This book must not be taken from the Library building.
A TREATISE of MUSIC,
CONTAINING THE PRINCIPLES OF COMPOSITION.

WHEREIN

The several Parts thereof are fully explained, and made useful both to the Professors and Students of that Science.

By Mr. RAMEAU,
Principal Composer to his Most Christian Majesty, and to the Opera at Paris.

Translated into English from the Original in the French Language.

SECOND EDITION.

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**ARTICLES**

1. Of sharp Keys
2. Of flat Keys

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The Reader is desired to correct some small mistakes that have inadvertently happened in the Impression, according to the Errata at the End of the Book.
PRINCIPLES

OF

COMPOSITION.

CHAP I.

Introduction to Practical Music.

Of the Gamut.

As there are but seven Diatonic Sounds, that is to say, seven Degrees, successively in a natural Voice, so likewise in Music there are but seven Notes, C, D, E, F, G, A, B, which is called the Gamut; and, if we proceed further, it can be but by repeating the first Note, and so on, according to the above Order.

These same Notes repeated, and which are but the Replicates of the one or the other, are called Octaves.

It is proper to add the Octave to the first Note at the End of the Gamut, for better distinguishing this Octave; thus, C, D, E, F, G, A, B, C.

If we begin and end this Gamut by any other Note (which is proper to be practised, though it be contrary to the Diatonic Order) it is plain by this Octave added, that the like may be done to the other Notes; so that, if we begin by G, we must then say, G, A, B, C, D, E, F, G, in ascending; and G, F, E, D, C, B, A, G, in descending; so of the other Notes.

Of Intervals.

The Gamut may be repeated as well ascending as descending, and by different Notes; but the Distance from one Note to the other must also be observed, and this only in ascending.
Principles of Composition.

It is from this Distance, that all Intervals in Music are formed; and these Intervals take their Denomination from Arithmetical Numbers, and are called, Second, Third, Fourth, Fifth, Sixth, Seventh, and Octave; we have placed the Figures over the Names of each Interval, because we shall hereafter use these Numbers for denoting the Intervals we shall speak of; so that it must be remembered, that 2 denotes the Second, 3 the Third, 4 the Fourth, &c. until the Octave 8; and when we shall say the Third, the Fourth, &c., those Intervals are to be taken in the Gamut, by ascending from the Note chosen for the first Degree, that Note being deemed the lowest.

The Intervals in the Gamut descending are also to be observed, wherein it will be found, that the Fourth below C is G, as the Fourth above C is C, which is not difficult to comprehend, and may be very useful upon Occasion.

Of Intervals inverted.

The two notes that create the Octave, are in the Main but one, and serve as Limits or Bounds to all the Intervals, since all the Notes in the Gamut are included in an Octave.

Thus by deeming the two C's, by which the Gamut begins and ends, as one and the same Note, it may easily be apprehended, that whatever other Note be compared to each of those two C's, it will not produce two different Intervals; but by observing, that the first C is below the Note compared, and that the Second is above, there seems to be a Difference; this Difference in Appearance is proper to be explained.

Upon viewing the Gamut in this Shape, it appears, that D makes the Second to the first C, and that the second C makes the Seventh to that same D; that E makes the Third to the first C, and that the second C makes the Sixth to that same E; that F makes the Fourth to the first C, and that the second C makes the Fifth to that same F; also that G makes the Fifth to the first C, and the Fourth to the Second; so that by this Means it is discovered, that one Interval arises
Principles of Composition.

5

arises from another; for if we take any other for the first Degree, by placing it at the Beginning and at the End of the Gamut, and following the above Method, we shall always find the same Thing, that is to say, that the Second to the first Note will make the Seventh to the Octave of that first Note.

To make this better understood, it must always be supposed, that the Octave is inseparable from the Note taken for the first Degree; so that having compared a Note with this first Degree, it must afterwards be compared with the Octave, from whence will arise two Intervals, the first of which is called Fundamental or Principal, and the second, Inverted, as it is in Effect; for if we compare C to F, and E to C, we find but a Comparison inverted, in the same Manner as it is in Numbers, by supposing that 8 and 1 represent the same Note, and this Comparison is first made from 1 to 3, and afterwards from 2 to 8.

Of all Intervals, there are but Three that are Fundamental, and which ought consequently to be remembered; they are the 3, the 5, and the 7, which may be placed in this Manner; each first Note answers to 1, and their 3, 5, and 7, answer to the Numbers which denote those Intervals; and when once these three Intervals are known in Relation to one of the seven Notes, taken for the first Degree, we need only to add the Octave to that first Degree, in order to find that the Third becomes a Sixth, that the Fifth becomes a Fourth, and that the Seventh becomes a Second; these three last Intervals, viz. the Sixth, the Fourth, and the Second, being then inverted from the three first Fundamental Intervals.

This Article ought to be carefully considered, for the better it be understood, the reader will the rest be comprehended.

Of Cliffs.

There are three Sorts of Cliffs in Music, the Bass, or F Cliff; the Tenor, or G Cliff; and the Treble, or C Cliff.

The Bass, or F Cliff, which is the Lowest, is generally placed upon the Fourth, or the third Line.

The Tenor, or G Cliff, which is a Fifth above F, is placed upon all the Lines, excepting the Fifth.

The Treble, or C Cliff, which is a Fifth above the Tenor, or G Cliff, is generally placed upon the Second, or upon the first Line.
Principles of Composition.

Of Parts.

As Harmony consists in the agreeable Union of several different Sounds, and as these Sounds cannot be produced but from a Voice or an Instrument, each Voice or Instrument is called a Part, and each Part hath its particular Name, which is not always mentioned, but is known by the different Situation of the Cliffs.

**EXAMPLES.**

First Treble. These two Parts are adapted to Female Voices.

Second Treble.

Counter Tenor, the highest of Male Voices.

Tenor, a mean Part, the nearest to the Last.

Bass or Concordant, a mean Part between the preceding and following Part.

Counter Bass, the most grave, or lowest of Male Voices.

This
Principles of Composition.

This Mark, or Guide, shews that one may exceed the Note until that Mark, at the Discretion of the Composer, who is to keep his Voices within a proper Compass, by Reason that they are always strained or forced, when at the extreme Parts.

As to Instruments, they have their different Compass; the Violin, for Example, is limited to an Octave below its Cliff, but it is not so limited above. As the Violin and the Harpsichord, or Organ, are sufficient to execute all Sorts of Music in General, we shall pass over in Silence the other Instruments, the Knowledge of which may be acquired by those who practice them.

Of Unison.

Unison is two Notes in the same Degree, or the same Note repeated; the Example shews where the Notes of each Part are to be placed so as to be at the Unison.

As Variety of Parts consists in different Sounds, and not in the Quantity, we may say, that all these Parts are but one; from hence the Unison is forbidden in Composition, yet Beginners may use it until they have made a further Progress.
Principles of Composition.

Of Measure, or Time.

Measure is divided by Bars, and each Bar contains either $\frac{3}{4}$, or $\frac{4}{4}$ Parts, and is distinguished by Common Time and Triple Time. Common Time is when there are $\frac{3}{4}$, or $\frac{4}{4}$ equal Notes, or Parts in a Bar; and Triple Time is when there are but three equal Notes, or Parts in a Bar.

The slowest Movement in Common Time is known by this Mark $\frac{3}{4}$, by a $\frac{2}{4}$ when it is somewhat faster, and the quickest of all by $\frac{2}{4}$ or $\frac{2}{4}$.

Triple Time is distinguished by this Mark $\frac{3}{4}$, which is the slowest Movement, and contains three Minims in a Bar. By $\frac{2}{4}$, which is faster, and contains three Crotchets in a Bar; and by $\frac{1}{8}$, which is the quickest of all, and contains three Quavers in a Bar.

There is another Kind of Triple Time marked thus $\frac{9}{4}$, or $\frac{9}{8}$, which is composed of the former, and contains 9 Crotchets, or nine Quavers in a Bar.

There is also another Kind of common Time, composed of Triple Time, marked thus $\frac{6}{4}$, and contains six Crotchets in a Bar; or thus $\frac{12}{8}$, which then consists of twelve Quavers in a Bar.

Of Notes and their Lengths, and of Slurs, Points, Rests, or Pauses.

There are six Notes mostly in Use, which are a Semibreve $\frac{3}{4}$, a Minim $\frac{1}{4}$, a Crotchet $\frac{1}{4}$, a Quaver $\frac{1}{4}$, a Semiquaver $\frac{1}{4}$, and a Demisemiquaver $\frac{1}{4}$; their Proportions to each other are these: a Semibreve as long as two Minims, four Crotchets, eight Quavers, sixteen Semiquavers, or thirty-two Demisemiquavers.

Example.
Principles of Composition.

EXAM P L E.

A Semibreve, A Minim, A Crochet, A Quaver, A Semiquaver, Demisemiquaver.

Four Semibreves, Two Semibreves.

The last Character is used as a Guide or Directory to the next Note.

A Point or a Dot, added to any Note, makes it half as long again.

EXAM P L E.
A Slur is marked thus -.
A Repeat is made thus :s:; and is used to signify, that such a Part of a Tune must be played over again from the Note over which it is placed.
A single Bar serves to divide the Measure, and a double Bar is set to divide the Strains of Songs or Tunes, as

The least Interval we have taken Notice of at the Beginning of this Chapter, was under the Denomination of a Second, and this Second may be also distinguished by a whole Tone or a Semitone. The Semitone is found between E and F, and between B and C; whereas a whole Tone is found between all the other Notes of the Gamut, that make a Second. And although this Semitone, by which the smallest Interval is formed, be not found between all the Notes of the Gamut, it may nevertheless be used by Means of certain Signs, or Marks, which, being added to any Note, either increase or lessen it a Semitone. These Signs are called Sharp, or $\#$, Natural, or $\natural$, and Flat, or $\flat$.

A $\#$, or Sharp, increases a Semitone that Note against which it is placed, whereas a $\flat$, or Flat, lessen it a Semitone; and a $\natural$, or Natural, which sometimes bears the Property of a $\#$, is used to contradict those Flats and Sharps, in order to replace the Notes in their natural Order.

**EXAMPLE.**

<table>
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<th>$C$ increased a Semitone.</th>
<th>The same Note replaced.</th>
<th>$B$ lessened a Semitone.</th>
<th>The same Note replaced.</th>
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<tbody>
<tr>
<td>$C$</td>
<td>$C#$</td>
<td>$B$</td>
<td>$B\flat$</td>
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Those Intervals whose Difference consists but of a whole Tone, or a Semitone (provided that the Name of the Interval be not thereby altered) are distinguished by Major and Minor, or Sharp and Flat; for Example, the Third from $C$ to $E$ is called Major, or Sharp, because it exceeds that from $D$ to $F$, which is consequently Minor, or Flat; so likewise the Sixth from $E$ to $C$ is Minor, or Flat, because it contains a Semitone less than that from $F$ to $D$; so of the other Intervals that bear the same Name, the Difference consisting only of a Semitone, more or less, and which may be also distinguished by extreme Sharp, or extreme Flat, as will be more fully explained hereafter.
Principles of Composition.

It is generally by Means of a $\sharp$, or $\natural$, that the Difference from the Major to the Minor, or a sharp or flat Interval, is known; a Sharp $\sharp$ added to the lowermost Note ($F$) generally makes a Minor Interval, and added to the uppermost Note ($G$) makes it Major; on the contrary, a $\natural$, or Flat, added to the lowermost Note ($H$) makes a Major Interval, and placed against the upper Note ($I$) makes it Minor.

$E \times A \ M \ P \ L \ E.$

3d Minor, 3d Major, 6th Major, 6th Minor, 5th, False 5th, or flat 5th,

It is by comparing the upper Note with the corresponding Note in the Bafs, that the Major and Minor Intervals in the Example will be found.

When a $\sharp$, a $\natural$, or a $\flat$, is placed over or under a Note in the Bafs, it does not alter that Note, but denotes only Major or Minor Intervals.

CHAP. II.

Of the Fundamental Bafs.

The grand Art or Mystery in Composition, either for Harmony or Melody, principally consists, and especially at present, in the Bafs, which we call Fundamental, and as such must proceed by Consonant Intervals, which are the Third, the Fourth,
Fourth, the Fifth, and the Sixth; so that we cannot make any of the Notes of the Fundamental Bafs to ascend or descend, but only by one of those Intervals, the least of which is to be preferred to the greatest, that is to say, that, if we had a Mind to make that Bafs ascend or descend a Sixth, it would be better to make it descend or ascend a Third; for it is to be observed, that to ascend a Third, or descend a Sixth, is the same Thing; so likewise to ascend a Sixth, or descend a Third; to ascend a Fifth, or descend a Fourth; to ascend a Fourth, or descend a Fifth, as the following Example sheweth.

\[
\begin{align*}
E & \quad X \quad A \quad M \quad P \quad L \quad E. \\
\text{To ascend a 3d,} & \quad a 4\text{th}, \quad a 5\text{th}, \quad a 6\text{th}. \\
\text{To descend a 6th,} & \quad a 5\text{th}, \quad a 4\text{th}, \quad a 3\text{d}. \\
\end{align*}
\]

The Name of the Note being sufficient for determining a proposed Interval, and knowing that the Third to C is E, it matters not in the Progression of that Bafs, whether E be placed above or below C; so of the others; and this ought to be well remembered; for when we shall hereafter say, to ascend a Third, a Fourth, a Fifth, or a Sixth, it is to be understood to descend a Sixth, a Fifth, a Fourth, or a Third; or if we say, to descend a Third, it is to be understood to ascend a Sixth, &c. observing that this only regards the Progression of the Bafs.

We have not included the Octave among the Consonants, because that the Octave being the Replicate of 1, it is as well for the Bafs to remain upon 1, as to ascend or descend upon the Octave; yet we are sometimes obliged to make the Bafs descend an Octave, for a greater Liberty to the other Parts, which are to be placed always above the Bafs.

### CHAP III.

**Of the perfect Chord, by which begins Composition in four Parts.**

A CHORD is the Disposition of several Sounds heard together, which Sounds are marked by a Note in each of the Parts proposed.
The only Chord we have at present need for, is the perfect, which is composed of one Note placed in the Bafs, and of its Third, Fifth, and Octave, placed in the other Parts.

The Gamut will serve to find these Intervals, and this Bafs may be represented by the Number 1, as thus:

\[
\begin{align*}
C, & \quad E, & \quad G, & \quad C, & \quad C. \\
1, & \quad 3, & \quad 5, & \quad 1, & \quad 8.
\end{align*}
\]

We have marked 1, or 8, because the Octave is always represented by the same Note that was taken for the Bafs.

The Third, the Fifth, or the Octave, may be placed indifferently in any of the Parts, being at Liberty to place the Third above the Fifth, or the Octave, and the Fifth above the Octave, provided that these Intervals are found to be always above the Bafs; and each Part is to be kept within its natural Bounds, and so contrived, that the Tenor may be above the Bafs, the Counter-Tenor above the Tenor, and the Treble above the Counter-Tenor.

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**CHAP. IV.**

*Of the Succession or Sequence of Chords.*

If the Bafs is to proceed by consonant Intervals, the other Parts on the Contrary are to proceed by diatonic Intervals; so that in these last Parts we cannot skip from one Note to another, but to that which is the nearest; as thus: C can go but to D, or to E, if it does not keep on the same Degree, as it often happens; so of the others; and here follows the Manner of doing it.

1. We choose a Note which is called the Key-note, by which the Bafs is to begin and end: This Note fixes the Progression of all those contained within the Compass of its Octave; If then we take C for the Key, we can use as well in the Bafs as in the other Parts, but the Notes C, D, E, F, G, A, and B without it, it being permitted to alter them by any Sharp or Flat.

This Note C being placed in the Bafs, you dispose of the Chord in the other Parts, observing that which makes the Octave to C, that which makes the Fifth, and that which makes the Third.

2. If after C the Bafs ascends a Third A, or a Fourth B (see the Example) the Tenor—that made the Octave to C, which is the
the Bäs, ought afterwards to make the Fifth to the Note which
in that Bäs ascends a Third or a Fourth after C.

The Counter-Tenor, which made the Third to C, ought af-
terwards to make the Octave to the Note which ascends a Third
or a Fourth; and the upper Part, or Treble, which made the
Fifth to C, ought afterwards to make the Third to the Note so
ascending a Third or a Fourth.

3. If after C the Bäs ascends a Fifth C, or a Sixth D (see
the Example) the Tenor—which made the Octave, ought, after-
wards, to make the Third; the Counter-Tenor—that made the
Third, ought afterwards to make the Fifth; and the upper Part
or Treble that made the Fifth, ought to make the Octave.

4. and Lastly, Those that will not burthen their Memory
by retaining the Progression of each upper Part, in respect to
the Bäs, need only to remember, that each of those Parts can
make but one of the three Intervals that compose the perfect
Chord, and only in three different Manners, either by keeping
on the same Note, or on the same Degree, or by ascending or
descending diatonically whatever Road the Bäs may take; so
that if a Note of one of the Parts can make the Third, the
Fifth, or the Octave, without altering its Position, it must ab-
solutely remain; but if by this Manner you cannot find any one
of those Intervals, you will infallibly find it by making it as-
cend or descend diatonically.

If two Parts should, by Chance, happen to meet upon the
same Note or Degree, whereby one of the Intervals in the per-
fected Chord should be wanting, it would proceed from one of
those two Parts having made one of the three Intervals of that
perfect Chord, either by ascending or descending: So that,
having made it to ascend, it must afterwards descend, or having
made it to descend, it must afterwards ascend; which is natural
to that Part that makes the Fifth to a Note in the Bäs followed
by another ascending a Fourth, to which Note, so ascended,
this Part can make the Octave by descending, or the Third by
ascending, to which Degree this Part ought then to ascend;
this is also natural to that Part that makes the Octave to a
Note of the Bäs followed by another ascending a Fifth, and, in
that Case, that Part must descend upon the Third, to the Note
which ascends a Fifth in the Bäs.

Example:
Principles of Composition.

EXAMPLE.

Treble.

Counter

Tenor.

Tenor.

Fundamental

Bass.

Ascend a 3d, or descend a 6th.

Ascend a 4th, or descend a 5th.

Ascend a 5th, or descend a 6th.

Ascend a 4th.

Ascend a 3d.

Ascend a 4th.

Ascend a 5th.

Ascend a 3d.

The Progression of the upper Parts in this Example may be easily remembered, since you will find in all but 8, 5, and 8, 3, 5, F; 3, 8, and 3, 5, G, H; 5, 3, and 5, 8, F, L; when the Bass ascends a Third, or a Fourth, it is found that 8 leads to 5 F; 5 to 3 F; and 3 to 8 G: And when the Bass ascends a Fifth C, or a Sixth D, it is found that 8 leads to 3 F; 3 to 5 H; and 5 to 8 L: So that, whatever Road the Bass takes, we may know by the first Interval (be it a Third, Fifth, or Eighth) that which must be the next to the following Note in the Bass; and so on until the End, by following the same Method, for each Part separately, and observing that the 3, 5, and 8 be always contained in the three upper Parts, being at Liberty to give to any one of the Parts the 3, 5, or 8, to the first Note of the Bass; but in a Succession or Sequence of Chords, one cannot help following the Method above prescribed, to each Part that shall have made the 3, 5, or 8th.
Principles of Composition.

It appears also by this Example, that this Order prescribed does not only happen between the first and second Note of each Bar, but likewise between the second Notes of a Bar and the first of the next; so that, wherever the Progression of the Bass is the same, that of the other Parts will be so likewise. Therefore, the Interval marked A, between the two Notes of the first Bar, and between the two last Notes of the Example, being the same, the Progression of the upper Parts must likewise be the same; so of the other Intervals of the Bass marked by a B, a C, or a D, as well above as under the Bass: Nevertheless, one must not strictly seek the like Uniformity in one upper Part only, by Reason that the Succession of Chords will oblige it to make sometimes the Third, sometimes the Fifth, &c. but it will always be found, that that Part which hath made the Third, the Fifth, or the Octave, will always follow the Progression which is assigned to it by that of the Bass. From hence it is to be concluded that, after having fixed and determined the Chords of the Parts according to the Progression of the two first Notes of the Bass, we must also fix and determine the Succession by that of the second Note of the Bass to the Third, from this to the Fourth; and from this to the Fifth, and so on to the End, each Note of the Bass always making one of the consonant Intervals prescribed to its Progression with that that follows or precedes it; and each Interval of that Bass fixes or determines the Progression of the upper Parts.

We have placed the Number 1, either above or below each Note of the Bass, to shew that in each Chord there will be found but the Numbers 1, 3, 5, 8.

You may at present compose a Bass after what Manner you will, nevertheless, by making it begin and end by the Note C, being at Liberty to make it proceed by all the consonant Intervals, without altering the seven Notes, C, D, E, F, G, A, B, by any Sharp or Flat, and observing to avoid the Note B, in the Bass only, and after having disposed the first Chord in each Part, the Progression of those Parts that make the 3, 5, or 8th—will be fixed by that of the Bass.

EXAMPLE.
Principles of Composition.

EXAMPE.

Treble.

Counter

Tenor.

Fundamental Bals.

To ascend a 5.6.4.6.6.4.4.3.5.3.5.5.5.4.5.4.

Remember that to ascend a Sixth, or descend a Third, is the same Thing; likewise to ascend a 4th, or descend a 5th.

It is proper at first to begin by Common Time, and you may use either a Minim or a Crotchet for each Part of the Measure or Bar, in the same Manner as we have used a Semibreve.

It is easily perceived, that the Disposition of this Bals depends only upon Fancy or Taste; yet one may keep to it in the Beginning, to see if the Parts that will be placed above it be agreeable to ours; after which you may compose other Balses at Pleasure, observing that the last Note of the Bals ought always to be preceded by another of the Distance of a Fourth below, or a Fifth above it: that is to say, that the Note C ought to be preceded by the Note G, at the Conclusion, or final End of the Piece.

CHAP. V.

Of some Rules which must be observed.

1. TWO Octaves, or two Fifths, are never to follow one another immediately; yet it may be practised in Pieces of four Parts, provided that the Progression of the two Parts that make two Octaves, or two Fifths, moves by a contrary Motion, that is to say, that if one of the Octaves ascends, the other ought to descend.
Example of two Octaves, and two Fifths, moving by a contrary Motion.

2. You must avoid ascending from a Minor, or flat Third, to the Octave, which cannot be found in the foregoing Examples, by Reason that the Major or Minor, or sharp or flat Third, was not as yet in Question; but the Discord we are going to treat of, will easily make us observe this Rule.

CHAP VI. Of the Chord of the Seventh. 

ARTICLE I. 

Supposing that you are arrived at a sufficient Knowledge of the consonant Intervals, of which the perfect Chord and the Progression of the Bass are composed; the Relation, which these Intervals bear together, is now to be examined; and without taking any Notice of the Octave, which may be looked upon but as the Replicate of the Bass, represented by the Number 1, it will be found, that the perfect Chord is composed of three different Sounds, the Distance of which, from the first to the Second, is equal to that from the Second to the Third, as appears by these three Numbers, 1, 3, 5, a Third from 1 to 3, and another from 3 to 5. Now, to find the Chord of the Seventh, one need only to add another Sound in the same Proportion thus, 1, 3, 5, 7, which makes another Third from 5 to 7; and this last Chord differs from the perfect, only by the 7th, which is added to it.

This Interval added to the perfect Chord, being Dissonant or a Discord; the Chord wherein it takes place is called Dissonant, and the Octave may be added to it, as in the perfect Chord, either for composing in five Parts, or for giving a better diatonic Progression to the upper Parts; in which Case it is to be observed, that the Octave oftentimes takes the Place of the Fifth, which is indifferent, there being, in that Case, only to let the Parts follow their natural Course, which is to proceed diatonically.
Principles of Composition.

cally, whether the Octave; or the Fifth, happens to be in this Chord of the Seventh, or not; as to the Third, it cannot properly be left out.

This Chord of the Seventh must not at present be used, but only upon such Notes of the Bass as are preceded and followed by a Fourth ascending, or a Fifth descending.

The dissonant Interval of this Chord, which is the Seventh, ought to be prepared and resolved by a consonant Interval; that is to say, that the Note which made the Seventh to the Bass must be prepared and resolved by a Third. The Third which prepares or precedes the Seventh must be upon the same Degree, or upon the same Space or Line with the Seventh that follows it; and the subseuent Third, by which the Seventh is resolved, is to descend diatonically.

It must be so contrived, that the first Seventh be heard upon the first Note, or Part of the Bar, and consequently prepared upon the second Note, or Part of the preceding Bar; the first Seventh being that which is not immediately preceded by another Seventh. As soon as a Seventh hath been taken upon a Note of the Bass that hath been preceded by a Fourth ascending, or a Fifth descending, the Bass must always proceed by the like Intervals, until the Key-note, which at present is that of C, by giving the Chord of the Seventh to each Note, excepting the Key-note and its Fourth, which are C and F. C, or the Key-note, is excepted, because the Key-note cannot be deemed as such, but with the perfect Chord; and F, or the Fourth, is excepted, because, it being forbidden to use the Note B in the Bass, if the Fourth, or F, carried the Chord of the Seventh, it would in that Case be obliged to ascend a Fourth, or descend a Fifth upon B. E is likewise to ascend, since one could not give it the Chord of the Seventh, without its being preceded by B, by reason of the Progression limited to the bass of this Chord; so that this Chord of the Seventh is not for the present to be used, but upon the Notes A, D, and G.
In the upper Parts, the Seventh is found always between two
Thirds, thus: \(3, 7, 3\); and the first Seventh is always prepared
in the second Part of the Bar C.

The Necessity we are under to make the Seventh descend upon
the Third, by which it is resolved, alters the Progression of that
Part, which, as we have said before, ought to ascend from the
Fifth to the Third, when the Bass ascends a Fourth; but as that
same Part may also fall upon the Octave, we must absolutely
give it that Progression, when the Seventh happens to take Place;
because, that the Seventh is obliged to fall upon the Third:
therefore, since we cannot alter the Progression of the Seventh,
that of the Fifth \(A\) must be altered according to what we have
already said, that we were sometimes obliged to use the Octave
instead of the Fifth, in the Chord of the Seventh, by Reason of
the diatonic Progression of the upper Parts; and in Chap. IV.
that when two Parts happen to meet upon the same Degree,
that Part that can make one of the three Intervals must be al-
tered, either by ascending or descending.

The same Part that made the Fifth, can also make another
Fifth \(B\), provided that its Progression, and that of the Bass, be
contrary, as was said in the foregoing Chapter, which is done
in order to complete the Chords, or to put the parts in their na-
tural Place; see the Guide at \(B\), which shews the Octave, which
we have avoided in this Place, because it is found in another
Part \(L\).
THE Seventh, which is the first, and we might say the Principal of all Discords, may be prepared and resolved by all the Concords; but as its several Resolutions are derived from the preceding Manner, we shall not as yet speak of it, but only say, that it may also be prepared by the Fifth, and by the Octave, and in that Case the Bafs must descend a Third; in order that the Seventh may be heard prepared by the Fifth, and ascend diatonically, when the Seventh is prepared by the Octave; observing that all the upper Parts descend, when that Bafs ascends diatonically, excepting that Part which makes the Seventh, and which remains upon the same Degree, in order to fall upon the Third.

The Seventh may be also prepared by the Sixth, but it is not yet Time to speak of it, because at present we are only talking of the Fundamental Harmony, composed only of the Bafs, of its Third, Fifth, and Seventh, as thus, 1, 3, 5, 7.

N. B. That the Progression we have prefigured to the Bafs for the Chords of Sevenths, in the first Article, cannot alter but only in respect to the first Seventh, and it is only in that Case that that Seventh may be prepared by the Octave, or by the Fifth; for after the first Seventh, you will always find the Seventh between two Thirds, and by whatever Manner it be prepared, it will always be resolved by the Third.

EXAMPLE.

<table>
<thead>
<tr>
<th>Treble</th>
<th>8, 5, 7, 3, 8, 5, 8, 3, 7, 5, 3, 8, 5, 8, 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counter-Tenor</td>
<td>5, 3, 5, 8, 5, 5, 3, 5, 7, 3, 8, 3, 7, 3, 3</td>
</tr>
<tr>
<td>Tenor</td>
<td>3, 8, 3, 7, 3, 3, 8, 3, 5, 8, 5, 3, 7, 3, 3</td>
</tr>
<tr>
<td>Fundamental Bafs</td>
<td>7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7</td>
</tr>
</tbody>
</table>

To ascend 4, 6, 4, 4, 4, 5, 6, 6, 4, 4, 2, 4, 4, 4.
This Example shews how the Seventh may be taken upon the four Notes, E, A, D, and G; by the liberty of making the Bafs to fall a Third, in order to prepare the Seventh by the Fifth, or to make it ascend a Second for preparing the Seventh by the Octave. We find, in this Example, two Parts that ascend together, an Octave (C,) which may be done in order to put the Parts in their natural Place, provided that those Parts do not make together two Octaves, or two Fifths following; for what we have said in respect to the Bafs, must likewise be understood of any two Parts taken separately.

If two Parts can ascend an Octave, the like rule holds for one single Part, as appears by the Bafs (F) instead of remaining upon the same Degree; yet an upper Part could not do the like, where a Discord happens to be prepared, and it must in that Case keep on the same Degree.

It is not yet necessary to take any Notice of the Sharp placed before F, as Beginners are not obliged to use any Sharp or Flat, until they are better instructed.

If the Bafs exceed its natural Bounds, and if the Tenor happens to be above the Counter-Tenor, it is by reason that we would not alter the diatonic Order of the upper Parts, to which we must subject ourselves, especially in this Case.

We have nothing more to say, but what depends upon these first Principles; the better they are understood, the less Difficulty there will be in comprehending the rest.
Remarks touching the Discord.

A DISCORD, instead of being troublesome to a Composer, on the contrary, it gives him a greater Liberty, for in all Progressions of a Bass ascending a Second, a Fourth, or a Sixth, there will always be found one Note in the upper Parts, which having made a Consonant Interval with the first Note of the Bass, may, without altering it, make the Seventh to the second Note of that Bass, which ought to be practised as often as possible, and by that Means the Fault of ascending from the flat Third to the Octave, or from the flat Sixth to the Octave, will be avoided; but at the same Time it must be considered, whether the Note in the Bass upon which you would take the Seventh, be followed by another, that can resolve it by the Third, otherwise the common, or perfect Chord must be taken.

EXAMPLE.

I cannot take the Seventh upon the Note at (B,) though it be prepared by the Fifth to the Note at (A,) because that it cannot be resolved by the Third to the Note at (C,) but by putting the Note at (D) in the Place of the Note at (C) I then can take the Seventh to the Note at (B) since it will be naturally resolved by the Third to the Note at (D,) so of the rest, taking Notice that the Key-note cannot as such carry the Chord of the Seventh, and that we speak here only of the fundamental harmony.

CHAP. VIII.

Of the Key, and of its Denomination of Flat and Sharp.

We have called the Key-note, that by which the Bass is to begin and end; and we have mentioned that that same Key-note fixed the Progression of the other Notes contained in its Octave; consequently, if we take C for the Key-note,
note, we cannot alter the Notes $C$, $D$, $E$, $F$, $G$, $A$, and $B$, by any Sharp or Flat; for it is thus that the Gamut represents it in the Octave of $C$; from whence we conclude, that the Word Key is adapted to one Note, chosen as Principal to compose a Piece of Music in, and for that Reason is called the principal Key-note: this Note having the Privilege to determine all the diatonic Intervals, wherein all the Tones or whole Notes and Semitones, or half Notes, which ought to follow each other from the Key-note to its Octave, take Place, and which is called Modulating; and the Difference of the Mode or Key is this: The Mode (from whence Modulation is derived) consists in the Third to the Key note; and as the Third can be but either Major or Minor, or Sharp or Flat; so likewise the Mode is distinguished but by these two Sorts, and for that Reason the Word Mode is generally comprehended or understood in that of Key, saying only a sharp key, or flat Key.

If we give the sharp Third to $C$, we say that we are in the Key of $C$ Sharp, or $C$ Major; and if we give it a flat Third, we say, that we are in the Key of $C$ Flat, or $C$ Minor; Modulation consisting only in these two Species of Major and Minor, which depends upon the Third given to the Key-note.

The Note $C$, within the Compass of its Octave, contains all the Tones Major that can be used; and there being but a small Difference between the Major and the Minor, we shall not shew the Difference until we have fully examined and explained the Major.

The Key of $C$ will serve as an Example for all sharp Keys, for $D$, $E$, $F$, $G$, &c. may be taken as Key-notes, as well as $C$; but when once a Note hath been chosen for the Key-note, one cannot speak of the others, but comparatively to that same Key-note; therefore the second Note, the Third, the Fourth, the Fifth, &c. will be such, but comparatively to the Note supposed for the Key-note; and consequently, in the Key of $C$, the second Note is $D$, the Third $E$, the Fourth $F$, &c. and here follow the Names of the several Notes or Tones in the Key of $C$.

\[
\begin{array}{c|c|c|c|c|c|c}
\text{Octave} & \\
\hline
C & - & - & - & - & - & - \\
\hline
B & - & - & - & - & - & Sharp Seventh, or leading Note, \\
\hline
A & - & - & - & - & - & The Sixth, \\
\hline
G & - & - & - & - & - & The Fifth, or governing Note of the Key, \\
\hline
F & - & - & - & - & - & The Fourth, \\
\hline
E & - & - & - & - & - & The Third, \\
\hline
D & - & - & - & - & - & The Second, \\
\hline
C & - & - & - & - & - & The Key-note. \\
\end{array}
\]

Observe two Notes, which, besides the Key-note, have a proper Name to distinguish them from the others; the one is the governing
Principles of Composition.

governing Note of the Key, or the Fifth, and is thus called; because, in all final Cadences, this Note always precedes the Key-note, as may be seen in the foregoing Examples, where \( C \), which is the governing Note of \( C \), always precedes it, and especially at the End or Clofe. The other is the leading Note, or sharp Seventh, and is thus called, because, in whatever Part this Note is heard, the Key-note immediately follows it; therefore it may very properly be called the leading Note of the Key; and in the Key of \( C \), the sharp Third is \( E \), the governing Note is \( G \), and the leading Note is \( B \), and the governing and leading Notes, and the sharp Third, do in all Keys make the same Intervals as \( E, \ G, \) and \( B \), make in the Key of \( C \), excepting in flat Keys, in which the Third is flat.

C H A P. IX.

Of the Manner of modulating Harmonically, when a diatonic Progression is given to the Bafs.

A LL Notes that carry the perfect or common Chords may be deemed Key notes, and all those that carry the Chord of the Seventh, may be deemed governing Notes, with this Difference, that the governing Note of the Key is distinguished from that which is but singly a governing Note, by reason that the Third to the governing Note of the Key must always be sharp; whereas the Third to those Notes which are but singly governing Notes, is oftentimes flat; and there being no other Key-note in the Key of \( C \), but \( C \) itself, the perfect Chord must be given but to that same Note \( C \); there being no other governing Note of the Key, in that same Key of \( C \), but \( G \), consequently one cannot give the Chord of the Seventh with the sharp Third, but to that same Note \( G \).

These two Chords, the Perfect and that of the Seventh, are as it were the only Chords in Harmony, for all other Chords proceed from them; and these are only affected to a Progression of the Bafs, such as we have hitherto treated of; and if we are going to alter that Progression, we shall not thereby alter their Chords, but only the Disposition, by placing the octave, either above or below one of the Sounds, or Notes, comprised in the Chord; which obliges us to give them another Name, in order to distinguish those from which they are derived.
It must be observed, that the Number 1 represents the Bafs, and that the other Numbers shew the Distance from one Sound, or Note, to that of the Bafs; and that the Numbers 8, 10, 12, &c. are but the Replicates, or Octaves, of 1, 3, 5, &c. and as 8 is the Replicate of 1, so 10; and 12 are the Replicates of 3 and of 5: Also, that all Numbers may be reduced to a meaner or lower Term, the Intervals whereof will be equal: For Example, 4, 5, 6, may be reduced to 1, 2, 3; because the Distance from 4 to 5 is not greater than from 1 to 2. Therefore, the Numbers 6, 8, 10, 12, may be reduced to 1, 3, 5, 7, by reason that there is not a greater Distance from 6 to 8, than from 1 to 3; so of the others, it being necessary to reduce to a Unity the first Number of each Chord; because that Unity represents the Bafs to the perfect Chord, and that of the Seventh, from whence all Concods and Discord are derived.

We shall not take Notice of the 8 in the Chords, because that Number is the Replicate of the Bafs 1.

Figures which are placed over or under the C, E, G.

\[
\begin{align*}
E, G, C, & \quad C, E, G. \\
6. \text{ The Chord of } 6 & \text{ is composed of } 1, 3, 6, \text{ inverted } \{ 6, 8, 10. \\
& \text{This Chord is always used upon the Third of the Key.} \\
\end{align*}
\]

\[
\begin{align*}
G, C, E, & \quad C, E, G. \\
6. \text{ The Chord of } 6 & \text{ is composed of } 1, 4, 6, \text{ inverted } \{ 4, 6, 8. \\
& \text{This Chord is used but upon the Governing-note or Fifth of the Key, but not so often as the perfect Chord, or that of the Seventh.}
\end{align*}
\]
Principles of Composition.

Enumeration of Discords, or Dissonant Chords, derived from the Chord of the Seventh.

7. The Chord of the Seventh to a Governing-note, or Fifth of the Key, is composed of \( G, B, D, F \).

Chords inverted, derived from the Chord of the Seventh.

6\# or 5\#. The Chord of the flat or false Fifth is \( G, B, D, F \), composed of \( 1, 3, 5, 7 \), inverted from \( 1, 3, 5, 7 \).

This Chord is never used but upon the Leading-note or sharp Seventh of the Key.

6\#. This Chord is called the small Sixth, and is \( G, B, D, F \), composed of \( 1, 3, 4, 6 \), inverted from \( 1, 3, 5, 7 \).

This Chord is generally used upon the second Note of the Key.

4\#. This Chord is called the Tritonus, and is \( G, B, D, F \), composed of \( 1, 2, 4, 6 \), inverted from \( 1, 3, 5, 7 \).

This Chord is never used but upon the fourth Note.

It is to be observed, that the Key-note lends its perfect Chord but to its Third and Fifth; the Third under the Name of Sixth, and the Fifth under that of \( \frac{6}{4} \); so that, when you can in all Keys distinguish the Third and Fifth, you may at the same Time know what Chords are to be taken, though the perfect Chord more properly belongs to the Fifth or Governing-note than the Chord of \( \frac{6}{4} \); and even the Chord of the Seventh seems to belong only to the Fifth, especially when it immediately precedes the Key-note; but let not the Difference between the perfect Chord, and that of the Seventh, puzzle you, since this last Chord consists only in a Note or Sound added to the perfect Chord, which the Composer is at Liberty to leave out; so that, wherever the Chord of the Seventh might be used, you may take only the perfect or common Chords; yet, as it is proper to know what we are about, it must not be left out without a Reason, especially as this Chord of the Seventh is the Origin of all Discords.
Discords; the Knowledge of its Progression, that is to say, of the Chord that is to succeed it, being as necessary, as that of its Construction, i.e. of the Sounds or Notes of which it is composed, since it is upon its Construction and its Progression that all other Discords, or Chords diﬀerent, are regulated.

If we have said, that the Fifth of the Key carried the Chord of the Seventh, only when it preceded the Key-note, it is to be at the same Time understood of all the Notes which compose the perfect Chord of that same Key-note; that is to say, of the Third, and even of that same Fifth, when those two Notes bear the Chords derived from the Perfect; the Fifth may carry the Chord of Six and Four, after that of the Seventh, when its Length may permit it, at the Will and Pleasure of the Composer; and, as the Notes derived from the Key-note are to be preceded in the same Manner as the Key-note, so likewise the Derivatives of the Fifth of the Key cannot be deemed as such, unless they immediately precede that same Key-note, or its Derivatives; and one must not only consider a Chord in its Construction, and in its natural Progression, but also in the different Disposition that may be given to the Notes that compose it, by placing in the upper Parts those that are found in the Bass, or by placing in the Bass those that are in the upper Parts; which obliges us to give different Names to one and the same Chord, according to its different Disposition, and in order to know, at the same Time, those Notes which ought in that Case to accompany the Bass; and as it is known that the Third and the Fifth (which compose the perfect Chord of the Key-note) may represent the Key-note, by bearing a Chord derived from the Perfect, when those Notes happen to be in the Bass; so likewise the Notes which compose the Chord of the Seventh, to the Fifth of the Key, cannot immediately appear preceding the Key-note, or its Derivatives, without bearing a Chord derived from the Seventh; and, therefore, it must be remembered, that if, in the Key of C, one of these Notes G, B, D, or E, should immediately precede C, or E, in the Bass (we omit G, because it is our chief Subject in the Chord of the Seventh) the three other Notes are to accompany it. We have said that the Fifth or Governing-note might carry the perfect Chord as well as the Seventh, and besides, that the perfect Chord always succeeded in that of the Seventh; therefore, the Chord of the Seventh must be preceded in the same Manner as the Perfect; which obliges us to attribute a Governing-note to all those Notes that bear the Chord of the Seventh; and as a Governing-note is always a Fifth above, or a Fourth below the Note governed, it is not difficult to comprehend that G can have but D for its Governing-note; and as a Note is called a Governing-Note, but by reason only of its being a Fourth below, or a Fifth above, it can carry in that
that Case but the Chord of the Seventh; so that, by following
the same Disposition that we have given to the Chord of the
Seventh to the Note $G$, we shall find that of the Note $D$
between those Notes $D$, $F$, $A$, $C$; from whence we conclude,
that the Note $D$, or those comprehended in its Chord, cannot appear in
the Bass immediately before the Note $G$, without their Chord
being composed of any other Notes than $D$, $F$, $A$, $C$, in the
same Manner as $G$, $B$, $D$, $F$ ought to compose the Chord to
each of those fame Notes, when the Note $C$ follows them; the
harmonic Progression of Discords being but a Succession or Se-
quence of Governing-notes, or Fifths, which is not difficult to
comprehend in its Bottom, as the Examples of Sevenths prove
to us; and it is by the Relation there is between the fundamen-
tal Chord and its various Progression, that arises the Liberty we
have of using indifferently any one of the Notes contained in the
fundamental Chords, which are the Perfect and the Seventh;
and it is in this Relation that all our Attention is hardly suffi-
cient; nevertheless, by keeping it within the Compass of an Oktave,
it is only necessary to know the Manner how a Concord,
or a consonant Chord, is to be preceded, having given to under-
stand, that a Discord is not preceded by any other Manner; and
thus we say, without making use of the Names of the Notes,
but only of the Interval which each of those Notes makes with
the Key-note, in order that it may serve for all Keys in general;
for when it is necessary but to know how to distinguish the Key-
ote, you will then have got over most Difficulties.

The Key-note carries the perfect Chord; its Third always
carries that of the Sixth; and its Governing-note, or Fifth, al-
ways carries the Perfect, when it doth not immediately precede
the Key-note; otherwise the Seventh $F$ must be added to its
perfect Chord $G$, $B$, $D$.

The second Note, which, in a diatonic Progression, is between
the Key-note, and its Third, can carry, in that Case, but the
Chord of the small Sixth $D$, $F$, $G$, $B$.

The Leading-note, or sharp Seventh, which in ascending pre-
cedes the Key-note, must carry the Chord of the false or flat
Fifth $B$, $D$, $F$, $G$; but when in descending it precedes another,
which is not contained in the Chord to the Key-note, then it
is deemed but as the Third to the Governing-note, or Fifth of
the Key; and in that Case must carry the Chord of the Sixth
$B$, $D$, $G$, inverted from $G$, $B$, $D$.

The fourth Note, which in ascending precedes the Governing-
ote, must in that Case carry a Chord like unto that of the
Leading-note, when the Leading-note ascends to the Key-note,
since the Key-note and its Fifth must be preceded alike; so that,
as the Leading-note or sharp Seventh hath carried in that Case
a Chord derived from the Fifth, so likewise the Fourth will carry

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a Chord derived from that Note, which is the Governing-note, or Fifth, to that Fifth. So that, if G governs C, D for the same Reason governs G; and as, in the Key of C, F is the fourth Note, it will then carry the Chord of $^6_5$, or the great Sixth $^5_A$, $^4_C$ and $^3_D$, derived from that of the Seventh $^6_D$, $^5_F$, $^4_A$, $^3_C$.

This Chord of the great Sixth differs from that of the false Fifth, but in respect to the Fifth which is perfect one Way, and flat or false the other; which proceeds from the different Species of Thirds, which is sharp between C and E, and flat or minor between D and F; for it may be observed, that the Disposition of these two Chords is the same, and they are taken equally upon the Third to the fundamental Note, on which the Chord of the Seventh is used; we shall in its proper Place shew the Reason why this Distinction is made upon the derivative Chords, and not upon the Fundamental.

This same fourth Note, which in descending, precedes the Third, must carry the Chord of the Tritonus $^6_F$, $^5_G$, $^4_B$, $^3_D$.

The sixth Note, which one Way or other precedes the Fifth and its Third, must carry the Chord of the small Sixth $^6_A$, $^5_C$, $^4_D$, $^3_F$, inverted, or derived from that of the Seventh to D, which governs G in the same Manner as the Second, in the like Case, carries the like Chord, when it precedes the Key-note or its Third.

If these Particulars be examined with the Enumeration of Chords, it will give a better and a clearer Idea of the Whole, observing that the Fifth, or Governing-note, may be deemed or looked upon as a Key-note, by reason that those two Notes are equally preceded by the same Chords, which fixes the Object; and observing also, in a diatonic Progression, those Notes which derive from the Chords affected, or adapted to the Key-note and its Fifth, and the Notes that follow them; because that one and the same Note may happen to belong to two different fundamental Chords, in which Case, in order to fix the Chord that it ought to carry, we must be be guided by the next Note that follows it, taking Notice of the three or four Notes that compose the perfect Chord, or that of the Seventh, and with which the Note in the Bass ought to be accompanied in the upper Parts.
We must not confound the diatonic Progression of a Bass, which we now speak of, with the consonant Progression, of which we have given some Examples upon the perfect Chord, and that of the Seventh; these two Chords are the Fundamental, and as a Proof of it, we shall hereafter, under our Examples, place that Bass which we call Fundamental, the Notes of which will carry but perfect Chords, or of Sevenths, whilst the Notes of the usual Bass, which we call continued, will carry Chords of all Species, the Whole making together a complete Harmony; so that this fundamental Bass will serve as a Proof to all our Works and Examples, whereby it will be evident, that the several different Chords which will be therein used, will proceed only from an opposite Progression to that of the fundamental Bass, according to what we have just now explained, though the Chords, compared to one or the other Bass, will be always the same in the main, their Difference proceeding from the Liberty of placing in the Bass any one of the Notes contained in the fundamental Chords; but all the Notes of the Chord taken together will always be the same, and the Progression, fixed to them by the fundamental Chords, will not be thereby altered.

CHAP. XI.

Of the Progression of the Bass, which fixes at the same Time that of the Chords, and of the Manner of reducing a derivative Chord to its Fundamental.

The Progression of the Notes of a Bass that carry consonant Chords, such as the Key-note, its Third, and its Governing-note, or Fifth, is not limited, provided that that Progression be not foreign to the Key composed in; but, as at present the Question is only of one Key, one cannot be mistaken, by using only the Notes C, D, E, F, G, A, B.

The Progression of the Notes of a Bass that carry Discords are limited, such as the Governing-note, when it carries the Chord of the Seventh, and all its Derivatives, or rather those which do not carry the perfect Chord, or any of its Derivatives; because, as soon as a Note carries a Discord, it is certain that it governs another; and if the Discord is not that of the Se-
venth, it is certain that it proceeds from it; it will then be only by reducing it to its original or fundamental Chord, that you may surely know the Chord that must follow, whatever Note happens to be in the Bafs.

In order to reduce a Discord to its original fundamental Chord, it must be observed, that there are always two Notes, or two Numbers together, as 3, 4, 5, 6, &c which is likewise found in the Seventh, by placing the Note of the Bafs at its

\[ F, G, C, D, \]

Oktave, thus: 7, 8; so likewise of the Second, 1, 2. This being the Cafe, the uppermost Note, or the highest Number, must be placed at the fundamental Bafs, and it will be found that the lowermost Note, or the least Number, always makes the Seventh to the other, by thus reducing derivative Chords to their original fundamental Chords 1, 3, 5, 7, as we have enumerated at Page 27. So that, if the Note G should be found in the Bafs after the Reduction, it is certain that the Note C will follow it; and if you should not meet with it in the Bafs, you will certainly find one of those that compose its perfect Chord, or that of the Seventh, supposing that you was in another Key; so likewise, if the Note D should be found in the fundamental Bafs, the Note G, or its Derivatives, will follow; so of the others; observing that, after a Chord of the Seventh, the fundamental Bafs must always descend a Fifth.

What we have said of a Bafs already composed, must be also understood of the Manner of composing it; and if this rule should meet with some Exceptions, as in the false and irregular Cadences, &c. one must not as yet think of it.

Before we give an Example of what we have already mentioned, it must be observed, that the Chord of the Notes, which, in a natural Progression, leads to those that ought to carry a perfect Chord, is to be suited to the Note that follows it, and not to that which precedes it; and that this Progression is generally made from the Key-note to its Fifth, or vice versa, from the Fifth to the Key-note, by supposing the Fifth to be a Key-note, as we have before mentioned; so that in a diatonic Progression, by knowing the Chords that lead you to one of those Notes, you will certainly know those that lead to the other; from hence we give for a general Rule.

1. That all Notes that precede by ascending a whole Tone, or a Semitone, that Note on which the perfect Chord is taken, are to carry the Chord of \( \frac{5}{2} \), or the great Sixth, or the Chord of the flat or false Fifth.

**Example.**
Observe that the Difference of these two Chords is only in the Bass; for, whether you ascend a whole Tone, or a Semitone, upon a Note that bears common Chords, the Chord of the upper Parts will always be the same; the Composer being at Liberty to cause his Bass to proceed by a whole Tone, or a Semitone, even though he should be in a Key wherein the Semitone did not properly belong, by reason that as the Fifth, or Governing-note, may be taken for a Key-note, we may introduce all the Sounds that naturally precede a Key-note, by adding (as the Example shews) a Sharp to the fourth Note, which in that Case is changed, and becomes a Leading-note, or sharp Seventh; and it is by this Progression of a whole Tone, or a Semitone, ascending upon a perfect Chord, that a Governing-note may be distinguished from a Key-note, the Bass ascending a whole Tone upon a Governing-note, and a Semitone upon a Key-note; and though, by this Progression of a Semitone, the Attributes of a Key-note are given to a Governing-note, yet we may afterwards continue in the original Key, notwithstanding that same Governing-note appeared as a Key-note, for after a perfect Chord, we may remove into any other Key.

2. All Notes that precede in descending those that carry common or perfect Chords, are to carry the Chord of the small Sixth.
The Guides shew that the Bass may ascend upon the Third to each of those Notes that carry common Chords, without altering the upper Parts, and of Course, those Thirds will then carry the Chord of the Sixth.

We cannot well in this Place perceive the Difference between a second Note and a Sixth, and from a Key-note and its Fifth, by reason that the perfect Chord, which the Fifth, or Governing-note, carries, requires to be preceded alike, which doth not give us Room to distinguish them in a sharp Key; for in a flat Key, the sixth Note, which falls upon the Fifth, is but a Semitone higher, whereas the second Note is always a whole Tone above the Key-note; moreover, the Governing-note, or Fifth, always hath its sharp Third, whereas the Key-note hath only a flat Third in a flat Key; but, if a Governing-Note cannot be distinguished in a sharp Key, let it not puzzle you, because in that Case you may use it as a Key-note, by suiting to its Key the Chords of the Notes which precede it; and by what follows, it may be easily known, whether it be truly a Governing-note, or a Key-note.

The Progression of the first Note to the Note at (A) doth not give any Room to discover whether the Note at (A) be a Key-note, or a Governing-note; which is of no Signification, by reason that the Chords assigned to either of those Progressions are the same; but it is obvious that the Progression from (A) to (B)
(B) leads to a Key-note, therefore (A) is the Governing-note. If the Progression from (B) to (C) leaves us doubtful, the Note at (D) shews that the Note at (C) is the Governing-note; in like Manner, that at (F) shews that same Governing-note at (G,) because, in all Keys, the Note immediately below the Key-note is but a Semitone; whereas there is a whole Tone between a Governing-note and that which is immediately below it.

If in a flat Key, descendent from the Key-note to its Fifth, or at least to its Sixth, the Note immediately below the Key-note is a whole Tone, the flat Third to the Note distinguishes it, because the Governing-note, or Fifth, must always have its sharp Third.

3. All Notes that are a Third above, or below the Key-note, or the Governing-note, must carry the Chord of the Sixth, when the Progression of the Bais leads to one of those two Notes.

**EXAMPLE.**

The Progression of the Bais which leads to the Notes at (B) (D) (G) and (L), where the perfect Chord is taken, obliges us to give the Chord of the Sixth to the Notes at (A) (C) (F) and (J).

4. The Third, representing the Key-note, by reason that the Chord of the Sixth upon the Third is the same as the common or perfect Chord upon the Key-note; we must give the Chord of the Tritonus to the fourth Note descending upon the Third, though one may give it also the Chord of the great Sixth; but we shall speak of it elsewhere.
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**EXAMPLE.**

\[
\begin{array}{c}
\text{A} \\
\text{B}
\end{array}
\]

(A) the fourth Note descending upon the Third at (B).

By these five last Examples, we can draw very useful Inferences, by observing the different Disposition of the Sounds of which a fundamental Chord is composed, according to the different Progression of the Bass; for if the Fourth bears the Chord of the great Sixth ascending upon the Governing-note, or Fifth; if it carry the Chord of the Tritonus descending upon the Third; if the Leading-note, or sharp Seventh, bears the Chord of the flat or false Fifth; and if the Second and the Sixth carry the Chord of the small Sixth descending upon the Key, or upon the Governing-note, or Fifth, it is visible that these different Chords are but one and the same Chord, and derived from that of the Seventh upon the Notes which in that Case govern those that follow; which will be more clearly explained, by placing a fundamental Bass under a general Example of all we have hitherto said; wherein it will be observed, that the Leading-note, or sharp Seventh, is such but in ascending to the Key-note; for, if it descends, then it becomes but a Third to the Fifth, or Governing-note of the Key; though this last Note may in that Case be looked upon as a Key-note, in order that we may not be mistaken.
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General Example of the Octave ascending and descending.

![Musical Staff Diagram](image)

As the fundamental Base is placed under the other Parts, only as a Proof that all their Harmony is included and comprehended in the perfect Chord and that of the Seventh, one must not examine, if the Rules are strictly observed between the Parts and the fundamental Base; but only whether there be found any other Chords than those that are figured over each Base; for the Sequence of the Sounds are to be examined but with the continued Bases, since the Question at present is of a diatonic Progression given to the Bases.

1. After having observed in the continued Base the same Succession, or Sequence of Chords, from \( f \) to \( L \), and from \( B \) to \( M \), ascending to the Governing-note, or to the Key-note, as from \( N \) to \( K \), and \( O \) to \( V \), descending to the Fifth, or to the Key-note, it may be thereby inferred that the Whole is relative to each of those two Notes which are the only Notes that can naturally bear the perfect Chord in any Key whatever, remembering that those Notes, which are a Third above, are deemed Thirds, when the Bases descend from these to the First, though the
the Third to the Key-note will always be such, whatever Road it takes; and that a perfect Chord cannot be preceded by a Discord, but by that which governs it; thus it appears that the Chords of the small and great Sixth, of the false or flat Fifth, and Tritonus, are no other but that of the Seventh to the Notes, in the fundamental Bafs, which naturally govern those that follow. The small Sixth to the second Note, the flat or false Fifth to the Leading-note, or sharp Seventh, and the Tritonus to the Fourth, derive from the Chord of the Seventh upon the Governing-note of the Key D, after which immediately follows the Key-note; the great Sixth to the fourth Note, and the small Sixth to the sixth Note, also derive from the Chord of the Seventh to the second Note at A and C, which governs in that Case the Fifth, or Governing-note of the Key, and which said Fifth immediately follows; and the Chord of the Sixth is given to the Third, the Sixth, and the Leading-note, or sharp Seventh, only because that those Notes are a Third above or below the Key-note, or the Fifth, to which the Progresion of the Bass leads us immediately afterwards.

2. It would-be imagined, that the sixth Note at (B) ought to carry the Chord of the small Sixth, agreeable to that of the Seventh, which is figured over the Note at (B) in the fundamental Bafs; but we leave out one of the Sounds that make the Discord for divers Reasons; first, because it is indifferent; secondly, because, the next following Note in the Bafs being the Leader, or sharp Seventh, and as such creating a Discord Major (as we shall hereafter explain) and as Discords ought not to be doubled, we could not for that Reason, and in this Case, give the Chord of the small Sixth to the sixth Note, without causing the Third to that Sixth to descend upon the Discord Major; and the last Reason is, that our Rule for taking the Chord of the Sixth, upon all such Notes that precede those that are a Third above or below those on which the perfect Chord is taken, subsists.

3. If the fourth Note R had not been placed in the continued Bafs, and the second Note A or C, or the Sixth F, had been taken in its Stead, immediately preceding the Governing-note E or K, we should then have been obliged to sharpen the Fourth, as we have done it at S, by reason that the Note on which the Common or perfect Chord is taken, chuses to be preceded by its sharp Seventh, or Leading-note, excepting in flat Keys, wherein the Sixth never descends but a Semitone upon the Fifth; and the sharp Seventh in that Case cannot then be heard, whatever Note in the Bafs precedes that Fifth; for, if it was preceded by the sharp Seventh, it would then be deemed the Key-note, and the true Key we then intended to compose in
in could not be discovered but by the Notes that followed that Fifth; which is very plainly seen by our Example, where the Governing-note may be taken for a Key-note, it not appearing whether it be a Governing-note, or a Key-note, but by the Note that follows it; consequently the Chord of the Tritonus derives from that of the Seventh to that same Governing-note which is found to be under it in the fundamental Bass at D.

4. The diatonic Progression of the continued Bass alters that of the Parts at \((F_n)\) \((G_n)\) and at \((H)\) which cannot otherwise, either to avoid two Octaves, or two Fifths, following each other, or for replacing one Part in its natural Position, and above the Bass, or in order that all the Sounds of the Chord may be heard.

If the upper Parts are to follow a diatonic Progression, it is only when the Bass follows a Consonant, and \(Vice\ versa\); besides, it is sometimes proper to alter the diatonic Order of one Part, in order to diversify the Melody; one could even alter the Order and Progression of those Parts that are above the Bass, without committing any Fault, but that is not at present our Subject.

5. There happen to be in our Example several Sevenths, without being prepared, which seems to contradict our first Rule; but of this we shall treat hereafter, and shall now keep only to the Progression fixed to the Chords, according to the Order of this Octave; and we shall also hereafter shew, that, after a consonant Chord, we are at Liberty to remove any where, provided we at the same Time observe the Rules of Modulation.

If it be permitted to make the fundamental Bass to ascend a whole Note, or a Semitone, the Progression of a Third, and of a Fourth, is thereby always understood, as appears between the Notes at \((Z_n)\) \((Y_n)\) and \((A_n)\) where the Note \((T)\) is added; the Seventh to that Note being prepared by the Fifth \((Z)\) and the Third preparing the Seventh to the Note \((A)\) which doth not alter the Foundation of the Chords.

C H A P. XII.

Of some other Rules taken from the last Example.

TAKE Notice, that when a Note in the Bass ought to carry the Chord of the Seventh, you may always leave out that Note which makes the Seventh, unless it was found prepared
prepared by a Concord in the preceding Chord; though if that Concord was a Major, or a Sharp, as the Third and the Sixth may be, it will be better to make that Third, or Sixth, ascend a Semitone; but if the Note of the Bass carries only a Chord derived from the Seventh, you may strike out of that Chord one of the two Sounds that makes the Discord; those two Sounds being easily discovered, by reason that they are always joined together, according to what we have said in Chap. XI.

The same Note in the Bass may be repeated, by giving it the same Chord, or by giving it different Chords, as we increase in Knowledge how to do it.

You may skip from one Note to another, where the Chord differs but in the Name, by going from the Chord of the Seventh to that of the flat or false Fifth, upon the Third to that Note, on which the Seventh hath been taken; and, upon the Fifth to it, one may give it the Chord of the small Sixth, and in like Manner one may give the Chord of the Tritonus to that which makes the Seventh; because all these Chords are, in the Main, but one and the same Chord; so of the Others in the like Case; see the following Example.

\[
\begin{array}{cccc}
\text{A} & \text{B} & \text{C} & \text{J} \\
6 & 6 & 7 & 7 \\
\text{D} & \text{E} & \text{J} & \text{A} \\
5 & 5 & 7 & 5 \\
\end{array}
\]


Those Notes, that are a Third above the Note which immediately afterwards bears common Chords, ought, generally speaking, to bear a Chord derived from that which follows; see at \(A,\) where it is seen that the Chord of Sixth derives from the Perfect that follows it; and at \(B,\) where the Chord of the great Sixth, or the false Fifth, derives from that of the Seventh, which follows it.

When the Notes in the Bass alter their Position, and the fundamental Chord subsists; all the other Parts may remain as they were, without altering them, as to what concerns consonant Chords, or Consonants; but, as to Discords, it ought to be contrived, that all the four Notes, or Sounds of which they are composed, be heard together, which may be done by adding the Octave.
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Octave of the Note you quit (D,) if it had not a Place in the Chord, to that same Note in the fundamental Bass, or by leaving out the Octave to the Note (F,) in order to place in its Stead the Octave of the Note you quit (C.)

C H A P. XIII.

Of the perfect Cadence.

We call a perfect Cadence, all Conclusions made upon a Key-note, preceded by its Fifth, or Governing-note; and this Key-note must always be heard upon the first Part, or Division of the Measure, or Bar, in order that the Conclusion may be the better discerned; and in that Case its Governing-note which precedes it, ought to carry the Chord of the Seventh, or the Perfect, because the Seventh may be therein understood; see the following Example.

---

It is by the Means of this perfect Cadence that we can judge what Notes of a Bass are to bear perfect Chords; because, wherever we feel the Melody to rest, it is certain that in that Place the perfect Chord must be heard; and this Rest doth not only make itself felt in the most natural Progression of this Cadence, but likewise in the Progression arising by the Sounds used for its Accompaniment, the Disposition of which is on the other Side, each Part being figured according to the Chord it should bear if it was placed in the Bass, remembering that the perfect Chord may be heard after the great Sixth, as well as after the false Fifth; so that, provided
vided we do not go out of the Key, it is but upon the Key-
note and its Fifth, that the Melody may rest, which fixes the
Object in such a Manner, that whatever Progession is given to a
continued Baf, we may feel and know, at the same Time, those
Notes on which the Melody may rest, and the Chords that are
to precede it, according to the different Progessions of that Baf,
as it is marked in each Part; for whatever Part is chosen for
Bafs, the other Parts will always accompany it in the like Cafe.
In order to give a better and clearer Idea of it, we shall shew
the Power of the Leading-note, or sharp Seventh, in this Cafe; how
by its Means we distinguish the Disords, and the Obligation it
lays us under in the Order and Distribution of the Chords.

C H A P. XIV.

Of the Leading-note, or sharp Seventh, and of the Manner
of resolving all Disords.

As soon as the Leading-note appears in a Chord dissonant,
it is certain that it determines a Conclusion of Melody,
and therefore it must be followed by the perfect Chord upon the
Key-note, or its Derivatives; whereas, if the Leading-note, or
sharp Seventh, doth not appear in a Chord dissonant, the Con-
clusion is not determined, and this dissonant Chord must be fol-
lowed by another, and so on successively from one Chord to
another, until the Leading-note, or sharp Seventh, be heard,
which then determines a Conclusion, or at least an Imitation of
it, as when we fall upon the Third, instead of the Key-note.
The Examples we have given of the Seventh prove what we
here advance, since, after the first Chord of the Seventh, there
always follows another, and so on until the Governing Note of
the Key, where the Leading-note, or sharp Seventh, is then
heard.

Remember that, notwithstanding the Rule we have just now
given, the Common or perfect Chord, to a Fifth, or Governing-
note, may follow that of the great Sixth to a fourth Note,
though the sharp Seventh doth not take Place in this last Chord,
which notwithstanding is a Discord.

To distinguish at present the Leading-note, or sharp Seventh;
in a dissonant Chord, there must absolutely be found therein an
Interval of a false Fifth, or of a Tritonus, either betwixt the
Parts, or betwixt one Part and the Baf; and those Intervals
must be made up of the sharp Third and of the Seventh to the
fundamental
fundamental Note of a Chord of the Seventh, this Note being always the Governing-note of the Key, otherwise the Rule would be false; so that, in the Key of C, the false Fifth, or the Tritonus, will be found to be between the Notes B and F, according to their different Disposition, the one making the sharp Third, and the other the Seventh to G, which is the Governing-note of the Key.

\[ \begin{align*}
\text{Leading-note:} & \quad \text{Tritonus.} \\
\text{Leading-note:} & \quad \text{False Fifth.}
\end{align*} \]

The same Thing will be found in the Example of the perfect Cadence; so that, whatever Part of this Cadence is chosen for Bass, the other Parts being to accompany it, one of these two Intervals will always be found; because their Difference arises only from the different Disposition or Transposition of the two Notes that compose one or the other of those Intervals.

The Guides show the natural Progression of those Intervals, as it is marked in the perfect Cadence, from whence a sure and certain Rule is taken for the Progression of Discords, which is called the Resolution.

As we have distinguished the Third by Major and Minor, so likewise we distinguish all Discords by Major and Minor.

All Major Discords are those that arise from the Leading-note, or sharp Seventh; and as this Note ought naturally to ascend a Semitone to the Key-note (which is obvious by the preceding Examples) all Major Discords are to do the like.

In order to distinguish a Major Discord, you must know the Key you are in, and you will find that every Time that a Note which is but a Semitone below the Key-note, happens to be in a different Chord, that same Note will be the Major Discord; otherwise, by reducing a Chord to its Fundamental, you will find, that it will always be the sharp Third to the Governing-note of the Key, bearing the Chord of the Seventh: therefore the sharp Third to the Governing-note of the Key, bearing a Chord of a Seventh, may be deemed a Major Discord, and consequently the Leading-note, on which the false Fifth it taken; the sharp Sixth to the second Note of the Key, and the Tritonus to the Fourth, are likewise Major Discords.

All Minor Discards are those which arise from that Note that makes the Seventh to the fundamental Bass; and these Discords
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are to be resolved by descending diatonically; such are the Seventh and the false Fifth.

When you do not meet with the Major Discord in a dissonant Chord, it is certain that the Minor Discord only takes Place; but this last always meets with the Major, which doth not alter their fixed Progression.

Thus it is that one may at once be instructed in the various Ways of resolving Discords, which doth not consist in their different Progression, but only in that of the Bass, where it is permitted to pass to each of the Notes of the Chord that is to be naturally heard; which may be always known by reducing it to its Fundamental.

CHAP XV.

Of the Eleventh, otherwise called the Fourth.

The perfect Cadence is generally preceded by a dissonant Chord, hitherto called the Fourth, but which ought rather to be called the Eleventh; this Chord, on this Occasion, differs from the Perfect, only by taking the Fourth instead of the Third, and therefore is never used but upon such Notes as ought naturally to bear the perfect Chord, or that of the Seventh, one of which two Chords always follows it upon the same Note that the Fourth was taken; the Discord which the Fourth creates being by this means resolved by descending diatonically upon the Third; and therefore must be reckoned and admitted among the Minor Discords; we shall more fully explain it, when we shall speak of Discords by Supposition. Here follows only an Example of all the different Ways of preparing it, and of its Resolution.

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EXAM P L E.

The Eleventh, or Fourth, prepared.

The Eleventh, which to follow the Custom we figure by 2, 4, is prepared (as appears by the Example) by all the Conords, and even by the false Fifth, and by the Seventh; which may be observed at all those two Notes bound by a Semicircle (,) and is always prepared at the second or last Part of the Bar, and heard upon the first Part of the next succeeding Bar.

One must stick closely to the Key of C, in order to know all these different Preparations, which proceed from the different Progreffions of the Basses, by reason that it is the same Thing in all other Keys; this was not strictly the proper Place to speak of this Discord, but as the perfect Cadence is seldom used without its being preceded by it, and even several Authors not having separated it from that Cadence, we thought it not improper to follow them on this Occasion.

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**C H A P X VI.**

Of the irregular Cadence.

The irregular Cadence is used upon the Governing-note, or Fifth, preceded by its Key-note; whereas the perfect Cadence is used upon the Key-note, preceded by its Fifth; and this last Cadence is by descending a Fifth, and the other is by ascending a Fifth, in such a Manner, that this last may be made upon the Key-note, preceded by its Fourth, since to descend a Fourth, or to ascend a Fifth, is the same Thing; the two Notes which terminate this Cadence are naturally to carry the perfect Chord, but, by adding the Sixth thereto, the Conclusion is thereby more sensibly felt, and besides we may thereby draw an agreeable Connexion of Harmony and Melody.

This Sixth, added to the perfect Chord, makes the Chord of the great Sixth, which the Fourth naturally carries, when it immediately precedes the Governing-note of the Key; so that by passing from the Fourth to the Key-note, by the same Chords that this Fourth ought to carry ascending to the Fifth, and which the Key-note ought naturally to carry, this creates an irregular Cadence, in like Manner as by passing from the Key-note to its Fifth, by adding a Sixth to the perfect Chord of the Key-note.

We find, in this Example, a Discord between the Fifth and the Sixth, which Discord proceeds by the Addition of the Sixth; and, as this Sixth cannot descend upon the Fifth, it must of Course ascend upon the Third; see the Example where that Progression is marked by a Stroke /.

This Sixth, added to the perfect Chord, gives us, in an inverted Manner, an easy Way of making four or five Parts to several Notes following.
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following the Bafs, with which one of the Parts always proceeds by a Sixth, without committing any Fault against the Rules, which is proved by the fundamental Bafs.

EXAMPLE.

Part which always makes the 6th with the continued Bafs.

\[
\begin{array}{cccccccccccc}
6 & 6 & 6 & 6 \\
4 & 6 & 6 & 4 & 6 & 6 & 4 \\
3 & 6 & 5 & 4 & 3 & 4 & 5 & 6 & 3 \\
& & & & & 4 & 4 & 6 & 6 & 4 & 5 & 4 & 6 \\
\end{array}
\]

Continued Bafs.

\[
\begin{array}{cccccccccccc}
F & C & H & D & L & D & H & C & F & D & G & C & D & H & G & C \\
\end{array}
\]

Fundamental Bafs.

\[
\begin{array}{cccccccccccc}
7 & A & B & 7 & 7 & 7 \\
A & B & A & B & J & \\
\end{array}
\]

A, B, irregular Cadences where the Sixth is added to the perfect Chord of the Note A.

These six Parts might be heard together, excepting where the fundamental Bafs ascends a Second to the Note that bears a Seventh,
Seventh, at which Place one of the Parts that makes two Fifths, together with that Bafs, ought to be altered. Observe those two Parts that proceed always by Sixes, as well ascending as descending, which with the Sixth, added to the perfect Chord, procures an easy Manner of making three other Parts, notwithstanding that this Progression be composed but of three different Chords.

You will find at C the perfect Chord to the Key-note, which causes that of the Sixth upon its Third; and at D, that of Six and Four upon its Governing-note, or Fifth. At F you will find the Chord of the Seventh to the Governing-note of the Key, which causes that of the small Sixth to the second Note; and at G, that of the Tritonus to the fourth Note. And lastly, at H, you will find the perfect Chord upon the Fourth, to which the Sixth is added, which creates that of the small Sixth to the sixth Note L; but, as this same Chord is not always affected to an irregular Cadence, it then proceeds from that of the Seventh upon the second Note J, where it follows its natural Progression.

Before we had a Knowledge of these small and great Sixes, it was almost impossible to add two Parts with these Sixes; whereas we can easily add three Parts, and even the fundamental Bafs may be added to it, which proceeds from an inverted Harmony, and by making the Harmony always suitable to one of the two Cadences we have spoken of, or to the natural Progression of the fundamental Bafs, which will be found in our first Examples; for, if the Progression of the Bafs is not limited after a consonant Chord, yet the Chord that ought to be heard after it is limited, according to the Progression of that Bafs; and, supposing that one could not easily reduce a certain Progression of the Bafs to its Fundamental, you need only to observe the Place occupied by the Notes of the Key you are in, and the Key of C being only at present in Question, and knowing that such and such Notes ought to bear such and such Chords, according to their different Progression, you can never fail by giving to those Notes the Chord that belongs to them in the like Case; and, Experience increasing by Practice, you will become Master of the Choice of two different Chords, that may be heard upon one and the same Note; as may be observed in the last Example, where the Tritonus may be heard upon the fourth Note, instead of the great Sixth, or this last instead of the other, and even one after the other, by placing the great Sixth the first, all which may be practised when the fourth Note falls upon the Third, or the Key-note, having divided the
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the Bars where that happens by Strokes over or under the Parts as thus, \( HC; GC; HG \).

When the Progression of the Bass is like unto the Fundamental, you must give to each Note of that Progression fundamental Chords, excepting when you go from the sixth Note to the Third, in which Case the Harmony inverted from the irregular Cadence is extremely proper.

**EXAMPLE.**

\[
\begin{array}{ccccccc}
E & X & A & M & P & L & E. \\
7 & 7 & 6 & 6 & 5 & b & 6 \\
5 & 6 & 6 & 5 & 7 & 4 & 7 \\
A & B & C & D & F & G & H & J \\
L & M & N \\
\end{array}
\]

Fundamental Bass to the upper Part.

We give the Chord of the Seventh to the second Note \( A \), because the Progression from \( A \) to \( B \) is fundamental.

We give the Chord of the Seventh to \( B \), because the Seventh is found to be prepared by the flat Third to the Note \( A \); so that it is better to keep on that flat Third, than to make it ascend upon the Octave, which is absolutely forbidden, excepting that it be found to be doubled in a Composition of more than three Parts, in which Case we may make it to ascend, whilst the Rule holds in the other Parts that keep on. The sharp Third being heard at \( B \), we cannot avoid making it ascend upon the Key-note, on which the perfect Chord is to be heard; but as this Key-note doth not appear in the Bass, and there being but its Governing-note, or Fifth in its Stead, we are obliged to represent the Key-note, by giving to that Fifth of \( C \), the Chord of Six and Four. We could have given the Chord of the great Sixth, as well as that of the Tritonus to the Fourth Note \( D \), which descends upon the Third.

We cannot help giving the Chord of the Sixth to the Third \( F \), by reason that the Discord to the preceding Note cannot be resolved but by that Chord, though the Progression of that Third to the sixth Note \( G \) be fundamental; the Discord, which, in this Case, absolutely requires to be resolved, being our principal object.

G

Between
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Between the Notes \( H, J \), you will find an irregular Cadence inverted; see the fundamental Bass underneath it.

The Note \( L \) must carry the Chord of the great Sixth, which is the same as that of the Seventh, which the Note at \( M \) bears, and which is found to be a Third below, according to what we have before said at Chap. XII.

The Note \( M \) bears the Chord of the Seventh for the like Reason as the Note \( A \).

The Eleventh prepared by \( M, N \), this Eleventh preparing the perfect Cadence that follows.

CHAP XVII.

Of the different Progressions of a Bass which bear a Relation to each other, wherein the Harmony doth not alter in the upper Parts.

As the Key-note, its Third, and its Fifth may each carry a Chord composed of the same Sounds, wherever the natural Progression of a Bass leads to the principal Note, which is the Key-note, we may place in its stead one of the two other Sounds; so likewise if the Progression leads to the Third, we may place the Key-note in its stead; for the same Reason we may place, in Lieu of the Fifth, its Third, its Fifth, and its Seventh, when it carries the Chord of the Seventh, or its Third and Fifth, when it carries the perfect Chord; see the following Example.

\[
\text{E X A M P L E.}
\]

\[
\begin{align*}
\text{F a i l l u p o n } & \quad \text{O r u p o n } & \quad \text{O r u p o n } & \quad \text{O r u p o n } & \quad \text{O u p o n } \\
\text{t h e K e y-} & \quad \text{i t s T h i r d .} & \quad \text{t h e F i f t h .} & \quad \text{t h e K e y - n o t e .} & \quad \text{t h e i t s T h i r d .} & \quad \text{t h e T h i r d .}
\end{align*}
\]
The four last Falls and the Four following are not proper to the Governing-note or Fifth, because they would, in that Case, pass for a Key-note.

_**EXAMPLE.**_

Although in the above Examples we have begun by the Key-note, we might have equally begun by the Third or by the Fifth; see the Guide.

We do not pretend to speak of the Beginning of a Piece, which is the proper Place for the Key-note, though one may trespass upon this Rule in respect to Fuges, but we are not yet come to them.

When the second Note immediately precedes the Governing-note, or Fifth, in that Case the Second governs that Fifth, and must carry the Chord of the Seventh; so that its Third and its Fifth may be placed in its Stead, and but sparingly the Seventh, because it is but the Key-note that can appear as such in this Case with the perfect Chord.
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EXAMPLE.

The Fifth of the key, preceded by the second note, which in that Case is its governing-note F.

You may place all these notes in the room of each other, provided the suit of the harmony be not changed, to know which, you must reduce it to its fundamental; see the following example.

EXAMPLE.

The second note which in this case governs the fifth of the key, and which serves as a fundamental base to the others.

The fourth note D, in lieu of the second, and at F, in lieu of the governing-note of the key.
The Leading-note or sharp Seventh $G$, which, after the fourth Note, is in Lieu of the Fifth.

The same Thing in a different Progression.

The sixth Note $H$, in Lieu of the Second, when this last governs the Fifth of the Key, that Fifth being also represented by its sharp Third, which is the Leading-note, or sharp Seventh $G$.

The Chord of Six and Four is oftentimes more proper to the Fifth, than the Perfect, in a diatonick Progression, and especially when it happens on the unaccented Part of the Bar.

These different Progressions of a Bass, together with those we have hitherto mentioned, include all the Progressions of a Bass that can be practised in the most natural Harmony; for, as to some other Discords that we have not as yet taken Notice of, their Progressions are so limited that there can be no Difficulty in knowing the Use of them, as soon as what we have hitherto mentioned be thoroughly understood.

C H A P. XVIII.

Of the Manner of preparing all Discords.

WHEN we explained the Manner of preparing and resolving the Seventh, we intended at the same Time to extend it to all Discords, since they all proceed therefrom.

It is true that as we have distinguished them into Major and Minor, it is but the minor Discords that are to follow entirely the Rule of the Seventh; for the major Discords are derived from the Leading-note, or sharp Seventh, which nevertheless makes a Part of the Chord of the Seventh. Now, if the Leading-note is not to be prepared, we must from thence conclude, that
that all major Disords do not require it; but, if the Seventh is to be prepared by any one of the Consonants, so must all minor Disords be; and, provided we do not go out of the Key, we may easily cause a Discord to be heard, by repeating one of the consonant Notes in the preceding Chord; the like may be done by removing from one Key into another, when you are acquainted with the Manner of doing it so as to create an agreeable Continuance of Harmony. We have already mentioned, that one Note may serve in different Disords following, when the Chords wherein it is used are in the Main but one and the same Chord, and that the Eleventh might be prepared by the Seventh or by the false Fifth, although they be Disords; it must therefore be easily comprehended, that the same Note that made the Discord, may cause another in a Chord which in some Shape will appear to be different, provided that, in this Case, you do not go out of the Key.

When we mention that the Seventh could not be prepared but by the Third, the Fifth, and the Octave, it must be understood only when the fundamental Bass follows its most natural Progression, which is to ascend a Third, a Fifth, or a Seventh; taking Notice, that to ascend a Second, or descend a Seventh, is the same Thing; so of the other Intervals that bear a like Relation; and that from those Intervals that bear a like Relation, the Least ought to be generally chosen for the Progression of the Bass, as being more proper and better to ascend a Second, than to descend a Seventh, &c. But, if you keep to the inverted Chords (as you may introduce in the Basses any of the Notes of a fundamental Chord, upon which the said Chord changes its Name, by Means of the different Intervals that the Sounds of which it is compos'd will make, in respect to the Note of the Bass) you will then find, that, instead of the Third or the Fifth, the Sixth or the Fourth will prepare the Seventh; in the like Case you will find, that the Third, the Fourth, the Fifth, the Sixth, and even the Octave will prepare a false Fifth, by reason that the Chord of the Seventh is represented by, and included in, the Chord of the false Fifth, as well as in all other consonant Chords; so that, by whatever consonant Note a Discord is prepared, you can never be mistaken, provided you endeavour to avoid what is not natural: For Example, if in the Bass, instead of the Key-note, I had a Mind to place its Third, or its Fifth, each bearing a Chord derived from the Perfect to that Key-note; and that I would cause a Seventh to be heard, prepared by the Octave, by the Fifth, or by the Third to the Key-note; that Octave will then become a Sixth to the Third, and a Fourth to the Fifth; so of the Fifth and of the Third,
Third, by observing the same Proportion. And, by this Relation, our first Rule, as to Sevenths, is general for all minor Discords; likewise if, after a perfect Chord upon the Key-note, its Third, or its Fifth, instead of causing a Seventh to be heard (which any one of the consonant Notes of that perfect Chord may prepare) I had a Mind to hear a false Fifth, a Tritonus, a great or small Sixth, &c. that would proceed by my having placed in the Bäs one of the Notes belonging to the Chord of the Seventh, in Lieu of the fundamental Note.

**EXAMPLE.**

![Musical Example]

**Fundamental Bäs.**

![Musical Example]

**Continued Bäs.**

![Musical Example]
1. A, the Seventh prepared by the Octave, according to the fundamental Harmony.  
2. B, the Seventh prepared by the Fifth, according to the fundamental Harmony.  
3. C, the Seventh prepared by the Third according to the fundamental Harmony.  
4. D, the Third upon which the Octave to the fundamental Bass becomes a Sixth.  
5. E, the Governing-note upon which the Octave to the fundamental Bass becomes a Fourth; by this Means the Seventh is found to be prepared by the Octave, the Sixth, and the Fourth.  
6. F, the Second which is prepared in the Bass, is preceded by its Third in the upper Part.  
7. G, in the Chord of the great Sixth, the Fifth which represents the Seventh, is prepared by the Octave; and the Guides that are upon the Third and the Fifth plane, that the same Fifth may be equally prepared by the Sixth, and by the Fourth of those two Notes; so of the other Places where there are Guides.  
8. H, in the Chord of the small Sixth, the Third which represents the Seventh, is prepared by the Octave, by the Sixth, and by the Fourth.  
9. I, in the Chord of the great Sixth, the Fifth which represents the Seventh, is prepared by the Fifth, by the Third, and by the Octave.  
10. J, in the Chord of the small Sixth, the Third which represents the Seventh, is prepared by the Fifth, by the Third, and by the Octave.  
11. K, The Second prepared by the Octave, or by the Fourth marked by a Guide.  
12. L, the Seventh prepared by the Third according to the fundamental Harmony.  
13. M, In the Chord of the great Sixth, the Fifth is prepared by the Third to the fundamental Note to which the Seventh is added.  
14. N, In the Chord of the great Sixth, the Fifth is prepared by the Third to the fundamental Note to which the Seventh is added.  
15. O, that same Fifth prepared by the Fourth to the Note that makes the Seventh to the fundamental Bass, which Note must bear the Chord of the Second.  
16. P, that same Fifth prepared by the Sixth to the Note which governs that in the fundamental Bass. Observe in this Place, that all Notes that govern another may be represented, by bearing a Chord inverted from the Perfect, or that of the Seventh which the other should carry; and that this Chord inverted is that of Six, Four, or the small Sixth.  
17. Q, that same Fifth, is here prepared by the Octave to the Note, which makes the Third to that in the fundamental Bass.  
18. R, In the Chord of the small Sixth, the Third is prepared by the Third, by the Sixth, or by the Octave; and the Seventh that
that precedes is resolved by the Sixth, to the same Note on which that same Seventh hath been heard.

We have not hitherto taken Notice of the Second, but, before we say any Thing concerning it, observe, that it should be prepared but in the preceding Manner.

It hath been sufficiently shewn, that all the several and different Ways of preparing Discords proceed from that of preparing the Seventh; and that the only Difficulty consists, how to know, by the Bafs, the Notes that compose the Chord to that which is the Fundamental. In order thereto, you must observe, that the first dissonant Chord must be preceded by a consonant Chord; and that this consonant Chord can be but the Perfect to the Key-note, its Fifth, or its Fourth; which perfect Chord may be represented by that of the Sixth, upon the Third of each of those Notes, and by that of Six and Four upon the Governing-note of the Key only.

In Composition of two or three Parts only, we often choose but the consonant Notes in a dissonant Chord, so that, if we do not know the Key we are in, and have not a particular Regard to the Progression of the Bafs, all our Rules will be useless; therefore you cannot too closely apply yourself to understand perfectly these Rules, which we have given in the Key of C, and are sufficient for all other Keys.

As we ought not to begin a piece of music but by a consonant Chord, we cannot of Course uie a Discord, but after a consonant Chord; but oftentimes, after a Discord there follows another; for as we have already said, that a consonant Chord cannot appear after a Discord, unless the Leading-note, or sharp Seventh, be used in this last Chord, otherwise you pass on from one Discord to another, as appears by our Rules of the Seventh; and as this is a little difficult to discover in Pieces of two or three Parts, because that these dissonant Chords take in at least two consonant Notes, which are the Third and Fifth, and, in an inverted Manner, the Sixth and Fourth, without mentioning the Octave that may be found therein; so that one may often pass from a dissonant Chord to another, without knowing it: Therefore you must endeavour to understand these first Principles, if you intend with Certainty to know what you are about.

---

C H A P. XIX.

Shews where Discords cannot be prepared.

If, instead of making the fundamental Bafs to descend a Third, a Fifth, and a Seventh, we make it ascend in the same
Principles of Composition.

The same Manner, we shall find that the Seventh cannot be prepared; yet in those Progressions we find something that obliges us to cause that Seventh to be heard, as the Octave in a diatonic Progression, in Chap. XI. proves it, when we proceed from the Key-note to its Fifth; and that this last retrogrades, or descends to the Key-note, the Ear is not in the least shocked thereby, according to the Opinion of all Masters.

If the Bass ascends a Third, in order to descend a Fifth immediately afterwards, the Seventh which is heard upon the Note so ascending, cannot likewise be prepared.

\[ \text{Example A} \]

Fundamental Bass.

The Example A shews a Progression of a Fifth ascending, since it begins by the Third, which represents the Key-note. But the Example B proves that the Seventh cannot be prepared when the fundamental Bass ascends a Third, since the Note that makes the Seventh to the second Note of the Bass, cannot make a consonant Note with the First.

One might give a sharp Third to the second Note at B, in which Case the Key would then be changed: And this is often practised, especially in an inverted Harmony; as may be seen in the following Example.

\[ \text{Example B} \]

Fundamental Bass.
Each Part may serve reciprocally as an upper Part or a Bafs; and you may see how the false Fifth, the Tritonus, and the Seventh may not be prepared.

If the Bafs ascends a Seventh, the Discord cannot be prepared.

**EXAMPLE.**

Fundamental Bafs.

The Seventh unprepared at \(J\), when the Fundamental Bafs ascends a Third; and at \(L\), when it ascends a Seventh or descends a Second.

*N. B.* It is but after a consonant Chord that a Discord may be taken unprepared, for after a dissonant Chord the Discord must absolutely be prepared, according to our Rules.

We must observe, that we do not intend to include the sharp Seventh or Leading-note, in the different Discords prepared or unprepared; by reason that we here speak but of minor Discords, and these Rules do not concern major Discords which proceed from the sharp Seventh, in Favour of which a Minor Discord is often heard unprepared, as in a Progression of the fundamental Bafs ascending a Third or a Fifth, in order to descend afterwards a Fifth, wherein the perfect Cadence, which is formed by
by this last Progression in descending, cannot take Place, unless the sharp Seventh be heard in the Chord to the first Note that descends a Fifth; so that from thence one may draw very useful Inferences, but we shall not speak of them, until we have explained the Manner of removing from one Key into another.

C H A P. XX.

An exact Enumeration of all the different Progressions of the Bass, according to the different Discords therein used.

It is always from our fundamental Bass, and the fundamental Chord of the Seventh, that we are to draw the Rules concerning Discords; and we shall shew that the Chord of the Seventh only is predominant in all dissonant Chords.

We do not in this Place intend to enlarge further upon our first Rule concerning the Seventh, only by giving that Chord to every Note in a Key, when the Bass proceeds by Intervals of a Fourth ascending, or a Fifth descending.

The first Seventh may be prepared by any of the Concorfs, or may be taken unprepared, according to what we have said upon that Subject in the foregoing Chapters: But we shall hereafter be obliged to follow the Rule which requires it to be always prepared and resolved by the Third: See the following Example.

Observe, that all the Parts move by descending, and that these Sevenths are alternately accompanied by the Third and Fifth, or by the Third and Eighth, thus, 1, 3, 5, 7, or 1, 3, 7, 8.

In order to render this Harmony more complete, there ought to be five Parts, as we shall presently shew.

You will find some of these Sevenths not in their natural Proportion, as those of C and F, which we had expressly forbidden by
by our first Rules; but that is to be overlooked in the like Succession or Sequence of Discords, as they are caused by the Modulation, where it is not permitted to add any Sharp or Flat to any of the Notes. You will also find, in what follows, other false Intervals which proceed from these; so that, as it happens by Accident that they are such, they must be written as if they were right, by reason that we cannot help causing those Notes to intervene in Harmony, when we do not choose to go wide from the Key.

If we take for Bas that Part which makes the Tenor at A, we shall find that the first Note that answers to that on which the first Seventh is figured, will bear the Chord of the small Sixth; and, by the following Note which bears the Chord of the Seventh, a new Progession of the Bas may be formed by new Chords in Appearance, as will be shewn by the following Example, where that Part will be likewise marked by the same Letter A.

If we afterwards take the Counter-tenor B for Bas, we shall find that the Note, answering to that on which is the first Seventh, will carry the Chord of the Second; and, by the following Note which bears the Chord of the great Sixth, a new Progression may also be formed; as will appear by the following Example, where that Part is likewise marked with the Letter B.

It may be observed, that the Chords of the Second and the Tritonus are made up of the same Intervals, saving in the one that the Fourth is perfect, and in the other it is sharpened; and for that Reason this last Chord is called the Tritonus, which contains three whole Tones. The like Difference is made between the great Sixth and the false Fifth.

The Chord of the small Sixth, either Sharp or Flat, partakes of the like Difference; the Whole arising from the Chord of a Seventh, where the Third to the Bas is one Way Major, and the other Minor; though that Difference is not distinguished by two different Names, unless it be that we appropriate to the Governing-note of the Key only a Chord, the sharp Third of which creates the false Fifth, or the Tritonus, with the Seventh to that same Governing-note; whereas to the other Notes, that are but merely Governing-notes, we give a Chord, wherein the Third is Minor or Flat, and neither the false Fifth nor the Tritonus take Place between the Third and the Seventh, by reason that these last Chords are to follow each other, until the Governing-note of the Key appears.

The following Example will shew all the Chords that proceed from the different Progressions of the Bas, and each Part may serve reciprocally as a Treble or upper Part, excepting the fundamental Bas and that underneath it, which can serve but as a Bas.
EXAMPLE.

First Bass, which may serve as a Treble.

Second Bass, which may serve as a Treble.

Third Bass, which may serve as a Treble.

Fourth Bass, which may serve as a Treble.

Fifth Bass, which may serve as a Treble.

Sixth Bass, which may serve as a Treble.

Fundamental Basses.

Bass by Supposition, to which one must not as yet give any Attention.
1. Observe that the Progression of the four first Bases is the most natural, in respect to the Fundamental; and that the Progression of the fifth and sixth Bases are borrowed from those first Bases.

The Progression of the fifth Base is taken from the First and Fourth.

The Progression of the sixth Base is taken from the Second and Third, and, if we have not figured with a seventh all the Notes in the fifth and sixth Bases, that might carry the Chord of the Seventh, it is to be understood, that the perfect Chord can only be taken, without the Seventh, by leaving out the Octave in the Chord to those Notes that precede them, by reason it is that Octave that prepares the Seventh.

2. In the natural Progression of the Four first Bases, it is observable that the First and Second, and the Third and Fourth, are disposed by Thirds, and, whilst the two last descend, the two first remain upon the same Degree, and so on alternatively unto the End; for, as it is more agreeable to the minor Third to descend, we cannot help giving that Progression at least to those Parts which make it; and, in a like Continuance of Harmony, the consonant Note which is a Third below, must follow that Progression, remembering that a Sixth above, or a Third below,

is the same Thing as C E, or E C, \[\text{
Oktave lower, so that it be below the other Parts, or by transposing these an Oktave higher, the Chords figured upon any one of those Basses will be found to be in the other Parts. If the fifth Bass is chosen, you must place over it only the Second, the Third, and the Fourth, because the first bears too great an Affinity to it: and, if the Sixth be chosen for a Bass, then the First, the Second, and the Fourth only are to be placed over it, by altering only one Note, which in the first Bar creates two Octaves together.

Thus in one single Example we are instructed in the different Construction of all dissonant Chords, of the Progression of Discords, and of the Difference of those Chords, in respect to the different Progression of the Bass, the Whole consisting by inverting the Chords, or in an Harmony inverted.

5. The fifth and the sixth Basses have a good Effect, being taken separately, and one may even make them Syncopation.

Thus, \[ \begin{array}{c}
\text{Or inverted.}
\end{array} \]

It is pretty difficult to add two other Parts to these, by reason that an Harmony inverted introduceth a certain Supposition, which requires a vast Knowledge in Harmony; so that one must not at present practice them, but as they are pricked, that is to say, in two Parts only.

When any one of the Parts is chosen for a Bass, it ought to begin and end by the Key-note, and be so contrived, that the Key-note at the End be preceded by its Fifth; which may be easily done by altering the other Parts suitable to their Progression, when they are to be heard above the fundamental Bass.
Principles of Composition.

C H A P. XXI.

Of the Chord of the Second.

The Second is an interval inverted from that of the Seventh, and consequently the Chord of the Second is inverted from the Chord of the Seventh.

EXAMPLE.

This Inversion causes another of the same Nature, when it is necessary to prepare and resolve these Discords.

If all minor Discords are to be prepared and resolved in the Treble, or upper Part, the Second on the contrary, which causes the minor Discord to be heard in the Bass, is to be prepared and resolved by that same Bass, according to the Progression fixed to a minor Discord; so that you must cause to be heard in the second, or last Part of the Bar in the Bass, that Note on which you are willing to make a Second upon the first Note, or Part of the next subsequent Bar, and this Note must afterwards descend; so that, whilst you make a Bass to proceed in that Manner, you may give to each Note a Chord like those in the following Example, until the major Discord appears, after which follows a consonant Chord.

One must also take Notice, that in a Progression, or Succession of Harmony, like unto that in the Example, a major Discord may appear, when the Air or Melody of the Bass proceeds by the same Degrees, passing through the Third, without causing a Conclusion which is reserved for the Key-note, or one of its Derivatives, which appears but in one more Bar afterwards, as may be seen in the following Example. The major Discord, which in that Case doth not follow its natural Progression, is, for that Instant, deemed a minor Discord, which is allowed only in respect to the Modulation, when we are minded to suspend the Conclusion for some Bars; though it will always be better to conclude
conclude upon the perfect Chord to the Key-note, or upon that of the Sixth to the Third, after the sharp Seventh, or Leading-note.

EXAMPLES.

By these Examples it is evident, that the Second is prepared and resolved in the Bass, in the same Manner as the Seventh is prepared and resolved in the Treble A, B, and that the Chords in one and the other are made up of the same Sounds, as appears by the fundamental Bass.

In order to know at present the Choice that ought to be made of the Chords in either of the Examples, where the Bass proceeds almost equally alike, since it descends diatonically each Way, and causes the same Note to be heard twice on the same Degree, it must be observed, that on one Side those two Notes are contained within the same Bar, and that on the other Side, they are divided by the Bar; so that, when your Bass is like unto one of these, you may always use the like Chords, and be certain that you will not then commit any Fault by following this Rule.

If in the Example in the preceding Chapter there be some Basses, whose Progression is not agreeable to these, in respect to the Chords they bear, it is because they represent only Trebles; but otherwise do not go from the Rule, if you intend to compose rightly and regularly.

The Second absolutely requires to be prepared by the Third, though it may be prepared in the Treble by all the Conords, or consonant Notes, and the Bass must always synchronize in that Case.

Observe
Principles of Composition.

Observe at present, that it is by the different Progression of the Bafs that Discords are found to be prepared and resolved by all the Concors; and, in order that you may not be mistaken therein, always add a fundamental Bafs under your Composition, and you will thereby see, that the minor Discord which makes the Seventh to that Bafs is never prepared but by the Octave, the Fifth, or the Third, and that it is never resolved but by the Third, otherwife your Composition will never be just or regular.

We again repeat that the first Discord preceded by a consonant Chord may be prepared by the Octave, the Fifth, or the Third to the fundamental Bafs; and that it is at the same Time necel-

sary, that those that successively follow the first Seventh be prepared by the Third to that Note; rather than by any other Con-

cord, by reason that the Sequence of Harmony that proceeds from it is the most natural:—Yet, for Variety'sake, we are sometimes obliged to prepare the Seventh by the Fifth, or by the Octave to the fundamental Note, though this Seventh be found in the Middle, or after several others: but this is done only, in order to vary or diversify the Melody or Harmony, so that you must praftise it but seldom, and with Judgment: And what is hereby said of the Seventh equally comprehends all other minor Discords, by reducing it to its fundamental Note, wherein the Seventh always presides.

If the Seventh is never to be resolved but by the Third to the fundamental Note, it is not understood but that it may also be resolved by the Fifth, and even by the Octave; but these are Licences which you must not praftise until you are Master of the rest, fo that we shall not as yet speak of it.

CHAP XXII.

Of Keys and Modes in general.

If what we have said touching Keys and Modes at Chap. VIII, be perfectly understood, there remains but what follows.

ARTICLE I.

Of sharp Keys.

As you may take whatever Note you think proper for a Key-note, provided you give a Progression to its Octave,
like unto that of C, if the Key be sharp; then Sharps and Flats are to be used, in order to increase or lessen, a Semitone, those Intervals that might lessen that Conformity; the Question is only to know the Number of Sharps or Flats that are generally placed after the Cliff, in order to shew that all Notes on the same Degree, or Space, with these Sharps or Flats, are to be increased or lessened a Semitone; for Example, if we take D for a Key-note, and would make its Key agreeable to that of C, we observe that F makes the flat Third to D, which is not conformable to the Third of C, which is sharp; therefore we must add a Sharp to F, to make it a sharp Third to D, as E is a sharp Third to C, &c. So likewise the Fourth to F is B flattened; therefore a Flat must be added to the Note B, when you are in the Key of F, to conform it to the Key of C.

Example of all sharp Keys, whose Modulation of an Octave is agreeable to that of the Octave of C.

By Sharps.

Key of G, of D, of A, of E, of B, of F sharp, of C sharp.

By Flats.


Here are eleven sharp Keys, which, with that of C, make twelve, there being but twelve chromatic Notes in an Octave.

As to the Order and Position of Sharps, they are declined thus, F, C, G, D, A, E, B, &c. which shews that, when there is but one Sharp, it can be but that of F; if there are two Sharps, they are those of F and C; if three, then F, C, and G, &c. reckoning always by Fifths, ascending, from the first Sharp which is F, to the last.

In order to know how many Sharps there must be for denoting any one particular Key, you must observe that it is always the Leading-note, or sharp Seventh, that determines the Number, because the last Sharp is always placed upon it; so that the Key of D sharp requires two Sharps prefixed to the Key, by reason that, C sharp being the Leading-note, or sharp Seventh, we cannot put a Sharp to C, without placing another to F, which is always the first Sharp; for the same Reason, the Key of E sharp requires four Sharps, since D sharp is the Leading-note, or sharp Seventh; so of the others.
The Order and Position of Flats are declined by Fourths ascending, beginning by that of $B$, thus, $B$, $F$, $A$, $D$, $G$, &c. it is the fourth Note that determines the Number in sharp Keys; for Example, the Fourth to $F$ is $B$ flattened, therefore we must place a Flat upon the Line of $B$, in the sharp Key of $F$, and so of the other Keys, observing that sharp Keys that require Flats, begin by that of $F$; so that reckoning by Fourths, as we reckon by Fifths for Sharps, you will find the Number of Flats required.

**ARTICLE II.**

**Of flat Keys.**

The Octave to $D$ will serve as an Example for all flat Keys.

**EXAMPLE.**

<table>
<thead>
<tr>
<th>$D$</th>
<th>$C_b$</th>
<th>$B$</th>
<th>$A$</th>
<th>$G$</th>
<th>$F$</th>
<th>$E$</th>
<th>$D$</th>
</tr>
</thead>
</table>

Octave, Leading-note, or sharp Seventh, The Sixth, Governing-note, or Fifth of the Key, The Fourth, The Third, The Second, Key-note.

The Progression of a flat Key differs from a sharp Key in ascending, but in the Third, which one Way is flat and the other sharp; but in descending we must make $B$ flat, and leave out the Sharp to $C$.

**EXAMPLE.**

You can never be mistaken by following these Progressions in all flat Keys.
Principles of Composition.

Example of all flat Keys, whose Modulation of an Octave answers to the above Octave of D.

By Sharps.

<table>
<thead>
<tr>
<th>Flat Key of A.</th>
<th>Flat Key of E.</th>
<th>Flat Key of B.</th>
<th>Flat Key of F.</th>
<th>Flat Key of G.</th>
<th>Flat Key of D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>flat</td>
<td>sharp</td>
<td>flat</td>
<td>sharp</td>
<td>sharp</td>
<td>sharp</td>
</tr>
</tbody>
</table>

By flats.

<table>
<thead>
<tr>
<th>Flat Key of G.</th>
<th>Flat Key of C.</th>
<th>Flat Key of F.</th>
<th>Flat Key of B flat</th>
<th>Flat Key of E flat</th>
</tr>
</thead>
<tbody>
<tr>
<td>flat</td>
<td>flat</td>
<td>flat</td>
<td>flat</td>
<td>flat</td>
</tr>
</tbody>
</table>

The Author in the Example of flat Keys by Flats, hath followed the ancient Manner, by omitting the flat Sixth after the Key, and, in that Case the Key of D is not distinguished from the Key of A; but, according to our Author, the Sixth in flat Keys must be deemed flat and must be of the same Species as the Third. We here give another Example of flat Keys by Flats, beginning by the Key of D, which, in this Case, bears the first Flat.

\[
\text{E X A M P L E.}
\]

\[
\begin{array}{cccccc}
1 & 2 & 3 & 4 & 5 & 6 \\
\text{flat} & \text{flat} & \text{flat} & \text{flat} & \text{flat} & \text{flat} \\
\text{Key of D} & \text{Of G} & \text{Of C} & \text{Of F} & \text{Of B flat} & \text{Of E flat} \\
\end{array}
\]

As Beginners may be under some Difficulty in respect to the Chords in the Modulation of an Octave in flat Keys, here follows an Example of the Chords in the flat Key of D.

\[
\text{E X A M -}
\]
**Principles of Composition.**

**EXAMPLE.**

The Chords in the Treble are to be examined but with the continued Bafs.

Here are likewise twelve flat Keys, including that of D, which, with that of A, is marked without a Flat or Sharp.

The first Key that bears a Sharp before the Cliff, is that of E, and, in order to know the Number of Sharps proper to each flat Key, you must reckon by Fifths, beginning at E thus, 1, 2, 3, 4 Sharps.

E, B, F♯, C♯, &c. consequently the flat Key of B, which is the second, must have two Sharps; so of the other Keys; it is also the second Note of the Key that denotes the Quantity, it being the last Sharp.

The first flat Key that hath a b Flat before the Cliff, is that of G, so that reckoning by Fourths, G, C, F, B♭, E, you will find the Number of Flats proper to each Key; the flat Third, which bears the last Flat, also denotes the Quantity.

**C H A P.**
Principles of Composition.

CHAP. XXIII.

Of Modulation, or the Manner of removing from one Key into another.

1. ALL Notes that carry the perfect Chord are deemed Key-notes, therefore one may say, that all those Notes, which in our first Examples carry perfect Chords, are like so many different Key-notes; those Examples will also serve for what follows; for we cannot naturally remove from a Key-note into another, otherwise than by a consonant Interval, in such a Manner that, after having begun a Piece in a certain Key, you may remove into another that is a Third, a Fourth, a Fifth, or a Sixth above or below, so that the first Key-note may become a third, a fourth, a fifth, or a sixth Note to that you remove into, and so on from one Key into another.

2. Besides what we have already said, the Key-note in a sharp Key may also sometimes become a Seventh, and even a second Note, but never a Leading-note, or a sharp Seventh; and a Key-note of a flat Key can become but a second Note.

Observe in this Place, that the Seventh, we here speak of, is that which is a whole tone below the Octave, and not that which is but a Semitone below, otherwise called the Leading-note, or sharp Seventh.

3. If when in the Middle of a Piece you would remove into the Fifth, or Governing-note of the Key, the Key of that Governing note, or Fifth, must be naturally sharp, though we may sometimes make it a flat Key, but this with Judgment; and the Key of a Governing-note, or Fifth to a flat Key, must be flat.

These Rules may be trespassed upon when you are capable of judging rightly, but you must always be very cautious in doing it.

4. By whatever Key you begin, it is proper to modulate in that Key, for three or four Bars at least, being at Liberty to exceed that Number, as far as your Genius and Taste will permit.

5. It is better to remove into the Fifth of the Key, than into another; and in that Case the first Key-note will become a Fourth, and this may be done by the Means of the irregular Cadence.

6. As the Ear will be cloyed by often hearing the same Key, it is but into the principal Key that it may be allowed to return; but, in respect to the other Keys, it is not proper to return into them again, presently after you have left it; for Instance,
**Principles of Composition.**

Instance, supposing we had begun by the Key of C, we may, after having removed into another, return into it back again; but it would not be proper to return into another Key, after having quitted it, to retake afterwards that of C, or to retake another; therefore it will be better to remove into a new Key, and thus from one Key into another with Discretion, by returning insensibly, as it were, into those that are the nearest to the principal Key, in order to conclude therein, in such a Manner that it may seem as if one had not quitted it; and for that Reason, when you have removed into several Keys, you must modulate towards the End in this principal Key, for some Time longer than at the Beginning.

7. In sharp Keys it is better to remove into the Sixth, than into the Third; whereas in flat Keys it is better to remove into the Third, than into the Sixth.

8. In order to know if the Key you remove into is to be Sharp or Flat, you must observe that the Key-note that follows that which you quit, its Third and its Fifth, be made up of the same Notes contained in the Octave to that which immediately preceded it, and even also (provided that the Length of a Piece doth not oblige us to the contrary) that the perfect Chord to the Key-notes, that may be used in the Continuance of the Piece, be made up of the Notes contained within the Octave of the first and principal Key, without altering those Notes by any new Sharp or Flat; for Example, If I begin by the Key of C, it is plain that the Notes E, F, G, A, and sometimes D, their Thirds and Fifths, are made up of the same Notes that belong to the Modulation of the Key of C, so that we may remove indifferently from a sharp to a flat Key, and from a flat into a sharp Key, according as the Thirds happen to be conformable to the diatonic Order of the first original Key, or at least to the last you quit. If, after the sharp Key of C, we remove into that of A, this last will be flat, by reason that the Note C makes the flat Third to A; so of the others. In order to follow this Modulation in flat Keys, you must observe the Modulation of their Octaves only in descending, where the Leading-note, or sharp Seventh, quits its Sharp and becomes natural; it is for that Reason one may do the like in sharp Keys, by adding a Flat to the Leading-note, or sharp Seventh; for, when we have said the Key-note might become a Second, it is but where there always should be an Interval of a whole Tone between the Key-note and its Second, having already taken Notice of this Modulation in the second Article.

9. You must contrive to remove as it were insensibly from one Key into another, and in such a Manner that the Ear may hardly
Principles of Composition.

hardly perceive it, which may be done by following the above Method.

10. The last Note of the Key you quit, must always bear a consonant Chord, so that this last Note will be either the Key-note, its Third, or its Governing-note, or Fifth, or sometimes the Sixth, which may carry the Chord of the Sixth; though you must at first only stick to remove from a Key-note to its Fifth, and, that Fifth becoming a Key-note, you may afterwards follow the Method prescribed in the following Example, by modulating for some Bars, in the Key to each of those Notes which we make the Bass to remove,

E X A M P L E.

First, Second, or First, Second.

The Bass may begin upon the first or second Bar, and you ought not to dwell as long upon the second Key, as upon the first; and still less upon the others, by using sometimes but one, two, three, or four Notes of these last Keys, in order to remove into the other, which depends more chiefly upon Taste than on Rules.

C H A P. XXIV.

Some further Rules on the foregoing Chapter.

It is by the Means of the Cadences, that you may learn to change Keys; these Cadences introduce a Sort of a Stop or Rest, during a Piece, after which you may remove into whatever Key you will, by making another Cadence in this last Key; for after a perfect Chord, which is the Conclusion of all Cadences, you are at Liberty to remove to whatever Chord you will.

Sometimes the Key-note may be repeated after a Cadence, by giving to that Note repeated a Chord proper and suitable to the Key you remove into.

By
By giving it the Chord of the Seventh, or of Six and Four, it then becomes a Fifth, or a Governing-note A.

By giving it the Chord of the Tritonus, or the great Sixth, it becomes a fourth Note B.

By giving it the Chord of the Sixth, it becomes a Third C, or a sixth Note ascending to the Leading-note, or sharp Seventh D.

By giving it the Chord of the small Sixth, it becomes a sixth Note descending upon the Governing-note of the Key F; and sometimes you may also cause the Key-note to ascend a Semitone instead of repeating it, by giving the Chord of the false Fifth to the Note so ascended, which then becomes a Leading-note or sharp Seventh H.

When the Key-note bears a sharp Third, it may then become a Governing-note, or Fifth, without any Alteration J; see the following Example.

---

**EXAMPLE.**

---

Of C, of G, of F, of C, of D, of F, of G, of B flat, of F

---

Of For C, of C, of A, of D, of G, of C,

---

Of E, of D, of C, of F, of C.

---

K 2 You
You may give the perfect Chord only to all those Notes figured thus, — ; and over which is a B, by reason that the irregular Cadence, which then takes Place, doth not absolutely require any other Chord; a third Note may become a Sixth, as a sixth Note may become a Third, as may be partly observed in the above Example at the Letter T.

**E X A M P L E.**

The Note at 5, which is the Sixth to C, becomes the Third of the Key of F.

The same Note at T, which is the Third to the Note F, becomes the Sixth to C, without altering the Chord; that Note which may be either a third or a sixth Note, is always between two Notes of the Distance of a Fifth, and which divides it into two Thirds, as from F to C, wherein the Note A is the middle Note:

The Key may be also changed by the Means of 7ths; 7 and 6, 2, 4, —, and 5; so that, having caused one or more Notes of the Bals to pass through this Sort of Chords, you need only to cause an Interval of a Tritonus, or of a false Fifth, to be heard, in order to decide the Key you remove into; observing that this Tritonus, or false Fifth, is to be made up of the sharp Third, and the Seventh to the Governing-note of the Key; see the following Example.
Observe that the Discord by which you remove into another Key, must always be prepared by a consonant Note in the Chord that ends the last Key.

These Examples are sufficient for instructing how to compose a Bals, according to the Chords that are chosen; but we are going to give it another Shape, by allowing the Liberty to compose a Bals at Pleasure, the Progression of which will teach us what Chords they are to carry.
Chap. XXV.

Shows what Chords are to be given to the Notes of a Bass in all Progressions.

Article I.

Of Cadences, and of all that hath a Relation to a Close of a Song or Melody.

1. One must closely stick to all the Cadences, and to all that hath an Affinity to the Close of an Air or Melody; Beginners cannot well help making Use of them at every Instant in their Basses, especially when they intend to change Keys; which is not difficult to observe, because those Conclusions are always made upon the first Part, or Division of the Measure or Bar, so that those Notes, that are found in the first Part of the Bar upon which the Melody seems in some Shape to rest, ought always to carry the perfect Chord, for which Reason they may be deemed Key-notes.

2. If after a Key-note the Bass proceeds by consonant Intervals, you may give the perfect Chord to each of those Notes, until that Note which is followed by a diatonic Interval, excepting that Note which happens to be a Third above or below another that bears the perfect Chord; and in that Case the first Note may bear the Chord of a Sixth, as well, and rather than the perfect Chord; and on the contrary, if you find that the first Note ought to carry the perfect Chord, then that Note which happens afterwards to be a Third above or below, ought to carry the Chord of a Sixth, provided that after the last Note there doth not follow another in a consonant Progression, by reason that Progression naturally requires the perfect Chord, or that of the Seventh, upon each Note (which will be better explained hereafter) and that Note, which on the above Occasion we have said might bear the Chord of a Sixth, is always a Third, or a Sixth Note, though you may give only the perfect Chord to each of those Notes, when you are afraid of being mistaken.

Exam
Principles of Composition.

EXAMPLE.

Being in the Key of C, we see that the next Note which is a Third above C, and below the Governing-note, or Fifth, ought to carry the Chord of the Sixth A.

B, the Note which is a Third above the Governing-note, or a Sixth below, which is the same Thing, might carry the Chord of the Sixth; but we have already shown, that the Chord of the false Fifth is more proper, by reason that that Note is the Leading-note, or sharp Seventh to the Key of C, which we have not quitted, and which keeps on until the Note C.

We find four Notes together that ascend by Thirds from the Key-note, the Third to which bears the Chord of the Sixth, and the Governing-note, or Fifth, carries that of Six and Four C, rather than the perfect Chord; because the Flat against the Note B denotes a new Key, which is easily distinguished in the Progression of the Bases by the Interval of the false Fifth between that same Note B flat and the Note E that follows; therefore the Note E, which is the lowest Sound to the false Fifth, becomes a Leading-note, or sharp Seventh, and consequently the Chord to the Note B flat must be suitable to the Key which that sharp Seventh leads, since this B flat is not comprehended in the Key of C, which is then quitted, and the Governing-note to C suits its Chord to that which succeeds it; so that, without going out of the Key of C, it then carries the Chord of Six and Four, which makes that of the Tritonus to that same Note B flat; for, if that Governing-note had carried the perfect Chord, the Third must then absolutely have been flattened, in order to avoid a false Relation, which false Relation consists in never using, in two different Parts, two Notes together, the Name of which alters but by a Sharp or Flat's being annexed to it; that is to say, that having taken in one Part the Note B, which makes the sharp Third to G, we cannot use, in another Part, that same Note B, with a Sharp or Flat; we shall here-
after treat of it more fully; since then we give the Chord of Six and Four to the Note at the Letter C, it is in order to suit the Harmony of this Chord to that of the Chord that follows it; for we might have given it the perfect Chord with the flat Third; or we might even have given it the Chord of the small Sixth and the false Fifth to the Note that immediately precedes it, by reason that there happens to be an Interval of a false Fifth between $E$ and $E$ flat that follows; so that, whenever a like Interval appears in the Bafs, the Key is then absolutely decided, the Sound grave to this false Fifth being always the Leading-note; and what we here speak of concerning the false Fifth, equally regards the Tritonus, the acute Sound of which is then a Leading-note. Yet if the bafs proceeded by ascending a Fourth, or descending a Fifth, after a like interval of a false Fifth, or a Tritonus, a Leading-note might not possibly happen in the Chord, by reason that each of those Notes in the Bafs might be deemed as passing Fifths, seeking the Governing-note, or Fifth of the Key, as appears at $G, H, J$. But this can take Place but between the second and the sixth Note in flat Keys, which make between themselves these Intervals of a false Fifth, or a Tritonus.

According to our foregoing Rule, the Note at $D$ ought to carry the Chord of the Sixth; but as the Sixth could be but flat, according to the Key of the Note that precedes and follows it, we observe that the Note at $E$ quits its Flat immediately afterwards; and as we must always be guided by what follows rather than by what precedes, it is better to give the perfect Chord to that Note $D$, in order to avoid a false Relation with what follows, and observing, at the same Time, our Rule touching the consonant Progression of the Bafs.

The Note at $E$ carries the Chord of the false Fifth, for the Reasons we have just now given, since there appears an Interval of a false Fifth between it and the preceding Note.

**Article II.**

Of imperfect Cadences.

Besides the natural Progression of the Bafs in perfect Cadences, there are others to be found therein, that have a great Relation to it, which are called imperfect Cadences.

We say that imperfect Cadences have a Relation with the Perfect, not in the Progression of the Bafs, but by a Conformity of Harmony; to distinguish which, we must place together all the Sounds that compose the perfect Cadence, and take the Progression
Progression of each Part for a Bas, the Chords of which appear to be different, but it arises only from their various Disposition.

**EXAMPLE.**

In order to hear all these Parts together, we must leave out the Parts C and A, by reason of their too great Affinity with the upper Part, for the Note that resolves the minor Discord, ought not properly to be doubled on this Occasion; but we may use the Parts A and C, by leaving out the upper Part; having placed them together, the better to shew the several Progressions, whereby it is obvious, that those Parts which make Discords have a fixed Progression, and that the other Parts may ascend or descend; for the Note of the fundamental Bas, which is in the three lowermost Parts, may remain upon the same Degree, or descend a Third in the same Manner as it naturally descends a Fifth, by observing to leave the Seventh out of the Chord, when it descends a Third A; because that would create, as it were, two Octaves together, though that might be tolerated; especially in four Parts.

All these Progressions are to be found in the Example of the Octave, Chap. XI. with the same Chords that they bear in this Example, and for a greater Certainty you may take for a Bas any one of the Parts; provided you avoid placing over the other Parts the two lowest Bas; the rest will have together a good Effect, in whatever Manner it be disposed; and the Chords figured in one Part will be contained in the other Parts.

In most of our Examples one may have observed this Sort of imperfect Cadences; but they do not always happen upon the first Part of the Bar, by reason that they are used but in a diatonic Progression, without making a final Conclusion.
Article III.

How the Key may be distinguished, wherein the Progression of the imperfect Cadences are used.

It is certain that a diatonic Progression leads us into several different Keys; to distinguish the same, there are several Things to be observed.

1. The Leading-note decides it at once, and here follows the Manner of discovering it in the Base.

The Key-note being known, you know at the same Time its Leading-note, or sharp Seventh; and as this Key can proceed but only upon certain Notes contained in its Octave, according to the sharp Key of C, or the flat Key of A; if one of those Notes is altered by a Sharp or a Flat, it is certain that the Key changes.

The first Sharp that appears, shews a Leading-note, and, if there happens two or three together, the last is always to be deemed the Leading-note; therefore, a Sharp placed against F makes it to be a Leading-note, and denotes at the same Time the Key of G; if with this Sharp against F we find another at G, F sharp is no longer the Leading-note, and it will be G, which at the same Time denotes the Key of A; so that reckoning or counting according to the Order and Position of Sharps, F, C, G, D, A, &c. we cannot be mistaken, and, whatever Flats are found intermixed with these Sharps, it doth not alter the Cače. But, if there should not appear any Sharp, then a Flat denotes a new Key, and the Leading-note will be that Note against which another Flat ought to be added, supposing that we were obliged to it; for Instance, if there be a Flat against B, and no Sharp appears, the Note E, which is the Note against which a new Flat might be placed, will be the Leading-note; likewise, if a Flat is placed against E, A will then be the Leading-note, so that reckoning according to the Order and Position of Flats, B, E, A, D, &c. such of these Notes against which no Flat is placed, and that immediately follows one that hath a Flat, will always be the Leading-note. Take Notice of what we have said in the first Article, that the Interval of a faře Fifth, or a Tritonus, shews it in the Progression of the Base, for that Note which could have a Flat against it, makes the Tritonus above, or the faře Fifth below that which ought to have the last Flat.

2. As the Bases do not always reach to the Leading-note, and the Key may nevertheless change, there often happening in the Base an Interval of a faře Fifth, or a Tritonus, arising from the
the second Note of a flat Key and the Sixth, or rather from the Sixth to the Second, provided there be no Sharp, for this always decides it; you must observe if the Key which these Intervals, or some other Marks, denote, bears a Relation with the Key that you quit; and if after the Stop or Pause, which in some Shape is felt in a diatonic Progression, there doth not follow a Note which bears a greater Relation to a particular Key, than to another, especially when after the last Note in a diatonic Progression there follows another in a consonant Progression, which often leads to some final Cadences, for then the Key is decided.

**EXAMPLE.**

| Leading- | Leading- | Leading- | Leading- |
| note to A. | note to G. | note to B flat. | note to D. |
| Key of A. | | | |

| Leading- | Leading- |
| note to F. | note to D. |
| Key of F. | |

| Leading- | Leading- |
| note to C. | note to C. |
| Key of F. |

---

**L. 2** After
After the first Leading-note (which is easily distinguished) we find a diatonic Progression from the Note $A$ interrupted at $B$, where the Rule of Sevenths is to be followed; and this Interruption which leads us to a Cadence upon the Note $C$, obliges us to suit to its Key the Notes in a diatonic Progression from the Governing-note of the Key of $A$, after which Note nothing appears to oblige us to keep within that same Key of $A$; which is the Reason why we have given the Chord of Six and Four to the Governing-note repeated, the better to unite its Harmony with those Chords that follow; besides, the Note $G$, which becomes natural at the Letter $B$, shews it to be no longer a Leading-note, and, not finding any Sharp or Flat until the Cadence of $C$, we clearly see that the Key of $C$ manifests itself from the Note at $A$; because you must always have a greater Regard to the Note that follows, than that which you are in, especially when you may suit the Chords to the following Key, there being no Sharp or Flat, nor any consonant Progression, or Stop or Pause, that might induce you to follow another Road.

As the Sharp to the Note $G$ remains no longer, the Sharp to $C$ which follows, denotes a new Key, and the Stop or Pause which is made at the Letter $C$, after which follows a consonant Interval that requires a Seventh upon that same Note at $C$, obliges us to return into the Key of $A$, since it is at that same Note that the Progression of a Fourth ascending finishes.

The Sharp at $F$ denotes a new Key, since there doth not appear any other after it.

The Flat at the Letter $A$ obliges us to give a flat Third to the Note that precedes it; for a greater Conformity of Harmony; and, the Flats being upon the Notes $B$ and $E$, we therefore judge the Note $A$ to be a Leading-note, after which $E$ quitting its Flat becomes a Leading-note, since the Flat still remains upon $B$, there not appearing any Sharp against it.

The Interval of a false Fifth between the Notes at the Letter $D$ might produce a Leading-note at that Place, since that Note which one would deem as such, ascends a Semitone at $F$ (which is the natural Progression of a Leading-note) but the consonant Intervals that are used from the Note at $L$, where the Key of $F$ ends, obliges us to give to the following Notes perfect Chords, or of Sevenths, according to the different Intervals of the Bass, and engages us, at the same Time, to suit our Chords to the Key, denoted by the Leading-note that follows; we do not say but that, according to the Rules of a Progression by Thirds, one might do thus:
And in that Case the Key of $F$ would be continued until the Note $D$, which is followed by its Leading-note $C$ sharp, that is arbitrary, when good taste directs us; this Taste, which delights in Variety, directs us to quit a Key that hath been heard too long.

The false Fifth, which is taken upon the Leading-note to the Note $D$, is not immediately resolved by the Chord that follows; but one may observe that it makes also the Sixth to the Note at the Letter $G$, without altering the Chord; and that it is resolved immediately afterwards, by descending upon the sharp Sixth to the next Note, where the diatonic Progression obliges us to make the harmony suitable to the Key, which the following Leading-note denotes.

As we have not hitherto taken Notice of the Chord of the extreme sharp Second, which the Note at $G$ carries, it is needless at present to give any Attention to it.

The Note at $H$ becomes a Leading-note, as well by reason of the Progression of a Semitone between it and the Note that follows in the next Bar, as by reason that the Chord of the false Fifth which it carries, is the same as the Seventh, which the Note immediately following ought to carry, since that next Note ascends a Fourth; besides, there do not appear any more Sharps, and the Flat remains upon the Note $B$; consequently the Note at $H$ is the Leading-note; after which the Flats and Sharps disappearing, there is no other Leading-note, but the Note $B$, which denotes the Key of $C$, being obliged to give to the Notes of its Key the Chords that are prescribed to them, and thus until the End, notwithstanding the Progression of a Fourth ascending at $M$ obliges us to give a Chord of a Seventh to the Note $C$, and to give the perfect Chord to the Note $F$, since that Note is still followed by a consonant Interval; so that the perfect Chord which the Note $F$ carries, makes it a Key-note, but the Flat at $B$, that ought to take Place in this Key, being left out, and there not appearing any Sharp or Flat, the Note $B$ becomes a Leading-note, having interrupted the Key of $C$, for an instant only for Variety; because it could be done according to the consonant Progression of the Bass.

To end this Subject we shall say, that all consonant Progressions are to be our Guide, and that diatonic Progressions are to be relative to the consonant Progression that follows, rather than to that which precedes. If the Leading-note cannot be distinguished, there appears a certain Succession of Chords in a diatonic Progression from the last consonant Chord, and which the last Note in a consonant Progression ought to carry, which we ought not to quit, according to the Rule of the Octave in Chap. XI. If the Bass ascends a Semitone, which, in that Case,
Principles of Composition.

might be taken for a Leading-note, we must examine if there do not follow some Sharp, or some Notes that quit their Flat, by reason that the Leading-note is thereby sooner distinguished than by a Progression of a Semitone ascending; which may be done, in sharp Keys, from a Third to the fourth Note, and, in flat Keys, from the Second to the Third, or from the Fifth to the Sixth, this Sixth nevertheless descending immediately afterwards.

If, immediately after a diatonic Progression, there follows a consonant Progression, the Note that ends the diatonic and begins the consonant Progression, ought to bear the perfect Chord, or that of the Sixth; if it ought to carry the perfect Chord, it will be preceded by its Leading-note by ascending a Semitone, or else it will be the Governing-note preceded by a whole Tone; if it be the Third, in a flat Key, it will be preceded by ascending a Semitone, and, in a sharp Key, by ascending a whole Tone: And it, on the contrary, these Notes are preceded in descending, the Key-note will always be preceded a whole Tone, the Governing-note but a Semitone in flat Keys, and a whole Tone in sharp Keys. Now it will be impossible but that, by knowing these different Progressions in the several Keys, you must understand something, since you already know the Relation that a Key ought to bear to that you quit, its Difference, in respect to the major and minor Third, being taken from its Third and its Fifth, which are to be made up of the Notes contained in the Key that you quit. Besides, it is almost impossible but that a Leading-note will appear either before or after, and that the consonant Progression that follows will lead to a certain Conclusion that may guide us; for it is to be observed, that all Conclusions are determined by the Progression of a Fourth or a Fifth, excepting that, after one of these Progressions, there follows a diatonic Progression of two or three Notes, either by ascending or descending, upon the last of which the Air or Melody rests, and makes, as it were, a Pause, or a Stop, in respect to the new consonant Progression that begins again.

\[ E \times A M P L E. \]

\[
\begin{align*}
A: & & 6 & 6 & 5 & 7 & 6 & 6 \\
B: & & 5 & 6 & 5 & 6 & 6 & 6 \\
C: & & 4 & 4 & 6 & 6 & 6 & 5 & 4 & 7 \\
D: & & 6 & 6 & 6 & 5 & 5 & 6 & 6 & 6 \\
E: & & 6 & 6 & 6 & 6 & 6 & 6 & 6 & 6 \\
F: & & 6 & 6 & 6 & 6 & 6 & 6 & 6 & 6 \\
G: & & 6 & 6 & 6 & 6 & 6 & 6 & 6 & 6 \\
H: & & 6 & 6 & 6 & 6 & 6 & 6 & 6 & 6 \\
\end{align*}
\]

Although
Although the Basis descends a Fifth at $A$, we are not to take the Seventh upon the first Note, because the second Note ought not to carry either the perfect Chord or the Seventh, because we are to be guided by the diatonic Progression that follows, where the Melody rests.

The Melody which rests upon the third Note after $B$, obliges us to suit to its Key the Note at $B$; consequently the Note that precedes it, ought to carry but that Chord which is required by this Key, and not by that which is required by a consonant Progression, because the Note at $B$ is not to carry either the perfect Chord or the Seventh.

We give a Chord to the Note at $C$, suitable to the Key of the following Note where the Melody rests; and we give the Chord of a Seventh to this Note at $C$, preferable to that of the small Sixth, by reason that this Seventh is found prepared by the preceding Chord, and it is resolved by the Sixth to the same Note. We speak of it again in the following Chapter.

We observe the Rule prescribed to those Notes that proceed by Thirds at $D$ and $E$, and, for a better Certainty, as to the Choice we are to make of the Chords in this Case, observe, that the Notes in the first Part of the Bar are to carry perfect Chords, rather than those in the second or last Part of the Bar, on which the Chord of the Sixth is then suitable; though one might give the perfect Chord to each of those Notes, as we have done at $G$.

The Conclusion, which is felt by the consonant Interval at the End, obliges us to suit to its Key the Chords of all the preceding Notes in a diatonic Progression from $H$.

**ARTICLE IV.**

*How to distinguish in a diatonic Progression, whether the Melody rests or stops upon the Key-note, or its Governing-note.*

In order to distinguish, in a diatonic Progression, if the Melody rests upon a Key-note or a Governing-note, you need only to remember, that, in order to pass from a Key-note to its Governing-note, the Basis ascends a Fifth or descends a Fourth; and, from a Governing-note to the Key-note, the Basis ascends a Fourth or descends a Fifth.

Now, if a diatonic Progression exceeds that Compass, the Leading-note will then appear in the Basis, or not; if it appears, it will shew, at the same Time, the Key-note; if not, you may then be sure that the Melody rests upon the Governing-note.
The Base, which ascends a whole Tone at A, shews you the Governing-note, and the Key-note at B, where the Base ascends but a Semitone.

Again, by whatever Note of the Key a diatonic Progression begins, the consonant Interval between that Note and that which precedes it, the Pause or Rest that immediately follows, the whole Tones and Semitones that happen in a diatonic Progression, and the Interruption of this last Progression by a consonant Progression, will certainly shew you the Place: It is true, that the consonant Interval which precedes a diatonic, doth not so clearly determine it, as that which follows a diatonic Progression, as the Example in the preceding Article proves; but the whole Tones and Semitones that make up each Interval, in a diatonic Progression, are sufficient of themselves to put you in the Way of it: It is therefore proper to observe the Place which the Semitones occupy in each Mode or Key, as well ascending as descending, and to remember that the diatonic Progression is seldom interrupted but after a Key-note, a Third, or a Governing-note; and if it should be otherwise, as it sometimes happens, certainly the consonant Progression that follows, as well as the above Rules on this Subject, will be sufficient, so as not to be mistaken. We already know what the Progression of a Third, a Fourth, and a Fifth requires, as well ascending as descending, and how the same Chord may sometimes be represented by two Notes of the Distance of a Third, according to the Progression that follows: In short, if you will but give due Attention to all that hath been said on this Subject, and stick to Modulation, which is always to be our first Object, and observe the Relation of the Chords with the Progression of the Base; and, if you compare the Whole with a fundamental Base, and take Notice of the Leading-note, which is a very great Help in this Case; it will be almost impossible to be mistaken; since, when once you have discovered the Chord, which a certain Note ought to bear, you have only to follow the Rule of the Octave from that Note, until that where the diatonic Progression is interrupted. See Chap. XI.

As to the Variety of Harmony which may be therein otherwise introduced, it will be learnt by what follows.
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C H A P. XXVI.

Of the Manner of practicing the Seventh, upon every Note of a Key, in a diatonic Progression.

The Key-note is the only one that ought always to appear with the perfect Chord, whereas that of the Seventh may be given to all the other Notes, with this Difference, that, in a Progression of a Fourth ascending to a perfect Chord, or of a Seventh, all the Notes may be deemed Governing-notes, and may, in that Case, carry the Chord of the Seventh; but, in a diatonic Progression, that Note which carries the Chord of a Seventh, must be divided into two Parts, or must be repeated twice (which is very near the same Thing) in order that, upon the second Part, it may carry that Chord of the Sixth which is suitable to it, according to the next following Note: And, in that Case, the Seventh must always be prepared, having the First, which cannot be prepared according to the Progression of the Bass.

EXAMP L E.

A, B. I could have suited the Chords of these Notes, in a diatonic Progression, to the Key which shews itself by the Conclusion that follows; but I may also continue in the Key that precedes it, and upon the second Part of the Key-note B I take the Chord suitable to the Key that follows.

The Note at C ought naturally to bear the Chord of the great Sixth, which may be heard after that of the Seventh; but, instead of resolving that Seventh upon the Sixth to the same Note, we resolve it by the Fourth to the following Note, because the Chord of the small Sixth, which this last Note bears, and that of the great Sixth, which the Note at C ought to bear, are, in the Main, but one and the same Chord: From hence proceeds
proceeds this Rule, that, when a Discord is used, we must not quit it without resolving it; and, as the Note in the Bafs, by which this Discord ought to be naturally resolved, doth not always appear, you must see if the following Note in the Bafs cannot bear a Chord made up of the same Sounds that would compose the Chord by which the Discord ought to have been resolved; which we are going to explain.

CHAP. XXVII.

How one and the same Discord may be used in several Chords successively following upon different Notes, and how it may be resolved by Notes that seem to be foreign to that Purpose.

It must be observed, that the Chord of the Seventh is composed of four different Notes, and that these Notes may be used one after the other in the Bafs, and that each of those Notes will bear different Chords in Appearance, although they are but one and the same Chord (see Chap. XII.) so that having used a certain Discord in a Chord, which cannot be resolved by the following Chord, you must see whether that same Discord cannot be used in the Chord to the following Note, and so on, until you find that it can be resolved.

EXAMPLE.

The Difference in the Examples A and B consists in the major Discord, which appears in the First, and only the minor in the other.

In the Chord of the small Sixth A, which is natural to the second Note of the Key, there happens to be a Discord between the Third and the Fourth, which ought to be resolved by making the Third to descend, which cannot be done upon the next Note; but the same Chord makes that of the Tritonus to this last Note, where the Discord cannot as yet be resolved, and thus
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thus until the Note C, where the Discord is resolved by descending upon the Third to C, and where it may be observed, that the Note G, which bears the Chord of the Seventh, serves as a fundamental Note to these four different Chords; so that, when you meet with a Discord, you must always reduce it to its fundamental Chord, and seek afterwards in the Baf that Note by which this Discord may be resolved; for, whilst there appear in the Baf but the same Notes contained in the Chord wherein that Discord is used, it is certain that it cannot be thereby resolved, and one of the Notes of the Chord, whereby the Discord may be resolved by descending if it be a minor Discord, or by ascending if it be a major Discord, must absolutely appear in the Baf, which is easily distinguished after having reduced a Chord dissonant to its fundamental Note; which may be easily done, by saying, If the fundamental Note to this fundamental Chord governs such a Note, which is a Fourth above it; consequently I must find that Note in the Baf, or at least one of the Notes that compose its perfect Chord, or that of the Seventh, supposing that the Melody doth not rest there; if you meet but with the Fifth, then that Fifth, or Governing-note, being the fundamental Note to the dissonant Chord that appeared, must be divided into two Parts, if it be not repeated, in order that upon the second Part it may bear the Chord derived from the Note that it governs. There is some small Exception to be made to this last Rule, which will be explained elsewhere.

From what hath been said, it follows that if a Seventh is taken upon a Note that ought naturally to bear another Chord, in respect to that which follows, or according to the Rule of the Octave, and that this Note hath not a sufficient Length, or Value, to cause the Chord which is suitable to it to be heard; in that Case the next must bear the same Chord, according to the fundamental Note, that is to say, that the Notes, contained in the Chord to that same next Note, be those of which the natural Chord to the first Note ought to have been composed; see the following Example.

M 2 E X A M-
The Chord of the small Sixth, which the second Note of the Key at $A$ and $D$ ought to bear, is found in that of the Tritonus, on the next Note after $A$, and in that of the Seventh, on the next Note after $D$.

The Chord of the small Sixth, which the sixth Note at $B$ ought naturally to bear in descending, is found in that of the great Sixth to the following Note.

The Seventh which is heard upon the Governing-note, is resolved by the Sixth to that same Governing-note repeated at $C$; from hence arises that a Discord may be resolved by divers Consonants, by reason that it is always regularly resolved, provided it be by descending upon a Consonant to the same Note that carried a Discord, or to the next Note, if that Discord be a Minor; for, if it be a major Discord, it will be resolved by ascending upon a Concord, or a consonant Note.

There is another observation to be made, which is, that if, according to the natural Sequence of Chords, you find yourself in a Manner obliged to give to a Note a Chord derived from the Chord to the next following Note, you ought in that Case to observe whether that first Note could not carry the Chord that governs the next Note; if so, it would be much better to give it this governing Chord, than that which in the Main would be but the same Chord to the next following Note, especially when the Discord that is to be heard in this first Governing-note, may be prepared by a consonant Note in the preceding Chord.

A Sequence, or Succession of Harmony, is nothing else but a Link or Chain of Keys and Governing-notes, the Derivatives of which you ought to know perfectly, in order to contrive it so, that one Chord may always govern the next; for a perfect Chord and its Derivatives do not govern any Thing, for after a perfect Chord you may remove to any other Chord, provided you keep to the Rules of Modulation; but a diatonic Chord always
always governs the next Chord, according to our Examples of 6
7, 7 and 6, 2, 4$, —, and 5$; and it is upon those Occasions 5
that we should be very careful to know and distinguish Deriva-
tives, in order to give them a proper Sequence, though the se-
veral Rules we have given for each Chord, and for each Pro-
gression of the Bafs, are sufficient to overcome these Difficulties.

Example of the Preference that ought to be given to a Chord,
in respect to that which follows.

\[
\begin{array}{c|c|c|c|c}
& 7 & 7 & 6 & 7 \vphantom{7} \\
A & 0 & 0 & 0 & 0 \\
\end{array}
\]

The second Note A ought naturally to bear the Chord of the small Sixth, derived from that of the Seventh to the Governing-
ote of the Key, which appears immediately afterwards; but,
for a greater Variety, we shall observe that this second Note governs that same Governing-note, and therefore we give it the proper Chord in that Case; and, though that Governing-note doth not immediately appear after B, yet it is plain that the Note which is between them, can carry but a Chord, derived from that of the Seventh to the Note at B; and consequently the Note at B is to bear the Chord of the Seventh, especially as the Seventh is therein prepared by a consonant Note in the preceding Chord.

Observe that all our Rules have hitherto only regarded Har-
mony, and that the Melody of each Part is therein limited, sav
ing that of the Bafs, upon which this Harmony is grounded; therefore it will be proper to wait until you have attained to a thorough and perfect Knowledge of Harmony, before you pro-
ceed to Melody, upon which we shall treat, after having ex-
plained those Licences that serve as an Ornament to Harmony
by the Variety they introduce.
**Principles of Composition.**

C. H. A. P. XXVIII.

Of Licences, and, first, of the false or flying Cadence.

A false or flying Cadence is a certain Progression of the Bais, which interrupts the Conclusion of a perfect Cadence; for if after the Chord of a Seventh upon the Governing-note of the Key, instead of falling naturally upon the Key-note, you cause the Bais to ascend a whole Tone, or a Semitone, in that Case the perfect Cadence is interrupted, and the Seventh is thereby resolved by the Fifth to that Note so ascended, which in sharp Keys ascends a whole Tone, and in flat Keys, only a Semitone.

**EXAMPLE.**

![Diagram of false cadence in sharp and flat keys]

In the perfect Chord that ends this Cadence, the Octave to the Third is heard preferably to that of the Bais, which is contrary to the natural Order; but that proceeds rather from the false Progression of the Bais, than that of the Parts, wherein it is observable, that the minor Discord is always resolved by descending, and the major by ascending; and that this Third doubled represents the fundamental Sound that ought to have been naturally heard; although, in sharp Keys, we might descend upon the Octave to the Bais, instead of ascending upon the Third, as we have marked it by the Guide \( \text{W} \); but, in flat Keys, the Example must absolutely be followed.

We shall now invert the Chords that compose this false Cadence, in order to discover the Advantages that may be taken from it.

**EXAMPLE.**
EXAMPLE.

Each of these Bases being placed under the other, you will hear all the different Chords that are figured; from whence may be deduced an agreeable Connexion of Harmony and Melody, in a diatonic Progression, of the Bases ascending and descending. See the following Example.
When this Part serves for Bafs, the Part D is to be left out, and the Part F is to be altered in the two last Notes; the same Thing is to be done in this, when the Part F serves for the Bafs.

When this Part serves for Bafs, it must proceed in a diatonic Progression until the End, and rather by ascending than descending.

When this Part serves for a Bafs, the Part D is to be left out, by reason that the irregular Cadence, which the Part D makes against the Notes B C of the fundamental Bafs, cannot be inverted by a Chord of a Seventh, or of a Second, upon that firft of those two Notes.

In this Part the perfect Cadence is avoided from A to B, by the Sixth's being added to the perfect Chord at B; which prepares an irregular Cadence, avoided by adding the Seventh, in order to conclude by the perfect Chord.

If the Fifth is left out of the Chord to the Note at B, you will then hear a false Cadence from A to B, as well as at H f, in the Part G.

The Progression of the upper Parts is limited by that of the continued Bafs; but if you would use them as Basses, by Turns, you may then give them whatever Progression you think proper, that is to say, the consonant Progression may be changed into a diatonic
Principles of Composition.

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Diatonic Progression, without altering the fundamental Harmony, and you will then suit to it the Progression of the Parts above it.

The Sixth may be taken upon the Second of two Notes that ascend a whole Tone, or a Semitone, in a false Cadence; but then the Chord of the Seventh must not be used upon the First of those two Notes, by reason that Seventh could not be resolved.

It appears by the Example, that the Conclusion of each Cadence may be interrupted by adding a Discord to the Note that ends these Cadences, provided that Discord be prepared and resolved according to the Progression of the fundamental Bass, to which you must always have Recourse, to prevent a Mistake; for it is plain, that this Discord cannot be prepared at B, though it be good, because the fundamental Bass descends a Fourth, or ascends a Fifth, which is the same Thing.

The irregular Cadence may be reckoned amongst the Licences, as well as the Discords that cannot be prepared; as when the fundamental Bass ascends a Third, a Fifth, or a Seventh, with all that proceeds by inverting these different Progressions; though what we call Licence, in this Case, is inseparable from good Harmony; which is the Reason why we have chosen this Place to speak of it, for the better instructing Beginners.

Besides the Licences that the false Cadence can produce, by inverting it, there is a certain Succession of Sixths, which is attributed to Taste, and which Zarlino, Terza parte, Cap. 61, Fol. 291 and 292, strictly forbids, saying that the several Fourths together, which are therein heard, make pretty near the same Effect as several Fifths, if the Chords be inverted according to the Example which he gives. Nevertheless it is plain, that, according to our Rules, this Succession of Sixths proceeds from the false Cadence, and from the Liberty we have of not preparing a Discord in fundamental Progressions of the Bass ascending a Third, a Fifth, or a Seventh.
Principles of Composition.

EXAMPLE.

Fundamental Bases.

Each Bar represents a false Cadence, excepting the Penultima, which represents a perfect Cadence, avoided by adding a Sixth at A; this Sixth preparing an irregular Cadence, which is likewise avoided by adding the Seventh at B, where the perfect Cadence is prepared and concluded upon the last Note.

If the two upper Parts were inverted, you will then hear as many Fifths as there are Fourths; but the Insipidity of several Fifths is so much diminished, by inverting them, that we are not to attribute to the Fourths what concerns only the Fifth and the Octave.

The Seventh is sometimes by Licence joined with the Sixth, which creates a very harsh Chord; and the only Reason why it can be tolerated is, that it is used as a passing Chord, and the harsh Sounds therein are heard in the preceding and following Chords, and the Note of the Bases, in this Case, can be admitted but by Supposition.

Another
Principles of Composition.

Another EXAMPLE.

CHAP. XXIX.

Of the Chord of the extreme sharp Fifth.

We must also treat of certain Chords that are introduced by Licence; and, first, of the extreme sharp Fifth, we say that it can never be used but upon the Third in flat Keys.

This Chord, properly speaking, is no other than the Seventh to the Governing-note of a Key, under which is added a fifth Sound, at the Distance of a Third.

EXAMPLE.

It is not in the Sound added, that you must seek the fundamental Note of this Chord.

This Chord hath for its fundamental Note the Governing-note of the Key, and will always follow its usual Progression; the major Discord will ascend, and the minor will descend, and the Whole will be resolved by the perfect Chord to the Key-note; whilst the Sound added will afterwards make a Part in that perfect Chord, or will descend upon that same Key-note.

EXAMPLE.
This Chord must be prepared by that of the Seventh to the Note that governs the Governing-note of the Key, wherein it appears, that the second Note, which, in this Case, governs the Governing-note of the Key, ascends but a Semitone, instead of ascending a Fourth, whilst, in the other Parts, you will hear only the Chord of the Seventh to the Governing-note of the Key, which is afterwards resolved according to our Rules.

This Chord is sometimes used, in order to avoid a Cadence, by causing the Governing-note of the Key to ascend a Semitone upon this Sound added, which, from a sixth Note, becomes a Third, by reason of the Alteration of the Key, and by the Means of a new Leading-note, which the extreme sharp Fifth creates.

When you compose in four Parts, you are at Liberty to place in the upper Part the Notes marked by the Guides in the Room of the others.

This Chord is also prepared by that from which it is derived.

There are some who sometimes prepare it by the Fifth to the same Note, or by the flat Sixth to the Note which is a Semitone below it, or by the Chords derived from that of the Seventh to the Note, which is but a Semitone below; but that is taking to much Licence.
Of the Chord of the Ninth.

This Chord differs from the preceding Chord, only in the Fifth, which was sharp in the other, and which in this Chord ought to be perfect; or rather in the Third to the fundamental Sound, which in this Chord is flat, and in the other sharp; so that, if we take a Chord of a Seventh to a Governing-note with a flat Third, we shall make that of a Ninth by adding a Note, a Third below that Governing-note.

**Example.**

It is necessary to take Notice, that all Chords by Supposition, such as the extreme sharp Fifth, that of the Eleventh, and that of the extreme sharp Seventh (we shall speak of these two last Chords in the following Chapter) derive from the Chord of a Seventh to a Governing-note, because, by this Manner, you immediately know how these Chords are to be prepared and resolved; so that, by the Means of a fundamental Bass, you will see how the Whole answers to our Rules of Sevenths. See the following Example.

**Example.**
All those Notes in the continued Bass that carry Ninths, or sharp Fifths, are to be left out when the fundamental Bass is made use of, otherwise the Notes in the fundamental Bass ought to be above those that are figured by a 9, or a 5%; because the Sound in the fundamental Bass, which in that Case is supposed, cannot be heard but above that which supposes it.

Those Notes that carry Ninths and sharp Fifths, may either descend a Third, as it is marked in the Guides, or remain upon the same Degree; for which Reason the Ninth may be resolved two Ways, viz. by the Octave, when the Bass remains upon the same Degree, and by the Third, when it descends a Third; in which Case it may be observed, that the Seventh is then resolved by the Octave, as we shall shew hereafter.

There are some that hold that the Ninth may be resolved by the Fifth, by causing the Bass to ascend a Fourth; but the Harmony that proceeds from it seems improper: Therefore we shall leave it to the Discretion of Composers of a good Taste.

**Example of the Ninth resolved by the Fifth.**

It might rather be resolved by the Sixth, by causing the Bass to ascend a Third; by reason that, in this Case, the fundamental Harmony would not be altered. See the Guides in the other Example.

All minor Discords by Supposition absolutely require to be prepared, so that as soon as you see that the Ninth can be prepared,
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prepared by a consonant Note in the preceding Chord (provided in this Case the Bass ascends a Second or a Fourth) you may practice it by resolving it afterwards according to the Method prescribed by the Example, and without going wide of true Modulation.

The Seventh, which may always accompany the Ninth, ought not to be added to it, unless it be prepared by a Concord or consonant Note in the preceding Chord.

Observe also in this Place that minor Discords by Supposition may be prepared by another common Discord, such as the Seventh, or by the false Fifth; and that proceeds by reason that these last Discords are contained in the same fundamental Chord, having already observed at Chapter XII. that one and the same Note may create several Discords following, when they proceed from the same fundamental Chord.

E X A M P L E.

<table>
<thead>
<tr>
<th>E</th>
<th>X</th>
<th>A</th>
<th>M</th>
<th>P</th>
<th>L</th>
<th>E</th>
</tr>
</thead>
</table>

The Notes A of the continued Bass carry Chords derived from the fundamental Bass; the like of the Notes B; if then we may hear Discords by Supposition after another Discord, and if it be true, that a Discord is to be preceded and followed by a Concord, we must conclude, in order that this Rule may hold good, that several Discords that are heard following upon the same Degree, are not such in Effect, but that they all proceed from the first Discord which is the Seventh, the fundamental Chord of which doth not change until the Expiration of these several Discords in Appearance upon a Concord, as it is observable in the Example, and as it really is; see Chap. XV. how the eleventh Heteroclite may also be prepared by the false Fifth.

C H A P.
The Chord of the Eleventh is composed of five Sounds, thus
\[ D, A, C, E, G, \]

where it is seen, that the Sound added is a Fifth below that which serves as a fundamental Note to the Chord of the Seventh.

This Chord is seldom used, by reason of its extreme Harshness, there being three minor Discords in its Construction, as appears by the Numbers

\[ \{ A, C, E, G, \} \quad \{ 5, 7, 9, 11 \} \quad \{ 7, 9, 11 \} \]

Yet the Practice of it is easy, by reason that three Consonants, or consonant Notes, in the preceding Chord, prepare those three Discords, by keeping on the same Degree; but they must not be resolved all three at once, by reason that, as they are minor Discords, and must descend, one could not avoid two Fifths to follow in the Parts; so that you must first resolve the most harsh, which are the Eleventh and Ninth, and afterwards the Seventh.

**Example.**

This Example shews that the Progression of the continued Bass is the same as that on which a Ninth is taken, in respect to the Preparation of that Ninth and Eleventh; but, to resolve the Eleventh, you will always do well to let the Bass remain upon the same Degree, in order that the Seventh may afterwards be heard; though one might make it ascend a Third, as it is marked by
by the Guides in the Bass, in which Case, the Chord of the
great Sixth, derived from that of the Seventh to the Note that
remains upon the same Degree, would be heard.

The Guides in the upper Part shew the fifth Sound with which
this Chord is not always filled up, especially when you compose
but in four Parts, being at Liberty to place this fifth Sound in
Lieu of any one of the others, provided it be not a Discord; or
if it be, it should be at least prepared.

We here speak of the true Chord of the Eleventh in its full
Construction, but its extreme harshness obliges us to leave out
the major part of the Sounds that compose it, according to what
we have said at Chap. XV. and for that Reason we may call it
heteroclite; by which means it is rendered more soft and agree-
able, and for this Reason it is but sparingly used in all its Fulness,
though it furniseth us with agreeable suspensions of Harmony
and Melody, when used properly; see the following Example.

\[ Examp[e. \\
\begin{align*}
\text{A. B.} & \quad \text{A. B.} \\
\end{align*}\]

\[\text{Continued Bass.}\]

\[\text{Fundamental Bass.}\]

To follow the Custom, we figure this Chord only with a 4,
when it is heteroclite; and, when it is filled up with all its
Sounds,
Sounds, we add to it a 9, thus 4\(\frac{9}{7}\) or \(\frac{9}{4}\); this Chord, when it is heteroclitic, is sometimes accompanied with the Seventh, and then it is figured thus \(\frac{7}{4}\), or \(\frac{4}{7}\).

It is certain that the Chords by Supposition serve only to suspend the Sounds that ought naturally to be heard; which may be observed between \(A\) and \(B\), where the Sounds \(A\) keep in Suspence those of \(B\), which naturally ought to have been heard: You will find it every-where the same, when those Chords are used, by comparing them with the continued Bass, and not with the fundamental Bass, which always represents to us a perfect Harmony.

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**CHAP. XXXII.**

**Of the Chord of the extreme sharp Seventh.**

The Chord of the extreme sharp Seventh differs from that of the Eleventh only in the Third to the fundamental Sound, which in this Chord is major, and in the other is minor.

**EXAMPLE.**

\[
\begin{align*}
\text{Chord of the extreme sharp Seventh:} & \quad \text{Chord of the Eleventh:} \\
\left\{ \begin{array}{c}
\begin{array}{c}
\text{Chord of the extreme sharp Seventh:}
\end{array} \\
\begin{array}{c}
\text{Chord of the Eleventh:}
\end{array}
\end{array} \right.
\end{align*}
\]

This Chord is never used but upon the Key-note, and is to be preceded and followed by the perfect Chord to that same Note.
The Sounds A keep in Suspence thole of B, and these Strokes (7) shew the natural Progression of the Sounds A.

The Sound that makes the sharp Seventh is often left out of this Chord, when the Bafs descends a whole Tone, or a Semitone.

This Chord is figured with a 2, by reason that it is prepared as the Second; but, as the Fifth and Fourth meet therein, this Fourth cannot be otherwise taken but for a Discord by Supposition, and, in Effect, we see that this Chord represents the Eleventh, or the sharp Seventh, out of which the Sound, that immediately appears afterwards in the Bafs at D, is left out, because that Sound doth not do well to be doubled.
We say that the Chord of the extreme sharp Second and its Derivatives are borrowed Chords, by reason, that the Governing Note lends her Fundamental to the sixth Note of flat Keys, from whence this Chord of the extreme sharp Second and its Derivatives proceed, as thus,

Instead of \[ \text{Chord of the Seventh.} \]

We find \[ \text{Chord of the extreme sharp Second.} \]

It is evident that the Chord of the extreme sharp Second proceeds, in a borrowed manner, from that of the Seventh to a Governing-note of a Key, since the Place which the sixth Note occupies, in this Case, is that where the Governing-note of the Key ought to be placed, the Sounds affected to the Chord of a Seventh to that Governing-note being no ways altered, and their Progression, as well in respect to the major and minor Discords, being answerable to those which are naturally fixed to them. Besides, if the Choice of one of these two Notes is arbitrary in the Midst of a Piece, when you would cause to be heard with either of them the Sounds affected to the Chord of a Seventh to a Governing-note of a Key, you are no longer master of the Continuation of Harmony, which must entirely be answerable to this Chord of the Seventh; therefore, the perfect Chord to the Key-note, is equally to follow one or the other Chord. See the following Example.

\[ E X A M - \]
There happen in these borrowed Chords two major Discords and two minor, of which those that are foreign, proceed from the Alteration of the fifth Note of the Key to the sixth Note, where it appears that the minor Discords always descend, and the foreign major Discord doth not always ascend, as it ought to do, if it was a Leading-note; see the Guide H, where you can make that Discord major to ascend, as it ought to do, when the minor Discord $C$ or $A$ happen to be in the Bals.

Observe, that the difference between these two Examples consists only in the Sixth instead of the Fifth $A$, and that the Succession of the Discords in one and the other Examples is the same, without altering the Modulation.

From this Chord of the extreme sharp Second, proceeding from the Alteration of the Fifth into the Sixth, arises the like Difference.

**Principles of Composition.**

**EXAMPLE.**

<table>
<thead>
<tr>
<th>Minor Discord</th>
<th>3rd.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.</td>
<td>4* 6</td>
</tr>
<tr>
<td>B.</td>
<td>5</td>
</tr>
<tr>
<td>D.</td>
<td>6* 2</td>
</tr>
<tr>
<td>A.</td>
<td>7 6</td>
</tr>
<tr>
<td>F.</td>
<td>5* 6</td>
</tr>
<tr>
<td>G.</td>
<td>7* 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minor Discord</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.</td>
<td>4*</td>
</tr>
<tr>
<td>B.</td>
<td>7b</td>
</tr>
<tr>
<td>D.</td>
<td>6*</td>
</tr>
<tr>
<td>A.</td>
<td>6</td>
</tr>
<tr>
<td>F.</td>
<td>5*</td>
</tr>
<tr>
<td>G.</td>
<td>7*</td>
</tr>
</tbody>
</table>

**Key-notes**

**Sixth Note**

**Key-notes**
Difference in all the Chords derived from that of the Seventh to a Governing-note of a Key.

If the Leading-note is to carry the Chord of the false Fifth, that of the extreme flat Seventh, which happens therein, proceeds from that Alteration, by placing a 7 against it instead of the Sixth B.

Likewise the flat Third is added to the Chord of the Tritonus, to a Fourth Note instead of the Second C.

The false Fifth is added to the Chord of the great Sixth, to a second Note instead of the Fourth D.

The Fourth is added to the Chord of the extreme sharp Fifth, to a third Note in Lieu of the Third F.

The flat Sixth is added to the Chord of the extreme sharp Seventh, to a Key-note instead of the Fifth G.

In order to have a better and clearer Idea of this Difference, you must take the four uppermost Basses, so that they may serve as Basses to each other by Turns, whilst the other Parts serve as Trebles. As to the two lowermost Basses, it is known that the Chords by Supposition, which they carry, hinder them from serving as Trebles, each being to be heard separately with the four upper Parts, for they would not have a good Effect together.

You may make the new minor Discord to descend, in which Case the Chord of the Seventh to the Governing-note of the Key subsists afterwards in all its natural Construction.

### EXAMPLE.

The Leading-note may ascend in those Chords only that can be inverted, and not in the two last which are by Supposition; but, having made it to ascend, it must afterwards take its Place in the Chord of the Seventh, to the Fifth of the Key.
All these borrowed Chords, and that of the extreme sharp Fifth, cannot be used but in flat Keys, each of these Chords having a particular Note affected in the Bass, which never alters, and which we shall more fully explain in Chap. XXXV.

C H A P. XXXIV.

Of Chromatic.

Chromatic consists in a Succession, or Continuation of Melody, that proceeds by Semitones, as well in ascending as descending; which produces a surprising Effect in Harmony, by reason the greatest Part of these Semitones, that are not in a diatonic Order, cause at every Instant some Discords that suspend or interrupt a Conclusion, and give a Facility of filling up the Chords with all their Sounds, without altering the diatonic Order of the upper Parts.

Chromatic is chiefly used in flat Keys, and is more difficult to comprehend, when the Parts descend, than when they ascend.
ARTICLE I.

Of Chromatic descending.

When you have begun in a chromatic Manner in a certain Key, by making any one of the Parts to descend by Semitones, you may continue it throughout the Key upon its Governing-note, and more particularly upon its Fourth, the Key-note becoming in this last Case a Governing-note; and thus, by a Sort of a Chain, each Key-note may become a Governing-note to the Key you remove into; nevertheless, you must not go too wide of the first Key, for, as soon as you find Room to return into it, it will be proper to do it.

By Means of the Leading-notes, which become successively Governing-notes, you may acquire the Knowledge of Chromatic.

After we have passed from the Key-note to its Fifth, we return back again to the Key-note by making it a Governing-note; and thus by following the Rule of Sevenths (see Chap. XXI.) and making the upper Parts to proceed by as many Semitones as possible (each of these Semitones making against the fundamental Bass, the Third, or the Seventh, or sometimes the false Fifth to the Note, which nevertheless bears a Chord of the Seventh) you will find that the Difference between the Chromatic and our common Rules consists but in the Leading-note, which in this Case may descend a Semitone, whereas it ought always to ascend; but the Note or Sound, to which it ought to ascend, is always understood in the Chord, and it is but in respect of the Chromatic only, that we may take this Liberty.

EXAM-
EXAMPLE.

If all these Parts, excepting the fundamental Bass, are used as Basses by Turns, you will find a Succession of Sevenths and Sixes, like those derived from a fundamental Progression of Sevenths, with the Difference of the Chromatic which is therein used; you will also see how the Tritonus and false Fifth take the Place of 2, 6, and $\ldots$, and how these Intervals serve for the Resolution of each other, by Means of the Chromatic; the Leading-note descending every-where instead of ascending, saving at the End.

Here follows another Manner of practising the Chromatic upon a Key, or Holding-note.
Principles of Composition.

EXAMPLE.

The Leading-note being frequently used in Chromatic, consequently you may use all the Chords wherein the Discord major is heard, as those in the above Example; as also that of the extreme sharp Second, its Derivatives, and especially that of the extreme sharp Fifth, when you are minded to avoid a Cadence; see Chap. XXIX. where the Leading-note descends a Semitone.

As you ought at present to know the Composition of all the extreme sharp and flat Chords, the borrowed Chords, and those by Supposition, you may make Use of them, wherever you feel the Leading-note may take Place; nevertheless, using now and then the perfect Chord, and that of the Seventh and their Derivatives, and keeping as much as may be a diatonic Order in the upper Parts.

ARTICLE II.

Of Chromatic ascending.

The Chromatic may also be practised by ascending, but then it has not the Sorrowfulness of the first, and the Harmony it produces, unites itself perfectly well with the Fundamental.
B, this Note, though it be fundamental, cannot take Place, whilst the Note at C borrows from its fundamental Chord A, a fallie Cadence.
Principles of Composition.

**EXAMP**

**LE.**

*Of two Parts, ascending and descending at the same Time by Semitones.*

The three upper Parts may be inverted, and serve as Basses reciprocally one to the other.

Observe that all these Semitones that are used in Chromatic, consist but in the sixth and seventh Note of the Key, by reason that in flat Keys, the Leading-note being to be flattened a Semitone; in order to descend; and the sixth Note to be sharpened a Semitone, in order to ascend; we may make those Notes pass upon one and the other Interval, as well in ascending as descending.

We shall add that Chromatic may be practised in sharp Keys, upon the sharp Third to a Governing-note, which afterwards becomes a Seventh to another Governing-note, by descending a Semitone; or else by making the fourth Note to ascend a Semitone upon a Leading-note to a fresh Key.

**CHAP.**
OF the Manner of praCtising all that hath been hitherto said.

ARTICLE I.

OF the Progression of the Bafs.

YOU must begin by composing a Bafs in a familiar Key, from which you may remove to others equally familiar, according to what we have said at Chap. XXIV. This Bafs is to be filled up with perfect Cadences, as often as may be; for it is the natural Progression of the Bafs to proceed rather by consonant than diatonic Intervals; the false Cadence and the irregular ought not to be used until you know how to use them properly, either to avoid too frequent perfect Cadences (which is a Variety very proper in this Cafe) or to rest the Melody or Air upon a Governing-note, or even upon a Key-note, by Means of the irregular Cadence, which is another Variety that keeps the Ear in an agreeable Suspence.

You must also endeavour to introduce in your Bafs those Progressions that create a Continuation of Harmony, derived from that of the different Cadences, according to the Examples we have given, not forgetting the Progressions of 7, 7 and 6, 2 and 6, 5⅔ and 4⅔, 2⅔, 9, 11, 5⅔, and 7⅔.

As some Composers (being doubtful of their Capacity) will be afraid that their Basses are not well compos'd, we shall observe, that (if they have not that natural Taste for immediately inventing divers Airs, or Melody, that are always agreeable) they will never err by making the Bafs to proceed indifferently upon all the Notes of a Key, by preferring the smallest Intervals to the greatest, that is to say, by ascending a Third, rather than to descend a Sixth, &c. and remembering that the Leading-note must always be followed by the Key-note, excepting in Chromatic; that you must make a final Cadence, before you remove into another Key, and proceed in this new Key, pretty near in the same Manner, as in the other, and thus from Key to Key, according to the Instructions in Chap. XIII. XIV. XV. XVI. XXIV. and XXV.

Again, as the Note that ends the perfect, false, or irregular Cadence, is to be heard upon the first Note, or Part of the Measure or Bar, you must compose a Bafs in such a Manner, as this Regularity may be therein observed; and in case at the first Cadence it should happen otherwise, and that you would not alter the Air of the Bafs, you need only to begin it upon another Part of the Bar, that is to say, that, if it was begun by the first Part,
Part, you may begin it by the Second or Third; or, if it was begun by the Second, you need only to begin it by the First, &c. and, if this should happen in the middle of a Piece, you must then either add or leave out one or two Notes, according as the Case is, and observing that the Cadences be heard every two or four Bars; though you may trespass upon this Rule when good Taste directs you, or when you are obliged to it by the Words that you set to Music, which then are to be our Guide.

ARTICLE II.

How consonant and dissonant Chords, Concods, and Discords are to be used.

The perfect Chord is to be used at the Beginning and at the Conclusion, and for all middle Cloeses or Cadences; it may also be used in a diatonic Progression of the Bafs, as well as its Derivatives, which are the Chords of the Sixth, and Six and Four, observing in the like Progressions, that the consonant and dissonant Chords are as it were interwove one into the other; see the Example of the Octave, Chap. XI. and that of the Sixths, Chap. XVI. You must also contrive it, that all Discords be prepared and resolved according to the Rules, which do not require a great Attention, when you fully possess the Succession of Chords; besides, you already know that they ought not to be prepared after a perfect Chord to the Key-note only, or upon its Derivatives, provided that the Key doth not alter; though it might be done when the Bafs ascends a Third, in order to descend a Fifth immediately afterwards.

EXAMPLE.

When the Bafs ascends a Third, in order to descend a Fifth, and the Key changes, if the first Key be sharp, that into which you remove is flat A; and on the contrary, if the first Key is flat, then the Second is sharp B; the Strokes that go from one Note to the other, shew how the Discord is not prepared, and the Progression of the upper Part in that Case ought to follow. You
You may invert these fundamental Progressions, and use them with Discretion.

You ought not as yet to alter the diatonic Order of the upper Parts, unless it be for the better completing a Chord, or for replacing a Part above the Bass, or in its natural Place; and you must in this Case avoid using two Octaves, or two Fifths, together, unless they be reversed.

Those Parts that ascend or descend together, are to be disposed by Thirds or Sixes, and as little as may be by Fourths, never by the Octave or Fifth; that is to say, whatever Parts make together a Third, or a Sixth, may make the like again in the following Chord, and so on.

When one Part ascends or descends diatonically, whilst another proceeds by a consonant Interval, that is always good, until we give a fuller Explanation.

Remember, that the Succession of Chords contained in a Key is the same in all other Keys.

**ARTICLE III.**

*Of major Disords proceeding from the Leading-note, and of those Notes on which they are used.*

1. The Tritonus is never used but upon the fourth Note, when that Note descends upon the Third, or upon the Key-note.

2. The false Fifth is never used but upon the Leading-note, or sharp Seventh, when that Note afterwards ascends to the Key-note, or sometimes to its Third.

3. The small sixth Major is never used but upon the second Note of the Key; and, when it is Minor, then it is generally used upon the sixth Note.

4. The sharp Third cannot be used with the Seventh, making between themselves an Interval of a Tritonus, or a false Fifth, but upon the Governing-note or Fifth of the Key. These four Disords are the most in Use.

5. The extreme sharp Seventh is never used but upon the Key-note, which continues upon the same Degree, in order to prepare and resolve this Discord.

6. The extreme sharp Fifth is never used but upon the Third in flat Keys.

7. The extreme sharp Second is never used but only upon the sixth Note in flat Keys, and this Note must afterwards descend.

8. The
8. The extreme flat Seventh is never used but upon the Leading-note, or sharp Seventh, after which this Note is to ascend.

9. The other Discords that derive from these two last, are used upon the same Notes, wherein the Chords differ from the Governing-note to the Sixth in flat Keys only.

Sometimes the Tritonus happens upon another Note than the Fourth, and the false Fifth upon another Note than the Leading-note; but then, and in that Case, those Intervals are no longer the Object of the Chord, they serving only as an Accompaniment; and it is the Modulation that causes that Alteration in the same Manner, as in the Progression of Sevenths, where some are altered, and are not in their true and just Proportion; therefore you must never take any Notice of this Alteration, when you know the Chord that ought to be used, and the Key you are in; for it is the successive Degrees of a natural Voice, contained in the Compass of the Octave of the Key, or Mode that you are in, that decides the Justness; or the Alteration of an Interval that makes a Part of the Chord.

ARTICLE IV.

Of minor Discords.

1. THE eleventh Heteroclite, otherwise called the Fourth, may be used upon all such Notes as bear the perfect Chord, or the Seventh, provided that these last do immediately follow, saving out of this Rule the first and last Note of a Piece; and in this Manner it will always be found prepared by observing two Things.

First, That if you fall upon a perfect Chord, after one of its Derivatives; these two Chords being but the same, the Eleventh cannot then be heard.

The Second is, To give always the Sixth to the Note that ascends a Third upon that on which you take the Eleventh.

2. The Seventh, where the Discord major is not heard, chuses to be prepared by the Octave, by the Fifth, by the Sixth, by the Third, and even by the Fourth, which is a Concord, or a consonant Note, proceeding from the Chord of the Sixth and Fourth to a Governing-note of a Key, according to the different Progressions of the Bass.

3. The Ninth must always be prepared by the Third, or by the Fifth, according to the Progression of the Bass; it may also be prepared by the false Fifth.

4. The
Principles of Composition.

4. The Eleventh must likewise be prepared by the Fifth, and sometimes by the Seventh, but this sparingly; when it is hetero-clite, it may be prepared by all the Concords, or consonant Notes, and even by the Seventh, and by the false Fifth.

5. The Second which is prepared in the Bass, may be preceded in the Treble by any one of the Concords, whilst the Bass remains upon the same Degree.

To conclude, all Discords are to be resolved, as hath been said: you may leave out of the consonant Chords one of the two Sounds that create between themselves the Discord, and only take the perfect Chord, or one of its Derivatives.

ARTICLE V.

Of those Concords, or consonant Notes, that are to be preferred, when they are to be doubled.

We have only to take the Consonants in their Order of Perfection, thus, the Octave, the Fifth, the Fourth, the Third, and the Sixth, in order to know that the Octave is to be preferred to the Fifth, and so on; observing that it is already a Replicate, and that, in the consonant Chord of the Sixth, the Octave to the Third, or to the Sixth, is as proper, and as good, as that of the Bass.

ARTICLE VI.

Of Measure, or Time.

Music without a Movement loses all its Grace; therefore it is not enough to apply to the Composition of Chords only, but you must also endeavour to give to each Part a certain Movement, wherein may be distinguished a Cadence, a Section, a Cadence, a Syllable, of the Length of a Breve, and the Places where the Discord is to be used; the Whole to be made sensible and observable, immediately upon the first Part of the Bar (see Chap. I.)

ARTICLE VII.

Of Syncopation, or of a Driving-note.

In order to follow the natural Order of the Measure, it must be so contrived, that the Value of each Note do begin and end,
end, within the Space of each Part or Division of the Bar; yet a Note that begins immediately upon the accented Part of the Bar, may remain upon the same Degree, as long as Taste will permit, whether the Sound be lasting or not; but as soon as a Note begins upon the unaccented Part of the Bar, and one half of its Value is heard upon the first Part or Division of the next Bar, that causes a Shock to the Ear, and, in that Case, that Note is said to be syncopated, and is called a Driving-note. And there are several Ways of using it; the first Way is when the Note is divided by the Bar into two equal Parts, thus,

\[ \text{EXAMPLE.} \]

The second Way is, when two Notes together of an equal Value, and upon the same Space or Degree, are bound by a Semicircle thus ( ), or \( \), which shews that the Sound of those two Notes is to be lasting.

\[ \text{EXAMPLE.} \]

The third Way is when a Note is preceded by another, which is but of the Value of a Moiety, or half of one Part of the Bar, or when it is preceded by a Character which denotes a Rest of the like Value, supposing that this Note to preceded anticipates upon the next following Part of the Bar.

\[ \text{EXAMPLE.} \]

The Notes \( A, B, C, D, F, G, H, J, \) are syncopated.

The fourth Way is when two Notes are repeated on the same Degree of an equal Value, the first whereof begins upon the unaccented Part of the Bar, and the second upon the accented Part, without
Principles of Composition.

without binding them, whether it be for the Sake of the Words, or for giving a quicker Movement to the air.

**EXAMPLE.**

In order that a Note be syncopated, it must not only begin on the unaccented Part of the Bar, or upon the second Half of the first Division; but it must also be contrived, that its Value may be divided into two equal Parts, the one in the first Part of the Bar, and the other in the next following; and, instead of making Use but of one Note, you may make Use of two Notes, each representing one Half, or Moiety of the Note syncopated, being at Liberty to repeat them, or to continue the Sound, by binding them with a Semicircle, or Slur, which causes them to be expressed as one Note, the Value of which will be equal to those two Notes.

These are the various Ways of Syncopation, and are used as well in Harmony as in Melody: in Harmony, by causing the Discords to be prepared; and in Melody, in order to render the Air more expressive, without altering the Species of the Interval, in one or the other Note of the Syncope, or in the same Note so syncopated.

**EXAMPLE,**

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Q.2 The
The Figures that denote Consonant Notes only, thus, 3, 6, &c. shew that the Syncope is used for the sake of the Melody or Air only; and those that denote a Discord, shew that the Syncope is used for Harmony.

The Basso may syncope as well as the Treble, together, or separately, in respect to Melody; but, as to Harmony, the Basso cannot syncope but in the Chords of the Second, of the Tritonus, and of the extreme sharp Seventh.

In order that the Syncope be strictly observed in Harmony, it must be contrived that the Value of the Note or Concord that prepares and resolves, and the Discord prepared, be equal, as much as can be; this suffers an Exception but in Triple Time, where the two last Parts or Divisions of the Bar are unaccented, so that the Concord which prepares and resolves the Discord, may, in that Case, contain double or one half of the Value of the Discord prepared.

When there happen several Discords together, it is but the First that is subject to the Rule of being prepared on the unaccented Part of the Bar, and to be heard on the accented Part.

In Common Time, where there are two equal Notes in a Bar, the First is accented, and the Second is unaccented; and, when there are four Parts or Notes in a Bar, the First and the Third are accented, and the Second and the Fourth are unaccented.

In Triple Time, where there are three Parts or Notes in a Bar, the First only of the three is accented, and the other Two are unaccented.

As soon as a Discord can be prepared, the Syncope no longer subsists, and then a diatonic Progression from the Concord that precedes the Discord, until the Concord that resolves it, ought to be followed; though this is not to receive as a general Rule, especially in regard to the Seventh, the false Fifth, and all major Discords.

C H A P. XXXVI.

Of Composition in two Parts.

The less the Parts are in a Piece of Music, the stricter are the Rules to be observed; so that certain Licences allowed in four Parts may become Faults, when the Parts are lessened.

1. We must now distinguish the consonant Notes, or Consonants, in perfect and imperfect. The
The perfect Concord are the Octave and the Fifth, it not being herein permitted to make two Octaves, or two Fifths, together, even though they should be reversed.

The Fourth is also a perfect Concord, but, as it is but seldom used in a Composition of two Parts, we shall only prescribe the Manner how it may be used.

The imperfect Concord are the Third and Sixth, and we may use several of them together and intermix them without any Fear of being mistaken, provided that we do not go out of true Modulation.

If we skip from a Third to a Sixth, or from a Sixth to a Third, and the Progression of the Parts is consonant, then the Parts ought to move in a contrary Direction, the one ascending at the same Time that the other descends.

It is proper to skip, as much as may be, from a perfect Concord to an imperfect, and vice versa.

One cannot well skip from a perfect Concord to an imperfect and vice versa, but when one of the Parts proceeds diatonically, and the other by a consonant Interval; and, in that Case, it is very proper that the contrary Motion be observed.

**EXAMPLE.**

*Of a Sequence, or Succession of perfect Concord.*

![Musical notation image]

Doubtful.

![MUSICAL NOTATION IMAGE]

All other Progressions of two perfect Concord immediately following are not proper.

Those Bars marked with the Letter A are alike, as well as those with a B.

2. You
Principles of Composition.

2. You may make a Part to move by as many consonant Intervals as you think proper, whilst the other Part remains upon the same Degree, provided there be a Concordance between the two Parts.

3. All Passages or Skips from the Octave to the Third, from the Fifth to the Third and to the Sixth, from the Sixth to the Third, and from the Third to the Sixth, are proper.

4. The Passages or Skips from the Octave to the Fifth are proper, provided that the contrary Motion be observed; yet that, where the Bafs descends diatonically, is not proper.

5. Thofe of the Octave to the Fifth are proper, provided that the Progression of the Parts be contrary, when the Parts make each a consonant Interval, though all is proper, when the Bafs descends a Third.

6. Thofe of the Sixth to the Octave are proper, excepting when the Bafs ascends diatonically, when the upper Part descends in the like Manner, or when each of the Parts makes a consonant Interval.

7. Thofe of the Sixth to the Fifth are proper, excepting when the upper Part ascends diatonically, when the Bafs descends in the like Manner, or when each Part makes a consonant Interval.

8. Thofe of the Fifth to the Octave are proper, excepting when the Bafs ascends diatonically, or when each of the Parts makes a consonant Interval.

9. Thofe of the Third to the Octave are proper, excepting when the Bafs descends diatonically, and observing, at the fame Time, a contrary Direction, when the Bafs ascends a Fifth.

10. Thofe of the Third to the Fifth are also proper, provided that the Parts move by a contrary Direction at thofe Places where the Bafs ascends a Second, a Third, and a Fourth; and even one must rather make it ascend a Fourth than descend a Fifth, otherwise the Progression would not be proper.

11. As to the Fourth, here follows an Example of all the Concordts that may precede or follow it.
The Guides shew the several Conords, and even the Discords that may follow the Fourth; the Figures that are between the Parts shew the like; and those under and over the Bass shew the Chords to be used in this Case.

Take Notice, that the Guides, in the Examples A and B, denote two different Chords; that of the Tritonus, or that of the great Sixth; the one cannot be used, whilst the other takes Place.

All other Progressions than those we have prescribed, are not proper, and observe that they are grounded upon the Preference that ought naturally to be given to the smallest Intervals; that is to say, that as to ascend a Sixth, or descend a Third, is the same Thing; the Progression of a Third descending ought to be preferred; so of the other Progressions that bear a like Relation, excepting when Taste requires the contrary, to such Passages where you find that our Rules are not to be infringed.

These Rules will equally hold good for all Keys, whether the Third, or the Sixth, be flat or sharp.

The other Rules that concern four Parts, as well in respect to the natural Progression of sharp and flat Thirds, as of Discords, are to be equally observed.

When once a Knowledge of true Modulation hath been attained to, all these Rules are naturally observed, without burthening the Memory, or Mind.

CHAP. XXXVII.

Of false Relations.

In order to avoid false Relations in the Progression of a single Part, you need only to make it proceed by diatonic or consonant Intervals, those of the false Fifth, the extreme flat Seventh, and the extreme flat Fourth, being permitted and allowed in descending, but not ascending; yet, true Modulation being observed, we may make Use of all the known Intervals, provided they do not exceed the compass of the Octave, nevertheless with a little more Circumspection, in regard to those that we have not named, than to the others; some Authors make Use of the extreme flat Third in descending, as from $E_b$ to $C_b$, which is left to the Discretion of Composers.

As to false Relations between two Parts, you can hardly fall into that Error, when you are thorough Master of Modulation.
You see by this Example, that the Notes at A represent a sharp Key, and that the Notes at B represent a flat Key; so that you cannot modulate in one Key half Major and half Minor, nor go from the Major to the Minor upon the same Key-note, but after a perfect Cadence, and even this is not to be done without judgment; so that true Modulation puts us above these Rules, which are almost useless, when we have attained to a perfect Knowledge of it.

CHAP. XXXVIII.

Of the Manner of composing a Treble, or an Air to a Bass.

In order to compose a Treble or an Air to a Bass, you must at first only compose it in that Key that you know the Modulation of; and when you also know the Succession of Conords and Discords (the Manner of preparing and resolving which hath been fully explained) it will not be difficult to compose, without any Fault, a Treble, or an Air over a Bass.

Nevertheless, in order to give a greater Scope to one's Genius, when you know the Chord that each Note is to bear, you may choose one of the Sounds in each Chord, in order to compose an Air or a Treble at your Pleasure. Thus in the perfect Chord, you may choose the Third, the Fifth, or the Octave; and, in that of the Seventh, you may choose it among the others, if you can, for you cannot choose the Seventh, unless it be prepared, excepting when the Bass ascends a Third, or a Fifth, whilst the Treble descends diatonically, or ascends and descends afterwards in a diatonic Manner (see the Example at Chap. XIX.) If even the Seventh could not be resolved by descending diatonically upon a Concord to the next following Chord, you must either not use it, or alter the Bass, except you find that the Notes of the Bass belonged
belonged to the Chord of that Seventh, and a Note followed afterwards, whereby that Seventh could be resolved; and in that Case the Seventh before its Resolution always remains upon the same Degree, provided that one of those Notes contained in the same Chord, and which is found in the Continuation of the Bass, doth not make an Octave with that Seventh, for otherwise you would be obliged to make the Seventh descend a Third; and, making this last Note afterwards to ascend upon the Concord that ought naturally to follow that Seventh, one might also, in the like Case, make the Seventh to fall upon the Leading-note, supposing that this Leading-note be a Part of the same Chord, so that that Note on which we may descend a Third after the Seventh, will make the Sixth to that which in the Bass will make the Octave to that Seventh, and the Leading-note will then make the Tritonus.

**E X A M P L E.**

\[\begin{align*}
A & : & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} \\
B & : & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} \\
C & : & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} \\
D & : & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} \\
E & : & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} & \frac{4}{4} \\
\end{align*}\]

*A,* I begin by the Fifth, though I might have begun by the Octave, or by the Third; but it is better to begin in this Man in order that the Seventh may be heard unprepared, as we have just now said.

*B,* the Seventh, remains upon the same Degree until *C*, where its Octave appears in the Bass; and in that Case I make it descend a Third, in order afterwards to ascend upon the Concord that ought naturally to have resolved it, though, absolutely speaking, I might have made it to descend upon the Guide \(\frac{4}{4}\).

*D,* the Seventh, is here prepared by the Third, and remains until *F*, where its Octave appears in the Bass; and in that Case I can make it descend upon the Leading-note *F*, which is a Part of the same Chord.

It is easily perceived that a Seventh may remain upon the same Degree, whilst the Bass makes divers Intervals, because those Intervals must make the Third, the Fifth, the false Fifth, or the Octave to that Seventh; or that the Seventh makes the Third, the Fifth, or the false Fifth to one of those Notes on the Bass.
Principles of Composition.

Bafs. The same Thing may be observed in all the other Dis-
cords, if you reduce them to their fundamental Note; if not, as
the Bounds and Limits of the Progresion of Concords and Dis-
cords are known, you cannot be mistaken.

If a Note may remain upon the same Degree in the Treble,
whilst the Bafs proceeds through all the Intervals contained in the
same Chord, as we have just now shewn it; so likewise a Note in
the Bafs may remain upon the same Degree, whilst the Treble
goes through all the Intervals contained in the Chord to that same
Note in the Bafs.

If the same Note in the Bafs can carry different Chords, and
the Third, the Fifth, the Sixth, &c. be found in each Chord, we
may cause them to be heard indifferently in one or the other
Chord.

When you compose only in two Parts, the Treble ought al-
ways to end by the Octave, seldom by the Third, and never by
the Fifth.

Here follows a general Example.

General Example.

\[
\begin{array}{ccccccccccccc}
\text{A.} & \text{B.} & \text{C.} & \text{D.} & \text{E.} & \text{F.} & \text{G.} & \text{H.} & \text{J.} & \text{K.} & \text{L.} & \text{M.} & \text{N.} & \text{O.} & \text{P.} \\
\end{array}
\]

Continued Bafs.

\[
\begin{array}{ccccccccccc}
\text{6} & \text{6} & \text{5} & \text{6} & \text{7} & \text{6} & \text{2} & \text{6} & \text{4}\times & \text{2} & \text{6} & \text{7} & \text{6} & \text{6} \\
\end{array}
\]

Continued Bafs.

\[
\begin{array}{ccccccccccc}
\text{7} & \text{7} & \text{7} & \text{7} & \text{7} & \text{7} & \text{7} & \text{7} & \text{7} \\
\end{array}
\]

Fundamental Bafs, as a Irregular
Proof only of the Harmony. Cadence.

Continued.
The upper Part, which we have composed only to the continued Bafs, is full of Faults with respect to the fundamental Bafs; not that they are Faults against the fundamental Harmony, but only in respect to the Progression of the Parts; the fundamental Bafs having been put only as a Proof of the perfect Harmony, and from which are chosen those Notes that are proper and suitable to the Air.

A, I skip at Pleasure through all the Notes of the Chord: From the Fifth, I go to the Sixth $E$, though I might have kept upon the Fourth without altering the Fifth that precedes, by reason
son that this Fourth is a Part of the Chord of the small Sixth B: I could have gone also to the Third.

B, C, D, E, I take four Sixths following, because they are Part of the Chords, though I might have chosen any one of the other Intervals contained in each of those Chords.

F, G, instead of going from the Leading-note to the Key-note, I go to its Third, because that is not against the Rules of consonant Progression; and, at the same Time, that Third represents the Key-note, and makes a Part of its Chord.

H, I take the Fourth, which makes a Part of the Chord of the Second: I proceed afterwards to the Sixth J, and I fall upon the Second, which is a Part of the Chord of the Tritonus K.

The Sixth, which I afterwards take at L, prepares the Seventh at M, which is resolved by descending upon the Sixth N; this Sixth, which is the Leading-note, ascending afterwards upon the Key-note O: I afterwards proceed upon the Third to that same Key-note P, in order to prepare the Second Q.

The Seconds that are prepared and resolved in the Bass P, Q, R, S, T, are preceded in the Treble by the Third at P, and by the Sixth at R; they might equally have been preceded by the Octave, the Fifth, or the Fourth, because the Second may be preceded and followed by any of the consonant Notes contained in the Chord; and at T you will find it followed by the Fourth, which makes a Part of the Chord of the small Sixth; though it is to be understood, in the like Case, that the limited Progression of the Bass doth not alter.

As the Third is the most proper Concord to prepare and resolve the Second, it is proper to use it in that Case, as often as may be: The Fourth, which we have placed in its stead at T, and which creates a Discord with it, being to fall upon the Note which that Third ought to have descended, if it had taken Place with that Fourth, as we shew it at V; for we are to take it for a general Rule, that when, in Lieu of the Note which ought naturally to resolve the Discord in the Treble, we place or substitute, in its stead, another Note that makes with it a Seventh or a Second; in that Case we must make that Note, so substituted, to proceed upon the Note that ought to have followed that Note which doth not appear, and which would have made a minor Discord with the Note substituted; which may happen in the Chord of the small Sixth, between the Third and the Fourth; and in those of the great Sixth and false Fifth, between the Fifth and the Sixth; so that if, in those Chords, the Third or the Fifth is used, in order to resolve the Discord, and if they are afterwards to descend diatonically, consequently, the Fourth or the Sixth, which are the Notes substituted, are to pass to or fall upon
Principles of Composition.

upon those Notes that ought naturally to have followed the Third, or that Fifth.

You will find in the other Parts of the Example a Connection of all that we have said, observing that the Key changes at \( m \), at which Place we give the Seventh to the Key-note, instead of making its Leading-note to ascend upon its Octave, which then becomes its Seventh; this Key-note becoming a fourth Note, by the Chords of the great Sixth and of the Tritonus, at \( n \) and \( o \); after which we return into the Key of \( C \) at \( p \), by Means of the consonant Progression of the Bass which ends at \( V \), and by which we know that the Key-note is \( C \); and which obliges us to prepare this Key by leaving out the Sharp to \( F \), after which the Flat against the Note \( B \), in the continued Bass, denotes the Key of \( F \); and afterwards the Key of \( C \) is denoted by the \( \natural \) Natural placed against the Note \( B \).

These Observations, in respect to the continued Bass, may more clearly appear by comparing, one after another, the upper Part and the continued Bass, with the fundamental Bass; where you will find that out of each perfect Chord, or of the Seventh, which the fundamental Bass bears, the Third, the Fifth, the Octave, or the Seventh is chosen for the continued Bass, and for the upper Part, by giving to those two Parts a Progression according to our foregoing Rules. Observe, that when the Progression of the continued Bass is diatonic, as between \( G \), \( H \), \( J \), \( K \), \( L \), &c. the upper Part is often like unto that of the fundamental Bass: From hence we conclude, that the consonant Progression of one Part oftentimes obliges the other to follow a diatonic Progression, in like Manner that a diatonic Progression of one Part often obliges the other to follow a consonant Progression.

CHAP. XXXIX.

Of figurative Melody, or of Supposition and passing Notes.

We call figurative Melody what hath been hitherto called Supposition; and herein consist the Rules of this figurative Melody.

It being of an absolute Necessity that a Perfection of the Harmony be heard and manifested upon every Part of the Measure or Bar, we may, between one Part of the Bar and the next, pass as many Notes as Fancy and taste will permit.

ARTICLE
**Principles of Composition.**

**ARTICLE I.**

Of figurative Melody by consonant Intervals.

In order to pass several Notes between each Part of the Bar by consonant Intervals, we can make Use but of those Notes that are comprised in the Chord to the first Part of the Bar, in order to fall afterwards upon a Note of the Chord to the next Part of the Bar, and so on.

**EXAMPLE**

Of a figurative Treble.

You see in the Treble that all the Notes pass upon those Sounds that are suitable to the Chord figured in the Bass.

**EXAMPLE**
Principles of Composition.

EXAMPLE

Of a figurative Bäs.

The Figures that are under the Notes of the figurative Bäs, shew the Intervals they make with the fundamental Bäs; and those that are over, shew the Chords that those Notes bear in the like Case.

In order to make a figurative Bäs, you may begin by composing only a fundamental Bäs, over which you will compose a figurative Bäs pretty near in the same Manner as a figurative Treble, observing to use as much as may be the fundamental Sounds of the fundamental Bäs, especially in the first Part of the Bar.
You must always make the upper Part to agree with that which is to be heard with it; and, if this upper Part was to be heard with the two Basses, it must in that Case be composed according to the Rules, in respect to one and the other of those Basses; and, in that Case, the upper Part ought to be altered at C, D, where it makes two Fifths with the fundamental Bass, and place, in its stead, the Notes marked by the Guides \( \text{\textsuperscript{x}} \).

You may also compose a figurative Bass first, and place under it a fundamental Bass entirely, according to the Rules prescribed for the Progression of this last Bass; afterwards you may compose a Treble more or less figurative than that same figurative Bass.

You must seek for Variety, by avoiding repeating too often the same Passages; and you are at Liberty either to figurate, or not to figurate, all the Parts of a Bar; sometimes you may figurate only one Half, sometimes in the Bass, at other Times in the Treble, or both together according to the Rules.

You may make one of the Parts to begin first, either for a Half, or three Fourths of a Bar, even for one or two Bars; so of the other Parts, in Case there be more than two.

You may begin by whatever Part of the Bar you think proper, and you may cause one of the Parts to rest for a While; but, if it should be the Bass, it can be but for a Bar or two at most, for the continued Bass must always be understood, though you should be willing that one Part only should be heard.
Principles of Composition.

A Dot placed after a Note is to be deemed as the same Note, and is generally concordant with the other Parts, by reason of its being commonly used upon the accented Part of the Bar.

ARTICLE II.

Of figurative Melody by diatonic Intervals.

You may pass as many Notes as you please between each Part of the Measure or Bar, and, if they proceed by diatonic Intervals, it matters not whether they be of those comprised in the Chord, provided that the first be one of the Notes of the Chord; but if, after several Notes in a like Progression, you should proceed by a consonant Interval from the last Note to the first Note of the subsequent Part of the Bar, then this last Note must also be comprised in the Chord.

If the Parts of the Bar be of a slow Movement, so that they may be divided into two equal Parts, you will always do well to divide these passing Notes into an equal Value, observing that the first Note of each Division, or Part of the Bar, be of those comprised in the Chord.

Taste obliges us sometimes to deviate from this Rule in respect that, in a diatonic Progression, the first Note of the Division, or Part of the Bar, is not always comprised in the Chord that ought to be heard; but you may observe that this first Note is only then admitted as a passing Note to the very next, which makes a Part of the Chord, before its Time or Value is expired.

EXAMPLE

\[\text{Example}^{\text{continuation}}\]
This Measure, or Time, though in two Parts, is divided almost throughout into four Parts, and you may see that the First of the two Crotchets is always comprised in the Chord.

In the Part A, the First of the two last Crotchets is not comprised in the Chord, by reason that the Melody proceeds diatonically from one Part of the Bar to the other, and the two first Crotchets, which do not follow this Progression, are comprised in the Chord.

Each Note in the Part of the Bar B is to bear a Chord, by dividing the Time into four; by reason that, as soon as the Key-note appears after its Leading-note, it must bear its natural Chord: If that same Key-note appeared immediately afterwards in the following Bar, and that the Melody rests there, the Time, or Part of the Bar B, ought not to be divided; but the Melody which rests upon the Fifth or Governing-note, creates, as it were,
Principles of Composition.

In that Case, an irregular Cadence, from the last Crotchet, at the Time $D$, to the subsequent and next Note.

The first and Third Crotchets of the Time $C$ are not of the same Chord, but pass to the second and fourth Crotchets, which are Part of the Chord; for it was absolutely necessary that this last Crotchet should be comprised in the Chord, since it passes from one Part of the Bar to the other by a consonant Interval: You will find the like Passages at $F$ and $D$.

The Dot at $D$ represents the preceding Note, and the Chord of the Tritonus, figured over it, keeps on until the Expiration of the Dot, so that the Tritonus is resolved but upon the next following Part of the Bar.

Thus we have endeavoured to explain what hath hitherto appeared but under very confused, obscure, and abstruse Rules; and it is by Means of this Facility and Liberty of figurative Melody, and by inverting the Chords, that proceeds that incomprehensible Variety in Music.

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CHAP. XL:

Of the Manner of composing a fundamental Bass to a Treble.

The fundamental Bass is a sure Method for finding that which is proper to a Treble already composed, especially for those Persons who have not a natural Genius or Taste to feel, as it were, that Bass at the same Time that the Treble is composed; for every Melody or Air hath its natural Bass; and, for ever so little that we are sensible of a perfect Harmony, we naturally sing the Bass to all Cadences, when we hear the upper Part, which is sufficient to know the Key we sing in; and thus from one Cadence to another, whether it be a perfect or an irregular Cadence, for there is no Difference in the Treble between the false or flying Cadence and the perfect; we know the Alteration of the Keys; and the fundamental Bass (which bears only the perfect Chord and of the Seventh) will more readily show it.
**Principles of Composition.**

**Example.** Of the different Progressions of a Treble in Cadences.

<table>
<thead>
<tr>
<th>A.</th>
<th>B.</th>
<th>C. FlatKey. D.</th>
<th>F. FlatKey. G.</th>
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Perfect Cadences in sharp and flat Keys.

Perfect or irregular Cadences.

<table>
<thead>
<tr>
<th>Sharp H. Key.</th>
<th>Flat J. Key.</th>
<th>Sharp L. Key.</th>
<th>Flat M. Key.</th>
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Irregular Cadences.

All these Cadences are in the Key of C only, though they bear an Affinity to other Keys.

The perfect Cadence A ascends from the Leading-note to the Key-note, in sharp and flat Keys, although it might have ascended from the second Note to the third, in flat Keys, according to the Example F.

The perfect Cadence B descends from the second Note to the Key-note, in sharp and flat Keys, though in flat Keys it might have descended from the fourth Note to the third, according to the Example G; so that the sharp Key of C and the flat of A have a great Relation one to the other in these two first Cadences; and these two Cadences may equally take Place as well in a sharp as a flat Key, where the Distance is but of a flat Third, as from C to A, from F to D, from G to E, &c.

The Cadences C, D, F, G, which are arbitrary between the perfect and irregular, are not distinguished but by the Progression given to the Bass, either by ascending a Fourth upon the Key-note, in order to make a perfect Cadence, or by descending a Fourth upon that same Note, or upon the Governing-note, in order to make an irregular Cadence: When we say or upon the Governing-note, it is by supposing that these Cadences can represent another Key than that of C; for those at C and at D may be taken for irregular Cadences in the Key of D, and that at D may be also taken for an irregular Cadence in the Key of F; those at F and G may be taken for perfect in the Key of F; but the true irregular Cadences, upon the Governing-note to C, are those in the Examples H, J, L, M, although the Example H may
1. You must compose your upper Part, or Treble, but in the sharp Key of C, or in the flat Key of D.

Supposing that the other Keys are not so familiar to you, and in order to know whether this upper Part is truly compos'd in one of those two Keys, as you cannot begin it but by the Octave, the Third, or the Fifth, you will observe where the first Cadence happens, which commonly is at the second or fourth Bar; so that having begun by C, E, or G, which are the Octave, the Third, and the Fifth to C, if your first Cadence falls upon D, you will not therefore be in the Key of D; for, if it was, you should have then begun by D, F, or A, which are the Octave, the Third, and the Fifth to D.

Again, if you are obliged to add some $\flat$ or some $\sharp$ to the Notes for the Sake of the Melody or Air, these Signs will shew you the Key at once, according to the Explanation we have given of it in Chap. XXIV. and XXV; for, if you had begun by $C$, this $C$ makes as well the flat Third to $A$ and the Fifth to $F$, as it makes the Octave to $C$; and it can be but by some $\flat$ or $\sharp$, and also by the Cadences, that we can distinguish the Key; though, if the Air be compos'd in a natural Manner, the last Note will shew it, for it ought naturally to be the Key-note.

2. As soon as you are certain of the Key you compose in, you must use all the Cadences that are proper to it; and, when there happen some that are foreign, you must then have Recourse to the above Example, observing what follows:

1. The upper Part must always make the Third, the Fifth, the Octave, or the Seventh to the fundamental Basso.

2. In the fundamental Basso the Preference must be given to the Progressions that are the most perfect; so that the Fifth in descending is to be preferred to that of the Fourth, this Last to that of the Third, and this to that of the Seventh, observing that to ascend a Second is the same as to descend a Seventh, &c.

If the upper Part could not agree with the Basso by making it descend a Fifth, you must then seek this Chord in a Progression of a Fourth, a Third, or a Seventh, preferring the most perfect.

3. If you intend to follow the Stile of the fundamental Basso, you must not figurate the Treble, because the figurative Melody doth
doth but puzzle Beginners; so that in that Case every Note ought to be of the Value of one part of the Bar.

4. You must at first apply only in composing Airs of Character, such as Gavots, Courants, &c. because the Cadences happen almost every two Bars.

5. If in your Airs you should perceive some Cadences foreign to the Key, you must observe whether they end the Melody or not; if they do, then the Key changes generally to the fifth, the third, the fourth, or the sixth Note of the Key you quit; which may be known by comparing those Cadences with the preceding Example, wherein you will find that, if one of these Cadences ends

Thus, $\begin{align*}
&\text{Key of F, of G, of D, of E, of A,}
&\text{it represents a perfect Cadence in one of those Keys, in the same Manner as this }\begin{align*}
&\text{represents a perfect Cadence in the Key of C;}
&\text{so of the other Cadences that bear a like Relation; but, if the Melody is not absolutely ended, you must let the Bass follow its natural Road, by preferring (as we have said) the more perfect Progresions as much as possible.}

6. Whilst the upper Part makes the Third, the Fifth, or Octave to a Note already placed in the Bass, you may let this Note remain without altering it, unless you discovered that it could be done without interrupting the natural Progression of the Bass; and, in that Case, Variety (which is one of the principal Beauties in Harmony) requires it.

As the first Part of the Bar is the chief or principal, if you should perceive that the Note in the Bass, which could have been placed in another Part of the Bar, agrees with the first Part that precedes or follows it, it will be better either to advance or postpone this Note, in order that it may be heard upon the first Part of the Bar, observing two Things: First, that if the Note that follows the first Part of the Bar can be used in this first Part, it is then that you must use, in this first Part, that Note which you intended to place after it: The Second is, that if the Note which you place in the unaccented Part of the Bar is the same as that which is heard in the next Part, without being able to place one or more Notes between them, it will be better to leave in the Bass that Note that was heard in the first preceding Part, if possible;
Principles of Composition.

fible; otherwise you must seek for another that is not the same as that which is to appear in the very next succeeding Part.

**EXAMPLE.**

- Q\_zoz\_ C. e-
- T. l=±±-

The Example H is the best, by reason that, as the Note which is heard in the second Part of the second Bar might serve in the first Part of the same Bar, it ought to be preferred.

**Another E X A M P L E.**

- A. B. C. D.
- F. G.

I can keep upon the same Note of the Bass in the first Bar of the Example A, though I might alter it as in the Example B, because I can place another Note between that of the second Part of the first Bar and that of the first Part of the second Bar; whereas in the Example C and F I am not to make Use of the second Note of the first Bar in the Bass, because it ought to be heard immediately upon the first Part of the next Bar; so that I make Use of the Note that hath already been heard in the first Part of the Bar D, because it agrees with the second Part; and
Principles of Composition.

I choose another at $G$, because the same first Note cannot be concordant in this Place with the second Part.

8. It is oftentimes necessary to divide a Note in the Treble into two equal Parts, in order that two different Notes in the Bass may be heard and may agree with that same Note in the upper Part; and this is done for the better preserving the consonant Progression of the Bass, and that the most perfect Progression may be heard between these two Notes of the Bass, and the next,

\[ E X A M P L E \]

This Division is also used, in order that the most suitable Notes to the Key may be heard on the principal Parts of the fundamental Bass; which Notes are the Key-note, its Fifth, or Governing-note, its Fourth, its Sixth, and sometimes its Second; and thus, by Order of Perfection, its Third is seldom used, and never its Seventh, in whatever Part of the Bar they happen to be; for, when it cannot be avoided, it is certain that the Key changes, as may be known by some $\natural$ or $\natural$, or by some foreign Cadences.

9. The principal Parts of the Measure or Bar are those where the first Discord is to be heard, when it is prepared; for, if there be several Discords following, you must only take Notice of the First; and a Discord unprepared cannot be used but in a diatonic Progression of the upper Part, by descending three Degrees, or by ascending and descending immediately afterwards, whilst the Bass ascends a Third, or a Fifth, in order afterwards to descend a Fifth; and then the Discord is found in the Middle of those three Degrees.
Principles of Composition.

Instead of making the Bass to ascend a Fifth in the first Bar of the Example, you may only make it ascend a Fourth, in which Case the Discord will not appear; and it is by this Manner that you may transpose a perfect Cadence, into an irregular, and an irregular into a perfect; see the Notes A, B, where another Note may be placed upon the Guide w in Lieu of that marked with an A: The Notes A B making a perfect Cadence, and the Note A, placed in the Room of the Guide, making an irregular Cadence with the Note B.

The Guides, placed over the first Note of the Bar, shew the Progression that the Bass might also follow on the like Occasion, by putting this first Note in the Place of either of the Guides.

You must remember that there is no other Discord but the Seventh in respect to the fundamental Bass, and that the other Discords arise by its being inverted, that is to say, by chusing for Bass one of the Notes that make up the Chord of the Seventh, which the fundamental Bass ought to bear; wherein must be observed all that we have said concerning it in Chap. XVII, XVIII, XX, XXI, XXII, and XXVI.

There are some Passages where the Seventh has a good Effect against the fundamental Bass without being prepared, even whilst the upper Part makes a disjointed Interval; but then the Note in that Bass, that hath been heard before the Seventh, remains upon the same Degree; so that it will always be proper to use the Seventh in this Manner, provided that the upper Part descends diatonically immediately afterwards, and that the Bass may ascend, in this Case, a Fourth, in order to make the Third with the upper Part after the Seventh.

T

E X A M
The Treble proceeds by Skips or disjointed Degrees between the Notes A and B, where the Seventh might be heard upon the Note B, if we were willing to keep the first Note of the Bafis on the same Degree; but as the upper Part doth not descend after this Note B, and, if the first Note of the Bafis had remained, it could not have made the Third with the Note F by ascending a Fourth; the Bafis must be altered, as we have done it, by preferring its most perfect Progression; and what you do not find between these Notes A, B, F, you will find it between the Notes C, D, F, according to the Explanation we have just now given of it. This is what was also called Supposition, or a Discord for the Sake of the Melody or Air; but this Discord takes Place from the first Note in the Treble, whilst that of the Bafis remains upon the same Degree, in order to receive this Discord, which appears afterwards, as may be observed, by making all the Sounds of the Chord of the Seventh to be heard together upon the first Note of the Bafis that strikes with the Note at C; consequently the Treble may again pass after this Seventh upon other Notes of the same Chord, but it will always return to a Note that shall make the Third to that Note that ascends a Fourth in the Bafis G, or, at least, to a Note that shall make the Octave to it.

Instead of making the Bafis to ascend a Fourth, we might make it to ascend only one Degree, which would then create a falfe or flying
Principles of Composition

flying Cadence; but that can take Place but in a borrowed Bafs, or inverted from the fundamental, which depends, in that Case, upon the Fancy or Taffe of the Composer in the Middle of a Piece only, provided that the Bafs did not make two Fifths togeth-er with the Treble.

10. When you perceive divers Cadences of the same Species in the same Key, you must see if one of those that are in the Middle of the Melody, and which doth not make an absolute Conclusion, would not be suitable to a Cadence in another Key, in which Case it would then be proper to give it this foreign Cadence for a greater Variety in Harmony; for an Air, becomes insipid, when the same Cadences are too often heard: And, supposing that your Taffe would not suffer you to alter the upper Part, you must at least endeavour to make this Variety in the Bafs in the Middle of the Air, and especially in those Cadences that do not declare an absolute Conclusion.

If you are in a sharp Key, the foreign Cadences that bear an Affinity to it, can be taken but in a flat Key, the Key-note of which being but a flat Third under that of the sharp Key you are in; and, if you are in a flat Key, they can only be taken in a sharp Key, the Key-note of which being but a flat Third above that of the flat Key; and observing that this Difference may only appear in the Bafs, since the Melody, or upper Part, will not be thereby altered. See the following Example:

**Example**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>A</th>
<th>B</th>
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<tbody>
<tr>
<td>:</td>
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<td></td>
</tr>
<tr>
<td>Perfect Cadences in the Key of C, of A, Key of C, of A.</td>
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<tr>
<td>Irregular Cadences in the Key of C, of A, Key of C, of A.</td>
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</table>
Principles of Composition.

The perfect Cadences \( A \), \( B \), and the irregular Cadences \( C \), \( D \), in the upper Part, may be naturally found in the sharp Key of \( C \), or in the flat Key of \( A \); so that, if you are in one of those Keys, you have the Choice of one of these Cadences for the other.

Key: If you are in the Key of \( C \) sharp, the same Cadence may serve for the flat Key of \( A \); and, if you are in this last, the same Cadence may serve for the other Keys that bear the like Relation; such as the flat Key of \( D \) with the sharp Key of \( F \), and the sharp Key of \( G \) with the flat Key of \( E \).

This Manner of transposing a Cadence from one Key to another is a great Help, when you are absolutely determined to change the Key.

You may also make Use of the false or flying Cadence in either of the above Cases.

11. The irregular Cadences are excellent in the Middle of an Air; and, when the Air or Tune is divided into two Parts, they may serve to end the first Part; but you must not make a constant Practice of it, they being rather to be used in the second, sixth, and tenth Bars, than in the fourth, eighth, and twelfth, where the perfect Cadence is more suitable and proper; and, when a perfect Cadence happens in the sixth or in the tenth Bar, you may use in its Stead the false or flying Cadence.

12. When you transpose a Cadence from one Key into another, it is sometimes proper to prefer the least perfect Progressions of the fundamental Bafs to the most perfect; but the Whole is to be done with Judgment and Discretion.

13. All those that compose an Air or Melody, as their Fancy leads them, make no Attention whether it be figurate, or whether it proceeds by conjoint Degrees; so that, if it be figurate, they are not sufficiently skilled to distinguish those Notes that make Harmony with the Bafs, from those that are only for Taste; and, if they proceed by disjoint Degrees, or by Skips, they are fearful of making two Fifths or two Octaves to be heard together with the fundamental Bafs, by not knowing that, in that Case, the Melody or Treble follows the Road which the fundamental Bafs ought naturally to take; and it is for this Reason that we are obliged to compose a Bafs different from the fundamental that may entirely agree with this Part already composed: Therefore, knowing by the fundamental Bafs the Chords that are necessary to be used in the Continuance of the Air, it is not difficult to choose, out of those Chords, a Note for that other Bafs, that shall agree, in Harmony and Melody, with the Part already composed; for it is proper to know that two Octaves or Fifths following, do not destroy the fundamental and real Harmony, but they are forbidden, in order to avoid falling into a dry, intrepid, and tiresome Monotony, in a Succession of Chords; so that, after having
having established the Rules of Harmony upon the most natural Progression of the Bafs, and of the upper Part or Treble, finding the Impossibility there is to keep that natural Progression to the Bafs, as soon as it can be permitted to borrow that Progression for the Treble, or upper Part, we are obliged to establish other Rules for the reciprocal Progression of the Parts that are to be heard together, in order that the same Part, which is to be composed, may be suitable and proper to that already composed. Yet these new Rules are grounded upon our first Rules, where, according to the natural Order and Disposition of the Parts, we do not find two Octaves nor two Fifths together: And we also find all the Discords resolved as they ought and should be, and prepared, or unprepared, according to the most perfect Progression of the Bafs.

Sometimes we may go wide from the natural Progression of the Bafs, in order to avoid those frequent Conclusions which we feel in its most perfect Progression, by applying to the Bafs one of the Notes of each concluding Chord; by this Means we keep in the Melody and Harmony that Suspension which the Subject requires; for an absolute Conclusion is proper only to a final End of the Sense: The following Chapter will more fully clear up this Article.

C H A P.  XLI.

The Manner of composing a continued Bafs under a Treble.

The true continued Bafs ought to be the fundamental; but, as Custom gives another Name to that which is dictated to us by Taste, we distinguish it therefrom by the Epithet continued.

We have already said, at the Beginning of the preceding Chapter, that those who have a Taste naturally felt that Bafs which was the most suitable to all Sorts of Airs; but, notwithstanding this natural Gift, it is difficult to keep up the Truth, when it is not supported by Knowledge; and this Knowledge is not sufficient to attain to a Perfection, if a true Taste is wanting; for the Liberty we have of choosing, among the Sounds of a Chord, those that we think proper for a Bafs to a Treble; yet it doth not strictly direct us to choose those that are the most proper; and we have no other Rule for Taste, but Variety in Composition; which must be endeavoured to be obtained by observing what follows:

1. We
Principles of Composition.

1. We must endeavour to avoid two Octaves and two Fifths together, by strictly observing the Rules we have given in Chap. XIV. XVIII, XX, XXI, and XXX, for the Succession of Con\ncords and Discords.

2. The fundamental Bass being composed, you must observe the Design in your Treble, the Air it expres\ses; its Movement, and every Thing in it that is singular and remarkable; and then you must endeavour to give the same Expression in your new Bass: You must avoid final Cadences where the Melody doth not require it, by chusing out of your fundamental Chord the Sounds you think proper, so that they may agree with the Tre-
ble, according to the Succession of Conords and Discords.

If you use some Discords, take Care that they be prepared as they ought to be, and regularly resolved, according to the fixed Prog\ression of each Sound that the Chord of the Seventh consists of; afterwards, for Variety, you must endeavour to use (between your Parts) Conords or Discords of different Species: for the Treble being composed in such a Manner, and it being left to your Choice to take for Basses what other Note of the Chord you thin\k proper, you must observe, that in one Place you have taken the Sixth, followed by another Concord or a Discord; and that in another Place, though you might do the same Thing, yet you might give another Turn to your Bass, sometimes by using the Triton\us resolved by the Sixth, sometimes the false Fifth resolved by the Third, sometimes the Seventh resolved by the Sixth, the Third, or the Fifth, according to the different Progression that you may give to your Basses; or else you may cause to be heard, between the Parts, the consonant Notes only, of which the Chord of a Seventh is composed, such as the Octave, the Fifth, or the Third, or, in an inverted Manner, the Sixth, or the Fourth: You may also make Use of the Chords by Supp\osition or borrowed, when you feel that the diatonic Progression of your Basses leads you to it; for this Progression is always the most fing\ing, and is to be used as much as may be, especially where there appears no Conclusion. And you are to remember, that all minor Discords of a Chord, by Supposition, are to be prepared by the upper Part, which syncopes whilst the Bass asc\cends; and, if it descends, it can be but by Degrees disjoint or by Skips; that the Chord, where the major Discord takes Place, requires the Precaution that we have given it, either in the Succession of the Octave, or in what we have said in Chap. XI, XXII, XXXI, XXXIV, and XXXV, of the extreme sharp Fifth, of the extreme sharp Seventh, of the Tritonus, and of the extreme sharp Second; and that the Second is to be prepared by the Basses which syncopes. Afterwards, when you perceive that your Melody can conclude in a certain Place, you will then follow
follow the Progression of the fundamental Bafs: Thus will your Bafs be compos'd with Art and Taste.

**EXAMPLE.**

Fundamental Bafs.

Continued Bafs.

Observe, that in the fourth Bar I might have transposed the perfect Cadence of the Key of $C$ into an irregular Cadence in that of $A$, which, for Variety, would have been proper in this Case.

In the first and second Bar of the fundamental Bafs, there are two equal Progressions $A\ B$; therefore, I keep that which hath the nearest Relation to the Cadence for the second Bar; because that is the Place where the Cadence is most commonly felt, observing that it is an irregular Cadence in this Place, and that in the fourth Bar it is a perfect.

Again, to return to the first Bar, I give a diatonic Progression to the continued Bafs which agrees in every respect with the Treble,
ble; and, in order to continue that Progression in the second Bar, upon the second Part of the Bar, I take a Note that makes a Seventh with a fundamental Bafs, and which is resolved by the Third to that same Bafs, and which agrees with the Treble; and I continue it until the Place where the perfect Cadence is felt, and then I follow the Progression of the fundamental Bafs: I again seek for this diatonic Progression in the following Bars, where I find that the last Note of the fourth Bar may continue upon the same Degree, in order to make the Third with the fundamental Bafs, and the Octave with the Treble; and, afterwards, the Sixth in the fifth Bar with the Treble, and the Seventh with the fundamental Bafs; and again, I find the Ninth in the sixth Bar, and I do not follow the Progression of my fundamental Bafs, but at the final Close only. Besides, what leads me to know the Chords which the Notes in the continued Bafs are to carry, are the Intervals they make with the fundamental Bafs; for as I know that this last Bafs can bear but perfect Chords, or that of the Seventh, when it is truly composed, consequently, those Notes that make the Third, the Fifth, or the Seventh to those in the fundamental Bafs, cannot carry but those Chords that derive from the perfect Chord, or that of the Seventh. So that I could equally place Figures over the Treble, if I was willing, that it should be used, or serve for a Bafs; It is also for that Reason that I have figured the Ninth upon the first Note of the sixth Bar, because that Note is found to be a Third under or a Sixth above the Note in the fundamental Bafs, which, consequently, cannot be admitted in Harmony but by Supposition; so that by the Chord of the Seventh, which the fundamental Bafs carries, I find that Note can bear but that of the Ninth, though the Ninth doth not appear in the Treble; but you will observe, that the Fifth which is found therein, makes a Part of the Chord of the Ninth, and that this supposed Ninth is prepared and resolved according to the strictest Rules.

It would be endless, if we were obliged to reason in this Manner upon all the different Ways that a continued Bafs can be diversified; but if you will make the proper and necessary Remarks upon the several Examples that are contained in this Book, by applying to each of those Examples those Things you would be instructed in; and if, for the like Purposes, you consult the Works of the best Masters; you will soon overcome all Difficulties.

CHAP.
Principles of Composition.

C H A P. XLII.

Useful Remarks upon the foregoing Chapter.

1. You may compose a Bass, under another Part, without the Help of the fundamental Bass, by the Knowledge of the Succession or Progression of the Concords or consonant Notes, (which Succession we have fixed in such a clear Manner, that it cannot admit of any Doubt) provided that you remember to pass from a perfect Concord to an imperfect, and from this to the other, to avoid two perfect Concords together, when it can be done; whereas the imperfect Concords may follow each other (though you must not make too frequent use of this Liberty, by reason that it would be a Fault against that Variety which ought to be used) and to give to that Bass a diatonic Progression as often as may be, though a consonant Progression is to be sometimes used, especially in the chief or principal Cadences, where it is absolutely necessary.

2. You may compose a Bass upon the Succession of the Chords fixed in the Rule of the Octave of 7 and 2, —, of 9, and others.

See Chap. XI, XXI, XXII, XXVII, XXVIII, and XXIX.

3. For Variety, you may make Use of the Examples where the several different Ways of making the Bass to proceed under the same Treble are fixed, see Chap. XVII. observing that, of the four Parts that are contained in those Examples, it may happen that one of those Parts will always be like that which you shall have composed; but, left you should be mistaken, you must observe whether these Progressions are in the same Mode or Key; and, for that Purpose, you must not consult the Notes by their Names, but by the Rank and Order they stand in the Key you are in, and in that of the Examples. And, as these Examples are composed in the Key of C, you will find that a Progression from the Third to the Fifth, or from the Sixth to the Fourth, &c. will always bear the same Chords in any Key whatever.

See Chap. XIV. and XVII, of the Manner of preparing and resolving Discords.

See also Chap. XXIV. and XXVI, Art. I, II, and III, of the Manner of removing from one Key to another; how they may be distinguished, and how you may know what Chords are to be given to the Notes of a Bass in any Progression whatever; because the Knowledge of all these Things connected, will free you from an infinite Number of Doubts that will start at every Instant.
When once you are tolerably well grounded, and Master of all these Articles, you will easily discover afterwards, the Manner of practising Licences: You may figure the Melody or Treble, and that of the Bäs; if you think proper, by observing the principal Parts of the Bar, and the Note that is to bear a Chord in each Part; in order that you may rightly and truly figure your Bäs; and, when you doubt of the Chord, you must place a fundamental Bäs under those two Parts composed, by which you will see whether you have committed any Faults, and what Chords the Notes in the continued Bäs are to carry; observing that the Note which makes the Third, the Fifth, or the Seventh to that in the fundamental Bäs, can carry, but a Chord derived from it; or, if that Note in the continued Bäs is a Third or a Fifth below that of the fundamental, the Chord will then be by Supposition, and in that Case you must examine whether it be used properly, and according to the Rules.

As soon as your Bäs is well and rightly figured, nothing is more easy than to add to it two or three Parts, unless the upper Part, being too far fought, should hinder you from ranging those other Parts in all their Regularity; which is the Reason, that, the more there are Parts, the more we are obliged to follow in the Bäs a fundamental Progression; though we have given divers Examples of making a Bäs to proceed diatonically, or by conjoint Degrees, in the Progression of an-Octave, as well ascending as descending, whether it be by the common Chords, by the several Chords of Sixths, or by those of 7 and 6, or 2 and —, of 9, &c.

We now shall shew you what is to be observed in a Composition of several Parts.

CHAP. XLIII.

Rules to be observed in a Composition of two, three, or four Parts.

It is difficult to succeed perfectly in Pieces of two and three Parts, if all the Parts are not composed together, by reason that each Part is to have an easy Singing and gracious Melody; and a skilful Man seldom composes one Part, without feeling, at the same Time, the Effect of the other Parts that are to accompany it.

1. Although one Part is generally chosen for containing the finest Melody which is called the Subject, yet, if the other Parts are
are left naked, that diminisheth greatly the Beauty of the Subject; and it can be tolerated only in what is called a Recitative, where the Bass and the other Parts serve only to fill up the Harmony; but, otherwise, the Melody in two or three Parts are to be pretty near alike.

The less there are Parts, the more Variety is required in the Chords; it is, therefore, for Pieces in two Parts that this Rule requires a greater Strictness.

2. When you compose in three Parts, the Chords must be filled up and completed as much as may be; and the best Rule for that Purpose is, always to use Thirds and Sixes, at least in two Parts; the Octave ought to be used therein but seldom, unless the Design, the Fugue, or the Melody, leads us to it, especially in perfect Cadences, where each Part generally ends upon the Key-note.

* We shall speak of Design, and of a Fugue, in the last Chapter.

\[ \text{EXAMPLE} \]

\[ \text{Continued.} \]
Principles of Composition.

Continued.

As to pieces of four or more Parts, they are made either for a Chorus of Music, or for Quatuors or Quinques, &c. (you will find a Quinque or Canon in the last Chapter.)

The Voices in a Chorus may be increased to what Number we think proper in each Part, whereas we generally chuse but one voice for each Part, in a Quatuor or Quinque. Now, as there is some difficulty to give a fine, natural, easy Melody to every Part heard together, you must, at least, make it predominant in the Bass and the Treble, especially in a Chorus; nevertheless, you may give it to whatever Part you please, sometimes to one Part, and sometimes to another, by preferring that which is in the highest Degree of the Voice, or Instrument, supposing there be no Voices; for our Attention is naturally led to those Sounds that are the most acute; but we do not mean to deprive the Bass, which ought to prime in this Case, and upon which we are always to be ruled in these Sort of Pieces.

Whatever Difficulty there be in filling up a Quatuor or a Quinque with a fine Melody, we must nevertheless endeavour to succeed in it; and, probably, it was in Favour of these Pieces, that a Fugue was invented; which, renewing sometimes in one Part, and sometimes in another, surprizes the Auditor, and obliges him to withdraw his Attention from those Parts that are stripped of Melody, and to fix it upon that which retakes the Fugue: It is also by this Means, that the Auditor is artfully drawn in to give his Attention to those Sounds that touch him most. As to the Melody of the Fugue, and the several Refts that may be therein introduced, when you feel that the Melody is not very agreeable, it depends entirely upon Taste, and a proper Choice, to meet with Success (which is the Subject of the following Chapter) and it can be only in Chorus's that can please without Fugues; the same Thing is in respect to Duo's and Trios.
Principles of Composition.

One may exceed five Parts in Composition; but that belongs only to great Masters of the Art, who know how to double properly the consonant-notes or Conronds, by giving them, in that Cæ, opposite Progressions, and diversifying the Whole by Melodies more or less figurative.

CHAP. XLIV.


Design, in Music, is, in general, the Subject of all that the Composer proposes; for a skilful Composer is to propose to himself a Movement, a Key or Mode, a Melody, and an Harmony agreeable to the Subject he would treat. But this Term is to be more particularly adapted to a certain melody which he would have predominant in the Continuance of a Piece, either for making it suitable and agreeable to the Sense of the Words, or for Fancy or Taste; and in that Cæ it is distinguished in Design, in Imitation, and in Fugue.

Imitation hath no particular Merit that deserves our Attention; it consisting only by repeating at Pleasure, and in any of the Parts, a certain Continuance of Melody, without any other Regularity.

Fugue, as well as Imitation, consists in a certain Continuance of Melody, which may be repeated at Pleasure, and in any of the Parts, but with more Circumspection, according to the following Rules.

If, in Imitation, we may repeat the Melody of one or more Bars, and even the Air entirely in one or in all the Parts, and upon whatever Chords we think proper; on the contrary, in Fugues, the Melody must alternatively be heard in the two principal parts, which are the Treble and the Bass, unless, instead of the Treble, we chuse another Part; and, if the Piece contains many Parts, it will be more perfect, when the Fugue is heard alternatively in each Part. Again, the Chords that must be therein used, do not depend upon our Choice; and here follows the Manner of using them.

1. You must chuse the Key-note and its Fifth for the first and last Notes of the Fugue, preferable to any other, when you are not yet thoroughly assured of what you do; and the Melody of this Fugue is to be comprised in the Compsds of the Octave to the Key; for, supposing that it exceeds the Bounds of the Octave, those Notes that are above or below the Octave, are to be deemed the same as those that are within the Octave.

2. If
2. If one Part begins or ends by the Key-note, the other Part is to begin and end by the Fifth; and thus, in respect to every Note that answers within the Compass of the Octave to the Key, and so contriving it, that the Notes that are found between the Key-note and its Fifth, may answer equally in each Part; that is to say, that the second Note which is immediately above the Key-note, may answer to the Sixth, which is immediately above the Fifth; and thus, reciprocally, of that Note which is a Third, a Fourth, or a Fifth, either above or below the Key-note to that which is in the same Degree above or under the Fifth, according to the Progression of the Melody, which may either ascend or descend; for the Regularity and Conformity, required in the Notes that begin and end the Fugue, are to be equally observed in the whole Continuance of the Melody which the Fugue is composed of.

3. As in a diatonic Progression, either ascending or descending from the Key-note to its Fifth, and from this last to the other, there is one Note Difference either more or less, you may make one of those two Notes, in conjoint Degree of that Progression that contains the greatest Number, to agree with that Progression which must unavoidably be used, wherein there is one Note less, and this in the Middle of the Melody; for Instance, if the Melody of the Fugue proceeds by descending from the Key-note to its Fifth, we can therein make Use but of the sixth and the seventh Notes; whereas, in order to make the same Melody equal in descending from the Fifth to the Key-note, we can pass upon the fourth, the third, and the second Notes; so that we must chuse one of these three last Notes that is the nearest to the Key-note upon which the Air of the Fugue ends, in order to give it a Melody pretty near like that which was first heard. Likewise, if we proceed by that Progression that contains the greatest Number of Notes, we must make that which hath the least Number to agree with it, and this rather towards the End of the Melody than at the Beginning; but an Example will better explain it.

First Example.  Second Example.  Third Example.

\[
\begin{array}{c}
\text{First Example.} \\
\text{Second Example.} \\
\text{Third Example.}
\end{array}
\]

Fourth
In the first Example, the sixth or the seventh Note answers to the Third A.
In the Second, the Sixth answers to the Third C.
In the Third, the Seventh answers to the Third D.
In the Fourth, the Fifth B, or the Fourth F, answers to the Key-note B. F.
In the Fifth, the Third answers to the Seventh C, or to the Sixth H.
In the Sixth, the Third answers to the Seventh L, or to the Sixth N; the Second answers to the Sixth J, or to the Fifth P; the Fifth answers to the Second M, or to Key R; and the Key-note answers to the Fourth K.

Many
Many Things are to be observed to avoid Mistakes in the Choice. (which appears to be arbitrary) between each of the five Notes from the Key to the Fifth ascending, in order to make an Air answerable to that of the four Notes from the Fifth to the Key-note ascending, whether the Air ascends or descends; for there will always be found five Notes one Way, and four on the other; even sometimes we are obliged to borrow the second Note or the Fourth, in order to make up five Notes from the Fifth to the Key-note ascending, or from the Key-note to the Fifth descending, which is the same Thing; and those Authors, who have wrote of Fugues, have neglected these Observations, it will not be improper to disclose what Experience hath taught us upon this Subject.

1. The Fifth must always answer the Key-note, and the Key-note to the Fifth in the first and last Notes of the Fugue; and we cannot go from this Rule but in the Middle of the Air, where it is permitted to use or borrow the fourth Note in Lieu of the Fifth, and the second Note in Lieu of the Key-note, in order to make the Succession of Melody more equal and conformable one to another; there being, by this Means, but four Degrees from the second Note to the Fifth ascending, or from the Fourth to the Key-note descending, from which you may compose an Air pretty near like that which is within the Compsas of the four Degrees, from the Fifth to the Key-note ascending, or from this last unto the other descending: The same Liberty will also furnish us with five Degrees from the second Note to the Fifth descending, and from the fourth Note to the Key-note ascending, according to the five Degrees from the Fifth to the Key descending, or from this last unto the other ascending; and, when we say that the Melody formed from these borrowed Notes will be pretty near alike that which is heard between the Key-note and its Fifth, it is by reason that it cannot absolutely be the same, on Account of the diatonic Degree of each Mode, the Notes of which cannot be altered by any new Sharp or Flat, having in flat Keys, where a Flat must be added to the sixth Note, when it descends; and a Sharp to the Leading-note, when it ascends; being at Liberty, also, to add sometimes a Sharp to the Third of flat Keys, and to the Fourth of all Keys, when they answer the Leading-note; as we have done it in the fifth Example, to the Notes marked with a T, provided that those Notes make the sharp Third, or Sharp Sixth, with the Bats.

2. The Bats of the Fugue being found, you may seek, also, for the other Parts that might accompany the Melody and the Bats; wherein may be observed, that that Bats and the other Parts will follow pretty near the same Progression with the first Melody and the Answer; and also, that the Bats will bear the same Chords in
in one as in the other, if it be truly imitated; so that by the Means of this Bass, and of the other Parts, we may find that of making several Fugues to be heard together, or to compose another Species of Fugue, called a Canon, of which we shall speak hereafter.

3. The Melody of one Fugue may admit of several different Basses; it may be so composed, that it may be more suitable to the Bass, than to any other Part; which is indifferent, for, by inverting the Chords, we can compose various Basses, or cause one Part to serve as a Bass, though the Melody might be more proper for a Treble; but nothing is more pleasing than to use alternately these different Ways of accompanying a Treble or a Bass, especially in a Fugue, where a Variety can only be discerned in the Parts that accompany it: And, if we have said that the Bass of a Fugue might always be pretty near the same, it was only, in order to give the most just and true Idea of the Manner how the Melody of a Fugue ought to be imitated; for this Likeness in the Chords is, of itself, a sufficient Proof thereof.

4. In order to know the Choice that ought to be made of the Notes contained within the Compass of the Key-note to its Fifth ascending, and from this to the other descending, you must always keep in View the Key-note and its Fifth, at which Notes the Melody of each Fugue generally ends; but they are not to hinder us from making the Intervals of the Answer to be conformable to those of the Fugue inverted, especially in the Middle of the Air: So that, having made an Interval of a Third, Fourth, Fifth, Sixth, or Seventh, in the Middle of the first Melody, we are to make the like in the same Part of the Melody that answers the First, and so of the others. Yet this last Rule is not so general, but that one may deviate from it, in Favour of a diatonic Progression, or in Favour of the principal Notes of a Mode, having Regard rather to what follows than to what precedes; and to the Key-note and its Fifth (which generally begins and ends the Fugue) than to this Uniformity of Intervals which we have proposed. So that the Interval of a Fourth is oftentimes to answer that of a Fifth, and this last to answer the other; but, moreover, if, after a consonant Interval, there appear one or more diatonic Intervals, we must then have Recourse to those Places where the Key-note appears, in order that the diatonic Progression, which is found from the last consonant Interval until the Key-note, be regularly imitated in the answering Part until the Fifth; or, if the Progression leads to the Fifth, it must be imitated in the answering Part towards the Key-note, especially when a Progression (be it which it will) ends by a Cadence; for the final Cadence of a Fugue must always be made upon
uppon the Key-note and upon its Fifth: Though, if that Cadence doth not absolutely end the Fugue, then we may use the Fourth instead of the Fifth, and, sometimes, the Second instead of the Key-note.

A Fugue ought seldom to begin or end but by the Key-note, its Fifth, or Third; the Sixth or the Seventh answering then to that Third, as it appears in the fifth preceding Example: So that, by sticking to what follows, rather than to what precedes, and by the Conformity of the Chords that are to meet over the Bass used to Melodies answering one another in Fugue, you will seldom be mistaken.

**EXAMPLE**

First Melody.  Answer.

```
\[ \text{\textbf{EXAMPLE}} \]

First Melody.
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Continued Bass.

Answer.

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\[ \text{\textbf{EXAMPLE}} \]

Continued Bass.
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Continued Bass.
The continued Basis is placed only to shew, that, whatever Basis you may imagine under a Melody proposed, it may always have the same Uniformity, by bearing the same Chords, but the Fundamental is still better in this Case.

5. The Melody or Subject of a Fugue ought to contain, at least, half a Bar; and, if it contains more than four, the Answer must begin in the Fourth; and yet the Movement ought to be somewhat quick, that so long a Succession of Melody, stripped of Harmony, may please.

6. A Fugue may begin by any one of the Parts, but it ought naturally to end upon the first Part of the Measure or Bar, when it is divided into two Parts; and upon the third Part of the Bar, when it is divided into four; and, when it ends in any other Part, it is either for the Sake of the Words, or for Fancy only. Sometimes, for Novelty, we may trespass upon these Rules, which depend only upon a good Tasté; and the Surprize which these Sort of Fugues that end contrary to the Rule create, can be but pleasing, when they are done with Judgment and Discretion; they may also end upon other Notes than the Key-note and its Fifth.

**EXAMPLE.**

First Melody.  
Answer.

First Melody.

7. The Melody of the Fugue is to be imitated, in every Respect, as much as can be; for the same Quantity of Semibreves, Minums, &c. contained in any Part of the Measure, must be used wherever the Fugue is heard.

8. You may begin each Part in the Unison, or at the Octave of the first Part; but, when these Parts follow each other at the Fifth or Fourth, it is more agreeable, and produces a better Effect.
A Fugue may begin, and be answered, by any of the Parts in the whole Course of the Piece; and, when you change Keys, every Note of the Fugue must be the same in this new Key, as well in Respect to the Degree they occupy in the first Key, as in their Quality, Quantity, and Measure.

9. You may wait until the Melody or Subject of the Fugue be entirely finished, so that each Part may answer it one after another; but, as it sometimes happens, that, in the Midst of the Design, each Part may be made to answer, it has no bad Effect, provided that nothing be thereby altered. See the sixth Example.

10. By Inverting, all that Variety that may be introduced in Harmony, gives a new Grace to a Fugue; so that, having framed a Design or Subject, you may invert it in such a Manner, that the same Inversion which has been heard ascending, may be heard descending; and, vice versa, without any other Alteration.

11. Several Fugues may be heard together, or one after the other; and it ought to be contrived, as much as possible, that they should not always begin at the same Part of the Bar, or in the same Bar, especially for the first Time; and that their Progressions be inverted, and differently characterized; that is to say, that, if the one contains some Semibreves, the other ought to contain Minims, Crotchets, &c. at the Will of the Composer; and, if they cannot be heard together, that a Part of the one may, at least, be heard with a Part of the other, which will be better explained by the following Example.
Principles of Composition.
QUINQUE.

Continued Bafis

Fundamental Bafis
Principles of Composition.
Principles of Composition

De-fee-ent o-cul
me-i, Dum fpe-ro in De-um me-um, dum fpe-
La-bo-ra--vi
fung fau-ces me-ae, cla-
Rau-cae fac-tae fung fau-ces me-
me-i, dum fpe-ro, dum fpe-ro in De-um
La-bo-ra--vi cla-
cla-mans, cla-mans,
cla-mans, De-fee-ent o-cul me.i.dum

7 7 7 7 7 7 7
Principles of Composition.
Principles of Composition.

dum spe-ro, spe-ro, spe-ro in De-um, dum spe-

De-fo-ce-runt, De-fo-ce-runt o-cu-li me-i, Dum

tme, dum spe-ro in De-um me-um. Rau-ca

me-um. Rau-ca fac-te funt fauces me-

De-fo-ce-runt o-cu-li me-i, dum spe.

-fo in De-um me-um. Dum

spe-ro in De-um me-um, dum spe-ro, spe-ro,

fac-te funt fauces me-ae.

-fo in De-um me-um.
Principles of Composition,
This Example contains four different Fugues, and there are few Pieces of Music that contain more at once: We are often satisfied to introduce but one or two, but they may be inverted, which contributes greatly to the Perfection thereof.

The Fugue of \( \text{Kantce faéte sunt, } \& \text{c.} \) which, for an Answer at the Fifth, ends almost every-where upon the second Note, would be more perfect, if it ended upon the Key-note, as you will find it at that Part where the Bass takes that Fugue. Yet this second Note, which is there taken, instead of the Key-note, may be tolerated, and more especially when we are tied up by other Fugues, which, by Beginning and Ending with this, cannot agree but with this second Note. The Succession of the Chords, or even good Taste, may also oblige us, sometimes, to interrupt the true Melody of the Fugue; which often proceeds from the Author's Skill, in order to throw a greater Variety in the Course of his Piece: Nevertheless, this is not allowed, but after all the Subjects of the Fugue have been sufficiently heard.

To distinguish the several Notes which we have the Liberty of passing between several Parts of the Bar for the Sake of the Air, you must examine the fundamental Bases, which in that Case, doth not make Harmony with those Notes.

The fundamental Bases is added to the other Parts, only for the Sake of proving, that, in the whole Course of the Piece, there are found but perfect Chords, or that of the Seventh; and that the whole is taken from the Rules we have established upon those two Chords: Therefore, and for that Reason, it must not be examined with the other Parts, in respect to the Order, or to the Progression of the Concords and Discords, but only as to the real Harmony and Foundation of the Chords; this Order or Progression being observed and kept, only between the five upper Parts and the continued Bases; and the Foundation or Ground of the Chords is found in that fundamental Bases, which contains very near all the several and different Progressions from whence our Rules have been taken, whilst the other Parts never make but the Octave, the Fifth, the Third, or the Seventh, excepting in the irregular Cadences, and in the Chords by Supposition or borrowed.

As we may find as many different Fugues as there are different Airs, it would be impossible for us to give Examples of all of them; therefore the Choice must be left to the Composer's Taste, provided he observes, in all other Respects, what we have said as to the Beginning and Ending of them and their Answers.

And if you are willing that several Fugues should be heard together, you must pitch upon one, and in this Case you may chuse
Principles of Composition. 175

choose which you please; so that, if the Melody of one Fugue be agreeable to you, you may add to it three or four Parts, and you may find in these Parts the other Fugues. Yet, as several different Fugues that should begin and end at the same Time, and wherein there should happen to be the same Number and Value of Notes, would become insipid, by appearing to be only an Accompaniment one to the other, you must endeavour to avoid this Defect, by observing the Method we have mentioned in the Paragraph preceding the last Example. Words in Prose, which seldom bear the same Quality amongst themselves, naturally lead us to this Variety, which ought always to be sought after; but Words in Rhyme, equally measured, require a particular Care to begin and end one of those Fugues sooner or later than the other, and to insert some Divisions in those that can bear it, in order to introduce a greater Variety, but the whole must be done without Confusion; for the Entries or coming in of each Fugue are to be distinctly heard, without clashing with the other by properly ceasing, for some Space, that Part which is to retake the Fugue, and this Silence or Rest can be made but upon a Concord or consonant Note. One Fugue, for the first Time that it is heard, must not serve as a Continuance to the Melody that precedes it, but the Contrary must be practised with Success, provided that this Fugue hath been heard at least once in every part.

All the Entries of the first Fugue may be heard separately from the others; after which you pass to the Second, to the Third, &c. in which Case you intermix the first Fugue with the new Fugues: You may also cause each of them to be heard separately one from the other, and intermix them afterwards. If you would use several Fugues together, by placing one of these Fugues in one Part, and the other in another Part, it is then difficult to avoid Confusion. Oftentimes one Subject or Design makes us forget the other; yet the Composer ought to have them equally in View, and in his Mind. It is, therefore, by the Variety of Designs, or Subjects, by giving them opposite Progessions, by causing them to enter into different Parts of the Bar, &c. that you may cause each Fugue to be heard. It often happens, that one Part may sing two Fugues successively, which at first appeared but one, and which afterwards may be divided into two, which produces also a very agreeable Effect; but, in that Case, the second Part that retakes these Fugues, ought to begin immediately at the Place where they may be divided, though one may anticipate or postpone that Entry for some Parts of a Bar, and even for more than a Bar.
The same Number of Refts, or of Bars contained in the first Part that retakes the Fugue, must be observed in the next Part, that is to say, that, if the first Part that retakes the Fugue hath reckoned one Bar, each of the other Parts are to reckon the like Number of Bars after that which immediately precedes it. This Rule, nevertheless, is not so general, but that it may be trespaaed upon sometimes; and we think, that the third Part that retakes the Fugue, may be postponed or advanced for a Bar: So that, if the second Part hath reckoned two Bars, the third Part may reckon but one, or three after the second Part, and so of the others which repeat this Fugue in the Unison, or at the Octave, after the third Part; for as the Fifth is to answer the Key-note, and the second Note the Sixth, &c. what may agree one Way, after the End of one or two Bars, may possibly not agree with the other, after a like Number of Bars. It would be, therefore, restraining too much the Genius of an Author, by keeping him within the Bounds of the first Limits; and such as will not agree to this, will find a thousand Designs or Subjects where it may happen, that not one of them can be subjected to this strict Regularity. See, upon this Subject, the Fugues of Rauce facele junct, and of Defecerunt oculi mei, in the last Example.

When all the Parts cease together, in order that a new Fugue may appear in a better Light, the Subject must never appear as if it was absolutely ended, for we must always make the Auditor to expect as much as possible what we intend for him, and, to that End, this Reft or Silence ought to be used but in falle or irregular Cadences; and, if they be perfect Cadences, it must, at least, be in a foreign Key, as we have observed it in all the like Cases.

A Fugue is an Ornament in Music, founded upon good Taste; so that the most general Rules we have given, are hardly sufficient to succeed perfectly in it. The various Sentiments and Events that can be expressed in Music, introduce every Moment a Novelty which cannot be reduced to fixed Rules. It is true, that a perfect Knowledge of Harmony discovers to us, the Roads we should take in this Case; but the Choice of those Roads depends upon our Taste, and this Taste requires an Experience, which cannot be attained to but by Practice, and by studying and hearing the Works of the best and most skilful Masters in this Kind.

There is another Species of Fugue, called Perpetual, or Canon, which consists in an entire Air, the Subject of which is to be repeated regularly by all the Parts.
The most common are taken in the Unison, or at the Octave, according to the Extent of the Voices or Instruments; and for that Purpose you may compose a Subject at Pleasure, to which you add as many Parts as you think proper; and, of all these Parts, you compose an entire Air, which is so contrived, that the Melody of one Part may serve as a Continuance to the other; after which this Air begins by one of those Parts which is immediately followed by another, at the Time that the first Subject is ended; thus each Part follows the other, and, when the First is at an End, it begins again, being always followed by the others, as at first, provided that each Part began at its proper place. See the Example at the Side.

Supposing that you had imagined one of the Subjects contained in each of these five Parts, you might easily add the others, and from thence make an entire Air, in which consists all the Difficulty of this Canon, of which this is the Air.

Da Capo.

The Melody of those five Parts is very obvious in this Canon; we have only added some Notes for the Sake of the Air; and each of these Parts is to begin the Air one after the other, when the preceding Part is at the Mark.*

*This perpetual Fugue may also be taken at the Fifth or at the Fourth; but then, in this Case, the entire Air must be framed, and proper Sharps and Flats (as the Case requires) are to be added to those Notes, of which the natural Degrees would hinder those Parts that repeat the Air to be entirely conformable to the first Subject, without observing any Modulation, but only the Melody, which makes it the more difficult; for, every Time that a Part takes the Fugue, it goes into a new Key, which is at the Fifth, if the Fugue is taken at the Fifth; and at the Fourth, if it be taken at the Fourth. If the Number of Parts is unli-
mitted in the foregoing Canon, we believe that in this there cannot be used more than four Parts, since there hath not hitherto appeared any of this Sort in four Parts.

Canon at the Fifth.

Ah! loin de rire.
Principles of Composition.

If the Voice cannot reach the Note marked A, the Unison of the preceding Note may be taken.

When a Canon is said to be at the Fifth, it is to be understood above; so that a Fifth above, or a Fourth below, is the same Thing; and this is to be allowed, especially, for the Convenience of Voices.

We have placed the four Parts together, because it would have been difficult to have judged of it otherwise. Though we might only have given Notice, that each Part is to be taken at the Fifth of that which precedes it after two complete Bars; and though the Guides which shew where it must begin again, are not upon the Space or Line which refers you to the Mark, one must, nevertheless, follow and continue in the same Key designed by the Guide, by imagining a new Key, or, rather, imagining that the Key hath changed, as it really does; but that the Modulation of the Melody which is found at the Mark, is always the same: Thus you may continue as long as you think proper.

Canon at the Fourth.

\[\text{\textit{Avec du}}\]

\[\text{\textit{Avec du vin, endormons nous, en-dor-}}\]

\[\text{\textit{Avec du vin, endormons nous, en-dor}}\]

\[\text{\textit{Avec du vin, endormons nous, en-dor, endormons nous.}}\]

\[\text{\textit{Avec du, en-dormons nous, en-dor,}}\]

\[\text{\textit{Avec du, en-dormons nous, en-dor,}}\]

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Principles of Composition.

It is difficult to compose these two sorts of canons, unless you have a thorough knowledge of inverted chords; and you must avoid using (as much as you can) the fifth, the fourth, and the eleventh.

The best method to make a quick progress in composition, is to apply and stick closely to modulation, and to the fundamental harmony, which are the principal and only cause of all that variety that may be therein introduced, by inverting that same fundamental harmony, the modulation whereof never changes.

FINIS.

ERRATA.

Page 6, the direct in the tenor at bottom should be on C. The cliff in the first bass must be on the third line. The direct at top F, and at bottom G.—Page 17, counter tenor, seventh bar, a 3 over the first note.—Page 21, bass seventh bar B under the first note.—Page 62, eighth stave the F cliff on the fourth line. Third bar second note, B on the second line, pot F.—Page 68, example of A flat must have B, E, D and F flat.—Page 77, the first stave, the 7 over the second note in the seventh bar must be out, and 7 put over the first note in the eighth bar. The fourth stave, the first note in the ninth bar must be B on the second line.—Page 96, the third, fourth, and fifth stave, the F cliff must be on the fourth line, not on the third.—Page 111, the second note in the first bar should be D.—Page 122, the last example, the fourth note D in the second bar, should be a crotchet.—Page 123, the last example, the second note E in the second bar must be a quaver.—Page 125, the sixth bar the second note in the bass must be B.—Page 131, the second stave, the second note in the seventh bar must have a 6 over it instead of a 5.—Page 136, the second stave, the fifth bar, the second note must be C in the second space.—Page 138, F over the second note in the sixth bar, of the second part in the treble, C over the first note in the seventh bar.
Hail Sacred Art! descended from above,
To crown our mortal Joys: Of thee we learn,
How happy Souls communicate their Raptures;
For thour't the Language of the Blest in Heaven.

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Divum hominumque voluptas.
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A TREATISE OF MUSIC.

Of Sound: the Cause of it; and the various Affections of it concerned in Music.

Music is a science of sounds, whose end is pleasure. Sound is the object in general; or, to speak with the philosophers, it is the material object. But it is not the business of music, taken in a strict and proper sense, to consider every phenomenon and property of sound; that belongs to a more universal philosophy: yet, that we may understand what it is in sounds upon which the formality of music depends, i.e. whereby it is distinguished from other sciences, of which sound may also be the object: or, what it is in sounds that makes the particular and proper object of music, whereby it obtains its end; we must a little consider the nature of sound.

So undis a word that stands for every perception that comes by the ear immediately. And for the nature of the thing, it is now generally agreed upon among philosophers, and also confirmed by experience, to be the effect of the mutual collision, and consequent tremulous motion in bodies com-
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municated to the circumambient fluid of air, and propagated through it to the organs of hearing.

A treatise that were designed for explaining the nature of sound universally, in all its known and remarkable phænomena, should, no doubt, examine very particularly every thing that belongs to the cause of it; first, The nature of that kind of motion in bodies (excited by their mutual percussion) which is communicated to the air; then, how the air receives and propagates that motion to certain distances: And, laftly, How that motion is received by the ear, explaining the several parts of that organ, and their offices, that are employed in hearing. But as the nature and design of what I propose and have essayed in this treatise, does not require to large an account of sounds, I must be content only to consider such phænomena as belong properly to music, or serve for the better understanding of it. In order to which I shall a little farther enlarge the preceding general account of the cause of sound. And,

First, That motion is necessary in the production of sound, is a conclusion drawn from all our experience. Again, that motion exists, first among the small and insensible parts of such bodies as are sonorous, or capable of sound; excited in them by mutual collision and percussion, one against another, which produces that tremulous motion so observable in bodies, especially that have a free and clear sound, as bells, and the strings of musical instruments; then this motion is communicated to, or produces a like motion in the air, or such parts of it as are apt to receive and propagate it: for no motion of bodies at distance can affect our fenses (or move the parts of our bodies) without the mediation of other bodies, which receive these motions from the sonorous body, and communicate them to the organs of fense; and no other than a fluid can reasonably be suppos’d. But we know this also by experience; for a bell in the exhausted receiver of an air-pump can scarcely be heard, which was loud enough before the air was drawn out. In the last place, this motion must be communicated to those parts of the ear that are the proper and immediate instruments of hearing. The mechanism of this noble organ has still great difficulties, which all the industry of the most capable and curious enquirers has not surmounted: there are questions all unsolved about the use of some parts, and perhaps other necessary parts never yet discovered: but
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the most important question among the learned is about the last and immediate instrument of hearing, or that part which last receives the sonorous motion, and finishes what is necessary on the part of the organ. Consult these with the philosophers and anatomists; I shall only tell you the common opinion, in such general terms as my design permits, thus: Next to the external visible cavity or passage into the ear, there is a cavity, of another form, separate from the former by a thin membrane, or skin, which is called the tympan or drum of the ear, from the resemblance it has to that instrument: within the cavity of this drum there is always air, like that external air which is the medium of sound. Now, the external air makes its impression first on the membrane of the drum, and this communicates the motion to the internal air, by which it is again communicated to other parts, till it reaches at last to the auditory nerve, and there the sensation is finished, as far as matter and motion are concerned; and then the mind, by the laws of its union with the body, has that idea we call sound. It is a curious remark, that there are certain parts fitted for the bending and unbending of the drum of the ear, in order, very probably, to the perceiving sounds that are raised at greater or lesser distances, or whose motions have different degrees of force, like what we are more sensible of in the eye, which by proper muscles (which are instruments of motion) we can move outwards or inwards, and change the very figure of, that we may better perceive very distant or near objects. But I have gone far enough in this.

Left what I have said of the cause of sound be too general, particularly with respect to the motion of the sonorous body, which I call the original cause, let us go a little farther with it. That motion in any body, which is the immediate cause of its sounding, may be owing to two different causes; one is, the mutual percussion betwixt it and another body, which is the case of drums, bells, and the strings of musical instruments, &c. Another cause is, the beating or dashing of the sonorous body and the air immediately against one another, as in all kind of wind-instruments, flutes, trumpets, hautboys, &c. Now in all these cases, the motion which is the consequence of the mutual percussion betwixt the whole bodies, and is the immediate cause of the sonorous motion which the air conveys to our ears, is an invisible tremulous
tremulous or undulating motion in the small and insensible parts of the body. To explain this;

All visible bodies are supposed to be composed of a number of small and insensible parts, which are of the same nature in every body, being perfectly hard and incompreffible: of these infinitely little bodies are composed others that are something greater, but still insensible, and these are different, according to the different figures and union of their component parts: these are again supposed to constitute other bodies greater (which have greater differences than the last) whose different combinations do, in the last place, constitute those gross bodies that are visible and touchable. The first and smallest parts are absolutely hard; the others are comprefible, and are united in such a manner, that being, by a sufficient external impulfe, comprefled, they restore themselves to their natural, or ordinary state: this comprefion therefore happening upon the shock or impulfe made by one body upon another, these small parts or particles, by their reftrutive power (which we also call elaffic faculty) move to and again with a very great velocity or swiftnes, in a tremulous and undulating manner, something like the visible motions of grosser fprings, as the chord of a musical instrument; and this is what we may call the fonorous motion which is propagated to the ear. But obferve that it is the insensible motion of these particles next to the smallest, which is supposed to be the immediate cause of sound; and of these, only those next the surface can communicate with the air; their motion is performed in very small spaces, and with extreme velocity; the motion of the whole, or of the greater parts being no further concerned than as they contribute to the other.

And this is the hypothesis upon which Monfieur Perrault, of the Royal Society in France, explains the nature and phenomena of sound, in his curious treatife upon that subject, "Éflais de Phyfique," tom. 2. Du Bruif. How this theory is supported I shall briefly shew, while I consider a few applications of it.

Of those hard bodies that found by percufion of others, let us consider a bell: strike it with any other hard body, and while it sounds we can difcern a fenfible tremor in the surface, which spreads more fenfibly over the whole, as the shock is greater. This motion is not only in the parts next the surface, but in all the parts through the whole solidity,
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Solidity, because we can perceive it also in the inner surface of the bell, which must be by communication with those parts that are immediately touched by the striking body. And this is proved by the ceasing of the sound when the bell is touched in any other part; for this shews the easy and actual communication of the motion. Now this is plainly a motion of the several small and insensible parts changing their situations with respect to one another, which being so many, and so closely united, we cannot perceive their motions separately and distinctly, but only that trembling which we reckon to be the effect of the confusion of an infinite number of little particles so closely joined and moving in infinitely small spaces. Thus far any body will easily go with the hypothesis: but Monsieur Perrault carries it farther, and affirms, That that visible motion of the parts is no otherwise the caufe of the sound than as it cauSES the invisible motion of the yet smaller parts (which he calls particles, to distinguish them from the other which he calls parts, the leaf of all being with him corpuscles) And this he endeavours to prove by other examples, as of chords and wind-instruments. Let us consider them.

Take a chord or string of a musical instrument, stretched to a sufficient degree for founding, when it is fixt at both ends, we make it found by drawing the chord from its strait position, and then letting it go; (which has the same effect as what we properly call percussion) the parts by this drawing, whereby the whole is lengthned, being put out of its natural state, or that which they had in the strait line, do by their elacticity restore themselves, which cauSES that vibratory motion of the whole, whereby it moves to and again beyond the strait line, in vibrations gradually smaller, till the motion ceaSE and the chord recover its former position. Now the shorter the chord is, and the more it is stretched in the strait line, the quicker these vibrations are: but however quick they are, Monsieur Perrault denies them to be the immediate cause of the sound; because, if he, in a very long chord, and not very small, stretched only so far as that it may give a distinct sound, we can perceive with our eye, besides the vibrations of the whole chord, a more confused tremor of the parts, which is more discernible towards the middle of the chord, where the parts vibrate in greater spaces in the motion of the whole; this last motion of the parts which is caused by the first vibrations of the
the whole, does again occasion a motion in the lesser parts or particles, which is the immediate cause of the sound. And this he endeavours to confirm by this experiment, \textit{viz.} Take a long chord (he says, he made it with one of thirty foot) and make it sound; then wait till the sound quite cease, and then also the visible undulations of the whole chord will cease: if immediately upon this ceasing of the sound, you approach the chord very softly with the nail of your finger, you will perceive a tremulous motion in it, which is the remaining small vibrations of the whole chord, and of the parts caused by the vibrations of the whole. Now these vibrations of the parts, are not the immediate cause of sound; else how comes it that while they are yet in motion they raise no sound? The answer perhaps is this, That the motion is become too weak to make the sound to be heard at any great distance, which might be heard were the tympan of the ear as near as the nail of the finger, by which we perceive the motion. But to carry off this, Mr. Perrault says, That as soon as this small motion is perceived, we shall hear it found; which is not occasioned by renewing or augmenting the greater vibrations, because the finger is not supposed to strike against the chord, but this against the finger, which ought rather to stop that motion; the cause of this renewed sound therefore is probably, that this weak motion of the parts, which is not sufficient to move the particles (whole motion is the first that ceases) receives some assistance from the dashing against the nail, whereby they are enabled to give the particles that motion which is necessary for producing the sound. But left it should still be thought, that this encounter with the nail may as well be supposed to increase the motion of the parts to a degree fit for sound, as to make them capable of moving the particles; we may consider, that the particles being at rest in the parts, and having each a common motion with the whole part, may very easily be supposed to receive a proper and particular motion by that shock; in the same manner that bodies which are relatively at rest in a ship, will be shaken and moved by the shock of the ship against any body that can any thing considerably oppose its motion. Now for as simple as this experiment appears to be, I am afraid it cannot be so easily made as to give perfect satisfaction, because we can hardly touch a string with our nail but it will found.

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But Mr. Perrault finishes the proof of his hypothesis by the phenomena of wind-instruments. Take for example a flute; we make it found by blowing into a long, broad, and thin canal, which conveys the air thrown out of the lungs, till it is dashed against that thin solid part which we call the tongue, or wind-cutter, that is opposite to the lower orifice of the forefaid canal; by which means the particles of that tongue are compressed, and by their restitutive motion, they communicate to the air a sonorous motion, which being immediately thrown against the inner concave surface of the flute, and moving its particles, the motion communicated to the air, by all these particles both of the tongue and inner surface, makes up the whole sound of the flute.

Now to prove that only the very small particles of the inner surface and edge of the tongue are concerned in the sound of the flute, we must consider, that flutes of different matter, as metal, wood, or bone, being of the same length and bore, have none, or very little sensible difference in their sound; nor is this sensibly altered by the different thicknesses of the flute betwixt the outer and inner surface; nor in the last place, is the sound any way changed by touching the flute, even though it be hard pressed, as it always happens in bells and other hard bodies that found by mutual percussion. All this Mr. Perrault accounts for by his hypothesis, thus: he tells us, That as the corpuscles are the same in all bodies, the particles which they immediately constitute, have very small differences in their nature and form; and that the specific differences of visible bodies, depend on the differences of the parts made up of these particles, and the various connection of these parts, which make them capable of different modifications of motion. Now, hard bodies that found by mutual percussion one against another, owe their sounding to the vibrations of all their parts, and by these to the insensible motions of their particles; but according to the differences of the parts and their connections, which make them, either silver, or brass, or wood, &c. so are the differences of their sounds. But in wind-instruments (for example, flutes) as there are no such remarkable differences answering to their matter, their sound can only be owing to the insensible motion of the particles of the surface; for these being very little difference in all bodies, if we suppose the sound is owing to their motions only, it can have none, or very small differences: and because we find this true in fact, it makes the hypothesis extremely probable. I have never in-
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The deed seen flutes of any matter but wood, except of the small kind we call flagellets, of which I have seen ivory ones, whose sound has no remarkable difference from a wooden one; and therefore I must leave so much of this proof upon Monsieur Perrault’s credit. As to the other part, which is no les considerabe, that no compression of the flute can sensibly change its sound, it is certain, and every body can easily try it. To which we may add, That flutes of different matter are founded with equal ease, which could not well be if their parts were to be moved; for in different bodies these are differently moveable. But I must make an end of this part, in which I think it is made plain enough, that the motion of a body which causes a sounding motion in the air, is not any motion which we can possibly give to the whole body, wherein all the parts are moved in one common direction and velocity; but it is the motion of the several small and undistinguishable parts, which being compressed by an external force, do, by their elastic power, restore themselves, each by a motion particular and proper to itself. But whether you will distinguish parts and particles as Mr. Perrault does, I leave to yourselves, my design not requiring any accurate determination of this matter. And now to come nearer to our subject, I shall next consider the differences and affections of sounds that are any way concerned in music.

Sounds are as various, or have as many differences, as the infinite variety of things that concur in their production; which may be reduced to these general heads: First, The quantity, constitution, and figure of the sonorous body; with the manner of percussion, and the consequent velocity of the vibrations of the parts of the body and the air; also their equality and uniformity, or inequality and irregularness. Secondly, The constitution and state of the fluid medium through which the motion is propagated. Thirdly, The disposition of the ear that receives that motion. And, fourthly, The distance of the ear from the sonorous body. To which we may add, lastly, The consideration of the obstacles that interpose betwixt the sonorous body and the ear; with other adjacent bodies that, receiving an impression from the fluid so moved, re-act upon it, and give new modification to the motion, and consequentely to the sound. Upon all these do our different perceptions of sound depend.

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The variety and differences of sounds, owing to the various degrees and combinations of the conditions mentioned, are innumerable; but to our present design we are to consider the following distinctions.

1. Sounds, come under the specific distinction, according to the kinds of bodies from which they proceed: thus metal is easily distinguished from other bodies by the sound; and among metals there is great difference of sound, as is discernible, for example, betwixt gold, silver and brass. And for the purpose in hand, a most notable difference is that of stringed and wind-instruments of music, of which there are also sub-divisions: these differences depend, as has been said, upon the different constitutions of these bodies; but they are not strictly within the consideration of music, not the mathematical part of it at least, though they may be brought into the practical; of which afterwards.

2. Experience teaches us, that some sounds can be heard, by the same ear, at greater distances than others; and when we are at the same distance from two sounds, I mean from the sonorous body or the place where the sound first rises, we can determine (for we learn it by experience and observation) which of the two will be heard farthest: by this comparison we have the idea of a difference whose opposite terms are called loud and low (or strong and weak.) This difference depends both upon the nature of different bodies, and upon other accidental circumstances, such as their figure; or the different force in the percussion; and frequently upon the nature of the circumjacent bodies, that contribute to the strengthening of the sound, that is a conjunction of several sounds so united as to appear only as one sound: but as the union of several sounds gives occasion to another distinction, it shall be considered again, and we have only to observe here that it is always the cause of loudness; yet this difference belongs not strictly to the theory of music, though it is brought into the practice, as that in the first article.

3. There is an affection or property of sound, whereby it is distinguished into acute, sharp or high; and grave, flat or low. The idea of this difference you will get by comparing several sounds or notes of a musical instrument, or of a human voice singing. Observe the term low, is sometimes opposed to loud, and sometimes to acute, which yet are very different things: loudness is very well measured by the distance
distance or sphere of audibility, which makes the notion of it very clear. Acuteness, is so far different, that a voice or sound may ascend or rise in degree of acuteness, and yet lose nothing of its loudness, which can easily be demonstrated upon any instrument, or even in the voice; and particularly if we compare the voice of a boy and a man.

This relation of acuteness and gravity is one of the principal things concerned in music, the nature of which shall be particularly considered afterwards; and I shall here observe that it depends altogether upon the nature of the sonorous body itself, and the particular figure and quantity of it; and in some cases upon the part of the body where it is struck. So that, for example, the sounds of two bells of different metals, and the same shape and dimensions, being struck in the same place, will differ as to acuteness and gravity; and two bells of the same metal will differ in acuteness, if they differ in shape or in magnitude, or be struck in different parts: so in chords, all other things being equal, if they differ either in matter, or dimensions, or the degree of tension, as being stretched by different weights, they will also differ in acuteness.

But we must carefully remark, that acuteness and gravity, also loudness and lowness are but relative things; so that we cannot call any sound acute or loud, but with respect to another which is grave or low in reference to the former; and therefore the same sound may be acute or grave, also loud or low in different respects. Again, these relations are to be found not only between the sounds of different bodies, but also between different sounds of the same body, for different force in the percussion will cause a louder or lower sound, and striking the body in different parts will make an acuter or graver sound, as we have remarkably demonstrated in a bell, which as the stroke is greater gives a greater or louder sound, and being struck nearer the open end, gives the graver sound. How these degrees are measured, we shall learn again, only mind that these degrees of acuteness and gravity are also called different and distinguishable tones or tunes of a voice or sound; so we say one sound is in tune with another when they are in the same degree: acute and grave being but relations, we apply the name of tune to them both, to express something that is constant and absolute which is the ground of the relation; in like manner as we apply the name magnitude both to the things we call great
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great and little, which are but relative ideas: each of them have a certain magnitude, but only one of them is great and the other little when they are compared; so of two sounds each has a certain tune, but only one is acute and the other grave in comparison.

4. There is a distinction of sounds, whereby they are denominated long or short; which relates to the duration, or continued, and sensibly uninterrupted existence of the sound. This is a thing of very great importance in music; but to know how far, and in what respect it belongs to it, we must distinguish betwixt the natural and artificial duration of sound. I call that the natural duration or continuity of sound, which is less or more in different bodies, owing to their different constitutions, whereby one retains the motion once received longer than another does; and consequently the sound continues longer (though gradually weaker) after the external impulse ceases; so bells of different metals, all other things being equal and alike, have different continuity of sound after the stroke: And the same is very remarkable in strings of different matter: there is too a difference in the bell or string, according to the force of the percussion. This continuity is sometimes owing to the sudden reflection of the sound from the surface of neighbouring bodies, which is not so properly the same sound continued, as a new sound succeeding the first so quickly as to appear to be only its continuation: But this duration of sound does not properly belong to music, wherefore let us consider the other. The artificial continuity of sound is, that which depends upon the continued impulse of the efficient cause upon the sonorous body for a longer or shorter time, such are the notes of a voice or any wind-instrument, which are longer or shorter as we continue to blow into them; or, the notes of a violin and all stringed instruments that are struck with a bow, whose notes are made longer or shorter by strokes of different lengths or quickness of motion; for a long stroke, if it is quickly drawn, may make a shorter note than a short stroke drawn slowly. Now this kind of continuity is properly the succession of several sounds, or the effect of several distinct strokes, or repeated impulses, upon the sonorous body, so quick that we judge it to be one continued sound, especially if it is continued in one degree of strength and loudness; but it also must be continued in one degree of tune, else it cannot be called one note in music. And this leads
leads me naturally to consider the very old and notable distinction of a twofold motion of sound, thus.

Sound may move through various degrees of acuteness in a continual flux, so as not to rest on any degree for any assignable, or at least sensible time; which the ancients called the continuous motion of sound, proper only to speaking and conversation. Or, 2do. it may pass from degree to degree, and make a sensible stand at every pitch, so as every degree shall be distinct; this they called the discrete or discontinuus motion of sound, proper only to music or singing. But there may be no obscurity here, consider, that as the ideas of motion and distance are inseparably connected, so they belong in a proper sense to bodies and space; and whatever other thing they are applied to, it is in a figurative and metaphorical sense, as here to sounds; yet the application is very intelligible, as I shall explain it. Voice or sound is considered as one invididual being, all other differences being neglected except that of acuteness and gravity, which is not considered as constituting different sounds, but different states of the same sound; which is easy to conceive; and so the several degrees or pitches of tune, are considered as several places in which a voice may exist. And when we hear a sound successively existing in different degrees of tune, we conceive the voice to have moved from the one place to the other; and then it is easy to conceive a kind of distance between the two degrees of places; for as bodies are said to be distant, between which other bodies may be placed, so two sounds are said to be at distance, with respect of tune, between which other degrees may be conceived, that shall be acute with respect to the one, and grave with respect to the other. But when the voice continues in one pitch, though there may be many interruptions and sensible rests whereby the sound doth end and begin again, yet there is no motion in that case, the voice being all the time in one place. Now this motion, in a simple and proper sense, is nothing else but the successive existence of several sounds differing in tune. When the successive degrees are so near, that like the colours of a rainbow, they are as it were lost in one another, so that in any sensible distance there is an indefinite number of degrees, such kind of succession is of no use in music; but when it is such that the ear is judge of every single difference, and can compare several differences, and apply some known means to them, there the object of music does exist; or when
when there is a succession of several sounds distinct by sensible rests, though all in the same tune, such a succession belongs also to music.

From this twofold motion explained, we see a twofold continuity of sound, both subject to certain and determinate measures of duration; the one is that arising from the continuous motion mentioned, which has nothing to do in music; the other is the continuity or uninterrupted existence of sound in one degree of tune. The differences of sounds in this respect, or the various measures of long and short, or (which is the same at least a consequence) swift and slow in the successive degrees of sound, while it moves in the second manner make a principal and necessary ingredient in music; whose effect is not inferior to any other thing concerned in the practice; and is what determines to be very particularly considered, though indeed it is not brought under so regular and determinate rules as the differences of tune.

5. Sounds are either simple or compound; but there is a twofold simplicity and composition to be considered here; the first is the same with what we explained in the last article, and relates to the number of successive vibrations of the parts of the sonorous body, and of the air, which comes so fast upon the ear that we judge them all to be one continued sound, though it is really a composition of several sounds of shorter duration. And our judging it to be one, is very well compared to the judgment we make of that apparant circle of fire, caused by putting the fired end of a stick into a very quick circular motion; for suppose the end of the stick in any point of that circle which it actually describes, the idea we receive of it there continues till the impression is renewed by the sudden return; and this being true of every point, we must have the idea of a circle of fire; the only difference is, that the end of the stick has actually existed in every point of the circle, whereas the sound has had interruptions, though sensible to us because of their quick succession; but the things we compare are, the succession of the sounds making a sensible continuity with respect to time, and the succession of the end of the stick in every point of the circle after a whole revolution; for it is by this we judge it to be a circle, making a continuity with respect to space. The author of the Elucidationes Physicae upon D'Cartes music, illustrates it in this manner, says he, As standing corns are bended by one blast of wind, and before they can recover themselves
the wind has repeated the blast, so that the corn is standing
in the same inclined position for a certain time, seems to be
the effect of one single action of the wind, which is truly
owing to several distinct operations; in like manner the
small branches (capillamenta) of the auditory nerve, re-
sembling so many stalks of corn, being moved by one vibra-
tion of the air, and this repeated before the nerve can recover
its situation, gives occasion to the mind to judge the whole
effect to be one sound. The nature of this kind of compon-
tion being so far explained, we are next to consider what
simplicity in this sense is; and I think it must be the effect
of one single vibration, or as many vibrations as are necessary
to raise in us the idea of sound; but perhaps it may be a
question, whether we ever have, or if we can raise such an
idea of sound: there may be also another question, whether
any idea of sound can exist in the mind for an indivisible
space of time; the reason of this question is, that if every sound
exists for a finite time, it can be divided into parts of a
shorter duration, and then there is no such thing as an ab-
solute simplicity of this kind, unless we take the notion of it
from the action of the external cause of sound, viz. the
number of vibrations necessary to make sound actually exist,
without considering how long it exists; but as it is not prob-
able that we can ever actually produce this, i.e. put a
body in a sounding motion, and stop it precisely when
there are as many vibrations finished as are absolutely neces-
sary to make sound, we must reckon the simplicity of sound,
considered in this manner, and with respect to practice, a
relative thing; that being only simple to us which is the
most simple, either with respect to the duration or the cause,
that we ever hear; but whether we consider it in the re-
peated action of the cause or the consequent duration,
which is the subject of the last article, there is still another
simplicity and composition of sounds very different from
that, and of great importance in music, which I shall next
explain.

A simple sound is the product of one voice or individual
body, as the sound of one flute or one man's voice. A com-
ound sound consists of the sounds of several distinct voices
or bodies, all united in the same individual time and measure
of duration, i.e. all striking the ear together, whatever
their other difference may be. But we must here distinguish
a natural and artificial composition; to understand this, re-
member,
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member, that the air being put into motion by any body, communicates that motion to other bodies; the natural composition of sounds is therefore, that which proceeds from the manifold reflections of the first sound, or that of the body which first communicates founding motion to the air, as the flute or violin in one's hand; these reflections, being many, according to the circumstances of the place, or the number, nature, and situations of the circumjacent bodies, make sounds more or less compound. This is a thing we know by common experience; we can have a hundred proofs of it every day by singing, or founding any musical instrument in different places, either in the fields or within doors; but these reflections must be such as returning very suddenly do not produce what we call an echo, and have only this effect, to increase the sound, and make an agreeable resounance; but still in the same tune with the original note; or, if it be a composition of different degrees of tune, they are such as mix and unite, so that the whole agrees with that note. But this composition is not under rules of art; for though we learn by experience how to dispose these circumstances that they may produce the desired effect, yet we neither know the number or different tunes of the sounds that enter into this composition; and therefore they come not under the musician's direction in what is hereafter called the composition of music; his care being only about the artificial composition, or that mixture of several sounds, which being made by art, are separable and distinguishable one from another. So the distinct sounds of several voices or instruments, or several notes of the same instrument, are called simple sounds, in distinction from the artificial composition, in which to answer the end of music, the simples must have such an agreement in all relations, but principally and above all in acuteness and gravity, that the ear may receive the mixture with pleasure.

6. There remains another distinction of sound necessary to be considered, whereby they are said to be smooth and even, or rough and harsh; also clear or blunt, hoarse and obtuse; the ideas of these differences must be sought from observations; as to the cause of them, they depend upon the disposition and state of the sonorous body, or the circumstances of the place. Smooth and rough sounds depend upon the body principally; we have a notable example of rough and harsh sound in strings that are unevenly and not of the same constitution and dimension throughout; and for
this reason that their sounds are very grating, they are called false strings. I will let you in few words hear how Monsieur Perrault accounts for this. He affirms that there is no such thing as a simple sound, and that the sound of the same bell or chord is a compound of the sounds of the several parts of it; so that where the parts are homogeneous, and the dimensions or figure uniform, there is always such a perfect union and mixture of all these sounds that makes one uniform, smooth and evenly sound; and the contrary produces harshness; for the likenesses of parts and figure makes an uniformity of vibrations, whereby a great number of similar and coincident motions conspire to fortify and improve each other mutually, and unite for the more effectual production of the same effect. He proves his hypothesis by the phenomena of a bell, which differs in tone according to the part you strike; and yet strike it any where there is a motion over all the parts; he considers therefore the bell as composed of an infinite number of rings, which according to their different dimensions have different tones, as chords of different lengths have (caeteris paribus) and when it is struck, the vibrations of the parts immediately struck specify the tone; being supported by a sufficient number of consonant tones in other parts: and to confirm this he relates a very remarkable thing; he says, He happened in a place where a bell sounded a fifth aetuer than the tone it used to give in other places; which in all probability, says he, was owing to the accidental disposition of the place, that was furnished with such an adjustment for reflecting that particular tone with force, and so unfit for reflecting others, that it absolutely prevailed and determined the concord and total sound to the tone of that fifth. If we consider the sound of a violin, and all stringed instruments, we have a plain demonstration that every note is the effect of several more simple sounds; for there is not only the sound resulting from the motion of the string, but also that of the motion of the parts of the instrument; that this has a very considerable effect in the total sound is certain because we are very sensible of the tremulous motion of the parts of the violin, and especially, because the same string upon different violins sounds very differently, which can be for no other reason but the different constitutions, of the parts of these instruments, which being moved by communication with the string increase the sound, and make it more or less agreeable, according to their different natures;
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But Perrault affirms the fame of every string in itself without considering the instrument; he says, every part of the string has its particular vibrations different from the gross and sensible vibrations of the whole, and these are the causes of different motions (and sounds) in the particles; which being mixed and unite, as was said of the sounds that compose the total sound of a bell, make an uniform and evenly composition, wherein not only one tone prevails, but the mixture is smooth and agreeable; but when the parts are unevenly and irregularly constitute, the sound is harsh and the string from that called false. And therefore such a string, or other body having the like fault, has no certain and distinct tone, being a composition of several tones that do not unite and mix so as to have one predominant that specifies the total tone.

Again, for clear or hoarse sounds they depend upon circumstances that are accidental to the sonorous body; so a man’s voice, or the sound of an instrument, will be hollow and hoarse, if it is raised within an empty hog’s head, which is clear and bright out of it; the reason is very plainly the mixture of other and different sounds raised by reflection, that corrupt and change the species of the primitive and direct sound.

Now that sounds may be fit for obtaining the end of music they ought to be smooth and clear; especially the first, because if they have not one certain and discernible tone, capable of being compared to others, and standing to them in a certain relation of acuteness, whose differences the ear may be able to judge of and measure, they cannot possibly answer the end of music, and therefore are no part of the object of it.

But there are also sounds which have a certain tone, yet being excessive, either in acuteness or gravity, bear not that just proportion to the capacity of the organs of hearing, as to afford agreeable sensations. Upon the whole then we shall call that harmonic or musical sound, which being clear and even is agreeable to the ear, and gives a certain and discernible tune (hence also called tunable sound) which is the subject of the whole theory of harmony.

Thus we have considered the properties and affections of sound that are any way necessary to the subject in hand; and of all the things mentioned, the relation of acuteness and gravity, or the tune of sounds, is the principal ingredient.
A TREATISE

dient in music; the distinctness and determinateness of which relation gives found the denomination of harmonical or musical: next to which are the various measures of duration. There is nothing in sounds without these that can make music; a just theory wherein abstracts from all other things, to consider the relations of sounds in the measures of tune and duration; though indeed in the practice other differences are considered (of which something more may be said afterwards) but they are so little, compared to the other two, and under so very general and uncertain theory, that I do not find they have ever been brought into the definition of music.

A Definition and Division of Music.

We may from what is already said affirm, that music has for its object, in general, found; and particularly, founds considered in their relations of tune and duration, as under that formality they are capable of affording agreeable sensations. I shall therefore define music, a science that teaches how founds under certain measures of tune and time, may be produced; and so ordered or disposed, as in consonance (i.e. joint founding) or succession, or both, they may raise agreeable sensations.

Pleasure I have said is the immediate end of music; I suppose it therefore as a principle, that the objects proposed, are capable, being duly applied, to affect the mind agreeably: nor is it a precarious principle; experience proves, and we know by the infallible testimony of our senses, that some simple founds succeed others upon the ear with a positive pleasure, others disagreeably; according to the certain relations of tune and time; and some compound founds are agreeable, others offensive to the ear; and that there are degrees and variety in this pleasure, according to the various measures of these relations. For what pretences are made to the application of music to some other purposes than mere pleasure or recreation, as these are obtained chiefly by means of that pleasure, they cannot be called the immediate end of it.

From the definition given, we have the science divided into these two general parts. First, The knowledge of the Materia Musica, or, how to produce founds, in such relations of tune and time as shall be agreeable in consonance or
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or succession, or both. I do not mean the actual producing of the sounds by an instrument or voice, which is merely the mechanical or effective part; but the knowledge of the various relations of tune and time, which are the essential principles out of which the pleasure sought arises, and upon which it depends. This is the pure speculative part of music. Second, How these principles are to be applied; or, how sounds, in the relations that belong to music (as these are determined in the first part) may be ordered, and variously put together in succession and consonance so as to answer the end; which part we rightly call, The art of composition; and it is properly the practical part of music.

Some have added a third part, viz. The knowledge of instruments; but as this depends altogether upon the first, and is only an application or expression of it, it could never be brought regularly into the definition; and so can be no part of the division of the science; yet may it deserve to be treated of, as a consequent or dependent of it, and necessary to be understood for the practical part. As this has no share in my design, I shall detain you but while I say, in a few words, what I think such a treatise should contain. And inso, There should be a theory of instruments, giving an account of their frame and construction, particularly, how, supposing them completely provided of all their apparatus, each contains in it the principles of music, i.e. how the several degrees of tune pertaining to music are to be found upon the instruments. The second part should contain the practice of instruments, in such directions as might be helpful for the dextrous and nice handling of them, or the elegant performance of music: and here might be annexed rules for the right use of the voice. But after all, I believe these things will be more successfully done by a living instructor, I mean a skilful and experienced master, with the use of his voice or instrument: though I doubt not such might help us too by rules; but I have done with this.

You must next observe with me, that as the art of common writing is altogether distinct from the sciences to which it is subservient by preserving what would otherwise be lost, and communicating thoughts at distance; so there is an art of writing proper to music, which teaches how, by a fit and convenient way of representing all the degrees and measures of sound, sufficient for directing in the executive part, one who
who understands how to use his voice or instrument, the artist when he has invented a composition answering the principles and end of music, may preserve it for his own use, or communicate it to another present or absent. To this I have very justly given a place in the following work, as it is a thing of a general concern to music, though no part of the science, and merely a handmaid to the practice; and particularly as the knowledge of it is necessary for carrying on my design. I now return to the division above made, which I shall follow in explaining this science.

The first general branch of this subject, which is the contemplative part, divides naturally into these. First, The knowledge of the relations and measures of tune. And, secondly, of time. The first is properly what the ancients properly called Harmonica, or the doctrine of harmony in sounds; because it contains an explication of the grounds, with the various measures and degrees of the agreement (harmony) of sounds in respect of their tune. The other they called Rythmica, because it treats of the numbers of sounds or notes with respect to time, containing an explication of the measures of long and short, or swift and slow in the succession of sounds.

The second general branch, which is the practical part, as naturally divides into two parts answering to the parts of the first: that which answers to the Harmonica, the ancients called Melopoeia; because it contains the rules of making songs with respect to tune and harmony of sounds; though indeed we have no ground to believe that the ancients had any thing like composition in parts. That which answers to the Rythmica, they called Rythmopeia, containing the rules concerning the application of the numbers and time.

A general Account of the Method of writing Music.

What this title imports is necessary to be well understood, and to come to the thing itself let us consider.

It was not enough to have discovered so much of the nature of sound, as to make it serviceable to our pleasure, by the various combinations of the degrees of tune, and measures
measures of time; it was necessary also, for enlarging the application, to find a method how to represent these fleeting and transient objects, by sensible and permanent signs; whereby they are as it were arrested: and what would otherwise be lost even to the composer, he preserves for his own use, and can communicate it to others at any distance; I mean he can direct them how to raise the like ideas to themselves, supposing they know how to take sounds in any relation of tune and time directed; for the business of this art properly is, to represent the various degrees and measures of tune and time in such a manner, that the connection and succession of the notes may be easily and readily discovered, and the skilful practiser may at sight find his notes, or, as they speak, read any song.

As the two principal parts of music are the tune and time of sounds, so the art of writing it is very naturally reduced to two parts corresponding to these. The first, or the method of representing the degrees of tune, I shall explain in this chapter; which will lead me to say something in general of the other, a more full and particular account whereof you shall have in the next chapter.

We have already seen how the degrees of tune or the scale of music may be expressed by seven letters repeated as oft as we please in a different character; but these, without some other signs, do not express the measures of time, unless we suppose all the notes of a song to be of equal length. Now, supposing the thing to be made not much more difficult by these additional signs of time, yet the whole is more happily accomplished in the following manner.

If we draw any number of parallel lines, as in plate I. fig. 7. then, from every line to the next space, and from every space to the next line up and down, represents a degree of the diatonick scale; and consequently from every line or space to every other at greater distance represents some other degree of the scale, according as the immediate degrees from line to space, and from space to line are determined. Now to determine these we make use of the scale express'd by seven letters, as already explained, viz. \(c; d; e, f: g; a: b\). \(c\) — where the tone greater is represented by a colon (:) the tone lesser by a semicolon (;) and the semitone greater by a (.). If the lines and spaces are marked and named by these letters, as you see in the figure, then according to the relations assigned to these letters (i. e. to the sounds express'd...
pref'd by them) the degrees and intervals of sound express'd
by the distances of lines and spaces are determined.

As to the extent of the scale of music, it is infinite if
we consider what is simply possible, but for practice, it is
limited; and in the present practice 4 octaves, or at most
4 octaves with a 6th, comprehending 34 diatonic notes,
is the greatest extent. There is scarcely any one voice to
be found that reaches so far, though several different
voices may; nor any one single piece of melody, that com-
prehends so great an interval betwixt its highest and lowest
note: yet we must consider not only what melody requires,
but what the extent of several voices and instruments is
capable of, and what the harmony of several of them re-
quires; and in this respect the whole scale is necessary,
which you have represented in the figure directed to; I
shall therefore call it the universal system, because it com-
prehends the whole extent of modern practice.

But the question still remains, how any particular order
and succession of sounds is represented? And this is done
by setting certain signs and characters one after another,
up and down on the lines and spaces, according to the
intervals and relations of tune to be express'd; that is, any
one letter of the scale, or the line or space to which it be-
longs, being chosen to set the first note on, all the rest are
set up and down according to the mind of the composer,
upon such lines and spaces as are at the designed distances,
i.e. which express the designed interval according to the
number and kind of the intermediate degrees; and mind that
the first note is taken at any convenient pitch of tune; for
the scale, or the lines and spaces, serve only to determine
the tune of the rest with relation to the first, leaving us to
take that as we please: for example, if the first note is placed
on the line e, and the next designed a tone or 2d g. above,
it is set on the next space above, which is d; or if it is
designed a 3d g. it is set on the line above which is e; or
on the second line above, if it was designed 5th, as you see
represented in the 2d column of the scale in the pre-
ceding figure, where I have used this character O for a
note. And here let me observe in general, that these char-
acters serve not only to direct how to take the notes in
their true tune, by the distance of the lines and spaces on
which they are set; but by a fit number and variety of
them (to be explained in the next chapter) they express
the
the time and measure of duration of the notes; whereby it is plain that these two things are no way confounded; the relative measures of tune being properly determined by the distances of lines and spaces, and the time by the figure of the note or character.

It is easy to observe what an advantage there is in this method of lines and spaces, even for such music as has all its notes of equal length, and therefore needs no other thing but the letters of the scale to express it; the memory and imagination are here greatly assisted, for the notes standing upward and downward from each other on the lines and spaces, express the rising and falling of the voice more readily than different characters of letters; and the intervals are also more readily perceived.

Observe in the next place, that with respect to instruments of music, I suppose their notes are all named by the letters of the scale, having the same distances as already stated in the relations of sounds express'd by these letters; so that knowing how to raise a series of sounds from the lowest note of any instrument by diatonic degrees (which is always first learned) and naming them by the letters of the scale, it is easily conceived how we are directed to play on any instrument, by notes set upon lines and spaces that are named by the same letters. It is the business of the masters and professors of several instruments to teach the application more expressly. And as to the human voice, observe, the notes thereof, being confined to no order, are called e or d, &c. only with respect to the direction it receives from this method; and that direction is also very plain; for having taken the first note at any convenient pitch, we are taught by the places of the rest upon the lines and spaces how to tune them in relation to the first, and to one another.

Again, as the artificial notes which divide the tones of the natural series, are express'd by the same letters, with these marks, *, b, already explained, so they are also placed on the same lines and spaces, on which the natural note named by that letter stands; thus * and e belong to the same line or space, as also d* and d. And when the note on any line or space ought to be the artificial one, it is marked * or b; and where there is no such mark it is always the natural note. Thus if from a (natural) we would set a 3d g, upward, it is c*; or a 3d f. above g.
it is $b$ flat or $b$. These artificial notes are all determined on instruments to certain places or positions, with respect to the parts of the instrument and the hand; and for the voice they are taken according to the distance from the last note, reckoned by the number of tones and semitones that every greater interval contains.

The last general observe I make here is, that as there are twelve different notes in the semitonic scale, the writing might be so ordered, that from every line a space to the next space or line should express a semitone; but it is much better contrived, that these should express the degrees of the diatonic scale (i.e. some tones some semitones) for hereby we can much easier discover what is the true interval between any two notes, because they are fewer lines and spaces interposed, and the number of them such as answers to the denomination of the intervals; so an octave comprehends four lines and four spaces; a 5th comprehends three lines and two spaces, or three spaces and two lines; and so of others. I have already shewn, how it is better that there should be but seven different letters, to name the twelve degrees of the semitonic scale; but supposing there were twelve letters, it is plain we should need no more lines to comprehend an octave, because we might assign two letters to one line or space, as well as to make it, for example, both $c^\#$ and $c$, whereof the one belongeth to the diatonick series, should mark it for ordinary, and upon occasions the other be brought in the same way we now do the signs $\#$ and $b$.

A more particular Account of the Method; where, of the Nature and Use of Clefs.

Though the scale extends to thirty-four diatonic notes, which require seventeen lines with their spaces, yet because no one single piece of melody comprehends near so many notes, whatever several pieces joined in one harmony comprehend among them; and because every piece or single song is directed or written distinctly by itself; therefore we never draw more than five lines, which comprehend the greatest number of the notes of any single piece; and for those cases which require more we draw short lines occasionally.
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occasionally, above or below the 5, to serve the notes that
go higher or lower.

E X A M P L E:

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\[\text{music staff with notes}\]
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Again, though every line and space may be marked at
the beginning with its letter, as has been done in former
times; yet, since the art has been improving, only one line
is marked, by which all the rest are easily known, if we
reckon up or down in the order of the letters; the letter
marked is called the clef or key, because by it we know the
names of all the other lines and spaces, and consequently the
true quantity of every degree and interval. But because
every note in the octave is called a key, though in another
sense this letter marked is called in a particular manner the
signed clef, because being written on any line, it not only
signs or marks that one, but explains all the rest. And to
prevent ambiguity in what follows, by the word Clef I shall
always mean that letter which, being marked on any line,
explains all the rest, and by the word Key the principal note
of any song in which the melody closes, in the sense ex-
plained in the last chapter. Of these signed clefs there are
three, viz. e, f, g; and that we may know the improvement
in having but one signed clef in one particular piece, also
how and for what purpose three different clefs are used in
different pieces, consider the following definition.

A Song is either simple or compound. It is a simple
song, where only one voice performs; or, though there be
more, if they are all unison or octave, or any other concord
in every note, it is still but the same piece of melody, per-
formed by different voices in the same or different pitches of
tune, for the intervals of the notes are the same in them all.
A compound song is where two or more voices go together,
with a variety of concords and harmony; so that the melody
each of them makes is a distinct and different simple song,
and all together make the compound. The melody that
each of them produces is therefore called a part of the com-
position; and all such compositions are very properly called
lymphonetic music, or music in parts; taking the word mu-
sic here for the composition or song itself.

Now, because in this composition the parts must be some
of them higher and some lower (which are generally so or-
dered
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dered that the same part is always highest or lowest, though in modern compositions they do frequently change) and all written differently by themselves, as is very necessary for the performance; therefore the staff of five lines upon which each part is written, is to be considered as a part of the universal system or scale, and is therefore called a particular system; and because there are but five lines ordinarily, we are to suppose as many above and below as may be required for any single part; which are actually drawn in the particular places where they are necessary.

The highest part is called the treble, or alt, whose clef is $g$, set on the 2d line of the particular system, counting upward: the lowest is called the bass, i.e. basis, because it is the foundation of the harmony, and formerly in their plain compositions the bass was first made, though it is otherwise now; the bass clef is $f$ on the 4th line upward: all the other parts, whose particular names you will learn from practice, I shall call mean parts, whose clef is $e$, sometimes on one, sometimes on another line; and some that are really mean parts are set with the $g$ clef; and observe that the $e$ and $f$ clefs are marked with signs no-way resembling these letters; I think it were as well if we used the letters themselves, but custom has carried it otherwise; yet that it may not seem altogether a whim, Kepler, chap. book 3. of his Harmony, has taken critical pains to prove, that these signs are only corruptions of the letters they represent; the curious may consult him.

We are next to consider the relations of these clefs to one another, that we may know where each part lies in the scale or general system, and the natural relation of the parts among themselves, which is the true design and office of the clefs. Now they are taken 5ths to one another, that is, the clef $f$ is lowest, $e$ is a 5th above it, and $g$ a 5th above $e$.

Example. or thus

![Diagram](image-url)
O F M U S I C.

Observe, that though in the particular systems, the treble or g clef is ordinarily set on the 2d line, the bass or f clef on the 4th line, and the mean or c clef on the 3d line (especially when there are but three parts) yet they are to be found on other lines; as particularly the mean clef, which most frequently changes place (because there are many mean parts) is sometimes on the 1st, 2d, 3d, 4th, and 5th lines; but on their removal have different names.

Example.

\[
\begin{array}{cccc}
1^\text{st} & 2^\text{nd} & 3^\text{d} & 4^\text{th} & 5^\text{th} \\
\hline
& & & & \\
\end{array}
\]

1st Soprano: 2d Mozzo Soprano: 3d Contra Tenor: 4th Tenor: 5th Tenor Bass. — The person who sings from this last named cliff may prove his notes either from the mean on the 5th line, or bass on the 3d; but on whatever line in the separate particular system any clef is signed, it must be understood to belong to the same place of the general system, and to be the same individual note or sound on the instrument which is directed by that clef; so that to know what part of the scale any particular system is, we must take its clef where it stands signed in the scale, and take as many lines above and below it, as there are in the particular system; or thus, we must apply the particular system to the scale, so as the clef lines coincide, and then we shall see with what lines of the scale the other lines of the particular system coincide: For example, if we find the clef on the 3d line upward in a particular system; to find the coincident five lines to which it refers in the scale, we take with the f clef line, two lines above and two below. Again, if we have the c clef on the 4th line, we are to take in the scale with the clef line, one line above and three below, and so of others; so that according to the different places of the clef in a particular system, the lines in the scale corresponding to that system may be all different, except the clef line which is invariable: and that you may with ease find in the scale.
scale the five lines coincident with every particular system, upon whatever line of the five the clef may be set.

As to the reason of changing the relative place of the clef, i.e. its place in the particular system, it is only to make this comprehend as many notes of the song as possible, and by that means to have fewer lines above or below it; so if there are many notes above the clef note and few below it, this purpose is answered by placing the clef in the first or second line; but if the song goes more below the clef, then it is best placed higher in the system: in short, according to the relation of the other notes to the clef note, the particular system is taken differently in the scale, the clef line making one in all the variety, which consists only in this, viz. taking any five lines immediately next other, whereof the clef line must always be one.

By this constant and invariable relation of the clefs, we learn easily how to compare the particular systems of several parts, and know how they communicate in the scale, i.e. which lines are unison, and which are different, and how far, and consequently what notes of the several parts are unison, and what not: For you are not to suppose that each part has a certain bounds within which another must never come; no, some notes of the treble, for example, may be lower than some of the mean parts, or even of the bass; and that not only when we compare such notes as are not heard together, but even such as are. And if we would put together in one system, all the parts of any composition that are written separately. The rule is plainly this, viz., place the notes of each part at the same distances above and below the proper clef, as they stand in the separate system. And because all the notes that are consonant (or heard together) ought to stand, in this design, perpendicularly over each other, therefore that the notes belonging to each part may be distinctly known, they may be made with such differences as shall not confuse or alter their significations with respect to time, and only signify that they belong to such a part; by this means we shall see how all the parts change and pass thro' one another, i.e. which of them, in every note, is highest or lowest or unison; for they do sometimes change, tho' more generally the treble is highest and the bass lowest, the change happening more ordinarily betwixt the mean parts among themselves, or these with the treble.
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treble or bass: The treble and bass clefs are distant an octave and tone, and their parts do seldom interfere, the treble moving more above the clef note, and the bass below.

We see plainly then, that the use of particular signed clefs is an improvement with respect to the parts of any composition; for unless some one key in the particular systems were distinguished from the rest, and referred invariably and constantly to one place in the scale, the relations of the parts could not be distinctly marked; and that more than one is necessary, is plain from the distance there must be among the parts: Or if one letter is chosen for all, there must be some other sign to shew what part it belongs to, and the relation of the parts. Experience having approved the number and relations of the signed clefs which are explained, I shall add no more as to that, but there are other things to be here observed.

The choosing these letters f, c, g for signed clefs, is a thing altogether arbitrary; for any other letter within the system, will explain the rest as well; yet 'tis fit there be a constant rule, that the several parts may be right distinguished; and concerning this observe again, that for the performance of any single piece the clef serves only for explaining the intervals among the lines and spaces, so that we need not mind what part of any greater system it is, and we may take the first note as high or low as we please: For as the proper use of the scale is not to limit the absolute degree of tone, so the proper use of the signed clef is not to limit the pitch, at which the first note of any part is to be taken, but to determine the tune of the rest with relation to the first, and, considering all the parts together, to determine the relations of their several notes, by the relations of their clefs in the scale: And so the pitch of tune being determined in a certain note of one part, the other notes of that part are determined, by the constant relations of the letters of the scale; and also the notes of the other parts, by the relations of their clefs. To speak particularly of the way of tuning the instruments that are employed in executing the several parts, is out of my way; I shall only say this, that they are to be so tuned as the clef notes, wherever they lie on the instruments which serve each part, be in the forementioned relations to one another.
A T R E A T I S E

As the harpsichord or organ (or any other of the kind) is the most extensive instrument, we may be helped by it to form a clearer idea of these things: For consider, a harpsichord contains in itself all the parts of music, I mean the whole scale or system of the modern practice; the foremost range of keys contains the diatonic series beginning, in the largest kind, in g, and extending to e above the fourth 8ve; which therefore we may well suppose represented by the preceding scale. In practice, upon that instrument, the clef notes are taken in the places represented in the scheme; and other instruments are so tuned, that, considering the parts they perform, all their notes of the same name are unison to those of the harpsichord that belong to the same part. I have said, the harpsichord contains all the parts of music; and indeed any two distinct parts may be performed upon it at the same time and no more; yet upon two or more harpsichords tuned unisons, whereby they are in effect but one, any number of parts may be executed: And in this case we should see the several parts taken in their proper places of the instrument, according to the relations of their clefs explained: And as to the tuning the instrument, I shall only add, that there is a certain pitch to which it is brought, that it may be neither too high nor too low, for the accompaniment of other instruments, and especially for the human voice, whether in unison or taking a different part; and this is called the Confort Pitch. To have done, you must consider, that for performing any one single part, we may take the clef note in any 8ve, i.e. at any note of the same name, providing we go not too high or too low for finding the rest of the notes of the song: But in a confort of several parts, all the clefs must be taken, not only in the relations, but also in the places of the system already mentioned, that every part may be comprehended in it: Yet still you are to mind, that the tune of the whole, or the absolute pitch, is in itself an arbitrary thing, quite foreign to the use of the scale; tho' there is a certain pitch generally agreed upon, that differs not very much in the practice of any one nation or set of musicians from another. And therefore,

When I speak of the place of the clefs in the scale or general system, you must understand it with respect to a scale of a certain determined extent; for this being undetermin-
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ed, so must the places of the clefs be: And for any scale of a certain extent, the rule is, that the mean clef c be taken as near the middle of the scale as possible, and then the clef g a 5th above, and f a 5th below, as it is in the present general system of four 8ves and a 6th, represented in the scheme, and actually determined upon harpsichords.

In the last place consider, that since the lines and spaces of the scale, with the degrees stated among them by the letters, sufficiently determine how far any note is distant from another, therefore there is no need of different characters of letters, as would be if the scale were only expressd by these letters: And when we speak of any note of the scale, naming it by a or b, &c. we may explain what part of the scale it is in, either by numbring the 8ves from the lowest note, and calling the note spoken of (for example) c in the lowest 8ve or in the 2d 8ve, and so on: Or, we may determine its place by a reference to the feat of any of the three signed clefs; and so we may say of any note, as f or g, that it is such a clef note, or the first or second, &c. f or g above such a clef. Take this application, suppose you ask me what is the highest note of my voice? If I say d, you are not the wiser by this anfwer, till I determine it by laying it is d in the fourth octave, or the first d above the treble clef. But again, neither this question nor the anfwer is sufficiently determined, unless it have a reference to some supposed pitch of tune in a certain fixt instrument, as the ordinary Confort Pitch of a harpsichord, because, as I have frequently said, the scale of music is concerned only with the relation of notes and the order of degrees, which are still the same in all differences of tune, in the whole series.

Of the REASON, USE, and variety of the SIGNATURES of CLEFS.

I have already faid, that the natural and artificial Note expressed by the fame letter, as c and c#, are both set on the fame line or space. When there is no ♯ or♭ marked on any line or space, at the beginning with the clef, then all the notes are natural; and if in any particular place of the song, the artificial note is required, 'tis signified by the sign ♯ or♭, set upon the line a space before that note; but if a
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* or $ is set at the beginning in any line or space with the clef, then all the notes on that line or space are the artificial ones, that is, are to be taken a semitone higher or lower than they would be without such a sign; the same affects all their 8ves above or below, tho’ they are not marked so. And in the course of the song, if the natural note is sometimes required, it is signified by this mark 7. And the marking the system at the beginning with sharps or flats, I call the signature of the clef.

In what’s said, you have the plain rule for application; but that we may better conceive the reason and use of these signatures, it will be necessary to recollect, and also make a little clearer, what has been explained of the nature of keys or modes, and of the original and use of the sharp and flat notes, I shall explain what a key and mode in music is; and distinguish betwixt these two, and shew that there are and can be but two different modes, the greater and the lesser, according to the two concinnous divisions of the 8ve, viz. by the 3d g. or the 3d l. and their proper accompaniments; and whatever difference you may make in the absolute pitch of the whole notes, or of the first note which limit all the rest, the same individual song must still be in the same mode; and by the key I understand only that pitch or degree of tune at which the fundamental or close note of the melody, and consequentlly the whole 8ve is taken; and because the fundamental is the principal note of the 8ve which regulates the rest, it is peculiarly called the key. Now as to the variety of keys, if we take the thing in so large a sense as to signify the absolute pitch of tune at which any fundamental note may be taken, the number is at least indefinite; but in practice it is limited, and particularly with respect to the denominations of keys, which are only twelve, viz. the twelve different names or letters of the semitonic scale; so we say the key of a song is c or d, &c. which signifies that the cadence or close of the melody is upon the note of that name when we speak of any instrument; and with respect to the human voice, that the close note is unison to such a note on an instrument; and generally, with respect both to instruments and voice, the denomination of the key is taken from the place of the close note upon the written music, i. e. the name of the line or space where it stands: Hence we see, that tho’ the difference of keys refers to the degree of tune, at which the fundamental, and consequently the whole 8ve
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8ve is taken, in distinction from the mode or constitution of an octave, yet these denominations determine the differences only relatively, with respect to one certain series of fixed sounds, as a scale of notes upon a particular instrument, in which all the notes of different names are different keys, according to the general definition, because of their different degrees of tune; but as the tuning of the whole may be in a different pitch, and the notes taken in the same part of the instrument, are, without respect to the tuning of the whole, still called by the same name c or d, &c. because they serve only to mark the relation of tune betwixt the notes, therefore it is plain, that in practice a song will be said to be in the same key as to the denomination, though the absolute tune be different, and to be in different keys when the absolute tune is the same; as if the note a is made the key in one tuning, and in another the note d unison to a of the former. Now, this is a kind of limitation of the general definition, yet it serves the design best for practice, and indeed cannot be otherwise without infinite confusion. I shall a little below make some more particular remarks upon the denominations of sounds, or notes raised from instruments or the human voice: but from what has been explained, you will easily understand what difference I put betwixt a mode and a key; of modes there are only two, and they respect what I would call the internal constitution of the 8ve; but keys are indefinite in the more general and abstract sense; and with regard to their denominations in practice they are reduced to twelve, and have respect to a circumstance that is external and accidental to the mode; and therefore a key may be changed under the same mode, as when the same song, which is always in the same mode, is taken up at different notes or degrees of tune; and from the same fundamental or key a series may proceed in a different mode, as when different songs begin in the same note. But then because common use applies the word key in both senses, i.e. both to what I call a key and a mode, to prevent ambiguity the word sharp or flat ought to be added when we would express the mode; so that a sharp key is the same as the greater mode, and a flat key a lesser mode; and when we would express both mode and key, we join the name of the key note, thus, we may say such a song is for example in the sharp or flat key c, to signify that the fundamental note in which the close is made is the note called c on the instrument, or unison to it in the voice; or gene-

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rally, that it is set on the line or space of that name in writing; and that the 3d g, or 3d f, is used in the melody, while the song keeps within that key; for I have also observed, that the same song may be carried through different keys, or make successive cadences in different notes, which is commonly ordered by bringing in some note that is none of the natural notes of the former key, of which more immediately: But when we hear of any key denominated c or d without the word sharp or flat, then we can understand nothing but what I have called the key in distinction from the mode, i.e. that the cadence is made in such a note, \( 3 \). 

Again, I shall explain the use of the notes we call sharp and flat, or artificial notes, and the distinction of keys in that respect into natural and artificial, and shew that they are necessary for correcting the defects of instruments having fixed founds, that beginning at any note we may have a true concinnous diatonic feries from that note, which in a scale of fixed degrees in the 8ve we cannot have, all the orders of degrees proceeding from each of the seven natural notes being different, of which only two are concinnous. viz. from c which makes a sharp key, and from a which makes a flat key; and to apply this more particularly, you must understand the use of these sharp or flat notes to be this, that a song, which, being set in a natural key, or without sharps and flats, is either too high or too low, may be transposed or set in another more convenient key, which necessarily brings in some of the artificial notes, in order to make a diatonic feries from this new key, like that from the other; and when the song changes the key before it comes to the final close, though the principal be natural, yet some of these into which it changes may require artificial notes, which are the essential and natural notes of this new key; for though this be called an artificial key, it is only so with respect to the names of the notes in the fixed system, which are still natural with respect to their proper fundamental, viz. the key into which the piece is transposed, or into which it changes where the principal key is natural.

And even with respect to the human voice, which is under no limitation, I have shewn the necessity of these names, for the sake of a regular, distinct and easy representation of founds, for directing the voice in performance. I shall next more particularly explain by some examples, the business of keeping in and going out of keys. Example. Suppose a song begins in \( c \) or at least makes the first close in it; if all the notes
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notes preceding that close are in true musical relation to c as a fundamental in one species, suppose as a sharp key, i.e., with a 3d g, the melody has been still in that key. But if proceeding, the composer brings in the note f®, he leads the melody out of the former key, because f® is none of the natural notes of the 8ve c, being a false 4th to c. Again he may lead it out of the key without any false note, by bringing in one that belongs not to the species in which the melody was begun. Suppose after beginning in the sharp key c, he introduces the note g®, which is a flat 6th, or an extreme sharp 5th to c, and therefore harmonious, yet it belongs to it as a flat key, and consequently is out of the key as a sharp one. And because the same song cannot with any good effect be made to close twice in the same note in a different species, therefore after introducing the note g®, the next close must be in some other note as a, and then the key in both senses will be changed, because a has naturally a 3d b; and therefore when any note is laid to be out of a key, it is understood to be out of it either as making a false interval, or as belonging to it in another species than a supposed one, i.e., if it belong to it as a sharp key, it is out of it as a flat one; the first close is in a as a sharp key, all the preceding notes being natural to it as such; then proceeding in the same key, you see g (natural) introduced, which belongs not to a as a sharp key, and also a®, which is quite out of the former key. By these notes a close is brought on in b, and the melody is laid to be out of the first key, and is so in both senses of the word key; then the melody is carried on to a close in d, which is a third key, and with respect to that piece is indeed the principal key, in which also the piece begins; but I shall consider this again; it was enough to my purpose here, that all the notes from the beginning to the first close in a were natural to the octave from a with a 3d; and that the 3d above the close is not used, yet the 6th below it is used, which is the same thing in determining the species.

I return now to explain the reason and use of the signatures of clefs. And first, Let us suppose any piece of melody confined strictly to one mode or key, and let that be the natural sharp key c, from which as the relation of the letters are determined in the scale, there is a true musical series and graduation of notes, and therefore it requires no ® or b, consequently the signature of the clef must be plain. But let the piece be transposed to the key d, it must necessarily take f®.
instead of $f$, and $c$ for $e$, because $f$ is the true 3d, and $c$ the true 7th to $d$. Now if the clef be not signed with a on the feet of $f$ and $c$, we must supply it wherever these notes occur through the piece; but it is much better that they should be marked once for all at the beginning.

Again, suppose a piece of melody, in which there is a change of the key or mode; if the same signature answer all these keys, there is no more question about it; but if that cannot be, then the signature ought to be adjusted to the principal key, rather than to any other; it demands $f$ and $c$ for its 3d and 7th, therefore the signature expresseth them. The piece actually begins in the principal key, though the first close is made in the 5th above, viz. in $a$, by bringing in $g$; which is very naturally managed, because all the notes from the beginning to that close belong to both the sharp keys $d$ and $a$, except that $g$ is the only note in which they can differ: then you see the melody proceeds for some time in notes that are common to both these keys, though indeed the impression of the last cadence will be strongest; and then by bringing $g$ (natural) and $a$; it leaves both the former keys to close in $b$; and here again there is as great a coincidence with the principal key as possible, for the flat key $b$ has every one of its essential notes common with some one of these of the sharp key $d$, except $a$ and $g$ which that flat key may occasionally make use of.

To proceed with our signatures, you have, in what is said the true use and reason of the signatures of clefs; in respect of which they are distinguished into natural, and artificial or transposed clefs; the first is when no or $b$ is set at the beginning; and when there are, it is said to be transposed. We shall next consider the variety of signatures of clefs, which in all are about twelve, and the most reasonable way of making the artificial notes, either in the general signature, or where they occur upon the change of the key.

In the semitonic scale there are twelve different notes in an octave (for the 13th is the same with the 11th) each of which may be made the fundamental or key of a long, i.e. from each of them we can take a series of notes, that shall proceed consecutively by seven diatonic degrees of tones and semitones to an octave, in the species either of a sharp or flat key, or of a greater or lesser mode (the small errors of this scale as it is fixed upon instruments, being in all this matter neglected.) Now, making each of these twelve letters or notes
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notes a fundamental or key-note, there must be in the compass of an octave from each, more or fewer, or different sharps and flats necessarily taken in to make a concinnous series of the same species, i.e. proceeding by the greater or lesser 3d (for these specify the mode, and determine the other differences); and since from every one of the twelve keys we may proceed concinnously, either with a greater or lesser 3d, and their accompaniments, it appears at first sight, that there must be twenty-four different signatures of clefs, but you will easily understand that there are but twelve, for the same signature serves two different keys, whereof the one is a sharp and the other a flat key, as you see plainly in the nature of the diatonic scale, in which the octave from c proceeds concinnously by a 3d, and that from a (which is a 6th above, or a 3d below c) by a 3d with the 6th and 7th for its accompaniments, which I suppose here essential to all flat keys; consequently, if we begin at any other letter, and by the use of * or b make a concinnous diatonic series of either kind, we shall have in the same series, continued from the 6th above or 3d below, an octave of the other species; therefore there can be but twelve different signatures of clefs, whereof one is plain or natural, and eleven transposed or artificial.

What the proper notes of these transposed clefs are, you may find thus; let the scale of semitones be continued to two octaves, then begin at every letter, and, reckoning two semitones to every tone, take two tones and one semitone, then three tones and one semitone, which is the order of a sharp key, or of the natural octave from c, the letters which terminate these tones and semitones, are the effiential or natural notes of the key or octave, whose fundamental is the letter or note you begin at. By this you will find the notes belonging to every sharp key; and these being continued, you will also have the notes belonging to every flat key, by taking the 6th above the sharp key for the fundamental of the flat.

With respect to the names and signatures, there remain some things to be explained. I have told you that upon the main it was an indifferent thing, whether the artificial notes in the scale were named from the note below with a *, or from that above with a b. You have each of them marked, in some signatures *, and in others b; but in every particular signature the marks are all of one kind, *, or b, though one signature is *, and another b; and these are not so ordered at random; the reason I shall explain to you. In the first place
place there is a greater harmony with respect to the eye; but this is a small matter, a better reason follows. Consider, every letter has two powers, i.e., is capable of representing two notes, according as you take it natural or plain, as c, d, &c. or transposed as c* or d b; again, every line and space is the seat of one particular letter. Now if we take two powers of one letter in the same octave or key, the line or space to which it belongs must have two different signs; and then when a note is set upon that line or space, how shall it be known whether it is to be taken natural or transposed? This can only be done by setting the proper signs at every such note; which is not only troublesome, but renders the general signature useless as to that line or space. This is the reason why some signatures are made * rather than b, and contrarily; for example, take for the fundamental c*, the rest of the notes to make a sharp key are d**, f: f**, g**, a**, c, where you see f and c are taken both natural and transposed, which we avoid by making all the artificial note b; thus d b, e b, f: g b, a b, b, c, d b. *Tis true that this might be helped another way, viz. by taking all the notes *, i.e., taking e** for f, and b** for c; but the inconvenience of this is visible, for hereby we force two natural notes out of their places, whereby the difficulty of performing by such direction is increased. In the other cases where I have marked all b rather than *, the same reasons obtain. And in some cases, some ways of signing with a * would have both these inconveniences. The same reasons make it necessary to have some signature * rather than b; but the octave beginning in g b is singular in this respect, that it is equal which way it is signed, for in both there will be one natural note displaced unavoidably; b natural is signed c b, and if you make all the signs *, you must either take in two powers of one letter, or take e** for f. Now neither in this, nor any of the other cases will the mixing of the signs remove the inconveniences; and suppose it could, another follows upon the mixture, which leads me to shew why the same clef is either all * or all b, the reason follows.

The quantity of an interval express’d by notes set upon lines and spaces marked some *, some b, will not be so easily discovered, as when they are all marked one way, because the number of intermediate degrees from line to space, and from space to line, answers not to the denomination of the interval; for example, if it is a 5th, I shall more readily discover
it when there are five intermediate degrees from line to space, than if there were but four; thus, from g sharp to d sharp is a 5th, and will appear as such by the degrees, among the lines and spaces; but if we mark it g sharp, e b, it will have the appearance of a 4th; also from f sharp to a sharp is a 3d, and appears so, whereas from f sharp to b looks like a 4th; and for that reason Mr. Simpson in his Compendium of Music calls it a letter 4th, which I think he had better called it an apparent 4th; and so by making the signs of the cliff all of one kind, this inconvenience is saved with respect to all intervals, whose both extremes have a transposed letter; and as to such intervals which have one extreme a natural note, or express a plain letter, and the other transposed, the in-
convenience is prevented by the choice of the in some keys, and of the b in others; for example, from d to f sharp is a 3d, equal to that from d to g, but the first only appears like a 3d, the latter a 4th, and so of other intervals from d. Again from f to b b, or f to a sharp is a 4th, but the first is the best way of marking it; there are no more transposed notes in that octave, nor any other octave, whose fundamental is a natural note, that is marked with b.

It must be owned, after all, that whatever way we chuse the signs of transposed notes, the sounds or notes themselves on an instrument are individually the same; and marking them one way rather than another, respects only the conveniences of representing them to the eye, which ought not to be ne-
lected; especially for the direction of the human voice, be-
cause that having no fixt sounds (as an instrument has, whole notes may be found by a local memory of their seat on the instrument) we have not another way of finding the true note but computing the interval by the intermediate diatonic degrees, and the more readily this can be done, it is certainly the better.

Now you are to observe, that, as the signature of the clef is designed for, and can serve but one key, which ought ra-
ther to be the principal key or octave of the piece than any other, shewing what transposed notes belong to it, so the in-
convenience last mentioned is remedied, by having the signs all of one kind, only for these intervals one of whose ex-
remes is the key-note, or letter. But a song may modulate or change from the principal into other keys, which may re-
quire other notes than the signature of the clef affords; so we find sharp and b upon some particular notes contrary to the
the clef, which shews that themelody is out of the principal key, such notes being natural to some other subprincipal key into which it is carried; and these signs are, or ought always to be chosen in the most convenient manner for expressing the interval; for example, the principal key being $e$ with a 3d greater, which is a natural octave (i.e. expressed all with plain letters) suppose a change into its 4th $f$; and here let a 4th upward be required, we must take it in $b$ or a sharp; the first is the best way, but either of them contradicts the cliff which is natural; and we no sooner find this than we judge the key is changed. But again, a change may be where this sign of it cannot appear, viz. when we modulate into the 6th of a sharp principal key, or into the 3d of a flat principal key, because these have the same signature, as has been already shewn, and have such a connection, that, unless by a cadence, the melody can never be said to be out of the principal key. And with respect to a flat principal key, observe, that if the 6th $g$, and 7th $g$ are used, as in some circumstances they may, especially towards a cadence, then there will be necessarily required upon that 6th and 7th, another sign than that with which its feat is marked in the general signature of the cliff, which marks all flat keys with the lesser 6ths and 7ths; and therefore in such case (i.e. where the principal key is flat) this difference from the clef is not a sign that the melody leaves the key, because each of these belong to it in different circumstances; yet they cannot be both marked in the clef, therefore that which is of more general use is put there, and the other marked occasionally.

From what has been explained, you learn another very remarkable thing, viz. to know what the principal key of any piece is, without seeing one note of it; and this is done by knowing the signature of the clef. There are but two kinds of keys (or modes of melody) distinguished into sharp and flat, as already explained; each of which may have any of the 12 different notes or letters of the semitonic scale for its fundamental; in the 1st and 6th line of the upper part of the preceding table you have all these fundamentals or key-notes, and under them respectively stand the signatures proper to each, in which, as has been often said, the flat keys have their 6th and 7th marked of the lesser kind; and therefore as by the key, or fundamental note, we know the signature, so reciprocally by the signature we can know the key; but
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*tis under this one limitation that, because one signature serves two keys, a sharp one, and a flat, which is the 6th above or 3d below the sharp one, therefore we only learn by this, that it is one of them, but not which; for example, if the clef has no transposed note but $f\#$, then the key is $g$ with a 3d greater, or $e$ with a 3d leffler. If the clef has $b$ and $e\flat$, the key is $b$ with a 3d greater, or $g$ with a 3d leffler, and so of others, as in the table: I know indeed, for I have found it so in the writings of the best masters, that they are not strict and constant in observing this rule concerning the signature of the clef, especially when the principal key is a flat one; in which case you'll find frequently, that when the 6th leffler or 7th leffler to the key, or both, are transposed notes, they don't sign them so in the clef, but leave them to be marked as the course of the melody requires; which is convenient enough when the piece is so conducted as to use the leffler 6th and 7th seldomer than the greater.

Of the NAME, with the various DEFINITIONS and DIVISIONS of the SCIENCE.

The word Music comes to us from the Latin word Musica, if not immediately from a Greek word of the same found, from whence the Romans probably took theirs; for they got much of their learning from the Greeks. Our critics teach us, that it comes from the word Mufa, and this from a Greek word which signifies to search or find out, because the Mufes were feigned to be inventresses of the sciences, and particularly of poetry and those modulations of sound that constitute music. But others go higher, and tell us, the word Mufa comes from a Hebrew word, which signifies art or discipline; hence Mufa and Musica antiently signified learning in general, or any kind of science; in which sense you'll find it frequently in the works of the ancient philosophers. But Kircher will have it from an Egyptian word; because the restoration of it after the flood was probably there, by reason of the many reeds to be found in their fens, and upon the banks of the Nile. Hefychius tells us, that the Athenians gave the name of music to every art. From this it was that the Poets and Mytholo-
gifts feigned the nine Muses daughters of Jupiter, who invented the sciences, and presided over them, to assist and inspire those who apply to study them, each having her particular province. In this general sense we have it defined to be the orderly arrangement and right disposition of things; in short, the agreement and harmony of the whole with its parts, and of the parts among themselves. Hermes Trismegistus says, That music is nothing but the knowledge of the order of all things; which was also the doctrine of the Pythagorean school, and of the Platonicks, who teach that every thing in the universe is music. Agreeable to this wide sense, some have distinguished music into divine and mundane; the first respects the order and harmony that obtains among the celestial minds; the other respects the relations and order of every thing else in the universe. But Plato by the divine music understands, that which exists in the divine mind, viz. these archetypal ideas of order and symmetry, according to which God formed all things; and as this order exists in the creatures, it is called mundane music: Which is again subdivided, the remarkable denominations of which are, first, Elementary or the harmony of the first elements of things; and these, according to the philosophers, are fire, air, water, and earth, which the seemingly contrary to one another, are, by the wisdom of the Creator, united and compounded in all the beautiful and regular forms of things that fall under our senses. 2d. Celestial, comprehending the order and proportions in the magnitudes, distances, and motions of the heavenly bodies, and the harmony of the sounds proceeding from these motions: For the Pythagoreans affirmed that they produce the most perfect comfort; the argument, as Macrobius in his commentary on Cicero's Somnium Scipionis has it, is to this purpose, viz. Sound is the effect of motion, and since the heavenly bodies must be under certain regular and stated laws of motion, they must produce something musical and concordant; for from random and fortuitous motions, governed by no certain measure, can only proceed a grating and unpleasant noise: And the reason, says he, why we are not sensible of that sound, is the vastness of it, which exceeds our sense of hearing; in the same manner as the inhabitants near the cataracts of the Nile are insensible of
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of their prodigious noise. But some of the historians, if I remember right, tell us that by the excessiveness of the sounds, these people are rendered quite deaf, which makes that demonstration somewhat doubtful, since we hear every other sound that reaches to us. Others allude that the sounds of the spheres, being the first we hear when we come into the world, and being habituated to them for a long time, when we could scarcely think or make reflection on anything, we become incapable of perceiving them afterwards. But Pythagoras said he perceived and understood the celestial harmony by a peculiar favour of that spirit to whom he owed his life, as Iamblichus reports of him, who says, That tho' he never sung or played on any instrument himself, yet by an inconceivable fort of divinity, he taught others to imitate the celestial music of the spheres, by instruments and voice: For according to him, all the harmony of sounds here below, is but an imitation, and that imperfect too, of the other. This species is by some called particularly the mundane music. 3d. Human, which consists chiefly in the harmony of the faculties of the human soul, and its various passions; and is also considered in the proportion and temperament, mutual dependence and connection, of all the parts of this wonderful machine of our bodies.

4th. Is what in a more limited and peculiar sense of the word was called music; which has for its object motion, considered as under certain regular measures and proportions, by which it affects the senses in an agreeable manner. All motion belongs to bodies, and sound is the effect of motion, and cannot be without it; but all motion does not produce sound, therefore this was again subdivided. Where the motion is without sound, or as it is only the object of seeing, it was called musica orcheftria or saltatoria, which contains the rules for the regular motions of dancing; also Hypocritica, which respects the motions and gestures of the Pantomimes. When motion is perceived only by the ear, i.e. when sound is the object of music, there are three species; Harmonica, which considers the differences and proportion of sounds, with respect to acute and grave; Rythmica, which respects the proportion of sounds as to time, or the swiftness and slowness of their successions; and Metrica, which belongs properly to the poets, and respects the verifying
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art: But in common acceptance 'tis now more limited, and we call nothing music but what is heard; and even then we make a variety of tones necessary to the being of music.

Aritides Quintilianus, who writes a profeft treatife upon music, calls it the knowledge of singing, and of the things that are joined with singing (ἐπίστημα μελείς καὶ τῶν περὶ μέλος συμβαντῶν, which Melibomius translates, scientia cantus, eorumque circa cantum contingunt) and thef: he calls the motions of the voice and body, as if the cantus itself consisted only in the different tones of the voice. Bacchius, who wrote a short introduction to music in question and answer, gives the fame definition. Afterwards, Arifides confiders music in the largest sense of the word, and divides it into contemplative and active. The first, he says, is either natural or artificial; the natural is arithmetical, because it considers the proportion of numbers; or physical, which disputes of every thing in nature; the artificial is divided into Harmonica, Rythmica (comprehending the dumb motions) and Metrica: The active, which is the application of the artificial, is either enunciative (as in oratory,) organical (or instrumental performance,) Odical (for voice and singing of poems,) Hypocritical (in the motions of the pantomimes.)

To what purpose some add hydraulical I do not understand, for this is but a species of the organical, in which water is some way used for producing or modifying the sound. The musical faculties, as they call them, are, melopeia, which gives rules for the tones of the voice or instrument, rythmopeia for motions, and poefis for making of verse. Again, explaining the difference of Rythmus and Metrum, he tells us, That Rythmus is applied thee ways; either to immovable bodies, which are called eurythmoi, when their parts are rightly proportioned to one another, as a well made statue; or to every thing that moves, fo we say a man walks handiomely (composite,) and under this dancing will come the business of the pantomimes; or particularly to the motion of sound or the voice, in which the rythmus consists of long and short syllables or notes, (which he calls times) joined together (in succession) in fome kind of order, so that their cadence upon the ear may be agreeable; which constitutes in oratory what is called a numerous style, and...
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and when the tones of the voice are well chosen 'tis an harmonious file. Rythmus is perceived either by the eye or the ear, and is something general, which may be without metrum; but this is perceived only by the ear, and is but a species of the other, and cannot exist without it: The first is perceived without sound in dancing; and when it exists with sounds it may either be without any difference of acute and grave, as in a drum, or with a variety of these, as in a song, and then the harmonica and rythmica are joined; and if any poem is set to music, and sung with a variety of tones, we have all the three parts of music at once. Porphyrius in his commentaries on Ptolemy's Harmonicks, institutes the division of music another way; he takes it in the limited sense, as having motion both dumb and sonorous for its object; and, without distinguishing the speculative and practical, he makes its parts these six, viz. Harmonica, Rythmica, Metrica, Organica, Poetica, Hypocritica; he applies the Rythmica to dancing, Metrica to the enunciative, and Poetica to verses.

All the other antient Authors agree in the same threefold division of music into Harmonica, Rythmica, and Metrica: Some add the Organica, others omit it, as indeed it is but an accidental thing to music, in what species of sounds it is express. Upon this division of music, the more ancient writers are very careful in the inscription or titles of their books, and call them only Harmonica, when they confine themselves to that part, as Aristoxenus, Euclid, Nicomachus, Gaudentius, Ptolomy, Bryennius; but Aristides and Bacchius call theirs musica, because they profess to treat of all the parts. The Latins are not always so accurate, for they inscribe all theirs musica, as Boethius, tho' he only explains the harmonica; and St. Augustin, tho' his six books de musica speak only of the rythmus and metrum; Martianus Capella has a better right to the title, for he makes a kind of compend and translation of Aristides Quintilian, tho' a very obscure one of as obscure an original. Aurelius Caesiodorus needs scarcely be named, for tho' he writes a book de musica, 'tis but barely some general definitions and divisions of the science.

The harmonica is the part the antients have left us any tolerable account of, which is at best but very general.
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eral and theoretical; such as it is, I purpose to explain it to you as distinctly as I can; but having thus far settled the definition and division of music as delivered by the antients, I chuse next to consider it historically.

The Invention and Antiquity of Music, with the Excellency of the Art in the various Ends and Uses of it.

Of all human arts music has justest pretences to the honour of antiquity: We scarce need any authority for this assertion; the reason of the thing demonstrates it, for the conditions and circumstances of human life required some powerful charm, to bear up the mind under the anxiety and cares that mankind soon after his creation became subject to; and the goodness of our blessed Creator soon discovered itself in the wonderful relief that music affords against the unavoidable hardships which are annexed to our state of being in this life; so that music must have been as early in the world as the most necessary and indispensable arts. For if we consider how natural to the mind of man this kind of pleasure is, as constant and universal experience sufficiently proves, we cannot think he was long a stranger to it. Other arts were revealed as bare necessity gave occasion, and some were afterwards owing to luxury; but neither necessity nor luxury are the parents of this heavenly art; to be pleased with it seems to be a part of our constitution; but 'tis made so, not as absolutely necessary to our being, 'tis a gift of God to us for our more happy and comfortable being; and therefore we can make no doubt that this art was among the very first that were known to men. It is reasonable to believe, that as all other arts, so this was rude and simple in its beginning, and by the industry of man, prompted by his natural love of pleasure, improved by degrees. If we consider, again, how obvious a thing found is, and how manifold occasions it gives for invention, we are not only further confirmed in the antiquity of this art, but we can make very shrewd guesses about the first discoveries of it. Vocal music was certainly the first kind; man had not only the various tones of his own voice to make his observations upon, before any other arts
arts or instruments were found, but being daily entertained by the various natural strains of the winged choirs, how could he not observe them, and from thence take occasion to improve his own voice, and the modulations of sound, of which it is capable? 'Tis certain that whatever these singers were capable of, they possessed actually from the beginning of the world; we are surprised indeed with their sagacious imitations of human art in singing, but we know no improvements the species is capable of; and if we suppose that in these parts where mankind first appeared, and especially in these first days, when things were probably in their greatest beauty and perfection, the singing of birds was a more remarkable thing, we shall have less reason to doubt that they led the way to mankind in this charming art: But this is no new opinion; of many antient authors, who agree in this very just conjecture, I shall only let you hear Lucretius Lib. 5.

At liquidas avium voces imitarier ore
Ante fuit multo, quam laevia carmina cantu
Concelebrare homines possent, aureifque juvare.

The first invention of wind-instruments he ascribes to the observation of the whistling of the winds among the hollow reeds.

Et zephyri cava per calamorum fibila primum
Agreefeis docuere casas inflare cicas,
Inde minutatim dulceis didicere querelas,
Tibia quas fundit digitis pulfata canentum.

or they might also take that hint from something that might happen accidentally to them in their handling of corn-stalks, or the hollow stems of other plants. And other kinds of instruments were probably formed by such like accidents: There were so many uses for chords or strings, that men could not but very soon observe their various sounds, which might give rise to flanged instruments: And for the pulsatile instruments, as drums and cymbals, they might arise from the observation of the hollow noise of concave bodies. To make this account of the invention of instruments more probable, Kircher bids us consider, That the first mortals living a pastoral life, and being constantly in the fields, near rivers and among woods, could not be perpetually idle; 'tis probable therefore, says he, That the invention of pipes and
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and whistles was owing to their diversions and exercises on these occasions; and because men could not be long without having use for chords of various kinds, and variously bent, these, either by being exposed to the wind, or necessarily touched by the hand, might give the first hint of stringed instruments; and because, even in the first simple way of living, they could not be long without some fabrile arts, this would give occasion to observe various sounds of hard and hollow bodies, which might raise the first thought of the pulsatile instruments; hence he concludes that music was among the first arts.

If we consider next, the opinion of those that are antients to us, who yet were too far from the beginning of things to know them any other way than by tradition and probable conjecture; we find an universal agreement in this truth, That music is as ancient as the world itself, for this very reason, that it is natural to mankind. It will be needful to bring many authorities, one or two shall serve: Plutarch in his treatise of music, which is nothing but a conversation among friends, about the invention, antiquity and power of music, makes one ascribe the invention to Amphion the son of Jupiter and Antiaopa, who was taught by his father; but in the naming of another he makes Apollo the author, and to prove it, alleges all the antient statues of this god, in whose hand a musical instrument was always put. He addsuce many examples to prove the natural influence music has upon the mind of man, and since he makes no less than a god the inventor of it, and the gods existed before men, 'tis certain he means to prove, both by tradition and the nature of the thing, that it is the most ancient as well as the most noble science. Quintilian (lib. i. cap. ii.) alleges the authority of Timagenes to prove that music is of all the most ancient science; and he thinks the tradition of its antiquity is sufficiently proved by the ancient poets, who represent musicians at the table of kings, singing the praises of the gods and heroes. Homer shews us how far music was advanced in his days, and the tradition of its yet greater antiquity, while he says it was a part of his Hero's education. The opinion of the divine original and antiquity of music, is also proved by the fables of the muses, so universal among the poets; and by the
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the disputes among the Greek writers concerning the first authors, some for Orpheus, some for Amphiion, some for Apollo, &c. As the best of the philosophers owned the providence of the gods, and their particular love and benevolence to mankind, so they also believed that music was from the beginning a peculiar gift and favour of heaven; and no wonder, when they looked upon it as necessary to assist the mind to a raised and exalted way of praising the gods and good men.

I shall add but one testimony more, which is that of the sacred writings, where Jubal the sixth from Adam, is called the "father of such as handle the harp and organ," whether this signifies that he was the inventor, or one who brought these instruments to a good perfection, or only one who was eminently skilful in the performance, we have sufficient reason to believe that music was an art long before his time; since it is rational to think that vocal music was known long before instrumental, and that there was a gradual improvement in the art of modulating the voice; unless Adam and his sons were inspired with this knowledge, which supposition would prove the point at once. And if we could believe that this art was lost by the flood, yet the same nature remaining in man, it would soon have been recovered; and we find a notable instance of it in the song of praise which the Israelites raised with their voices and timbrels to God, for their deliverance at the Red Sea; from which we may reasonably conjecture it was an art well known, and of established honour long before that time.

It may be expected in this place, that there should be given a more particular history of the inventor of music and musical instruments, and other famous musicians since the flood. As to the invention, there is enough said already to show that music is natural to mankind; and therefore instead of inventors, the enquiry ought properly to be about the improvers of it; and it would come in very naturally here: but the truth is, we have scarce any thing left as we can depend upon in this matter; or at least we have but very general hints, and many of them contrary to each other, from authors that speak of these things in a transient manner: and as we have no writings of the age in which music was first restored after the flood, so the accounts we have are such uncertain traditions, that no two authors agree in every thing. Greece was the country in Europe where learning first flourished;
and though we believe they drew from other fountains, as Egypt, and the more eastern parts, yet they are the fountains to us, and to all the western world: other antiquities we neither know so well, nor so much of, at least of such as have any pretence to a greater antiquity, except the Jewish; and though we are sure they had music, yet we have no account of the inventors among them, for it is probable they learned it in Egypt; and therefore this enquiry about the inventors of music since the flood must be limited to Greece. Plutarch, Julius Polux, Athenæus, and a few more, are the authorities we have principally to trust to, who take what they say from other more ancient authors of their tradition.

Amphion the Theban, is by some reckoned the most ancient musician in Greece, and the inventor of it, as also of the lyre. Some say Mercury taught him and gave him a lyre of seven strings. He is said to be the first who taught to play and sing together. The time he lived in is not agreed upon.

Chiron the Pelithronian, reckoned a demigod, the son of Saturn and Phyllira, is the next great master; the inventor of medicine, a famous philosopher and musician, who had for his scholars Æsculapius, Jafon, Hercules, Theseus, Achilles, and other heroes.

Demodocus is another celebrated musician, of whom already.

Hermes, or Mercury Trismigistus, another demigod, is also reckoned amongst the inventors or improvers of music and of the lyre.

Linus was a famous poet and musician, some say he taught Hercules, Thamyris and Orpheus, and even Amphion. To him some ascribe the invention of the lyre.

Olympus the Myfian, is another benefactor to music; he was the disciple of Marsyas the son of Hyagnis the Phrygian; this Hyagnis is reckoned the inventor of the tibiae, which others ascribe to the muse Euterpe, as Horace infinuates, "Sinaeque tibias Euterpe cohibet."

Orpheus the Thracian, is also reckoned the author, or at least the introducer of various arts into Greece, among which is music; he practiced the lyre he got from Mercury. Some say he was master to Thamyris and Linus.

Phemius of Ithaca. Ovid uses his name for any excellent musician: Homer also names him honourably.

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Terpander the Lelian, lived in the time of Lycurgus, and set his laws to music. He was the first who among the Spartans applied melody to poems, or taught them to be sung in regular measures. This is the famous musician who quelled a sedition at Sparta by his music. He and his followers as said to have first instituted the musical mode, used in singing hymns to the gods; and some attribute the invention of the lyre to him.

Thales the Cretan was another great master, honourably entertained by the Lacedemonians for instructing their youth. Of the wonders he wrought by his music, we shall hear again.

Thamyris the Thracian was so famous, that he is feigned to have contended with the muses, upon condition he should possess all their power if he overcame, but if they were victors he consented to lose what they pleased; and being defeated, they put out his eyes, spoiled his voice, and struck him with madness. He was the first who used instrumental music without singing.

These are the remarkable names of musicians before Homer's time, who himself was a musician, as was the famous poet Pinda. You may find the characters of these mentioned at more large, in the first book of Fabrius's Bibliotheca Graeca.

We find others of a latter date, who were famous in music, as Laus Hermionensis, Melanippides, Philoxenus, Timotheus, Phrynnis, Epigonius, Lyfander, Simicus, Diodorus the Theban; who were authors of a great variety and luxurious improvements in music. Laus, who lived in the time of Darius Hyntaspes, is reckoned the first who ever wrote a treatise upon music. Epigonius was the author of an instrument called epigonion, of 40 strings, he introduced playing on the lyre with the hand without a plectrum, and was the first who joined the Cithara and Tibia in one concert, altering the simplicity of the more ancient music; as Lyfander did by adding a great many strings to the Cythara. Simicus also invented an instrument called simmicicum of 35 strings. Diodorus improved the tibia, which at first had but four holes, by contriving more holes and notes.

Timotheus, for adding a string to his lyre was fined by the Lacedemonians, and the string ordered to be taken away. Of him and Phrynnis, the comit poet Pherecrapes makes
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makes bitter complaints in the name of music, for corrupt-ing and abusing her, as Plutarch reports; for, among others, they chiefly had completed the ruin of the ancient simple music, which says Plutarch, was nobly useful in the education and forming of youth, and the service of the temples, and used principally to these purposes, in the ancient times of greatest wisdom and virtue, but was ruined after theatrical shews came to be so much in fashion, so that scarcely the memory of these ancient modes remained in his time. You shall have some account afterwards of the ancient writers of music.

As we have but uncertain accounts of the inventors of musical instruments among the ancients, so we have as imperfect an account of what these instruments were, scarce knowing them any more than by name. The general division of instruments, is into stringed instruments, wind instruments and the pulsatile kind; of this last we hear of the tympanum or cymbalum, of the nature of our drum; the Greeks gave it the last name from its figure, resembling a boat.

There were also the crepitaculum, tintinabulum, crotalus siffrum; but by any accounts we have, they look rather like childrens rattles and play things than musical instruments.

Of wind-instruments, we hear of the tibia, so called from the shank-bone of some animals, as cranes, of which they were first made. And siftrula made also of reeds. But these were afterwards made of wood and also of metal. How they were blown, whether as flutes or hautboys or otherwise, and which the one way, and which the other, is not sufficiently manifest. It is plain some had holes, which at first were but few, and afterwards increased to a greater number; some had none; some were single pipes, and some a combination of several, particularly Pan's syringa, which consisted of seven reeds joined together side-ways; they had no holes, each giving but one note, in all seven distinct notes, but at what mutual distances is not very certain, though perhaps they were the notes of the natural or diatonic scale, but by this means they would want an 8ve, and therefore probably otherwise constituted. Sometimes they played on a single pipe, sometimes on two together, one in each hand. And lest we should think there could music be expressed by one hand, if Vossias alleged, they had a contrivance by which they made one hole express several notes, and cites a passage of Arcadius.
Arcadius the grammarian to prove it; that author says indeed, that there were contrivances to shut and open the holes when they had a mind, by pieces of horn he calls Bombyces and Opholmioi (which Julius Pollux also mentions as parts of some kind of tibiae) turning them upwards or downwards, inwards or outwards: but the use of this is not clearly taught us, and whether it was that the same pipe might have more notes than holes, which might be managed by one hand: perhaps it was no more than a like contrivance in our common bagpipes, for tuning the drones to the key of the song. We are also told that Hyagnis contrived the joining of two pipes, so that one canal conveyed wind to both, which therefore were always founded together.

We hear also of Organs, blown at first by a kind of air-pump, where also water was some way used, and hence called organum hydraulicum; but afterwards they used bellows. Vitruvius, has an obscure description of it, which J. Vossius and Kircher both endeavour to clear.

There were tubæ, and cornua, and litui, of the trumpet kind, of which there were different species invented by different people. They talk of some kind of tubæ, that without any art in the modulation, had such a prodigious sound, that was enough to terrify one.

Of stringed instruments, the first is the lyre or cithara (which some distinguish:) Mercury is said to be inventor of it, in this manner; after an inundation of the Nile he found a dead shell-fish, which the Greeks call chelone, and the Latins testudo; of this shell he made his lyre, mounting it with seven strings, as Lucian says; and added a kind of jugum to it, to lengthen the strings, but not such as our violins have, whereby one string contains several notes; by the common form this jugum seems no more than two distinct pieces of wood, set parallel, and at some distance, but joined at the farther end, where there is a head to receive pins for stretching the strings. Boethius reports the opinion of some that say, the lyre mercurii had but four strings in imitation of the mundane music of the four elements: but Diodorus Siculus says, it had only three strings, in imitation of the three seasons of the year, which were all the ancient Greeks counted. viz. Spring, summer and winter. Nicomachus, Horace, Lucian and others say, it had seven strings in imitation of the seven planets. Some reconcile Diodorus,
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Diodorus, with the last, thus, they say the more ancient lyre had but three or four strings, and Mercury added other three, which made up seven. Mercury gave this seven stringed lyre to Orpheus, who being torn to pieces by the Baccannals, the lyre was hung up in Apollo's temple by the Lefbians: But others say, Pythagoras found it in some temple of Egypt, and added an eighth string. Nicomachus says, Orpheus being killed by the Thracian woman, for contemning their religion in the Bacchanalian rites, his lyre was cast into the sea, and thrown up at Antissa a city of Lesbos; the fishermen finding it gave it to Terpander, who carrying it to Egypt, gave it to the priests, and called himself the inventor. Those who call it four stringed, make the proportions thus, betwixt the 1st and 2d, the interval of a 4th, 3: 4, betwixt the 2d and 3d, a tone 8: 9, and betwixt the 3d and 4th string another 4th: the seven stringings were diatonically disposed by tones and semitones, and Pythagoras's eighth string made up the octave.

The occasion of ascribing the invention of this instrument to so many authors, is probably, that they have each in different places invented instruments much resembling other. However simple it was at first, it grew to a great number of stringings; but it is to no purpose to repeat the names of these who are supposed to have added new stringings to it.

From this instrument, which all agree to be first of the stringed kind in Greece, arose a multitude of others, differing in their shape and number of strings, of which we have but indistinct accounts. We hear of the psalterium, trigon, sambuca, pectis, magadis, barbiton, tefludo (the two last used by Horace pomiciouly with the lyre and cithara) epigonium, timicium, pandura, which were all struck with the hand or a plectrum; but it does not appear that they used any thing like the bows of hair we have now for violins, which is a most noble contrivance for making long and short sounds, and giving them a thousand modifications it is impossible to produce by a plectrum.

Kircher also observes, that in all the ancient monuments, where instruments are put in the hands of Apollo and the muses, as there are many of them at Rome, says he, there is none to be found with such a jujum as our violins have, whereby each string has several notes, but every string has only one note; and this he makes an argument of the sim- plicity
plicity and imperfection of their instruments. Besides several forms of the lyre kind, and some sistulae, he is positive they had no instruments worth naming. He considers how careful they were to transmit, by writing and other monuments, their most trifling inventions, that they might not lose the glory of them; and concludes, if they had any thing more perfect, we should certainly have heard of it, and had it preferred, when they were at pains to give us the figure of their trifling reed-pipes, which the shepherds commonly used. But indeed I find some passages that cannot be well understood, without supposing they had instruments in which one string had more than one note: where Pherecrates (already mentioned) makes music complain of her abuses from Timotheus's innovations, she says, he had destroyed her who had twelve harmonies in five strings; whether these harmonies signify single notes or consonances, it is plain each string must afforded more than one note. And Plutarch ascribes to Terpander a lyre of three chords, yet he says it had seven sounds, i.e. notes.

Those who are curious to hear more of this, and see the figures of instruments both ancient and modern, must go to Mersennus and Kircher.

The Excellency and Various Uses of Music.

Though the reasons alluded for the antiquity of music, shew us the dignity of it, yet I believe it will be agreeable to enter into a more particular history of the honour music was in among the ancients, and of its various ends and uses, and the pretended virtues and powers of it.

The reputation this art was in with the Jewish nation, is, I suppose, well known by the sacred history. Can anything shew the excellency of an art more, than that it was reckoned useful and necessary in the worship of God; and as such, diligently practised and cultivated by a people separated from the rest of mankind, to be with fire for the Almighty, and preserve the true knowledge of God upon the earth? I have already mentioned the Israelites song, to prove that music in 

not doubt that it
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of God, and Miriam the prophetess, were the chiefs of this sacred choir: and that from this time to that of the royal prophet David, the art was honoured and encouraged by them both publicly and privately, we can make no doubt; for when Saul was troubled with an evil spirit from the Lord, he is advised to call for a cunning player upon the harp, which supposes it was a well known art in that time; and behold, David, yet an obscure and private person, being famous for his skill in music, was called; and upon his playing, "Saul was refreshed and was well, and the evil spirit departed from him." Nor when David was advanced to the kingdom thought he this exercise below him, especially the religious use of it. When the ark was brought from Kirjath-jearim, "David and all Israel played before God with all their might, and with singing, and with harps, and with psalteries, and with timbrels, and with cymbals, and with trumpets," 1 Chron. xiii. 8. And the ark being set up in the city of David, what a solemn service was instituted for the public worship and praise of God; fingers and players on all manner of instruments, "to minister before the ark of the Lord continually, to record, and to thank, and praise the Lord God of Israel!" These seem to have been divided into three choirs, and over them appointed three Coragi or masters, Asaph, Heman and Jeduthun, both to instruct them and to preside in the service; but David himself was the chief musician and poet of Israel. And when Solomon had finished the temple, behold, at the dedication of it, "the Levites which were the singers, all of them of Asaph, of Heman, of Jeduthun, having cymbals, and psalteries, and harps, stood at the east-end of the altar, praising and thanking the Lord." And this service, as David had appointed before the ark, continued in the temple; for we are told, that the king and all the people having dedicated the house to God, "The priests waited on their offices; the Levites also with instruments of music of the Lord, which David the king had made to praise the Lord.

The prophet Eliahu knew the virtue of music, when he called for a ministril to compose his mind (as is reasonably supposed) before "the hand of Lord came upon him."

To this I shall add the opinion and testimony of St. Chrysostom, in his commentary on 40th Psalm, he says to this purpose, "That God knowing Men to be backward and slothful in spiritual things, and impatient of the labour and pains which they require, willing to make the task more agreeable, and pre-
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vent our weariness, he joined melody or music with his worship; that as we are all naturally delighted with harmonious numbers, we might with readiness and cheerfulness of mind express his praise in sacred hymns. For, says he, nothing can raise the mind, and, as it were, give wings to it, free it from earthliness; and the confinement 'tis under by union with the body, inspire it with the love of wisdom, and make every thing pertaining to this life agreeable, as well modulated verse and divine songs harmoniously composed. Our natures are so delighted with music, and we have so great and necessary inclination and tendency to this kind of pleasure, that even infants at the breast are soothed and lulled to rest by this means.' Again he says, 'Because this pleasure is so familiar and connate with our minds, that we might have both profit and pleasure, God appointed psalms, that the Devil might not ruin us with profane and wicked songs.' And the there be now some difference of opinion about its use in sacred things, yet all Christians keep up the practice of singing hymns and psalms, which is enough to confirm the general principle of music's suitableness to the worship of God.

In St. John's vision, the elders are represented with harps in their hands; and tho' this be only representing things in heaven, in a way easiest for our conception, yet we must suppose it to be a companion to the best manner of worshipping God among men, with respect at least to the means of confining and raising our minds, or keeping out other ideas, and thereby fitting us for entertaining religious thoughts.

Let us next consider the esteem and use of it among the ancient Greeks and Romans: The glory of this art among them, especially the Greeks, appears first, according to the observation of Quintilian, by the names given to the poets and musicians, which at the beginning were generally the same person, and their characters thought to be so connected, that the names were reciprocal; they were called Sages or Wise-men, and the inspired. Salmuth on Pancirollus cites Aristophanes to prove, that by cithara callens, or one that was skilled in playing on the cithara, the ancients meant a wife man, who was adorned with all the graces; as they reckoned
reckoned one who had no ear or genius to music, stupid, or whole frame was disordered, and the elements of his composition at war among themselves. And so high an opinion they had of it, that they thought no industry of man could attain to such an excellent art; and hence they believed this faculty to be an inspiration from the Gods; which also appears particularly by their making Apollo the author of it, and then making their most ancient musicians, as Orpheus, Linus, and Amphion, of divine offspring. Homer, who was himself both poet and musician, could have supposed nothing more to the honour of his profession, than making the Gods themselves delighted with it; after the fierce contest that happened among them about the Grecian and Trojan affairs, he reigns them recreating themselves with Apollo's music; and after this, 'tis no wonder he thought it not below his Hero to have been intrusted in, and a diligent practitioner of this Godlike art. And do not the poets universally testify this opinion of the excellency of music, when they make it a part of the entertainment at the tables of kings; where to the found of the lyre they sung the praises of the Gods and Heroes, and other useful things: As Homer in the Odyssea introduces Demodocus at the table of Alcinous, King of Phæacea, singing the Trojan war and the praises of the Heroes: And Virgil brings in Jopas at the table of Dido, singing to the sound of his golden harp, what he had learned in natural philosophy, and particularly in astronomy from Atlas; upon which Quintilian makes this reflection, that hereby the poet intends to shew the connection there is between music and heavenly things; and Horace teaches us the same doctrine, when addressing his lyre, he cries out, "O decus Phæbi, & dapis supremi, grata tefludo, Jovis.

At the beginning, music was perhaps sought only for the sake of innocent pleasure and recreation; in which view Aristotle calls it the medicine of that heaviness that proceeds from labour; and Horace calls his lyre laborem dulce leniinm: And as this is the first and most simple, so it is certainly no despicable use of it; our circumstances require such a help to make as undergo the necessary toils of life more cheerfully. Wine and music clear the heart, said the wise man; and that
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the same power still remains, does plainly appear by universal experience. Men naturally seek pleasure, and the wiser fort studying how to turn this desire into the greatest advantage, and mix the utile dulci, happily contrived, by bribing the ear, to make way into the heart. The severest of the philosophers approved of music, because they found it a necessary means of access to the minds of men, and of engaging their passions on the side of virtue and the laws; and so music was made an handmaid to virtue and religion.

Jamblichus in the life of Pythagoras tells us, That music was a part of the discipline by which he formed the minds of his scholars. To this purpose he made, and taught them to make and sing, verses calculated against the passions and diseases of their minds; which were also sung by a chorus, standing round one that played upon the lyre, the modulations whereof were perfectly adapted to the design and subject of the verses. He used also to make them sing some choice verses out of Homer and Hesiod. Music was the first exercise of his scholars in the morning; as necessary to fit them for the duties of the day, by bringing their minds to a right temper; particularly he designed it as a kind of medicine against the pains of the head, which might be contrasted in sleep: And at night, before they went to rest, he taught them to compose their minds after the perturbations of the day, by the same exercise.

Whatever virtue the Pythagoreans ascribed to music, they believed the reason of it to be, That the soul itself consisted of harmony; and therefore they pretended by it to revive the primitive harmony of the faculties of the soul. By this primitive harmony they meant that which, according to their doctrine, was in the soul in its pre-existent state in heaven. Macrobius, who is plainly Pythagorean in this point, affirms, That every soul is delighted with musical sounds; not the polite only but the most barbarous nations practise music, whereby they are excited to the love of virtue, or dissolved in softness and pleasure: The reason is, says he, That the soul brings into the body with it the memory of the music which it was entertained with in heaven: And there are certain nations, says he, That attend the dead to their burial with singing; because they
believe the soul returns to heaven the fountain or original of music. Lib. 2. in Somnium Scipionis. And because this sect believed the Gods themselves to have celestial bodies of a most perfect harmonious composition, therefore they thought the Gods were delighted with it; and that by our use of it in sacred things, we not only compose our minds, and fit them better for the contemplation of the Gods, but imitate their happiness, and thereby are acceptable to them, and open for ourselves a return into heaven.

Athenaeus reports of one Clinias a Pythagorean, who, being a very choleric and wrathful man, as soon as he found his passion begin to rise, took up his lyre and sung, and by this means allayed it. But this discipline was older than Pythagoras; for Homer tells us, That Achilles was educated in the same manner by Chiron, and feigns him, after the hot dispute he had with Agamemnon, calming his mind with his song and lyre: And tho’ Homer should be the author of this story, it shews however that such an use was made of music in his days; for ’tis reasonable to think he had learned this from experience.

The virtuous and wise Socrates was no less a friend to this admirable art; for even in the decline of his age he applied himself to the lyre, and carefully recommended it to others. Nor did the divine Plato differ from his great master in this point; he allows it in his common-wealth; and in many places of his works speaks with the greatest respect of it, as a most useful thing in society. He says it has as great influence over the mind, as the air has over the body; and therefore he thought it was worthy of the law to take care of it. He understood the principles of the art so well, that, as Quintilian judiciously observes, there are many passages in his writings not to be understood without a good knowledge of it. Aristotle, in his politics agrees with Plato in his sentiments of music.

Aristides the philosopher and musician, in the introduction to his treatise on this subject, says, ’tis not so confined either as to the subject matter or time as other arts and sciences; but adds ornament to all the parts and actions of human life: ’Painting,’ says he, attains that good which regards the eye, medicine and gymnastic...
are good for the body, dialectic and that kind helps to acquire prudence, if the mind be first purged and prepared by music. Again, it beautifies the mind with the ornaments of harmony, and forms the body with decent motions: 'tis fit for young ones, because of the advantages got by singing; for persons of more age, by teaching them the ornaments of modulate diction, and of all kinds of eloquence; to others more advanced it teaches the nature of number, with the variety of proportions, and the harmony that thereby exists in all bodies, but chiefly the reasons and nature of the soul. He says, as wise husband-men first cast out weeds and noxious plants, then sow the good seed, so music is used to compose the mind, and fit it for receiving instruction: for pleasure, says he, is not the proper end of music, which affords recreation to the mind only by accident, the proposed end being the instilling of virtue. Again, he says, if every city, and almost every nation loves decency and humanity, music cannot possibly be useless.

It was used at the feasts of princes and heroes, says Athenæus, not out of levity and vain mirth; but rather as a kind of medicine, that by making their minds cheerful, it might help their digestion: There, says he, they sung the praises of the Gods and heroes and other useful and instructive compositions, that their minds might not be neglected while they took care of their bodies; and that from a reverence of the Gods, and by the example of good men, they might be kept within the bounds of sobriety and moderation.

But we are not confined to the authority and opinion of philosophers or any particular persons; we have the testimony of whole nations where it had public encouragement, and was made necessary by the law; as in the most part of the Grecian common-wealths. Athenæus assures us, That anciently all their laws divine and civil, exhortations to virtue, the knowledge of divine and human things, the lives and actions of illustrious men, and even histories, and mentions Herodotus, were written in verse and publicly sung by a chorus, to the sound of instruments; they found this by experience an effectual means to impress morality, and a right sense of duty: Men were attentive to things that
that were proposed to them in such a sweet and agreeable manner, and attracted by the charms of harmonious numbers, and well modulated sounds; they took pleasure in repeating these examples and instructions, and found them easier retained in their memories. Aristotle also in his problems tells us, That before the use of letters, their laws were sung musically, for the better retaining them in memory. We have a very old and remarkable proof of this virtue of music in the story of Orpheus and Amphion, both of them poets and musicians, who made a wonderful impression upon a rude and uncultivated age, by their virtuous and wise instructions, inforced by the charms of poetry and music: The succeeding poets, who turned all things into mystery, and feign the one to have drawn after him, and tamed the most savage beasts; and the other to have animated the very trees and stones, by the power of music, Horace had received the same traditions of all the things I have now narrated, and with these mentions other uses of music. The passage is in his book de arte Poetica, and is worth repeating.

Silvestres homines, sacer interpresq; deorum,
Cædibus & catu fædo, deterruit Orpheus:
Dictus ob has l exercitigres, rabidosq; leones:
Dictus & Amphion, Thbanae conditor arcis,
Saxa mouere fono studinis, & prece blanda
Ducere quo vellet. Fuit hac sapientia quondam,
Publica privatim secerere, sacra profanis:
Concubitu prohibere vogo: dare sacra maritis:
Oppida moliri: leges incidere ligno:
Sic honer, & nomen divinis vatibus, atque
Carminibus venit. Post hos insignis Homerus,
Tyrtæusq; mares animos in maritia bella
Versibus exacuit. Dithæ per carmina fortes:
Et vita monstrata via est: & gratia regum
Pieris tentata modæ: ludusq; repertus,
Et longor operum finis: ne forte pudori,
Sit tibi: musæ lyra solvers, et cantor Apollo.

From these experiences I say, the art was publicly honoured by the governments of Greece. It was by the law made a necessary part of the education of youth. Plato assures us it was thus at Athens; in his first Alcibiades
 ciibiades, he mentions to that great man, in Socrates's name, how he was taught to read and write, to play on the harp, and wrestle. And in his Crito, he says, did not the laws most reasonably appoint that your father should educate you in music and gymnastic? And we find these three, grammar, music and gymnastic, generally named together, as the known and necessary parts of the education of youth, especially of the better sort: Plutarch and Athenæus give abundant testimony to this; and Terence having laid the scene of his plays in Greece, or rather only translated, and at most but imitated Menander, gives us another proof, in the Act 3. Scene 2. of his Eunuch. Fac periculum in alteris, fac in palestræ, in muficis. Quæ liberum scire æquum est adolescentem solertem dabo.

The use of music in the Temples and solemn service of their Gods is past all question. Plato in his Dialogues concerning the laws, gives this account of the sacred music. That every song consist of pious words. That we pray to God whom we sacrifice. That the poets, who know that prayers are petitions or requests to the Gods, take good heed they don't ask ill instead of good, and do nothing but what's just, honest, good and agreeable to the laws of the society; and that they shew not their compositions to any private person, before those have seen and approved them who are appointed judges of these things, and keepers of the laws: then, hymns to the praises of the Gods are to be sung, which are very well connected with prayer; and after the Gods, prayers and praises are to be offered to the daemons and heroes.

As they had poetical compositions upon various subjects for their public solemnities, so they had certain determinate modes both in the harmonia and rythmus, which it was unlawful to alter; and which were hence called nomi or laws, and musica canonica. They were jealous of any innovations in this matter, fearful that a liberty being allowed, it might be abused to luxury; for they believed there was a natural connection between the public manners and music: Plato denied that the musical modes or laws could be changed without a change of the public laws; he meant, the influence of music was so great, that the changes in it would necessarily
farly produce a proportional change of manners and the public constitution.

The use of it in war will easily be allowed to have been by public authority; and the thing we ought to remark is, that it was not used as a mere signal, but for insipiring courage, raising their minds to the ambition of great actions, and freeing them from base and cowardly fear; and this was not done without great art, as Virgil shews when he speaks of Misenus:

—Quo non praestanter alter,
Ere ciere viros, martemque accendere canis.

From Athens let us come to Lacedemon, and here we find it in equal honour. Their opinion of its natural influence was the same with that of their neighbours: and to shew what care was taken by the law, to prevent the abuse of it to luxury, the historians tell us that Timotheus was fined for having more than seven firings on his lyre, and what were added ordered to be taken away. The Spartans were a warlike people, yet very sensible of the advantage of fighting with a cool and deliberate courage; therefore as Gellius out of Thucydides reports, they used not in their armies, instruments of a more vehement sound, that might inflame their temper and make them more furious, as the tuba, cornu and litus, but the more gentle and moderate sounds and modulations of the tibia, that their minds being more composed, they might engage, with a rational courage. And Gellius tells us, the Cretans used the Cithara to the same purpose in their armies. We have already heard how this people entertained at great expence the famous Thales to instruct their youth in music; and after their music had been thrice corrupted, thrice they restored it.

If we go to Thebes, Epaminondas will be a witness of the esteem it was in, as Corn. Nepos informs us.

Athenæus reports, upon the authority of Theopompus, that the Getan ambassadors, being sent upon an embassy of peace, made their entry with lyres in their hands, singing and playing to compose their minds, and make themselves masters of their temper. We need
need not then doubt of its public encouragement a-

among this people.

But the most famous instance in all Greece, is that of
the Arcadians, a people, says Polybius, in reputation
for virtue among the Greeks; especially for their devo-
tion to the Gods. Music, says he, is esteemed every
where, but to the Arcadians it is necessary, and allowed
a part in the establishment of their state, and an in-
dispensable part of the education of their children. And
tho' they might be ignorant of other arts and
sciences without reproach, yet none might presume to
want knowledge in music, the law of the land making
it necessary; and insufficiency in it was reckoned infa-
mous among that people. It was not thus established,
says he, so much for luxury and delight, as from a
wise consideration of their toilsome and industrious
life, owing to the cold and melancholy air of their
climate; which made them attempt every thing for
softening and sweetening those austerities they were con-
demned to. And the neglect of this discipline he gives
as the reason of the barbarity of the Cynæthians, a
people of Arcadia.

We shall next consider the state of music among
the ancient Romans. Till luxury and pride raised the
Manners of this brave nation, they were famous for
a severe and exact virtue. And tho' they were con-
vinced of the native charms and force of music, yet we
don't find they cherished it to the same degree as the
Greeks; from which one would be tempted to think
they were only afraid of its power, and the ill use it
was capable of: A caution that very well became those
who valued themselves so much, and justly, upon their
piety and good manners.

Corin. Nepos, in his preface, takes notice of the dif-
ferences between the Greek and Roman customs, par-
ticularly with respect to music; and in the life of
Epaminondas, he has these words, Scimus enim musi-
cum nostris moribus absit a principis perfona; saltare
etiam in vitii poni, quæ omnia apud Græcos & gratia
& laude digna ducentur.

Cicero in the beginning of the first book of his Tus-
culani Questions, tells us, that the old Romans did not
study the more soft and polite arts so much as the
Greeks;
Greeks; being more addicted to the study of morality and government: hence music had a fate somewhat different at Rome.

But the same Cicero shews us plainly his own opinion of it. *Lib. 2. de Legibus; Assentior enim Platoni, nihil tam facile in animos teneros atque molles influeret quam varios canendi sonos. Quorum dici vix potest quanta sit vis in utramque partem, namque & incitat languentes, & languefacit incitatos, et tum remittit animos, tum contrahit.* Certainly he had been a witness to this power of sound, before he could speak so; and I shall not believe he had met with the experiment only at Athens. *A man so famous for his eloquence, must have known the force of harmonious numbers,* and well proportioned tones of the voice.

Quintilian speaks honourably of music. *He says; Lib. 1. Chap. ii. Nature seems to have given us this gift for mitigating the pains of life, as the common practice of all labouring men testifies. He makes it necessary to his orator, because, says he, Lib. 8. Chap. 4. It is impossible that a thing should reach the heart which begins with choking the ear; and because we are naturally pleased with harmony, otherwise Instruments of music that cannot express words would not make such surprising and various effects upon us. And in another place, where he is proving art to be only nature perfected, he says, music would not otherwise be an art, for there is no nation which has not its songs and dances.*

Some of the first rank at Rome practised it. *Athenaeus says of one Mafurius, a lawyer, whom he calls one of the best and wisest of men, and inferior to none in the law, that he applied himself to music diligently. And Plutarch places music, viz. singing and playing on the lyre, among the qualifications of Metella, the daughter of Scipio Metellus.*

Macrobius in the 10 Chap. *Lib. 2. of his Saturnalia shews us, that neither singing nor dancing were reckoned dishonourable exercises even for the quality among the ancient Romans; particularly in the times between the two Punick wars, when their virtue and manners were at the best; provided they were not studied with too much curiosity, and too much time spent*
spent about them; and observes, that it is this, and not simply the use of these, that Salust complains of in Sempronia, when he says he knew palliere & fallare elegantius quam necesse erat probe. What an opinion Macrobius himself had of music we have in part shewn already; to which let us add here this remarkable passage in the place formerly cited. Ita denique omnis habitus animae cantibus gubernatur, ut & ad bellum progressui & etiam receptui canatur, cantu & excitante & ruribus sedante virtutem; dat somnos adimitque necnon curas & immittit & retrahit, iram fuggerit, clementiam huader, corporum quoque morbis medetur. Hinc est quod egregius remedia praestantes precinere dicuntur. The abuse of it, which this probable lay chiefly in their idle, ridiculous, and lascivious dancing, or perhaps their spending too much time even in the most innocent part of it, and not applying it to the true ends, made the wiser sort cry out, and brought the character of a musician into some discredit. But we find, that the true and proper music was still in honour and praestit among them: had Rome ever such poets, or were they ever so honoured as in Augustus's reign? Horace, tho' he complains of the abuse of the theatre, and the music of it, yet in many places he shews us, that it was then the praefite to sing verses or odes to the sound of the lyre, or of pipes, or of both together; Lib. 4. Ode 9. Verba loquor socianda chordis. Lib. 2. Ep. 2. Hic ego verba lyrae motura forum connectere digner? In the first Ode, Lib. 1, he gives us his own character as a poet and musician. Si neque tibias Euterpe cohibet, &c. He shews us, that it was in his time used both publicly in the praise of the gods and men, and privately for recreation, and at the tables of the great, as we find clearly in these passages. Lib. 4. Ode 11. Conduci modos amanda voce quos reddas, minuentur atque carmine cura. Lib. 3. Ode 28. Nos cantabimus invicem Nepturnum, tu cura recines lyra Latonam, &c. Lib. 4. Ode 15. Noisque & profeitis lucibus & facris-Rite Deos prius adprecati, virtute functos more patrum duces, Lydis remitto carmine tibiis Trojanque, &c. canemus. Epode 9. Quando repostum cæcum ad festas dapes tecum.—Beate Mecenas bibam? Sonante miffis tibiis

For all the abuses of it, there were still some, even of the best characters, that knew how to make an innocent use of it: Sueton in Titus's life, whom he calls Amor ac deliciae generis humani, among his other accomplishments adds, Sed ne Musice quidem rudis, ut qui cantaret & psalleret jucunde scienterque.

There is enough said to shew the real value and use of music among the ancients. I believe it will be needless to insist much upon our own experience; I shall only say, these powers of music remain to this day, and are as universal as ever. We use it still in war and in sacred things, with advantages that they only know who have the experience. But in common life, almost every body is a witness of its sweet influences.

What a powerful impression musical sounds make even upon the brute animals, especially the feathered kind, we are not without some instances. But how surprising are the accounts we meet with among the old writers? I have reserved no place for them here. You may see a variety of stories in Aelian's History of Animals, Strabo, Pliny, Marcianus Capella, and others.

Before I leave this, I must take notice of some of the extraordinary effects ascribed to music. Pythagoras is said to have had an absolute command of the human passions, to turn them as he pleased by music: they tell us, that meeting a young man who in great fury was running to burn his rival's house, Pythagoras allayed his temper, and diverted the design, by the sole power of music. The story is famous how Timotheus, by a certain strain or modulation, fired Alexander's temper to that degree, that forgetting himself, in a warlike rage, he killed one of the company, and by a change of the music was softened again, even to a bitter repentance of what he had done. But Plutarch speaks of one Antigenides, a Tibicen or piper, who by some warlike strain had transported that hero so far, that he fell upon some of the company. Terpander quelled a Sedition at Sparta by means of music. Thales being called from Crete, by advice of the oracle,
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to Sparta, cured a raging pestilence by the same means. The cure of diseases by music is talked of with enough of confidence. Aulus Gellius, Lib. 4. Chap. 13, tells us, it was a common tradition, that those who were troubled with the Sciatica (he calls them Ichiaci) when their pain was most exquisite, were eafed by certain gentle modulations of music performed upon the Tibiae; and says, he had read in Theophrastus, that by certain artful modulations of the same kind of instrument, the bites of serpents or vipers had been cured. Clytemnestra had her vicious inclinations to unchastity corrected by the applications of musicians. And a virtuous woman is faid to have diverted the wicked design of two rakes that assaulted her, by ordering a piece of music to be performed in the Sponcian mode.


FOR what reasons the Greek musicians made such a difficult matter of their notes and signs we cannot guess, unless they did it designedly to make their art mysterious, which is an odious supposition; but one can scarcely think it was otherwise, who considers how obvious it was to find a more easy method. This was therefore the first thing the Latins corrected in the Greek music, as we have already heard was done by Boethius, and further improved by Gregory the Great.

The next step in this improvement is commonly ascribed to Guido Aretinus, a Benedictin monk, of Are- tium in Tuscany, who, about the year 1024, (tho' there are some differences about the year) contrived the use of a stave of 5 lines, upon which, with its spaces he marked his notes, by setting points (.) up and down upon them, to denote the rise and fall of the voice, (but as yet there were no different marks of time;) he marked each line and space at the beginning of the stave, with Gregory's 7 letters, and when he spake of the notes
A TREATISE

notes, he named them by these instead of the long Greek names of Proflambanomenos, &c. The correspondence of these letters to the names of the chords in the Greek system being settled, the degrees and intervals between any line or space, and any other were hereby understood. But this artifice of points and lines was used before his time, by whom invented is not known; and this we learn from Kircher, who says he found in the Jesuits library at Messina a Greek manuscript book of hymns, more than 700 years old; in which some hymns were written on a stave of 8 lines, marked at the beginning with 8 Greek letters; the notes or points were set upon the lines, but no use made of the spaces: Vincenzo Galileo confirms us also in this. But whether Guido knew this, is a question; and tho' he did, yet it was well contrived to use the spaces and lines both, by which the notes lye nearer each other, fewer lines are needful for any interval, and the distances of notes are easier reckoned.

But there is yet more of Guido's contrivance, which deserves to be considered; First, He contrived the 6 musical syllables, ut, re, mi, fa, sol, la, which he took out of this Latin hymn,

\[\text{UT queant laxis} \quad \text{RE sonare fibris}\]
\[\text{Mi\'a gestorum} \quad \text{PAmuli tuorum}\]
\[\text{SO\'ve pollut\'i} \quad \text{LABit reatum}\]
\[\text{O pater alme}\]

In repeating this it came into his mind, by a kind of divine instinct says Kircher, to apply these syllables to his notes of music: a wonderful contrivance certainly for a divine instinct! But let us see where the excellency of it lies: Kircher says, by them alone he unfolded all the nature of music, distinguished the tones (or modes) and the seats of the semitones. Elsewhere he says, That by the application of these syllables he cultivated music, and made it fitter for singing. In order to know how he applied them, there is another piece of the history we must take along, viz. That finding the Greek Diagram of too small extent, he added 5 more chords or notes in this manner; having applied the letter A to the Proflambanomenos,
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and the rest in order to Nete Hyperbolæon, he added a chord, a Tonus below Proflam. and called it Hypoproflambanomenos, and after the Latins g, but commonly marked with the Greek ι; to shew by this, some say, that the Greeks were the inventors of music; but others say, he meant to record himself (that letter being the first in his name) as the improver of music; hence the Scale came to be called the Gamm. Above Nete Hyperbolæon he added other 4 chords, which made a new disjunct Tetrachord, he called Hyper-hyperbolæon; so that his whole Scale contained 20 diatonic notes, (for this was the only Genus now used) besides the b flat, which corresponded to the Trite Synemmenon of the ancients, and made what was afterwards called the series of b molle, as we shall hear.

Now the application of these syllables to the Scale was made thus: Between mi and fa is a semitone; ut : re, re : mi, fa : sol, and sol : la are tones (without distinguishing greater and lesser;) then because there are but 6 syllables, and 7 different notes or letters in the 8ve; therefore, to make mi and fa fall upon the true places of the natural semitones, ut was applied to different letters, and the rest of the 6 in order to the others above; the letters to which ut was applied are g, c, f. according to which he distinguished three series, viz. that which began with ut in g, and he called it the series of b durum, because b was a whole tone above a; that which began with ut in c was the series of b natural, the same as the former; and when ut was in f, it was called b molle, wherein b was only a semitone above a. See the whole scale in the following scheme.

GUIDO's
where observe, the series of b natural flats stands between the other two, and communicates with both; so that to name the chords of the scale by these syllables; if we would have the semitones in their natural places, viz. b, c, and e, f, then we apply ut to g, and after la; we go into the series of b natural at fa; and after la of this, we return to the former at mi, and so on; or we may begin at ut in c, and pass into the first series at mi, and then back to the other at fa: by which means the one transition is a semitone, viz. la, fa, and the other a tone la mi. To follow the order of b moll, we may begin with ut in c or f, and make transitions the same way as formerly: hence came the barbarous names of Gammut, Are, Bmi, &c. with which the memories of learners used to be oppressed. But now what a perplexed work is here, with so many different syllables applied to every chord, and all for no other purpose but marking the places of the semitones, which the simple letters a, b, c, &c. do as well, and with infinite more ease. Afterwards some contrived better, by making seven syllables, adding Si in the blanks you see in the series between la and ut, so that mi-fa and fi ut are the two natural semitones: These 7 completing the 8ve, they took away the middle series as of no use, and so ut being in g or f, made the series of B durum (or natural, which is all one) and B moll. But the English throw out both ut and fi, and make the other 5 serve for all. This wonderful contrivance of Guido's six syllables, is what

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what a very ingenious man thought fit to call Crux

tenellorum ingeniorum; but he might have said it of
any of the Methods; for which reason, I believe, they
are laid aside with very many, and, I am sure, ought
to be so with every body.

But to go on with Guido; the letters he applied to
his lines and spaces, were called keys, and at first he
marked every line and space at the beginning of a stave
with its letter; afterwards marked only the lines, as
some old examples shew; and at last marked only one,
which was therefore called the signed Clef; of which
he distinguished three different ones, g, c, c; (the three
letters he had placed his ut in) and the reason of this
leads us to another article of the history, viz. That
Guido was the inventor of Symphonetic composition,
(for if the ancients had it, it was lost; but this shall
be considered again) the first who joined in one har-
mony several distinct melodies, and brought it even the
length of 4 parts, viz. BASS, TENOR, COUNTER, and TRE-
BLE; and therefore to determine the places of the seve-
ral Parts in the general system, and their relations to
one another, it was necessary to have 3 different signed
Clefs.

He is also said to be the contriver of those instru-
ments they call Polypestra, as spinets and harpsichords:
however they may now differ in shape, he contrived
what is called the Abacus and the Palmula, that is, the
Machinery by which the string is struck with a Plect-
rum made of quills. Thus far go the improvements
of Guido Aretinus, and what is called the Guidonian
System; to explain which he wrote a book he calls
his Micrologum.

The next considerable improvement was about 300
years after Guido, relating to the Rythmus, and the
marks by which the duration of every note was known;
for hitherto they had but imitated the simplicity of
the ancients; and barely followed the quantity of the
syllables; or perhaps not so accurate in that, made all
their notes of equal duration, as some of the old Ec-
cleiaastic music is an instance of. To produce all the
effects music is capable of, the necessity of notes of
different quantity was very obvious; for the Rythmus
is the soul of music; and because the natural quantity
of the syllables was not thought sufficient for all the variety of movements, which we know to be so agreeable in music, therefore about the year 1330 or 1333, says Kircher, the famous Joannes de Muris, Doctor at Paris, invented the different figures of notes, which express the time, or length of every note, at least their true relative proportions to one another. Anciently they were called, Maxima, Longa, Brevis, Semibrevis, Minima, Semiminima, Chroma, (or Fufa) Semichroma. What we call the Demisemiquaver is of modern addition. But whether all these were invented at once is not certain, nor is it probable they were; at first 'tis like they used only the Longa and Brevis, and the rest were added by degrees. Now also was invented the division of every song in separate and distinct bars or measures. Then for the proportion of these notes one to another it was not always the same; so a Long was in some cases equal to two Breves, sometimes to three, and to of others; and this difference was marked generally at the beginning; and sometimes by the position or way of joining them together in the middle of the song; but this variety happened only to the first four. Again, respecting the mutual proportions of the notes, they had what they called Modes, Prolations and Times: The two last were distinguished into Perfect and Imperfect; and the first into greater and less, and each of these into perfect and imperfect: but afterwards they reduced all into 4 modes including the Prolations and Times. I could not think it worth pains to make a tedious description of all these, with their marks or signs, which you may see in the already mentioned Dictionaire de Musique: I shall only observe here, That as we now make little use of any note above the Semibreve, because indeed the remaining 6 are sufficient for all purposes, so we have cast off that difficulty of various and changeable proportions between the same notes: the proportions of 3 to 1 and 2 to 1 was all they wanted, and how much more easy and simple is it to have one proportion first, viz. 2:1 (i.e. a Large equal to two Longs, and so on in order) and if the proportion of 3:1 between two successive notes is required, this is, without any manner of confusion or difficulty, expressed by annexing a point (.) on
O F M U S I C.

on the right hand of the greatest of the two notes, as has been above explained; so that 'tis almost a wonder how the elements of music were so long involved in these perplexities, when a far easier way of coming to the same end was not very hard to find.

We shall observe here too, That till these notes of various Time were invented, instrumental performances without song must have been very imperfect if they had any; and what a wonderful variety of entertainments we have by this kind of composition, I need not tell you.

There remain two other very considerable steps, before we come to the present state of the scale of music. Guido first contrived the joining different parts in one concert, as has been said, yet he carried his system no further than 20 diatonic notes: now for the more simple and plain compositions of the Ecclesiastic style, which is probable was the most considerable application he made of music, this extent would afford no little variety; but experience has since found it necessary to enlarge the system even to 36 diatonic notes, which are represented in the foremost range of keys on the breast of a harpsichord; for so many are required to produce all that admirable variety of harmony, which the parts in modern compositions consist of, according to the many different styles practised: but a more considerable defect of his system is, That except the tone between a and b, which is divided into two semitones by / (flat) there was not another tone in all the scale divided; and without this the system is very imperfect with respect to fixed sounds, because without these there can be no right modulation or change from key to key. Therefore the modern system has in every 8ve 5 artificial chords or notes, which we mark by the letters of the natural chords, with the distinction of ° or †. Observe, That by these additional chords, we have the diatonic and chromatic Genera of the ancients mixed; so that compositions may be made in either kind, tho' we reckon the diatonic the true natural species; and if at any time, two semitones are placed immediately in succession: for example, if we sing c. c°. d, which is done for variety, tho' feldom, so far this is a mixture of the chromatic; but then to make it pure chromatic, no
A T R E A T I S E

finar interval can be sung after two femitones ascend-
ing than a Triemitone, nor descending less than a Tone;
because in the pure chromatic scale the Spiffum has al-
ways above it a Triemitone, and below it either a
Triemitone or a Tone.

The last thing I shall consider here is, how the
modes were defined in these days of improvement; and
I find they were generally characterized by the species
of 8ve after Ptolomy's manner, and therefore reckoned
in all 7. But afterwards they considered the harmonical
and arithmetical divisions of the 8ve, whereby it re-
solves into a 4th above a 5th, or a 5th above a 4th.
And from this they constituted 12 modes, making of
each 8ve two different modes according to this different
division; but because there are two of them that can-
not be divided both ways, therefore there are but 12
modes. To be more particular, consider, in the natural
system there are 7 different octaves proceeding from
these 7 letters, a, b, c, d, e, f, g; each of which has
two middle chords, which divide it harmonically and
arithmetically, except f, which has not a true 4th,
(because b is three tones above it, and a 4th is but two
tones and a femitone) and b, which consequently wants
the true 5th (because f is only two tones and two
femitones above it, and a true 5th contains three tones
and a femitone) therefore we have only 5 octaves that
are divided both ways, viz. a, c, d, e, g, which makes
10 modes according to these different divisions, and the
other two f and b make up the 12. These that are
divided harmonically, i.e. with the 5ths lowest were
called authentic, and the other plagal modes. See the
following scheme.

To these modes they gave the names of the ancient
Greek tones, as Dorian, Phrygian: but several authors
differ in the application of these names, as they do
about the order, as, which they shall call the first and
second, &c. which being arbitrary things, as far as I
can understand, it were as idle to pretend to reconcile
OF MUSIC.

M O D E S. then, as it was in them to

Plagal. Authentic. differ about it. The material
8ve. 8ve. point is, if we can find it, to

know what they meant by

these distinctions, and what

was the real use of them in

music; but even here where

they ought to have agreed, we

find they differed. The best

account to be given of it is

this: They considered that an

8ve which wants a 4th or 5th,

is imperfect; these being the

concods next to 8ve, the song

ought to touch these chords most frequently and re-

markably; and because their concord is different, which

makes the melody different, they established by this two

modes in every natural octave, that had a true 4th and

5th: then if the song was carried as far as the octave

above, it was called a perfect mode; if less, as to the

4th or 5th, it was imperfect; if it moved both above

and below, it was called a mixt mode: thus some au-

thors speak about these modes. Others considering how

indispensable a chord the 5th is in every mode, they

took for the final or key-note in the arithmetically di-

vided octaves, not the lowest chord of that octave, but

that very 4th; for example, the octave g is arithme-

tically divided thus, g - c - g, c is a 4th above the

lower g, and a 5th below the upper g, this c therefore

they made the final chord of the mode, which therefore

properly speaking is c and not g; the only difference

then in this method, between the authentic and plagal

modes is, that the authentic goes above its final to the

octave, the other ascends a 5th, and descends a 4th,

which will indeed be attended with different effects,

but the mode is essentially the same, having the same

final to which all the notes refer. We must next con-

 sider wherein the modes of one species, as authentic or

 plagal, differ among themselves: This is either by

their standing higher or lower in the scale, i.e. the

different tension of the whole octave; or rather the

different Subdivision of the octave into its concinnous

degrees; there is not another. Let us consider then

whether
whether these differences are sufficient to produce so
very different effects, as have been ascribed to them,
for example, one is said to be proper for mirth, another
for fadness, a third proper to religion, another for ten-
der and amorous subjects, and so on: whether we are
to ascribe such effects merely to the constitution of the
octave, without regard to other differences and ingre-
dients in the composition of melody, I doubt any body
now a days will be absurd enough to affirm; these have
their proper differences, 'tis true, but which have so
little influence, that by the various combinations of
other cues, one of these modes may be used to dif-
ferent purposes. The greatest and most influencing dif-
ference is that of these octaves, which have the 3d l.
or 3d g. making what is above called the fharl and
flat key: but we are to notice, that of all the 8ves,
except c and a, none of them have all their essential
chords in just proportion, unless we neglect the differ-
ence of tone greater and lesser, and also allow the femi-
tone to f tand next the fundamental in some flat keys
(which may be useful, and is sometimes used;) and
when that is done, the octaves that have a flat 3d will
want the 6th g. and 7th g. which are very necessary
on some occasions; and therefore the artificial notes
\( \times \) and \( \frac{1}{2} \) are of absolute use to perfect the f yftem.
Again, if the modes depend upon the species of 8ves,
how can they be more than 7? And as to this dis-
tinction of authentic and plagal, I have fhewn that it
is imaginary, with respect to any essential difference
constituted hereby in the kind of the melody; for tho'
the carrying the fong above or below the final, may
have a different effect, yet this is to be numbered a-
mong the other cues, and not ascribed to the constitu-
tion of the octaves. But 'tis particularly to be re-
marked, that these authors who give us examples in
actual composition of their 12 modes, frequently take
in the artificial notes \( \times \) and \( \frac{1}{2} \) to perfect the melody of
their key; and by this means depart from the consti-
tution of the 8ve, as it stands in the fift natural f yftem.
So we can find little certain and confident in their way of speaking about these things; and their modes
are all reducible to two, viz. the fharl and flat; other
differences respecting only the place of the scale where
OF MUSIC.

The fundamental is taken: I conclude therefore that the true theory of modes, is where they are distinguished into two species, sharp and flat, whose effects must be allowed are different; but other causes must concur to any remarkable effect; and therefore 'tis unreasonable to talk as if all were owing to any one thing. What they called the series of b molle, was no more than this, That because the 8ve f had a 4th above at b, excessive by a semitone, and consequently the 8ve b had a 5th above as much deficient, therefore this artificial note b flat or $$, served them to transpose their modes to the distance of a 4th or 5th, above or below; for taking $ a semitone above a, the rest keeping their ratios already fixt, the series proceeding from c with b natural (i.e. a tone above a) is in the same order of degrees, as that from f with b flat (i.e. $ a semitone above a); but f is a 4th above c, or a 5th below; therefore to transpose from the series of b natural to b molle we ascend a 4th or descend a 5th; and contrariwise from b molle to the other: This is the whole mystery; but they never speak of the other transpositions that may be made by other artificial notes.

You may also observe, that what they called the ecclesiastic tones, are no other than certain notes in the organ which are made the final or fundamental of the hymns; and as modes they differ, some by their place in the scale, others by the sharp and flat 3d; but even here every author speaks not the same way: 'tis enough we know they can differ no other way, or at least all their differences can be reduced to these. At first they were four in number, whose finals were d, e, f, g, constituted authentically: this choice, we are told, was first made by St. Ambrose, bishop of Milan; and for being thus chosen and approved, they pretend the name authentic was added: afterwards Gregory the Great added four plagals, a, b, c, d, whose finals are the very same with the first four, and in effect are only a continuation of these to the 4th below; and for this connection with them were called plagal, tho' the derivation of the word is not so plain,

The
The Ancient and Modern Music compared.

The last age was famous for the war that was raised, and eagerly maintained by two different parties, concerning the ancient and modern genius and learning. Among the disputed points music was one. I know of nothing new to be advanced on either side.

The question in general is, Whether the ancients or the moderns best understood and practised music? Some affirm, that the ancient art of music is quite lost, among other valuable things of antiquity, vid. Pancirollus, de Musica. Others pretend, That the true science of harmony is arrived to much greater perfection than what was known or practised among the ancients. The fault with many of the contenders on this point is, that they fight at long weapons; I mean they keep the argument in generals, by which they make little more of it than some innocent harangues and flourishes of rhetorick, or at most make bold assertions upon the authority of some misapplied expressions and incredible stories of ancient writers, for I am now speaking chiefly of the patrons of the ancient music.

If Sir William Temple was indeed serious, and had any thing else in his view, but to shew how he could declaim, he is a notable instance of this. Says he, "What are become of the charms of music, by which men and beasts were so frequently enchanted, and their very natures changed; by which the passions of men were raised to the greatest height and violence, and then as suddenly appeased, so as they might be justly said, to be turned into lions or lambs, into wolves or into harts, by the power and charms of this admirable art?" And he might have added too, by which the trees and stones were animated; in spite of the sense which Horace puts upon the stories of Orpheus and Amphion. But this question shall be considered presently. Again he says, "'Tis agreed by the learned, that the science of music, so admired of the ancients, is wholly lost in the world; and that what we have now, is made up out of certain notes that fell into the fancy or observation of a poor friar, in chanting his mattins. So that those
"two divine excellencies of music and poetry, are
"grown in a manner, but the one fiddling and the
"other rhyming, and are indeed very worthy the ig-
"norance of the friar, and the barbarousnes of the
"Goths that introduced them among us." Some
learned men indeed have said so; but as learned have
said otherwife: And for the description Sir William
gives of the modern music, it is the poorest thing ever
was said, and demonstrates the author's utter ignorance
of music: Did he know what use Guido made of
these notes? He means the syllables, ut, re, mi, &c., for
these are the notes he invented. If the modern music
falls short of the ancient, it must be in the use and
application; for the materials and principles of har-
mony are the same thing, or rather they are improved;
for Guido's scale to which he applied these syllables,
is the ancient Greek scale only carried to a greater
extent; and which is much improved since.

As I have stated the question, we are first to compare
the principles and then the practice.

Meibomius, no enemy to the ancient cause, speaking
of Ariflides, calls him, Incomparabilis antiquae musicae
Auctor, & vere exemplar unicum, who, he says, has
taught and explained all that was ever known or taught
before him, in all the parts. We have Arifloxeusus;
and for what was written before him, he affirms to
have been very deficient: nor do the later writers ever
complain of the loss of any valuable author that was
before them.

Now we may suppose it will be manifest to the un-
prejudiced, who consider what has been explained both
of the ancient and modern principles and theory of
harmonics, that they have not known more of it than
we do, plainly because we know all theirs; and that we
have improved upon their foundation, will be as plain,
from the accounts I have given of both, and the com-
panion I have drawn all along in explaining the ancient
theory; therefore I need infilt no more upon this part.

The great dispute is about the practice.

To understand the ancient practice of music, we are
first to consider what the name signified with them.
Music included these three things, harmony, rythmus,
and verse: if there needs any thing to be added, take

the
these few authorities. In Plato's first Alcibiades, So-
crates asks what he calls that art which teaches to sing, 
play on the harp, and dance? and makes him answer, 
Music: But singing among them was never without
verse. This is again confirmed by Plutarch, who says, 
"That in judging of the parts of music, reason and
sense must be employed: for these three must al-
ways meet in our hearing, viz. Sound, whereby we
"perceive harmony; Time, whereby we perceive
"Rythmus; and Letters or Syllables, by which we un-
derstand what is said." Therefore we reasonably
conclude, that their music consisted of verses sung
by one or more voices, alternately, or in choirs;
sometimes with the sound of instruments, and some-
times by voices only; and whether they had any mu-
ic without singing, shall again be considered.

Let us now consider what idea their writers give us
of the practical music. This we may expect, if 'tis
to be found at all, from the authors who write ex
professo upon music, and pretend to explain it in all
its parts. I have already shewn, that they make the
musical faculties (as they call them) these, viz. Melo-
poeia, Rythmopoeia, and Poelis. For the first, to make
the comparison right, it shall be considered under these
two heads, Melody and Symphony, and begin with the
left. It has been observed, in explaining the prin-
ciples of the ancient Melopoeia, that it contains nothing
but what relates to the conduct of a single voice, or
making what we call melody: there is not the least
word of the concert or harmony of parts; from which
there is very great reason to conclude, that this was
no part of the ancient practice, and is altogether a mo-
dern invention, and a noble one too; the first rudi-
ments of which has been already said we owe to that
fame poor fryar (as Sir William Temple calls him)
Guido Aretinus. But that there be no difference
about mere words, observe, that the question is not,
Whether the ancients ever joined more voices or in-
struments together in one Symphony; but, whether
several voices were joined, so as each had a distinct
and proper melody, which made among them a succe-
dion
Of Music.

Section of various Concods; and were not in every note Unions, or at the same distance from each other, as Sves? which last will agree to the general signification of the word Symphonia; yet 'tis plain, that in such cases there is but one song, and all the voices perform the same individual melody; but when the parts differ, not by the tension of the whole, but by the different relations of the successive notes. This is the modern art that requires so peculiar a genius, and good judgment, in which therefore 'tis so difficult to succeed well. The ancient harmonic writers, in their rules and explications of the Melopoeia, speak nothing of this art: They tell us, that the Melopoeia is the art of making songs; or more generally, that it is the use of all the parts and principles that are the subjects of harmonical contemplation. Now is it at all probable, that so considerable an use of these principles was known among the ancients, and yet never once mentioned by those who professed to write of Music in all its parts? Shall we think these concealed it, because they envied posterity so valuable an art? Or, was it the difficulty of explaining it that made them silent? They might at least have said there was such an art; the definition of it is easy enough: Is it like the rest of their conduct to neglect any thing that might redound to any degree to their own praise and glory? Since we find no notice of this art under the Melopoeia, it cannot be expected in any other part. If any body should think to find it in the part that treats of systems, because that expresses a composition of several things, they will be disappointed: for these authors have considered systems only as greater intervals between whose extremes other notes are placed, dividing them into lesser intervals, in such a manner as a single voice may pass agreeably from the one extreme to the other. But in distinguishing systems, they tell us, some are consonant, some dissonant: Which names expressed the quality of these systems, viz. that of the first, the extremes are fit to be heard together, and the other not; and if they were not used in consonance, may some say, these names are wrong applied: but tho'
they signified that quality, it will not prove they were
used in consonance, at least in the modern way: Bes-
ides, when they speak plainly and expressly of their
use in succession or melody, they use the same names,
to signify their agreement: And if they were used in
consonance in the manner described, why have we not
at least some general rules to guide us in the practice?
Or rather, does not their silence in this, demonstrate
there was no such practice? But tho' there is nothing
to be found in those who have written more fully and
expressly on music, yet the advocates for the ancient
music find demonstration enough, they think, in some
passages of authors that have given transient descrip-
tions of music: but if these passages are capable of any
other good sense than they put upon them, the silence
of the professed writers on music will undoubtedly cast
the balance on that side. Aristotle in his Treatise
concerning the World, answers that question, If the
world is made of contrary principles, how comes it
that it is not long ago dissolved? He shews, that the
beauty and perfection of it consists in the admirable
mixture and temperament of different things; and
among his illustrations brings in music thus, Music,
by a mixture of acute and grave, also of long and short
sounds of different voices, yields one absolute or perfect
concert. Again, explaining the harmony of the ce-
lestial motions, where each orb, says he, has its own
proper motion, yet all tend to one harmonious end,
as they also proceed from one principle, making a choir
in the heavens by their concord, and he carries on the
comparison with music thus: As in a choir, after the
Praecensor the whole choir sings, composed sometimes
of men and women, who by the different acuteness
and gravity of their voices, make one concinnous har-
mony.

Let Seneca appear next. Don't you see of how
many voices the chorus consists? yet they make but one
sound: in it some are acute, some grave, and some
middle: women are joined with men, and whistles also
put in among them: each single voice is concealed, yet
the whole is manifest.

Cassiodorus
O F M U S I C

Cassiodorus says, Symphony is an adjustment of a grave found to an acute, or an acute to a grave, making melody.

Now the most that can be made of these passages is, that the ancients used choirs of several voices differing in acuteness and gravity; which was never denied: but the whole of these definitions will be fully answered, supposing they sung all the same part or song only in different tensions, as 8ve in every note. And from what was premised, I think there is reason to believe this to be the only true meaning.

But there are other considerable things to be said that will put this question beyond all reasonable doubt. The word harmonia signifies more generally the agreement of several things that make up one whole; but so do several sounds in succession make up one song, which is in a very proper sense, a composition. And in this sense we have in Plato and others several comparisons to the harmony of sounds in music. But 'tis also used in the strict sense for consonance, and so is equivalent to the word Symphonia. Now we shall make Aristotle clear his own meaning in the passages adduced: he uses Symphonia to express two kinds of consonance; the one, which he calls by the general name Symphonia, is the consonance of two voices that are in every note unison; and the other, which he calls Antiphonia, of two voices that are in every note 8ve: In his Problems, § 19. Prob. 16. He asks why Symphonia is not as agreeable as Antiphonia; and answers, because in Symphonia the one voice being altogether like or as one with the other, they eclipse one another. The Symphoni here plainly must signify unisons, and he explains it elsewhere by calling them Omophoni: and that the 8ve is the Antiphonia is plain, for it was a common name to 8ve; and Aristotle himself explains the Antiphoni by the voice of a boy and a man that are as Nete and Hypate, which were 8ve in Pythagoras's lyre. Again, I own he is not speaking here of unison and 8ve simply considered, but as used in song; and tho' in modern Symphonies it is also true, that union cannot be so frequently used with as good effect.
effect as 8ve, yet his meaning is plainly this, viz. that when two voices sing together one song, 'tis more agreeable that they be 8ve than unison with one another, in every note: this I prove from the 17th Probl. in which he asks why Diapente and Diatessaron are never sung as the Antiphoni? He answers, because the Antiphoni, or sounds of 8ve, are in a manner both the same and different voices; and by this likeness, where at the same time each keeps its own distinct character, we are better pleased: therefore he affirms, that the 8ve can only be sung in Symphony. Now that by this he means such a Symphony is certain, because in modern counterpoint the 4th, and especially the 5th, are indispen- sable; and indeed the 5th with its two 3ds, are the life of the whole. Again, in Probl. 18, he asks why the Diapason only is magadised? And answers, because its terms are the only Antiphoni: now that this signifies a manner of singing, where the sounds are in every note 8ve to one another, is plain, from this word magadised, taken from the name of an instrument, in which two strings were always struck together for one note. Athenæus makes the Magadis the same with the Barbiton and Pæsis; and Horace makes the muse Polyhymnia the inventor of the Barbiton.—Nec Polyhymnia Leiboum refugit tendere Barbiton.—And from the nature of this instrument, that it had two strings to every note, some think it probable the name Polyhymnia was deduced. Athenæus reports from Anacreon, that the Magadis had twenty chords; which is a number sufficient to make us allow they were doubled; so that it had in all ten notes: now anciently they had but three tones or modes, and each extended only to an 8ve, and being a tone alunder, required precisely ten chords; therefore Athenæus corrects Porphodonius for saying the twenty chords were all distinct notes, and necessary for the three modes. But he further confirms this point by a citation from the comic poet Alexanderides, who takes a comparison from the Magadis, and says, I am like the Magadis, about to make you understand a thing that is at the same time both sublime and low; which proves
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proves that two strings were struck together, and that they were not unison. He reports also the opinion of the poet Jon, that the Magadis consisted of two flutes, which were both sounded together. From all this 'tis plain, That by magadised, Aristotle means such a consonance of sounds as to be in every note at the same distance, and consequently to be without Symphony and parts according to the modern practice. Athenæus reports also of Pindar, that he called the music sung by a boy and a man, Magadis; because they sung together the same song in two modes. Mr. Perault concludes from this, that the strings of the Magadis were sometimes 3ds, because Aristotle says, the 4th and 5th are never magadised: but why may not Pindar mean that they were at an 8ve's distance; for certainly Aristotle used that comparison of a boy and a man to express an 8ve: Mr. Perault thinks it must be a 3d, because of the word mode, whereof anciently there were but three; and confirms it by a passage out of Horace, Epod. 9. Sonante mistum tibis carmen lyra; hac Dorium illis Barbarum: by the Barbarum, says he, is to be understood, the Lydian, which was a Ditone above the Dorian: but the difficulty is, that the ancients reckoned the Ditone at best a concinnous Discord; and therefore 'tis not probable they would use it in so remarkable a manner: but we have enough of this. The author last named observes, that the ancients probably had a kind of simple harmony, in which two or three notes were tuned to the principal chords of the key, and accompanied the song. This he thinks probable from the name of an instrument Pandora that Athenæus mentions; which is likely the same with the Mandora, an instrument not very long ago used, says he, in which there were four strings, whereof one served for the song, and was struck by a Plectrum or quill tied to the fore-finger: the other three were tuned so as two of them were an 8ve, and the other a middle, dividing the 8ve into a 4th and 5th: they were struck by the thumb, and this regulated by the rythmus or measure of the song, i. e. Four strokes for every measure of common time, and three for triple.
triple. He thinks Horace points out the manner of this instrument in Ode 6. Lefbium fervate pedem, mei-
que pollicis istum, which he thus translates. Take
notice, you who would join your voice to the sound
of my lyre, that the measure of my song is sapphic,
which the striking of my thumb marks out to you.
This instrument is parallel to our common bagpipe.
The passages of Aristotle being thus cleared, Seneca
and Caffiodorus may be easily given up. Seneca speaks
of vox media, as well as acuta and gravis; but this
can signify nothing, but that there might be two 8ves,
one between the men and women, and the shrill tibia
might be 8ve above the women: but then the latter
part of what he says, destroys their cause; for singu-
lorum voces latent, can very well be said of such as
fing the same melody unison or octave, but would by
no means be true of several voices performing a modern
Symphony, where every part is conspicuous, with a
perfect harmony in the whole. For Caffiodorus, what
he says has no relation to consonance, An adjustment
of a grave sound to an acute, or an acute to a grave
making melody: if it be allledged that temperamen-
tum may signify a mixture, it must be allowed; but
then he ought to have said, Temperamentum sonitus
gravis & acuti; for what means sonitus gravis ad acu-
tum, and again acuti ad gravem? But in the other
cafe, this is well enough, for he means, That melody
may consist either in a progression from acute to grave,
or contrarily: and then the word modulamen was
never applied any other way than to successive sounds.
There is another passage which If. Voffius cites from
Ælian the Platonic, where he says, Symphony consists
of two or more sounds differing in acuteness and gra-
vity, with the same cadence and temperament: but
this rather adds another proof that what Symphonies
they had were only of several voices singing the same
melody only in a different tone.
After such evident demonstrations, there needs no
more to be said to prove, that Symphonies of different
parts are a modern improvement. From their rejecting
the 3ds and 6ths out of the number of concords, the
small extent of their system being only two octaves, and having no tone divided but that between Mele and Paramce, we might argue that they had no different parts: for tho' some simple compositions of parts might be contrived with these principles, yet 'tis hard to think they would lay the foundations of that practice, and carry it no further; and much harder to believe, they would never speak one word of such an art and practice, where they profess to explain all the parts of music. But for the symphonies, which we allow them to have had, you will ask why these writers don't speak of them, and why it seems so incredible that they should have had the other kind without being ever mentioned, when they don't mention these we allow? The reason is plain, because the musician's business was only to compose the melody, and therefore they wanted only rules about that; but there was no rule required to teach how several voices may join in the same song, for there is no art in it: experience taught them that this might be done in unison or octave; and pray what had the writers more to say about it? But the modern symphony is a quite different thing, and needs much to be explained both by rules and examples. But 'tis time to make an end of this point: there is only to be added, that if plain reason needs any authority to support it, there can be adduced many moderns of character, who make no doubt to say, that after all their pains to know the true state of the ancient music, they could not find the least ground to believe there was any such thing in these days, as music in parts. Perrault has been named, and shall only add to him Kircher and Doctor Wallis, authors of great capacity and infinite industry.

Our next companion shall be of the melody of the ancients and moderns; and here comes in what's necessary to be said on the other parts of music, viz. the rythmus and verse. In order to this comparison, melody shall be distinguished into vocal and instrumental. By the first, is meant music set to words, especially verses; and by the other, music composed only for instruments without singing. For the vocal you see by the definition that poetry makes a necessary part.
of it: this was not only of ancient practice, but the chief, if not their only practice, as appears from their definitions of music already explained.

'Tis not to be expected that there should be any comparison made of the ancient and modern poetry; 'tis enough to observe, That there are admirable performances in both; and if we come short of them, 'tis not for want either of genius or application: but perhaps we shall be obliged to own, that the Greek and Latin languages were better contrived for pleasing the ear. We are next to consider, that the rythmus of their vocal music was only that of the poetry, depending altogether on the verse, and had no other forms or variety than what the metrical art afforded: under the head of mutations, those who consider the rythmus make the changes of it no other than from one kind of metrum or verse to another, as from jambick to chorarick: and we may notice too, That in the more general sense, the rythmus includes also, their dancings, and all the theatrical action. It is to be imagined therefore, that their vocal music consisted of verses, set to musical tones, and sung by one or more voices in choirs or alternately; sometimes with and also without the accompaniment of instruments: to which we may add, from the last article, That their symphonies consisted only of several voices performing the same song in different tones as unison and octave. For instrumental music, 'tis not so very plain that they used any: and if they did, 'tis more than probable the rythmus was only an imitation of the poetical numbers, and consisted of no other measures than what were taken from the variety and kinds of their verses; of which they pretended a sufficient variety for expressing any subject according to its nature and property: and since the chief design of their music seems to have been to move the heart and passions, they needed no other rythmus. It cannot be denied, that there are many passages which fairly infinuate their practice upon instruments without singing; so Athenæus says, The Synaulia was a contest of pipes performing alternately without singing. And Quintilian hath this expression, If the numbers and airs of music have such a virtue, how much more ought eloquent words to have? That
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is to say, the other has virtue or power to move us, without respect to the words. But if they had any rythmus for instrumental performances, which was different from that of their poetical measures, how comes it to pass that those authors who have been so full in explaining the signs by which their notes of music were represented, speak not a word of the signs of time for instruments? Whatever be in this, it must be owned that singing with words was the most ancient practice of music, and the practice of their more solemn and perfect entertainments, as appears from all the instances above adduced, to prove the ancient use and esteem of music: and that it was the universal and common practice, even with the vulgar, appears by the pastoral dialogues of the poets, where the contest is ordinarily about their skill in music, and chiefly in singing.

Let us next consider what the present practice (among Europeans at least) consists of. We have, first, vocal music; and this differs from the ancient in these respects, viz. That the constitution of the rythmus is different from that of the verse, so far, that in setting music to words, the thing principally minded is, to accommodate the long and short notes to the syllables in such manner as the words may be well separated, and the accented syllable of every word to conspicuous, that what is sung may be distinctly understood: the movement and measure is also suited to the different subjects, for which the variety of notes, and the constitutions or modes of time afford sufficient means. Then we differ from the ancients in our instrumental accompaniments, which compose symphonies with the voice, some in unison, others making a distinct melody; which produces a ravishing entertainment they were not blest with, or at least without which we should think ours imperfect. Then there is a delightful mixture of pure instrumental symphonies, performed alternately with the song. Lastly, We have compositions fitted altogether for instruments: the design whereof is not so much to move the passions, as to entertain the mind and please the fancy with a variety of harmony and rythmus; the principal effect of which is to raise delight and admiration. This is the plain state of the
ancient and modern music, in respect of practice: but to determine which of them is most perfect, will not perhaps be so easily done to satisfy every body. Tho' we believe their's to have been excellent in its kind, and to have had noble effects; this will not please some, unless we acknowledge ours to be barbarous, and altogether ineffectual. The effects are indeed the true arguments; but how shall we compare these, when there remain no examples of ancient composition to judge by? So that the defenders of the ancient music admire a thing they don't know; and in all probability judge not of the modern by their personal acquaintance with it, but by their fondness for their own notions. Those who study our music, and have well tuned ears, can bear witness to its noble effects: yet perhaps it will be replied, That this proceeds from a bad taste, and something natural, in applauding the best thing we know of any kind. But let any body produce a better, and we shall heartily applaud it. They bid us bring back the ancient musicians, and then they will effectually shew us the difference; and we bid them learn to understand the modern music, and believe their own verses: in short, we think we have better reason to determine in our own favours, from the effects we actually feel, than any body can have from a thing they have no experience of, and can pretend to know no other way than by report: but we shall consider the pretences of each party a little nearer. It has been already observed, that the principal end the ancients proposed in their music, was to move the passions; and to this purpose poetry was a necessary ingredient. We have no dispute about the power of poetical compositions to affect the heart, and move the passions, by such a strong and lively representation of their proper objects, as that noble heart is capable of: the poetry of the ancients we own is admirable; and their verses being sung with harmonious cadances and modulations, by a clear and sweet voice, supported by the agreeable sound of some instrument, in such manner that the hearer understood every word that was said, which was all delivered with a proper action, that is, pronunciation and gestures suitable to, or expressive of the subject,
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as we also suppose the kind of verse, and the modulation applied to it was; taking their vocal music in this view, we make no doubt that it had admirable effects in exciting love, pity, anger, grief, or any thing else the poet had a mind to: but then they must be allowed to affirm, who pretend to have the experience of it, That the modern music, taking it in the same sense, has all these effects. Whatever truth may be in it, we shall pass what Doctor Wallis alleges, viz. That these ancient effects were most remarkably produced upon rustics, and at a time when music was new, or a very rare thing: but it must be observed with him, That the passions are easily wrought upon. The deliberate reading of a romance well written will produce tears, joy, or indignation, if one gives his imaginations a loose; but much more powerfully when attended with the things mentioned: so that it can't be thought so very mysterious and wonderful an art to excite passion, as that it should be quite lost. Our poets are capable to express any moving story in a very pathetic manner: our musicians too know how to apply a suitable modulation and rythmus: and we have those who can put the whole in execution; so that a heart capable of being moved will be forced to own the wonderful power of modern music: the Italian and English theatres afford sufficient proof of this; so that it is to be believed, were we to collect examples of the effects that the acting of modern tragedies and operas have produced, there would be no reason to say we had lost the art of exciting passion. But 'tis needless to insist on a thing which so many know by their own experience. If some are obstinate to affirm, That we are still behind the ancients in this art, because they have never felt such effects of it; we will ask them if they think every temper and mind among the ancients was equally disposed to relish, and be moved by the same things? If tempers differed then, why may they not now, and yet the art be at least, as powerful as ever? Again, have we not as good reason to believe those who affirm they feel this influence, as you who say you have never experienced it? And if you put the matter altogether upon the authority of others, pray, is not the testimony
testimony of the living for the one, as good as that of the dead for the other?

But still there are wonders pretended to have been performed by the ancient music, which we can produce nothing like; such as those amazing transports of mind, and hurrying of men from one passion to another, all on a sudden, like the moving of a machine, of which we have so many examples in history. For these we shall answer, That what is reckoned incredible in them may justly be laid upon the historians, who frequently aggravate things beyond what's strictly true, or even their credulity in receiving them upon weak grounds; and most of these stories are delivered to us by writers who were not themselves witnesses of them, and had them only by tradition and common report. If nothing like this had ever been justly objected to the ancient historians, we might think ourselves obliged to find another answer: but since 'tis so, we may be allowed to doubt of these facts, or suspect at least that they are in a great degree hyperbolical. Consider but the circumstances of some of them as they are told, and if they are literally true, and can be accounted for no other way but by the power of sound, it must be owned they had an art which is lost: for example, the quelling of a sedition. Let us represent to ourselves a furious rabble, envenomed with discontent, and enraged with oppression; or let the grounds of their rebellion be as imaginary as you please; still we must consider them as all in a flame; suppose next, they are attacked by a skilful musician, who addresses them with his pipe or lyre; how likely is it that he should persuade them by a song to return to their obedience, and lay down their arms? Or rather, how probable is it that he may be torn to pieces, as a solemn mocker of their just resentment? But that there may be allowed some foundation for such a story, we will suppose a man of great authority for virtue, wisdom, and the love of mankind, comes to offer his humble and affectionate advice to such a company; we will suppose too, he delivers it in verse, and perhaps sings it to the sound of his lyre, (which seems to have been a common way of delivering public exhortations in more ancient times,) the
the music being used as a means to gain their attention,) it cannot be thought impossible that this man may persuade them to peace, by representing the danger they run, aggravating the mischief they are like to bring upon themselves and the society, or also correcting the false views they may have had of things. But then will any body say, all this is the proper effect of music, unless reasoning be also a part of it? And must this be an example of the perfection of the ancient art, and its preference to ours? In the same manner may other instances alluded be accounted for, such as Pythagoras’s diverting a young man from the execution of a wicked design, the reconciliation of two inveterate enemies, the curing of Clytemnestra’s vicious inclinations, &c. Horace’s explication of the stories of Orpheus and Amphion, makes it probable we ought to explain all the rest the same way. For the story of Timotheus and Alexander, as commonly represented, it is indeed a very wonderful one, but we must here allow something to the boldness or credulity of the historian: That Timotheus, by singing to his lyre, with moving gesture and pronunciation, a well composed poem of the achievements of some renowned hero, as Achilles, might awaken Alexander’s natural passion for warlike glory, and make him express his satisfaction with the entertainment in a remarkable manner, is in no wise incredible: we are to consider too the fondness he had for the Iliad, which would dispose him to be moved with any particular story out of that: but how he should forget himself so far, as to commit violence on his best friend, is not so easily accounted for, unless we suppose him at that time as much under the power of Bacchus as of the muses: and that a softer theme sung with equal art, should please a hero who was not insensible of Venus’s influences, is no mystery, especially when his mistress was in company: but there is nothing here above the power of modern poetry and music, where it meets with a subject the same way disposed, to be wrought upon. To make an end of this, the historians, by saying too much, have given us ground to believe very little. What do you think of curing a raging pestilence by music? For
For curing the bites of serpents, we cannot so much doubt it, since that of the Tarantula has been cured in Italy. But then they have no advantage in this instance: and we must mind too, that this cure is not performed by exquisite art and skill in music; it does not require a Corelli or Valentini, but is performed by strains discovered by random trials without any rule: and this will serve for an answer to all that's alleged of the cure of diseases by the ancient music.

'Tis time to bring this comparison to an end; and after what's explained, it must be owned, that the state of music is much more perfect now than it was among the ancient Greeks and Romans. The art of music, and the true science of harmony in sounds is greatly improved. Their music has been allowed (including poetry and the theatrical action) to have been very moving; but at the same time it must be said, their melody has been a very simple thing, as their system or scale plainly shews.

And the confining all their rhythmus to the poetical numbers, is another proof of it, and shews that there has been little air in their music; which by this appears to have been only of the recitative kind, that is, only a more musical speaking, or modulated elocution; the character of which is to come near nature; and be only an improvement of the natural accents of words by more pathetic or emphatical tones; the subject whereof may be either verse or prose. And as to their instruments of music, for any thing that appears certain and plain to us, they have been very simple. Indeed the public laws in Greece gave check to the improvement of the art of harmony, because they forbade all innovations in the primitive simple music; of which there are abundance of testimonies. Plato says, in his Treatise of the Laws, viz. That they entertained not in the city the makers of such instruments as have many strings, as the Trigonus and Plectis; but the Lyra and Cithara they used, and allowed also some simple Fifulae in the country. But 'tis certain, that primitive simplicity was altered; so that from a very few strings, they used a great number: but there is much uncertainty about the use of them, as whether it was
was for mixing their modes, and the genera, or for striking two chords together as in the magadis. Since instruments have been mentioned, two things must be observed, first, That they pretend to have had tibia of different kinds, whose specific sounds were excellently chosen for expressing different subjects. Then, there is a description of the Organum hydraulicum in Tertullian, which some adduce to prove how perfect their instruments were.—Specia portentosam Archimedis munificentiam; organum hydraulicum dico, tot membra, tot partes, tot compagines, tot itinera vacum, tot comprehendia fonorum, tot commercia modorum, tot acies tibiurum, & una moles erunt omnia. But it will not be pretended to have been more perfect than our modern organs: And what have they to compare of the stringed kind, with our harpsichords; and all the instruments that are struck with a bow?

After all, if our melody or songs are only equal to the ancients, it is to be hoped, the art of music is not lost as some pretend. But then, what an improvement in the knowledge of pure harmony has been made, since the introduction of the modern symphonies? Here it is, that the mind is ravished with the agreement of things seemingly contrary to one another. We have here a kind of imitation of the works of nature, where different things are wonderfully joined in one harmonious unity: And as some things appear at first view the farthest removed from symmetry and order, which from the course of things we learn to be absolutely necessary for the perfection and beauty of the whole; so discords being artfully mixed with concords, make a more perfect composition, which surprises us with delight. If the mind is naturally pleased with perceiving of order and proportion, with comparing several things together, and discerning in the midst of a seeming confusion, the most perfect and exact disposition and united agreement; then the modern concerts must undoubtedly be allowed to be entertainments worthy of our natures: And with the harmony of the whole we must consider the surprising variety of air, which the modern constitutions and modes of time or rythmus afford; by which, in our instrumental performances, the sense and imagination are so mightily
mightily charmed. Now, this is an application of music to a quite different purpose from that of moving passion: But is it reasonable upon that account, to call it idle and insignificant, as some do. It was certainly a noble use of music to make it subservient to morality and virtue; and if we apply it less that way, 'tis because we had less need of such allurements to our duty: but whatever be the reason of this, 'tis enough to the present argument, that our music is at least not inferior to the ancient in the pathetic kind. And if it be not a low and unworthy thing for us to be pleased with proportion and harmony, in which there is properly an intellectual beauty, then it must be confessed, that the modern music is more perfect than the ancient. But why must the moving of particular passions be the only use of music? If we look upon a noble building, or a curious painting, we are allowed to admire the design, and view all its proportions and relation of parts with pleasure to our understandings, without any respect to the passions. We must observe again, that there is scarce any piece of melody that has not some general influence upon the heart; and by being more brightly or heavy in its movements, will have different effects; tho' it is not designed to excite any particular passion, and can only be said in general to give pleasure, and recreate the mind. But why should we dispute about a thing which only strangers to music can speak ill of? And for the harmony of different parts, the defenders of the ancient music own it to be a valuable art, by their contending for its being ancient: let me therefore again affirm, that the moderns have wonderfully improved the art of music. It must be acknowledged indeed, that to judge well, and have a true relish of our more elaborate and complex music, or to be sensible of its beauty, and taken with it, requires a peculiar genius, and much experience, without which it will seem only a confused noise; but I hope this is no fault in the thing. If one altogether ignorant of painting looks upon the most curious piece, wherein he finds nothing extraordinary moving to him, because the excellency of it may lie in the design and admirable proportion and situation of the parts which
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he takes no notice of: must we therefore say, it has nothing valuable in it, and capable to give pleasure to a better judge? What, in music or painting, would seem intricate and confused, and so give no satisfaction to the unskilled, will ravish with admiration and delight, one who is able to unravel all the parts, observe their relations and the united concord of the whole. But now, if this be such a real and valuable improvement in music, you will ask, How it can be thought the ancients could be ignorant of it, and satisfy themselves with such a simple music, when we consider their great perfection in the sister arts of poetry and painting, and all other sciences? How it comes that the ancients left us any thing to invent or improve? And how comes it that different ages and nations have genius and fondness for different things? The ancients studied only how to move the heart, to which a great many things necessarily concurred, as words, tune, and action; and by these we can still produce the same effects; but we have also a new art, whose end is rather to entertain the understanding, than to move particular passions. What connection there is between their improving other sciences and this, is not so plain as to make any certain conclusion from it. And as to their painting, there have been very good reasons alleged to prove, That they followed the same taste there as in the music, i.e. the simple obvious beauties, of which every body might judge and be sensible. Their end was to please and move the people, which is better done by the senses and the heart than by the understanding; and when they found sufficient means to accomplish this, why should we wonder that they proceeded no further, especially when to have gone much beyond, would likely have loft their design. But, say you, this looks as if they had been sensible there were improvements of another kind to be made: suppose it was so, yet they might flop when their principal end was obtained. And Plutarch says as much, for he tells us it was not ignorance that made the ancient music so simple, but it was so out of politic: yet he complains, that in his own time, the very memory of the ancient modes that had been so useful in the education
education of youth, and moving the passions, was lost thro' the innovations and luxurious variety introduced by later musicians; and now, when a full liberty seems to have been taken, may we not wonder that so little improvement was made, or at least so little of it explained and recorded to us by those who wrote of music, after such innovations were so far advanced.

This dispute (which is perhaps too tedious already) shall be ended with a short consideration of what the boldest accuser of the modern music, Isaac Vossius, says against it, in his book de poematum cantu & viribus rythmi. He observes, what a wonderful power motion has upon the mind, by communication with the body; how we are pleased with rythmical or regular motion; then he observes, that the ancient Greeks and Latins perceiving this, took an infinite pains to cultivate their language, and make it as harmonious, especially in what related to the rythmus, or number and combination of long and short syllables, as possible; to this end particularly were the pedes metrici invented, which are the foundations of their verification; and this he owns was the only rythmus of their music, and so powerful, that the whole effect of music was ascribed to it. And to prove the power attributed to the rythmus, he cites several passages. That it gives life to music, especially the pathetic, will not be denied; and we see the power of it even in plain prose and oratory: but to make it the whole, is perhaps attributing more than is due; it is rather to be thought the words and sense of what's sung, the principal ingredient; and the other a noble servant to them, for raising and keeping up the attention, because of the natural pleasure annexed to these sensations. 'Tis very true, that there is a connection between certain passions, which we call motions of the mind, and certain motions in our bodies; and when by any external motion these can be imitated and excited, no doubt we shall be much moved; and the mind, by that influence, becomes either gay, soft, brisk or drowsy: but how any particular passion can be excited without such a lively representation of its proper object, as only words afford, is not very intelligible; at least this appears to me the most just and effectual way.
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But let us hear what notion others had of this matter, Quintilian says, If the numbers of music have such influence, how much more ought eloquent words to have? And in all the ancient music the greatest care was taken, that not a syllable of the words should be lost, for spoiling the sense, which Vossius himself observes and owns. Pancirollius, who thinks the art loft, ascribes the chief virtue of it to the words.—Siquidem una cum melodia integra percipiebantur verba: and the very reason he gives, that the modern music is less perfect, is, that we hear sounds without words, by which, says he, the ear is a little pleased, without any entertainment to the understanding: but all this has been considered already. Vossius alledges the mimic art, to prove, that the power of motion was equal to the most eloquent words; but we shall be as much straitned to believe this, as the rest of their wonders. Let them believe it who will, that a pantomime had art to make himself easily understood without words, by people of all languages: and that Roscius, the comedian, could express any sentence by his gestures, as significantly and variously, as Cicero with all his oratory. Whatever this art was, 'tis loft, and perhaps it was something very surprizing; but 'tis hard to believe these stories literally. However to the thing in hand, we are concerned only to consider the musical or poetical rhythmus.

Vossius says, that rhythmus which does not contain and express the very forms and figures of things, can have no effect; and that the ancient poetical numbers alone are justly contrived for this end. And therefore the modern languages and verse are altogether unfit for music; and we shall never have, says he, any right vocal music, till our poets learn to make verses that are capable to be sung, that is, as he explains it, till we new model our languages, restore the ancient metrical feet, and banish our barbarous rhimes. Our verses, says he, run all as it were on one foot, without distinction of members and parts, in which the beauty of proportion is to be found; therefore he reckons, that we have no rhythmus at all in our poetry; and affirms, that we mind nothing but to have such a certain
certain number of syllables in a verse, of whatever nature, and in whatever order. Now, what a rash and unjust criticism is this! if it was so in his mother tongue, the Dutch, I know not; but it is otherwise in English. 'Tis true, we don't follow the metrical composition of the ancients; yet we have such a mixture of strong and soft, long and short syllables, as makes our verses flow, rapid, smooth, or rumbling, agreeable to the subject. Take any good English verse, and by a very small change in the transposition of a word or syllable, any body who has an ear will find, that we make a very great matter of the nature and order of the syllables. But why must the ancient be the only proper metre for poetry and music? He says, their odes were sung, as to the rythmus, in the same manner as we scan them, every pes being a distinct bar or measure, separate by a distinct paule; but in the bare reading, that distinction was not accurately observed, the verse being read in a more continuous manner. Again he notices, that after the change of the ancient pronunciation, and the corruption of their language, the music decayed till it became a poor and insignificant art. Their odes had a regular return of the same kind of verse; and the same quantity of syllables in the same place of every similar verse: but there's nothing, says he, but confusion of quantities in the modern odes; so that to follow the natural quantity of our syllables, every stanza will be a different song, otherwise than in the ancient verses: (he should have minded, that every kind of ode was not of this nature; and how heroic verses were sung, if this was necessary, is hard to be discovered, becaufé in them the dactylus and spondeus are sometimes in one place of the verse, and sometimes in another.) But instead of this, he says, the moderns have no regard to the natural quantity of the syllables, and have introduced an unnatural and barbarous variety of long and short notes, which they apply without any regard to the subject and sense of the verse, or the natural pronunciation: so that nothing can be understood that's sung, unless one knows it before; and therefore, no wonder, says he, that our vocal music has no effects. Now here
here is indeed a heavy charge, but experience gives me authority to affirm it to be absolutely false. We have vocal music as pathetic as ever the ancient was. If any finger don't pronounce intelligibly, that is not the fault of the music, which is always so contrived, as the sense of the words may be distinctly perceived. But this is impossible, says he, if we don't follow the natural pronunciation and quantity; which is precariously laid; for was the singing of the ancient odes by separate and distinct measures of metrical feet, in which there must frequently be a stop in the very middle of a word, was this the natural pronunciation, and the way to make what was sung best understood? He tells us, they read their poems otherwise. And if practice would make that distinct enough to them, will it not be as sufficient in the other case. Again, to argue from what's strictly natural, will perhaps be no advantage to their cause; for don't we know, that the ancients admitted the most unnatural positions of words, for the sake of a numerous stile, even in plain prose; and took still greater liberties in poetry, to depart from the natural order in which ideas lie in our mind; far otherwise than it is in the modern languages, which will therefore be more easily and readily understood in singing, if pronounced distinctly, than the ancient verse could be, wherein the construction of the words was more difficult to find, because of the transpositions. Again the difference of long and short syllables in common speaking, is not accurately observed; not even in the ancient languages; for example, in common speaking, who can distinguish the long and short syllables in these words, satis, nivis, misit. The sense of a word generally depends upon the right pronunciation of one syllable, or two at most in very long words; and if these are made conspicuous, and the words well separated by a right application of the long and short notes, as we certainly know to be done, then we follow the natural pronunciation more this way than the other. If 'tis replied, that since we pretend to a poetical rhythmus, suitable to different subjects, why don't we follow it in our music? Tho' that rhythmus is more distinguished in the recitation of poems, yet
yet our musical rythmus is accommodated also to it; but with such liberty as is necessary to make good melody; and even to produce stronger effects than a simple reciting can do; and I would ask, for what other reason the ancients sung their poems in a manner different from the bare reading of them? Still he tells us, that we want the true rythmus, which can only make pathetic music; and if there is any thing moving in our songs, he says, 'tis only owing to the words; so that prose may be sung as well as verse: that the words ought naturally to have the greatest influence, has been already considered; and there is no reason why the ancient poetical rythmus should have the only claim to the pathetic; as if they had exhausted all the combinations of long and short sounds, that can be moving or agreeable: but indeed the question is about matter of fact, by this defence of the modern music, it is not all alike good, or that there can be no just objection laid against any of our compositions, especially in the setting of music to words; there is only to be said, that we have admirable compositions, and that the art of music, taken in all that it is capable of, is more perfect than it was among the old Greeks and Romans, at least for what can possibly be made appear.

FINIS.