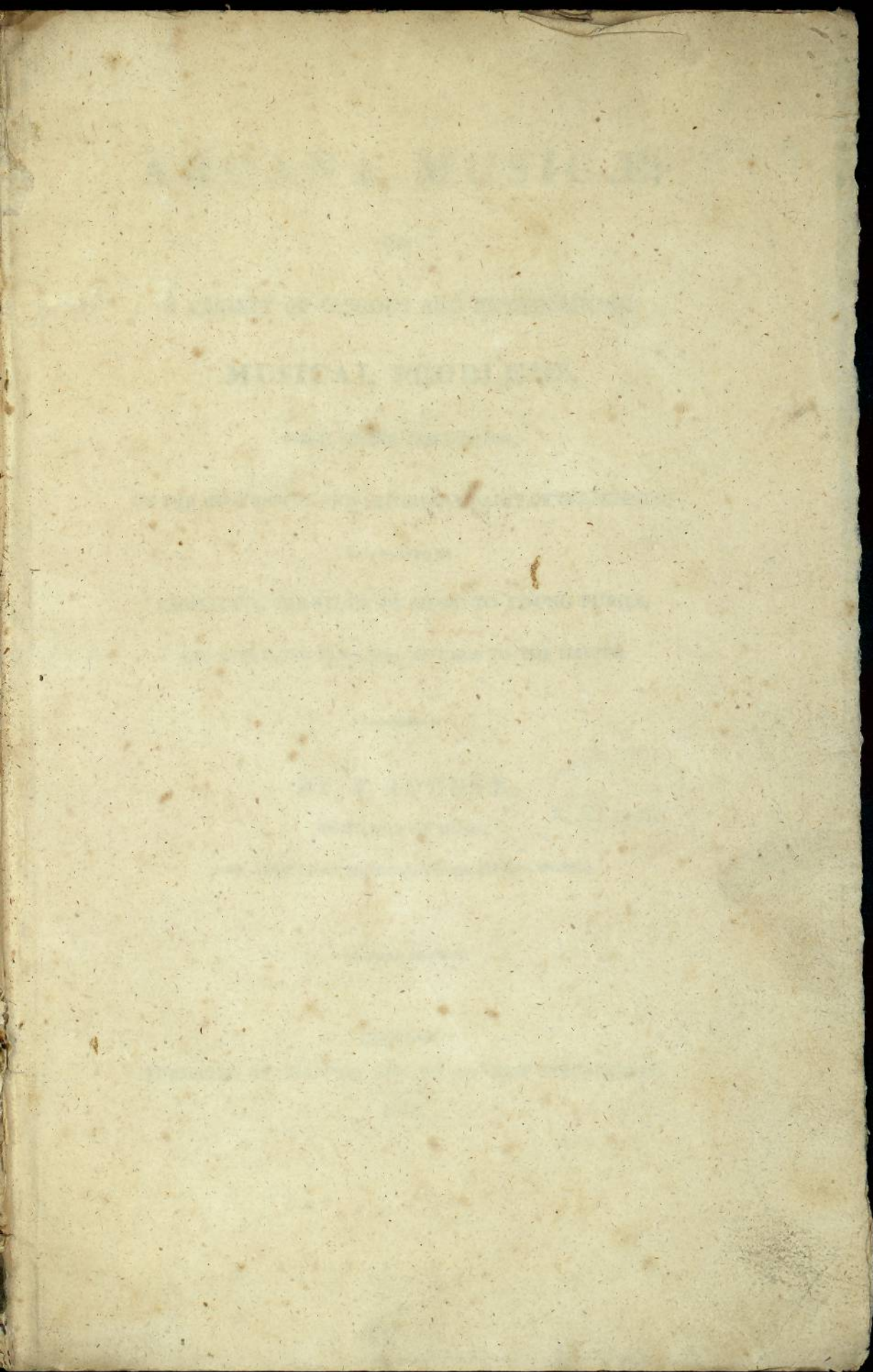




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Ray^{so}



ARCANA MUSICÆ;

OR,

A VARIETY OF CURIOUS AND ENTERTAINING

MUSICAL PROBLEMS,

WITH THEIR SOLUTIONS,

ON THE MOST USEFUL AND IMPORTANT PARTS OF THE SCIENCE;

CALCULATED TO

FACILITATE THE STUDY OF MUSIC TO YOUNG PUPILS,

AND SAVE MUCH TIME AND TROUBLE TO THE MASTER.

BY J. JOUSSE,

PROFESSOR OF MUSIC,

AND AUTHOR OF SEVERAL THEORETICAL WORKS.



LONDON:

PUBLISHED BY CHAPPELL AND CO. 124, NEW BOND-STREET.

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London: Printed by B. M. Millan,
Bow Street, Covent Garden. }

PREPARE

TO

MISS DENT,

THIS WORK

IS MOST RESPECTFULLY

DEDICATED,

BY

THE AUTHOR.

THE PRINCIPLES

TO

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1847

PREFACE.

To facilitate the attainment of the Musical Science ; to engage the attention of young Students to a dry subject, by exciting their curiosity ; to bring the leading principles in one point of view, disentangled from the obscurity into which some Theorists have enveloped them ; is the object of the present Work.

The Author, adopting a plan entirely new, has thrown the most important parts of the Theory of Music into the form of *Problems*; an idea which he believes is original.

He does not lay claim to the invention of all that the Work contains ; most of it is familiar to the respectable part of the Profession ; nor does he pretend to communicate in a short period, an art which requires long study : his aim is to assist the memory of the Student, and to impress on his mind the principles of Music and Thorough Bass.

This Work is not in any degree connected with a newly-introduced system of musical education*, with which the Author of the present Work professes himself unacquainted, as he never attended any examination of the Pupils, nor received from any one information on the subject.

* The Logierian System.

Should some of the following Problems have been taught to young persons educated according to the above system, it proves that ideas and inventions are not centered in one individual.

In publishing this Work, the Author's sole desire is to be useful, and to contribute his mite to the general treasure towards benefiting the Science of Music, to the study of which he has devoted many years. Should these Problems be found to facilitate the acquirement of a liberal art and elegant accomplishment, he will think his labour amply recompensed.

Previous to his solving these Problems, the Student must read attentively the Explanations given at the head of each Chapter, to acquire some previous knowledge of the principles.

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MUSICAL PROBLEMS.


CHAP. I.

ON THE CLEFS.

THE *Clef* is a mark placed at the beginning of the Staff, to determine the names of the Degrees, and to fix the pitch of the Notes. The *Clef* is always placed on a line of the Staff. There are three Clefs used in Music, which determine the three great divisions of the Scale, the *Bass*, the *Tenor*, and the *Treble*.

1. The Treble, or G Clef, is shaped thus, 

2. The Bass, or F Clef, thus, 

3. The Tenor, or C Clef, thus, 

The *Treble Clef* is generally placed on the second Line of the Staff; in old French Music it is placed on the first Line. (See *Example 1*).

The *Bass Clef* is generally placed on the fourth Line; in old Church Music it is placed on the third Line, and called the *Baritono Clef*. (*Example 1*).

The C Clef may be placed on the first, second, third, and fourth Lines. (*Example 1*).

When placed on the first Line, it is called the *Canto*, or *Soprano Clef*.

When placed on the second Line, it is called the *Mezzo Soprano Clef*.

When placed on the third Line, it is called the *Alto*, or *Counter Tenor Clef*.

When placed on the fourth Line, it is called the *Tenor Clef*.

On the Piano-forte, the C Clef is found in the middle of the Key-board.

The G Clef is five Keys higher.

The F Clef, or Bass Clef, is five Keys lower than the C Clef.

PROBLEM I.—(*Plate I.*)

To write the seven Notes of the Scale on a single Line of the Staff.

Solution.—Change the Clef at every Note. (*Example 4.*)

PROBLEM II.

To ascend or descend the Scale, the Notes keeping on the same Degrees of the Staff.

Solution.—Change the Clef after every two Notes. (*Example 5.*)

PROBLEM III.

To preserve the same name to the Notes while they change Degrees on the Staff.

Solution.—Change the Clef at every Note. (*Example 6.*)

Ex:1 Treble Clef or Soprano High Treble clef

Ex:2 Bass Clef Baritone clef

Ex:3 Tenor Clef. Counter Tenor or Contralto Mezzo Soprano Canto

Ex:4

Ex:5 Scale Ascending

Descending

Ex:6

Plate 2

Ex:7 Diatonic Major Scale Ascending



Descending



Ex:8 Diatonic Minor Scale Ascending



Descending



Ex:9 Chromatic Scale Ascending by Sharps



Descending by Flats



Ex:10



Ex:11



CHAP. II.

ON THE SCALE.

A GRADUAL succession of seven Notes, ascending or descending, is called a *Scale* or *Gamut*.

The Scale may be *Diatonic* or *Chromatic*.

The *Diatonic* Scale, which is the natural Scale of Music, consists of five Tones and two Major Semitones. These are differently placed, according as the Scale is Major or Minor; in the Major Scale the Semitones are from the third to the fourth degree, and from the seventh to the eighth. (*Example 7*).

In the Minor Scale, the first Semitone is from the second to the third degree in ascending and descending. The second Semitone varies: it is, in ascending from the seventh to the eighth degree, and in descending from the sixth to the fifth degree. (*Example 8*).

The *Chromatic* Scale ascends and descends by a series of Semitones, alternately Minor and Major. (*Example 9*).

PROBLEM IV.

To write on one Staff the Major Scale for the Bass and Treble.

Solution.—Place the Bass Clef at one end of the Staff, and the Treble Clef at the other end. (*Example 10*).

PROBLEM V.

To express on one Staff the Major and Minor Scale.

Solution.—Place the Treble Clef at each end of the Staff—by turning the Book upside down, the Minor Scale will appear. (*Example 11*).

CHAP. III.

ON TRANSPOSITION.

WHEN, to suit a voice or instrument, a Musical Composition is written or performed in a Key higher or lower in point of pitch than the original, that change is called *Transposition*. To render the Transposition correct, all the Intervals of the original Key must be exactly preserved: this can only be done by introducing the Sharps or Flats proper to the new Key.

PROBLEM VI.

To transpose a Melody from the Key of C to any degree of the Scale.

Solution.—Add the Sharps or Flats which belong to the new Key. (See *Plate III.*)

1. To transpose to the Semitone above, add seven Sharps; from C to C \sharp , seven Sharps. (*Example 12*).

To transpose to the Semitone below, add seven Flats; from C to C \flat , seven Flats. (*Example 12*).

2. To transpose to the Major Second, or Tone above, add two Sharps; from C to D, two Sharps; from D to E, four Sharps. (*Example 13*).

3. To transpose at the Minor Third above, add three Flats. In C, no Flats; in E \flat , three Flats. (*Example 14*).

4. To transpose to the Major Third above, add four Sharps. In C, no Sharp; in E, four Sharps; in G \sharp , eight Sharps. (*Example 15*).

5. To transpose at the perfect Fourth above, add one Flat; from C to F, one Flat; to B \flat , two Flats. (*Example 16*).

6. To transpose at the perfect Fifth above, add one Sharp: in G Major, one Sharp; in D Major, two Sharps. (*Example 17*).

Ex:12 in C in C \sharp in C \flat
 1st
 at a Semitone
 above or below

Ex:13 C D E
 2^d
 at One Tone
 above

Ex:14 C E \flat G \flat
 3^d
 a Minor Third
 above

Ex:15 C E G \sharp
 4th
 a Major Third
 above

Ex:16 C F B \flat
 5th
 a Perfect Fourth
 above

Ex:17 C G D
 6th
 a Fifth above

Ex:18 C A \flat F \flat
 7th
 a Minor Sixth
 above

Ex:19 C A F \sharp
 8th
 a Major Sixth
 above

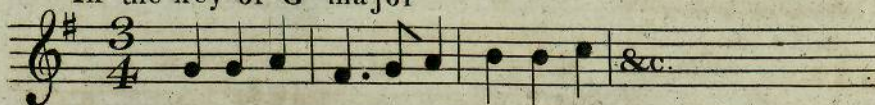
Ex:20 C B \flat A \flat
 9th
 a Minor Seventh
 above

Ex:21 C B A \sharp
 10th
 a Major Seventh
 above

GOD SAVE THE KING

Ex:22

In the key of G major



Ex:23 Transposed into A major. Play the notes an Octave higher



Ex:24 Transposed into B major. Play the notes Two octaves higher



Ex:25 Transposed into C major. Play the notes an Octave higher



Ex:26 Transposed into D major. Play the notes Two octaves higher



Ex:27 Transposed into E major. Play the notes an Octave higher



Ex:28 Transposed into F major. Play the notes an Octave higher



7. To transpose at the Minor Sixth above, add four Flats: in C Major, no Flats; in A \flat Major, four Flats; in F \flat Major, eight Flats. (*Example 18*).

8. To transpose at the Major Sixth above, add three Sharps: in A Major, three Sharps; in F \sharp , six Sharps. (*Example 19*).

9. To transpose at the Minor Seventh above, add two Flats: in B \flat , two Flats; in A \flat , four Flats. (*Example 20*).

10. To transpose at the Major Seventh above, add five Sharps: from C to B, five Sharps; to A \sharp , ten Sharps. (*Example 21*).

PROBLEM VII.

To transpose a Melody from one Key into another, without changing the place of the Notes on the Staff.

Solution.—Change the Clef and the Signature. (See *Plate IV*.)

Observe, That although the Notes preserve the same places on the Staff, yet as the Clef is changed, their name and pitch is altered, therefore they must be named and played according to the new Clef.

CHAP. IV.

ON INTERVALS.

AN *Interval* is the distance from one Note of the Scale to another, going from the Grave to the Acute. The lowest Note is the fundamental; therefore all Intervals are counted from the Bass.

There are as many primitive Intervals as Degrees in the Scale, viz. seven.

They are called and figured according to the number of the Degrees of the Scale which they contain: thus,

Names: Second, Third, Fourth, Fifth, Sixth, Seventh, Eighth.

Figures: 2 3 4 5 6 7 8

(See *Example 29*).

These Intervals being within the compass of the Octave, are called *simple*, in contradistinction to those which go beyond the limits of the Octave, which are termed *Compound Intervals*; these are but Replicates of the others. An Interval with the same number of Diatonic Degrees, and consequently preserving the same name, may be of different species, according as the Notes of which it is composed are altered by Sharps or Flats. An Interval may be perfect or imperfect, Major or Minor, superfluous or diminished: a Chromatic Semitone produces the difference.

The smallest Interval used in Music, is the Semitone, which may be Major or Minor: the Minor Semitone is between two Notes of the same name and place on the Staff, which only differ by a Sharp or a Flat, as C, C[#], D^b, D[♮].

The Major Semitone is between two Notes of diffe-

Ex:29 **Simple Intervals**

2^d 3^d 4th 5th 6th 7th 8th

Compound Intervals

9th 10th 11th 12th 13th 14th 15th

Ex:30 **Perfect Intervals.** **Major Intervals.** **Diminished**

4th 5th 8^e 3^d 6th

Imperfect. **Minor** **Superfluous.**

4th 5th 8^e 3^d 6th

6th 2^d

Ex:31 **Minor Semitones.** **Major Semitones.** **Tone.**

Chromatic. **Diatonic.**

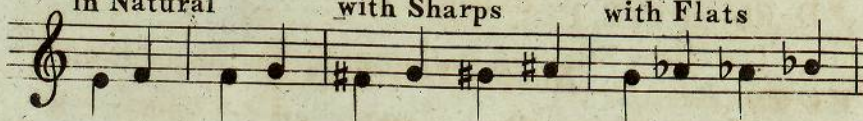
Ex:32

SECONDS

in Natural

with Sharps

with Flats



Ex:33

THIRDS



Ex:34

FOURTHS



Ex:35

FIFTHS



Ex:36

SIXTHS



Ex:37

SEVENTHS



Ex:38

OCTAVES



Ex:39

NINTHS



rent name and place on the Staff, as between C, D \flat ; D, E \flat ; B, C, E, F.

The Minor Semitone is *Chromatic*, the Major *Diatonic*. (*Example 31*).

The union of the Minor and Major Semitones forms the *tone*.

PROBLEM VIII.—(*Plate VI*.)

To find in a piece of Music every Interval, without the assistance of a Piano-forte*.

Solution.—The odd numbers 3, 5, 7, 9, 11, &c. proceed on the Staff, from a Line to a Line, or from a Space to a Space: the even numbers 2, 4, 6, 8, 10, &c. proceed from a Line to a Space, or from a Space to a Line: thus,

A 2d—Is from a Line to a Space, or from a Space to a Line.

(*Example 32*).

A 3d—Is from a Line to a Line, or from a Space to a Space.

(*Example 33*).

A 4th—Is from a Line to a Space, or from a Space to a Line; leaving a line between. (*Example 34*).

A 5th—Is from a Line to a Line, or from a Space to a Space; leaving one Line between. (*Example 35*).

A 6th—Is from a Line to a Space, or from a Space to a Line; leaving two Lines between. (*Example 36*).

A 7th—Is from a Line to a Line, or from a Space to a Space; leaving two Lines between. (*Example 37*).

An 8th—Is from a Line to a Space, or from a Space to a Line; leaving three Lines between. (*Example 38*).

A 9th—Is from a Line to a Line, leaving three Lines between.

(*Example 39*).

* N. B. The facility in reading Music fluently, and fingering readily, will be greatly promoted by the habit of finding at a glance the interval from any Note to another.

PROBLEM IX.

To find the number of Semitones contained in each Interval of the Diatonic Scale.

Solution.—Count on the Piano-forte the number of Keys contained between the two terms of the Interval, (counting one on the lowest), and retrench one from the total amount, the remaining quantity will give the number of Semitones.

Seconds.

The Minor	2d, E, F, consists of 2 Keys, or 1 Semitone.
The Major	2d, C, D, 3 ditto, 2 ditto.
The extreme Sharp	2d, C, D \sharp , 4 ditto 3 ditto.

(Example 40).

Thirds.

The Minor 3d, C, E \flat ,	consists of 4 Keys, or 3 Semitones,
The Major 3d, C, E \natural ,	5 ditto, 4 ditto.

(Example 41).

Fourths.

The perfect	4th, C, F, consists of 6 Keys, or 5 Semitones.
Extreme Sharp	4th, C, F \sharp , 7 ditto, 6 ditto.

(Example 42).

Fifths.

The diminished	5th, C, G \flat , consists of 7 Keys, or 6 Semitones.
The perfect	5th, C, G \natural , 8 ditto, 7 ditto.
The extreme Sharp	5th, C, G \sharp , 9 ditto, 8 ditto.

(Example 43).

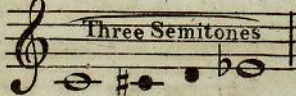

Ex: 40

SECONDS

Minor	Major	Extreme Sharp
One Semitone	Two Semitones	Three Semitones
		
Two Keys	Three Keys	Four Keys

Ex: 41

THIRDS

Minor	Major
Three Semitones	Four Semitones
	
Four Keys	Five Keys

Ex: 42

FOURTHS

Perfect	
	Five Semitones
	Six Keys
Extreme Sharp	
	Six Semitones
	Seven Keys

Ex: 43

FIFTHS

Imperfect	
	Six Semitones
	Seven Keys
Perfect	
	Seven Semitones
	Eight Keys
Extreme Sharp	
	Eight Semitones
	Nine Keys

Ex:44

SIXTHS

Minor



Major



Extreme
Sharp



Ex:45

SEVENTHS

Diminished



Minor



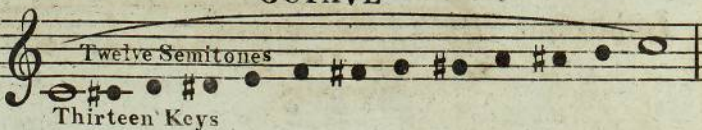
Major



Ex:46

OCTAVE

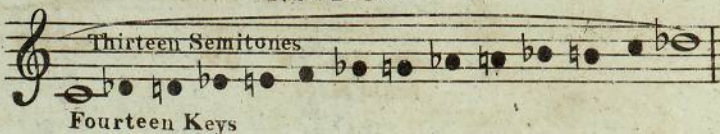
Perfect



Ex:47

NINTHS

Minor



Major



Sixths.

The Minor 6th, C, A \flat , consists of 9 Keys, or 8 Semitones.
 The Major 6th, C, A \sharp , 10 ditto, 9 ditto.
 The extreme Sharp 6th, C, A \sharp , 11 ditto, 10 ditto.
 (Example 44).

Sevenths.

The diminished 7th, C \sharp , B \flat , consists of 10 Keys, or 9 Semitones.
 The Minor 7th, C \sharp , B \flat , 11 ditto, 10 ditto.
 The Major 7th, C \sharp , B \sharp , 12 ditto, 11 ditto.
 (Example 45).

Octave.

The perfect 8th, C, C, consists of 13 Keys, or 12 Semitones.
 (Example 46).

Ninths.

The Minor 9th, C, D \flat , consists of 14 Keys, or 13 Semitones.
 The Major 9th, C, D \sharp , 15 ditto, 14 ditto.
 (Example 47).

PROBLEM X.

To find the inversion of any Interval.

Solution.—The direct and inverted Interval must form the number 9.

The 4th is inverted from the 5th, for 4 and 5 make 9.

The 2d from the 7th.

The 6th from the 3d. (*Example 48*).

N. B. The Inversion of an Interval is its complement, or what is remaining to complete the Octave: it is found by changing the place of the two Notes which form the Interval, placing the lowest above the other. There are but three primitive Intervals, viz. the 5th, the 3d, and the 7th.

PROBLEM XI.—(*Example 49*).

To find the simple Interval, to which a double or triple Interval refers.

Solution.—Subtract from the compound Interval the number 7 as often as you can: the remaining quantity will be the simple Interval.

For instance, a 17th, by subtracting twice 7, becomes a 3d.

a 19th, a 5th.

a 15th, a 1st.

a 12th, by subtracting 7, becomes a 5th.

a 10th, a 3d.

a 9th, a 2d.

Observe—In playing Thorough Bass, no distinction is made of simple and compound Intervals, and the Octave of any Interval is considered as its simple term.

DIRECT INTERVALS

Ex: 48 Thirds Fifths Sevenths

Major Minor Perfect Flat Minor Major

INVERTED INTERVALS

Sixths Fourths Seconds

Minor Major Perfect Superfluous Major Minor

COMPOUND INTERVALS

Ex: 49 8^e 9th 10th 11th 12th 13th 14th 15th

Double

15th 16th 17th 18th 19th 20th 21st 22^d

Triple

The Directs (w) point out the Simple Intervals

DIRECT INTERVALS			INVERTED INTERVALS		
Ex: 50 Seconds Minor Major Extreme Sharp			Sevenths Major Minor Diminished		
Ex: 51 Thirds Diminished Minor Major			Sixths Extreme Sharp Major Minor		
Ex: 52 Fourths Diminished Perfect Sharp			Fifths Sharp Perfect Flat		
Ex: 53 Fifths Flat Perfect Sharp			Fourths Sharp Perfect Flat		
Ex: 54 Sixths Minor Major Extreme Sharp			Thirds Major Minor Diminished		
Ex: 55 Sevenths Diminished Minor Major			Seconds Extreme Sharp Major Minor		
Ex: 56 Octave Perfect			Unison Perfect		

The Ninth is never Inverted

PROBLEM XII.—(See *Plate X.*)

Knowing the number of Semitones contained in a direct Interval, to find the number of Semitones contained in its inversion.

Solution.—The total amount of the Semitones in the direct and inverted Interval, must make the number 12 ; therefore,

As the Minor 2d consists of 1 Semitone,
The Major 7th 11 Semitones.
(*Example 50*).

As the Major 2d 2 ditto,
The Minor 7th 10 ditto.

As the extreme Sharp 2d 3 ditto,
The diminished 7th 9 ditto.

As the Minor 3d 3 ditto,
The Major 6th 9 ditto.

(*Example 51*).

As the Major 3d 4 ditto,
The Minor 6th 8 ditto.

As the perfect 4th 5 ditto,
The perfect 5th 7 ditto.

(*Example 52*).

As the Sharp 4th 6 ditto,
The Flat 5th 6 ditto.

As the Sharp 5th 8 ditto,
The diminished 4th 4 ditto.

(*Example 53*).

As the Minor 6th 8 ditto,
The Major 3d 4 ditto.

(*Example 54*).

As the Major 6th 9 ditto,
The Minor 3d 3 ditto.

As the extreme Sharp 6th 10 ditto,
The diminished 3d 2 ditto.

(*Example 54*).

As the diminished 7th consists of 9 Semitones,

The extreme Sharp 2d 3 ditto.

(Example 55).

As the Minor 7th 10 ditto,

The Major 2d 2 ditto.

As the Major 7th 11 ditto,

The Minor 2d 1 ditto.

As the perfect 8th 12 ditto,

The perfect Unison 0

(Example 56).

CHAP. V.

ON KEYS AND MODES.

By the word *Key*, is understood a Diatonic Scale, the Notes of which bear certain relations to the principal Note upon which they all depend, and from which they are in some respects derived.

The principal Note is called the *Tonic*, or *Key Note*. The Key may be either in the Major or Minor Mode: it is in the Major Mode when the Interval between the 1st and 3d of the Scale consists of four Semitones, (a Major 3d); when the 3d consists of three Semitones, (a Minor 3d), the Mode is Minor.

As every Note of the Scale may be taken for a Tonic in its natural state, also when made Sharp or Flat, there are consequently twenty-one Keys.

In Natural C, D, E, F, G, A, B.

With Sharps, C[♯], D[♯], E[♯], F[♯], G[♯], A[♯], B[♯].

With Flats, C[♭], D[♭], E[♭], F[♭], G[♭], A[♭], B[♭].

N. B. Those Keys marked with an asterisk (*), are seldom used as principal; but Harmonists who have courage and skill to attack and conquer difficulties, introduce them in their Modulations.

On account of the great affinity of some of these Scales, they are played (on the Piano-forte) on the same Keys; therefore, in the modern system, the twenty-one Keys are reduced to twelve, which being used in both the Major and Minor Mode, give twenty-four Scales.

The Scale of F# with six Sharps, being the same on the Piano-forte as that of Gb with six Flats, all the Keys with more than six Sharps or six Flats, are expressed by a smaller number of Accidents, by changing the name of the Tonic.

Every Major Key has a relative Minor Key, with the same number of Sharps or Flats at the Signature; it is at the Interval of a Minor 3d below the Major Key, or a Major 6th above. The relative Minor Key of C Major is A Minor; that of D Major is B Minor.

In Major Keys the leading Note is essential, and is included in the Accidents marked at the Signature; but in Minor Keys it is accidental, and marked immediately before the Note, either by a Sharp or a Natural; for instance, in A Minor the leading Note is G#, which is not marked at the Signature, though it frequently occurs in the piece; by that Note A Minor is distinguished from its relative Key C Major.

The last Note of the Bass, in every regular Composition, is the *Tonic*, or *Key Note**.

* When the Bass ends with a Chord, the lowest Note of the Chord is the Tonic.

PROBLEM XIII.—(Plate XI.)

To find out the number of Sharps that belong to every Major Key.

Solution.—The Sharps increase in their progression by Fifths ascending, beginning from F; therefore, to find out the second Sharp, count five letters from F \sharp ; to find the third Sharp, count five from C \sharp .

Example.

C Major, no Sharps.
 G ditto, one, F \sharp .
 D ditto, two, F \sharp and C \sharp .
 A ditto, three, F \sharp , C \sharp , and G \sharp .
 E ditto, four, F \sharp , C \sharp , G \sharp , and D \sharp .
 B ditto, five, F \sharp , C \sharp , G \sharp , D \sharp , and A \sharp .
 F \sharp ditto, six, F \sharp , C \sharp , G \sharp , D \sharp , A \sharp , and E \sharp .
 C \sharp ditto, seven, F \sharp , C \sharp , G \sharp , D \sharp , A \sharp , E \sharp , and B \sharp .

Observe—The Sharps or Flats, instead of being occasionally inserted before each Note, as they occur, are generally placed after the Clef, and called the *Signature* of the Key.

N. B. The eighth Sharp (or first double Sharp) falls on the same letter as the first; for the Fifth of the seventh Sharp B \sharp , is F double Sharp.

The double Sharps follow the same order as the single.

The ninth is C \times ; the tenth, G \times ; the eleventh, D \times .

On the Piano-forte the C \times is played upon D.

the F \times upon G.

the G \times upon A.

Order of the Sharps by 5ths ascending or 4ths descending

The intermediate notes in black, shew how many degrees there are from each sharp to the next.

MAJOR KEYS WITH SHARPS

Key of C

Signature



Plate 12

Order of the Flats by 4ths ascending or 5ths descending



MAJOR KEYS WITH FLATS

Key of C

Signature



PROBLEM XIV.—(Plate XII.)

To find the number of Flats that belong to any Major Key.

Solution.—The progression of the Flats is by Fourths ascending, beginning by B \flat . To find the second Flat, count four from B \flat ; to find the third, count four from E \flat .

Example.

In C, no Flats.

F one, B \flat .

B \flat two, B \flat and E \flat .

E \flat three, B \flat , E \flat , and A \flat .

A \flat four, B \flat , E \flat , A \flat , and D \flat .

D \flat five, B \flat , E \flat , A \flat , D \flat , and G \flat .

G \flat six, B \flat , E \flat , A \flat , D \flat , G \flat , and C \flat .

C \flat seven, B \flat , E \flat , A \flat , D \flat , G \flat , C \flat , and F \flat .

N. B. The eighth Flat falls upon the same letter as the first; for the Fourth of the seventh Flat, F \flat , in B *double Flat*.

The double Flats follow the same order as the single; for the ninth Flat is E $\flat\flat$; the tenth, A $\flat\flat$, &c.

Upon the Piano-forte, B $\flat\flat$ is played upon A.

E $\flat\flat$ upon D.

A $\flat\flat$ upon G.

PROBLEM XV.—(Plate XIII.)

To find the number of Sharps that belong to any Minor Key.

Solution.—The rule given for the Major Keys with Sharps, serves for the Minor Keys, viz. counting five from the first Sharp to the next.

Example.

A Minor has no Sharps.

E ditto one, F#.

B ditto two, F# and C#.

F# ditto three, F#, C#, and G#.

C# ditto four, F#, C#, G#, and D#.

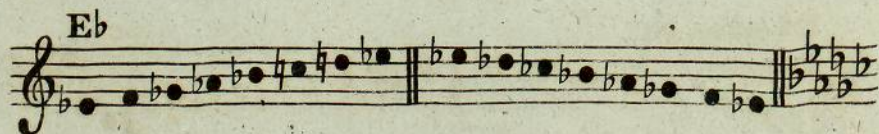
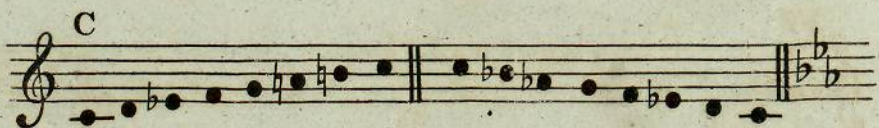
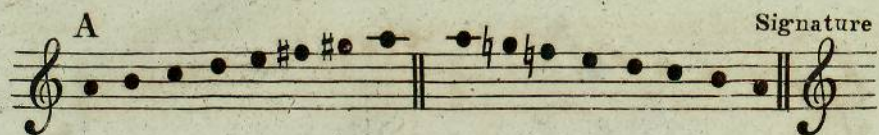
G# ditto five, F#, C#, G#, D#, and A#.

D# ditto six, F#, C#, G#, D#, A#, and E#.

MINOR KEYS WITH SHARPS



MINOR KEYS WITH FLATS



PROBLEM XVI.—(Plate XIV.)

To find the number of Flats that belong to any Minor Key.

Solution.—The rule given for the Major Keys with Flats, serves for the Minor Keys, viz. counting four from the first Flat to the second.

Example.

In A Minor no Flats.

D ditto one, B ♭.

G ditto two, B ♭ and E ♭.

C ditto three, B ♭, E ♭, and A ♭.

F ditto four, B ♭, E ♭, A ♭, and D ♭.

B ♭ ditto five, B ♭, E ♭, A ♭, D ♭, and G ♭.

E ♭ ditto six, B ♭, E ♭, A ♭, D ♭, G ♭, and C ♭.

A ♭ ditto seven, B ♭, E ♭, A ♭, D ♭, G ♭, C ♭, and F ♭.

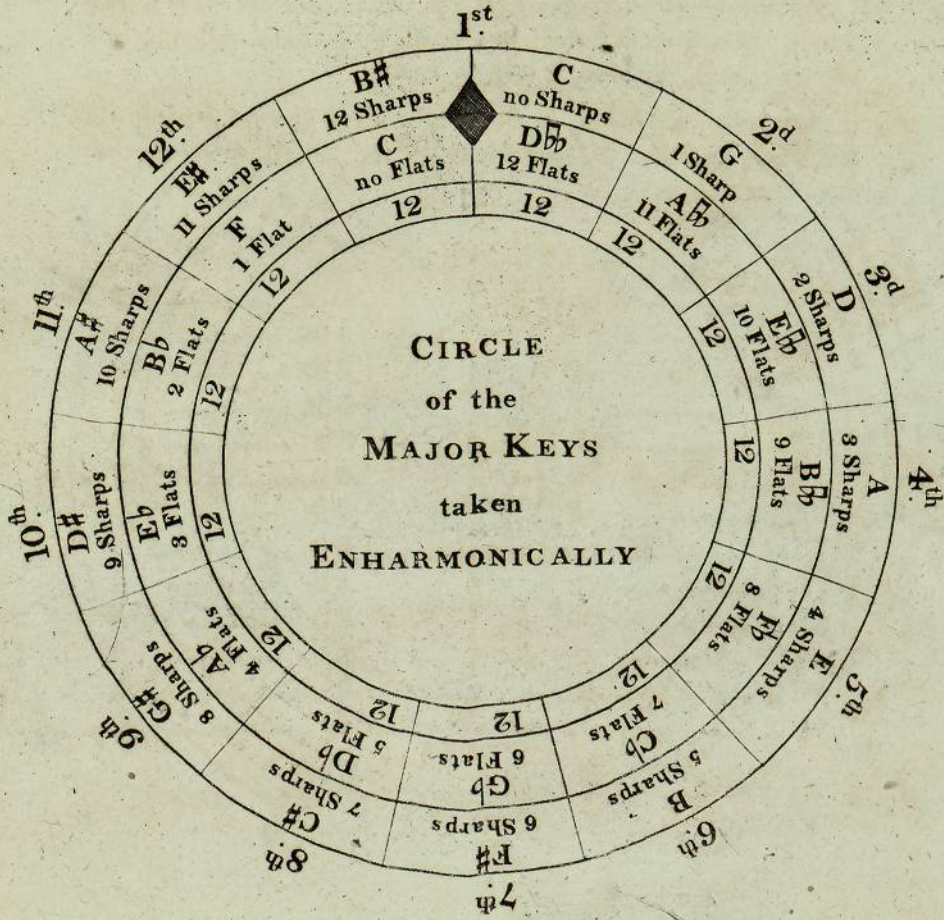
PROBLEM XVII.—(Plate XV.)

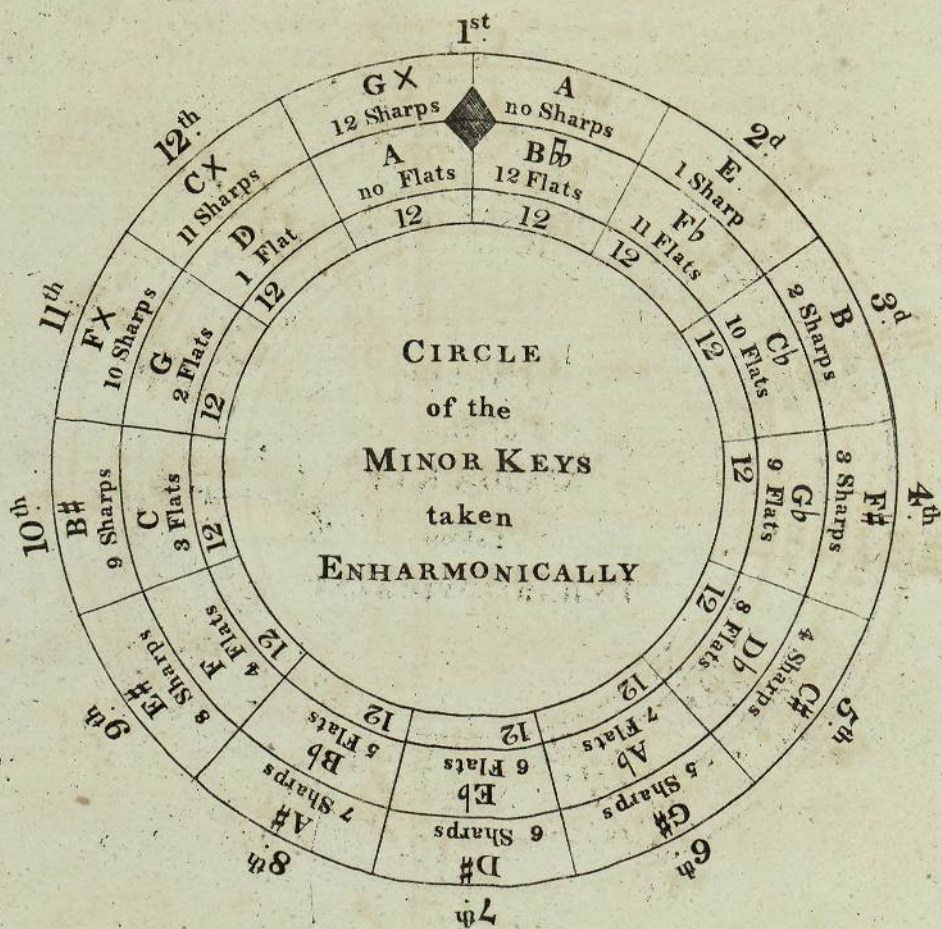
To find the number of Sharps or Flats that belong to two Major Scales, taken successively from the same Key of the Piano-forte, called by two different names.

Solution.—The aggregate of the Sharps or Flats necessary to two Scales, taken from the same Key of the Piano-forte, called by two different names, must make the number 12.

For instance, should the Student be asked how many Sharps in A \sharp , knowing that B \flat Major has two Flats, he will answer 10, because 2 and 10 make 12.

Tonics in Major		Number of Sharps.	Tonics in Major		Number of Flats.
Keys not used.	C	none.	Keys not used.	D \sharp	12
	G	1		A \sharp	11
	D	2		E \sharp	10
	A	3		B \sharp	9
	E	4		F \flat	8
	B	5		C \flat	7
	F \sharp	6		G \flat	6
	C \sharp	7		D \flat	5
	G \sharp	8		A \flat	4
	D \sharp	9		E \flat	3
	A \sharp	10		B \flat	2
	E \sharp	11		F	1
	B \sharp	12		C	none.





PROBLEM* XVIII.—(Plate XVI.)

To find the number of Sharps or Flats which belong to two Minor Scales, taken from the same Keys of the Piano-forte, called by two different names.

Solution.—The aggregate of the Sharps or Flats necessary to form two Scales, taken from the same Key of the Piano-forte, called by two different names, must amount to 12.

Tonics in a Minor Mode, with Sharps.	Number of Sharps.	Tonics in a Minor Key, with Flats.	Number of Flats.
A	none	B ^b	12
E	1	F ^b	11
B	2	C ^b	10
F [#]	3	G ^b	9
C [#]	4	D ^b	8
G [#]	5	A ^b	7
D [#]	6	E ^b	6
A [#]	7	B ^b	5
E [#]	8	F	4
B [#]	9	C	3
F ^x	10	G	2
C ^x	11	D	1
G ^x	12	A	none.

Not used.

Not used.

* The solution of this Problem is the same as that of the foregoing.

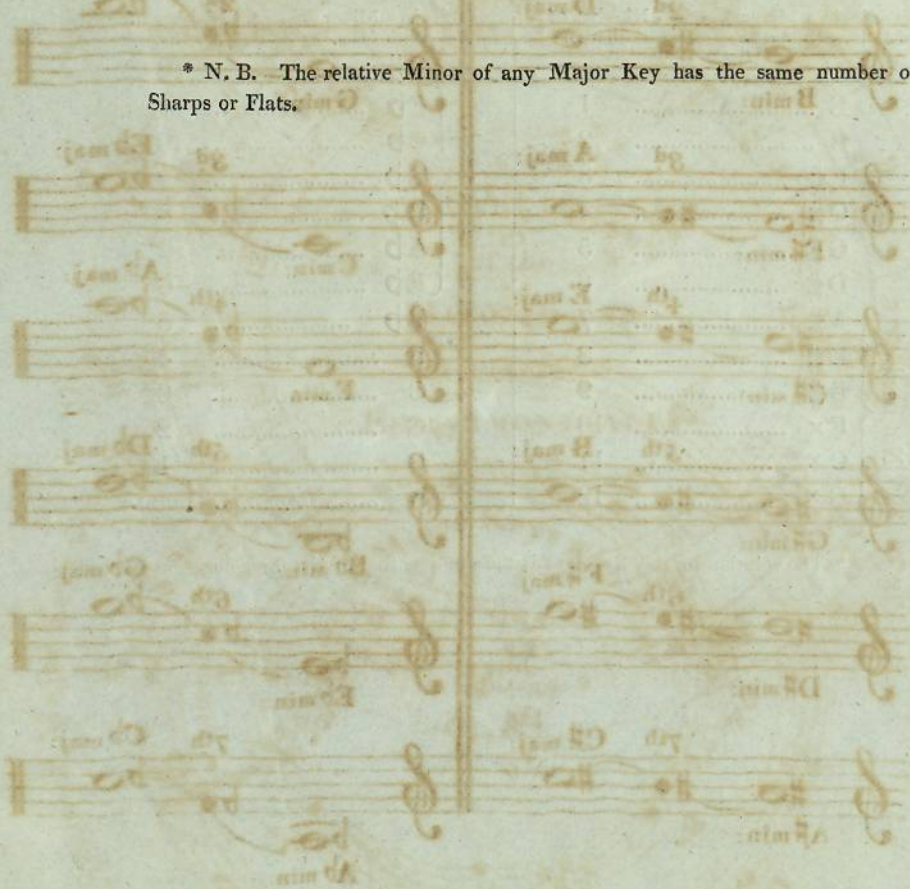
PROBLEM XIX.—(Plate XVII.)

To find the relative Minor of any Major Key*.

Solution.—In Major Keys with Sharps at the Signature, the Tonic is always a Semitone above the last Sharp, and the relative Minor Key-note a Tone below the last Sharp.

In Major Keys with Flats at the Signature, the Tonic is a 5th above the last Flat, and the relative Minor Tonic a 6th below or a 3d above.

* N. B. The relative Minor of any Major Key has the same number of Sharps or Flats.



MAJOR & MINOR
KEYS WITH SHARPSMAJOR & MINOR
KEYS WITH FLATS

This plate displays musical notation for 12 major and minor keys, organized into two columns: 'MAJOR & MINOR KEYS WITH SHARPS' and 'MAJOR & MINOR KEYS WITH FLATS'. Each key is represented by a single staff in treble clef, showing the scale from the tonic to the octave. The notes are connected by a slur, and the key signature is indicated by a sharp or flat symbol. The key names are written above and below the staff.

MAJOR & MINOR KEYS WITH SHARPS

- 1st sharp: G major, E minor
- 2^d: D major, B minor
- 3^d: A major, F# minor
- 4th: E major, C# minor
- 5th: B major, G# minor
- 6th: F# major, D# minor
- 7th: C# major, A# minor

MAJOR & MINOR KEYS WITH FLATS

- 1st flat: F major, D minor
- 2^d: Bb major, G minor
- 3^d: Eb major, C minor
- 4th: Ab major, F minor
- 5th: Db major, Bb minor
- 6th: Gb major, Eb minor
- 7th: Cb major, Ab minor



CHAP. VI.

ON MODULATION.

MODULATION is the art of conducting Melody and Harmony through those Keys and Modes which have a due relation to the original and primitive Key.

Modulation is sometimes effected by a gradual and almost insensible evolution of Harmony; at other times a bold and sudden change can alone produce the necessary effect, and answer the Composer's object.

The most natural and frequent Modulations in Music are, from any Key to that which stands next to it, on either side, in the system or circle of Keys; that is, to the Key whose fundamental Note is a 5th above, or to that whose fundamental Note is a 5th below; (these Keys are called the *Adjunct* to the Tonic). This Modulation frequently occurs in Music, and may be called *Natural*, in contradistinction to those Modulations into remote Keys, which are called *Abrupt*.

Both Modulations, throughout the circle of Major and Minor Keys, are exemplified in *Plate XVIII*. The outward circle is formed by the Major Keys; the inner circle by the relative Minor Keys.

The first circle is for the Keys with Sharps at the Signature; the second circle for the Keys with Flats at the Signature.

PROBLEM XX.—(Plate XIX.)

To modulate from C Major, through the circle of Major Keys, with Sharps at the Signature.

Solution.—Sharpen the 4th of the present Scale : this Note made sharp, will be the Leading-note of the next Scale.

Example.

To modulate : From C to G, take F #.
 G to D, take C #.
 D to A, take G #.
 A to E, take D #.
 E to B, take A #.
 B to F #, take E #.
 F # to C #, take B #.

Observe—1st, That the first Tetrachord of every new Scale consists of the same Notes with the second Tetrachord of the foregoing Scale;—2d, All the Sharps of the preceding Scale are retained in the new;—3d, An additional Sharp is always introduced on the 7th of the new Scale.

from C to G to D

to A to E

to B to F# to C#

from C to G to D to A to E

to B to F# to C#

Return to C \sharp

from C \sharp to F \sharp

to B to E to A

to D to G C

from C \sharp to F \sharp to B to E

to A to D to G to C

PROBLEM XXI.—(Plate XX.)

To return from C \sharp to C \natural .

Solution.—Flatten the 7th of the Scale, and erase the Sharps one by one, beginning from B \sharp .*

Example.

To modulate: From C \sharp to F \sharp , take B \sharp .
 F \sharp to B, take E \sharp .
 B to E, take A \sharp .
 E to A, take D \sharp .
 A to D, take G \sharp .
 D to G, take C \sharp .
 G to C, take F \sharp .

The reason why, in this Problem and the foregoing, the 4th or 7th of the Scale are only affected, is, that in the formation of the Gamut, they must be made to be distant only half a tone from the 3d and 8th; whilst all the other Notes are a full tone distant from each other.

* The 7th of the Scale is made flat, to form the perfect 4th of the next Scale.

PROBLEM XXII.—(Plate XXI.)

To modulate from C Natural, through the Circle of Major Keys, with Flats of the Signature.

Solution.—Flatten the 7th of the present Scale: this Note made flat, will form the 4th, or Subdominant of the next Scale.

Example.

To modulate: From C Major to F, take B♭.

F ditto to B♭, take E♭.

B♭ ditto to E♭, take A♭.

E♭ ditto to A♭, take D♭.

A♭ ditto to D♭, take G♭.

D♭ ditto to G♭, take C♭.

This Modulation is according to the progression by 4ths ascending, or 5ths descending.

from C major- to F

to Bb to Eb

to Ab to Db to Gb

from C to F to Bb to Eb

to Ab to Db to Gb

b7 b7 b7

Detailed description of the musical score: The score consists of five systems of piano accompaniment, each with a treble and bass staff. The time signature is 3/4. The first system is in C major, with a treble staff featuring eighth-note patterns and a bass staff with whole notes. The second system transitions to Bb major and Eb major, with the treble staff showing more complex rhythmic patterns. The third system transitions to Ab major, Db major, and Gb major, with the treble staff showing a series of chords. The fourth and fifth systems show harmonic progressions with b7 chords, with the treble staff showing chords and the bass staff showing single notes. The notation includes various musical symbols such as notes, rests, accidentals, and dynamic markings.

Plate 22

from Gb to Db

to Ab to Eb

to Bb to F to C

from Gb to Db to Ab to Eb

to Bb to F to C

PROBLEM XXIII.—(Plate XXII.)

To return from $G\flat$ to $C\sharp$.

Solution.—Sharpen the 4th of the present Scale, erasing the Flats one by one, beginning by $D\flat$.

Example.

To modulate: From $G\flat$ to $D\flat$, take $C\sharp$, erasing $C\flat$.
 $D\flat$ to $A\flat$, take $G\sharp$, erasing $G\flat$.
 $A\flat$ to $E\flat$, take $D\sharp$, erasing $D\flat$.
 $E\flat$ to $B\flat$, take $A\sharp$, erasing $A\flat$.
 $B\flat$ to F , take $E\sharp$, erasing $E\flat$.
 F to C , take $B\sharp$, erasing $B\flat$.

N. B. A Natural, in Keys with Flats, is to be considered as a Sharp, and *vice versa*;—a Natural, in a Key with Sharps, must be considered as a Flat.

PROBLEM XXIV.—(Plate XXIII.)

To modulate from A Minor, through the circle of Minor Keys, with Sharps.

Solution.—Sharpen the 4th of the present Scale, to form the Sharp 7th of the next Scale.

Example.

To modulate: From A to E, introduce D \sharp .
 E to B, introduce A \sharp .
 B to F \sharp , introduce E \sharp .
 F \sharp to C \sharp , introduce B \sharp .
 C \sharp to G \sharp , introduce F \times .

N. B. The 3d in the Chord of the 7th must be sharpened, that it may be the Leading-note of the New Scale; therefore two Sharps are necessary in the Minor Mode, while one is sufficient in the Major Mode.

from A minor to E

to B to F#

to C# to G# seldom used

from A to E to B to F#

to C# to G#

Return from G# minor to A

from G# to C#

to F# to B

to E to A

from G# to C# to F#

to B to E to A

This musical score is written for a grand piano (treble and bass staves) in 3/4 time. The key signature is G# minor (three sharps: F#, C#, G#). The score is divided into five systems, each showing a different harmonic progression. The first system shows a melodic line in the treble staff and a bass line in the bass staff, with a key signature change from G# minor to C# minor (two sharps: F#, C#). The second system shows a melodic line in the treble staff and a bass line in the bass staff, with a key signature change from C# minor to F# minor (one sharp: F#) and then to B minor (no sharps or flats). The third system shows a melodic line in the treble staff and a bass line in the bass staff, with a key signature change from B minor to E minor (no sharps or flats) and then to A minor (no sharps or flats). The fourth system shows a melodic line in the treble staff and a bass line in the bass staff, with a key signature change from A minor to C# minor (two sharps: F#, C#) and then to F# minor (one sharp: F#). The fifth system shows a melodic line in the treble staff and a bass line in the bass staff, with a key signature change from F# minor to B minor (no sharps or flats) and then to E minor (no sharps or flats) and finally to A minor (no sharps or flats). The score includes various musical notations such as notes, rests, and bar lines.

PROBLEM XXV.—(Plate XXIV.)

To return from G # Minor into A \natural Minor.

Solution.—Sharpen the 3d of the present Scale, adding the Minor 7th.

Example.

From G # to C #, take B # and F #.
 C # to F #, take E # and B \natural .
 F # to B, take A # and E \natural .
 B to E, take D # and A \natural .
 E to A, take G # and D \natural .

PROBLEM XXVI.—(Plate XXV.)

To modulate from A Minor, through the circle of Minor Keys, with Flats at the Signature.

Solution.—Sharpen the 3d of the present Scale, which Note made Sharp, will become the Leading-note of the next Key.

Example.

To modulate: From A	to D	Minor, take C #.
D	to G	ditto, take F #.
G	to C	ditto, take B ♭.
C	to F	ditto, take E ♭.
F	to B ♭	ditto, take A ♭.
B ♭	to E ♭	ditto, take D ♭.

This Modulation is according to the progression by 4ths ascending, or 5ths descending.

from A minor to D

to G to C to F

to Bb to Eb

from A minor to D to G to C

to F to Bb to Eb

from A^b minor

to E^b

to B^b

to F

to C

to G

to D

to A

from E^b to B^b

to F

to C

to G

to D

to A

PROBLEM XXVII.—(Plate XXVI.)

To return from A \flat Minor to A \natural .

Solution.—Sharpen the 4th of the Scale; erasing the Flats, one by one, beginning by D \flat .

Example.

From A \flat to E \flat take D \sharp , erasing D \flat .
 E \flat to B \flat take A \sharp , erasing A \flat .
 B \flat to F take E \sharp , erasing E \flat .
 F to C take B \sharp , erasing B \flat .
 C to G take F \sharp , erasing F \flat .
 G to D take C \sharp , erasing C \flat .
 D to A take G \sharp , erasing G \flat .

PROBLEM XXVIII.—(Plate XXVII. & XXVIII.)

To modulate from a Major Key into the Minor Key of the same name, or *vice versa*.

Solution.—The difference between the Sharps or Flats must be three; therefore, to change C Major, which has neither Flats nor Sharps at the Signature, into C Minor, introduce three Flats.

In Keys with Sharps at the Signature, a Natural after a Sharp is to be considered as a Flat, and *vice versa*;—in Keys with Flats at the Signature, a Natural after a Flat represents a Sharp.

Observe—The difference between the Major and Minor Key lays on the 3d, 6th, and 7th of the Scale: these Notes are Major in a Major Key, and Minor in a Minor Key.



D \flat major **D \flat minor** **A \flat major**

This system contains three triads. The first is D-flat major (F \flat , A \flat , C \flat) in F \flat major. The second is D-flat minor (F \flat , A \flat , C \flat) in D \flat minor. The third is A-flat major (C \flat , E \flat , G \flat) in A \flat major. Each triad is shown in both treble and bass staves.

A \flat minor **E \flat major** **E \flat minor**

This system contains three triads. The first is A-flat minor (C \flat , E \flat , G \flat) in A \flat minor. The second is E-flat major (G \flat , B \flat , D \flat) in E \flat major. The third is E-flat minor (G \flat , B \flat , D \flat) in E \flat minor. Each triad is shown in both treble and bass staves.

B \flat major **B \flat minor** **F major**

This system contains three triads. The first is B-flat major (D \flat , F, A \flat) in B \flat major. The second is B-flat minor (D \flat , F, A \flat) in B \flat minor. The third is F major (A \flat , C, E \flat) in F major. Each triad is shown in both treble and bass staves.

F minor **C major** **C minor**

This system contains three triads. The first is F minor (A \flat , C, E \flat) in F minor. The second is C major (E \flat , G, B \flat) in C major. The third is C minor (E \flat , G, B \flat) in C minor. Each triad is shown in both treble and bass staves.

CHAP. VII.

ON HARMONY.

A SERIES of single Notes forms a Melody; three or four Notes struck together, form a *Chord*; a succession of Chords constitute *Harmony*.

Chords are divided into *Concords* and *Discords*.

Concords are combinations of Sounds pleasing to the ear: they are four in number—the 8th, 5th, 3d, and 6th; the two first, whose Intervals do not vary, are called *Perfect* in both modes: the 3d and 6th are *imperfect* Concords.

Discords are combinations of Sounds displeasing to the ear: these are the 2d, 4th, 7th, and 9th.

Although Discords, when sounded by themselves, are more or less harsh and offensive to the ear, yet, when judiciously introduced into Music, they produce great effects. Their principal use is to connect Chords, to make the Cadences more full and striking, and to render the succeeding Chord more pleasing by means of contrast, as a serene day after a stormy night, always appears brighter.

There are in Music two principal Chords, the *Common Chord*, and the Chord of the *Seventh*.

The former consists of a Note, its 3d and 5th.

The latter consists of a Note, its 3d, 5th, and 7th.

From these two fundamental Chords all others are derived, by *Inversion*, *Retardation*, *Anticipation*, &c.

Observe—On the Musical Staff, the common Chord is always formed by three Lines or three Spaces; the Chord of the Seventh, by four Lines or four Spaces.

PROBLEM XXIX.—(See Plate XXIX.)

To compose a Bass to any Air or Melody.

Solution.—Having ascertained the Key in which the Air is composed, see what degree of the Scale each Note forms, and reduce it to one of the three following combinations, viz.

1, 3, 5, 8 = 2, 7 = 4, 6.

To 1, 3, 5, 8, give the Tonic for Bass.

To 2, or 7, give the 5th above the Tonic, or the 4th below.

To 4, or 6, give the 4th above the Tonic, or the 5th below*.

N. B. When the Melody descends, to make a close on the 5th Degree, or goes from the 5th Degree to the Tonic, to make a perfect Cadence, the 5th Degree requires its common Chord.

Observe—1. When an accidental Sharp occurs, the Bass is the Major 3d below.

2. Should an accidental Flat be introduced, the Bass will be the Note a Major 2d above, or Minor 7th below.

N. B. A Natural after a Sharp is to be considered as a Flat, and the Note above to be taken for Bass ;—a Natural after a Flat represents a Sharp.

3. The Bass produced by this process is called *Fundamental*, and differs from the *continued Bass*, in which, besides fundamental Sounds, transient Notes are introduced.

* The reason for this is, that the Scale is formed from the Chords of these three principal Notes, the Tonic, the Dominant, and the Subdominant.

The first carries its common Chord.

The second carries its common Chord, to which the 6th may be added.

The 3d carries its common Chord, to which the 7th may be added.

Natural Harmony of the Major Scale

Melody in C

1 2 3 4 5 6 7 8 8 7 6 5 4 3 2 1

FB

in A minor

1 2 3 4 5 6 7 8 8 7 6 5 4 3 2 1

FB

(a) Chromatic with Sharps

(b) with Flats

Aria

1 5 6 5 4 3 2 1

Fine

Bass — according to the directions given above

5 4 3 2 5 4 3 2

Da Capo

* The question whether the 5th of the scale should be accompanied by $\frac{5}{3}$ or $\frac{6}{4}$ has not yet been authentically decided.

Parts added to the Continued Bass.

This musical exercise consists of two staves. The top staff, labeled 'Continued Bass', is in treble clef and contains a sequence of chords with figured bass notation: 3, 6, 6, 6, 6, 4, 6, 3. The bottom staff, labeled 'Fundamental Bass', is in bass clef and contains a sequence of notes with figured bass notation: 1, 2, 3, 4, 5, 6, 7, 8. A note 'w' is present in the 4th measure of the Fundamental Bass staff. A note 'NB: this Bass must not be played.' is written above the Fundamental Bass staff.

Parts added

This musical exercise consists of two staves. The top staff, labeled 'Chromatic Progression', is in treble clef and contains a sequence of chords with figured bass notation: 5, 6, 5, 6, 5, 6, 5, 6, 5, 7, 5. The bottom staff, labeled 'C.B.' (Continued Bass), is in bass clef and contains a sequence of notes with figured bass notation: 1, 7, 8, 7, 8, 7, 8, 1, 7, 8, 5, 1. The bottom staff, labeled 'F.B.' (Fundamental Bass), is in bass clef and contains a sequence of notes with figured bass notation: 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7.

Parts added

This musical exercise consists of two staves. The top staff, labeled 'Chromatic by Flats', is in treble clef and contains a sequence of chords with figured bass notation: 3, 6, 4, 6, 6, 4, 3, 4, 6, 6, 6, 5. The bottom staff, labeled 'C.B.' (Continued Bass), is in bass clef and contains a sequence of notes with figured bass notation: 8, 7, 4, 3, 6, 5, 4, 3, 3b, 5. The bottom staff, labeled 'F.B.' (Fundamental Bass), is in bass clef and contains a sequence of notes with figured bass notation: 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7.

PROBLEM XXX.—(Plate XXX.)

To compose upper parts to a given Bass.

Solution.—Consider the given Bass as a Melody, and find out the fundamental Bass to that Melody by the preceding Problem ;—that is to say, ascertain what rank in the Scale each Note bears, and reduce it to one of the following combinations, viz.

1, 3, 5, 8, 2, 7, or 4, 6.

To 1, 3, 5, or 8, give the Tonic for Bass.

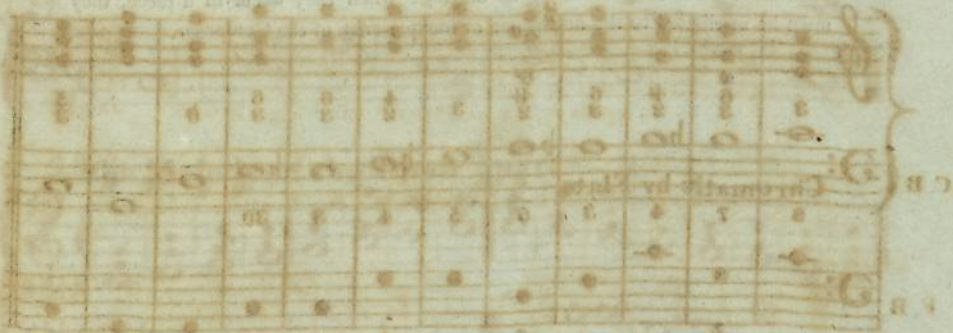
To 2, or 7, give the 5th above the Tonic.

To 4, or 6, give the 4th above the Tonic.

When the fundamental Bass is found, the upper parts will be easily added, as they are only the Harmonics or Complements of each Chord.

Thus, when the fundamental Bass carries a common Chord, the parts to be added above the *given, or continued Bass*, will consist of the Intervals 3, 5, 8, reckoned from the fundamental Bass ; and when the fundamental Bass carries a 7th, the parts to be added above the continued Bass, will consist of the Intervals 3, 5, 7, 8, also reckoned from the fundamental Bass.

Observe, The Figures under the continued Bass do not mark the Chords, but the Degrees of the Scale.



PROBLEM XXXI.—(Plate XXXI.)

How to harmonize any Melody.

Solution.—Accompany each Note of the Melody with the 3d or 6th below, sometimes by the 4th, seldom with the 5th*.

N. B. Those Intervals are not counted from the Bass, but from the Notes of the Melody. Thus, the 3d to C, is A, not E; the 6th to C, is E, not A, &c.

Observe—1. Every Degree of the Scale may have a common Chord, 1, 3, 5, except the 7th Degree of the Major and the 2d Degree in the Minor Mode, their 5ths being flat.

In any Key, the common Chords of the 1st, 4th, or 5th Note are similar; Major in the Major Mode, and Minor in the Minor Mode. The Chords of the 2d, 3d, and 6th are Minor in the Major Mode.

2. The old method of harmonizing by common Chords only, is become obsolete, being not only monotonous, but liable to many incorrect progressions: the Moderns prefer the mode of harmonizing with Concords and Discords. (See Plate XXXII.)

3. In the following Examples the White Notes shew the Melody; the Black Notes shew the Notes added, to harmonize.

* Fifths, or Octaves, in succession, are strictly forbidden; the former as offensive to the ear, the latter as cloying: when they occur in a piece, they must be attributed to the negligence or inexperience of the Composer.

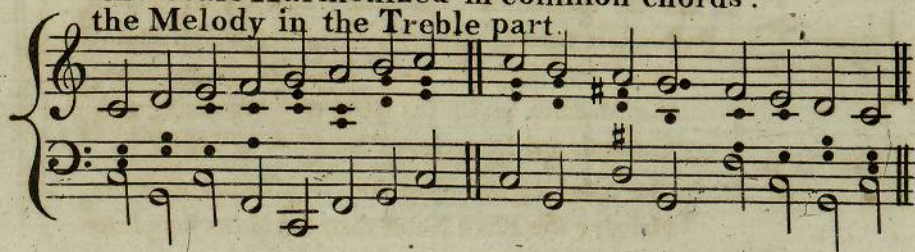
Major Scale Harmonized in Sixths.



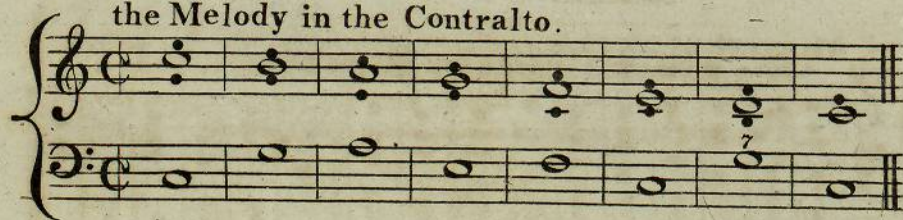
Minor Scale Harmonized in Sixths.



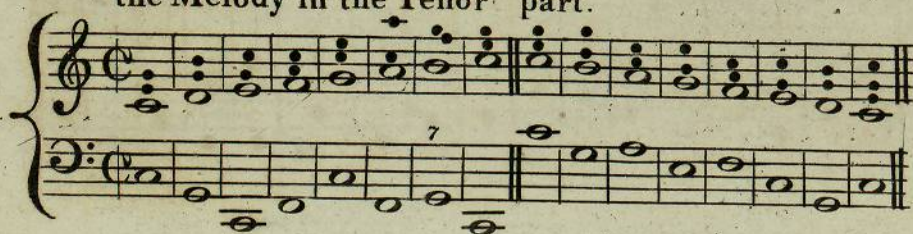
the Scale Harmonized in common chords.
the Melody in the Treble part.



the Melody in the Contralto.



the Melody in the Tenor part.



Modern way of Harmonizing the Scale by Concords and Discords.

Major Scale Ascending

Chords

Chords for Major Scale Ascending:

Scale Degree	Chord (Treble)	C.B. Note	F.B. Note
1	C4-E4-G4	C3	C2
2	D4-F4-A4	D3	D2
3	E4-G4-B4	E3	E2
4	F4-A4-C5	F3	F2
5	G4-B4-D5	G3	G2
6	A4-C5-E5	A3	A2
7	B4-D5-F5	B3	B2

Descending

Chords for Major Scale Descending:

Scale Degree	Chord (Treble)	C.B. Note	F.B. Note
7	B4-D5-F5	B3	B2
6	A4-C5-E5	A3	A2
5	G4-B4-D5	G3	G2
4	F4-A4-C5	F3	F2
3	E4-G4-B4	E3	E2
2	D4-F4-A4	D3	D2
1	C4-E4-G4	C3	C2

Minor Scale Ascending

Descending

Chords for Minor Scale Ascending:

Scale Degree	Chord (Treble)	C.B. Note	F.B. Note
1	C4-E4-G4	C3	C2
2	D4-F4-A4	D3	D2
3	E4-G4-B4	E3	E2
4	F4-A4-C5	F3	F2
5	G4-B4-D5	G3	G2
6	A4-C5-E5	A3	A2
7	B4-D5-F5	B3	B2

Chords for Minor Scale Descending:

Scale Degree	Chord (Treble)	C.B. Note	F.B. Note
7	B4-D5-F5	B3	B2
6	A4-C5-E5	A3	A2
5	G4-B4-D5	G3	G2
4	F4-A4-C5	F3	F2
3	E4-G4-B4	E3	E2
2	D4-F4-A4	D3	D2
1	C4-E4-G4	C3	C2

Se vuol Ballare. Harmonized

Plate 33

Mozart



1st Part Harmonized in Sixths.



2^d Part Harmonized in Thirds by placing the lowest note at the top.



This Air is extracted from M^r Shield's valuable Treatise on Harmony, with the author's permission.

The Sicilian Mariner's Hymn, Harmonized

Handwritten musical score for "The Sicilian Mariner's Hymn, Harmonized". The score is written for piano in 2/4 time, featuring a treble and bass staff joined by a brace. The key signature has one flat (B-flat). The melody in the treble staff consists of eighth and sixteenth notes, often beamed together. The bass staff provides a simple harmonic accompaniment with quarter and eighth notes. The piece concludes with a double bar line and repeat dots.

The Request, Harmonized

Handwritten musical score for "The Request, Harmonized". The score is written for piano in 2/4 time, featuring a treble and bass staff joined by a brace. The key signature has one flat (B-flat). The melody in the treble staff is more complex, featuring many beamed sixteenth and thirty-second notes. The bass staff provides a steady accompaniment with quarter and eighth notes. The piece concludes with a double bar line and repeat dots.

a Sequence of Sevenths.

The Seventh
in the
1st Position

2^d
Position

3^d
Position

4th
Position

Bass

The musical notation for the first sequence is written on five staves. The first four staves represent the 1st, 2^d, 3^d, and 4th positions of the seventh. Each staff shows a series of chords in a major mode, with the root note moving up by a fourth in each successive position. The 1st position starts on C, 2^d on F, 3^d on B, and 4th on E. The bass line is written on a fifth staff, showing an ascending pattern labeled 'ascending a 4th' and a descending pattern labeled 'descending a 5th'.

in a Minor Mode.

The Seventh
in the
1st Position

2^d
Position

3^d
Position

4th
Position

Bass

The musical notation for the second sequence is written on five staves. The first four staves represent the 1st, 2^d, 3^d, and 4th positions of the seventh in a minor mode. Each staff shows a series of chords, with the root note moving up by a fourth in each successive position. The 1st position starts on C, 2^d on F, 3^d on B, and 4th on E. The bass line is written on a fifth staff, showing a series of notes corresponding to the root notes of the chords in each position.

PROBLEM XXXII.—(Plate XXXV.)

To play a Sequence of Sevenths, without knowing Harmony*.

Solution.—Dispose your four fingers on the four Notes of the Seventh, and let them fall according to the directions given in the Example, (Plate XXXV.)

In the first Position of the Seventh, let the two upper fingers descend first, then the two lower ones.

In the second Position, let the two extreme fingers descend first, then the two middle ones.

In the third Position, let the two lower fingers descend first, then the two upper ones.

In the fourth Position, let the two middle fingers descend first, then the two extreme.

Observe—The first and last Chord in each Position is a common Chord, which must begin and end every regular Progression.

* The most pleasing succession of Chords is, when the Bass moves upwards or downwards by the skip of a perfect 4th or a perfect 5th; or, in other words, when the fundamental Note of the succeeding Chord is a 4th or a 5th above or below that of the preceding Chord.

These Progressions are fundamental, and form a series of evitaded perfect Cadences.



PROBLEM XXXIII.—(Plate XXXVI.)

To accompany with Chords the Chromatic Scale descending, by mere mechanical means.

Solution.—Dispose four fingers of the right hand at equal intervals on the Piano-forte, so as to leave two Keys between each finger, and preserving the same distance, let the hand descend gradually, a Key or a Semitone each time throughout the Scale. The reason for this is, that the diminished 7th and Inversions always consist of four equal Intervals;—therefore, as the Scale on the Piano-forte is divided into equal Semitones, by taking four Keys at equal distances, Minor 3ds, (parted by two Keys), a series of diminished Sevenths or Inversions is formed.

N. B. This succession forms a series of evitaded Cadences, all the parts descending by a Semitone. Every diminished Seventh represents a Dominant 7th, as may be seen by the fundamental Bass.

THE END.



a Sequence of Diminished 7th and Inversions.

which gives

a Chromatic Scale Descending.

fingerings

Accomp^t

Contin:
Bass

Fun^l
Bass

Composed by [illegible]

First time

Allegretto Moderato

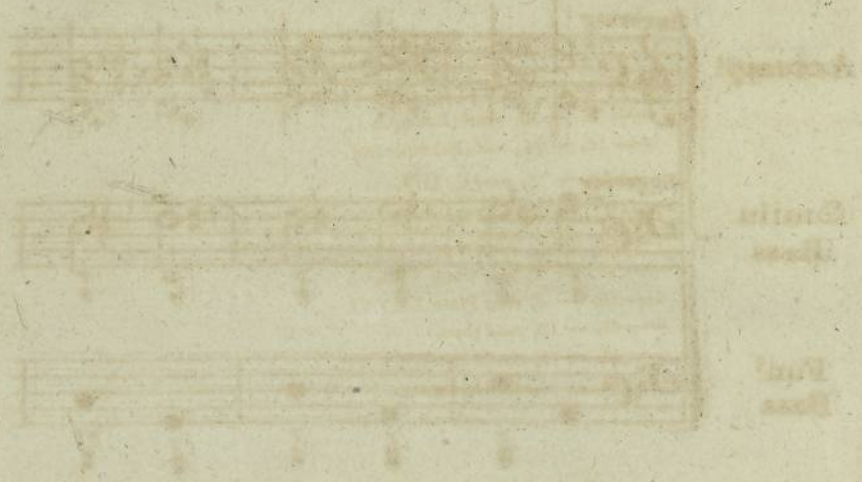
First time

Violin I

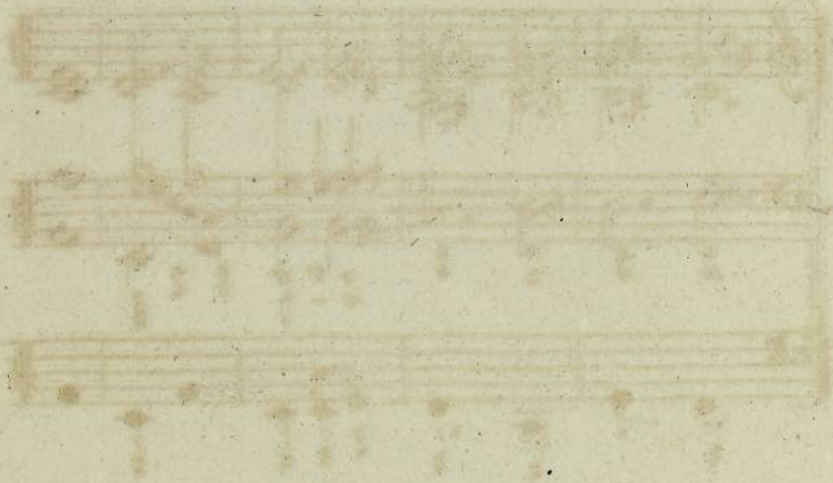
Violin II

Viola

First time



This block contains the first system of a musical score. It consists of three staves: Violin I, Violin II, and Viola. The notation is in a single system, with various musical symbols such as notes, rests, and clefs. The paper is aged and the ink is somewhat faded.



This block contains the second system of a musical score. It consists of three staves: Violin I, Violin II, and Viola. The notation is in a single system, with various musical symbols such as notes, rests, and clefs. The paper is aged and the ink is somewhat faded.

ERRATA.

- Page 9, line 18, *read* (Example 2).
— 9, — 20, *read* (Example 3).
— 14, — 24, *add* (Example 30).
— 16, — 9, *read* C, D \flat .
— 17, — 6, *read* C, B \sharp .
— 42, — 11, *instead of* or, *read* and.
— 43, — 1, *read* Plate XXXVI.
— 43, — 5, *read* Plate XXXVI.
— 43, — 13, *read* then.
— 44, — 1, *read* Plate XXXVII.
— 44, — 12, *read* Inversions.

General Statement

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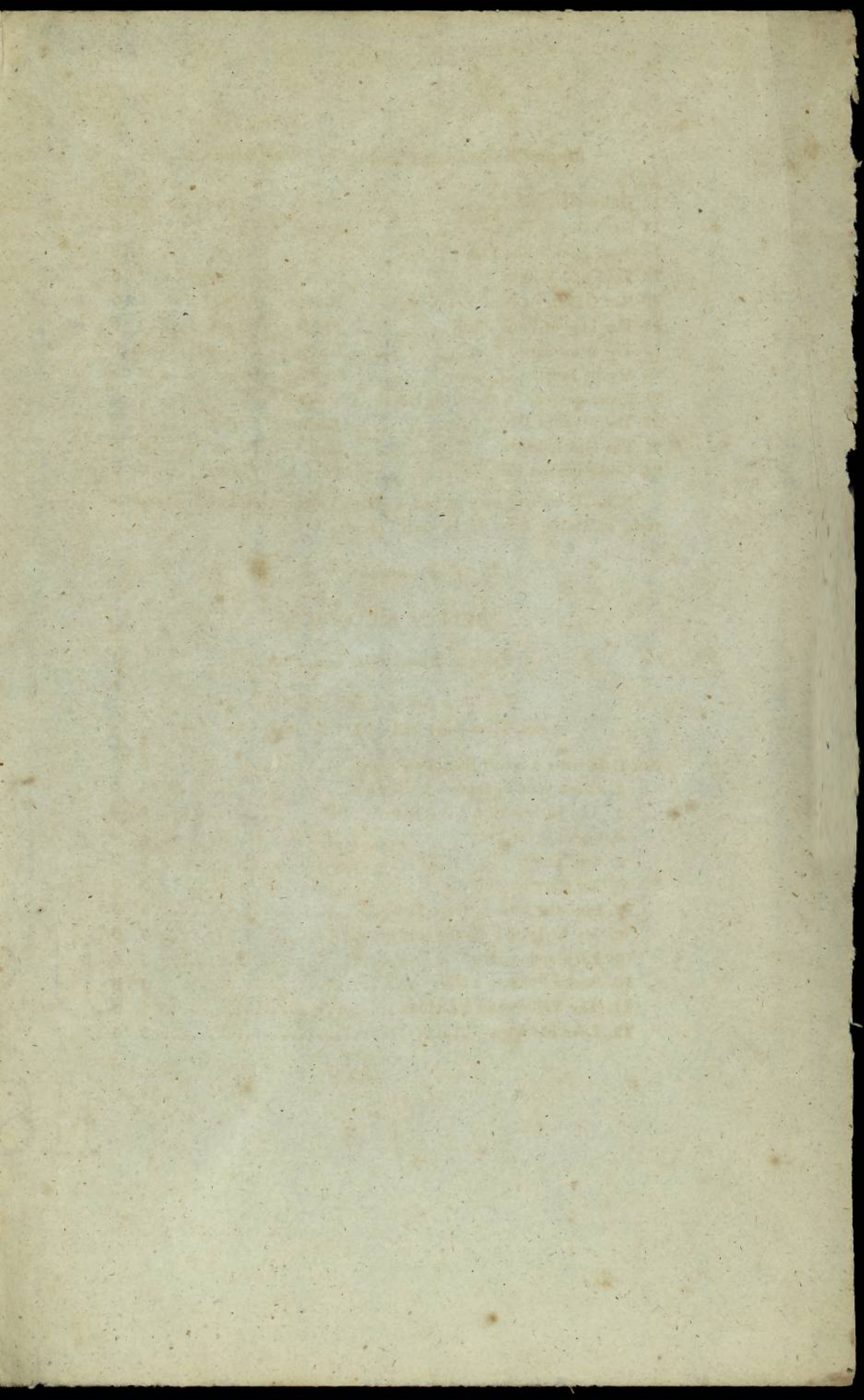
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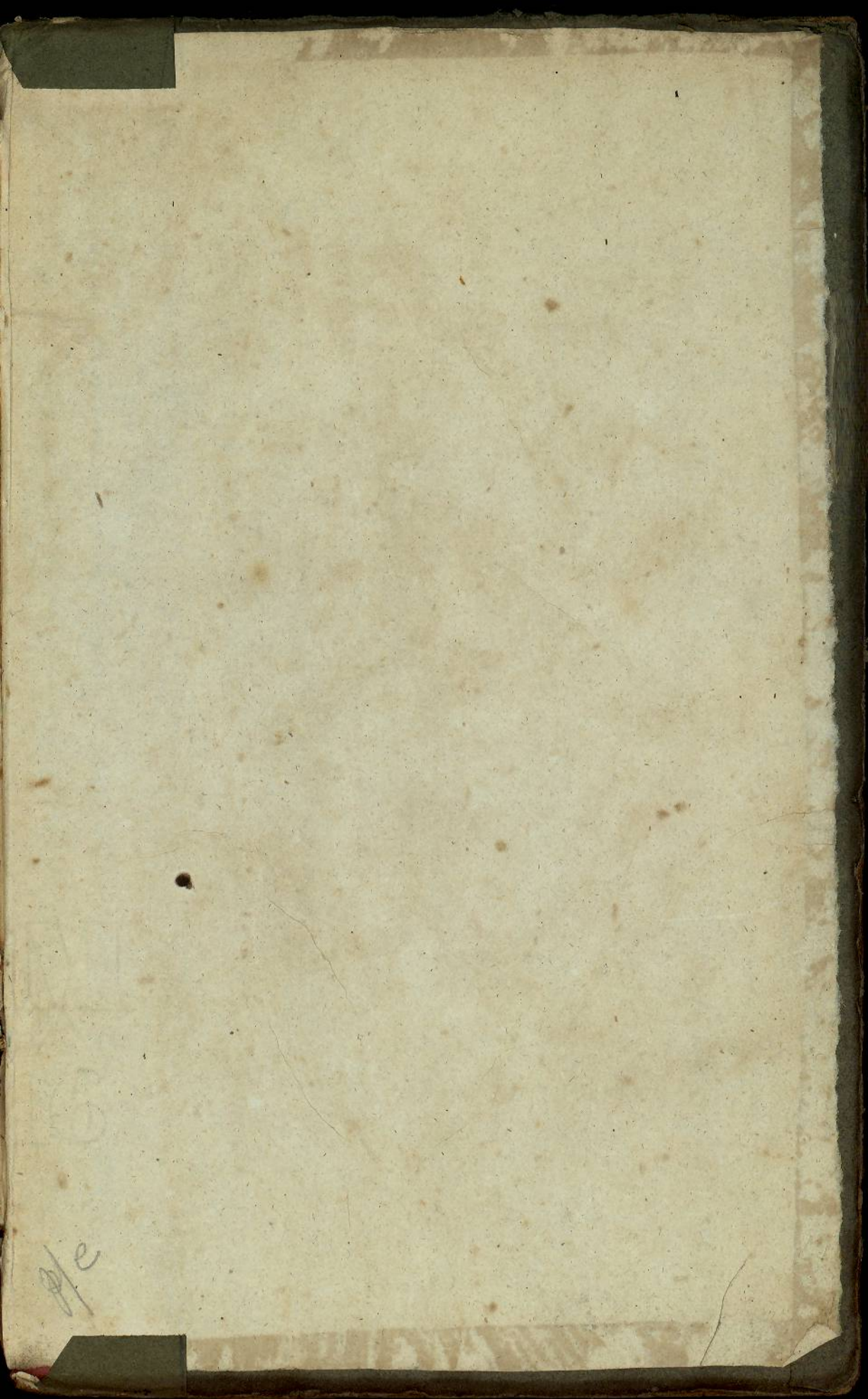
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