to learn them, read Rameau or Rousseau, etc.

Rules for Playing Cadence Chords

It is not sufficient to know which are consonant and dissonant chords, it is also necessary to know how to play them on the instrument for which I will give rules and examples in all keys.

In the perfect chord with four notes the lowest note is always played with the first finger unless it is ut or C, and, consequently the fifth also with the first finger. The tenth, then, is played with the third finger if in the major mode; in minor, the tenth is played with the second finger. The second octave is always played with the little finger.

The dissonant chord is played differently. One always has to observe the rules just given for playing chords.

See examples for playing cadence chords in all major keys according to the order ut,re,mi,fa,sol,la,si. The same rule must be observed in minor mode, but the third must be minor (fig. 8).

See example for accompanying ordinary recitatives. The third line has been added to show the effect (see fig. 9).

Chapter XIII

On General Bass

Since you are now instructed enough to play chords in all keys, I will also give rules for accompanying the basso continuo with chords although the individual notes are not written. Because it is very good, when you accompany a symphony or other large ensemble music, to sometimes play chords if there is occasion and if you are not too occupied with technique and shifting.

In order to accompany with chords, there are some observations to be made concerning the movement of the basso continuo—how it rises and falls by step or leap and also by the most prevalent motion: stationary.

Observations on the Movement of the Bass

If the bass is stationary you will not know how to realize the figures—the ear must guide you; and if you do not know how to distinguish and understand the harmony, play the simple notes (see fig. 1).

When the line rises or descends by degrees, one may use thirds or sixths; but it is necessary to notice whether

there are slurs on this sort of bass, because this bass movement depends on the slur which I will discuss later (see fig. 2).

If the bass leaps up a third or down a sixth, one plays a sixth (see fig. 3).

When it leaps up a fourth or down a fifth in preparation for a cadence, one plays a fifth or a sixth (see fig. 4).

If the line leaps several fourths higher or fifths lower, slurs are usually used; then play the simple notes or play the third (see fig. 6).

If the bass leaps up by fifths or down by fourths, there will be a slur used (see fig. 7). In this case use octaves or unisons if possible, or play the simple note.

If it leaps up a sixth or down a third, one may play the sixth (see fig. 8).

When the bass note is sharped, one usually plays the false fifth. Sometimes the seventh is played instead of the sixth; in this case, it is better to accompany the sharped note with the false fifth or the third (see fig. 9).

When it rises or falls by a half step, it makes a cadence (see fig. 10).

When the bass is stationary and makes a cadence, one plays figures as shown in the example (see fig. 11).

Sometimes one retards the resolution in the third (see fig. 12).

If the bass is highly figured, it is better to play

simply without ornamentation (see fig. 13).

When the line is tied, it is not necessary to accompany with thirds, but with a second or a fourth (see fig. 14).

General Observations

It is possible to accompany all bass notes with thirds except when they are tied $\frac{6}{4}$, $\frac{5}{4}$, - $\frac{6}{4}$. In this case, it is best to play the note simply (see fig. 15).

In the other ties you can always accompany the bass with thirds, but you must know whether the third should be major or minor. The ear, if you have one, will guide you (see the example with ties, fig. 16).

Chapter XIV

On Modulation

If you do not know how to modulate, you are not a good musician. In order to rescue you from your ignorance, I will give a small explanation and some short rules to teach you to modulate with little difficulty.

Modulation is the art of leading the harmony and melody successively through several modes in a manner agreeable to the ear and conforming to the rules.

The laws of modulation stem from the mode produced by the harmony: these rules are simple but difficult to observe well. Here is what they consist of:

It is necessary in order to modulate well in the same key:

1. To note that the dominant and tonic chords are used frequently but with different figuration and with different approaches in order to avoid monotony as may be seen in my caprices which I have written according to the order of ut,re,mi,fa,sol,la,si and in all the major and minor keys, where I stay for a long time in the same key and you will see all sorts of passages and figures adapted to the instrument.

2. To make cadences or points of repose only on these two chords or more often on the dominant.

3. To never alter any of the notes of the mode since one cannot play a sharp or flat which does not belong to it or leave out some which do belong without leaving the mode.

But for passing from one key to another you only have to alter the scale of the tonic by a sharp, then you will see that the scale of the dominant is formed. And to pass from the tonic to the subdominant, you will add one flat to the scale of the tonic. That is the whole secret of passing from one key to another by using a single sharp or flat.

Let us say, for example, that you want to modulate from the tonic to its dominant and take, for example, C (ut) as the tonic and G (sol) for the dominant. You know that the scale of G has F#. Then add your F# to the note of your tonic C; you will see that the scale of the dominant G is formed. C and F# form a tritone. You know enough

about accompanying with each figure and you know that dissonances must be prepared and resolved. The tritone must resolve to the sixth, since all sharps want to rise; so let your F# rise a half step to G. Now, play the note a sixth below (B). That is the modulation from C to G, that is from the tonic to the dominant by the nearest route (see fig. 1).

To pass from the tonic to the subdominant; that is, from C to F, add your flat to the fundamental note, because you know that the scale of F has B flat. C to B flat is a seventh and the seventh resolves to the sixth or the third since flats want to descend (see fig. 2).

There are other ways of modulating—by the major sixth and the diminished seventh—which I will not place here since they require a long explanation. It is sufficient that you can modulate to all keys by use of the sharp or flat method.

Paucis multa

I have given you the theory; the practice is up to you.

Vita et labor

General Instructions for Good Accompanying

Have a good instrument, cost what it may, if you can find one. It is necessary that the cello always be well equipped with good, well-proportioned strings—at least some that are of the correct size. Never hazard to accompany a solo, trio, or a quartet. You might try to accompany in symphonies because there will be several cellos which

will cover the mistakes that you will make. When you are ready to accompany, situate yourself well so that you can see the notes. Before beginning, notice the measure sign, the key of the piece, the sharps and flats. For the tempo, watch the first violin or whoever is the soloist so that you will play together. If you are not sure of the tempo, ask the soloist. There are many inexperienced composers who do not know the difference between an alla breve C and a C measure with four beats which embarrasses the accompanist especially if the bass is stationary because then it is impossible to figure out the tempo from the harmony. In this case, if you do not know the tempo, it is not your fault. It is necessary to observe the pianos, the fortes, crescendos, diminuendos, etc. If the first violin, or singer, or another soloist rushes or slows down the tempo somewhat, do likewise in order to stay together. It is especially important to follow amateurs. Nothing helps staying in time more than the bass accenting the first note of the measure.

To accompany softly, you may pull the bow towards the fingerboard and for forte, bow near the bridge. It is good to play figures when accompanying a symphony or a choir.

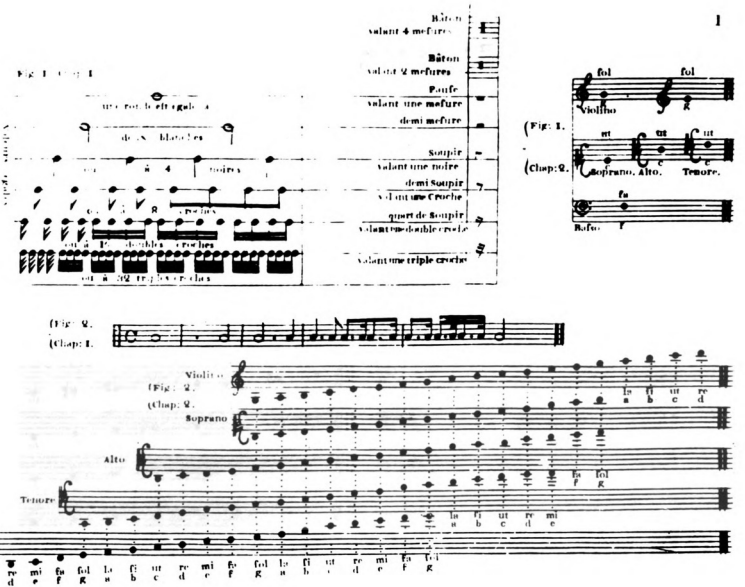
When accompanying a symphony or other large ensemble, it is necessary to play the notes an octave lower if there is no contrabass and, if possible, also play chords; but you must know which ones to choose.

If you accompany a solo, duet, trio, or quartet

where each one plays alone, play the notes exactly and observe well the dynamics and all the written signs. Always accompany neatly and with detached strokes if there are no bow markings.

It is absolutely forbidden to add ornaments, passages or other things in the accompaniment. If you do so, you will show your ignorance.

End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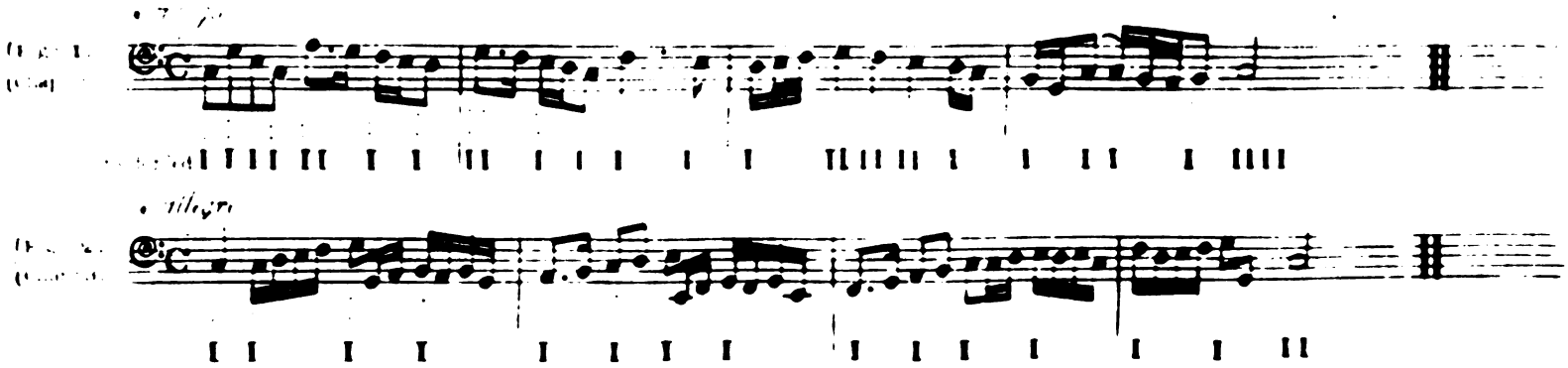

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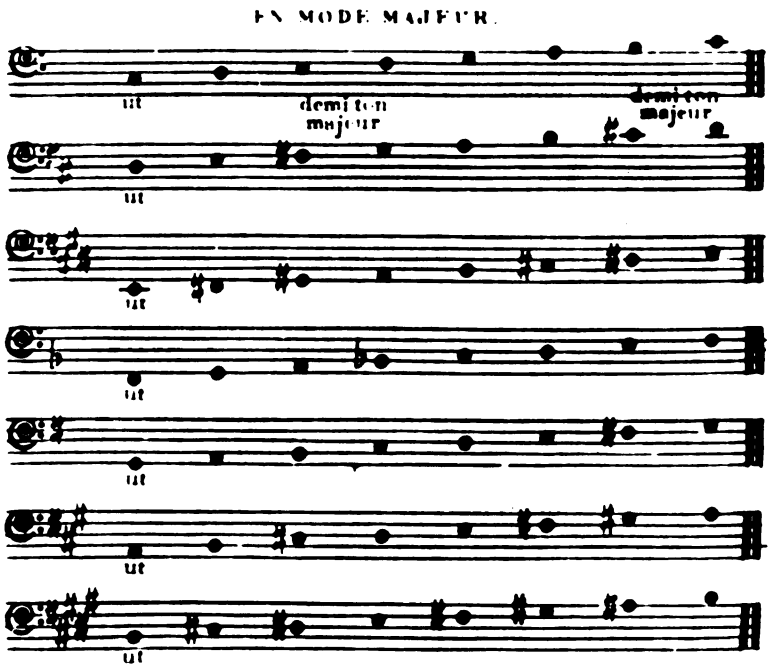

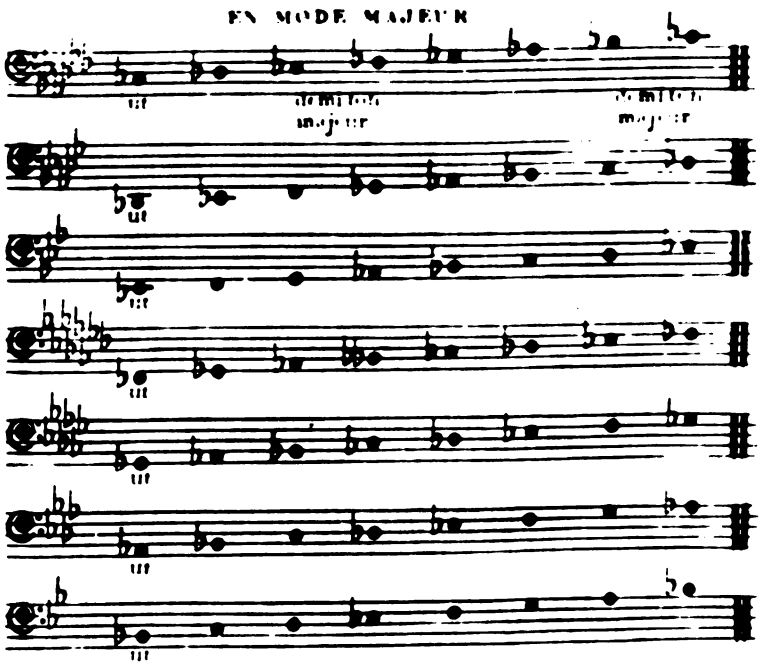

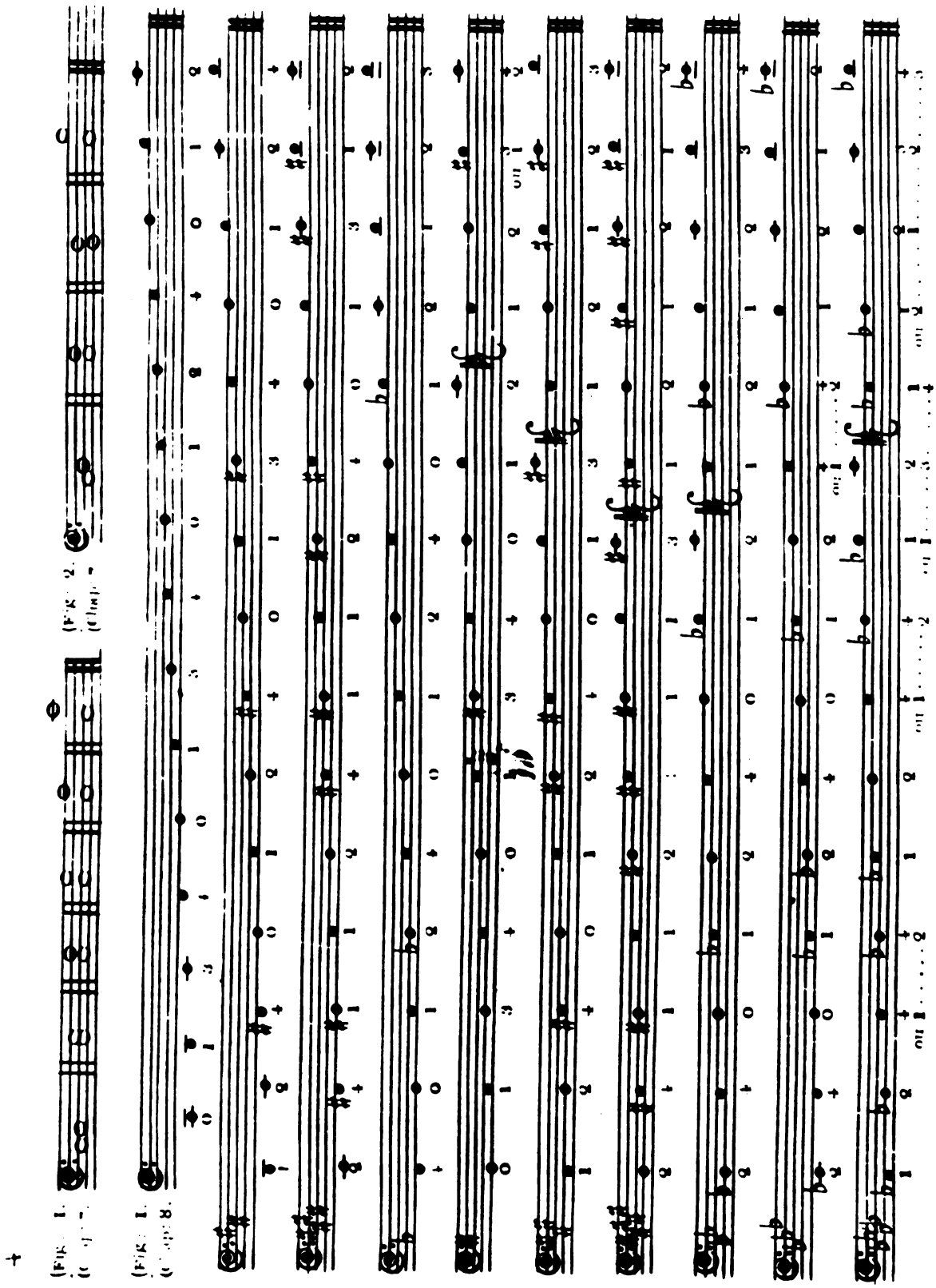

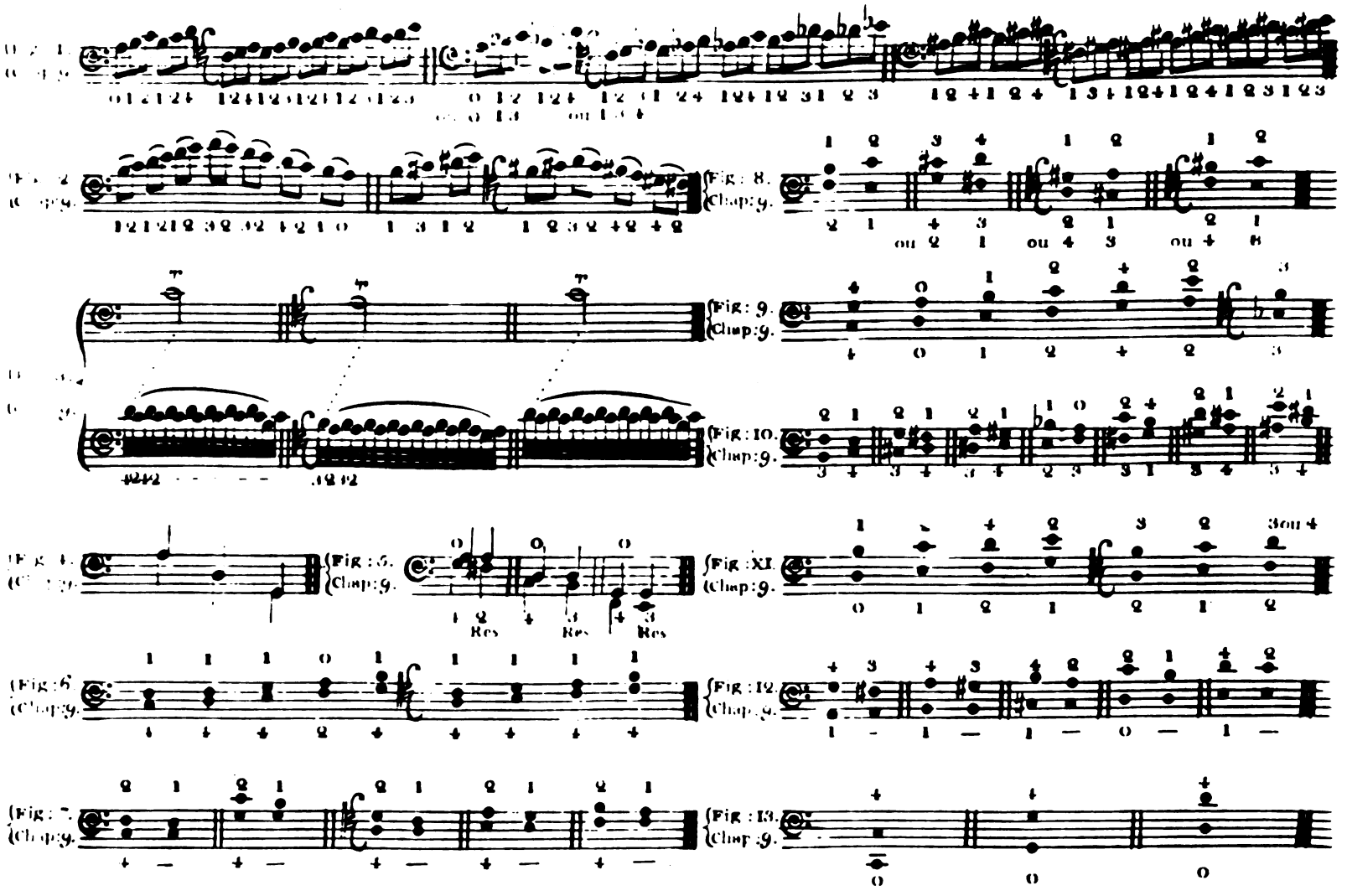
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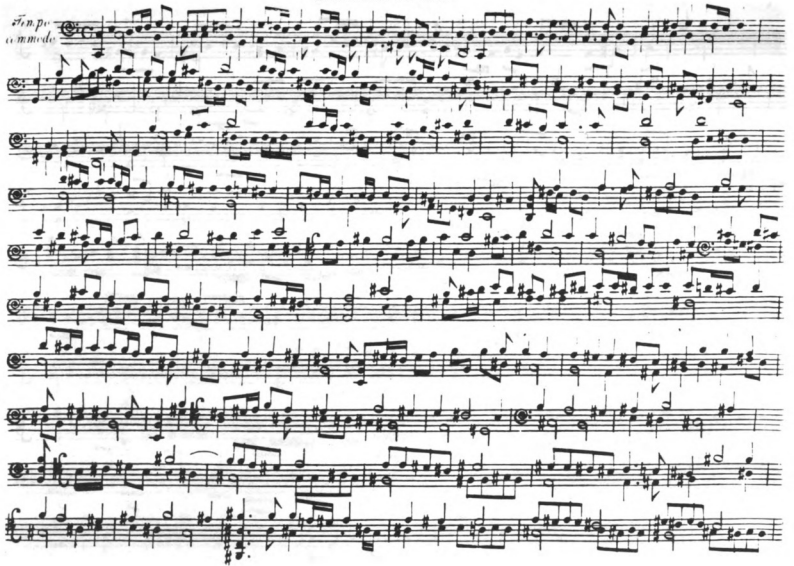
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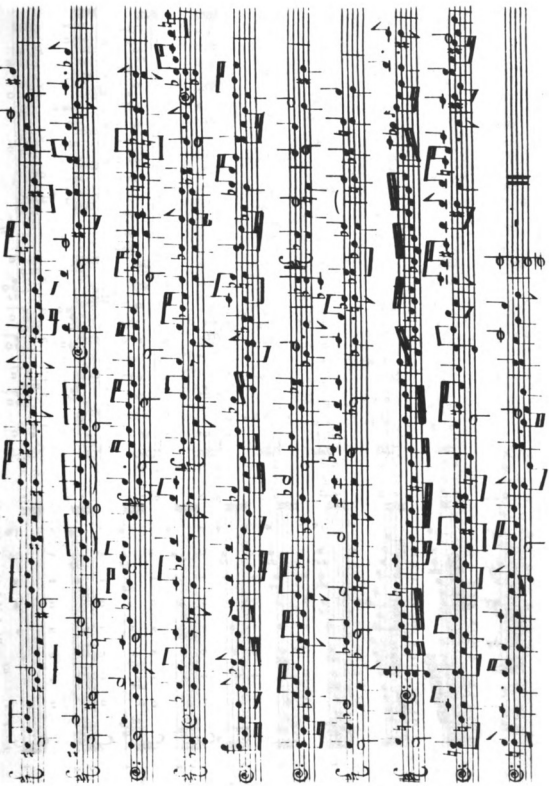

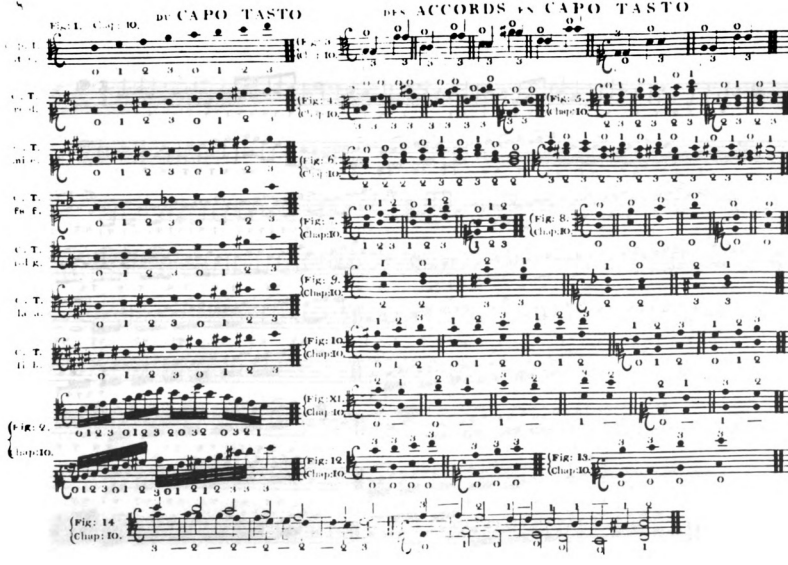
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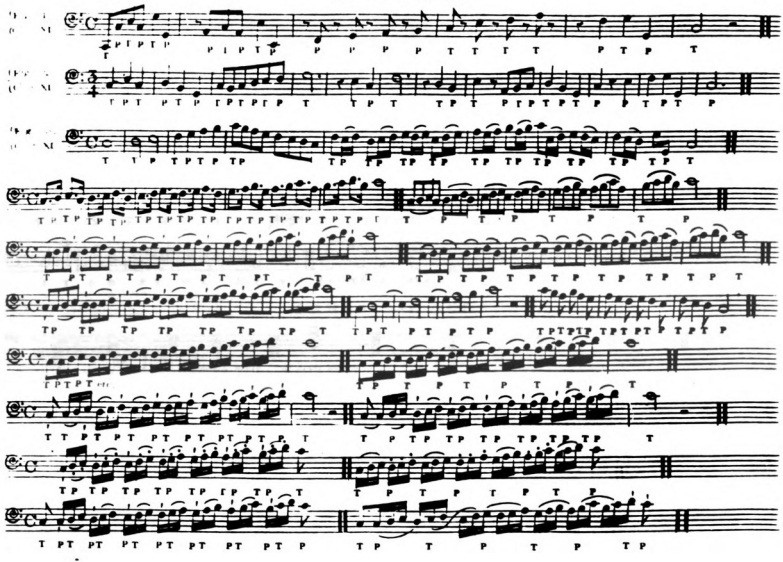

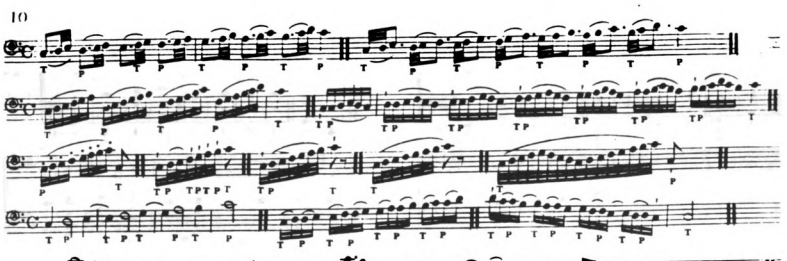

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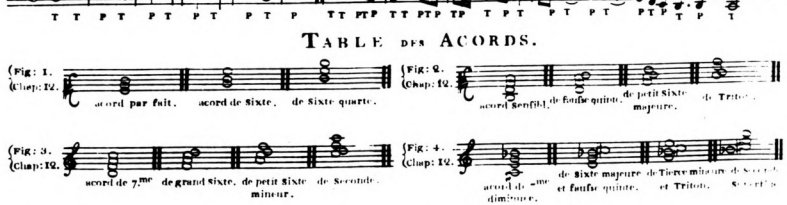

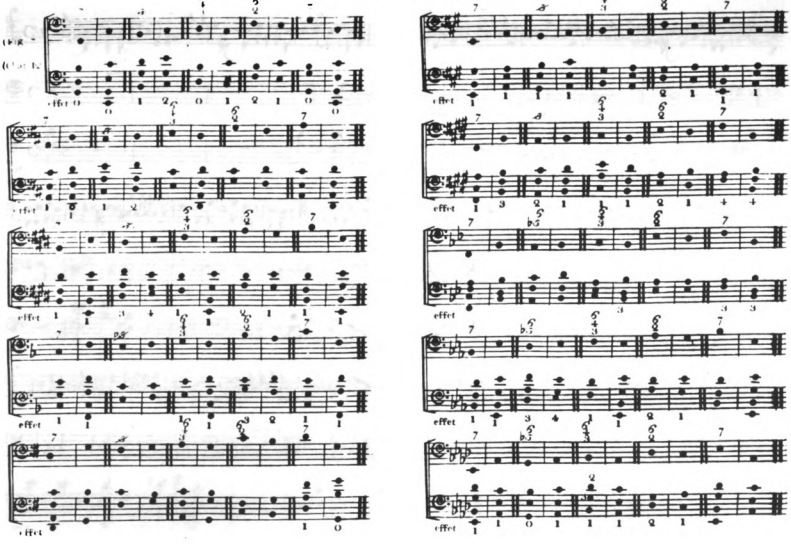

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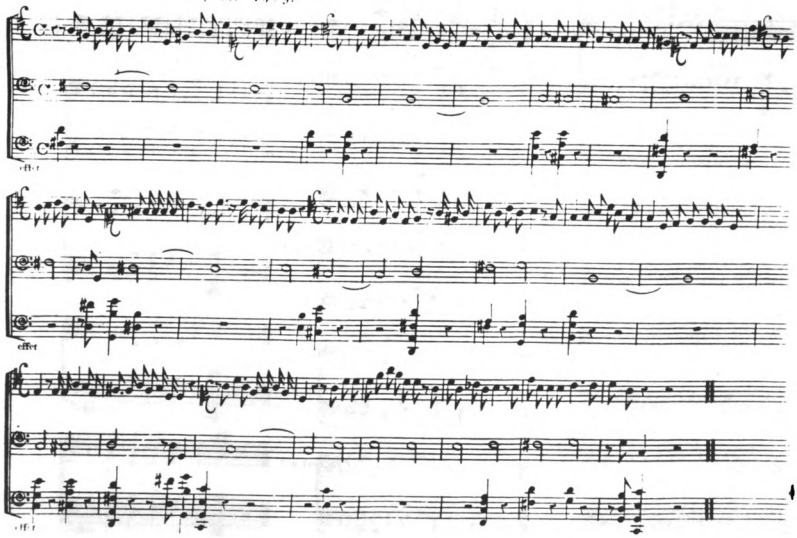

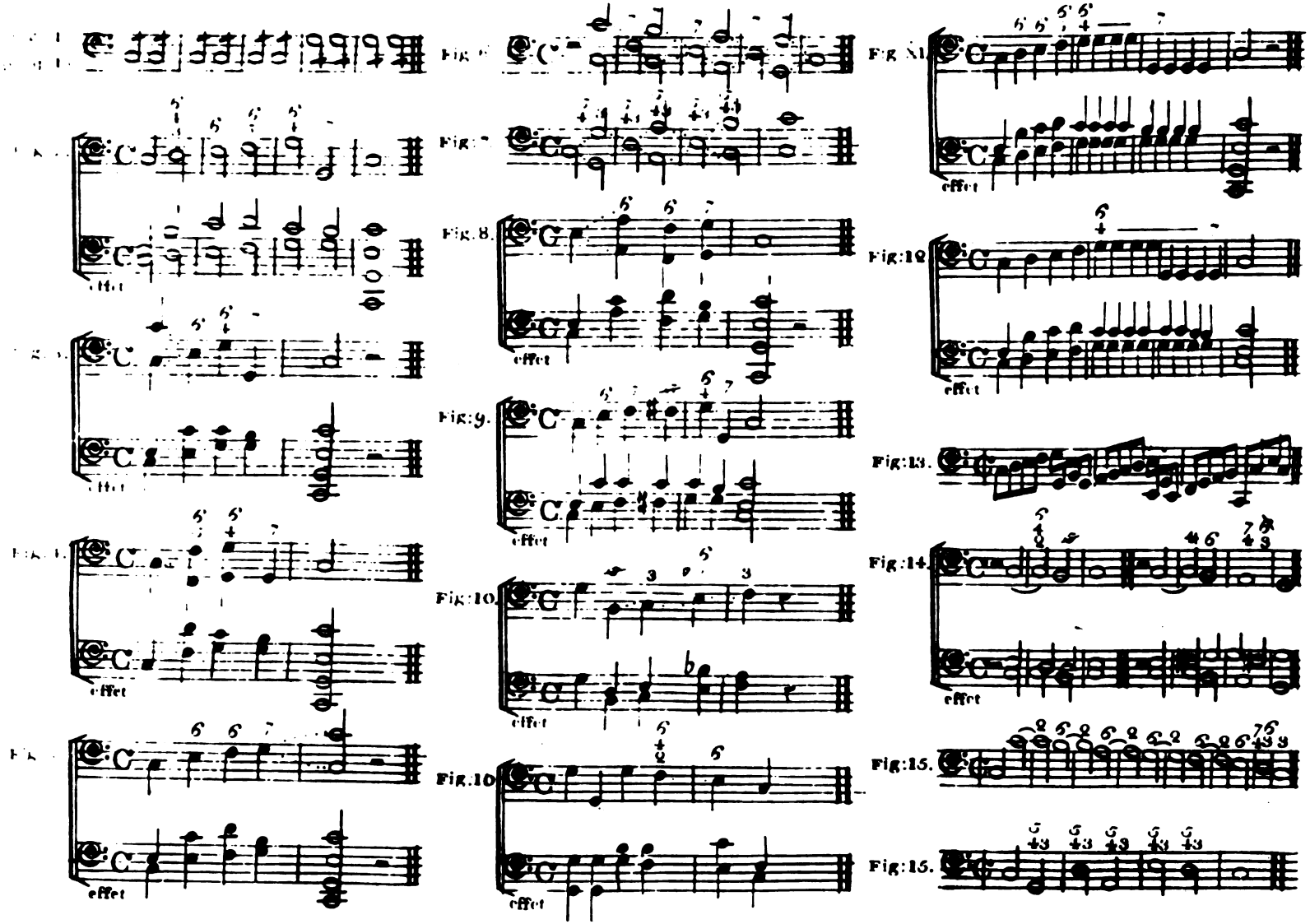
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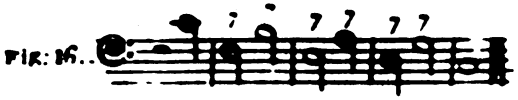
Fig: 16. 

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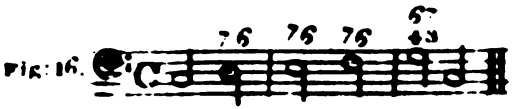
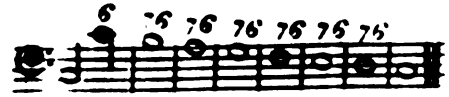
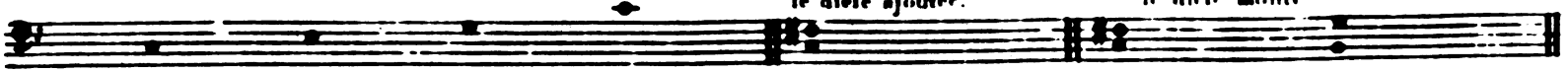
Fig: 16. 

Fig: 16 

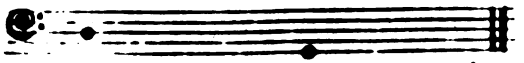
Chap: 14. de la Modulation

l'accord de la Tonique de la gamme.



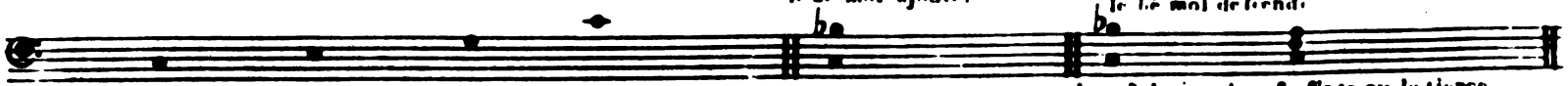
le diese ajoutee. le diese monte

la note fondamentale. la Tierce. la quinte. et l'octave. Voila le triton. la resolution dans la Sixte

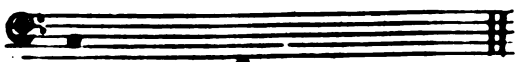


la Basse fondamentale. voila la modulation de la tonique dans la dominante

le bé mol ajoute. le bé mol defend



la note fondamentale. la tierce. la quinte. l'octave. l'accord de 7.me la resolution dan sa sixte ou la tierce.



la Basse fondamentale. la Basse fondamentale.

voila la modulation de la tonique dans sa soudominante.

APPENDIX D

APPENDIX D

METHOD

New and Systematic

To learn to play the violoncello, in which is treated the way to tune it, to place the instrument, and to hold the bow; the position of the hand on the fingerboard, the touch, the extent of the neck, the fingering in all the major and minor scales, down-bow and up-bow with a number of Exercises, Romances, Ariettes, and Minuets with variations, etc.

by

Mr. Cupis, the younger

Professor of Cello and Student of the Celebrated Bertaud

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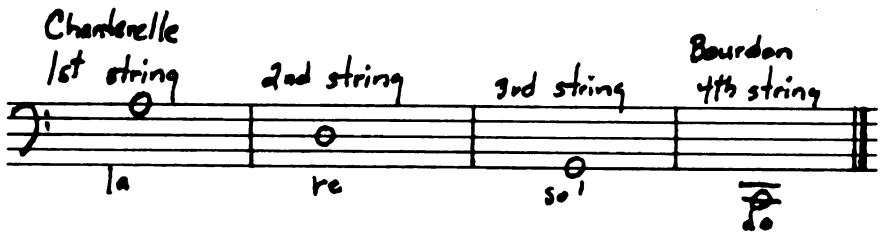
A P D R

Principles for the Cello

Tuning the Cello

Example 1



Hold to Place and Hold the Cello

It is necessary at first to sit forward on a chair, in order to be able to hold the cello with ease. Place it between the legs in such a way that the corner of the indentation in the bottom left portion of the cello (bottom left bout) is situated in the bend of the knee so that all the weight of the instrument is placed on the calf of the left leg with the left foot outside. If the knee, on the contrary, is placed in this indentation, it will hinder the bow from passing easily when using the chanterelle. The right leg is placed against the side piece at the bottom of the instrument to hold it securely.

How to Hold the Bow

The bow is held in the right hand near the nut with the four fingers above the stick and far forward enough so that the index and ring-finger can easily touch the hair. As it is the index which gives the force to the bow, it must be placed farther advanced than the others on the hair.

The thumb is found on the other side of the stick between the index and the ring-finger, the hair towards the bridge and the stick raised enough so that it doesn't touch the strings.

Nothing gives more ease to the wrist or more grace in playing than holding the elbow a little bit raised in getting used, from the beginning, to using all the bow—pulling and pushing.

There is no need for constraint in the arm. It is a fault which takes away all the pleasure of bowing and hinders the production of beautiful sounds. It is always necessary to keep a natural suppleness of motion in the wrist while pulling and pushing the bow.

To Make a Full Sound

It is necessary to place the bow on the string on which one is going to play, at the distance of two thumbs from the bridge. That is the natural position of the bow at which one can pull all the sound that the instrument must produce in making the string vibrate by pulling the bow in a straight line. And, to the contrary, if one wishes to get softer or sweeten the quality of the sound, one moves away gradually from the bridge until nearing the fingerboard and diminishing also the force of the weight of the bow on the string. This is what leads to sweetening the sound of the instrument to such degree as one wishes—the more one brings the bow toward the fingerboard, the more the sound weakens.

Position of the Hand on the Fingerboard

It is necessary to place the thumb of the left hand in the middle of the length of the neck (at right angles to the neck) opposite the fingerboard in such a way that the thumb corresponds to the index without grasping the neck. If this is not done, the fingers will be positioned badly and one loses the advantage of using them with facility.

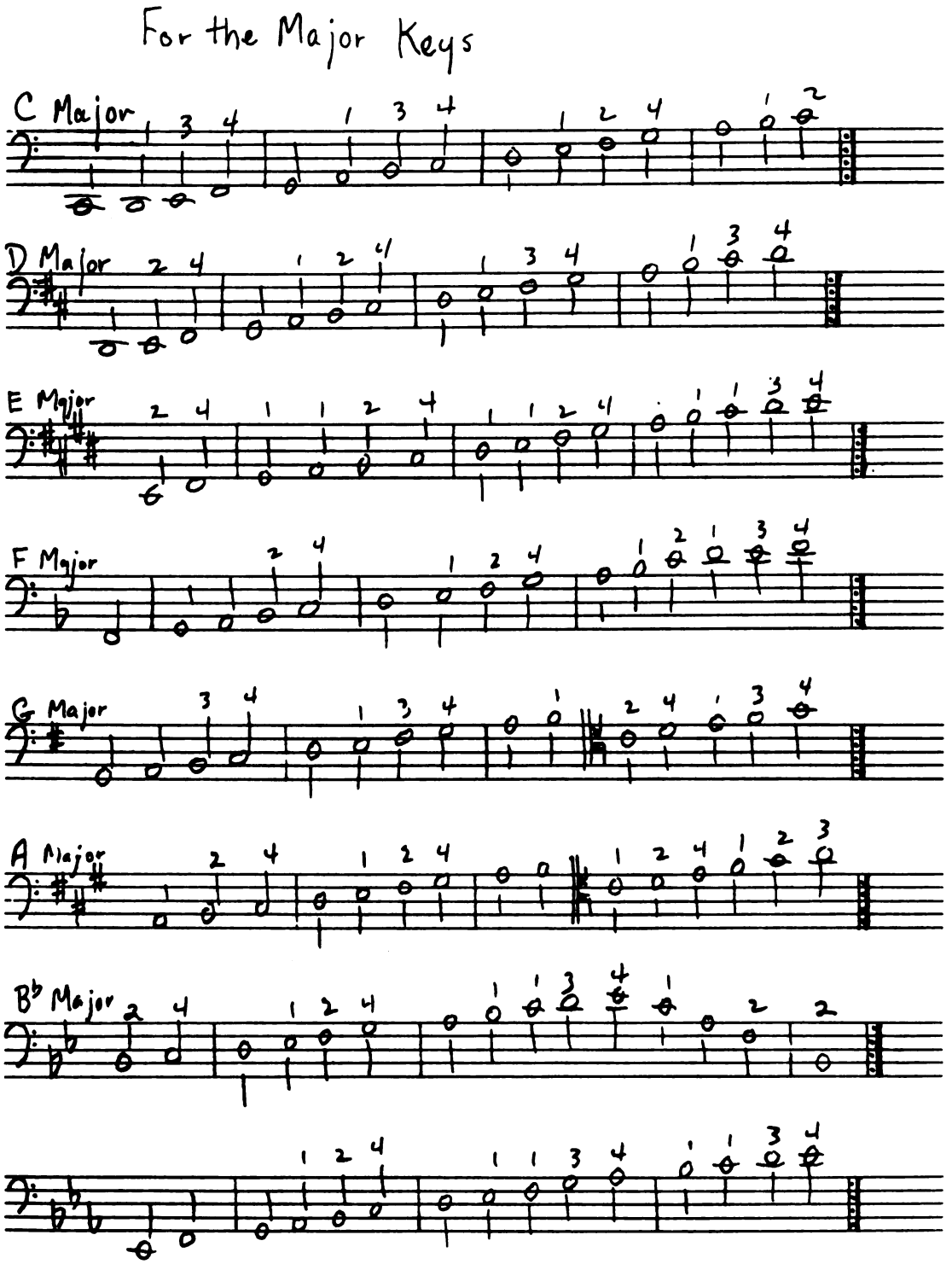
The Touch of the Left Hand Fingers on the Instrument

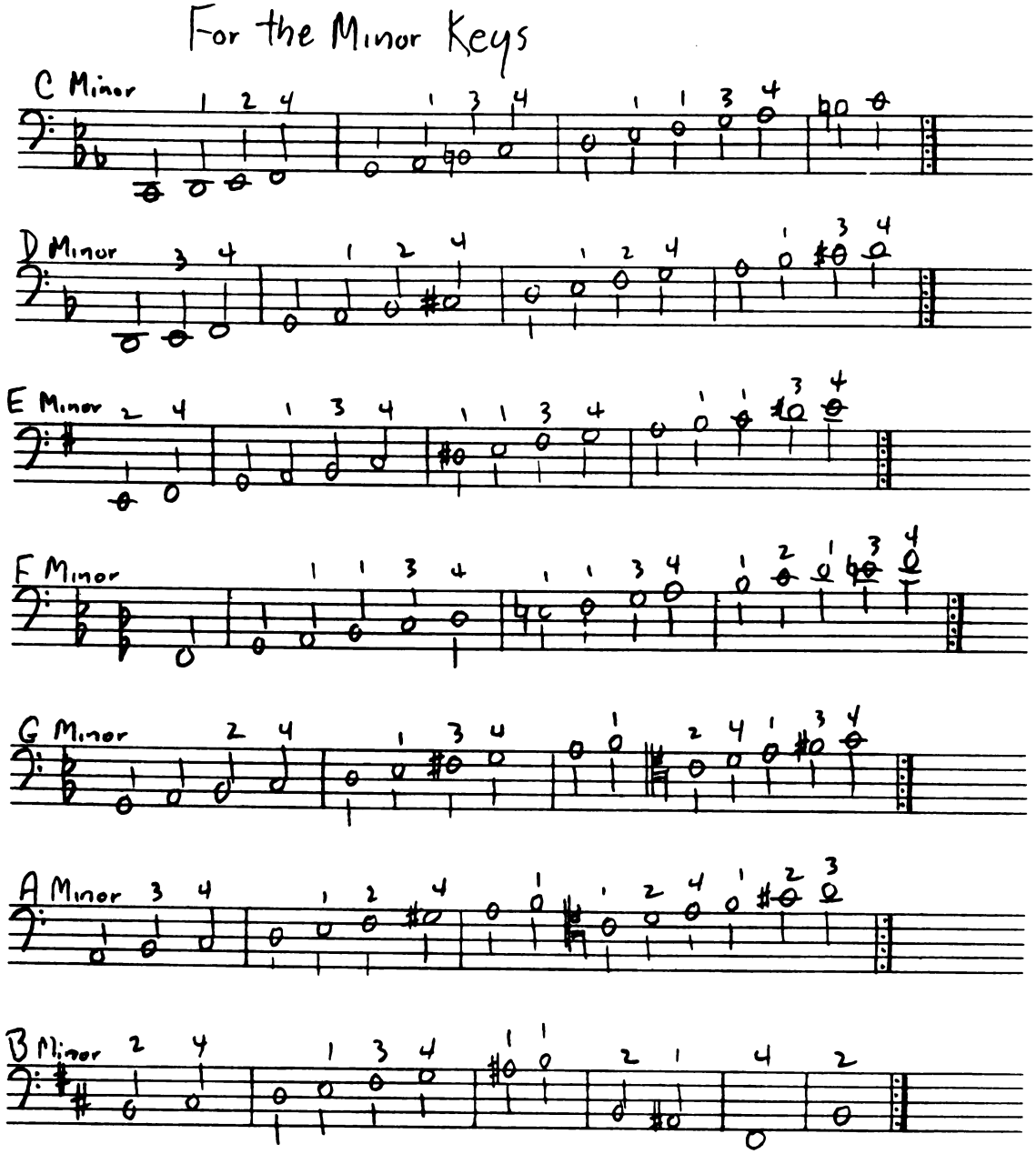
1. It is necessary to hold the fingers rounded as much as possible.
2. Touch the string with the tips of the fingers in pressing it to the fingerboard.
3. Raise the fingers as little as possible while playing.

All these observations being followed exactly and combined properly suffice to attain a good technique and beautiful sound quality.

After having treated the way to hold the cello, the bow, the position of the hand on the fingerboard and the touch, as succinctly as possible, so as not to overtax the attention of the student and so that he will be able to follow them exactly; I am going to give rules necessary for gaining the knowledge of the range of the neck, the way to finger in all the major and minor keys for accompaniment—always making sure to push and pull the bow in a straight line at the distance of two thumbs from the bridge in order to pull full sounds as I have said before.

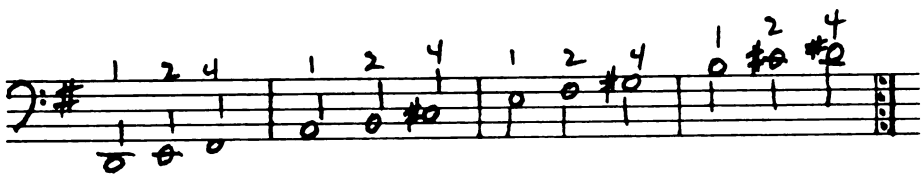
Example 2


For the Major Keys
C Major
D Major
E Major
F Major
G Major
A Major
B♭ Major


For the Minor Keys
C Minor
D Minor
E Minor
F Minor
G Minor
A Minor
B Minor

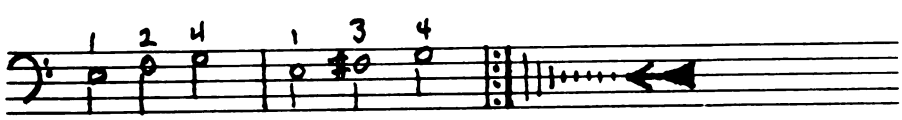
It is necessary to note that when playing the major third from the first to the fourth fingers, the index (second?) must always take the place of the ring-finger. This must be observed when ascending (scalewise) to the note G from the fourth to the third strings, to the note D from the third to the second, the note A from the second to the chanterelle, etc.

Example 3



In general, the index is used only when from the first note to the second there is only a half step and from the second to the third notes is a whole step. The ring-finger is used when from the first note to the second is a whole step and a half step from the second to the third.

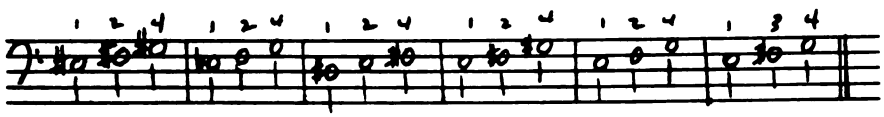
Example 4



It is necessary to note this manner of fingering in shifting to G on the chanterelle, to C on the second string, to F on the third string and to Bb on the fourth.

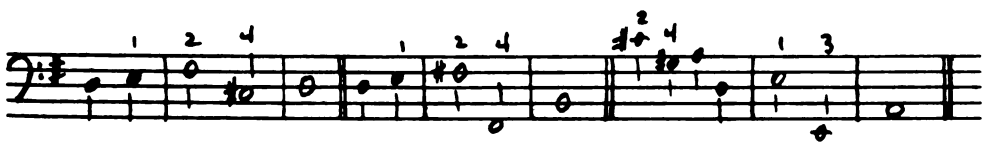
All the sharps and flats which are to be played from the first finger to the fourth are fingered by spreading or bringing the fingers together according to whether the thirds are major or minor.

Example 5



If the note which is played with the third finger is followed immediately by a sharped note a fourth below it or an octave below which must resolve to its fifth, it is necessary to play this note with the second finger instead of the third.

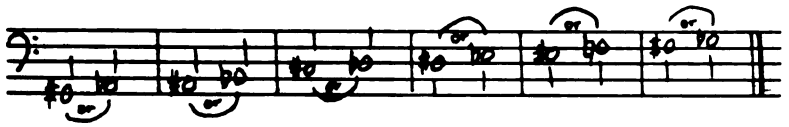
Example 6



It is necessary to note that all the sharped notes are the same as the next higher note when the latter is

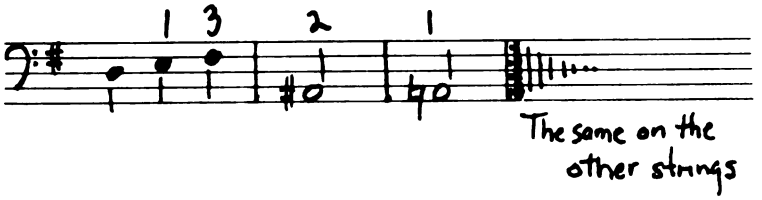
flatted. The same sound is produced by both.

Example 7



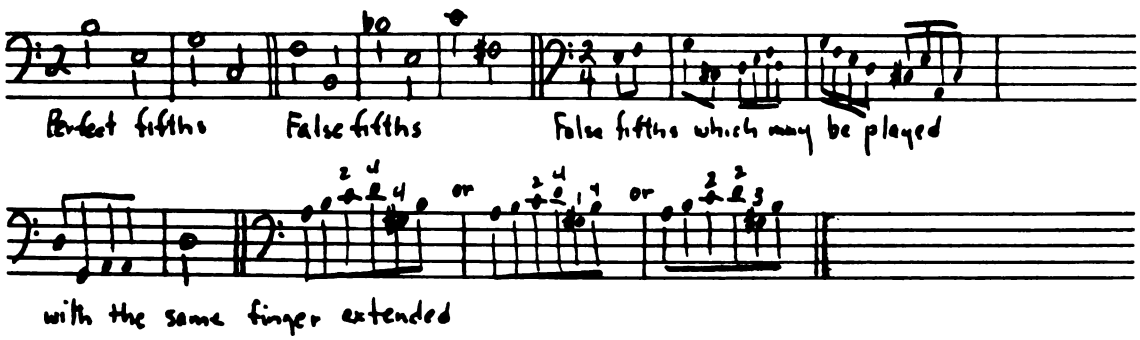
Even high on the fingerboard these notes are often played with the same finger.

Example 8



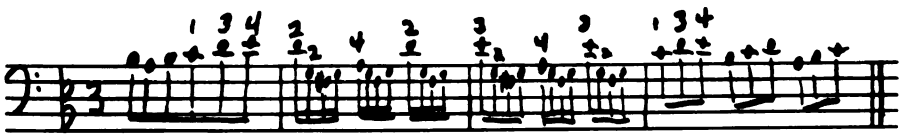
All the perfect fifths are always played with the same finger by placing it across two strings at a time, and the false fifths are played by crossing the higher finger to the other string. It is necessary to observe this manner of fingering false fifths as much as possible when the two notes follow each other quickly in batteries and when it is necessary to hold them as a chord. This method cannot be dispensed with when one is not used to shifting quickly. It is necessary, in such cases, to use the little finger raised a half step above the other finger.

Example 9



One is sometimes obliged to change the ordinary manner of fingering because of the circumstances.

Example 10

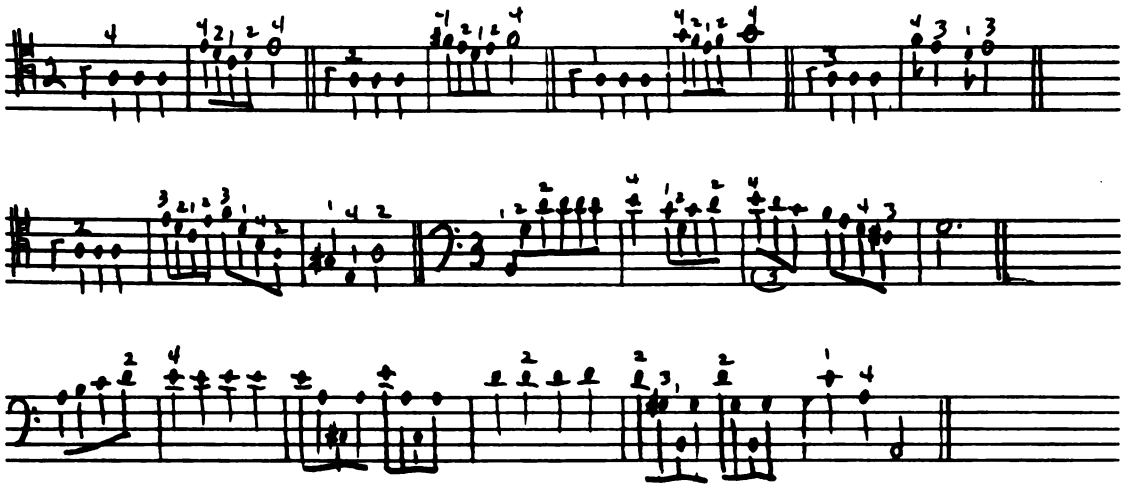


It is necessary to get used to looking ahead as much as possible when placing the fingers on two strings—looking ahead two or three measures ahead of execution so as not to be obliged to throw the hand to grab one note which would be embarrassing and could cause a false note.

It is necessary to take care not to raise the fingers which can stay in place—especially when passing from one string to another, and not to place the little finger alone on one string when one has several notes to play descending diatonically.

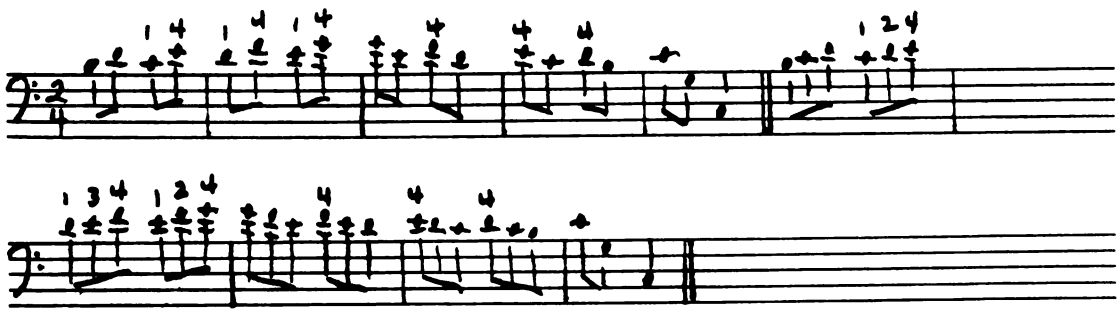
Note that unisons are played with each of the fingers according to the circumstances. The following examples show the different ways of shifting.

Example 11



How to prepare the E on the chanterelle which is the first note above the regular extension.

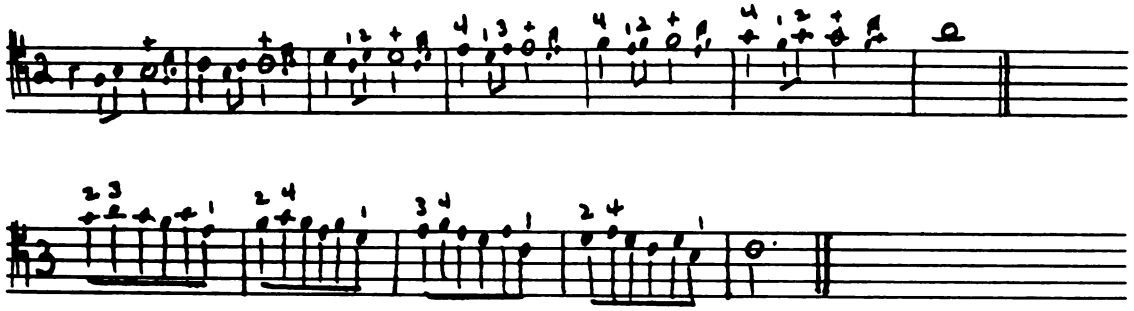
Example 12



When playing several ascending thirds in succession on the chanterelle, the first finger is always put on the

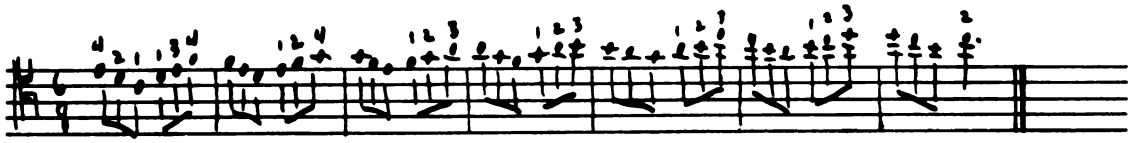
first note of the third. The fourth finger is placed on the first note of the pair when descending.

Example 13



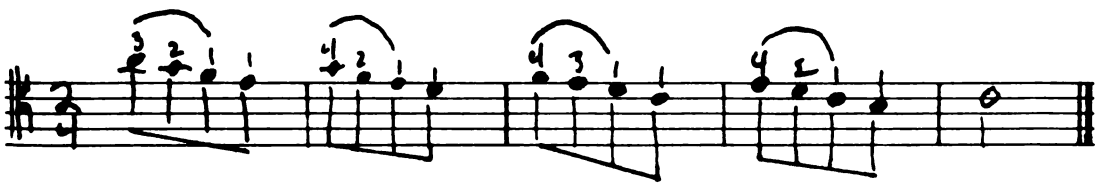
The same rule is observed when there are several trills to be played in ascending thirds.

Example 14



When after having played a descending third there is an ascending third, the first finger is always used on the first note of the ascending third.

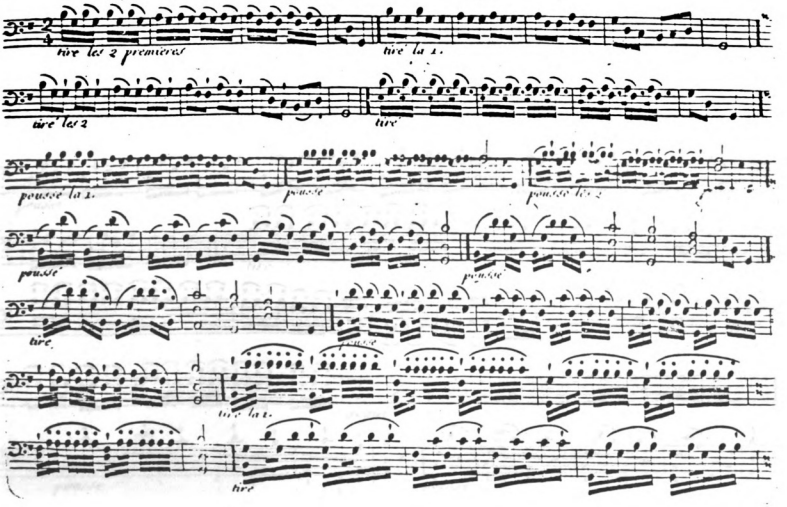
Example 15

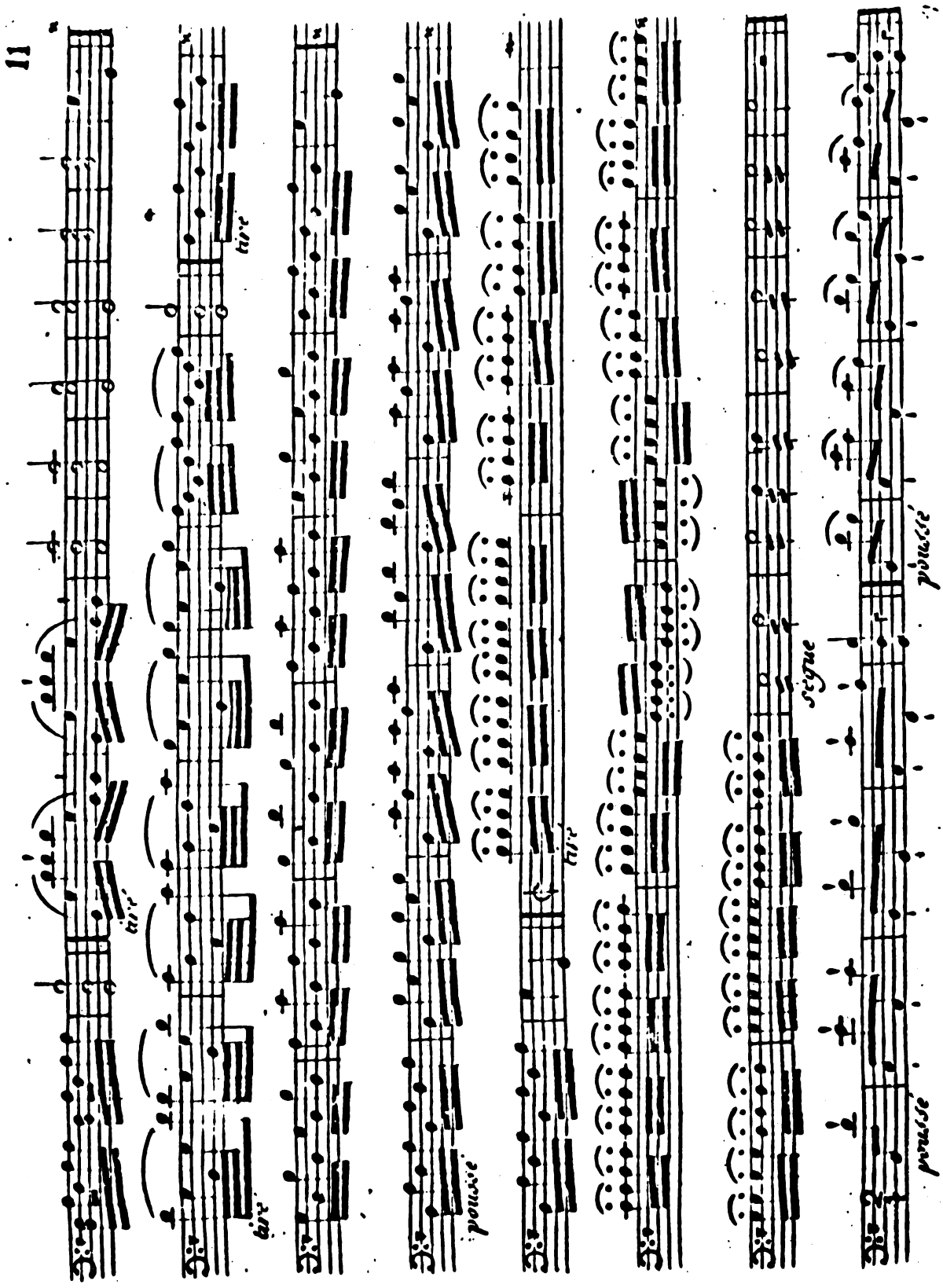


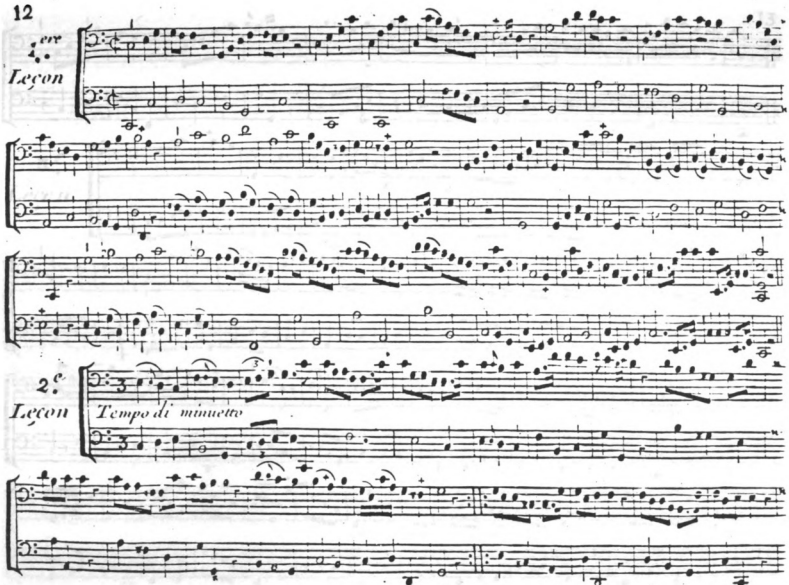
When four notes descend diatonically and the first three notes are slurred, the first finger is drawn back to play the fourth of the descending notes.

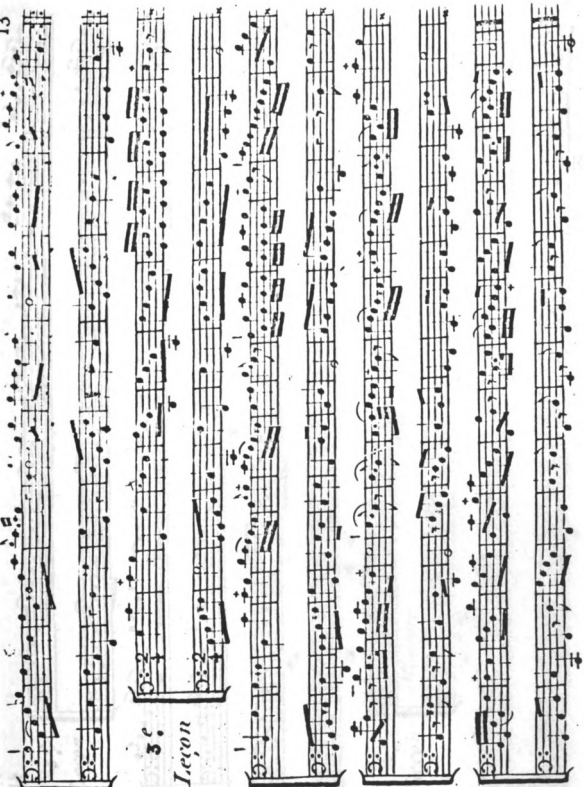
The little lines which are found above the first notes are to show when to push the bow and when to pull. This (|) means to pull, this (—) means to push.

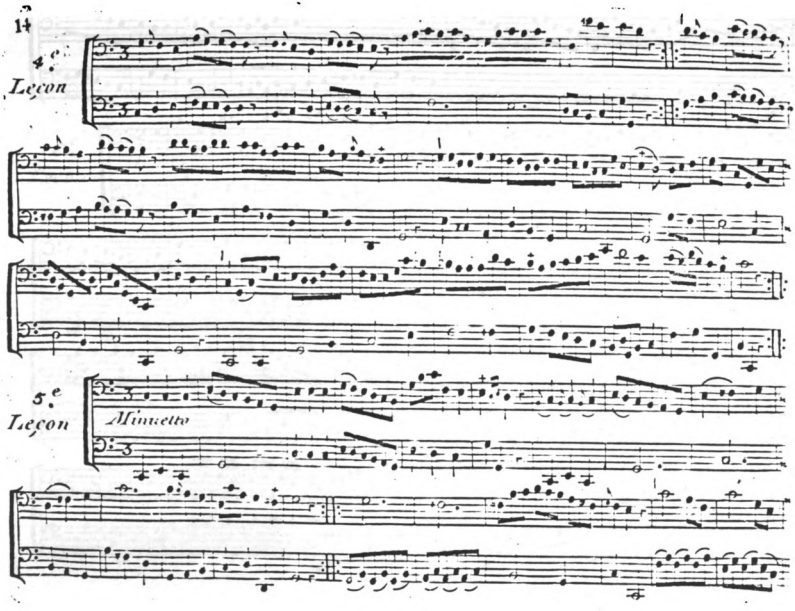
Des différentes Façons de conduire l'Archet.

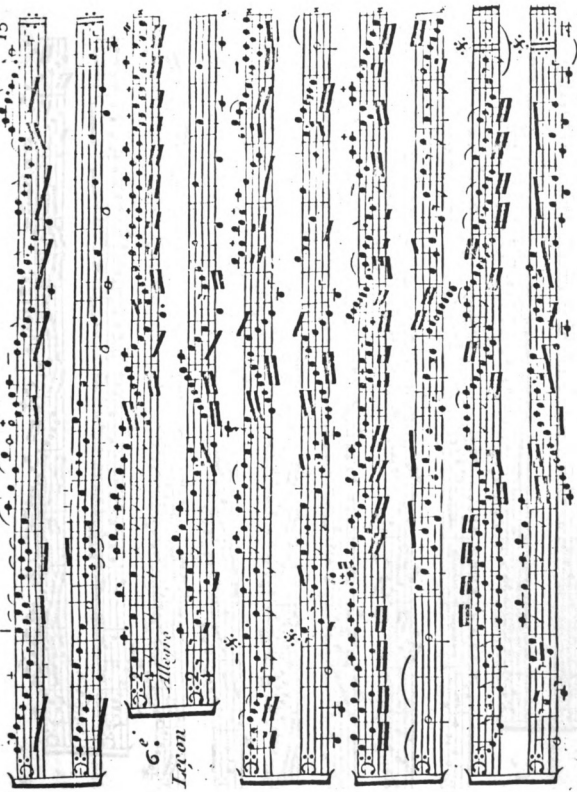


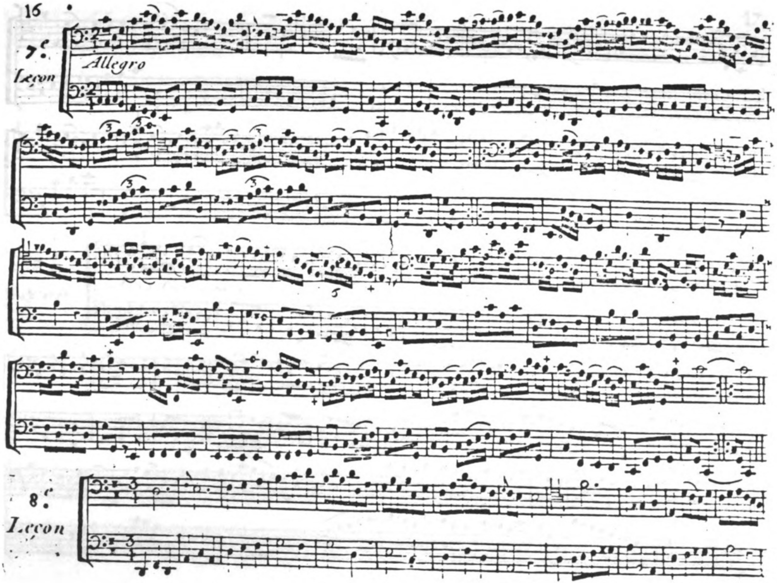

11
segue
segue


1.er
Leçon
2.e
Leçon
Tempo di minuetto

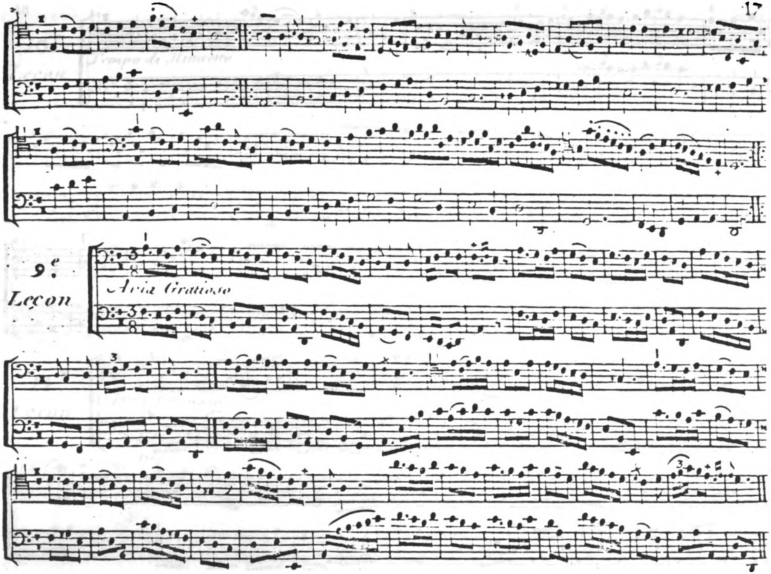

13
3.e
Leçon

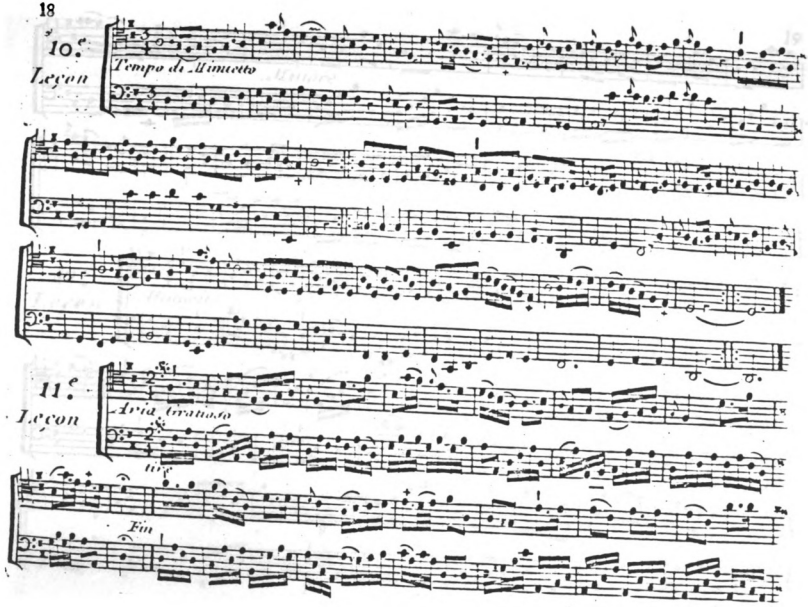

4.e
Leçon
5.e
Leçon
Minuetto

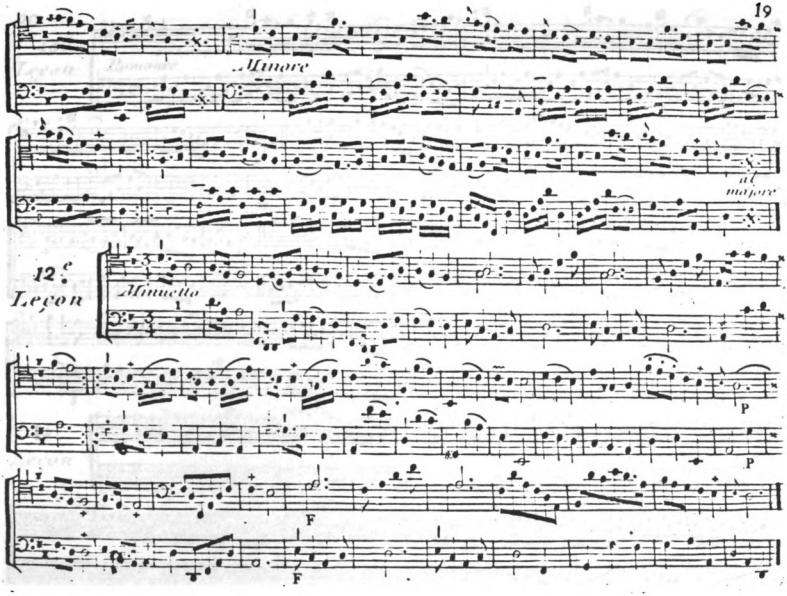

15
6e
Allegro
Leçon

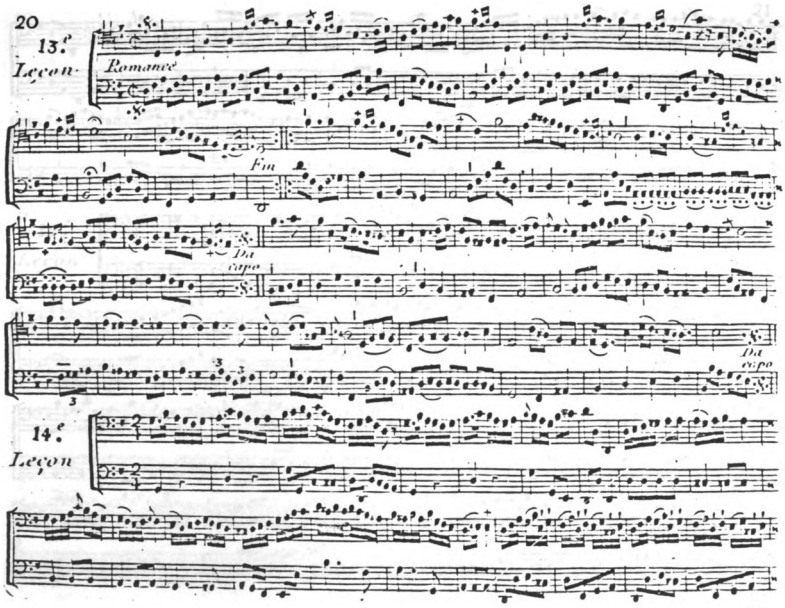

16
7.e Leçon
Allegro
8.e Leçon

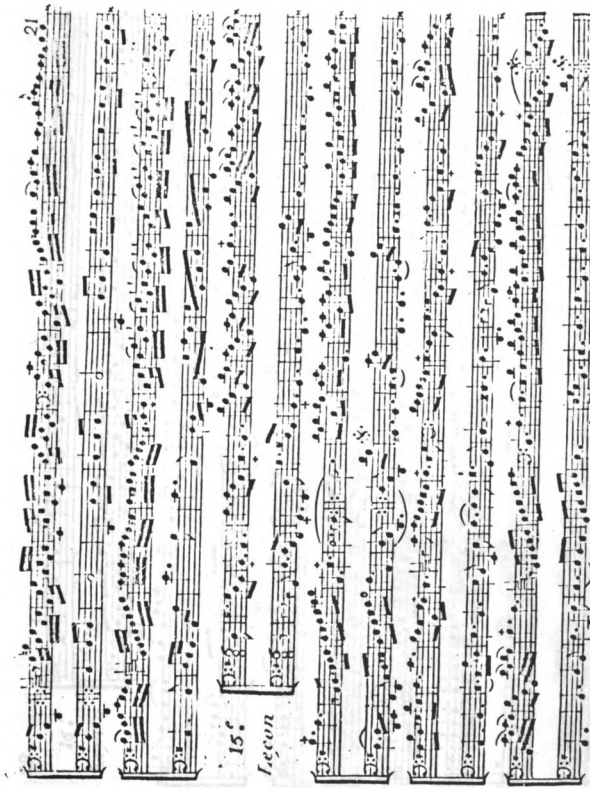
9e Leçon

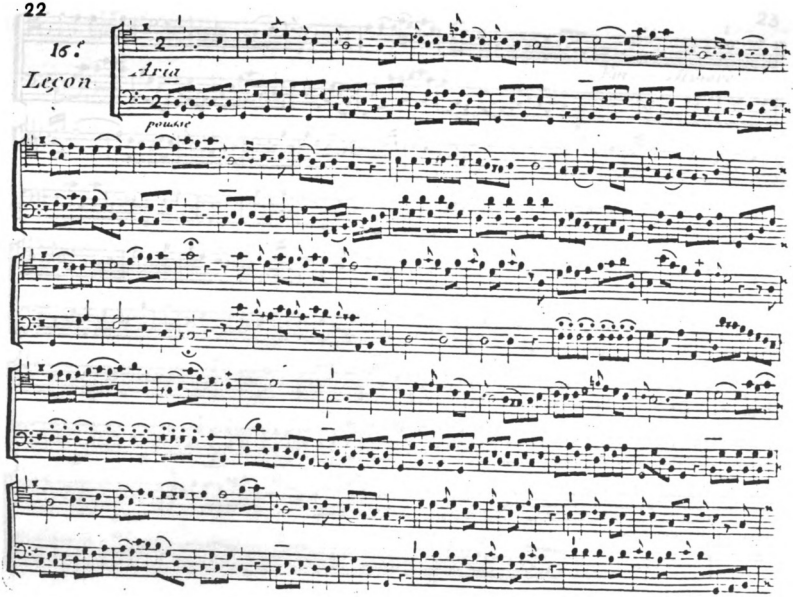


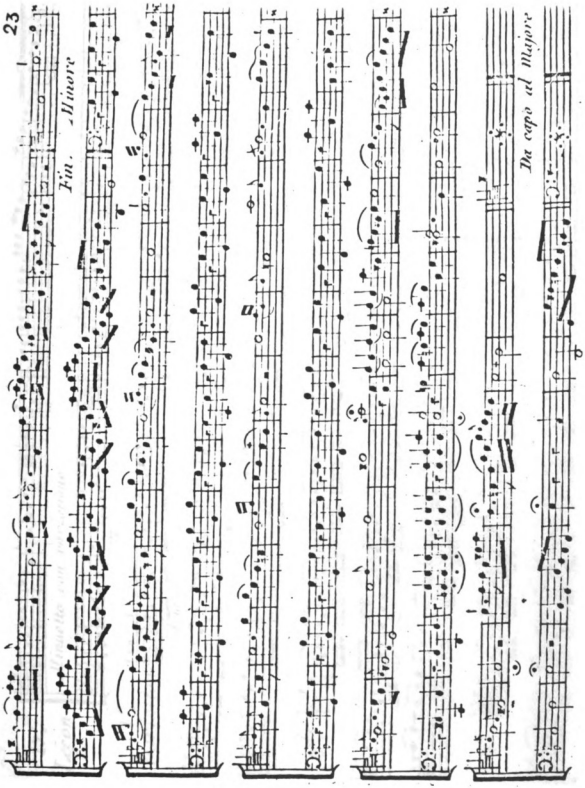

10.e
Leçon
Tempo di Minuetto
11.e
Leçon
Aria Gratioso
Fin

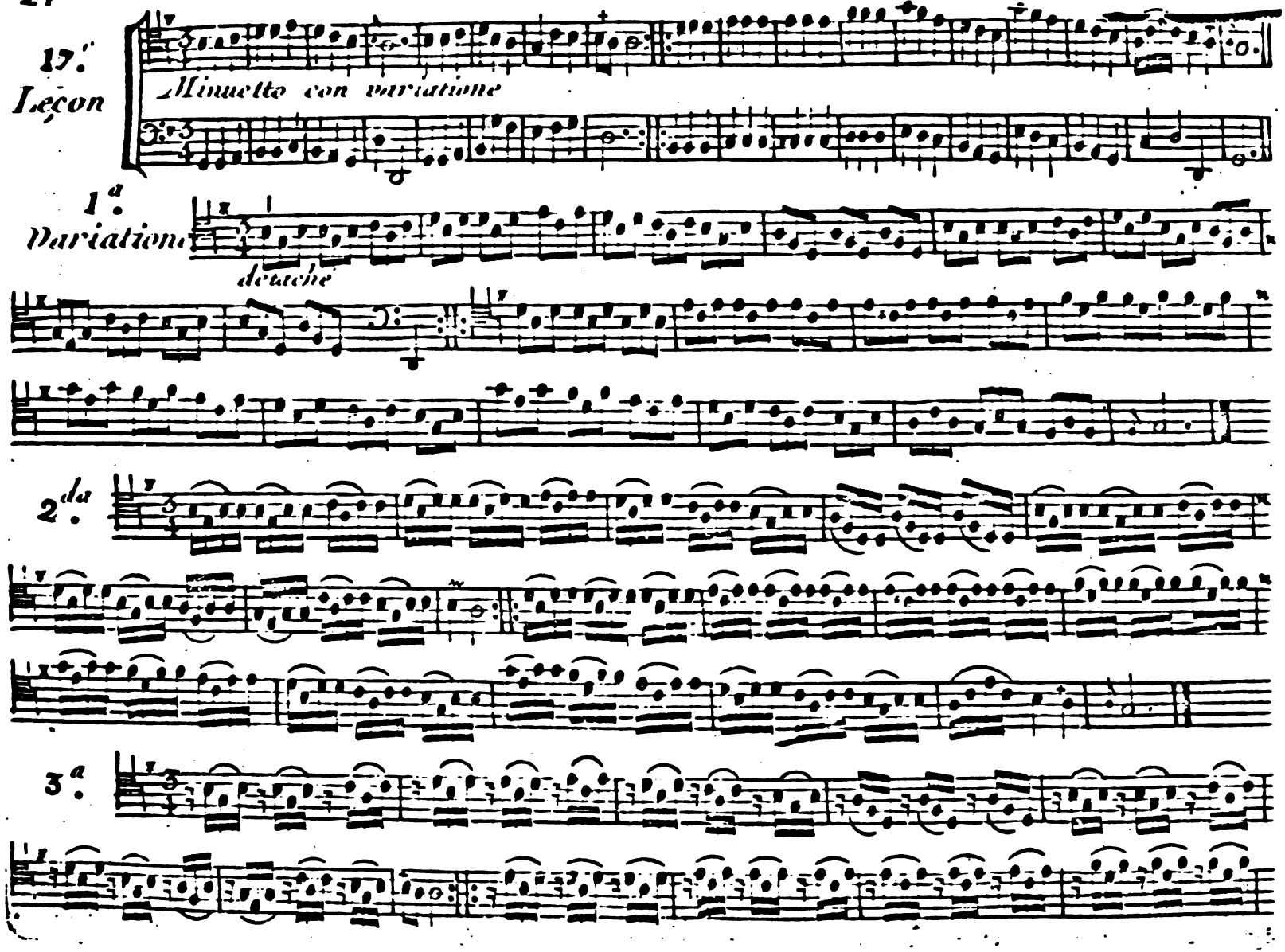

Minore
al
majore
12.e
Leçon
Minuetto
P
P
F
F

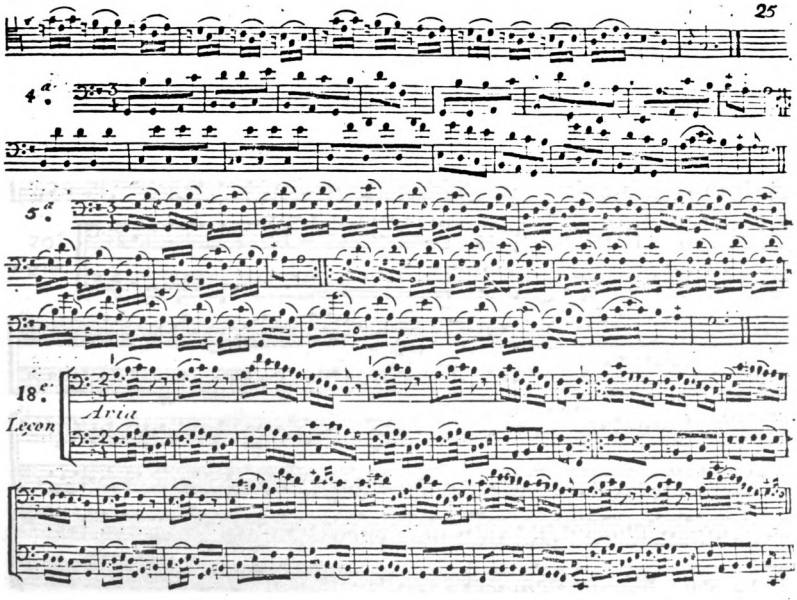

13.e
Leçon.
Romance
Fin
Da capo
Da capo
14.e
Leçon

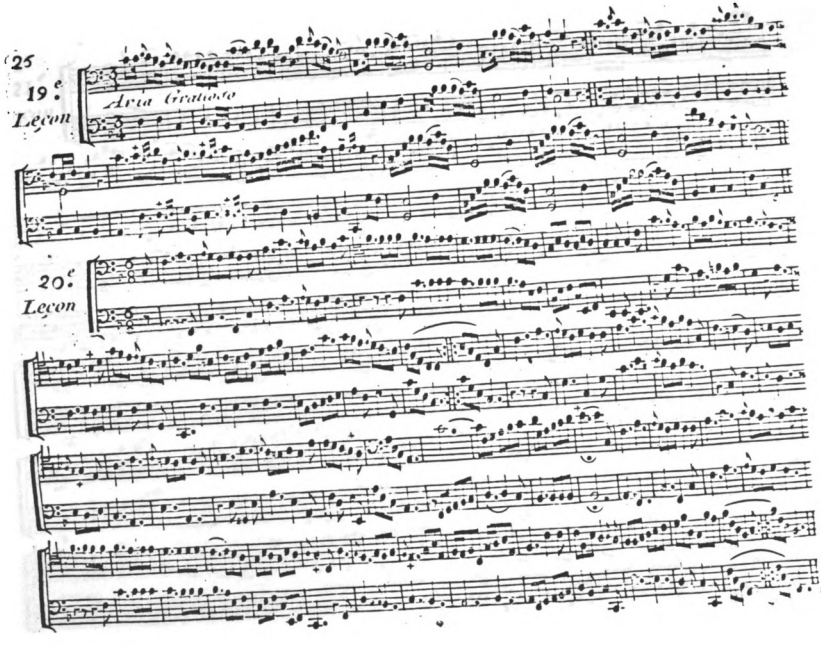

21
15e
Leçon


16.e
Leçon
Aria
pousse

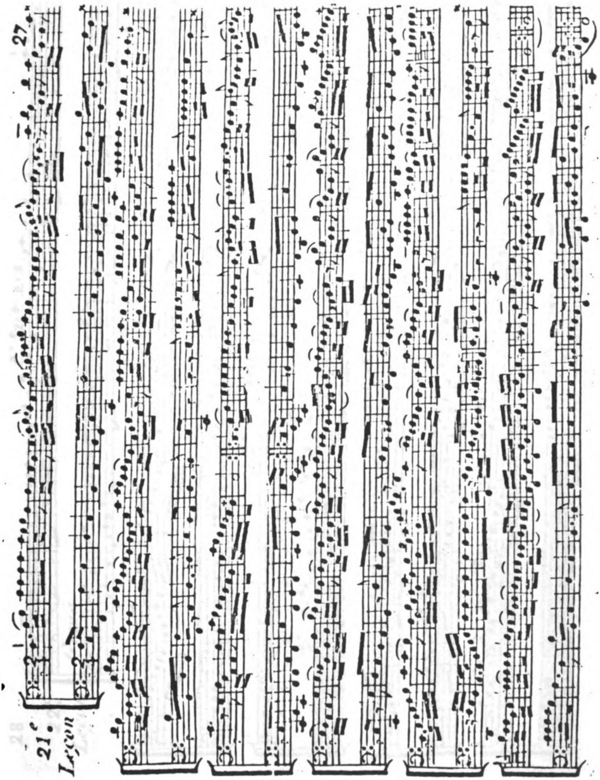

23
Fin. Minore
Da capo al Maggiore


17.e
Leçon
Minuetto con variatione
1.a
Variation
detache
2.da
3.a

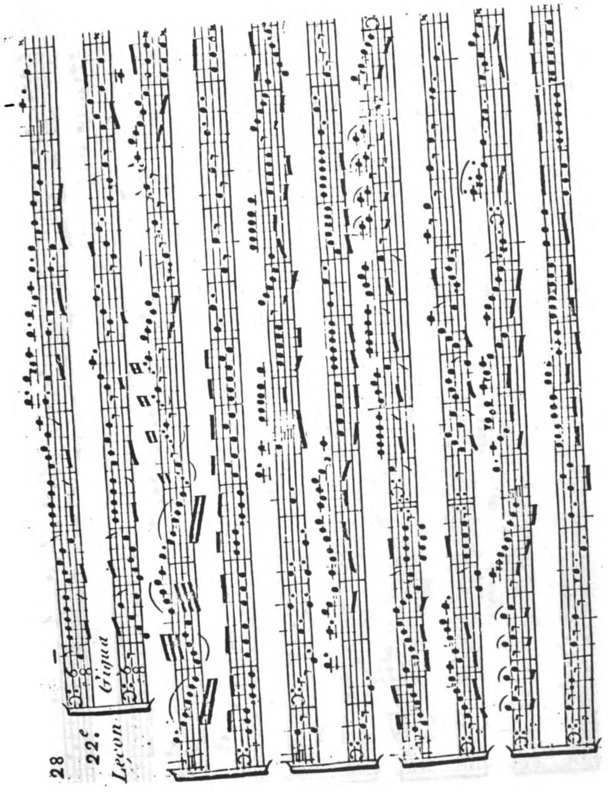

4.a
5.a
18.e
Aria
Leçon

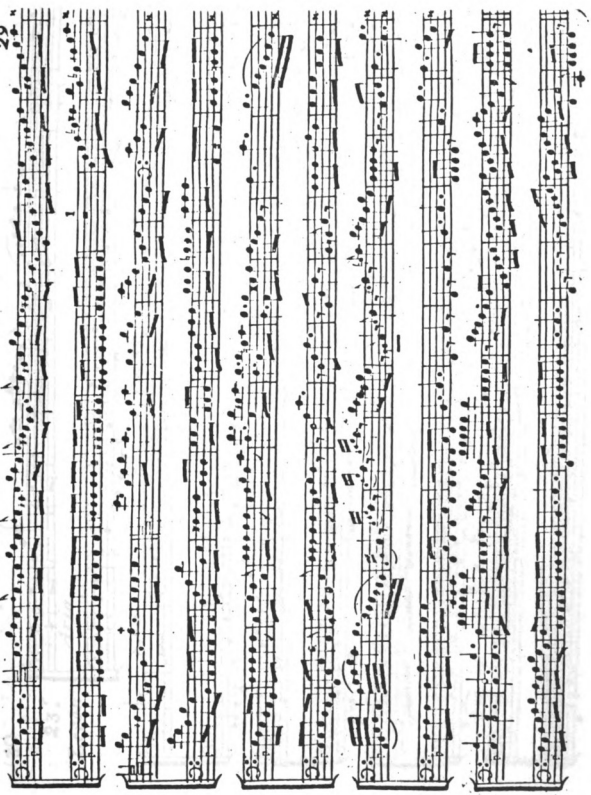

19.e
Leçon
Aria Grauoso
20.e
Leçon

21e Leçon



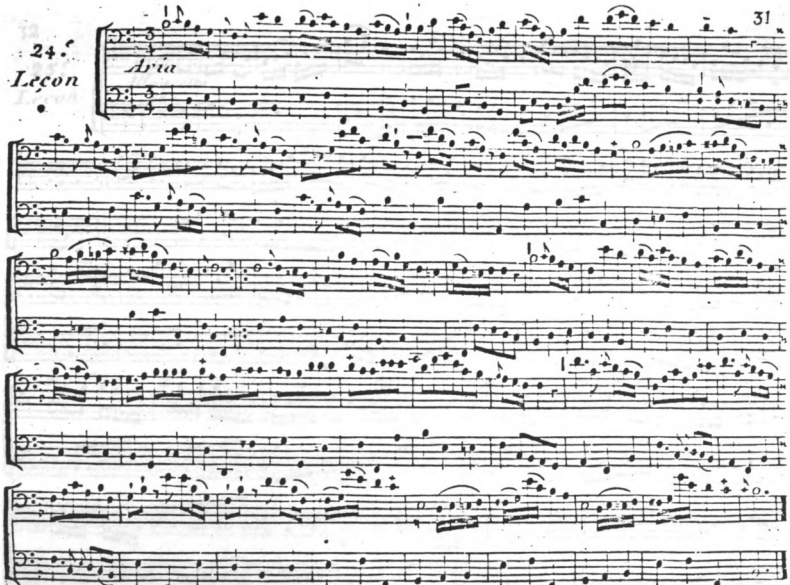
22e. Lecon

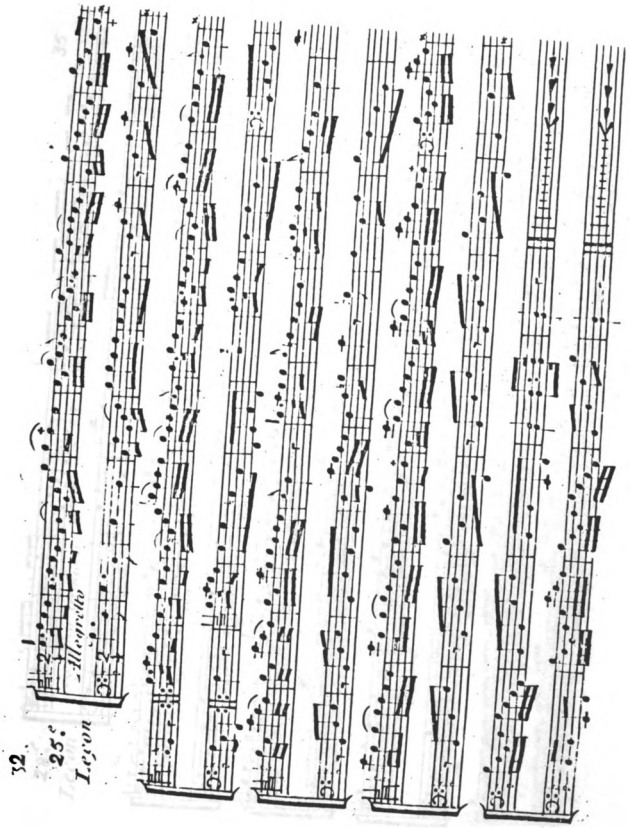


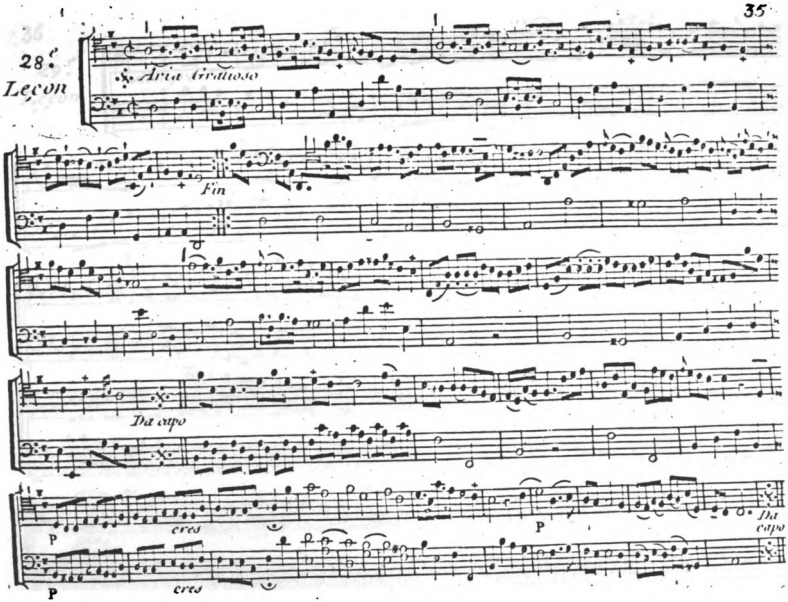

29

23.e Leçon

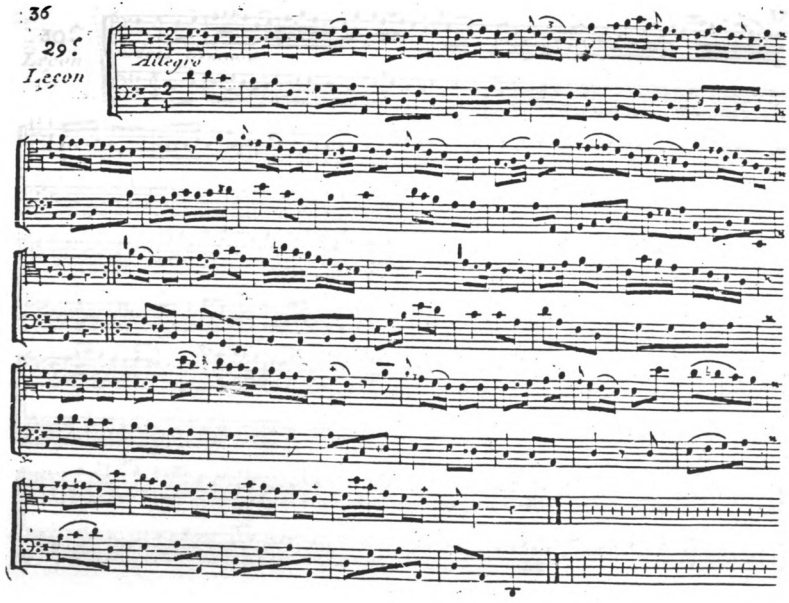
Aria

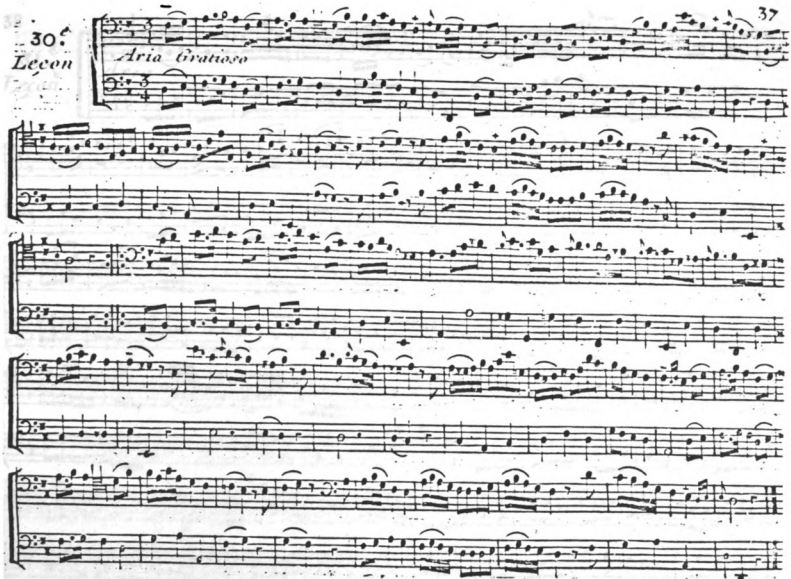

24.e
Leçon
Aria

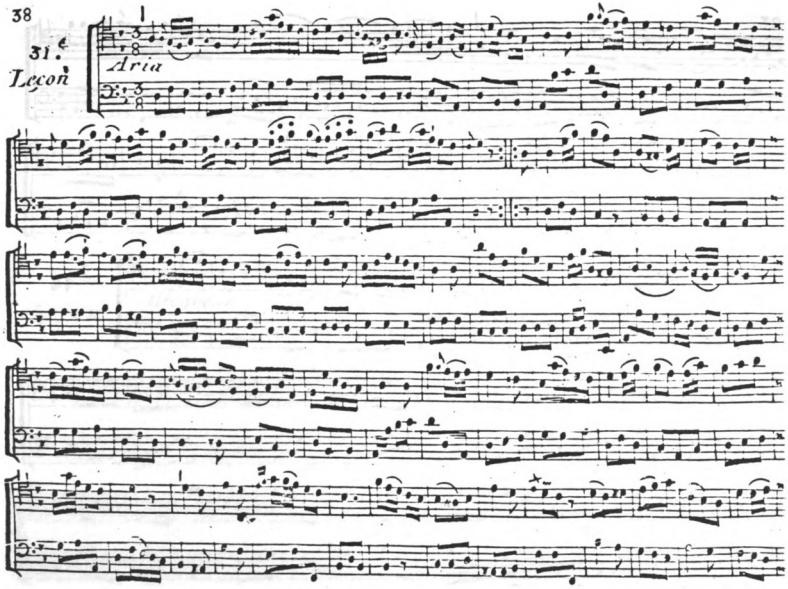

32.
25.e
Leçon
Allegretto

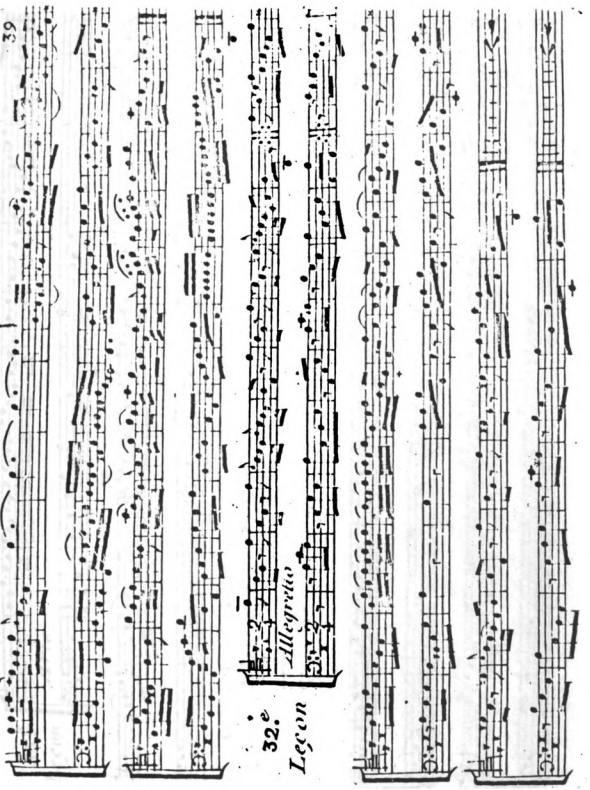

28.e
Leçon
Aria Gratioso
Fin
Da capo
P
cres
P
Da capo
P
cres

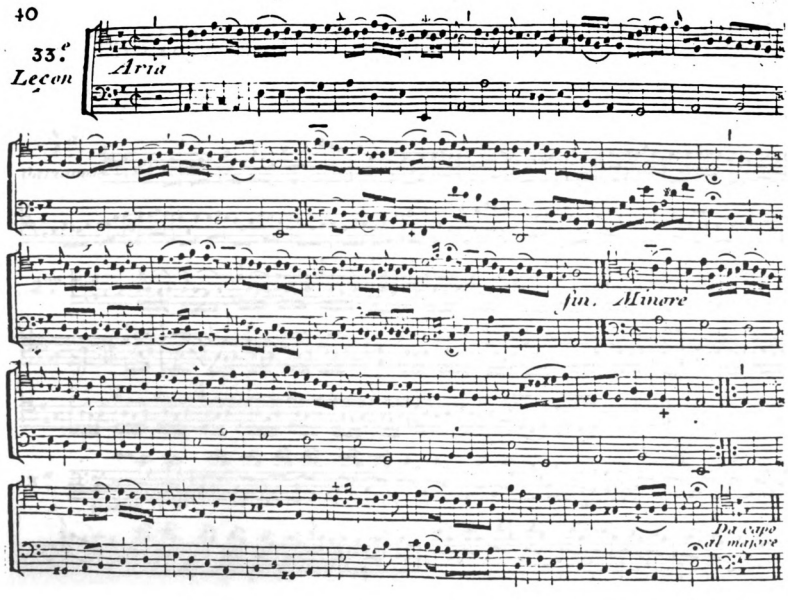
29.e Leçon

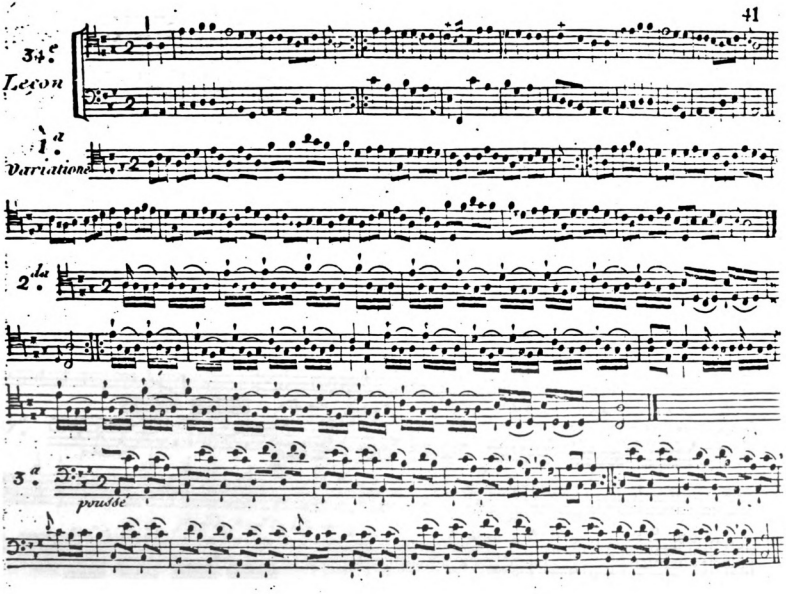


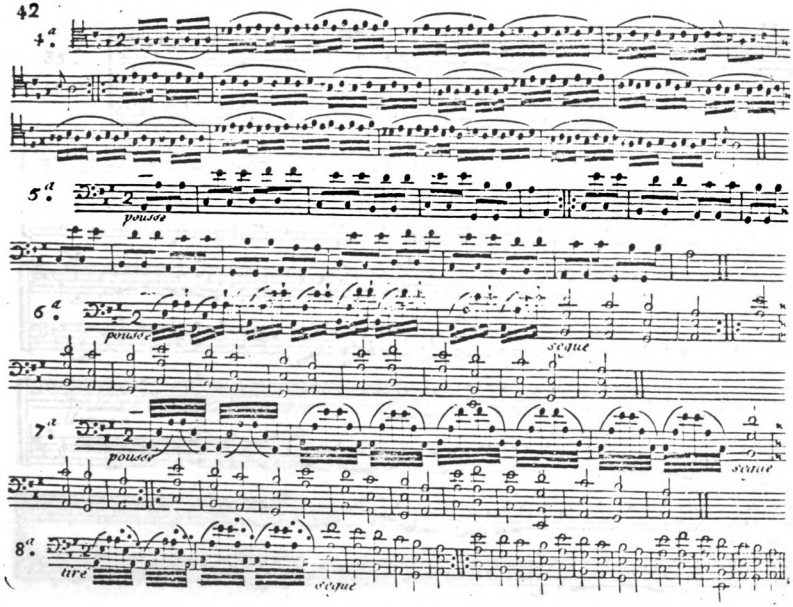

30.e
Leçon
Aria Gratioso


31.e
Leçon
Aria

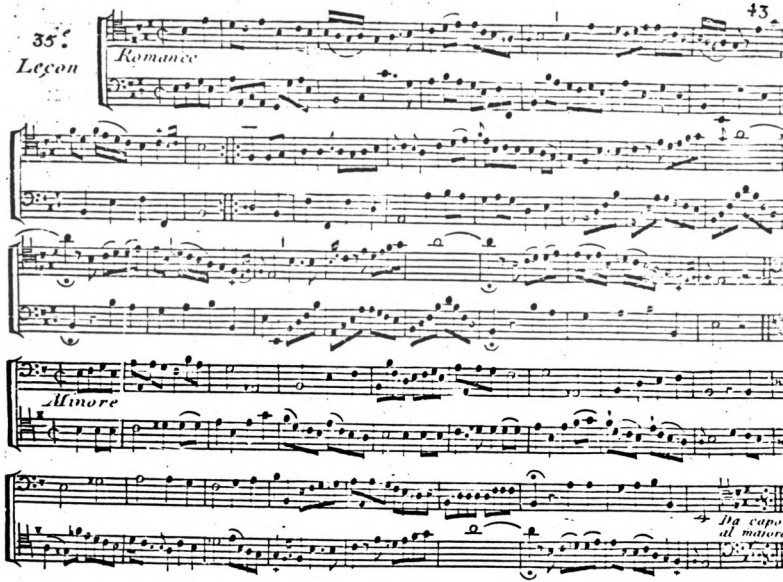

39
32.e
Leçon
Allegretto


33.e
Lecon
Aria
fin. Minore
Da capo
al majore


34.e
Leçon
1.a
Variations
2.da
3.a
poussé


4.ª
5.ª
poussé
6.ª
poussé
séque
7.ª
poussé
séque
8.ª
tiré
séque

35.e Leçon



APPENDIX E

APPENDIX E

Method for the Cello

dedicated to

Mr. Rigaut, Navy Physician

composed by

Mr. Tillière

student of the celebrated Bertau

Price 7.4

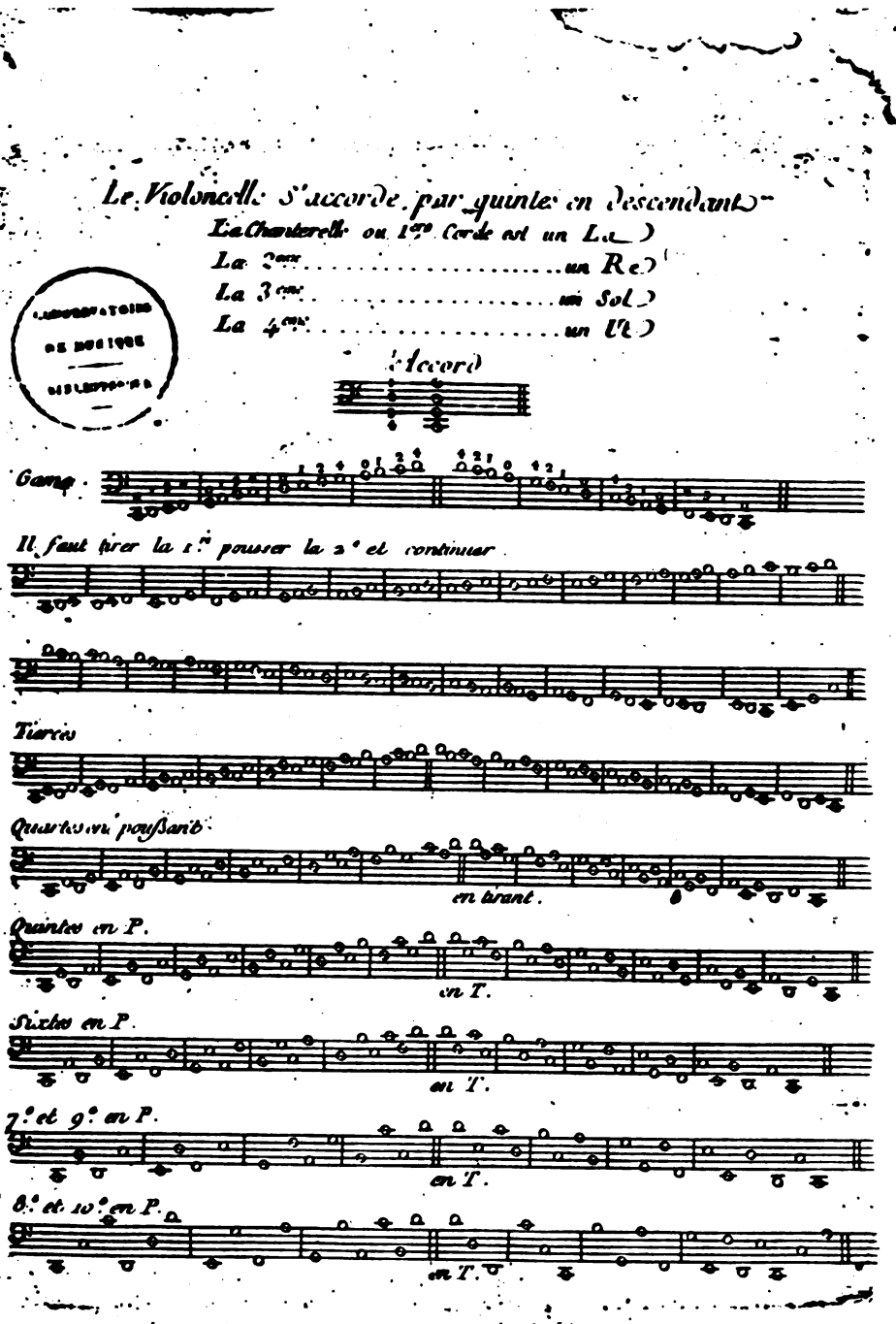
In Paris from Mr. Bailleux, Master of Chamber Music for the King

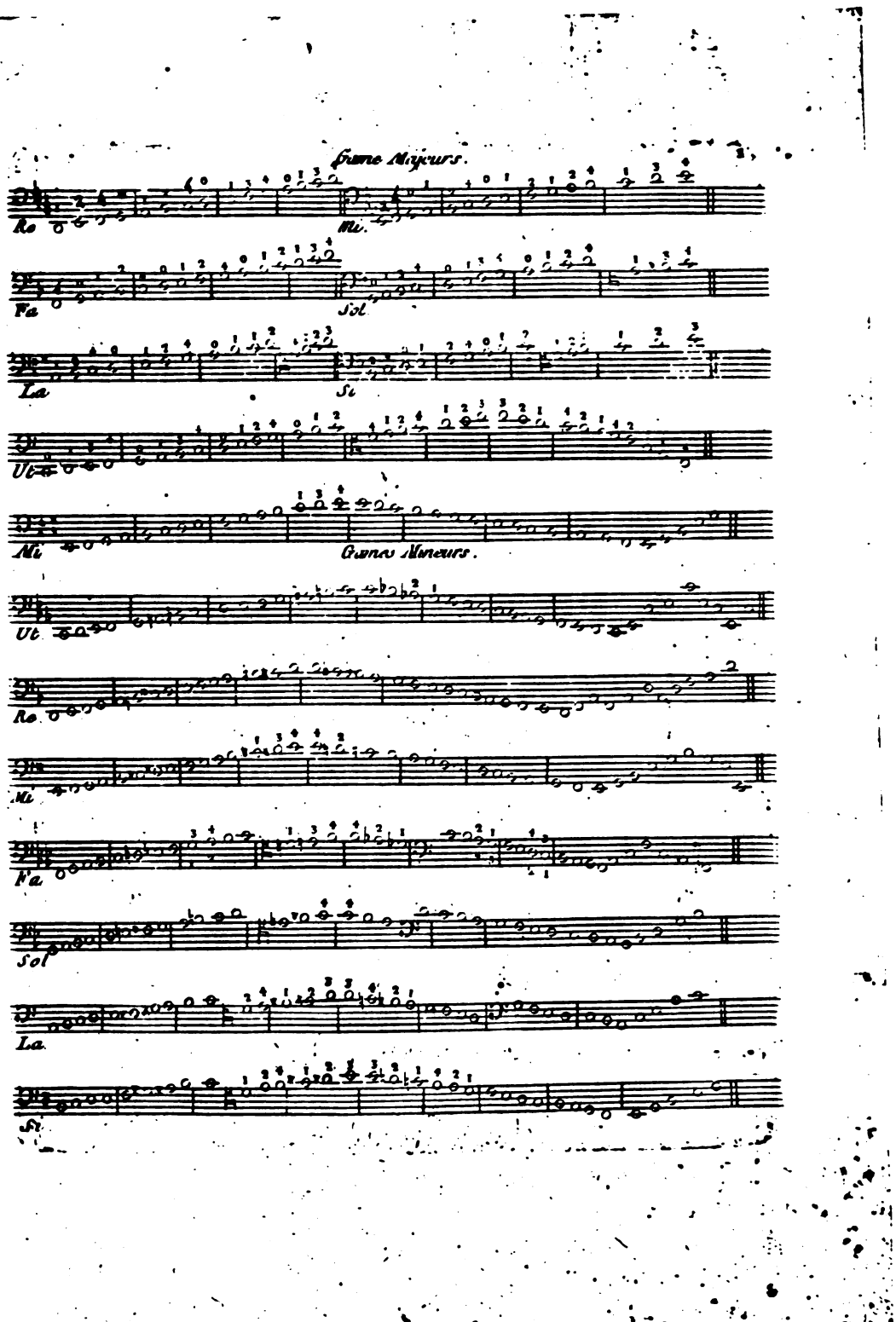
Rue St. Honoré at the Regle d'or

In Toulouse, from Mr. Brunet

And in the Libraries of the Realm and Foreign Countries

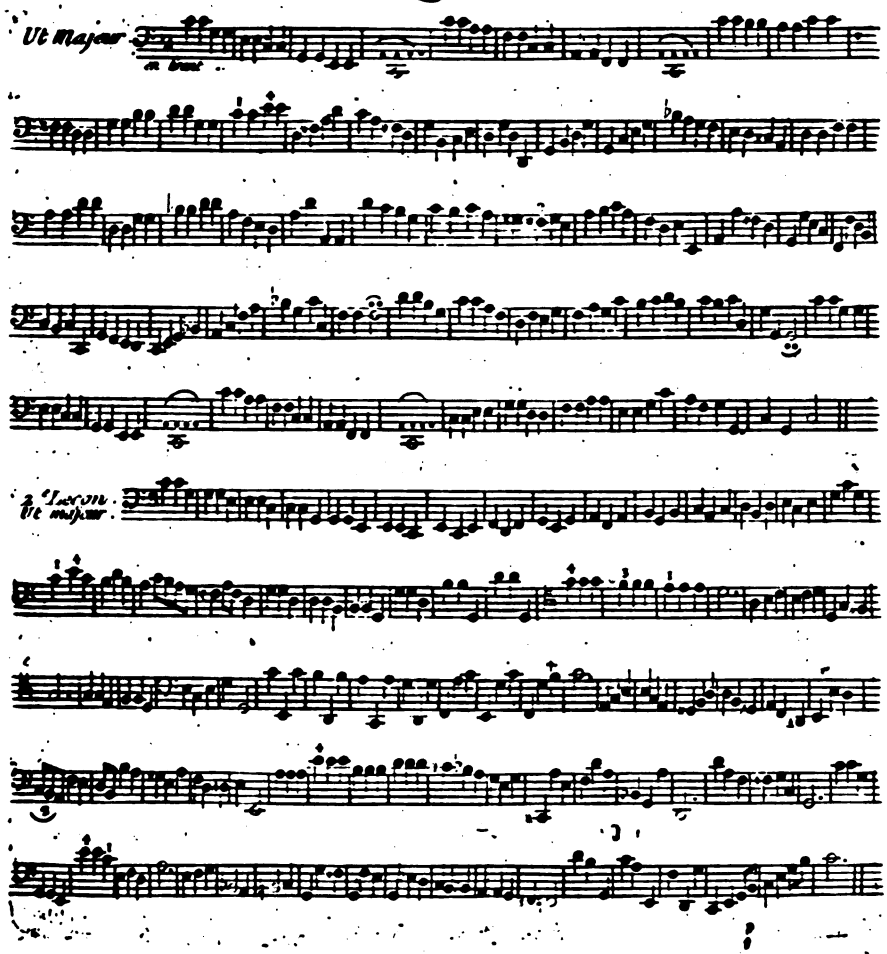
A.P.D.R.

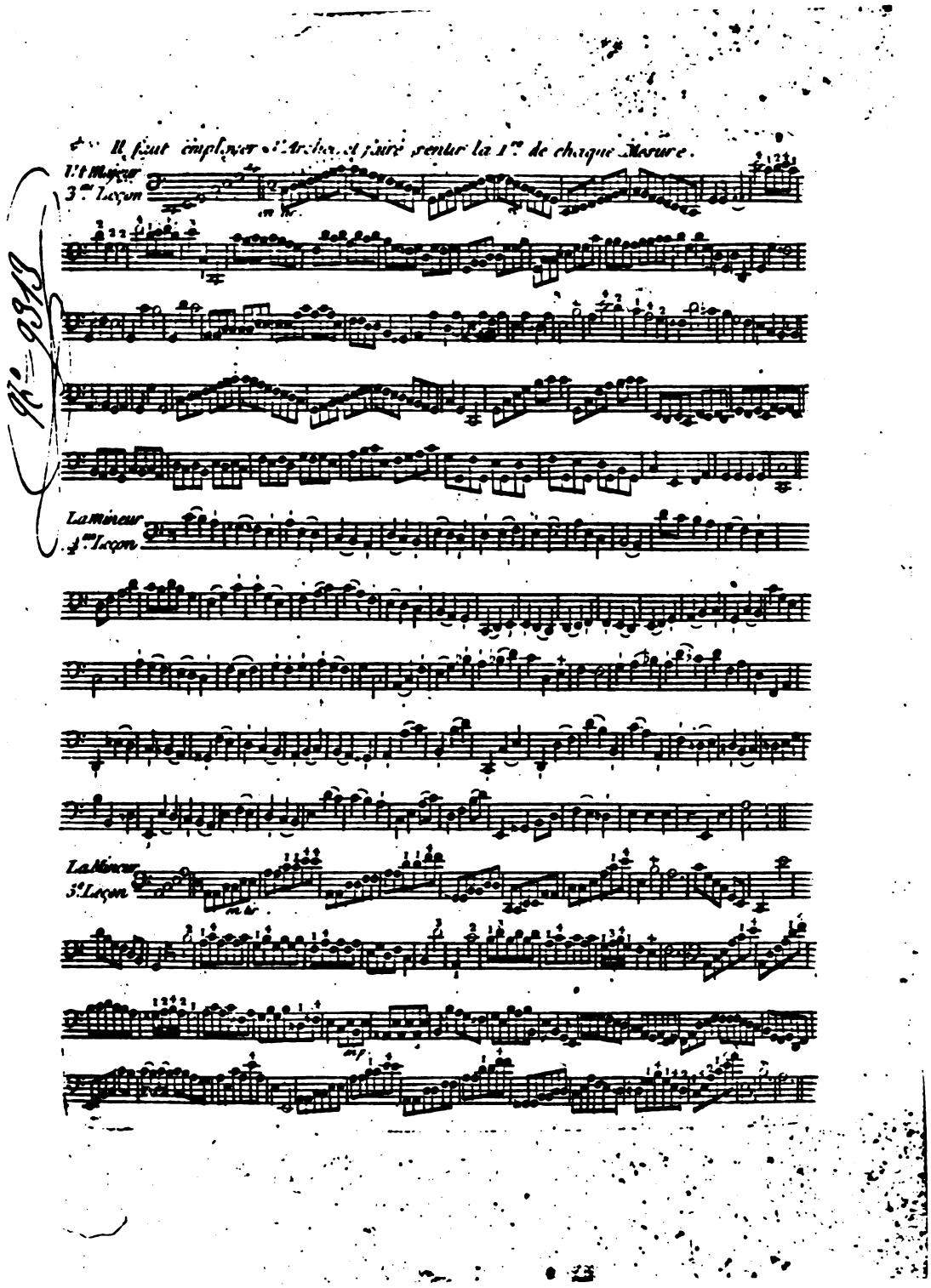

Le Violoncelle s'accorde par quintes en descendant
La Chanterelle ou 1re Corde est un La
La 2me ..... un Re
La 3me ..... un Sol
La 4me ..... un Ut
Accord
Gamme
Il faut tirer la 1re pousser la 2e et continuer
Tierces
Quartes en passant
en tirant.
Quartes en P.
en T.
Sixtes en P.
en T.
7e et 9e en P.
en T.
8e et 10e en P.
en T.

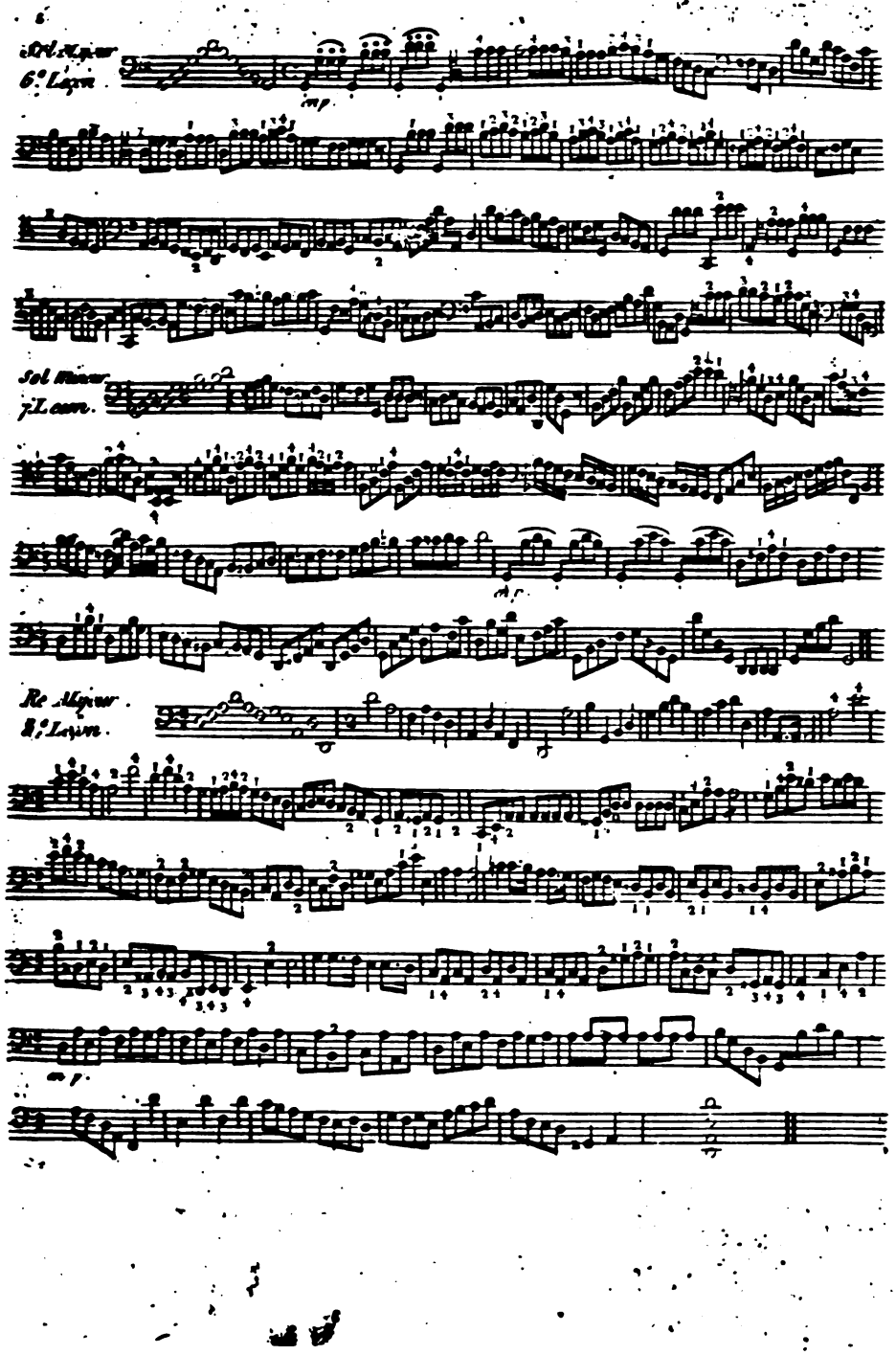

Gamme Majeurs.
Ré
Mi.
Fa
Sol
La
Si
Ut
Mi
Gamme Mineurs.
Ut
Ré
Mi
Fa
Sol
La
Si

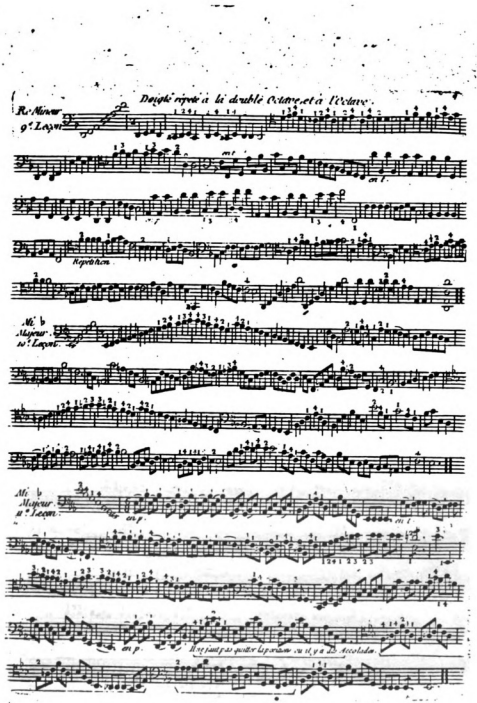
Il faut tirer l'Archet droit et le pousser de même c'est à dire sur la même ligne à deux pouces du Chevalet, et le tenir ferme, le crin du côté de l'ame

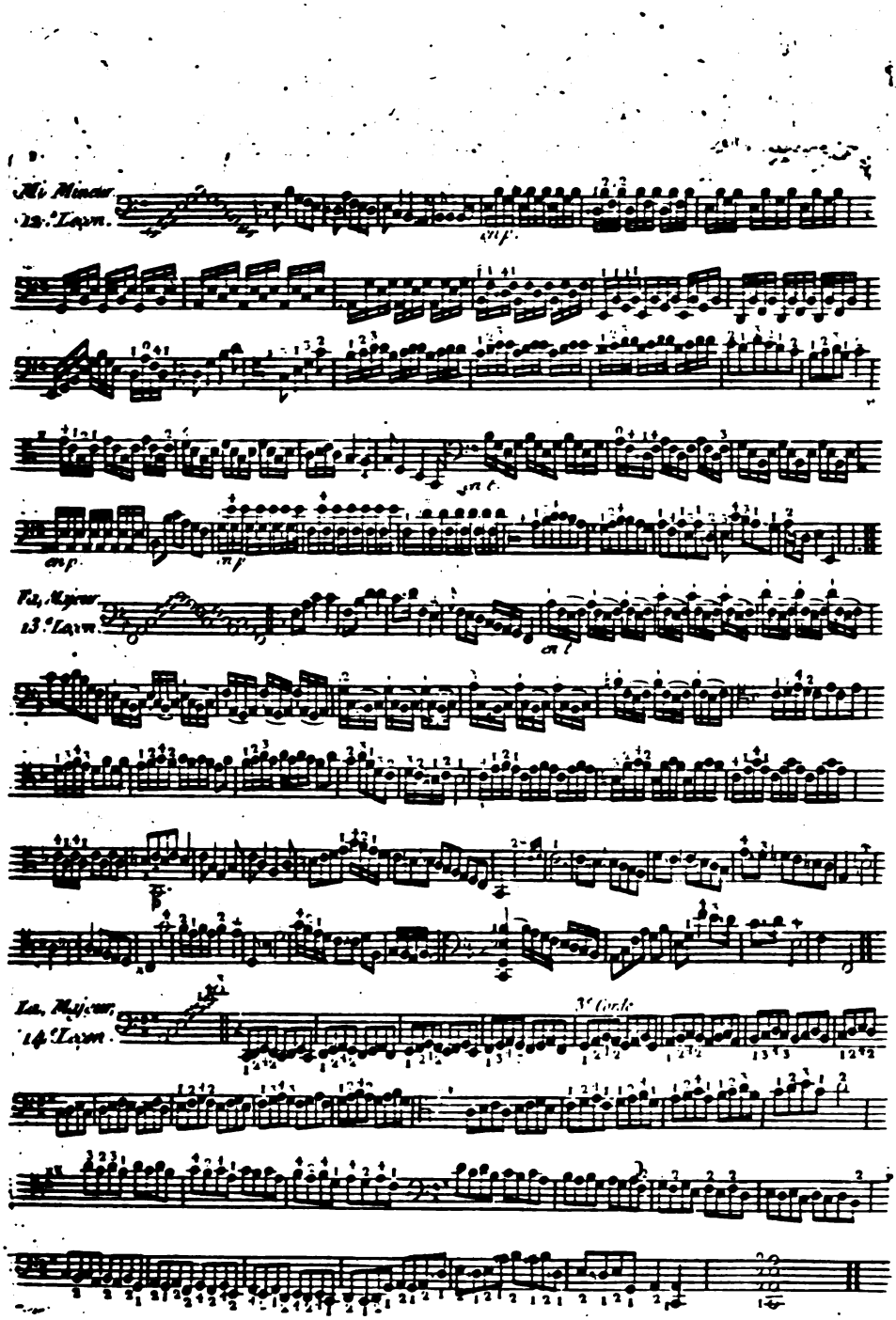
I.re Leçon.

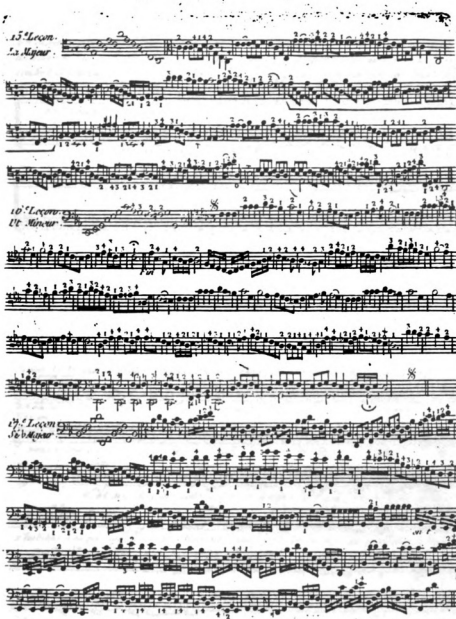



Il faut employer l'Archet et faire sentir la 1re de chaque Mesure.
1.er Majeur
3.me Leçon
La mineur
4.me Leçon
La Mineur
5.e Leçon

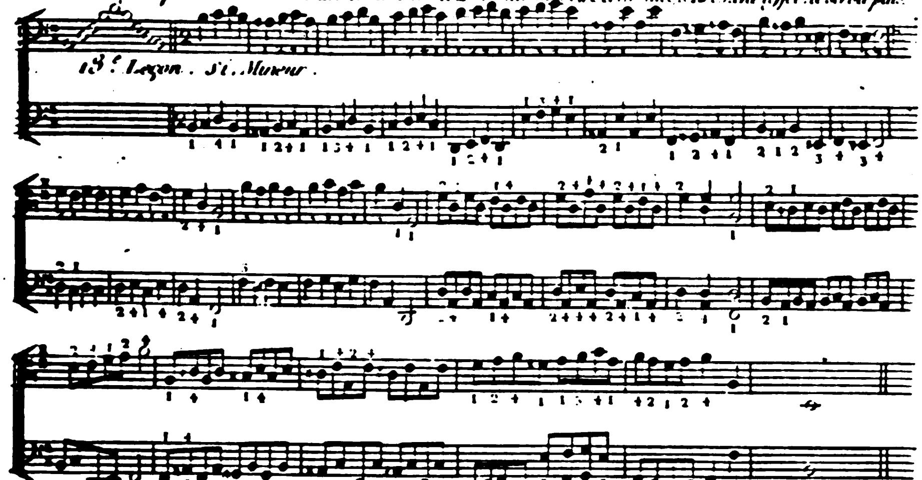

Ut Majeur
6.e Leçon.
mf
Sol Mineur
7.e Leçon.
Re Majeur
8.e Leçon.
mf


Doigté réglé à la double Octave et à l'Octave
Ré Mineur
9e Leçon
Repetition
Mi b
Majeur
10e Leçon
Mi b
Majeur
10e Leçon

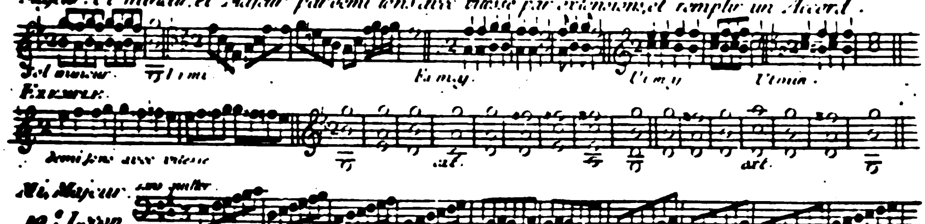

Mi Menor
12.° Lam.
Fa, Mayor
13.° Lam.
La, Mayor
14.° Lam.


15.e Leçon.
La Majeur.
16.e Leçon.
Ut Mineur.
17.e Leçon.
Si b Majeur.

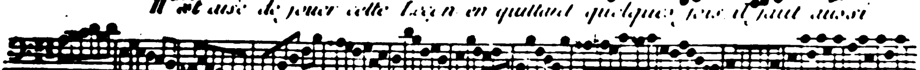
Un chant ou trait sur la chanterelle jusques au 1er Sol en exceptant le son à vide, trouve sa répétition à l'octave en bas ou double octave. Il est à propos quelque fois de quitter la position ordinaire pour rendre le doigté plus doux : un trait commencé à 2 cordes doit être continué autrement l'effet ne serait plus bon.



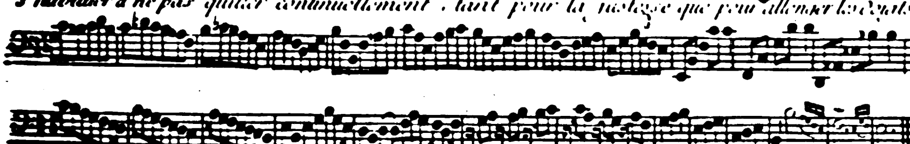
Il y a des personnes qui font le 1er Sol sur la chanterelle du 3e doigt c'est une affaire d'habitude que l'on est obligé de rompre dans plus d'une circonstance comme en Sol, Mineur. Fa mineur, et Majeur. Ut Mineur et Majeur par demi tons avec vitesse par extension, et remplir un Accord.



Il est aisé de jouer cette Leçon en quittant quelques fois il faut aussi



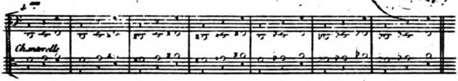
s'habituer à ne pas quitter continuellement, tant pour la justesse que pour allonger les doigts



Le doigté du Violoncelle est toujours le même depuis l'Ut d'en bas jusqu'au premier Sol sur la Chanterelle, c'est à dire le même raissonnement, il est essentiel de sentir le Majeur avec le Mineur, le doigté étant différent, ensuite on joüe à trois doigts, Et avec l'usage du pouce rarement avec le petit doigt

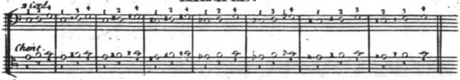
Ré Mi, Fa, sur la chanterelle et quatrième se doigte de la même façon.

EXEMPLE.



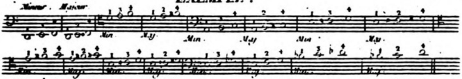
Il en est de même de Mi, Fa, Sol, sur la chanterelle et la seconde.

EXEMPLE.



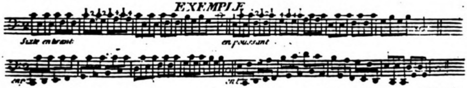
Du doigté de la Tierce Mineure et Majeure.

EXEMPLE.



Il y a des regles sûres pour tirer et pousser, lorsqu'un chant suivi monte ou descend il faut tirer la 1ʳᵉ Note et serrer l'archet, si c'est un chant en descendant par intervalle, comme par Sixte, il faut tirer la 1ʳᵉ en montant il faut pousser la 1ʳᵉ

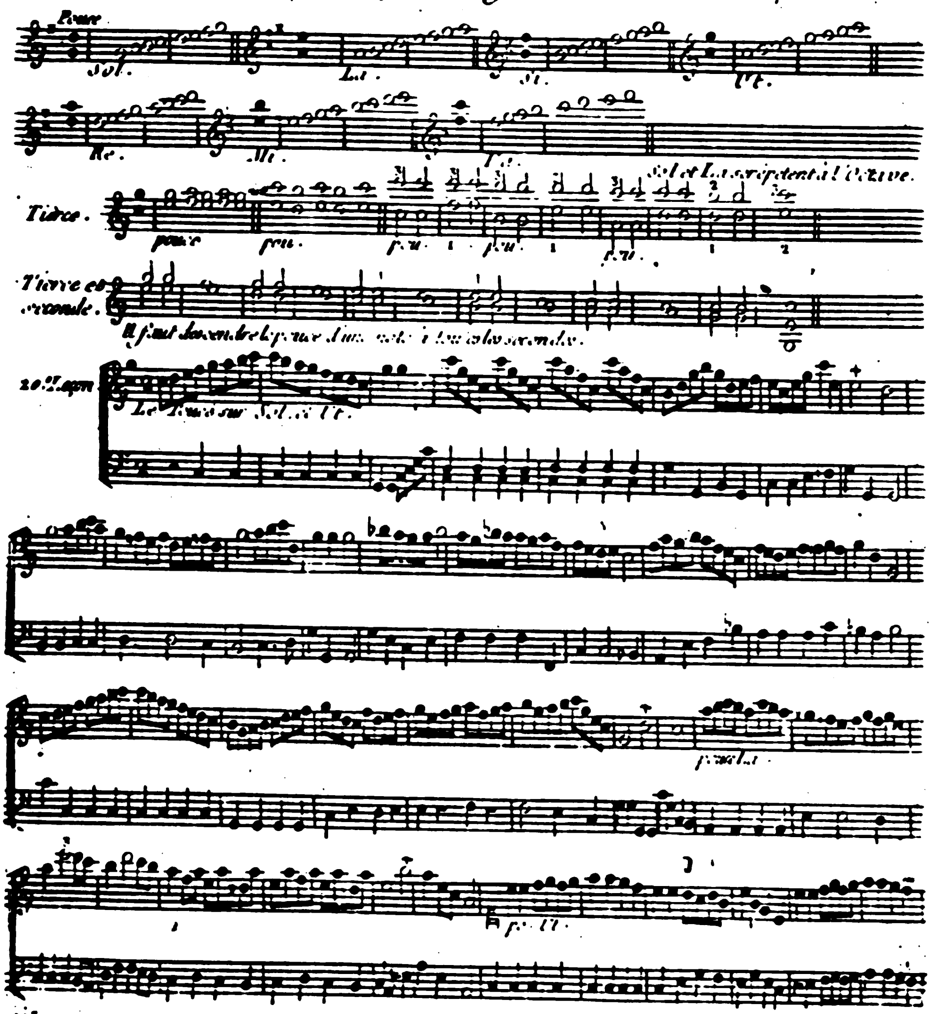
EXEMPLE

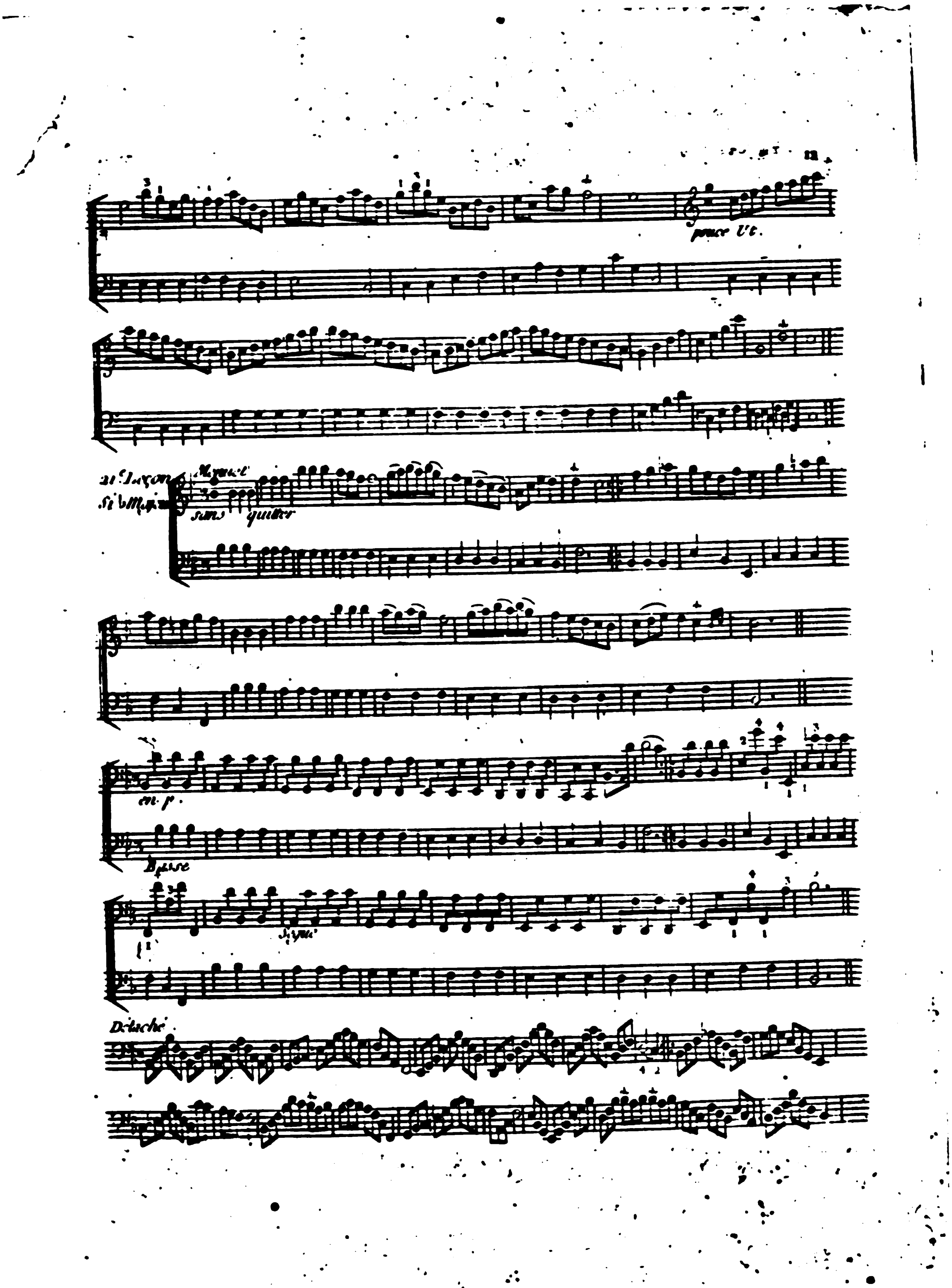


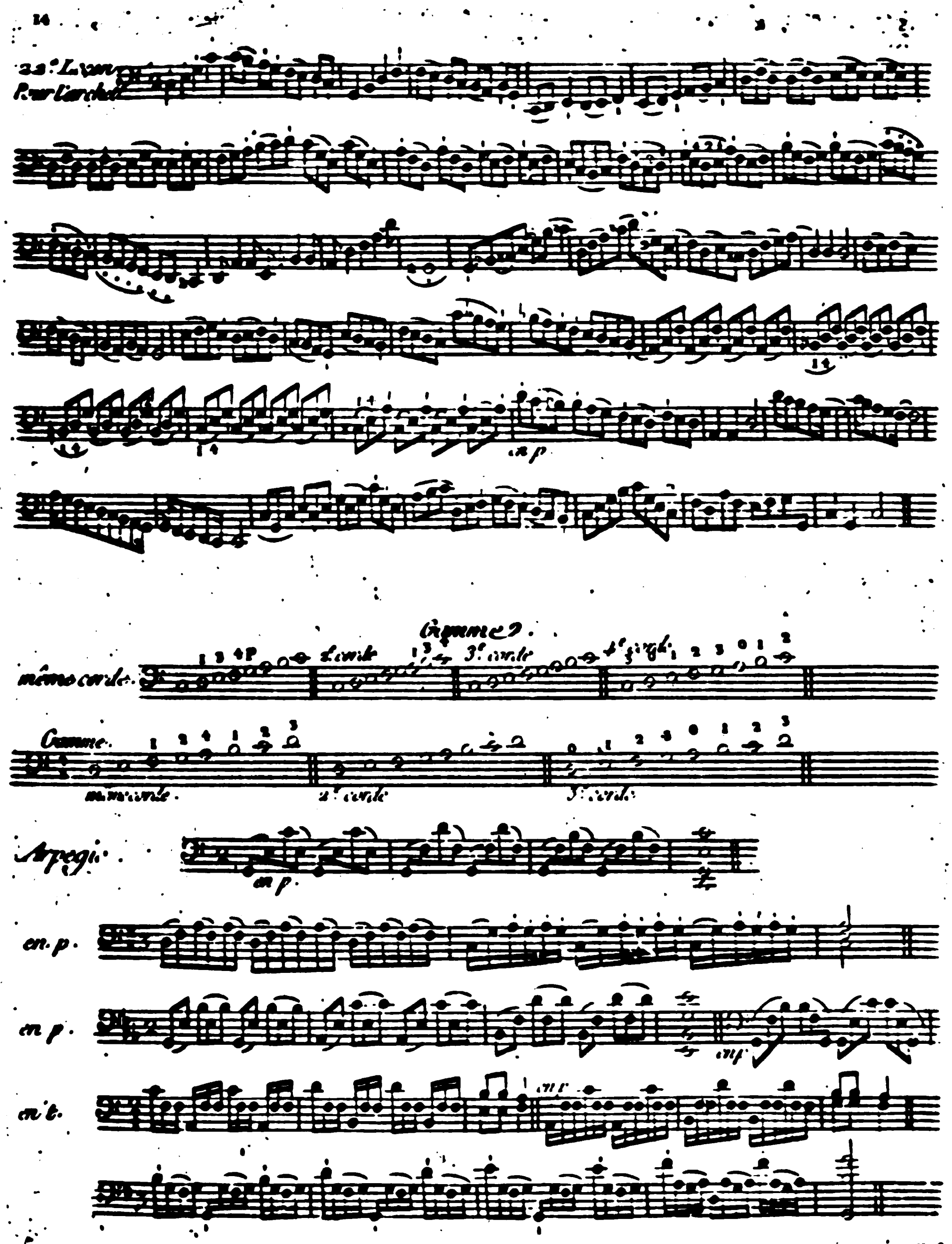
12

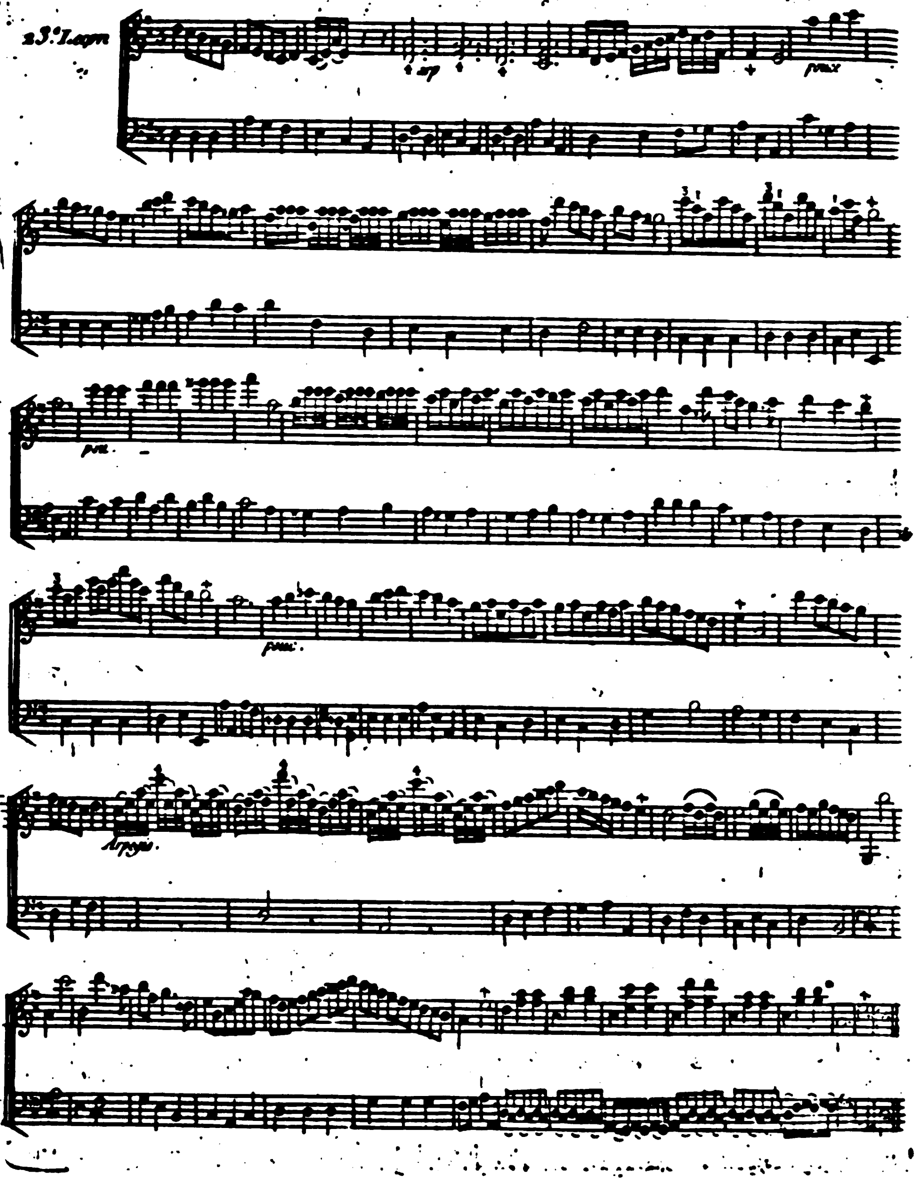
Pour jouer le solo on se sert souvent du pouce qui forme un Sillet et facilite la difficulté.
les notes noires désignent sa position.

Gamme pour l'usage du Pouce.

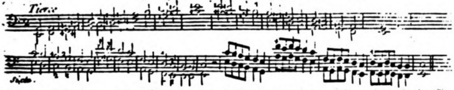



pour Ut.
sans quitter
en p.
Détaché


Gamme
même corde
Gamme
Arpegio
en p.
en p.
en t.

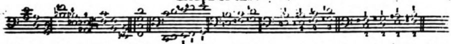


Exemple pour la Tierce et la Sixte

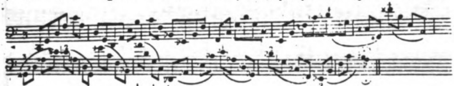


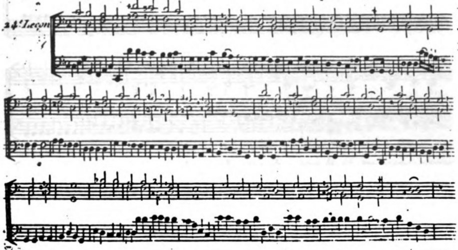
Il est necessaire de connaitre les Quintes, en montant comme en descendant ce qui empeche de quitter la position

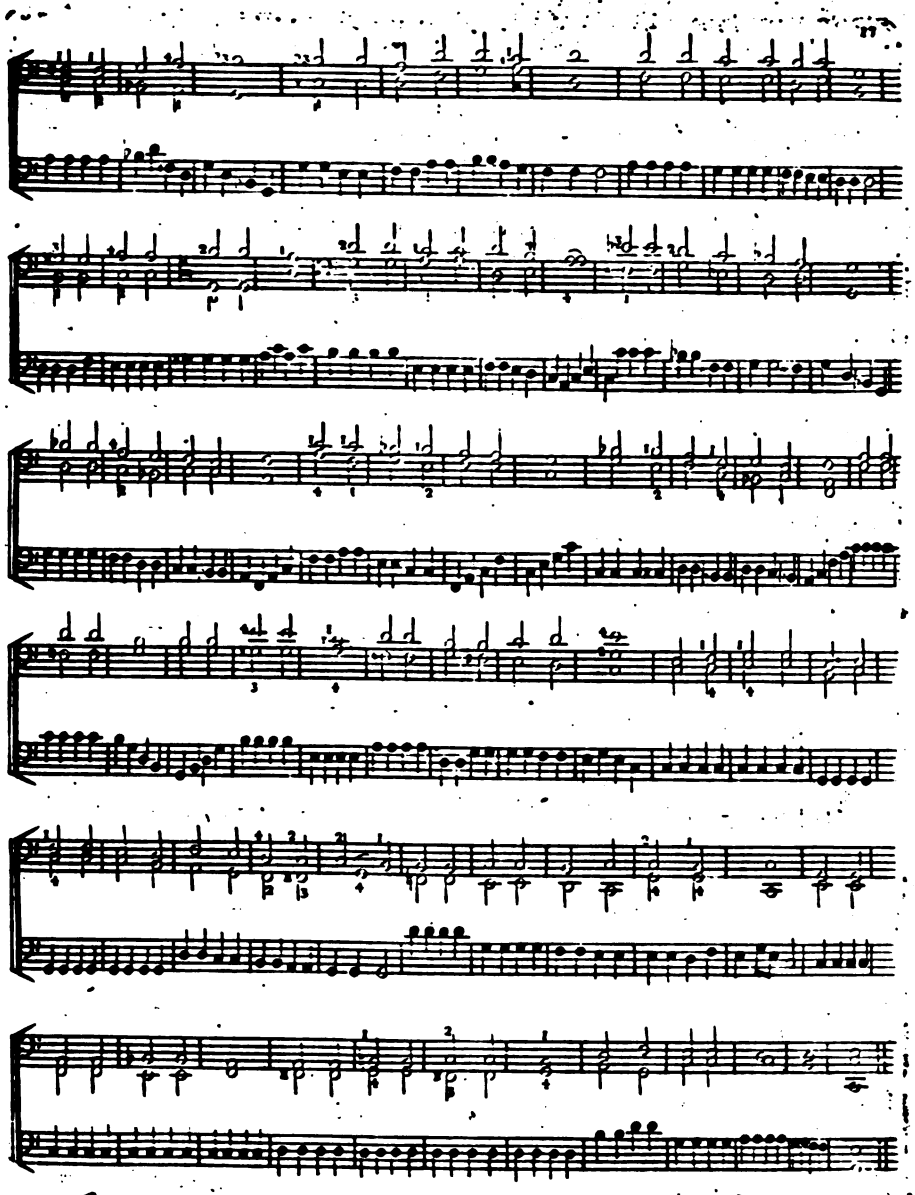
EXEMPLE.

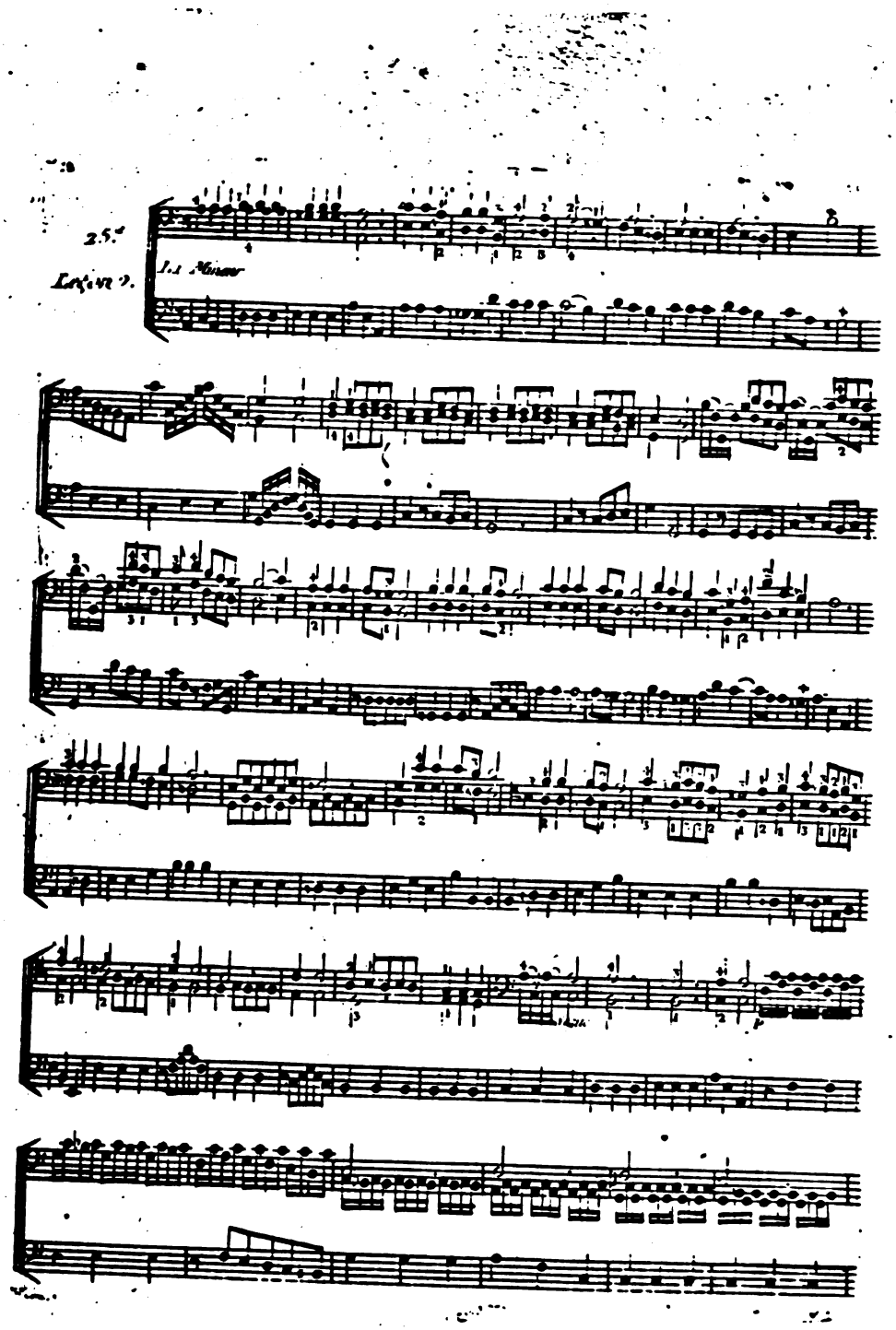


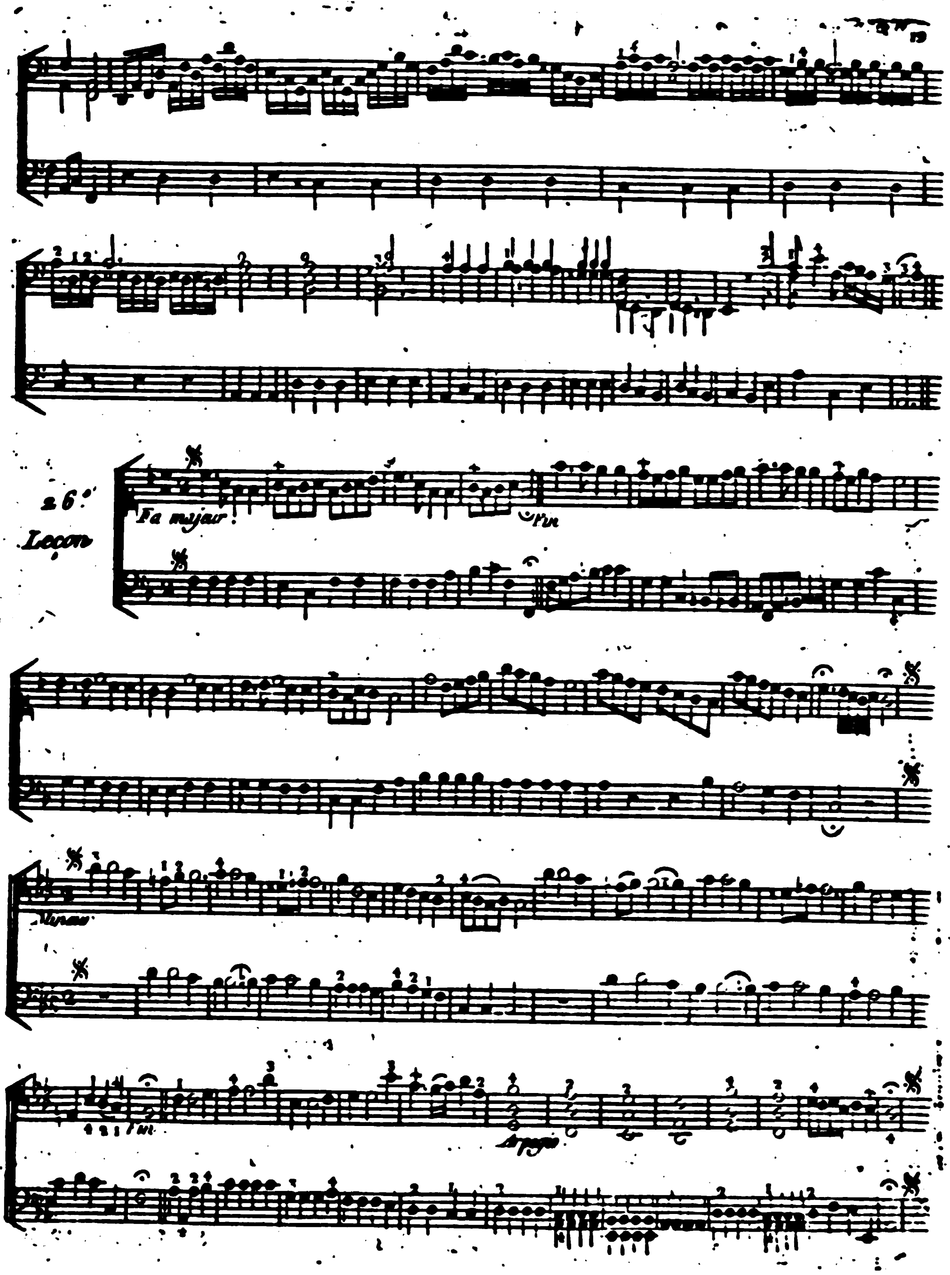
Une Quinte à trois Tons et demi, et se fait d'un Doigt n'importe le quel une fausse à trois tons et se fait de deux doigts ce sont toutes vraies quintes qu'il faut faire d'un doigt le Triton à 3. tons.

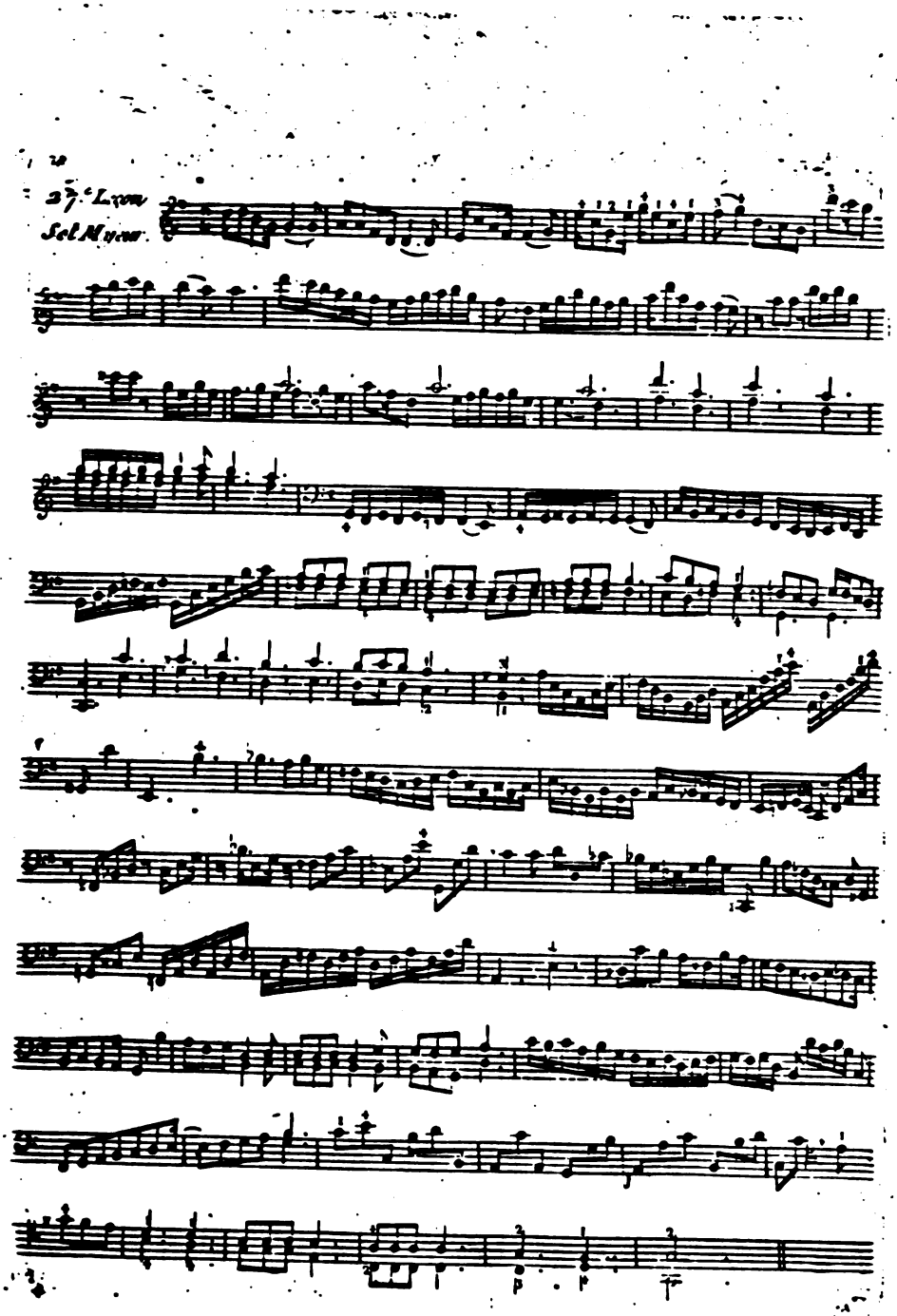







2.5.e
Leçon 9.
1.1 Mineur


26e Leçon
Fa majeur
Fin
Mineur
Fin
Arpegio


2d. Livre
Sol Mineur.

APPENDIX F

APPENDIX F

BASS METHOD

Containing Some Elementary Exercises

Followed by Eighteen Sonatas or Duos

FOR THE VIOLONCELLO

Dedicated to Monsieur De Boisset Glassac
Viscount of Paulin, Lord of the Vergue, Masnau, and Connac
Venerable Captain to the Regiment of the Crown

By Mr. Azais
Master of Music of the Royal Military Academy of Sorese
price $4^{lt}16^{s}$

At the Author's in Sorese, by Revel
In Paris at Bignon's, Place of the Old Louvre
At the Perfect Chord

Principles of the Cello

Article I

Holding the Instrument

It is necessary to hold the bass, or cello, between the legs, with the left foot turned outwards and leaning to the right in such a way that the instrument is supported and held by the calf of the left leg and the tendon of the right.

Article II

Holding the Bow

The bow must be held with the four fingers in such a way that the little finger is about the distance of a thumb from the frog. The thumb is positioned opposite the second finger—observing that the hair, while bowing on the string, is turned a bit towards the bridge.

Article III

Position of the Hand

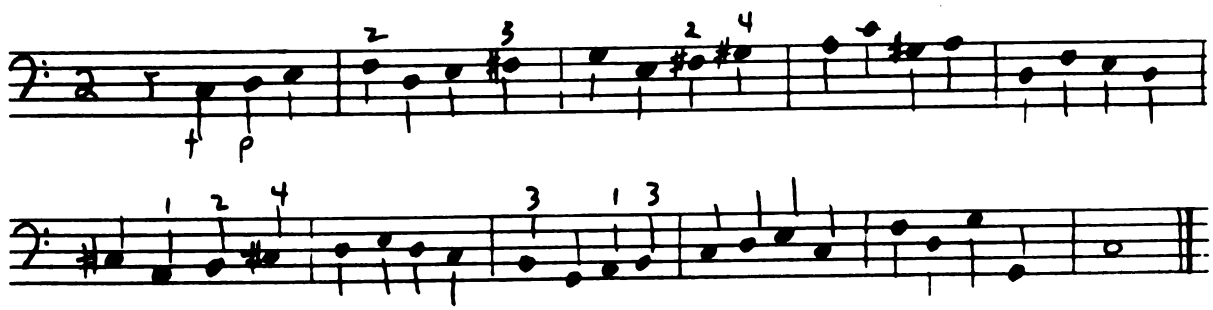
First Rule—The hand must be positioned in such a way that the first finger is about three thumbs' distance from the nut (this the ear must decide), and that the four fingers are well rounded in firmly pressing the strings so that the strings are touched only by the tips of the fingers and pressed firmly against the fingerboard. The thumb must be placed under the neck, between the first and second fingers: This hand position is called Ordinary Position or "Dans le Manche."

Article IV

Fingering

Second Rule—From the nut to the first finger there should be a whole step, except when the first finger is used to play a flat or a sharp. From the first to the second is a half step; from the second to the third is a half step, and from the third to the fourth is a half step. This rule is followed when there is a minor third from the first to the fourth finger. But when there is a major third, it is necessary to have a whole step between the first and second fingers so that the other fingers can play a whole step between the second and fourth. The reason for this is that the second finger is longer than the fourth and can more easily stretch the distance of a whole step.

Example 1

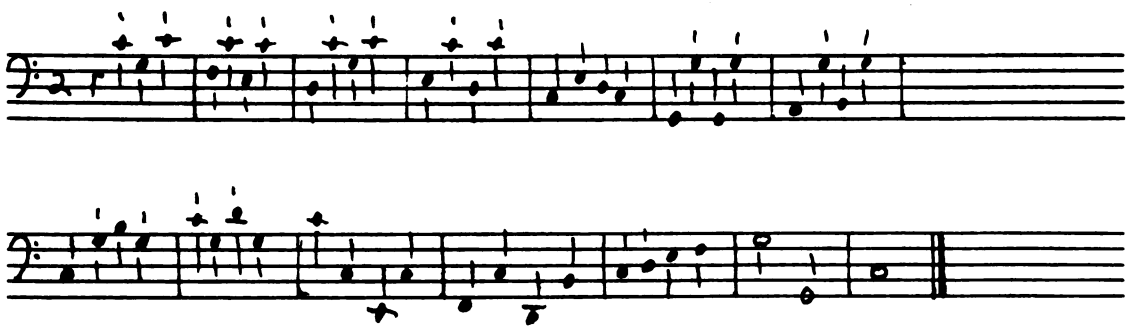


Third Rule—Once the hand is placed in the manner indicated below and the fingers placed at the proper distances for good intonation, it is necessary to be careful to raise the fingers in such a way that they don't move from their position and have to be repositioned; in letting them

fall two at a time, they should return to where they were before being raised—moving only the fingers and never the hand.

Fourth Rule—One must raise and lower only those fingers which are needed to play the written notes, whether on the same string or on a different one. This means that when a note is played with the second or third finger, one must use only the second or third finger; therefore, the notes found marked with a 2 or a 3 will be played with the second or third fingers. Only with the notes that are to be played with the fourth finger can one add the third—the little finger being too weak to adequately depress the string which would whistle each time that it was not held firmly against the fingerboard.

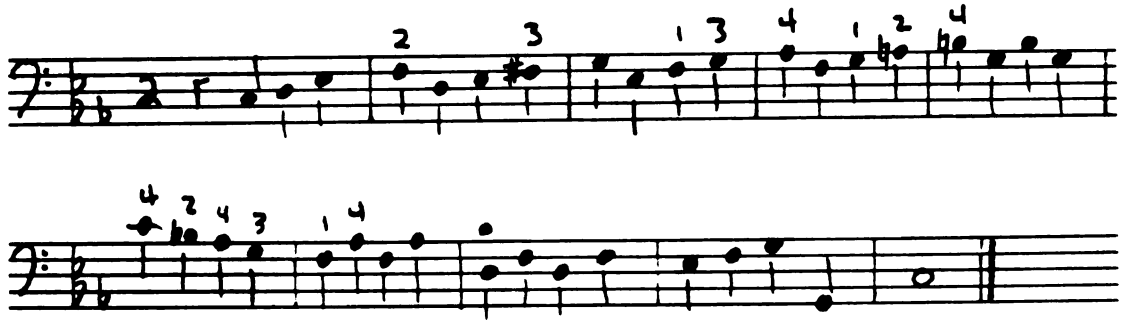
Example 2



Fifth Rule—When some notes are encountered which cannot be played without changing the ordinary position as for Ab,Db, etc., it is necessary to position the hand over these notes. This is called shifting in which the position of the hand stays the same as if it had not shifted; that

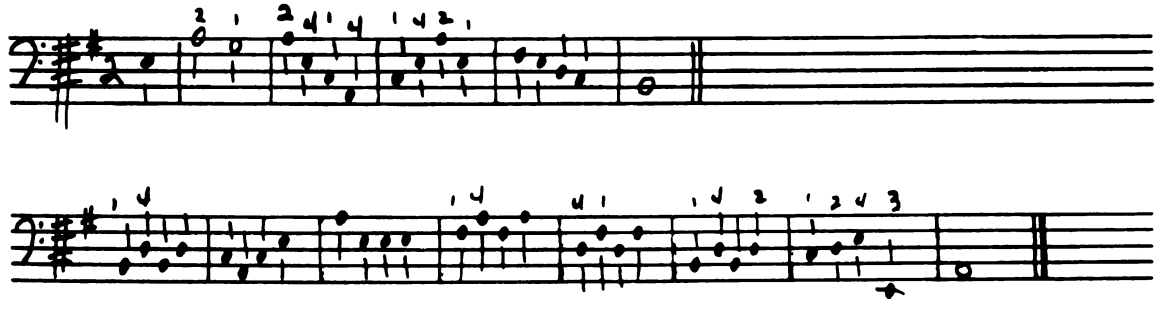
is, the thumb follows the hand.

Example 3



Sixth Rule—The unison is always played with the second finger grasping the neck in order to give more force to the sound, unless there is a third to be played above. In that case, the thumb is left in position as though one had not shifted.

Example 4



Note The examples have been placed in this discourse only to demonstrate what has been stated in the rules to which they are joined and are not to be executed at present by the student who might try in vain to play them. He should not do so until he has acquired the knowledge of the instrument and the necessary strength.

Article V

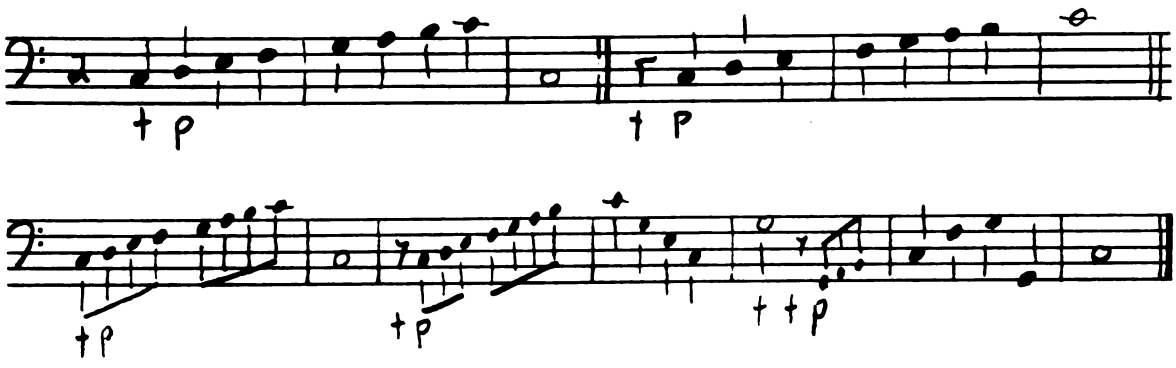
The Use of the Bow

Seventh Rule—It is necessary to pull and push the bow its entire length always in a parallel line at the distance of two thumbs from the bridge. Take great care that the bow touches one string at a time unless obliged to play chords or unisons. Also be careful to use only the wrist and forearm, never the shoulder.

When bowing, one must use more or less weight according to the occasion—the deciding factor being the expression, whether soft or loud. Finally, one must neglect nothing in pulling the greatest tone possible from the instrument. This can be accomplished by long periods of practice-bowing with large strokes and pressing firmly with the fingers on the strings without which the sound would be feeble and disagreeable. One cannot practice this rule too much before progressing to other things. One is warned that when using the higher positions, it is necessary to move the bow closer to the bridge.

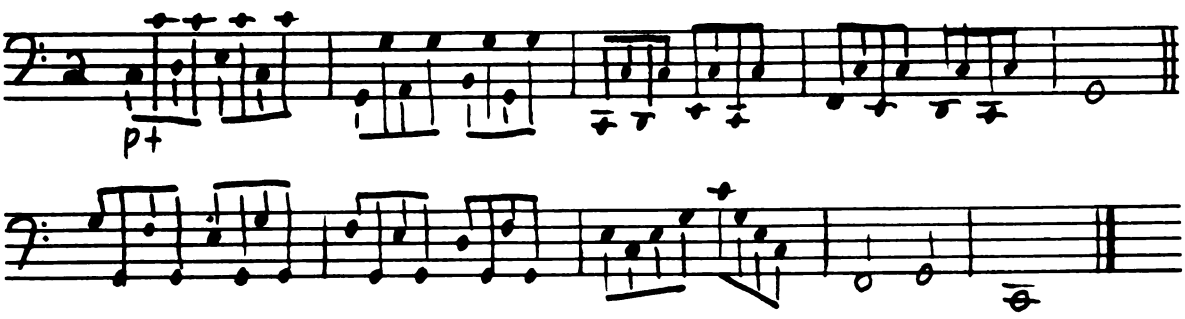
Eighth Rule—It is customary to pull the bow on the first note of a group of two and to push for that which is not; but one need not observe this especially in three-beat measures and in certain passages in which experience teaches better than all that could be said on the subject. One must, however, follow the rule in the beginning of pieces.

Example 5



Ninth Rule—When, in playing batteries, the first note is low and the second is high, it is necessary to push the first and pull the second. One should do just the opposite if the first note is high and the second is low. The same is true in arpeggios (see the table of Arpeggios).

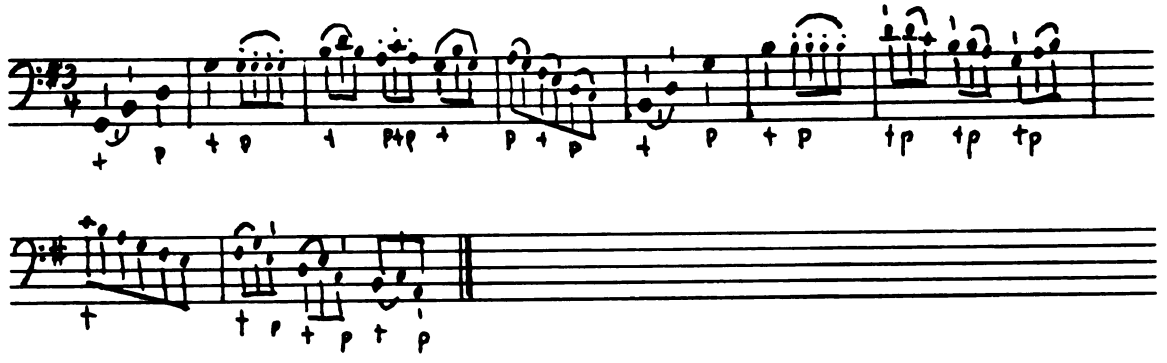
Example 6



Tenth Rule—All the notes slurred together are played in the same bow stroke whether pulling or pushing, and those which also have a little mark between or above must be detached and in the same bow stroke. But when they

are not slurred, the little mark means that they should be played staccato or detached without having to play them in the same bow.

Example 7

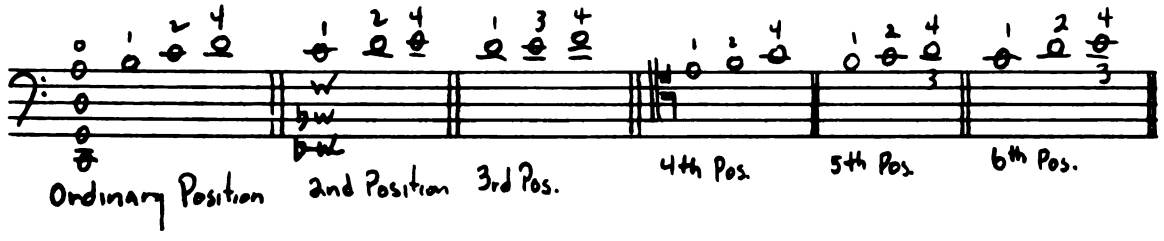


Article VI

Some Different Positions or Shiftings

The first position has already been discussed in Articles Three and Four; it remains to indicate those others which are also useful. Usually, six different positions are counted which are a half step or a whole step apart. They will be demonstrated below for each string.

Example 8

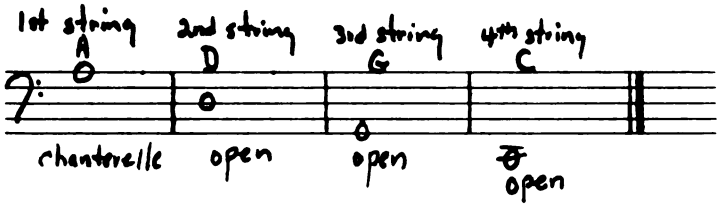


For facility in execution, the thumb is often used. It is placed on its side pressing firmly on the strings. This gives the effect of a nut and only the first three fingers are used. By this method (the thumb making a nut on two strings at a time) it is found that the octave may be played without having to change the position of the hand.

Article VII

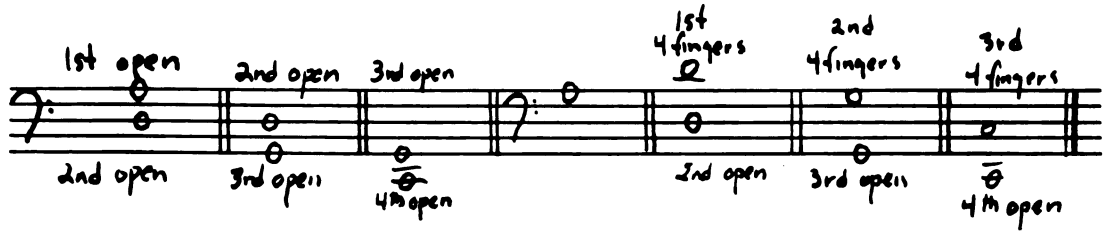
Tuning the Cello

Example 9



The four strings are tuned in fifths. One tests the string by sounding the second with the first, the third with the second, and the fourth with the third. A perfect fifth should result each time. This method will not fail; however, since it could be that one does not have the ear to recognize fifths, the tuning can be tested between the second and first strings by putting all four fingers on the first. Then the sound that results should be an octave above the second string. The same can be followed for the other strings as is shown in the following example.

Example 10

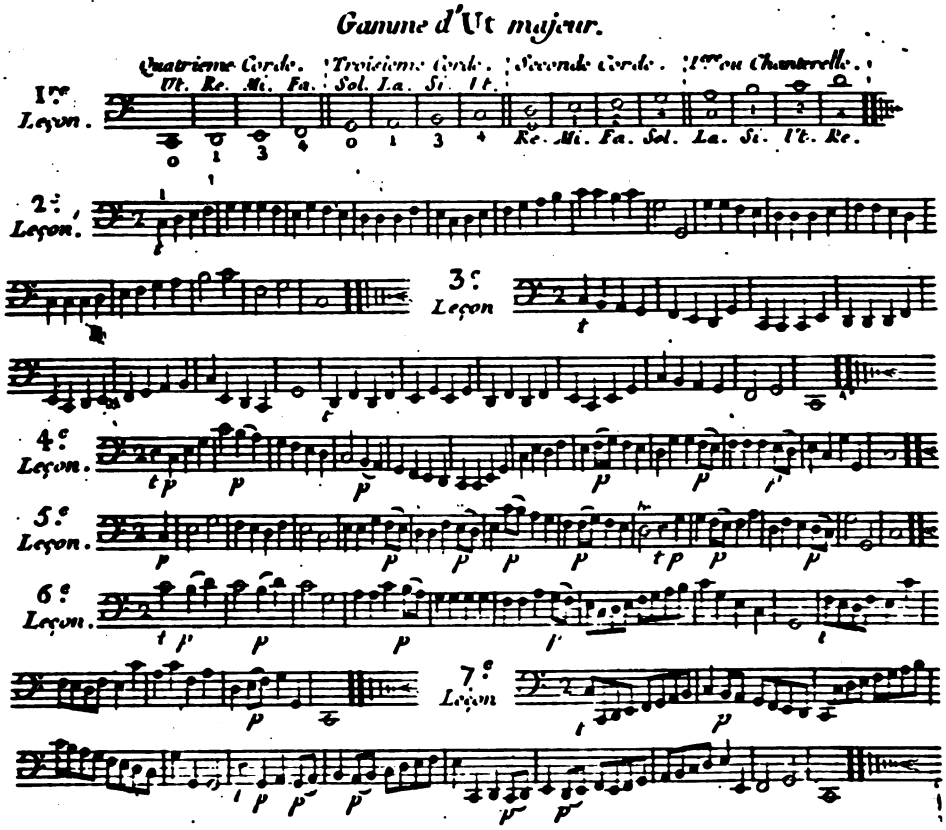


Explanation of Signs

The figure (0) designates open string or no fingers used. The (1) means that the first finger is used; the (2) the second, the (3) the third, the (4) the fourth or little finger. The (t) to pull the bow, the (p) to push it. The (f) means loud, the (p) softly or sweetly, the (ff) very loud and (pp) very soft. (8^{va}) means that it is to be played an octave above the written notes. The (b) that the thumb should be used (see the Art 5th). The (a) means harmonic. A harmonic sound is made by lightly placing the finger on the string so that it hardly touches. The bow is used in the usual way (see the Seventh Rule).

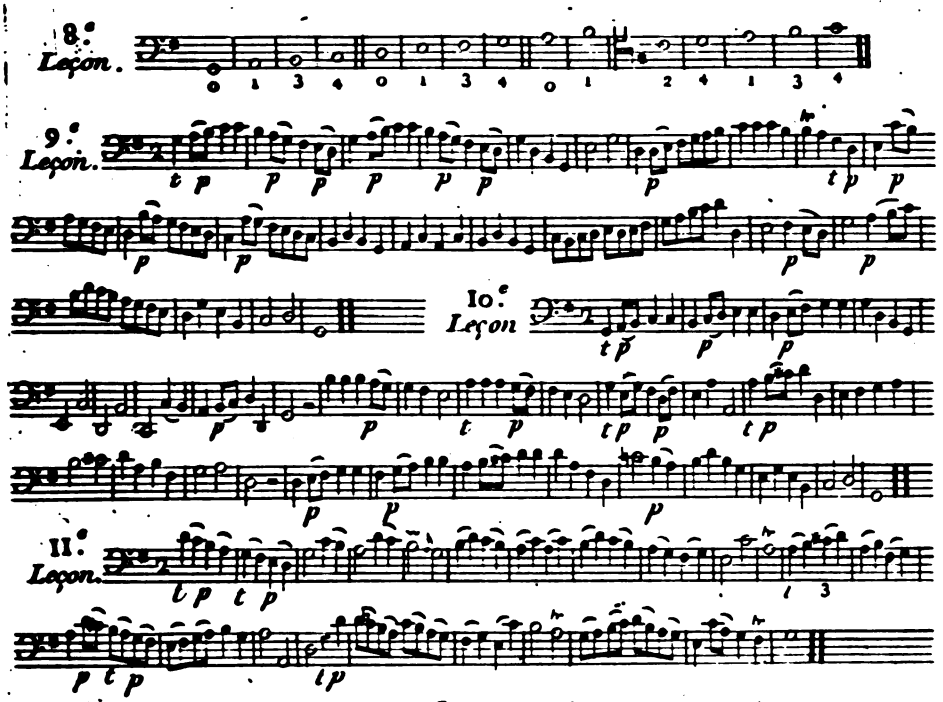
Note

One must not skip from one exercise to another until one can play the first one perfectly—especially with the scales with which one must become very familiar before leaving them.

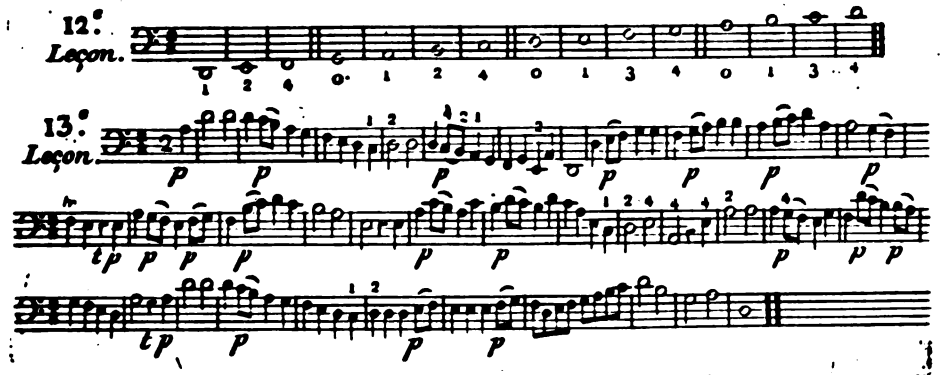

Gamme d'Ut majeur.
Quatrieme Corde.
Troisieme Corde.
Seconde Corde.
1re ou Chanterelle.
Ut. Re. Mi. Fa.
Sol. La. Si. Ut.
Re. Mi. Fa. Sol. La. Si. Ut. Re.
1re Leçon.
2e Leçon.
3e Leçon
4e Leçon.
5e Leçon.
6e Leçon.
7e Leçon

VI.

Gamme de Sol *majeur.*



Gamme de Re *majeur.*



14.e Leçon.

15.e Leçon.

Gamme de La ♮ *majeur.*

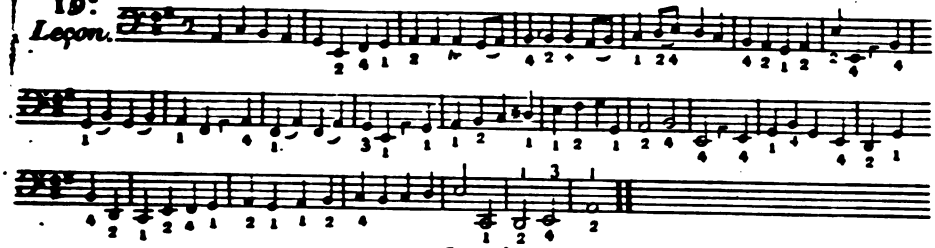
16.e Leçon.

17.e Leçon.

18.e Leçon.

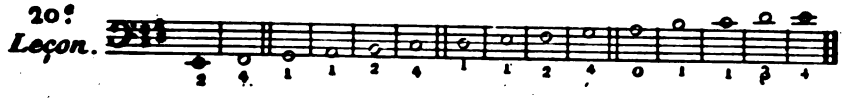
VIII.

19e. Leçon.

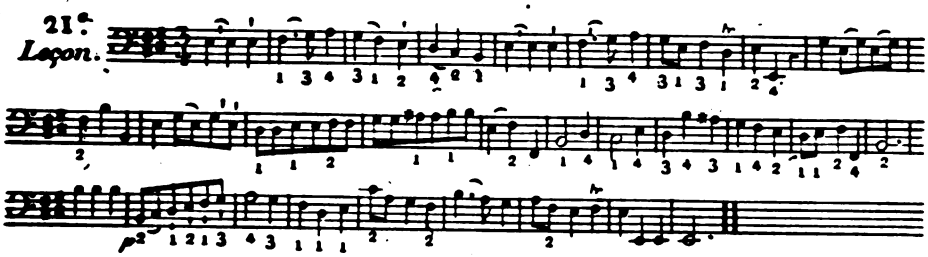


Gamme de Mi♭ *majeur.*

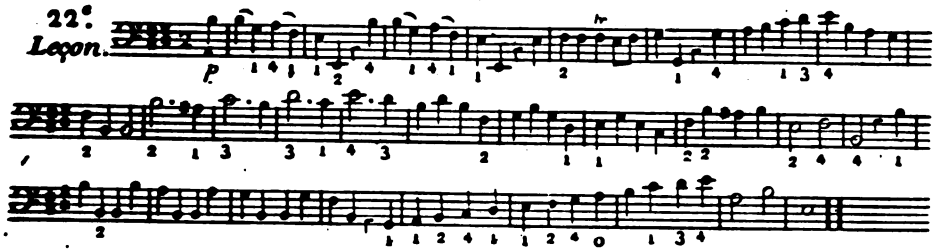
20e. Leçon.



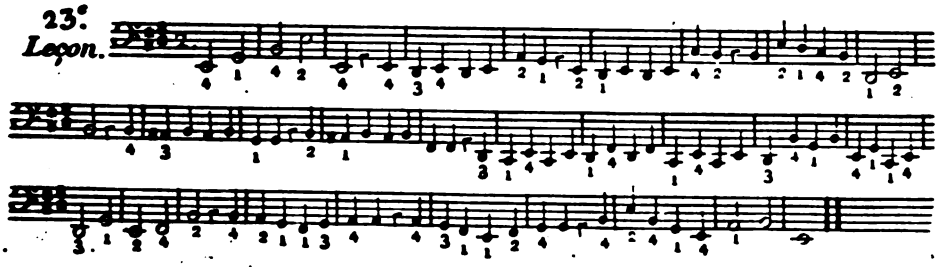
21e. Leçon.



22e. Leçon.



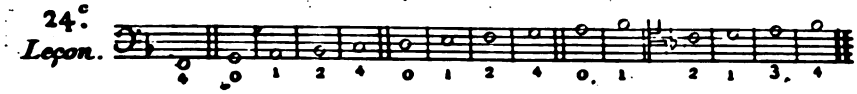
23e. Leçon.



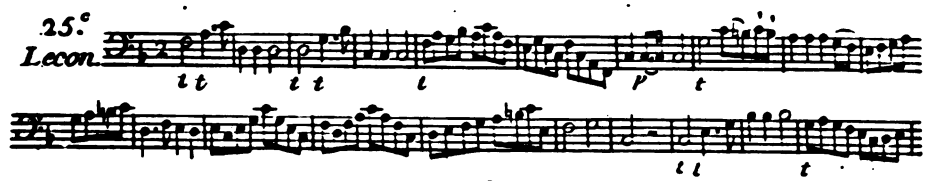
IX.

Gamme de Fa ♭ *majeur.*

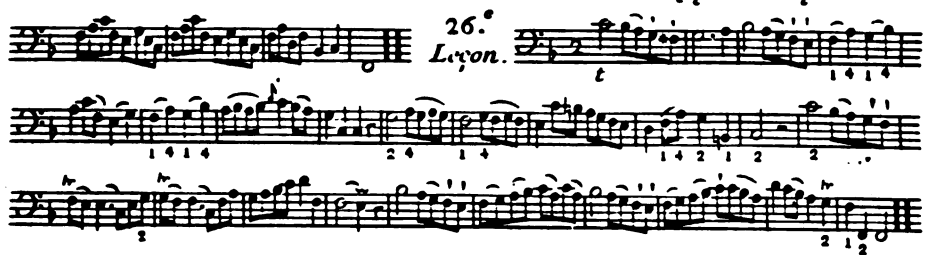
24.e *Leçon.*



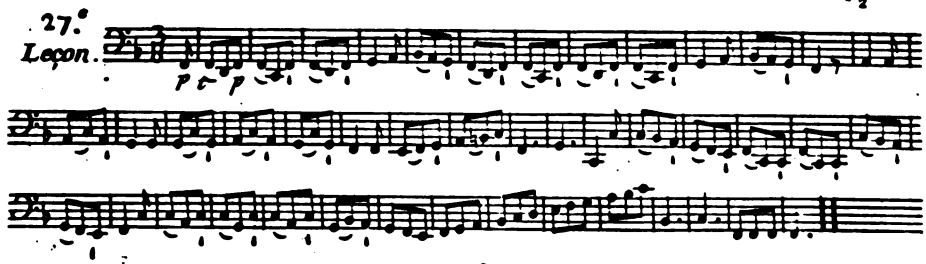
25.e *Leçon.*



26.e *Leçon.*

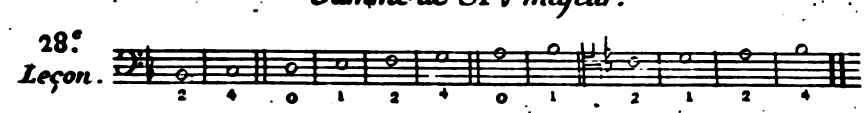


27.e *Leçon.*

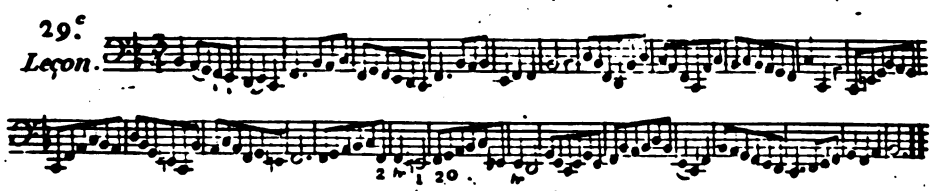


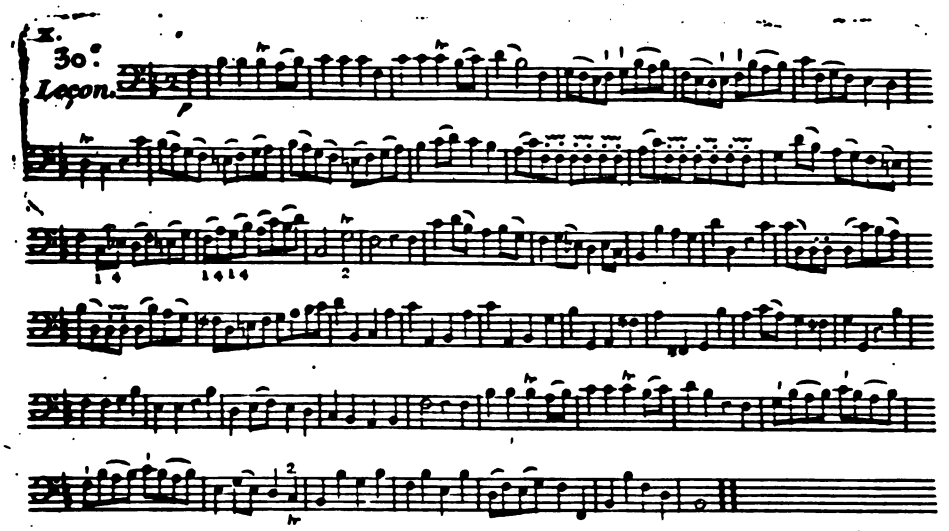
Gamme de Si ♭ *majeur.*

28.e *Leçon.*

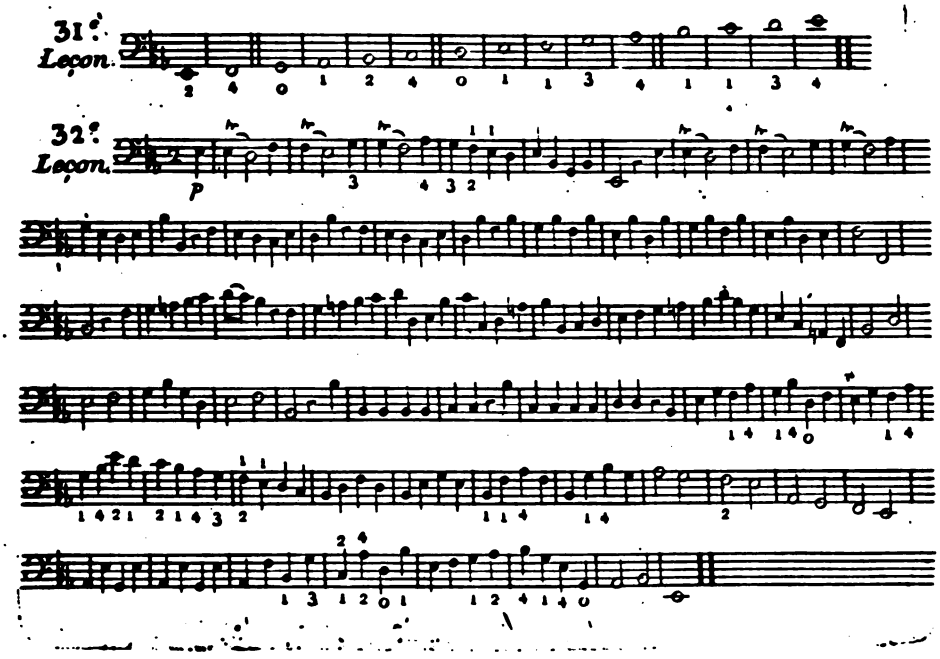


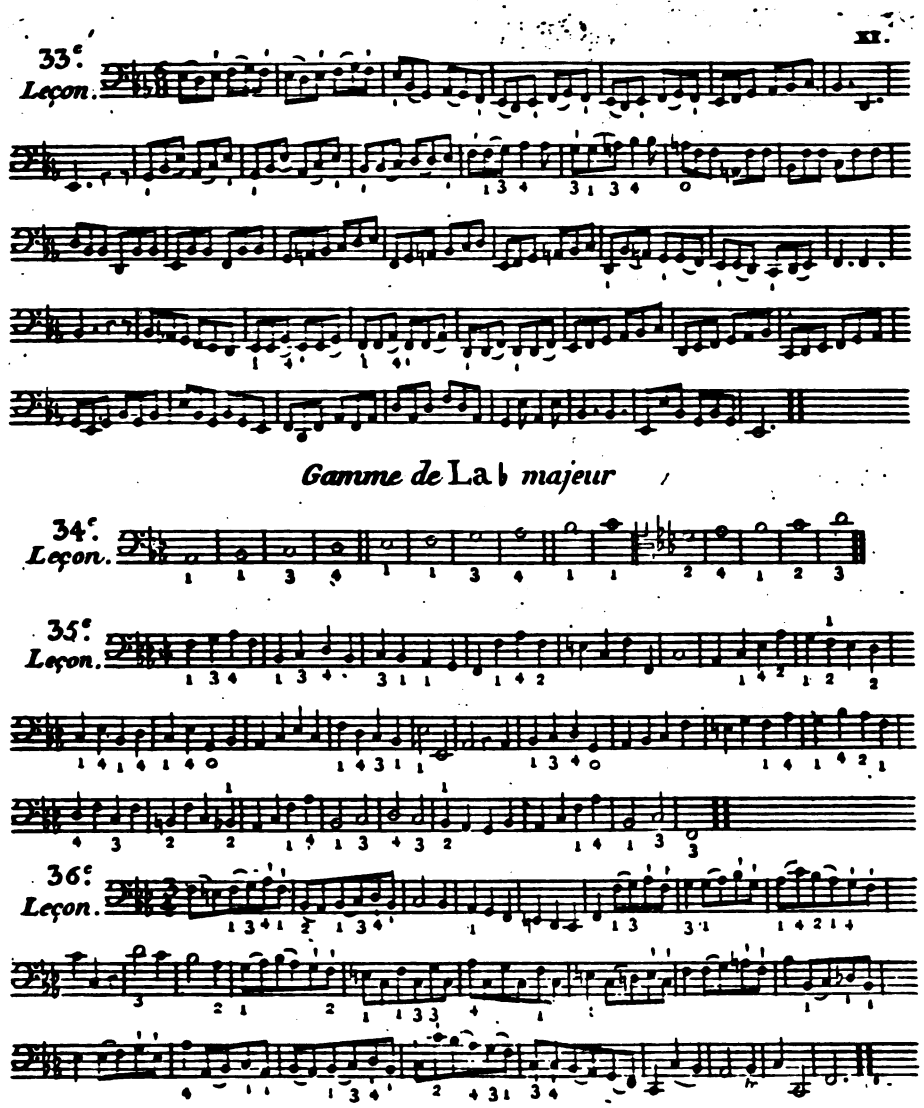
29.e *Leçon.*

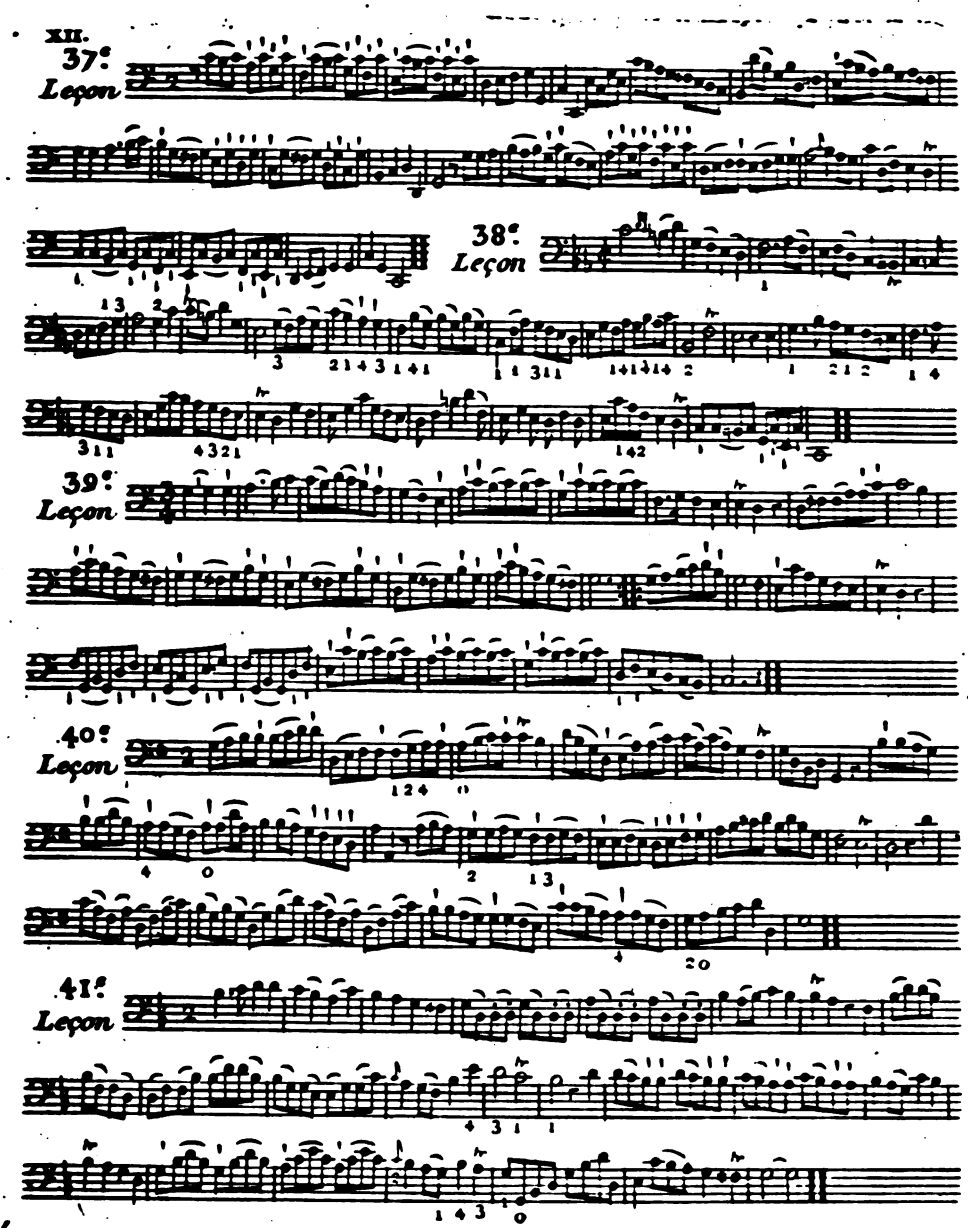


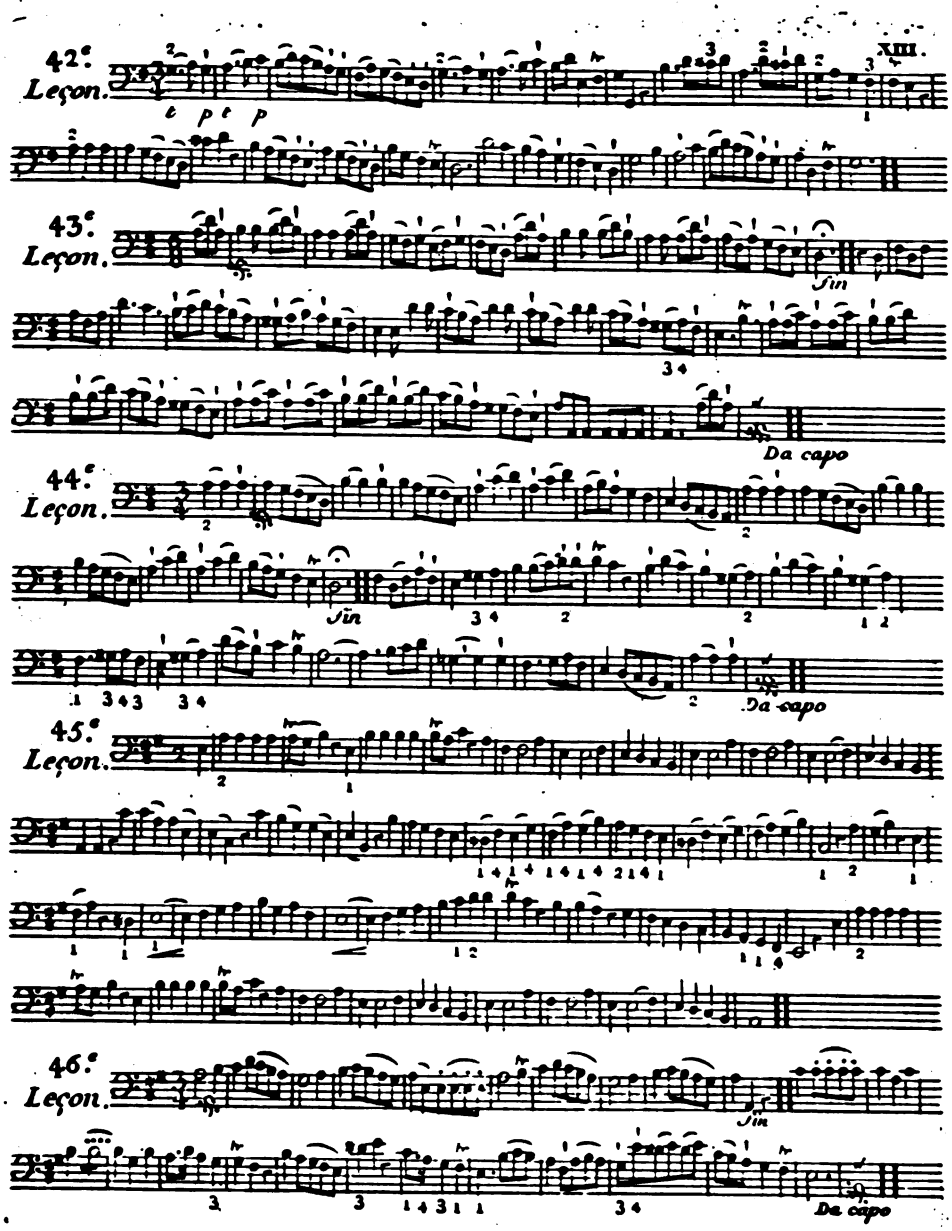


Gamme de Mi ♭ *majeur.*




XII.
33.e Leçon.
Gamme de La♭ majeur
34.e Leçon.
35.e Leçon.
36.e Leçon.


XII.
37e Leçon
38e Leçon
39e Leçon
40e Leçon
41e Leçon


42.e Leçon.
XIII.
t p t p
43.e Leçon.
Fin
Da capo
44.e Leçon.
Fin
Da capo
45.e Leçon.
46.e Leçon.
Fin
Da capo

APPENDIX G

The

Theory and Practice

of fingering the

VIOLONCELLO

containing

RULES & PROGRESSIVE LESSONS

for attaining the Knowledge & Command of compass of the Instrument

by

John Gunn

Teacher of the Violoncello.

O decus Phoebi, et dapibus supremi
Grata testudo Jovis, O laborum
Dulce lenimen, mihi cumque salve
Rite vocanti.

——— ac precor, integra
Cum mente; nec turpem Senectam
Degere, nec Cithara carentem. Hor.

Entered at Stationers Hall. Price £1:1s

London Printed for & Sold by the Author at No. [illegible] Bennet Street Rathbone Place, where may be also had Forty favourite Scotch Airs, for the Violoncello, Violin or German flute, having the phrasing & fingering for the former, marked Price 7/6.

ADVERTISEMENT.

THE muſical ſtudent, if a beginner on the inſtrument, will derive the information moſt ſuited to his circumſtances, that this treatiſe contains, in the beginning of the ſecond part, or the practice of fingering; after which, the theory contained in the firſt part will be better underſtood: but if any difficulty ſhould occur in that, which can only ariſe from the ſigns made uſe of in explaining it, this will be entirely done away by peruſing the fourth chapter, on the general rules of fingering. The author having obſerved, in the courſe of his teaching, the greateſt uncertainty and embarraſſment to ariſe, from his pupils having been taught different methods of fingering, by different maſters they had been under, and that the perplexity ariſing from the oppoſite of authorities led them generally to conclude that fingering was directed by caprice rather than by principle;—the author, ſenſible that every thing that depends on numbers and extended ſpace, can be ſubjected to a better criterion than the *authority* of any man, however reſpectable attempted to inveſtigate the principle on which fingering, avowedly ſuperior to every other method, and adopted by the beſt maſters, was founded; and he hopes he has not been unſucceſsful.—The ſtudent, therefore, whatever his reſpect for authorities may be, need not be alarmed at the ſeeming hypothetical foundation of our method, as it is nothing but the principle of the beſt fingering known in practice, extended, and made univerſal; and, inſtead of complication, and diverſity of fingering, he will be ſurpriſed to find the ſimplicity and uniformity that prevails throughout. A complete analyſis of the finger-board, in aſcending and deſcending ſcales, and rules of fingering of general application, have never been before attempted; and the novelty of the ſubject is the beſt apology the author can make for any imperfections or repetitions there may be in the explanations, as well as for inaccuracies in language and arrangement; the difficulties of which, in a firſt attempt, might not have been entirely overcome by perſons greatly ſuperior to the author in attainments.

The diſſertation on the origin and improvements of ſtringed inſtruments, down to thoſe now in uſe, will not, it is hoped, be thought improper to precede a treatiſe of this kind, as it is chiefly meant as a ſhort account of the former ſtate of the art, and may ſerve as an introduction to a more complete hiſtory of the art and ſcience of muſic, to many into whoſe hands this treatiſe may fall, who may not have an opportunity of conſulting the original, or larger works on the ſubject:—There will be found in it ſeveral circumſtances, which the author has been content to gleen, after the more fortunate and conſiderable harveſt of his predeceſſors in the field of muſical hiſtory; and the author's peculiar hypotheſis on the origin of many of the inſtruments and their improvements, is ſubmitted with all due deference to ſuperior learning and abilities. He has generally given the words of the original authors, at the foot of the page, merely to prevent the learned reader from recurring to a multiplicity of books, and by no means to make an oſtentatious diſplay of the little knowledge the author has been able to attain of the learned languages, in the courſe of a very few years, by his own unaſſiſted efforts, in the intervals of his ſtudy of the Violoncello, and of the duties of his profeſſion.

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DISSERTATION

ON THE

ORIGIN OF THE VIOLONCELLO;

&c.

SECTION I.

Of the Invention and rude State of Muſical Inſtruments.

THE Mechanic Arts have, by the accumulated experience of a long ſucceſſion of ages, and by the aſſiſtance received from the Sciences, arrived at their preſent high degree of perfection from the rudeſt beginnings. Thoſe branches of knowledge that we dignify by the name of the Sciences, have themſelves ſprung from the Arts and their ſucceſſive improvements. Maxims and rules of the Arts have, by continued obſervation and reflection, been gradually matured and refined into principles and theory, and thus have become the elements of the Sciences: Hence the near relation that ſubſiſts between the Arts and the Sciences, and the reciprocal advantages they confer on each other.

Muſic therefore, conſidered either as a practical Art or a Science, muſt have had its infancy; and the firſt attempts in its practice were undoubtedly awkward and artleſs.

The finging of birds may have fuggefted to mankind the firft idea of Mufic, and the whiftling reeds perhaps the firft notion of a mufical inftrument (*a*). Such materials as Nature herfelf had formed, were long made ufe of, and were the only inftruments before the manual arts had made any progrefs. An oaten ftalk, a reed, or cane, ferved for a pipe or flute; and the fhin-bone and horns of animals anfwered a fimilar purpofe. The trumpets founded by the Hebrew priefts at the fiege of Jericho are exprefsly mentioned to have been rams-horns (*b*): and the reprefentations of the [illegible], or fingle pipe, in the Sculpture of the Ancients, fhow thefe inftruments to have been the horns of dead animals (*c*).

Inftruments of thefe and fuch like materials feem to have been invented and ufed by every nation at a certain period of its progrefs from barbarifm to refinement. The inhabitants of the newly-difcovered iflands of the Pacific Ocean have in common ufe among them inftruments fimilar to thofe ufed in remote ages by the Egyptians, Jews, and Greeks. An inftrument compofed of a number of reeds of different lengths, tied together, and exactly like the fyrinx or Pan's pipe of the ancients, is ufed by the natives of New Amfterdam; and Garcilaffo de la Vega informs us, that the natives of Peru had among them a fimilar inftrument made of canes of different lengths glued together. Flutes, drums, and trumpets, have been found in common ufe in Otaheite and New Zealand. The flute of Otaheite confifts of one joint of cane, and differs in this particular from any of the flutes of antiquity, that it is founded by breath iffuing from one of the noftrils, the other being ftopt by the thumb of the performer; at leaft it was in that manner Omai, a native of the ifland, played on the Otaheite flute in the library of Trinity college, Cambridge.

It is therefore beyond a doubt that inftruments refembling each other in conftruction and properties have been invented in different ages by nations fo remote from each other in fituation, that it is fcarcely poffible there could have been the leaft communication between them.

Notwithftanding this, we find the Greeks, ever fond of attributing to their own nation, as well the nobleft inventions as the moft ancient origin, have alfo claimed the merit of being the parents of Mufic. They not only boaft that they were προσεληνοι and αυτοχθονες, (that is, that they exifted before the Moon, and fprung from the foil they inhabit,) but by making Greece the native foil of many of their Gods, who were faid to be the inventors of feveral mufical inftruments, have artfully affumed to themfelves the credit of their inventions.

To Apollo has been attributed the invention of Mufic itfelf, of the Lyre or Cithara, and of the flute (*d*); to Pan, the invention of the Syrinx, already mentioned (*e*.) Ovid has accounted very ingenioufly for the origin of this inftrument and its name (*f*). To Minerva has been given the invention of the flute with equidiftant foramina or holes (*g*); an improvement on the Syrinx; as the

(*a*) At Liquidas avium voces imitarier ore
Ante fuit multò, quam levia carmina cantu
Concelebrare homines poffent, aurifque juvare
Et Zephyri cava per calamorum fibila primum
Agreftis docuere cavas inflare cicutas.
LUCRETIUS, Lib. V.

(*b*) Jofhua, c. vi. v. 4, 5, & 6.

(*c*) Dr. Burney's Gen. Hift. of Mufic, Vol. I. p. 213.

(*d*) [illegible]
PLUT. de Mufica, ed. Xyland. v. ii. p. 1135.

(*e*) Pan primus calamos cerâ conjungere plures
Inftituit. VIRG. Ec. II. 32.

(*f*) ——— Arcadiæ gelidis in montibus
Inter Hamadryadas celeberrima Nonacrinas
Naias una fuit, &c. Metam. Lib. I.

(*g*) Prima terebrato per rara foramina buxo
Ut daret, effeci*, tibia longa fonos.
OVID. Faft. Lib. VI. 697.
* Minerva loquitur.

the ſame variety of notes were now produced by a ſingle pipe, as was before done by a number of pipes tied together. And, laſtly, to Mercury has been aſcribed the invention of the flute and the lyre.

To any one who does not with the celebrated Thomas Aquinas believe that the Arts and Sciences were communicated all at once by the Deity to mankind in their full perfection, the excluſive claims of theſe divinities to the different inventions above mentioned will appear doubtful, and ought by no means to be ſet up againſt the juſt pretenſions of any other claimants. By this deduction of their origin, however, is ſhown the ſenſe the Ancients entertained of the Art, and of its high antiquity.

SECTION II.

Of the Lyre of the Greeks.

THE Lyre is the parent of almoſt all the inſtruments of the fidicinal kind. There is certainly more ingenuity and art diſcoverable in the invention of this inſtrument, than in that of any of the others before mentioned. It is true that the materials of which it was originally conſtructed, the ſhell of a tortoiſe, and the horns of an animal, required little art in the preparation; yet to have produced three or four different notes from the like number of ſtrings by different degrees of tenſion, diſcovers more knowledge of the nature of muſical ſounds, and a greater ſtep made towards the diſcovery of the principles of the Science, than to have given any form to the Flute which it had in early times aſſumed(*b*). Tubes of different dimenſions, ſuch as reeds or oaten ſtalks, would immediately give notes differing proportionally with the ſizes of the pipes; but to make ſtrings produce that variety by different degrees of tenſion, muſt have required ſome preconceived notion that this effect would neceſſarily follow that cauſe.

The preſent enquiry has for its end, the inveſtigation of the principles that have led to the invention, conſtruction, and uſe, of the Violoncello; and this cannot be effected otherwiſe than by tracing the firſt ſtate of ſtringed inſtruments, and the ſubſequent alterations and improvements that have been made on them.

The accounts delivered down to us by the Ancients of the origin and improvement of the Lyre, merit particular attention, not only becauſe the fidicinal inſtruments now in uſe appear to have ariſen from ſucceſſive alterations and reformations of the Lyre, but alſo on account of its having, by the tenſion and tuning of the ſtrings, ſuggeſted the firſt ideas of a ſyſtem of Muſic, and led to the diſcovery that the principles of Muſic are founded in geometrical truth and in the general laws of nature.

The

(*b*) Ovid's authority for giving ſo very early and honourable an origin to the improved flute with foramina, may very reaſonably be called in queſtion. Although he is very ſparing of the number of holes (foramina rara), yet the circumſtance of its having been made of box-wood, ſuppoſes the art of boring flutes to have been then known; and that the mechanic arts arrived in a ſhort time at that progreſs, is extremely improbable. A very curious book, quoted by Sir John Hawkins in his Hiſtory of Muſic, Vol. I. p. 457. called the Book of St. Alban's, written by Dame Juliana Berners, prioreſs of the nunnery of Sopwell, near St. Alban's, deſcribes the method of making an angling-rod in the year 1496. The mechanics of that time, it ſeems, thought the neateſt method of hollowing a ſtick for that purpoſe, was the burning it through with a red-hot ſpit.—How were they to manage without a ſpit, and before the metals were in uſe?

4 OF THE LYRE OF THE GREEKS.

The Greek writers are almoſt unanimous in aſcribing the invention of this inſtrument to the Grecian Mercury, ſon of Jupiter and Maia. In the hymn to Mercury aſcribed to Homer (*i*), Mercury is ſaid to have found a tortoiſe feeding at the entrance of a cave in Mount Cyllene in Arcadia, the place of his nativity; having killed the animal and prepared the ſhell, he formed it into a Lyre of ſeven ſtrings (*k*), which he immediately played upon with a plectrum. Apollodorus Athenienſis (*l*) gives nearly the ſame account of the invention, and differs from the hymn, chiefly in ſaying that the ſtrings were made of the inteſtines of ſome of the bulls belonging to Apollo which Mercury had ſtolen, and he makes no mention of the number of ſtrings; whereas in the hymn to Mercury the ſeven ſtrings are ſaid to have been of ſheeps inteſtines (*m*), which are the very materials that ſtrings for violins and ſeveral other inſtruments are made of at this day, and not of catgut, as it is commonly thought. In the hymn alſo the Lyre is ſaid to have been invented before the bulls were ſtolen; but according to the relation of Apollodorus it was after Mercury had ſtolen the bulls that he invented the Lyre (*n*).

The authenticity of the hymn to Mercury has been doubted by the learned; and the circumſtance of the Lyre of Mercury having ſeven ſtrings, is contradictory to the account of the firſt ſtate of that inſtrument as given by others of the Ancients, who contend that it had but three, or at moſt four ſtrings (*o*).

The additions to this number are variouſly accounted for. According to Suidas and others it remained a tetrachord or four-ſtringed inſtrument till the time of Terpander, who by the addition of three more ſtrings changed it into a heptachord; and this account is confirmed by a couple of verſes ſaid to have been written by Terpander himſelf, quoted by Euclid in the introduction to his Harmonics (*p*).

Diodorus Siculus, after relating the muſical conteſt of Apollo with Marſyas, adds, " that the " former immediately repenting of the cruel manner in which he had treated Marſyas, broke the " ſtrings

(*i*) V. 25.

(*k*) Pauſanias in a very few words corroborates the ſame account: [illegible] Pauſan. in Arcad. And as the Lyre was by many attributed to Apollo, there ſeems to have been a contention between him and Mercury for the honour of the invention; for, according to Pauſanias, there was a ſtatue on Mount Helicon, repreſenting them contending for the Lyre: [illegible] Pauſan. in Bœot. And this conteſt ſeems to have been ſettled by giving the invention of the Lyre to Mercury, and that of the Cithara to Apollo, [illegible], ſays Pauſanias in another place, [illegible] αυλαρας. Pauſan. p. 314. Ed. Xyland.

(*l*) L. III. c. 10. §. 3.

(*m*) [illegible] V. 51.

(*n*) The firſt day of Mercury's life was full of buſineſs. Born in the morning, at noon he conſtructed and learned to play on the lyre, and in the evening ſtole the bulls of Apollo from the Piérian mountains.

[illegible]
[illegible]

Hymn. in Merc. v. 18.

(*o*) Nicomachus, a Pythagorean, and one of the Greek writers on Muſic in the collection of Meibomius, is among thoſe who give ſeven ſtrings to the Mercurean lyre. He gives the following account of the matter in the beginning of his ſecond book. " The Lyre made of a tortoiſe is ſaid " to have been the invention of Mercury; having prepared " it, and given it ſeven ſtrings, he communicated the " knowledge of it to Orpheus, who taught it to Thamyris " and Linus; Linus taught it to Hercules, by whom he was " killed." (The latter was extremely dull and obſtinate, and Linus being once provoked to ſtrike him, the hero ſeized his lyre, and beat out his brains). " Hercules taught " it to Amphion, who built Thebes with ſeven gates to the " ſeven ſtrings of his lyre. Orpheus being killed by the " Thracian women, they are ſaid to have thrown his lyre " into the ſea: it was caſt on ſhore at Antiſſa, a city of " Leſbos, and being found by fiſhermen, was brought to " Terpander, who carried it into Egypt exquiſitely improved, " and ſhowed it to the Egyptian prieſts as his own invention; " and thus Terpander has been ſaid to be the inventor of " the Lyre. Others again give the invention to Cadmus, " ſon of Agenor."

(*p*) [illegible]
[illegible]

"strings of his Lyre, and stopt for some time the progress of the newly-invented instrument. "(q) The Muses afterwards added the string called *mese*, Linus that of lichanos, and Orpheus (r) "and Thamyras the strings named hypate and parhypate."

The note mese answers to our A on the fifth line in the base, and was the acutest sound of the first tetrachord of the Ancients; and this account implies that the Lyre which Apollo used had but three strings, the tuning of which must have been E, F, G, corresponding to the Greek names hypate meson, parhypate meson, and meson diatonos or lichanos meson. Mese being added will make the most ancient tetrachord, and the Lyre before the time of Terpander tuned to the notes E, F, G, A.

The string lichanos being added, corresponding to our note D on the third line of the base, and the two strings hypate and parhypate, answering to our B and C in the bass, would make the heptachord B, C, D, E, F, G, A, making two conjoint tetrachords or fourths; namely, B, C, D, E, and E, F, G, A.

The account of Boëtius differs much from the above, and is unsupported by any other authority. He seems to think that the Lyre of Mercury had originally four strings: the first or gravest note being parhypate hypaton or C; the second, parhypate meson or F, a fourth more acute; the third, lichanos meson or G, one tone higher than the second; and the fourth trite or C, a fourth to the third, and octave to the first. He gives the invention of the fifth string to Chorœbus, son of Atys, King of Lydia; the sixth to Hyagnis, cotemporary with Erichthous, who lived 1500 years before the Christian æra; the seventh to Terpander; and the eighth to Lychaon of Samos.

The account given by Nicomachus the Pythagorean of the state of the heptachord is more particular, and appears more correct and deserving of credit. According to this Author, the graver of the two tetrachords B, C, D, E, was not at this time a part of the system; and the Lyre consisted of the other tetrachord E, F, G, A, which was probably the ancient tetrachord before the time of Terpander; and the notes paramese, paranete, and nete, or B flat, C, and D, of our system; forming the two conjoint tetrachords or fourths E, F, G, A, and A, B flat, C, D. This heptachord was by the addition of another note by Pythagoras, and regulating anew the intervals of the former acute tetrachord, changed into an octochord or octave; that is, by leaving the graver tetrachord E, F, G, A, in the same state, and altering the acuter to the intervals B, C, D, E. Thus the octave of Pythagoras, like that of the moderns, consists of two disjoint tetrachords or fourths, differing only in the situation of the semitone in each tetrachord; in the octave of the moderns, the semitone being the last note of each tetrachord, but in that of Pythagoras the second note of each.

The manner in which Pythagoras made this addition, and his views in making it, are related by Nicomachus; and Mr. Stanley, in his History of Philosophy, gives the following translation of the text of Nicomachus (s).

"Pythagoras,

(q) [illegible] Lib. III.

(r) Several writers assert that Orpheus added two strings to the Lyre, which before had seven; but this is contradictory not only to the above account of Diodorus, but also to that of almost the whole of antiquity, who allow Pythagoras to have invented the octachord or eighth string of the Lyre; and Virgil, who places Orpheus at the head of the legislators in Elysium, alludes to the seven sounds of his Lyre in the following verses:

> Nec non Threicius longa cum veste sacerdos
> Obloquitur numeris septem discrimina vocum,
> Jamque eadem digitis, jam pectine pulsat eburno.
>
> Æn. VI. 645.

See some very well founded remarks of Dr. Burney on Dryden's and Pitt's translations of the above verses. Gen. Hist. of Music, I. 329.

(s) Ed. 1701. p. 387.

"Pythagoras, lest the middle sound by conjunction, being compared to the two extremes, "should render the diatesseron concent both to the nete and the hypate, and that we might have "a greater variety, the two extremes making the fullest concord to each other, that is to say, "a diapason, which consists in duple proportion, inserted an eighth sound between the mese and "the paramese, placing it from the mese a whole tone, and from the paramese a semitone; so that "what was formerly the paramese in the heptachord is still the third from the nete both in name "and place, but that now inserted is the fourth from the nete, and hath a concent to it of a "diatesseron, which before the mese had to the hypate; but the tone between these, that is the "mese, and the tone inserted, called the paramese, instead of the former, to whichsoever tetrachord "it be added, whether to that which is at the hypate, being the lower, or to that of the nete, "being the higher, will render the concord of diapente; which is either way a system, consisting "both of the tetrachord itself, and of the additional tone; and as the diapente proportion, viz. "the sesquialtera, is found to be a system of sesquitertia and sesquioctava, the tone therefore is "sesquioctava. Thus the interval of four chords, and of five, and of both conjoined together, "called the diapason, with the tone inserted between the two tetrachords, compleated the "octave." (*t*)

It appears, by this account of Nicomachus, that the proportions of the fifth, sesquialtera, of the fourth, sesquitertia, of the tone, sesquioctava, and of the octave or duple proportion, were perfectly known to Pythagoras. The discovery is attributed to him by the concurring testimony of the Ancients. The manner in which he is said to have made it is related by Nicomachus, Gaudentius the philosopher, another of the Greek writers on music, Jamblicus, Macrobius, and others, to the following purport.

Pythagoras (say these Authors) one day meditating on the subject of a rule to guide the ear, such as had been used to help the other senses, happened, as he passed by a blacksmith's shop, to observe that the iron hammers, which were striking on the anvil, produced sounds that were very harmonious, and in concord with one another. The hammers were four in number; he considered them attentively, and found their respective weights to be in the proportion of 6, 8, 9, and 12. On returning home, he suspended four strings, equal in length and thickness, and applying weights to them in the above proportions, found that they produced sounds in the same proportions that the hammers had given, viz. the three strings stretched by the weights 8, 9, and 12, were the fourth, fifth, and octave, to the gravest tone or string stretched by the weight 6.

The belief and propagation of this story is a remarkable instance of easy credulity in ancients and moderns, as the truth of the relation never appears to have been called in question before the last century. It is indisputable, that in the case of an anvil and hammers, however different the latter may be in their weights, the sound of the anvil will ever remain the same as to pitch or tune: and with respect to the tensive powers of weights differing in the proportions of 6, 8, 9, and 12, it

(*t*) [illegible]

Nicomachus, p. 9.

it is equally certain that instead of giving the concordant intervals above mentioned, they will produce intervals altogether different (w). The detection and formal refutation of this egregious mistake was first made by the great Galileo (x): and from experiments made by him, and other writers since his time, and by the principles laid down by them, it is now made evident, that to produce the above consonances, weights differing not as 6, 8, 9, and 12, but as the square of these numbers, that is, 36, 64, 81, and 144, must be applied.

But however astonishing it may seem that so many philosophers and ancient writers on music should have blindly received this tradition on trust, without putting it to the test of a very easy experiment, and however mistaken the first Phythagoreans may have been in delivering this as the manner in which their master discovered the ratios of musical sounds, the honour of the discovery itself, and of making Music rank among the Sciences, can never be denied him.

The numbers so often mentioned above, although they do not justly express the tensive forces requisite to produce the consonances of the fourth, fifth, and octave, are nevertheless expressive of the ratios of their vibrations; and in the inverse order to that in which they stand, they express the different lengths of strings of equal tension and thickness that will give the above intervals. It is therefore probable that the discovery of Pythagoras was that of the proportionate lengths of strings; and that this was done by the monochord or harmonic canon, is evident from the account given by Gaudentius. After relating the story of the anvil, hammers, and the strings distended by weights, he adds, that Pythagoras, not satisfied by these experiments, divided a string into twelve equal parts; that striking it at the half or six parts, he found it give the octave or duple ratio, compared with the whole length; at the three fourths, the fourth to the grave sound; and at two thirds, the fifth compared with the tone given by the whole length (y).

Pythagoras is accordingly allowed by ancients and moderns to have been the inventor of the Monochord. He is said to have recommended the use of it on his death-bed (z), as the best method of ascertaining every musical interval with truth and exactness; and it appears to have been used for that purpose by the ancients after the time of Pythagoras. Thus the strings of the Lyre, which before this æra of the discovery of principles in music, had been tuned by no other rule than what seemed agreeable to the ear, were henceforth ascertained and fixed in their different situations in the new system, and a proper criterion established to regulate the voice, and the exact degree of intonation of each string.

Accordingly the system of Pythagoras is the basis of all the succeeding theories of Euclid, Ptolomy, and other writers, on the principles of Music, both ancient and modern; but in respect to the number of strings afterwards used on the Lyre, it does not appear that the Greek musicians in their practice adhered strictly to the number established by this system. His follower Nicomachus, however, disapproves of the use of a greater number than eight, and says that those

(w) Bontempi says, that the weights 12, 9, 8, 6, applied to strings of equal length, produced the tribemitone instead of the fourth, the ditone instead of the fifth, the tritone instead of the octave, and the defective semitone instead of the tone.

(x) In a work of his, intitled, Discorsi e Dimostrazione matematiche intorno à due Nuove Scienzie, attenenti alla Mecanica, ed i Movimenti locali.

(y) [illegible] Gaudent. ed. Meib. p. 14.

(z) Aristides Quintil.

these who have added any to that number did not conform to any rule or syftem, but were guided merely by their own caprice (a).

We find frequent complaints made in ancient authors of the many innovations that were made in their mufic. In fome of the ftates of Greece the public magiftrates feem to have confidered the refinements and innovations made in their mufic as dangerous to the morals of their youth; and the addition of any ftrings above a limited number to the lyre, was taken public notice of, and punifhed.

The poet Terpander appears to have been one of the firft innovators; and although Plutarch relates of him (b), that on occafion of a revolt at Sparta, he appeafed the feditious, and brought them back to a fenfe of their duty, by his perfuafive ftrains; yet the fame author informs us, in another place (c), that he was fined by the Ephori of Sparta for his innovations; a circumftance which is alfo taken notice of in the Oxford marbles.

Phrynis is alfo faid to have had two ftrings cut off his lyre, by one of the Ephori, in order to reduce their number to feven (d), which was the eftablifhed number at Sparta; but it does not appear that the lyre was limited to that number of ftrings in any of the other States: and, with refpect to the nine-ftringed lyre of Phrynis, it appears by the teftimony of Athenæus (e) that fuch an inftrument was in common ufe in other parts of Greece.

There is extant a fenatûs-confultum (f) or decree of the Kings and Ephori of Sparta againft Timotheus, the Milefian, for introducing into their city a lyre of eleven ftrings, for difhonouring their ancient mufic, and corrupting the tafte of their youth. The Kings and Ephori pafs public cenfure on Timotheus, and order the four additional ftrings to be cut from his lyre, leaving only the remaining feven; and, as a warning to others not to introduce improper cuftoms into Sparta, they banifh Timotheus (g) from their city.

With refpect to the inftruments called the Magadis, of twenty ftrings, mentioned by Anacreon; the Simicum, of thirty-five ftrings, mentioned by Athenæus and Julius Pollux; and the Epigonium, of

(a) [illegible]

Nicom. ed. Meib. p. 35.

(b) Dialog. de Mufica.

(c) Laconic Inftitutions.

(d) [illegible]

Plut. in Vit. Agid.

(e) Lib. IV. & XIV. where the [illegible] is mentioned.

(f) This decree is preferved in Boëthius de Mufica, cap. 1. and the fact is mentioned by many of the Ancients. Cafaubon, in his Animadverfions on Athenæus, Lib. VIII. has inferted the whole Greek text, with corrections, which for the fatisfaction of the curious in mufical antiquities is here given.

ΕΠΕΙΔΗ ΤΙΜΟΘΕΟΡ Ο ΜΙΛΗΣΙΟΡ ΠΑΡΑΓΙΝΟΜΕΝΟΣ ΕΣ ΤΑΝ ΑΜΕΤΕΡΑΝ ΠΟΛΙΝ ΤΑΝ ΠΑΛΑΙΑΝ ΜΩΑΣΑΝ ΑΤΙΜΑΣΔΕ, ΚΑΙ ΤΑΝ ΔΙΑ ΤΑΝ ΕΠΤΑ ΧΟΡΔΑΝ ΚΙΘΑΡΙΣΙΝ ΑΠΟΣΤΡΕΦΟΜΕΝΟΡ, ΠΟΛΥΦΩΝΙΑΝ ΕΙΣΑΓΩΝ ΛΥΜΑΙΝΕΤΑΙ ΤΑΡ ΑΚΟΑΡ ΤΩΝ ΝΕΩΝ ΔΙΑ ΤΑΡ ΠΟΛΥΧΟΡΔΙΑΡ ΚΑΙ ΓΑΡ ΚΑΙΝΟΤΑΤΑ ΤΩ ΜΕΛΕΟΡ ΑΝΕΓΚΕ ΠΟΙΚΙΛΑΝ ΑΝΤΙ ΑΠΛΟΑΡ, ΚΑΙ ΤΕΤΑΓΜΕΝΑΡ ΑΜΦΙΕΝΝΥΤΑΙ ΤΑΝ ΜΩΑΣΑΝ ΕΠΙ ΧΡΩΜΑΤΟΡ, ΣΥΝΙΣΤΑΜΕΝΟΡ ΤΑΝ ΤΩ ΜΕΛΕΟΡ ΔΙΑΣΤΑΣΙΝ ΑΝΤΙ ΤΑΡ ΕΝΑΡΜΟΝΙΩ ΠΟΙΩΝ ΑΝΤΙΣΤΡΟΦΟΝ ΑΜΟΙΒΑΝ. ΠΑΡΑΚΑΛΛΑΘΕΙΣ ΔΕ ΚΑΙ ΕΝ ΤΟΝ ΑΓΩΝΑ ΤΑΣ ΕΛΕΥΣΙΝΙΑΡ ΔΑΜΑΤΡΟΡ ΑΠΡΕΠΕΑ ΔΙΕΣΚΕΔΑΣΑΤΟ ΤΑΝ ΤΩ ΜΙΘΩ ΔΙΑΣΚΕΥΑΝ. ΤΑΝ ΤΑΡ ΣΕΜΕΛΑΡ ΩΔΙΝΑ ΟΥΚ ΕΝ ΔΙΚΑ ΤΩΡ ΝΕΩΡ ΕΔΙΔΑΣΚΕ.

ΔΕΔΟΧΘΑΙ ΠΕΡΙ ΤΟΥΤΩΝ ΤΩΡ ΒΑΣΙΛΕΑΡ ΚΑΙ ΤΩΡ ΕΦΟΡΩΡ ΜΕΜΨΑΣΘΑΙ ΤΙΜΟΘΕΟΝ ΕΠΑΝΑΓΚΑΣΘΑΙ ΔΕ ΚΑΙ ΤΑΝ ΕΝΔΕΚΑ ΧΟΡΔΑΝ ΕΚΤΑΜΟΝΤΑΡ ΤΑΡ ΠΕΡΙΤΤΑΡ ΥΠΟΛΕΙΠΟΜΕΝΑΝ ΤΑΝ ΕΠΤΑ· ΟΠΩΡ ΕΚΑΣΤΟΡ ΤΟ ΤΑΡ ΠΟΛΙΟΡ ΒΑΡΟΣ ΟΡΩΝ ΤΕΤΑΡΕΗΤΑΙ ΕΥΛΑΒΗΤΑΙ ΕΣ ΤΑΝ ΣΠΑΡΤΑΝ ΕΠΙΦΕΡΕΝ ΤΙ ΤΩΝ ΜΗ ΚΑΛΩΝ ΕΘΩΝ, ΜΗ ΠΟΤΕ ΤΑΡΑΤΤΗΤΑΙ ΚΛΕΟΡ ΑΓΩΝΩΝ.

(g) Not the celebrated player on the flute, fo much efteemed by Alexander the Great. Timotheus the Milefian was cotemporary with Philip of Macedon, and is faid to have died in the fourth year of the 105th Olympiad, two years before the birth of Alexander.

of forty ſtrings, named after its inventor Epigonius (*b*); it has with much probability been conjectured, that theſe ſtrings did not form a ſcale of ſo many different ſounds, but that they were tuned uniſons or octaves to each other, like the double harpſichord, and the octave ſtop of other harpſichords. Epigonius lived at a time when there was but little refinement or complication in muſic; and as to the Magadis, its very name implies a ſeries of octaves: when a man, with a boy or a woman, ſung the ſame part, it was called magadizing.

To give an idea of the moſt general form the Ancients conceived the Lyre to be of, *Fig.* 1. and 2. of the annexed Copper-plate are judged the moſt proper examples: the firſt is the repreſentation of a Lyre in the hands of an antique ſtatue of Apollo in the Matthei garden near Rome; the ſecond is a copy of the Conſtellation Lyra in that very curious piece of antiquity, the ancient Celeſtial Globe, in the Farneſe palace, in which the ſhape and compartments of the teſtudo, or tortoiſe, ſhow that the Romans conceived the Lyre and Teſtudo to be the ſame inſtrument.

(*b*) He was a mathematician of Sicyon, and is ſaid to have been the firſt who played without a plectrum, uſing only the points of his fingers: ψηφοις τοις δακτυλοις ανευ πλημτρου. POLLUX, Lib. IV. c. 9.

SECTION III.

Of the Lyre, and ſtringed Inſtruments, of other Nations.

AN account of the invention and improvement of the Grecian Lyre has been preferred, not ſo much for its great antiquity, there being undoubted evidence of ſimilar inſtruments, uſed by other nations, in conſiderably more remote ages; but becauſe more particular deſcriptions are tranſmitted to us, of this inſtrument and its improvements, than of the muſical inſtruments of any other country, and becauſe it appears to have been the parent of moſt ſtringed inſtruments in uſe at this day, which have ariſen from a ſucceſſion of improvements of the ancient Lyre.

The Egyptian and Jewiſh nations have juſt pretenſions to a much earlier poſſeſſion of the Arts. The Sacred Writings of the latter, which the great Newton (*a*) has proved to be of all hiſtories the moſt ancient and authentic, ſhow their early knowledge and practice of Muſic. A variety of muſical inſtruments are there frequently mentioned; but although ſeveral learned writers (*b*) have undertaken to treat profeſſedly of theſe inſtruments, the want of repreſentations in ancient ſculpture, will ever render it a vain attempt to recover any juſt idea of their figure or conſtruction. On the arch of Titus, at Rome, where the ſpoils brought by him from Jeruſalem, after the deſtruction of that city, are ſuppoſed to be repreſented, are ſeveral trumpets and horns (*c*); but this arch is known not to have been erected till after the death of that Emperor. The tranſlators of the Old Teſtament, unable to aſcertain the real conſtruction of the muſical inſtruments of the Jews, have, according to the country where the tranſlators lived, given to theſe inſtruments, the names of ſuch as were moſt commonly known and uſed in their own country (*d*). Of theſe inſtruments, however,

(*a*) Sir Iſaac Newton's Chronology.

(*b*) Dom Calmet, Kircher, &c.

(*c*) Dr. Burney's Hiſt. of Muſic, Vol. I. p. 233.

(*d*) In Geneſis, c. iv. v. 21. for example, Jubal is ſaid in our verſion to be the father of all ſuch who handle the harp and organ; the French tranſlators render it "le père "de tous ceux qui touchent le violon & les orgues." The Septuagint has ψαλτηριου και ενδυματος, pſaltery and lyre. The Arabic has names correſponding to drum and lyre. In the 3d, 4th, and 5th verſes of the 150th Pſalm, are enumerated almoſt the whole of the Jewiſh inſtruments. In our verſion the

however, the only one that would concern the preſent inquiry, had its form and properties been better known, ſeems to have been the ten-ſtringed inſtrument, or Nablon, which has been rendered by the names of pſaltery, lute, harp, and others.

There are monuments of the remoteſt antiquity, ſtill exiſting, which inconteſtably prove the Arts to have made a great progreſs among the Egyptians. An obeliſk, ſuppoſed to have been erected at Heliopolis, or ancient Thebes, by Seſoſtris, near 400 years before the Trojan war, was, by the command of Auguſtus, after reducing Egypt to a Roman province, brought to Rome, and placed in the Campus Martius; being thrown down and broken, at the ſacking and burning of Rome, in the year 1527, it ſtill lies in the Campus Martius, known by the name of the Guglia Rotta, or broken pillar. Among many hieroglyphicks, is repreſented on it a muſical inſtrument, with a neck, conſtructed to carry two ſtrings, of which Dr. Burney cauſed a drawing to be made under his own inſpection, inſerted in his very ingenious and valuable Hiſtory (*e*).

Mr. Bruce, celebrated for his travels in Egypt and Abyſſinia, diſcovered in a grotto near the ruins of the Egyptian Thebes, the picture of a man playing upon the harp, painted in freſco, and quite entire. The inſtrument has thirteen ſtrings; and Mr. Bruce obſerves, from the elegance of its form, that it is an inconteſtable proof that geometry, drawing, mechanics, and muſic, were at the greateſt perfection when this harp was made; that is, before and at the time of Seſoſtris, who adorned Thebes, and probably cauſed it to be painted there, as well as the other figures in the ſepulchre of his father, as a monument of the ſuperiority of the Egyptians in Arts over other nations (*f*).

That Muſic was at the time of Seſoſtris in that great degree of improvement among the Egyptians which Mr. Bruce imagines, is made ſtill more evident by the muſical inſtrument on the Egyptian obeliſk in the Campus Martius at Rome, as well as by monuments of their progreſs in other arts ſtill exiſting; and as Pythagoras is allowed to have acquired the principles of his philoſophy in Egypt, it is not improbable that he may have alſo got there, ſome knowledge of the philoſophy of ſounds. The conſtruction of a dichord or two-ſtringed inſtrument muſt have proceeded from a knowledge of the method of producing different notes on one ſtring, by taking its aliquot parts; and the conſtruction of a harp with ſtrings, differing in their lengths, like the thirteen ſtrings of the Theban harp, would alſo naturally lead an ingenious people to the diſcovery of that principle, if it had not been previouſly known.

Mr. Bruce has alſo given an account of muſical inſtruments in Abyſſinia; to wit, the flute, the trumpet, the kettle-drum, the tambourine, the ſiſtrum, and the lyre.

An

the names are thus rendered: "Praiſe him in the ſound of "the trumpet, praiſe him upon the lute and harp; praiſe "him in the cymbals and dances, praiſe him upon the "ſtrings and pipe; praiſe him upon the well-tuned cym-"bals, praiſe him upon the loud cymbals." In the French tranſlation, "Louez-le avec le ſon de la trompette; louez-"le avec la muſette, & la harpe. Louez-le avec le tam-"bour & la flute; louez-le ſur l'épinette, & ſur les orgues. "Louez-le avec les cymbales retentiſſantes; louez le avec "les cymbales de rejouiſſances." The Septuagint agrees with the Engliſh verſion, excepting in the word lute, which is rendered ναβλα, nablon. In the Arabic, Latin, and other tranſlations, the names of theſe inſtruments vary conſiderably, and ſhew that it is in vain to expect the point will ever be cleared up. The term organ in the Engliſh, and les orgues in the French verſion, are merely tranſcribed from the Greek word οργανα of the Septuagint, which by no means refers to any inſtrument like the modern organ, but is uſed by all the Greek writers on Muſic merely to expreſs an inſtrument in general, without diſtinguiſhing the ſpecies: οργανα ολκαδος in Plato are implements of war.

(*e*) Vol. I. p. 205.

(*f*) There is a very good engraving of this elegant piece of muſical antiquity in Dr. Burney's Hiſtory of Muſic, Vol. I. p. 222. And Mr. Bruce's very curious and intereſting letter on the ſubject of this harp and the muſical inſtruments of the Abyſſinians, is inſerted in the ſame volume, p. 214. The antiquity, however, of this Theban harp, has been ſince greatly diſputed.

As it does not appear that the Greeks ever penetrated ſo far as Abyſſinia; or that one of the Ptolomies, in an excurſion made to diſcover the ſource of the Nile, could have introduced Muſic, or other arts, into that country, where he remained but a ſhort time, and was conſidered as an enemy; their Lyre, from theſe circumſtances, and that of its name being derived from the language ſpoken in the country, muſt be conſidered as having been originally invented among them. The kingdom of Tigré formerly extended to the Red Sea, which coaſt they have ſince relinquiſhed to other nations. The inhabitants, according to Mr. Bruce, ſay, "that while they "were in poſſeſſion of that coaſt, it furniſhed them with tortoiſe-ſhells, with which they made the "bellies of their lyres; but having now loſt that reſource, they have adopted in its place a "particular ſpecies of gourd or pumpkin, very hard and thin in the bark, ſtill imitating with the "knife the ſquares, compartments, and figure, of the ſhell of the tortoiſe. It has ſometimes five, "ſometimes ſix, but ſometimes ſeven ſtrings, made of the thongs of raw ſheep or goat ſkins, cut "extremely fine: they rot ſoon, are very ſubject to break in wet weather, and have ſcarce any "ſound in dry. It is never played ſolo, but always in accompanying the voice, with which it "plays conſtantly in uniſon. The ſides which conſtitute the frame of the lyre were anciently "compoſed of the horns of an animal of the goat kind, called Agazan, about the ſize of a ſmall "cow, and common in the province of Tigré." Mr. Bruce adds, that he has ſeen "ſeveral of "theſe inſtruments, very elegantly made of ſuch horns, which nature ſeems to have ſhaped on "purpoſe; but after fire-arms became common in the province of Tigré, and the woods were "cut down, this animal being more ſcarce, the lyre has been made of a light red wood, cut "however into a ſpiral twiſted form, in imitation of the ancient materials of which the lyre was "compoſed. The lyre in Amharic is called *beg* (the ſheep); in Ethiopic it is called *m'ſinko*, the "verb *ſinko* ſignifying to ſtrike ſtrings with the fingers: no plectrum is ever uſed in Abyſſinia; ſo "that *meſinko*, being literally interpreted, will ſignify *the ſtringed inſtrument played upon with the "fingers*. This would ſeem as if anciently there was no other ſtringed inſtrument in Abyſſinia; "nor is there any other ſtill. The Abyſſinians have a tradition, that the Siſtrum, Lyre, and "Tambourine, were brought from Egypt into Ethiopia by Thot, in the firſt ages of the "world" (*g*).

It may not here be improper to mention, in confirmation of this tradition in Abyſſinia, that more than one of the Ancients attribute the invention of the Lyre to Thot or Thoth, the Egyptian Mercury. Apollodorus, as quoted by Dr. Burney (*h*), gives the following account. "The Nile "having overflowed the whole country of Egypt, when it returned within its natural bounds, left "on ſhore a great number of dead animals, and among the reſt a dead tortoiſe, the fleſh of which "being dried and waſted by the ſun, nothing was left within the ſhell but nerves and cartilages, "and theſe being braced and contracted by deſiccation were rendered ſonorous: Mercury, in "walking along the banks of the Nile, happening to ſtrike his foot againſt the ſhell of this "tortoiſe, was ſo pleaſed with the ſound it produced, that it ſuggeſted to him the firſt idea of a "Lyre, which he afterwards conſtructed in the form of a tortoiſe, and ſtrung it with the dried "ſinews of dead animals." (*i*)

The nations in the North and Weſtern parts of Europe have claims, if not to the invention, at leaſt to a very early poſſeſſion, of the harp. The Celts are recorded by Diodorus Siculus to have

(*g*) See Mr. Bruce's letter, mentioned in the laſt note.

(*h*) Vol. I. p. 209.

(*i*) Iſidorus, Lib. III. c. 21. relates the ſtory almoſt in the ſame words. "Lyram primam à Mercurio dicunt "inventam fuiſſe in hoc modo: Cum regrederetur Nilus in "ſuos meatus, varia in campis reliquiſſet animalia, reliſtis "etiam teſtudo eſt, quæ cum eſſet putrefacta et nervi ejus "remanſiſſent extenti inter coriam: percuſſa à Mercurio, "ſuavem dedit, ad cujus ſpeciem Mercurius lyram fecit, "et Orpheo tradidit, qui erat hujus rei maximè ſtudioſus, "unde et exiſtimatur, eadem arte non feras tantum, ſed ſaxa "atque ſilvas cantus modulatione applicuiſſe."

have had among them "composers of melodies, whom they named Bards." These, he says, "sing to instruments like lyres songs of praise or invective (*k*)." The harp was an instrument common also among our Anglo-Saxon ancestors, and it must have been of very great antiquity among them and other Gothic nations; for its very name is of Gothic origin, and the same in the Anglo-Saxon, Icelandic, Danish, Belgic, German, French, and Italian (*l*). After their establishment in the Roman provinces, it continued to be their favourite instrument, while the Romans were still distinguished by their attachment to the lyre (*m*). In a manuscript of the year 600, in the monastery of St. Blasius, quoted by Gerbertus, the Prince Abbot of that monastery (*n*), there is a representation of a harp, there entitled *Cithara Anglica*, of which *Fig.* 7. in the annexed Plate of instruments is a copy.

(*k*) Εισι και παρ' αυτοις και ποιηται μελων, ὃς Βαρδες ονομαζεσιν· ουτοι δε μετ' οργανων ταις λυραις ομοιων αδοντες, ὃς μεν υμνεσιν ὃς δε βλασφημεσι. Ed. H. Steph. 1559. L. V. p. 213.

(*l*) Ang. Sax. Hearpe, Hearpa. Iceland. Harpa, Haerpa. Danish and Belgic, Harpe. Germ. Harpffe, Harpffa. French, *harpe*. Ital. *arpa*. Vide Junius and Menage.

(*m*) Romanus lyra plaudat tibi, Barbarus harpa.

Venantius Fortunatus, a Writer of the Fifth Century.

(*n*) De Musica Sacra, Tom. II. in Calcem.

SECTION IV.

Of the Improvement of the Lyre by the Moderns.

If we take a view of the state of the Lyre from its invention down to the latest period of its improvement by the Ancients, we shall not be able to conceive any great advantages gained on the side of ease of execution, or of expression in the tone of the instrument (*a*); any elegance it may have received in its figure and construction, and the addition of a few notes to its upper and lower compass, must appear but an inconsiderable improvement in stringed instruments, during a space of several hundred years; and notwithstanding the additions and alterations introduced by many of their celebrated musicians, we may conclude, from what we are able to understand of the matter, that this species of instruments was carried but a little way by the ancient Greeks and Romans, from the state in which, according to their own account, they received it from its first inventors.

In the progress to a more perfect species of stringed instruments, the first step of real improvement, of an instrument such as the ancient Lyre, would be the addition of a neck or finger-board, by means of which, four or five intervals, of a tone or semitone each, might be taken on each string, without changing the position of the hand; and thus a single string would answer the purpose of four or five, two strings would give ten notes of a scale, and so on.

That an instrument with a neck, however, was not wholly unknown to the Ancients, appears from two pieces of their sculpture and painting. The sculpture is on an ancient vase, now in the Giustiniani palace at Rome, of which there is an engraving in Bianchini's treatise De Instrumentis Veterum, and is called by Bianchini the Chelys or reformed lyre of Mercury. The ancient painting

(*a*) By an improved expression in tone is here meant advances made from the momentary duration of the tone of instruments of percussion, such as the lyre, harp, or guitar, towards the lengthened sostenuto tone of wind instruments, viols, and violins. There cannot be a doubt but the tone of the lyre would be greatly improved by a more artificial structure, and better materials, than it had in times of simplicity.

painting is still subsisting in a sepulchral grotto near the ancient Tarquinia, and represents a dichord resembling that on the Egyptian obelisk. An engraving from this painting is inserted at the end of the first volume of Dr. Burney's History of Music; and *Fig.* 3. in the annexed Plate of instruments, will give the reader an idea of both these dichords.

In a fragment of the comic poet Pherecrates, preserved by Plutarch, on the subject of innovations and corruptions in music, an old woman, shockingly mangled and bruised, personates Music, and makes her complaint to Justice, under the figure of another woman. She complains loudly of the cruel treatment she received from Melanippides, Cinesias the Athenian, Phrynis, and Timotheus. Of Phrynis her accusation is, "that in producing twelve notes or harmonies, "from five strings, he had so twisted and tortured her, that he had entirely destroyed her "powers" (*b*). Some method that Phrynis made use of to produce more notes than one from a string, is probably here alluded to; but there will be found a great disagreement in the five-stringed instrument which Pherecrates here gives to Phrynis, and that of nine strings which Plutarch mentions to have brought on him a public censure and punishment. The former was perhaps a later invention of Phrynis, or he may have occasionally made use of both instruments.

Whatever knowledge the Ancients might have of stringed instruments with a finger-board (and it is certain they were in possession of sufficient principles for their construction, by their early knowledge and long use of the monochord), it appears that they were but little used in their practice, both from the silence of their writers concerning them, and from the very few representations of them in their sculpture. On the contrary, the Lyre seems to have continued their favourite instrument, and to have been preserved nearly in its original form and simplicity. It continued to be used with seven strings in the Augustan age; and for this we have the authority of Horace (*c*).

On the decline of the Roman empire, and the irruption of the Northern nations into its provinces, changes were soon introduced into the form of their musical instruments; the name of the ancient lyre or Cithara remained, but its construction and properties were gradually changed. Isidorus informs us that by degrees different forms of the Cithara were introduced, and among others Citharas of a triangular and quadrangular shape, and that the number of the strings were multiplied (*d*).

St. Jerome, in one of his Epistles (*e*), relates, that the Cithara then in use had twenty-four strings, and was in shape like the Greek letter Delta, Δ. And in the manuscript of the year 600, in the monastery of St. Blasius above mentioned, there are representations of several instruments of music used in that age. The stringed instruments are, 1. The Cithara of a triangular form, with an inscription purporting it to be "the Cithara of twenty-four strings, as described by St. Jerome;" but the figure has not so great a number of strings. 2. The Cithara Teutonica or German; in form somewhat approaching to the Spanish guitar, but without a neck. 3. An instrument styled a Lyre, but is a species of monochord with a bow. 4. The Cithara Anglica or harp, already mentioned. Of these instruments the *Figures* 4, 5, 6, and 7, in the subjoined Plate, are exact copies.

The

(*b*) [illegible]
[illegible]
[illegible]
PLUT. Dial. de Musica.

(*c*) Tuque testudo resonare septem
Callida nervis. Lib. III. Od. ii.

(*d*) Isid. Lib. III. Etymol.

(*e*) In Epistola ad Dardanum.
S. Hieron, Op. Tom. V. p. 191.

The Cithara is repreſented in the ſame form in a manuſcript of the year 800(*f*): and it probably remained without any conſiderable alteration or improvement for ſome time after. The Goths and other invaders of the Roman provinces are repreſented as attached to their own inſtrument, the harp; while thoſe who accounted themſelves Romans were ſtill delighted with the Cithara or lyre(*g*). Nor is it to be expected, that at this time, when the groſſeſt ignorance pervaded the Weſtern parts of Europe, much improvement could be made in muſical inſtruments. It is, however, beyond a doubt, that at the time of the Cruſades, in the eleventh and twelfth centuries, inſtruments very different from the Cithara were made uſe of by the Europeans, which, if not much more perfect than the ancient Lyre, they at leaſt pointed out the principles of, and ſoon became, inſtruments of much greater compaſs, power, and expreſſion.

The æra of the improved Cithara or Guitar, Lute, and other inſtruments of that ſpecies, may therefore be placed at, or ſome little time before, the firſt Cruſade. That the Guitar of the moderns is nothing but the Cithara of the ancients, with the addition of a finger-board, is evident from ſeveral of its ſpecies ſtill retaining its ancient form of the tortoiſe, correſponding with its Greek and Latin names, *Chelys* and *Teſtudo*; and that it was conſidered by thoſe who introduced it, only as an improvement of the ancient Cithara, appears from its ſtill retaining the ſame name in the European and ſome other languages; Chitarra in Italian, Guitara in Spaniſh, Quettara in Arabic or Mooriſh, and Guitar in Engliſh, being unqueſtionably the ſame term, all derived from the Greek Κιθαρα, and the Latin Cithara. An improvement of this nature, which implies a knowledge of the ratios of the intervals of tones and ſemitones in Muſic, cannot, without proof, be ſuppoſed to have been made at this period, by any of the Gothic nations who were poſſeſſed of the Weſtern parts of Europe, and who were remarkable for their contempt, as well as their ignorance, of the arts and learning of the conquered Romans.

The Arabs or Moors, who had taken poſſeſſion of the greateſt part of Spain early in the eighth century, appear to have the beſt claim to this improvement. The firſt Saracen Princes, the immediate ſucceſſors of Mahomet, were not greater enemies of learning than many of the ſucceeding Kaliphs were lovers and encouragers of it. The Mahometans, in their frequent incurſions into different parts of the Greek empire, conceived at length the ſtrongeſt deſire for the attainment of the Greek language and literature. The predilection of the Arabians to metaphyſical and mathematical ſubjects, is well known. Averroes, a Moor of Cordova in Spain, tranſlated Ariſtotle into Arabic, with notes; and, for a long time, Europe had no other text of Ariſtotle than a Latin tranſlation from the Arabic of Averroes. It is by no means improbable that the treatiſe of Euclid, or ſome other Greek writer on Muſic, was read and ſtudied by ſome Moor of Spain, or other Arabian; and thus every requiſite to the improvement in queſtion would be eaſily obtained. On the other hand, if the idea was taken from any repreſentation of ſuch an inſtrument in ancient painting or ſculpture, the Arabians at this time had the beſt opportunities of making the diſcovery, and moſt genius for turning it to uſe.

A circumſtance which gives conſiderable force to the ſuppoſition of the Guitar, and other inſtruments of ſimilar ſtructure, being introduced into Europe by the Moors of Spain, is, that the moſt complete inſtrument of that claſs is at this day known by no other name in Europe than one evidently taken from the Arabic. From *Aoude* in Arabic, with the article prefixed, is derived the Spaniſh *Laud* or *Laut*, whence come the Italian *Liuto*, the French *Luth*, and our Lute. Dr. Shaw deſcribes the Aoude of the Arabs, which he ſaw in Mauritania(*b*), "a baſs, double-ſtringed Lute, "bigger than a Viol, which is touched with a plectrum." He adds, that "the Moors have ſeveral "ſmaller

(*f*) Gerbertus de Muſica Sacra, Vol. II. in Calcem.
(*g*) Venantius Fortunatus, mentioned in note (*e*).
(*b*) Shaw's Travels, p. 270.

ſmaller Guitars, or Quettaras, according to their pronunciation, of different ſizes, each of them "an octave higher than another." Mr. Bruce, in his account of the muſical inſtruments of the Abyſſinians, mentions the Guitar; but adds, that it was introduced into that country by the Arabians.

The addition of a neck or finger-board to the Cithara of the Ancients has been called an improvement. It is by no means intended by that expreſſion to convey the idea, that the Guitar, on its firſt appearance in the middle ages, or at any after period, was an inſtrument ſuperior in powers to the Lyre. The very contrary may be inferred, by comparing the ſounds of a guitar with thoſe of a modern harp, which muſt approach nearer than any other inſtrument to the Lyre. By the term improvement is only meant a neceſſary ſtep or new principle in the progreſs to a more perfect ſpecies of inſtruments; and it may, once for all, be remarked, that inſtruments are not called perfect, from their ſuperiority of tone, but from their accuracy in tune, not in one key only, but in every one in the ſyſtem.

A Guitar being thus introduced, there remained nothing but the application of a ſingle implement, to produce a ſpecies of inſtruments differing greatly, in tone and expreſſion, from any ſtringed inſtruments that had ever been known before. Theſe were the Viols; and the implement hinted at was the Bow: but of theſe more particular mention will be made in the next Section.

SECTION V.

Of the Bow, the Rebec, and the Viol.

It is now generally agreed that the Ancients were unacquainted with the Bow, at leaſt with its application to a muſical inſtrument. In what manner the tones were produced from their Monochord is not known. It is indeed difficult, if not impoſſible, to conceive any lengthened tone to be produced from a ſtring otherwiſe than by the action of a bow or wheel. The former implement is both the moſt ſimple, and beſt adapted for the production of ſmooth tones, and of every variety in their expreſſion. It might have been uſed by the Ancients for their Monochord, and very juſtly deemed uſeleſs for any other of their inſtruments; as it would never occur to any one, that the Bow could be applied with any advantage to an inſtrument like the ancient Lyre or modern Harp; and the Monochord of the Ancients, like that of the moderns, was conſidered more as an inſtrument for regulating others, and for making experiments, than as a muſical inſtrument in itſelf.

In the manuſcript of St. Blaſius, above mentioned, is a repreſentation of an inſtrument there called a Lyre, of which *Fig.* 6. of the annexed Copper-plate is a copy: at right angles to the ſtring of this inſtrument, is a Bow; and that its office may be clearly conceived, a hand is repreſented in the act of drawing it acroſs the ſtring. It appears ſtrange, that ſuch an inſtrument ſhould be termed a Lyre; and there is no inſtrument of antiquity, nor of modern times, it bears any reſemblance to, but the Monochord, or a more ſimple ſpecies of Rebec: if it refers to an inſtrument of the Ancients, the quarter whence we derive the Bow is not only pointed out by it, but we are alſo led to conclude that the Ancients uſed a Bow to their Monochord; and that this inſtrument, with its bow, they had of the Arabians, who afterwards likewiſe introduced the uſe of the Bow into Europe, will appear from the ſequel.

Julius Pollux, after enumerating the different inſtruments uſed by the Ancients, adds, in expreſs words, that "the Monochord is an invention of the Arabians (*a*)." It is indeed true, that in relating the diſcoveries of Pythagoras the invention of the Monochord has been aſcribed to that philoſopher; but it ſhould be remembered, that Pythagoras is ſaid, as already obſerved, to have learned his philoſophy of the Egyptians; and his knowledge of this inſtrument he probably acquired from them, or from the Arabians their neighbours; and the early acquaintance which it is probable the Egyptians had of the ſcience and practice of Muſic, was the ſource whence the Arabians might derive their knowledge. There is a remarkable correſpondence betwixt the Dichord, or two-ſtringed inſtrument with a neck, of the Egyptians, and an inſtrument of the like number of ſtrings, and a neck, of the Arabians; which ſhall now be mentioned.

This inſtrument is played with a Bow, and was probably introduced into Europe by the Arabians of Spain, and well known from the middle ages down to the laſt century by the name of the Rebec; it had probably on its firſt introduction only two ſtrings, as it ſtill has among the Moors, and ſoon after had the number increaſed to three. Dr. Shaw, who had ſeen it among the Moors, calls it "a Violin with two ſtrings, which is played on with a Bow, and is called by the Moors the Rebebb (*b*)."

The Engliſh and French authors and lexicographers have always derived the word *Rebec* from the Mooriſh term. According to Father Guadix, the word *Rabel* in Spaniſh, ſignifying the ſame inſtrument, comes from the Arabic *Rabib*. From the Spaniſh *Rabel*, and the Latin *Rebella* of ſome writers (*c*), our Chaucer has called the ſame inſtrument the Ribible (*d*).

The Rebec muſt be ſuppoſed to have been, in the middle ages, of a conſtruction extremely ſimple. The author of the article Rebec, in the French Encyclopædia, deſcribes it "a ſpecies of Violin *made of one piece of wood*, with three ſtrings." In forming our ideas of the muſical inſtruments of this period, reſpect ſhould be had to the low ſtate of the mechanic arts. A writer of the middle of the fourteenth century (*e*), deſcribing the muſical inſtruments of his time, ſays, that

(*a*) Μονοχορδον δ' Αραβων το ευρημα. Lib. IV. c. 9.

(*b*) Shaw's Travels, p. 270. A kind of Rebec, played with a bow, is uſed by the natives of Indoſtan. An ingenious muſical friend, who reſided ſeveral years in India, aſſures me that this inſtrument could not poſſibly have been introduced by the Europeans; nor is it an imitation of any of their inſtruments: the more ſimple kinds have only one and two ſtrings, and are played on by the common muſicians in the ſtreets; others have three ſtrings, and are played on by their beſt muſicians, who belong to the houſehold of the great and opulent natives. When the ſtrict adherence of the Aſiatics to their ancient cuſtoms, and their total averſion to innovations, is conſidered, there can ſcarcely remain a doubt but the Bow, Monochord, and Rebec, have all come into Europe from the Eaſt.

(*c*) Gerſon, who was made Chancellor of the Univerſity of Paris in the year 1393, in claſſing the different inſtruments as they are played by the fingers, plectrum, a wheel, or bow, mentions the Rebec and Viol as played with a bow, "aut tractu aut retractu ſicut in Viella aut Rebella." In another place he calls the ſame inſtrument Rebeca. Gerſon. Op. T. III. p. 628. A barbarous Latin poet of the middle ages, quoted by Du Cange, voce Bandoſa, among a number of inſtruments uſed at that time, mentions the Rebec as played with a bow:

Quidam Bandoſam concordabant
Plurimas chordas cumulantes.
Quidam triplices cornu tonabant,
Quædam foramina includentes;
Quidam choros conſonantes
Duplicem chordam perſtridentes,
Quidam taborellis ruſticabant,
Groſſum ſonum præmittentes;
Quidam cabreta vaſconizabant,
Levis pedibus perſaltantes.
Quidam lyram & tibiam properabant,
Alios tactu præcedentes;
Quidam harpam alte pulſabant,
Prolixas virgulas ſic gerentes:
Quidam Rebecam arcuabant
Muliebrem vocem confingentes, &c.

(*d*) Could playen ſonges on a ſmall ribible;
Thereto he ſong ſometyme a loud quinible.
Miller's Tale.

(*e*) Bartholomæus, a Franciſcan friar, who wrote in Latin. An Engliſh tranſlation made by Treviſa in 1398 is quoted by Sir John Hawkins, Vol. II. p. 283.

that "the Flute was made of an elder-tree hollowed; an inſtrument called the Symphonia was "made of a hollow tree, cloſed in leather on either ſide, which is beaten of minſtrels with "ſticks."

Repreſentations of an inſtrument with a Bow, correſponding to the Rebec, as above deſcribed, have been found in ſeveral places, and prove that it was common in Europe as early as the eleventh century, and by the conjectures of ſome antiquarians conſiderably before that time.

On an antique baſon, dug up near Soiſſons, is a repreſentation of a muſician playing on one of theſe inſtruments. L'Abbé Le Boeuf, a great antiquary, was of opinion that the workmanſhip of this baſon was executed during the time of the firſt race of French kings, that is, before the year 752(*f*).

According to Monfaucon, a figure in the portico of the cathedral church of Notre Dame, in Paris, repreſents King Chilperic with a Rebec in his hand(*g*). This would ſeem to carry its antiquity back to the ſixth century. Notre Dame began to be rebuilt by King Robert about the year 1000, and was finiſhed under Philip Auguſt, who died in the year 1223. And this figure, being engraved ſome time between theſe two periods, cannot ſtrictly be evidence of the exiſtence of the Rebec earlier than the eleventh or twelfth century. A drawing of this inſtrument and Bow is given in *Fig.* 12. of the annexed Plate of inſtruments.

On a portico of the church of St. Julien des Meneſtriers, in Paris, is the repreſentation of a Minſtrel playing on a Rebec of three ſtrings. This church was built by two of the minſtrels of Philip V. in the year 1331; and *Fig.* 14. of the Copper-plate ſubjoined is a copy of the Rebec and Bow. And in a manuſcript of the Roman d'Alexandre, in the Bodleian library, of the year 1338, among a number of inſtruments in the hands of muſicians, is repreſented the Rebec of three ſtrings, of which *Fig.* 13. is a copy.

The Rebec has been more fully deſcribed, on account of its being unqueſtionably the firſt and more ſimple form of our modern Violin; as will be more particularly ſhown in the next Section. In its rude and unimproved ſtate, in the middle ages, we cannot form a very advantageous opinion of its powers, when we conſider what a contemptible inſtrument even a modern Violin is, when inartificially made, and the materials bad. The greateſt excellence, however, of the Rebec, that of being played on with a Bow, was applied with great ſucceſs to another inſtrument, and by that means alone a new ſpecies of inſtruments appeared, which in proceſs of time arrived at conſiderable perfection; and theſe were called Viols.

That the Viol was originally no other inſtrument than the Guitar or improved Cithara of the Ancients, played on with a Bow inſtead of the fingers, will appear very clearly, from a compariſon of the forms of each of theſe inſtruments as they ſtood about the ſixteenth century. The Guitar marked *Fig.* 8. has the moſt reſemblance, in the tortoiſe-ſhape of its back, to the ancient Chelys or Teſtudo; and this form is ſtill preſerved in the Lute and Mandoline. That marked *Fig.* 9. is a repreſentation of the Spaniſh Guitar, taken from Merſennus, as it ſtood in the beginning of the laſt century; and with a little difference in the ſcroll where its pegs are faſtened, which ſtrikes off at an angle from the nut, is ſtill the ſhape of it at this day. The inſtrument marked *Fig.* 10. is copied from the Muſurgia of Ottomarus Luſcinus, publiſhed at Straſburg in the year 1536. This is placed among the claſs of inſtruments played with a Bow, and has one drawn by its ſide;

it

(*f*) See a drawing of this baſon in Dr. Burney's Hiſtory of Muſic, Vol. II. p. 264.

(*g*) Antiquités de la Monarchie Françoiſe, Tom. I. p. 56.

it is therefore a ſpecies of Viol, the form of which is evidently borrowed from the Spaniſh Guitar: its finger-board is like that of the latter, and the ſcroll is in the ſame oblique direction; a circumſtance which, with other particulars in its form, would render its being played on between the legs of the performer very inconvenient. This Viol appears, from the great number of its ſtrings, and from its ſize and ſhape of the Spaniſh Guitar, not to be of the compaſs of a Baſs, and was probably held ſomewhat in the ſame manner with the Guitar or Lute, however awkward that poſition might be for the action and reaction of the Bow. It will be ſeen, that the Violoncello was at firſt held nearly in the ſame poſition.

From the twelfth century to the time of Ottomarus, the Viol appears to have been chiefly uſed in accompanying the voice, which it probably did in uniſon, till after the invention and practice of counterpoint; and until that time inſtruments of larger ſizes would not be wanted. Viols of the ſize we have ſuppoſed would be the moſt convenient and portable for the Violars, who travelled with the Troubadours, and accompanied their ſongs, through moſt parts of Europe; and for the ladies, who alſo played on the Viol. Until the middle of the ſixteenth century, when Muſic in parts was firſt compoſed for and played by Viols of different ſizes, the Viol does not appear to have differed from the Spaniſh Guitar in ſhape, nor to have much exceeded it in ſize.

SECTION VI.

Of the Violin, Tenor, and Violoncello.

VIOLINO in Italian, and *Violon* in French, are evidently diminutives of *Viola* of the former, and *Viole* in the latter language, expreſſing what we ſhould call in Engliſh *a ſmall Viol*. But whatever may be inferred from the name, the Violin is an inſtrument differing much in ſhape and properties from the Viol. The Treble, Tenor, and Baſs Viols of the ſixteenth and laſt century, the two former called *Viole à Braccio*, the laſt *Viole à Gamba*, by the Italians, were of the form of the Viol, marked *Fig.* 11; a ſhape very different from that of the Violin; which will appear, by inſpecting the Figures, to be much nearer the form of the Rebecs, *Fig.* 12, 13, and 14. before deſcribed. The Treble, Tenor, and Baſs Viols had ſix ſtrings each, with frets; the Violin, on the contrary, had only one ſtring more than the Rebec; and, like it, had no frets. The Rebec and Violin were in England ſo much conſidered as the ſame inſtrument, that the term Fiddle was formerly uſed as ſynonymous with Rebec, as it is now with Violin (*a*).

Much attention had been given in the courſe of the ſixteenth century to the improvement of the Viols, which were the favourite inſtruments of the beſt Muſicians and Amateurs of that time; while the Violin, or Rebec, as it was perhaps ſtill called in many places, was held in contempt, and deemed only fit for the entertainment of the vulgar. By the great progreſs then making in the mechanic arts, every neatneſs and elegance was given to the Viols, and their ſtructure was directed by mathematical principles (*b*). A Baſs Viol, made by Bolles, an Engliſhman, was valued, in

(*a*) "They ſay 'tis preſent death for theſe fiddlers to "come their rebecs before the Grand Turk's grace."
Fletcher's Knight of the Burning Peſtle.
And in Milton's Liberty of unlicenſed Printing, "The "villages alſo muſt have their viſitors to inquire what "inſtrument the bagpipe and the rebec reads even to the "gammuth of every municipal fiddler." See WARTON's Milton.

(*b*) The following directions for chooſing a ſet of Viols is given by the author of Muſick's Monument (page 246), publiſhed in the year 1676: "Let your baſs be large; "then your trebles muſt be juſt ſo ſhort again in the ſtring, "viz. from bridge to nut, as are your baſſes, becauſe they "ſtand eight notes higher than the baſſes, therefore as ſhort "again; for the middle of every ſtring is an eighth: The "meaſure in the ſtring juſt ſo long as from the bridge to
"*9* feet,

in the middle of the laſt century, at one hundred guineas(*c*). And the principles of theſe improvements of the Viol, applied to an inſtrument like the Rebec or Violin, by an ingenious artiſt, would ſoon draw that inſtrument out of the neglect it had been in. This appears to have been in ſome meaſure the caſe in Italy before the middle of the ſixteenth century(*d*); and at the very beginning of the laſt, it was carried to a degree of perfection by Andrew Amati, of Cremona, that has ſeldom been equalled, and never yet ſurpaſſed.

The Violin, although thus brought to the greateſt perfection, in elegance of form, and fineneſs of tone, was not able for ſome years to ſurmount the prejudices that had long been formed againſt it; and it was not till ſome time after the year 1620 that its powers were known and acknowledged to be ſuperior to thoſe of the Viol, which ſtill maintained its ground in Italy and other parts of Europe. Hitherto the Viols had been chiefly confined to the execution of chamber-muſic, in which their deficiency in ſtrength and ſpirit would not be felt; but early in the ſeventeeth century, the Opera had its riſe in Italy, and Motets with inſtrumental accompaniments were beginning to be introduced into the church. The Violin was not only better adapted to produce a proper effect at each of theſe places, from its greater ſtrength and brilliancy of tone; but was found, on trial, when put into the hands of artiſts of ſkill, to have a power of producing a more perfect harmony than had ever been done by the Viols. This aroſe from a cauſe that had not probably been before ſuſpected, namely, that the fingers, by practice, and the guidance of a good ear, effected a more accurate intonation, than could ever have been accompliſhed by the direction of frets, fixed on the finger-board with the utmoſt mathematical preciſion. Theſe can never be ſo applied, that the intervals or ſtop can be exactly in tune, but in one key; in every other, they will be remarkably ſharky; and if the error be divided and leſſened by what is called temperament, the variation from exact tune will ſtill be eaſily diſtinguiſhable and offenſive to a correct ear. So complete was the triumph of the Violin, that after the middle of the century, muſic in parts was ſcarcely ever performed by Viols.

For ſome time after the introduction of the Violin into concerts, the under parts were performed on the Tenor Viol and Baſs Viol; it was after diſcovering the inſufficiency of theſe, eſpecially of the latter, that inſtruments of its own ſpecies, the Tenor Violin and Violoncello, were made of the ſame ſhape, but increaſing in ſize in proportion to the additional length and thickneſs of the ſtrings they were to carry. The Violins were conceived to be ſo powerful in tone, as to require Baſſes of a conſiderably greater ſize and length of ſtring than thoſe now in uſe(*e*).

As

" F flat, becauſe they ſtand a fourth higher than your " baſſes, therefore ſo long." And the ratios of the ſurfaces and ſolidities of Treble, Tenor, and Baſs Violins were ſtill more accurately aſcertained ſo early as the year 1636, or perhaps ſome years before that time; as will appear from the account given by Merſenne., of the conſtruction of theſe inſtruments, in the ſequel.

(*c*) Mace's Muſick's Monument, p. 245. And the Lutes of Laux Maller were at this period valued equally high. " I have known," ſays Mace, page 48, " two Lutes of " this maker, pitiful, old, battered, cracked things, valued " at £. 100 a-piece."

(*d*) That the Violin was paid ſome attention to ſoon in the ſixteenth century, appears from the Muſica Inſtrumentalis of Martinus Agricola, quoted by Sir J. Hawkins, firſt publiſhed in 1529. It treats of the Violin and Lute; but ſo little ground did the practice of it gain in the whole courſe of that century, that in the year 1601 no mention is made of the Violin, or of any performer on it, in a liſt of the compoſers and performers on different inſtruments living at Naples in that year, publiſhed in the Practica Muſicale of Scipione Cerretto, quoted by Sir J. Hawkins.

(*e*) The author of Muſick's Monument (page 233) laments the ſmall number of baſſes in the concerts of his time (1676). He ſays, " it was not uſeful to have but one ſmall, " weak-ſounding Baſs Viol, and two or three *folding Violins*; " whereas one Violin would bear up ſufficiently againſt two " or three common-ſounding Baſſes, eſpecially ſuch as you " ſhall generally meet with in concerts." And again, " ſuppoſe a Harpſicon, Organ, or Theorbo Lute, be joined " to theſe Baſſes, the diſproportion is ſtill the ſame, the " folding Violin will out-top them all." This ſhows their idea of the great power of the Violin, and how ſlowly the Violoncellos were introduced into England. It will, however, be afterwards ſhown, that more than forty years before this time, Violoncellos, which from their great ſize may be ſuppoſed as powerful as this author could wiſh for his *folding Violins*,

As far back as the year 1401 we have ſome intimation made of a ſtringed inſtrument appropriated to the playing a lower part. In that year a charter(*f*) was granted by King Charles the Sixth of France to the Company of Minſtrels of Paris, under the denomination of the King of the Minſtrels *and other performers on high and low inſtruments*(*g*). This was the æra of the firſt beginnings of counterpoint; and it is very probable, as Dr. Burney imagines, that theſe high and low inſtruments were Treble and Baſs Rebecs of three ſtrings, which about this time began to be in uſe, either to play in octaves to each other, or perhaps in a rude ſort of counterpoint. This art had made a rapid progreſs about the beginning of the ſixteenth century, as appears from the madrigals of that period; and about the middle of that century, inſtrumental muſic in parts began to aſſume a regular form. Fantaſias, in three or more parts, were performed on inſtruments of different ſizes, the Treble, Tenor, and Baſs Viols. The Viol continued, as has been already mentioned, to play the baſſes of inſtrumental compoſitions, till the introduction of the Violins, ſome time before the middle of the laſt century. In England, however, it appears to have been near the end of the century before the Violoncello was commonly uſed to accompany the Violins, its office being till that time performed by the Baſs Viol.

The Baſs Viols were greatly overpowered by the ſtrength of tone of the Violins. To remedy this inconvenience, the obvious method occurred of conſtructing a Baſs of the ſame ſhape, and on the ſame principles, with the Violin itſelf. The increaſe of ſize was pointed out by the length and thickneſs of ſtring required; and the excellent ſtructure of the Baſs Viol would otherwiſe ſerve as a model, making the neceſſary alterations in the finger-board for four inſtead of ſix ſtrings, and omitting the frets. The deſire of obtaining an inſtrument ſufficiently powerful in tone, led the inventors to fix on a ſize for the Violoncello that made it extremely awkward, and impoſſible to be held between the legs of the performer, and it was therefore hung obliquely acroſs his breaſt; a manner of holding the inſtrument that was long afterwards practiſed in the churches of Italy.

Merſennus, one of the greateſt mathematicians of the laſt century, and a writer on Muſic, has given a correct engraving, and the moſt particular account, which is probably the earlieſt extant, of the Violoncello. His Harmonie Univerſelle was publiſhed at Paris in the year 1636. There are no written accounts, that I have met with, which carry the uſe of that inſtrument farther back; and it is known that concerts of Violins had not been heard many years before that period. The uſual length of the Violoncello, according to Merſennus, was from four feet and a half to five feet; and, as he muſt mean French meaſure, this will be from four feet ten inches, to five feet four inches, of our meaſure; a ſize that would eaſily admit of its being tuned a whole tone lower than the preſent tuning of the inſtrument. Accordingly Merſennus informs us, that the firſt ſtring was tuned G, uniſon with the fourth ſtring of the Violin; and the three laſt, C, F, and B flat, in a deſcending ſeries of fifths. He adds, that the Violoncello was held croſs the breaſt, in the manner above mentioned(*b*).

I have ſeen an inſtrument of the Violin ſhape, which I at firſt ſight took for a ſmaller-ſized Double Baſs; but it appears to have been intended for a Violoncello: it was conſiderably larger than thoſe deſcribed by Merſennus, being five feet ten inches in length; from the finger-board and nut it ſeemed calculated for four ſtrings, and it had five ſtops. It was made in Dantzick in the year 1623, which appeared by a ſignature in a piece of inlaid mother-of-pearl on the finger-board,

Violins, were in uſe on the continent; and with reſpect to the prejudice ſtill entertained againſt the Violins, which this epithet implies, it will be ſeen how differently a man of ſcience, and certainly a much better judge, ſpeaks of the ſuperior effects produced by the Violins ſo early as the year 1636.

(*f*) Quoted by Dr. Burney, Vol. II. p. 274.

(*g*) Joueurs des Inſtrumens tant hauts que bas.

(*b*) Nota verò ſidicines regios barbiton graviorem (Baſſum) cuicino vel globulo ad collum appenſo ita ſuſtinere, ut nervi à pectore avertantur.

Mersenn. de Inſtrumentis Harmonicis, p. 39.

board, on which was engraved "Fecit Jacobus Brandt, Gedanenſis, anno 1623." Violins are not ſuppoſed to have been played in concert before the year 1620; and this inſtrument was probably one of the firſt Baſſes that was made to accompany them, as it partook in ſome meaſure of the nature of both the Viol and the Violoncello; of the former by its frets, and of the latter by its ſhape and number of ſtrings.

Merſennus informs us, that, together with the Violoncello, there were Tenor Violins of three different ſizes, adapted to accompany the Violins in the under parts. A concert of Violins therefore originally conſiſted of Treble Violins, Contre-alto Violins, Counter-Tenor Violins, Tenor Violins, and Baſs Violins or Violoncellos, which were no doubt in imitation of the different ſpecies of human voices. The part of the Contre-alto Violin correſponds to what is at preſent aſſigned to the ſecond Violin; the part of the Counter-Tenor is the ſame with the preſent Tenor; and that of the lower Tenor of Merſennus is partly given to the Tenor, and partly to the Violoncello. The ſizes of theſe ſeveral Violins were determined by rule, and their proportions mathematically aſcertained. The words of Merſennus are, "that the middle parts or tenors were of different "ſizes, although they were all tuned in uniſon; and conſequently, when the ſurface of the "counter-tenor was to that of the treble as 9 to 4, and that their whole bodies were in the "proportion of 27 to 8, the ſurface of the tenor ought to be to that of the treble as 4 to 1, in "order that their ſolidities might be as 8 to 1; and, laſtly, the ſurface of the baſs ought to be to "that of the treble as 16 to 1, and the body of the former to that of the latter as 64 to 1 (*i*)."

The inſtrument now called the Violoncello, was for ſome time after its invention called the Baſs Violin, to diſtinguiſh it from the Baſs Viol; and in the ſame manner, in French, it was called *Baſſe de Violon*, in contradiſtinction to *Baſſe de Viole*; in Italian it was called the *Violone*, the augmentative of *Viola*. This appears from ſeveral muſical publications about the end of the laſt century; and particularly in the Bologna edition, of 1690, of the third opera of Corelli's Sonatas, the part expreſsly compoſed for the Violoncello, and not intended for the Organ, is intitled *Violone*. On the invention of the Concerto Groſſo, at the end of the laſt century or very beginning of the preſent, a further increaſe of ſize became neceſſary, for the performance of a part an octave lower. To this larger inſtrument, therefore, was very properly transferred the appellation *Violone*; and what had formerly been called Violone, is now known by the diminutive of that word, the *Violoncello*.

(*i*) Harmonie Univerſelle.

SECTION VII.

Of the State of Inſtrumental Muſic in the different Periods mentioned in the foregoing Diſſertation.

THE great eſteem in which Muſic was held by the ancient Greeks, muſt have been obſerved by every one that has turned over the claſſic page. The ſuppoſed inventors of it have been deified, or the invention attributed to their gods. It was not only conſidered as a neceſſary accompliſhment, but held in ſuch extreme veneration, as an ancient author expreſſes it (*a*), that Prophets, Philoſophers, Poets, and Muſicians, were looked upon as one, and were called by the ſame name. To ſuch a degree

(*a*) Nam quis ignorat Muſicen tantum illis jam antiquis temporibus non ſtudii modo, verum etiam venerationis habuiſſe, ut iidem Muſici et Vates et Sapientes judicarentur? QUINT. Inſtitut. Orat. Lib. I. c. 10.

degree did they carry their admiration of this art, that, to make use of the expression of Cicero, they seemed to think all knowledge and science was comprehended in a fiddle-string (*b*). Homer represents the Gods as receiving the greatest delight at their banquets from the Lyre and voice of Apollo, and the Muses (*c*). There is always music and a Bard introduced into the numerous feasts described by Homer; and so much did he think music an accomplishment of princes and heroes, that he has represented both Paris and Achilles as performers on the Lyre. Nor was this passion for music confined to the heroic ages; it continued for many centuries afterwards. Epaminondas, who was in the opinion of Cicero the greatest character and ornament of Greece, is said to have sung inimitably well to his Lyre; and Themistocles, the great Athenian general, not long before the time of Epaminondas, on refusing the Lyre at an entertainment, was looked upon as deficient in education. Cicero concludes, that musicians flourished in Greece, that every one was instructed in the science, nor was any one that remained ignorant of it considered as sufficiently accomplished (*d*). The Bards too, or musicians by profession, in early times, were held in the greatest esteem, and treated with the greatest deference and respect. They sung to the Lyre the praises of the gods and heroes at the tables of the princes and the great (*e*). Homer makes frequently mention of them, and of their occupation, in the persons of Phemius at the court of Ithaca, and of Demodocus at that of Alcinous. The former is stiled divine Bard, and is consulted by Penelope in tears, as one "to whom the actions of gods and men were known (*f*)." Demodocus is treated with the greatest respect, and, placed in the midst of the Chiefs of the Pheacians and their King Alcinous at a banquet, is helped by Ulysses with the choicest meats, and served by a herald. The Bards are declared by Ulysses to be intitled to honour and respect from all men, as beloved by the Muses, and having by them been instructed in their art (*g*).

Musical contests were a part of the exercises at the Public Games in Greece; and the Pythic Games consisted chiefly, if not intirely, of poetical and musical contests. These were said to have been instituted by Amphictyon, the son of Deucalion, in honour of Apollo, on his having killed the serpent Python. They were discontinued for some time, and renewed by Eurylochus about 586 years before Christ. Pausanias gives an account of the first poets who gained the prizes at these Games, among whom are Chrysothemis, Philammon, his son Thamyris, and Eleutherus. He

(*b*) Summam eruditionem Græci sitam censebant in nervorum vocumque cantibus. Tuscul. Disput. And nearly to the same purpose, Athenæus, Lib. XIV. [illegible] And the expression of Xenophon, if I rightly remember, in alluding to the musical contest of Apollo with Marsyas, is [illegible], literally, *concerning wisdom*; but, whatever sense the more ancient Greeks might annex to the word, Xenophon clearly meant to convey no other idea by it, than what is expressed by the English word *skill*.

(*c*) [illegible]
[illegible]
[illegible]
[illegible]

Iliad. I. v. 601.

(*d*) Epaminondas, princeps, meo judicio, Græciæ, fidibus præclare cecinisse dicitur: Themistoclesque aliquot antè annos, cum in epulis recusaret lyram, habitus est indoctior. Ergo in Græcia musici floruerunt, discebantque id omnes, nec qui nesciebat, satis excultus doctrinâ putabatur. Tuscul. Disput. I have somewhere read that Socrates began in his old-age to learn to play on the Lyre, and being one day found practising on the Cithara, was asked how he could think of beginning the study of Music so late in life. Socrates answered, that it was much better to learn late than never: [illegible]

(*e*) Et testimonio sunt clarissimi poetæ apud quos inter regalia convivia laudes heroum ac deorum ad Citharam canebantur. Quint. Lib. I. c. 10.

(*f*) [illegible]
[illegible]
[illegible]

Odyss. I. v. 338.

(*g*) [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

Odyss. VIII. v. 472.

He relates that *Hesiod could not be admitted among the candidates, because he was not able to accompany himself on the Lyre; and that Homer went to Delphos to consult the Oracle, but sung or played very little, on account of his blindness and infirmities* (*h*).

By means of the prizes given to the victors, and the honour and applause they received, in presence of all Greece, at these celebrated games, it is reasonable to suppose, that as there never were at any time stronger motives for emulation, so there never were greater exertions made, for the attainment of excellence in music, than from the revival of these games, near 600 years before the Christian æra, till near the time of their discontinuance on the public establishment of the Christian religion; a period of 700 years, and sufficiently long, we should think, to bring any art, with such exertions, to its greatest perfection, did we not reflect, that a progress in an art will often depend on the state of others, on that of the sciences, on fortunate and accidental discoveries, and an intercourse with other nations engaged in similar pursuits. In Music, in particular, the progress may be retarded, or accelerated, by the knowledge and practice of more or less perfect instruments, and by the state of music as a science.

Some time after the revival of these games, we are informed, by Pausanias, of a very remarkable event in the history of Music; that of prizes being given to instrumental performances alone. Hitherto the Poet and Musician had been joined in the same person; and this is the earliest intimation we have of their separation, so common and so much lamented in our days. Echembrotus the Arcadian is recorded to have gained the prize at these games by accompanying on the Flute, and Sacadas of Argos by playing on that instrument alone. The former made an offering of a bronze tripod to Hercules, with an inscription (*i*), on the occasion. At the eighth Pythiad, 559 years before Christ, a crown to be given to the best players upon stringed instruments was won by Agelaus of Tegea (*k*). Pylades gained the prizes there, on the Cithara, about the 94th Pythiad, 211 years before Christ; and Nero brought the laurel to Rome for his victory in singing to the Cithara at the Pythic games, 66 years after the Christian æra (*l*).

Of what nature these accompaniments were, we have little information; it is most probable that they remained for a long time nothing but the same notes, or unison with the song. Plutarch mentions, that, before the time of Crexus, the accompaniment was note for note, προσχορδα; but that Crexus introduced a considerable improvement, that of an accompaniment under the song (κρουσις ὑπο την ωδην). Dr. Burney imagines this to have been a kind of Bourdon or drone bass under the voice part; a sense in which the same phrase seems to be applied in the 40th Problem of Aristotle, where he speaks of the accompaniment and voice ending together (*m*).

The history of music and lyric poetry among the Romans is uncommonly barren. Horace is the only lyric poet whose works are come down to us. Most of his Odes are songs which he is supposed to have sung to the *seven-stringed Lyre*, at table with his friends, to his mistresses, or in societies where men of pleasure used to assemble (*n*).

In

(*h*) [illegible] Lib. X. c. 7.

(*i*) The inscription, extant in the time of Pausanias, was [illegible] Pausan.

(*k*) Ib.

(*l*) Suet. in Neronem.

(*m*) Hist. of Music, Vol. I. p. 340.

(*n*) M. de Querlon, Mémoire sur la Chanson—Hist. Essay on National Song.

In the first centuries of the Christian æra there occurs very little in the practice of music worthy of remark. The Northern nations, who had taken possession of the Roman territories and provinces, had their Bards, whose rank and occupation greatly resembled those of the first poets and musicians of Greece. They sung to the harp the praises and atchievements of their valiant countrymen and heroic ancestors; and the respect and attention with which they were treated, were not inferior to those which Homer represents the ancient Bards to have enjoyed in Greece. The harp was no less in favour with the Cambro-Britons. The Chief Bard of Wales sat next to the Judge of the Palace, at the Court of the Welsh Princes. The Bard of the Palace was in rank the eighth officer of the King's houshold; and it appears by the laws of King Howel (*o*), that both of them enjoyed many distinguished privileges. Among our own ancestors, the Anglo-Saxons, music was held in the same high estimation, even reckoned a necessary accomplishment for Kings; and to sing to the harp was considered an indispensable part of the education of a gentleman. It was customary at festivals, that the harp should be handed round, and each of the company to sing to it in his turn. This is proved by the express testimony of the Venerable Bede, who relates that the sacred poet Cædmon, who lived in the times of the heptarchy, had devoted himself so much to sacred and serious studies, that he neglected music, though so fashionable an accomplishment; and being sometimes at entertainments where the harp used to go round, he got up from table and left the company, being ashamed that it should be remarked he was deficient in what was looked upon as a branch of genteel education (*p*). The reader will observe a remarkable correspondence in the story of Cædmon, with what Cicero relates of Themistocles; and a singular agreement, in this respect, in the manners of two nations differing greatly in degrees of refinement.

Music continued in equal esteem after the heptarchy. The musical abilities of the great Alfred, and his availing himself of them to gain admission into the Danish camp in the disguise of a harper, are recorded in the English history, and too well known to require repetition here. Among the qualifications of distinguished characters of this period, and until the end of the tenth century, harping is generally enumerated (*q*); and for several centuries afterwards, English metrical tales appear to have been sung to the harp, in the halls of our magnificent ancestors. Chaucer's poem of Troilus and Cresside, although almost as long as Virgil's Æneid, was intended to be sung to the harp, as well as read (*r*).

About the time of the first Crusade, in the eleventh century, the poets of Provence were numerous, and distinguished by the name of Troubadours, synonymous with *trouveurs* or inventors. They resorted to the feasts and tournaments given by the sovereign Princes and great Barons; were treated with the greatest respect, and gratified by the richest rewards (*s*). They

(*o*) Leges Walliæ, Lond. 173 .

(*p*) Bede Hist. Eccles. Lib. IV. c. 24. The words of Bede are: Nihil unquam, frivoli et supervacui poematis facere potuit; sed ea tantummodo, quæ ad religionem pertinent, religiosam ejus linguam decebant. Siquidem in habitu seculari, usque ad tempora provectioris ætatis constitutus, nil carminum aliquando didicerat. Unde nonnunquam in convivio, cum esset lætitiæ causa ut omnes per ordinem cantare deberent, ille ubi appropinquare sibi citharam cernebat, surgebat a media cœna, et egressus ad suam domum repedabat.——In King Alfred's Anglo-Saxon version of this passage, he expresses the Latin word *cantare* by "be hearpan singan" sing to the harp; as if he had not any idea of his countrymen singing without the accompaniment of the harp: and when Bede only says "Surgebat a media cœna," he translates it "Sonne aros he for scome from ðam symle," he arose for shame from the company. Camb. ed. 1722. p. 597. See Essay on Minstrels, prefixed to Dr. Percy's Reliques of Ancient Poetry.

(*q*) William of Malmesbury gives the following character of Adhelm, nephew of Ina, King of the West Saxons: "He was an excellent harper, a most eloquent Saxon and "Latin poet, a most expert chanter or singer, a Doctor "egregius, and admirably versed in the Scriptures and "liberal sciences." And of St. Dunstan, Archbishop of Canterbury, about the year 958, it is said, "that among "his sacred, best studies, he cultivated the arts of writing, "harping, and painting." Life of St. Dunstan, MS. quoted in Warton's Eng. Poetry, Vol. I. Dissert. 2.

(*r*) "And red wherso thou be, or ellis songe." See Warton's Hist. of Eng. Poetry, Vol. I. p. 388.

(*s*) See Nostradamus, Crescembini, M. l'Evêque de la Ravailliere, Histoire Littéraire des Troubadours, M. de St. Palaye, and other accounts of the Troubadours.

They were accompanied by Chanteres, Violars, Jongleurs, and Muſars. The Chanteres ſung the poetry and ſongs of ſuch of the Troubadours as had not a voice or knowledge in muſic ſufficient; the Violars were performers on the Vielle and Viol; the Jongleurs(t) were probably players on ſuch inſtruments as the Guitar and Lute; and the Muſars played on other inſtruments, not improbably wind inſtruments. The profeſſion of the Troubadours was held in ſuch eſteem, that many of the greateſt characters of thoſe times enrolled themſelves into their order; and among them are enumerated two Emperors, four Kings, one Duke, ſix Earls, and many other noble characters. Our King Richard the Firſt was a Troubadour of the higheſt eminence, and retained a number of theſe poets in his Court. Ladies of the firſt rank alſo became profeſſors of the Art, and held Courts where queſtions, which the Provençal galantry had brought into vogue, were determined by judgements, called Arrêts d'Amour, pronounced by the fair judges(u).

The profeſſion of the Troubadours began to decline on the removal of the Court of Provence by the death of Raimond Berenger, the laſt Count of that family, in 1245. They had degraded themſelves by their licentious behaviour, and had incurred the diſpleaſure of Philip Auguſte, of France, who baniſhed them his Court and kingdom. The other Courts of Europe were in like manner ſoon diſguſted with them, and the Provençals ceaſed writing after the fourteenth century.

The Minſtrels of France were conſiderably prior to the Troubadours, and their exiſtence as a body continued longer. Meneſtrel was a title given to the Chief Muſician of King Pepin, father of Charlemagne, in the eighth century; and the Jongleurs and Violars, who afterwards accompanied the Troubadours, were, long before the time of their aſſociation with theſe poets, common in moſt parts of Europe. Strolling muſicians of this kind abounded in France at the time of Charlemagne, who in one of his Capitularies(x) forbids their admiſſion into convents, and mentions them as perſons ſtigmatiſed with infamy. The French minſtrels were poſſeſſed of various talents; they ſung their own compoſitions, or the compoſitions of others, to the accompaniment of the harp, viol, and other inſtruments; they danced to the tabor; played tricks of legerdemain and buffoonry(y); and in thoſe times were every where well received and well rewarded. They abounded in the Courts of France, and more eſpecially in Normandy, whence they attended the Conqueror and his Barons into England; and they ſeem to have been equally numerous in this country during the reigns of our Norman Princes. They met with a favourable reception and liberal rewards at Court, and among the Barons; and many of our old hiſtorians complain of the crowds of French minſtrels that were induced to viſit England at every coronation and public feſtival.

In the year 1330 the minſtrels of Paris were formed by charter into a corporate body, having a chief appointed over them, ſtyled the King of the Minſtrels, and lived in a ſtreet which from them and their tutelar Saint is called the Rue St. Julien des Meneſtriers. The church of St. Julien des Meneſtriers was built in the year 1331, by Jaques Grure and Hugues le Lorrain, two of the minſtrels of Philip the Fifth; and the preſentation to the living of this church belonged to the Company

(t) M. de la Ravalliere derives *jongleur* from *ongle*, a nail; *ongleur*, a perſon that played on ſuch inſtruments as the guitar, harp, and lute, which were played on with the points of the fingers. But I have ſomewhere ſeen it, I think, better derived from *jongler*, to jingle, from the effect of a number of theſe inſtruments ſounding together.

(u) The Councils of Champagne had pronounced ſeveral of theſe ſentences, and, amongſt them, one in a parliament of forty ladies. An appeal was brought againſt the deciſion before the Queen of France, who refuſed to determine the queſtion, exclaiming, "God forbid that I ſhould meddle with a decree of the Counceſs of Champagne." M. de Querlon, Hiſt. Eſſay on National Song.

(x) Capitul. of Aix, anno 789. Burney, V. II. p. 233 & 268.

(y) Thus from the French, *jongleur*, comes the Engliſh word juggler; and its meaning with us is reſtricted to a performer of legerdemain.

Company of Minſtrels as founders and lay-patrons(z): in the year 1401 another charter was granted to them by Charles the Sixth, under the denomination of The King of the Minſtrels, and other Performers on high and low Inſtruments; which has been mentioned in the preceding Section.

In the year 1469, Edward the Fourth granted a charter to Walter Halliday and others the King's minſtrels, forming them into a corporation, to be governed by a Marſhal, to be elected during life, and two Wardens to be choſen yearly(a). But it does not appear, notwithſtanding the ſeeming diſtinction conferred on the Engliſh minſtrels by this charter, that they ever were a body of men qualified, like the French minſtrels, for the entertainment of Princes and the Nobility. The latter were received into their palaces and caſtles, where they ſung French metrical romances at their tables; that language being uſed at Court, and at the caſtles of the Norman Barons, for ſeveral centuries after the Conqueſt. The term Minſtrel, adopted from the French into the Engliſh language, expreſſed nothing more in the latter, than a muſician in general: the King's minſtrels, therefore, were his band of muſic. Muſicians, even of the loweſt claſs, were ſtyled Minſtrels(b); and at length, by a law of Queen Elizabeth, they were ſtigmatiſed with infamy, and pronounced "rogues, vagabonds, and ſturdy beggars(c)." With the decline of Chivalry the wild ſubjects of the metrical romances no longer continued to pleaſe, and minſtrels and their art ſoon ſunk into total neglect.

In the mean time, the knowledge and practice of muſic were cultivated, and were conſidered as a branch of genteel education; and it was common for ladies and gentlemen of the fourteenth and ſucceeding centuries to ſing, accompanied by one another on the Viol and the Lute. Of this we have expreſs information from Boccace, in his deſcription of the amuſements of a party in the neighbourhood of Florence, during the great plague in 1348. The Decameroon of that author has always been looked upon as a natural and juſt deſcription of the manners of the Italians at that period. Of this party ſome are ſaid to have ſung well, and to have been excellent performers on ſeveral inſtruments. Dion, one of the gentlemen, played on the Lute; Fiametta, one of the ladies (ſaid to be the miſtreſs of Boccace), played on the Viol; and Emilia, another of the ladies, ſung an air, accompanied on the Lute by Dion(d). The Viol and the Lute ſeem to have been chiefly employed in accompanying the voice, probably in uniſon, till after the invention of counterpoint, in the following century. In the latter end of the fifteenth, and the whole of the following century, madigrals in parts were ſung in private concerts; and it ſeldom happened that a lady or gentleman could not ſing a part of a madrigal at ſight. Muſic in parts, compoſed for inſtruments alone, was of later invention. We have no other means of aſcertaining the time of its introduction, than by the muſical publications of thoſe times. In the earlieſt that is mentioned with certainty, is a Treatiſe

(z) Burney, V. II. p. 274.

(a) Burney, Vol. II.

(b) In the Arte of Engliſh Poeſie, 1589, is given the following account of the Engliſh minſtrels. "The over-"haſte and too ſpeedy returne of one maner of tune, doth "too much annoy, and as it were glut the eare, unleſs it be "in ſmall and popular muſickes ſong by theſe *Cantabanqui*, "upon benches and barrels heads, where they have none "other audience than boys or countrey fellowes that paſſe "by them in the ſtreet, or elſe by blind harpers, or ſuch "like tauerne minſtrels, that give a ſit of mirth for a groat, "and their matters being for the moſt part ſtories of old "time, as the Tale of Sir Topas, the Reporter of Bevis "of Southampton, Guy of Warwicke, Adam Bell and "Clymme of the Clough, and ſuch other old romances or "hiſtorical rimes, made purpoſely for recreation of the "common people at Chriſtmas dinners, and brideales, and "in tauernes and alehouſes, and ſuch other places of baſe "reſort."

(c) 39 Eliz. c. 4. ſ. 2.

(d) E levate le tavole conciò foſſe coſa che tutte le donne carolar ſapeſſero e ſimilemente i giovani, e parte di loro ottimamente e ſonare e cantare, commanda la reina, che gli ſtromenti veniſſero, e per commandamento di lei Dioneo preſo un lieto e la Fiammetta una vivola, commiciarono ſoavemente una danza a ſonare, e quella finita, canzoni vaghette e liete commiciarono a cantare. Decam. Giorn. I.

Emilia cantaſſe una canzone dal liuto di Dioneo ajutato. Ib.

a Treatiſe on the Art of compoſing Fantaſias for Inſtruments, in three and four parts, by Thomas à Sancta Maria, publiſhed at Valladolid in 1570(e); which makes the æra of thoſe compoſitions, and of concerts of Viols, to be about the middle of the ſixteenth century.

The Fantaſias continued to be played in three and four, and ſometimes in more parts, by Treble, Tenor, and Baſs Viols, till near the middle of the laſt century. As theſe were the firſt ſpecies of inſtrumental muſic in parts of which we have any certain accounts, and were ſucceeded by the Sonata and Concerto Groſſo, both of which are ſtill in uſe, a ſpecimen of the former will, together with the Sonata and Concerto, exhibit the origin and different ſteps of the progreſs of inſtrumental muſic in parts, to which there has been no addition but that of the modern overture and chamber-muſic, which cannot be carried farther than forty years back. To enable the reader to form an idea of the ſtyle and ſpecies of compoſition of the Fantaſia, ſo much mentioned by the muſical writers of this period, a Fantaſia in five parts, of which more particular mention will be afterwards made, is ſubjoined to this Diſſertation.

Beſides the Fantaſias for the Treble, Tenor, and Baſs Viols, the Violiſts were in uſe to play on the Diviſion Viol, a kind of Viol da Gamba, deſcant or diviſions on a given ground baſs, which they appear to have done extempore, while the ground baſs was played by the Organ or another Viol(f). From this manner of playing diviſions on a baſs, many well-known and favourite airs, which were played with variations, acquired the name of Grounds, ſuch as Farinell's ground, Purcell's ground, and others. The laſt of Corelli's Solos conſiſts of diviſions on one of theſe grounds; and the Aria con Variazione, in the modern muſic, is derived from the former practice of diviſions on grounds.

Another ſpecies of Concerts, in three parts, performed by Violiſts in the laſt century, is mentioned by Merſennus: it will ſeem ludicrous to the modern practitioners of muſic, and, if the account had been given by an author leſs grave and accurate than Merſennus, might appear ſuſpicious. In his deſcription of the Viol(g), he ſays, that "they are made of all ſizes, ſome ſo large, that "they are made to contain young pages, who ſing the treble part of ſome favourite air, while the "Violiſt ſings the tenor, and plays the baſs on the Viol; and that it was in this manner that "Granier performed Concerts in three parts before Queen Margaret(h)." Merſennus repeats the ſame circumſtance in his account of the Lute, the back of which he ſays "may be made to open "and ſhut like the door of a chamber, and the inſtrument to contain a child; whoſe voice, in "concert with the ſtrings, will have an excellent effect(i)." In the Latin treatiſe of Merſennus, which

(e) Quoted by Sir J. Hawkins.

(f) There is a very well written Treatiſe on the Art of playing theſe Diviſions, by Simpſon, called the Diviſion Viol, printed ſo late as 1677.

(g) On les fait (les Violes) de toutes ſortes de grandeur, dans leſquelles l'on peut enfermer de jeunes pages pour chanter le deſſus de pluſieurs airs raviſſans, tandis que celui qui touche la baſſe, chante la taille, afin de faire un Concert à trois parties, comme faiſoit Granier devant la Reine Marguerite.—Harmonie Univerſelle, Paris, 1636.

(h) This muſt have been Margaret of Valois, Dowager of Henry the Fourth, of France. She kept her Court, from the year 1605 till her death in 1613, in the Fauxbourg St. Germain, at Paris. Memeray thus ſums up her very ſingular character: "Elle entretenoit la volupté & la "dévotion, l'amour des lettres, & celui de la vanité; la "charité Chrétienne, & l'injuſtice. Car comme elle ſe "piquoit d'être tres ſouvent à l'égliſe, d'entretenir des "hommes ſavans, & de donner la dixme de ſes revenues "aux Moines, elle faiſoit gloire d'avoir toujours quelque "galanterie, d'inventer de nouveaux divertiſſemens, & de "ne payer jamais ſes dettes." Abrégé Chronol. Tom. VI. p. 317.

(i) On peut faire ſon corps (en parlant du Luth) ſi grand, qu'un enfant s'y logera pour chanter le deſſus, tandis que le Joüeur du Luth touchera la baſſe, comme je remarque auſſi dans le Traité de la Viole; car l'on peut tellement faire les eclifes que le dos du Luth s'ouvrira & ſe fermera, comme la porte d'une chambre, pour y enfermer un enfant, dont le chant étant bien concerté avec les cordes, donnera du contentement aux auditeurs.—Harm. Univerſelle.

There is ſomething congenial with the *gaiety* of the French character in this manner of adding to the effect of muſic

which he published fixteen years after his Harmonie Univerſelle, he again mentions the ſame practice, in giving an account of the Viol, with this addition, that the child might either "ſing, "or play on the common flute."

Such were the different uſes to which the Viols of the two preceding centuries were appropriated. They were the moſt perfect ſtringed inſtruments that had hitherto been known, and the favourite inſtruments of the beſt muſicians, as well as gentlemen who cultivated muſic as an amuſement. Among the latter, ſeveral characters of the greateſt dignity in our own country are mentioned as being excellent performers on the Viol; namely, King Charles the Firſt, the Lord Keeper North, Lord Crew, Biſhop of Durham, Sir Roger L'Eſtrange, Sir ——— Bowles, and others(*k*).

The Violin had not as yet been paid any attention to by the Amateurs or the Muſicians of repute; it was confined to the loweſt claſs, and was heard only in the ſtreets, in alehouſes, and places of low reſort. It was with great reluctance that the Violiſts admitted into their concerts an inſtrument, "a ſcolding inſtrument," that drowned their trebles as well as baſſes; and in England the prejudices conceived againſt the Violin continued conſiderably longer than on the Continent(*l*).

The Opera began to be exhibited on the public theatres of Italy about the beginning of the laſt century; although there may have been more private performances of it, at the palaces of ſome of the Princes, ſome time before. L'Orfeo of Montverde, repreſented at Mantua in 1607, is ſuppoſed to be the firſt ever printed with muſic(*m*). In the management of the orcheſtra, this opera differed extremely from thoſe of the preſent time; for inſtead of all or moſt of the inſtruments playing at one time, particular inſtruments are appointed to accompany each character; two baſs Viols, for inſtance, to accompany the part of Orpheus; ten treble Viols to accompany Eurydice; four trumpets to Pluto; &c. There is no further mention of Violins among the inſtruments, than that two ſmall Violins, in the French manner (duoi Violini piccoli alla Franceſe), are to accompany the character of Hope. It is plain, therefore, that a band, conſiſting chiefly of Violins, was not brought into the opera till after this time. Motets and Maſſes for voices, with accompaniments for Violins, compoſed by Cariſſimi, Colonna, Rovetta(*n*), Baſſani the maſter of

ſmile by ſurpriſe, and traces of it may be yet perceived in their public and private concerts. In the year 1777 I heard an Oratorio, ſomewhat ſhorter than one act of Handel's, performed at the Concert Spirituel in the Thuillerie palace, at Paris. After a full chorus by all the voices and inſtruments in the orcheſtra, the audience was ſurpriſed with a very fine ſemichorus, likewiſe accompanied by inſtruments. The ſound appeared to proceed from an upper region of the air; the eyes of every one were directed to the cieling, which is uncommonly lofty; and it was at length diſcovered that a ſmall orcheſtra had been previouſly placed in a room above. I have alſo been at ſeveral private concerts in Paris, which the younger part of a family had prepared in compliment, and unknown, to an aged or infirm parent, on the anniverſary of his tutelar Saint, which is kept in that country in the ſame manner with, and in place of, the anniverſary of the birth-day in this. The inſtruments were tuned with as little noiſe as poſſible in a diſtant part of the houſe; and when every thing was got ready, and while ſome of the friends were engaging the old people in diſcourſe on the ſubject of an amuſement for the evening, on a ſignal given, the muſic began, and the partition ſeparating, the two rooms flew open, which, beſides the orcheſtra, diſcovered many other of their friends who had been invited to partake of the pleaſure of their aged relation, in the compliment thus paid to him on the anniverſary of his Saint.—Would not the effect of muſic be greatly heightened, if the inſtruments were tuned out of the hearing of the auditors, and no flouriſh, or ſound of an inſtrument, heard before the beginning of a piece?

(*k*) Sir J. Hawkins' Hiſt. of Muſic, paſſim.

(*l*) Anthony Wood gives the following account of Concerts of Viols, and of the introduction of Violins. "The "Violin had not hitherto (in the year 1653) been uſed in "conſort among gentlemen, only by common muſicians who "played but two parts. The gentlemen in private meetings "which A. W. frequented, played three, four, and five "parts, with Viols, as treble Viol, tenor, counter-tenor, "and baſs, with an organ, virginal, or harpſicon, joined "with them; and they eſteemed a Violin only belonging to "a common fiddler, and could not endure that it ſhould come "among them, for fear of making their meetings to be "vain and fiddling." Life of A. Wood. Oxford, 1722.

(*m*) Sir J. Hawkins, Vol. III. p. 430.

(*n*) Gerb. de Muſica Sacra, Vol. II. p. 341.

of Corelli, and others, began to be performed in the churches of Italy about this period; but I have not met with any thing to enable me to aſcertain any preciſe time, betwixt this and the year 1630, when a Concert conſiſting principally of Violins, if any, had been performed.

In the Harmonie Univerſelle of Merſennus, publiſhed at Paris in the year 1636, he mentions the King's band of twenty-four Violins, as if it had been an eſtabliſhment of ſome ſtanding; and this appears to be the firſt regular band of Violins of which we have any certain account. Merſennus is very particular in his deſcription of this band of twenty-four Violins(o), a name given to it in contradiſtinction to a band of Viols, which were more common about this time. Theſe Violins were not of one ſize, as was commonly believed; but conſiſted of treble, tenor, and baſs Violins, or Violoncellos; and of the tenors there were three different ſizes. Merſennus ſays that they played dancing tunes and cantilenas in four parts, viz. baſs, tenor, counter-tenor, and treble, having ſix Violins to each, and that "nothing in harmony could be more ſweet and pleaſant(p):" but there was alſo a third tenor uſed in Fantaſias, as will appear by the ſubjoined Fantaſia in five parts, from Merſennus, inſerted as a ſpecimen of that ſpecies of compoſition, and as a muſical curioſity worth preſerving, it being at the ſame time probably the firſt piece of muſic that ever was played by a regular band of Violins, tenors, and baſſes. In Merſennus the parts are written ſeparately, in the old lozenge-headed notes, and without bars. The part of the firſt Violin was in the French clef, or G, on the firſt, inſtead of the ſecond line; the part of the ſecond Violin, as well as the other two middle parts, were written on different tenor clefs, and intended to be played on inſtruments tuned like our preſent tenor, but differing in ſize. Theſe parts have been tranſpoſed as for a firſt and ſecond Violin, two tenors, and a baſs, to make it more intelligible to the modern practitioner. It is remarkable that there is not, in any of the parts, a note higher than the common poſition of the hand; which plainly ſhows the little practice and attention that had been beſtowed on the Violin ſo late as the year 1636, and the great progreſs that had been made on it in the courſe of a few years, on the invention of the Sonata, in which ſhifting is ſo common. Uncultivated and little practiſed, however, as it then was, Merſennus does not heſitate to beſtow the greateſt encomiums on it; he ſays, that whoever has not heard a concert of Violins does not know what perfect harmony it is in the power of inſtruments to produce, and calls the Violin the King of Inſtruments(q). In another place, ſpeaking of the King's band of Violins, he ſays; "but if you wiſh to hear the upper part alone, what can be more elegant than the "playing of Conſtance (the name probably of the firſt Violin)? What more vehement than the "enthuſiaſm of Boccan? What more delicate and tender than the neat touches of Lazarin and "Foucard? Join the baſs of Leger to the acute ſounds of Conſtance, you will have all the "harmonic numbers complete(r)?"

From this time the practice and improvement of the Violin ſeems to have proceeded with a rapid progreſs. That regular and beautiful ſpecies of compoſition, the Sonata, compoſed for two Violins and a Baſs, had its riſe in Italy about the middle of the laſt century; but who the original inventor was, is not known with certainty: Baſſani, the maſter of Corelli, and Corelli himſelf, excelled moſt in it in Italy, as did Purcel in England. It is uncertain whether the latter had ever ſeen the firſt Opera of Corelli, as the date of its firſt publication is not known. Purcel's Sonatas were publiſhed before the remaining Operas of Corelli; but he profeſſedly compoſed them after the model of the Italians, whoſe works he acknowledges to have ſtudied.

Rogers,

(o) It was in ridicule of theſe twenty-four Violins, and not of King Charles's band of that number, that D'Urfey wrote his ludicrous ſong of *Four-and-twenty Fiddlers all in a Row.* Sir J. Hawkins.

(p) Nihil in harmonia ſuavius, atque jucundius eſſe. Mersennus.

(q) Le Roi des Inſtrumens. Harm. Univ.

(r) Sed ſi velis unicam partem ſuperiorem, quid elegantius Conſtantini pulſu? Quid Boccani enthuſiaſmo vehementius? Quid Lazarini & Foucardi percuſſiunculis ſubtilius? Adde Legeri baſſum Conſtantini ſuis acutis conjunctum, omnes numeros harmonicos expleveris.

Rogers, an Engliſhman, compoſed Airs in four parts, for Violins, ſo early as 1653; but theſe were written for the Archduke Leopold, afterwards Emperor of Germany, and appear to have been for two treble Violins, tenor, and baſs. John Jenkins, a celebrated compoſer of Fantaſias in five and ſix parts, for Viols, was much admired in England, and abroad, during the reign of Charles the Firſt, and for ſome time after; until the introduction of the Violin, and the general prepoſſeſſion for the Italian ſtyle, induced him to compoſe twelve Sonatas, for two Violins and a baſs, which were printed in London about the year 1660, and at Amſterdam in 1664. Theſe were the firſt Sonatas publiſhed by an Engliſhman(*t*): Giovanne Legrenzi, however, a Venetian compoſer, publiſhed Sonatas per Chieza (for the Church) in the year 1655, and Sonatas in three parts, da Chieſa e Camera (Church and Chamber Sonatas) in the year 1756(*t*).

The Sonata for two Violins and a baſs, with a thorough baſs for the Organ, was originally compoſed for the church, and performed in it; and afterwards, from the approbation it met with, and the fine effect it was found to have, Sonatas were then compoſed for the chamber: but theſe for the moſt part conſiſted of movements of a lighter kind. After the Adagio, there follows generally a Sarabanda, Corrente, Allemanda, Gavot, and ſometimes a Giga or jig, all dancing tunes, or imitations of them; while the Sonatas intended for the church conſiſt only of ſlow movements and fugues. Before the Sonata was introduced into the church, we are informed, by an author of credit, that Violins played extempore ritornellos or flouriſhes to the chants; and that, towards the end of the laſt century, there were only two performers on the Violin in Rome, who played in this manner in St. Peter's church, until Corelli publiſhed his Sonatas. Pittoni, the Maeſtro di Capella of the German college at Rome, who died there about the year 1750, aged ninety years, remembered theſe two Violins accompany the chant. Corelli's ſecond Opera was publiſhed at Rome in 1685, his third at Bologna in 1690. Pittoni was born about the year 1660, and he might remember the two Violins playing in St. Peter's from the year 1670 till 1680, which was about the time that Corelli's firſt Opera, compoſed expreſsly for the church, was probably firſt performed at St. Peter's(*u*).

It has been already mentioned, that in the year 1601, among the number of performers on different muſical inſtruments, then living at Naples, whoſe names are given in the Muſica Practicale of Cerretto, no mention is made of the Violin, or of any performer on it. In the year 1637, David Mell was accounted a great Violiniſt, and the beſt in London(*x*); but he was ſo far ſurpaſſed by Thomas Baltazer, of Lubec, who that year came to England, that nothing could ever prevail on Mell to play on the Violin in his preſence(*y*). King Charles the Second, during his reſidence abroad,

(*t*) *Sir J. Hawkins.*

(*t*) *Gerb. de Muſ. Sacra, Vol. II.*

(*u*) *Ib. Vol. II. p. 341. Referre ſolebat Octavius Pittoni, muſices director in collegio Germanico, et ad S. Petrum in Vaticano inſignis, qui medio noſtro hoc ſeculo 18. Romæ nonagenarius obiit, ſua adhuc memoria ad finem vergente ætate hæc. præterita 17. duos tantum Romæ fuiſſe, qui Chelys uterentur, ex tempore ſoliti interludere, ut nunc organo ſtatimus ad cantum planum, donec cel. Archangelus Corelli primus Symphonias ſuas ederet.*

(*x*) *So little was the Violin attended to at this time in England, and ſo little muſic was there compoſed for it, that Playford, in his book of inſtructions for the Violin and other inſtruments, ſays, that it was "unneceſſary to give "any examples for the Violin, there being *plenty* of muſick "contained in two publications, viz. one entitled The "Dancing-Maſter, of all the uſual country dances, and "other tunes, and French courants for the Violin to play "alone. The other book is of two parts, Treble and Baſs, "entitled Court Ayres, containing Paſſans, Allemans, Cou-"rants, and Sarabands." Playford was the only publiſher of muſic in England at this time.*

(*y*) *Life of A. Wood. A very ludicrous account is given by A. Wood of Baltazer's great execution on the Violin. Being at Oxford, at a party of the principal Muſicians and Amateurs (it was there the former had taken refuge on their being driven out of London by the Puritans, at the time of the Uſurpation), and running up the finger-board in a manner they had till then conceived impoſſible, "Wilſon, "the public Profeſſor of Muſic at Oxford, looked under "the table, to ſee whether he had a hoof, imagining him "to be no other than the Devil, who could ſo far exceed "human powers."*

abroad, had frequent opportunities of hearing the Violin, and immediately after the Reſtoration (1660) eſtabliſhed his band of twenty-four Violins, in imitation of that of the Court of France. About this time, the celebrated Lully was made Leader of the Petits Violons of the King of France, of twelve performers; which under his direction ſurpaſſed the famous band of twenty-four.

Of the Concerts of Muſic, both public and private, now ſo common in London, the origin may be referred to the Concerts given during a period of forty-ſix years by the celebrated Thomas Britton, a ſmall-coal man. Theſe concerts were regularly performed at the dwelling-houſe of Thomas Britton, near Clerkenwell. They began in the year 1668. Sir Roger L'Eſtrange and other Amateurs performed at them. They were attended by people of rank and faſhion; the moſt eminent muſicians in London gave their aſſiſtance; and Handel himſelf, after his arrival in London, uſed frequently to attend them; till the death of Britton in 1714, when they ceaſed. It is ſaid, that Britton for many years, ſome ſay for the whole period of their continuance, abſolutely refuſed to accept of any money or gratification for the admiſſion of company to his concerts(z). Any other concerts, during this period, were given moſtly at the houſes of any celebrated performer eſtabliſhed in London, or foreigner arriving there, advertiſed in the London Gazette from about the year 1670 till the year 1700(a).

The inſtrumental Muſic performed at theſe Concerts conſiſted chiefly of Sonatas for two Violins and a baſs, till after the beginning of the preſent century, when the Concerto Groſſo, for four Violins, tenor, Violoncello, and double baſs, was introduced. The invention of this ſpecies of muſic is attributed to Giuſeppe Torelli, of Verona, a famous player of the Violin, and Director of the Muſic at the Court of Anſpach in 1703. His Concertos were publiſhed at Bologna in 1709, after his death. The Concertos of Corelli were publiſhed at Rome in 1712.

In 1647 the Italian Opera is ſaid to have been introduced into France by Cardinal Mazarin; and in 1670 their national Opera, under the pompous title of the Royal Academy of Muſic, had its riſe, under the direction of Lully. In England, in the year 1706, two Italian Operas were attempted, with little ſucceſs, in the Haymarket; and in 1710, after Handel's arrival in England, his Opera of Rinaldo was performed. In that year, alſo, was inſtituted the Academy of Ancient Muſic. About the year 1730 Vauxhall and Ranelagh are ſaid to have been firſt opened, and in the following year Handel's Oratorio of Eſther was firſt performed at the Academy of Ancient Muſic; and, from the great applauſe it there met with, it was performed, as alſo the Oratorio of Deborah, in Lent 1732, at Covent-Garden theatre(b).

With reſpect to the inſtrumental Muſic after the beginning of the preſent century, the Concerto Groſſo continued to be the favourite ſpecies of full muſic, and was cultivated, after Corelli, by Tartini, Geminiani, and other Italians. The moſt ſucceſsful compoſers of the Concerto Groſſo, among the Engliſh, were Feſting, Stanley, and Aviſon. The Grand Concertos of Handel are nearly on the ſame plan, and for the ſame number and ſpecies of inſtruments, as the Concerto Groſſo; as are his Hautboy Concertos; with the exception of the introduction of wind inſtruments, the hautboy and baſſoon, into the latter. In his Overtures, beſides the uſe of theſe and other wind inſtruments, namely, French-horns, trumpets, and kettle-drums, there is a ſpirited ſingularity of ſtyle, in their firſt movements, very different from any part of the Concerto Groſſo, which he is ſaid to have copied from Lully. According to Mattheſon, Handel compoſed his Overtures profeſſedly in imitation of thoſe of Lully; and of the latter we are told, that they were ſo much eſteemed, that they are to be found prefixed to manuſcript copies of many Italian Operas(c). Nothing, however,

(a) See a very entertaining life of Thomas Britton, celebrated for his love of letters as well as muſic, in Sir J. Hawkins's Hiſt. of Muſic, in the beginning of Vol. V.

(b) Ib.

(c) Sir J. Hawkins.

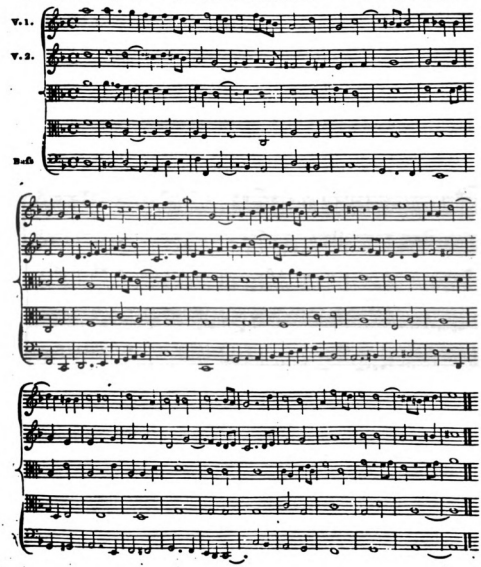
(c) Sir J. Hawkins, Vol. V.

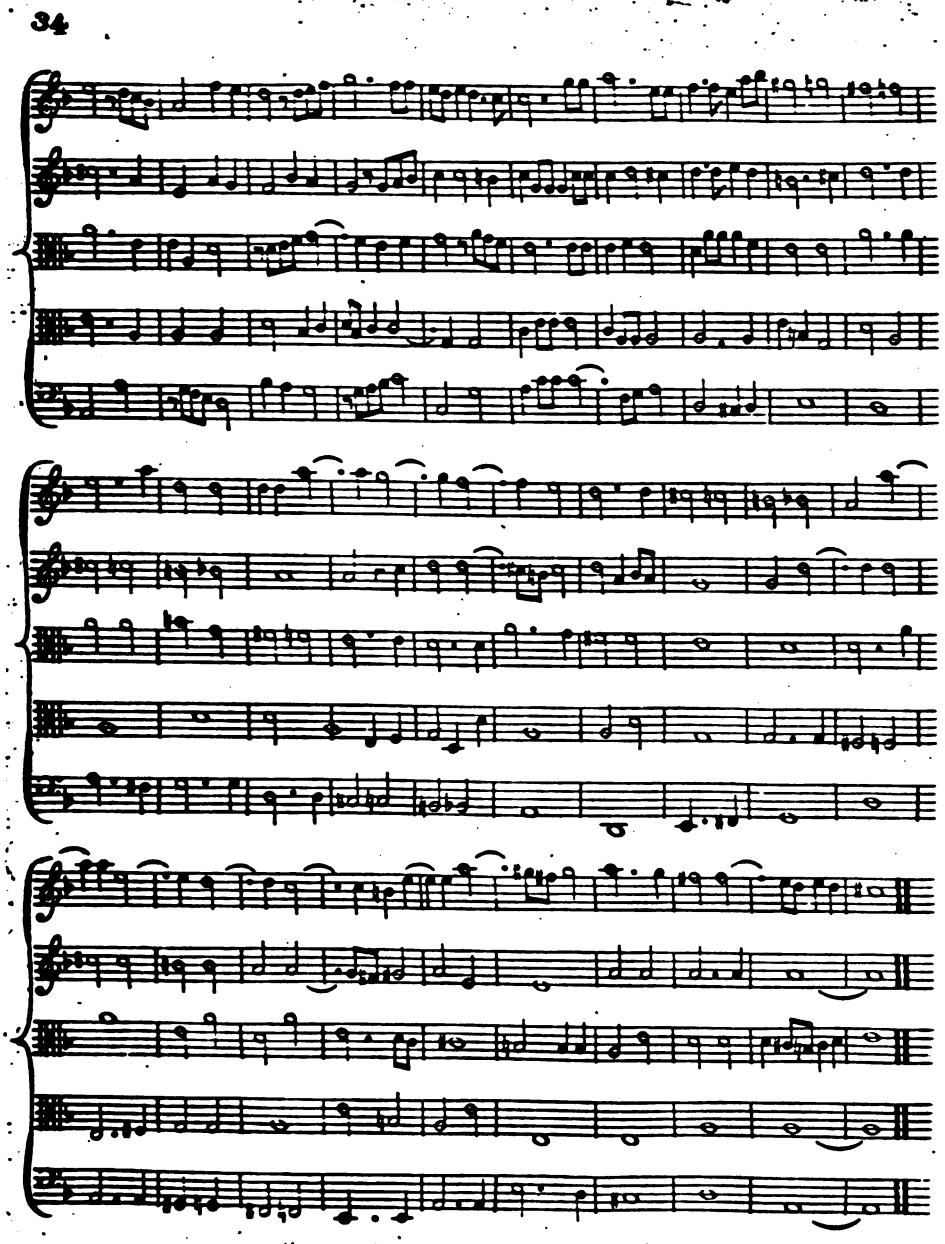
however, can be more different in ſtyle and ſtructure, than the Overture of both theſe celebrated compoſers, and that of the Moderns; of which Stamitz was the inventor, about the middle of the preſent century; an æra diſtinguiſhed in the hiſtory of Muſic, for the firſt introduction of that alteration in the ſtyle of muſical compoſitions, which characteriſes by far the greateſt part of the productions of the different countries of Europe ever ſince, and in contradiſtinction to the ſtyle of the former Maſters above mentioned, is called *Modern Muſic*.

THE

FANTASIA by Mr. Henry Le Jeune

Probably the first piece of Music in parts performed by a Concert of Violins, Tenors &c.

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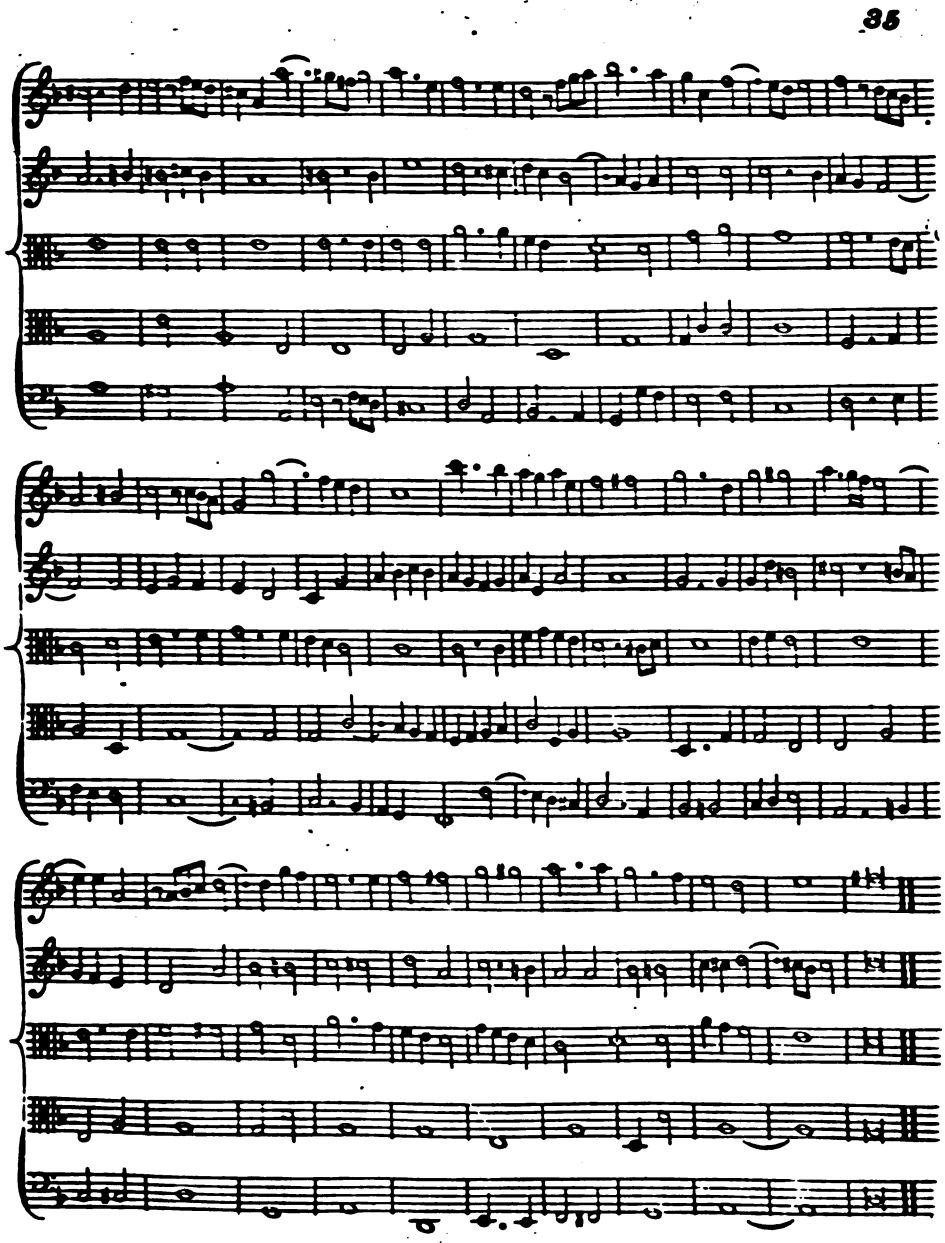
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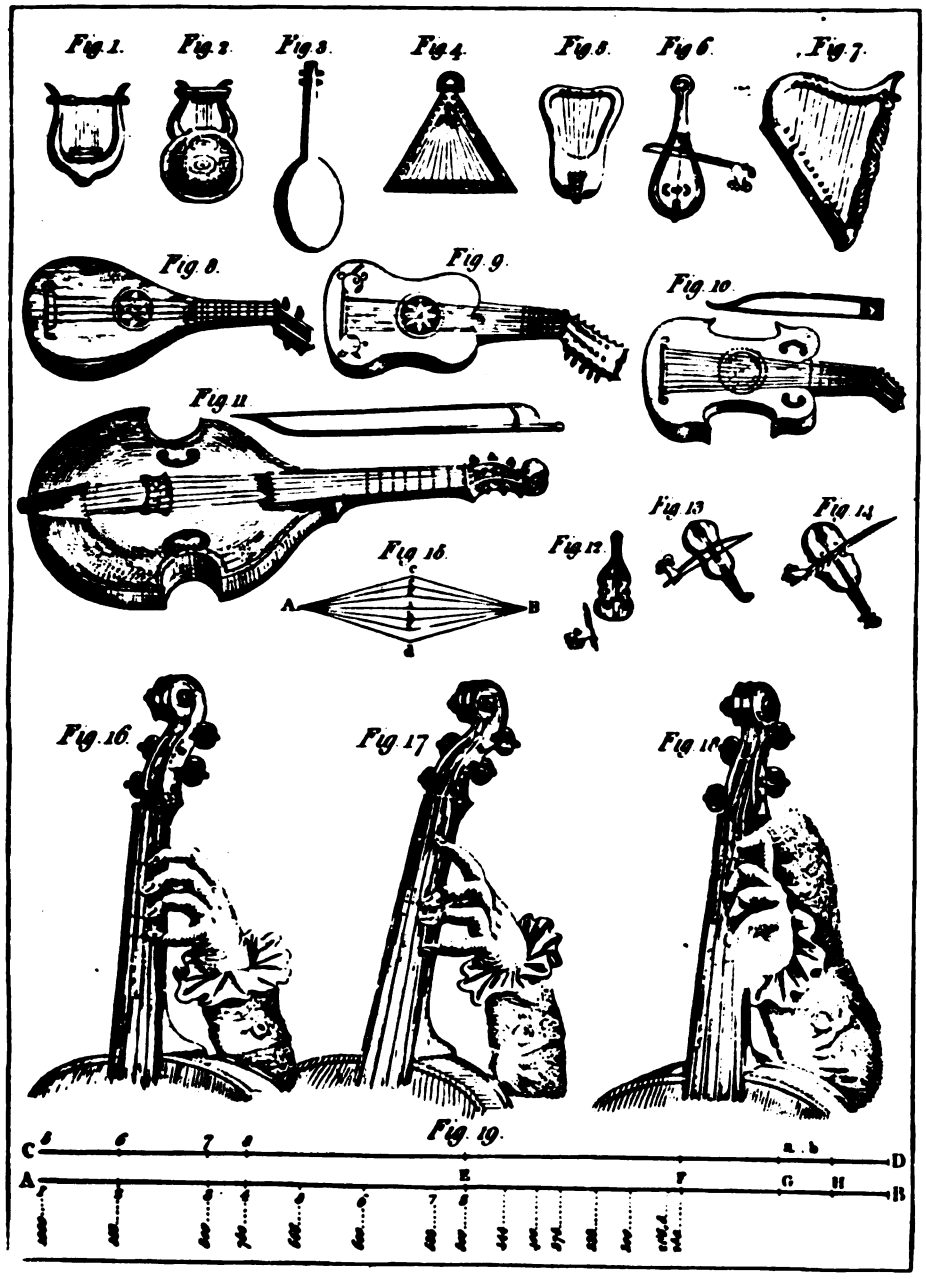
Fig. 1.
Fig. 2.
Fig. 3.
Fig. 4.
Fig. 5.
Fig. 6.
Fig. 7.
Fig. 8.
Fig. 9.
Fig. 10.
Fig. 11.
Fig. 12.
Fig. 13.
Fig. 14.
Fig. 15.
C
A
B
Fig. 16.
Fig. 17.
Fig. 18.
Fig. 19.
C
D
A
B
E
F
G
H

THE THEORY AND PRACTICE OF FINGERING THE VIOLONCELLO.

PART I.

THE THEORY OF FINGERING.

CHAP. I.

Introductory Account of the Properties of Muſical Strings, and of the Nature of the Scale of Muſic.

SCIENCE is a formed Syſtem, comprehending the doctrine and reaſon of any branch of knowledge, founded on ſelf-evident principles, or ſuch as can be demonſtrated true, and from which a ſeries of concluſions and deductions may be drawn. The *Theory* of an Art, is the knowledge of its rules, and of the principles on which they are founded, and is diſtinct from their practice or application. A man may be learned in an Art, by knowing the theory of it; but the practice, as well as theory, are neceſſary to form a Maſter. The chief advantage of theory, beſides the intellectual ſatisfaction ariſing from the poſſeſſion of ſcience, is to direct and facilitate the practice of an Art, and to attain it with greater certainty.

Muſic is the ſcience of the proper qualities in ſounds fitted to excite agreeable ſenſations in the hearer, and comprehends the knowledge of the various relations and combinations of muſical ſounds that are neceſſary to anſwer this end. The actual production of theſe ſounds by a voice or inſtrument, is the practical or mechanical part of the Art.

Muſical notes, like other ſounds, are produced by the vibration of the parts of elaſtic bodies, ſuch as metals, glaſs, wood, ſtrings, and the glottis of animals. Of theſe, ſtrings or chords have been found the moſt ſimple and proper ſubjects for the inveſtigation of the laws of muſical ſounds.

The moſt obvious qualities of muſical ſounds, are, 1. Smoothneſs and roughneſs, which in muſical ſtrings depend on their figure and texture, and on the *manner* in which the force of percuſſion is applied. This quality is expreſſed by the term *tone*. 2. Loudneſs and ſoftneſs, which depend on the *degree* of the force of percuſſion. And, 3. Acuteneſs and gravity, which depend on the different times or velocities of the vibrations of ſtrings, determined by their length, tenſion, and diameter; and this quality is what is called tune; the moſt important of any, and, more particularly, the object of this Treatiſe. The laws, therefore, of the Vibration of Strings, will be briefly ſtated.

There is much analogy between the vibrations of a pendulum, and thoſe of a muſical ſtring; the latter is a ſpecies of double pendulum, having both its ends fixed. Pendulums vibrate ſlower, as their lengths are increaſed; and quicker, as they are ſhortened; that is, a pendulum to vibrate ſeconds, in the latitude of London, will be 39$\frac{1}{4}$ inches long; to vibrate half-ſeconds, it muſt be 10 inches, nearly; and to vibrate four times in a ſecond, the pendulum muſt be 4$\frac{1}{4}$ inches. The vibrations of the ſame pendulum are all iſochronous; that is, they are performed in the ſame time; and whether the pendulum continues vibrating in the largeſt arcs or ſpaces, on its receiving the ſtrongeſt impulſe; or whether the arcs are extremely ſmall, as when it has received the weakeſt impulſe that can be given to it, there will be no difference in the times of its vibration.

The vibrations of a ſtretched chord or ſtring, follow the ſame laws as thoſe of a pendulum; the longer it is, the ſlower are its vibrations; and the ſhorter it is, its vibrations will be proportionally quicker; and the vibrations of the ſame ſtring will be alſo iſochronous, or completed in the ſame times, whether the impulſe given to it be ſtrong or weak.

The force of percuſſion requiſite to draw any ſtring A *i* B, out of its place (ſee *Fig.* 15. of the Copper-plate) to the diſtance *i g*, *i e*, *i c*, will be directly in proportion to the ſpaces *i g*, *i e*, *i c*. That is, if the degree of preſſure of a bow applied to the ſtring A *i* B be ſufficient to move it to the ſpace *i g*, it will by its elaſticity, like the pendulum by its gravity, not only return to the line A *i* B, but will further recede to the line *b*; and while the ſame preſſure of the bow is applied, it will conſtantly move from *b* to *g*, and return from *g* to *b*; the former motion being called the courſe, the latter the recourſe of the ſtring. If the preſſure of the bow be further increaſed, ſo as to move the ſtring to *e*, it will then return as far as *f*; and while that degree of preſſure is continued, it will conſtantly have its courſes from *f* to *e*, and its recourſes from *e* to *f*; and in the ſame manner, with a proportional increaſe of preſſure, it will vibrate in the ſpace *d c*. The vibrations, therefore, of the ſame ſtring, are all performed in equal ſpaces of time; that is, the ſtring will return from the ſituation A *e* B as ſoon as from A *g* B, to A *i* B; becauſe the force neceſſary to move the ſtring to *e*, is as much greater than the force moving it only to *g*, as *i e* is greater than *i g*.

When on the ſtrongeſt impulſe given to the ſtring, it goes from *d* to *c*, and returns from *c* to *d*, and conſequently moves with the greateſt velocity, it ſtrikes the ear with moſt force, and its ſound is loudeſt; ſo, on a diminution of the preſſure, when it only moves from *f* to *e*, the ſound will be proportionally weaker, and it will gradually diminiſh, as the velocity of the ſtring, and the ſpace through which it vibrates, decreaſe; yet the vibrations being performed in the ſame portions of time, there will be no difference of tone, but the ſtring will conſtantly give the ſame note. The difference of preſſure affects the tone only, in its quality of loudneſs or ſoftneſs; the tune is in no degree affected by the ſtronger or weaker impulſe of the bow, but will ever remain the ſame, while the times of the vibration are iſochronous.

Now as the times, or ſlowneſs and quickneſs, of the vibration of muſical ſtrings, depend on their reſpective lengths; ſo the tune or pitch of the different notes in muſic will be in proportion to the different lengths of the ſtrings; the longer ſtrings, and ſlower vibrations, producing the graver notes; the ſhorter ſtrings, and, conſequently, quicker vibrations, invariably producing the acuter notes.

But the *times* of the vibrations of ſtrings, and conſequently the different degrees of tune, or of acuteneſs and gravity, depend alſo upon the tenſion and diameters of the ſtrings; and mathematicians have demonſtrated, that if ſtrings differ only in tenſion, the number of vibrations in the ſame time, are *directly* as the ſquare roots of the weights which ſtretch them; that is, if the weights are as 4 to 9, the vibrations will be as 2 to 3. The number of vibrations made in the ſame time, by two ſtrings differing only in thickneſs, are as the diameters of their baſes, *inverſely*. And if ſtrings differ only in *length*, the number of vibrations in the ſame time, are *inverſely* as the lengths; that is, if two ſtrings of equal thickneſs, and ſtretched by the ſame weights, differ in length as 2 to 3, the ſhorter ſtring, 2, will exactly vibrate three times, while the longer ſtring will vibrate twice. Hence ſtrings of different tenſions, diameters, and lengths,

may

may be ſo adjuſted, that the times of their vibrations, or degrees of tune, ſhall be in any given proportion; which is of conſiderable uſe in the ſtringing of inſtruments.

From theſe principles, all the phenomena of tune are deduced. Among the infinite variety of ſounds which Muſic affords, there are only ſeven degrees of tune, which conſtitute, or which can, tunefully or concinnouſly, divide the natural ſcale. Theſe comprehend all that are acknowledged in compoſition and practice, and are fixed by a law of nature. Any addition that can be made to theſe, are only a repetition of the ſame degrees of *tune*; and it has been already ſhown, that it is from the relation of numbers, that the degrees of muſical or concinnous ſounds muſt be fixed. The exact degree of tune, of the ſeven natural notes of the ſcale, can be aſcertained by very eaſy experiments made on one or more ſtrings.

Let two ſtrings of equal thickneſs and tenſion, but differing in their lengths, as 9 and 8, be ſounded, and the former be tuned to C; the ſhorter ſtring will give the note D. Or let a muſical ſtring or wire be ſtretched over a board, between two points or bridges; let it be tuned to the note C, and divided into nine equal parts: ſtop one of theſe parts, by inſerting a moveable bridge; the remaining eight parts will give the note D, and will perform nine vibrations, while the whole ſtring performs eight. Suppoſe the line A B (ſee *Fig.* 19. of the Copper-plate) to repreſent the fourth ſtring of a Violoncello, tuned to the note C, and divided into nine equal parts; one of theſe parts being ſtopped by the finger at 2, the remaining eight parts will give the note D, which is the ſecond degree or ſtep of the natural ſcale.

Let the whole ſtring be divided into five equal parts, and ſtop one of theſe parts from vibrating, by the preſſure of the finger, as at the point 3, on the ſame line A B, *Fig.* 19; the remaining length of ſtring will give the note F, or third degree of the natural ſcale, and will vibrate five times, whilſt the whole ſtring A B will vibrate four, being the ratio of the vibrations of the concordant interval of a *great third*, which is that of the key-note C, and its third E.

Let the ſtring be divided into four equal parts, and ſtop one, as at the point 4, of the line A B; the remaining three parts will give the note F, or fourth ſtep of the natural ſcale, and will vibrate four times, whilſt the open ſtring will vibrate thrice, which is the ratio of the vibrations of the concordant interval of *a perfect fourth*.

If the ſtring be divided into three equal parts, and two of theſe parts ſtopped, as at the point 5, of the line A B; the remainder will give the note G, or fifth of the natural ſcale, and will vibrate three times, while the open ſtring will vibrate twice, being the ratio of the vibrations of the concordant interval of *a perfect fifth*.

If the ſtring be divided into five equal parts, and two of ſuch parts be ſtopped, as at the point 6, of the line A B; the remaining three parts will give the note A, or ſixth degree of the natural ſcale, and will vibrate five times, while the open ſtring vibrates thrice, being the ratio of the vibrations of the concordant interval of *a ſixth greater*.

Divide the ſtring into fifteen equal parts, and let ſeven of ſuch parts be ſtopped, as at the point 7, of the line A B; the remaining eight parts will give the note B, or ſeventh degree of the natural ſcale, and will vibrate fifteen times, while the open ſtring vibrates eight, being the ratio of the vibrations of the interval of the *greater ſeventh*.

Laſtly, let the ſtring be divided into two equal parts, that is, in the middle, as at the point 8, of the line A B; and either of theſe parts will ſound the note C, or octave to the open ſtring, and will give two vibrations, while the open ſtring vibrates once, being the ratio of the vibrations of the concordant interval of an octave.

Again, let there be three ſtrings of equal thickneſs and tenſion, differing in length, the longeſt divided into 12 equal parts, the ſecond equal to 9 of theſe parts, and the laſt equal to 8: the latter will be in the relation of fifth, to the longeſt ſtring; 8 being to 12, as 2 is to 3. And the ſtring of nine parts, will be a fourth to the longeſt; becauſe 9 is to 12, as 3 is to 4. Thus, the difference of tune, betwixt the fourth and fifth of the natural ſcale, is as 8 to 9, and is the interval of a *tone major*. In the ſame manner, let there be three ſtrings, *cæteris paribus*, whoſe lengths are as 9, 10, and 15: the two ſtrings, 9 and 15, will be in the relation of a ſixth greater; 9 being to 15,

as 3 is to 5: and the two ſtrings, 10 and 15, will be in the ratio of a perfect fifth; becauſe 10 is to 15, as 2 is to 3: therefore, the difference between the degree of tune, betwixt the fifth and ſixth of the ſcale, is as 9 to 10, which is a *tone minor*. And laſtly, let there be three ſtrings, differing only in their lengths, as 15, 16, and 20: the two ſtrings, 15 and 20, will be in the relation of fourth; 15 being to 20, as 3 is to 4: and the two ſtrings, 16 and 20, are in the ratio of a great third; 16 being to 20, as 4 is to 5: therefore, the difference between the degree of tune of the third and fourth of the ſcale, is as 15 to 16, which is the interval called a ſemitone.

Thus the elementary ſounds, which divide the ſcale, are, tone major, tone minor, and ſemitone; which are the only muſical intervals now in uſe, in the diviſion of the ſcale; and it is remarkable, that it is neceſſary to mix theſe elementary intervals in ſuch a manner, that no two of the ſame kind can be placed next each other in the ſcale; becauſe no number of any one kind is equal to a concord. Their order, therefore, in the natural ſcale, is as follows: 1. key-note; 2. tone major; 3. tone minor; 4. ſemitone; 5. tone major; 6. tone minor; 7. tone major; 8. ſemitone.

As the difference in the velocities, or times, of the vibration of bodies, is the cauſe of variety in tone or melody; ſo the coincidences of the vibrations in two or more ſounding bodies, vibrating at once, is the cauſe of that agreeable effect in muſical ſounds, called concord, or harmony; which is no other than the reſult of frequent unions, and coincidences, of two or more ſonorous bodies, and of the undulating motions of the air which they occaſion. The more frequent theſe coincidences are, the more agreeable and pure is the concord; and therefore uniſon is the firſt degree of conſonance, becauſe the vibrations continually coincide. This concord is expreſſed by the ratio of one to one, 1 : 1. Next to this the ratio of the octave, 1 : 2, is the moſt agreeable and perfect; and then that of the perfect fifth, 2 : 3: after which follow the more imperfect concords, 3 : 4, 4 : 5, &c. And the effect of the leſs frequent coincidences of theſe vibrations, is what we call a diſcord.

It has been ſaid, that whatever addition can be made to the ſeven natural ſounds of the ſcale, is but a repetition of the ſame *degrees* and nature of tune. The compaſs, however, of the human voice, and of muſical inſtruments, extends to a number of ſuch ſyſtems of ſeven notes, or octaves, each gradually increaſing in acuteneſs of ſound, as the vibrations are quicker. This will appear from inſpecting the line A B of *Fig.* 19, repreſenting the fourth ſtring of a Violoncello, where the degrees of the natural ſcale are marked in their order, and extend from A to the middle of the ſtring at E. The remaining part of the ſtring E B, becomes the firſt note of a new octave, the degrees of which will be at the ſame *proportional* diſtances from each other, as thoſe of the former octave A E, and will end at F, being the middle point betwixt E and B: but the diſtance E F being half of that of A E, the *real* diſtances of the degrees of the octave E F will be only half of thoſe of the octave A E. In like manner, the third octave will extend from F to G, being half of F B; and the diſtances of the degrees of this octave will be only half of thoſe of the octave E F, and one fourth of thoſe of the octave A E.

From G to H, one half of G B is the fourth octave; but the diſtance is ſo ſmall, that it is impracticable to ſtop the different degrees with the fingers. A very ſingular phenomenon, however, occurs in this octave of a muſical chord, which, as far as I know, has never been obſerved by any writer on harmonics. It is well known, that by ſliding the finger gently, from this part of the ſtring, down to the middle of it, the harmonics of the open note will ſound (if the ſtring be kept in vibration by the bow) as the finger comes to the aliquot parts of the ſtring, where theſe harmonics occur; and this will happen in a *deſcending* ſeries. In proceeding to ſlide the finger, from the middle of the ſtring, down towards the nut, the harmonics will ſound in an *aſcending* ſeries. But theſe are all conſiderable intervals, being thirds, fifths, and octaves, the ſtring giving no audible ſound while the finger is ſliding along the intermediate parts of it. The hitherto unobſerved phenomenon that I would mention, proceeds, on the contrary, by *diatonic* intervals, ſpontaneouſly given, if I may ſo expreſs it. If you ſlide your finger very ſlowly from *a* to *b*, as on the line C D, *Fig.* 19. the third octave of the open ſtring, the ſecond to that octave, its ſharp third, fourth, and fifth, will ſound very perfectly; and you may perceive an effort, as it were, in the

the ſtring, to give the remaining part of the octave. This experiment will ſucceed beſt on the firſt ſtring of a Violoncello; and the intervals are the key-note, tone major, tone minor, ſemitone, and tone minor. It has been doubted by theoriſts, whether our *order* of the intervals of the octave was founded in nature, or in cuſtom; ſeeing that we intirely differ from the ancients in this reſpect. The Greeks began each tetrachord of their octave with a ſemitone, their progreſſion being a ſemitone, then two tones; whereas each of our tetrachords contains, firſt two tones, and then a ſemitone. This phenomenon, in which the intervals are exactly in the order of the Guidonian ſcale, will, I apprehend, ſufficiently decide, whether the Greek tetrachord, or ours, is moſt in the order of nature.

Melody or tune is no way altered in its nature, by being placed in any of theſe octaves. This is made evident, by ſuppoſing a boy, or a woman, to ſing a ſong or air, which ſhall at the ſame time be ſung by a man; they will agree in expreſſing the ſame tune, and yet the boy's or woman's voice will be in every note exactly an octave higher than the man's. Again, let any one ſing an air or chant, in the compaſs of an octave, and begin it in the loweſt compaſs of his voice: afterwards let him begin it a little ſharper; a ſemitone, for inſtance; and ſtill repeat it, beginning a ſemitone higher each time, till he get to the higheſt compaſs of his voice: it will ever be the ſame air, the ſame tune; and yet, in our ſyſtem of notation of ſounds, as will be afterwards ſeen, this operation of tranſpoſing the air, ſo eaſy to the voice, would be attended with a variety of characters called flats and ſharps, by the multiplicity of which learners are greatly embaraſſed.

But variety has been found extremely neceſſary in muſical entertainment; and, to obtain it, muſicians have diſcovered the expedient of changing the key-note firſt aſſumed, and of occaſionally introducing another, which muſt alſo be attended with its ſyſtem of notes, regulated in their diſtances, and degree of tune, in the ſame manner as thoſe of the original and natural ſcale. The ſituations of the ſemitones, therefore, in the natural ſcale of notes, muſt be altered, ſo as they ſhall occur in the ſame order and place, with reſpect to any note aſſumed for a key, as they did in the natural ſcale.

For this purpoſe, it has been judged neceſſary to ſuppoſe all thoſe intervals which have been called tones, capable of being divided into two ſemitones, by inſerting an intermediate ſound between them; and thus, inſtead of five tones and two ſemitones, which are the natural intervals between any one ſound and its octave, there will be twelve ſemitones, any one of which may be conſtituted the key of a ſcale; and there will be found among the other ſounds of the ſyſtem, all the other degrees of the ſcale neceſſary to correſpond to ſuch key-note, by omitting one ſound and taking the next, when a ſtep of a tone is naturally required; and by taking the two contiguous ſounds for the natural ſemitone, when ſuch ſhall be wanted. This ſemitonic ſyſtem of ſounds may be compared with the degrees of the natural ſcale in the following manner, viz.

C • D • EF • G • A • BC,

where the added intervals are repreſented by an aſteriſk; but as, in the natural ſcale of C, there is but an interval of a ſemitone between the third and fourth, and the ſeventh and octave, ſo there cannot poſſibly be any added note inſerted between E F or B C. When, therefore, C is conſtituted the key-note, all the degrees of the ſcale will coincide with the letters, without having recourſe to any of the ſounds marked with the aſteriſk. The caſe is otherwiſe, if any other note is conſtituted a key. Let G be aſſumed as a key, for inſtance; the three following ſounds will be ſufficient, as they ſtand, being of the proper intervals of two tones and a ſemitone; but in completing the octave of G, by adding the natural notes D, E, F, G, it will be found that the intervals between E and F, a ſemitone, and between F and G, a tone, are both in wrong ſituations for the key of G; as the former interval ſhould be a tone, and the latter a ſemitone: therefore, inſtead of F, we muſt take the note at the aſteriſk, between F and G, which will remove it from the preceding note E a tone, and bring it a ſemitone nearer to G, the octave. Such *elevation* of a note, a ſemitone above its proper ſound, is denoted by affixing the character ♯, called a ſharp, to its

denominative letter. The ſcale of G, thus corrected, will ſtand as follows; where the ſeparation of the letters by a ſhort line — will in future denote the interval of *tone*: and the juxtapoſition of the letters will be a ſufficient expreſſion for the *ſemitone*, without any character:

G—A—B C—D—E—Fa G, comprehending two ſimilar tetrachords or fourths, G—A—B C, and D—E—Fa G.

In the ſame manner, if F be conſtituted a key, the ſemitone from E to F is properly ſituated; and C—D—E F are exactly right for the ſecond tetrachord of this key; but the natural notes F—G—A—B muſt be adjuſted, by taking the note at the aſteriſk next below B: and this *depreſſion* of any note, a ſemitone below its proper ſound, is denoted by affixing this character b, called a flat, to its denominative letter. And thus the key of F will conſiſt of the two ſimilar tetrachords, F—G—A B♭, and C—D—E F.

The following Scheme comprehends all the ſcales belonging to each of the twelve ſemitones in the ſyſtem.

Scheme of the Formation of the Twelve Scales of the Major Mode.

N° 1.	C —D —E F	——G —A —B C	all natural.
2.	F —G —A B♭	——C —D —E F	*b* flat.
3.	B♭—C —D E♭	——F —G —A B	*b* and *e* flat.
4.	E♭—F —G A♭	——B♭—C —D E	*b*, *e*, and *a* flat.
5.	A♭—B♭—C D♭	——E♭—F —G A	*b*, *e*, *a*, and *d* flat.
6.	D♭—E♭—F G♭	——A♭—B♭—C D	*b*, *e*, *a*, *d*, and *g* flat.
	C♯—D♯—E♯F♯	——G♯—A♯—B♯C	all ſharp.
7.	F♯—G♯—A♯B	——C♯—D♯—E♯F	*f*, *c*, *g*, *d*, *a*, and *e* ſharp.
8.	B —C♯—D♯E	——F♯—G♯—A♯B	*f*, *c*, *g*, *d*, and *a* ſharp.
9.	E —F♯—G♯A	——B —C♯—D♯E	*f*, *c*, *g*, and *d* ſharp.
10.	A —B —C♯D	——E —F♯—G♯A	*f*, *c*, and *g* ſharp.
11.	D —E —F♯G	——A —B —C♯D	*f* and *c* ſharp.
12.	G —A —B C	——D —E —F♯G	*f* ſharp.
The ſame as at firſt,	C —D —E F	——G —A —B C	all natural.

For the better underſtanding this ſcheme, it may be obſerved, 1. That there can be no more than twelve ſcales, anſwering to the twelve ſemitones in an octave. 2. That, in the order theſe different ſcales are ranged, every ſubſequent ſcale has either one flat more, or one ſharp leſs, than the ſcale immediately preceding it. 3. That every ſubſequent ſcale differs from the preceding, only in one note; which, being always a ſeventh in the preceding ſcale, by being depreſſed a ſemitone, that is, by adding a flat, or taking away a ſharp from it, becomes a fourth in the ſcale which follows. 4. That each ſcale conſiſts of two tetrachords, ſimilar in the ſpecies and order of their intervals; that is, firſt two tones, and then a ſemitone, in each tetrachord; and that the firſt tetrachord of the preceding ſcale becomes always the ſecond tetrachord of the ſubſequent ſcale, without any alteration whatever. The attention of the learner to this, and the preceding remark, is more particularly intreated, as being two of the principles on which the following ſyſtem of fingering is founded. 6. That when the number of flats amount to five, as in N° 6. of the ſcheme, the ſcale of D flat is converted into that of C ſharp, in the ſubſequent line; being the very ſame ſounds, but differently named. If this had not been done, the next keys would have been G flat with ſix flats, C flat with ſeven, F flat with eight flats, and ſo on; a method of naming the keys, not in uſe; but by introducing the key of C ſharp, with ſeven ſharps, that brings us to ſix ſharps, as in N° 7; and ſo proceeding to diminiſh the number of ſharps for each ſubſequent ſcale, until none of them remain, we arrive again at the ſame natural ſcale of C, with which we ſet out.

CHAP.

CHAP. II.

Of the Manner of Fingering the Twelve Scales of the Major Mode, aſcending and deſcending, throughout the whole Compaſs of the Violoncello.

THE degrees of the natural ſcale have been, it is hoped, ſufficiently explained in the preceding Chapter. Their diſtances are marked on the line A B, *Fig.* 19. repreſenting the fourth ſtring of a Violoncello, tuned to C; but, although ſometimes neceſſary, to take the degrees of the octave on one ſtring, is neither the uſual, nor the eaſieſt way of doing it. It has been remarked, that the octave is divided into two ſimilar parts, of four notes, or a tetrachord, each; the firſt note of the acuter tetrachord being a perfect fifth to that of the graver: therefore the ſtring C D, *Fig.* 19. being a third leſs in its diameter than A B, or otherwiſe adjuſted by tenſion, will be equal in the times of its vibration to the remaining part, 5 B, of the ſtring A B; and the tetrachord 5, 6, 7, 8, on the line C D, will be equal, in degrees of tune, to the tetrachord 5, 6, 7, 8, on the line A B. And by a well-known axiom of geometry, the whole ſtrings A B, and C D, being perfect fifths, or in the proportion of 3 to 2, any part, or diviſion, of one ſtring, will be in the ſame relation, of perfect fifth, to a like part, or diviſion, of the other; as at the octaves E, F, G, H, and each of their intermediate degrees, whether tones or ſemitones.

And if the remaining two ſtrings of the Violoncello, alſo tuned fifths to each other, be added; and each octave be divided into the ſmalleſt intervals of the ſyſtem, that is, into twelve ſemitones each; there will be thirty-two ſemitones on each ſtring, from the nut to the fifth natural degree of the third octave, as at I, on the ſtring C D; that being the higheſt *poſition* uſed in practice, or where the fingers can conveniently be uſed on the four ſtrings, in the degrees of the natural ſcale; although *larger intervals* can be taken, ſtill nearer the bridge. This number, multiplied by four, will make the whole number of ſemitonic intervals of the finger-board of a Violoncello, to amount to one hundred and twenty-eight; all neceſſary to be known, on account of the great compaſs of many modern compoſitions for the Violoncello.

Again, if any of the four ſtrings of this inſtrument be divided into a thouſand equal parts, a performer who plays, in tune, an aſcending ſcale of two or more octaves, of which the entire or open ſound of ſuch ſtring ſhall be the key, will ſtop at the diſtances 888, 800, 750, 666, 533, 500, 444, 400, 375, 333, 300, 266.5, 250, &c. as marked oppoſite to the degrees of the natural ſcale, on the line A B, *Fig.* 19; and theſe diſtances ſhall be as exactly taken by the fingers, as if the degrees were marked on the ſtring, or finger-board. Notwithſtanding which, it is incontrovertible, that, in attaining to this exactneſs of ſtopping, no meaſurement of any kind is made uſe of, ſave that of the ear, in judging of the true intonation of every note.

It ſeemed neceſſary to premiſe theſe particulars, to ſhow that the principles upon which the following ſyſtem of fingering proceeds, are founded in immutable laws of nature; and, with theſe for our guide, we do not deſpair of conducting the learner, with eaſe and ſatisfaction, through the whole of this hitherto unexplored labyrinth; and of evincing to him, that what has been deemed complex and intricate, is in reality ſimple and plain. We therefore proceed to the explanation of our ſyſtem.

Firſt Series of Scales, C, F, B♭, E♭, A♭, D♭, Major.

N° 1. of the examples, *Scale of* C; beginning with the loweſt or graveſt note of the inſtrument. The examples of the Scales of the Major Mode are divided into bars of four crotchets each; and the laſt note of every bar, in the aſcending ſcales, throughout the ſyſtem, is invariably at the diſtance of a ſemitone from the third note of each bar; all other intervals, in the major mode, are tones. The neceſſity of attending to the interval of ſemitone is greater, on account of its appearing to the eye, in our manner of notation, to be at the ſame diſtance with the interval of a tone; the notes of the ſcale aſcending gradually, from a line to the ſpace above that line, and from a ſpace to the line above it, whether the interval be a tone or a ſemitone.

Each

Each octave of this example, as well as all the others of the ſyſtem, conſiſts of two ſimilar tetrachords, C—D—E F, contained in the firſt bar, and G—A—B C, in the ſecond; the intervals whereof are given, by the open ſtring C, and the firſt, third, and fourth fingers; and by the open ſtring G, and the ſame fingers, 1—3 4; the diſtance of a tone being taken by omitting the ſecond, and putting down the third finger; and that of a ſemitone, by the fourth finger, immediately following the third. The fingering, and intervals, of the two tetrachords, may be expreſſed by 0—1—3 4, 0—1—3 4; the cypher or 0 repreſenting the open ſtring, and the figures 1, 3, 4, the fore-finger, third, and fourth finger of the left hand. The diſtances or intervals of a tone, are expreſſed by the ſhort line —; and thoſe of a ſemitone, by the juxtapoſition of the figures or letters only. The ſecond octave is contained in the third and fourth bars of the example; and if the ſecond ſtring had been tuned a note lower, or a fourth to the third ſtring, it would have been uniſon with C, the concluding note of the former octave; and the fingering of the ſecond octave would be, like the firſt, 0—1—3 4 on the ſecond, and 0—1—3 4 on the firſt ſtring: but by the method of tuning by fifths, inſtead of the *octave*, the ſecond ſtring D is the *ninth* to the open ſtring C; and conſequently the ſecond degree of the acuter octave. The intervals of this octave, therefore, are to be taken, 4—0—1 2, 4—0—1 2; that is, the eighth note C, of the former octave, taken by the fourth finger, muſt be conſidered as the firſt note of the ſecond octave, and for that purpoſe muſt be ſounded again, as in the beginning of the third bar: the other degrees will be the open ſtring D, a tone; E, another tone, taken with the firſt finger; and F, a ſemitone, taken with the ſecond finger; for the firſt tetrachord: and, in the ſame manner, the ſecond tetrachord muſt conſiſt of G, a tone, taken by the fourth finger; A the open ſtring, a tone; B, a tone, taken with the firſt; and C, a ſemitone, with the ſecond finger. In like manner, the intervals of both octaves are to be taken in the deſcending progreſſion, with the ſame fingers, carefully obſerving, that the ſemitonic interval is now the ſecond note of each bar; and each deſcending octave will conſiſt of the tetrachords C B—A—G, and F E—D—C.

N° 2. *The Scale of* F, being the fourth note of the preceding ſcale of C. This differs in no reſpect from the preceding ſcale, but in the depreſſion of the ſeventh note of that ſcale, from B natural to B flat; and this B flat will become the proper fourth in the new ſcale of F. Each octave of this ſcale will, therefore, reſolve into the two tetrachords F—G—A B♭, and C—D—E F; and the character ♭ is marked at the cleſ, on the ſecond line, to denote that every B in the example is to be conſidered as B flat. The fingering of the firſt octave, like that of the ſecond octave of the preceding ſcale, will be 4—0—1 2, beginning on the fourth ſtring; and 4—0—1 2, ending on the octave F, on the ſecond ſtring. The ſecond octave is fingered 2—4—0 1, 2—1—3 4, beginning with the laſt-mentioned octave F, on the ſecond ſtring; G, a tone, taken with the fourth finger; A, a tone, the open ſtring; and B, a ſemitone, with the firſt finger near the nut; for the firſt tetrachord: and for the ſecond, C, a tone, taken with the ſecond finger, as in the preceding ſcale: then ſhifting the hand a tone, take D, a tone, with the firſt, E, a tone, with the third, and F, a ſemitone, with the fourth finger. The laſt three notes, D—E F, are alſo marked in the example, with the fingers 1—2 3, the method generally followed in practice; but, for the reaſons to be mentioned in the Practice of Fingering, the former method, 1—3 4, is recommended to be uſed by the young practitioner, for ſome time.

It is neceſſary to obſerve, as has been mentioned above, in the remarks ſubjoined to the ſcheme of the formation of the twelve ſcales, that the firſt tetrachord of a preceding ſcale becomes always the ſecond tetrachord of the ſubſequent: thus C—D—E F, as in the firſt and third bars of N° 1, concludes the preſent ſcale of F, as above; and it will invariably hold, that the poſition is to be quitted, after playing the laſt note of the preceding ſcale; and, ſhifting the hand a tone, the remaining three notes of the tetrachord, a tone and ſemitone, are to be taken with the fingers 1—3 4, or, in the upper compaſs of the inſtrument, with the fingers 1 — 2 3.

N° 3. *The Scale of* B *flat major*, being the fourth note of the preceding ſcale of F. Take the firſt octave 2—4—0 1, 2—4—0 1, ending with the firſt finger, at a ſemitone from the nut, on the firſt ſtring; and for the ſecond octave, B♭—C—D E♭, F—G—A B, muſt be taken, on the

firſt

firſt ſtring, in different poſitions, as follows: Firſt, B♭—C, a tone, with the firſt and ſecond fingers; then ſhift the poſition of the hand a tone, and take D E♭—F, a ſemitone and tone, with 1 2—4; and, laſtly, ſhift the poſition of the hand a tone, and take G—A B♭, a tone and ſemitone, with 1—2 3. Thus, as in the remark on the preceding ſcale, the poſition muſt be quitted at F, in order to conclude the ſcale with G—A B♭; and to get to D E♭—F, it becomes neceſſary to quit the poſition at C, as was done in the laſt ſcale: and thus the order of ſcales, adopted in the ſcheme, points out the ſhifts neceſſary to make, to arrive properly at the laſt poſition of any ſcale; as, to get to the laſt poſition of B, it is neceſſary to paſs through, and quit at, the poſitions C, and F, comprehending A B♭—C, D E♭—F, G—A B♭. It may alſo be obſerved, once for all, that when it is intended to continue on the laſt poſition, while the notes G—A B♭ are playing, the thumb is to be brought up, and placed a tone below the firſt finger, which will be at F; and both octaves may then be played, on the four ſtrings, without changing the poſition. The deſcending progreſſion is marked in the example by 3, 2, 1, ×, the laſt character repreſenting the thumb; and the two deſcending octaves of this and every other ſcale of the ſyſtem, where the thumb is uſed, may be taken on the firſt, ſecond, third, and fourth ſtrings ſucceſſively, with the fingering marked in this example, viz. 3 2—1—×, 3 2—1—×, × 3—2—1, × 3—2—1; which, to avoid the confuſion ariſing from a multiplicity of figures, will be omitted in the remaining ſcales of the ſyſtem.

N° 4. *The Scale of* E *flat major*, the fourth of the preceding ſcale of B. Take E♭—F—G, two tones, with the fingers 1—2—4, on the ſecond ſtring; and as it is impracticable to take A♭—B♭—C, on the firſt ſtring, by reaſon of the flat affixed to A, the poſition of the hand muſt be ſhifted a ſemitone, from G to A♭—B♭—C two tones, with the fingers 1—2—4, on the ſecond ſtring; then take D E♭—F, ſemitone and tone, with 1 2—4, as in the preceding ſcale, on the firſt ſtring; then ſhifting a tone, take G A♭—B♭, ſemitone and tone, 1 2—3; and, laſtly, C—D E♭, tone and ſemitone, with the fingers 1—2 3. Thus the poſitions neceſſary to arrive at E♭, are, 1. G, 2. C, 3. F, 4. B♭, and 5. E♭, as in the general ſcheme, and margin of the examples, throughout the ſyſtem: and the deſcending ſcales are invariably by the ſame poſitions, viz. in the preſent ſcale of E flat, by E♭ D—C, B♭—A♭ G, F—E♭ D, C—B♭—A♭, and G—F—E♭; diſtinguiſhing the poſitions, by the acuteſt note of each; that is, the laſt note of each poſition aſcending, and the firſt note of each deſcending.

N° 5. *The Scale of* A *flat major*, the fourth of the preceding ſcale of E. Take A♭—B♭—C, two tones, with the fingers 1—2—4, on the ſecond ſtring, as in the preceding ſcale; then D♭—E♭—F, two tones, with the fingers 1—2—4, on the firſt ſtring; then G A♭—B♭, ſemitone and tone, with the fingers 1 2—3, on the ſame ſtring; afterwards, take C D♭—E♭, ſemitone and tone, 1 2—3; and, laſtly, F—G A♭, tone and ſemitone, 1—2 3; aſcending by the poſitions of the four former ſcales, in their order, viz. C, F, B♭, E♭, which leads to the final poſition of tone and ſemitone, F—G A♭; and the deſcending ſcale is to be made by the poſitions E♭, B♭, F, and C.

N° 6. *The Scale of* D *flat major*, fourth of the preceding ſcale of A. Take D♭—E♭—F, two tones, with the fingers 1—2—4, on the firſt ſtring, as in the preceding ſcale; then G♭—A♭—B♭, two tones, with the fingers 1—2—3; C D♭—E♭, a ſemitone and tone, 1 2—3; F G♭—A♭, a ſemitone and tone, 1 2—3; and, laſtly, B♭—C D♭, a tone and ſemitone, 1—2 3; and deſcend by the ſame poſitions, A♭, E♭, B♭, and F.

This ſcale, extending from D♭, on the firſt ſtring, to the end of the finger-board; it would be impracticable to proceed, on the Violoncello, with the next ſcale, in the order of the general ſcheme, *i. e.* the key of G flat, or rather F ſharp major, as it would aſcend a fourth ſtill higher than the preſent ſcale; we therefore proceed to the

Second Series of Scales, C♯, F♯, B, E, A, D, Major.

N° 7. *Scale of* C *ſharp, major*; the ſame with that of D flat. As the firſt ſeries of ſcales proceeded from C natural, the graveſt note of the Violoncello, ſo the ſecond ſeries proceeds from C ſharp, the next ſemitonic interval. Take C♯—D♯—E♯, two tones, 1—2—4, and F♯—G♯—A♯,

the tones, 1—2—4, both positions on the fourth ſtring; B♮C♯—D♯, ſemitone and tone, 1 2—4, on the third ſtring; E♮F♯—G♯, ſemitone and tone, 1 2—4, on the ſecond ſtring; and A♯—B♮C♯, tone and ſemitone, 1—3 4, or 1—2 3, on the firſt ſtring; and deſcend by the ſame poſitions. It is remarkable, that in the aſcending ſcale, after the two firſt poſitions on the fourth ſtring, the three remaining poſitions are on the third, ſecond, and firſt ſtring, reſpectively, each approaching a degree of the ſcale nearer to the nut; ſo that while, to the ear, the degrees of the ſcale *aſcend*, the hand *deſcends*, as we call it, on the finger-board. The continuation of this ſcale, for two octaves more, is the preceding ſcale N° 6, although it is there called D flat major; the real intervals, ſignified by D♭ and C♯, being, in this caſe, perfectly the ſame; only obſerving to take the laſt note of this ſcale, if you would proceed with two more octaves, with the firſt finger, inſtead of the fourth or third; which will bring you into the poſition C♯—D♯—E♯, two tones, 1—2—4, on the firſt ſtring, equivalent to D♭—E♭—F, as in N° 6. The four octaves of this ſcale are given at one view in N° 65. of the examples.

N° 8. *Scale of* F *ſharp, major*; beginning with the fourth note of the preceding ſcale of C♯. Take F♯—G♯—A♯, two tones, 1—2—4, on the fourth ſtring, as in the preceding ſcale; B—C♯—D♯, two tones, 1—2—4, on the third ſtring; E♮F♯—G♯, ſemitone and tone, 1 2—4, on the ſecond ſtring; A♮B—C♯, ſemitone and tone, 1 2—4, on the firſt ſtring; and D♯—F♯F♯, tone and ſemitone, 1—3 4, or 1—2 3, on the firſt ſtring; and deſcend with the ſame poſitions. By comparing this ſcale with the preceding, the relation that ſubſiſts between the keys, in the order we have adopted, will appear very clearly. The firſt poſition of the former ſcale, C D E, is omitted; and its ſecond, F G A, begins the preſent ſcale; being the ſame intervals, and taken in the ſame part of the inſtrument; *i. e.* the whole ſhift: B C D are taken, in both ſcales, on the *half* ſhift, and third ſtring; differing only in the diſtance B C; it being neceſſarily, in the former ſcale, 1 2—4, and in the preſent 1—2—4: E F G, in both ſcales, are taken on the ſecond ſtring, 1 2—4; and A B C, in both, on the firſt ſtring; differing only in the ſemitonic diſtance, 1—3 4, in the former, and 1 2—4 in the preſent ſcale. In ſhort, all the ſcales in the ſyſtem, in the order here given, ſeem produced from one another, by the firſt tetrachord of the preceding ſcale being firſt *taken away* from the ſubſequent, and then *added* to it. Thus the tetrachord C—D—E F, of the ſcale of C, excepting F itſelf, which is to be the key-note of the new ſcale, being firſt omitted, and afterwards added to the other tetrachord G—A—B C, will make a proper ſcale of F, by only depreſſing B a ſemitone; F—G—A B♭—C only wanting the remaining part of the firſt tetrachord D—E F to complete the ſubſequent ſcale.

N° 9. *Scale of* B *major*, fourth to the preceding ſcale of F♯. Take B—C♯—D♯, two tones, 1—2—4, on the third ſtring, as in N° 8; E—F♯—G♯, two tones, 1—2—4, on the ſecond ſtring; A♮B—C♯, ſemitone and tone, 1 2—4 on the firſt ſtring; D♯E—F♯, ſemitone and tone, 1 2—4; and, laſtly, G♯—A♮B, tone and ſemitone, 1—2 3. Deſcend by the ſame poſitions, B, F♯, C♯, G♯, D♯.

N° 10. *Scale of* E *major*, fourth to the preceding ſcale of B. Take E—F♯—G♯, two tones, 1—2—4, on the ſecond ſtring, as in N° 9; A—B—C♯, two tones, 0—1—2, on the firſt ſtring; D♮E—F♯, ſemitone and tone, 1 2—4; G♯A—B, ſemitone and tone, 1 2—3; and C♯—D♯E, tone and ſemitone, 1—2 3. Deſcend by the ſame poſitions, E, B, F♯, C♯, G♯.

N° 11. *Scale of* A *major*; fourth of the preceding. Take A—B—C♯, two tones, 0—1—2, on the firſt ſtring, as in N° 10; D—E—F♯, two tones, 1—2—4; G♯A—B, ſemitone and tone, 1 2—3; C♯D—E, ſemitone and tone, 1 2—3; and F♯—G♯A, tone and ſemitone, 1—2 3. Deſcend by the ſame poſitions, A, E, B, F♯, C♯.

N° 12. *Scale of* D *major*; fourth of the preceding. Take D—E—F♯, two tones, 1—2—4, on the firſt ſtring, as in N° 11; G—A—B, two tones, 1—2—3; C♯D—E, ſemitone and tone, 1 2—3; F♮G—A, ſemitone and tone; and B—C♯D, tone and ſemitone, 1—2 3. Deſcend by the ſame poſitions, D, A, E, B, F♯.

As this ſcale extends from D, on the firſt ſtring, to the end of the finger board, we proceed to the

Third

Third Series of Scales, D, G, C, F, B♭, E♭, Major.

N° 13. *Scale of* D *major.* This ſeries begins with the third ſemitonic interval of the fourth ſtring. Take D—E—F♯, two tones, 1—2—4, on the fourth ſtring; G—A—B—C♯, three tones, 0—1—2—4, on the third ſtring; D—E—F♯G, two tones and a ſemitone, 0—1—2 3, on the ſecond ſtring; and A—B—C♯D, two tones and a ſemitone, 0—1—2 3, on the firſt ſtring. The deſcending ſcale is done by the ſame fingering. The continuation of this ſcale for two more octaves, is the preceding ſcale, N° 12; and the four octaves are given, at one view, in N° 63. of the examples.

N° 14. *The Scale of* G *major*, and fourth to the preceding. Take G—A—B C, two tones and a ſemitone, 0—1—3 4, on the third ſtring; D—E—F♯G, two tones and a ſemitone, 0—1—3 4, on the ſecond ſtring; A—B C—D, a tone, ſemitone, and tone, 0—1 2—4, on the firſt ſtring; E—F♯G, tone and ſemitone, 1—2 3 or 1—3 4; and deſcend in the ſame manner.

N° 15. *The Scale of* C *major*; fourth to the preceding. Take C, the key-note, with the fourth finger, on the third ſtring; D—E F—G, a tone, ſemitone, and tone, 0—1 2—4, on the ſecond ſtring; A—B C—D, a tone, ſemitone, and tone, 0—1 2—4, on the firſt ſtring; E F—G, ſemitone and tone, 1 2—4; A—B C, ſemitone and tone, 1—2 3; and deſcend in the ſame manner.

N° 16. *Scale of* F *major*; fourth to the preceding. Take F—G, a tone, 2—4, on the ſecond ſtring; A B♭—C—D, a ſemitone and two tones, 0 1—2—4, on the firſt ſtring; E F—G, ſemitone and tone, 1 2—4; A B♭—C, ſemitone and tone, 1 2—3; and D—E F, tone and ſemitone, 1—2 3. Deſcend, in the ſame manner, in the poſitions F, C, G, and D.

N° 17. *Scale of* B *flat major*; fourth of the preceding. Take B♭—C—D, two tones, 1—2—4, on the firſt ſtring; E♭—F—G, two tones, 1—2—4; A B♭—C, ſemitone and tone, 1 2—3; D E♭—F, ſemitone and tone, 1 2—3; and G—A B♭, tone and ſemitone, 1—2 3. Deſcend, in the ſame manner, by the poſitions B♭, F, C, G, and D.

N° 18. *Scale of* E *flat major*; fourth of the preceding. Take E♭—F—G, two tones, 1—2 4, on the firſt ſtring, in the ſame manner with the ſecond poſition of the preceding ſcale of B flat; A♭—B♭—C, two tones, 1—2—3; D E♭—F, ſemitone and tone, 1 2—3; G A♭—B♭, ſemitone and tone, 1 2—3; and C—D E♭, tone and ſemitone, 1—2 3. Deſcend, in like manner, by the ſame poſitions, as in the margin of the examples, E, B, F, C, and G.

This ſcale alſo extending to the end of the finger-board, we proceed to the

Fourth Series of Scales, E♭, A♭, D♭, Major.

N° 19. *Scale of* E *flat major.* This ſeries begins with the fourth ſemitonic interval, on the fourth ſtring. Take E♭—F, one tone, 2—4, on the fourth ſtring; G A♭—B♭—C, a ſemitone and two tones, 0 1—2—4, on the third ſtring; D E♭—F, a ſemitone and tone, 0 1—2, on the ſecond ſtring; G A♭—B, a ſemitone and tone, 1 2—4, alſo on the ſecond ſtring; and C—D E♭, a tone and ſemitone, 1—2 3 or 1—3 4, on the firſt ſtring. Deſcend by the ſame poſitions. The continuation of this ſcale, for two octaves more, is the preceding ſcale, N° 18.

N° 20. *Scale of* A *flat major*; fourth of the preceding. Take A♭—B♭—C, two tones, 1—2—4, on the third ſtring; D♭—E♭—F, two tones, 1—2—4, alſo on the third ſtring; G A♭—B♭, a ſemitone and tone, 1 2—4, on the ſecond ſtring; C D♭—E♭, a ſemitone and tone, 1 2—4, on the firſt ſtring; F—G A♭, a tone and ſemitone, 1—2 3; and deſcend by the ſame poſitions.

N° 21. *Scale of* D *flat major*; fourth of the preceding. Take D♭—E♭—F, two tones, 1—2—4, on the third ſtring, as in the preceding ſcale; G♭—A♭—B♭, two tones, 1—2—4, on the ſecond ſtring; C D♭—E♭, a ſemitone and tone, 1 2—4, on the firſt ſtring; F G♭—A♭, a ſemitone and tone, 1 2—3; and B♭—C D♭, a tone and ſemitone, 1—2 3. Deſcend by the ſame poſitions.

The

The next ſcale, in proceeding with this ſeries, would be that of G flat major, fourth of D flat, a key not in uſe; at leaſt it is more uſually called F ſharp major; which has already been given in the ſecond ſeries, N° 8. We ſhall therefore proceed, in the laſt place, to the

Fifth Series of Scales, E, A, D, G, C, Major.

N° 22. *Scale of* E *major*. This ſeries begins with the fifth ſemitonic interval of the fourth ſtring. Take E—F♯—G♯, two tones, 1—2—4, on the fourth ſtring; A—B—C♯, two tones, 1—2—4, on the third ſtring; D♯E—F♯, a ſemitone and tone, 1 2—4, on the ſecond ſtring; G♯A—B, a ſemitone and tone, 1 2—4, alſo on the ſecond ſtring; C♯—D♯E, a tone and ſemitone, 1—2 3 or 1—3 4, on the firſt ſtring; and deſcend by the ſame poſitions.

N° 23. *Scale of* A *major*; fourth of the preceding. Take A—B—C♯, two tones, 1—2—4, on the third ſtring, as in the preceding ſcale; D—E—F♯, two tones, 0—1—2, on the ſecond ſtring; G♯A—B, a ſemitone and tone, 1 2—4, alſo on the ſecond ſtring; C♯D—E, a ſemitone and tone, 1 2—4, on the firſt ſtring; F♯—G♯A, a tone and ſemitone, 1—2 3; and deſcend in the ſame manner. The more uſual manner of fingering the ſecond octave of this ſcale, will be ſeen in N° 55, letter *b*.

N° 24. *Scale of* D *major*; fourth of the preceding. Take D—E—F♯, two tones, 0—1—2, on the ſecond ſtring; G—A—B, two tones, 1—2—4, alſo on the ſecond ſtring; C♯D—E, a ſemitone and tone, 1 2—4, on the firſt ſtring; F♯G—A, a ſemitone and tone, 1 2—3; B—C♯D, a tone and ſemitone, 1—2 3; and deſcend by the ſame poſitions. This is, however, by no means the uſual way of taking theſe two octaves of D. The more common method will be ſeen in N° 13. and N° 63: but conſiderable advantage may be derived from a proper uſe of the method followed in the preſent example; it proceeds, naturally and conſiſtently, from the poſitions of the preceding ſcales, and is entirely conformable to the general rule, of fingering two octaves, which will be afterwards eſtabliſhed. There is alſo a manner of *deſcending* theſe two octaves added, in the example, different from the poſitions of the aſcending ſcale; namely, D C♯—B—A, by 3 2—1—× (the laſt character repreſenting the thumb); G F♯—E, 3 2—1; D C♯—B—A, 3 2—1—0; all on the firſt ſtring; and G F♯—E—D, 3 2—1—0, on the ſecond ſtring.

N° 25. *Scale of* G *major*; fourth of the preceding. Take G—A—B, two tones, 1—2—4, on the ſecond ſtring; C—D—E, two tones, 1—2—4, on the firſt ſtring; F♯G—A, ſemitone and tone, 1 2—3; B C—D, ſemitone and tone, 1 2—3; and E—F♯G, tone and ſemitone, 1—2 3; and deſcend by the ſame poſitions. The more uſual method of fingering this ſcale, is added by figures, above the others, in the example, for the firſt ſix notes; after which, there is but one manner of fingering: but the former method is more conſiſtent with the other ſcales, and is conformable to the general rule.

N° 26. *Scale of* C *major*; fourth of the preceding. Take C—D—E, two tones, 1—2—4, on the firſt ſtring; F—G—A, two tones, 1—2—3; B C—D, ſemitone and tone, 1 2—3; E F—G, ſemitone and tone, 1 2—3; and A—B C, tone and ſemitone, 1—2 3. Deſcend by the ſame poſitions, as directed by the order of ſcales, in the margin of the examples, C, G, D, A, and E.

Thus every ſcale of the major mode, in the ſyſtem, and the whole compaſs of the inſtrument, have been exhauſted; for the ſixth ſemitonic interval, which would fall to be aſſumed for the next ſeries of ſcales, is F; the ſcale of which has been already given in N° 2. of the firſt ſeries: that of F ſharp is given in N° 8: the ſcale of G, the next ſemitone, is given in N° 14; the ſcale of A flat is N° 20; that of A natural is N° 31; the ſcale of B flat is N° 3; and that of B natural, the twelfth ſemitonic interval from the open ſtring C, is given in N° 9.

The advantages, to the learner, of conceiving and ſtudying the different ſcales, in the relations and order of the general ſyſtem, and of the different ſeries, given above, it is hoped, will prove conſiderable. The few ſcales that are communicated, occaſionally, by the maſter to the pupil, are ſuppoſed to have little or no relation to one another; and every ſcale appears to the latter, as entirely

entirely different from, and unaſſiſted by the knowledge of, any other; as the ſcales of B and E flat, N^os 17. & 18, for inſtance, compared with thoſe of D and G, N^os 13. & 14. Nay, ſo far from being conſidered as preparatory to, and dependant on, one another, they generally perplex the learner, by their apparent contrariety; and thus it muſt ever appear to him, until he has ſeen the whole chain, and the regular connection of its ſeveral links. I have never even met with a conſiſtent regular ſcale of the lower octaves of E major, N° 22; and B, N° 9. F♯, N° 8. and C♯, N° 7. have been conſidered as ſo intricate and extraneous, that a knowledge or ſtudy of them has been reckoned too difficult, and unneceſſary. It is true, there are few or no compoſitions ſet profeſſedly on theſe keys; but, as they occur in the courſe of the modulations in other keys, an acquaintance with them becomes neceſſary on that account; as well as their being, in our ſyſtem, the foundation of the more common ſcales of E, A, and D, N^os 10, 11, and 12, of the ſecond ſeries. Moreover, the ſcales in the upper compaſs of the inſtrument conſiſt of ſuch a number of ſteps, that, various, independant, and conſequently intricate, as they muſt appear to any one who has but a partial knowledge of the ſyſtem, the learner will often forget the ſteps that he has been taught to do particular ſcales by, unleſs they be kept in remembrance by conſtant practice; and the new ſcales he is learning, will often baniſh from his memory thoſe he has formerly learned and practiſed. In our method, this great inconvenience will be entirely remedied: the ſyſtem being once underſtood, the remembrance of one ſcale will lead to the whole. We ſhall take the firſt and ſecond ſeries for an example; the former introducing all the flats, and the latter the ſharps. Theſe ſcales are to be learned in the order they ſtand in, which is that of the general ſyſtem, by fourths aſcending; and, to aſſiſt the memory, this order is regiſtered in the margin of the examples. Setting apart the flats and ſharps, the order of ſcales in each ſeries is, C, F, B, E, A, D; that is, the laſt poſition of the firſt or ſcale of C, will be *a—b* C; of the ſecond, *d—e* F; of the third, *g—a* B; of the fourth, *c—d* E; of the fifth, *f—g* A; and of the ſixth, *b—c* D; being equally a tone and ſemitone in each ſeries; and this final poſition will fall to be added to the preceding ſcale, to complete the next ſcale in order; only depreſſing or flattening the ſeventh note of ſuch preceding ſcale, as before directed. Thus, to arrive at A, the learner muſt neceſſarily paſs through the preceding poſitions C, F, B, E; that is, *a—b*—C, *d—e*—F, *g a*—B, *c d*—E, and then there remains only to add, *f—g* A; and to deſcend in D, he muſt follow the inverſe order of the poſitions, and take D, A, E, B, F, which laſt will be the final poſition, *f—e*—D. Thus a knowledge of the order of theſe ſcales will ſerve equally, whether flats or ſharps are to be uſed; and it will hence follow, that the practice of the lower ſcales will be not only neceſſary in themſelves, but be the beſt preparation for, and the moſt natural and eaſieſt way of attaining, the ſcales of a higher compaſs; for after having done the ſcale of F, the learner will only have to add the tone and ſemitone, *g—a* B, to be equally maſter of the ſcale of B; and ſo of all the others.

Nothing now remains to complete the ſyſtem of ſcales, but to proceed in the ſame manner with thoſe of the minor mode, which are reſerved for the next Chapter.

CHAP. III.

Of the Manner of Fingering the Twelve Scales of the Minor Mode, throughout the whole Compaſs of the Violoncello.

A *Mode*, in Muſic, may be defined, the manner in which the octave is conſtituted, or the particular order in which the elementary degrees are placed in the octave. Thus the order of degrees, 1. key-note, 2. tone major, 3. tone minor, 4. ſemitone, 5. tone major, 6. tone minor, 7. tone major, 8. ſemitone, is denominated the *major mode*, or ſharp key, from the third degree of the ſcale; being an interval of two tones, or greater third, to the key-note: and the order of degrees, 1. key-note, 2. tone major, 3. ſemitone, 4. tone minor, 5. tone major, 6. ſemitone,

7. tone major, 8. tone major, is called the *minor mode*, or flat key, on account of the third degree of the ſcale being an interval of tone and ſemitone, or leſſer third to the key-note. The difference of the conſtruction of the two modes may be more clearly conceived, by comparing the intervals of the ſcale of C major, and thoſe of the ſcale of A minor, thus:

Major mode, -- - C—D—E F—G—A—B C;
Minor mode, - - A—B C—D—E F—G—A.

In the minor mode, the ſemitonic intervals are at the third and ſixth degrees of the ſcale; and the third, ſixth, and ſeventh degrees will be found each a ſemitone lower than the ſame degrees of the major ſcale; conſequently, to conſtitute the ſcale of C a minor mode, E, A, and B, muſt be depreſſed a ſemitone each, and be made Eb, Ab, and Bb; and to conſtitute the ſcale of A a major mode, the ſame degrees of third, ſixth, and ſeventh, muſt be elevated a ſemitone each, and be denominated C♯, F♯, and G♯; and therefore, to take away three ſharps, or to add three flats; or, which is the ſame thing, where there are fewer flats or ſharps at the clef, to take away two ſharps, and add one flat; or to take away one ſharp, and add two flats; will reduce the major mode of any key to the minor mode of the ſame key; and, vice verſa, to add three ſharps, or take away three flats, will, of any minor key, conſtitute a major.

The intervals of the flat keys, or minor mode, however, have their peculiar character, and beſt effect, in their deſcending progreſſion; and a gradual aſcent, ſo as to cloſe on the key-note, is never made with the flat ſixth and ſeventh of the ſcale, but with the ſharp or greater ſixth and ſeventh; ſo that, in the *aſcending ſcales*, the upper half or tetrachord will be exactly ſimilar to that of the major mode; as, in the ſcale of C minor, the upper tetrachord will be G—A—B C, aſcending, but C—Bb—Ab—G, deſcending; and in the ſcale of A, the upper tetrachord will be E—F♯—G♯A, aſcending, and A—G—F—E, in the deſcending ſcale. I am aware, at the ſame time, of a different manner of aſcending the minor ſcales, which ſometimes occurs in modern compoſitions, by the flat ſixth, and greater ſeventh, making an interval of three ſemitones; but this practice is not generally adopted, nor agreeable to the rules laid down by the beſt theoriſts; I ſhall therefore follow the more eſtabliſhed method, and begin with the

Firſt Series of Scales, C, F, Bb, Eb, Ab, Db, Minor.

N° 27. C *minor*. Aſcending ſcale; C—D Eb—F, tone, ſemitone, and tone, 0—1 2—4, on the fourth ſtring; G—A—B C, two tones and a ſemitone, 0—1—3 4, on the third ſtring; D Eb—F—G, ſemitone and two tones, 0 1—2—4, on the ſecond ſtring; and A—B C, tone and ſemitone, 1—3 4, likewiſe on the ſecond ſtring. Deſcending ſcale; C—Bb—Ab, two tones, 4—2—1; G—F—EbD, two tones and a ſemitone, 4—2—1 0, both poſitions on the ſecond ſtring; C—Bb—AbG, two tones and a ſemitone, 4—2—1 0, third ſtring; and F—EbD—C, tone, ſemitone, and tone, 4—2 1—0, fourth ſtring.

N° 28. F *minor*. Aſcending; F, the fourth note of the preceding ſcale, with the fourth finger on the fourth ſtring; G Ab—Bb—C, ſemitone and two tones, 0 1—2—4, on the third ſtring; D—E F—G, tone, ſemitone, and tone, 0—1 2—4, on the ſecond ſtring; Ab—Bb—C, two tones, 1—2—4, on the ſecond ſtring; and D—E F, tone and ſemitone, 1—3 4, on the firſt ſtring. Deſcending; F—Eb—Db, two tones, 4—2—1; C—Bb—Ab, two tones, 4—2—1, ſecond ſtring; G—F—Eb, two tones, 4—2—1, ſecond ſtring; DbC—Bb, ſemitone and tone, 4 3—1, on the third ſtring; and AbG—F, 4 3—1, on the fourth ſtring; or, more ſimply, and better in practice, both theſe poſitions may be taken, 3 2—1.

N° 29. B *flat minor*. Aſcending; Bb—C Db, tone and ſemitone, 1—3 4 or 1—2 3, on the third ſtring; Eb—F—G, two tones, 1—2—4, on the ſecond ſtring; A Bb—C, ſemitone and tone, 1 2—4, on the ſecond ſtring; Db—Eb—F, two tones, 1—2—4, on the firſt ſtring; and G—A Bb, tone and ſemitone, 1—2 3. Deſcending; Bb—Ab—Gb, two tones, 3—2—1; F—Eb—Db, two tones, 4—2—1, on the firſt ſtring; C—Bb—Ab, two tones, on the ſecond ſtring; GbF—Eb, ſemitone and tone, 3 2—1, ſecond ſtring; and DbC—Bb, ſemitone and tone, 3 2—1, third ſtring; or both poſitions 4 3—1.

N° 30. E *flat minor.* Aſcending; Eb—F Gb, tone and ſemitone, 1—3 4 or 1—2 3, ſecond ſtring; Ab—Bb—C, two tones, 1—2—4, ſecond ſtring; D Eb—F, ſemitone and tone, 1 2—4, firſt ſtring; Gb—Ab—Bb, two tones, 1—2—3; and C—D Eb, tone and ſemitone, 1—2 3. Deſcending; Eb—Db—Cb, two tones, 3—2—1; Bb—Ab—Gb, two tones, 3—2—1; F—Eb—Db, two tones, 4—2—1, all on the firſt ſtring; Cb Bb—Ab, ſemitone and tone, 3 2—1; ſecond ſtring; and Gb F—Eb, ſemitone and tone, 3 2—1, on the ſecond ſtring; or both poſitions, 4 3—1.

N° 31. A *flat minor.* Aſcending; Ab—Bb Cb, tone and ſemitone, 1—3 4 or 1—2 3, ſecond ſtring; Db—Eb—F, two tones, 1—2—4, firſt ſtring; G Ab—Bb, ſemitone and tone, 1 2—3; Cb—Db—Eb, two tones, 1—2—3; F—G Ab, tone and ſemitone, 1—2 3. Deſcending; Ab—Gb—Fb, two tones, 3—2—1; Eb—Db—Cb, two tones, 3—2—1; Bb—Ab—Gb, two tones, 3—2—1; Fb Eb—Db, ſemitone and tone, 3 2—1, all on the firſt ſtring; and Cb Bb—Ab, ſemitone and tone, 3 2—1, on the ſecond ſtring; or both the laſt poſitions, 3 2—1.

N° 32. D *flat minor.* Aſcending; Db—Eb Fb, tone and ſemitone, 1—3 4 or 1—2 3, firſt ſtring; Gb—Ab—Bb, two tones, 1—2—3; C Db—Eb, ſemitone and tone, 1 2—3; Fb—Gb—Ab, two tones, 1—2—3; and Bb—C Db, tone and ſemitone, 1—2 3. Deſcending; Db—Cb—Bbb, two tones (equivalent to C♯—B—A), 3—2—1; Ab—Gb—Fb, two tones, 3—2—1; Eb—Db—Cb, two tones, 3—2—1; Bbb Ab—Gb, ſemitone and tone, 3 2—1; and Fb Eb—Db, ſemitone and tone, 3 2—1 or 4 3—1, all on the firſt ſtring.

Second Series, C♯, F♯, B, E, A, D, Minor.

N° 33. C *ſharp minor.* Aſcending; C♯—D♯E, tone and ſemitone, 1—3 4, fourth ſtring; F♯—G♯—A♯, two tones, 1—2—4, fourth ſtring; B♯C♯—D♯, ſemitone and tone, 1 2—4, third ſtring; E—F♯—G♯, two tones, 1—2—4, ſecond ſtring; and A♯—B♯C♯, tone and ſemitone, 1—3 4, firſt ſtring. Deſcending; C♯—B—A, two tones, 4—2—0; G♯—F♯—E, two tones, 4—2—1; D♯—C♯—B, two tones, 1—2—4, third ſtring; A G♯—F♯, ſemitone and tone, 3 2—1, fourth ſtring; and E D♯—C♯, ſemitone and tone, 3 2—1, fourth ſtring; or both poſitions, 4 3—1.

N° 34. F *ſharp minor.* Aſcending; F♯—G♯A, tone and ſemitone, 1—3 4, fourth ſtring; B—C♯—D♯, two tones, 1—2—4, third ſtring; E♯F♯—G, ſemitone and tone, 1 2—4, ſecond ſtring; A—B—C♯, two tones, 0—1—2, firſt ſtring; and D♯—E♯F♯, tone and ſemitone, 1—3 4. Deſcending; F♯—E—D, two tones, 4—2—1; C♯—B—A, two tones, 2—1—0, firſt ſtring; G♯—F♯—E, two tones, 4—2—1, ſecond ſtring; D C♯—B, ſemitone and tone, 3 2—1, third ſtring; and A G♯—F♯, ſemitone and tone, 3 2—1, fourth ſtring; or 4 3—1, in both poſitions.

N° 35. B *minor.* Aſcending; B—C♯D, tone and ſemitone, 1—3 4, third ſtring, or B—C♯, 2—4, third ſtring, and D, 0, ſecond ſtring; E—F♯—G♯, two tones, 1—2—4, ſecond ſtring; A♯B—C♯, ſemitone and tone, 1 2—4, firſt ſtring; D—E—F♯, two tones, 1—2—4; G♯—A♯B, tone and ſemitone, 1—2 3. Deſcending; B—A—G, two tones, 3—2—1; F♯—E—D, two tones, 4—2—1; C♯—B—A, two tones, 2—1—0, all on the firſt ſtring; G F♯—E, ſemitone and tone, 4 3—1, ſecond ſtring; and D C♯—B, ſemitone and tone, 0—4—2.

N° 36. E *minor.* Aſcending; E—F♯G, tone and ſemitone, 1—3 4, ſecond ſtring; A—B—C♯, two tones, 0—1—2, firſt ſtring; D♯E—F♯, ſemitone and tone, 1 2—4; G—A—B, two tones, 1—2—3; C♯—D♯E, ſemitone and tone, 1—2 3. Deſcending; E—D—C, two tones, 3—2—1; B—A—G, two tones, 3—2—1; F♯—E—D, two tones, 4—2—1; C B—A, ſemitone and tone, 2 1—0; G F♯—E, ſemitone and tone, 4 3—1.

N° 37. A *minor.* Aſcending; A—B C, tone and ſemitone, 0—1 2, firſt ſtring; D—E—F♯, two tones, 1—2—4; G♯A—B, ſemitone and tone, 1 2—3; C—D—E, two tones, 1—2—3; and F♯—G♯A, tone and ſemitone, 1—2 3. Deſcending; A—G—F, two tones, 3—2—1; E—D—C, two tones, 3—2—1; B—A—G, two tones, 3—2—1; F E—D, 3 2—1, or 4 3—1; C B—A, 2 1—0.

N° 38. D *minor.*

N° 38. D *minor*. Aſcending; D—E F, tone and ſemitone, 1—3 4 or 1—2 3, firſt ſtring; G—A—B, two tones, 1—2—3; C♯D—E, ſemitone and tone, 1 2—3; F—G—A, two tones, 1—2—3; and B—C♯D, tone and ſemitone, 1—2 3. Deſcending; D—C—B♭, two tones, 3—2—1; A—G—F, two tones, 3—2—1; E—D—C, two tones, 3—2—1; B♭A—G, ſemitone and tone, 3 2—1; and F E—D, ſemitone and tone, 3 2—1, or 4 3—1.

Third Series, D, G, C, F, B♭, E♭, Minor.

N° 39. D *minor*. Aſcending; D—E F, tone and ſemitone, 1—3 4, fourth ſtring; G—A—B—C♯, three tones, 0—1—2—4, third ſtring; D—E F—G, tone, ſemitone, and tone, 0—1 2—4, ſecond ſtring; A—B—C♯D, two tones and ſemitone, 0—1—3 4, firſt ſtring. Deſcending; D—C—B♭A, two tones and a ſemitone, 4—2—1 0; G—F E—D, tone, ſemitone, and tone, 4—2 1—0, ſecond ſtring; C—B♭A—G, tone, ſemitone, and tone, 4—2 1—0, third ſtring; and F E—D, ſemitone and tone, 4 3—1.

N° 40. G *minor*. Aſcending; G—A B♭—C, tone, ſemitone, and tone, 0—1 2—4, third ſtring; D—E—F♯G, two tones and a ſemitone, 0—1—3 4, ſecond ſtring; A B♭—C—D, ſemitone and two tones, 0 1—2—4, firſt ſtring; and E—F♯G, tone and ſemitone, 1—3 4. Deſcending; G—F—E♭, two tones, 4—2—1; D—C—B♭A, two tones and a ſemitone, 4—2—1 0, firſt ſtring; G—F—E♭D, two tones and a ſemitone, 4—2—1 0, ſecond ſtring; and C—B♭A—G, tone, ſemitone, and tone, 4—2 1—0, third ſtring.

N° 41. C *minor*. Aſcending; C, fourth finger on the third ſtring; D E♭—F—G, ſemitone and two tones, 0 1—2—4, ſecond ſtring; A—B C—D, tone, ſemitone, and tone, 0—1 2—4, firſt ſtring; E♭—F—G, two tones, 1—2—4; and A—B C, tone and ſemitone, 1—2 3. Deſcending; C—B♭—A♭, two tones, 3—2—1; G—F—E♭, two tones, 4—2—1; D—C—B♭, two tones, 4—2—1, all on the firſt ſtring; A♭G—F, ſemitone and tone, 3 2—1, ſecond ſtring; and E♭D—C, 3 2—1, third ſtring; or 4 3—1, in both poſitions.

N° 42. F *minor*. Aſcending; F—G A♭, tone and ſemitone, 1—3 4 or 1—2 3, ſecond ſtring; B♭—C—D, two tones, 1—2—4, firſt ſtring; E F—G, ſemitone and tone, 1 2—4; A♭—B♭—C, two tones, 1—2—3; and D—E F, tone and ſemitone, 1—2 3. Deſcending; F—E♭—D♭, two tones, 3—2—1; C—B♭—A♭, two tones, 3—2—1; G—F—E♭, two tones, 4—2—1; D♭C—B♭, ſemitone and tone, 3 2—1, on the firſt ſtring; and A♭G—F, ſemitone and tone, 3 2—1, on the ſecond ſtring; or 4 3—1, in both the laſt poſitions.

N° 43. B *flat minor*. Aſcending; B♭—C D♭, tone and ſemitone, 1—3 4 or 1—2 3, firſt ſtring; E♭—F—G, two tones, 1—2—4; A B♭—C, ſemitone and tone, 1 2—3; D♭—E♭—F, two tones, 1—2—3; and G—A B♭, tone and ſemitone, 1—2 3. Deſcending; B♭—A♭—G♭, two tones, 3—2—1; F—E—D♭, two tones, 3—2—1; C—B♭—A♭, two tones, 3—2—1; G♭F—E♭, ſemitone and tone, 3 2—1; and D♭C—B♭, ſemitone and tone, 3 2—1; or 4 3—1, in both the laſt poſitions.

N° 44. E *flat minor*. Aſcending; E♭—F G♭, tone and ſemitone, 1—3 4 or 1—2 3, firſt ſtring; A♭—B♭—C, two tones, 1—2—3; D E♭—F, ſemitone and tone, 1 2—3; G♭—A♭—B♭, two tones, 1—2—3; and C—D E♭, tone and ſemitone, 1—2 3. Deſcending; E♭—D♭—C♭, two tones, 3—2—1; B♭—A♭—G♭, two tones, 3—2—1; F—E♭—D♭, two tones, 3—2—1; C♭B♭—A♭, ſemitone and tone, 3 2—1; and G♭F—E♭, ſemitone and tone, 3 2—1 or 4 3—1.

Fourth Series, E♭, A♭, D♭, Minor.

N° 45. E *flat minor*. Aſcending; E♭—F G♭, tone and ſemitone, 1—3 4 or 1—2 3, fourth ſtring; A♭—B♭—C, two tones, 1—2—4, third ſtring; D E♭—F, ſemitone and tone, 0 1—2, ſecond ſtring; G♭—A♭—B♭, two tones, 1—2—4, ſecond ſtring; and C—D E♭, tone and ſemitone, 1—3 4, firſt ſtring. Deſcending; E♭—D♭—C♭, two tones, 4—2—1; B♭—A♭—G♭, two tones, 4—2—1, ſecond ſtring; F—E♭—D♭, two tones, 4—2—1, third ſtring; C♭B♭—A♭, ſemitone and tone, 3 2—1, third ſtring; G♭F—E♭, ſemitone and tone, 3 2—1, fourth ſtring; 4 3—1, in the two laſt poſitions.

N° 46. A *flat minor*. Aſcending; Ab—BbCb, tone and ſemitone, 1—3 4 or 1—2 3, third ſtring; Db—Eb—F, two tones, 1—2—4, third ſtring; GAb—Bb, ſemitone and tone, 1 2—4, ſecond ſtring; Cb—Db—Eb, two tones, 1—2—4, firſt ſtring; and F—G Ab, tone and ſemitone, 1—2 3. Deſcending; Ab—Gb—Fb, two tones, 3—2—1; Eb—Db—Cb, two tones, 4—2—1; Bb—Ab—Gb, two tones, 4—2—1, ſecond ſtring; FbEb—Db, ſemitone and tone, 3 2—1, third ſtring; and CbBb—Ab, ſemitone and tone, third ſtring; or 4 3—1, in the two laſt poſitions.

N° 47. D *flat minor*. Aſcending; Db—EbFb, tone and ſemitone, 1—3 4 or 1—2 3, third ſtring; Gb—Ab—Bb, two tones, 1—2—4, ſecond ſtring; C Db—Eb, ſemitone and tone, 1 2—4, firſt ſtring; Fb—Gb—Ab, two tones, 1—2—3; and Bb—C Db, tone and ſemitone, 1—2 3. Deſcending; Db—Cb—Bbb, two tones, 3—2—1; Ab—Gb—Fb, two tones, 3—2—1; Eb—Db—Cb, two tones, 4—2—1, all on the firſt ſtring; BbbAb—Gb, ſemitone and tone, 3 2—1, ſecond ſtring; and FbEb—Db, ſemitone and tone, 3 2—1, on the third ſtring; or 4 3—1, in the two laſt poſitions.

Fifth Series of Scales, E, A, D, G, C, Minor.

N° 48. E *minor*. Aſcending; E—F♯, tone, 2—4, on the fourth ſtring; G—A—B—C♯, three tones, 0—1—2—4, third ſtring; D♯E—F♯, ſemitone and tone, 1 2—4, ſecond ſtring; G—A—B, two tones, 1—2—4, ſecond ſtring; C♯—D♯E, tone and ſemitone, 1—3 4, firſt ſtring. Deſcending; E—D—C, two tones, 4—2—1; B—A—G, two tones, 4—2—1, ſecond ſtring; F♯—E—D, two tones, 2—1—0, ſecond ſtring; C B—A—G, ſemitone and two tones, 4 3—1—0, third ſtring; and F—E, tone, 4—2, on the fourth ſtring.

N° 49. A *minor*. Aſcending; A—B C, tone and ſemitone, 1—3 4, third ſtring; D—E—F♯, two tones, 0—1—2, ſecond ſtring; G♯A—B, ſemitone and tone, 1 2—4, ſecond ſtring; C—D—E, two tones, 1—2—4, firſt ſtring; F♯—G♯A, tone and ſemitone, 1—2 3. Deſcending; A—G—F, two tones, 3—2—1; E—D—C, two tones, 4—2—1; B—A—G, two tones, 4—2—1, ſecond ſtring; F E—D, ſemitone and tone, 2 1—0, ſecond ſtring; and C B—A, ſemitone and tone, 4 3—1, third ſtring.

N° 50. D *minor*. Aſcending; D—E F—G, tone, ſemitone, and tone, 0—1 2—4, ſecond ſtring; A—B—C♯, two tones, 0—1—3, firſt ſtring; D—E, tone, 1—2; F—G—A, two tones, 1—2—3; and B—C♯D, tone and ſemitone, 1—2 3. Deſcending; D—C—BbA, two tones and a ſemitone, 3—2—1 ×; G—F E, tone and ſemitone, 4—2 1; D—C—BbA, two tones and a ſemitone, 4—2—1 0, all on the firſt ſtring; and G—F E—D, tone, ſemitone, and tone, 4—2 1—0, on the ſecond ſtring.

N° 51. G *minor*. Aſcending; G—A Bb, tone and ſemitone, 1—3 4, ſecond ſtring; C—D—E, two tones, 1—2—4, firſt ſtring; F♯G—A, ſemitone and tone, 1 2—3; Bb—C—D, two tones, 1—2—3; E—F♯G, tone and ſemitone, 1—2 3. Deſcending; G—F—Eb, two tones, 3—2—1; D—C—Bb, two tones, 3—2—1; A—G—F, two tones, 3—2—1; EbD—C, ſemitone and tone, 3 2—1, all on the firſt ſtring; and BbA—G, ſemitone and tone, 3 2—1 or 4 3—1, on the ſecond ſtring.

N° 52. C *minor*. Aſcending; C—D Eb, tone and ſemitone, 1—2 3 or 1—3 4, firſt ſtring; F—G—A, two tones, 1—2—3; B C—D, ſemitone and tone, 1 2—3; Eb—F—G, two tones, 1—2—3; and A—B C, tone and ſemitone, 1—2 3. Deſcending; C—Bb—Ab, two tones, 3—2—1; G—F—Eb, two tones, 3—2—1; D—C—Bb, two tones, 3—2—1; AbG—F, ſemitone and tone, 3 2—1; and EbD—C, ſemitone and tone, 3 2—1.

CHAP. IV.

General Rules of Fingering eſtabliſhed.

THE rules of fingering, and order of ſcales, laid down in the two preceding Chapters, are all deductions from the principle, that the ſeventh of any ſcale, being depreſſed or flattened a ſemitone, will become the fourth degree of another ſcale, the key-note of which is a fourth more acute than that of the former, while the other degrees of both ſcales will remain the ſame; and by purſuing the order of fourths aſcending, all the keys in the ſyſtem have been introduced. We ſhall now proceed to eſtabliſh general rules of fingering, for one and two octaves, from other principles; that is, from the number and ſize of the intervals conſtituting ſuch octaves, compared with the moſt natural and eaſieſt extenſions of the fingers; the reſult whereof will be, a further confirmation of the rules before given, and a more clear and conciſe view of the fingering of the whole ſyſtem.

An octave, in any ſcale of the ſyſtem, of the major mode, conſiſts of the intervals 1—2—3 4—5—6—7 8; the moſt ſimple diviſion of which is that into two equal parts, or tetrachords, 1—2—3 4, and 5—6—7 8; and this ſimpleſt diviſion of it is adopted, when the thumb is made uſe of; which being placed on the key-note on one ſtring, and on the fifth of the ſcale on the other, an octave will be divided into two ſimilar parts; and every octave in the ſyſtem, thus taken, will always have this uniform fingering, ×—1—2 3, ×—1—2 3. The ſame diviſion is alſo made uſe of in ſcales where an open ſtring is the key-note, and another open ſtring the fifth of the key; as in the ſcale of C, N° 1; of G, N° 14; and of D, in the third and fourth bars of N° 13; each tetrachord being taken o—1—3 4, or o—1—2 3.

But the ſcales of C, G, and D, the only keys in which this diviſion of the octave can be uſed, require a different method of fingering in every octave but that in which the two open ſtrings are placed; and, therefore, an octave including an open ſtring is to be conſidered rather as an exception, than as ſuggeſting any general rule of fingering. The intervals in the lower compaſs of the inſtrument are of ſuch a ſize, that the utmoſt extenſion of the four fingers, without uſing the thumb, is only equal to the diſtance of two tones, or interval of a greater third (ſee the poſition, *Fig.* 17.); and as this interval conſiſts of two equal parts (without going into the minuter difference of tone major and tone minor), the ſecond finger muſt be extended to the middle point, betwixt the firſt and fourth finger, which is always meant by the poſition 1—2—4. But ſeveral intervals of thirds, in the ſcale, are leſs, by a ſemitone, than that of the greater third; and as theſe occur more frequently, the moſt general poſition of the hand, in the lower compaſs, is that of *Fig.* 16. The natural extenſion of the hand being therefore limited to the interval of a third, greater or leſſer, the degrees of the ſcale are to be divided by three; and the eight degrees of an octave will conſiſt of two of theſe diviſions, and two degrees of a remainder. Now, in order to determine the order that theſe diviſions and remainder are to be placed in, it is neceſſary to obſerve, that the two degrees of a remainder cannot be in the laſt or concluding poſition, which muſt always reſolve into a tone and ſemitone, 1—2 3, for the purpoſe of placing the thumb a tone lower than the firſt finger, and forming the tetrachord, or half octave, ×—1—2 3, a poſition uſually continued for ſome time in the upper compaſs of the inſtrument; and to determine whether theſe two remaining notes muſt be in the firſt or ſecond poſition, we have only to conſider the eaſe and certainty of ſhifting the hand from the key-note, and ſecond of the ſcale, to the third degree, compared to the greater and more uncertain ſkip to the fourth: the two notes will therefore be beſt placed in the firſt poſition; and being the two firſt degrees of the ſcale, will be fingered 1—2: the ſecond poſition will contain the third, fourth, and fifth of the ſcale, and be fingered 1 2—4; and the third poſition, conſiſting of the ſixth, ſeventh, and eighth, will, like the concluding poſition of every ſcale in the ſyſtem, be fingered 1 2—3. This agrees with the fingering of the foregoing

foregoing ſcales, where the key-note is taken with the firſt finger, as in the ſecond octave of Bb, N° 3; and the ſecond octave of Eb, N° 19: and in the obſervations on N° 3, the fingering for the laſt octave of Bb, eſtabliſhed from the other principles, will appear to be the ſame with the general rule for one octave now given. It is a conſequence of the rule for fingering two octaves, that the eighth note ſhall be taken with the ſecond finger; and therefore, in the ſecond octaves of the other ſcales, the firſt and ſecond degrees of the acuter octave are fingered with the ſecond and fourth finger, 2—4, inſtead of 1—2, by the preſent general rule; but the remaining two poſitions in all the ſcales correſpond with it, being 1 2—4, and 1—2 3.

N° 53 contains examples in Eb and Bb major, being the application of the general rule for one octave; and it may be obſerved, that in the latter example the octave is taken on one ſtring, and in the former on two ſtrings, and the three poſitions alike in both examples, viz. 1—2; 1 2—4; and 1 2—3; it being a property of inſtruments tuned by perfect fifths, that to *aſcend* one degree of the ſcale towards the bridge, after a poſition of three notes, on one ſtring, or to *deſcend* one degree towards the nut, on the next ſuperior ſtring, will equally bring you to the next degree of the ſcale.

A ſcale of two octaves conſiſts of fifteen degrees, which naturally divide into five poſitions of a third, greater or leſſer, each; and theſe poſitions will, from the ſize of their intervals, require the following fingering. Firſt poſition, a greater third, 1—2—4; ſecond poſition, a greater third, 1—2—4; third poſition, a leſſer third, 1 2—4; fourth poſition, a leſſer third, 1 2—4; and the fifth poſition, a leſſer third, 1—2 3. But as there is a difference in the order of the ſemitone in the fifth poſition, and of thoſe in the third and fourth poſitions, it will be neceſſary to diſtinguiſh this variety in the leſſer thirds; and for the reaſons that will be given, in the obſervations on the examples N° 67 and N° 68, a poſition conſiſting of a tone and ſemitone ſhall in future be called a *firſt minor* poſition; one conſiſting of a ſemitone and tone, a *ſecond minor*; and one conſiſting of two tones, a *major* poſition. The general rule, therefore, for fingering a ſcale of two octaves, may be expreſſed briefly, thus: Two major poſitions, two ſecond minor poſitions, and one firſt minor.

N° 54 is the exemplification of this general rule in the ſcale of Eb major; and the fingering is in every reſpect conformable to that of N° 4 (given on the former principle), and to every ſcale in the ſyſtem, where an open ſtring is not taken as one of the degrees of the ſcale. This rule will equally hold, whether the two octaves are to be taken on one ſtring, or any number of the poſitions on one ſtring, and the remainder on one or two other ſtrings. N° 7, the firſt ſcale of the ſecond ſeries, exhibits an example, where the five poſitions are taken on four ſtrings; namely, the two major poſitions on the fourth ſtring, a ſecond minor on the third ſtring, a ſecond minor on the ſecond ſtring, and a firſt minor on the firſt ſtring; and the ſame poſitions, in their inverted order, for the deſcending ſcale. In the preſent example, N° 54, the fingering marked will equally ſerve, whether the two octaves are to be taken entirely on the ſecond ſtring, or only the two firſt poſitions on the ſecond, and the remaining three on the firſt ſtring, as in N° 4.

But when an open ſtring is to be the key or firſt note of an octave, the ſecond and third degrees of the ſcale, together with the open ſtring, muſt be taken in the firſt poſition, o—1—2; otherwiſe there would be two conſecutive notes taken with the ſame finger; which muſt never be done, if it can poſſibly be avoided; next muſt follow the fourth and fifth of the ſcale, a tone, 1—2; and, laſtly, the ſixth, ſeventh, and octave, tone and ſemitone, 1—2 3. N° 55 contains the ſcale of D major at *a*, and that of A major at *b*, as examples of the fingering of an octave on one ſtring, beginning with the open note.

N° 56 is an example of the manner of taking two octaves on one ſtring, beginning with the open note. This differs from the general rule for two octaves in nothing but the manner of fingering the firſt major poſition; which, on account of the open ſtring, muſt be taken o—1—2: the other poſitions conform to the general rule, viz. a major poſition, two ſecond minor poſitions, and one firſt minor.

N° 57

N° 57 exhibits another manner of taking two octaves on D major, all on the ſecond ſtring, excepting the laſt half octave or tetrachord A—B—C♯D, which is taken on the firſt ſtring, ×—1—2 3. This manner of aſcending the firſt octave, and ſometimes alſo the next tetrachord, on the ſecond ſtring, will be found of great uſe; eſpecially when, after the firſt octave, the aſcending ſcale is interrupted by a deſcent of a fourth, or fifth, as at *a*, and *b*, in N° 60, and following examples.

N° 58 is the ſcale of E♭, taken on the ſecond ſtring, excepting the laſt tetrachord, B—C, D E♭, which is taken on the firſt ſtring, ×—1—2 3; and N° 59 is the ſame ſcale, with the firſt octave only, taken on the ſecond ſtring; the remaining ſeven notes, F—G A♭—B♭, C—D E♭, being taken on the firſt ſtring, ×—1 2—3, and 1—2 3.

N° 60 is the ſcale of D, with a deſcent of a fourth and a fifth, at *a* and *b*. The rule of fingering an octave on one ſtring is to be followed, and the thumb will fall on the fourth note below the octave; the tetrachord A—B—C♯D will be repeated on the ſecond ſtring, ×—1—2 3, followed by E—F♯G, 1—2 3, alſo on the ſecond ſtring; then the thumb will be on the firſt ſtring at A, and on D on the ſecond ſtring, as at *b*: the remaining part of the example is to be taken without quitting the poſition.

N° 61 is the ſcale of E♭ major, with the ſame deſcent of a fourth and a fifth at *a* and *b*. The firſt octave is to be taken, by the general rule, on the ſecond ſtring; and the reſt of the fingering will proceed as in the preceding example.

N° 62 is the ſcale of F major, with the ſame deſcent of a fourth and fifth at *a* and *b*. The firſt octave is taken 2—4, inſtead of 1—2; the two remaining poſitions, like the general rule, are taken 1 2—4, and 1—2 3, all on the ſecond ſtring; and the reſt of the fingering is ſimilar to that of the two foregoing examples.

N° 63 is a recapitulation of N° 13 and N° 12; the former being the two lower octaves, and the latter the two upper octaves, of the ſcale of D major. They are here joined into one ſcale of four conſecutive octaves. The junction is effected, by quitting the poſition at C, on the firſt ſtring, and taking the next, D—E—F♯, on the ſame ſtring, inſtead of concluding at D, with the third finger, as in N° 13.

N° 64 is a recapitulation of N° 19 and N° 18; the former being the two lower octaves, and the latter the two acuter octaves, of E♭ major. In order to get into the firſt poſition of N° 18, E♭—F—G, 1—2—4, it will be neceſſary to quit the poſition at C—D, 1—2, on the firſt ſtring, inſtead of concluding at E♭, with the third finger, as in N° 19.

N° 65 is a joining of the two ſcales, N° 7 and N° 6; the degrees of the ſcale of D♭, of the latter example, being changed into thoſe of the key of C♯. What is neceſſary to be obſerved, in joining theſe two ſcales, has been already mentioned, in the obſervations on N° 6.

N° 66 is a recapitulation of N° 1 and N° 26, being the four octaves of the ſcale of C major, with the fingering that has been given to each of theſe examples, excepting at C—D—E, on the firſt ſtring; which, inſtead of being taken 1—2—4, as in the firſt poſition of N° 26, is marked D—E, 1—2; C being taken with the ſecond finger, as in N° 1. Under this fingering is added another line of figures, which are the ſame with thoſe at N° 65, the ſcale of C♯. The latter figures are given with a view of drawing this inference, from comparing the general rules, and the fingering of every ſcale in the ſyſtem, that as the intervals or degrees of each are alike, ſo the fingering is in every inſtance the ſame, with this exception only, that the four open ſtrings of the inſtrument, when they occur, and are to be taken as ſo many of the degrees, occaſion a ſeeming variety. In the preſent ſcale of C, the four open ſtrings are all to be taken; and the fingering, on that account, is the moſt diſſimilar that can be imagined to that of D♭, or C♯, where none of the open ſtrings are taken, excepting indeed the fourth open ſtring, as ſharp ſeventh of the key. But if the firſt finger be placed on the nut, which, in the open notes, does the office of a finger, the fingering of the ſcale of C will be neceſſarily ſimilar to that of C♯. And thus the ſame uniformity and ſimplicity that takes place in the degrees of the natural ſcale, will be recognized in the fingering of all the ſcales in the ſyſtem; which are nothing but an imitation, or rather a repetition, of the natural ſcale.

Scales

Scales of one or more octaves, and ſmaller portions of octaves, aſcending and deſcending, form no inconſiderable part of inſtrumental muſic; although paſſages conſiſting of greater intervals than the degrees of the ſcale will as frequently occur; and the knowledge of every property of the finger-board will be neceſſary to the learner, for the purpoſe of reſorting to that part of it, where any given paſſage can be taken with the greateſt eaſe, and produce the particular effect intended in the compoſition. From what has been already ſhown of the exact ſimilarity of the different ſcales in the ſyſtem, to the natural ſcale, it is evident, that whatever properties exiſt in the latter, will equally take place in the others. An inveſtigation of the properties of any one ſcale, will therefore be ſufficient for the whole.

To diſcover how many poſſible poſitions there can be in a key, and to inveſtigate their properties, it will be neceſſary to take every degree of the ſcale in ſucceſſion, and, conſidering each as forming a different poſition on the finger-board, to aſcertain the particular degrees of the ſcale that will occur in each. The firſt poſition will conſiſt of the key-note, ſecond, and third, of the ſcale, or major poſition, 1—2—4; ſhifting the hand to the ſecond degree of the ſcale, the poſition will conſiſt of the ſecond, third, and fourth, 1—3 4 or 1—2 3; and as this leſſer third, having a tone before the ſemitone, is the firſt that occurs in the ſcale, we have given it the appellation of a *firſt minor* poſition. Shifting the hand to the third degree of the ſcale, we have the third, fourth, and fifth, being a ſemitone and tone; and, in contradiſtinction to the former, we ſhall call this leſſer third a *ſecond minor* poſition; its fingering being 1 2—4. The hand then is ſhifted to the fourth of the ſcale, and will include the fourth, fifth, and ſixth, 1—2—4: on the fifth of the ſcale, it includes the fifth, ſixth, and ſeventh, 1—2—4, both major poſitions. On the ſixth of the ſcale, it comprehends the ſixth, ſeventh, and eighth, 1—3 4 or 1—2 3, being a firſt minor poſition; and on the ſeventh and laſt degree, it conſiſts of the ſeventh, eighth, and ninth, or firſt and ſecond degrees of the next octave, 1 2—4, being a ſecond minor poſition. We cannot diſcover any variety or new relation, in a further proſecution of theſe poſitions; nothing will occur but a replication of the ſame degrees of the ſcale, and a repetition of the ſame poſitions. The reſult therefore of this inquiry is, that the ſeven degrees of the ſcale produce ſeven poſitions on the finger-board, in the following order: 1. major poſition; 2. firſt minor poſition; 3. ſecond minor poſition; 4. major poſition; 5. major poſition; 6. firſt minor poſition; and, 7. ſecond minor poſition.

N° 67 and N° 68 are examples of theſe ſeven poſitions in the keys of Eb, and C♯ major. The four firſt poſitions are taken on one ſtring, and the remaining three on the next ſuperior ſtring; and it is worthy of remark, that on comparing the laſt three poſitions with the three firſt, they will be found to be of the ſame ſpecies of thirds in each poſition on both ſtrings. In the ſcale of Eb, for inſtance, the firſt or natural poſition of the hand, on the ſecond ſtring, is a major poſition, 1—2—4, and the ſame on the firſt ſtring; the ſecond poſition, or half ſhift, on the ſecond ſtring, is a firſt minor, 1—3 4 or 1—2 3, and the ſame on the firſt ſtring; and the third poſition, or full ſhift, on the ſame ſtring, is a ſecond minor, 1 2—4, and the ſame on the firſt ſtring. In both examples a ſecond octave is added, in which the ſame poſitions, in their order, and the ſame fingering, are repeated, excepting the diſuſe of the fourth finger, above G, on the firſt ſtring.

As all the ſcales of the ſyſtem are merely tranſpoſitions of one natural ſcale, it will follow, as an invariable rule of fingering in all ſcales, that a paſſage conſiſting of any degrees of the ſcale, excepting an open ſtring, that can be played in one poſition of the hand, in any given key, can be played in any other key in one poſition, and with the ſame fingering.

The two firſt bars of N° 69 is a paſſage in the ſcale of C, the fingering of which cannot poſſibly be different from that marked under the notes. The remaining bars of the example contain the ſame paſſage, tranſpoſed into the keys of F, C♯, F♯, B, E, A, D, Eb, Ab; in all which keys the paſſage is played with the ſame fingering that is marked in the key of C. The paſſage conſiſts of the key-note, third, fourth, fifth, ſeventh, octave, and ninth, of the key; which are taken with the fourth, firſt, ſecond, fourth, firſt, ſecond, and fourth fingers reſpectively.

At *b*, the paſſage is tranſpoſed to F, and the notes are to be taken in the ſame poſition as at *a*, only on the fourth, third, and ſecond ſtrings, inſtead of the third, ſecond, and firſt. At *c*, the paſſage is tranſpoſed to C♯, and the hand muſt be ſhifted a ſemitone ſharper than it was at *a*, taking the key-note C♯ with the fourth finger, and the other degrees as before; at *d*, it is in the key of F♯, taken in the ſame poſition as at C♯, but beginning on the fourth ſtring; at *e*, it is in the key of B, and the hand muſt be ſhifted a ſemitone nearer the nut than at *a*; at *f*, it is in the key of E, the hand continues in the ſame poſition as at *e*, but begins on the fourth ſtring; at *g*, it is in the key of D, and notwithſtanding the open ſtrings correſpond to D and A, the firſt and third notes of the paſſage, D muſt be taken with the fourth finger, on the third ſtring, a ſemitone ſharper than C♯ at *e*, and the reſt of the fingering muſt be like that at *a*; at *h*, it is played in the key of G, in the ſame poſition with D, but beginning on the fourth ſtring; at *i*, it is in the key of E♭, a ſemitone ſharper than D at *g*; at *k*, it is in the key of A♭, in the ſame poſition with E♭, but beginning on the fourth ſtring; at *l*, it is in E, the ſame key as at *f*, but an octave higher; this poſition is of courſe a ſemitone ſharper than that of E♭; and, laſtly, it is in the key of A, at *m*, the hand being in the ſame poſition as at *l*, only beginning on the fourth ſtring.

It is evident, that in every one of theſe keys, the paſſage muſt be equally eaſy, the fingering being the ſame in all. This example will ſerve to diminiſh that apprehenſion, which beginners are apt to have, on ſeeing a number of flats or ſharps at the clef; and will alſo evince to them, that a competent knowledge of the finger-board will, in general, render a paſſage equally eaſy on one key as another. Let the learner always remember the degrees of the ſcale that are practicable in one poſition, and be equally well acquainted with them when he ſees them in the notation; he will ſoon know where to take any paſſage, in the lower compaſs, in the eaſieſt and moſt natural way the caſe will admit of. Throughout the whole of this example, the hand is in the ſecond minor poſition, 1 2—4; which ſee, *Fig.* 16.

PART II.

THE PRACTICE OF FINGERING.

CHAP. I.

Of Accompaniment, or proper Baſſes.

WHETHER it would be moſt advantageous to the learner, to acquire a knowledge of the firſt principles of muſic, and of the theory of the finger-board, before he enters upon the ſtudy of the practical or mechanical part, I am not as yet ſufficiently warranted by experience to determine.—All I would at preſent contend for, is, the propriety and advantage of theory going at leaſt hand in hand with the practice.

In the ſtudy of the human ſciences or arts, but little real progreſs can be made at a time, nor can the mind be ſucceſsfully employed on more than one object at once. At the end of a given time, however, an incomparably greater progreſs will be made, by theſe conſtant, though ſmall, advances, and by purſuing every object ſeparately, than by vainly attempting to proceed by more rapid ſtrides, and allowing a greater number of objects to obtrude on the mind, and divide the attention.

attention. But this rational plan of ſtudy is, of all things, the moſt difficult to adopt, in the practice of inſtrumental muſic; for while moſt other ſtudies have their different parts gradually and ſucceſſively unfolded, and any one part can be made the object of a diſtinct attention, unembarraſſed by the conſideration of another, this naturally requires an union of all its conſtituent parts, and an equal attention to be given to each at the ſame inſtant; for, to the actual production of two or three muſical ſounds on the Violoncello, and other inſtruments of that claſs, the following acts of the mind and body are neceſſary at one and the ſame time: 1. An accurate diviſion of the finger-board, and placing the fingers of the left hand on it properly. 2. The more difficult and complicated action of the right-hand in conducting and preſſing the bow on the ſtrings. 3. The mind of the learner attending to and directing theſe different movements, at the ſame time reading and eſtimating the different muſical characters before him; as he is not only to produce the neceſſary ſounds, but to produce them in a certain given time: to which may be added, the difficulty of holding the inſtrument and bow in their reſpective poſitions, which muſt take place for ſome time. Hence the awkwardneſs of the firſt attempts, when it is impoſſible to give a proper attention to ſo many different objects; and the greater perplexity, at this time, both to the ſcholar and maſter, than at any future period of the ſtudy.

The more theſe different actions are naturally united, the more art and method are neceſſary to divide them, and to ſubject each to a ſeparate and diſtinct attention and ſtudy; and from the difficulty of always keeping this in view, and the want of unerring principles for the production of all the requiſite qualities in ſounds, tune alone excepted, the laws of which are ſufficiently known, ariſe the great intricacy of the ſtudy, and the uncertainty of attaining to excellence in it.

The moſt varied, complicated, and perfect inſtrumental performance, is reſolvable into the accuracy and purity of the ſeveral notes that it conſiſts of; and the cauſes of theſe qualities, into the mechanical action of the fingers, in ſtopping, and of the bow, in giving a proper degree of vibration to the ſtrings; and principles of fingering and bowing are to be received, in ſo far only as they tend to accompliſh theſe purpoſes.

It is apprehended, that every neceſſary rule for the former may be collected from the foregoing part of this treatiſe; but, in reſpect of the number of other objects that ought equally to engage the learner's attention, the remaining examples, being a ſeries of practice for every part of the finger-board, have the fingering added to them, for the further exemplification and illuſtration of the rules before given. With reſpect to the latter, which comprehends the whole art and management of the bow, by which every quality in ſound, excepting that of tune or pitch, is produced, although we have made this more particularly an object of our attention and ſtudy, both on account of its importance, and becauſe its principles are involved in greater intricacy and obſcurity, we do not profeſs an ability of delivering ſuch definitions of the minute and complicated motions employed in its various offices, but what would be very inadequate to convey our meaning, or might miſlead the learner, and bring the imputation of error on our principles. Beſides, the principles of bowing are themſelves ſo far from being properly aſcertained, that almoſt every maſter ſeems to have adopted different principles. Hence that difference in tone, which diſtinguiſhes almoſt every performer, but in a ſmaller degree thoſe of the ſame ſchool, who have followed nearly the ſame principles of bowing. Theſe conſiderations diſcouraged us from entering with any confidence on this part of the ſubject; but, willing to impart the knowledge of whatever we conceive to be uſeful to the learner, we ſhall give ſuch occaſional directions for the attaining this important part of the ſtudy, as ſhall appear well founded, notwithſtanding that, from the conſciouſneſs of the comparative imperfection of theſe, we have only ventured to give to this treatiſe the name of The Theory and Practice of *Fingering*.

Principles for the management of the bow, may be collected, à priori, from a ſtudy of the laws of the vibrations of ſtrings, and of different forces, or degrees and manner of percuſſion, applied to them; and, à poſteriori, from conſidering the effects of repeated experiments made on ſtrings by various degrees of preſſure of the bow. This will enable the learner more accurately to obſerve and aſcertain the particular force and manner made uſe of by other performers; to compare which

with

with the different qualities of ſound thereby produced, will lead to a knowledge of tone, and of the manner of producing it, in their relation of effect and cauſe.

We now proceed to ſtate, in their order, what will more immediately demand the attention of the learner.

His firſt care muſt be to hold his inſtrument and bow in a proper manner; both which particulars are far from being indifferent. He may proceed to a certain degree with an inartificial method; but afterwards many paſſages will be rendered doubly difficult to him, and ſome altogether impracticable, merely on that account; and it will be worth his while, even after having made ſome progreſs, to correct any miſtake he may find himſelf to have been in, in this reſpect, or in the poſition of his left hand. The end to be anſwered, in holding the inſtrument, is, that it ſhall be ſteady, and admit of the action of the bow without being impeded by the left knee or the right thigh. The firſt of theſe purpoſes is beſt anſwered, by preſſing the upper edge or rim of the Violoncello againſt the ſide of the calf, or thickeſt part, of the right leg; and the ſide of the inſtrument againſt that of the left: and, for the latter purpoſe, it is neceſſary that the right leg be perpendicular to the ground, and that the left leg be extended in an oblique direction until the left foot be four or five inches more advanced from the body than the right; and it is alſo neceſſary, that the inſtrument be raiſed ſufficiently to admit of the free action of the bow, on the fourth ſtring, near three inches from the bridge, without touching the right thigh. The bow muſt be held betwixt the ſecond finger and thumb, in ſuch a manner, that the firſt and ſecond joint of the thumb ſhall form an angle, and the point of the thumb be oppoſite to the middle of the ſecond joint of the ſecond finger; the hair of the bow will be then preſſed by the middle of the firſt joint of that finger, or by the point of it: the firſt finger ſhould be ſeparated about half an inch from the ſecond. The preſſure is in a great meaſure given to the bow by the firſt finger; but, at each turning of the bow, this preſſure on it is to be taken off, by the firſt and ſecond joint of that finger advancing farther from the ſecond. The third and fourth fingers are to lie on the bow, at nearly the ſame ſeparation, but without any preſſure on it, their office being only to keep the bow properly balanced.

The next thing will be, to ſtudy the manner of drawing the bow along one of the ſtrings, the ſecond for inſtance, ſo as it ſhall be always parallel to the bridge. This is a matter of conſiderable nicety; it cannot be otherwiſe effected, than by the diſtance from the ſhoulder to the points of the fingers continually varying, whilſt the bow is drawing; for, ſuppoſing the arm remained at the ſame extenſion, while conducting the bow, inſtead of drawing it parallel to the bridge, it would act as a radius of a circle, or leg of a compaſs, deſcribing a ſegment of a circle, of which the body would be the center. The arm, therefore, being at its utmoſt extenſion, will be nearly parallel to the right thigh; and in conducting the bow along the ſtring, in the neceſſary direction, the motion will proceed from the joint at the elbow (the arm from that to the ſhoulder being kept without motion), and will bring the wriſt, from a little beyond the right knee, towards the breaſt; and both parts of the arm will then be nearly at right angles: in reconducting the bow, the arm will again be extended to a line nearly parallel to the right knee, or rather a ſmall curve that is natural to the arm in its utmoſt extenſion; and this is to be the conſtant motion of the arm, from nearly a right line, till it form nearly a right angle, and from a right angle to a ſtraight line; the wriſt, at the ſame time, being kept looſe, as it muſt have a ſeparate motion from the arm, at every turn of the bow.

Having acquired the proper direction of the bow, by theſe different motions, it will next be neceſſary to endeavour to produce an even vibration of the ſtring, by a ſteady, uniform preſſure of the bow; and having ſucceeded with a moderate degree of preſſure, to try the effect of an increaſed preſſure, which will give a proportional increaſe of ſound, till you make it vibrate in its greateſt courſes and recourſes (ſee *Fig.* 15. and the annotations on it, in the firſt Chapter of the Theory).

It will then be neceſſary to place the fingers of the left hand, on the finger-board, in the poſition at *Fig.* 16, ſeparating the fingers at about an inch aſunder, and raiſing them into the form of an arch; the fingers will then be at about the interval of a ſemitone from each other, but the firſt at that

that of a tone from the nut; and the fingers will, by the moſt ſimple movement, in croſſing the ſtrings, come to the proper diſtances for any of the notes on the other ſtrings; a great advantage which this poſition of the hand has over that formerly in uſe (ſee *Fig.* 18.), where the natural tendency of the fingers would be to move in the oblique direction, ſhown by the dotted lines; a tendency which can be counteracted but with great trouble.

When this poſition of the hand, and ſeparation of the fingers, become ſomewhat natural, and they can be kept ſteadily in it, when raiſed from the ſtrings, ſo that every finger will return to the ſame point of the finger-board it preſſed before, it will be eaſy to play any note under that poſition of the hand, by preſſing the ſtring with the finger required. Being thus prepared, the learner may begin the firſt octave of C, in the two firſt bars of N° 1. of the examples; which ſee, with the explanation above given of it. Each bar contains a tetrachord, or half octave; and as every ſcale in the ſyſtem has been ſhown to be only a repetition of one octave, which conſiſts of two ſuch ſimilar parts, the particular attention of the learner will now be neceſſary, to the *tune* of every degree of the ſcale; and he muſt endeavour to diſtinguiſh, and feel, the peculiar character and effect of each note of an octave, and of their ſeveral relations to the key-note. Each tetrachord of the octave will form a chant, or muſical phraſe, cloſing with the ſemitonic interval of the fourth, and of the octave; and the better to perceive their ſimilarity, and to compare their characters, it will be proper to make a ſhort pauſe after the fourth, as well as after the octave. Holden, a very ingenious writer on the ſcience and practice of muſic, has obſerved, that if the ſeveral degrees of the ſcale are taken with accuracy, a peculiar expreſſion will be found to characteriſe every note. The key-note is bold and commanding; the ſecond is a kind of plaintive ſound; the third has ſomething ſupplicative in it; and it is on this note, or on the ſeventh, which has the ſame relation in the other tetrachord, that the beggar chiefly dwells, if he uſes any tone at all; the fourth, which brings the phraſe to a concluſion, is grave and ſolemn; and the fifth, ſixth, ſeventh, and octave, are marked by ſimilar expreſſions. Theſe properties are not, however, inſeparable from the ſounds; becauſe, if the ſame notes are introduced in a different relation, as on a change of key, they will have different effects. The deſcending octave will form a chant, different from the aſcending octave, but likewiſe divided into two ſimilar phraſes, the firſt ending on the fifth of the key, and the ſecond on the key-note.

Theſe being the elements into which every variety of air or melody, and its accompanying harmony, are reſolvable, the greateſt care muſt be taken by the learner to acquire a juſt idea of each note; and, if a mere beginner, he ought not to depend entirely on his own ear or judgement, but ſeek every opportunity of the accompaniment of a well-tuned voice, or that of an inſtrument in the hands of a judicious performer, until the proper ſound of each note become quite familiar to him.

Let the notes of the octave be thus played with a ſlow, even, and lengthened bow, to employ the full motion of the arm; and, afterwards, quicker and ſtronger, by the greater velocity and preſſure of the bow, but always drawn its full length; and it may be proper to remark, that when the ſecond, third, or fourth finger is directed to be put down, it is meant that the finger or fingers immediately below them ſhould be alſo on the ſtring, at their proper diſtance of tone or ſemitone; their continuing on will give them greater ſtrength and firmneſs of ſtopping, and ſooner form a good poſition of the hand.

After having repeatedly practiſed this, and the ſecond octave of N° 1, aſcending and deſcending, the learner may proceed to N° 2, by adding the three notes D—E F, 1—3 4, on the firſt ſtring, uſing this fingering for ſome time, till he can take them well in tune; after which he may take the two laſt notes with the ſecond and third finger.

I underſtand the uſual practice in teaching to be, after ſhowing the learner a ſingle ſcale, to give him ſome familiar eaſy tune, in one poſition of the hand, for the purpoſe of making his fingers and bow go together. The difficulty of attending to the number of different actions neceſſary to performance, is ſo great at the beginning, that maſters are glad to take advantage of any inducement that can be held out to the learner, to make him practiſe; but I am afraid this method, ſometimes

neceſſary at firſt, is purſued too far.* Having obſerved, that a ſuperficial manner of bowing, at beſt, and often bad habits of bowing and fingering, very difficult to be corrected afterwards, were contracted in this, too early, ſtudy of tunes; and that, after a conſiderable time, but little or no progreſs was made in tone, time, or accompaniment, (the latter being the principal office of the inſtrument); I ſuſpected the fallacy of this method, and turned my thoughts to a more ſyſtematic analyſis of the ſtudy, and to the eſtabliſhing of principles of bowing and fingering, which might not only facilitate the ſtudy of the inſtrument, but would remove the imperfections in playing, which I have ever found to be the conſequence of a want of proper principles, adopted at the beginning. The following plan of ſtudy is the reſult of my reaſoning and obſervations on the ſubject, confirmed by a very extenſive, and, I may venture to add, a ſucceſsful, experience for ſeveral years.

When a proper motion of the bow is acquired, and made to go with the fingers, I have found that any further attention to the ſtudy of tunes, for ſome time, is improper: the very imperfect manner in which they can be played in this ſtage of the ſtudy, cannot give any permanent ſatisfaction to the learner; and it will be for his advantage to poſtpone the further ſtudy of air or melodies for ſome time, when it will be reſumed with a much greater proſpect of ſucceſs and advantage, and form a proper part of the progreſs of his plan. In the mean time, it will be proper to proceed to the ſtudy and practice of accompaniment, or the proper baſs parts of vocal or inſtrumental compoſitions; and as a proper end is propoſed in every rational ſtudy, ſo the means taken to attain that end, ought not only to be the moſt ſimple, and adequate to it, but be alſo productive of the greateſt number of preſent advantages; theſe being, in the preſent caſe, ſubordinate ends, and perhaps more immediately the view of the learner, than the principal, which is the attaining to perfection, or rather excellence, in the art. The plan of practice now to be recommended to the learner, will, in conformity to this rule, extend to the following ſubordinate ends: 1. The ſtudy and practice of tone, which, when ſimplified, we preſume is very attainable in all its important qualities; the impediments to its acquiſition being chiefly the attempting, at firſt, too great a complication of bowing and fingering, and not confining the practice of the bow, at this period, to ſimple notes. 2. The ſtudy and practice of time. 3. An early acquaintance with pure harmony, and a habit of accompanying, and attending to, a part different from that of the baſs. And, laſtly, The powers, habits, and knowledge, acquired in the practice and ſtudy of theſe, will be not only of immediate uſe in themſelves, but be the proper means of rendering the ſucceeding part of the ſtudy eaſy and intelligible.

N° 70, and the three following numbers, contain the baſs part of the firſt ſonata of the ſecond opera of Corelli. It will be eaſieſt to begin with the laſt movement, N° 73; and when the learner has practiſed the notes, ſome little time, by himſelf, it will then be proper to get the part of the firſt violin played, which he is to accompany, by playing the movement, at firſt with ſlow, and afterwards with quicker, bows; but, in both caſes, the full length of the bow, and the greateſt preſſure of it, is to be employed. He is then to proceed in the ſame manner with the firſt movement, N° 70, obſerving to divide each bar into eight ſlow equal parts, each conſiſting of a quaver: but the bow is not to continue on the ſtring during the whole time of each; it muſt be drawn with ſpirit and rapidity, from one end of it to the other, by the full motion of the arm, above deſcribed; and a conſiderable ſtop muſt take place, betwixt each quaver, to fill up the time; but on the notes G and D, in the fifth bar, the motion of the bow muſt be as ſlow again; and on the two laſt notes of the example, four times as ſlow. Having played this, ſeveral times, with the part of the firſt violin, the learner will next proceed to the allegro, N° 71; and, notwithſtanding the greater quickneſs of the movement, the bow muſt be drawn to its full length on the quavers. At *a*, the hand muſt be moved back a ſemitone nearer the nut, for the purpoſe of playing the ſeven notes of that paſſage in one poſition of the hand; and the learner ought to compare this with the paſſages at *e* and *f*, of N° 69, in order to know the caſes in which this poſition will be neceſſary: at *b*, in the preſent example, the former poſition is to be reſumed. Until the learner can play this movement perfectly in time, he muſt adhere to the fingering marked next to the notes; after which, he may practiſe, on the full ſhift, that is, the firſt finger

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brought to the place of the fourth, the paſſages that may be taken with propriety on it, the proper fingering for which is marked under the other figures. That the learner may know from the aſpect of a paſſage, whether it is adapted for the full or half ſhift, he may obſerve, that the notes, in general, where this double fingering is marked, are ſituated in the ſpaces between the lines: this aſpect of a paſſage will always indicate the full ſhift, if any is neceſſary; and ſuch notes proceeding from one ſpace to the next above or below, being at the interval of a third from each other, will always require the firſt and fourth finger alternately. If, on the contrary, the intervals of thirds are from one line to the next above or below it, this will indicate the half ſhift as a proper poſition; and ſuch notes will be always taken with the firſt and fourth finger. An inſpection of N° 80 will impreſs the diſtinguiſhing character of each of theſe ſhifts ſtrongly on the mind of the learner: paſſages adapted for both occur frequently in this example; thoſe taken on the half ſhift are all marked with the letter *a*, and thoſe taken on the full ſhift with the letter *b*. The practice of N° 72 will complete the ſonata; and the end more immediately to be kept in view, in the frequent practice of it, beſides accuracy in tune and time, is the improvement in tone, by a firm preſſure of the bow on the ſtrings, and always drawing it to its full extent with velocity and ſpirit.

Being furniſhed with a ſet of Corelli's ſonatas, and procuring a proper perſon to play the part of the firſt violin, the next ſtep will be to proceed to the tenth ſonata of the laſt opera, in the key of G major, the ſcale of which is N° 14. Here alſo it will be beſt to begin with the gavot, or laſt movement, taking care to draw out the bow arm freely, and with velocity, in croſſing the ſtrings, in the firſt bar, and throughout the movement: then proceed to the firſt and ſecond movements, in the laſt of which will be found two bars, in which D♯ occurs: the paſſage muſt be taken on the back ſhift, as at *a*, N° 71, and the notes F♯—G♯—A♯ (the firſt and third notes, being on lines, point out the half ſhift) are to be fingered 1—2—4; and the following B muſt be taken on the firſt ſtring, in the natural poſition of the hand. This allegro muſt be played throughout with a lengthened and ſpirited bow, and be a daily practice, until it become quite eaſy. The next in order may be the twelfth ſonata of the ſecond opera, entitled Ciaconna; and will, after the foregoing, be attained with little trouble. It contains a few bars of ſix quavers each, towards the end, in which the ſtrings are more croſſed than in the former ſonatas; and care muſt be taken, that the action of the arm is not diminiſhed, nor the bow drawn ſhorter, or with leſs force, in executing theſe; and the bar with only five quavers in it muſt begin with an up-bow, that is, drawing the wriſt, from the full extenſion of the arm, near the right knee, in a direction towards the breaſt. And it may be here obſerved, that an elevation of the arm, that will admit of free bowing on the firſt ſtring, is to be preferred, not only on account of its natural power in communicating more preſſure to the bow in that elevation, but alſo becauſe it will prevent any unneceſſary motion of the arm in paſſing from a lower ſtring to an upper one, or the contrary, which can be ſufficiently accompliſhed by a ſmall turn of the wriſt alone; not to mention, that this poſition of the arm looks much better than a lower one; and I think it will always hold true, from ſome general principle in nature, connecting pleaſure with utility, that whatever movement is beſt adapted to attain its end, will alſo be the moſt graceful. In this view, ſometimes practiſing before a glaſs will be an excellent leſſon to acquire good habits, and prevent bad ones.

The above three ſonatas of Corelli, practiſed frequently, will be a good preparation for the firſt ſonata of the fourth or laſt opera, the laſt movement of which will be very good practice for ſome time, if proper attention be always given to the tone, and manner of bowing. It ſhould be firſt taken ſlow, and with a full tone; and as it becomes more eaſy, it may be taken quicker, but always ſo as to employ a conſiderable length of bow. The third ſonata of the ſecond opera is ſomewhat ſimilar, in its laſt movement (but rather leſs difficult), to the preceding; but there will be conſiderable improvement made in the knowledge of time, by a ſtudy of the ſecond movement; in which reſpect it is more difficult than any of the foregoing.

Theſe five ſonatas of Corelli, being in the keys of D, G, and C, no difficulty, it is hoped, will occur in the fingering. It will now be proper to introduce the practice of the flats, and begin with the ſeventh ſonata of the fourth opera, in F major; preparatory to which, let the ſcale

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of F, N° 2, be again practiſed and conſidered. The laſt movement but one of this ſonata will require care in the bowing, ſo as to keep up tone and ſpirit. After this ſonata has been practiſed, the fifth ſonata of the ſecond opera, in B flat major, may be entered upon; and afterwards, the eleventh ſonata of the ſame opera, in E flat major; but previous to this, the ſcale of E flat, N° 19, and the diagram or analyſes of that key, N° 67, ſhould be carefully conſidered and played over; and, in general, it will greatly facilitate and ſhorten the ſtudy of the lower compaſs of the inſtrument, if the learner make a ſimilar analyſis of every new key he comes to; which will make him acquainted with every poſſible poſition that can occur in any key, in this part of the Violoncello.

The ninth ſonata of the fourth opera will further extend the knowledge and practice of the key of B flat; and for a further acquaintance with that of E flat, the eleventh ſonata of the ſame opera will be good practice; but the laſt allegro muſt be taken very ſlow, for a conſiderable time.

The learner will have now got eight or nine of the ſonatas of Corelli, which he may practiſe in rotation, or rather more frequently practiſing thoſe he may be leaſt perfect in; and it will be of conſiderable advantage at this time, if he can find the means of playing the Violoncello part, of thoſe he can perform moſt accurately, along with the parts of the firſt and ſecond Violin; and when his ear and attention can be given more to the upper parts, he ought more particularly to attend to the effect of the whole, in order that he may diſcover in what reſpect his own may be deficient, and how he may improve it. An early attention to theſe particulars will lead him more accurately to obſerve the manner of playing of better performers than himſelf, and to conſider the difference of the effects produced, compared with their cauſes.

About this period, I have found that the practice of airs or melody is moſt advantageouſly entered upon; and it will now be more uſeful, as it will induce a practice of that mixed bowing, and frequent ſhifting of the hand, which the learner will now find neceſſary, to enable him to proceed with the more difficult baſſes or accompaniment that will now fall in his way. What I ſhall have to obſerve on the ſtudy of air or melody, and the manner of purſuing it, will be contained in the next Chapter. At preſent it will be neceſſary to diſcuſs the remaining examples of proper baſſes for the practice of the lower compaſs of the inſtrument, and to continue what obſervations may occur on the manner of purſuing the ſtudy of accompaniment.

Previous to the entering on the practice of melodies, or before proſecuting the further practice of proper baſſes, the ſtudy of the principles of fingering before laid down, and the practice of the different ſcales in the ſyſtem, will be proper, and will beſt explain any difficulties the learner may meet with. He may then proceed, with reaſonable expectation of improvement, to the practice of any other of the ſonatas of Corelli; and, to diverſify the ſtile of muſic, he may begin to play, with one or two violins, any eaſy modern trios, ſuch as Kammel's Notturnos, and innumerable others he may meet with, and play the accompaniment of harpſichord muſic. In the latter, he muſt be careful, however, not to overpower the inſtrument he accompanies, and, in this inſtance, totally lay aſide that powerful manner of bowing we have been recommending. For the purpoſe of neatly accompanying inſtruments of this kind, a particular mode of bowing a repetition of the ſame note, in quavers, muſt be practiſed, inſtead of the common method, by the alternate action and reaction of the bow; namely, to play four or more of ſuch notes, with the bow in the ſame direction, by giving a new impulſe to it for every note. But a cloſe attention to the manner in which good performers play accompaniments of this nature, will give the learner a clearer idea of it, than can be derived from any deſcription of it in words.

But to proceed with the examples. N° 74, and the three following numbers, contain the baſs of the tenth ſonata of Corelli's ſecond opera, in the key of E. Theſe examples will require much more ſhifting of the hand than any of the preceding ſonatas. The two firſt notes are taken on the back ſhift, as at *a*, N° 71; the third, fourth, and fifth notes, on the full ſhift; the three following notes, B E D♯, on the back ſhift; C and B, in the natural or common poſition of the hand; A G♯—F♯, ſemitone and tone, on the fourth ſtring; and the reſt will be made out from the fingering marked, and give the learner much knowledge of the lower compaſs of the inſtrument:

it is, moreover, a beautiful ſonata; which will induce him to endeavour to be perfect in it. It will, however, be proper to play the two laſt movements, N° 76 and N° 77, before the ſecond, N° 75, which is the moſt difficult; but the progreſs that the learner will now be making in the practice of airs or melodies, will greatly contribute to render theſe, as well as the following examples, more eaſy to him.

While the learner is employed with his maſter, in ſtudying the duets and other melodies to be mentioned in the next Chapter, the following examples of the more difficult baſſes will be equally improving, if they are practiſed conſtantly by himſelf, in the intervals betwixt his other leſſons. They will be not only found to be uſeful in themſelves, but will, perhaps more than any other practice, give him that firmneſs of fingering, and keep up that fullneſs of tone, and ſpirited bowing, which will carry him ſucceſsfully through the more difficult parts of the ſtudy, and give effect to his performance; advantages by no means to be got from the languid ſtyle of the more eaſy duets he muſt neceſſarily practiſe at firſt.

N° 78 is the Violoncello part of the ninth concerto of Corelli, being one of thoſe baſſes denominated *obligato*, meaning a part more than commonly difficult, or when it becomes a principal or ſolo part, the other parts being for the time only the accompaniments to it. The learner, in the practice of theſe and the following baſſes, ought to be more ſolicitous about playing them with purity and fullneſs of tone, than about playing them with rapidity: the latter will in due time follow, as a natural conſequence, from its becoming more eaſy; but the former will by no means follow, as a matter of courſe, but by keeping it conſtantly in view.

N° 79 is perhaps the moſt difficult part of Corelli's concertos, for the Violoncello, for its length; it does not come in here in its natural order, which is rather after N° 82; and its being placed where it is, was only becauſe of there being a proper ſpace to contain it there. The practice of this example ſhould only take place after that of N° 82.

N° 80, an obligato movement for the Violoncello, in the tenth of Corelli's concertos; an excellent practice to acquire tone with a lengthened bow, and comprehending almoſt every poſition, from the nut to the middle of the firſt and ſecond ſtrings. The letters *a* and *b* ſhow when the half and full ſhifts are to be uſed, as already taken notice of in the obſervations on N° 70, and three following numbers. When an opportunity occurs, the practice of the Violoncello of Corelli's concertos, with all the other parts, will be improving in the higheſt degree, as ſoon as the learner can play the preſent example and N° 78; the other concertos, excepting the firſt, third, and eleventh, being all eaſier than the ninth and tenth.

N° 81 will be an excellent practice for the fingers and bow, and if taken ſlow for a conſiderable time, with the attention directed chiefly to a free, lengthened bow, and made a regular daily practice, will tend to give great firmneſs in fingering, as well as bowing. This is the baſs to one of Corelli's ſolos; and the whole of that opera will be of the greateſt advantage to the learner, if played with the Violin, with which the Violoncello plays rather on the equal terms of a duet, than in the ſubſervient office of a common baſs accompaniment. A great improvement in tune, time, bowing, and the knowledge of accompanying, muſt reſult from this practice, properly conducted.

N° 82 is a celebrated Violoncello ſolo, in the eleventh concerto of Corelli. If begun ſlow, and continued ſo for ſome time, with a ſtrict attention to tone, and to lengthened bowing, this example will prove of infinite advantage; nothing can be better calculated to give ſtrength and firmneſs to the bow arm, and finger, than the practice of this leſſon, perſevered in for ſome time; but the good purpoſes it is admirably fitted to anſwer, will be entirely defeated by a premature attempt at rapidity.

N° 83 is the accompaniment to a beautiful air of Handel: this ought to be attentively ſtudied by the learner who wiſhes to be well grounded in the lower part of the inſtrument, as it requires more frequent ſhifting of the hand than perhaps any other piece of an equal number of notes, and is beſides on a difficult key, with modulations ſtill more difficult as to fingering. The learner will obſerve frequent uſe made of the ſlur, for the purpoſe of connecting and rendering ſmooth many of the notes, which would, without this, appear diſlocated and uneven. When the learner can play this movement perfectly in tune, he may with juſtice think more highly of his progreſs, than

If he played imperfectly many ſolos, with paſſages carried to the utmoſt extent of the finger-board; and it may be here obſerved, that the practice of all Handel's muſic, particularly the accompaniments to his opera and oratorio ſongs, his overtures and grand concertos, will be extremely beneficial.

N° 84 is the concluding part of Corelli's ſolos; and, of the many difficult moving baſſes of Corelli, this is by far the moſt difficult. By the common manner of fingering, which is marked in a ſecond line of figures, it ſeems almoſt impracticable: but the fingering that would give it any degree of ſmoothneſs, appears to me to be that which is marked neareſt the notes; and this will be ſupported by analogy, from a paſſage very ſimilar to it in N° 96, at *b*, where the thumb muſt, in conſiſtency with the reſt of the paſſage from *a*, continue to be uſed.

N° 85, and the two following numbers, contain the baſs to a very fine overture of Haydn, in the difficult key of F minor; the practice of which will increaſe the learner's knowledge and command of the lower part of the finger-board. All Haydn's other overtures may be practiſed with much profit; as they contain a greater variety of paſſages, and require more neat and mixed bowing, than the full pieces of any other compoſer; and many of his latter overtures may be played by two Violins, Tenor, and Violoncello, the parts of the other inſtruments being occaſionally inſerted in a ſmaller character.

N° 88 is a paſſage in one of Haydn's quartets, given for the purpoſe of practiſing a ſmooth ſound tone, and different changes of the bow. The further practice of Haydn's quartets will be recommended, with others, in its proper place, in the next Chapter. N° 89 is a Violoncello accompaniment to one of Marcello's pſalms, given alſo for the management of the bow. To aſcend from a lower ſtring to the next, or ſecond above it, will always require an up-bow for the lower ſtring, and a down-bow for the upper one: this occurs in the laſt three notes of every bar in this example; and unleſs this rule be obſerved, theſe ſorts of paſſages will be always awkward, and often impracticable. At *a*, there muſt be an up-bow, which will come again in courſe at *b*, and render the laſt three notes of that bar properly: at *c*, there will be an unavoidable violation of the rule; but the remaining part of the ſecond bar will have the ſame bowing with the firſt bar, which will then be continued to the end, according to rule, excepting the movement of the arm from the firſt to the ſecond note of every bar, which is without a remedy. Throughout the voluminous work of Marcello's pſalms, the Violoncello is the principal accompaniment; and the practice of them with the voices will be very improving.

The foregoing examples, with the works of the different authors occaſionally mentioned, will form a complete body of practice for the lower compaſs of the inſtrument, which is in many reſpects more difficult than the upper one. Several of the examples above given ſurpaſs in difficulty many ſolos, which may, at firſt ſight, from their great compaſs, and rapidity and brilliancy of their paſſages, appear to require greater powers and practice; and I hold one of the chief advantages of the ſtudy of melodies, duets, and ſolos, to be, that the command of the inſtrument thereby gained, will enable the ſtudent more eaſily and elegantly to perform the more difficult or obligato accompaniments, which in the more modern muſic conſiſt in a great meaſure of melody or ſolo paſſages; and with that view the ſtudy of melody ought to be entered on ſoon after a competent knowledge in fingering, and a proper method in bowing plain notes, is acquired.

CHAP. II.

Of the Practice of Melodies, and mixed Accompaniments.

IT will now be neceſſary for the learner to begin a new ſtudy of the bow. The powers of bowing he will have acquired by a proper practice of the eight or nine ſonatas of Corelli, recommended in the preceding Chapter, will be of the greateſt uſe to him; but the manner of giving force and velocity to the bow, muſt be greatly altered. While it is ſufficient that the notes of a baſs be played with an equal preſſure on every note, and they are for the moſt part ſeparated by a conſiderable reſt between each, it is neceſſary in melodies that the preſſure ſhall be greatly varied, even on a ſingle note; and that ſeparation or ſtaccato, which is proper in accompaniment,

is of all things the moſt improper in air or melody, which requires the tones to be ſwelled, ſoſtenuto, and flowing. The bow being conducted, but with a flow motion, in the manner above directed, let the preſſure at firſt be very light, and gradually increaſed, until the greateſt force be given to it, and then diminiſh the preſſure by the ſame degrees it was increaſed; the ſtring will give a tone always proportioned to ſuch degree and manner of preſſure, and have the effect of what is called a ſwell, on the ear; the former part being ſtyled *creſcendo*, and the latter *diminuendo*, in our muſic. The means of producing this variety in tone, are not unlike to thoſe employed in drawing a line with a pen, light at firſt, ſwelling gradually, and diminiſhing in the ſame proportion. Theſe appear to me to be the only elements into which the various degrees of tone are reſolvable, and ſuch the only means employed in producing them.

The learner, to begin this ſtudy, ſhould be provided with a good maſter, and have a ſecond Violoncello for the latter. As I can only venture to recommend, what I have found, by experience, beſt to anſwer the purpoſes of improvement, and what will moſt induce the learner to practiſe; the plan, therefore, that I have purſued, with moſt ſucceſs, will now be given.

Let the learner, after having heard the firſt movement of Schetky's duets for two Violoncellos played, and having attentively obſerved the manner in which it was bowed, practiſe it principally with a view of imitating the manner of bowing, for in the fingering of it he will not find any difficulty, and afterwards play it, accompanied by the ſecond Violoncello: after a few trials he will be ready to ſtudy another movement; which, if he has had no more practice in bowing than is here ſuppoſed, muſt not be the next in order, this being too complicated in its bowing to be entered upon till after ſome time. I have found the laſt movement of the third duet to be moſt ſuited to the learner's powers; it is ſimple and pleaſing in its air, and very regular, but improving, in its poſitions. The *minor* of this movement will be explained and ſtudied beſt in a future leſſon; after which, the firſt movement of this duet, being in a more ſpirited ſtyle, and more analagous to the bowing the learner has been formerly accuſtomed to, will be ſoon learned. For the purpoſe of proceeding by a ſtep, ſufficiently well marked, in the progreſs, as well as to increaſe the learner's knowledge and practice of the flats, which he will have been pretty well initiated in by the practice of Corelli, the fourth duet of Schetky, in E♭ major, may be now entered upon; but the laſt movement, being a very pleaſing minuet, of regular fingering, will be beſt to begin with. The firſt five bars of this minuet, the learner will diſcover, by the directions above given, to be all on the full ſhift; the ſixth bar in the common poſition; and the ſeventh on the full ſhift. After this movement has been practiſed and played with the accompaniment of the ſecond Violoncello, the firſt movement will then be ſtudied. The ſecond part of this movement begins on E♭, on the ſecond ſtring, and aſcends by the degrees of the ſcale to F, on the firſt ſtring; it is plain, therefore, that the octave of E♭, at N° 53, and that in the third and fourth bars of N° 19, will not ſuffice for this paſſage, which comprehends alſo the next degree F: it muſt therefore be taken E♭—F—G, and A♭—B♭—C, on the ſecond ſtring, and D E♭—F on the firſt, by N° 4 and N° 54, ending in the full ſhift; in which poſition the three following bars muſt alſo be taken.

After having ſufficiently practiſed this duet, the fifth may be omitted, and the ſixth be entered upon: after which, the ſecond movement of the firſt duet, and the whole of the ſecond duet, with the ſeventh, may be either practiſed or omitted, at the diſcretion of the maſter, and the practice of the tenth begun, which takes in a greater compaſs than any of the foregoing, but is not in fact more difficult than the ſixth: the eleventh and twelfth are both conſiderably more difficult than the former; but are very attainable, if the learner wiſhes to practiſe them: the advantage he will reap from it will amply repay him, as they are in a more maſterly ſtyle than the others.

If, however, a good maſter cannot be procured, it will not be adviſable for the learner to begin theſe duets, although admirably well anſwering the purpoſe of progreſſive leſſons, in this part of the ſtudy, taken in the order above directed: the practice of melodies will in that caſe be beſt purſued, by getting a good performer on the Violin, and with duets for a Violin and Violoncello. Thoſe of Breval, lately publiſhed, with the Violoncello part alſo adapted for the Tenor, being long known to me, before they were printed here, I think will anſwer beſt.

As

As this part of the ſtudy can proceed but by very ſlow ſteps at the beginning, even with a maſter, it is of much conſequence to know by what means it can be accelerated, and how the learner can moſt uſefully employ the intervals of his leſſons by his own private practice or ſtudy: and here, it is preſumed, the practice of the ſcales aſcending and deſcending will very much facilitate any difficulty he may meet with, a conſiderable portion of all duets and ſolos being merely aſcending or deſcending ſcales; and the aſſiſtance of theory will at this period come in with peculiar propriety.

There are certain general principles which take place, both in the ſtructure and performance of proper air or melody, on which the pleaſure we receive from them depends; their not having been hitherto ſufficiently aſcertained, can be no argument againſt their exiſtence. One remarkable quality it poſſeſſes, in common with ſpeech, is that of rythm, or the ſubdiviſion of an air into phraſes, leſs or more concluſive, correſponding to ſentences, and their component ſmaller members, in diſcourſe; and there are certain laws in conducting the beginning, middle, and end, of theſe ſubdiviſions, or phraſes, in reſpect to expreſſion and variation of tone, which cannot be violated, without offending the feelings of mankind, almoſt equally as by a violation of the laws of tune. A better knowledge of theſe general principles, would greatly facilitate the ſtudy we are now conſidering, correct the licentious, fantaſtic wanderings of a falſe taſte, and bring us nearer to the ſtandard of a true one, by adhering more to nature, and keeping within her laws.

With a view, therefore, to a more methodical ſtudy of air, and to fill up a chaſm in the examples, which I ſhould have been greatly at a loſs to do, otherwiſe than by referring to the ſtudy of particular works, as above, I have, in a ſupplementary work, ſelected almoſt the whole of the original Scotch airs, which are moſt remarkable for their beauty and expreſſion. They are placed as much as poſſible in a progreſſive order, and are ſufficiently eaſy to be begun about the ſame time with Schetky's or Breval's duets. They are more eſpecially intended for private practice, as their beautiful and ſimple ſtyle will always induce the learner to play them very frequently; and, that this practice may be attended with the greateſt advantage to him, they are purpoſely ſet in a variety of keys, and in ſuch a compaſs of the inſtrument as will beſt promote the knowledge and practice of fingering and bowing. The ſeveral ſubdiviſions, or phraſes, are marked with an aſteriſk on the concluding note of the phraſe, which is to be ſeparated from the following by a ſhort reſt, like thoſe uſed in the ſeparation of the different ſentences, and their parts, in common diſcourſe; and it will be even proper to purſue the analogy with language ſtill further, in the method of ſtudying theſe airs; namely, to learn one phraſe, in its proper time and expreſſion, before proceeding to the next, in the ſame manner that ſentences in a language are analyſed and conſtrued. The proper fingering is marked under the notes; and as the ſtudy of theſe ought to be followed by that of other national airs, and the beſt regular vocal compoſitions of the Italian and other maſters, theſe Scotch airs are ſet on the treble clef, which will prepare the learner to play any airs, that he may afterwards wiſh to practiſe, without the neceſſity of tranſpoſing them to another clef than that of the treble, in which they are always printed. At the ſame time, if it is thought that any advantage will accrue from ſetting them in the tenor clef, which is moſt uſed in compoſitions for the Violoncello, there will be nothing more to do, than to write out every note one tone or ſingle degree higher, which will ſtill be in the ſame key as before, and the fingering and baſs will require no alteration.

In the courſe of this ſtage of playing, it will be extremely proper for the learner to continue the practice of thoſe ſonatas of Corelli, he has already learned, along with two Violins, and proceed to the ſtudy of the others, or of ſuch modern trios, and the accompaniment of harpſichord muſic, as he may have an opportunity of practiſing; and afterwards, he may begin ſome of the more eaſy quartets, ſuch as the firſt ſet of Davaux, and Kammel's quartets. Having ſucceeded in theſe, he ſhould now aſpire to the practice of compoſitions of a higher claſs and greater name, ſuch as the quartets of Pleyel and Haydn, confining himſelf for ſome time to ſuch as have the eaſieſt baſſes, and are leaſt intricate in the time, until their ſtyle begin to be ſomewhat familiar to him, when he may proceed to others that are more difficult; and if he is ſometimes embarraſſed in the time, he being ſuppoſed, in this ſtage of playing, to perform among his particular friends, or

with ſuch as will not be unwilling to repeat any piece he may have failed in, it will be moſt to his advantage to go over it until he gets right; and, in caſe this cannot be altogether accompliſhed at one time, he ſhould endeavour to find out, by himſelf or others, the cauſe of his miſtake, and never fail to try the ſame piece occaſionally, until he has at laſt ſucceeded in it: he will find this the moſt effectual way of underſtanding the piece, and ſtyle of the author; and from the attention he will have been accuſtomed to give, by theſe means, to the ſtyle of a particular author, he will more eaſily enter into that of another, and be leſs liable to commit faults ariſing from inattention. While the learner is engaged in this practice, it will greatly avail him to obſerve the manner in which the beſt performers accompany, and more particularly to attend to the effects produced from the different degrees of force given to the paſſages, and the very exact degree of ſound, and time, that is requiſite to obſerve in every part, to produce a good effect from the joint performance. He will then obſerve how much it is in the power of the Violoncello, by inattention to the other parts, to deſtroy their fineſt effects, and to counteract the moſt beautiful expreſſion; and, on the other hand, by a judicious management of it, how much fullneſs, mellowneſs, and ſpirit, it can give to the whole, without injuring the ſofteſt paſſages, or moſt delicate expreſſion, in any of the other parts. Hence it follows, that to accompany well comprehends the beſt uſe of the inſtrument, and conſtitutes the greateſt praiſe of a performer; as it not only requires a command over the chief powers of the inſtrument, but the utmoſt attention to be given to the other parts, as well as to his own, to enter fully into the ſpirit of the muſic and preciſe meaning of the performer, ſo as to give additional effect to it, but never to counteract, never to deſtroy or obſcure it.

In the courſe of this practice, the learner will meet with Violoncello parts of a mixed nature, partly accompaniment, and partly conſiſting of ſolos, frequently in the upper compaſs of the inſtrument. Theſe he muſt ſtudy and practiſe by himſelf, or with his maſter; and the further practice of melodies muſt be proſecuted, chiefly with a view to attain that command of the inſtrument, that will become neceſſary to execute theſe more difficult or obligato accompaniments. After having practiſed the duets of Schetky or Breval, above recommended, another ſet of Schetky's duets for a Violin and Violoncello, or Breval's duets for a Violin and Violoncello, opera 19, more difficult than the former, will be a proper progreſſion; or, inſtead of either, or together with them, Schetky's ſolos for the Violoncello, the greateſt part of them being very little more difficult than the latter duets, while the beauty of their ſtyle and paſſages will incline the learner to practiſe them frequently by himſelf. Having made ſome progreſs in theſe, the learner may now ſtudy the ſolo parts of Trios, and Quartets, for Violins and a Violoncello obligato: of the former, the moſt beautiful, and leaſt difficult, in the ſolos, that I know, are the trios of Pichl, for a Violin, Tenor, and Violoncello, printed at Amſterdam, but not as yet imported into this country; the trios of Breval, for a Violin, Tenor, and Violoncello obligato, printed at Paris, conſiſting of very brilliant but naturally adapted paſſages for the latter inſtrument; three trios for Violin, Tenor, and Violoncello obligato, by Pleyel; the two ſets of Giardini's trios for a Violin, Tenor, and Violoncello obligato; Giordani's trios for a Flute, Tenor, and Violoncello obligato; and Boccherini's trios for a Violin, Tenor, and Violoncello obligato; all theſe publiſhed in London: but of Boccherini's trios, which are much more difficult than the others, but one of his beſt works, there is a foreign printed copy, often ſold here, leſs correct, and much worſe printed, than the Engliſh copy.

Having practiſed Schetky's duets or ſolos, and the duets of Breval laſt mentioned, the learner may now proceed to ſome of a more difficult, but ſuperior ſtyle. The duets of Borghi, for a Violin and Violoncello, I would now recommend to him, as being what he will find in the end to be moſt beneficial as well as moſt pleaſing to him; compoſitions of a leſs difficult nature will now be mere trifling, taken as a regular ſtudy, unleſs when they may fall in his way as a ſeparate practice. Borghi's duets may be practiſed in their order, the firſt being the eaſieſt.

N° 90 is the *minor* of the laſt movement of the third duet of Borghi. The learner is deſired to compare the effects of different methods of fingering, where there are two lines of figures under the notes. By the ſecond line of figures at *a*, the paſſage that was before done on one poſition, is taken by different poſitions, in deſcending on the firſt ſtring; and as the ſuperior effect produced, ought

always to be the prevailing motive for preferring one method of fingering to another, and not the greater eaſineſs of fingering, with a worſe effect, eſpecially in the act of ſtudying; this will be a proper place for the learner to form his opinion on that ſubject; and whatever method he may adopt, he will be a gainer, by being able to do the paſſage either way.

N° 91 is given principally with a view of making the ſame compariſon, as well as to explain the chief difficulties in fingering that may occur in theſe duets. It will appear very evident that it is impoſſible to make the ſhakes, and give that ſmoothneſs and expreſſion to the ſolo, which the author meant, at *a*, *b*, *c*, *d*, without the frequent ſhifting of the hand, directed by the fingering. By omitting the ſhakes, however, and with an inferior effect, it may be played to *e*, in one poſition of the hand.

Subſequent to the practice of Borghi's duets, or together with it, may be practiſed with infinite profit, Breval's duets, opera 6. and opera 23. They are procured with ſome difficulty, being hitherto only printed at Paris; and, although they are entitled Duets for two Violins, they are nevertheleſs intended for two Violoncellos, or for a Violin and Violoncello. The ſixth opera conſiſts of more notes or diviſions than Borghi's; but the paſſages are eaſier, becauſe the poſitions are regular, and natural for the inſtrument: the latter opera of Breval is more difficult, but contains excellent practice for bowing and fingering. It will now be alſo proper for the learner to continue the practice of the more difficult or obligato Violoncello parts of chamber muſic, both alone, and with the other inſtruments. Such trios as are already publiſhed, have been mentioned above. The ſeveral operas of Pleyel's quartettos, contain many of this deſcription; and Giardini's quartettos, opera 22. and opera 23. are all obligato for the Violoncello, but more difficult than thoſe of Pleyel. Two ſets of Hoffmeiſter's quartettos, opera 7. and 9. contain Violoncello ſolos of the beſt ſtyle and effect: they are lately publiſhed abroad; and their excellence will, no doubt, ſoon introduce them into this country. The numerous compoſitions of Boccherini contain ample ſtore of practice for the Violoncello player; the principal works beſides his trios and quartettos, which contain it, are the 12th, 13th, and 20th operas of his quintettos, for two Violoncellos obligati, Tenor, and two Violins; and his ſeſtettos, operas 15. and 21. the former of theſe being for two Violins, a Flute, Tenor, and two Violoncellos obligati.

Having practiſed the duets of Borghi, and the 6th opera of Breval, the learner may proceed to the duets of Reinagle, in which he will find paſſages of a different conſtruction, and leading to a more maſterly command of the inſtrument. As theſe are chiefly founded on the practice of aſcending and deſcending ſcales, a reconſideration and practice of ſuch of theſe ſcales as may be wanted, will greatly facilitate the difficult paſſages of this author, whoſe very early death has deprived the muſical world, and more particularly the admirers of the Violoncello, of the completion of a ſtyle of muſic abounding with novelty, and adapted to diſplay the powers of the inſtrument in their greateſt extent and variety; and whilſt this praiſe, and that of being, for the few years he had ſtudied it, the moſt *promiſing* performer of the inſtrument in Europe, cannot be denied him, it is not intended, by this ſmall tribute, paid to the memory of a much-loved friend, and the only maſter I am indebted to for whatever inſtructions I received for the Violoncello, to compare his merit, however great, with the two models, of maturer and more finiſhed excellence, it is ſtill [illegible] boaſt of this country, and I hope will long be, to poſſeſs.

The ſecond of Reinagle's duets is by much the eaſieſt, and next after that the fourth. The principal part of the firſt duet is contained in N° 92, and the paſſage in the ſecond and third lines muſt be done in different poſitions, on the firſt ſtring, by the fingering marked; and the ſame paſſage, a fifth lower, in the latter part of the example, muſt be taken in different ſhifts, on the firſt and ſecond ſtring.

N° 93 is in the laſt movement of the third duet, and muſt be taken in different poſitions, and by the aſcending and deſcending ſcale of D. The whole of this duet contains excellent practice for the bow and finger. The next example is not numbered, through miſtake; it comprehends the chief difficulty in fingering that will be found in the fifth duet.

N° 94 is the *minor* of the laſt movement of the ſecond duet; it is in the part of the Violin, which may be alſo played on the Violoncello. The learner may compare the fingering of the paſſage in the third line with N°s 58 and 59.

Together with Reinagle's duets may be practiſed Breval's duets, opera 25. for two Violoncellos, lately publiſhed, abounding with excellent paſſages, and great variety of bowing. The works of this ingenious compoſer form of themſelves a ſeries of progreſſive leſſons, from his eaſieſt ſet of duets, firſt mentioned, to the preſent ſet, including two ſets of ſolos, and ſeveral ſolo concertos.

N° 95, with the following number, contain a conſiderable part of the firſt and laſt movement of a beautiful ſolo concerto of Duport junior, publiſhed at Paris. In the third and fourth bars is a deſcending ſcale of two octaves and a fifth, from A to D, the open ſtring: the firſt octave is done in one poſition, and the remaining part on the ſecond ſtring. At *a*, is a regular deſcending paſſage, from the ſame poſition of A, to E on the ſecond ſtring: on the laſt note but one of every bar, the ſecond finger takes the place of the thumb, which deſcends a third, till you come to the end of the fourth line from the bottom, when the thumb poſition muſt be quitted, and B, the laſt note but one of the bar, taken with the fourth finger. In N° 96, at *a*, in the fourth line from the end, is a beautiful but difficult paſſage of octaves; and at *b*, although in the lower compaſs of the inſtrument, the two remaining bars muſt be played by uſing the thumb, as in the former part of the paſſage. The only other concertos that are publiſhed, deſerving the learner's attention, are Breval's concertos, conſiderably the eaſieſt; a concerto of Reicha, of which the *minore* of the laſt movement is given in N° 102, but the firſt movement is much eaſier; (both theſe are publiſhed at Paris;) and a ſet of ſix concertos by Trickler. There are many excellent concertos, however, not publiſhed, by Schetky, Reinagle, Mara, Roſetti, Reicha, and other compoſers.

N° 97, and the two following numbers, will ſerve as examples of the more difficult paſſages of double ſtops; of the more eaſy, many examples occur in the different works above recommended. N° 98 and 99 are two well-known airs; the former is the march in Scipio, of Handel, and the latter the popular air *Je ſuis Lindor*, with two variations. The double ſtops of both theſe examples greatly contribute to form a good poſition of the hand and fingers, and accuracy of ſtopping; for which purpoſe, the practice of them may be begun at an early period. N° 97 is a part of a ſolo of Reinagle, not publiſhed; and N° 101 is a part of the laſt movement of the ſame ſolo. I very much regret that I am not at liberty to publiſh the whole of the ſolo, to give a more juſt idea of the fullneſs and richneſs of the ſtyle of this compoſer. A ſet of ſix ſolos of his are publiſhed, ſelected from many others, as being the moſt eaſy; but many of his latter ones, in his more improved ſtyle, are loſt. The other ſolos, moſt deſerving the learner's attention, are Galleotti's, printed in France, containing his two beſt ſolos, which are not in the Engliſh copy, Maſon's, Cervettos, Duport ſenior's, and Boccherini's; and the amateurs may expect to be ſoon gratified by the publication of a ſet of beautiful ſolos, by Schetky, ſelected from the moſt numerous and moſt applauded collection that ever was compoſed for this inſtrument by one man. The paſſages are brilliant and pleaſing, with the advantage of not being difficult; and a ſet of ſolos, in a very maſterly and brilliant ſtyle, are in great forwardneſs, by Mr. Joſeph Reinagle, brother to the late Mr. Reinagle.

The latter part of N° 99 is given as an example of paſſages in the higheſt compaſs of the inſtrument, and of octaves by more difficult intervals than the former. This, with the following number, is a part of a manuſcript ſolo of Luja, compoſed, as well as others I have ſeen of his, in a very lively and pleaſing ſtyle.

N° 100 is given as an example of Arpeggio. The three firſt notes of every beginning and middle of a bar muſt be taken on the third, ſecond, and firſt ſtring; and the whole of the example adheres cloſely to the air, of which it is a variation.

N° 101 is given chiefly to exemplify a rule of fingering, that a ſucceſſion of notes, taken firſt on two different ſtrings, cannot be afterwards continued on one ſtring, without altering the effect; therefore the paſſage at *a*, in the fourth line from the end of this example, requires the thumb to be ſhifted to C♯ and E, and afterwards to deſcend to its former place on A; at *b*, the thumb muſt deſcend one degree of the ſcale, at the beginning of every ſix notes, from E to G♯ on the firſt ſtring, and C♯ on the ſecond; and it afterwards aſcends to D, D♯, and E, by ſemitonic intervals, on the ſecond ſtring.

In N° 102 is a further exemplification of this rule, at *a* in the fifth line of this example; and at *b*, while the ſecond finger remains on F, the thumb muſt deſcend from A to G, on the firſt ſtring, and continue to deſcend a degree of the ſcale, on the ſecond of every ſix notes, till the poſition is quitted after B flat, in the fourth bar of the paſſage.

The

The above examples, with the works recommended, will introduce the learner to all the variety of paſſages, and ſtyles of compoſition, that have hitherto been adopted for the inſtrument; reſources of practice, it muſt be owned, which did not exiſt until within theſe few years, and conſequently could not have been the practice on which our greateſt maſters were formed. The earlier practice of ſuch, have been compoſitions for the inſtrument, at preſent not much in requeſt, together with the more difficult ſtudy of authors, not compoſing purpoſely for the inſtrument; and of theſe the learner may make what occaſional uſe he thinks proper: the compoſitions of the old ſchool, chiefly ſtudied, were Corelli's ſonatas and ſolos, Tartini's and Geminiani's ſolos; and of the modern, the ſolos of Giardini, Chabran, and the concertos of Borghi; all compoſed for the Violin.

In attaining the command of an inſtrument, the uſual failure of young performers is in point of tone and effect; they ſeem to think that the chief end of their practice is to overcome all difficulties in paſſages, excepting the greateſt, that of giving them fullneſs, ſmoothneſs, and effect. Unwilling to think they have entirely miſapplied their time, and miſled by the undiſcerning approbation of partial friends, they are flattered into a belief that ſuch imperfect execution muſt carry every thing before it; but the unprejudiced public judges better; and hence chiefly ariſes that diverſity of opinion reſpecting the talents of performers, ſome making quantity, and others making quality of notes, the ſtandard of excellence.

It has been held by many maſters, that a young performer ſhould acquire the command of his inſtrument before he adopts any particular ſtyle of playing; becauſe, ſay they, he can then imitate any ſtyle he chooſes. It muſt be owned there is plauſibility in the obſervation; but it is difficult to conceive that a performer of any natural taſte or ſenſibility can ſo long confine himſelf to the dead letter of the notes, playing them void of taſte or expreſſion until he overcome every difficulty in execution; and if he were capable of doing it, there is the ſtronger reaſon to doubt of his ever after being able to perform with feeling or taſte. There are numberleſs varieties of expreſſion, of which ſounds are capable, beſides their quality of tune; a knowledge of which is chiefly attained by imitation of the beſt performers, and by the learner's own ſtudy and efforts in forming and regulating his taſte. With reſpect to the models he is to imitate, there is ſome difficulty: the wiſeſt of the ancients, and moſt judicious of the moderns, have acknowledged the extreme difficulty of diſtinguiſhing what is proper to imitate, and what to avoid, in the beſt models.

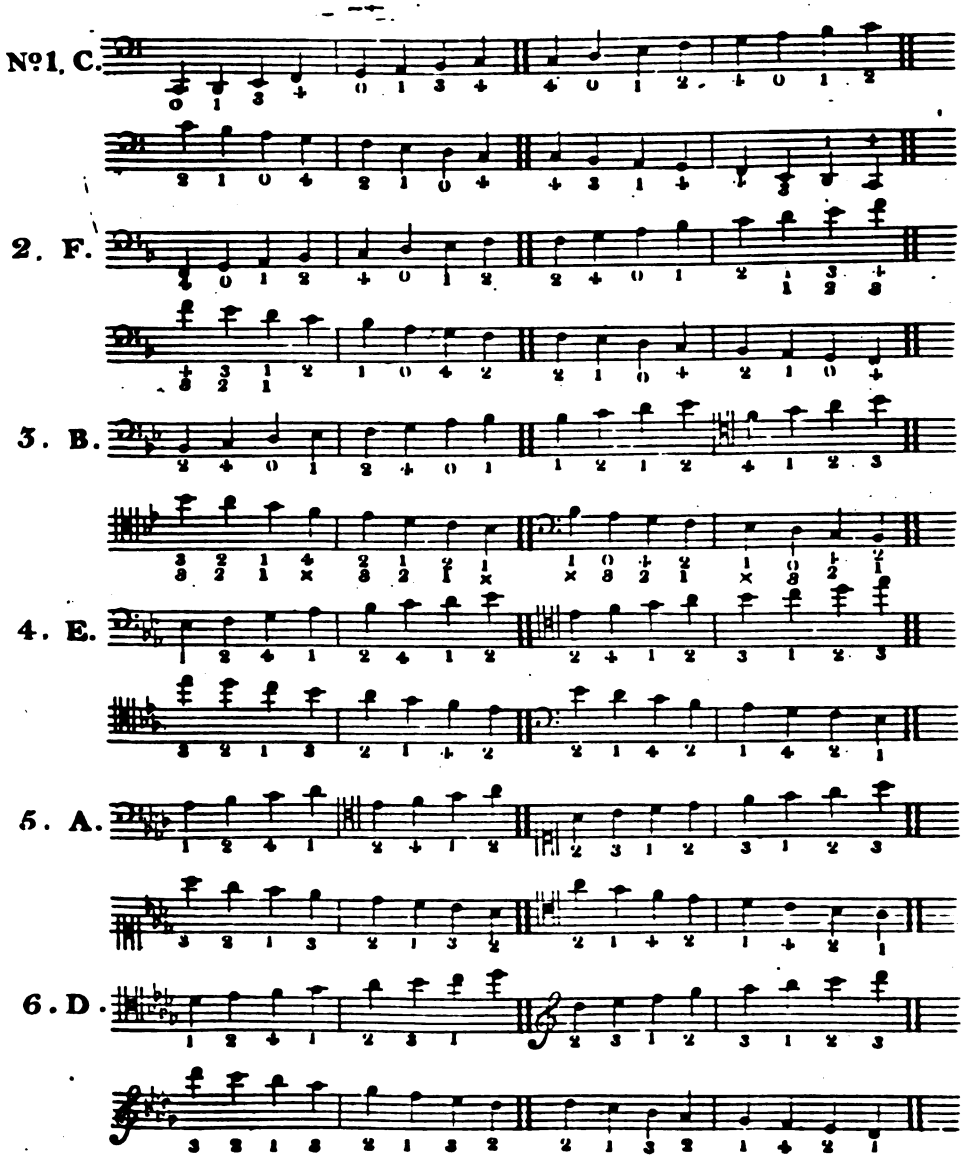
There is a peculiarity of ſtyle in every artiſt, however eminent, to which his more genuine excellence has given a ſanction, or faſhion; and this ſingularity, or *manner*, has ever been deemed, by the profoundeſt judges, a fault; but, being the moſt prominent feature, is generally firſt ſeized by the injudicious imitator, and is often the only thing he copies with exactneſs. It has been ſaid, and I think with truth, that the moſt ſucceſsful way of imitating Shakeſpear, is to imitate nature. Rather than indiſcriminately to imitate any maſter, it were better to imitate him in the ſteps he has purſued to attain his excellence. There will be alſo ſomething peculiar in the taſte and judgement of every individual; from which many have haſtily inferred, that there are no fixed principles of taſte, and no certainty of producing effects that will be generally pleaſing. The ſubſtance of our minds, and nature of our feelings, like the ſubſtance of our bodies, have a common reſemblance, as well as particular differences; and they are affected by general laws. The principles of good, that is, general taſte, are therefore to be collected from a careful ſtudy of nature, and of the general feelings of mankind, and not from the particular taſte or judgement of any individual. The muſician will, conſequently, find his account in conſulting the general opinion of mankind, and more eſpecially of the unaffected admirers of his art, who are unqueſtionably the moſt competent judges of the *effect* of it, while the more ſcientific are to be conſulted about the rules of it, and the *means* to be uſed. Moliere's old woman, whom he made the criterion of the effect of his comedies, knew not the rules of Ariſtotle.

To practiſe properly, and with intelligence, appears to me to comprehend every rule of ſtudy; becauſe, to do that, is to be one's own maſter, and all true inſtructions ſhould tend to the learner's becoming ſuch; and becauſe, to practiſe properly, ſuppoſes the knowledge of adapting means to anſwer proper ends.

FINIS.

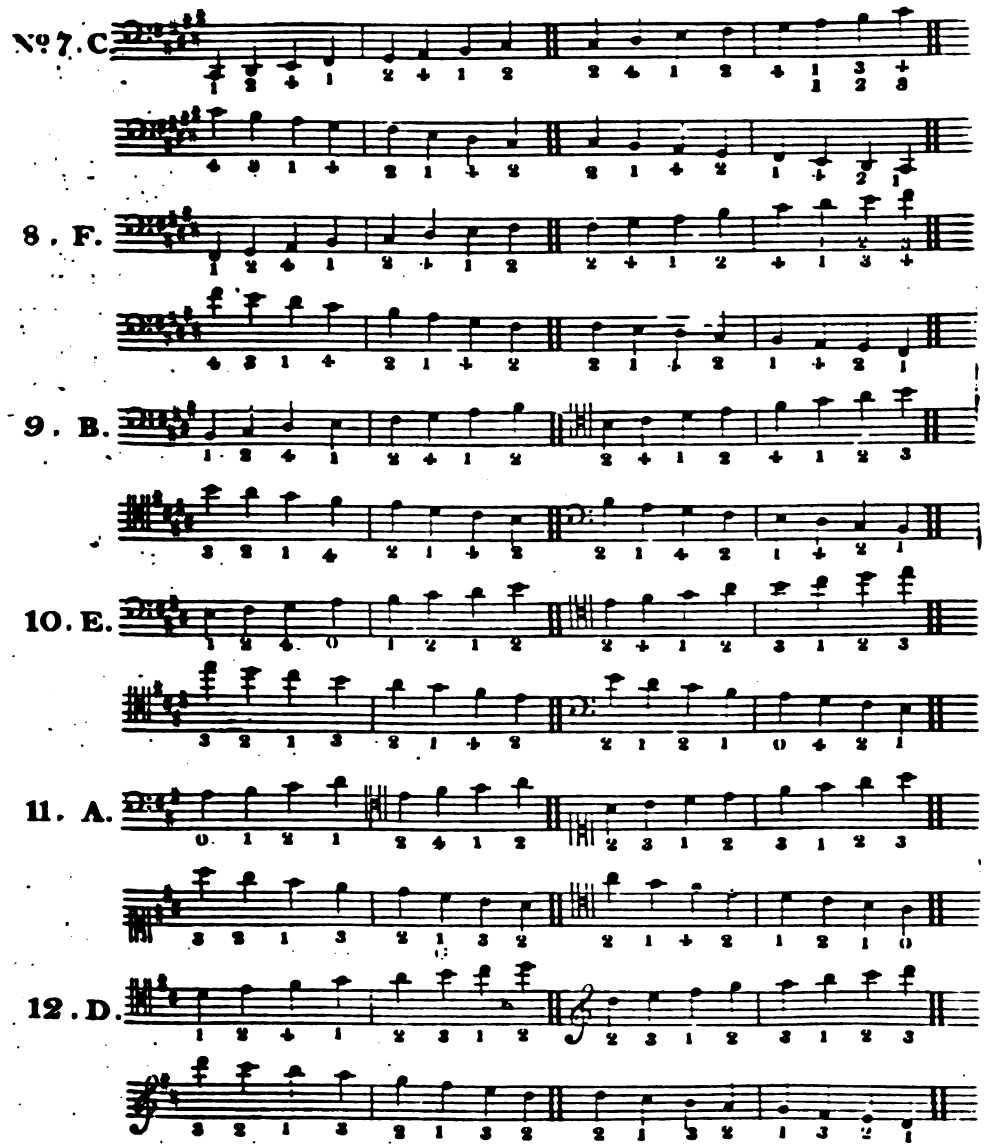
73

First Series, C.F. B♭. E♭. A♭. D♭. Major.



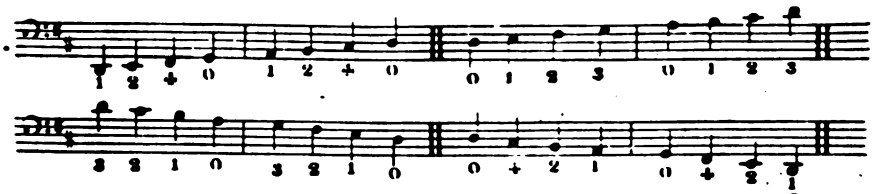
74

Second Series. C♯. F♯. B. E. A. D. Major.

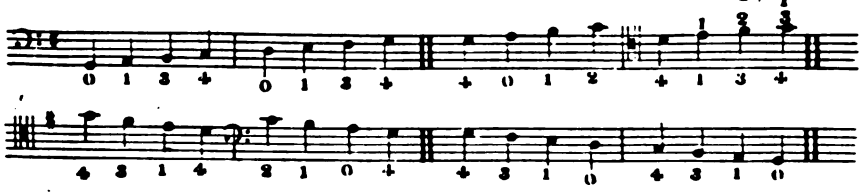


Third Series. D. G. C. F. B♭. E♭. Major.

13. D.



14. G.



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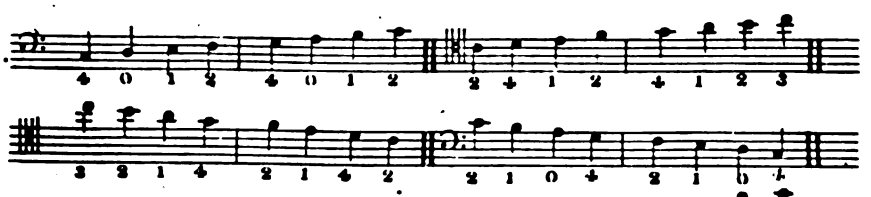
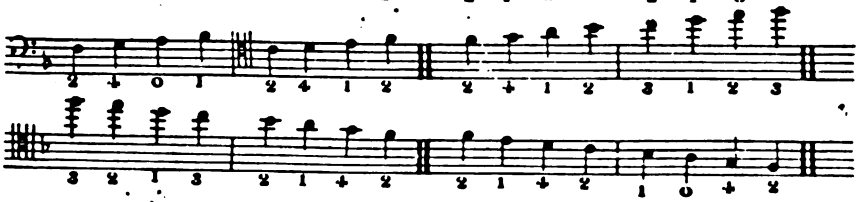
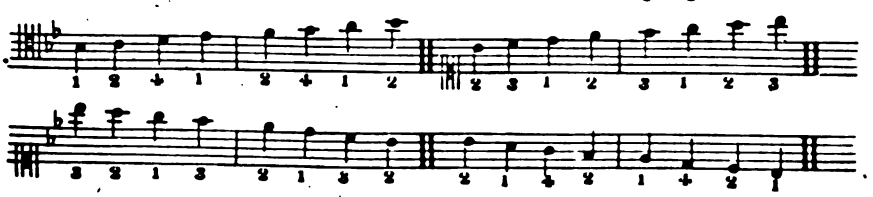


16. F.



17. B.



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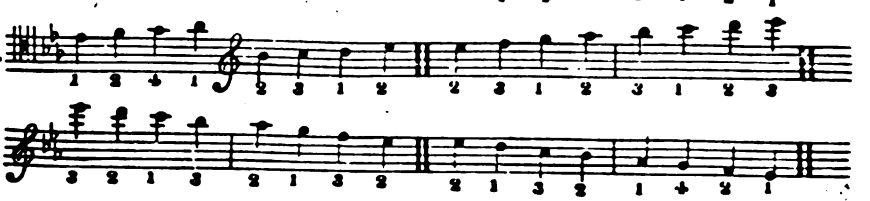
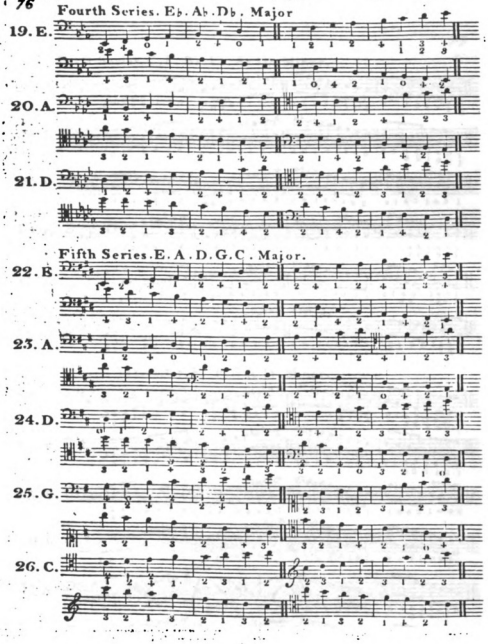



76
Fourth Series. Eb. Ab. Db. Major
19. E.
20. A.
21. D.
Fifth Series. E. A. D. G. C. Major.
22. B.
23. A.
24. D.
25. G.
26. C.

Firſt Series. C. F. B♭. E♭. A♭. D♭. Minor.

27. C.

28. F.

29. B.

30. E.

31. A.

32. D.

Second Series. C♯. F♯. B. E. A. D. Minor.

33. C.

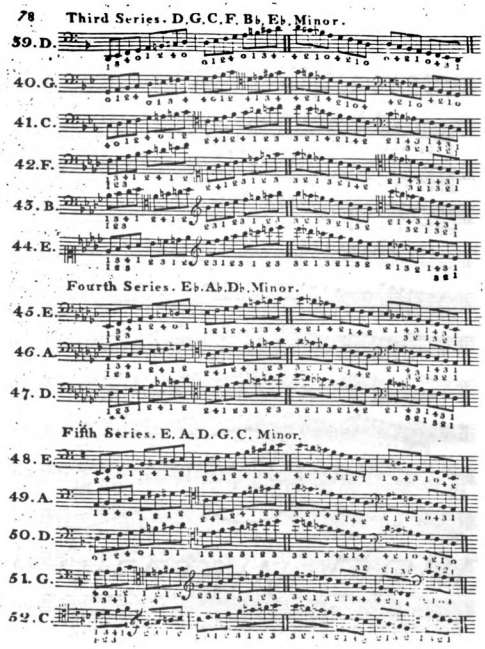
34. F.

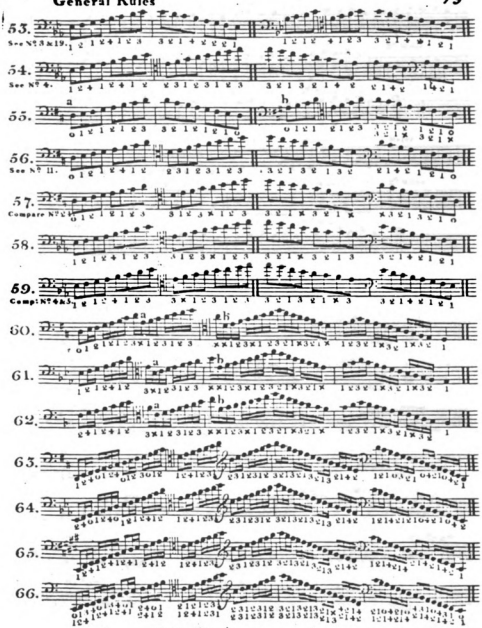
35. B.

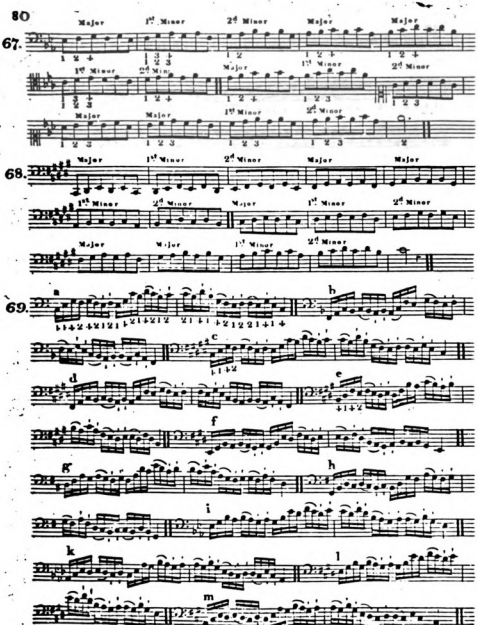
36. E.

37. A.

38. D.


78 Third Series. D.G.C.F. Bb.Eb. Minor.
59. D.
40. G.
41. C.
42. F.
43. B.
44. E.
Fourth Series. Eb.Ab.Db. Minor.
45. E.
46. A.
47. D.
Fifth Series. E. A. D. G. C. Minor.
48. E.
49. A.
50. D.
51. G.
52. C.


53.
See N°3 & 19.
54.
See N° 4.
55.
56.
See N° 11.
57.
Compare N°41
58.
59.
Compare N°4 & 5
60.
61.
62.
63.
64.
65.
66.


80
67.
68.
69.
Major
1st Minor
2d Minor
a
b
c
d
e
f
g
h
i
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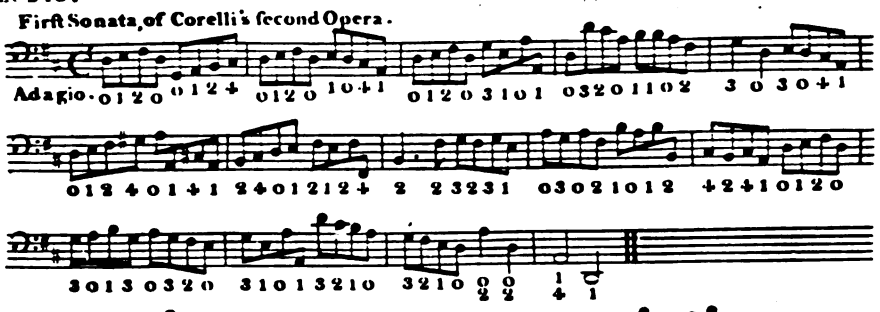
m

The Practice of Fingering, in Examples from the beſt Authors.

PRELUDIO.

First Sonata, of Corelli's ſecond Opera.

70.



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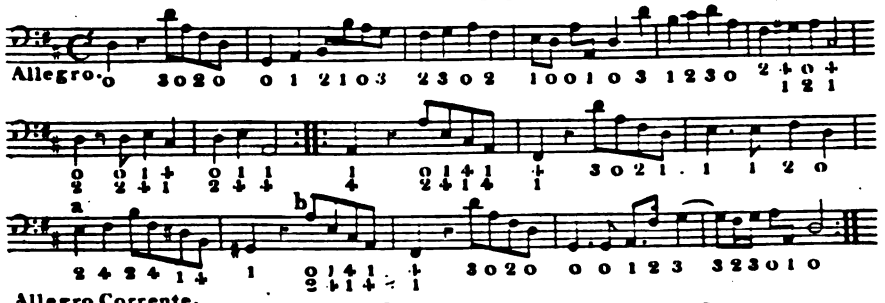
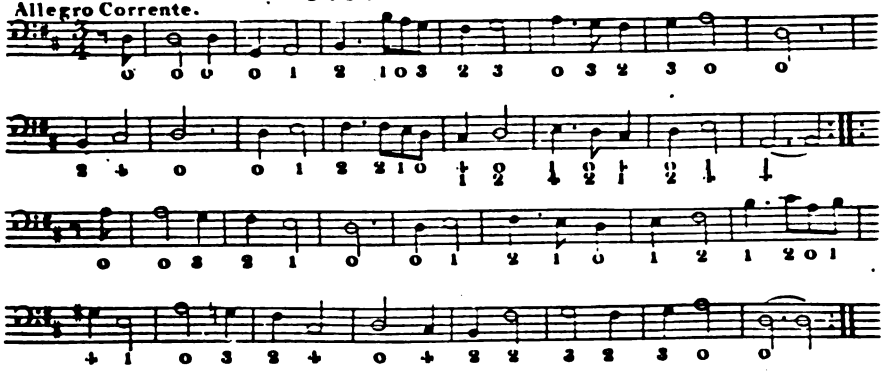


72.



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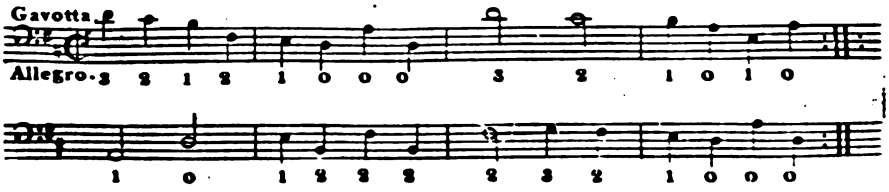
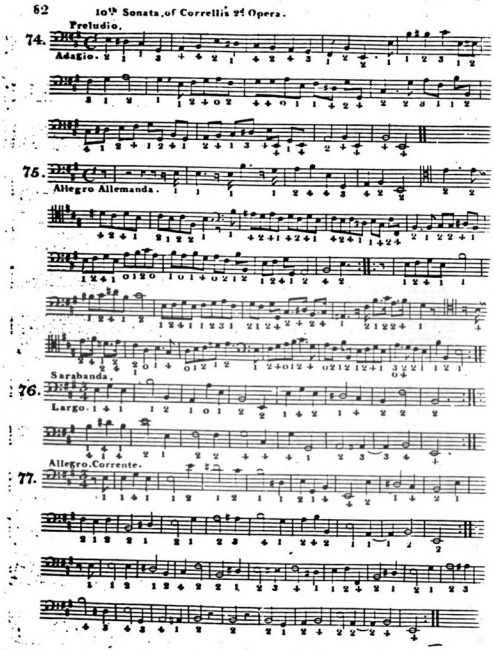
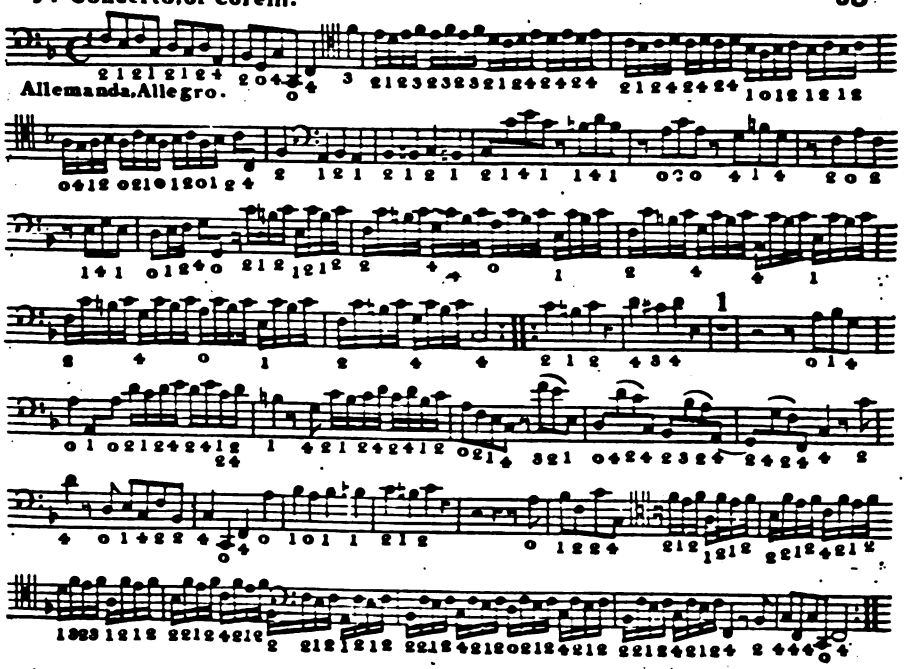


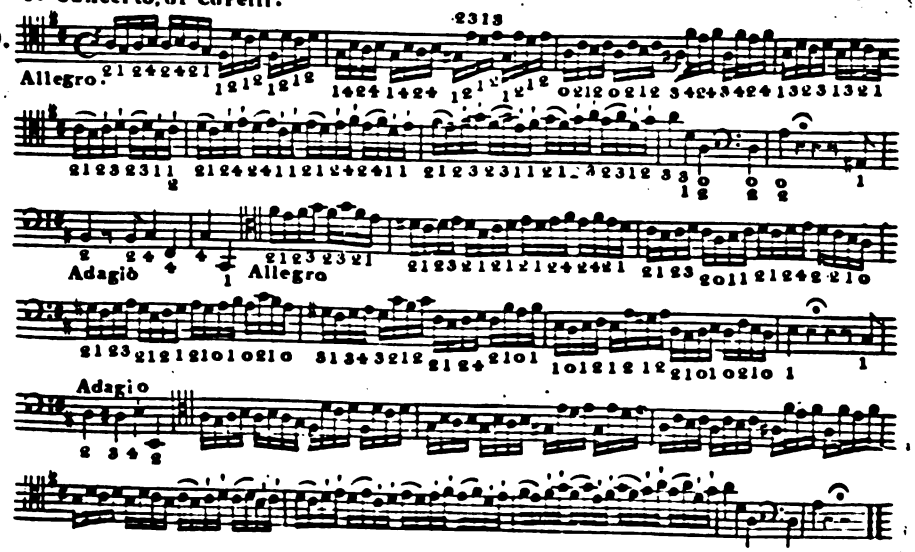

82
10th Sonata, of Correllis 2d Opera.
Preludio.
74.
Adagio.
75.
Allegro Allemanda.
Sarabanda.
76.
Largo.
Allegro, Corrente.
77.

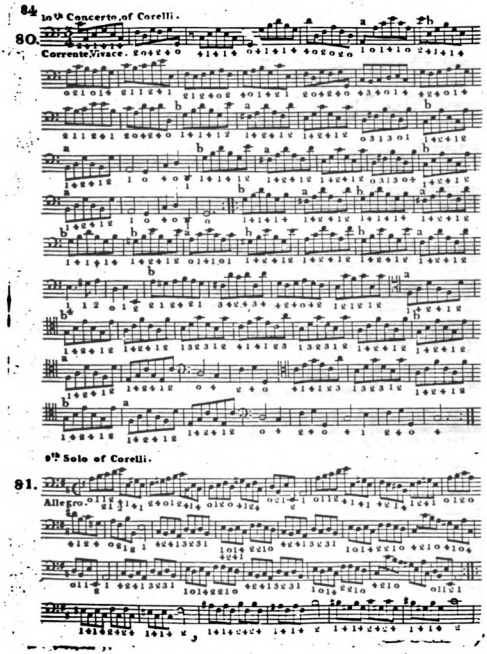
78.

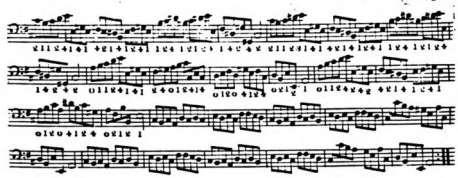


1st Concerto. of Corelli.

79.

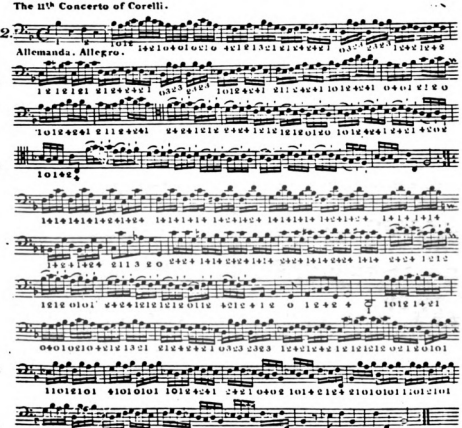


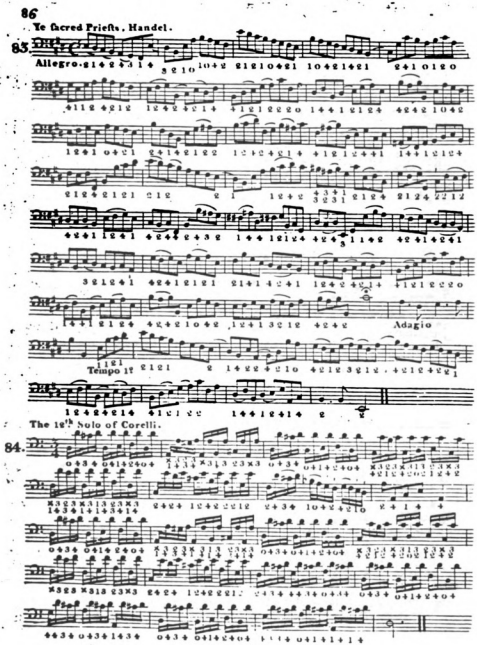

84
In 9th Concerto of Corelli.
80.
Corrente Vivace.
9th Solo of Corelli.
81.
Allegro.

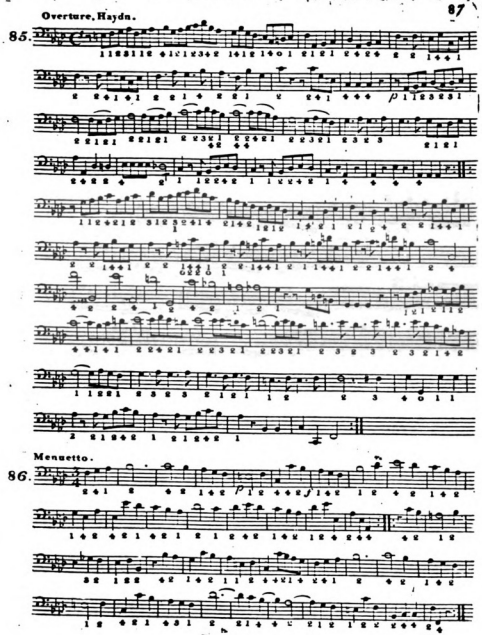


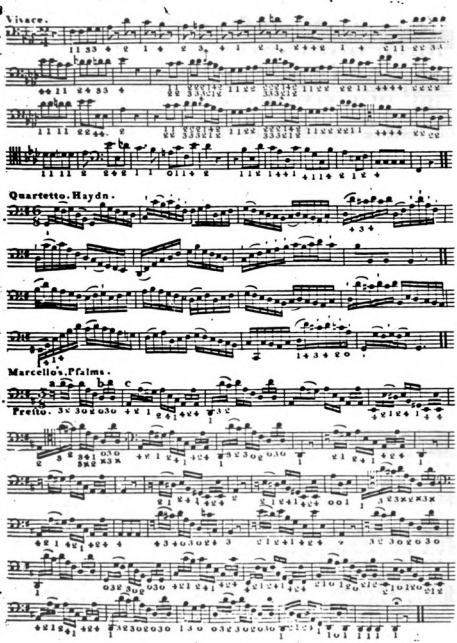
The 11th Concerto of Corelli.

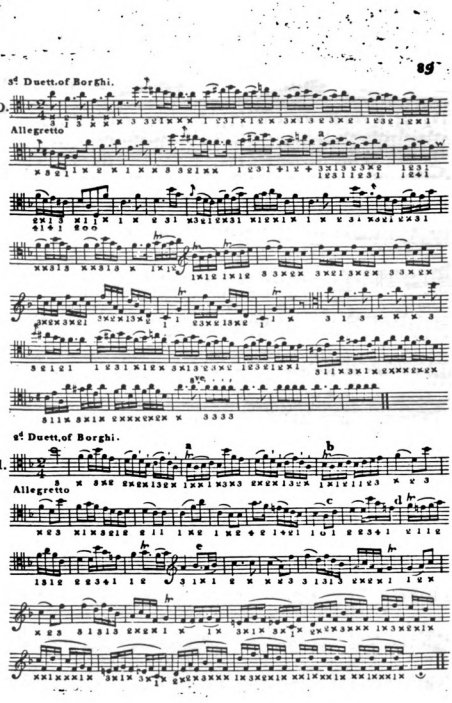
82.

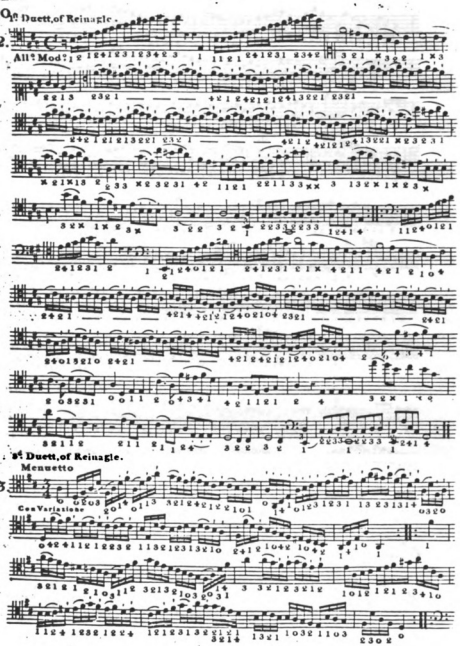


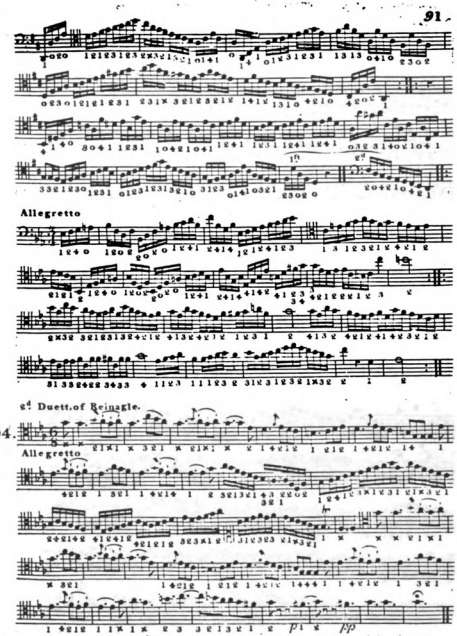

86
Te Sacred Priests, Handel.
83.
Allegro.
Adagio
Tempo 1st
The 10th Solo of Corelli.
84.

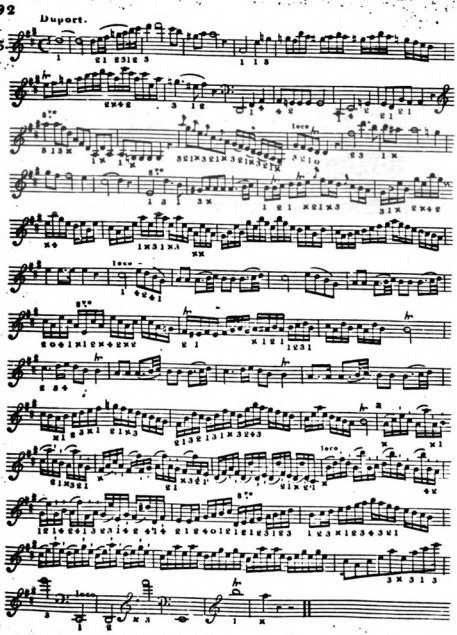

Overture. Haydn.
87
85.
Menuetto.
86.

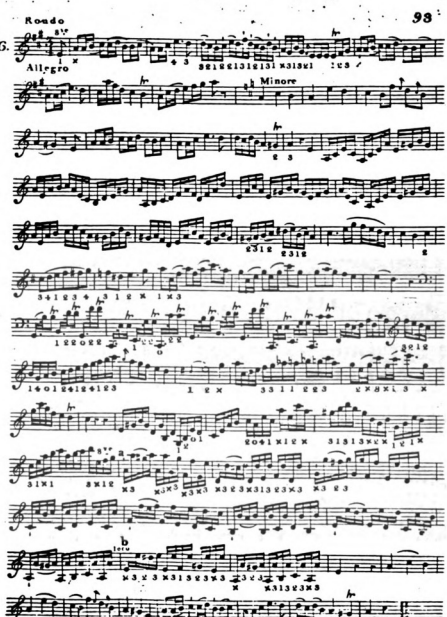

88
Vivace.
87.
Quartetto. Haydn.
88.
Marcello's Psalms.
89.
Presto.

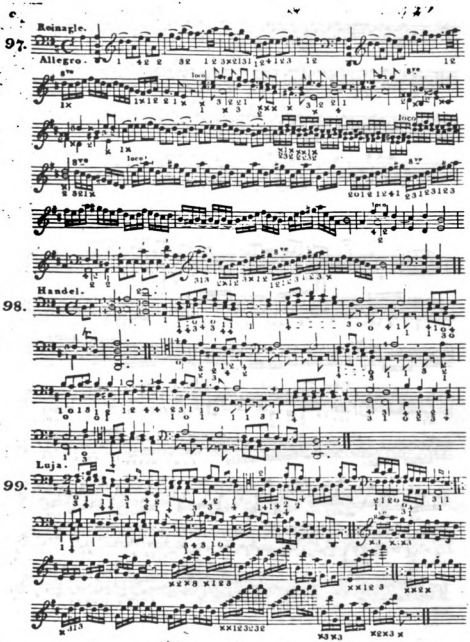

3d Duett.of Borghi.
89
90.
Allegretto
8va
2d Duett.of Borghi.
91.
Allegretto

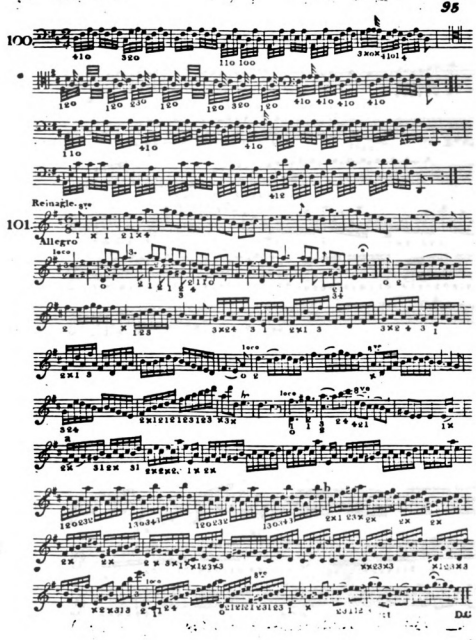

90
st Duett, of Reinagle.
92
All.o Mod.to
st Duett, of Reinagle.
Menuetto
93
Con Variazione

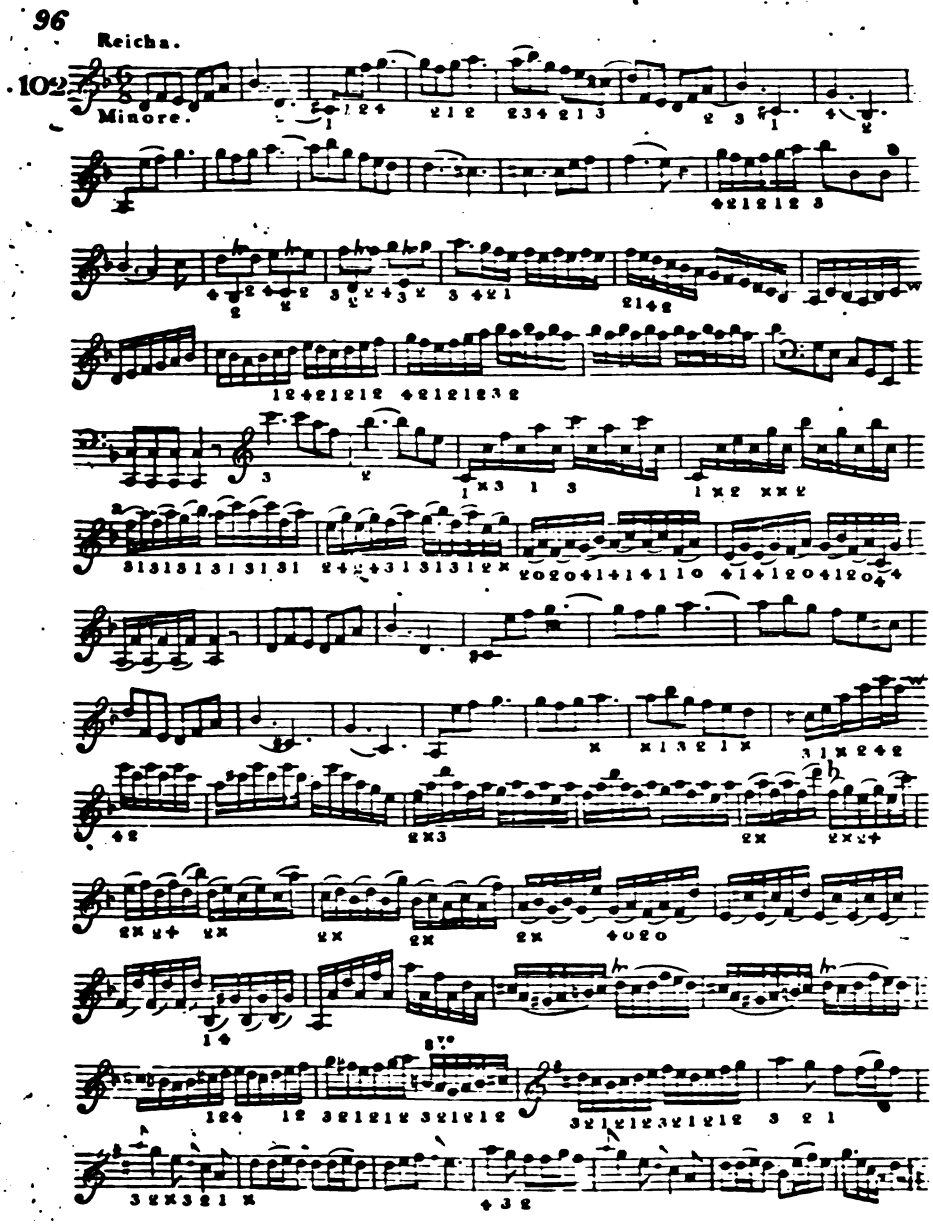

91.
Allegretto
94. Allegretto
pp


92
Duport.
96


Rondo
93
96.
Allegro
h Minore


Reinagle.
97.
Allegro.
Handel.
98.
Loja.
99.


95
100
Reinagle.
101
Allegro
D.C.


96
Reicha.
102
Minore.