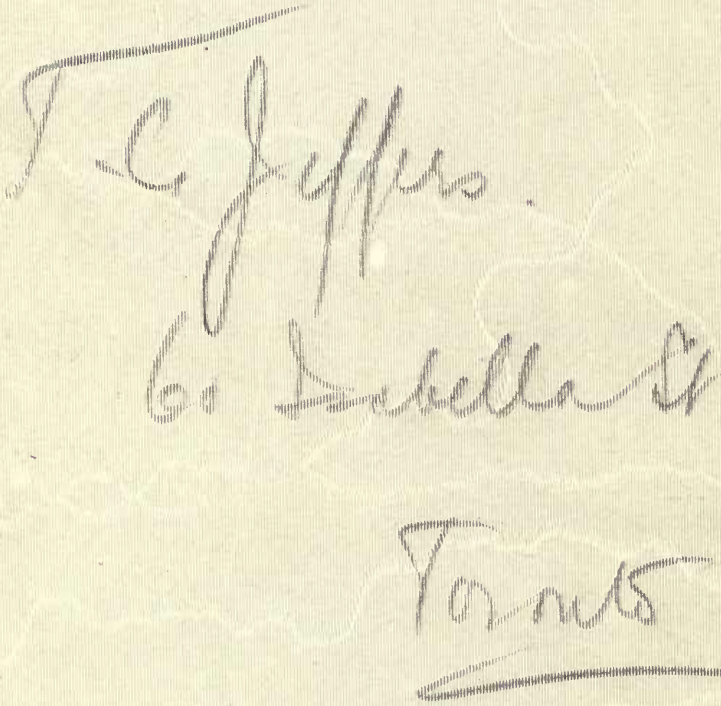
Jadassohn, Manual of Harmony.



A COURSE OF INSTRUCTION

IN PURE HARMONIC WRITING

IN THREE VOLUMES

BY

S. JADASSOHN.

Volume first:

Manual of Harmony.

LEIPZIG, BREITKOPF AND HÄRTEL

NEW YORK, G. SCHIRMER

ENTR STA. HALL,

1890.

MANUAL

OF

HARMONY

BY

S. JADASSOHN,

PROFESSOR AT THE ROYAL CONSERVATORY OF MUSIC, LEIPZIG.

TRANSLATED FROM THE GERMAN

BY

PAUL TOREK AND H. B. PASMORE.

THIRD EDITION.
REVISED BY THE AUTHOR.

LEIPZIG, BREITKOPF AND HÄRTEL.

NEW YORK, G. SCHIRMER
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PREFACE TO THE ENGLISH TRANSLATION.

The English translation of my Manual of Harmony has been made in accordance with my special wish, and under my supervision, by my highly gifted pupils Messrs. Paul Torek from New-York, and H. B. Pasmore from San Francisco.

It represents carefully and conscientiously the German text, as well as all the examples and exercises of the Original.

Heartily thanking the above excellent musicians for their industry and intelligent labor, I hope that this translation of my work will have a wide-spread circulation.

Leipzig, June 1884

S. Jadassohn.

TRANSLATORS' PREFACE.

A strong desire to make the English speaking public acquainted with the maxims and theorems of so eminent a theoretician as is our esteemed teacher, the author of the present volume, was the main motive for undertaking to translate his "Harmony", which desire was naturally heightened by his specially expressing the wish that we should be its interpreters.

We are convinced that, through its explicit treatment of the subject, and its clear and direct explanations, as well as the arrangement of the several topics, and — what is of greatest importance — because of the fact that it is written with special

reference to the capacity of the *average* student (as we had ample occasion to notice during the instruction of the different classes in the Conservatory), this text-book, with all these advantages, is far in advance of other similar ones.

During all the time in which its author was engaged upon the present volume, and the two that followed, we were constant witnesses of the enthusiasm, the conscientiousness, and the sincerity with which he pursued his idea; at his home, in class, in frequent walk and talk, we heard his views and comments on his work, at every stage of it; during long hours of intercourse, we have been enabled to become acquainted not only with its letter, but also with its spirit — all of which has, we hope, at any rate not lessened our fitness for the task with which he entrusted us.

With regard to the translation, we would merely say that, knowing the special qualities to be desired in the translation, as in the original text-book — from the *standpoint of the student*, as well as from that of the instructor —, we have, above all, striven to avoid the to us foremost error of stiffness and solemn mysteriousness, and have made it our constant effort to be simple, clear, concise, and to make use of as plain and general terms, as are possible in so technical a subject.

Hoping that we have been successful in our enterprise, we only wish that this book may benefit our countrymen to as great an extent, as it has already benefited the German student of musical art.

LEIPZIG, June 1884.

Paul Torek.

H. B. Pasmore.

PREFACE.

Appealed to from many sides, and frequently called upon to make public the method of teaching adopted by me during many years of instruction in the theory of music, I at last came to the conclusion to have my experiences, gathered through self-study and through practice in teaching, published in the form of three books. At present the first appears under the title of "Manual of Harmony"; the instruction in Simple and Double Counterpoint, in Canon and Fugue, will follow as soon as possible.

It would lead too far if I should here indicate what new statements I have made both in the explanation of the chords and their connections, and in the method of instruction; this is clearly expressed in the present volume. Let me not however omit to call attention to the fact that examples are added in the appendix, which are worked out in accordance with the rules contained in the different chapters, and can be constantly referred to as a guide. Experience in practical instruction has taught that, in many cases, it is not sufficient to show the pupil the application of a rule by itself, i. e. apart from its connection with an organically formed piece of music, however small. The proper understanding of the rule is obtained more easily and surely by nearly every pupil, if he sees its application brought before his eyes in the condensed form of one or more small pieces of music The manifold and peculiar difficulties in the instruction of the theory of music almost demand such a proceeding. Whatever we call our rules, we deduce from the works

of the classic masters; but at the same time we find so large a number of exceptions to the rule, that the latter often seems to be quite doubtful to the pupil. Let us take but one instance. The pupil first hears that the *seventh* of a chord of the Seventh must resolve downward by a step. Soon after he learns that, in very many cases, it may ascend by a step, or be sustained, or enharmonically changed, or even be led by a skip downward to the tones of other chords. In consequence of this, there remains for him of the first stated rule nothing but the *principle* that the *seventh* is led downward a step, when the following chord and the correct leading of the voices admit of it. If the pupil were shown examples from the classic masters, in which occur in great numbers all the exceptional cases mentioned, — provided the material for it were always at hand — he would, in the beginning, scarcely quite perceive and understand these examples taken from larger compositions, and would possibly regard them as licenses which a genius is permitted to take, whereas these exceptions, just as the rule itself, are established in the nature of things. It is more appropriate, therefore, to place before the pupil the application of the rule and its exceptions, in special, suitable examples, even if such little pieces of music, worked out for definite instructive purposes, have not the value and the charm of artistic compositions.

I have given to the present first part of my work the customary title of "Manual of Harmony"; but in the book itself I have not used the word "harmony", but exclusively the term "chord". Experience in instruction also induced me to adopt this resolution. Before the pupil begins the study of theory, the term "chord" is known and familiar to him from the beginning of his practical instrumental, or vocal musical training. Everyone knows what is meant by this word in music. The term "harmony" is generally used in a different sense from that used in older text-books. It astonishes the pupil, that *dissonant chords* also are called "harmonies", — as for instance, the aug-

mented and diminished triads, and all chords of the Seventh. It astonishes him furthermore that the term "harmony" is used only for the fundamental position of the chords, that their inversions, however, are always called "chords" and not "harmonies", while both expressions are used in exactly the same sense for the fundamental position of the chords. The words "Chord of the Sixth", "Chord of the Sixth and Fourth", "Chord of the Sixth and Fifth", of the "Fourth and Third" and of the "Second" are used as technical terms.

It is unnecessary to discuss here, whether, and to what extent the terms "harmony" and "chord" can be used in the same sense; my object is to present my text-book to the pupil — without any superfluous word-apparatus, and without any attempt at ornate and embellished style — as simple, clear, and comprehensible as possible. What is the use, then, of two terms the one of which, being strange and not clear to the beginner, is used in a limited sense, when the other, known to the pupil from the beginning, is sufficient for all cases?

And now a few more words to the pupil. Whoever wants to make the most of this book, must not be contented with simply understanding and getting acquainted with the principles and rules laid down in it. He must also know how to practically employ them with artistic freedom. For this reason I added to the book a very large number of exercises, which, in each individual case, rise from simpler and easier ones to such as are more complicated and difficult. Let no one be satisfied with the working out of *some* of those exercises; *every one* of them is formed in such a way as to make the pupil acquainted with the application of a rule in as many, and different cases as possible. Thorough and perfect knowledge of the chords and of their connections with each other, which is indispensable to the artist not only for his own free compositions, but also in extemporizing preludes and modulations, and for the correct and intelligent execution of the master-works, can be obtained only through

serious, assiduous and persevering work. Neither must the pupil be satisfied to regard these exercises for practice as dry school-exercises, and work them out merely from this point of view. Even here the talented student of Art finds opportunity to prove artistic qualities, such as delicacy, taste, and a striving after euphony and good melodious formation. For this reason it will often be well to work one and the same exercise several times, to carry it out in different positions, even where a definite position is indicated as being most agreeable and best adapted. Thus only will the pupil learn surely and perfectly to master that technique of chord-connections, which forms the basis of the contrapuntal studies, and of the whole technique of composition.

Leipzig, July 1883.

S. Jadassohn.

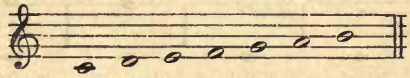
TABLE OF CONTENTS.

PART FIRST.

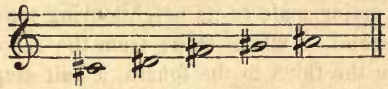
CHAPTER I.

Intervals.

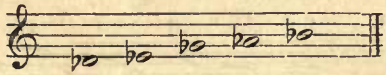
§ 1. All tone material which is used in music confines itself to seven principal tones from which are derived five secondary or intermediate tones. The seven principal tones in their natural progression form the Diatonic Major Scale.

1. 

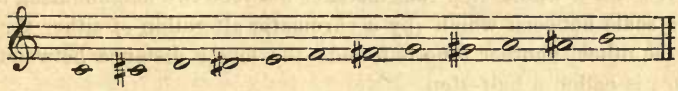
By raising the first, second, fourth, fifth and sixth tones a chromatic half-step the intermediate tones are derived.

2. 

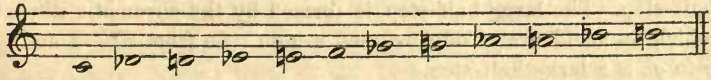
They may also be derived by lowering the second, third, fifth, sixth and seventh tones a half-step.

3. 

The twelve tones combined may therefore be represented in chromatic succession as follows:

4. 

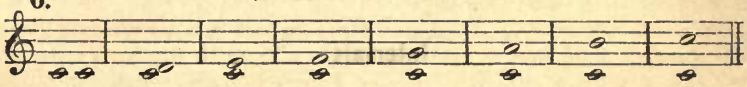
or:

5. 

We take it for granted that the pupil already knows that other enharmonic representations of the same tones are possible. They are not necessary to our immediate purpose.

§ 2. The distance from one tone to another is called an *Interval*. Within the compass of the diatonic major scale we find, by measuring from the lowest (first) tone, that the next tone above it is the second of the fundamental, and is called the *Second*. Just so the other intervals are named, according to the degree upon which they are situated, *Third*, *Fourth*, *Fifth*, *Sixth*, *Seventh* and *Octave*. The fundamental itself is called *Prime*.

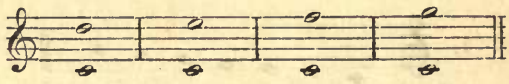
6.



Prime, Second, Third, Fourth, Fifth, Sixth, Seventh Octave.

An extension of our measurement gives us the *Ninth*, *Tenth*, *Eleventh* and *Twelfth* as the transposition of the *Second*, *Third*, *Fourth* and *Fifth* into the higher Octave.

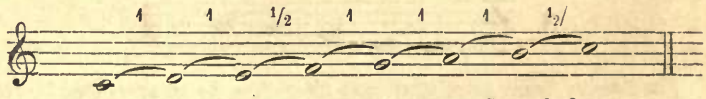
7.



Ninth, Tenth, Eleventh, Twelfth.

The *prime*, *fourth*, *fifth* and *octave* of the major scale are called *Perfect*; the *second*, *third*, *sixth* and *seventh*, *Major*. The distance from one tone of the major scale to its neighbouring tone is, from the first *(prime)* to the second, a whole-step; from the second to the third, a whole-step; from the third to the fourth, a half-step; from the fourth to the fifth, a whole-step; from the fifth to the sixth, a whole-step; from the sixth to the seventh, a whole-step; and from the seventh to the eighth (octave) a half-step.

8.

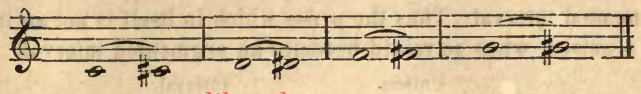


Prime, Second, Third, Fourth, Fifth, Sixth, Seventh, Octave.

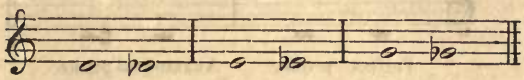
We call a whole-step that distance between two neighbouring tones of a scale between which (by a chromatic alteration of either the one or the other) another tone is found; the lesser distance between two tones is called a half-step.

§ 3. Among half-steps we distinguish between the *large* and *small* half-step. The large half-step is formed by the chromatic alteration which an accidental produces upon a note. So from *c* to *c*♯ and from *g* to *g*♯ is a large half-step.

Large half-steps.

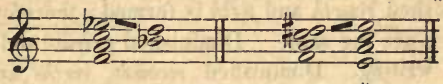
9. 

Just so from *d* to $d\flat$, from *e* to $e\flat$, and from *g* to $g\flat$ are large half-steps.

10. 

The small half-step exists only between two neighbouring degrees. Therefore the distance from *c* to $d\flat$ above, from $c\sharp$ to the next *d*, from *d* to $e\flat$ etc. is a small half-step.

Note. How erronious is the contrary view expressed in older text-books that the alteration of the natural tone produced by a chromatic sign forms a ***small*** half-step to that tone, and that the minor second, on the other hand, forms the ***large*** half-step, is readily made plain to the practical musician by the different resolutions of the like-sounding chords *f*, *a*, *c*, $e\flat$ and *f*, *a*, *c*, $d\sharp$.



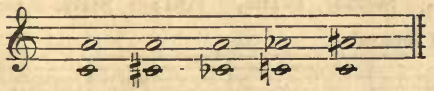
The $E\flat$, being nearer to *D*, inclines toward it; the $D\sharp$ inclines to *E*.

Louis Lohse in his treatise "*Wider die Neuclaviatur*" (*Musikalisches Wochenblatt* 1883, No. 2) clearly expresses himself concerning this point. He writes "Surely the view that *c*—$c\sharp$ is the small half-step and *c*—$d\flat$ the large half-step, does great injury. Really just the reverse is true. Taking $\bar{c}$ at 256 vibrations, the perfectly pure $D\flat$ has 268,04; the pure $C\sharp$, however, has $273^3/_8$.

The minor second is therefore essentially smaller than the augmented prime".

After what has been here said the natural progression of the leading tone, and also the natural resolution of all altered chords and of the chords of the Seventh is easily explained.

§ 4. Those intervals found within the compass of the major scale which, by measuring from the fundamental, we called *seconds*, *thirds*, *fourths*, *fifths*, *sixths*, *sevenths*, *octaves* and *ninths* change into entirely different intervals if, by means of a chromatic sign, we either raise or lower by a half-step one of the two tones forming the interval. Thus the sixth *C*—*A*, according as we change the *c* to $c\sharp$ or $c\flat$ or the *a* to $a\sharp$ or $a\flat$, becomes smaller or greater.

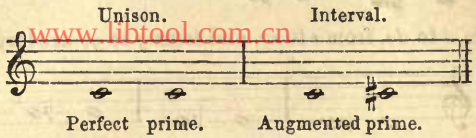
11. 

This changing of the tones of an interval by chromatically raising or lowering one or the other or both, necessitates a more definite designation of these intervals.

Measurement of intervals upward.

§ 5. We have already named the intervals of the major scale *perfect* and *major*. The raising of the upper tone of one of these inter-

vals by a *large* chromatic half-step makes the perfect or major an augmented interval. Thus the *prime* which in itself is not an interval, but a unison, when so raised becomes an augmented interval.



By lowering the upper tone of major intervals a *large* chromatic half-step, they become *minor* intervals.

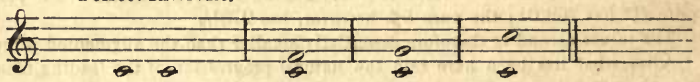
By raising the lower tone of minor intervals a *large* chromatic half-step, they become *diminished* intervals.

By raising the lower tone of the perfect *fourth*, *fifth*, or *octave* a large chromatic half-step, the *perfect* becomes a *diminished* interval.

§ 6. Also by lowering the upper tone of the perfect *fourth* and *fifth*, the diminished *fourth* and *fifth* is formed; therefore the *intervals* c—$g\flat$ and $c\sharp$—g are the same. Diminished *primes* and *octaves* do not occur in pure writing. Diminished *seconds*, *sixths* and *ninths*, and augmented *thirds* and *sevenths* are not used in the structure of chords.

Table of Intervals.

12.



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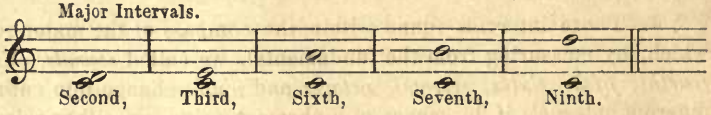

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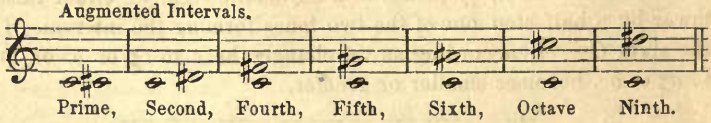

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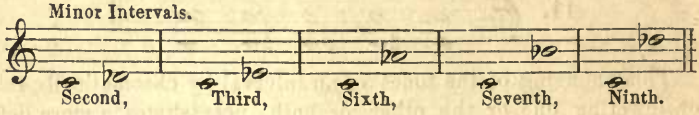

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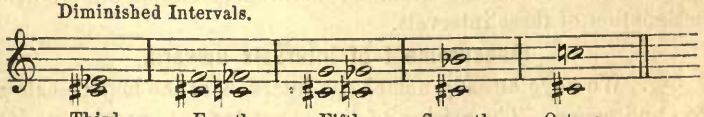
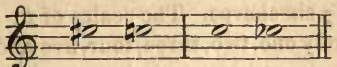
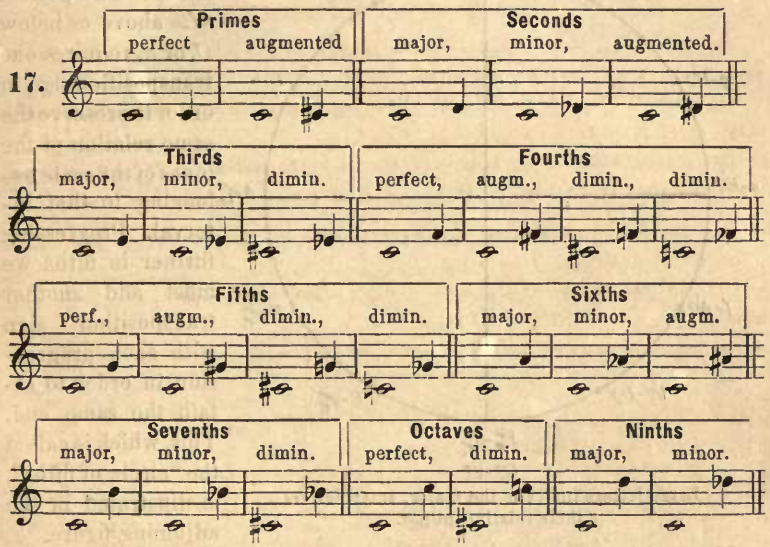


Note. In *melodic* progressions diminished primes also occur, viz.



Written in their regular order the intervals which may be used in the structure of chords and accidental chord-formations present themselves as follows:

17.



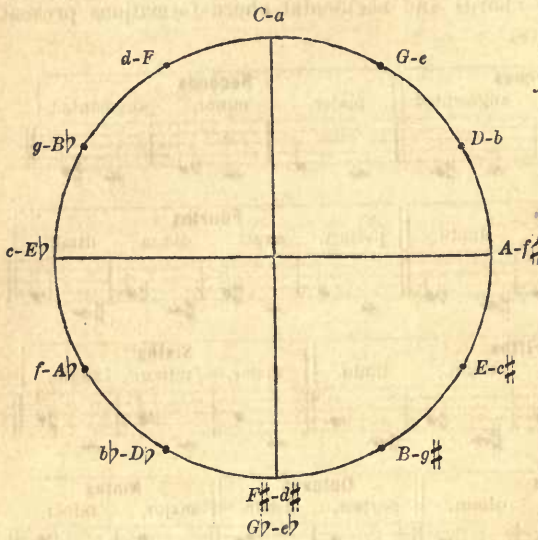
§ 7. We have now become acquainted with all the intervals necessary to the construction of chords and have measured them upwards from the tone *C*. For these measurements we have taken the diatonic *C* major scale as normal scale. If we wish to decide upon the intervals measuring from any other tone we shall have to establish the scale *beginning with that tone.* Although we may take it for granted that the pupil, as a student of music, has already a practical knowledge of *all* the scales, we will again explain that there are two kinds of keys, the *major* and the *minor*, and, consequently, two diatonic scales, the major and minor, which can be formed according to fixed laws, *from any tone* — always in the same relation as to the succession of intervals.

We have already become acquainted with these relations in the *C* major scale (see No. 8).*)

As soon as we take any other than the tone *C* as fundamental, we have to make use of transposition signs in the construction of the scale.

*) We shall explain the formation of the minor scale later on.

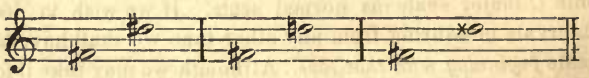
Thus the scale of *G* requires one sharp, (♯) that of *D*, two; A, three; *E*, four; *B*, five, and *F*♯ six sharps. The scales of *F*, *B*♭, *E*♭, *A*♭, *D*♭, and *G*♭ require respectively one, two, three, four, five and six flats (♭). Therefore the scales with signatures are to be regarded merely as transpositions of the scales of *C* major and *A* minor. The perfect *fifth* above or below *C*, or *a*, requires one transposition sign in order to preserve the same relation of the tones of the scale belonging to that interval. Progressing further in fifths we must add another transposition sign with each progression in order to attain the same end. This, which is called the "circle of fifths", is illustrated in the adjoining figure.



Large letters indicate the major, small letters their relative minor.

If we wish to ascertain the major *sixth* (above) of *f*♯ we find it to be sixth tone of the *F*♯ major scale, which is *d*♯. Accordingly the *minor sixth* is *d*, and the *augmented sixth* *d*×.

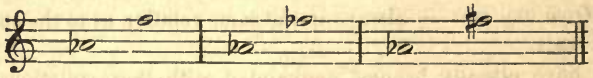
18.



major sixth, minor sixth, augmented sixth.

So the *major sixth* of *A*♭ is *F* the sixth tone of the *A*♭ major scale; the *minor sixth* is *F*♭; the *augmented sixth* *F*♯.

19.

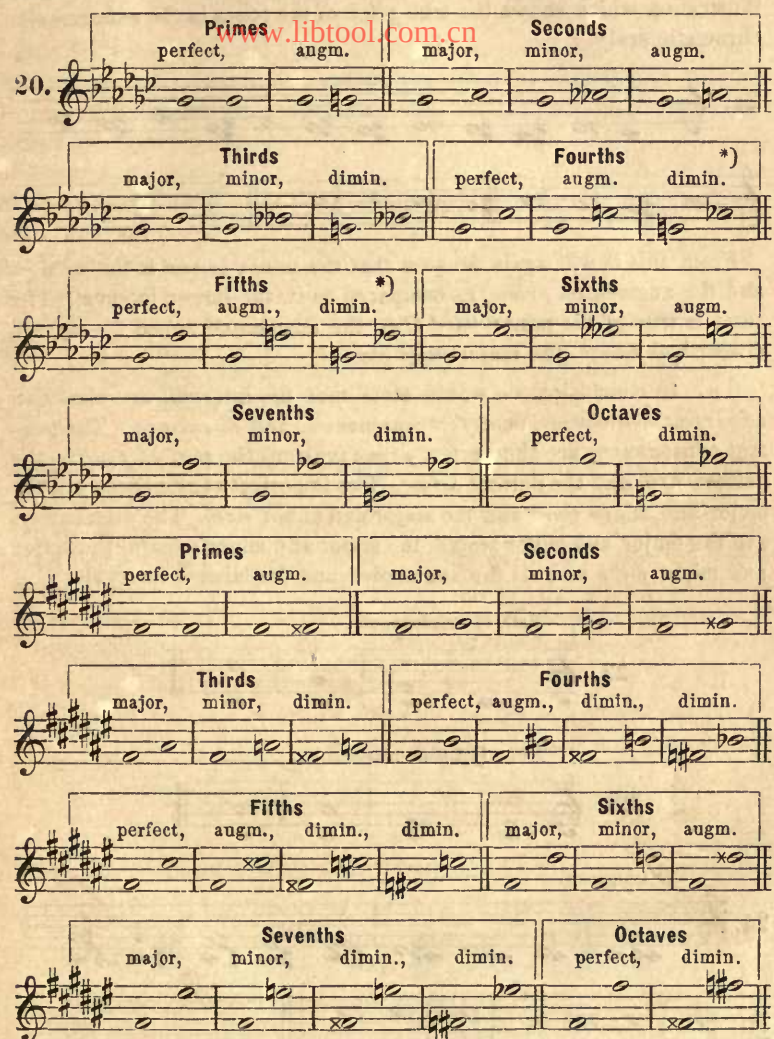


major sixth, minor sixth, augmented sixth.

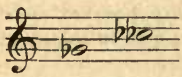
In determining all the intervals it is necessary to make use of all the transposition signs: flat (♭), double flat (♭♭), sharp (♯), double sharp (×), and natural (♮), as they are needed in raising or lowering a tone. In order to make this clear to the pupil we present the following

table of intervals measured from $G\flat$ and $F\sharp$. It will be seen by the signature that the scales of $G\flat$ and $F\sharp$ are used as the basis of measurement.

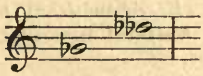
20.



*) The diminished fourth



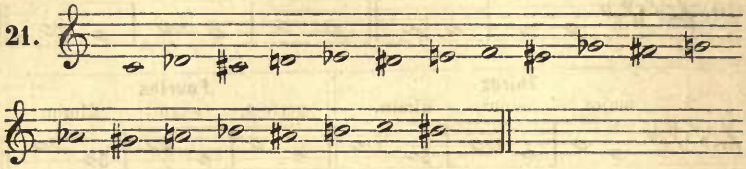
and the diminished fifth



do not occur in practice. The same is true of these intervals measured from the

The pupil will now, as a first exercise, write all the intervals from all the tones and must be especially careful as to the correct notation of the enharmonic tones. For this purpose we refer to the following illustration which shows the true pitch of the tones in the enharmonic-chromatic scale.

21.

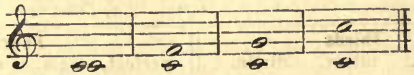


From this it will again be seen that the minor *second* is the smaller and the augmented *prime*, as compared to it, the larger interval. The same is true of the minor *third* $C\,e\flat$, the augmented *second* $C—d\sharp$, the diminished *fourth*, the major *third* etc.

§ 8. In conclusion we would state that the intervals are classified as *perfect consonances*, *imperfect consonances*, and *dissonances*. The perfect consonances are the perfect *prime* (unison) the perfect *fourth*, the perfect *fifth* and the perfect *octave*. The imperfect consonances are the major and minor *third* and the major and minor *sixth*. The dissonances are the major and minor *second*, the major and minor *seventh*, the major and minor *ninth* and all the augmented and diminished intervals.

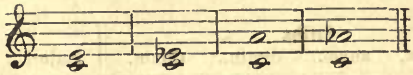
Perfect consonances.

22.



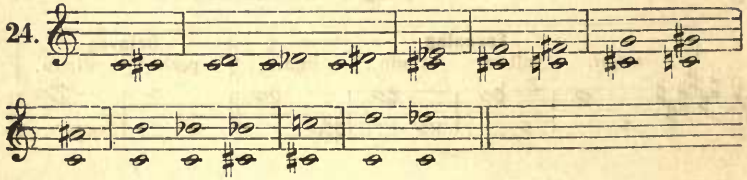
Imperfect consonances.

23.



Dissonances.

24.

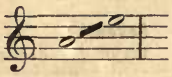


ones $B\flat$, $E\flat$, $A\flat$ and $D\flat$. (The diminished fifth $B\flat\ F\flat$ may, however, occasionally occur.) Measured from all the remaining tones they are used in the construction of chords.

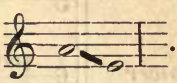
CHAPTER II.

Double Measurement of the Intervals.

§ 9. In the treatment of chords, as well as in the study of Counterpoint, we are obliged to consider the relation of two tones to each other, within the compass of an octave, both upward and downward. Thus the distance from *A* to the *E* above is a fifth



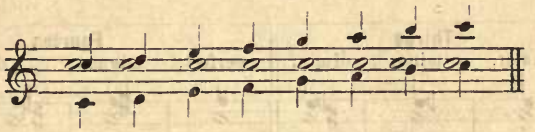
; to the *E* below, a fourth,



.

If we transpose the intervals of the *C* major scale an octave, measuring from the two-lined *C* ($\overline{c}$), they appear as follows.

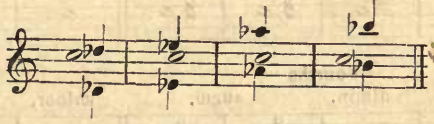
25.



When transposed into the lower octave, the perfect *prime* becomes a perfect *octave*, the major *second* becomes a minor *seventh*, the major *third* a minor *sixth*, the perfect *fourth* a perfect *fifth*, the perfect *fifth* a perfect *fourth*, the major *sixth* a minor *third*, the major *seventh* a minor *second*, and the perfect *octave* a perfect *prime*. Thus in the transposition into the lower octave all *perfect* intervals (perfect consonances) remain *perfect*, all *major* intervals become *minor*.

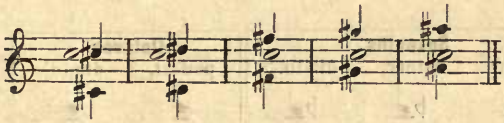
All *minor* intervals become *major*:

26.



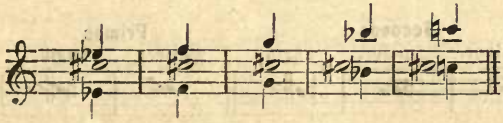
All *augmented* intervals become *diminished*:

27.



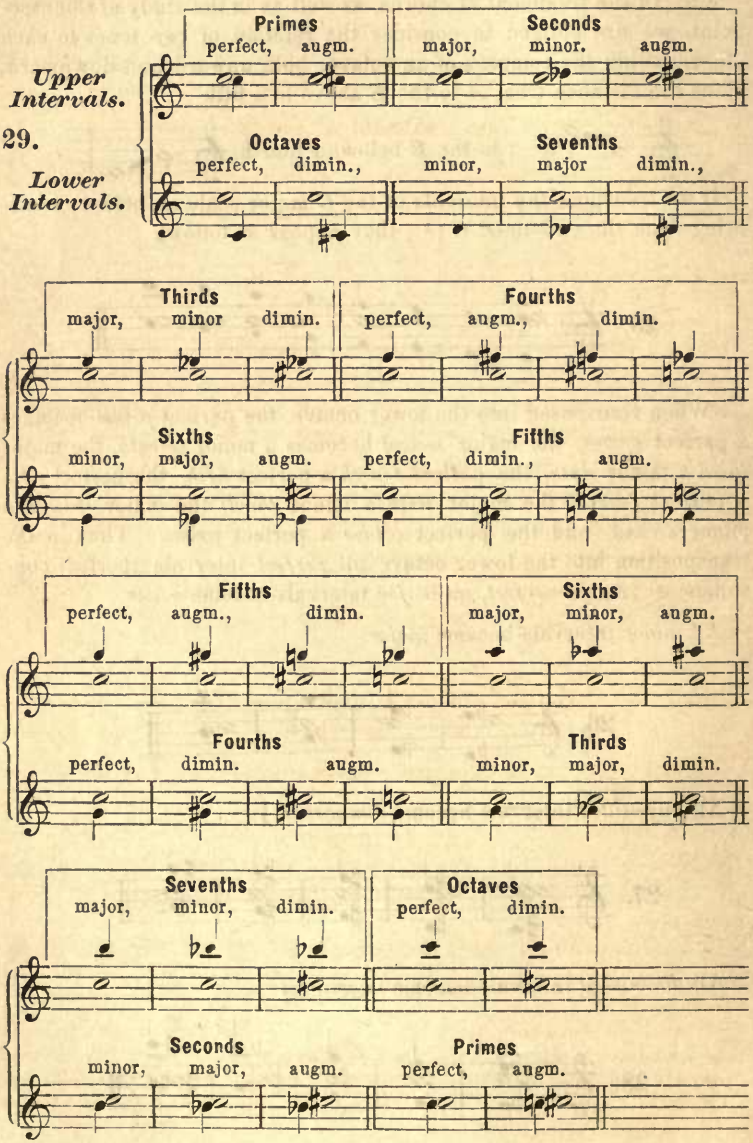
All *diminished* intervals become *augmented*:

28.



Tbe following table presents a view of all the intervals and their inversion into the lower octave. After this plan let the pupil write all the intervals, measuring from all the other tones, and taking the eleven remaining scales as basis.

29.



We will, for the present, pass by other transpositions of the intervals (into the tenth and twelfth). We shall, however, have to consider them carefully in the exercises in Double Counterpoint.

CHAPTER III.

The Treatment of Chords.

The fundamental chords and their inversions, also altered chords derived from the fundamental chords.

§ 10. Chords are divided into *Triads*, which are composed of three tones; and chords of the *Seventh*, which have four different tones.*)

Among Triads we recognize *independent* and *dependent* chords.

Those triads are called *independent* which are composed of consonant intervals (major or minor *third* and perfect *fifth*). Those triads are *dependent* which have a dissonant interval (a diminished or augmented *fifth*).

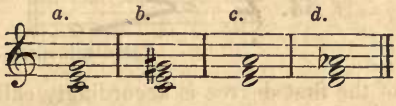
All chords of the Seventh are *dependent*.

Every *dependent* chord must progress to an *independent* chord.

NOTE. Two or more *dependent* chords may however occur in succession, but the last one must resolve into an independent chord.

As we are for the present restricted to Triads, we here give examples of the *independent* and *dependent triads* only.

30.



a, has, from the fundamental, the major *third E* and the perfect *fifth G*, and is an *independent* Triad.

b, on the contrary, has the dissonant augmented *fifth* $G\sharp$ (measuring from the *fundamental C*) and is therefore a *dependent* Triad.

c, has the minor *third* and perfect *fifth* of the *fundamental* and is an *independent* Triad.

d, on the contrary, adds to the minor *third F* the dissonant diminished *fifth* $A\flat$ and therefore is a *dependent* Triad.

*) We shall explain at length at the end of the chapter on "Suspensions" the reason why we cannot regard accidental chord-formations — which in older textbooks are treated as the chord of the Ninth, even as chords of the Eleventh and Thirteenth — as independent chords. The pupil will then have acquired sufficient knowledge to understand our demonstration.

§ 11. Each Triad is formed by adding the *third* and *fifth* above to the given *fundamental*.

According to the relation in which the third stands to the fundamental as major or minor third, we obtain, in case the fifth of the fundamental is perfect, the hard or

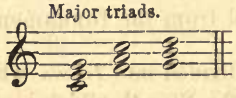
Major Triad

formed with the *major third* and perfect *fifth* of the fundamental (upward), and the soft, or

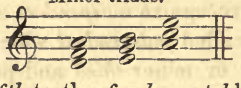
Minor Triad

with *minor third* and perfect *fifth*.

Major triads.

31. 

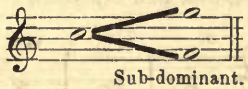
Minor triads.

32. 

If the relation of the *fifth* to the *fundamental* be changed, still other kinds of triads can be obtained, which will be explained later.

A Triad may be formed on each degree of the scale. On the first, fourth and fifth degrees we find the most important Triads called *Primary Triads*. To the three just mentioned degrees of the scale — the *prime*, *fifth*, and *fourth* — the special names of *Tonic*, *Dominant*, and *Sub-dominant* are given.

Tonic, Dominant.

33. 

Sub-dominant.

The Triad of the first degree is accordingly called the

Tonic Triad,

that of the fifth degree, the

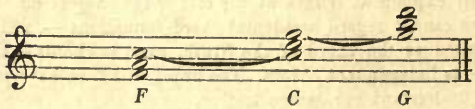
Dominant Triad,

and that of the fourth degree, the

Sub-dominant Triad.

The closeness of their relation is shown in the following representation.

Sub-dominant triad. Tonic triad. Dominant triad.

34. 

The Dominant Triad is developed upward from the upper note (the fifth, *G*) of the Tonic Triad, while the fundamental of the Tonic Triad forms the upper note of the Sub-dominant Triad. These three triads contain all the tones of the *C* major scale, and, in their proper arrangement, determine the key.

All three Primary Triads are major.

§ 12. If we wish to connect these triads artistically with one another, we make use of the four-voiced mixed chorus composed of Soprano, Alto, Tenor and Bass, as a means of representation.*)

In writing for chorus the compass of the high female voice (called Soprano) may, in general, be regarded as ranging from $\overline{c}$, to $\overline{\overline{g}}$ — possibly $\overline{\overline{a}}$.

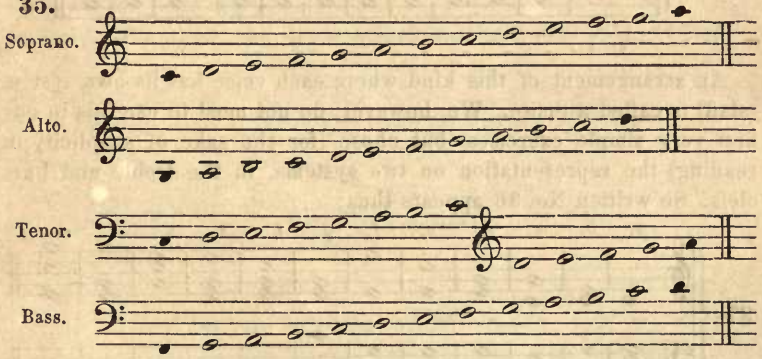
The lower female voice (Alto) ranges from *a* (possibly *g*) of the small octave up to $\overline{\overline{c}}$ or $\overline{\overline{d}}$. The higher male voice (Tenor) corresponds, in the lower octave, to the Soprano, and ranges from the small *c* to $\overline{g}$ or $\overline{a}$.

The lower male voice (Bass) ranges from *G* (possible *F*) of the great octave up to *c*, occasionally *d*$\flat$ and even *d* of the one-lined octave.

The Soprano and Bass are called outer voices, and the Alto and Tenor, middle voices.

The compass of voices in chorus may be represented as follows:

35.



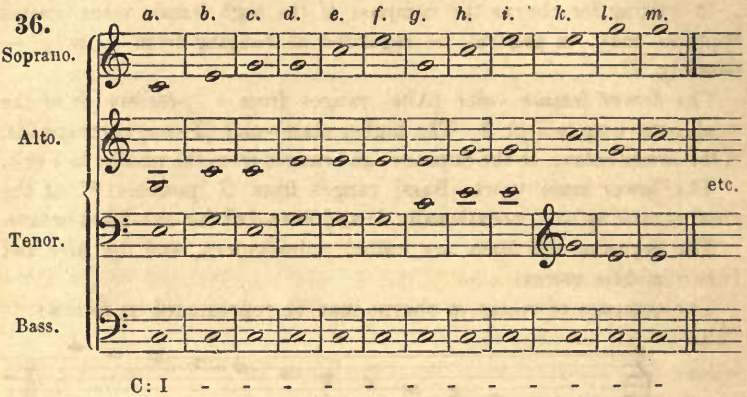
*) The reason why we imagine a mixed chorus of four voices as a means of representing these, and *all other* exercises, is easily explained. All our exercises are preparatory studies to Counterpoint, and Counterpoint requires the independent leading of each voice, and accordingly is in its innermost nature *vocal* in character. There we have nothing to do with harmonic masses, chords, or a predominating melody to which all other voices, as chord accompaniment, are subordinated, as is often the case in modern compositions for pianoforte, harp, organ, or, orchestra. In *all* contrapuntal work, on the contrary, even when not intended for singing, each voice must be *melodic*, and progress accordingly. Our preparatory work in the connection of chords is, however, so closely related to the later studies in Counterpoint, and is so contrapuntal in character (which at present cannot be comprehended by the pupil) that we must, from the beginning write our exercises as though with the intention of their being executed by four voices.

§ 13. If sung by a four-voiced chorus one tone of the triad must be doubled and sung by two different voices in unison or in the octave (or double octave). For this the following principles may be applied.

Any tone of the Triad may be doubled. The *fundamental* is best suited to doubling, the *fifth* less so, and the *third* still less, because, whether *major* or *minor*, it is most prominent in determining the character of the triad.

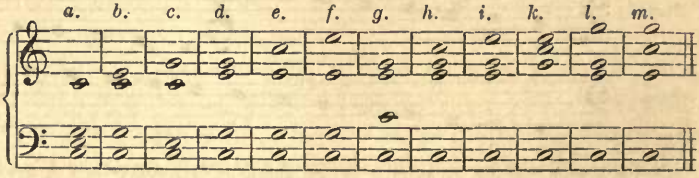
The Tonic Triad of *C* major may be written for chorus in several ways. For instance:

36.



An arrangement of this kind where each voice has its own system (staff) is called a Score. We, however, do not need to use this in our first very simple exercises, but chose (for the sake of simplicity in reading) the representation on two systems, in the treble and bass clefs. So written No. 36 appears thus:

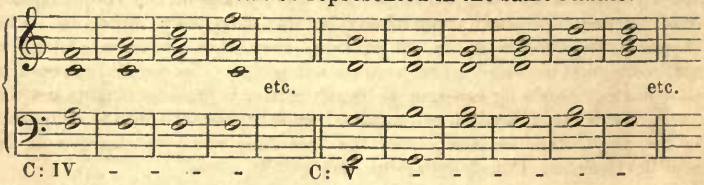
37.



The *fundamental* is doubled at *a*, in the Soprano; at *b*, and *c*, in the Alto; at *e*, in the Soprano; at *g* in the Tenor; at *k*, and *m*, in the Alto.

The *fifth* is doubled at *d*, and *l*; the *third* at *f*, and *i*. The Dominant and Sub-dominant Triads can be represented in the same manner.

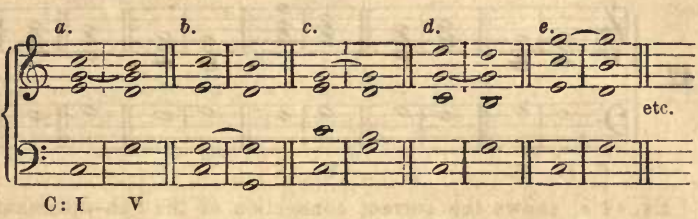
38.



§ 14. In connecting the three triads so far known to us according to the rules of pure writing (reiner Satz), the first and most important principle to be observed is to lead the voices in such a way that the execution will be as easy and natural as possible to the singer. Therefore a tone common to two chords that are to be connected, should be retained in the same voice, and the other voices should be led to the nearest lying tones of the new chord.

Thus Ex. 39 shows the connection of the Tonic and Dominant Triads in their fundamental position, that is, in that position in which the *fundamental* of each chord is in the Bass.

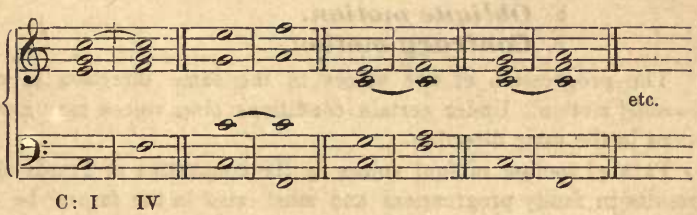
39.



In Ex. 39 *a*, the Alto holds the *G*, which is the *fifth* of the Tonic Triad, and the *fundamental* of the Dominant Triad. At *b*, the Tenor holds the *G*, at *c*, the Soprano, etc.

Ex. 40 shows the connection of the Tonic and Sub-dominant Triads.

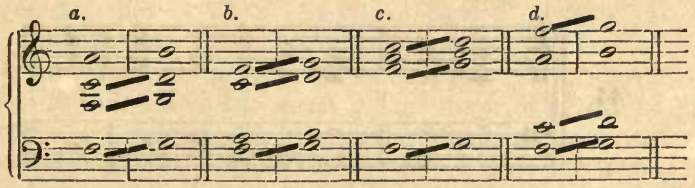
40.



§ 15. When the Sub-dominant precedes or follows the Dominant Triad there is no tone common to both chords, and therefore no connecting tone. In this case we must lead the tones of the one chord to those of the other in such a manner that no voice progresses in ***unison,*** in ***parallel octaves*** or ***parallel fifths*** with another.

The following progressions are under all circumstances faulty.

41.



In Ex. 41 *a*, the Tenor and Bass move in unison from *F* to *G* and

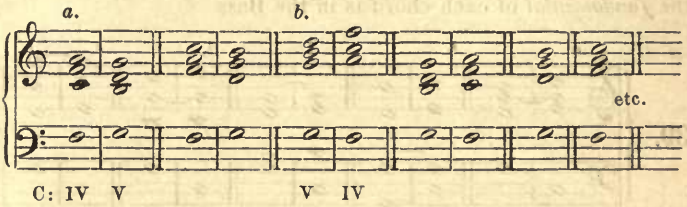
at the same time form parallel fifths and octaves to the Alto which progresses from *C* to *D*.

At *b*, we find parallel octaves between the Tenor and Bass, and both voices at the same time move in parallel fifths to the Soprano.

At *d*, there are parallel octaves between the Soprano and Bass, and parallel fifths between the Tenor and Bass.

These serious faults can only be avoided by leading the voices in contrary motion (to the Bass) to the nearest lying tones of the second chord.

42.



Ex. 42 *a*, shows the correct connection of the Sub-dominant and Dominant Triads; *b*, shows the same between the Dominant and Sub-dominant Triads.

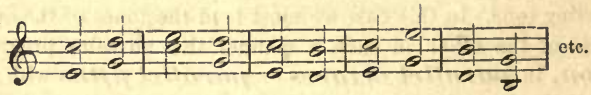
§ 16. The pupil must, therefore, clearly distinguish three motions:

a. ***Parallel motion.***
b. ***Oblique motion.***
c. ***Contrary motion.***

The progression of two voices in the same direction is called *parallel* motion. Under certain conditions *three* voices may move by steps in the same direction.

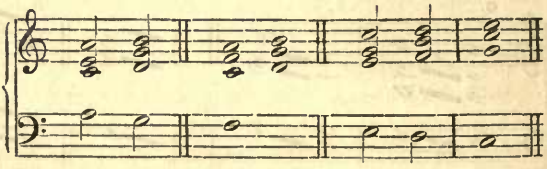
Parallel motion of four voices in the connection of Triads always results in faulty progressions and must (also in the future) be carefully avoided. It will be allowed only in rare and exceptional cases. Ex. 43 shows parallel motion of two voices.

43.



Ex. 44 shows parallel motion of three voices.

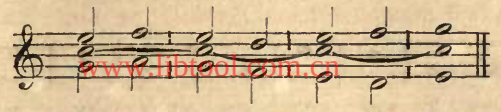
44.



Oblique motion results when one voice moves upward or downward

while the other remains stationary. So in Ex. 45 both the upper and lower voice move obliquely to the middle voice.

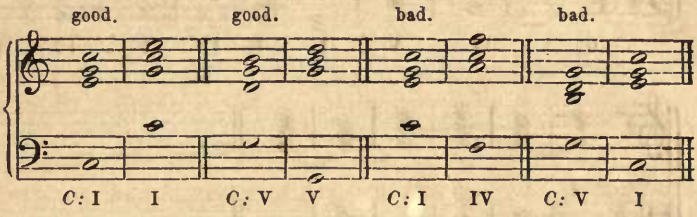
45.



Contrary motion has already been shown in Ex. 42 *a* and *b*. Obliqne and contrary motion are best suited to avoid faulty progressions in *unisons*, *parallel octaves* or *fifths*. The leading of three, or what is worse, of four voices from one chord to another by skips, must be avoided.

It is permitted only when progressing into the inversions of the same chord.

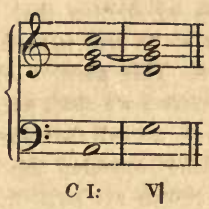
46.



Consecutive unisons, *fifths* and *octaves* are possible only in parallel motion.

The three kinds of motion are combined in the following example.

47.



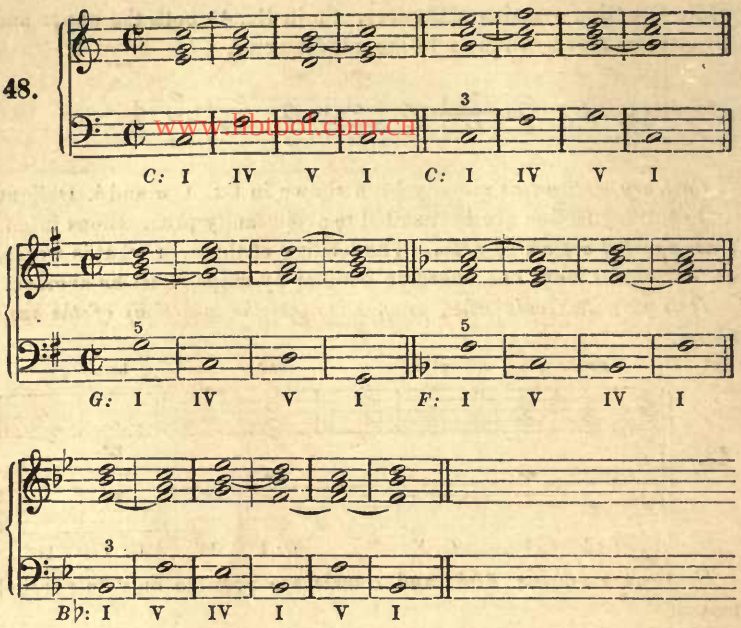
Here the Soprano *c* and the Tenor *e* move in *parallel motion* to each other, in *oblique motion* to the Alto, and in *contrary motion* to the Bass, which (the Bass) at the same time moves obliquely to the Alto.

NOTE. The explanation of the reasons why, in pure writing, consecutive unisons, octaves and fifths are prohibited, would now be incomprehensible to the pupil.

§ 17. Exercises for the connection of the Primary — the Tonic, Dominant and Sub-dominant triads.

We mark the Bass with the Roman numerals I, V and IV, because the triads under discussion are based upon the first, fifth, and fourth degrees, of the scale (see Ex. 48). The Arabic numeral 3 or 5 over the first bass-note determines the Soprano as *third* or *fifth* of the chord. If the Soprano is to take the *octave* (or double octave) of the Bass, no *designation* is used. In some cases however where it seems necessary, or desirable the figure 8 is also used.

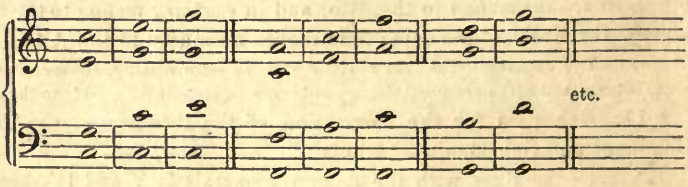
48.



All these exercises are so written that the three upper voices — Soprano, Alto and Tenor — lie near to each other, and do not overstep the compass of an octave. This position of the voices is called *Close Position*. In our first exercises we shall use only the close position.

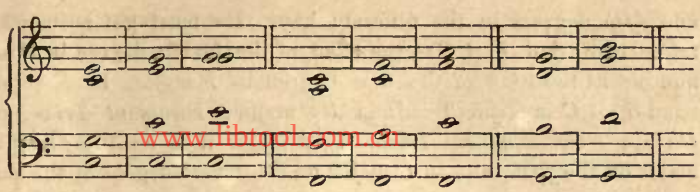
In contradistinction to it, we call that position of the voices in which the Soprano, Alto and Tenor overstep the bounds of an octave, *Open Position*. The following chords are written in the open position.

49.



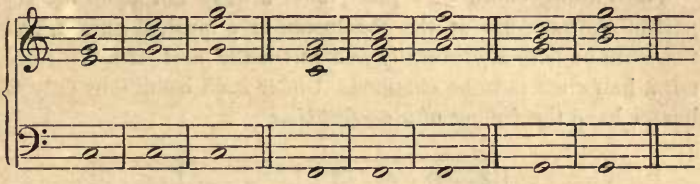
The *close position* can be formed from the *open position* if one voice is transposed an octave so that the three upper voices remain within the compass of an octave. Thus we change the chords in Ex. 49, into the *close position* by transposing the Soprano into the lower octave, between the Alto and Tenor.

50.



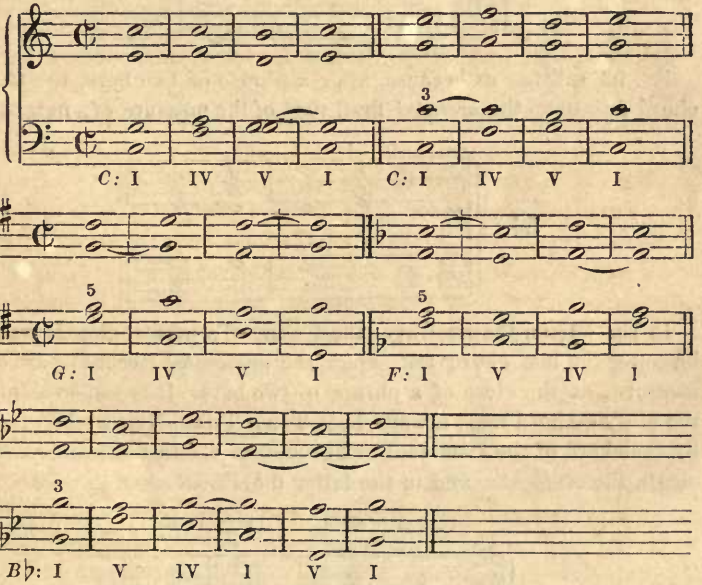
The *close* position is also formed by transposing the Tenor into the higher octave, between the Soprano and Alto.

51.



By transposing the Alto into the lower octave Ex. 48 would appear in the *open* position as follows:

52.



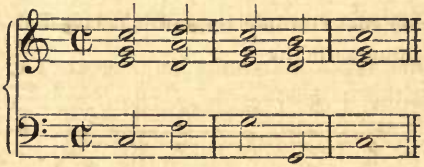
As an exercise in connecting the Tonic, Dominant and Sub-dominant triads, the pupil may work the basses of the following exercises — which represent the fundamental tones of the *primary triads* in different keys — in the *close position*, as shown in Ex. 48. He must write the numerals I, IV, V, under the different bass-notes in order to be continually reminded that they represent the triads of the *first, fourth*

and *fifth* degrees in the different keys. He must get accustomed to regard the triad *F A C* as the triad of the fourth degree in *C* major, and not as the triad of the first degree in *F* major. In *F* major the triad *F A C* is *Tonic Triad;* in *B♭* major, *Dominant Triad*, and in *C* major, *Sub-dominant Triad.* In *F* major it is on the *first*, in *B♭* major on the *fifth*, and in *C* major on the *fourth* degree of the scale.

§ 18. It still remains for us to call attention to the closing formation of these and all other exercises.

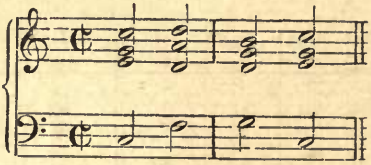
The closing chord of a piece must always fall upon the accented part of the measure at the conclusion of a musical phrase, and must therefore be both *rhythmically* and *metrically first*, if a full close, and not a half close is to be obtained. Under such conditions only will the hearer have the feeling of a *perfect close.*

53.



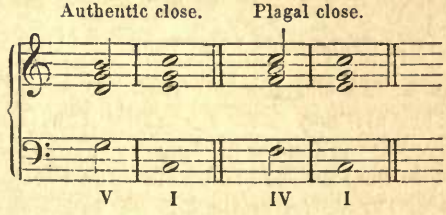
Ex. 53 satisfies us because, after a phrase of two bars, the *C* major chord falls upon the *accented* (first) part of the measure of a new phrase.

54.



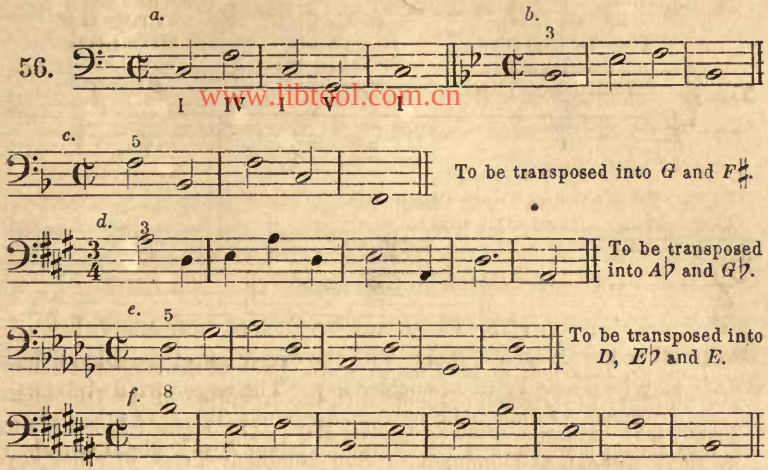
In Ex. 54, on the contrary, the feeling of a perfect close is wanting, because the last chord falls upon the *unaccented* (second) part of the measure, at the close of a phrase of two bars. It is self-evident that the closing chord must always be a Tonic Triad. It may be prepared by the chord of the Dominant or Sub-dominant. In the former case we obtain the *Authentic*, and in the latter the *Plagal close.*

55.



Later on we will more fully treat of the *Perfect Cadence.*

Exercises.

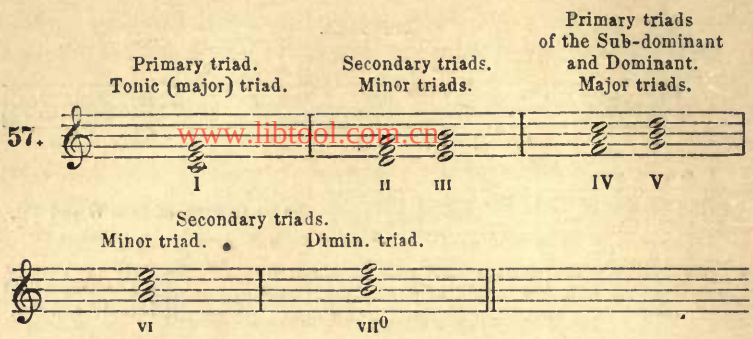


All these exercises must be worked in the *close position* only. Later on, when the pupil has attained some surety in writing and has learned the use of the old clefs, we shall give exercises to be worked in the open position. The pupil must write Roman numerals under the Bass of *these* and *all* exercises in this book, for the indication of the degrees.

CHAPTER IV.

Secondary Triads in Major.

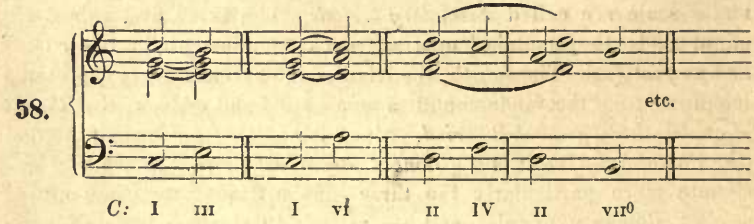
§ 19. Triads on the second, third, sixth and seventh degrees of the major scale are called *Secondary Triads*. The three first-named are minor triads; they contain (counting from the fundamental) a *minor third* and *perfect fifth*. The fourth, the triad of the seventh degree, presents (counting from the fundamental) a *minor third* and *diminished fifth*. It is called the *Diminished Triad*. Since it contains a *dissonant* interval (the *diminished fifth*) it is a *dissonant*, *dependent* chord. In order to designate more particularly the three minor triads, we make use of smaller Roman numerals, and — as it is in common use — for the Diminished Triad, the small Roman numeral with a cipher added (VII⁰). In the following illustration we present the triads of the major scale in regular succession.



These are the triads of the C major scale. Each of these chords belongs also to other keys. Each of them, with the exception of the Diminished Triad, may be *Tonic* Triad of *another* key. The *major* triads in C major may appear as Dominant or Sub-dominant Triad of other keys, and may also appear on the sixth degree (in minor keys). The Diminished Triad also, which, as we have already seen, is on the seventh degree, may occur in other keys (*c* minor and *a* minor). So all chords belong to *different* tone families (as they might be called) and take *different* significations according to their position in the different keys. The pupil must not forget that the triad  is not here the Tonic Triad of *e* minor, but the triad of the third degree in C major; it may also serve as the chord of the sixth degree in *G* major. It takes in no other key the importance it has in *e* minor; for here it is the *head*, but in other keys it is a *less important member* of the tone family.

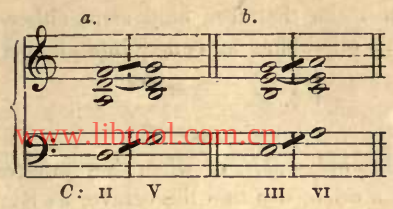
§ 20. If we wish to connect artistically the seven triads as they are now known to us, we must nearly always keep in the same voices those tones which are common to the chords to be connected.

Those triads which are a third or a sixth distant from each other have *two* tones in common; e. g.



All those triads which are a *fourth* or a *fifth* distant from each other have *one* tone in common. There is, however, one exception to the retaining of this tone, which is shown in the following example.

59.



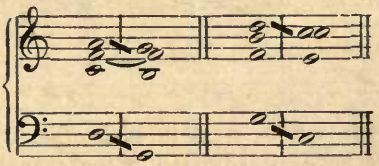
The leading of the outer voices, the Soprano and Bass in Ex. 59 *a*, is bad. Those two voices move in relation to each other in so-called

Concealed Octaves.

§ 21. *Concealed octaves* occur when two voices progress in *parallel motion* from different intervals to an *octave* (or double octave). For the next exercises we warn the pupil against those *concealed octaves* only in which, between the *outer voices*, one of the two voices progresses a *whole-step upward* as shown in Ex. 59.

Downwards, on the contrary, the disagreeableness of such *concealed octaves* is much less felt even when in the outer voices; so the succession of chords given in Ex. 60.

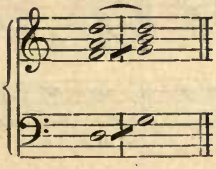
60.



is not at all to be censured; the upward progression as given in Ex. 59*b*, might also be allowed because the close relation of the two chords (the triad *A c E* is the Sub-dominant Triad of *e* minor) considerably softens the *concealed octaves*. But the triads *D F A* and *G B D* lack a direct relationship, as the triad *G B D* does not occur in the key of *d* minor, where *D f A* is the Tonic Triad; and *vice versa*, the triad *D f A* is not contained in *G* major. In Part Second of this book will be found a more detailed treatise of *concealed fifths* and *octaves*.

The *concealed octaves* mentioned are allowed between the Bass and a middle voice if the *middle voice* progresses *diatonically* into the octave of the Bass; e. g.

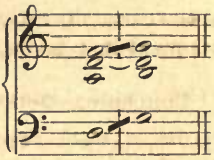
61.



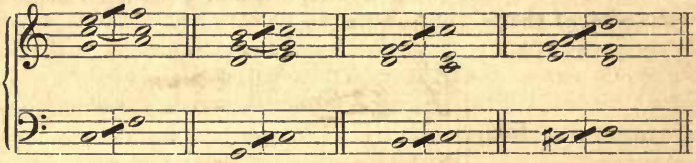
Concealed octaves can therefore only arise either when both voices skip from intervals other than an octave into an octave, viz.

62. 

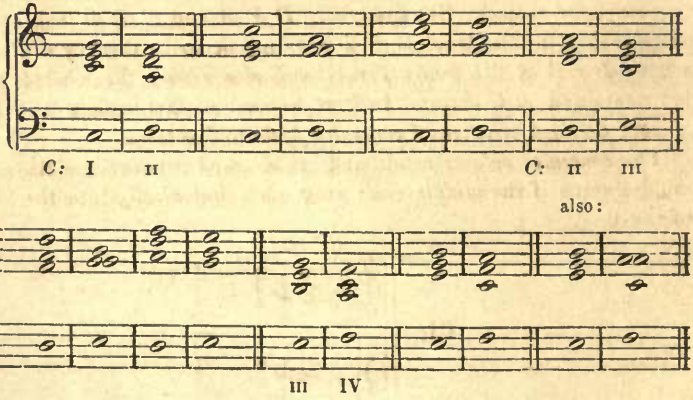
which is positively *unallowable*, or when they progress, one by a skip and the other by a *whole-step* into the octave, as Ex. 63 shows.

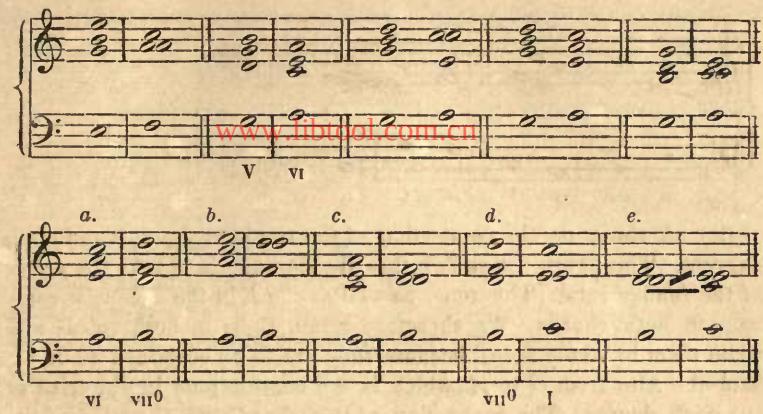
63. 

On the contrary all *concealed octaves* are good between *all*, even the *outer* voices, in which one voice progresses into the octave by a skip and the other by a *half-step*. This connection of chords has not only nothing hard or unnatural about it, but, especially in the upward progression, something very natural and pleasing.

64. 

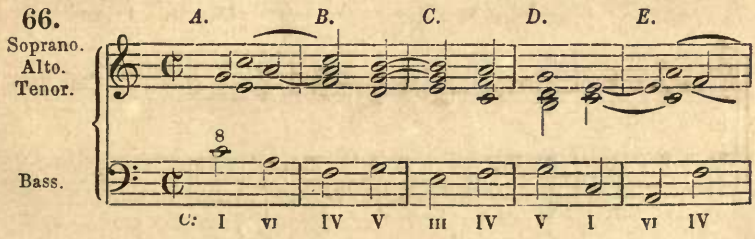
§ 22. Two triads lying next to each other can have no tones in common, as we have already seen in the connection of the triads of the fourth and fifth degrees. In this case, in order to avoid *parallel octaves* and *fifths*, we must always make use of contrary motion. Some chord-connections of this kind here follow.

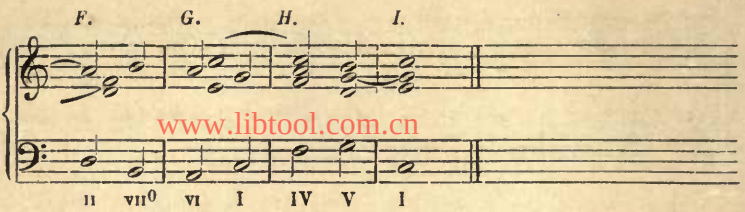
65. 



§ 23. In the connection of the triads of the sixth and seventh, and also of the seventh and eighth degrees, (see *a*, *b*, *c*, *d* and *e*), we see that the doubling of the fundamental of the triad on the seventh degree (the tone *B*, in *C* major) is purposely avoided. The seventh degree of *every* scale is called the *Leading Tone*. It is *especially prominent when it appears as third of the Dominant Triad or as fundamental of the triad of the seventh degree*. Since its natural progression, *especially in the outer voices*, is a small half-step upward into the octave of the fundamental (in case the next chord contains that tone), the leading tone, in pure four-voiced writing, is *doubled only in such cases* where the progression of the two voices to the tones of the following chord can be effected in an unforced way and without a faulty leading of the voices (parallel octaves).

The leading tone in the sixth bar of the following example is doubled, which at this place not only is not faulty, but rather offers the best leading of the voices required by the progression of the Bass in the connection of the triads of the second, seventh and sixth degrees. The pupil must regard the examples 66, 67 and 68 as models for the working of the exercises given in No. 69. The following will elucidate the *manner* of working the examples.

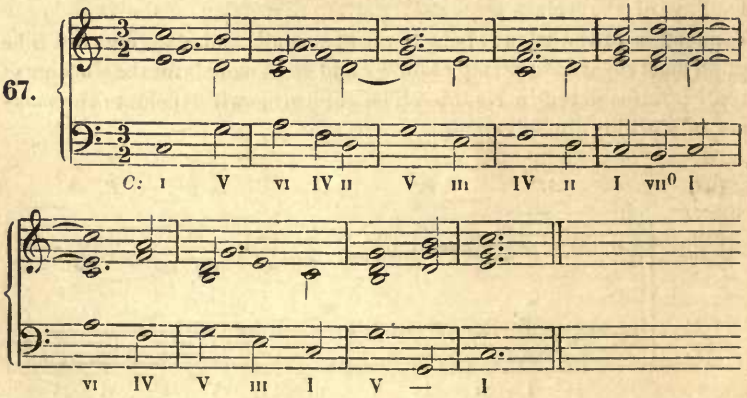


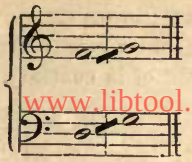


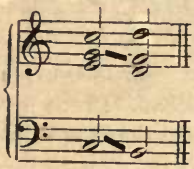
Bar *A*, shows us the connection of the triads of the first and sixth degrees. The figure 8 signifies that the Soprano is to take the *octave* of the fundamental. This tone, as well as the *E* in the Tenor, is common to both chords. We therefore retain them in both voices and write them in whole notes, because they are to be sustained while we lead the Alto from *G* to *A*, which is the nearest tone in the triad of the sixth degree. The connection of this chord with the triad of the fourth degree (bar *B*) is accomplished in the same manner. The Soprano and Alto retain *C* and *A*, the Tenor moves to *F*. The connection of the triads of the fourth and fifth degrees (bar *B*) can only be accomplished by leading the three upper voices in *contrary motion* to the Bass. In the same manner the connection of the triads of the third, fourth and fifth degrees (bars *C* and *D*) is formed by leading the three upper voices in contrary motion to the Bass, which progresses upward diatonically.

Bar *E* shows the chord-connection already seen between bars *A* and *B*, the upper voices being in another position. Bar *F* shows us the doubling of the before-mentioned leading tone, which in this case is good. From bar *F* to bar *G* the upper voices progress in contrary motion to the Bass which moves a step downward, while at the same time the leading tone, in the Soprano, naturally moves upward. Bar *H* contains the same chord-connection as bar *B*.

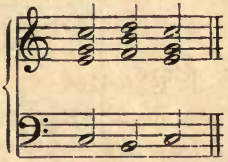
67.



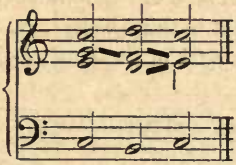
This example shows us a *concealed octave* between the Alto and Bass in bars 2 and 3,  which, since it is between an outer and a *middle* voice, the pupil need not hesitate to write. Bar 5 shows us a *downward* progression from a *perfect* to a *diminished fifth*,



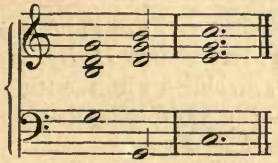
which in most cases is good, and in this case is much preferable to the doubling of the leading tone,



which would result in the upward progression of the Alto from *G* to *B*. The upward progression of a *diminished fifth* into a *perfect fifth*, on the contrary, is to be avoided. For this reason the Alto must be led downward, and the *third* (*E*) of the triad of the first degree must be doubled by the Alto and Tenor.

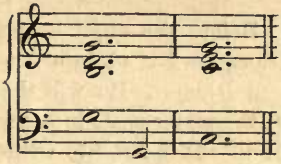


In the last bar but one in Ex. 67 the three upper voices skip into another position of the Dominant Triad. This is not absolutely necessary, as the close of the example, instead of being:



C: V — I

*) might have been:

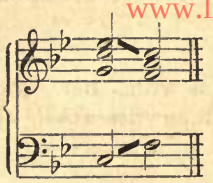
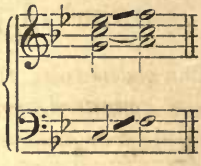


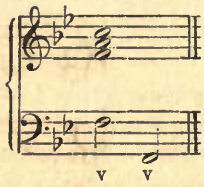
V — I

in which the Soprano ends on the *fifth* of the Tonic Triad.

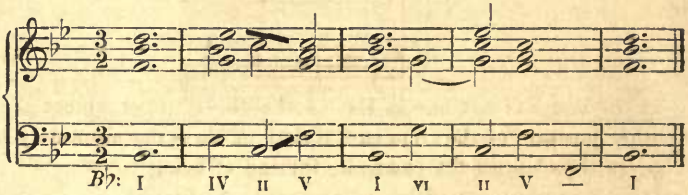
*) The progression of the voices in skips is here correct because it is merely an inversion of the *same chord*.

§. 24. Ex. 68 bar 2. shows contrary motion in the connection of the triads of the second and fifth degrees, in order to avoid *concealed octaves* over a *whole-step* between the outer voices (Soprano and Bass), which would have resulted if, instead of in contrary motion,

a.  the triads had been connected: *b.* 

Here the Soprano at *b*, progresses *upward* a *whole-step*. For this reason the *concealed octave* between the Bass and Soprano is bad. In the last bar but one the three upper voices are sustained while the Bass skips an octave: 

A movement of the upper voices is altogether unnecessary in this case, because the Bass is merely transposed into the lower octave, and the chord remains the same (that of the fifth degree). In this example the Soprano takes the *third* of the closing chord. The pupil will see from this that the Soprano does not always need to take the octave of the fundamental of the closing chord — which beginners are apt to think necessary. The Soprano can therefore take the *third* or the *fifth* of the closing chord.

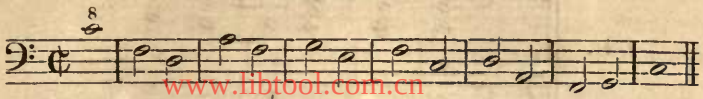
68. 

Before the pupil begins to work the exercises of No. 69, he may transpose Ex. 66 into *B♭*, *A*, and *A♭* major; Ex. 67 into *D*, *D♭*, *E♭* and *B* major. He will thus become better acquainted with the triads of the major scale in other keys, than by merely transposing the table of chords in No. 57, written in *C* major, into other keys.

In No. 57 the triads are put side by side without any connection; in Ex. 66 and 67 the chords are presented in natural connection with each other. The exercises of No. 69 also, are to be transposed into the keys there mentioned.

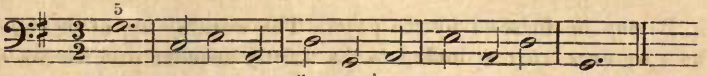
Exercises.

69. *a.*



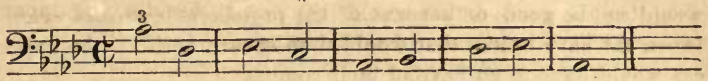
To be transposed into $D\flat$.

b.



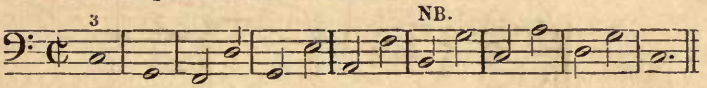
To be transposed into F, $F\sharp$ and $G\flat$.

c.



To be transposed into A, $B\flat$ and B.

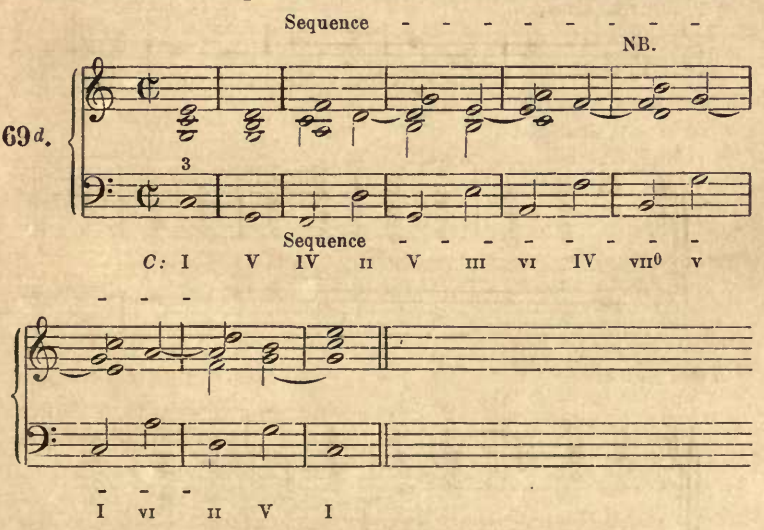
d.



To be transposed into D.

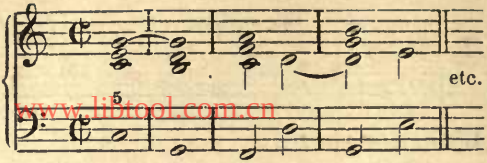
§ 25. The last exercise (*d*) of No. 69 gives occasion for some remarks. At NB. the leading tone *must be doubled*, because it is the best leading of the voices, corresponding to the Bass, which progresses in *similar repetitions of the same interval*. Such a consequent order of progression of the Bass, to which the leading of the upper voices corresponds, is called a *Sequence*. Exercise *d*, therefore appears as follows:

69 *d.*



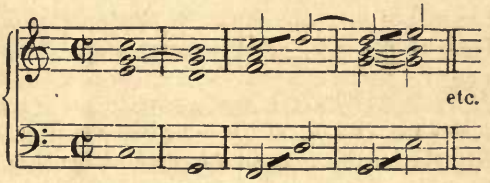
This example may also be worked beginning with the *fifth* of the Tonic Triad in the Soprano.

69e.



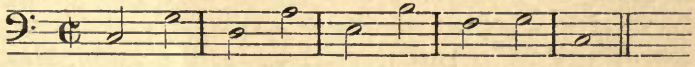
It may be finished by the pupil. The working out of this example as a *sequence* corresponding to the strictly sequent progression of the Bass by beginning with the octave of the *fundamental* in the Soprano, would not be good on account of the prominent *concealed octaves* between the *outer* voices that would then occur; besides, the upper voices would have to go beyond their compass.

69f.



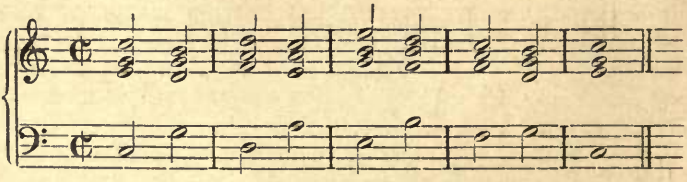
NOTE. In certain sequences the principle of retaining in the same voice the tones common to two chords can be deviated from for the sake of the *sequence*. For instance, the following Bass:

Sequence.

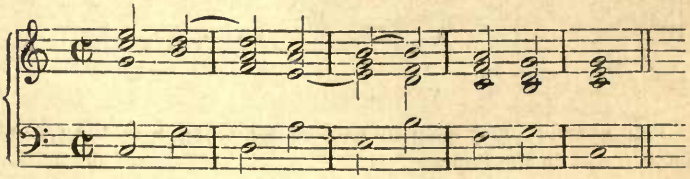


can just as well be worked:

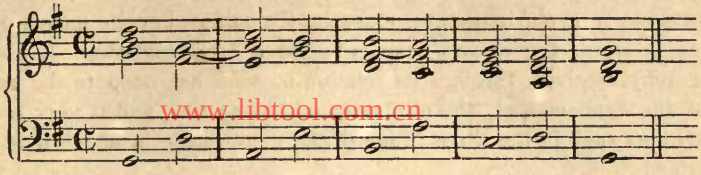
70.



as in this manner:



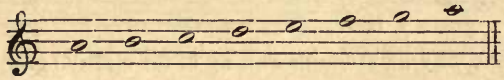
In *G* major it can be worked out:



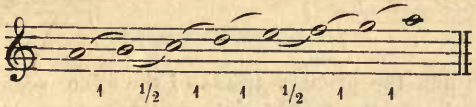
CHAPTER V.

The Minor Scale and its Triads.

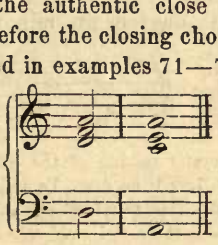
§ 26. The minor scale nearest related to a major scale has the same signature as that major scale. It begins with the sixth tone of the major scale or, which is the same thing, its *fundamental* is a *minor third* below the fundamental of its relative major scale. So, *a* minor is related to *C* major; *d* minor to *F* major; *e* minor to *G* major; *g* minor to *B♭* major, etc. According to the signature the tones of both keys would be the same, but the minor scale assumes a different character by beginning with the *sixth* of the major scale, and progressing in its tones.

71. 

The relation of the tones of the *C* major scale thus changed as to the order of their succession in the *a* minor scale, gives a totally different character to that scale. The relation of the several tones in this order shows a whole-step from the first to the second tone; a half-step from the second to the third; from the third to the fourth, and the fourth to the fifth, whole-steps; from the fifth to the sixth a half-step; from the sixth to the seventh, and from the seventh to the eighth, whole-steps.

72. 

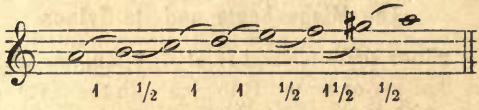
We have shown in Ex. 55, that the authentic close can only be formed by a *major* Dominant Triad before the closing chord; but, according to the minor scale represented in examples 71—72, we could

Ponly make use of the lagal close 

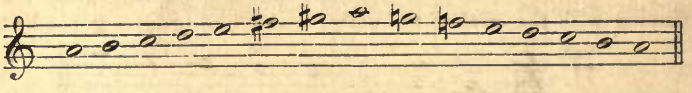
in pieces

written in the minor key. In order to make the Dominant Triad *major*, so as to form the authentic close in the minor key by means of the major triad, the *seventh* tone is raised a *large* half-step. This tone thereby receives, through its relation of *small* half-step to the octave of the fundamental, the character of *leading tone*, and is very prominent as such in the three triads of the minor scale in which it is contained. *)

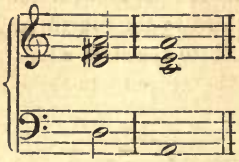
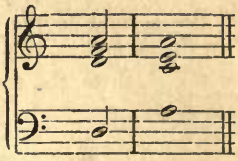
The minor scale necessary to the formation of chords has therefore the following succession of tones (indicated by the figures) in their natural relation to each other as to distance:

73. 

This progression of tones is called the **Harmonic minor scale** in contradistinction to the **Melodic minor scale**, which is formed in its upward progression by raising the sixth and seventh degrees, and in its downward progression by lowering the sixth and seventh degrees.

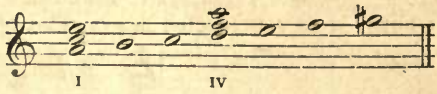
74. 

The reason why a chromatic raising of the sixth degree is not necessary in the harmonic minor scale, i. e. that minor scale which is necessary to the formation of chords — is evident in the formation of the Plagal close, as it is *impossible* to form it in minor with a *major* Sub-dominant Triad preceding the Tonic Triad. The progression in Ex. 75

75.  is unnatural. That in 76 

is natural.

§ 27. We find the primary triads of the minor scale, like those of the major scale, on the first, fourth, and fifth degrees. Those on the first and fourth degrees are minor triads.

77. 

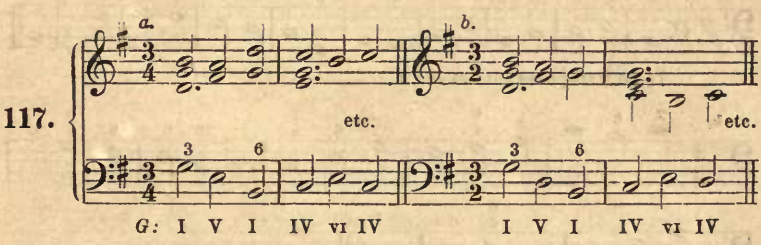
*) The chromatic raising of the *seventh* of the minor scale must be specially indicated every time it occurs. To indicate it once for all at the beginning of a piece would easily lead to mistakes, and be contradictory in itself. The *minor* always takes the signature of its *relative major*.

For page 33 See after page 240

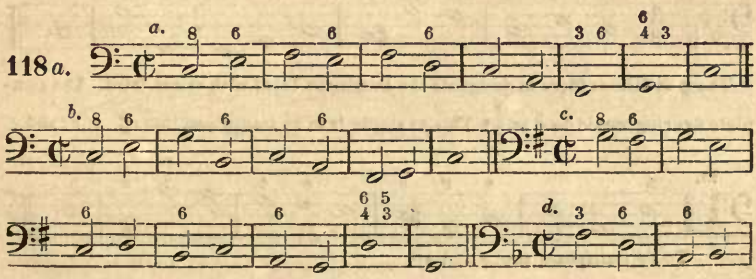
A repetition of the chord of the Sixth and Fourth, as in Ex. 116, is not agreeable, and its introduction in the middle of an exercise is, in strict writing, dependent upon conditions which will be explained later on. The chord of the Sixth and Fourth is always much less used than the *fundamental* position of the triad, or the chord of the Sixth. In our exercises we shall generally meet the chord of the Sixth and Fourth near the close. Roman numbers must here, and in all other exercises, be written under the Bass before the working of the exercise, for the purpose of indicating the tone degrees to which the chords in their different positions belong. This practice must be carefully adhered to, as has been done in all the exercises heretofore given.

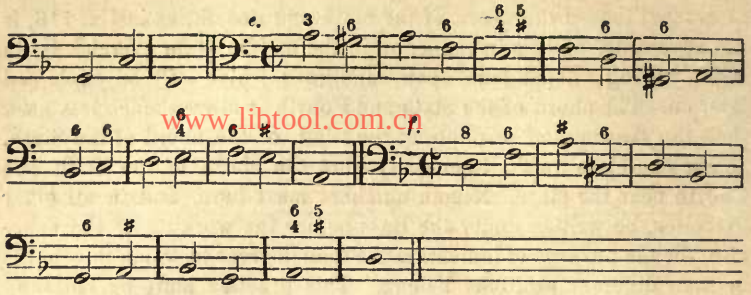
By this means the pupil will avoid mistakes, as it will thus become clear to him before working the exercise, with what chords he has to deal, both in their fundamental position, and in their inversions. The basses of the following exercises are so arranged that the pupil can employ as melodious a leading of the Soprano as possible.

For this purpose he is allowed occasionally to make use of a skip of a *fourth* when it conduces to a more graceful progression of the Soprano, without impairing the smooth leading of the middle voices. So the Soprano of 117 *a*, is preferable to that of 117 *b*.



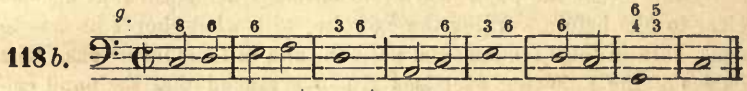
Easier exercises.



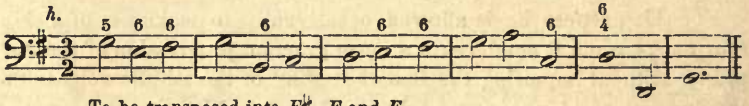


More difficult exercises.

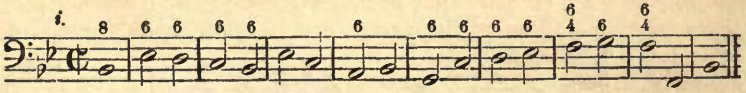
118 b.



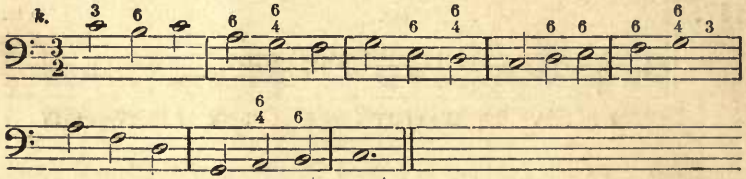
To be transposed into *D♭*, *D*, *E♭* and *E*.



To be transposed into *F♯*, *F* and *E*

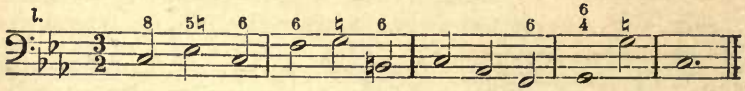


To be transposed into *B* and *C*.

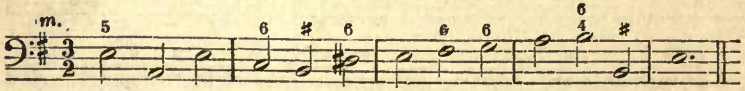


To be transposed into *B*, *B♭*, *A*, *A♭* and *G*.

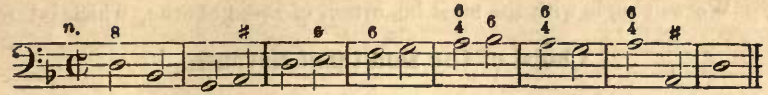
NB.



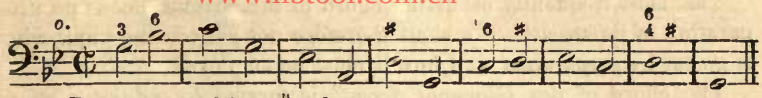
The ♮ at NB. suffices to designate the Dominant Triad with raised *third*. The complete figuring would be $\frac{5}{♮}$ or $\frac{8}{♮}$. This example is to be transposed into *c♯*, *d*, *e♭* and *e*.



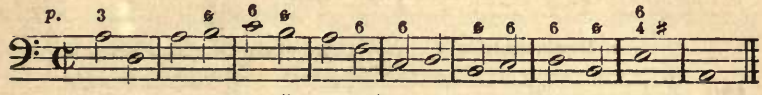
To be transposed into *f* and *e♭*.



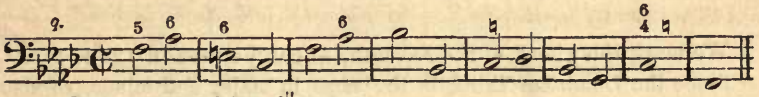
To be transposed into c and $c\sharp$.



To be transposed into $g\sharp$ and a.



To be transposed into $g\flat$, g and $f\sharp$.



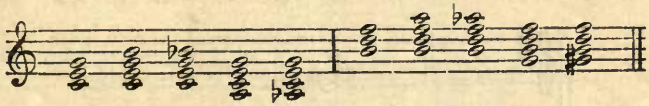
To be transposed into $f\flat$ and g.

In the working of these exercises the pupil will occasionally have to double the *third* of the triad, both in the fundamental position, and in the chord of the Sixth. He need not hesitate to do it when required by a correct leading of the voices; but he must avoid doubling the Third, if it is *the leading tone*.

CHAPTER VII.

Chords of Four Tones (Vierklänge). Chords of the Seventh.

§ 35. By adding a *third* to a triad the *Chord of the Seventh* results, i. e. a chord in which the distance from the *fundamental* to the highest note is a *seventh*. By adding a major or minor *third* above the *fifth*, or below the *fundamental* of a triad, various chords of the seventh may be formed from any triad. e. g.

119. 

All these chords are *dissonant*, or *dependent*, chords. *They can never appear alone, but always in connection with other chords.* The *seventh* or dissonant interval, must be *prepared* in *most* of these chords, and all chords of the Seventh must *resolve*.

We will begin with the most important of these chords, which is the

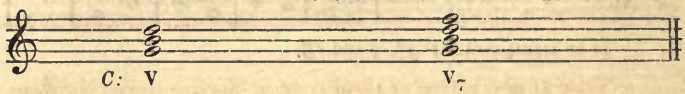
Chord of the Dominant Seventh.

It is also called **Principle chord of the Seventh.**

This most frequently occurring chord of the Seventh needs no preparation of its *seventh*. We shall therefore not yet tell the pupil what is meant by *preparation*, and how it must be employed.

The chord of the *Dominant Seventh* is formed by adding a *minor third* above the *fifth* of the Dominant Triad.

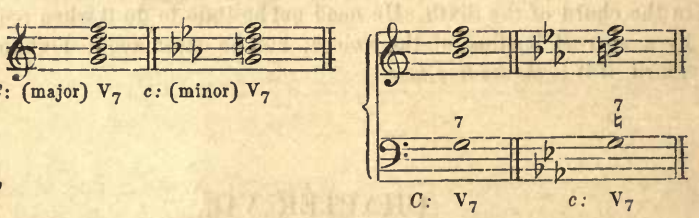
120.



We mark this chord of the Seventh, as can be seen in 120*b*: V_7.

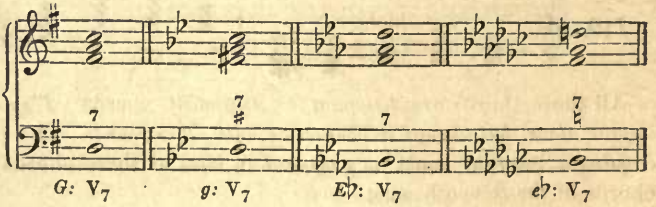
Since the Dominant Triad is the *same* in major and minor, so also the chord of the Dominant Seventh is *formed* in the *same manner*, in major and minor, by a *major* triad, above the *fifth* of which a *minor third* is added, which is a *minor seventh* of the *fundamental*.

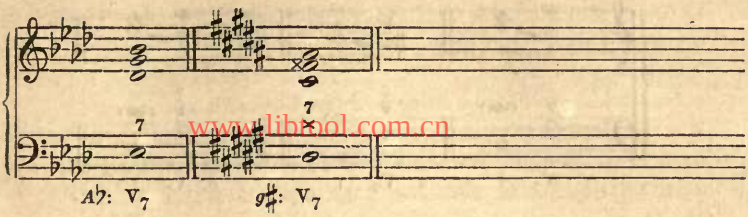
121.



The complete *figuring* of the Bass is given by the designation of all the intervals of the chord of the Seventh with the figures $\frac{7}{5}_{3}$. This figuring is rarely necessary, but that of $\frac{7}{5}$ or $\frac{7}{3}$ may often be required. Generally the chord of the Dominant Seventh in *major* need only be figured 7. In *minor* the necessary chromatic sign must be added under the 7 for the raising of the *third* of the chord (the leading tone of the scale).

122.



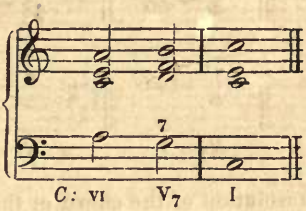


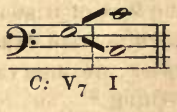
It is hardly necessary to remark that the position of the intervals of the chord of the Seventh in the three upper voices, in relation to the Bass, may be arranged at pleasure, in the same manner as the triad and its inversions. We shall not again mention this point.

Natural resolution of the Chord of the Dominant Seventh.

§ 36. Although the chord of the Dominant Seventh need not be *prepared*, and can enter freely, e. g.

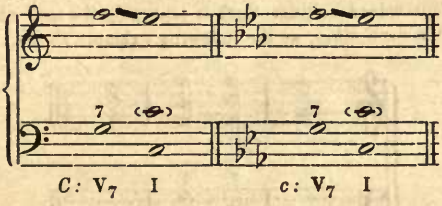
123.



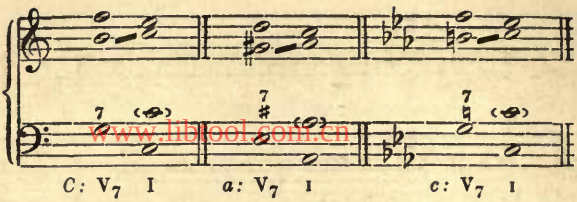
it must nevertheless be *resolved*. It naturally resolves into the Tonic Triad, in such a way that the Bass (the Dominant of the key) skips either upward a *fourth*, or downward a *fifth* to the Tonic 

.

The *seventh* descends, in major a half-step, in minor a whole-step.

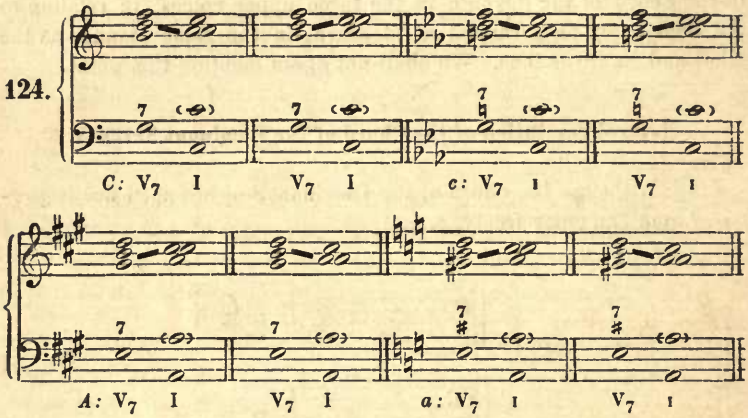


The *third* which is the leading tone, moves a half-step upward into the *octave* of the *fundamental*.



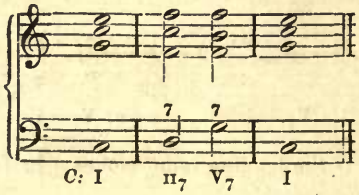
The *fifth* may be led either a step upward or downward.

124.



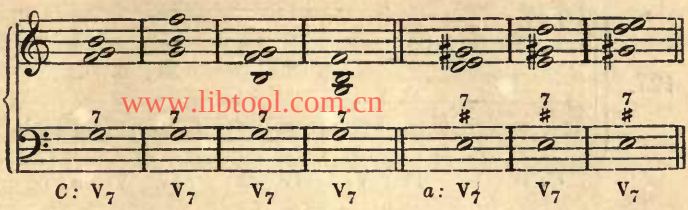
In this natural resolution of the chord of the Dominant Seventh, the Tonic Triad appears incomplete; the *fifth* is omitted. In any triad and also in any chord of the Seventh, the *fifth* may be omitted and another interval be doubled in its stead. As we have seen in Ex. 124, the *third* of triads as well as the *fundamental* may be doubled, (any interval of a triad can be doubled) while in chords of the Seventh, in most cases, no interval but the *fundamental* can be doubled in four-voiced writing.*)

*) Exceptions to this rule also occur. The *third*, and even the *seventh*, is sometimes doubled in four-voiced writing. Such is especially the case when several chords of the Seventh follow each other, as the following example shows.



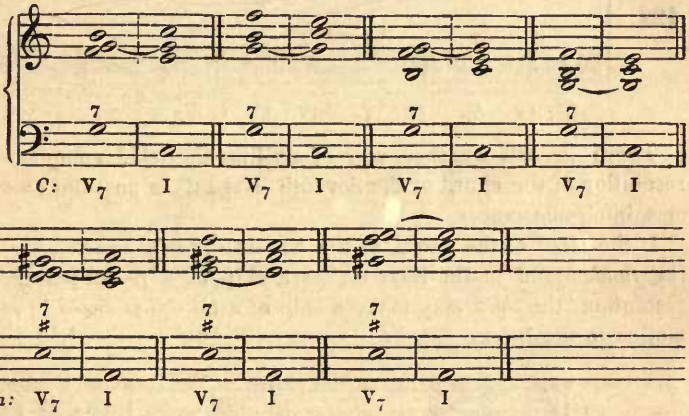
Therefore the chord presents itself:

125.



In this case the *fundamental*, which is doubled in one of the upper voices is retained in the same voice, and becomes the *fifth* of the Tonic Triad. Here follow the resolutions of the chords given in 125:

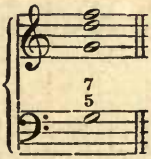
126.



The considerations for a correct leading of the voices often compel us to write the chord of the Seventh without the *fifth*, and with doubled *fundamental*; so the connection of the triad of the fourth degree with the chord of the Dominant Seventh in its fundamental position is best attained if the *fifth* of the Dominant Seventh is omitted, and the *fundamental* doubled in its stead. The connection of these chords in Ex. 127 is much better than in 128, where, for the sake of avoiding *parallel fifths*, the upper voices progress by skips in contrary motion to the Bass.

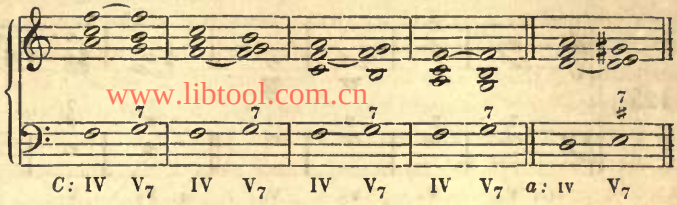
The chord of the Seventh may, in very rare cases, to be sure, appear with the

third omitted.



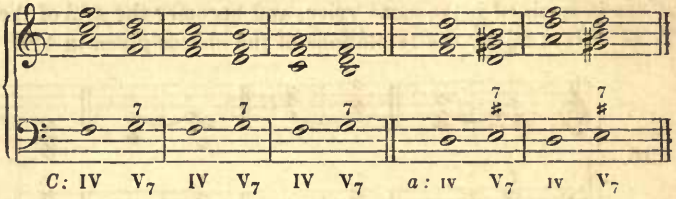
better.

127.



not so good.

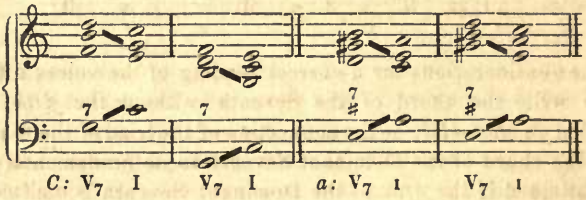
128.



There is still another way of writing the triad complete in the resolution of the chord of the Seventh. But this is possible only under certain circumstances.

If the *third* of the chord of the Seventh is in a *middle voice*, and if the *fundamental* in the Bass makes a skip of a *fourth upward* in the resolution, the *third* may make a skip of a *third downward* in contrary motion to the Bass.

129.

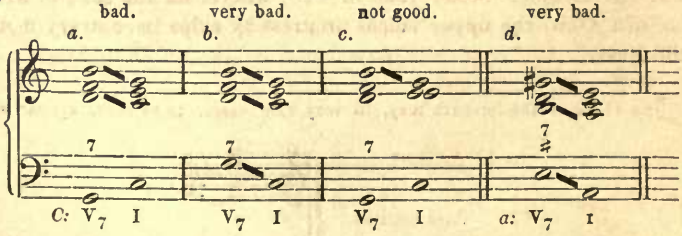


This can however not take place if the *third* is in the Soprano.

bad. very bad. not good. very bad.

a. b. c. d.

130.



In § 23 we treated of the natural tendency of the leading tone toward the octave of the fundamental, providing the next chord contains

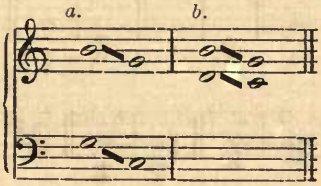
that tone. This is most prominent in the connection of the Dominant and Tonic chords. But this upward tendency of the leading tone is less striking in the *middle voices*, because then the leading tone is more concealed by the outer voices, and consequently is less prominent. The connection of the Dominant chord however, (no matter whether triad or chord of the Seventh) with the Tonic Triad can never take place in such a way that the *fundamental* and *third* of the Dominant chord skip *downward* in *parallel* motion into the *fundamental* and *fifth* of the Tonic Triad.

The progression of the *third* and *fifth* of the chord of the Seventh into the *fifth* and the *fundamental* of the triad as in Ex. 130 *b.* and *d.* is therefore doubly faulty. All such progressions result in

Concealed Fifths.

Concealed fifths result when two voices move from different intervals into a *perfect fifth* (or *twelfth*). e. g.

131.

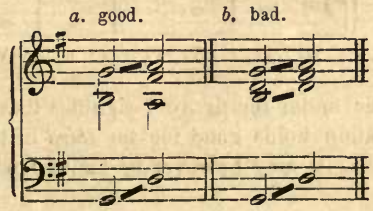


Such *concealed fifths* must be carefully avoided as faulty progressions,

1. always when (as in 131 *b.*) both voices move *by a skip* into the perfect *fifth;*
2. generally when (as 131 *b.*) the upper voice moves *by a skip* and the lower voice *by a degree,* into the perfect *fifth.*

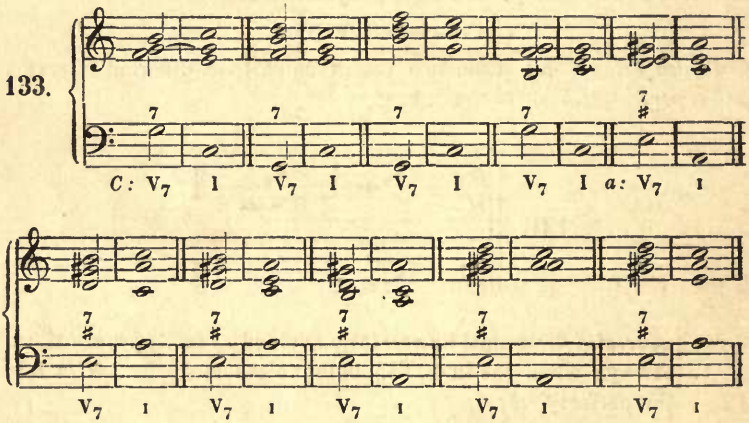
Other *concealed fifths*, viz. those in which the *upper* voice moves *by a degree*, and the *lower* voice *by a skip*, we shall for the present unhesitatingly permit, provided that no other faulty leading of the voices occurs at the same time. So the progression at 132 *a.* can by no means be objected to, while that at 132 *b.* is altogether faulty, because of the *concealed octaves* appearing in conjunction with the concealed *fifths* in two voices that *skip*, and on account of the parallel motion of all the voices. See § 21, and § 16.

132.



§ 37. After all that has been said, it will not be surprising to see the chord of the Dominant Seventh *without* the *fifth* and with *doubled fundamental* more often than *with* the *fifth*, in practical four-voiced writing. To be sure, the chord of the Seventh, which contains four tones, can more easily do without the *fifth* than the Triad, which has but three tones. In conclusion we would remark that the natural resolution of the chord of the Dominant Seventh into the Tonic Triad is called a *Cadence*. If the resolution takes place in such a way that the chord of the Dominant Seventh on the *unaccented* part of the measure is followed by the Tonic Triad on the *accented* part of the measure, this connection of the two chords forms the Principal Cadence.

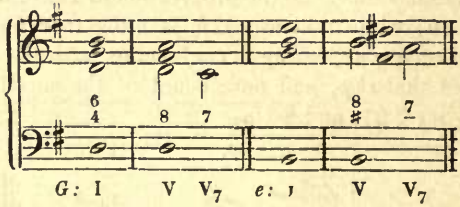
133.



If we wish to have the Dominant Triad followed by the chord of the Dominant Seventh, we indicate it:

1. when the *octave* of the *fundamental* of the Dominant Triad is to progress into the *seventh* by a degree, with 8 7 over the Bass:

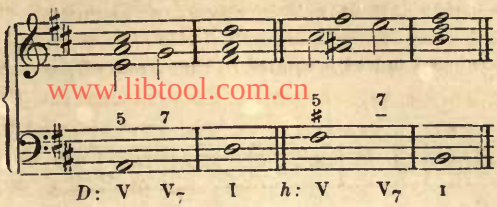
134.



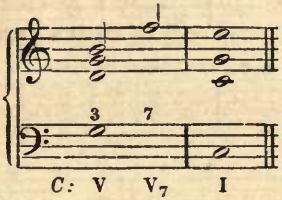
The line under the figure 7 signifies that the chromatic sign of alteration holds good for the *third* of the chord of the Seventh also. It may however be omitted within the same measure.

2. when the *fifth* is to skip into the *seventh*, with 5 7:

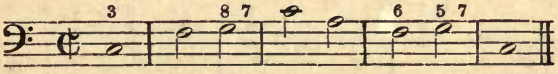
135.



Occasionally the *third* may skip into the *seventh*:

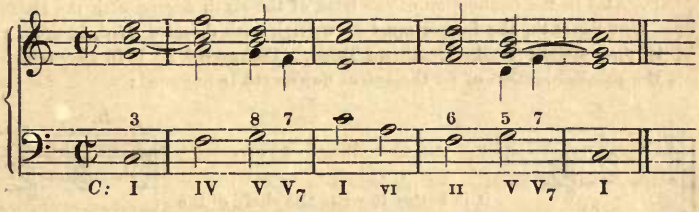


The following Bass:



is accordingly to be worked:

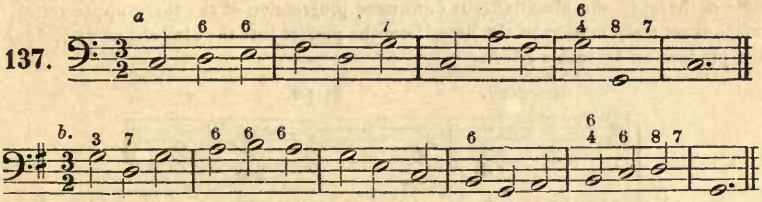
136.



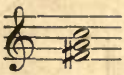
The exercises in the appendix belonging to this chapter must be analysed, and accurately marked as shown in 136.

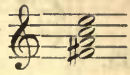
Exercises.

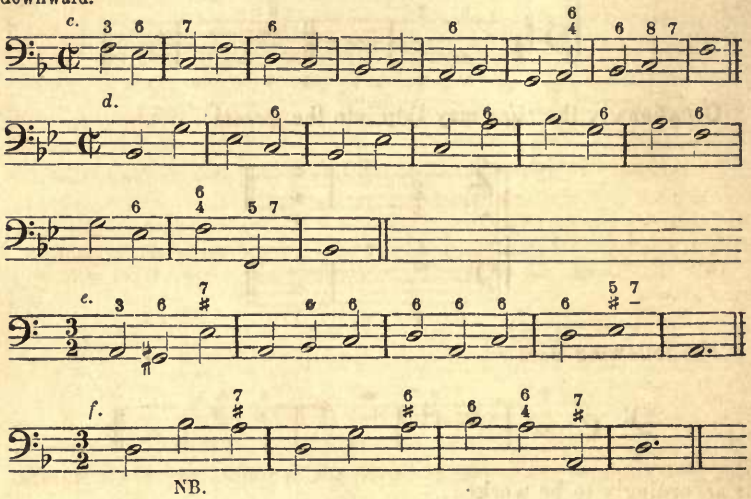
137.



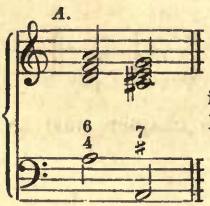
NOTE. In this exercise the pupil must be careful not to treat the *fifth* of the triad of the seventh degree in the same way as the *seventh* of the chord of the Dominant Seventh, and accordingly always lead the note *C* downward. *The fifth of the triad*



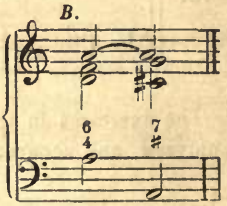
may just as well be upward as downward. (In the exercise in question it is better to lead it *upward.*) The *seventh* of  *must* be led downward.



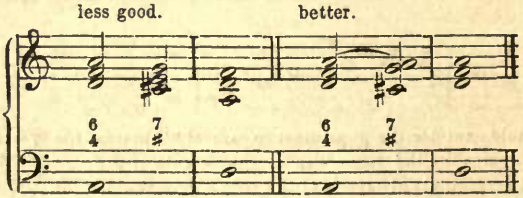
NB. Also in the connection of the triad of the sixth degree with the chord of the Dominant Seventh, the former *must* be written with *doubled third*, in order to avoid faulty progressions to the Dominant Triad. (Compare § 28.) In the last bar but one the parallel motion of all the voices downward is not good:

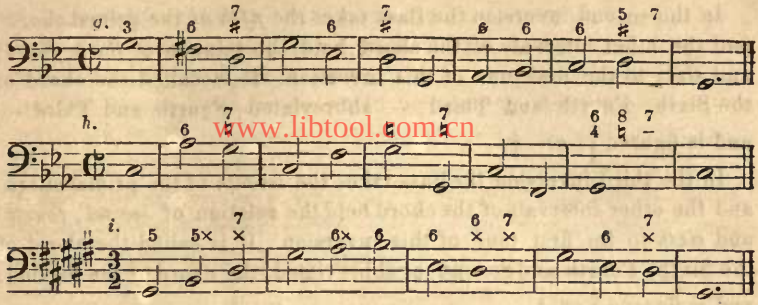


it is better to write the chord of the Dominant Seventh without the *fifth*:



The leading of the voices at *B.* would be preferable if the Bass were to rest on the tone *a*, because the simultaneous downward progression of the three upper voices, without contrary motion in the Bass, from the perfect into the diminished *fifth*, does not produce an agreeable effect.





The chromatic raising of the seventh degree in the last exercise is indicated each time by a double sharp (×); it would, however, have sufficed, had the figures 5 and 6 been dashed (5 6). But for the *third* of the chord of the Dominant Seventh, the double sharp (×) had to be written, because the figure 3, in this case, could be omitted.

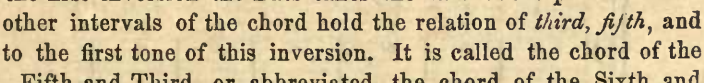
All these, as also the following exercises must be transposed and worked in other keys.

CHAPTER VIII.

The Inversions of the Chord of Dominant Seventh, and Their Natural Resolutions.

§ 38. Just as the Triad could appear in three different forms — in its fundamental position, as chord of the Sixth, and as chord of the Sixth and Fourth, — so also every chord of the Seventh, corresponding to the number of its intervals, can take four forms. They are, the chord in its fundamental position, and in its three inversions. We will now consider the inversions of the chord of the Dominant Seventh, the fundamental position of which we have just learned, and we here show them in regular order:

138.



Fundamental position. First Inversion. Second Inversion. Third inversion.

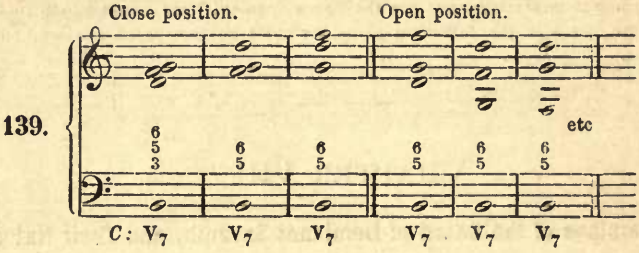
In the first inversion the Bass takes the *third* of the primal chord. The other intervals of the chord hold the relation of *third*, *fifth*, and *sixth* to the first tone of this inversion. It is called the chord of the Sixth, Fifth and Third, or abbreviated, the chord of the Sixth and Fifth, and is figured $\frac{6}{5}_{3}$ or $\frac{6}{5}$.

In the second inversion the Bass takes the *fifth* of the primal chord, and the other intervals of the chord hold the relation of *third*, *fourth* and *sixth* to the first tone of this inversion. It is called the chord of the Sixth, Fourth and Third, — abbreviated, Fourth and Third — and is figured $\frac{6}{4}_{3}$, or $\frac{4}{3}$.

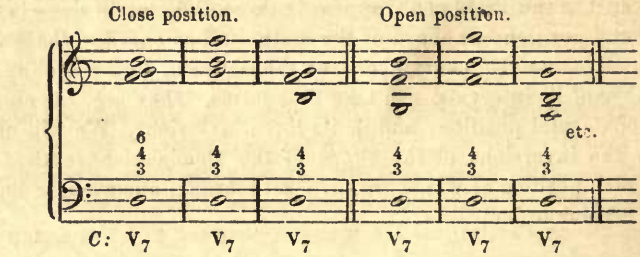
In the third inversion the Bass takes the *seventh* of the primal chord, and the other intervals of the chord hold the relation of *second*, *fourth*, and *sixth* to the first tone of this inversion. It is called the chord of the Sixth, Fourth and Second, or abbreviated, the chord of the Second, and is figured $\frac{6}{4}_{2}$ or $\frac{4}{2}$.

Chord of the Sixth and Fifth.

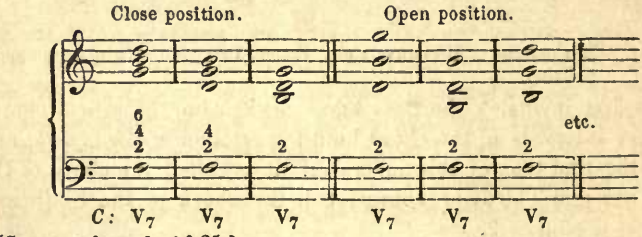
139.



Chord of the Fourth and Third.

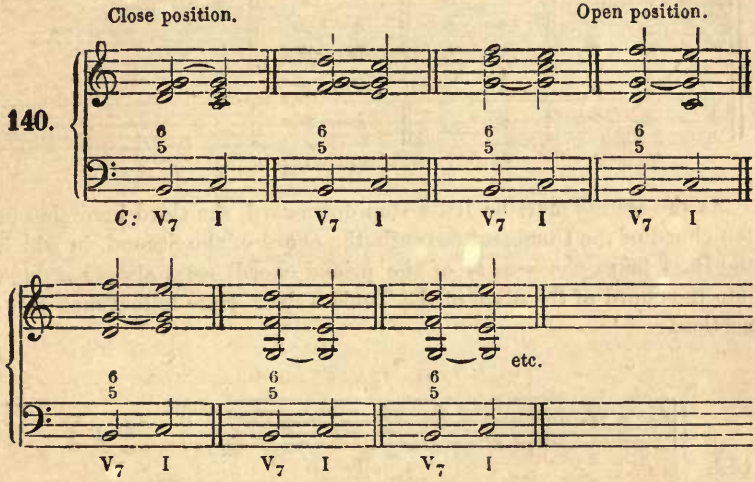


Chord of the Second.



(Compare the end of § 35.)

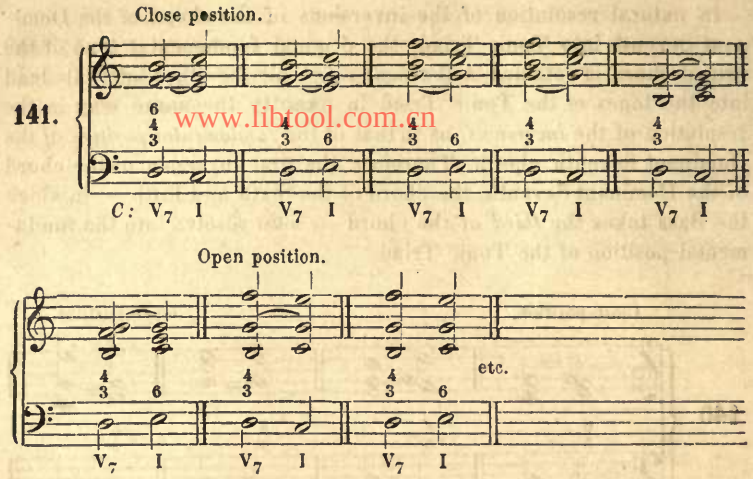
In natural resolution of the inversions of the chord of the Dominant Seventh into Tonic Triad, the original fundamental tone of the primal chord is retained in the *same voice*; all the other intervals lead into the tones of the Tonic Triad in exactly the same way in the resolution of the *inversions*, as in that of the *fundamental position* of the Dominant Seventh chord. Therefore the first inversion of the chord of the Dominant Seventh, the chord of the Sixth and Fifth — in which the Bass takes the *third* of the chord — *must* resolve into the fundamental position of the Tonic Triad.



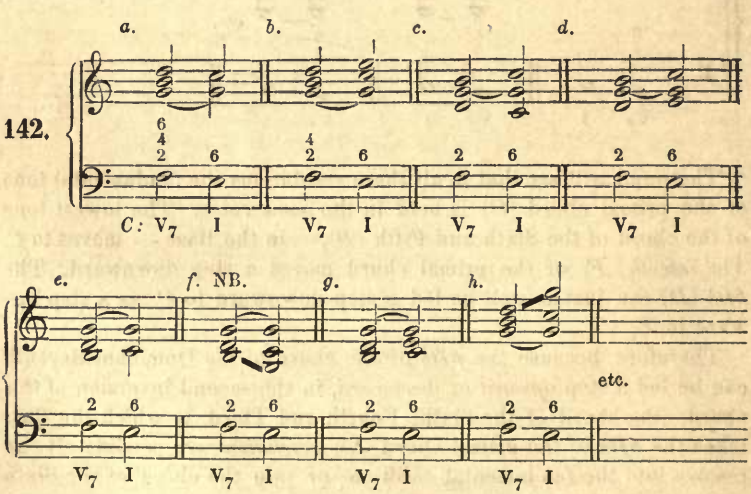
The pupil will see that in all these resolutions the fundamental tone of the primal chord (*G*) is held in the *same* voice. The lowest tone of the chord of the Sixth and Fifth (*B*) — in the Bass — moves to *C*. The *seventh* (*F*) of the primal chord moves a step downward. The *fifth* (*D*) can just as well be led a step downward to *C*, as a step upward to *E*.

Therefore, because the *fifth* of the chord of the Dominant Seventh can be led a step *upward* or *downward*, in the second inversion of this chord, (the chord of the Sixth, Fourth and Third, in which the Bass takes the *fifth* of the primal chord) *two resolutions* are possible. It can resolve into the fundamental position, or into the chord of the Sixth of the Tonic Triad according as the Bass is led a step downward, or upward. When resolved into the *chord of the Sixth* of the Tonic Triad, the *third must* be doubled.

The resolution of the chord of the Sixth, Fourth and Third is shown in Ex. 141.



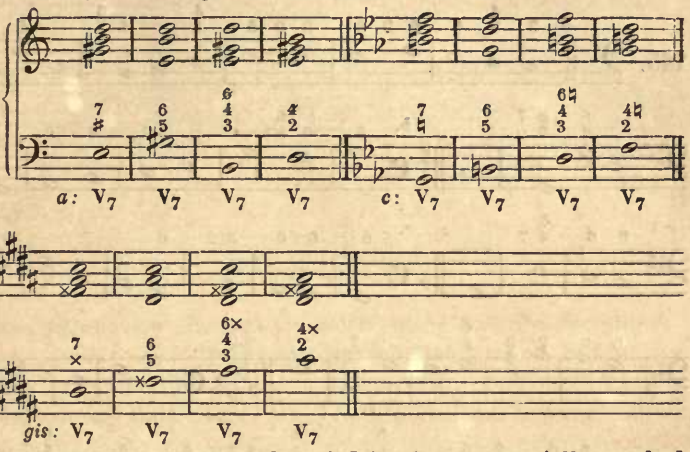
As the *seventh* must be led a step downward, the third inversion of the chord of the Dominant Seventh (the chord of the Second, in which the Bass takes the *seventh* of the primal chord) must always resolve into the chord of the Sixth of the Tonic Triad. Here follow such connections:



In minor keys the chord of the Sixth, Fourth and Third, must always be fully figured $\frac{6}{4}_{3}$ and the chord of the Second at least with $\frac{4}{2}$, because the *sixth* of the chord of the Sixth, Fourth and Third, and the *fourth* of the chord of the Second, being the seventh degree of the

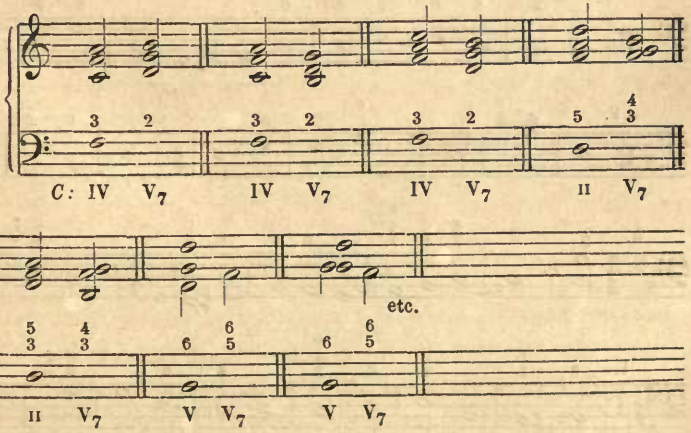
minor scale, must be chromatically raised. Therefore, although the chord of the Dominant Seventh, in its fundamental position as well as in all of its inversions, has the *same form* in major and minor, it is necessary to write the full figuring of the inversions in minor, as was also the case in the fundamental position. In order to familiarize the pupil with the chord of the Dominant Seventh with all its inversions in minor, we have given it complete in Ex. 143.

143.



In the following exercises the triad is always especially marked with 3 or $\frac{5}{3}$ when to one and the same bass-note still another chord is to be added; so the figures 3 2, placed *one after the other*, show that the triad of the given Bass and the chord of the Second are to be placed over the same note, 3 $\frac{4}{3}$ or 5 $\frac{4}{3}$, that the triad and chord of the Fourth and Third are to be placed over the same note, 6 $\frac{5}{6}$, that the chord of the Sixth and the chord of the Sixth and Fifth are to be placed over the same note, as shown in Ex. 144.

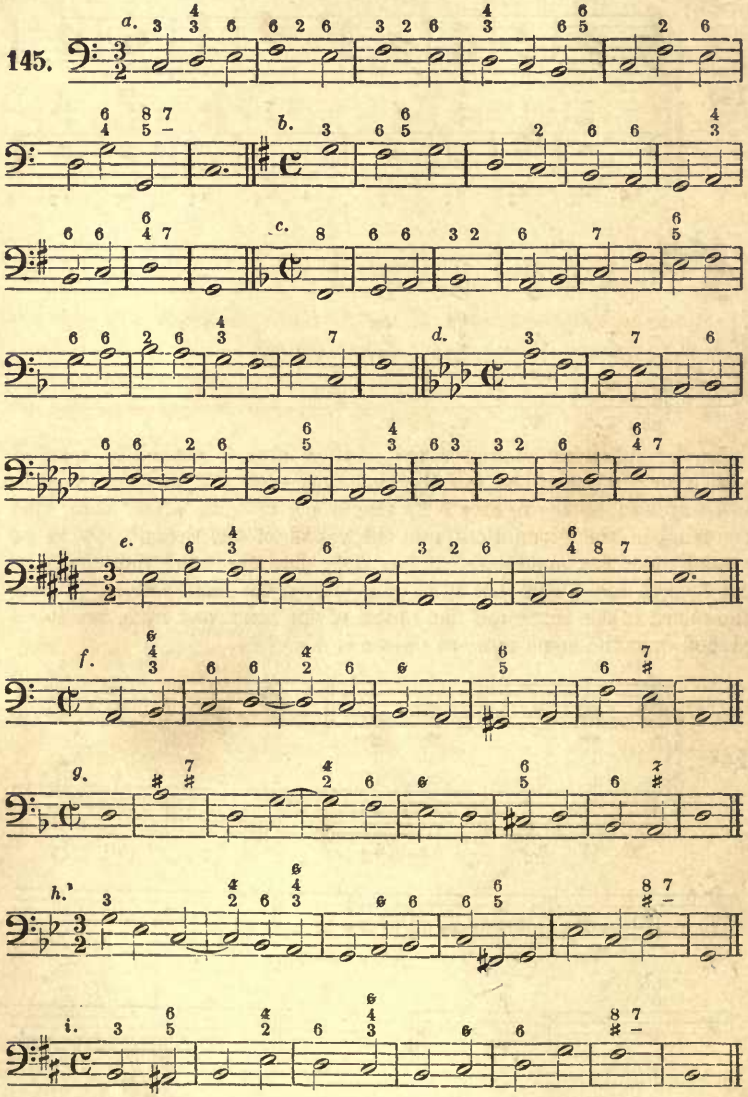
144.

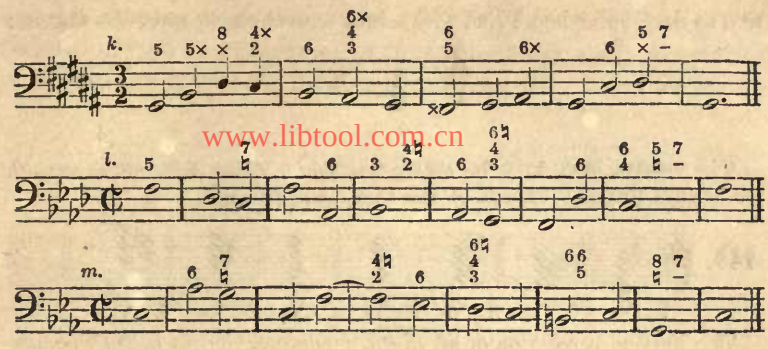


The examples found in the appendix belonging to these exercises must be carefully analyzed, and the numbers written under the Bass, before working the following exercises. This must always be done before the working of *all* examples.

Exercises.

145.



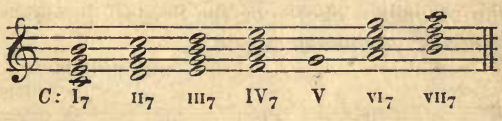


CHAPTER IX.

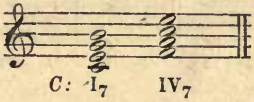
The Secondary Chords of the Seventh in Major and their Natural Resolution.

§ 39. In addition to the primary chord of the Dominant Seventh, secondary chords of the Seventh are found on the remaining degrees of the major and minor scales. They are formed by adding over the *fifth* of each triad a *third* which belongs to the key. We shall, at present, turn our attention to the secondary chords of the Seventh in major, and present them in *C* major in Ex. 146.

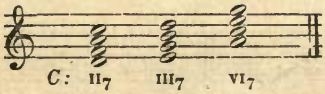
146.



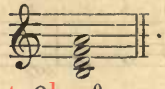
These differ in their construction: as chords of the Seventh with major triad and major *seventh*, on the *first* and *fourth* degrees of the scale:



as chords of the Seventh with minor triad and minor *seventh*, on the *second*, *third* and *sixth* degrees of the scale:



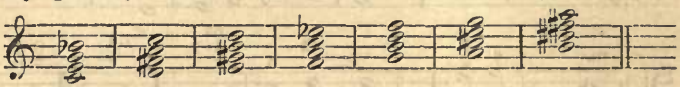
and as the Diminished Triad with minor *seventh* on the seventh degree:



C: VII°7

The remark may here be made that *major triads* with *minor seventh* are always primary chords of the Dominant Seventh, e. g.

147.

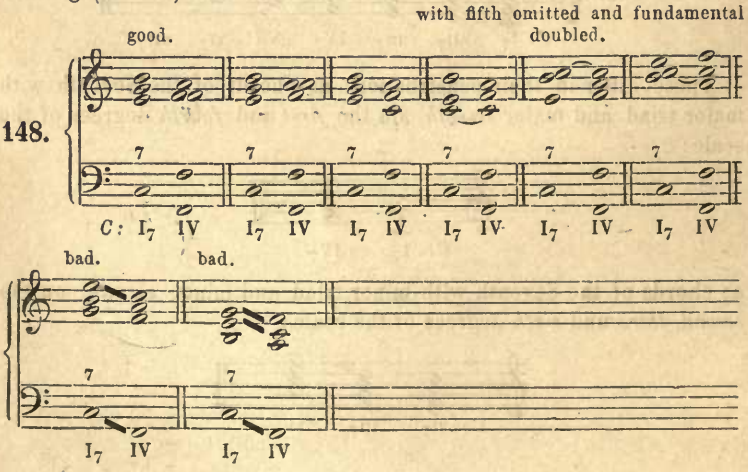


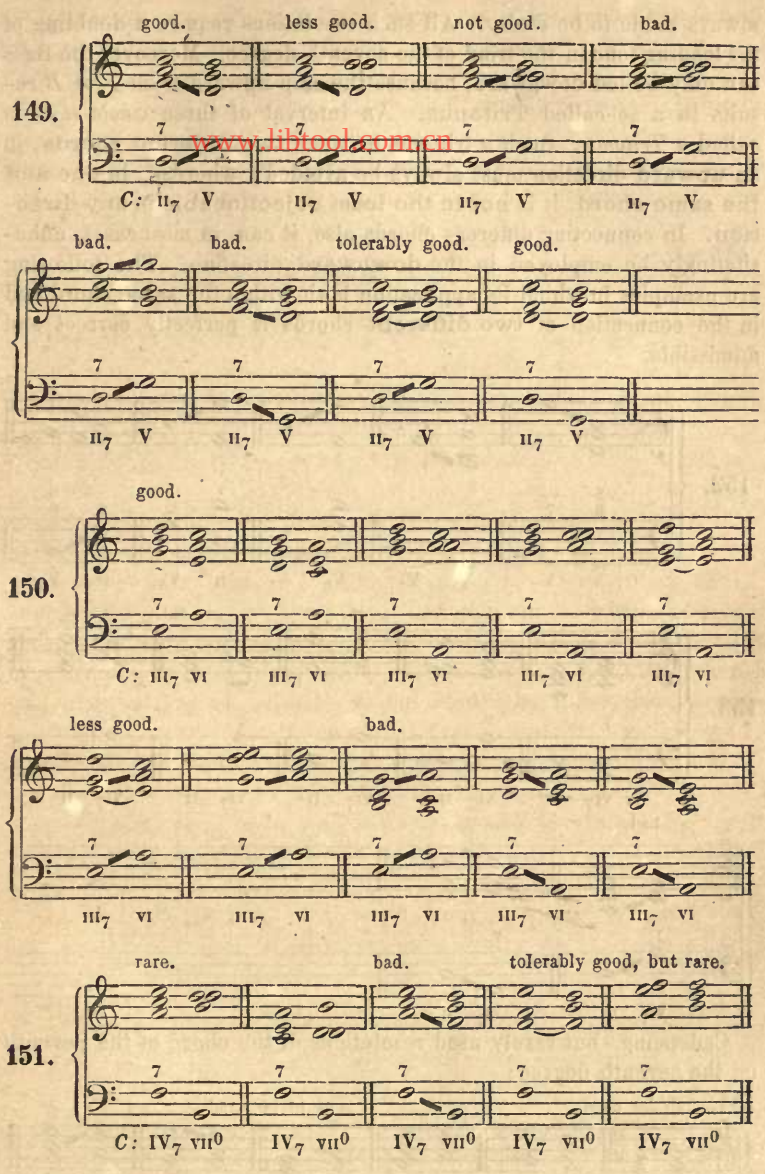
F: V7 *G:* V7 *A:* V7 *B:* V7 *C:* V7 *D:* V7 *E:* V7

The natural resolution of all of the secondary chords of the Seventh in *major* — with the exception of the one on the *seventh* degree, which allows of a twofold resolution — is effected in exactly the same manner as that of the chord of the Dominant Seventh. The *fundamental* skips upward a *fourth* or downward a *fifth*; the *seventh* — no matter if major or minor — descends a whole-, or a half-step; *the third* ascends a step, when it is not preferable to make it skip downward a *third* against the *ascending* Bass; the *fifth*, in the secondary chords of the Seventh on the *first*, *second*, *third*, *fourth* and *sixth* degrees, may move either a step upward or a step downward. Only in the resolution of the secondary chord of the Seventh on the seventh degree, into the Tonic Triad, the *fifth*, in the *fundamental* position of this chord, must always be led downward. All these natural resolutions of the secondary chords of the Seventh are called **Cadencing resolutions.**

In order better to understand what has just been said, a summary table of the secondary chords of the Seventh in major with their cadencing (natural) resolutions is added.

148.



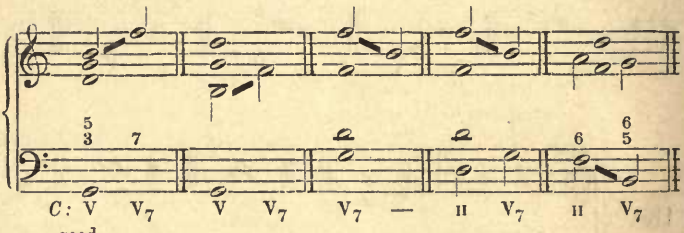


None of these resolutions in 151 are good, because (in the triad) the leading tone is doubled.

A cadencing resolution of the chord of the Seventh on the fourth degree into the triad of the seventh degree will rarely occur and is

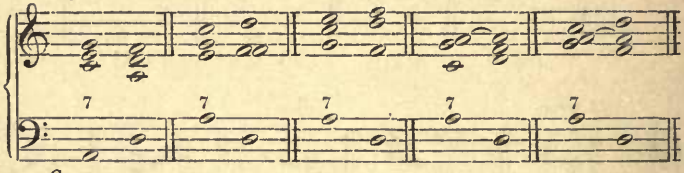
always liable to be faulty. All such resolutions require a doubling of the leading tone in the triad of the seventh degree. Moreover the Bass can only be led downward, because the skip upward from *F* to *B* results in a so-called **Tritonus**. An interval of three *whole-steps* is called a *Tritonus*. Such a tritonus between two different chords, in an upward direction must always be avoided; whereas, in one and the same chord, it is not in the least objectionable in any direction. In connecting different chords also, it can, in most cases, unhesitatingly be employed in the downward direction. The following are examples in which its application both within the same chord and in the connection of two different chords is perfectly correct and admissible.

152.

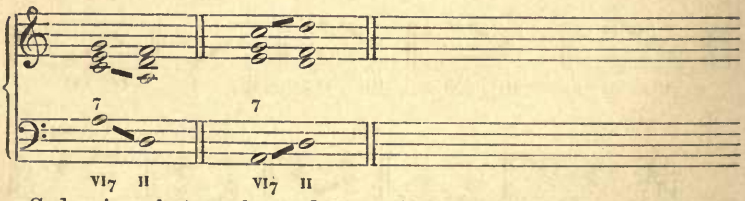


good.

153.

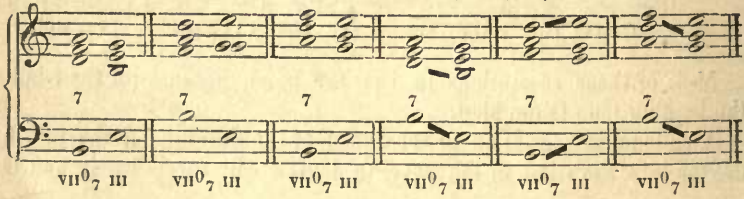


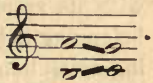
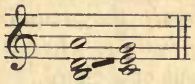
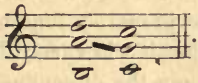
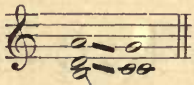
bad.

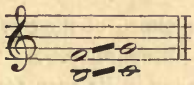


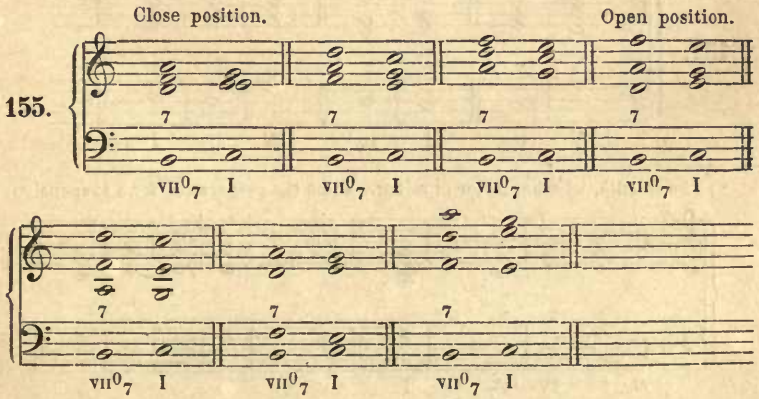
Cadencing, but rarely used resolutions of the chord of the Seventh on the seventh degree:

154. to be used. not to be used.



Another resolution of this chord of the Seventh, which occurs much more frequently, is that which leads into the triad of the first degree. It is founded on the natural tendency of the *leading tone,* the fundamental of the chord of the Seventh of the seventh degree, to the *octave* of the *fundamental.* But the resolution depends upon various conditions. The fundamental ascends a *small half-step* into the *octave* of the fundamental of the scale; the *seventh* descends a step:  . The *third* of the chord of the Seventh can in this case progress a step upward to the *third* of the Tonic Triad:  . But it can also be led a step downward, if the *seventh* is the *fourth* below and not the *fifth* above it:  . A downward progression of the *third,* when it stands to the *seventh* in relation of *fifth,* is impossible on account of the *parallel fifths:*  .

The *fifth* of the chord of the Seventh must always move downward a step into the *third* of the Tonic Triad. It cannot move upward, because the interval of a diminished *fifth* between it and the *fundamental* of the chord of the Seventh does not admit of its progression into the perfect *fifth* of the triad  . (See § 23.) The resolution of the chord of the Seventh on the seventh degree into the Tonic Triad is exemplified thus:



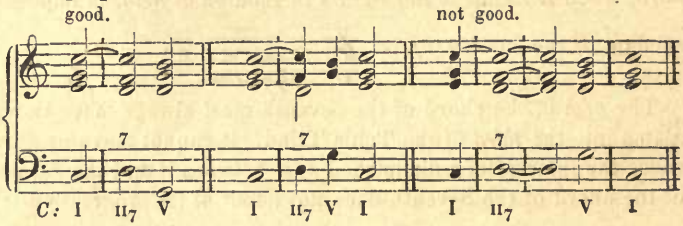
All of these resolutions are good and occur frequently in practice. But in general, the employment of the secondary chords of the Seventh — especially in the cadencing resolutions into *triads*, as here shown, — is by far less frequent than that of the primary chord of the Dominant Seventh. Of the secondary chords of the Seventh those on the second and seventh degrees will most often occur in practice; the latter with its resolution into the Tonic Triad. However, in the exercises belonging to this chapter, we shall now and then introduce its cadencing resolution into the triad of the third degree.

§ 40. Since most *sevenths*, especially the major *seventh*, are harshly *dissonant intervals*, they require a **preparation** as well as a resolution.

A tone is *prepared*, when it already exists in the same voice as a real constituent of a chord.

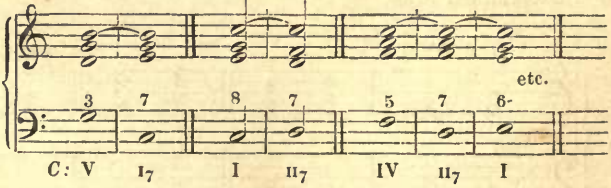
The duration of a **preparation** must be at least as long as that of the dissonance following it. The prepared tone may be longer than the dissonant tone following it; but it will rarely be considered good to have the preparation shorter than the dissonance.

156.

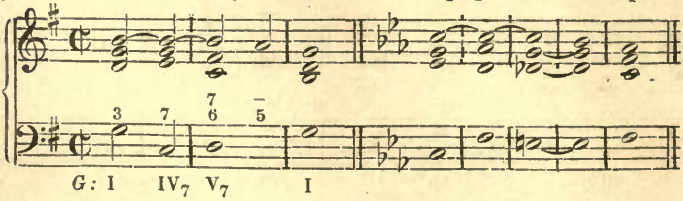


Any interval of a triad or chord of the Seventh can be used to prepare a *seventh* or any other dissonance. So the *prepared seventh*, although itself a dissonance, can in its turn form the preparation for a new dissonance*).

157.



*) The *seventh*, whether major or minor, can be the preparation for a suspension:

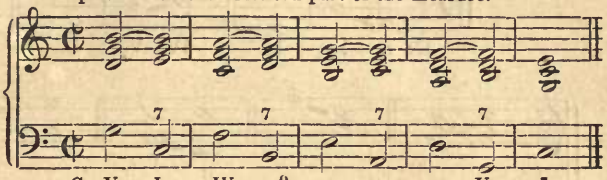


The preparation and the dissonance are connected with a tie as in the preceding example. So, a preparing note can always be tied to a note of equal value; or a longer note to a shorter one; but it is not so good to tie a shorter note to a longer one.

The preparation of a *seventh* (or of any dissonance) may take place both on the accented and unaccented part of the measure.

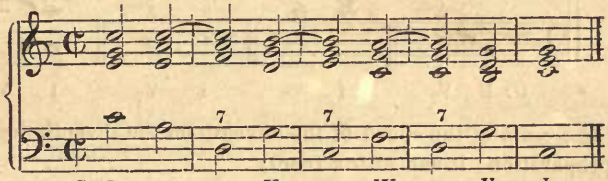
Preparation on the accented part of the measure.

158.



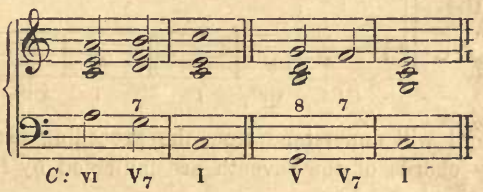
Preparation on the unaccented part of the measure.

159.



The *seventh* of the chord of the Dominant Seventh may enter freely (unprepared) in a progression by steps.

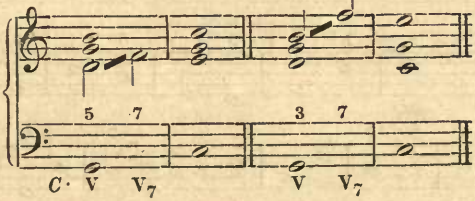
160.



It may also occur in a progression by skips,

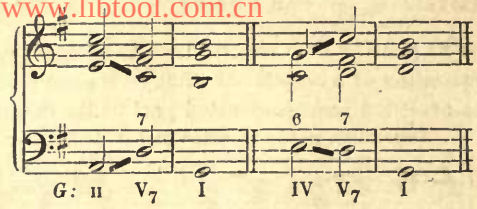
1. when the *seventh* is preceded by an interval of the Dominant Triad other than the *octave*, and the freely entering *seventh*, so to speak, merely extends the Dominant Triad to the chord of the Seventh:

161.

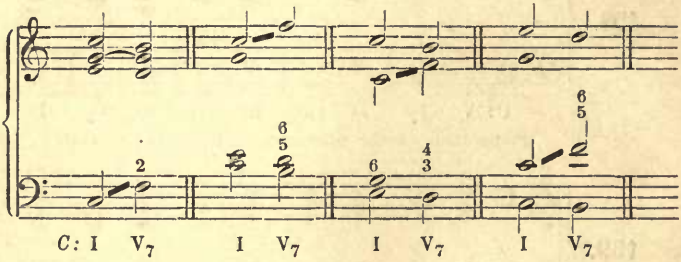


2. when the *fundamental of the chord of the Dominant Seventh in present in some other voice* and *thus prepares it*;
3. in contrary motion against the Bass:

162.

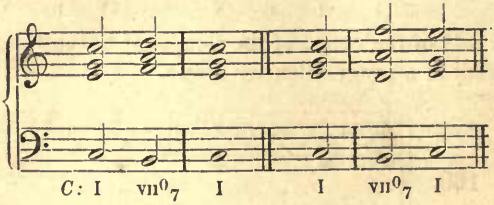


163.



The *seventh* of the chord of the Seventh on the seventh degree needs no preparation; it can enter freely.

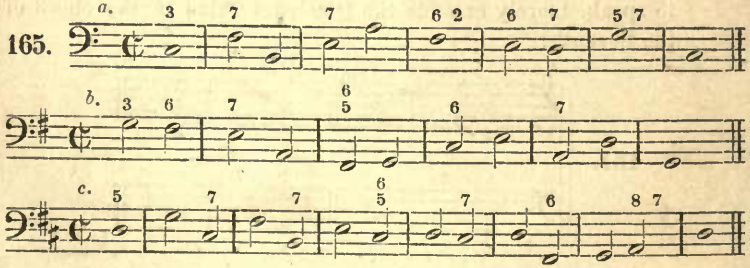
164.

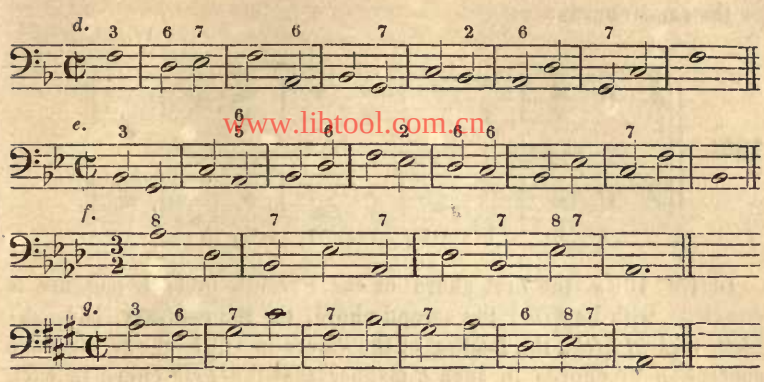


The pupil will understand from the preceding exercises, that the secondary chords of the Seventh are indicated by Roman numerals with the Arabic 7 added.

Exercises.

165.



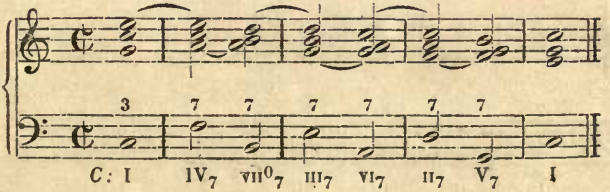


CHAPTER X.

The Connection with one another of the Chords of the Seventh in Major, in their Fundamental Position. The Inversions of these Chords and their Connections.

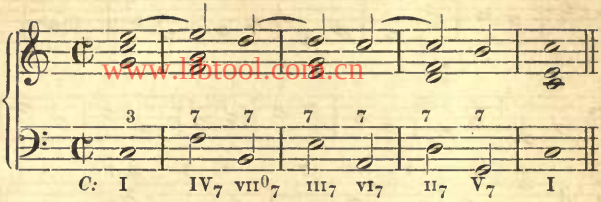
§ 41. It has already been said that the cadencing resolution of the secondary chords of the Seventh does not often occur. Such progressions often have a stiff character. The connection of several chords of the Seventh in a cadencing manner, — viz. in such a way that one chord of the Seventh resolves into another situated a *fourth* higher or a *fifth* lower, is far more pliant. If the first chord of the Seventh is to resolve into the second according to the rule already known to us — that the *seventh* is led downward — it is only necessary to retain the *third* of the first chord, which thus becomes the preparation of the *seventh* in the second chord. When several chords of the Seventh follow each other in a cadencing manner, a sequence of chords of the Seventh arises, in which the *fifth* of each alternate chord is omitted.

166 *a.*



or the same chords:

166*b*.

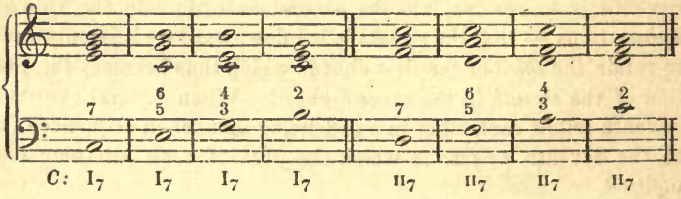


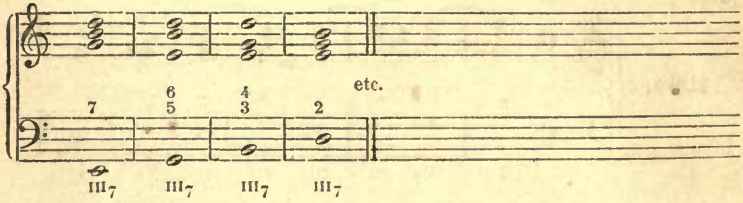
In Ex. 166 *a*. the first chord of the Seventh in each measure is *complete*, with its *fifth*; the second chord, on the contrary, is *incomplete, without fifth*; the leading of the voices in 166 *b*. shows the same succession of chords in such a manner that the *first* chord in each measure is incomplete (without the *fifth*), while the *second* chord is *complete* (with the *fifth*). In both cases the *third* of the one chord of the Seventh always serves as the preparation of the *seventh* of the following chord; its *third*, in turn, is the preparation of the *seventh* in the next chord etc.

The cadencing connection of these chords with triads, as well as with chords of the Seventh, is far more varied if we use the **inversions of the secondary chords of the Seventh.**

Each of these chords, like the chord of the Dominant Seventh, can appear in three inversions, in addition to the fundamental position: as chord of the Sixth and Fifth, chord of the Fourth and Third, and chord of the Second. These inversions are formed in the same manner as those of the chord of the Dominant Seventh, which we have already learned. The Bass takes the *third* in the chord of the Sixth and Fifth, the *fifth* in the chord of the Fourth and Third, and the *seventh* in the chord of the Second.

167.

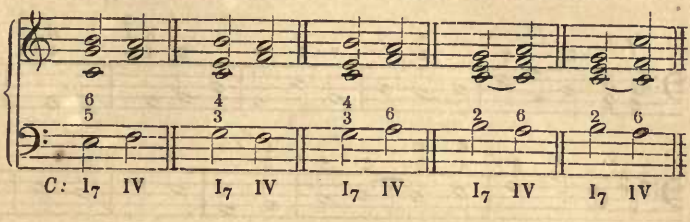




The cadencing resolution of these inversions, according as they resolve into the triad or the chord of the Seventh of the fourth degree above, or the fifth degree below, will always give the chords with all their intervals *complete.*

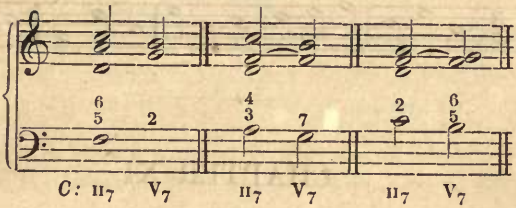
Cadencing resolutions of the inversions into the triad.

168.



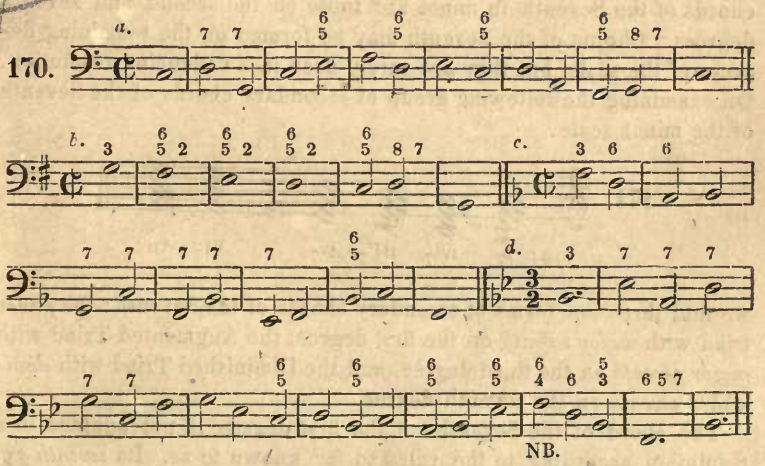
Cadencing resolutions of the inversions into the chord of the Seventh.

169.

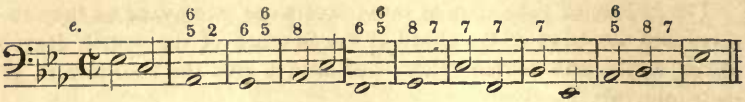


Exercises.

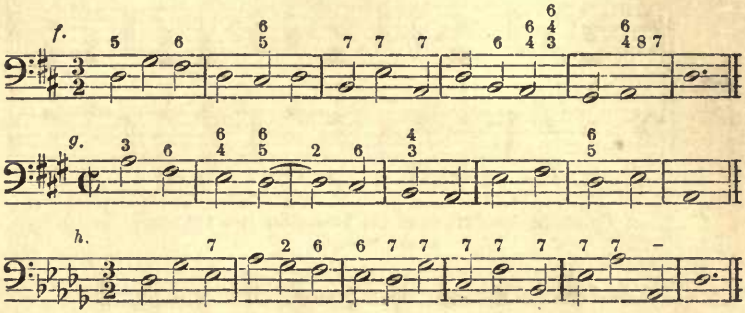
170.



NB. The three upper voices may remain stationary while the Bass moves downward.



In all triads the *seventh* can be struck after the *octave* of the *fundamental* without any further preparation.

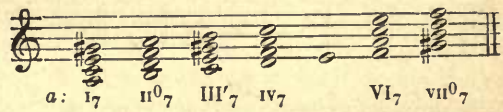


CHAPTER XI.

The Secondary Chords of the Seventh in Minor and their Inversions.

§ 42. The most important and most frequently occurring secondary chords of the Seventh in minor are those on the second and seventh degrees. Chords of the Seventh may be formed on the remaining degrees of the scale, but they are rarely used in a cadencing resolution. On examining the following group of secondary chords of the Seventh of the minor scale:

171.

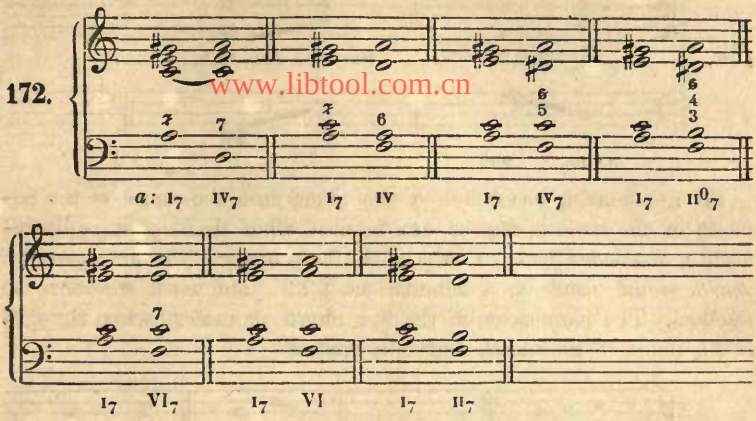


we find three *new* forms of secondary chords of the Seventh: the *minor* triad with *major seventh* on the first degree, the Augmented Triad with *major seventh* on the third degree, and the Diminished Triad with *diminished seventh* on the seventh degree.

The chord of the Seventh on the first degree is not adapted to a resolution according to the rules so far known to us. Its *seventh* $g\sharp$, the leading tone of the scale cannot be led downward a step of an *augmented second.*

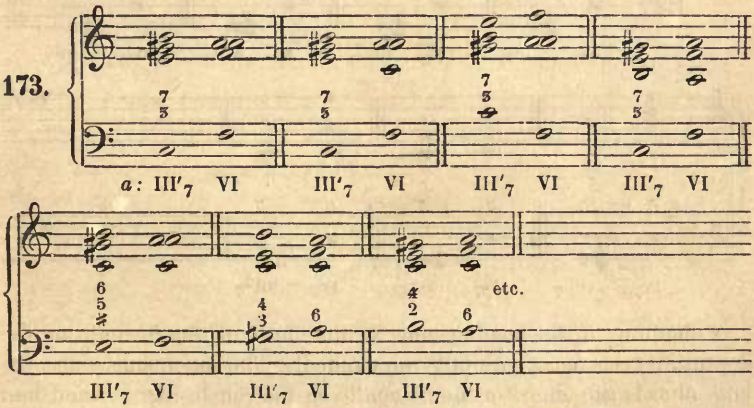
In our present exercises this chord need not be considered.*)

172.



The chord of the Seventh on the third degree is also little used. Its resolution into the triad of the sixth degree has to take place so that the *fifth* $g\sharp$ (the leading tone) is always led upward.

173.

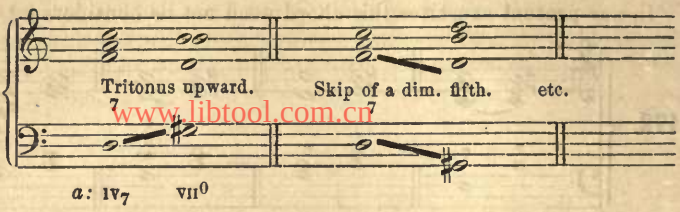


A cadencing connection of the chord of the Seventh of the fourth degree with the Diminished Triad of the seventh degree cannot be used, on account of its resulting in a forced and faulty leading of the voices.

---

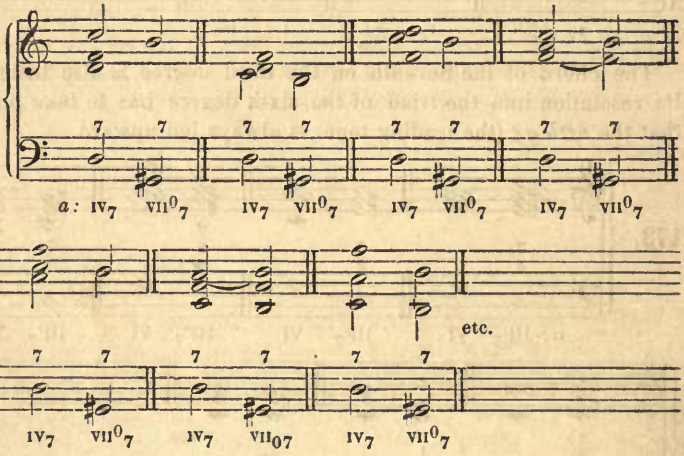
*) Later on, in the free resolutions of the chords of the Seventh, we shall again recur to the secondary chord of the Seventh on the first degree in minor. For — although not with descending *seventh* — it does admit of a cadencing resolution into the fundamental position of the chord of the Seventh of the fourth degree, and into the chord of the Sixth of the fourth degree, and of the other, non-cadencing, connections. In modulatory resolutions its *seventh* can also move downward to *G* or $F\sharp$. (See Chapter XIII § 46, Ex. 199 and 200.)

174.



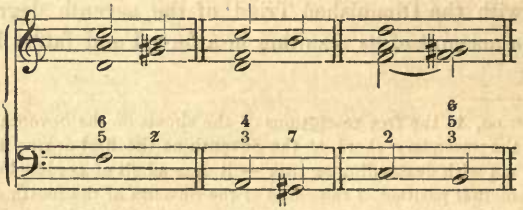
But a cadencing resolution of this chord into the chord of the Seventh on the seventh degree, can be used when the Bass skips downward a *diminished fifth*. A skip of the Bass upward into the *augmented fourth* would result in a tritonus (see § 39), and must therefore be avoided. The connection of the two chords is easiest when the *fifth* of the chord of the fourth degree is omitted.

175.



A doubling of the leading tone in the chord of the Seventh on the seventh degree must carefully be avoided. The inversions, also, of both chords (the chord of the Seventh on the fourth degree, and that on the seventh degree) are fit for connections.

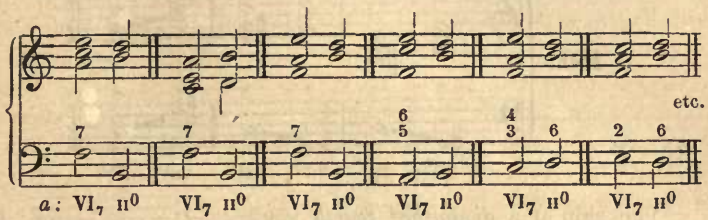
176.



A cadencing connection of the chord of the Seventh on the sixth degree with the triad of the second degree is possible, but rarely

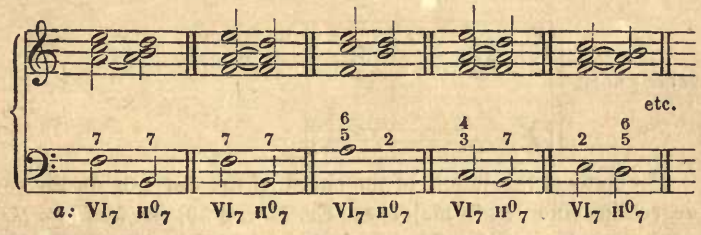
occurs. Here also, the Bass (in order to avoid the tritonus upward) must skip downward into the *diminished fifth*. Nevertheless the connection of the same chords (fourth and seventh degrees) is more easily made in minor than in major. For in minor the *fundamental* (lowest tone) of the Diminished Triad of the second degree is *not the leading tone* of the scale and may therefore be *doubled*. (See § 39, Ex. 151.)

177.



The connection of the chord of the Seventh on the sixth degree with that on the second degree occurs more frequently. It is effected in exactly the same way in the fundamental position and in the inversions in minor, as in the same chords on the fourth and seventh degrees in major.

178.

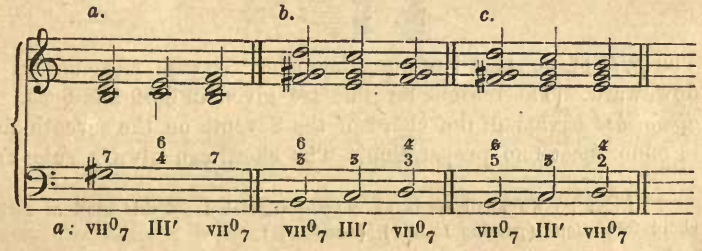


§ 43. By far the most frequently occurring and most important of the secondary chords of the Seventh of the minor scale is that on the seventh degree, called

the Chord of the Diminished Seventh,

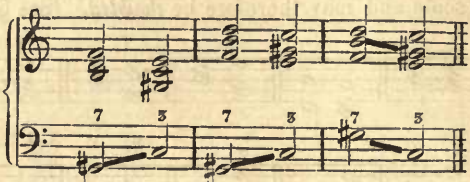
because it is formed by adding a *diminished seventh* (from the fundamental) to a Diminished Triad. It can never form a cadencing resolution into the triad or the chord of the Seventh on the third degree. Progressions of this kind:

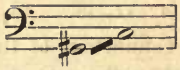
179.

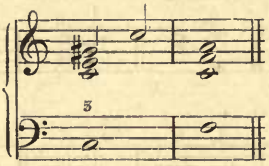


can *never* be regarded as resolutions of the chord of the Diminished Seventh on the seventh degree into the Augmented Triad of the third degree.*) The resolution into the fundamental position of the triad is impracticable on account of its resulting in a bad leading of the voices.

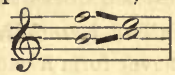
180.

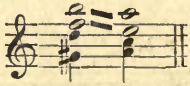


The skip of a *diminished fourth upward*  , being ill adapted to singing, is just as strictly prohibited as the tritonus *upward*, or the step of an *augmented second*. In a *downward* direction the skip of a *diminished fourth may be used at any time* and is *always good*; upward, on the contrary, it is difficult to be sung, even within the same chord



.

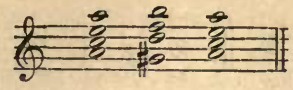
The natural resolution of the chord of the Seventh on the seventh degree in minor, as in major (see Ex. 155, § 39) *can lead into the triad of the first degree only*. The resolution takes place in exactly the same manner as in example 155. The *fundamental*, (leading tone of the scale) ascends a small chromatic step; the *seventh* descends; the *third* moves a step upward when, in connection with the *seventh*, it forms a *diminished fifth*  ; but it can also be led *downward* when it forms an *augmented fourth* with reference to the *seventh*

 .

The *fifth* of the chord of the Diminished Seventh must *always* move downward. (The reasons for this are given in § 39 and § 23.) The *diminished seventh* of the chord of the Seventh on the seventh degree in minor needs no preparation. The chord can always enter freely.

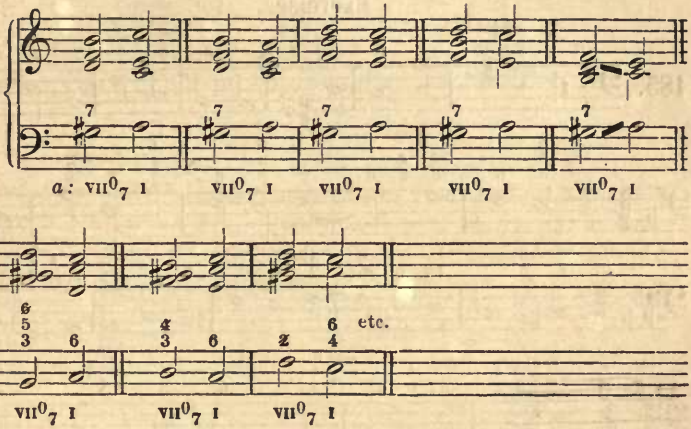
*) Later on we shall speak of chord-progressions of this kind as accidental chord-formations (passing chords). (See § 57.)

181.



It is hardly necessary to remark that a resolution of the chord of the Diminished Seventh into the *chord of the Seventh* of the first degree in minor is *impossible*, although the resolution into the *triad* of the first degree is so natural. The following are connections of the chord of the Diminished Seventh with the triad of the first degree.

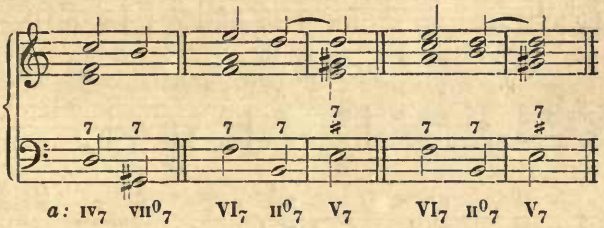
182.



The *seventh* of the secondary chord of the Seventh on the second degree in minor may also enter freely, because it is situated over a Diminished Triad.

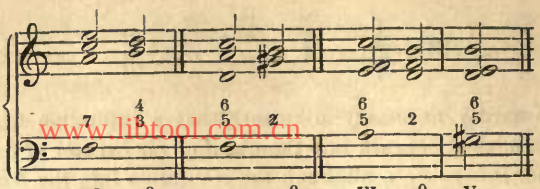
In connecting two or more chords of the Seventh of the minor scale *in their fundamental position*, the *fifth* must be omitted in each alternate chord.

183.



In connecting the chord of the Seventh in its fundamental position with the *inversion* of another chord of the Seventh; or in connecting two or more inversions of the chord of the Seventh with each other, the chords will appear complete.

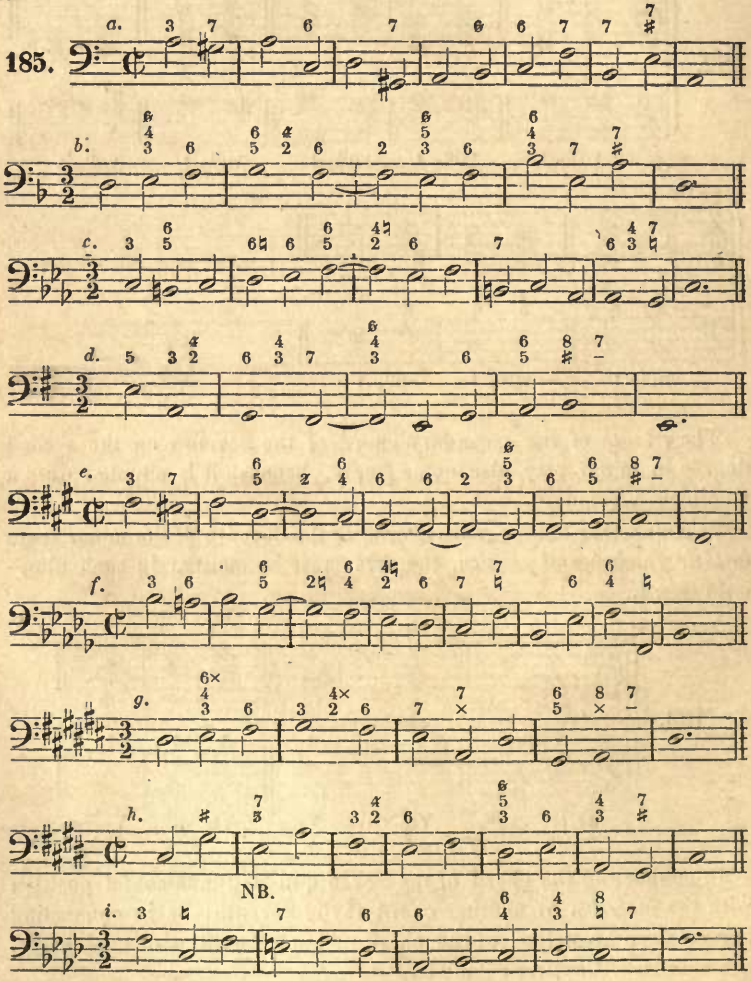
184.



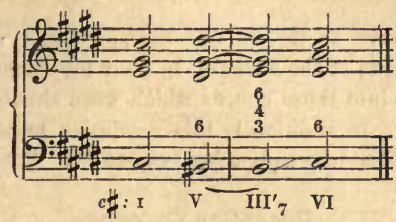
a: VI$_7$ II$^0{}_7$ IV$_7$ VII$^0{}_7$ VI$_7$ II$^0{}_7$ V$_7$

Exercises.

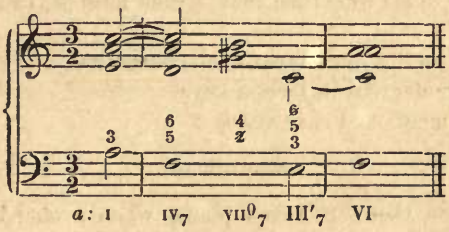
185.



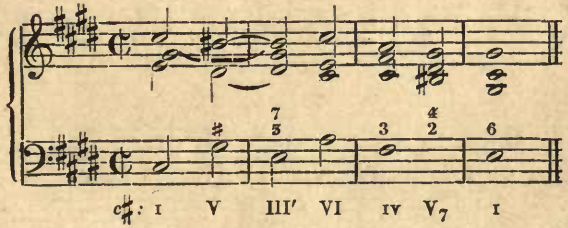
At NB. in the last exercise but one, the chord of the Seventh on the third degree with its cadencing resolution into the triad of the sixth degree is introduced. The inversions of this chord of the Seventh are barely suitable for use, and are least adapted to a cadencing resolution. Such connections as the fellowing:



are forced and unnatural. But in the position of chord of the Sixth and Fifth, this chord is more manageable, as is shown in the following example:



The first few bars of the eighth exercise may be worked in the following manner:



CHAPTER XII.

Non-cadencing Connection of Chords of the Seventh with Chords of other Degrees.

§ 44. We have so far, in our examples and exercises, always resolved the chords of the Seventh, in their fundamental position or in their inversions, into those chords which were situated a *fourth* above or a *fifth* below. In addition to this resolution most natural in principle, there are free non-cadencing resolutions. Such connections are called

Deceptive Cadences.

They can be formed in various ways:

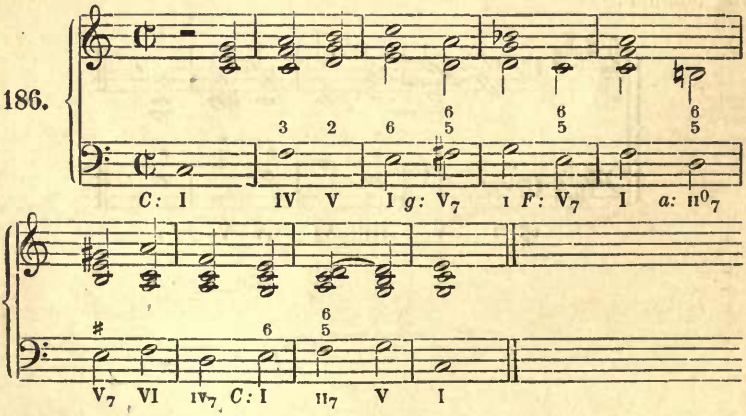
1. By connecting the chords of the Seventh with other chords *belonging to the scale* than those which form the cadencing resolutions.
2. By connecting the chords of the Seventh of one key with chords on *other* degrees in *foreign* keys.

In the last mentioned case arises a

Modulation.

A modulation therefore takes place, when a chord is introduced which does not belong to the key in which a piece is written, but to a foreign key.

186.



So in Ex. 186, in the third bar, the harmony touches *g* minor, in the fourth bar *F* major, in the fifth bar *a* minor, and in the seventh

bar it returns to *C* major. Modulating and non-modulating *deceptive* cadences can be formed in three different ways.

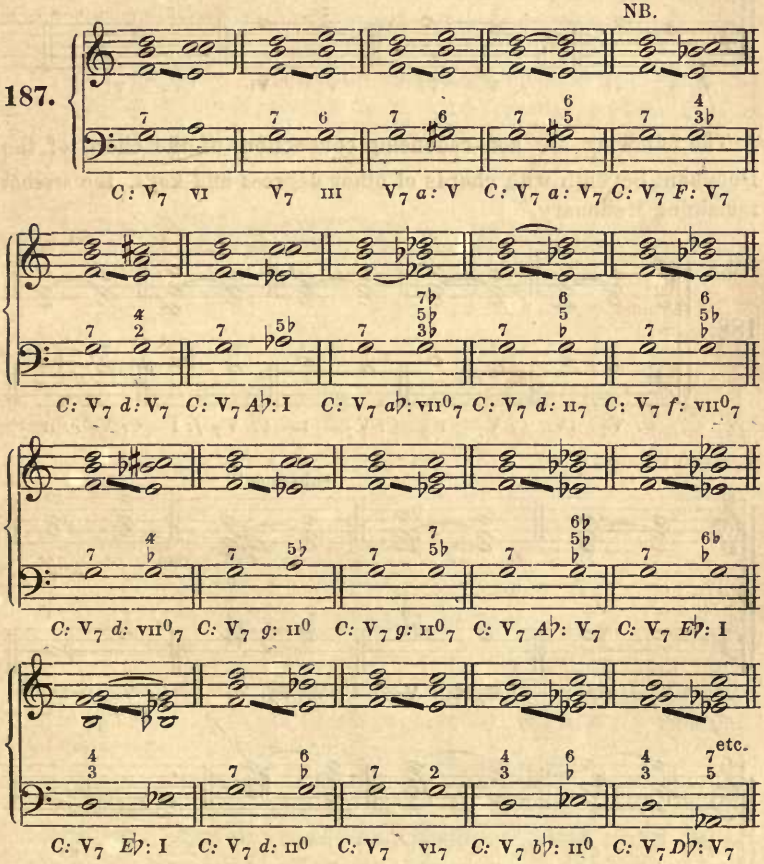
a. By the *regular* downward progression of the *seventh*;

b. with *stationary*, or *non-progressing seventh* (or its enharmonic change to the *augmented sixth*);*)

c. by the *seventh* progressing upward *diatonically*.

We will begin the study of deceptive cadences with the chord of the Dominant Seventh, and will show the pupil a few connections of this chord with triads and chords of the Seventh of other degrees and keys, first with *regular downward progression of the seventh*.

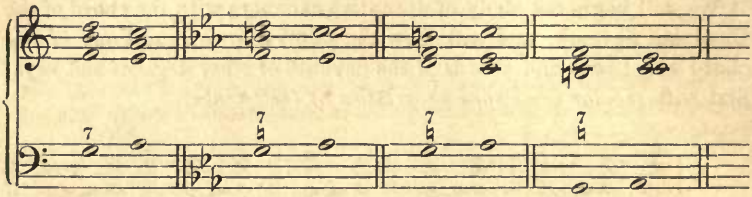
187.



*) The change of the *seventh* to the *augmented sixth* is really an upward progression of the *seventh*, because the distance between the fundamental and a *minor seventh* is smaller than that between the fundamental and an *augmented sixth*.

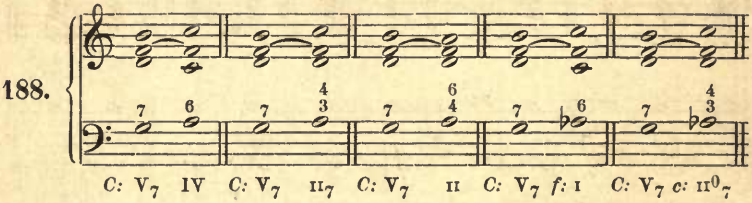
At NB. the connection of the chords of the Dominant Seventh of *C* and *F* major is a Modulatory Cadencing resolution.

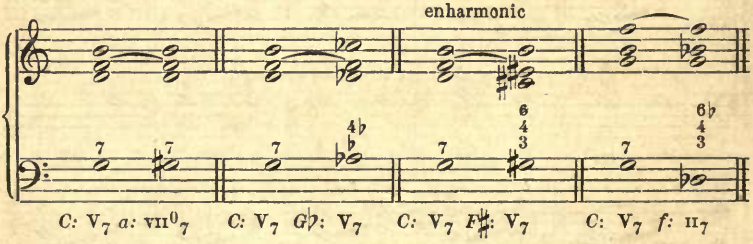
We here add the following rule: If in four-voiced writing the fundamental position of the chord of the Dominant Seventh is followed by the triad of the sixth degree, the chord of the Seventh must be rendered *complete, with all its intervals.* In the connection of these two chords in *minor*, the *third* of the triad of the sixth degree must be doubled; e. g.

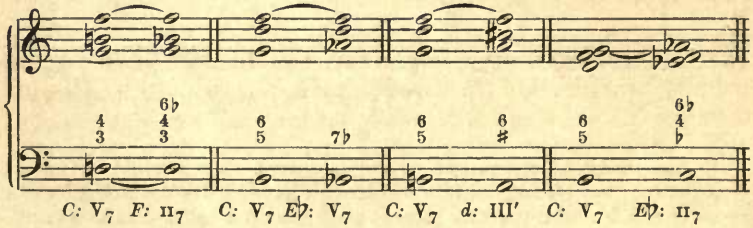


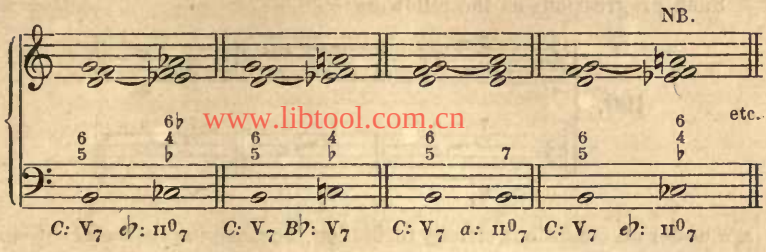
The following are non-cadencing connections of the chord of the Dominant Seventh with chords of other degrees and keys, the *seventh* remaining stationary.

188.



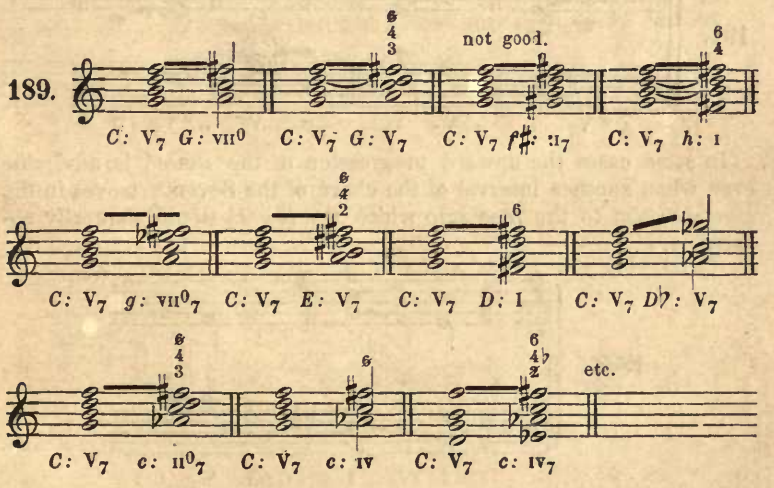






The chord at NB. is, at present, unknown to the pupil. He will become better acquainted with it as the chord of the Augmented Sixth and Fourth, under the head of "Altered Chords".

Connections of the chord of the Dominant Seventh with chords of other degrees and keys through the upward progression of the *seventh*.

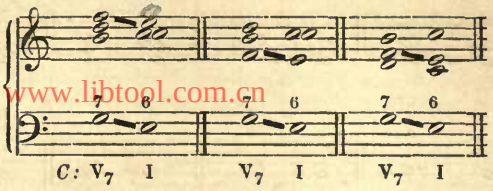


The chords used in the last two bars in connection with the progression of the chord of the Dominant Seventh, will also be explained in the chapter on "Altered Chords".

§ 45. The *seventh* must nearly always be *led upward* when, in the resolution of a chord of the Seventh, another interval of that chord progresses in a *downward* direction to the tone into which the *seventh* would naturally resolve. This leading may occur in the ordinary cadencing resolution of the chord of the Seventh on the fifth degree into the Tonic Triad.

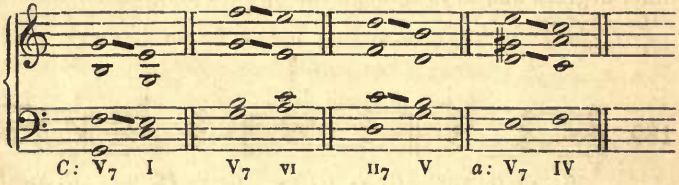
Such progressions as the following:

190.



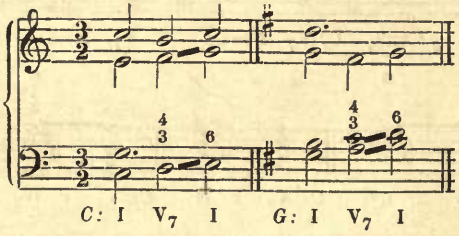
are under all conditions strictly forbidden, because the *concealed octaves* which here occur are just as faulty, in pure writing, as *parallel octaves*, even though the upper voice makes only a *half-step*. This rule is applicable to all voices; the progressions in 190 and 191 are therefore *wrong*, and are *always to be avoided as faulty*, no matter if they occur in cadencing or non-cadencing resolutions of any chord of the Seventh. *)

191.



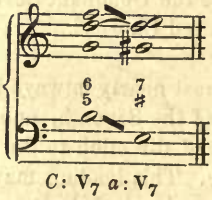
In some cases the upward progression of the *seventh* is advisable even when another interval of the chord of the Seventh moves in the *same direction* to the tone into which the *seventh* would naturally resolve; e. g.

193 *a*.



*) We give the following chord-connection as one of a few and rarely occurring exceptions to this rule:

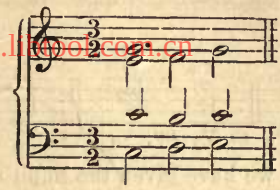
192.



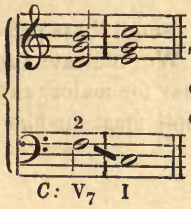
Here the Bass *(B)*, instead of progressing to the *third*, skips to *E*, the *fundamental* of the second chord; the *concealed octaves* are also greatly softened by the contrary motion of the Tenor, and the stationary Alto.

Ex. 193 *b.* cannot be called good, because the *seventh* and *fundamental* of the chord of the Seventh are too near each other.

193*b*.

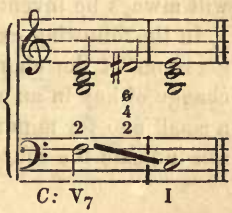


In conclusion we would remark that the Dominant *Seventh* can also progress downward by a skip. Such a progression can take place in the cadencing resolution V_7 I.



C: V_7 I

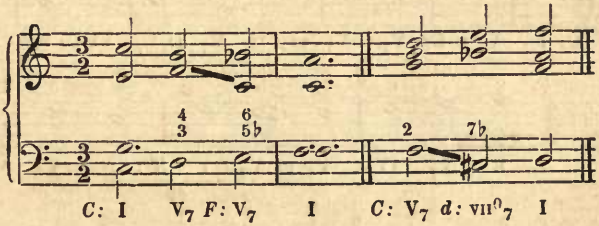
This resolution has a better effect if the *fifth* of the chord of the Seventh be chromatically raised. (Compare § 49.)



C: V_7 I

It may also take place at the turning point of a modulation, e. g.

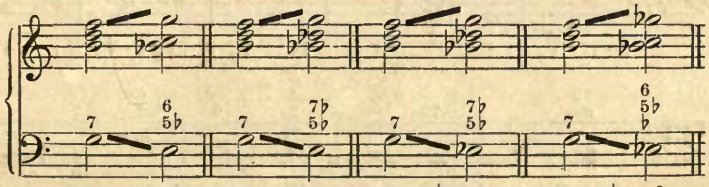
193*c*.



C: I V_7 *F:* V_7 I *C:* V_7 *d:* VII^0_7 I

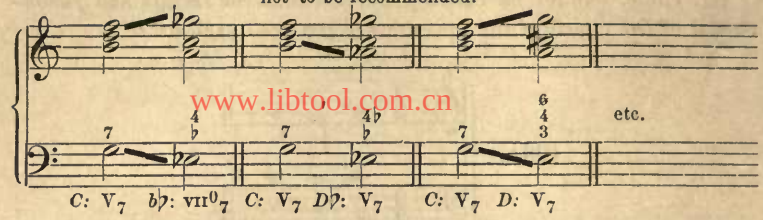
In the following we give a few more examples of the non-cadencing connection of the chord of the Dominant Seventh with chords of other degrees and keys, explanatory to the rule given at the beginning of this paragraph (§ 45).

194.



C: V_7 *F:* V_7 *C:* V_7 *f:* VII^0_7 *C:* V_7 *A♭:* V_7 *C:* V_7 *b♭:* II^0_7

not to be recommended.



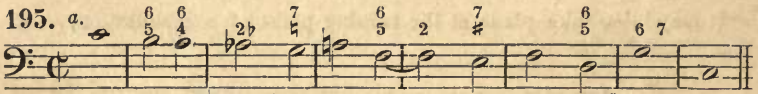
C: V7 b♭: VII07 C: V7 D♭: V7 C: V7 D: V7

In §§ 44 and 45 we have given the pupil a glimpse, which is however only an indication, of the connection of the chord of the Dominant Seventh with other chords. As in the realm of Melody new melodic formations have ever been, and *will* ever be, created by musical authorities, so also in the sphere of Harmony new chord-connections will always be invented.

In the following examples we shall, by no means, use all these progressions of the chord of the Dominant Seventh. We indicate the change of key in an exercise by means of a large letter for major, and a small one for minor. In all later exercises the pupil must for himself indicate the course of modulation.

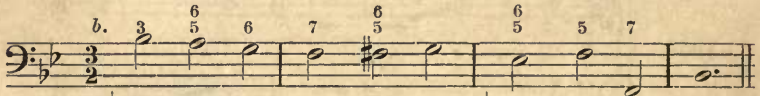
Exercises.

195. *a.*



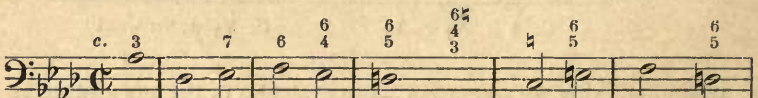
C: I V7 II E♭: V7 C: V7 VI II7 V7 a: V7 VI C: VII07 III V7 I

b.



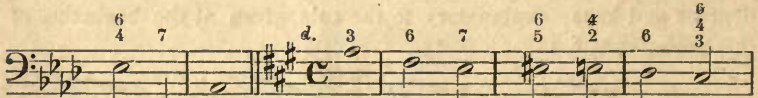
B♭: I V7 IV V7 g: V7 I B♭: II7 V V7 I

c.

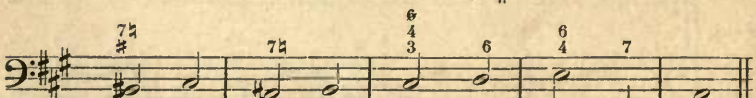


A♭: I IV V7 IV I E♭: V7 c: V7 f: V V7 I E♭: V7

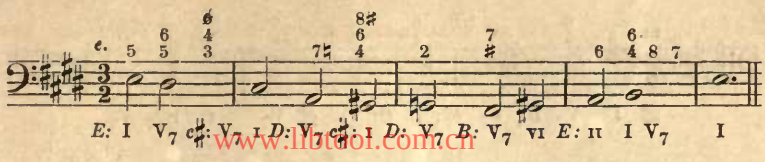
d.

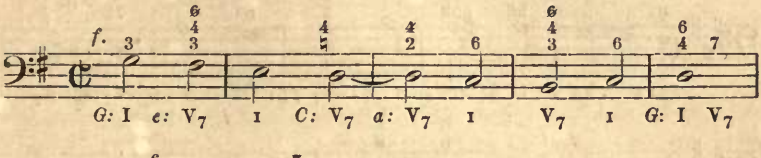


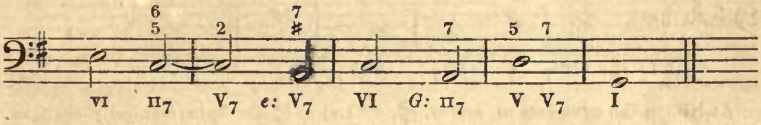
A♭: I V7 I A: I IV V7 f♯: V7 b: V7 I V7

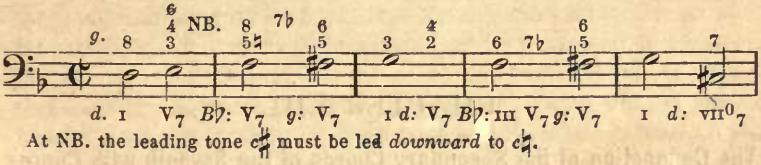


c♯: VII07 I b: VII07 I V7 I A: I V7 I

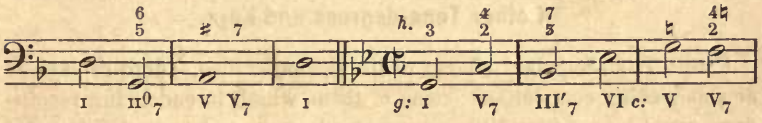


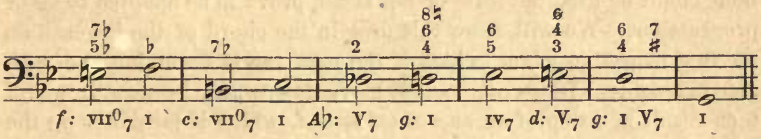


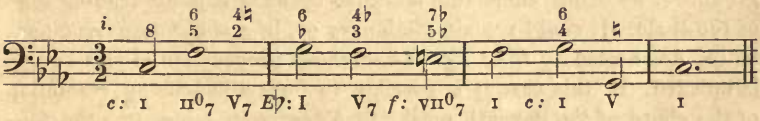


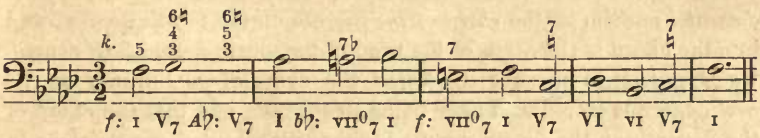


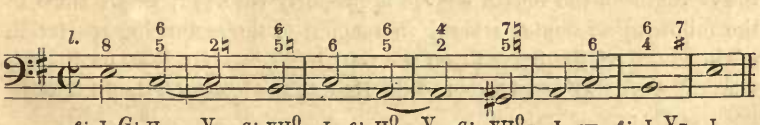
At NB. the leading tone c♯ must be led *downward* to c♮.

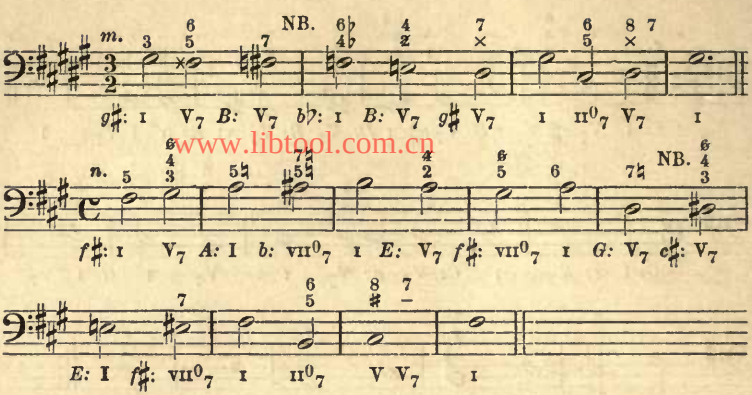












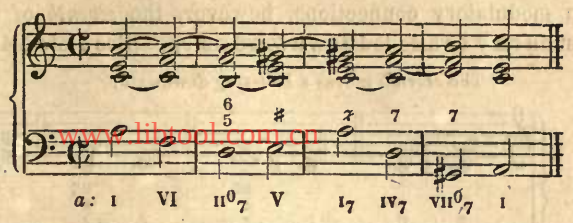
At NB. in the exercises *m.* and *n.* $c\sharp$, $d\flat$ and *c*, $b\sharp$ are enharmonically changed.

CHAPTER XIII.

The Connection of the Secondary Chords of the Seventh with Chords of other Tone-degrees and Keys.

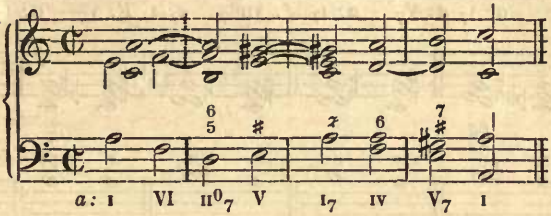
§ 46. The secondary chords of the Seventh, also, admit of various non-cadencing connections; some of them, which in cadencing resolutions could be used but little or not at all, prove to be adapted to other progressions. We will show this first in the chord of the Seventh on the first degree in minor, which is the most rarely occurring and most unmanageable. Its *seventh* cannot move downward, because it would then result in a step of an *augmented second*, which is forbidden on the ground of its being unmelodic and also because it is the leading tone of the scale. It could remain stationary or, in a *modulatory resolution*, be led downward to *G* or $F\sharp$. The *natural* progression of this *seventh* is upward. In this case it is possible to form a cadencing resolution of the chord of the Seventh on the first degree in minor into the *fundamental position* of the *chord of the Seventh* on the fourth degree, and into the chord of the Sixth of the triad of the fourth degree. Of course, we suppose it to be understood that the chord of the Seventh on the *first* degree is introduced after being prepared, and that the chord of the Seventh on the fourth degree is properly resolved, as we show in the following example, where, on account of the cadencing resolution of the chord of the Seventh on the fourth degree into that on the seventh degree, the progression of the Bass to the lower $G\sharp$ had to follow necessarily;

196.



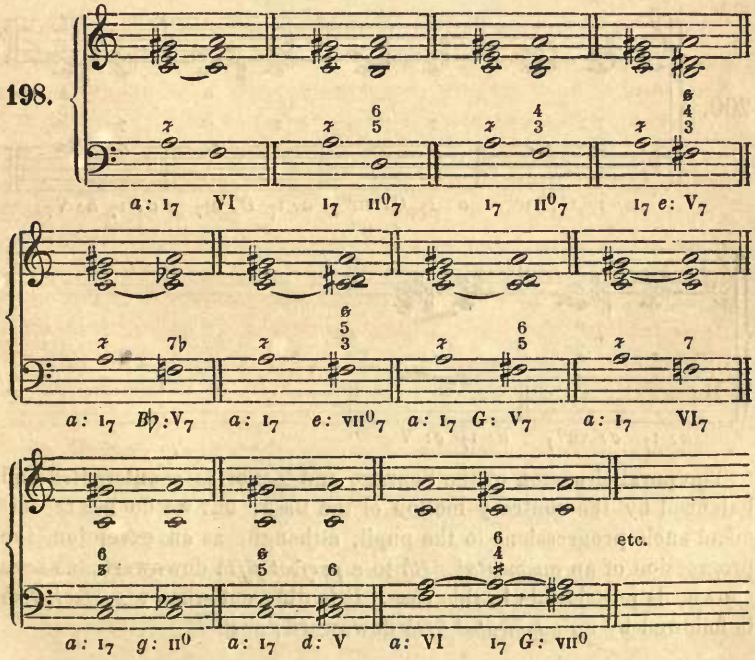
or in the resolution of the chord of the Seventh on the first degree into the chord of the Sixth of the triad of the fourth degree:

197.



In addition to these cadencing resolutions of the chord of the Seventh on the first degree in minor, we here present still other progressions which appear less forced than the cadencing. Of course the preparation of the chord is presupposed.

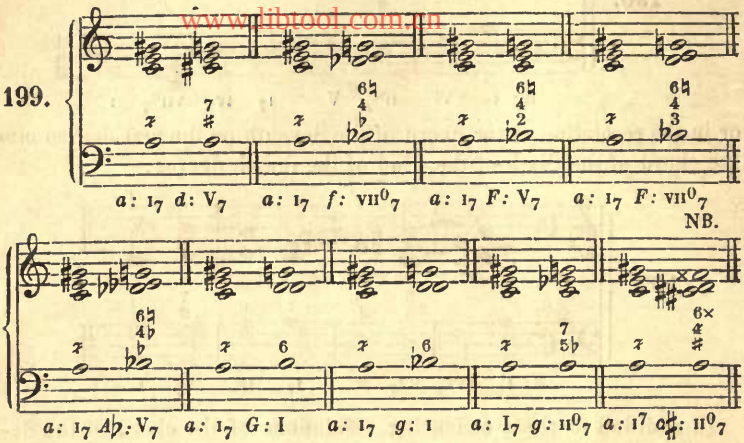
198.



In modulatory connections, however, the *seventh* of the chord in question may be also led downward a step. (See Note § 42, Chap. XI.)

The *seventh* moves a half-step downward.

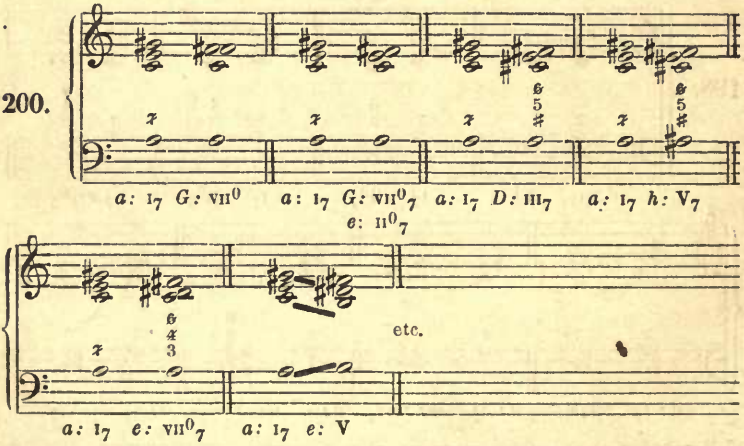
199.



The chord marked NB. will be afterwards known as the chord of the Augmented Fourth and Third.

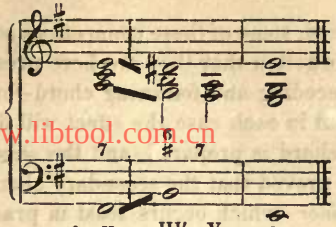
The *seventh* moves a whole-step downward.

200.



The parallel motion of the Soprano and Tenor is counteracted and balanced by the contrary motion of the Bass; but we do not recommend such progressions to the pupil, although, as an exception, the progression of an *augmented fifth* to a *perfect fifth* downward, as here shown, is permissible in this case. It is different when a *perfect fifth* is followed by an *augmented fifth* downward; e. g.

201.

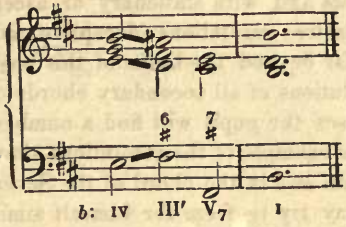


e: II$_7$ III′ V$_7$ I

Such progressions are found with the best masters in pure writing. *They are always allowable when the Bass goes in contrary motion.*

good.

202.

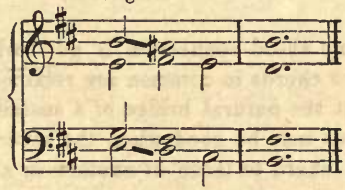


b: IV III′ V$_7$ I

But in the outer voices this succession of *fifths* is *not* to be recommended.

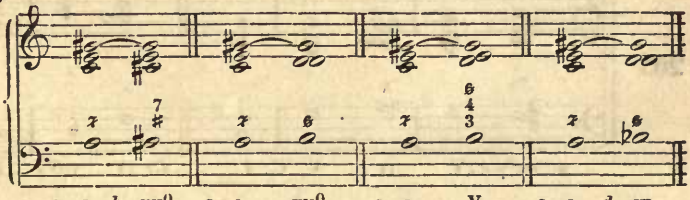
not good.

203.

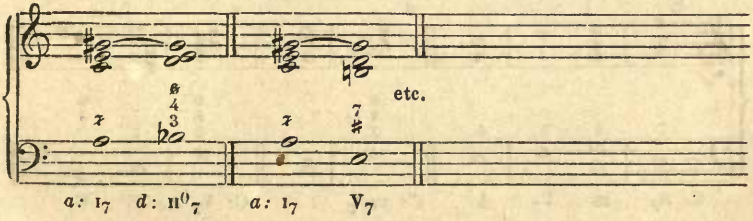


The connection of the chord of the Seventh on the first degree in minor with other chords is also possible when the *seventh* remains stationary.

204.



a: I$_7$ *h:* VII$^0{}_7$ *a:* I$_7$ VII$^0{}_7$ *a:* I$_7$ V$_7$ *a:* I$_7$ *d:* IV



etc.

a: I$_7$ *d:* II$^0{}_7$ *a:* I$_7$ V$_7$

§ 47. If, indeed, some of these connections sound harsh and strange, it must not be forgotten that they are here presented without any connection with preceding and following chord-formations. They can all be employed; but in each case the effect will depend upon the way in which the *first* chord is prepared, and the *second* is resolved.

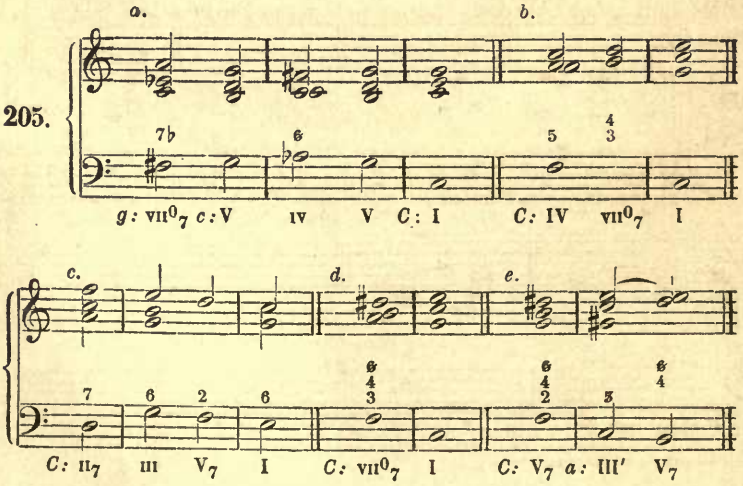
After having proved that the secondary chord of the Seventh on the *first degree in minor* (which occurs least in practice and is most difficult to manage) can be employed for progressions, there remains to be stated briefly that:

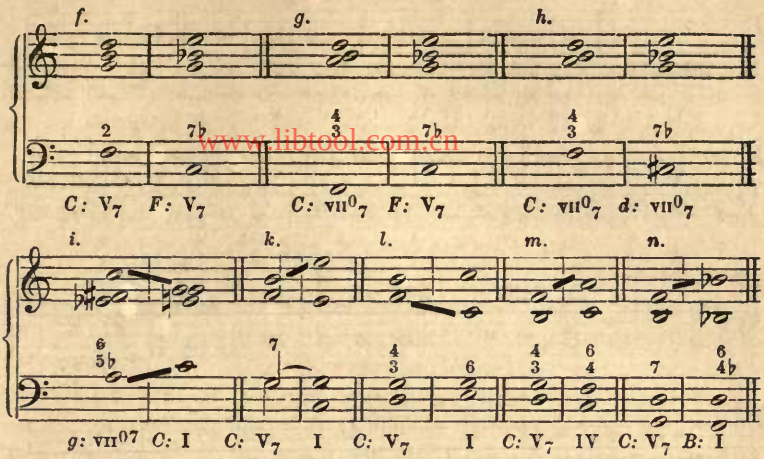
Any chord of the Seventh may be employed, both with regularly descending *seventh* and with stationary or ascending *seventh*, both in cadencing and in free resolutions (deceptive cadences).

It would go far beyond the limits of this book to exhibit a table of all possible resolutions of all secondary chords of the Seventh. In the following exercises the pupil will find a number of *deceptive cadences*. According to the example of the resolutions shown in the chord of the Dominant Seventh and in the chord of the Seventh on the first degree in minor, he may try to form for himself similar chord-connections proceeding from other secondary chords of the Seventh. The following may serve as a criterion for the goodness and fitness of such chord-connections:

In general, any chord-connection is good where one or two tones belonging to two chords in common are retained in the same voice. But even without the natural bridge of a sustained tone, the connection of two chords may be good when the several voices are led from the tones of one chord to those of another in a manner well adapted to singing.

205.

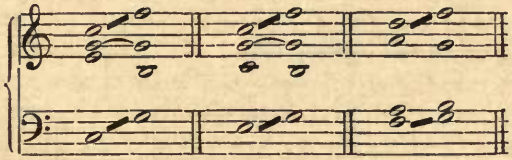




The pupil will see from the examples 205 *d*, *e*, *f*, *g*, *h*, *i*, *k*, *l* and *m*, that free progressions of certain intervals of the chords of the Seventh are also good.

Attention must here be called to the fact that the *introduction* of the *fundamental* and *seventh* of a chord of the Seventh in **parallel motion** almost always produces a bad effect and must therefore be carefully avoided. All of the following exercises show bad leading of the voices.

206.

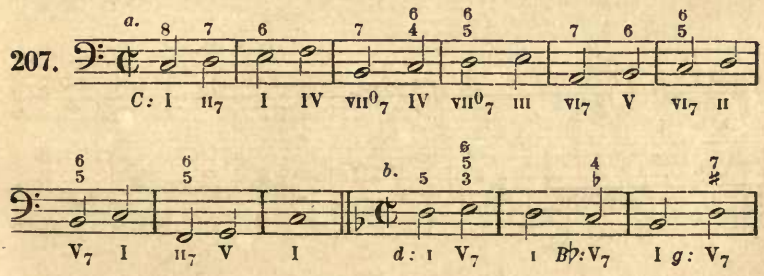


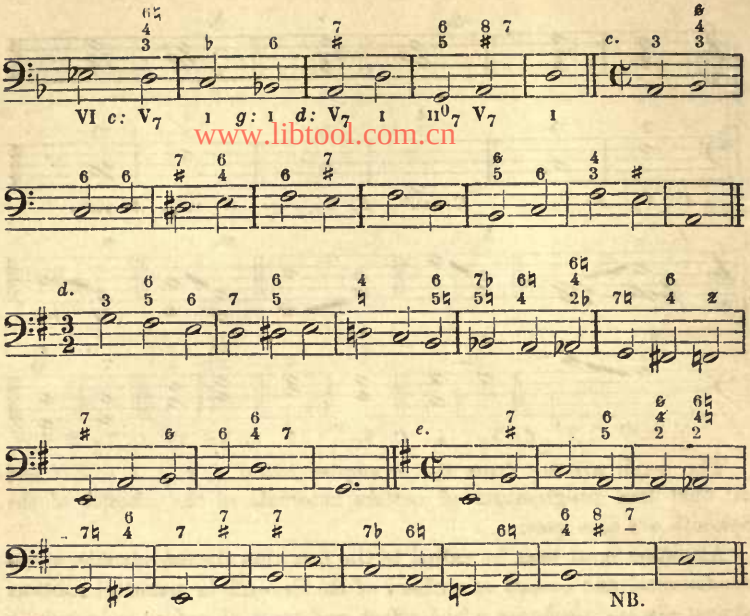
But there are individual cases, in examples 193 *c*. and 205 *f*. and *h*., where the introduction of *fundamental* and *seventh* in *parallel* motion can *not* be found fault with.

Exercises.

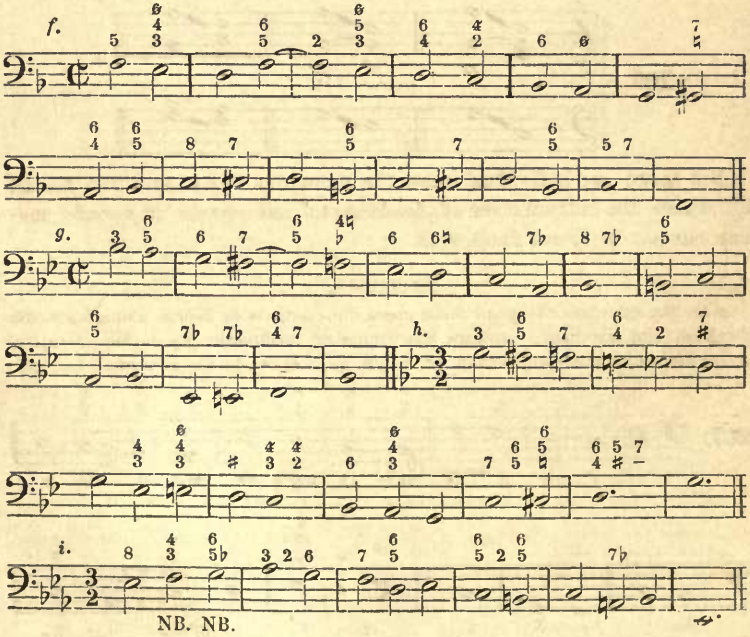
In all the exercises the pupil must mark the chords with Roman numerals under the Bass, and accurately indicate the course of modulation by means of capital letters for major and small letters for minor, as is shown in the first two exercises.

207.

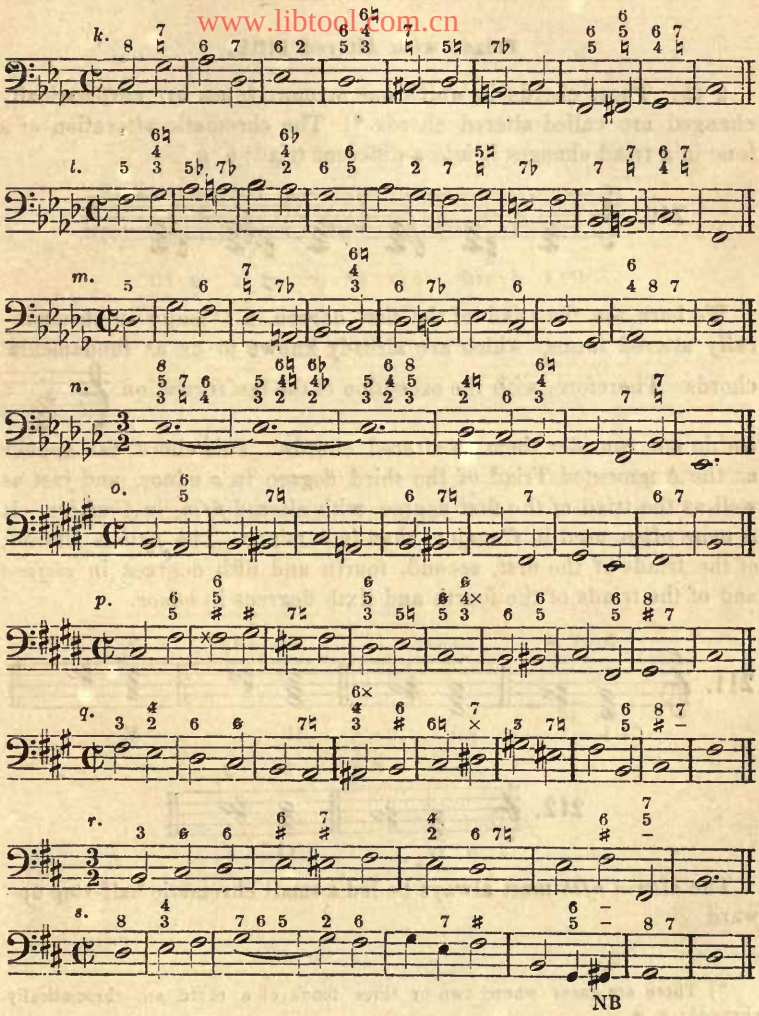




NB. The line below the 7 (7) indicates the continuation into the next chord, of the sharp (♯) marked below the 8 for the *third* of the Dominant Triad.



At NB. the *seventh* ($A\flat$) of the second chord must make a downward skip of a *fourth* to $E\flat$. This leading of the voices is good, although the *fundamental* and *seventh* of the chord of the Sixth and Fifth are introduced in parallel motion.



NB. The lines over the quarter-note $g\sharp$ indicate the continuation of the figures $\frac{6}{5}$. Hereafter we shall often mark the continuation of a figuring by lines even in changing chords; so $\begin{matrix}6 & - \\ 5 & 4 \\ 3 & 3\end{matrix}$ or $\begin{matrix}6 & - \\ 5 & 4 \\ & 3\end{matrix}$ indicates a chord of the Sixth and Fifth followed by the chord of the Fourth and Third.

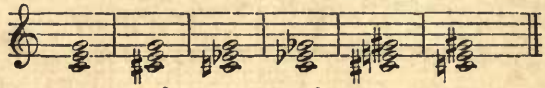
CHAPTER XIV.

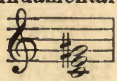
Altered Chords.

Triads with Altered Fifth.

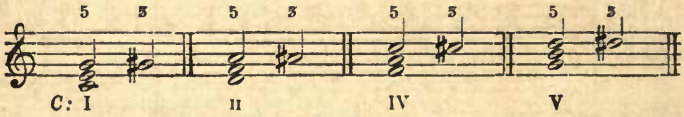
§ 48. Those chords in which one or more tones are chromatically changed are called altered chords.*) The chromatic alteration of a tone in a triad changes it into a different triad; e. g.

210.

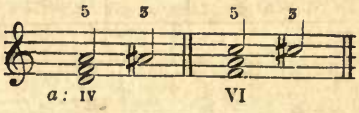


We here see the triad of the first degree in *C* major in chromatically altered forms, which are already known to us as fundamental chords. Therefore, with the exception of the last formation,  we do not consider them as altered chords. This chord can appear as the Augmented Triad of the third degree in *a* minor, and just as well as the triad of the first degree, with altered *fifth*, in *C* major. It is more often used in *C* major, than in *a* minor. The *fifth* is altered, of the triads of the first, second, fourth and fifth degrees in *major*; and of the triads of the fourth and sixth degrees in *minor*.

211.



212.



The *altered fifth* must always be led a small chromatic half-step upward.

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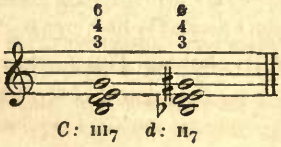
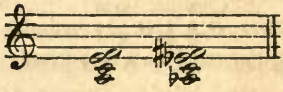
*) There are cases where two or three tones of a chord are chromatically changed; e. g.

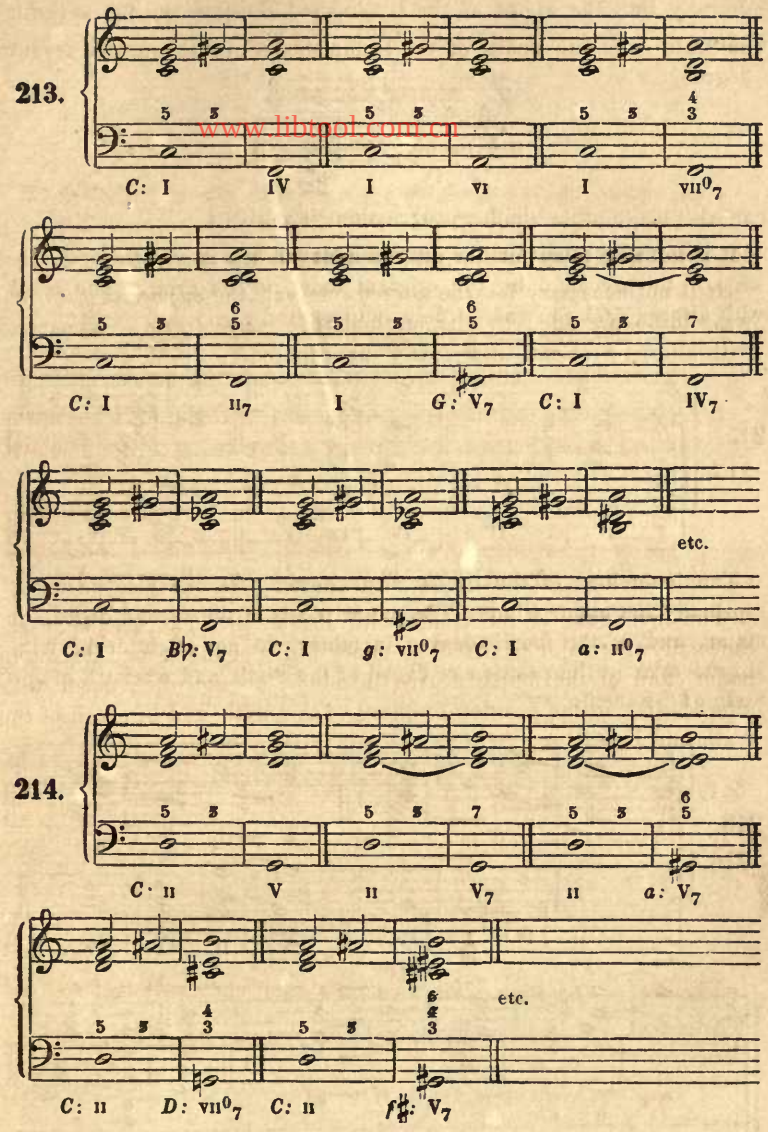
208.



209.



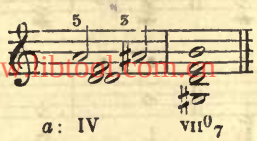
213.



214.

The major triads, with altered *fifth*, of the fourth and fifth degrees in major, and of the sixth degree in minor, can progress in a similar manner to the altered triad of the first degree, shown in Ex. 213. The altered triad of the fourth degree in minor, which progresses most

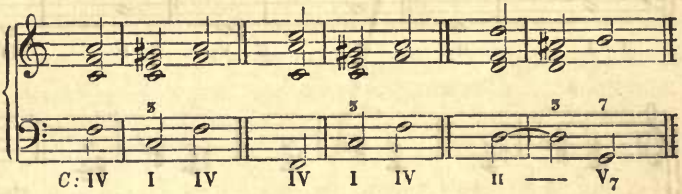
naturally into the chord of the Diminished Seventh on the seventh degree,



can also make other similar progressions, as in 214.

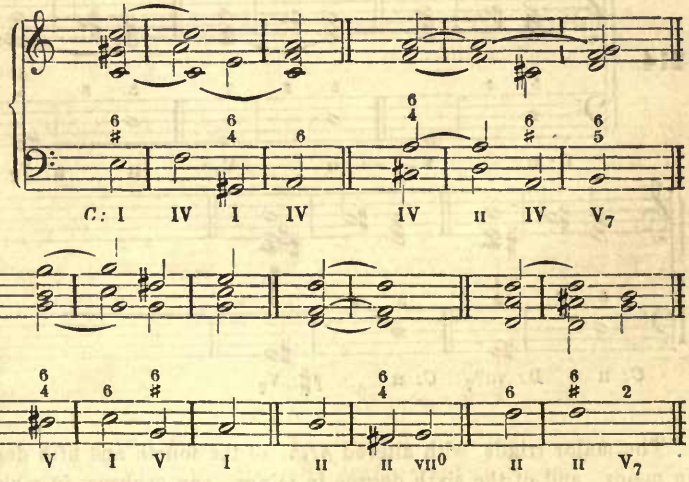
It is not necessary for the altered interval, the *augmented fifth*, always to be preceded by the original tone (*perfect fifth*). The triad with altered *fifth* can enter freely (unprepared).

215.



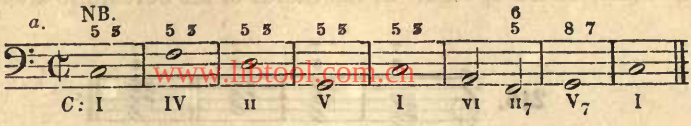
The inversions of the triads with altered *fifth* can also be used, especially the major triads. The minor triads of the second degree in major, and of the fourth degree in minor, do not often occur with altered *fifth* in the position of chord of the Sixth and of chord of the Sixth and Fourth.

216.

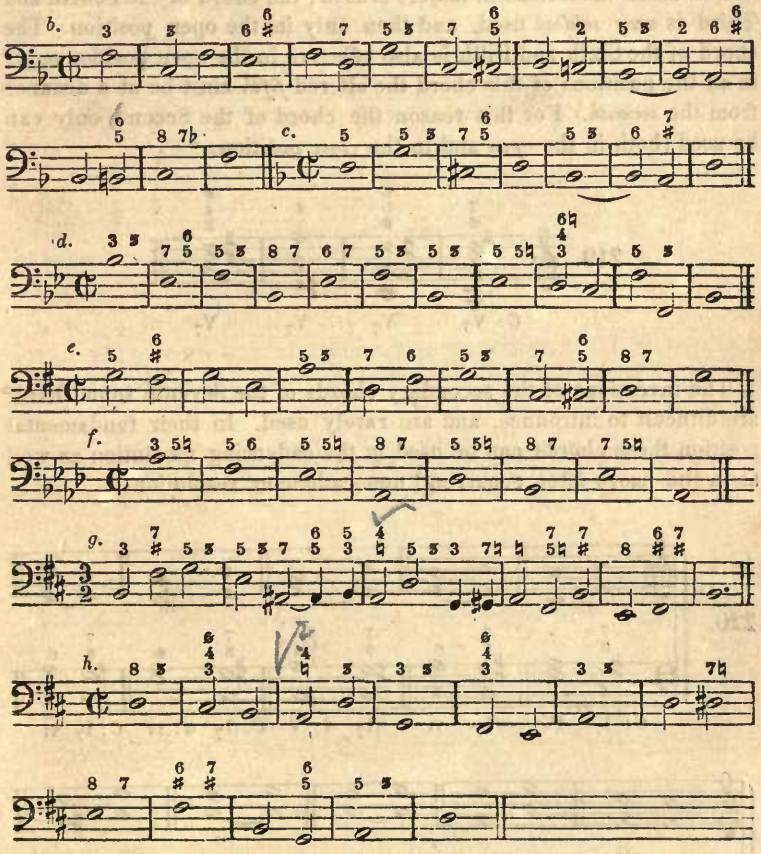


Although the chromatically raised *fifth* is foreign to the dominating key, a modulation is not created by the introduction of an *altered triad*.

Exercises.



NB. The first 5 in this measure shows the position of the Soprano and, at the same time, that of the original (perfect) *fifth* which precedes the altered *fifth*. The *unaltered* figure 5 in the succeeding bars simply indicates that the original *fifth* precedes the altered *fifth* in the same voice.

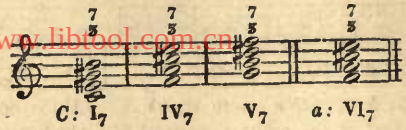


Chords of the Seventh with Altered Fifth.

§ 49. The *fifth* of the chords of the Seventh on the first, fourth and fifth degrees in major, and on the sixth degree in minor, can also be

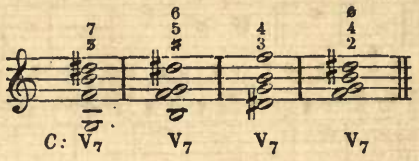
raised a half-step. The altered tone must also in these (as indeed in all cases) be led upward. Of the chords of the Seventh so altered:

218.



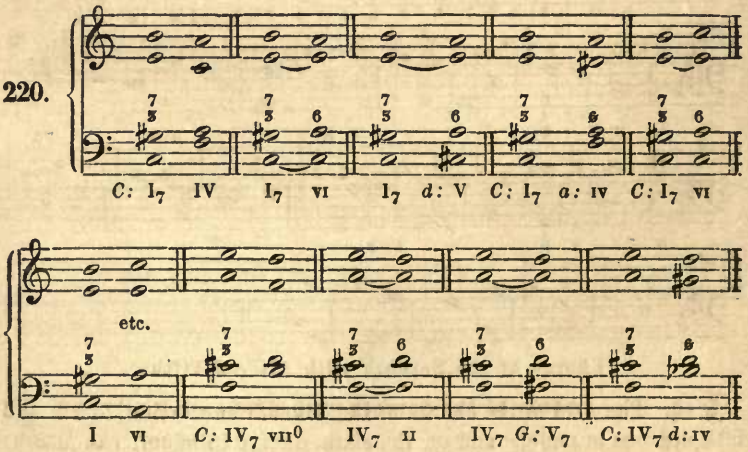
the chord of the Dominant Seventh only, in its fundamental position, and in all its inversions in major, is used; the chord of the Fourth and Third is *very seldom* used, and then only in the open position. The chord of the Sixth and Fifth is also effective in the open position only; in all the positions of this chord the altered *fifth* must be at a distance from the *seventh*. For this reason the chord of the Second only can be used, both in the *open* and in the *close* position.

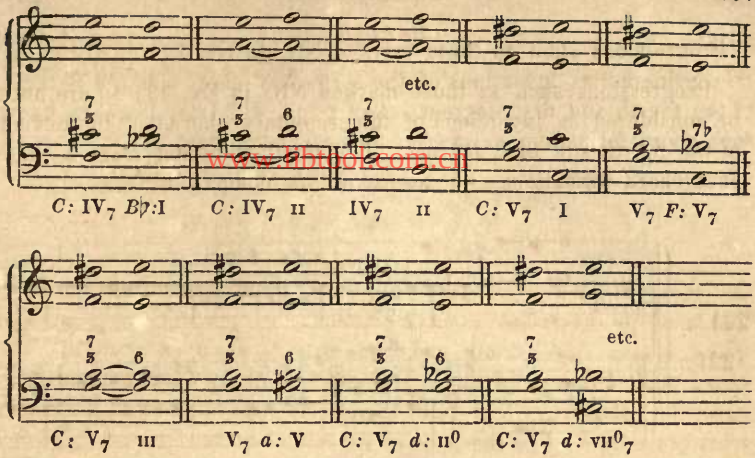
219.



The inversions of the secondary chords of the Seventh sound hard, are difficult to introduce, and are rarely used. In their fundamental position these chords can be used in the cadencing resolution as well as in the (more often occurring) non-cadencing resolution.

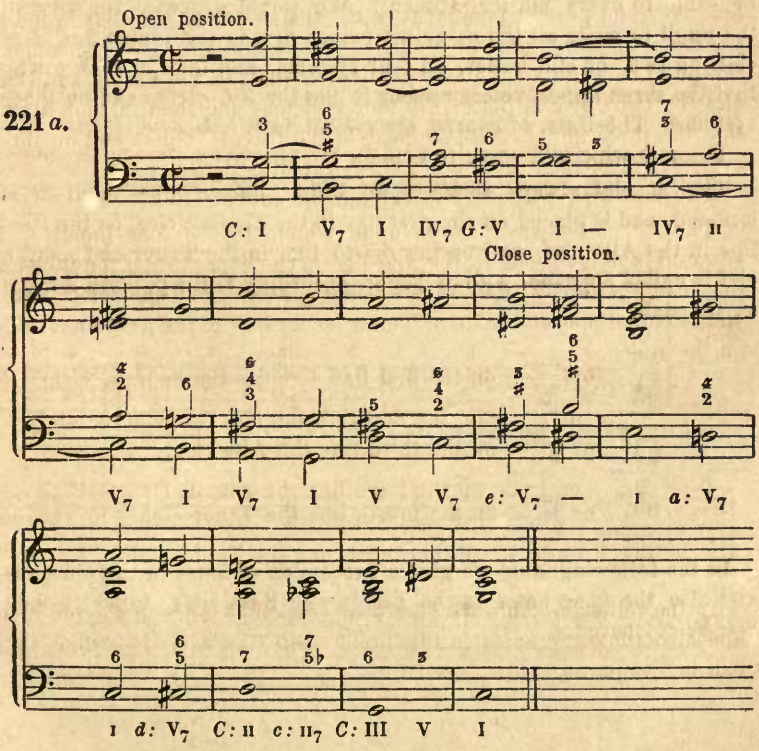
220.





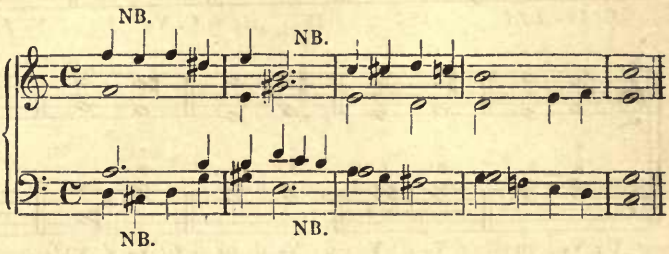
In many cases the use of these chords will make the *open* or *dispersed* position necessary (compare § 17). The pupil need, by no means, retain the open or the close position throughout one and the same exercise. He can, according as the leading of the voices demands it, change from one position to another, as in the following example, which begins in the open and ends in the close position.

221 *a*.



Progressions such as those marked NB. in Ex. 221 *b*, are not to be considered as inversions of the secondary chords of the Seventh of the fourth and first degrees. The pupil will later learn to know such chord-formations as *accidental chords* (compare § 57).

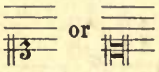
221 *b*.

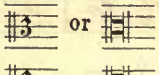


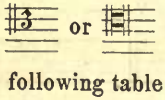
The use of a score of four systems (staves) with four different clefs will afford a better view of the voice-progression, and will be better suited to our purpose in the working of the following examples in the open position, than the method of writing heretofore nsed. The knowledge of, and perfect familiarity with, the so-called old clefs is indispensable to every musical student. We would urgently recommend the pupil to write all the exercises twice: first in the Treble and Bass clefs on two, or still better, on four systems, and then in such a way that the three upper voices appear in the three *C* clefs, and on three systems. The Bass, of course, always retains the Bass clef.

The following will serve to explain the above:

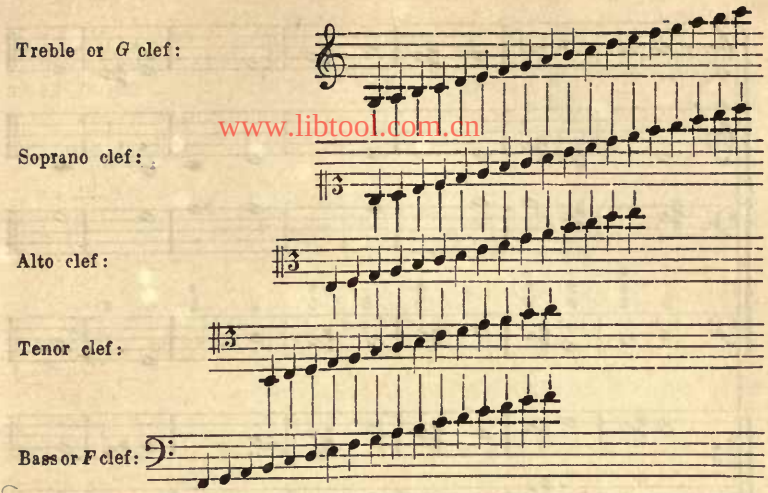
The *C* clef always shows upon which line $\overline{c}$ (one-lined) *C* is situated, and is placed on the *first* line in the *Soprano* clef, on the *third* line in the Alto clef, and on the *fourth* line in the Tenor clef; and a clef is called Soprano, Alto or Tenor, according to the position it takes on the staff.

 or on the first line signifies the Soprano clef;

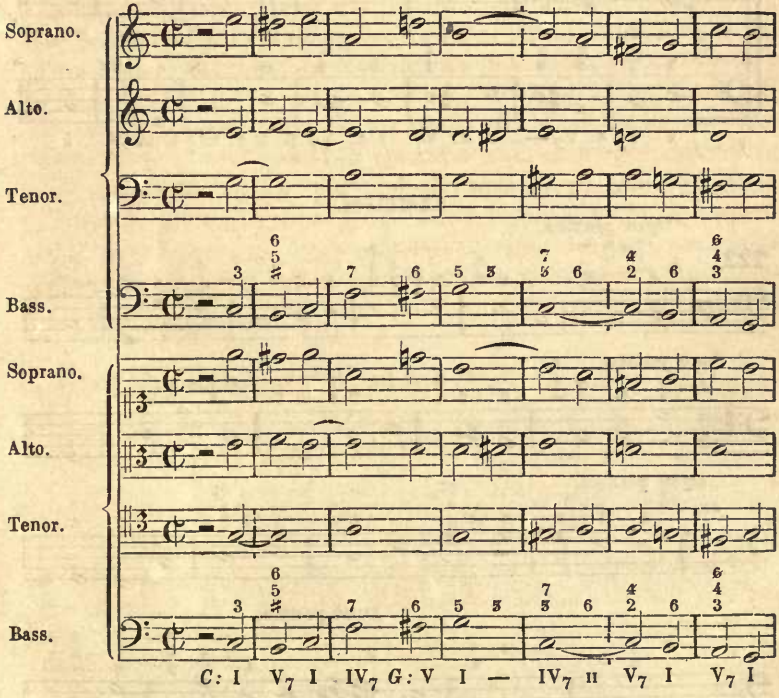
 or on the third line the Alto clef;

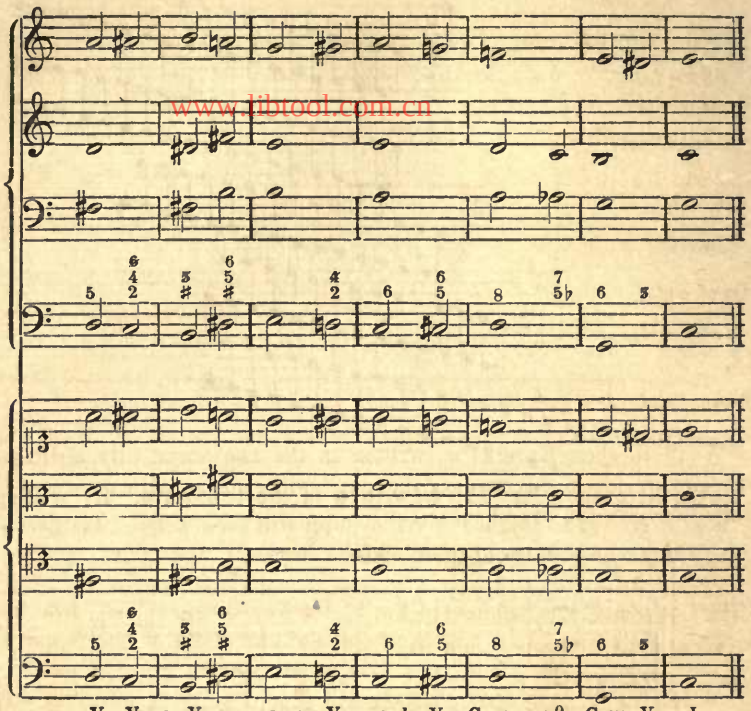
 or on the fourth line the Tenor clef.

In the following table we give a succession of tones in the old clefs and also the same notes in the Treble and Bass clefs, to which they can be compared.

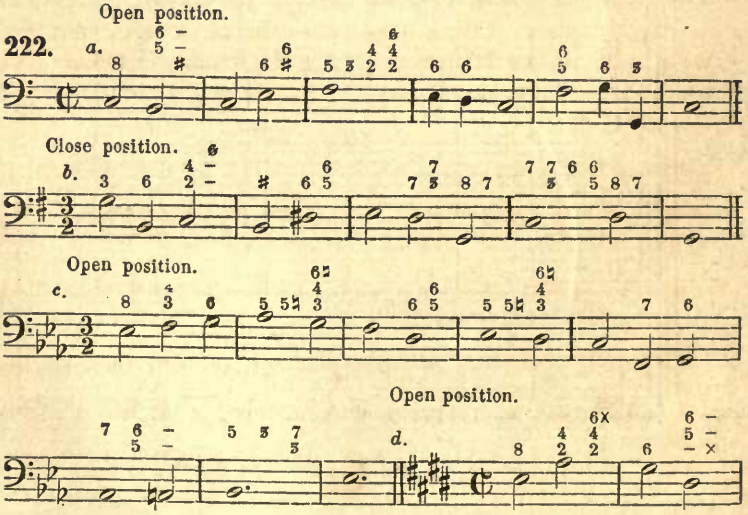


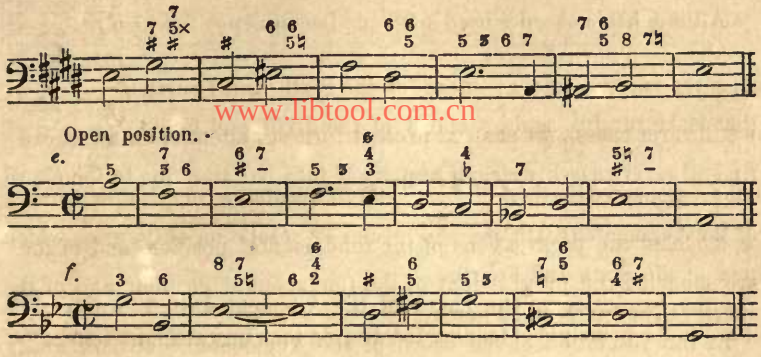
We here show Ex. 221 *a.* written in the two ways. By writing these exercises in this manner the pupil will soon acquire the necessary surety in the use of these clefs.





Exercises.



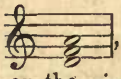
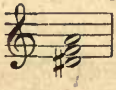
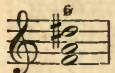


The last exercise may take the close position in the first bar, but must change to the open position in the second bar.

CHAPTER XV.

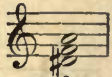
The Chords of the Augmented Sixth, the Fourth and Third, and the Sixth, Fifth and Third, and their Resolutions in Major and Minor.

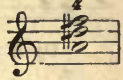
§ 50. So far, the *fifth* of triads and of chords of the Seventh was chromatically raised, and altered chords were obtained by this proceeding. But the *fundamental* of a certain triad or of a chord of the Seventh, and the *third* of a certain chord of the Seventh can also be chromatically raised. The *fundamental* is altered in that *minor* triad which is found in two different major keys on the second and the sixth degrees, and, in the parallel minor of these major keys, on the fourth and the first degrees.

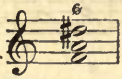
Taking the triad  , which is found in *C* major on the *second* degree, in *F* major on the *sixth*, in *a* minor on the *fourth*, and in *d* minor on the *first*, and raising its fundamental *D* to *D*♯, then placing this chord  in the position of Chord of the Sixth  , we obtain the frequently used triad with chromatically raised fundamental, and in the position of chord of the Sixth, generally known as

the Chord of the Augmented Sixth.

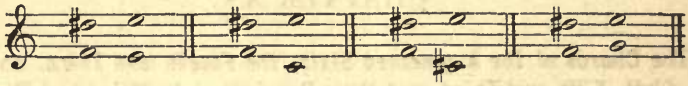
Italian 6th

Although this chord is used in the fundamental position also 

(but more rarely), and as chord of the Sixth and Fourth 

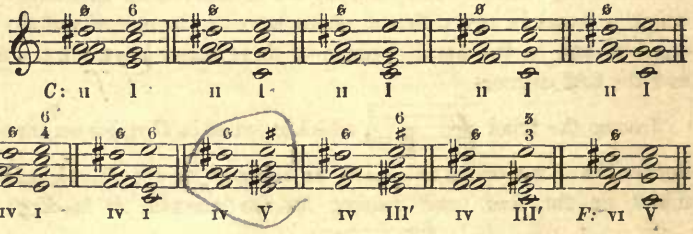
(in still rarer cases), we shall at present turn our attention to the chord of the Augmented Sixth  and its resolution only, after which are modeled the progressions of the fundamental position and of the chord of the Sixth and Fourth.

In the resolution of the chord of the Augmented Sixth we firmly adhere to the principle of leading the altered tone upward a half-step.*) By letting the *fundamental* move downward a *fourth*, the dissonance of the *augmented sixth* is led either into the perfect consonance of the perfect *octave*, or into the imperfect consonance of the major or minor *tenth*; but the *fundamental*, in certain cases, may also be led a step upward into the imperfect consonance of the major *sixth*.

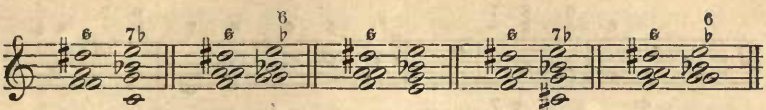
223. 

Since the progression of the *augmented sixth* is always a half-step upward, this tone, in four-voiced writing, can *never* be doubled.

The *third* of this chord and, in many cases, also the *fundamental*, is best adapted to doubling. The following are resolutions, as they occur in the different keys, according as the chord appears in *C* major, *a* minor, *d* minor or *F* major.

224. 

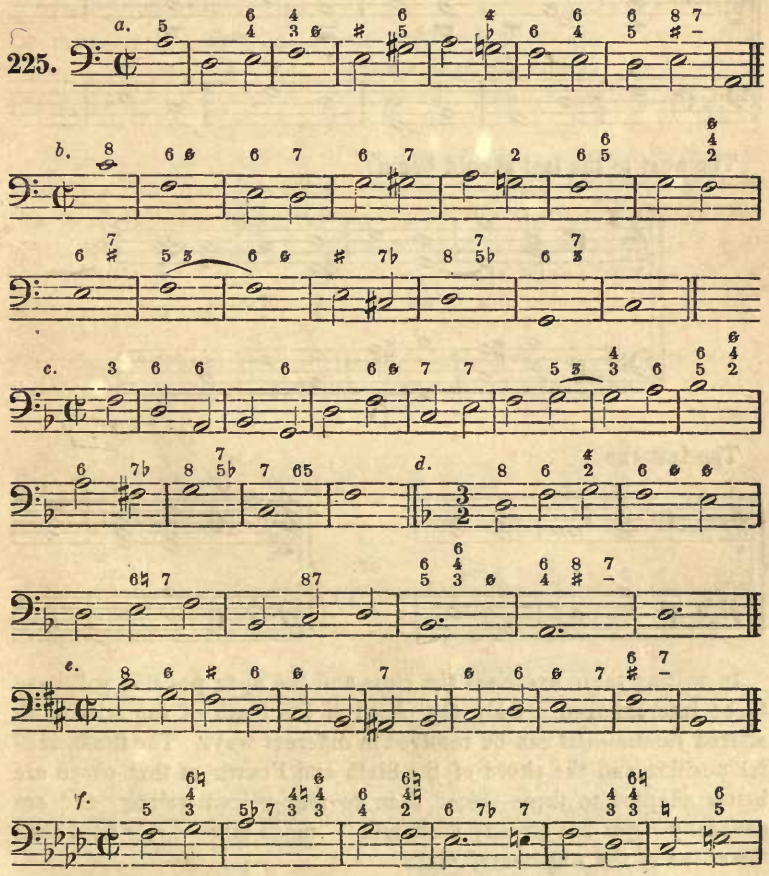
*) For this reason a third with altered *fundamental*, formed from the triad  of the third degree in $B\flat$ major could be used neither in the fundamental position, nor as chord of the Augmented Sixth. The key of $B\flat$ major has no $E\sharp$; therefore the upward progression of the altered tone $D\sharp$ to E and the resolution of the chord of the Augmented Sixth  into a chord belonging to the key of $B\flat$ major is impossible.

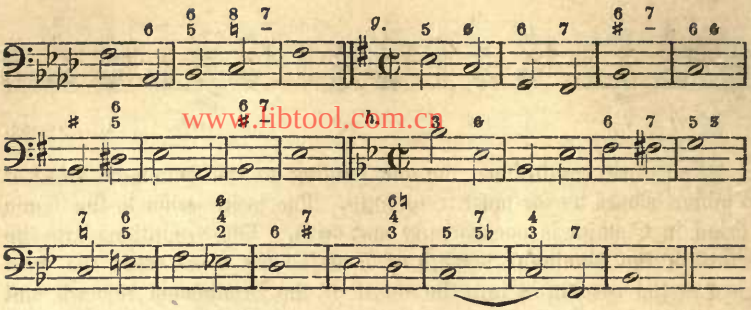


VI V_7 VI VII^0 d: I II^0 I $VII^0{}_7$ I II^0 etc.

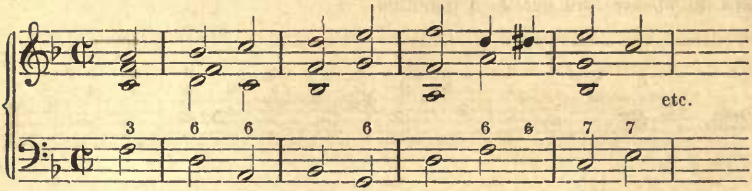
Of all these resolutions, the one leading to the Dominant Triad of *a* minor occurs by far most frequently. The progression to the Tonic Triad in *C* major is occasionally met with. The resolutions into the chord of the Dominant Seventh of *F* major are more rare; the most rare is the resolution into the chord of the Diminished Seventh and the triad of the second degree in *d* minor. But all these resolutions are *authorized* and occur in practice.

225.

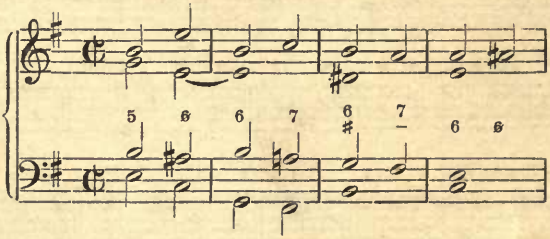




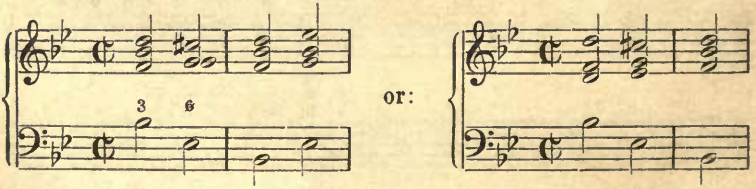
It will be best to begin the third of the above exercises:



The next to the last should begin:



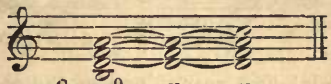
The last one:



In writing these exercises the close and the open position will have to be interchanged. Only the chord of the Sixth of the triad with altered *fundamental* can be resolved in different ways. The fundamental position and the chord of the Sixth and Fourth of that chord are better adapted to three-voiced than to four-voiced writing, and are generally — as has already been said — much more rarely used than the chord of the Augmented Sixth.

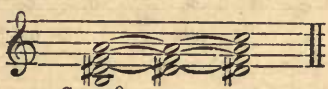
§ 51. By adding to the triad of the second degree in major, or to that of the fourth degree in minor, a *third* below the *fundamental*, or above the *fifth*, two chords of the Seventh are obtained (comp. § 35), viz. those on the seventh and second degrees in major, or on the second and fourth degrees in minor.

226.

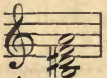
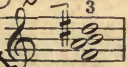
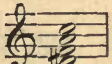
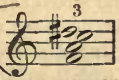


By raising the fundamental tone (*D*), in the triad common to both chords of the Seventh, by a half-step, there is obtained a chord of the Seventh with altered *third*, and one with altered *fundamental*.

227.

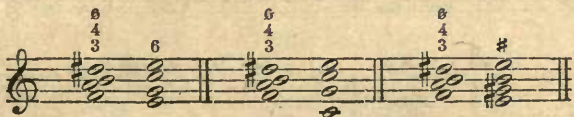


These two altered chords of the Seventh may be used in the two keys to which they belong in common, in the fundamental position and in all the inversions; however in the first of the chords of the Seventh presented under 227, the position of chord of the Sixth, Fourth and Third, and in the second one that of the Sixth, Fifth and Third is in most frequent use.

Thus, from the chord:  is formed the *chord of the Augmented Sixth*, *Fourth and Third*:  and from the chord:  the *chord of the Augmented Sixth, Fifth and Third*:  . The latter chord is also called briefly the *chord of the Augmented Sixth and Fifth*.

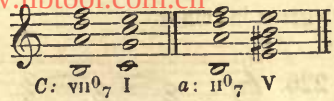
The resolution of the chord of the Augmented Sixth, Fourth and Third takes place in major into the Tonic Triad, in minor into the Dominant Triad.

228.



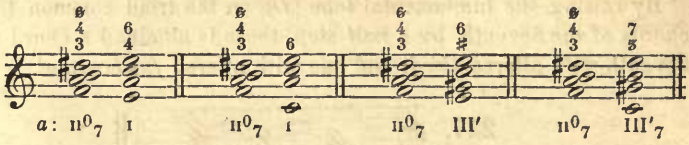
The resolutions are founded upon the resolutions of the natural (unaltered) chords of the Seventh on the seventh degree in major, and the second degree in minor (see § 39 and § 42).

229.



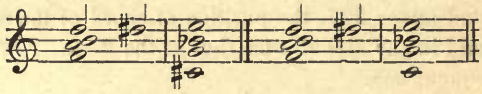
Other non-modulating resolutions of the chord of the Augmented Sixth, Fourth and Third are possible in minor, e. g.

230.



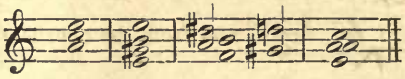
The chord of the Augmented Sixth, Fourth and Third, both in major and minor, can make various other, *modulatory* resolutions; but the principle of leading the altered tone upward — especially when it is preceded by the natural tone — must be strictly adhered to.

231.

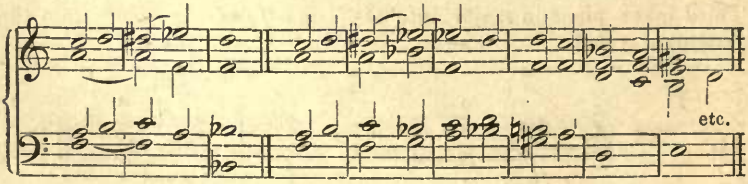


Note. A resolution of an altered chord of the Sixth, chord of the Sixth, Fourth and Third, or chord of the Sixth and Fifth in a way so as to lead the altered tone downward, can perhaps take place when the altered tone is not preceded by the original tone; e. g.

232.

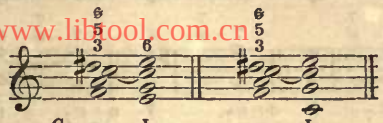


But the unnatural and forced character of such a chord-connection never produces an agreeable effect. The pupil can see from such forced progressions, to how great an extent the principle of always leading the altered tone *upward*, is correct and natural. Only when the altered tone is enharmonically changed, can it be led downward or be retained, but then it ceases to be an altered tone; e. g.



The resolution of the chord of the Augmented Sixth, Fifth and Third follows in major, like that of the chord of the Augmented Sixth, Fourth and Third, into the Tonic Triad:

233.

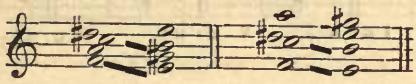


C: II7 I II7 I

A direct resolution of this chord in minor into the Dominant Triad cannot take place. But since the Dominant Triad is the chord into which the chord of Augmented Sixth and Fifth would most naturally resolve, different ways are taken in order to avoid *parallel fifths*, which would result in a direct resolution.

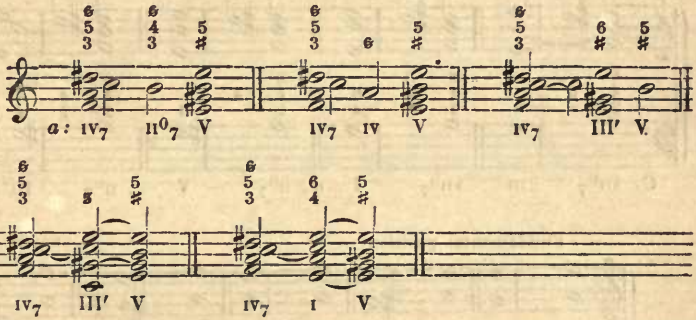
Direct, faulty resolution.

234.



Indirect resolutions.

235.

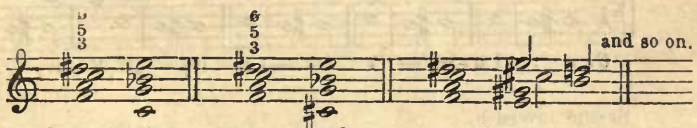


a: IV7 II07 V IV7 IV V IV7 III′ V

IV7 III′ V IV7 I V

Other resolutions of this chord are possible in major and minor, when it modulates:

236.



and so on.

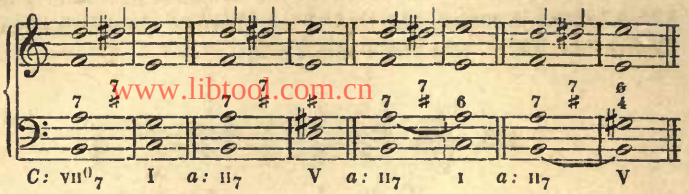
C: II7 F: V7 C: II7 d: VII07 C: II7 A: III V7

a: IV7 a: IV7 d: VII07 a: IV7

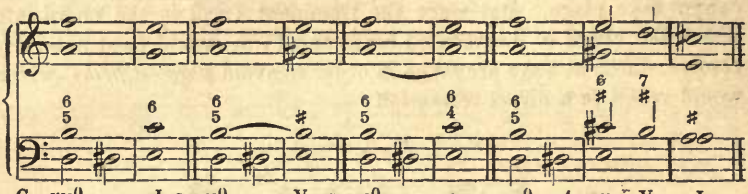
It has already been said that the fundamental position and other inversions of the chord of the Augmented Sixth, Fourth and Third, and of the chord of the Sixth and Fifth, also occur in practice. The resolutions remain the same as in the chord of the Augmented Sixth Fourth and Third, and in the chord of the Sixth and Fifth. Here follow some of these resolutions:

Fundamental position.

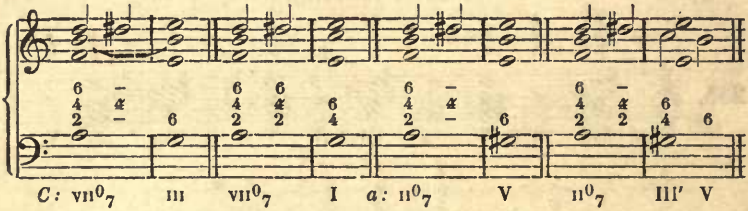
237.



First inversion.

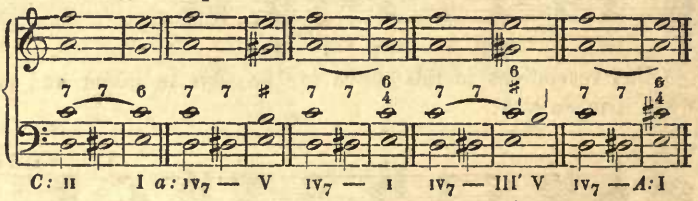


Third inversion.

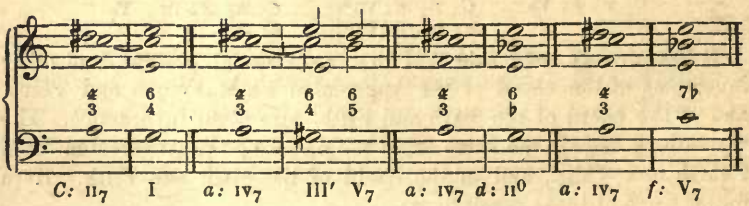


Fundamental position.

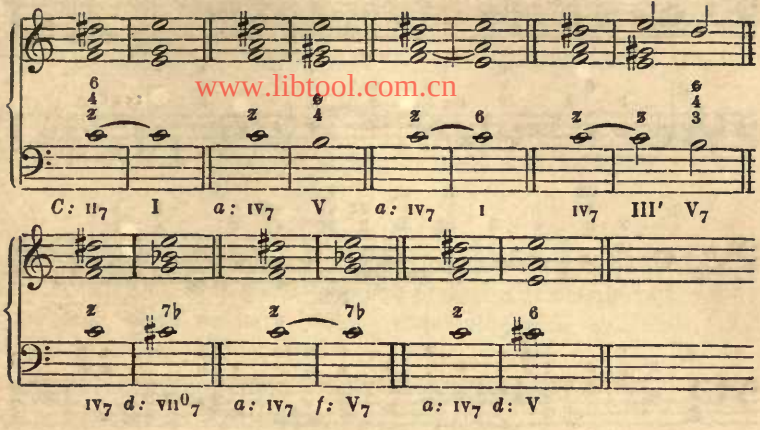
238.



Second inversion.



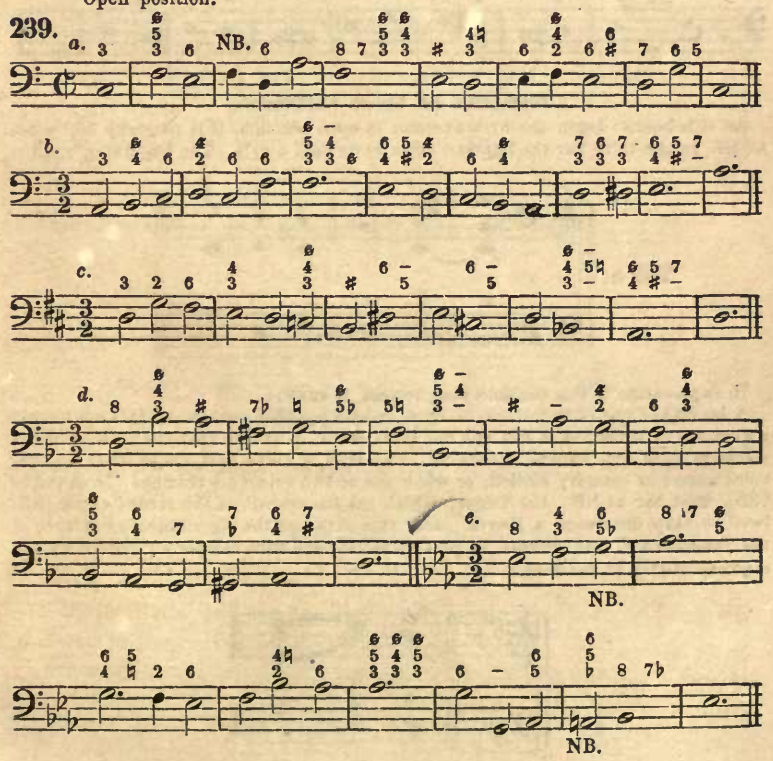
Third inversion.

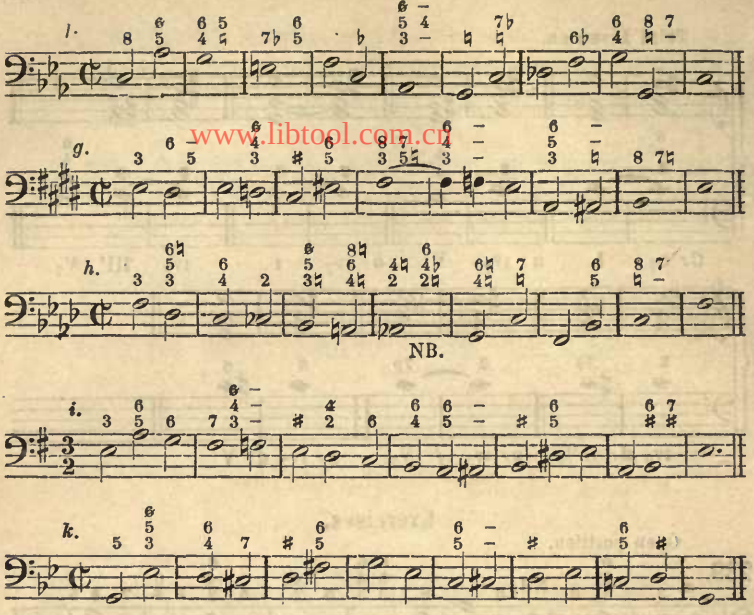


Exercises.

Open position.

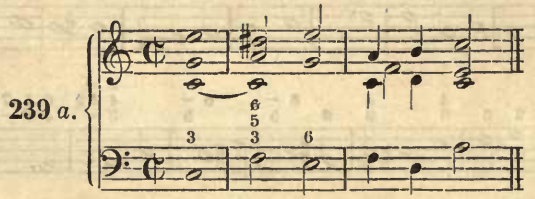
239.





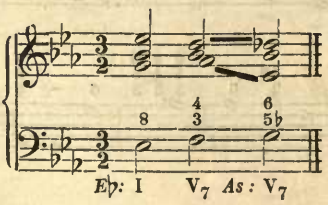
Remarks on these exercises.

As it is best to begin the first exercise in *open* position, it is specially indicated. At NB. in the third bar the Soprano skips downward a *fifth*. The beginning will be:

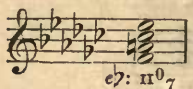


In explanation of this the following remark is added:

A leading of one or two voices in skips is also possible even when it is not merely a question of inversion of one and the same chord, provided that the leading of the voices is good and natural otherwise. The skip is made best either when another voice enters in contrary motion, or when one or two voices are retained. In example 239*e*. first bar at NB., the Tenor, which has the *seventh* of the second chord, will have to skip downward a *fourth*. Both this skip and the simultaneous entrance of the *fundamental* and *seventh* in parallel motion are here completely bidden by the contrary motion of the Bass.

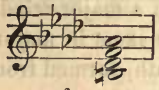


The chord of the Sixth and Fifth at NB. in the last bar but one is derived from the chord of the Seventh (with altered *third*) on the second degree in $e\flat$ minor



. The chord of the Second on $A\flat$ at NB. in Example *h*. is derived

from the chord of the Seventh on the fourth degree (with chromatically raised *fundamental*) in *f* minor:



. (See examples 237 and 238.)

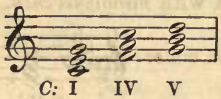
At the close of this chapter which, at the same time, is the close of the first division of this text-book, we present a summary table of all the chords which we have become acquainted with, and have been taught to employ. They are:

I. Fundamental Chords.

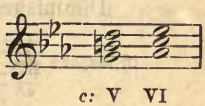
A. Triads in Major and Minor.

a. Major triads.

in major:

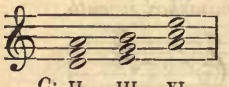


in minor:

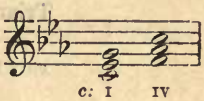


b. Minor triads.

in major:

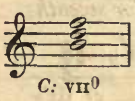


in minor:

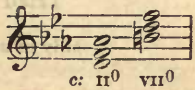


c. Diminished triads.

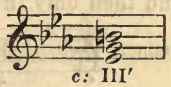
in major:



in minor:

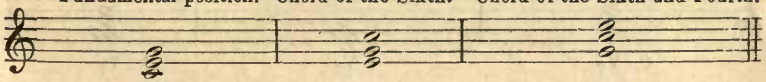


d. The augmented triad in minor.



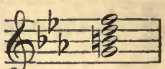
All these triads may appear in the inversions, as chord of the Sixth and chord of the Sixth and Fourth.

Fundamental position. Chord of the Sixth. Chord of the Sixth and Fourth.



B. Chords of the Seventh.

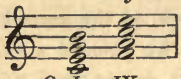
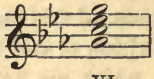
a. Chord of the Dominant Seventh.

in major:  in minor: 

C: V_7 c: V_7

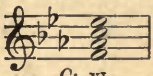
This chord is always formed from a major triad with *minor seventh*, found on the fifth degree, and is the same in major and minor.

b. Secondary chords of the Seventh, formed from a major triad with *major seventh.*

in major:  in minor: 

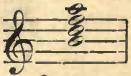
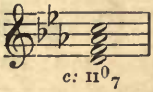
C: I_7 IV_7 c: VI_7

c. Secondary chords of the Seventh, formed from a minor triad with *minor seventh.*

in major:  in minor: 

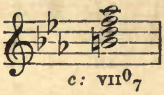
C: II_7 III_7 VI_7 C: VI_7

d. Secondary chords of the Seventh formed from the chord of the Diminished Seventh with *minor seventh.*

in major:  in minor. 

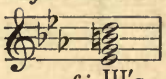
C: VII_7 c: $II^0{}_7$

e. Chord of the Diminished Seventh, formed from the Diminished Triad with *diminished seventh.*

only in minor: 

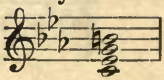
c: $VII^0{}_7$

f. Secondary chord of the Seventh, formed from the Augmented Triad with *major seventh.*

only in minor: 

c: III'_7

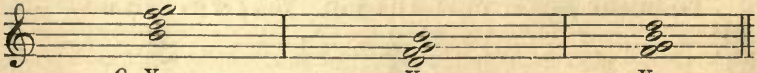
g. Secondary chord of the Seventh, formed from a minor triad with *major seventh* (raely used, and then only in the fundamental position).

only in minor: 

c: I_7

The Inversions of the Chords of the Seventh.

Chord of the Sixth and Fifth. Chord of the Third and Fourth. Chord of the Second.

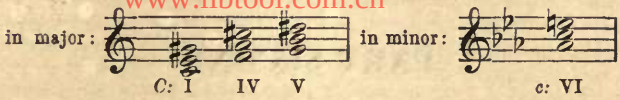


C: V_7 V_7 V_7

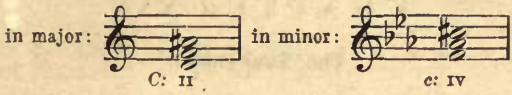
II. Altered Chords.

A. Triads with Altered (chromatically raised) Fifth.

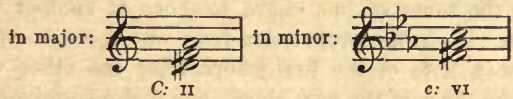
a. Major triads.



b. Minor triad.

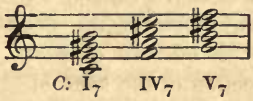


Triad with Altered Fundamental.

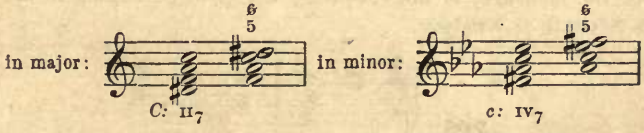


Especially used in the position of chord of the Sixth.

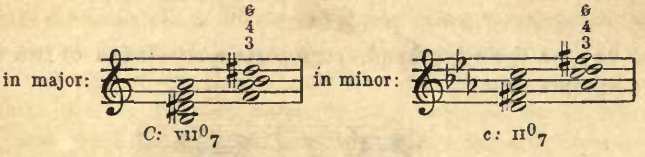
B. Chords of the Seventh with Altered (chromatically raised) Fifth.



Secondary Chord of the Seventh with Altered Fundamental, most frequent in use as chord of the Sixth and Fifth.



Chord of the Seventh with Altered Third, most frequent in use as chord of the Sixth, Fourth and Third.



PART SECOND.

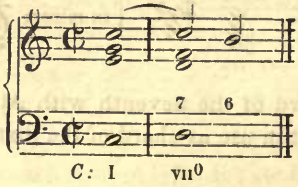
CHAPTER XVI.

The Suspension.

§ 52. In the chord-connections so far shown, the movement of the voices from the tones of one chord to those of another was always simultaneous. If, in the progression from one chord to another, one voice retains a note of the first chord after the other voices have moved into the tones of the new chord, and if the sustained voice then moves into the interval belonging to the new chord, there arises, through this delay, a *Suspension*.

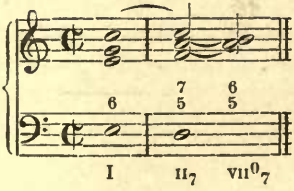
The characteristic of a suspension consists in its forming a *dissonance* to a chord, which cannot properly be called a *dissonant chord*, nor which represents any form of the dissonant dependent chords known to us, with *all of its intervals complete*. We must therefore regard the following connection of the triad of the first degree with that of the seventh degree as being delayed by a suspension, because the form of the chord of the Seventh of the second degree, (on the accented part of the measure) is not *complete*; the *fifth* belonging to the chord of the Seventh is wanting.

240.



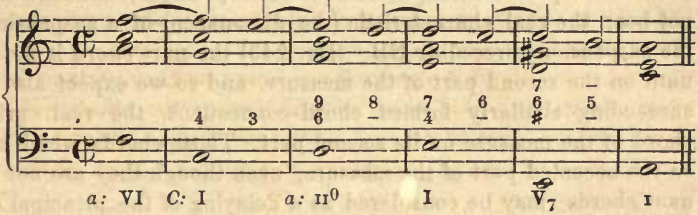
Ex. 241, on the other hand, represents a succession of two chords of the Seventh.

241.



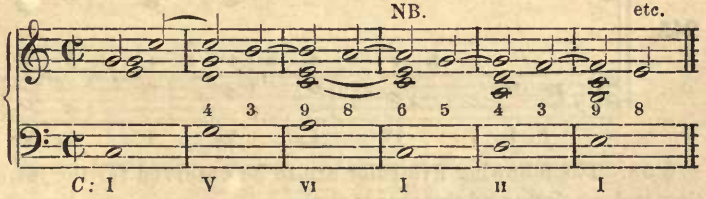
NOTE. Suppose the *D F C*, in the second measure of Ex. 240, were explained as a chord of the Seventh on the second degree with omitted *fifth*, still the point in question would remain the same. *Sevenths*, like suspended notes, are dissonant intervals. They both partake of the same nature. Both must be prepared; both must be resolved. The essential conditions of the suspension are fulfilled in example 240, and, *in order not to confuse the pupil*, we must show him the *suspension* to be a form of chord which does not correspond to any form of chord so far known to him, *complete* in all its intervals. By many years of experience in teaching we have learned not to explain at length in the beginning, what is of little consequence in later practice, viz. the *similarity in sound* between *augmented and altered chords*, between *incomplete chords of the Seventh* and *suspensions*; but rather teach the pupil all these things separately, for riper knowledge will give him the insight necessary to distinguish between such formations. In the treatise on the means for modulation we shall recur to it.

242.



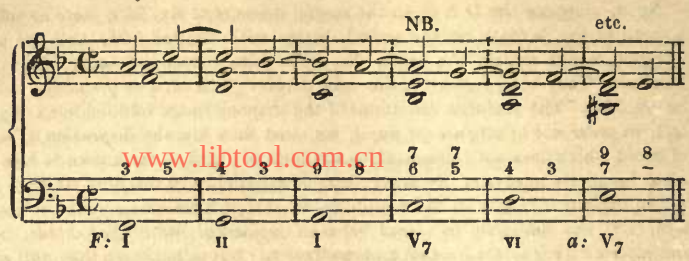
Ex. 242 shows us a number of suspensions which dissonate sharply against the chords which enter upon the second part of the measure. Cases may occur in which the connection of two independent chords takes the character of a suspension, though, of course it cannot be called a dissonance. This generally occurs when one of those chord-connections is formed in a sequence of suspensions; e. g.

243.



The Soprano at NB. is considered a suspension, although the chord on the accented part of this measure could be called the chord of the Sixth of the triad of the sixth degree in *C* Major, and the Soprano by no means forms a dissonance to the other voices. By its situation among other real and unmistakable suspensions the chord-connection in the fourth measure receives the character of a suspension, and accomplishes in this position an effect similar to a real, dissonant suspension; e. g.

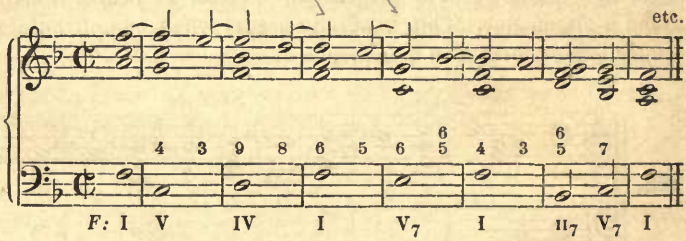
244.



It is easy to see the reason why certain non-dissonant chord-connections take the character of a suspension, and are considered as such, when placed among a number of suspensions, although they do not bear the real characteristic (the dissonance) of a suspension. In the suspensions preceding NB. (Ex. 243) the pure chord is not heard until on the second part of the measure, and so we expect also in the succeeding similarly formed chord-connections, the real, principal chord of the measure on its second part. Those chords which appear on the accented part of the measure, even though they are not dissonant chords, may be considered as a delaying of the principal chord, which we expect on the second part of the measure, in conformity with the preceding bars which contain such suspensions.

Ex. 245 contains two such chord-connections in close succession (bars 4 and 5).

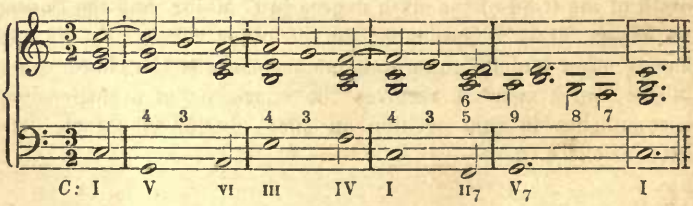
245.



§ 53. The following five rules are to be observed for the introduction and resolution of the suspension.

1. The suspension most often occurs upon the *accented* (first *part of the measure*, whether in two-, or three-divisioned time.

246.



2. The suspension must be *prepared* in the same voice in which it is *introduced*.
3. The tone of resolution, that is that interval of a chord the entrance of which is delayed by the suspension, cannot be taken by any voice except the Bass. If the *suspension* is in the *Bass*, no other voice can take the tone of resolution.
4. The suspension must resolve in a downward direction, upon the *unaccented* (second or third) part of the measure.
5. The suspension does not mitigate *parallel octaves* that are merely delayed by it.

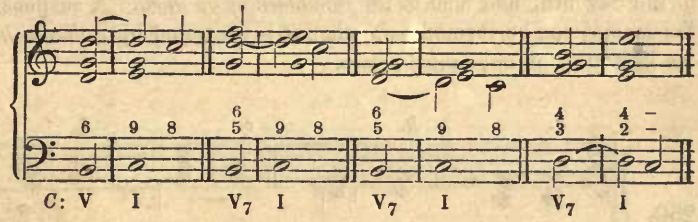
NOTE. The few cases in which the suspension can resolve upward will be discussed later.

The preparation (as has already been said in treating of the *seventh*) must generally enter upon the unaccented (second) part of the measure, and must be at least as long as the suspension.

The suspension can appear, in any voice before the *third* or the *octave* (the doubling of the *fundamental*) of the triad.

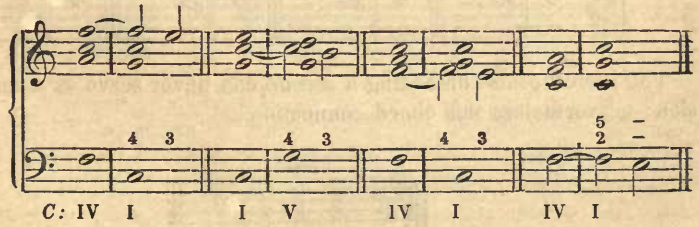
Suspension of the *octave* of the *fundamental*.

247.

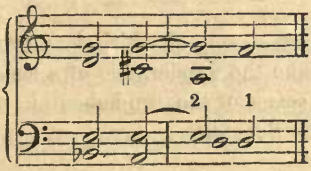


Suspension of the *third*.

248.

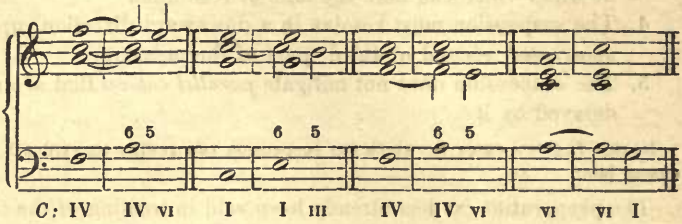


NOTE. Occasionally a suspension of the *prime* by the *second* (2 1) is found between the Tenor and Bass. This is easily explained by the fact that the bass-voice is often not deep enough to form the real suspension 9 8.



A real suspension of the *fifth* of a Triad cannot be formed. Chord-formations such as follow in 249, can take the character of a suspension when they are among a number of suspensions (as shown in examples 243 and 245); but when alone, they do not have the effect of a suspension.

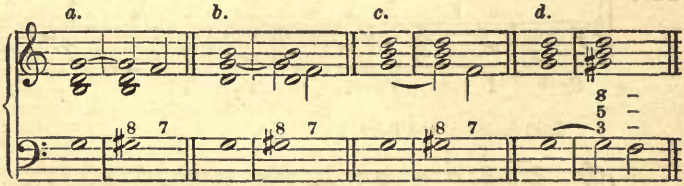
249.



All these chord-connections, which — as shown by the numerals under them — prove themselves to be complete chords with all their intervals, lack the essential character of a suspension, viz. *dissonance*.

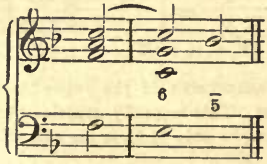
There can, however, be formed a suspension of the *fifth* of a chord of the Seventh, and also of its *fundamental* or *third*. A suspension of the *seventh* can be formed *only* when it is preceded by a *diminished*, or (as in 250 *d*) an *augmented octave*.

250.



The *perfect octave* preceding a *seventh* can never serve as a suspension; nevertheless this chord-connection:

251.

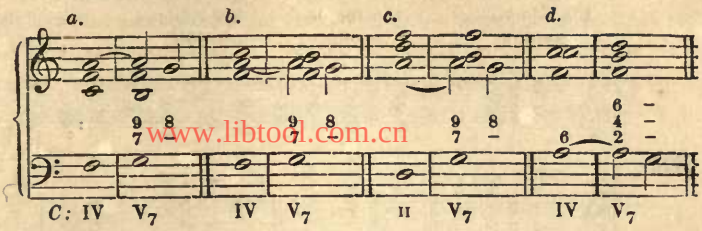


in rare exceptional cases — one of which is shown in Ex. 245 bar 5 — may occasionally take the appearance of a suspension.

Suspensions of the *octave* of the fundamental, and of the *third* and *fifth* of the chord of the Seventh.

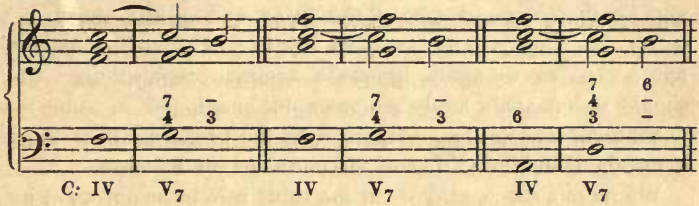
Suspension of the *octave*.

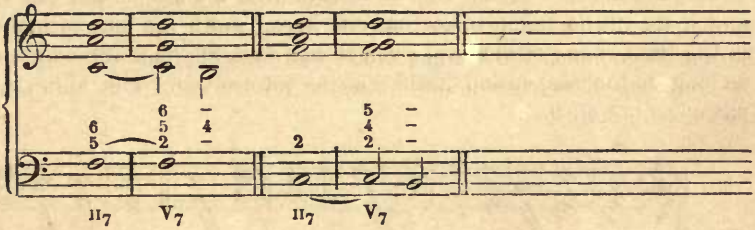
252.



Suspension of the *third*.

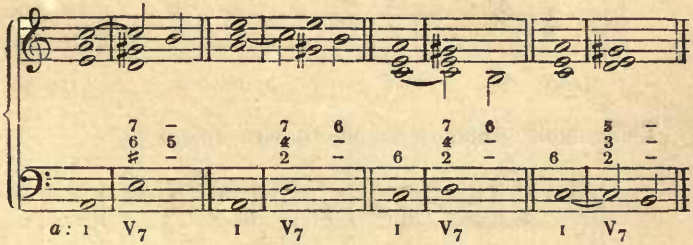
253.





Suspension of the *fifth*.

254.



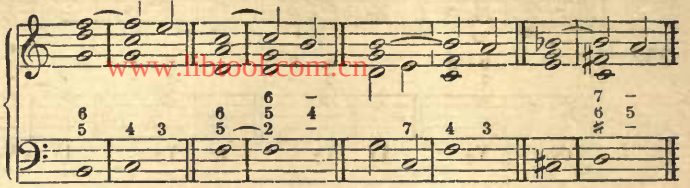
All these suspensions can also be used in connection with *Secondary Chords* of the *Seventh*.

Any interval of a Triad or chord of the Seventh can be used as the preparation of a suspension. But the *Diminished Seventh* is *least*, and the *seventh* of the chord of the *Dominant Seventh* is *best* adapted thereto. In general, *minor sevenths* are much better adapted for preparing a suspension, than are *major sevenths*.

Preparation by

the *dominant* seventh, the *minor* seventh, the *major* seventh, the *diminished* seventh.

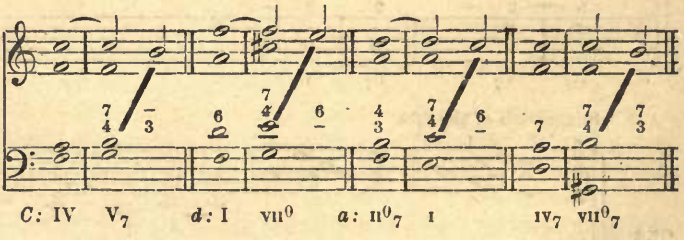
255.



Preparations of the suspension by the *octave* of the fundamental, and by the *third* and *fifth* of the Triad and of the chord of the Seventh, are contained in examples 242 to 254 inclusive. It is therefore not necessary to again illustrate similar preparations. The pupil should rather again study the examples mentioned, in order to clearly understand and become familiar with the preparation of the different intervals of the Triad and of the chord of the Seventh.

We have already said — in the third rule to be observed in the use of suspensions — that the tone of resolution of the suspension can be anticipated in no other voice than the Bass, and if the suspension is in the Bass, none of the upper voices can have the tone of resolution as long as the suspension itself remains unresolved. The following examples are all bad.

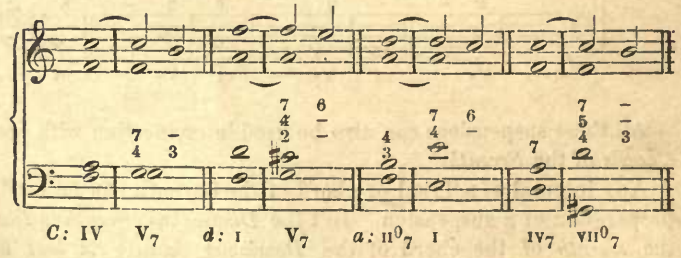
256.



C: IV V_7 *d:* I VII^0 *a:* $II^0{}_7$ I IV_7 $VII^0{}_7$

These faulty examples are shown corrected in 257.

257*a*.



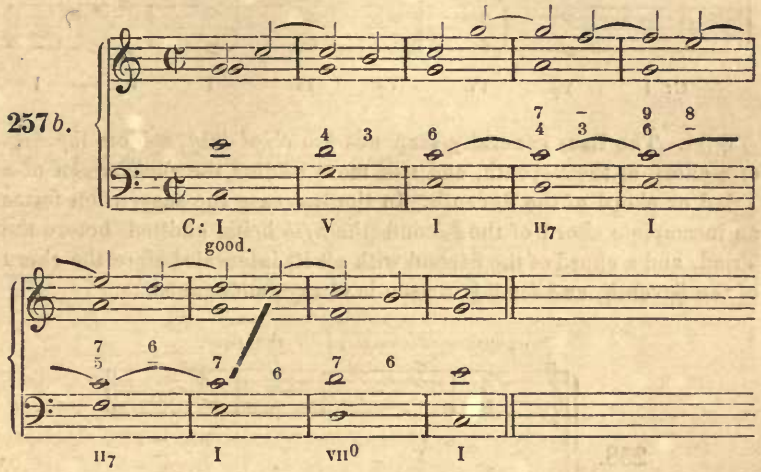
C: IV V_7 *d:* I V_7 *a:* $II^0{}_7$ I IV_7 $VII^0{}_7$

A middle voice can take the tone of resolution of a suspension in *one exceptional case* only; namely, in a *sequence* of suspensions, when

the tone of resolution is the fundamental of the Tonic Triad (occasionally also of one of the other primary triads of the key). But this fundamental must

1. be prepared in the same middle voice, and
2. lie at a distance from the suspension.

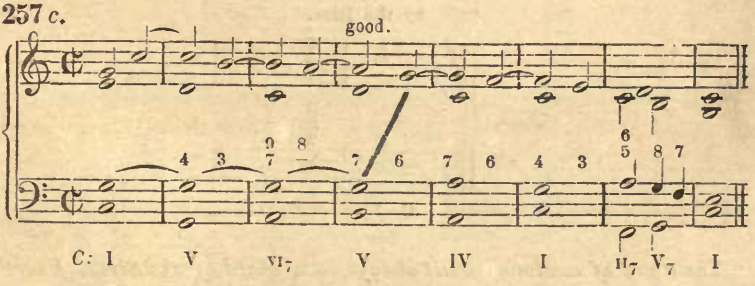
257 *b.*



Note. In this case the voice having the fundamental tone (here, and in examples 257 *c.* and 257 *d.* the Tenor) has the character of a stationary voice, and for this reason the suspension is allowed.

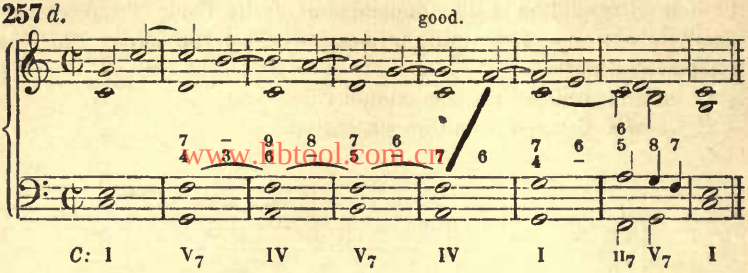
We here give — in a sequence of suspensions — an example of a suspension of the *fundamental* of the Dominant Triad, the *fundamental* being already contained in the Tenor.

257 *c.*



Such a suspension would be seldom used in connection with the Sub-dominant Triad, although it may occasionally occur, as shown in 257 *d.*

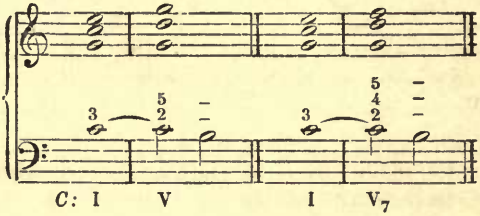
257 *d.* good.



§ 54. The Bass generally suspends the *third* only, seldom the *fifth* of a chord of the Seventh, and still more seldom the *fundamental* of a Triad or chord of the Seventh. In the last case the suspension forms an incomplete chord of the Second (the *fifth* being omitted) before the Triad, and a chord of the Second with all its intervals before the chord of the Seventh, and for this reason is always ambiguous.

Suspension of the *third* by the Bass.

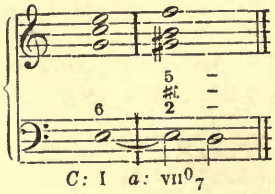
258.



The chord of resolution must always be a chord of the Sixth or a chord of the Sixth and Fifth.

Suspension of the *fifth* of the chord of the Seventh by the Bass.

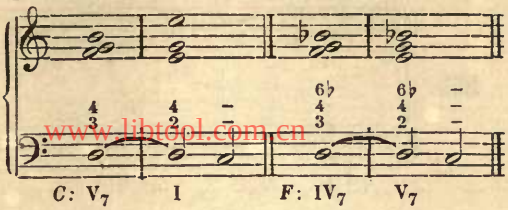
259.



The chord of resolution must always be a chord of the Sixth, Fourth and Third.

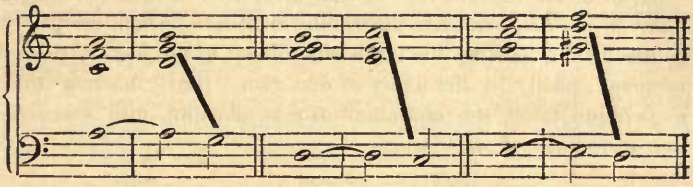
Suspension of the *fundamental by the Bass.*

260.



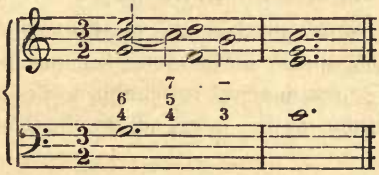
Suspensions in the Bass in which one of the upper voices has at the same time the tone of resolution, are unallowable in pure writing. All the suspensions in 261 are wrong.

261.



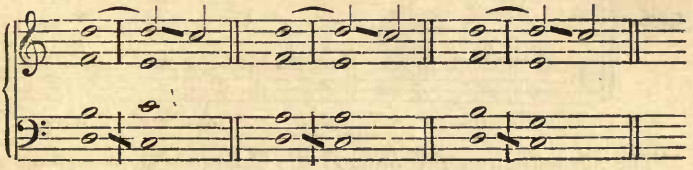
The pnpil can see in examples 258, 259 and 260, how to *avoid* the anticipation of the tone of resolution in any of the upper voices.

We have seen by all the above examples that the suspension always falls upon the accented (first) part of measures of two divisions. This principle must be followed in measures of three divisions also, as shown in Ex. 246, although exceptions may occur; e. g.



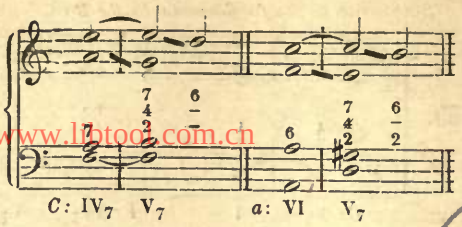
The suspension does not remove *parallel octaves* that are merely delayed by it; therefore Ex. 262 is wrong.

262.



On the contrary, the *real dissonant* suspension fully removes *parallel fifths*, which are delayed by it, between *all*, even *neighbouring voices*, when the leading of the other voices is in other respects correct.

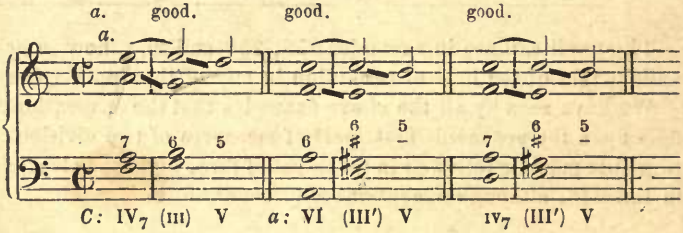
263.



The suspensions with delayed *parallel fifths* shown in 263, are *good*, although the *parallel fifths* are between *neighbouring* voices. They are used in four-voiced compositions by the best classical authors.

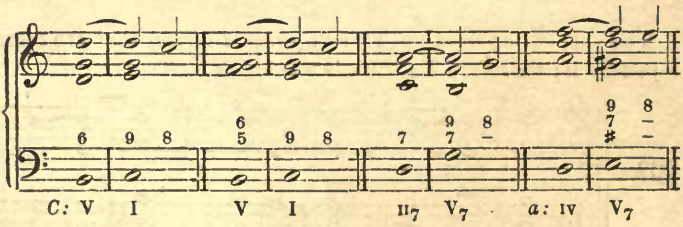
Even in chord-connections that have the *character* of suspensions, delayed *parallel fifths* are allowable, especially when contrary motion is introduced, because the unpleasant effect of the *parallel fifths* is fully removed, partly by the delay of one voice, partly because the chord-connection takes the character of a suspension, and *especially by the contrary motion of other voices*.

264.



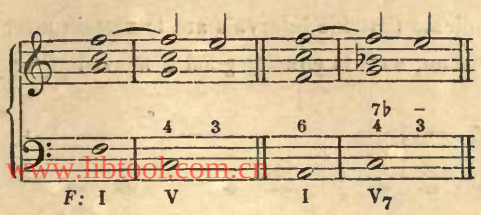
Little remains to be said about the figuring of the suspension, since it has already been shown in the above examples. The suspension is figured according to its interval in relation to the bass-note; thus we figure the suspension of the *octave* of the fundamental by the *ninth* with 9 8.

265.



The suspension of the *third* of the Triad by the *fourth* is usually figured 4 3 only, because the Triad in its fundamental position needs no special figuring. The suspension of the *third* by the *fourth* in the chord of the Seventh is figured $\frac{7}{4}\ \frac{-}{3}$.

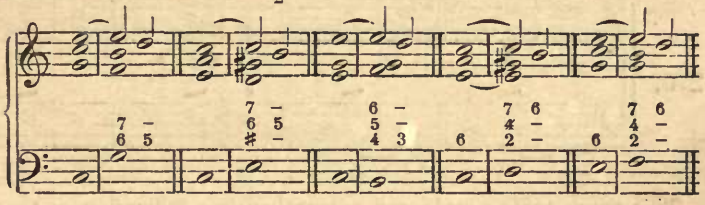
266.



It can also be more completely figured $\begin{smallmatrix}8&-\\5&-\\4&3\end{smallmatrix}$ and $\begin{smallmatrix}7&-\\5&-\\4&3\end{smallmatrix}$ in connection with the Triad and the chord of the Seventh respectively.

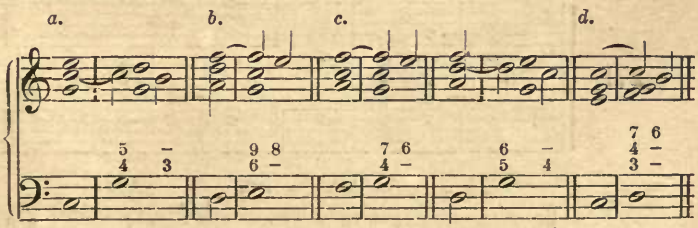
The suspension of the *fifth* by the *sixth* is figured, in the fundamental position of the chord of the Seventh, with $\begin{smallmatrix}7&-\\6&5,\end{smallmatrix}$ or complete $\begin{smallmatrix}7&-\\6&5;\\3&3\end{smallmatrix}$ in the position of chord of the Sixth and Fifth, with $\begin{smallmatrix}6&-\\5&-;\\4&3\end{smallmatrix}$ and in the position of chord of the Second, with $\begin{smallmatrix}7&6\\4&-.\\2&-\end{smallmatrix}$

267.



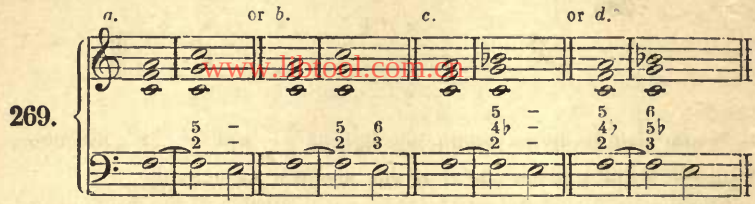
So the suspension is in all cases figured as an accidental interval (from the Bass) with the appropriate numeral; besides the figure which indicates the suspension stands the figure which shows its resolution. Therefore the figures that indicate the *chord* more particularly are placed over or under the figure which shows the *suspension;* thus *a.* $\begin{smallmatrix}5&-\\4&3\end{smallmatrix}$ is written for the Triad in its fundamental position, *b.* $\begin{smallmatrix}9&8\\6&-\end{smallmatrix}$ for the chord of the Sixth, *c.* $\begin{smallmatrix}7&6\\4&-\end{smallmatrix}$ for the chord of the Sixth and Fourth; *d.* $\begin{smallmatrix}7&6\\4&-\\3&-\end{smallmatrix}$ shows the chord of the Sixth, Fourth and Third with de *sixth* suspended by the *seventh* etc., as has already been shown many times in the examples already given.

268.

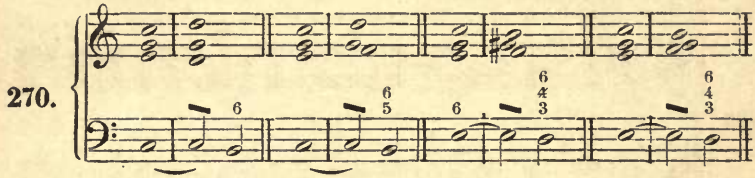


When the suspension is in the Bass, the upper voices are figured accidental intervals over the note of suspension; viz. $\begin{smallmatrix}5&-\\2&-,\end{smallmatrix}$ $\begin{smallmatrix}5&-\\4&-.\\2&-\end{smallmatrix}$ The

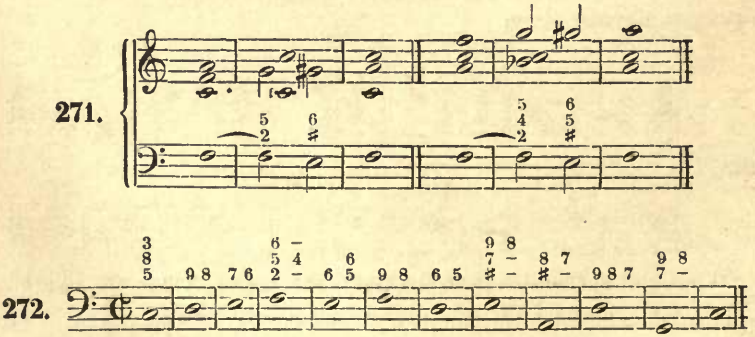
dashes indicate that the intervals are to remain after the resolution of the suspension; so it is equally good if figured $\frac{5}{2}\,\frac{6}{3}$ or $\frac{5}{2}\,-$, $\frac{5\ 9}{4\ 5}\,\frac{}{3}$ or $\frac{5}{4}\,\frac{-}{-}$.



Formerly the suspension was indicated by an oblique dash over the note of suspension, and the figure that determined the real chord was written over the note of resolution.

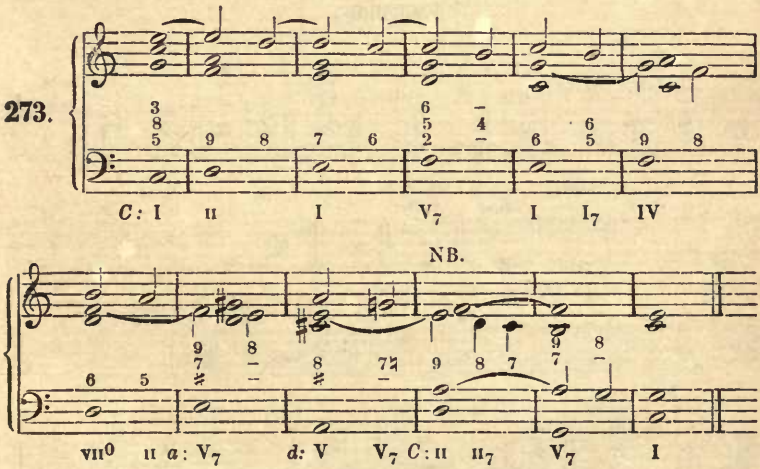


This much more simple and comprehensible indication of the suspension in the Bass is now little used. In all the following exercises, we indicate the suspension in the Bass by the figures that are necessary to the accidental intervals over the bass-note, and show the continuation of those tones by dashes over the tone of resolution $\left(\frac{5-5-}{2-4-}\right)$, as was done in 269 *a*, and *c*. We only use the figuring shown in 269 *b*, and *d* in such cases where a chromatic changing of an interval enters with the resolution; viz. $\frac{5}{2}\,\frac{6}{\sharp}$ or $\frac{5\ 6}{4\ 5}\,\frac{}{\sharp}$ etc.



In order not to confuse the pupil, we shall, in these exercises, 7 ♯ the chord of the Seventh $\frac{7}{5}$ $\frac{7}{3}$ $\frac{7}{5}$ $\frac{8}{7}$ $\frac{8}{7}$ $\frac{8}{7}$ also in its fundamental position, and the chord of the Sixth and Fifth $\frac{6}{5}$. The figure 7 before a 6 shows, on the contrary, that the *sixth* of a chord of the Sixth is suspended by the *seventh*. This is the case with the Bass of the third measure of 272. In working these exercises the pupil must mark the degrees upon which the chords are situated within the key by large and small Roman numerals, and the course of modulation by large and small letters under the Bass, as shown in 273 (the working of the Bass of 272). A merely mechanical changing of figures and chromatic signs into notes is only a translation of thorough-bass into notes. This alone cannot lead to a clear knowledge of chords and their connections. While working, the pupil should always know what key he is in, and what chord of the key he has at the moment before him. For this purpose we now give the working of 272. The pupil must manage his work in exactly the same manner, *but write it in four different clefs.*

273.



The preparation and the suspension must always be connected by a slur —. In two-divisioned time the figures 9 8 7 are always to be understood to mean that the suspension is to occupy the whole of the first part of the measure; the second part remains for the resolution and the following *seventh*, as is shown at NB. in the tenth bar of 273. In three-divisioned time, the suspension, the Triad, and the chord of the Seventh are of equal value.

dashes ind
the sy

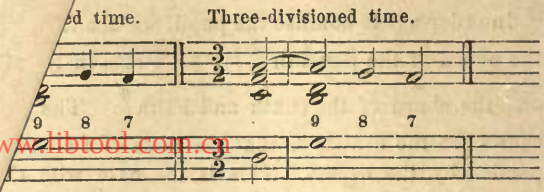
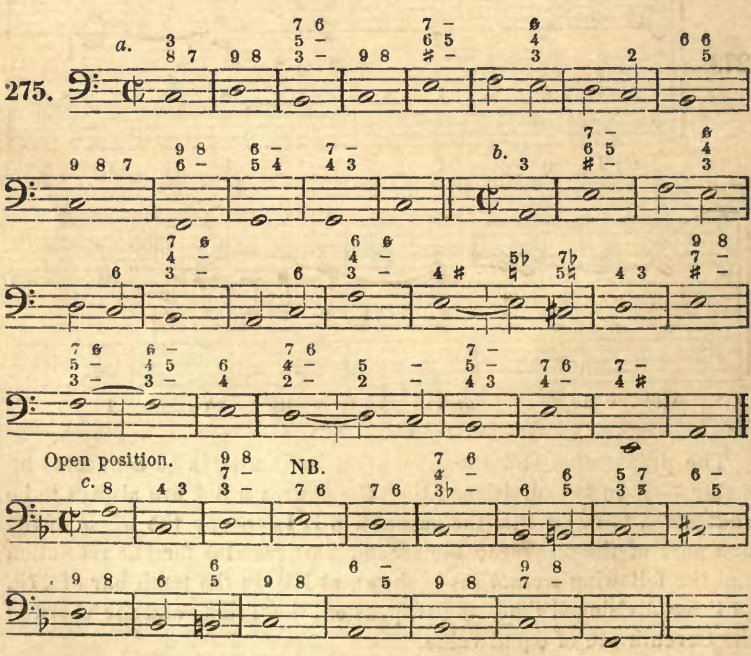


figure 137

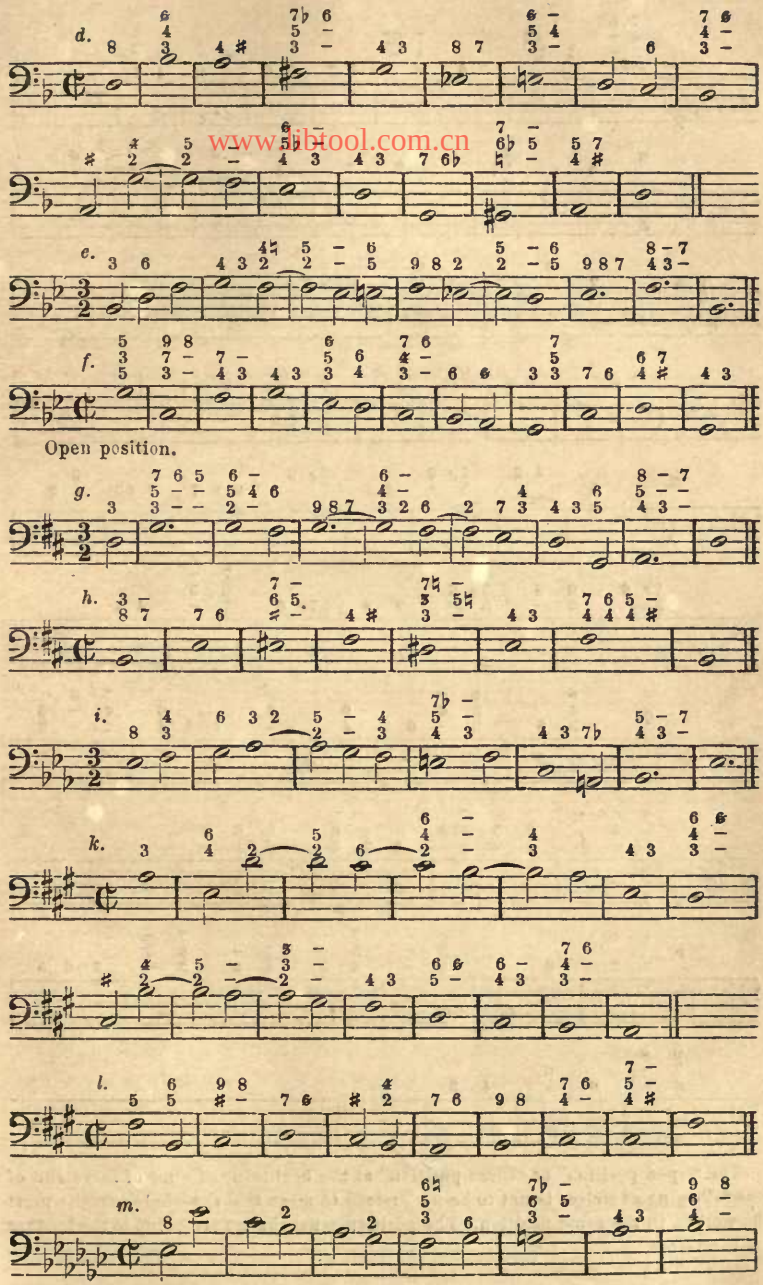
ch follows upon the *octave* cannot, in this case, be given to voice, and can still less be previously taken by another voice.

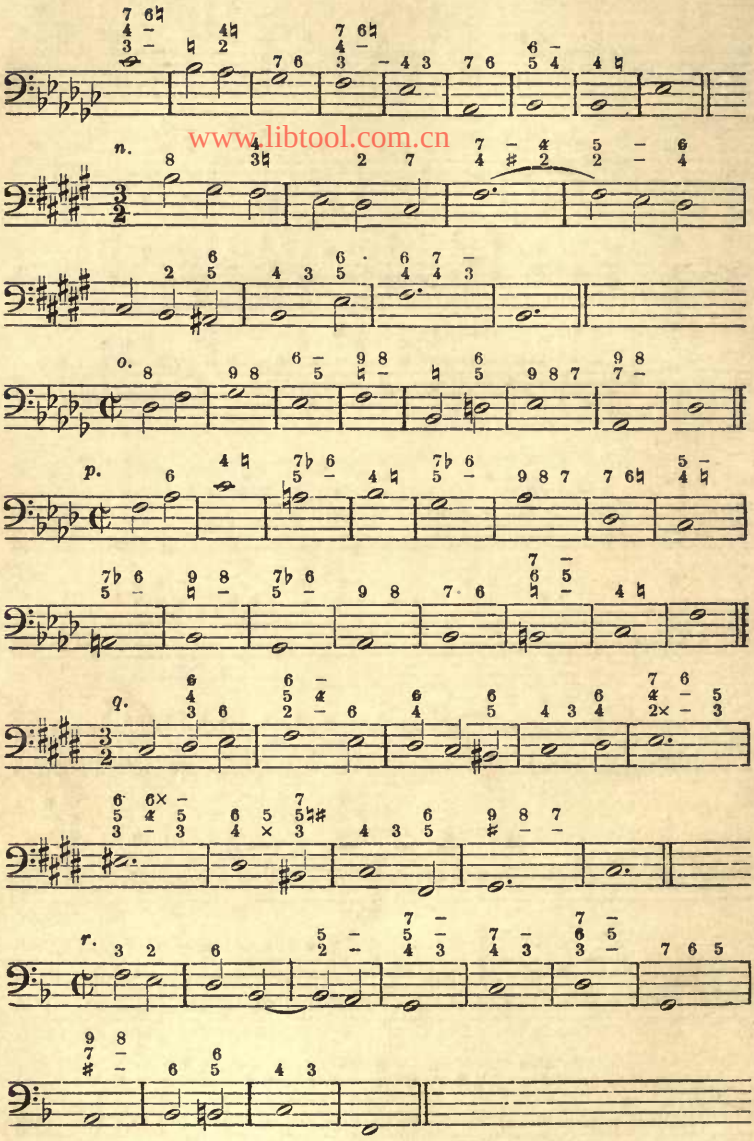
Bar 3 of 273 shows in the chord of the Sixth a suspension of the *sixth* by the *seventh*. Such an accidental chord-formation arising from a suspension must be considered as a *suspension* and not as a *chord of the Seventh* of the third degree, because the Bass is figured 7 and not $\frac{7}{5}$ or $\frac{7}{5}_{3}$, and here a chord of the Seventh with all its intervals is *not* meant to be represented (compare § 52).

Exercises.



At NB. of example *c.* bar 4, comp. Ex. 257 *c.* bar 4.





The "Open position" or "Close position" at the beginning of some of these and of the following exercises is not to be understood to mean that the whole exercise must be worked in the same position. The position must change according to the leading of the voices.

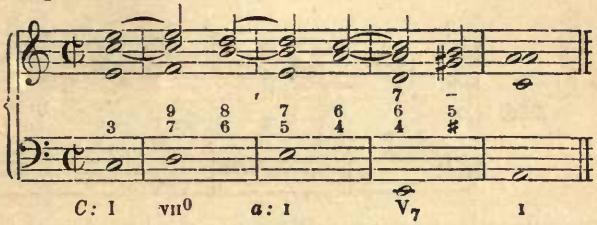
CHAPTER XVII.

Suspensions in Several Voices.

§ 55. In four-voiced writing suspensions may be made at the same time in two, and also in three voices; e. g.

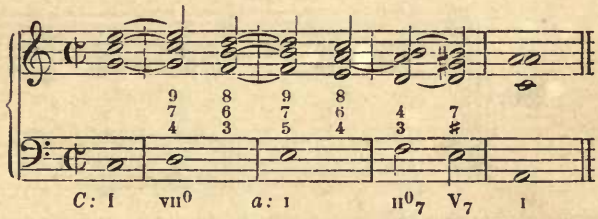
Suspensions in two voices.

276.



Suspensions in three voices.

277.

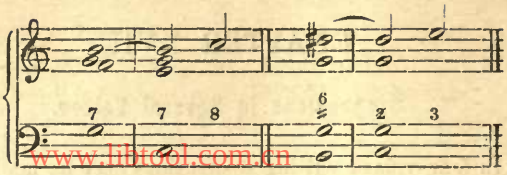


The accidental intervals, forming the tones of suspension against the Bass, are figured so that the larger numbers are placed over the smaller ones without any consideration for the position of the upper voices $\begin{smallmatrix}9&8\\7&6\\4&3\end{smallmatrix}$, $\begin{smallmatrix}9&8\\7&6\\5&4\end{smallmatrix}$ etc., as is shown in the preceding examples.

All suspensions so far shown were resolved downward. This is the natural and correct progression; therefore the *resolution* of a suspension need not be indicated in a freer progression of the voices. It is supposed to be generally understood that it progresses downward. But in one instance the resolution of the suspension takes place upward. This occurs when the tone of suspension progresses upward to the tone of resolution by a small *half-step*.

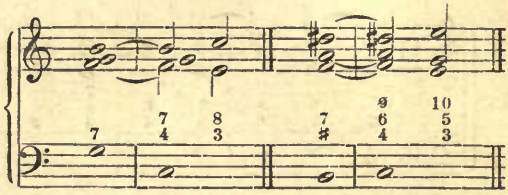
This resolution is explained by the fact that the progression of a small half-step upward always partakes of the *character of the leading tone*. Suspensions of this kind most often occur from the leading tone to the *octave* of the fundamental, or from an altered tone to its natural tone of resolution (above). They rarely stand *alone*.

278.



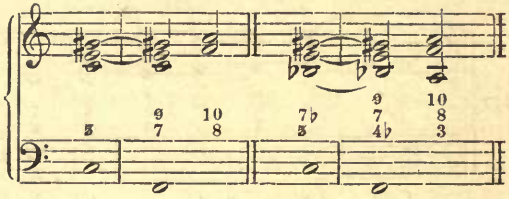
Suspensions resolving upward are much more frequent in connection with others resolving downward.

279.



Two suspensions may simultaneously resolve upward both in connection with a suspension resolving downward, and alone.

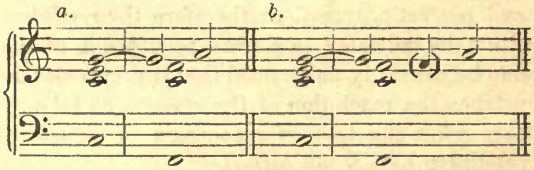
280.



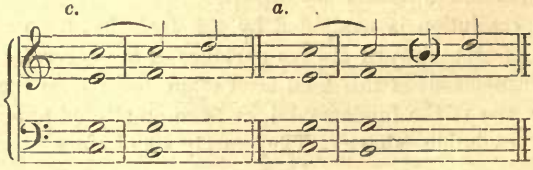
A suspension upward over a whole-step can, in pure writing, never be employed *alone*.

Suspensions of this kind sound stiff and unnatural. Were this to be explained by the omission of the proper downward leading of the tone of resolution, mistakes against the rules for the resolution of suspensions would result; namely, suspended *parallel octaves* or the presence in a middle voice of the proper tone of resolution.

281.



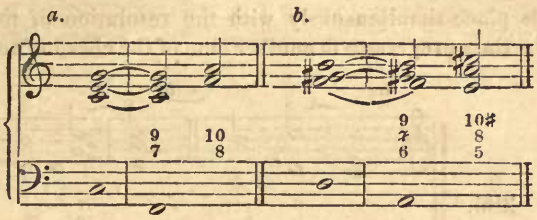
282.



The faultiness of the suspension in 281 *a.* is shown in the progression in 281 *b.* where the proper tone of resolution, downward, is added in a parenthesis. But this tone is already present in the Alto. The faultiness of the suspension in 282 *c.* is shown in the progression in 282 *d.* The interpolated proper tone of resolution shows the *parallel octaves* which are delayed by the suspension.

But in pure writing a suspension over a whole-step upward may be employed in connection with another suspension upward over a half-step; e. g.

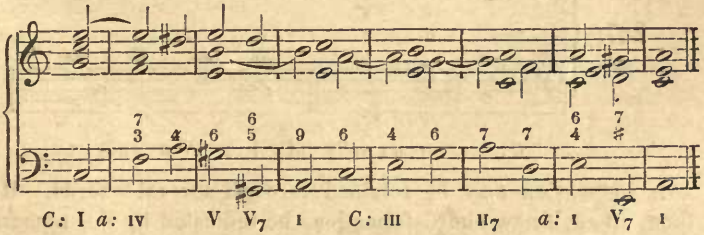
283.



Example 283 *a.* shows such a double suspension upward. 282 *b.* shows the double suspension upward in connection with another suspension downward. Both progressions are good.

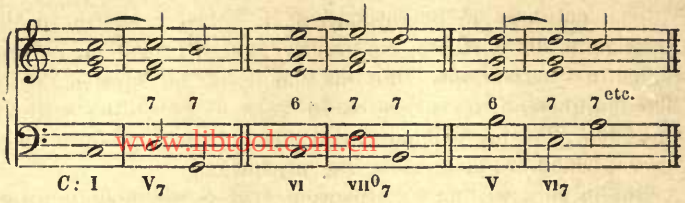
§ 56. Thus far the Bass has always remained stationary until the suspension was resolved. Accordingly the suspension and its resolution formed but *one single* chord. But the Bass may progress simultaneously with the resolution of the suspension, so that it either goes over to another interval of the chord of resolution or, by its progression, requires another chord-formation. In both cases *the suspension itself* is indicated in the thorough-bass-notation, but not its resolution. Then the resolution of the suspension is presupposed to be always downward and must be made in that direction. In Ex. 284 are shown suspensions where the Bass goes over to another tone of the chord of resolution, simultaneously with the resolution of the suspension.

284.



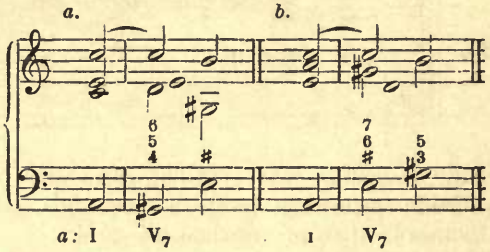
In the sixth measure of the preceding example the suspension and its resolution could be figured as *one chord of the Seventh* with the *fundamental* introduced afterward on the second part of the measure. This may be done in all similar cases; e. g.

285.



Although the middle voices in examples 284 and 285 do not change their position, there may be cases where also a middle voice has to leave its place simultaneously with the resolution of the suspension, when the Bass progresses to another tone of the chord of resolution; e. g.

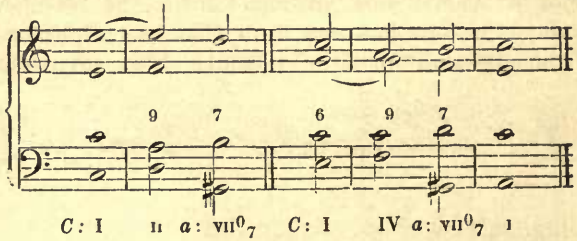
286.



In Ex. 286 *a.* if the Tenor had not progressed, the *third* would have been wanting in the chord of resolution. In 286 *b.* if the Alto had not progressed, the *third* (leading tone) of the chord would have been doubled.

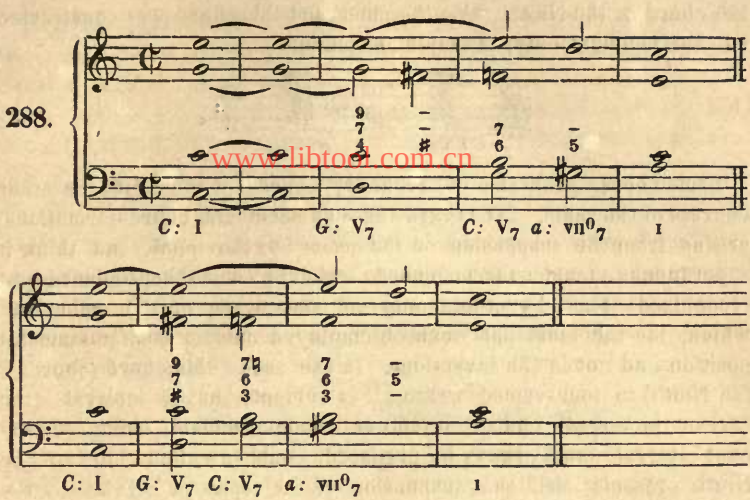
But as the Bass progresses, simultaneously with the resolution of the suspension, to a tone foreign to the proper chord of resolution, and thus forms another chord, it forces one or both middle voices also simultaneously to progress to the nearest lying tones of the new chord.

287.

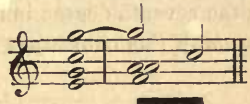


A suspension may be retained through several chords. It must then, at each new chord-formation, be indicated by the numeral required by its accidental distance from the Bass. Of course, the new chord-formations which are to be given during the continuation of the suspension must also be accurately marked by the thorough-bass-notation. Ex. 288 shows a suspension lasting through several bars.

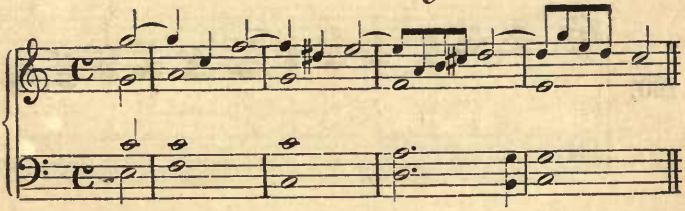
288.



Note. Between the tone of suspension and the tone of resolution one or more tones may be interpolated. These may be proper or foreign to the chord of resolution; they may be led to the tone of resolution by steps or by skips; the real tone of resolution may even sometimes be omitted entirely; e. g.



289.

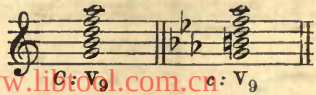


In the following exercises the pupil will have little opportunity to insert such intermediate notes before the tone of resolution, and he must not strive to apply them. In the study of counterpoint he will learn the value and the importance that such intermediate notes may sometimes have for the movement and embellishment of a contrapuntal voice. For the sake of completeness this had to be mentioned in this connection.

In the examples and exercises contained in Chapters XVI and XVII the figuring 9 8 or $\frac{9}{7}\,\frac{8}{-}$, also $\frac{9}{7}\,\frac{8}{-}$ is frequently found over the Bass for the indication of the suspension of the *octave* by the *ninth* in a Triad or before a chord of the Seventh.

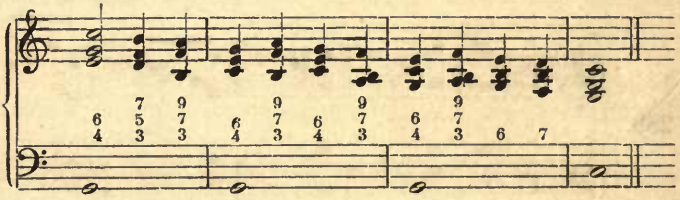
This is the figuring of the Bass which older theoreticians used for

the chord of the Ninth. For the most part this chord was constructed on the Dominant only, in major and minor.



Some books speak also of secondary chords of the Ninth on other degrees of the scale. We regard these as accidental chord-formations, arising from the suspension of the *octave* by the *ninth*, and think it superfluous to teach a form of chord, which by some theoreticians is not recognized at all, by others only on one degree of the scale, and which, for the most part, can be employed only in the fundamental position and not in the inversions. In the use of this chord (chord of the Ninth) in four-voiced writing it is evident that *one* interval, (the *fifth* or the *seventh*) had to be left out. Since the *ninth*, being a dissonant interval, must always be prepared, each so-called chord of the Ninth presents itself as a suspension of the *octave* of a Triad by the *ninth*, if the *seventh* is omitted; or of a chord of the Seventh, if the *fifth* is omitted. But when a chord of the Ninth enters without preparation of the *ninth*, it always proves to be the chord of the Seventh on the seventh degree in major or minor over an organ-point, and the *seventh* of this chord may enter freely, e. g.

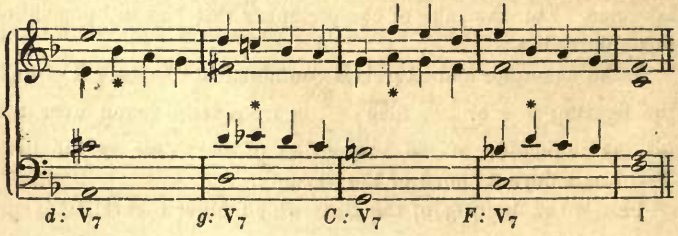
290.



We shall make more particular mention of this in Chap. XVIII, § 57, "The Organ-point".

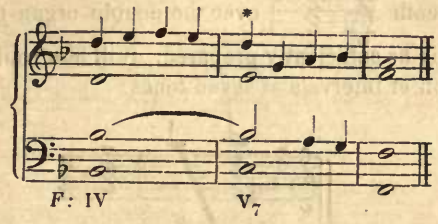
The free entrance of a *ninth* by a step or a skip over a chord of the Seventh or a Triad in embellished *(figurirt)* counterpoint, has the same character and must be explained in the same way, e. g.

291.



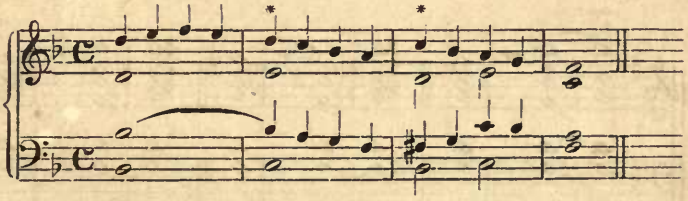
Such *ninths* generally are found only on the unaccented part of a measure. A few unprepared *ninths* exceptionally occurring on the accented part of a measure, do not authorize the admission of a real chord of the Ninth and are easily explained by the free leading of the voices permitted in embellished counterpoint. Nobody will take the note *D* in Ex. 292 to be anything other than a changing note before the chord-note *C*, which may enter freely and which, without moving to the chord-note *C*, skips to the *fifth* of the chord of the Seventh.

292.



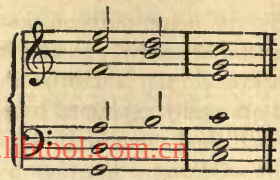
In the study of counterpoint the pupil will get full information concerning such liberties in voice-leading. Besides, the really *strict* style in *pure* contrapuntal writing does not admit of such free leading of the voices as in Ex. 292, because the changing note can only appear diatonically before the real chord-note, e. g.

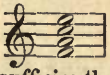
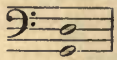
293.

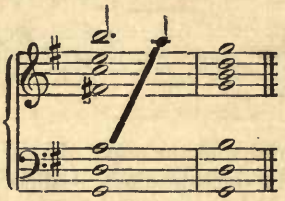


Here also, any unprejudiced person will recognize a changing note preceding the chord-note, and not chords of the Ninth which, indeed, must always be prepared. Whether such a leading of the voices, as in Ex. 293 is *at all permitted* in strict style, or not, does not need to be discussed in this connection.

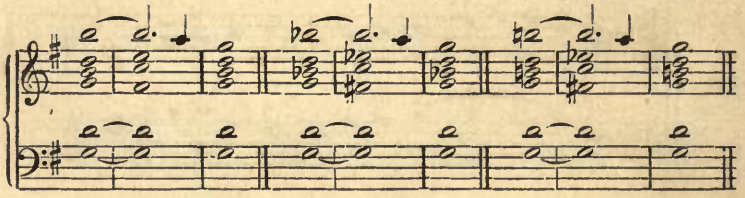
All fundamental chords introduced by us, whether Triads or chords of four tones (chords of the Seventh), can be formed on all degrees of the major and minor scale and used both in the fundamental position and, for the most part, in their inversions also. Chords of five tones (chords of the Ninth), of six tones (chords of the Eleventh) or even of seven tones (chords of the Thirteenth), which in modern (free) style occasionally occur as accidental chord-formations, e. g.



cannot be regarded as fundamental chords, whether prepared or not. Even this accidental chord-formation, which we conceive as a chord of the Seventh  over the double organ-point  , could scarcely be sufficiently prepared. Still less could it be done with a combination of intervals of seven tones:



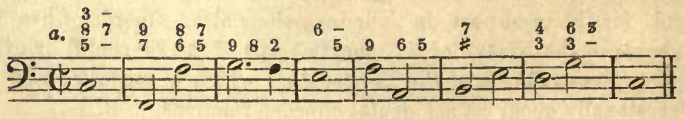
Such a combination of intervals is impracticable for pure writing at any rate, because it has the note of resolution of the suspension-tone in a middle voice. But even in this form:

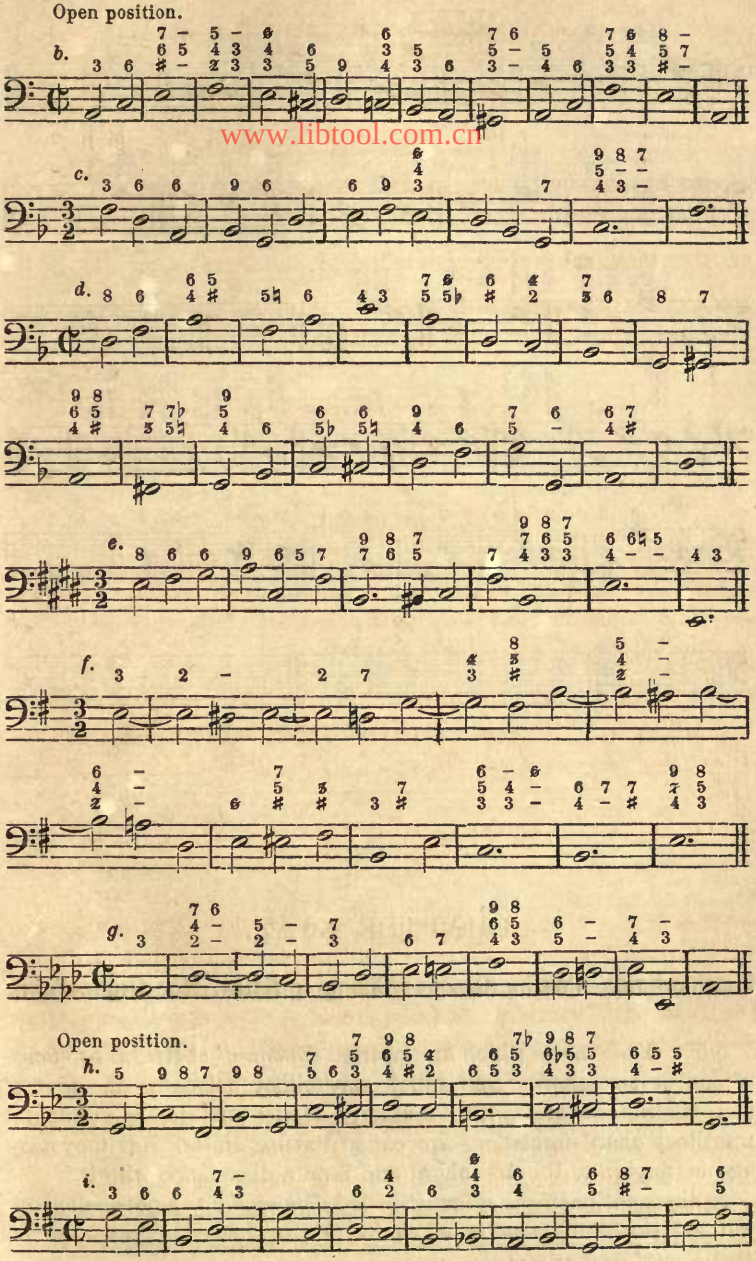


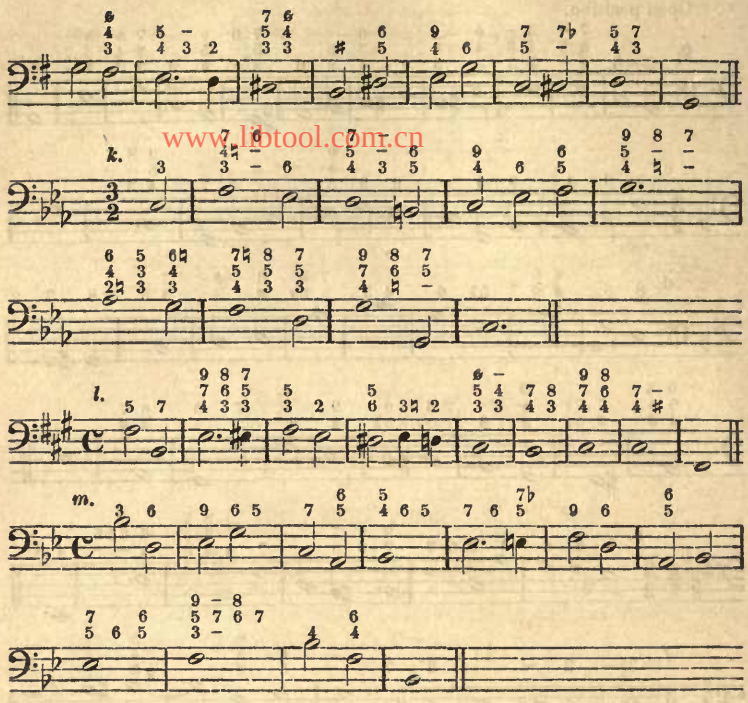
we cannot give to those accidental formations the name of chords of the Thirteenth with omitted *ninth*; but we must regard them as chords of the Seventh on the seventh degree, over the double organ-point of the Tonic and Dominant, with the prepared suspension of *A* by *B* or *B*♭ — the *third* by the *fourth* of those chords of the Seventh (whose *seventh E* or *E*♭ may enter freely).

Exercises.

294. *a.*







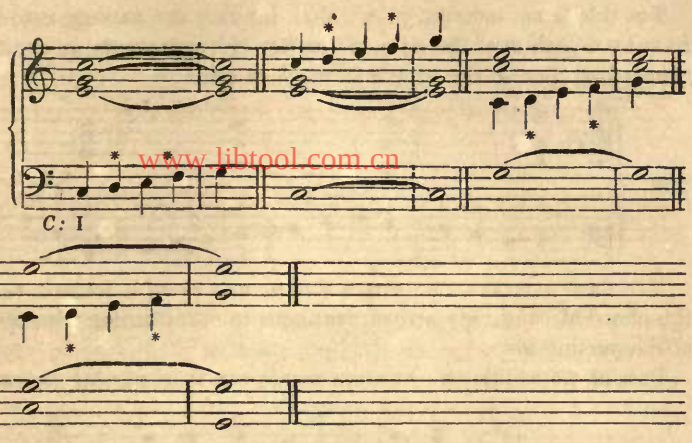
CHAPTER XVIII.

Passing Notes, Passing Chords; Changing Notes. The Organ-Point.

§ 57. Those notes which are inserted *diatonically* between two tones of one or two chords, and which may either belong to the first of these chords, or form with it a closely related and richer accidental transitory chord-formation, are called Passing Notes. But they may also be foreign to the first chord and form a dissonance with it.

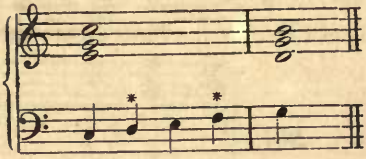
A dissonant passing note must be led *diatonically* to a note belonging to the first or the second (new) chord. *Passing notes can never occur on the accented part of measure.*

295.



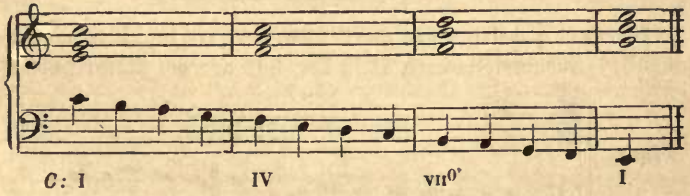
Ex. 295 shows us the passing notes *D* and *F* (marked with an asterisk), which are foreign to the chord, inserted diatonically between the tones *C E G* of the *C* major Triad.

296.



Ex. 296 shows the same passing notes between two chords.

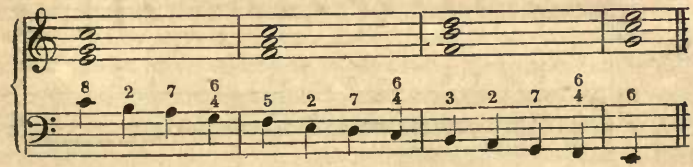
297.



Ex. 297 shows passing notes between the chords of the first, fourth, seventh and first degrees in *C* major, which either form new chords accidental to those chords, or belong to the principal chord.

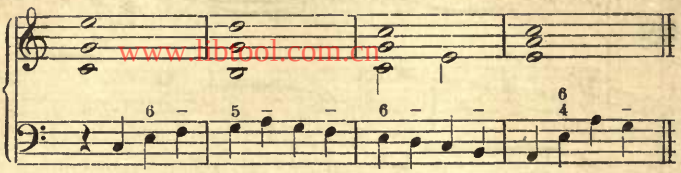
Ex. 297 might be figured as follows:

298.



But this is not necessary; we shall indicate the passing note in the Bass by a dash over the note, no matter if it represents an accidental chord-formation to the principal chord or not.

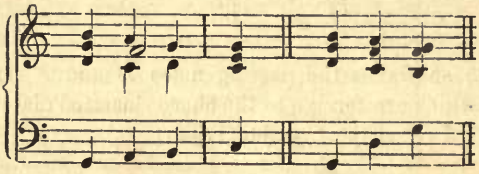
299.



The dash over the note shows that *no new chord* is formed, but that the chord already represented continues to sound during the transition of the passing note.

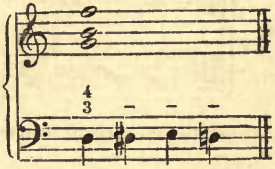
Passing notes into two or more voices can form passing chords.

300.



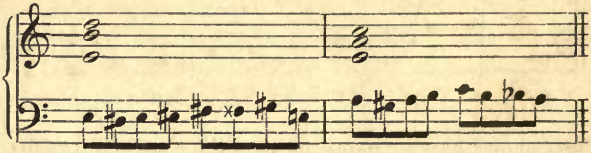
Passing notes can also be introduced chromatically.

301.



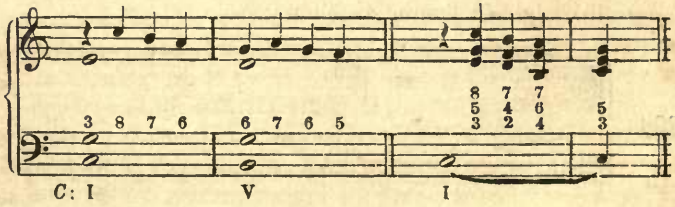
Chromatic passing notes must, however, not be introduced too frequently. Successions such as in Ex. 302 are not fit for pure writing.

302.

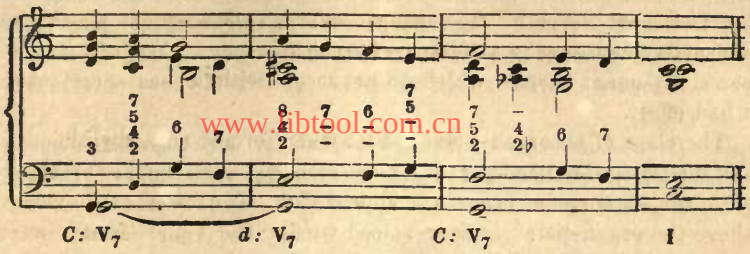


Passing notes and chords in the *upper voices* must be marked, over the Bass, with the appropriate figuring. (Compare § 58. "The Organ-point").

303.

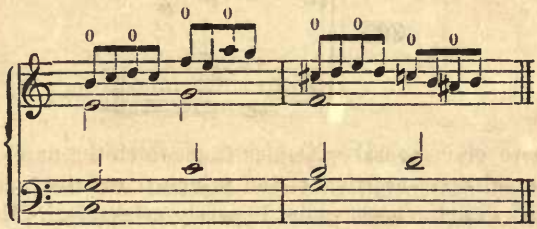


Five-voiced.



Changing notes are those notes foreign to a chord, which occur on the accented part of the measure and precede (by a whole-, or a half-step) a note belonging to the chord, and bear the character of an unprepared suspension. They may enter before the chord-note freely, from above or below, by a step or a skip (comp. Ex. 293, bars 2 and 3).

304.



The changing notes in Ex. 304 are marked with 0.

Passing and changing notes are employed only in embellished counterpoint, on the lesser divisions of a measure, in order to give movement to the rhythm. The former are much more frequently used than the latter. According to our view the occasional use of changing notes does not necessarily mar the purity of the musical syntax; its too frequent use, however, is not to be recommended in strict style. The pupil will learn the details of this subject in the study of counterpoint.

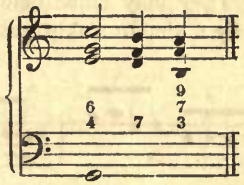
The Organ-point.

§ 58. An organ-point arises when the Bass is retained throughout a rhythmically and metrically bounded part of a piece of music and carries, after its first pure chord a number of partly pure and partly passing chords which often have no direct relation to the organ-point tone. At the beginning of a piece of music the organ-point can take the Tonic; in the middle or near the end, the Tonic or Dominant, or both Tonic and Dominant at the same time. The first, as well as the last chord of the organ-point, must always be consonant independent chords. The

Organ-point on the Dominant may, however, begin with the chord of the Dominant Seventh. The chords over an organ-point should be alternately consonant and dissonant to the bass-note. Too great a number of dissonant chords (which do not accord with the bass-note) make a bad effect.

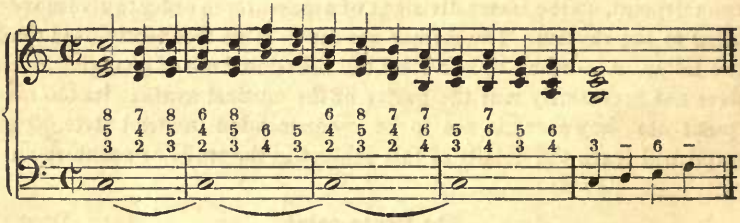
The close of an organ-point is best when formed on a rhythmically and metrically bounded part of a piece of music. An arbitrary breaking off of the organ-point is not to be approved of. The lowest of the voices above the organ-point (in four-voiced writing the Tenor) forms, as it were, an independent Bass to the upper voices. So, on the organ-point on the Dominant, through the appearance of the chord of the Seventh of the seventh degree, arises the accidental chord-formation which many theorists call the chord of the Ninth (compare § 56).

305.



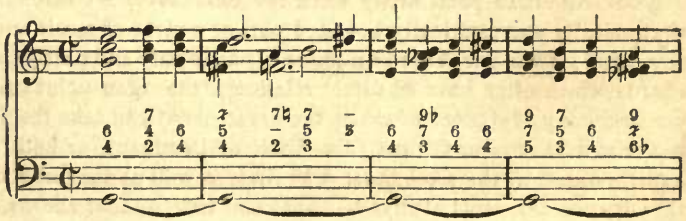
We here give several examples from which the pupil will see that the thorough-bass-notation of the principal and the passing chord-formations over the organ-point is purely mechanical. The figures indicate the exact intervals from the Bass.

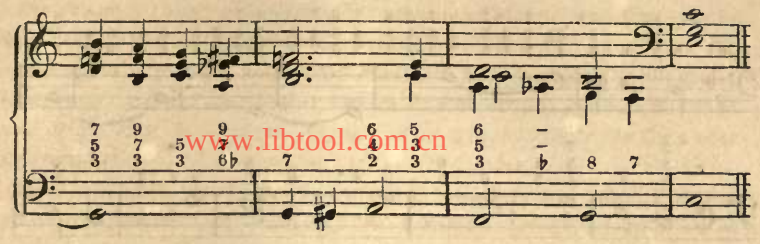
306. *Organ-point on the Tonic.*



Organ-point on the Dominant.

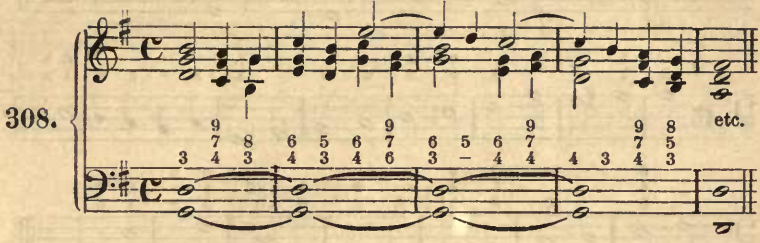
307.





Organ-point on the Tonic and Dominant.

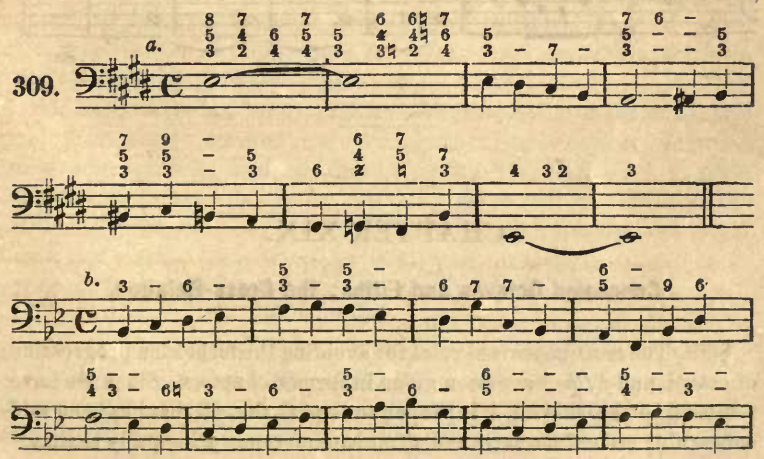
The thorough-bass-notation is based upon the Tonic.

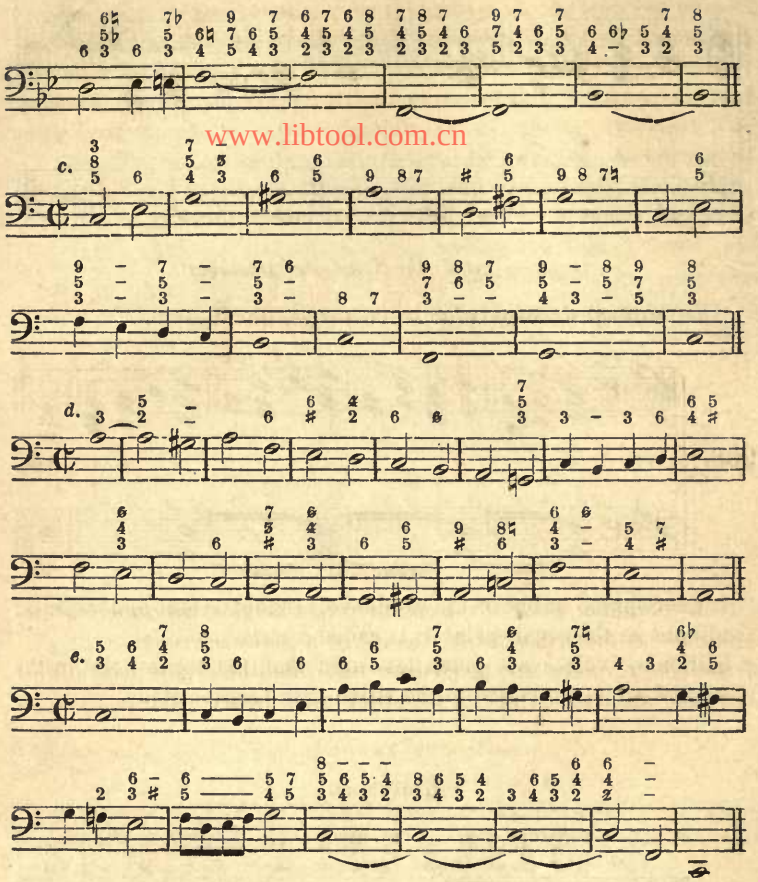


If the Soprano or one of the middle voices holds a tone under similar conditions as the organ-point, it is called a *stationary voice.*

Stationary voices are much less used than the organ-point in the Bass, and are less adapted to the strict, than the free style.

Exercises.





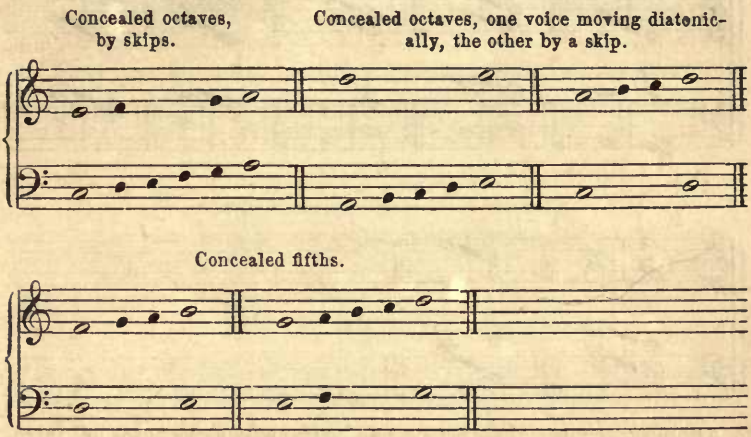
CHAPTER XIX.

Concealed Octaves and Fifths; the Cross-Relation.

§ 59. The most important rules for avoiding the forbidden progression of *octaves* and *fifths* have been given in former chapters. Since we have returned to this subject, it is proper to remark that all that has been said concerning *concealed octaves* and *fifths* has reference principally to simple

four-voiced writing. In writing for more than four voices, progressions that would sound disagreeable if in four voices only, are often concealed by the greater number of voices in such a way as not to be prominent or striking. Particular care must be taken in writing for three, and especially two voices, as all faulty progressions are then much more obvious.

Concealed octaves and *fifths*, of course, arise only in parallel motion, when two voices move from any two different intervals to an *octave* (or *double-octave*), *fifth* or *twelfth*.



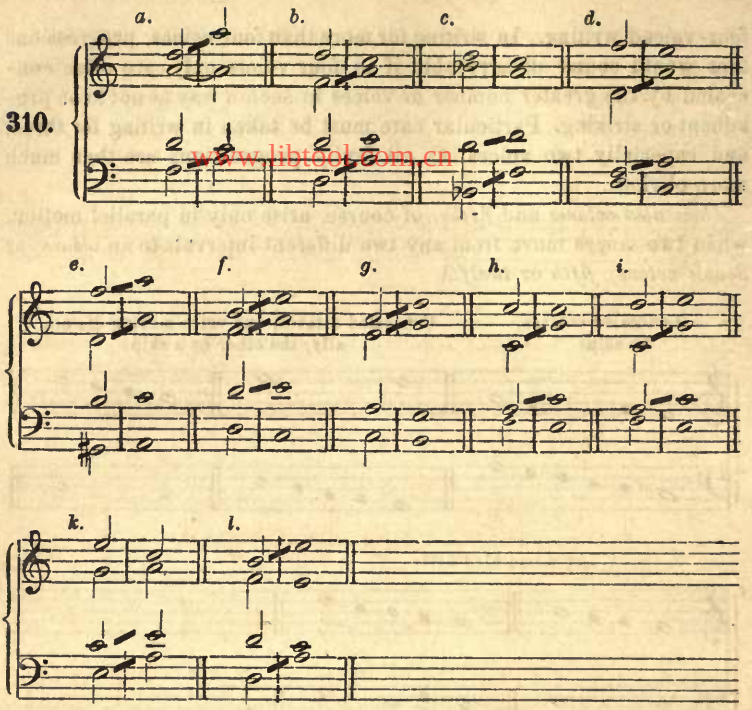
The *parallel octaves* and *fifths* would be evident by filling out the intervening spaces with small notes.

An unforced and natural chord-connection without any *concealed octaves* and *fifths* is impossible even in four-voiced writing. Our object now is to show the pupil those *concealed octaves* and *fifths* which, in four-voiced writing, cause a bad effect.

We shall therefore briefly review the conditions under which the pupil must avoid *concealed octaves* and *fifths* in four-voiced writing. But we would remark in addition, that he must not make it a rule to avoid *all concealed octaves* and *fifths*, but only those here put down as objectionable, because, in trying to avoid imaginary faults, he could easily fall into the error of writing stiffly and unnaturally. But the progressions into *octaves* and *fifths* here censured must be avoided as much as possible also in the most difficult contrapuntal forms of art, such as the Canon, the Fugue and the Stretto *(Engführung)* of the fugue.

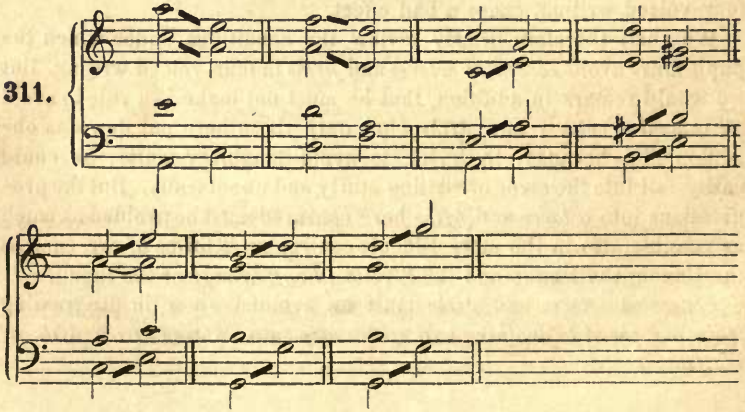
Concealed octaves and *fifths* must be avoided when, in progressing from *one chord to another*, two voices *skip* into an *octave* or a *fifth* (or *twelfth*).

310.



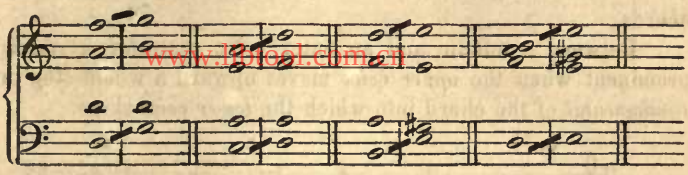
Although some of these *octaves* and *fifths* entering by skips are introduced under the most favorable conditions possible (as those at *b*, *c*, *d*, *f*, *h*, *i* and *k*, where we have endeavored to diminish the disagreeableness of the faulty progressions by means of contrary motion and, at *h*, of oblique motion of the other voices) they nevertheless must all be rejected. If, however, *one and the same* chord is merely inverted, such *octaves* and *fifths* entering by skips are permitted; e. g.

311.



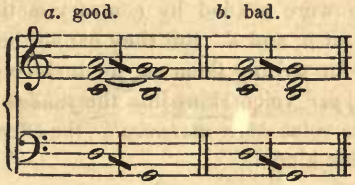
Furthermore, *concealed octaves* are prohibited between outer voices, when one voice moves upward a *whole-step*, and the other skips into the *octave* (comp. § 21).

312.



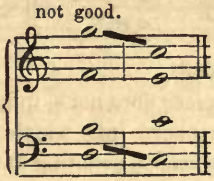
If the *upper* of the two voices moves downward a whole-step into the *fundamental* of the chord into which the other outer voice skips, the *concealed octaves* are permitted, provided that the combined leading of the voices contains nothing objectionable. Accordingly, Ex. 313 *a*, is good, *b*, is not good, because all four voices move downward.

313.



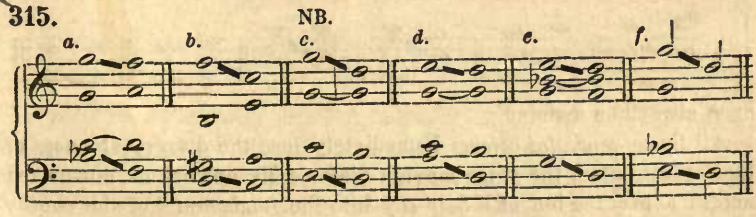
If, however, the *lower* of the outer voices moves a whole-step into the *fundamental* of the chord into which the upper voice skips, the *concealed octave* resolution is not good; e. g.

314.



If one of the outer voices moves downward a step into the *third* or the *fifth* of the chord, and the other outer voice, at the same time, skips into the same interval, the effect is very disagreeable, and such *concealed octaves* are strictly prohibited.

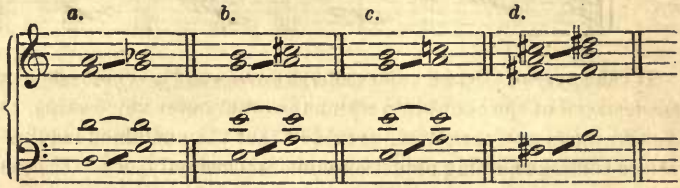
315.



All the *concealed octaves* in Ex. 315 are bad and must be carefully avoided; only the one at NB. might be permissible, because there the effect is less disagreeable, on account of the close relation of the two chords.

Between a middle and an outer voice *concealed octaves* are less prominent when the *upper voice* moves upward a whole-step into the *fundamental* of the chord into which the *lower voice* skips.

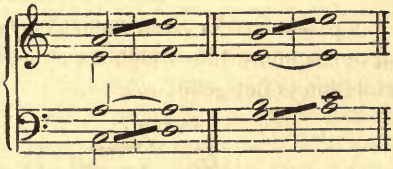
316.



Progressions of this kind would certainly have a better effect if the *concealed octaves* were evaded by contrary motion in the Bass; this is especially true at *a.* and *d.* But they cannot be rejected, if there are higher motives for writing them as, for instance, strict imitation.

But if the *upper* voice skips into the *fundamental* of the chord into which the lower voice *moves diatonically*, the effect is more disagreeable. Succession of this kind:

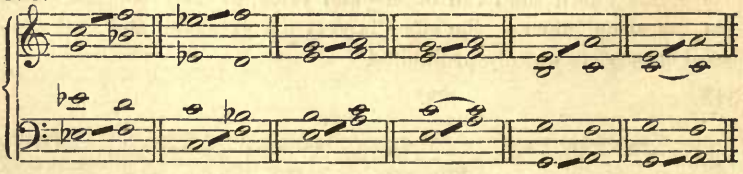
317.



must be carefully avoided.

If one of the outer voices does not skip into the *fundamental*, but into *another interval* of the chord into which the other voice moves by a *whole-step*, the *concealed octaves* resulting have a very bad effect and must by all means be avoided. Progressions of this kind:

318.

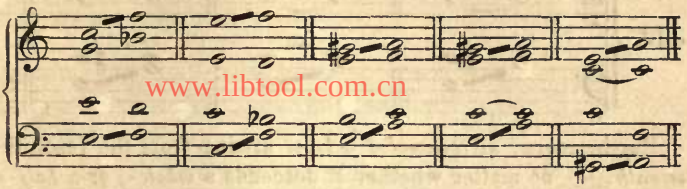


must always be avoided.

All these *concealed octaves* immediately lose the disagreeableness of their effect, when the voice moving diatonically upward or downward makes a progression of a *half-step* into the *fundamental* of the chord,

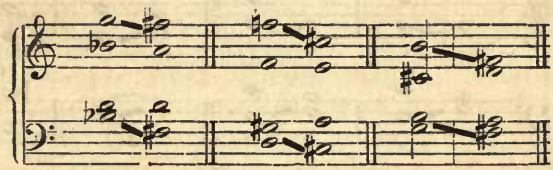
into which the other voice skips. But with other intervals the effect remains a bad one, and progressions of this sort:

319.



cannot be permitted, even though the one voice does progress by a half-step. So also, when the one voice moves *downward* a *half-step* into the *third* of the chord, progressions of this kind:

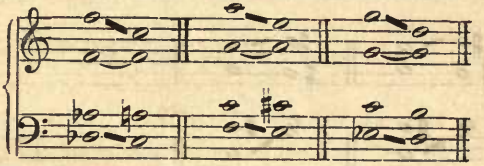
320.



are very hard and disagreeable, through the doubling of the leading tone resulting therefrom.

However, such *concealed octaves* may be written, when the *lower* voice descends a half-step into the *fifth* of the chord, while the other voice skips into the same interval, and progressions of this kind:

321 *a.*

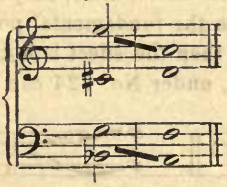


may unhesitatingly be employed.

Sometimes such progressions may, however, have a bad effect, as shown in Ex. 321 *b*.

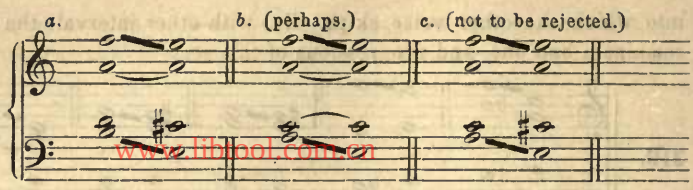
not good.

321 *b.*



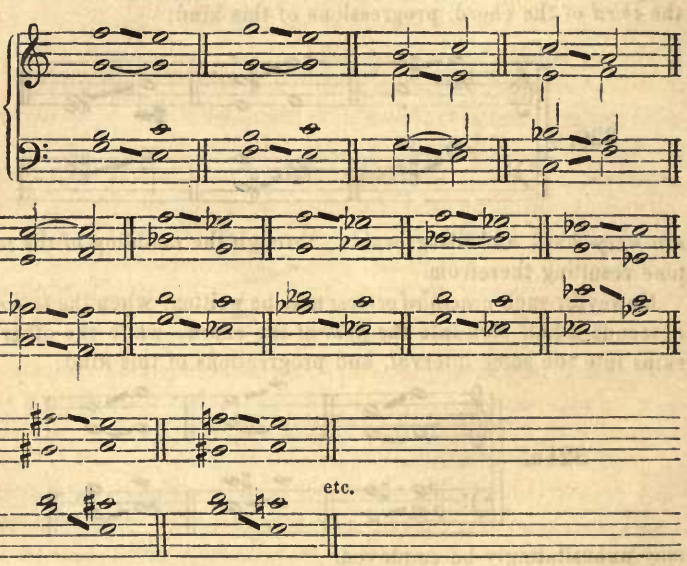
A good effect is rarely attained, when the *upper* voice progresses a half-step into the *fifth* of the chord, while the *lower* voice skips to the same interval. Of the progressions in 322, only that under *c.* can be tolerated, those under *a.* and *b.* must be rejected.

322.



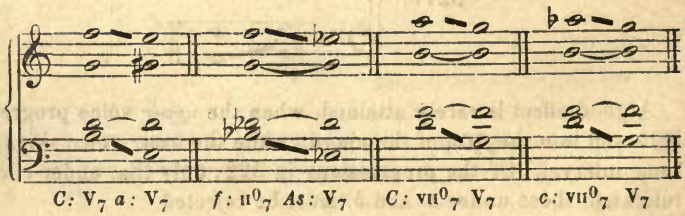
Furthermore, all *concealed octaves* arising from the resolution of a *seventh*, — no matter whether it descends a *whole-*, or a *half-step* — *must be carefully avoided, as altogether faulty in all voices* (comp. § 45). All the chord-connections under No. 323 are bad.

323.



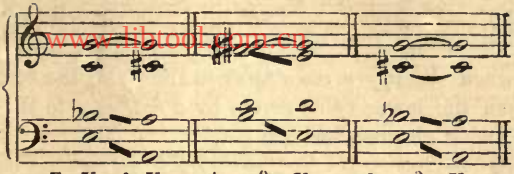
Only certain connections of two chords of the Seventh are rare exceptions to this prohibition of *concealed octaves* over the *seventh*. If in *some* of these cases *concealed octaves* arise, they can be permitted, if the resolution takes place into the fundamental position of the second chord of the Seventh, because then the effect is not bad. Thus, the chord-connections, for instance, under No. 324 can *not* be found fault with.

324.



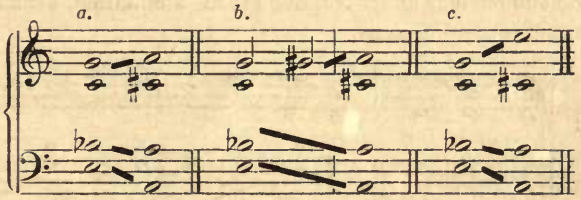
Even between a middle and an outer voice *concealed octaves* in the connection of two chords of the Seventh may sometimes have a good effect and are then permissible; e. g.

325.



Occasionally, even a resolution into a Triad may occur, in case the disagreeable effect of the *concealed octaves* is counteracted by a strong contrary movement. So the progression at 326 *a.* is tolerable; that at *b.* is perfectly correct; that at *c.* is more doubtful.

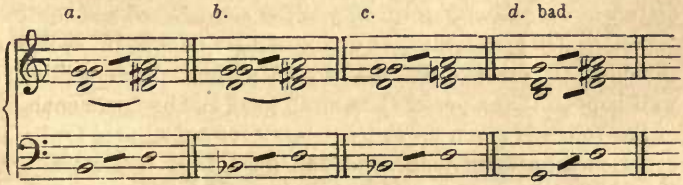
326.



It is evident that, whatever has been said concerning *concealed octaves*, is good also for *concealed unisons*, which result in a bad leading of voices even in a higher degree than *concealed octaves*.

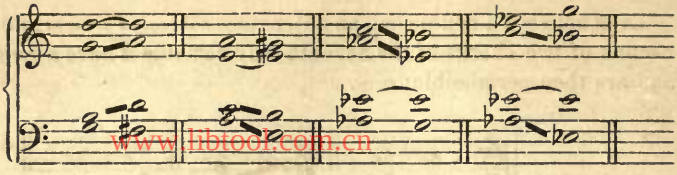
§ 60. It has already been said in § 59, that *concealed fifths* between *any two voices* must be avoided, when both voices skip. If the upper voice progresses diatonically into the *fifth*, while the lower one skips to the same interval, the *concealed fifths* thereby resulting are permissible between any two voices, provided the leading of the voices is in other respects correct.

327.



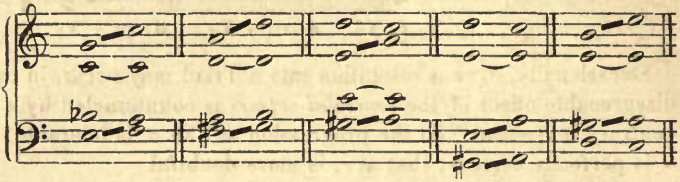
The chord-connections at 327 *a.*, *b.*, *c.* are good; that at *d.* is decidedly faulty and not allowable on account of the *concealed octaves* by a skip between Tenor and Bass, as well as on account of the general upward movement of all the voices. The progressions under 328 are perfectly good.

328.



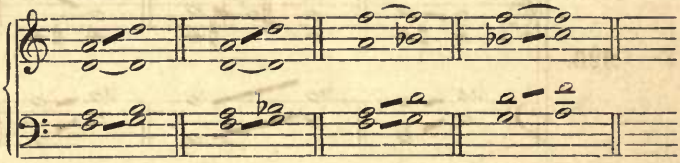
But when the *upper voice skips* to the *fifth*, the connection is good only when the lower voice moves by a *half-step* to the same interval. The following progressions are good:

329.



The connections under No. 330 are not admissible, because the lower voice moves a *whole-step*.

330.

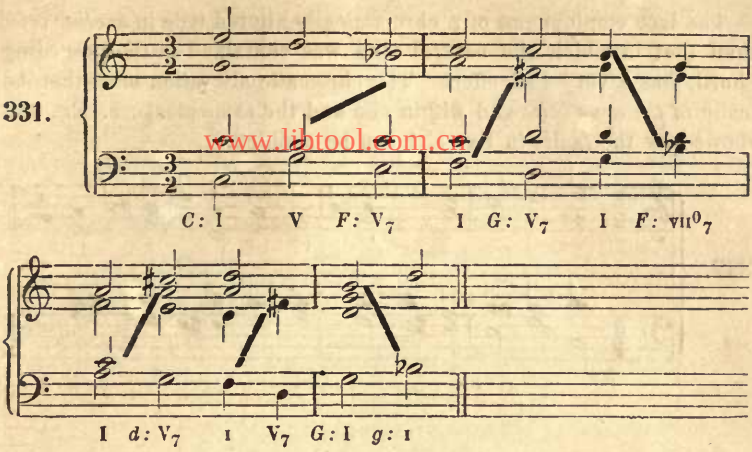


The rules and prohibitions here given in respect to certain *concealed octaves* and *fifths* may serve the pupil as an indication for what he is allowed to write and what he must abstain from. It is hardly possible to give definite rules that can be correctly applied to all cases where *concealed octaves* and *fifths* might occur in four-voiced writing. Consideration must always be had for the voice-leading in general. Wherever progressions have been interdicted as being faulty, they formed a bad leading of the voices, and can be avoided by a better leading. The following simple rule might therefore be given: *Concealed octaves and fifths are not allowed, when they cause an awkward and stiff leading of the voices.* Otherwise they can unhesitatingly be written, as in purposely shunning *all concealed octaves and fifths* in four-voiced writing, it may well happen that a perfectly natural, good and unobjectionable leading of the voices is given up and one less good substituted for it. Matured experience, artistic judgement and good taste will afterwards show the advanced pupil how to treat each single case.

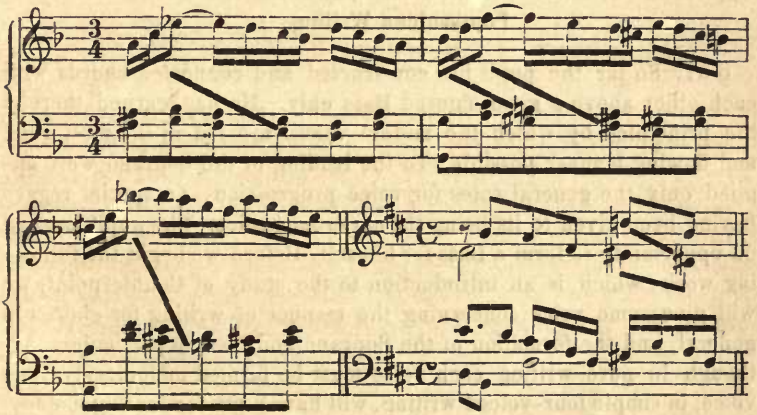
A cross-relation can occur in pure four-voiced writing only at the turn of a modulation*).

*) This rule, however, is applicable only to simple four-voiced writing in plain counterpoint (*gleicher Contrapunkt*), i. e. that counterpoint in which notes of equal

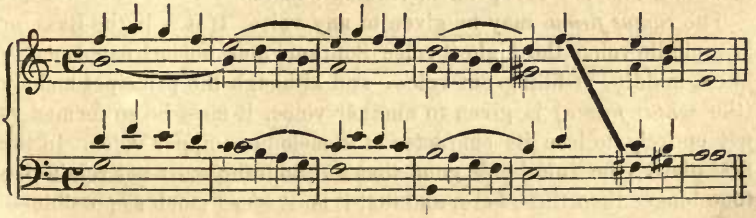
331.



duration are written to a *cantus firmus*. In embellished counterpoint the best masters proceed quite freely. Without the least consideration for cross-relation Bach writes passages such as the following:

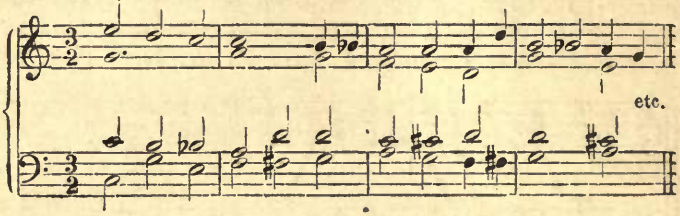


In the study of counterpoint the pupil will get more particular information concerning the cross-relation. In the following example it is clearly seen that the cross-relation could not be evaded.



The free employment of a chromatically altered tone in *another voice* than that in which the natural tone was contained in the preceding chord, has a very bad effect. The chromatic alteration must then be made *in the same voice* and within one and the same measure. Ex. 332 shows how the faults in Ex. 331 can be avoided.

332.



CHAPTER XX.

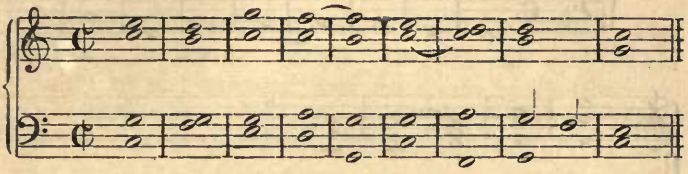
Application of Chords to the Accompaniment of a Cantus Firmus in Four-voiced Writing.

§ 61. So far the pupil has constructed and connected chords with each other above a given figured Bass only. He has learned thereby the principles by which the middle voices are led in the most quiet and flowing manner possible. To the leading of the Soprano were applied only the general rules for voice-progression, no special regard having been given to its being the uppermost voice. The pupil has had no opportunity to form a Bass for himself. Before we begin the following work, which is an introduction to the study of Counterpoint, we will give some rules concerning the manner of writing for chorus in general, and the formation of the Soprano and Bass in particular. Although in pure writing each voice must be formed melodiously, one voice, in simple four-voiced writing, will have a predominating melody. This predominating melody is called the *Cantus Firmus*. The other voices will have to be subordinated to it, as accompaniment, as far as their own free and independent leading admits.

The *cantus firmus* may be given to any voice. If it is in the Bass, or in a middle voice, the highest voice (Soprano) must not be treated merely like a middle, or filling-out voice; and although the principal melody (the *cantus firmus*) is given to another voice, it must be so formed as not entirely to lose its character of a melodious upper voice. In the first place, the rule holds good that the Soprano must not retain one tone longer than three bars, and that it must — as much as possible —

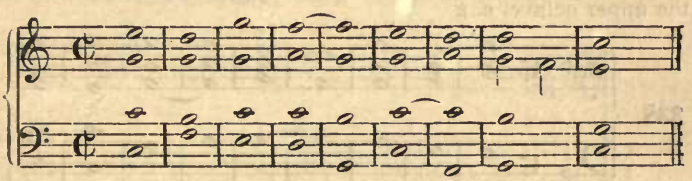
be led diatonically, or in easy and singable skips. Furthermore, it is to be observed that the middle voices, even in the open position, must not be placed too far from each other. It is best not to separate the Alto from the Tenor more than an *octave*, at the utmost. If these bounds must occasionally be overstepped, the voices must return to a closer position as soon as possible; a piece for chorus thus constructed (like that given in 333) would not sound well because the middle voices are too distant from each other.

333.



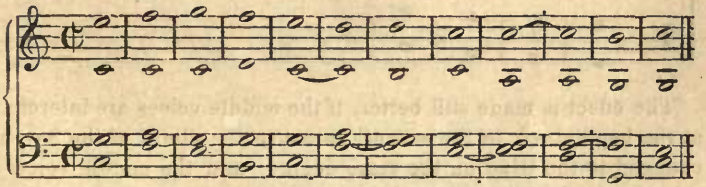
Although in this example each individual voice is correctly led, and the connection of the chords is not unnatural or forced, the whole example must be rejected because the middle voices are too far apart from each other. We show it improved in No. 334, where the middle-voices simply exchange places.

334.



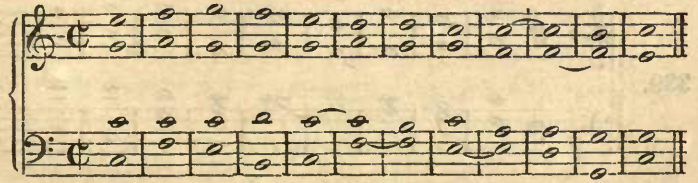
The distance of the Soprano from the Alto can also only occasionally exceed the bounds of an octave. For this reason the following example must be rejected, even though it presents nothing censurable with regard to the leading of the voices and the succession of chords.

335.



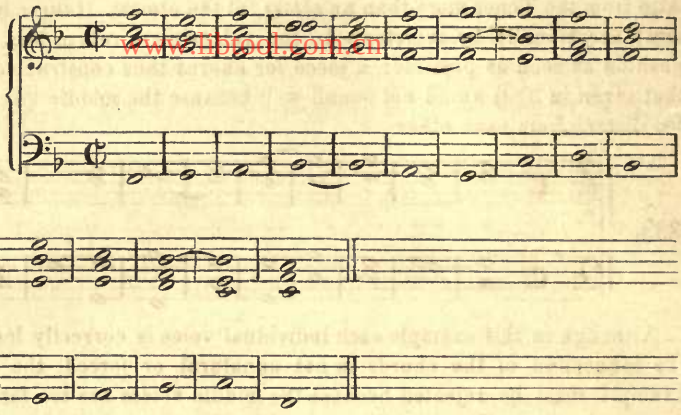
In No. 336 it is improved by the inversion of the middle voices.

336.



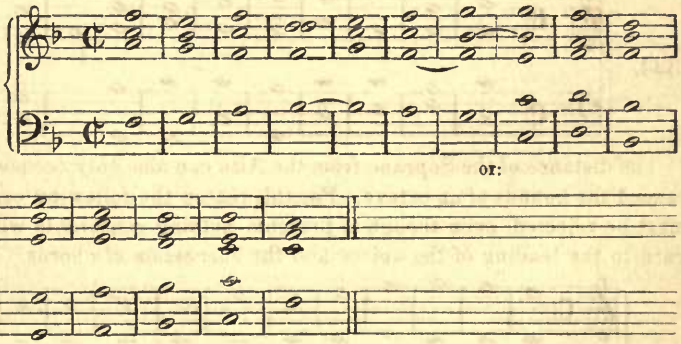
Likewise, the Tenor, as indeed all three upper voices, must not be kept too far away from the Bass (the voice which determines the chord) for too long a time.

337.



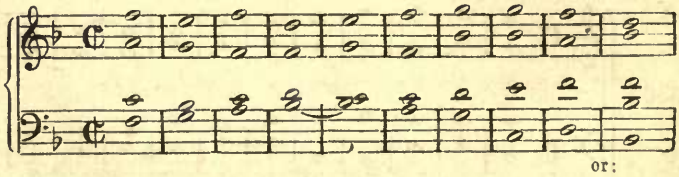
A better effect is obtained by transposing the Bass of Ex. 337 into the upper octave, e. g.

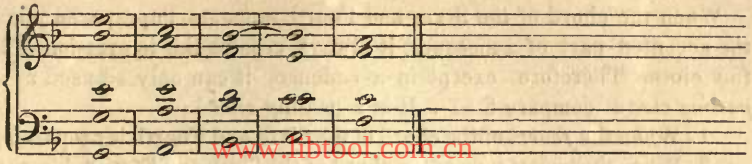
338.



The effect is made still better, if the middle voices are interchanged at the beginning; in the seventh measure the chord of the Seventh is changed to the triad on the same degree, and the middle voices then progress in the same manner as before.

339.



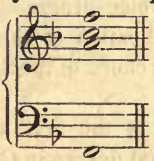
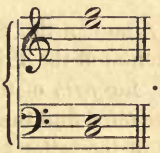


The following rules therefore hold good for chorus writing.

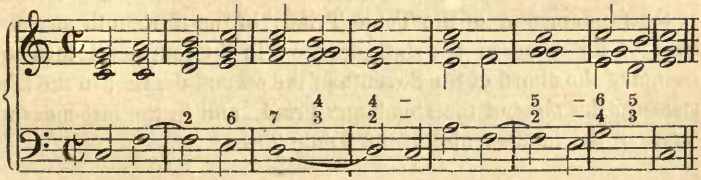
1. The voices must be led so as not to continue long in a very high or a very low position.

In a very high position a *piano* or *pianissimo* would be difficult, under some conditions impossible, to a chorus. The intonation would therefore often be unsure and wavering, even when sung by a good chorus. In a very low position an energetic *forte* or *fortissimo* would be impossible. If the voices are to enter freely on the highest tones of their compass it must be done in a *forte* or *fortissimo* passage. If the entrance occurs upon the lowest tones, only a *piano* or *pianissimo* can be effected.

2. The voices must not be separated too far from one another.

If the voices lie at a distance from each other they cannot effect an equable shading. The following chord could easily be sung *forte* or *fortissimo* by the three upper voices; the Bass, on the contrary, would be weak:  . The effect is still worse if the *middle voices* lie at a distance from each other:  . If the voices lie at a distance from each other, they are unable mutually to support one another. The surety and pureness of intonation must suffer under such conditions. The lowest voice — here represented by the Bass; in female chorus by the Alto, and in three-voiced writing occasionally by the Tenor — must always receive special attention. It is still less adapted to sustaining a tone, than is the Soprano. Except as an organ-point, the bass-note can only be sustained when it is the preparation of a suspension of a chord of the Second, possibly of a chord of the Sixth and Third, and, in the closing cadence, in connecting the chord of the Sixth and Fourth of the first degree with the Dominant Triad, or the chord of the Seventh.

340.

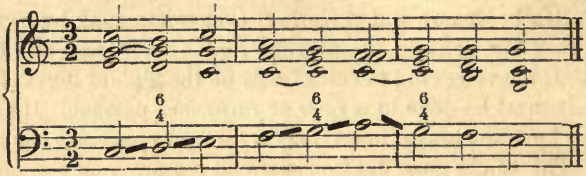


When the chord of the Sixth and Fourth appears unprepared upon the accented part of a measure, it always creates the impression of a full close. Therefore, except in a cadence, it can only be used as a *passing* chord (compare § 57). It is a passing chord:

1. When the *fourth* of the chord of the Sixth and Fourth is prepared;
2. When the lowest tone of the chord of the Sixth and Fourth, i. e. the *fifth* of the primal chord, passes *diatonically* between other tones.

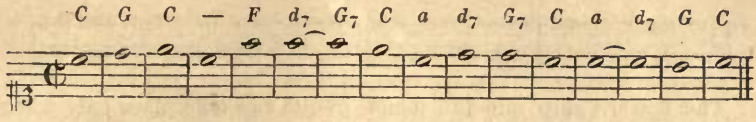
Both conditions, however, must be complied with at the same time, so as to give the chord of the Sixth and Fourth the character of a passing chord; e. g.

341.



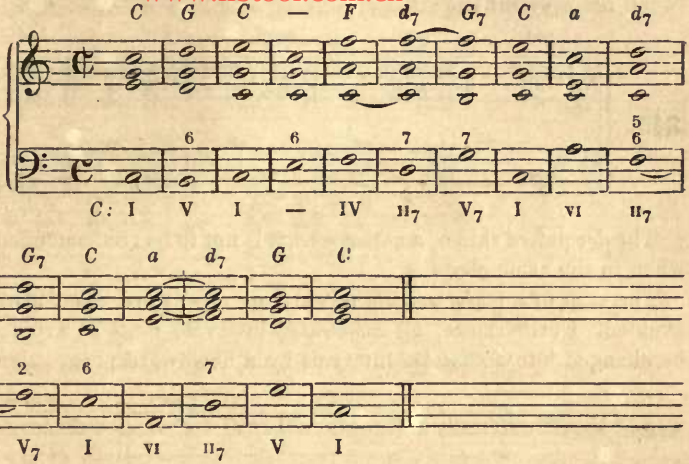
The pupil must now endeavor to write the three lower voices to a *cantus firmus* in the Soprano, using the chords that are indicated above it, and connecting them according to the rules of voice-progression now known to him. We use large letters for the indication of the major Triad, and small ones for the minor Triad; for the chord of the Seventh, the figure 7 is added.

The following *cantus firmus* in the Soprano has in the first measure the *octave* of the fundamental of the Triad of the first degree in C major; in the second measure, the *fifth* of the Dominant Triad; in the third and fourth measures, the *third* and the *octave* of the fundamental of the Tonic Triad. The Bass in the latter two measures can neither remain stationary nor form the chord of the Sixth and Fourth in the second measure; in such cases, only the fundamental position and the chord of the Sixth can be used. In the fifth measure the Soprano has the *octave* of the fundamental of the Sub-dominant Triad; in the sixth measure the *third* of the chord of the Seventh of the second degree; in the seventh measure the Dominant *seventh*; in the eighth measure the *third* of the Tonic Triad; in the ninth measure the *third* of the triad of the sixth degree; in the tenth measure the *fundamental* of the chord of the Seventh of the second degree; in the eleventh measure the *fifth* of the chord of the Dominant Seventh; in the twelfth measure the *octave* of the fundamental of the Tonic Triad; in the thirteenth measure the *third* of the triad of the sixth degree: in the fourteenth measure the *seventh* of the chord of the Seventh of the second degree; in the fifteenth measure the *third* of the Dominant Triad, and in the last measure the *octave* of the fundamental of the Tonic Triad.

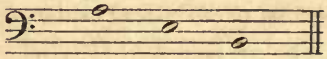


The *cantus firmus* can be worked in the following manner:

342.



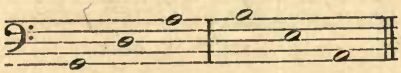
The pupil will see by the leading of the Bass in Ex. 342, that it can move by degrees, as well as by skips of a *third*, *fifth* or *sixth* in contrast to the more quiet progression of the middle voices. All skips that are easily executed are allowed in the Bass. On the contrary, all those progressions that are difficult to be executed are forbidden. So, even two successive skips of a *fourth* downward are not good.



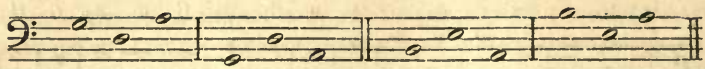
They can be avoided by a skip of a *fifth* and a skip of a *fourth*, or *vice versa*.

Two skips of a *perfect fourth upward* can unhesitatingly be written, as shown in Ex. 342; they present no difficulties of intonation.

On the contrary, the succession of two skips of a *fifth*, either in an upward or a downward direction, must carefully be avoided.

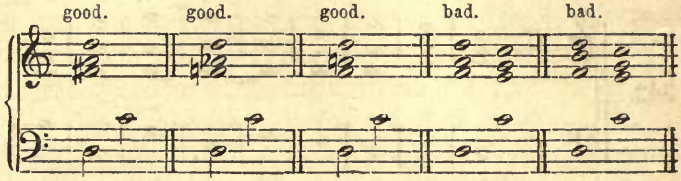


They are improved by changing one of the skips of a *fifth* to a skip of a *fourth* in the opposite direction; e. g.



The *upward* skip into the minor *seventh* can take place only when the *seventh* is thereby added to the Triad; but it can never be used between *two different* chords.

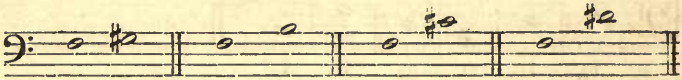
343.



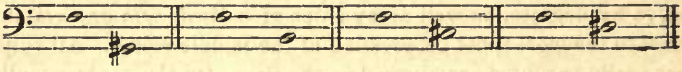
The *downward* skip of a *minor seventh* is not to be recommended, even when in the same chord.

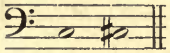
The skip of a *major seventh* upward or downward must always be avoided. Furthermore, all *augmented* intervals must be avoided, and be changed into *diminished* intervals by a downward progression.

344.

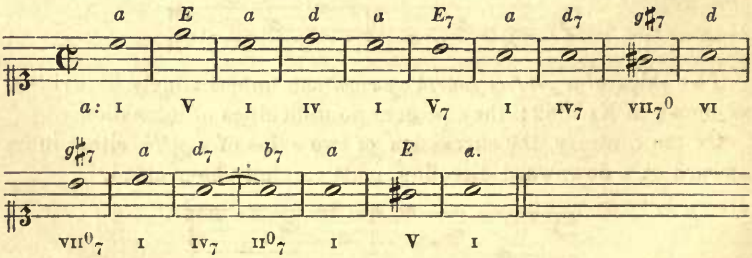


345.



We therefore write the *diminished seventh* downward, instead of the *augmented second* upward; the *diminished fifth* downward, instead of the *augmented fourth* upward; the *diminished fourth*, instead of the *augmented fifth*: the *diminished third*, instead of the *augmented sixth*. Only the *augmented prime*  is good. The skip into the *perfect octave* is allowed both upward and downward,

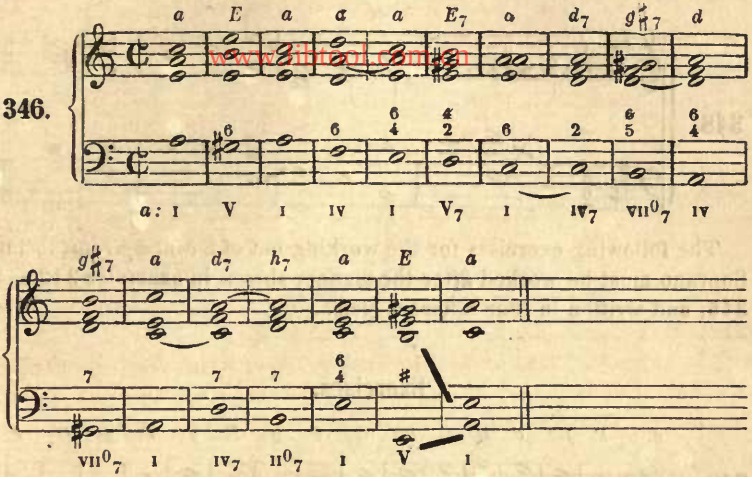
We here give the working out of the following *cantus firmus* in a minor.

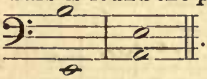


We have added to this *cantus firmus* the degree-numbers of those chords which, as indicated by the letters over the notes, will serve us

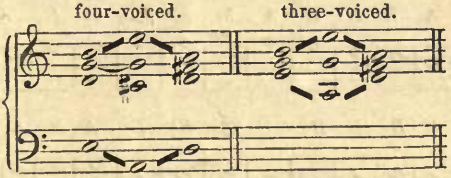
in the working of this example. We give the chromatic raising of the seventh degree in minor, only where that tone appears in the *cantus firmus*.

346.



The above example, in the fifth and tenth measures, shows us the prepared introduction of the chord of the Sixth and Fourth of the first and fourth degrees, and, in the fifteenth measure, its free introduction on the first degree, in the closing cadence. In the seventh bar the tone *C* (in the Bass) prepares the *seventh* of the chord of the Seventh of the fourth degree, and, therefore, retains the same tone in the following bar. The *seventh (C)* in the Tenor (bar 13) must progress a degree upward, because the Bass steps to its real tone of resolution, (*B*). Finally, in the last two bars is found the progression from *E B*, to *A E* in contrary motion:  . This progression, which in parallel motion would result in *parallel fifths*, is allowed in *contrary motion*. We find it used by the best classical masters. In two-voiced writing this progression is impossible, because there *bare fifths are altogether* forbidden. In four-, and three-voiced writing this progression can take place, even between the outer voices.

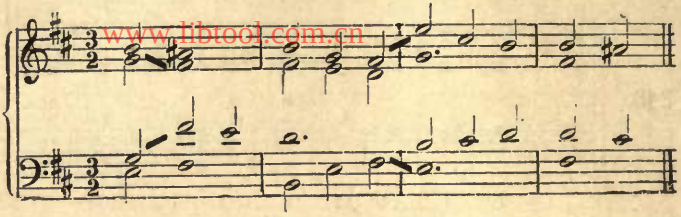
347.



Parallel fifths and *octaves* can therefore be avoided by contrary motion, and such progressions are allowed, if the leading of the other

voices is otherwise natural and correct. *Parallel octaves*, however, can never be avoided by contrary motion, and progressions such as in No. 348 are always faulty (compare Ex. 343).

348.

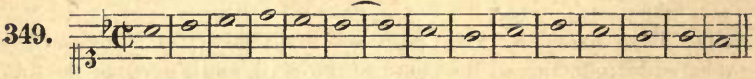


The following exercises for the working out of a *cantus firmus* in the Soprano must be worked after the manner shown in examples 342 and 346, and written in four different clefs.

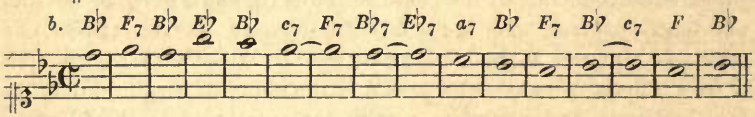
Exercises.

349.

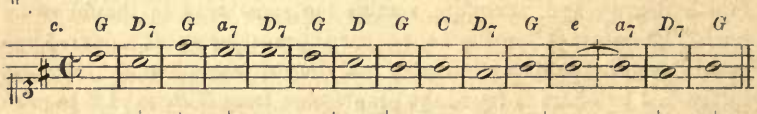
a. F B♭ F B♭ C7 B♭ C7 F g F g7 F g7 C7 F



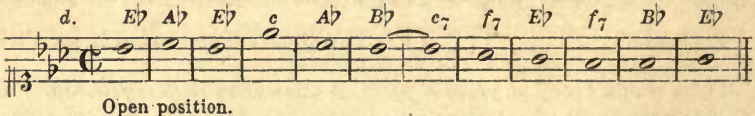
b. B♭ F7 B♭ E♭ B♭ c7 F7 B♭7 E♭7 a7 B♭ F7 B♭ c7 F B♭



c. G D7 G a7 D7 G D G C D7 G e a7 D7 G

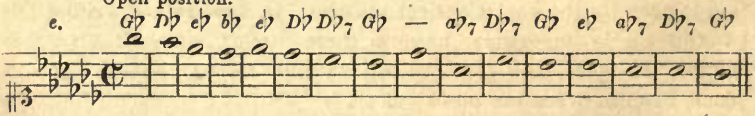


d. E♭ A♭ E♭ c A♭ B♭ c7 f7 E♭ f7 B♭ E♭

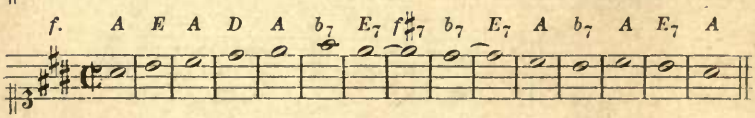


Open position.

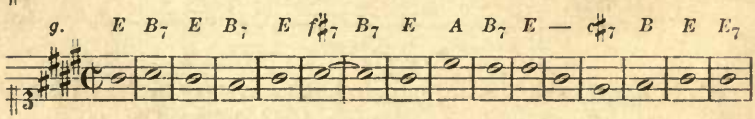
e. G♭ D♭ e♭ b♭ e♭ D♭ D♭7 G♭ — a♭7 D♭7 G♭ e♭ a♭7 D♭7 G♭

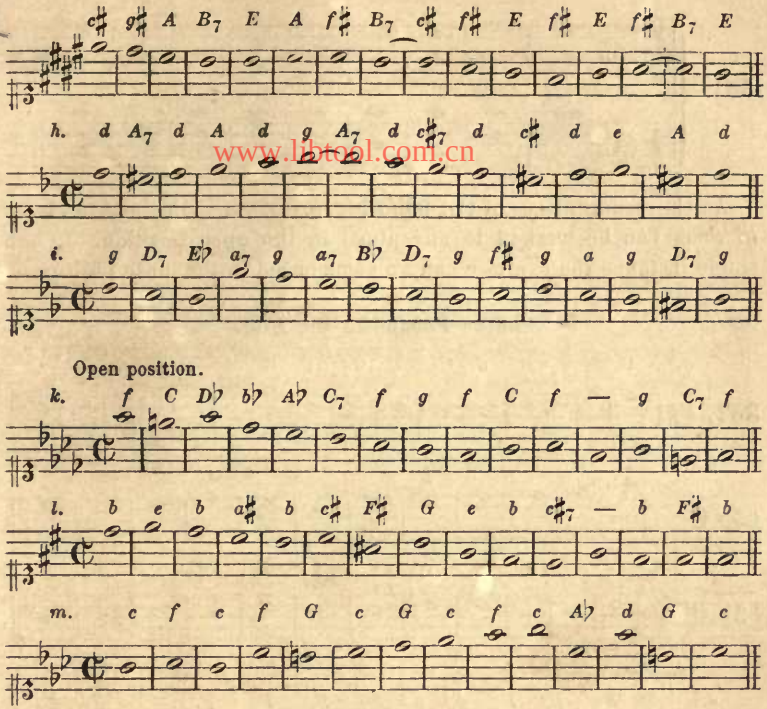


f. A E A D A b7 E7 f♯7 b7 E7 A b7 A E7 A

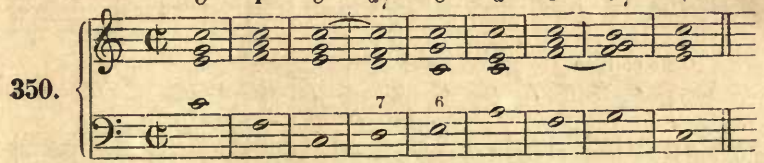


g. E B7 E B7 E f♯7 B7 E A B7 E — c♯7 B E E7



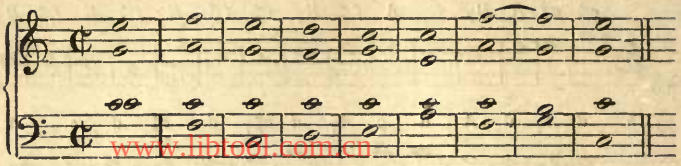


§ 62. The task is incomparably more difficult when the *cantus firmus* is in a middle voice. Then the Soprano requires special consideration; it cannot be treated like a middle voice. As far as possible, it, as well as the *cantus firmus*, must be a melodiously progressing voice. The following *cantus firmus*, if worked in the manner shown in Ex. 350, would entirely deprive the Soprano of its peculiar character.



If we give the Tenor-part of 350 to the Soprano, and the Soprano-part to the Tenor, as shown in Ex. 351, the result is much better.

351.

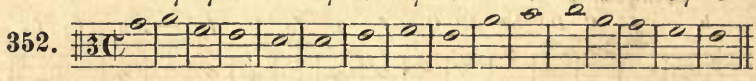


As the *cantus firmus* of the following exercises is in the Alto, most of them can be worked to advantage in the open position. In one single instance the exercise can be commenced in the close position.

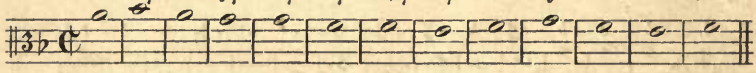
Cantus Firmus in the Alto.

352.

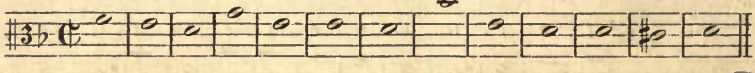
a. C d_7 G_7 a d G_7 C G_7 C F b C d C G_7 C



b. F C_7 F g_7 C_7 F_7 $B\flat_7$ e_7 F g F C F

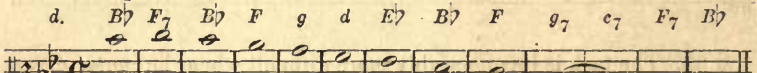


c. d A_7 d g e A_7 d g A_7 $B\flat$ g A_7 d

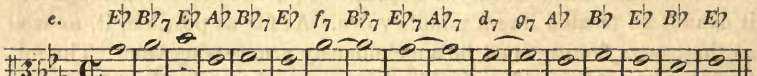


Close position.

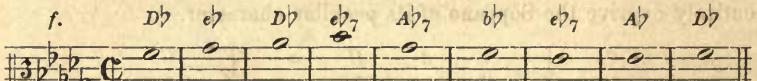
d. $B\flat$ F_7 $B\flat$ F g d $E\flat$ $B\flat$ F g_7 c_7 F_7 $B\flat$



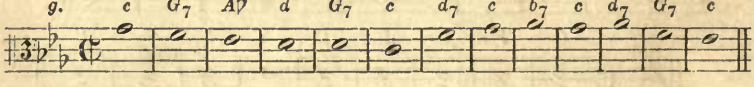
e. $E\flat$ $B\flat_7$ $E\flat$ $A\flat$ $B\flat_7$ $E\flat$ f_7 $B\flat_7$ $E\flat_7$ $A\flat_7$ d_7 g_7 $A\flat$ $B\flat$ $E\flat$ $B\flat$ $E\flat$



f. $D\flat$ $e\flat$ $D\flat$ $e\flat_7$ $A\flat_7$ $b\flat$ $e\flat_7$ $A\flat$ $D\flat$

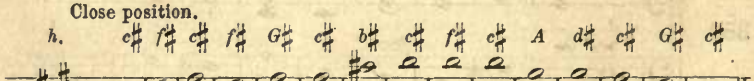


g. c G_7 $A\flat$ d G_7 c d_7 c b_7 c d_7 G_7 c



Close position.

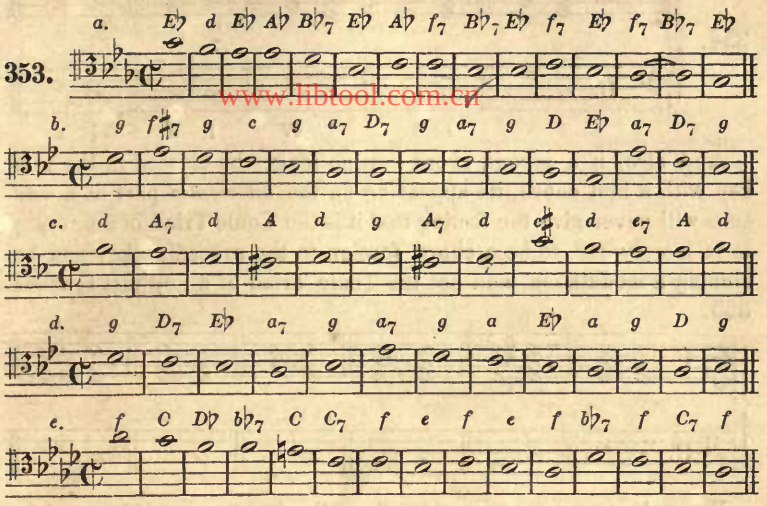
h. $c\sharp$ $f\sharp$ $c\sharp$ $f\sharp$ $G\sharp$ $c\sharp$ $b\sharp$ $c\sharp$ $f\sharp$ $c\sharp$ A $d\sharp$ $c\sharp$ $G\sharp$ $c\sharp$



The following examples, with the *cantus firmus* in the Tenor, are to be worked in the close position.

Exercises.

353.



CHAPTER XXI.

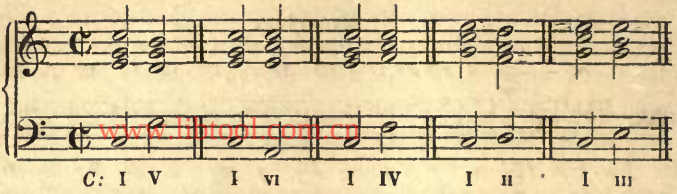
Modulation.

§ 63. In the exercises of this text-book the pupil has become acquainted with various modulatory turns. He knows that "Modulation" means the abandoning of the dominating key in a piece. If this principal key is abandoned altogether and a new key is introduced, the new key becomes the dominating one for the time being, and — unless the two keys are very closely related to each other — it is necessary carefully to establish the new key. It must be introduced by a modulation. With respect to the art of modulating, we shall give the pupil some points as to:

1. How to go from one key into any other;
2. How to establish the foreign key, in order to bring the modulation to a definite end.

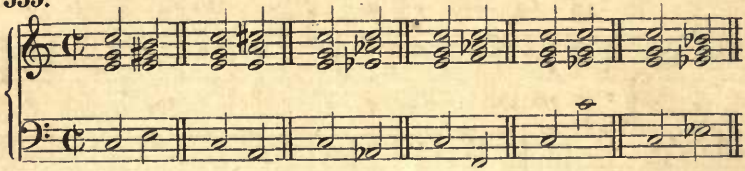
A new key is not reached by hearing its Tonic Triad merely; for the sounding of that chord alone does not establish the new key. Hearing the following chords, we would regard them all as belonging to *C* major.

354.



And also, if a second chord can no longer be classed in the same key with a first chord, its appearing on the *unaccented* part of a measure will never give the feeling that it is the Tonic Triad of a new key. It is merely felt to be a chord foreign to the preceding key and beginning a modulation, and not the Tonic Triad of a key just reached.

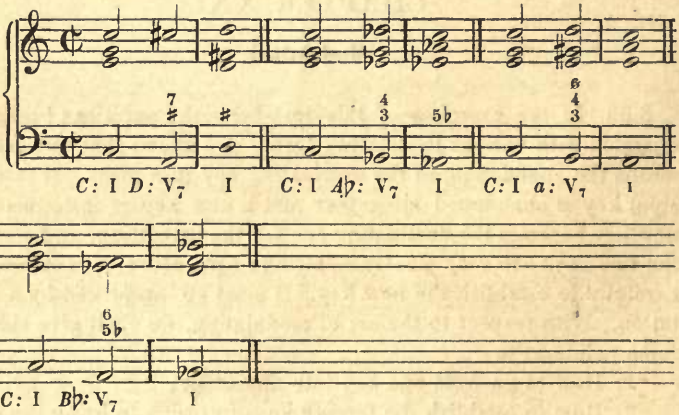
355.



We arrive at a new key under the following two conditions only:

1. The Tonic Triad, in two-divisioned time, must fall on the first part of the measure:
2. It must appear as cadencing resolution of the chord of the Dominant Seventh.

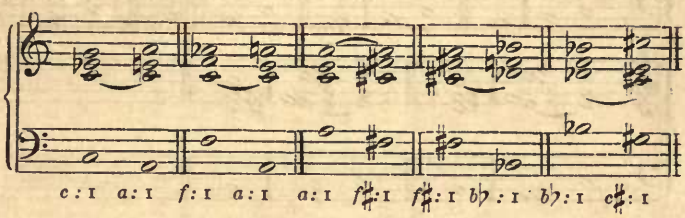
356.



It would be easy, starting from the Tonic Triad of any key, to get to the chord of the Dominant Seventh of most keys, since that chord has one or two (in one case even three) tones in common with nine of the twelve chords of the Dominant Seventh, and in the remaining three chords a direct connection could easily be managed with correct lead-

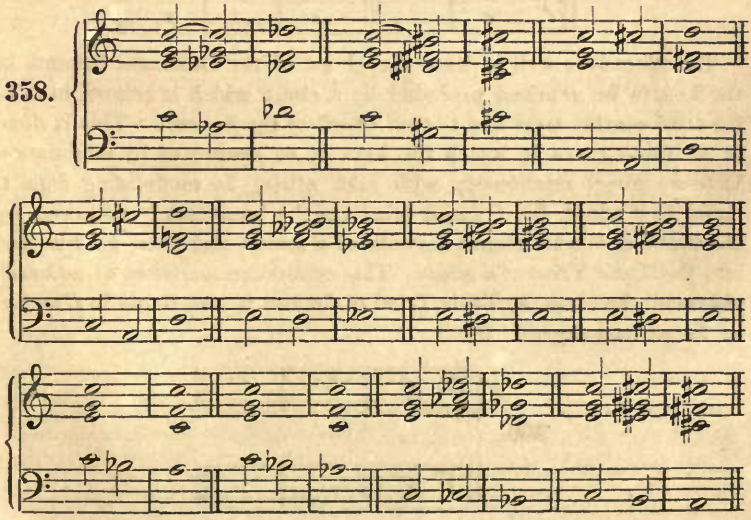
ing of the voices. But most of these chord-connections partake of a rough, hard and strange character, even where *one* sustained tone seemingly forms a natural bridge between them. Not always is the principle true, that any connection of two chords possessing one tone in common is at all times pleasing and agreeable, when that tone remains in the same voice. Even though the connecting tone is retained in the same voice and the voice-leading appears correct, the chord-connetions in Ex. 357 are not good, because they possess no close relationship to each other.

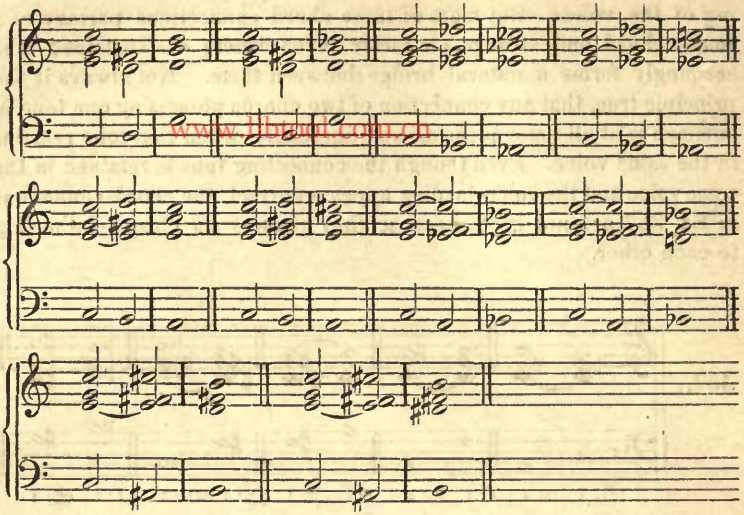
357.



So also the direct connection of the Tonic Triad of *C* major with the twelve chords of the Dominant Seventh and their cadencing resolutions into the twenty four major and minor keys would in most cases *not* be a sufficient modulation for reaching a new key. The connections under No. 358, with few exceptions, have a constrained and forced character.

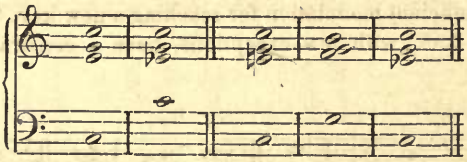
358.





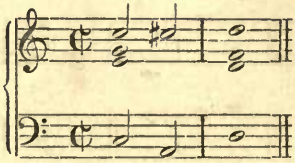
Even the abrupt succession of the Tonic Triads in major and minor, although they have *two* tones in common, has a strange effect, which is not always destroyed in connecting them by means of their mutual chord of the Dominant Seventh; e. g.

359.



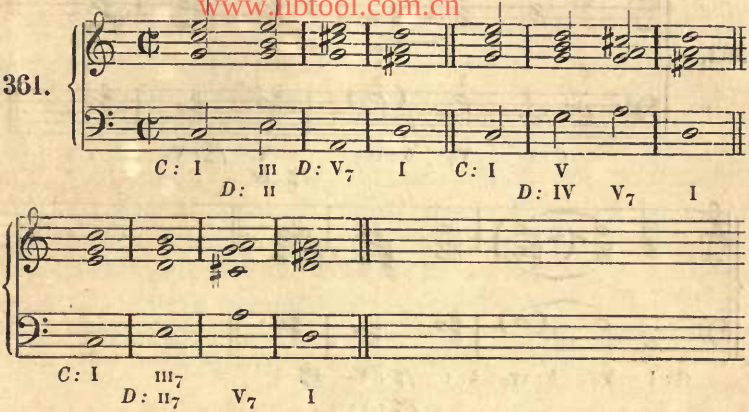
Therefore it is well to have the chord of the Dominant Seventh of the key to be reached preceded by a chord which is related both to the triad started from and to that chord of the Seventh. This is done in all those cases in which the keys to be connected by modulation have no direct relationship with each other. In modulating from *C* major to *d* minor, the *C* major triad can be immediately followed by the chord of the Dominant Seventh of *d* minor, and then be resolved into the Tonic Triad of *d* minor. This connection partakes of no harsh character, because the Tonic Triad of *d* minor is also found in *C* major, on the second degree; thus:

360.



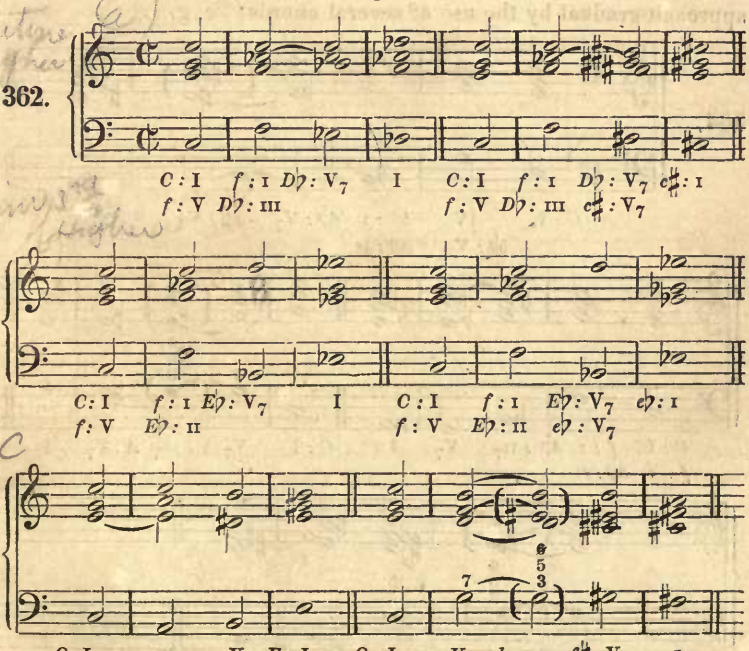
The modulation to *D major*, in this manner would be much harsher, because the triad *D F♯ A* is not found in *C* major. It is better, therefore, to insert after the *C* major triad, a chord which bears a relation both to *C* major and to *D* major.

361.



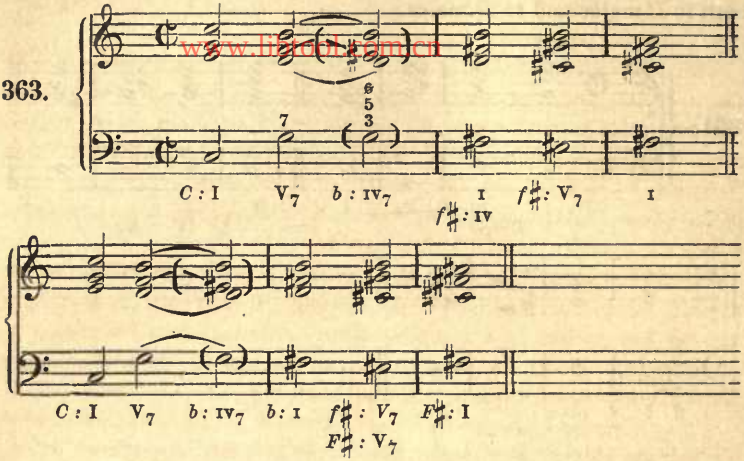
In a similar manner the following modulations are formed:

362.



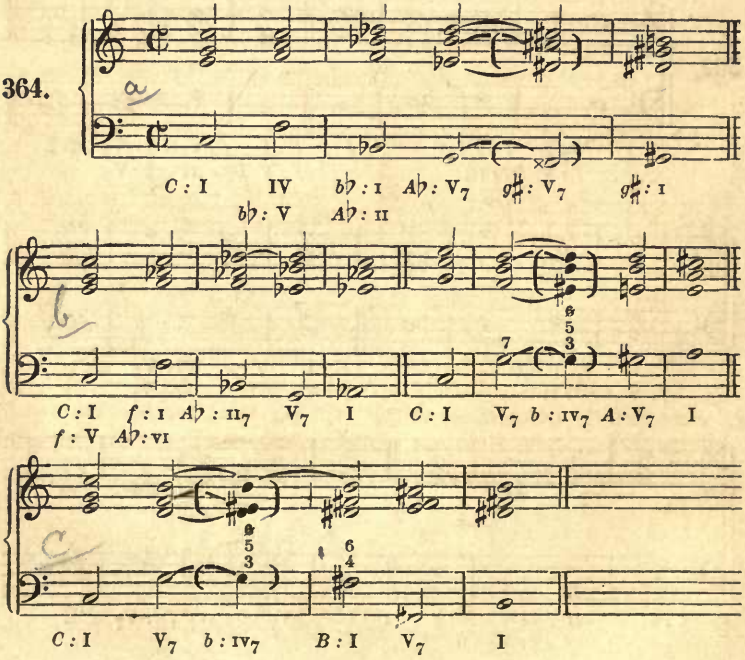
The last modulation (from *C* major to *f♯* minor) can be made still smoother by first resolving the chord of the Augmented Sixth and Fifth into the triad of *b minor*.

363.



It is generally better, in modulations into remote keys, to make the approach gradual by the use of several chords; e. g.

364.



§ 64. The last modulation shows:

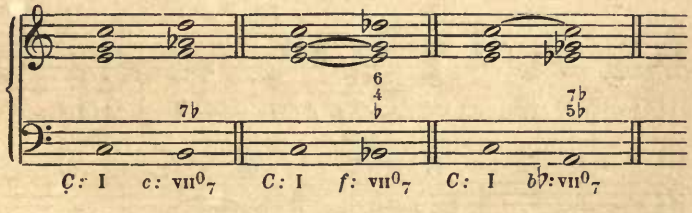
1. The similarity in sound between the chord of the Dominant Seventh and the chord of the Augmented Sixth, Fifth and Third;
2. The entrance of the chord of the Sixth and Fourth on the accented part of the measure.

The enharmonic change of the chord of the Dominant Seventh with the chord of the Augmented Sixth, Fifth and Third offers one of the best and most natural means for modulation. Since both chords can be used in major and minor, and the chord of the Augmented Sixth and Fifth can be resolved into the position of chord of the Sixth and Fourth of the Tonic Triad, remote keys can easily and agreeably be connected with each other by means of few chords.

When the chord of the Sixth and Fourth — as already mentioned — appears on the accented part of the measure, it calls forth in a striking manner the feeling of a complete close. Although it is not indispensable in the closing cadence proper, it strengthens it and creates a more pronounced feeling of a complete close.

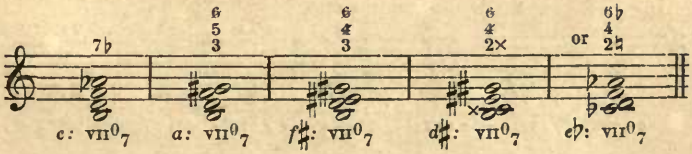
§ 65. *The chord of the Diminished Seventh* is the principal means for getting quickly and easily from one key into *any* other. It can enter freely anywhere without preparation of the *seventh*. It allows of many a resolution and progression into minor and major and, by the enharmonic change of one or more or all of its tones, it can incline even towards the most remote keys. No. 365 shows the facility with which it can be introduced. Here the chords of the Diminished Seventh on the seventh degree of *c* minor, *f* minor and *b♭* minor, respectively, are brought into immediate connection with the Tonic Triad of *C* major.

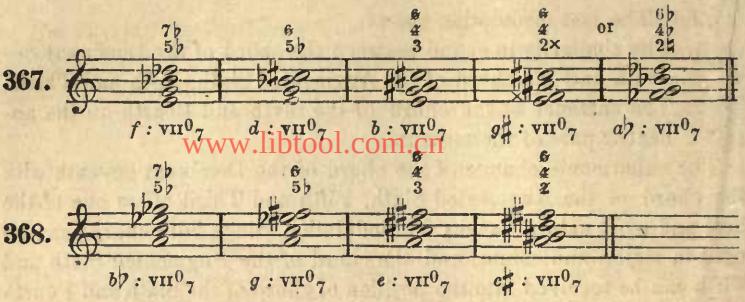
365.



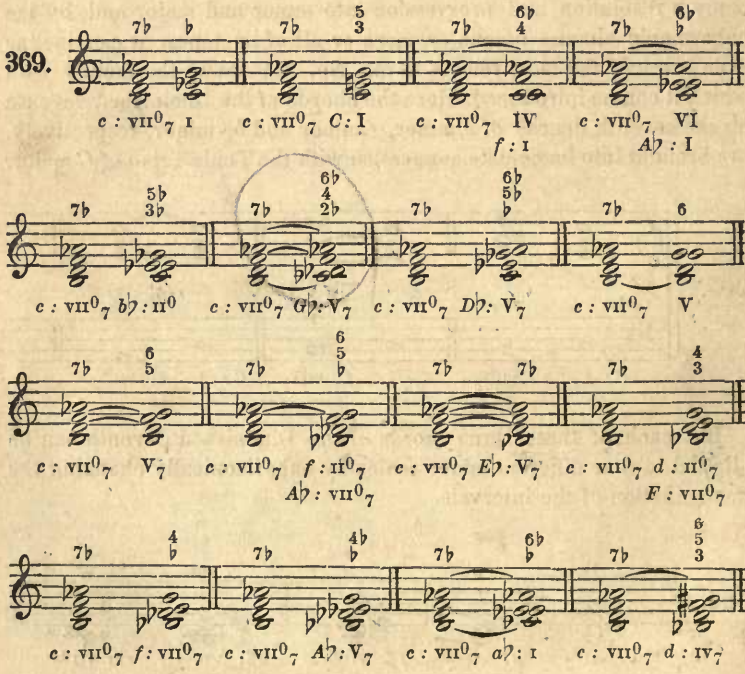
But each of these three chords of the Diminished Seventh can be allotted to four different minor scales by enharmonically changing the denomination of the intervals.

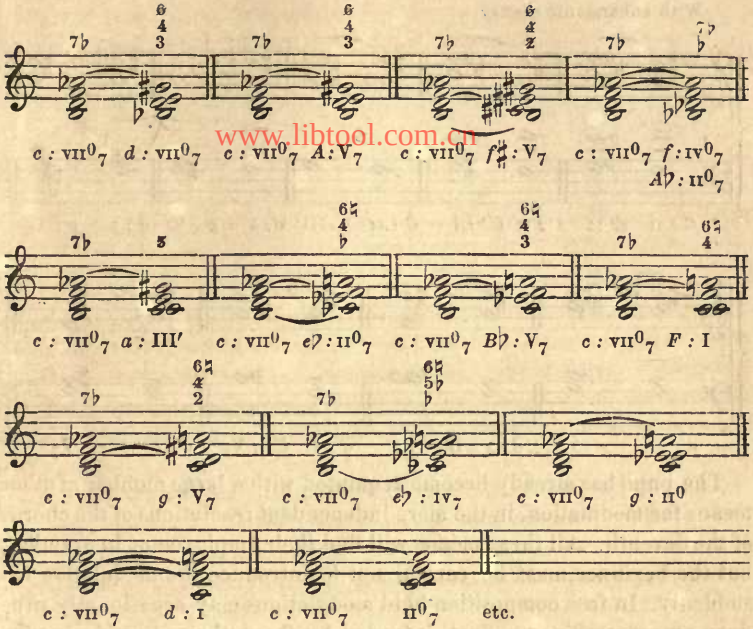
366.





Now, since each of these fundamental positions or inversions of the chords of the Diminished Seventh may be resolved into the Tonic Triad of the *minor key* to which it belongs, as well as into the *major key* of the same degree, and also into keys of other degrees, at pleasure, and — as is evident from Ex. 365 — since each chord of the Diminished Seventh may follow a triad, three forms of the chord of the Diminished Seventh give the cue to all major and minor keys. In looking at a few of the possible resolutions of the chord of the Diminished Seventh on the seventh degree in *c* minor, it immediately is evident, what pliable means for modulation we have in those chords of the Diminished Seventh.

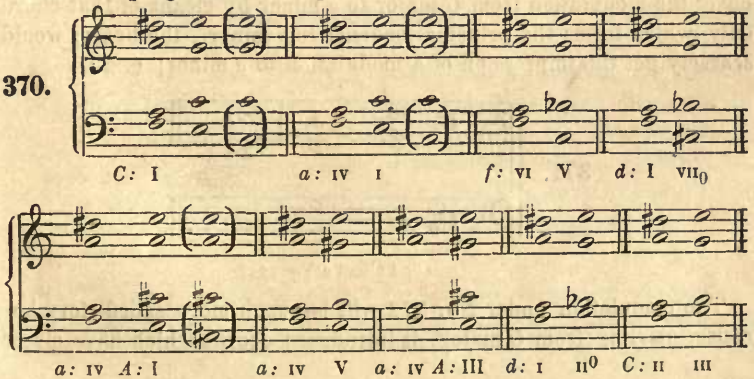




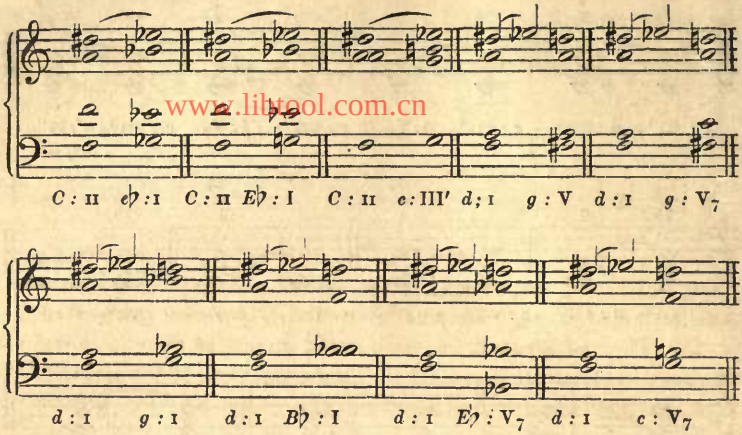
By writing the chord *B D F A♭* with the enharmonic changes shown in Ex. 366, the extent of the circle of progressions into other keys becomes still larger. It would take too much space to indicate all these progressions; we leave this to the pupil, so that he may become acquainted with the manifold resolutions of the chords of the Diminished Seventh, according as they are written.

§ 66. Another means for modulation is found in the chord of the Augmented Sixth which, since it belongs to four different keys (comp. § 50), can be resolved into them and may also have many other resolutions and progressions; e. g.

370.



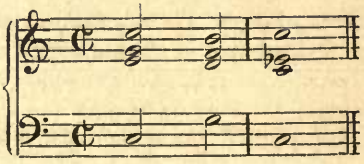
With enharmonic change.



The pupil has already become acqainted with a large number of other means for modulation, in the more independent resolutions of the chords of the Seventh. All these means will find their employment in practice; but the beginner must be careful not to introduce the modulation too suddenly. In free composition bold modulations may occasionally produce an extraordinary effect, intended by the author. But if a modulation outside of the frame of a larger form of art, is intended to be made, (perhaps as a short mediating interlude between two pieces of music in different keys) direct means of modulation, that have rough effect, must be avoided, and the new key be gradually introduced. The smoother and the more gradual a modulation between two remote keys is made, the better will it prove to be. A short example will suffice to make this clear to the pupil.

The keys of *C* major and *c* minor have the chord of the Dominant Seventh in common. If, in connection with the Tonic Triad, we were to effect the modulation from *C* major to *c* minor by means of that chord only (which forms the principal cadence in *c* minor), the hearer would scarcely get the impression of a modulation to *c* minor; e. g.

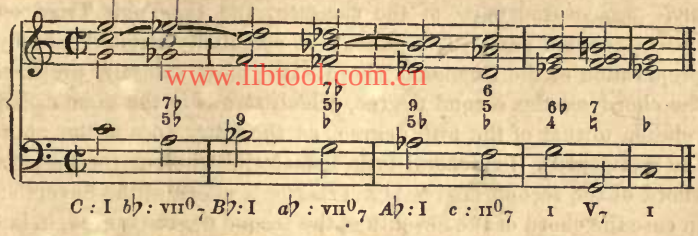
371.



The modulation under No. 372 will be much more satisfactory because, starting from *C* major, it introduces chords which have closer

relations to *c* minor, and which tend to make us forget the *C* major key that preceded.

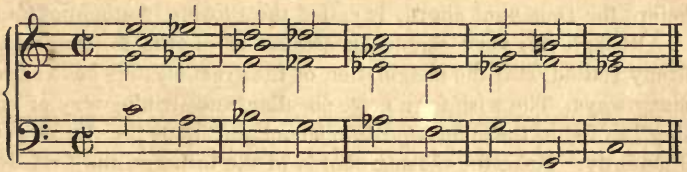
372.



C : I *b*♭ : VII$^0_7$ *B*♭ : I *a*♭ : VII$^0_7$ *A*♭ : I *c* : II$^0_7$ I V_7 I

Ex. 372 shows suspensions in the second and third bars. Suspensions are always well adapted to establish a closer connection of chords. The employment of suspensions in modulations is therefore especially recommended. In Ex. 372 the connection of the triads of *C*, *B*♭ and *A*♭ would appear less pliant without suspensions than with them.

373.



Finally, we see, in Ex. 372 and 373, the modulation to *c* minor ended by a complete closing cadence. This is necessary in order to establish the foreign key and definitely end the modulation.

CHAPTER XXII.

The Closing Cadence*).

§ 67. The necessary closing formulas for the ending of a musical period are exceedingly simple. There are indeed only two, of which the first, the **Authentic Cadence** or **Close**, is by far the most frequently used, because it creates the feeling of a complete close in a greater degree than the Second, the **Plagal Close**, which is much less used compare § 18). The authentic cadence is formed by the succession of the

*) This, and the following chapters, consist partly of extracts from essays, and partly of revised essays, which were published by the author in the "Musikalisches Wochenblatt" (Leipzig 1875) under the pseudonym of L. Luebenau.

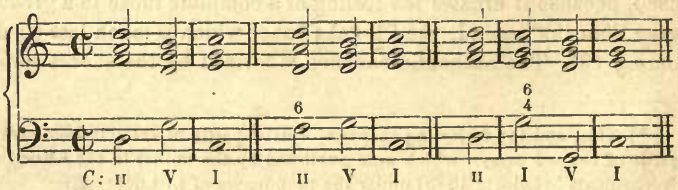
Dominant chord (whether the Triad or chord of the Seventh) and the Tonic Triad, in such a manner that the Dominant chord falls on the *arsis* (unaccented part) of the measure, and the Tonic Triad on the *thesis* (accented part). This cadence is essentially strengthened by the preparation of the Dominant chord. It is most naturally prepared by the chord on the second degree, which stands in the same cadencing relation to that of the fifth degree, as the latter does to the chord on the first degree. In general it is immaterial whether the preparatory chord of the second degree is a Triad or a chord of the Seventh; but in case the chord of the Seventh of the second degree is used, it, in turn, must be prepared. The triad, and even the chord of the Seventh, of the fourth degree can occasionally be used as a chord of preparation. Such a more developed closing formula, when introduced by the chords of the mentioned degrees, often also by the insertion of the Tonic Triad as chord of the Sixth and Fourth, and occasionally as chord of the Sixth, before the Dominant chord, is called the Closing (Authentic) Cadence.

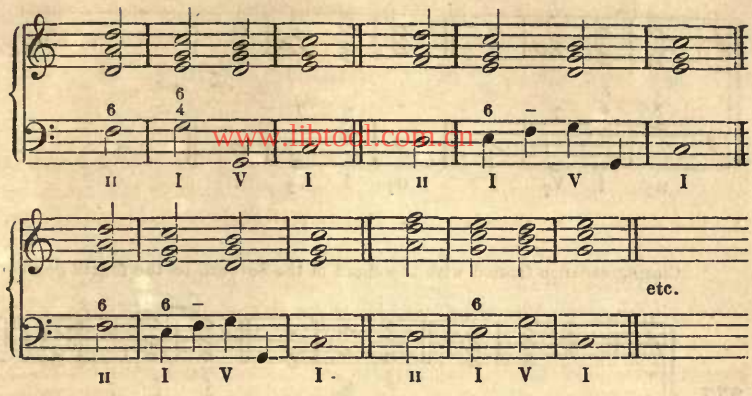
Although this very simple succession of chords is immutable and firmly settled, still the imagination of the great masters has varied it in many ways. The wish for a new, peculiar, and striking way of expression has led to the endeavour to remodel and shape the closing cadence differently. Since the closing chords of the fifth and the first degrees are unchangeable, these attempts had, of course, to be confined to the chords of the second or fourth degree. However, the attempts to represent the chord of the second or fourth degree in other forms have been successful in so many ways, that we are frequently inclined to regard the chord preceding the Dominant chord, or the chord of the Sixth and Fourth of the Tonic Triad, as one remote and perfectly foreign to the dominating key. But we shall here prove that this is not the case, and that, as strangely as the sound may affect us, we nevertheless have to do with the chord on the second or the fourth degree of the principal key, with accidental chromatic alteration of one or more of its intervals, and not with chords on other degrees, and in other keys.

For this purpose we will now show the closing cadence formed with the unaltered chords of the second and fourth degrees.

Closing cadence formed with the triads of the second and fifth degrees.

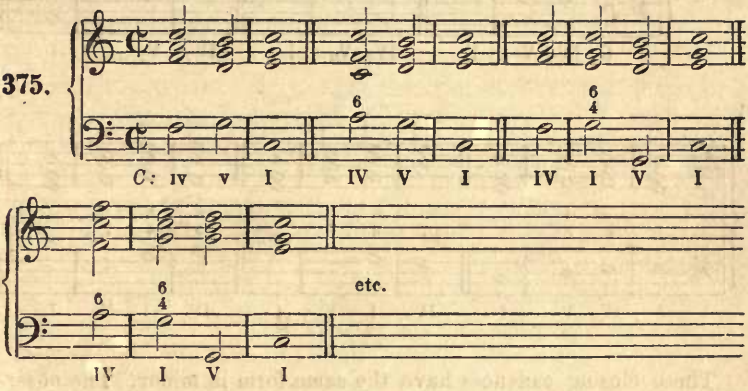
374.





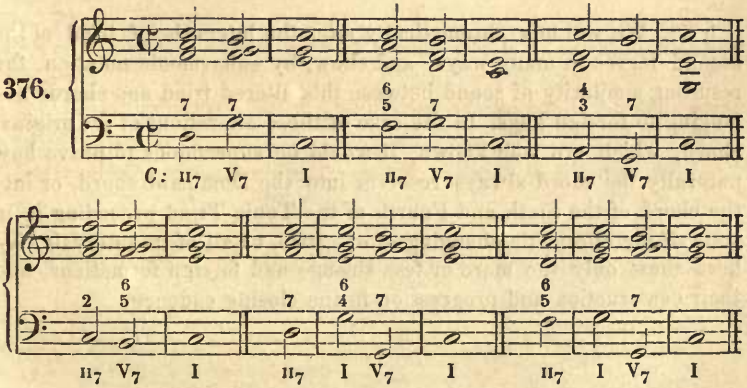
Closing cadence formed with the triads of the fourth and fifth degrees.

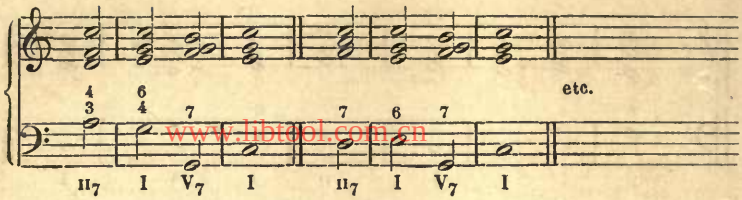
375.



Closing cadence formed with the chords of the Seventh on the second and fifth degrees.

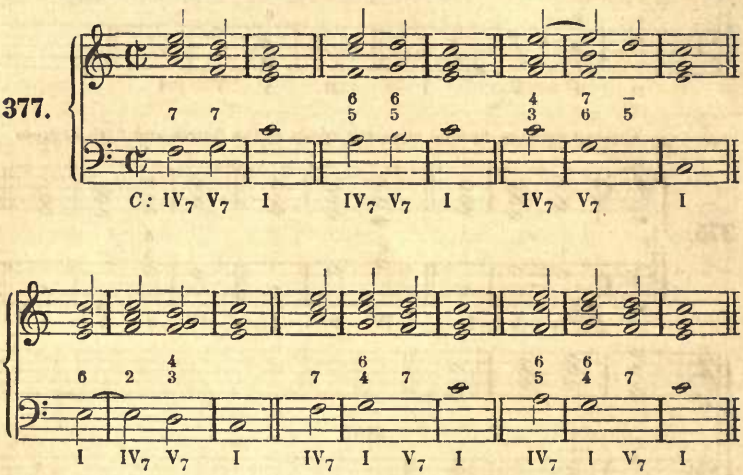
376.





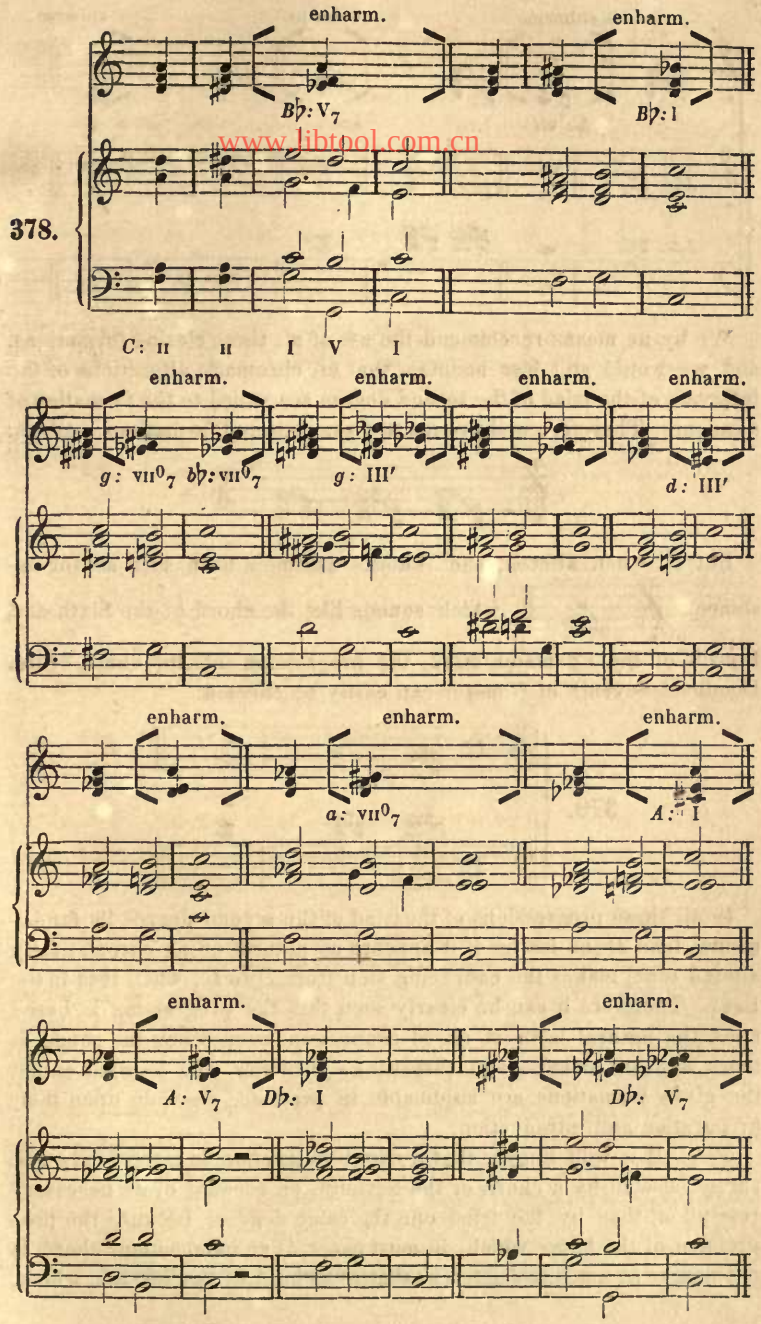
Closing cadence formed with the chord of the Seventh on the fourth degree.

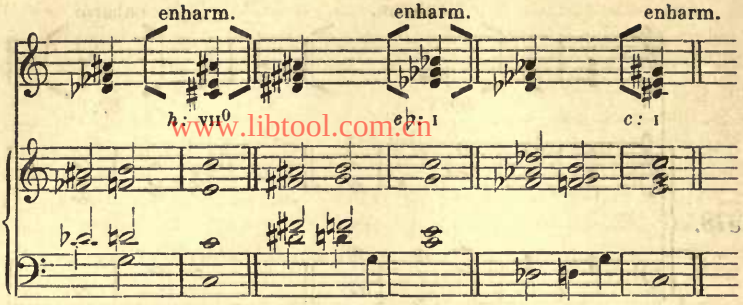
377.



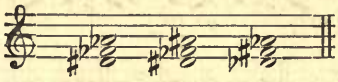
These closing cadences have the same form in minor. The observation of a correct leading of the voices is to be recommended to the pupil when writing them in minor.

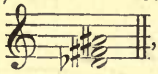
§ 68. We will now chromatically alter the intervals of triad of the second degree in many ways, and show, by enharmonic notation, the resulting similarity of sound between this altered triad and chords belonging to foreign keys. In the case of those alterations of the original chord, which are well known, it would be superfluous to prove how naturally the chord always resolves into the Dominant chord, or into the chord of the Sixth and Fourth of the Tonic Triad preceding it, in spite of the chromatic changing of one, two, or all of its intervals. We here show only the more or less strange and foreign formations, and their construction and progression in the closing cadence.

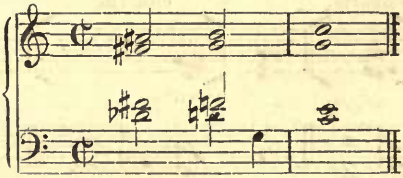




We by no means recommend the use of all these closing formations, and we would still less maintain that all chromatic alterations of the intervals of the triad of the second degree are suited to the formation of a cadence. Therefore we have omitted some altered formations, such as:



But if, when altered, such chords assume a form such as, for instance:  , which sounds like the chord of the Sixth and Fourth of the $F\sharp$ major triad, the progression into the chord of the Dominant Seventh of C major can easily be effected.

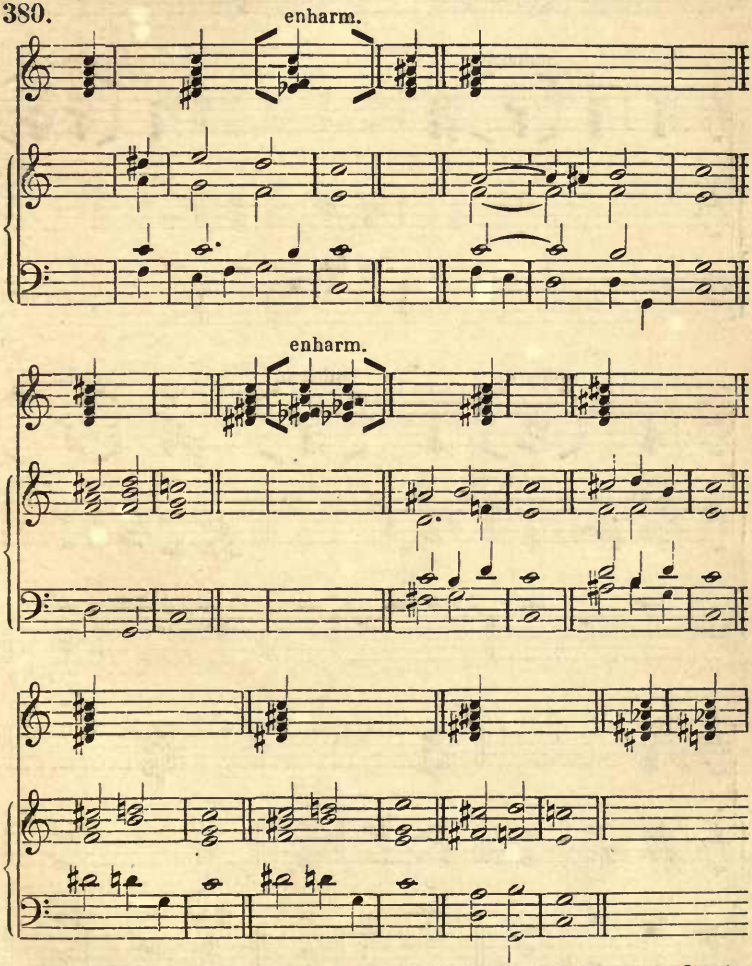
379. 

In all these progressions of the triad of the second degree its fundamental tone D (no matter if it appears as natural or as chromatically altered tone) makes the cadencing step from D to G, when it is in the Bass. Therefore it can be clearly seen that the progression is based upon the natural laws of chord-connection, even when the sound at times appears strange and surprising. Whether, and to what extent the given formations are applicable in practice, depends upon their preparation and introduction.

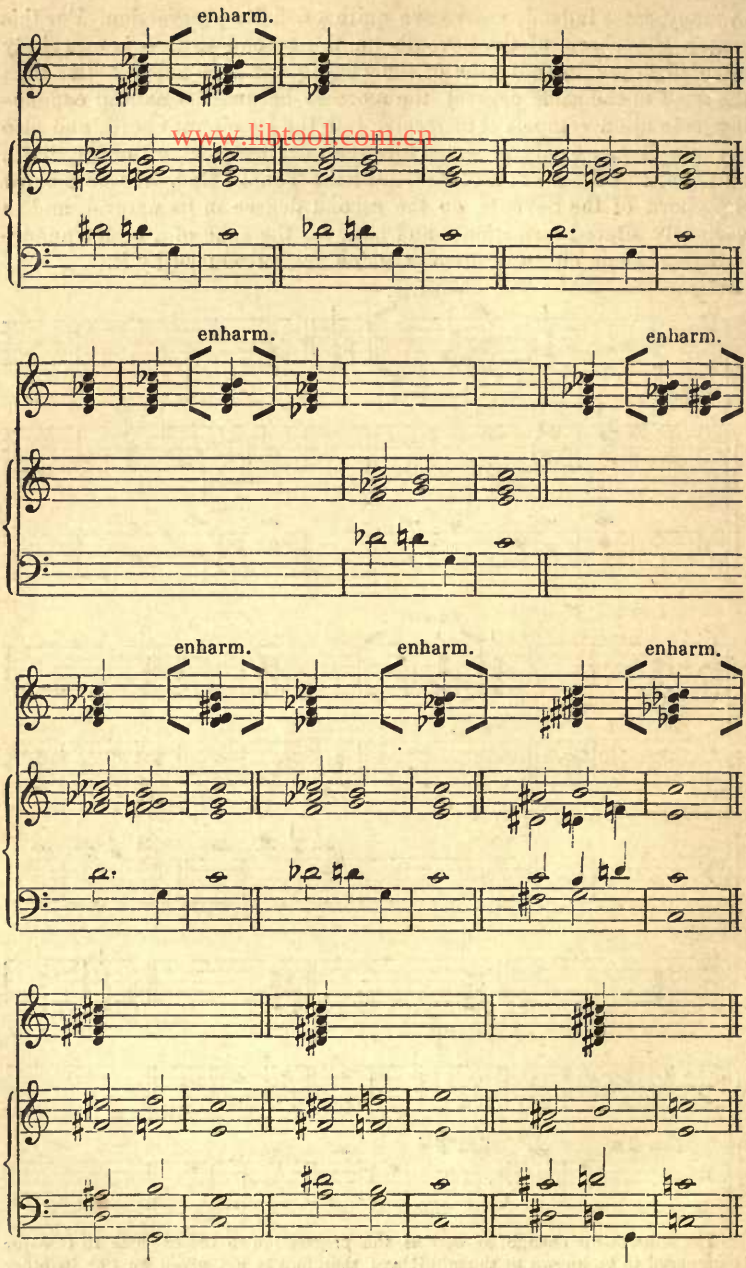
§ 69. It is well known that a chord-connection is more firmly and surely effected by a chord of the Seventh, on account of its necessary resolution, than by the triad one the same degree; because the progression of the latter which, in most cases, is an independent chord, is not nearly as much restricted as that of a chord of the Seventh, which,

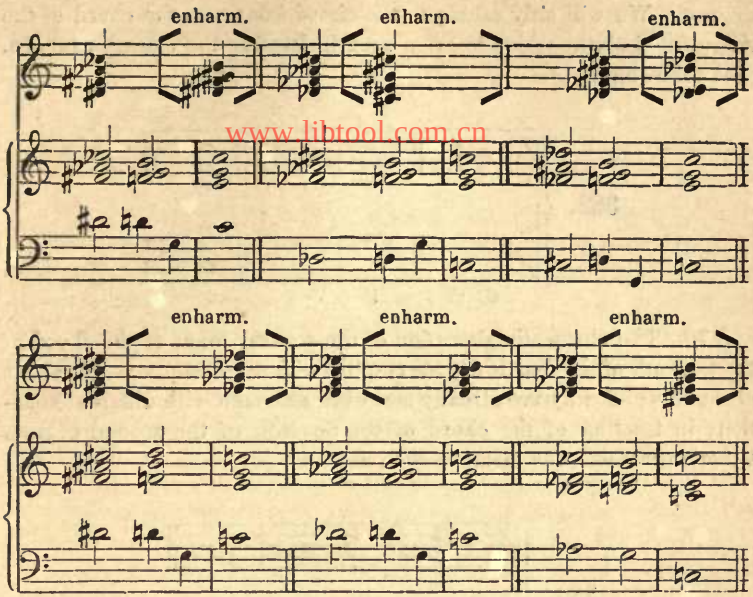
in many cases indeed, must have quite a definite progression. For this reason the chord of the Seventh on the second degree is especially adapted to the introduction of the closing cadence much) better than the triad of the same degree), the more so because its natural cadencing resolution compels it to resolve into the Dominant chord, and also because it can easily progress into the position of chord of the Sixth, and chord of the Sixth and Fourth of the Tonic Triad. We here show the chord of the Seventh on the second degree in its natural, and in variously altered formations, and add, for the sake of a better understanding, some closing cadences which are introduced by it.

380.



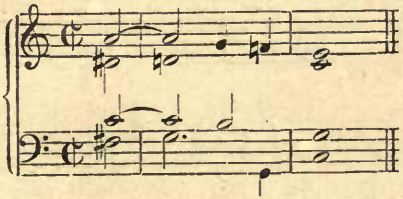
The enharmonic change, as well as the progression to the cadence in *C* major is supposed to be known to the pupil and therefore is not given here or in other formations.





All the possible chromatic alterations of the chord *D F A C* are not here represented. That would lead us too far, much further than is necessary to our present purpose. Some of the given chromatic changes of this chord sound hard, others sound strange. But the pupil must remember that, if the unaltered chord of the Dominant Seventh on the second degree must be prepared on account of its dissonance, the preparation is by far more necessary when one or more of its intervals are chromatically altered. Therefore, it should always be suitably prepared, and it is left to the ingenuity of the composer how to effect this in the best manner possible. Moreover, it should be observed, how much the hardness of many chord-formations is softened by the use of the suspension; e. g.

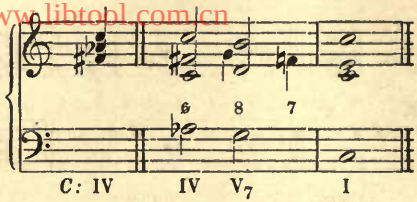
381.



We may here pass over the chromatic changes of the triad of the fourth degree. It is obvious that the tones of this chord are contained in the three upper tones of the chord of the Seventh on the second

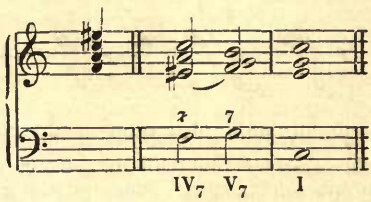
degree. We will only allude to the chord known as the chord of the Augmented Sixth, which is often used in forming the closing cadence. (See following.)

382.



§ 70. The chromatic alteration of the several tones of the chord of the Seventh of the fourth degree results, with few exceptions, in effects of sound which we have already met with, although with different notation, in treating of the chord of the Seventh of the second degree. Other formations, for instance such as:

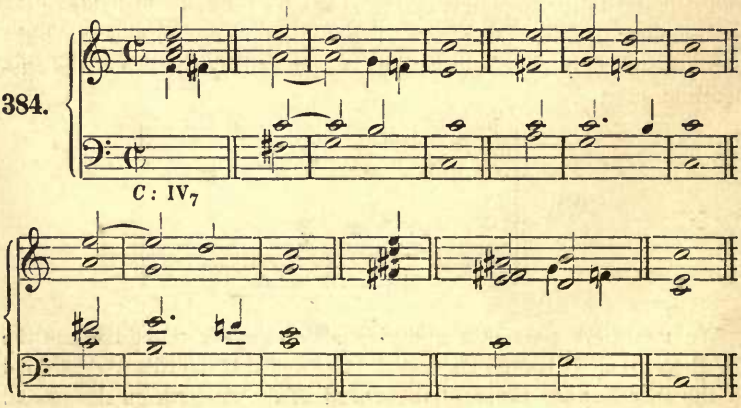
383.

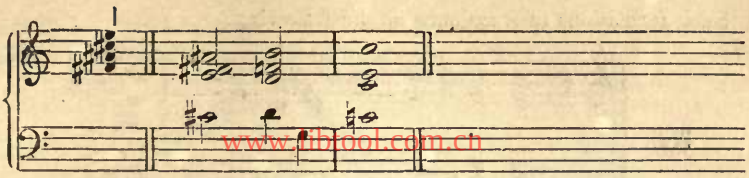


we pass by as useless, superfluous experiments.

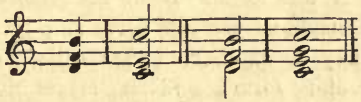
The chromatic changing of the tones of these chords will, however, produce an abundance of new forms suitable to cadencing formations. We give a few of them as examples.

384.



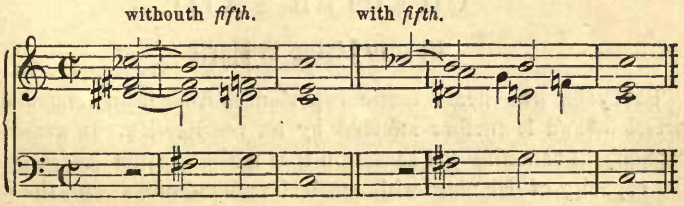


We leave it to others to make further experiments with this chord. With an appropriate preparation of the dissonance it also will prove to be well adapted to the introduction of the Dominant-chord (or of the triad of the first degree as chord of the Sixth, or chord of the Sixth and Fourth), and thus also to the formation of a cadence, although its real, natural (cadencing) resolution leads it to the chord on the seventh, and not to that on the fifth degree. But therein lies its adaptability to the formation of the closing cadence; for the triad of the seventh degree represents itself as the chord of the Dominant Seventh with the fundamental omitted. This chord is often used (for example in pure three-voiced writing), especially when in the position of chord of the Sixth, instead of the chord of the Dominant Seventh, and is fully qualified to take this position when an insufficiency of voices (as in three-voiced writing), or the leading of the voices in four-voiced writing, necessitates the omission of the fundamental tone of the chord of the Dominant Seventh; e. g.



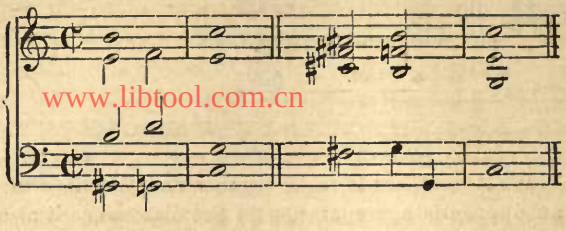
We have by no means shown all the possible formations in the above examples, but a sufficient number to indicate that a great many of apparently foreign chords, which appear in the closing cadence, can be traced back to the chords of the second and fourth degrees of the dominating key. Although it may seem scarcely possible, still the chord in Ex. 385 can be traced back to the chord of the Seventh *D F A C*, the tones *D*, *F* and *C* (the *fifth* omitted) being changed to *D♯ F♯ C♭*.

385.

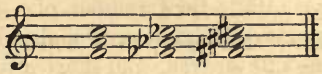


Such formations of a cadence as the following:

386.

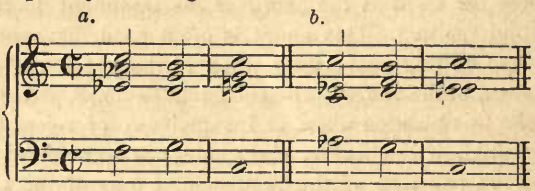


can also be traced back to the chromatically altered triad of the fourth degree.



Also the frequently occuring cadence:

387.



can be traced back to the chord of the Seventh of the fourth degree with lowered *third*, *A*, and *seventh*, *E*, (in the second example the *fifth* is omitted). Such formations can also serve as a bridge of modulation from one foreign key to another; under certain circumstances the closing cadence can alone form a sufficient modulation.

With this chapter closes the doctrine of chords and their connection. What we say in the last chapters of this book, contains practical counsel for the disciple of art, and will help him to a clear knowledge of the real and pure character of the art of music. May the pupil heed what they contain; for, eventually, a highly and artistically cultivated ear, and a true, pure knowledge of art will be his best teachers.

CHAPTER XXIII.

How to Listen to Music.

Everyone who hears music experiences from it an immediate impression, and is further affected by its recollection. In general, the capacity of retaining the sensation that music created, corresponds to the capacity of listening with musical understanding, and the greater

or lesser effect which the same more complicated piece of music produces upon different individuals, depends principally upon the degree in which the individual is capable of listening*). A short piece of music — a song, a dance, a march — can easily be followed through its whole course; therefore it acts upon everyone, and soon becomes the common property of all. It is different with larger and more complicated works, especially with instrumental compositions. They demand a much higher and more particular training to be grasped and followed in their wole extent. But what means "how to listen musically"? Robert Schumann in his "*Musikalische Haus- und Lebensregeln*" introduces an ideal hearer with the words: "Somebody said that a perfect musician when listening to even a very complicated piece of music for the first time, ought to be able to see it before him as clearly as if in an orchestral score."

By this "see before him in an orchestral score" Schumann means that the listener is to hear all and every thing as it is really arranged in the score by means of the written characters. To this is requisite: Clear and definite perception of each single tone and of all possible tone-combinations in melody and harmony, even in the most startling modulations. Furthermore is necessary the perfect perception of the tone-colour of each single orchestral instrument in all its positions and registers, and also of all possible mingling of the tone-colour of the different instruments. "This is the highest that can be imagined", says Schumann in concluding his sentence. We say, "this would be the ideal listener".

But even if the mentioned capacity necessary to the constitution of a good musical ear is present only in the germ; even if there is little natural disposition for it, by diligence and practice it can surely be developed to an extraordinary degree of perfection. Only after this has been reached, can there begin, according to our estimation, an intelligent hearing; but even then, after hearing a composition for the first time, especially if it be one of the really important and original creations, a well trained ear — nay, a most highly gifted hearer, will the more feel the necessity of repeated hearing, the more he found difficulties in grasping the whole composition because of the novelty

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*) There are exceptions. For instance, a really musical listener may hear a piece of music of insignificant value, which makes little impression upon him, and perhaps entirely displeases him, while the same piece may, after all, cause great pleasure to a less capable listener. Or, if two persons of equal capacity, but entirely different in disposition, listen; the one healthy, fresh and strong, the other fatigued, suffering, enervated, they are thus (with equal capacity of hearing) susceptible to a greater or lesser degree of a normal after-sensation.

and peculiarity of its construction. If he has no chance to hear a repeated performance, he will strive to supply whatever may be wanting by a close and careful study of the orchestral score, and then only will the impression of a composition be satisfactory.

But it is altogether wrong to imagine that this result can be obtained by hearing a piece of music for the first time and, at the same time, following it up in the score. The practice of following up in the score a piece of music during its performance, which has now become customary among students of music and certain amateurs, must be regarded as pure nonsense. For if such people are put face to face with a composition, which is entirely unknown to them, the simultaneous activity of seeing and hearing will mutually hinder each other. While seeing, they cannot fully and impartially give themselves up to listening, and *vice versa*. The routine of a competent conductor is requisite for that; but even he would rarely place himself in such a position as to conduct "at sight" a piece for orchestra perfectly strange to him.

Look at those disciples of art who with anxious care keep busily turning the leaves *in-octavo* of an orchestral score during a quickly passing allegro movement, and judge accordingly the kind and degree of impression which they are apt to receive through their musical task of hearing and reading for the first time. But suppose the piece in question is already somewhat, or fully, known to a person thus reading and listening, the question may be asked, what advantage for the raising of the impression is obtained, when the attention is divided between the dead, cold character, the black head of the note, and the living resounding tone. What would be thought of a man who, during a theatrical performance of "Wallenstein" or of "Egmont", kept busily reading his volume of Schiller or Gœthe? Looked at from a practical and instructive point of view, we see just as little advantage in following up a score. The best training in instrumentation will be for the pupil first to hear a composition played, then to read it, and then to hear it again. A careful study of the orchestral score after the performance, with practised readers also *before* a first performance, is certainly to be recommended to every conscientious musician. During the performance a looking into, and reading of, the score can be of use only to the conductor in order to indicate the changes in time, the entrance of individual instruments or voices, and for the sake of controlling the whole performance. But even here the use of the score becomes the less necessary, the more the leader is up to his task and dominates over it, and the more he has grasped the composition in question and made it part of himself even in its smallest details; and a conductor who keeps staring at the score before him, gives evidence of his not having sufficiently assimilated the piece being performed.

As much as the pupil is dissuaded from reading during a performance, so much is he advised to read music when he does *not* hear it. To read music means: to imagine how what you see written would sound. The talent for this will grow and increase in the same proportion as the talent for listening. Whoever possesses it in an accomplished manner, will be enabled, according to the degree of his talent and practice, to get a more or less clear insight into musical works which he has no chance to hear. But even for the analysis and the most exact knowledge of all the details in the study of master-works in music, an attentive and sensible reading of known or unknown pieces *before or after listening to their performance* is of great advantage.

We now come to another point in listening with an ear for music, namely listening with concentration. Surely we do not go too far in maintaining that by far the greater number of those who listen to music are actually incapable of following (especially at a first hearing) an instrumental composition, which is even only in some degree large and complicated; or of grasping it in all its parts and of getting a complete and full impression of the work of art. But we go still further and say, that even after repeated performances of the same music the ordinary listener rarely becomes fully acquainted with it. He may comprehend greater or lesser fragments of the whole, but for all that he does not become acquainted with the work in its totality. But if the hearer, through frequent and attentive listening to the same piece of music, or through studying it in the orchestral score or in an arrangement for piano, has arrived so far as to really have made his own the whole substance of a movement of symphony, or a complete symphony, or a larger work in chamber-music, still that does not signify that he is really able to listen to the whole in an uninterrupted course. But he may then the more easily suffer a slight suspension of his activity in listening, a deviation of his attention for a moment without suffering any real disadvantage in forming his conception of the whole, just because he is, from the start, acquainted with the whole musical substance of the work. He can quickly resume the thread of the musical tale (if we may use this expression to supply an explanation), he can fill up a small break of his attention by his recollection, since, by former performances, he has become acquainted not with the "plot of the piece" merely, but with all its details. We must still mention various little incidents that would disturb even a conscientious hearer in his activity of listening while attending a concert, because, during the performance of music, he cannot shut his ear to other impressions. The coughing of a neighbour, the slightest audible accident may divert his attention, be it for ever so short a time.

Therefore an entirely uninterrupted pursuit of a longer piece of music demands, under all circumstances, the most earnest listening, the shutting off and guarding one's self as perfectly as possible against all other impressions. No other intellectual exertion requires a similar degree of unceasing attention which must not relax for a moment; such a total plunging and losing one's self — in fact, a dissolving in a definite idea within a given, strictly limited time, as is the case during the performance of a piece of music. For, as little as the performance can be interrupted, if the piece is to act as a whole, so the listener, if he wishes to receive the full impression, can and *must* not rest during the performance. A musical work is never present to the auditor in its totality; on the contrary, it is being formed before him, and he has to construct it out of the atoms continually flowing by, and keep it together with force of memory in order to let the growing picture of the imagination of the composer, which he gains with difficulty through the constant exertion of hearing, work upon his own feelings. While the attentive and intelligent reader can reflect at leisure and convenience over the great thoughts of a Plato, Spinoza, Leibnitz, Kant, Schopenhauer and others, in the contemplative quietness of his study; while we are rarely or never restricted to a proportionately very short interval of time for the taking up of any other work of art, the auditor must receive the creation of the composer at the given moment, and feel it afterward.

Any other work of art in architecture, in sculpture, or painting, stands complete and finished before the beholder, and not only gives him the advantage of a first, powerful impression of the whole, but also allows of a gradual examination, at any time, into all the details, for the sake of raising the total impression already obtained. The productions of poetry offer the reader at least the last named advantage, though indeed in the beginning they cannot be overlooked as a whole in a moment. Only the professional musician enjoys a similar advantage as regards the musical productions of art, as it is possible for him to prepare himself for hearing an orchestral composition by a prior study of the score, or by afterwards supplying, by reading the score, what he could not perfectly grasp while listening. A still more essential difference is this, that all works of other arts take their idea from life, from nature; they all have a substance which represents real occurrences idealized, or copies of nature idealized. The works of independent instrumental music have *no* such substance. Every attempt to give it to them must be regarded as a misunderstanding, a prostitution of the innermost nature of music. Pure instrumental music has no other ideas than purely musical ones, and can be conceived by nothing

but the power of after-sensation, which faculty, of course must be preceded by the capacity of listening with a musical ear *).

If, after all, purely instrumental music is capable of producing an effect (in many cases even an extraordinary effect) upon a great number of people who, assuredly, are people incapable of hearing, in our sense of the word, the question might well be asked, whether this effect is produced by the partial or total conception of the artistic substance of the piece, or if it is created by something else. This "something else" we designate as the *elements* of music: *sound* and *rhythm*. With many people a partial conception of the substance of a piece of music can take place; inasmuch as the prominent themes, individual characteristic moments of a musical movement make an impression upon the hearer, certain melodic passages practise their magic on him and frequently enough even remain in his memory, whereby the obscurity of the whole, so to speak, is brightened up for him in some places. A detached part, however, in a piece of music becomes the more effective to the musical auditor, the more the relation of the individual parts to the whole is recognized as being necessary; indeed, what has gone before will often become comprehensible by what follows, and so again what follows by what preceded. We can therefore never find the essential substance of a piece of music in *one* individual part, be this called principal theme, or fundamental thought. In our best master-works, in the most sublime creations of Haydn, Mozart, Beethoven, Cherubini, etc., these principal themes are often of astonishing simplicity and, regarded quite alone, they manifest nothing of the greatness to which the whole composition is developed. This development by no means rests in the special fertility of these themes which, so to speak, necessarily bear in themselves the capability of such a development, but solely in the powerful imagination which, even out of the simplest material, can form wonderful works. On the other hand, we frequently see in musical movements by other, lesser composers, beautiful, original and charming themes, which however do not satisfy us as a whole, only because the relations of the individual parts with one another do not satisfy us.

But always, beside the undefinable charm of certain melodies, which however to a great degree disappears in the course of time and loses

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*) We have here intentionally spoken of pure instrumental music only, because in the combination of music with other arts, especially poetry (in which we include not only vocal music in the opera, church music, song etc., but also to a certain extent the so-called programme-music), an exclusively musical impression can no more be counted upon. In that case, indeed, other factors also have to work to a greater or less degree upon the hearer of music.

its magic effect, the elementary part of music alone, which we have defined as sound and rhythm, will suffice to make quite a considerable impression. Everyone, no matter whether musician or not, even some animals, are sensible of this most primitive effect of all music, and even the single tone or a few chords to which the attribute of a musical thought can certainly not be given, may, under certain circumstances, produce a great effect by creating a sensation. But now, every piece of music offers a great number of such details which create a sensation, which of course in it are chiefly the material of a musical substance to be represented. These details act singly upon the non-musical auditor; they act upon him as details, they rouse sensations in him, oftentimes they even create in him perfectly unmusical pictures and representations, and cause his imagination to wander about on a field anything but musical, far away from the real, musical substance of the composition just being heard, and he believes to have had a musically deep and true sensation, if — intentionally or unintentionally — he "imagined" something in connection with the music. Auditors of this kind — and unfortunately they constitute by far the greater number — always remain in the vestibule of the temple of art. Others succeed in gradually finding the entrance to its sublime halls, but it falls to the lot of only very few to enter into the sanctuary of music and, while the innermost nature of music opens itself to them, also to unearth all its treasures and fully enjoy its wonderful richness.

CHAPTER XXIV.

Substance and Form.

It has taken a long time for the acknowledgment to become universal, that the substance, the spiritual contents, of a work of art in instrumental music is objectless, that music — unlike other arts which take the idea of their creation from nature and from life — to a certain extent, is a "purely spiritual world devoid of all matter", all by itself, separated from all earthly and worldly objects, independent of the copying or repetition of any idea connected with the beings of the world. Haydn, Mozart and Beethoven created instrumental music in their sonatas, quartets, and symphonies. In deep emotion the astonished world stood before these bright revelations of the innermost being of music. For the first time musical pictures and productions of music were seen in the largest and most significant forms and configurations, free and unimpeded by the conventional and rigid fetters of opera-

librettos and church music texts, customary up to that time. Music was no longer the companion, the attendant of poesy; here it appeared as the sole, independent ruler, in its full majesty. No one could understand the reason why this purely instrumental music roused our very hearts so exceedingly powerfully; why all immediately comprehended its language, comprehended it so plainly and deeply, and yet had to renounce an abstract conception of this direct understanding. Everyone was looking for the word of the puzzle, the *poetic* subject of music. No one was going to admit its being unnecssary, nay, it was thought that music would be depreciated if such poetic subject were denied to it. But in the course of time, it could not fail that the idea of a material substance was abandoned, and that the essence of a piece of music was looked for only in its tonal element, in its tone groups, periods, and series of tones, in the whole piece of music. The great philosopher Arthur Schopenhauer was the first to express this view in his grand work "World as Will and Idea", Chap. 39, "On Metaphysics of Music". But Schopenhauer's labors for a long time remained unnoticed, and only much later Lazarus in "Life of the Soul" and after him Hanslick in his treatise "On the musical Beautiful" came to a similar result. Schopenhauer's words, written in 1819, are so clear and appropriate, that we cannot prevent ourselves from quoting them in this connection. The passage in question reads: "Throwing a glance now at pure instrumentel music, a Beethoven symphony presents the greatest confusion, which, however, has the most perfect order as basis; the most violent struggle which, in the next instant, turns out in most beautiful harmony: it is *rerum concordia discors*, a true and perfect picture of the nature of the world rolling on in boundless confusion of numberless forms and, through constant destruction, upholding, conserving itself. But, at the same time, all the human passions and emotions are expressed in that symphony: joy, sadness, love, hatred, terror, hope etc., in numberless gradations, however all, so to speak, only *in abstracto* and without any individuality: it is their mere form, without the matter, like a spiritual world devoid of matter. To be sure, we have the propensity to realize it while listening, to clothe it in our imaginaton with flesh and blood, and to see in it all sorts of scenes in life and in nature. Upon the whole, however, this does not aid in understanding or enjoying it, but rather gives it a strange, arbitrary admixture; it is therefore better to receive it in its immediateness and purity."

As far as words can express it, the most appropriate characteristic of the nature of instrumental music has here been given. If, after all, this is not fully exhaustive, it is on account of the inconceivable and unutterable in music itself, and the fact that in language satisfactory words

for a number of sensations and sentiments cannot be found. This difficulty appears very conspicuous if we try to talk about a particular piece of music. We immediately feel that we cannot describe it in words. But, in order to be able, at least approximately, to give a sort of idea of a piece of music, technical language has gradually adopted a number of expressions which serve to characterize certain places and parts of a composition. So also "form and substance" are two technical terms which, nowadays, are continually met with in musical criticisms. They characterize in them the building up of the individual musical movements of a composition, the so-called musical architectonics, in contradistinction to the individual tone-successions (whether already contained in the themes of a composition, or formed and developed out of them) whose power, to a greater or a less degree, agitates and excites the feelings of the hearer. We have accustomed ourselves to adopt the words "form and substance" in this sense simply, and thus they serve both the teacher and the musical reporter as an expedient in the critical analysis of a musical work. However, in examining into the matter more deeply, the question, above all, will present itself: can "form and substance" in music at all be separated in this way; can these ideas be conceived of, something like exterior and interior? The answer, naturally, is evident. Both, of course, belong together; how, and where could form and substance be separated from each other; wherein does substance lie; what is form; is not substance already form also; or *vice versa,* is not form in itself substance?

Scarcely anyone will succeed in solving the nucleus of these questions; the innermost nature of music is indeed an impenetrable mystery, and here we mainly wish to prove, that the ideas of form and substance in music are not to be conceived as existing by the side of each other. They are rather so closely connected that their limit can never and nowhere be determined. Asking, for instance, for the substance of a composition, we can never see its spiritual essence in any one particular part of the whole, be it now the first or the second theme of a movement, or any other particularly prominent tone-group of extraordinary effect. As proof for this assertion we allude to the themes in our most important compositions which, regarded entirely by themselves, in many cases are by no means such an exceedingly precious material, as is generally supposed. Take the principal theme in the first movement of Beethoven's *A* major symphony. It begins with the up-beat in the fourth bar of the "*Vivace*" and ends with the twelfth bar. Out of these eight measures the whole movement is developed which, like the whole symphony, is one of the most wonderful and most perfect musical works. Those eight measures, however, contain nothing in themselves which, even in the slightest degree, could indicate the

beauties of what follows. They do not at all justify any special expectations, and the whole, exceedingly simple melody which does not excede the compass of a *seventh* has (especially in its instrumentation with soft reed instruments to which two horns furnish the bass, and the string-quartet simply support the rhythm) a peaceable, innocent, pastoral-idyllic character; it does not in the least give us an indication of the greatness and magnificence of the coming movement. We might cite any amount of examples of this kind, but we do not wish to become diffuse and we quietly leave it to the sound judgment of our readers to answer for themselves the question, if indeed the first theme of the allegro movement in Beethoven's overture to "Leonore" or that in the heroic, or the *B♭* major symphony, or in a very great number of the most glorious creations of art differ, according to their spiritual substance, essentially from themes of inferior works. Of course we acknowledge that in many cases, the first theme, even the very first introductory motive, of a composition can infuse a very particular interest, but we can so much the less attribute a greater significance to this circumstance, because, on the one hand, we see the greatest master-works arising from insignificant material, on the other hand, however, a beautiful beginning, a very charming principal theme, and even many highly interesting details may be contained in a movement, without the whole producing the effect of a perfect work of art, and without our speaking of such a piece of music as of one spiritually very important, or attributing it an especially deep musical substance on account of its beautiful details. We only need to call attention to certain compositions of Chopin. Nobody will deny the beauties of the themes in the first movement of the *E* minor concerto; however, a musician even in some degree sensitive could scarcely approve of that movement as a whole. There, all that we understand by musical symmetry, by structure of the movement, by the delineation, the outlines, the architecture — call it as you may, — is directly put head downward, and when the entrance of the second principal thought makes a strange impression upon its first appearance in *E* major, its later reappearance in *G* major produces, in spite of all the beauty of this theme, a decided displeasure.

We may infer from this, that the beauty of a musical composition by no means always, and under all circumstances, depends upon the beauties of its themes; that, on the contrary, even in many of the most valuable master-works the thematic material is little interesting. We here call attention only incidentally to a great number of quartets and symphonies by Haydn, to the themes in the overtures of Cherubini, to certain sonatas of Beethoven, and to other exceedingly well written master-works. It would indeed be very wrong to infer that in those

outwardly insignificant themes is contained a very peculiarly fertile kernel, bearing in it, so to speak, the germ of a grand development. That this assuredly is *not* the case, we see, when two masters of dissimilar endowments, by chance or on purpose make use of one and the same theme, one and the same musical thought, as fundamental idea of their composition. Mozart develops the allegro movement of the overture to the "Zauberflöte" out of the same motive, which Clementi uses in the first movement of his *B♭* major sonata. But what a difference between the sublime palace of Mozart and the properly constructed, but empty, house of Clementi. Hummel, in the last movement of his *F* minor sonata, writes a fugue on the same theme out of which Mozart has moulded the grand fugue in the *C* major symphony. The master, then, has not drawn from the theme what was contained in it, but he has, according to *his individuality*, fertilized it with *his imagination*.

Accordingly, the theme is by no means of such essential importance in a piece of music, that the spiritual substance of the composition is contained in it, as if "*in nuce*"; still less can the spiritual substance then be contained in another detail. In looking at the most effective moments of an important composition as individual parts, and taking them out of their connection, we almost always find that they contain nothing particular, peculiar, or extraordinary at all. Only their growing out of what preceded, their adjustment with what follows, gives them their significance. In the right place anything and everything will have the proper effect in a work of art, and the single sustained tone of *one* instrument can gain just as much importance as the most complicated, contrapuntal combination; the *unisono* within a few intervals can be just a stirring as a long swelling melody with rich harmonic substructure. We can therefore find the essential spiritual substance of a piece of music not in one, or in more, or in many individual parts; we can look for it only in the whole. This whole, however, is commonly called the form of a piece of music. But according to this again, form and substance in music would be identical. That this is *not* the case, many works show which, in their musical structure and with respect to their symmetry are fully satisfactory, whose organization and development leaves nothing to be wished for, but which neither animate our feelings, nor satisfy our sense of beauty, notwithstanding their musically faultless structure. Hearing a piece of music of this kind, every intelligent musician would say, that everything was very properly written, but that it was amazingly tiresome. Here we see perfect musical form of art, without the substance being such as to even slightly interest, animate or please us, — the diametrical counterpart of the above-mentioned concerto of Chopin. But this does not mean that composition has no substance whatever, and only form. Its substance,

merely, is neither new nor captivating to us. All that is said in it, has already and better been said by others, therefore it leaves us unsympathetic. But in the exceedingly quick progress of music, the musical substance of a work may have been quite attractive at the time of its origin, but thirty years later it has lost all its charms. Even more prominent works are not free from this "tooth of time"; only the productions of a genius remain for all times, and stand beyond transientness. For the most part, the latter are far in advance of the understanding of contemporaries, and accessible only to later generations who, in turn, must educate themselves up to the appreciation of the works of these heroes, by studying them.

The only thing we can do now, is to accept the spiritual substance of a musical composition as something unknown which, indeed, we are sensible of in its effects, but which we are unable to clothe with an idea. But we can also safely speak of a spiritual — be it well-understood, a *musically spiritual* — substance of a musical work, even if we cannot say, wherein it is properly contained. The lasting effect of a musical composition upon a musically trained hearer will be the most satisfactory test of its spiritual essence. Music has ever been called the language of the feelings, probably for the reason that our ordinary language, be it ever so refined, has no words for a number of sensations, and for the most delicate feelings and sentiments. We may therefore be permitted to say, that we are sensible of the musical substance, the idea, the thought of a work; inasmuch, however, as we are unable, as it is impossible, to conceive of this musical essence by an idea, so much also is it impossible, to separate this substance from its form, to take it, as it were, out of its formation and moulding. It is indeed impossible to imagine the musical substance in the musical form as being like a body in a garment, like a kernel in a shell, like something more real and something less real, like an interior and exterior. Closely united and inseparable, the one appears necessarily formed together with the other, the one originating with the other, proceeding, emanating from it, like the perfume from the flower, like the language from the human mind, like the spiritual from the corporeal life. We feel the substance in the form, we are sensible of the latter being filled with the former, but we cannot separate them like goblet and wine. Neither can we say, that each substance makes a peculiar form for itself, for, in the main, the nature of the musical configurations, in spite of many variations, remains the same. With still less propriety could it be said, that a substance can be worked into a musical form. Just as every important conception, which is true to art, is unconscious, so also in music, substance and form meet unconsciously, and can therefore not be separated from each other. They

both belong together, as body and soul of man; both can exist and manifest themselves only when united. But inasmuch as no one will be able to say where body and soul in man could be disunited, so also will nobody ever be able to indicate, where, in a piece of music, form and substance could be separated; where their limits are; where the one begins and the other ends; where the soul and where the body, in the musical organism, is contained. But here our simile does not extend further, for nature, a wholesale, rather than a discriminating manufacturer, frequently enough proceeds very inartistically, and puts a beautiful soul into a wretched, ugly or sick body. Genius, however, knows nothing of such natural accidents; in the works of our sublime masters we never see a beautiful substance in an unsufficient form; here, on the contrary, everything is always together in the most perfect agreement, in the purest harmony.

APPENDIX.

The examples here given as a guide to the exercises contained in the Manual, and worked by the Author, give many hints as to the manner in which to solve those exercises. It will be of great advantage to the pupil, before proceeding to work out the exercises given in the several paragraphs, always carefully to analyze the examples here given referring to those paragraphs. The thorough-bass-figuring, as well as the indication of the degree-numbers of the chords, and the course of modulation must be added above and below the Bass. The Examples written in the four different clefs must be played several times; the pupil will then soon gain a ready survey. As the examples are written with special reference to individual rules, it is evident that they cannot claim a real artistic value; they are merely intended to serve the pupil as a practical guide, and in this sense they are an important addition to the text-book.

Examples.

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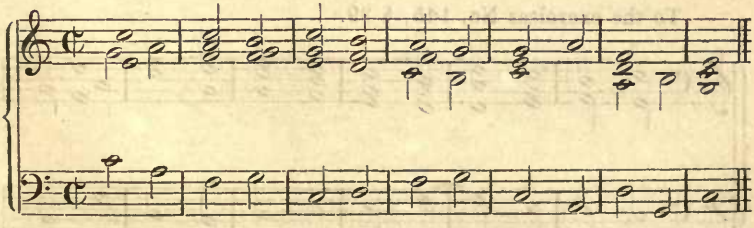

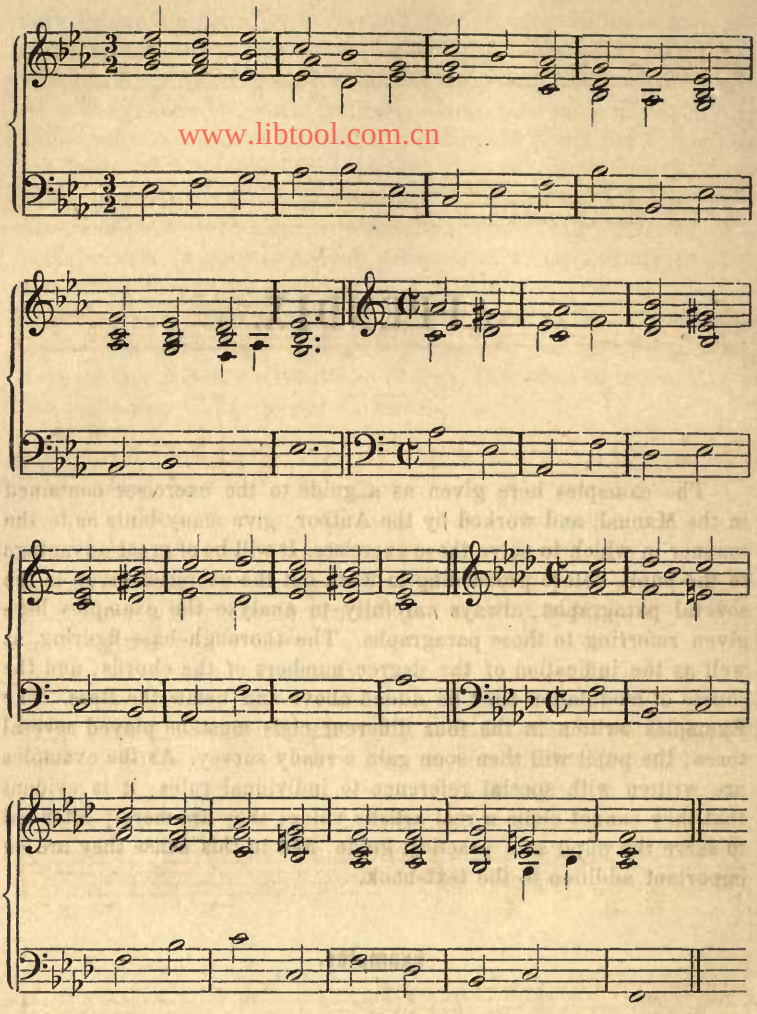

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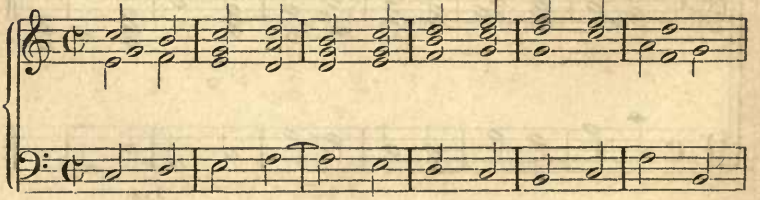

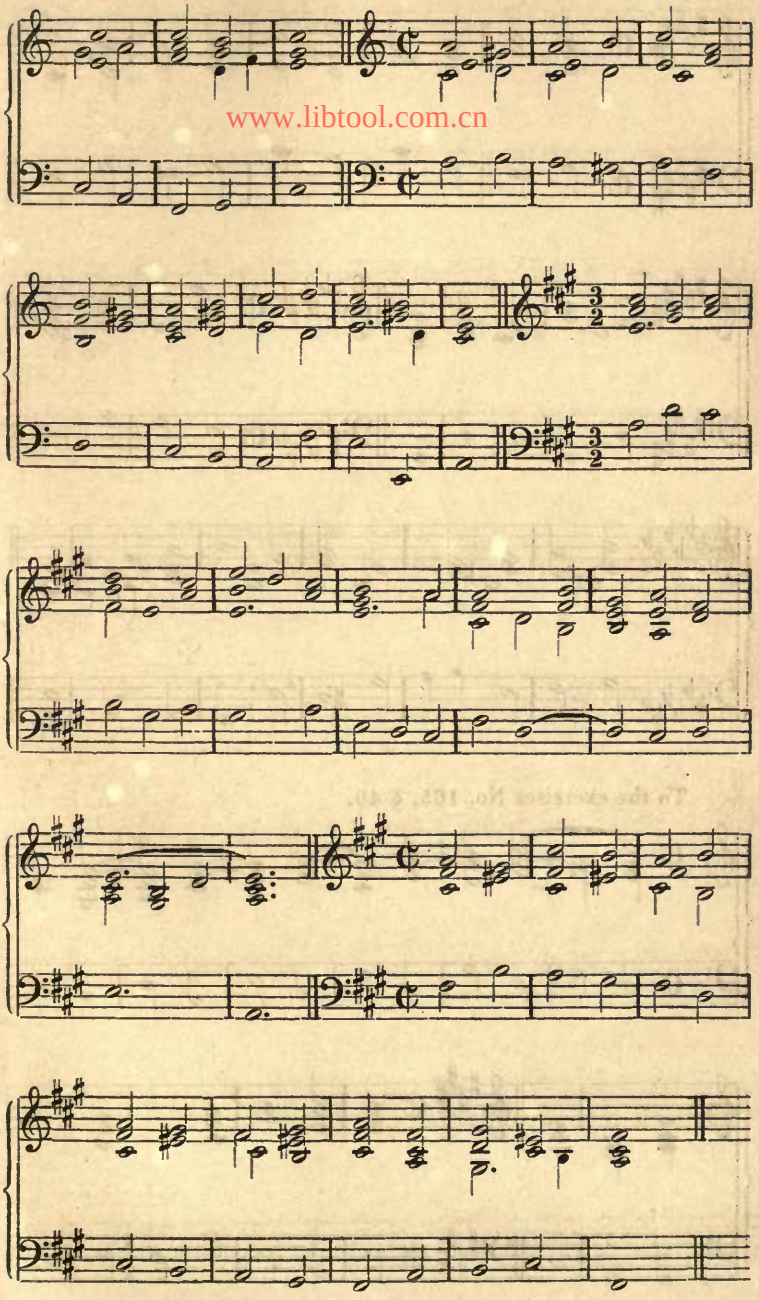

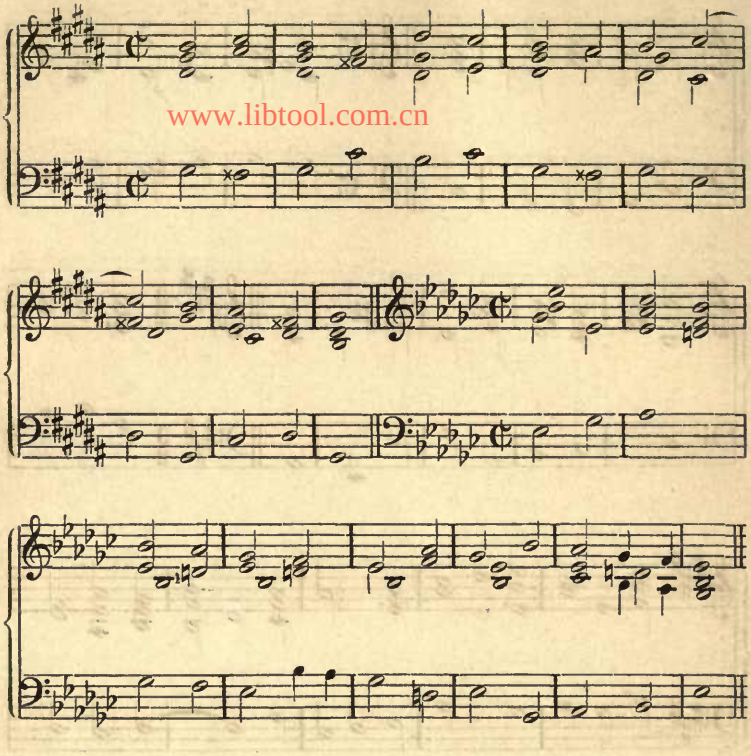

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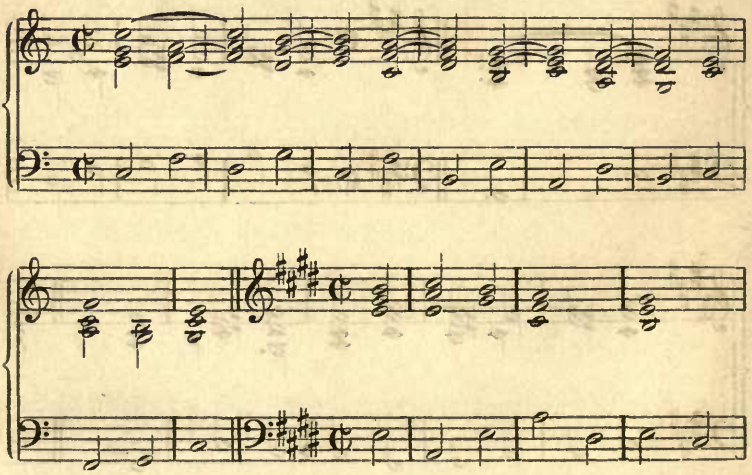

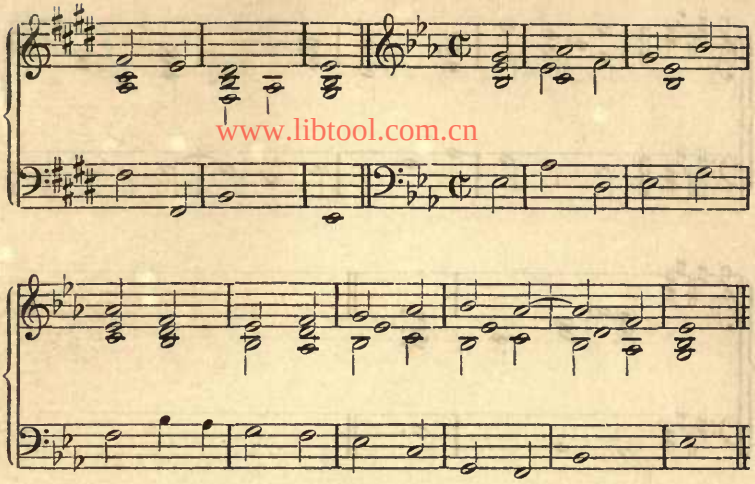

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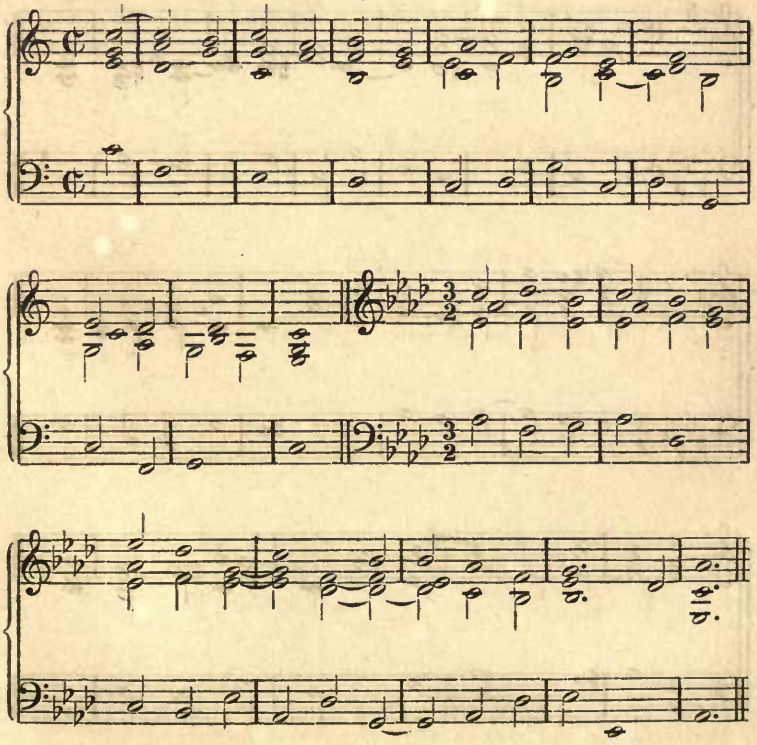

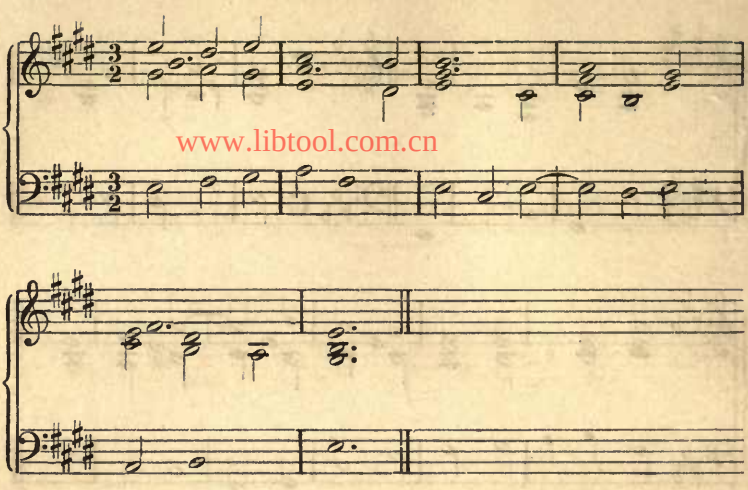

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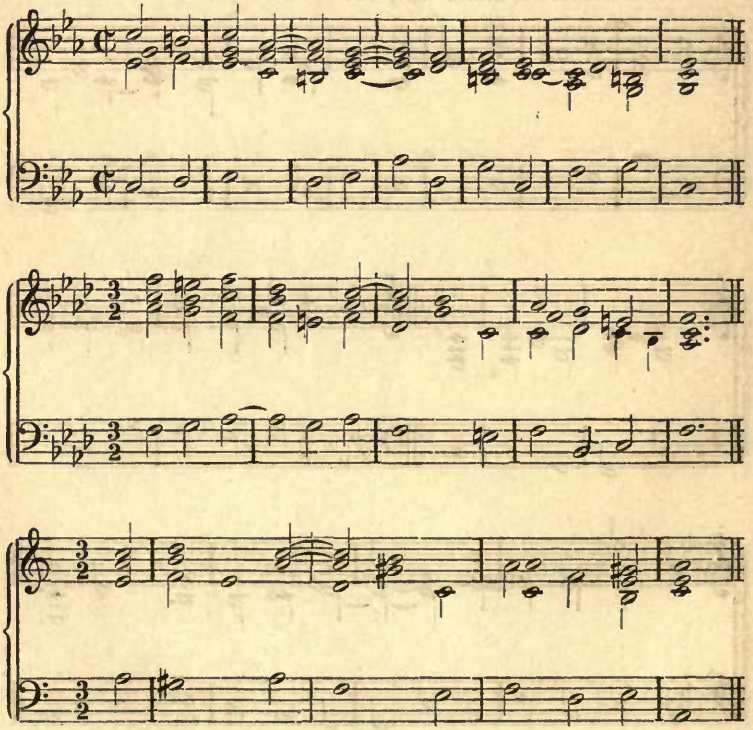

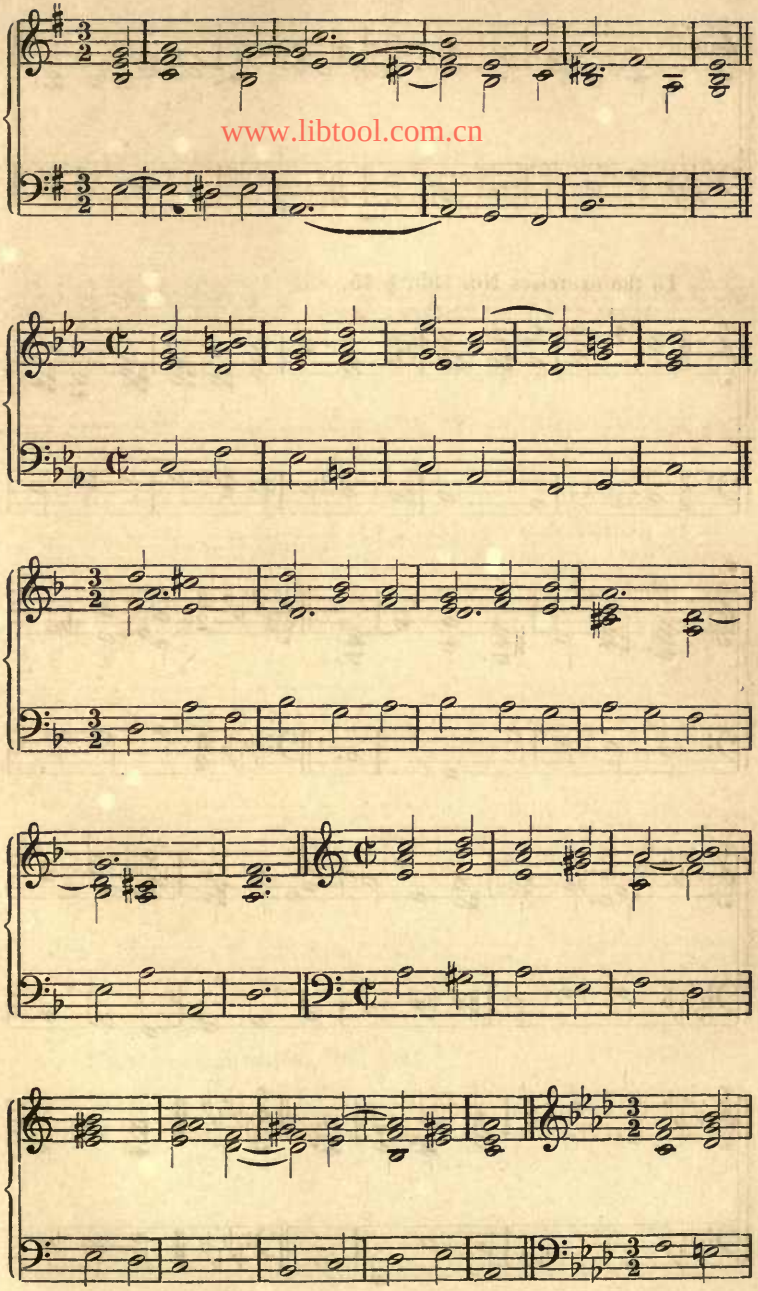

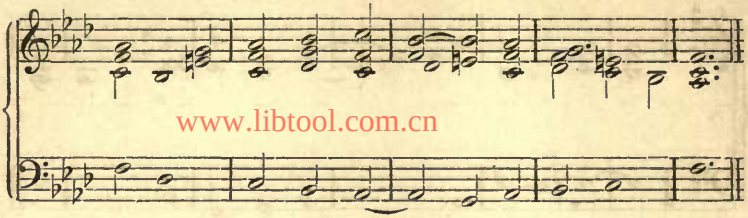

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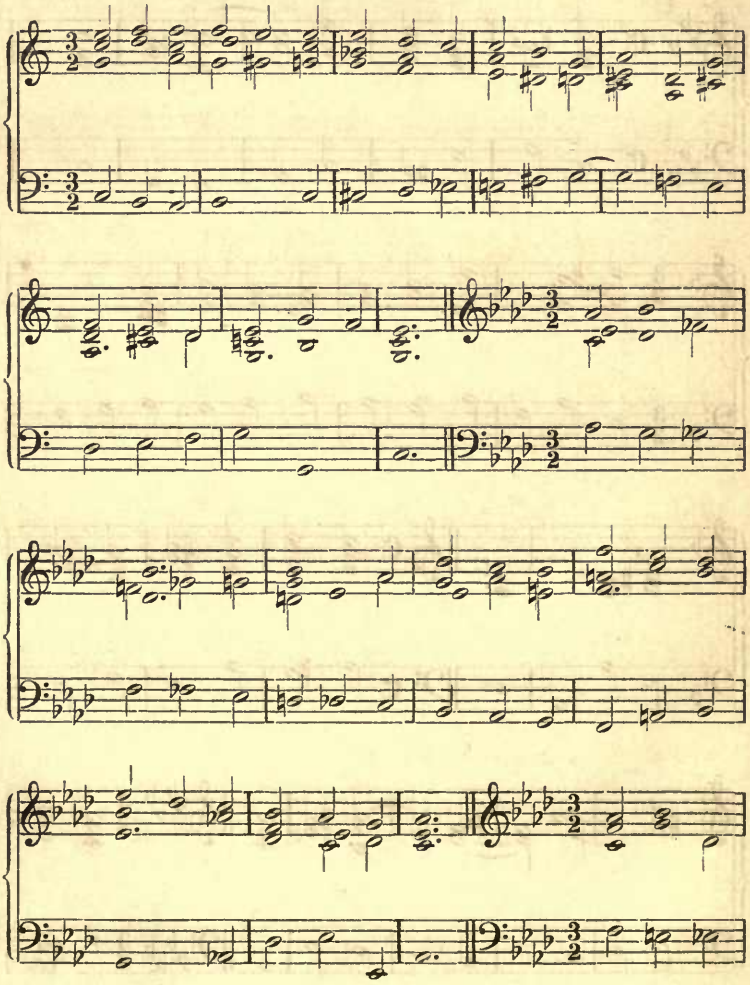

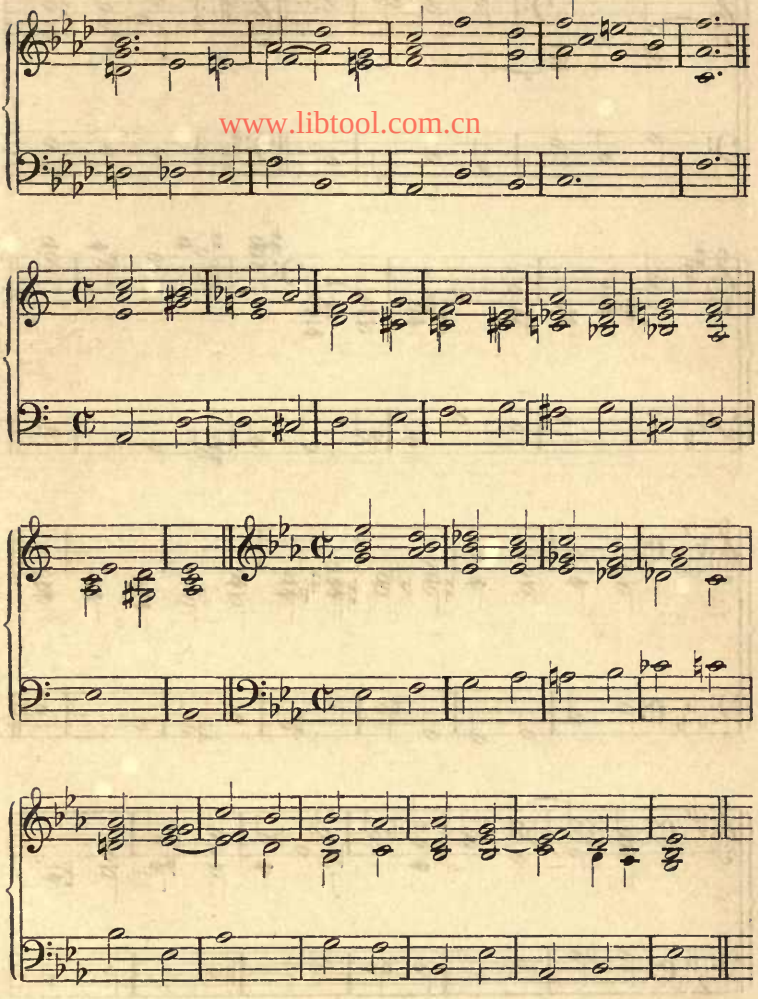

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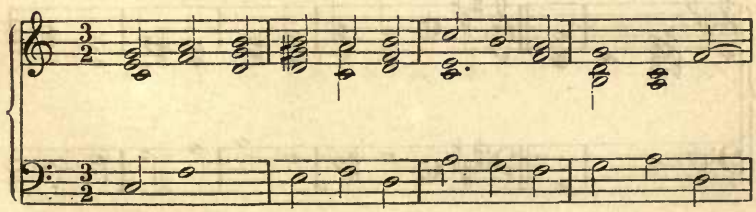

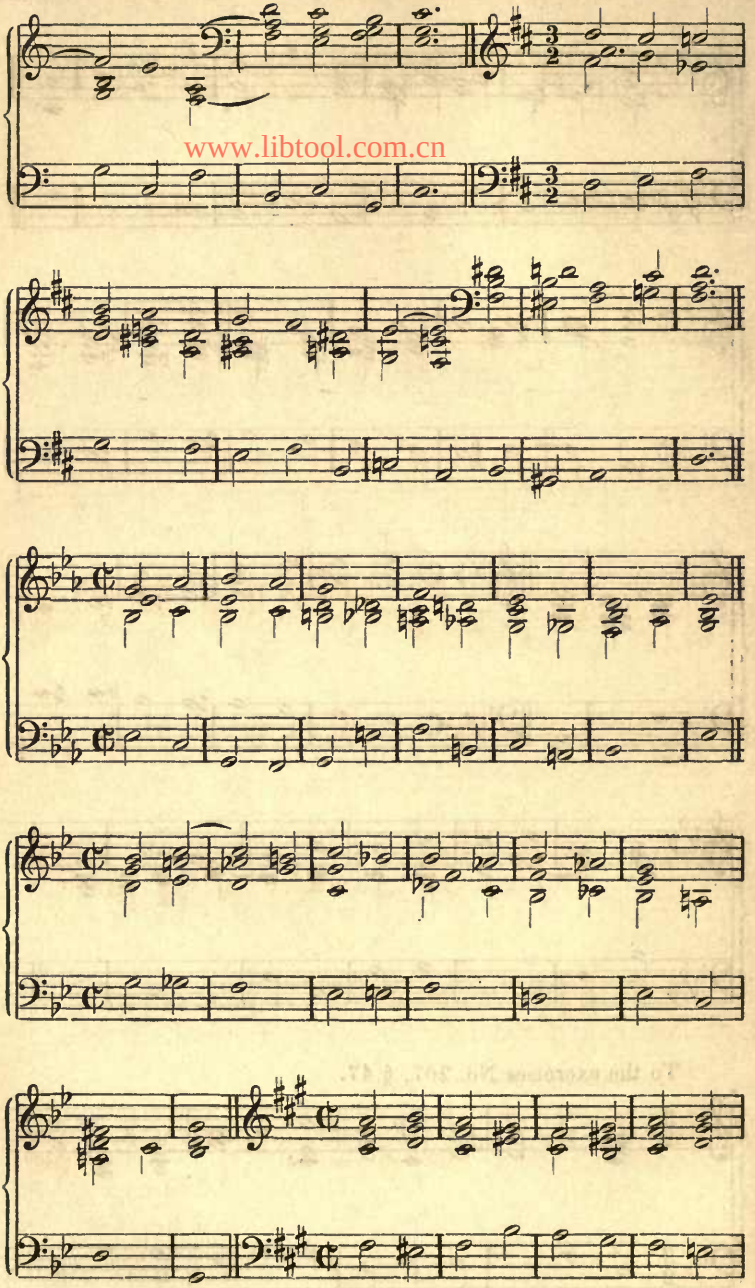

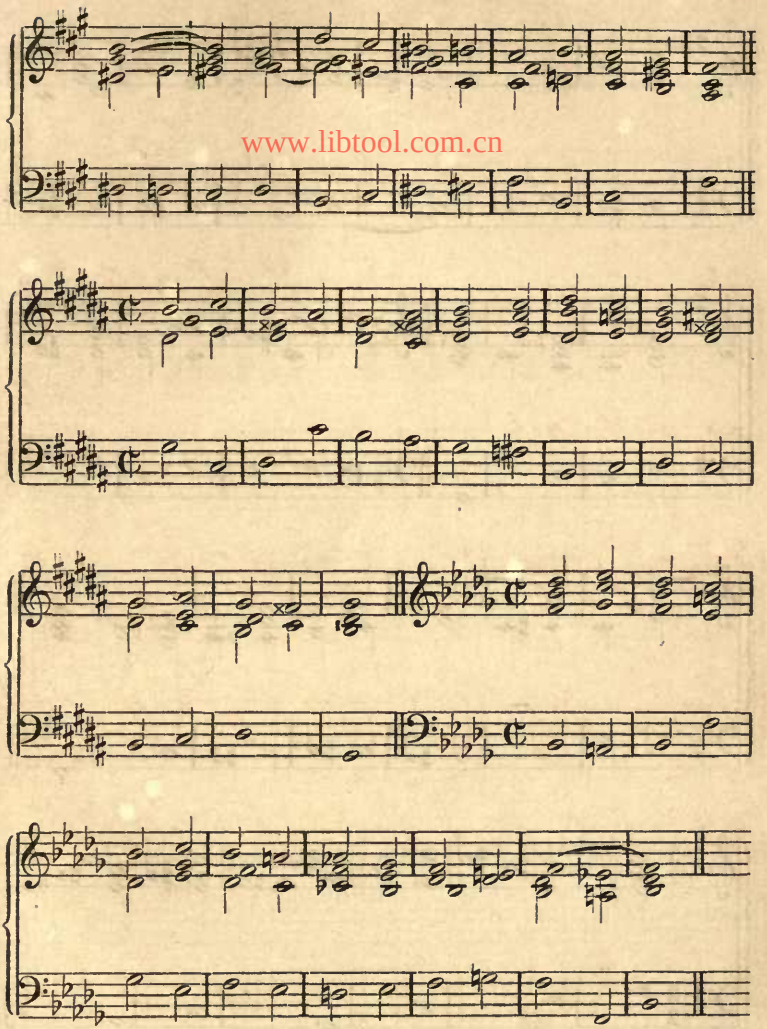

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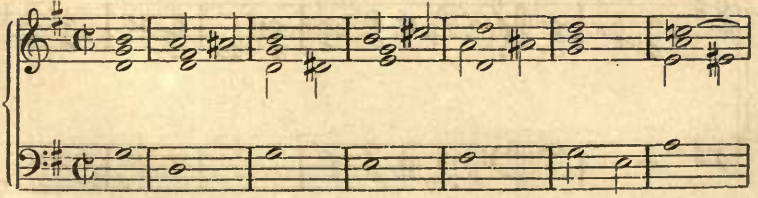

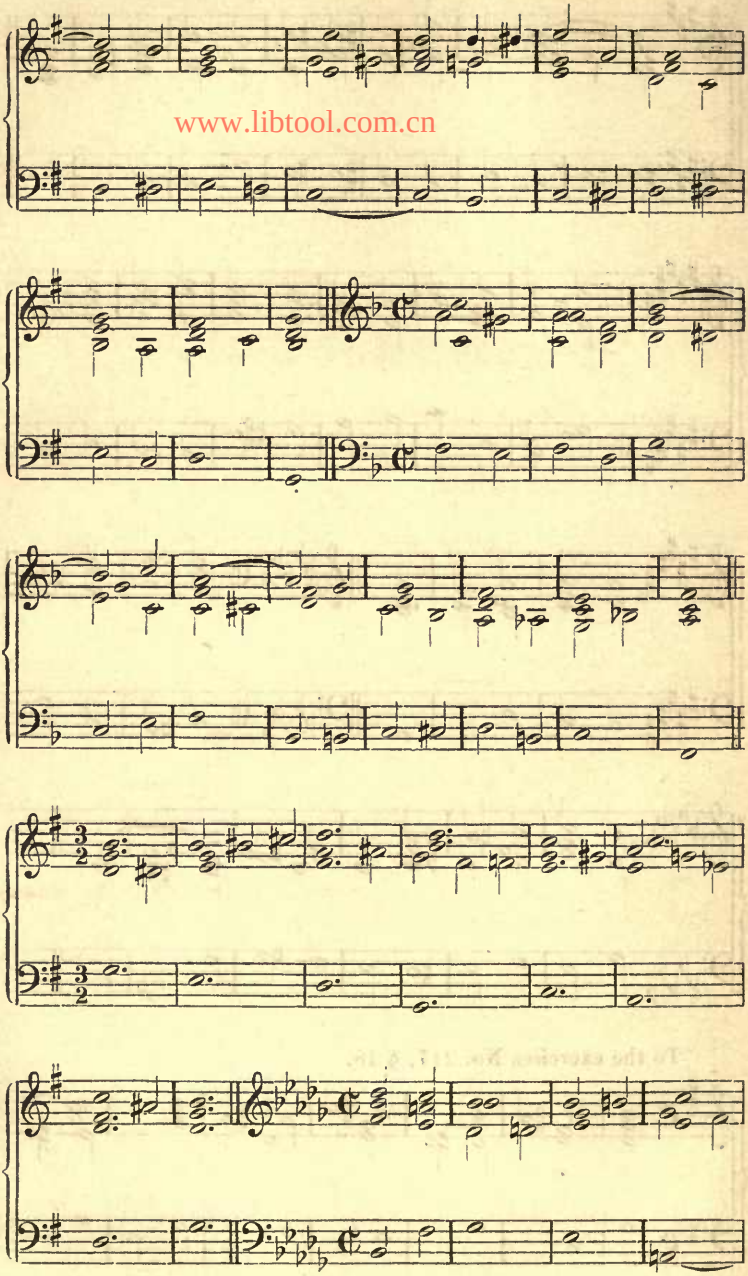

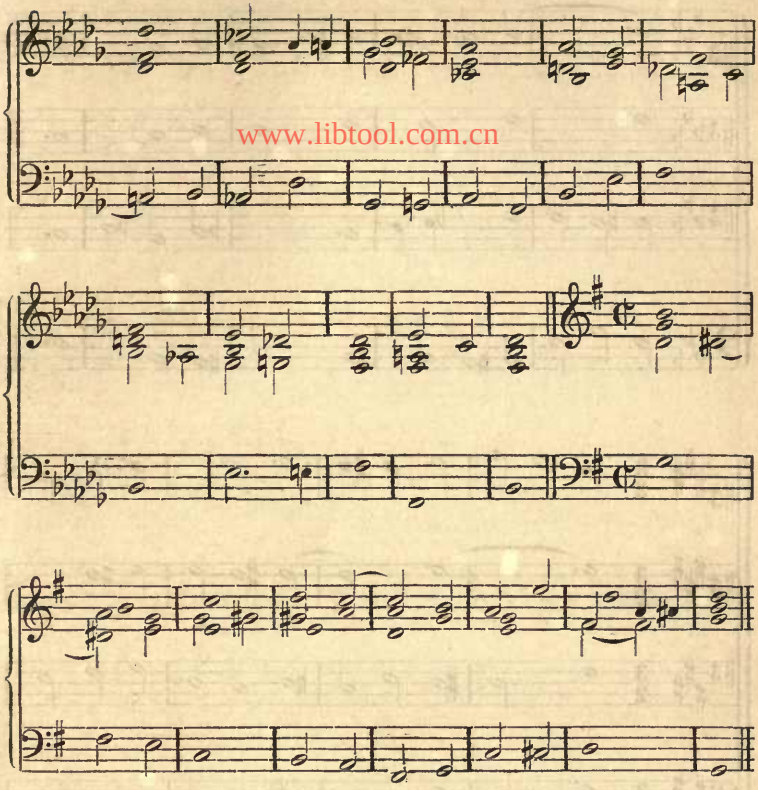

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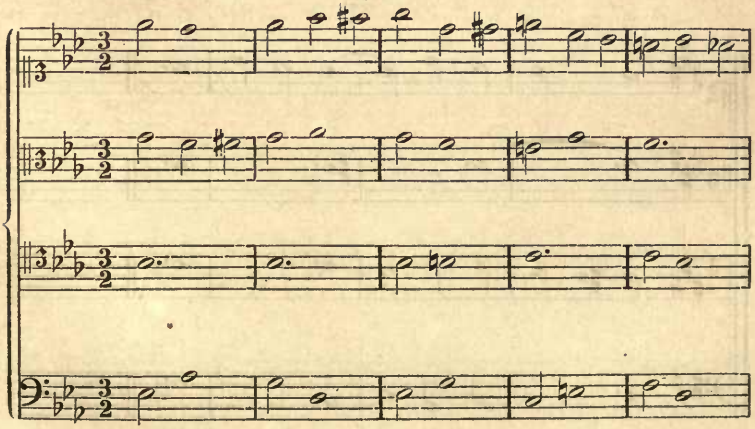

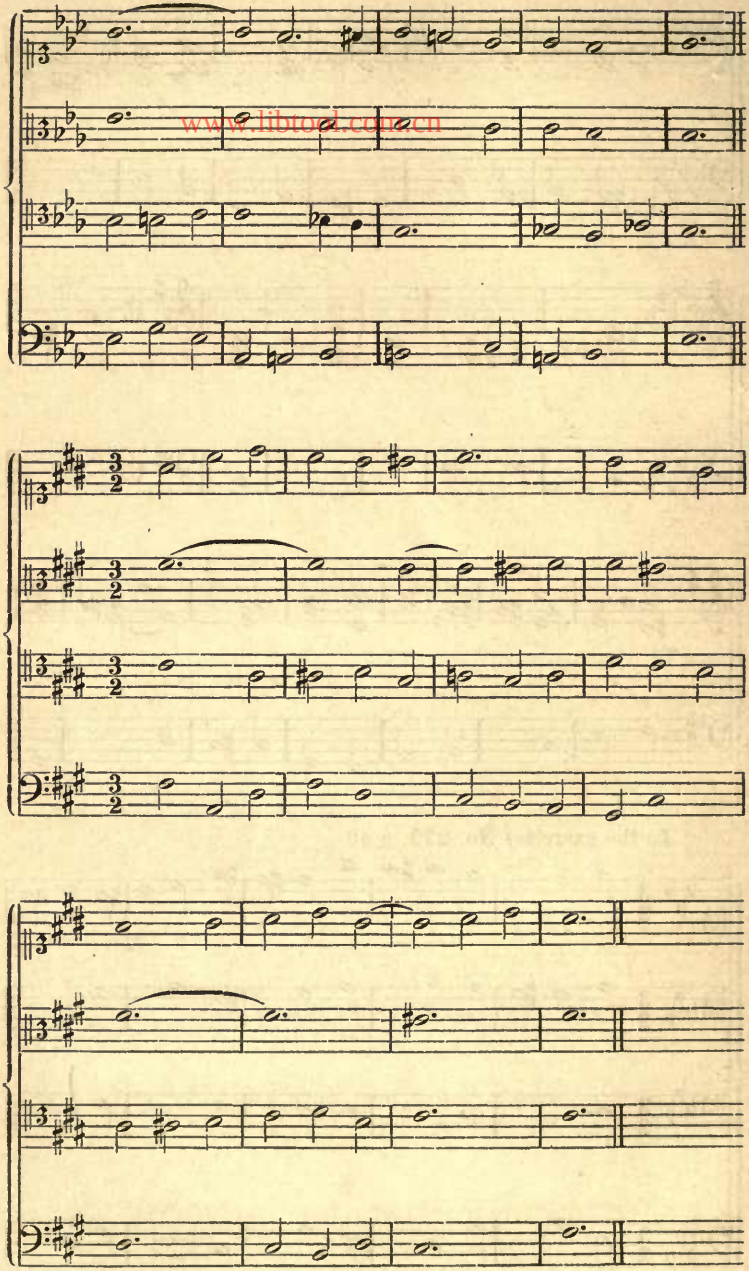

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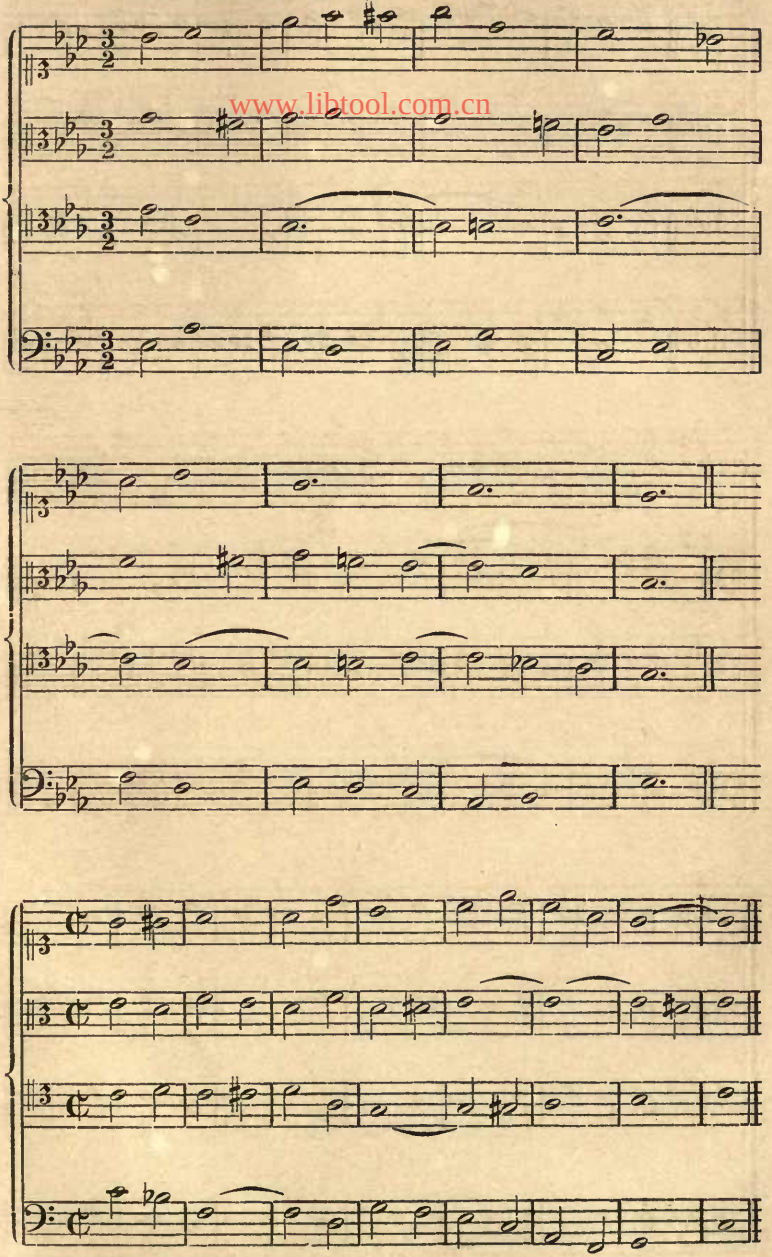

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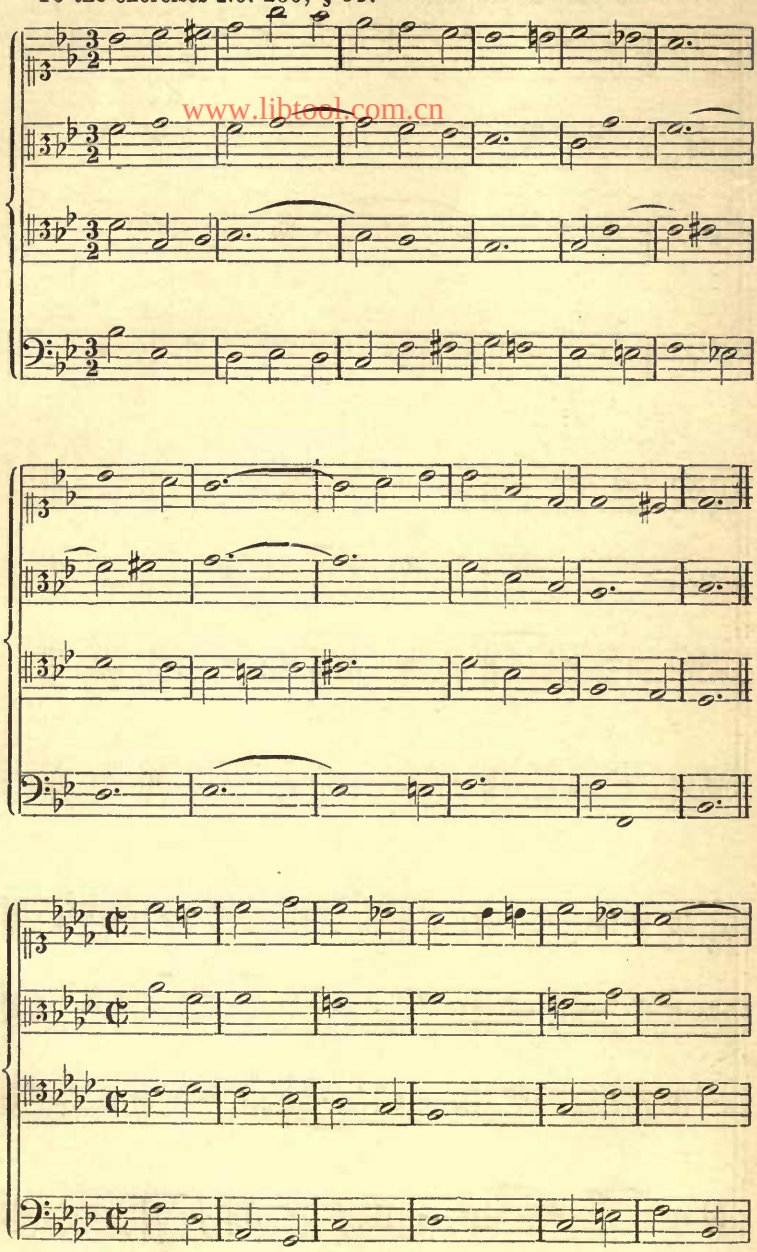

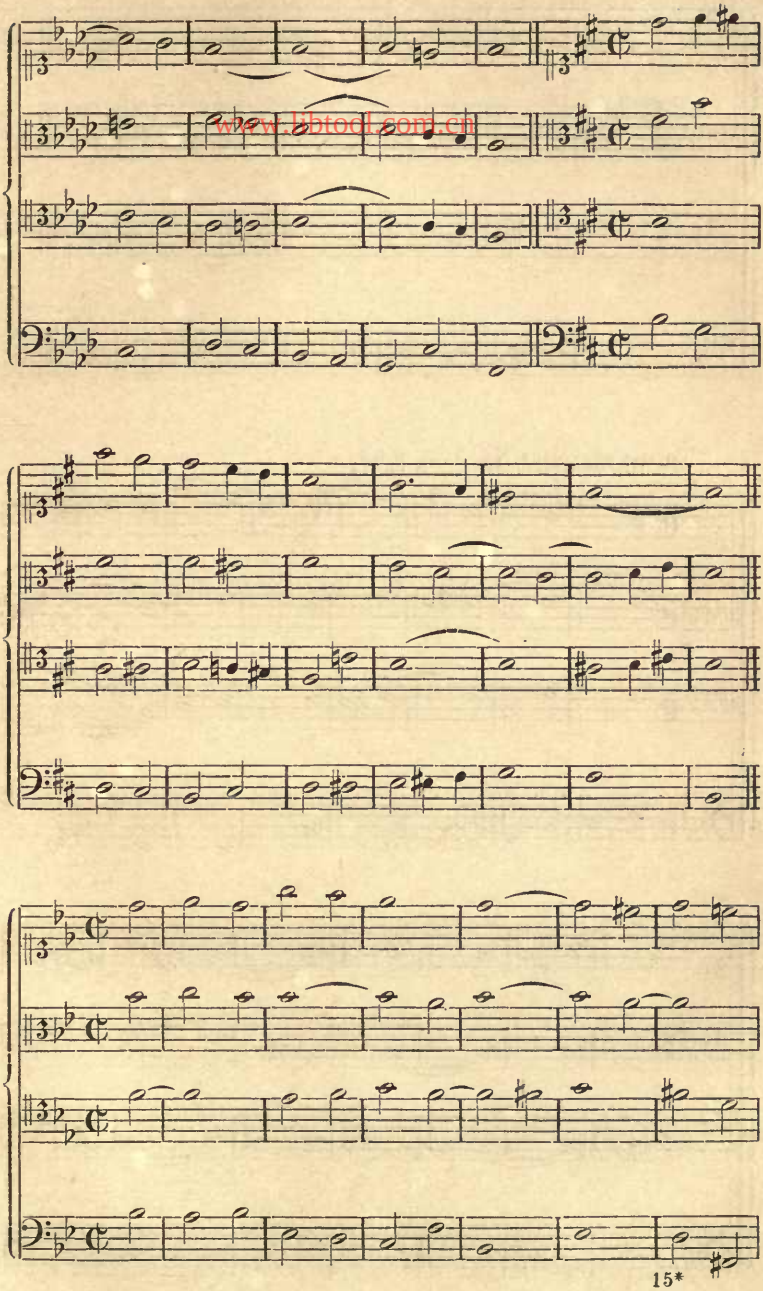

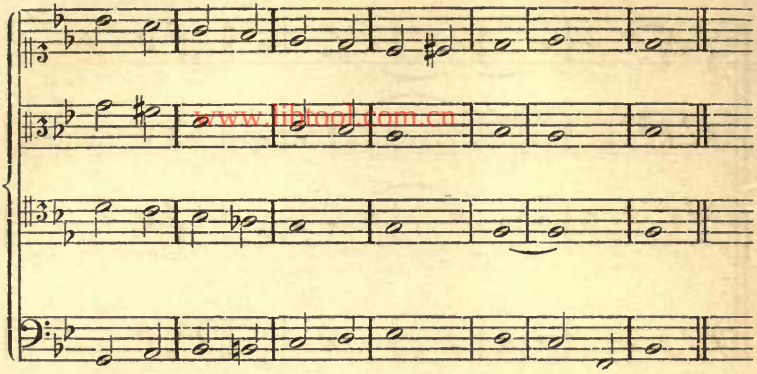

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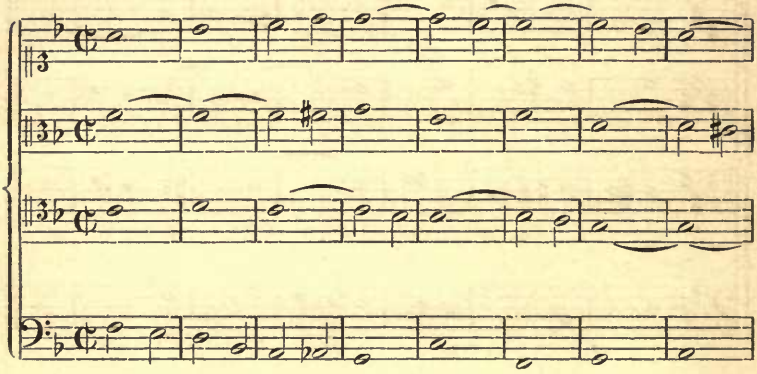

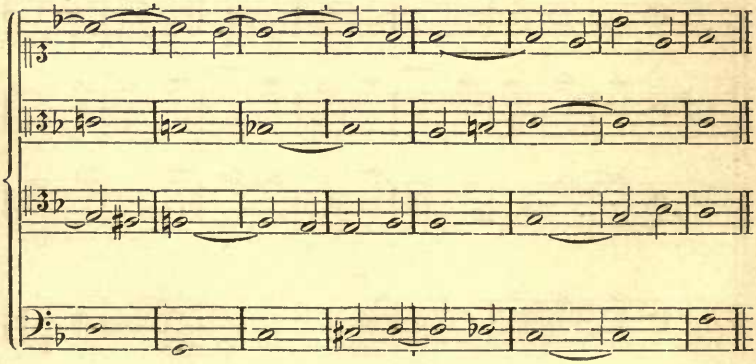

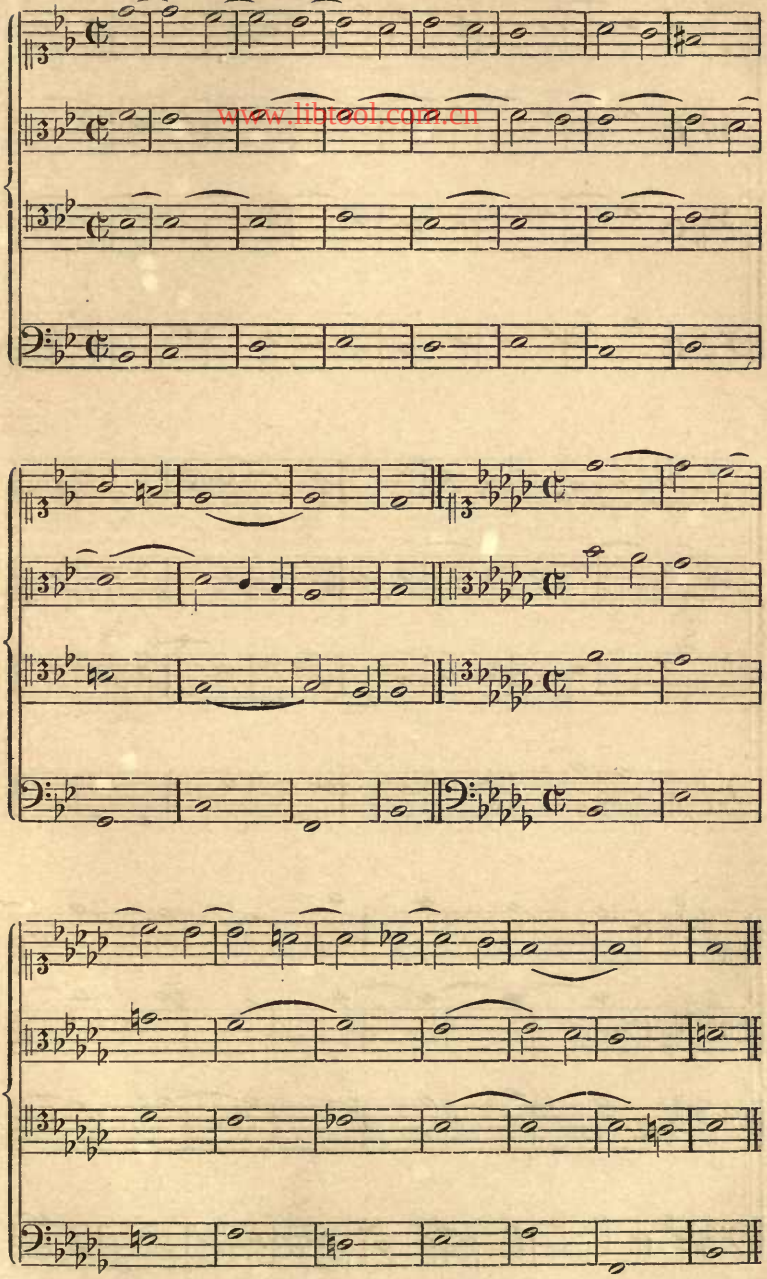

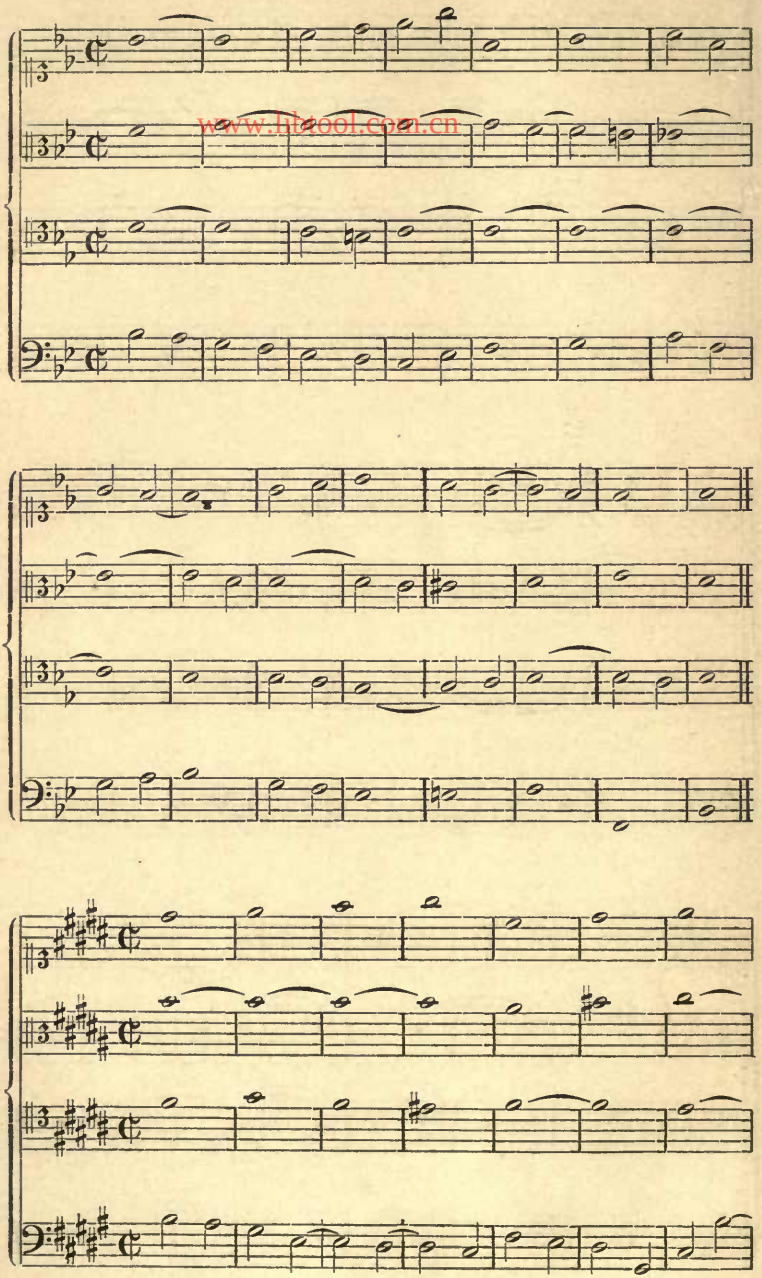

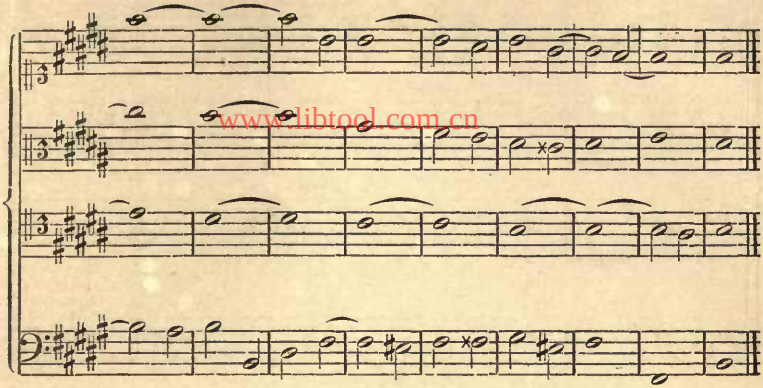

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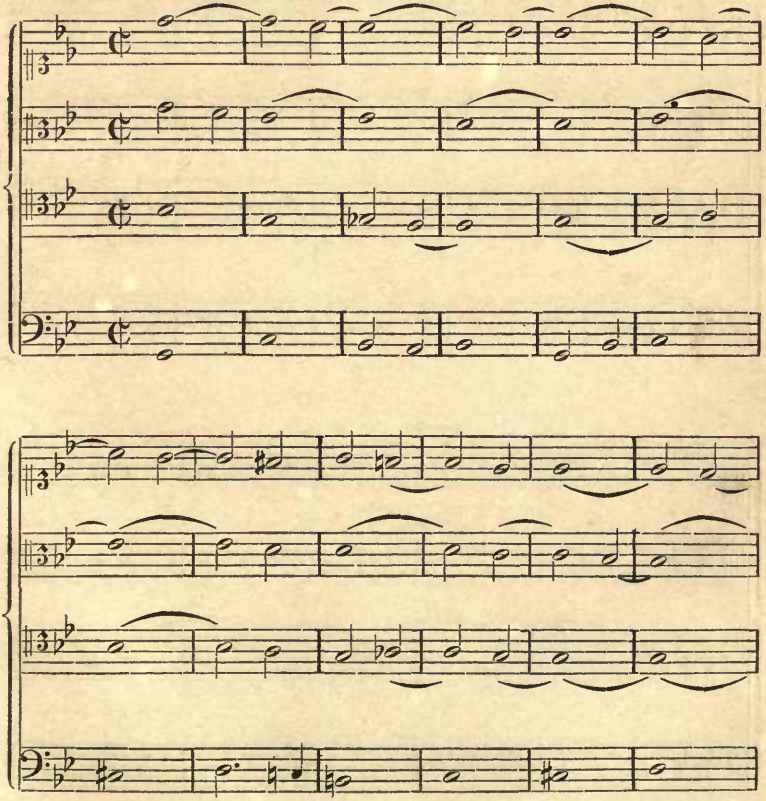
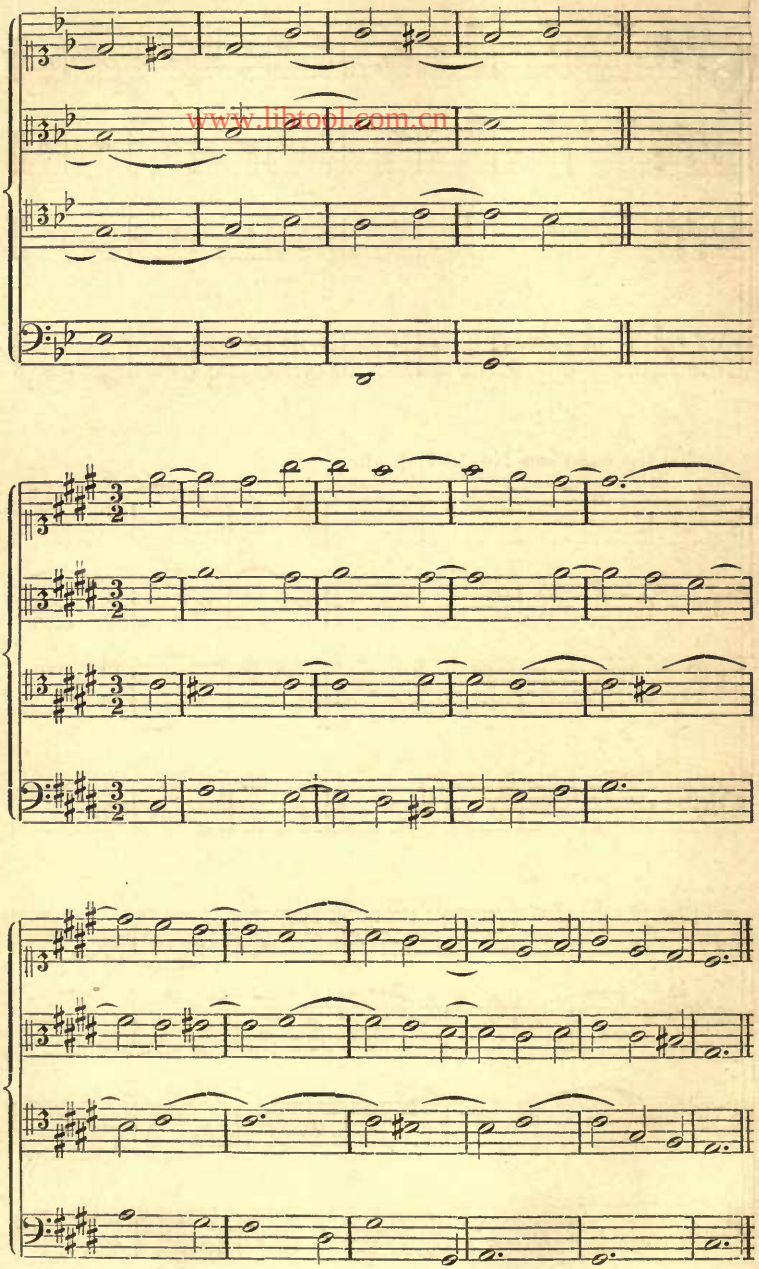
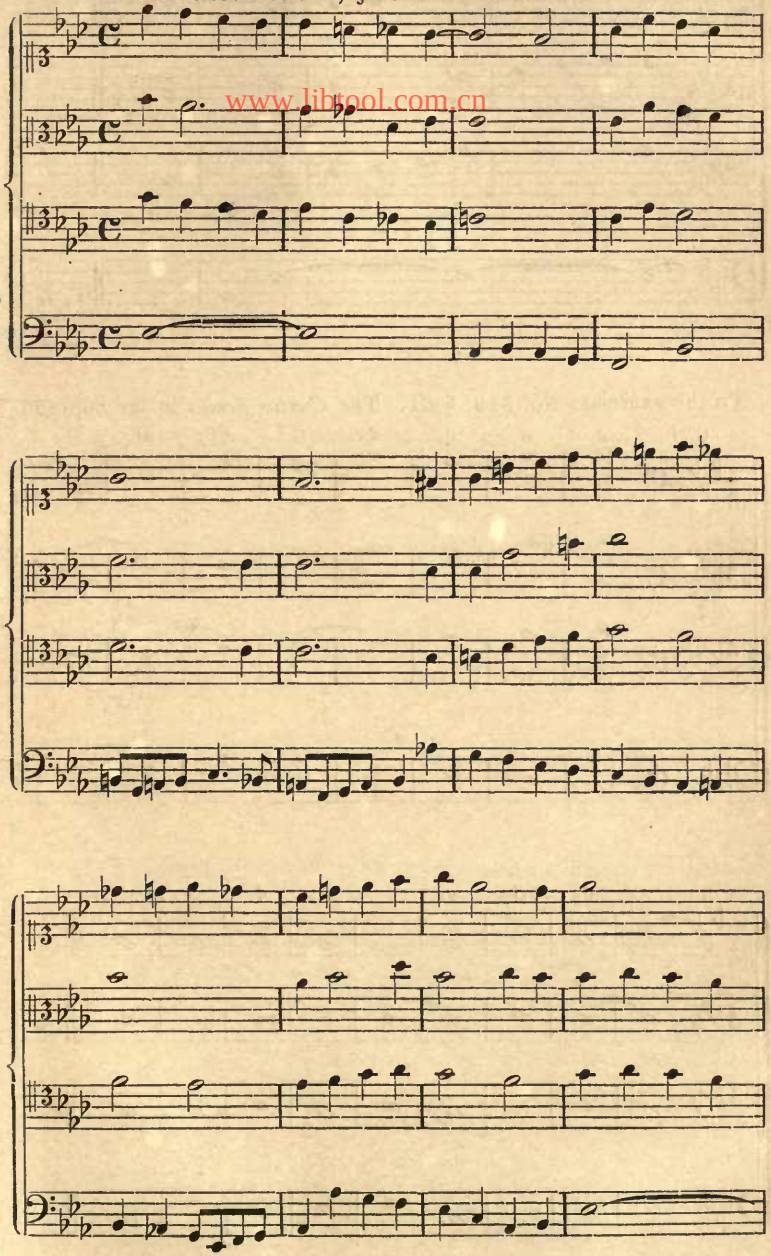
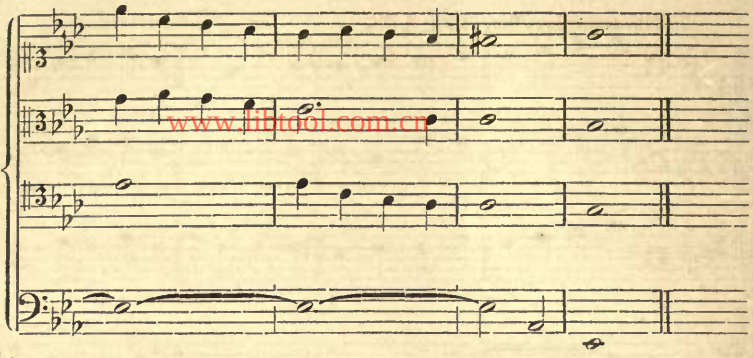


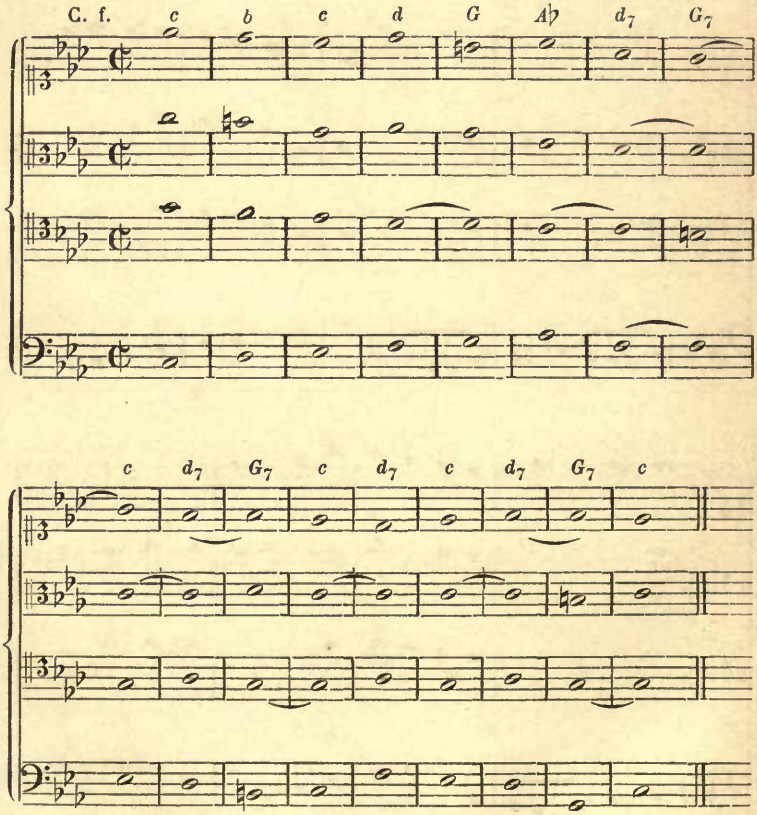


To the exercises No. 309, § 58.

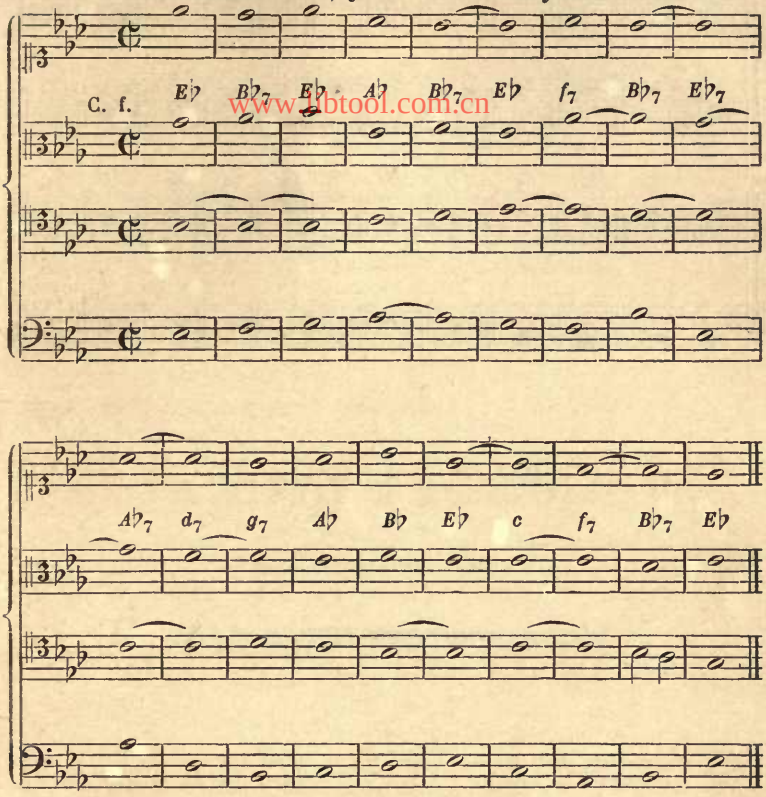




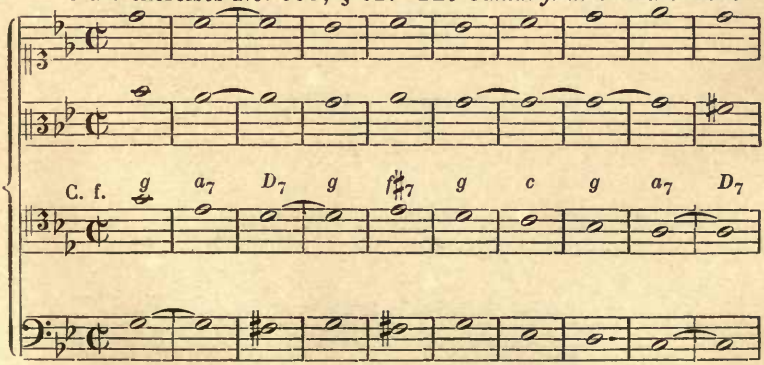
To the exercises No. 349, § 61. The *Cantus firmus* in the Soprano.

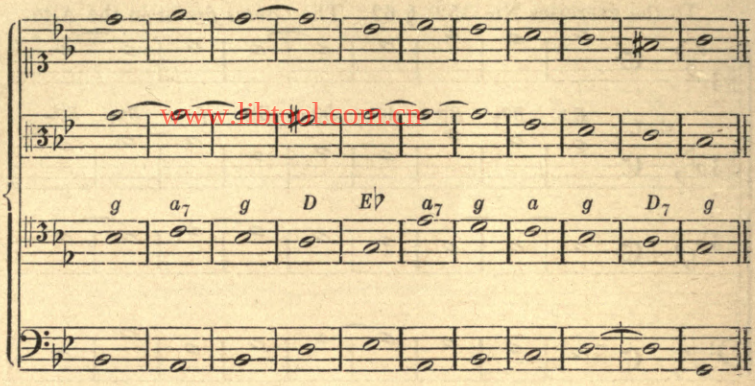


To the exercises No. 352, § 62. The *Cantus firmus* in the Alto.



To the exercises No. 353, § 62. The *Cantus firmus* in the Tenor.





EXPLANATORY

REMARKS AND SUGGESTIONS

FOR THE WORKING OF THE EXERCISES

IN THE

MANUAL OF HARMONY

WITH SPECIAL CONSIDERATION

FOR SELF-INSTRUCTION

BY

S. JADASSOHN,
PROFESSOR AT THE ROYAL CONSERVATORY OF MUSIC IN LEIPZIG.

THIRD EDITION.

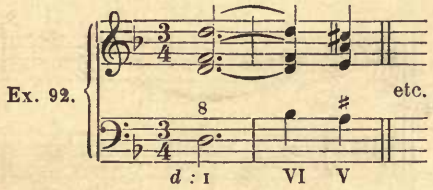
Repeated inquiries in regard to some of the most difficult exercises in my Manual on the part of those teaching themselves, have induced me to publish the following Appendix; it contains explanations and suggestions, such as I am accustomed to use in instructing my Harmony pupils in the Royal Conservatory. These hints may perhaps prove an aid to teachers and a welcome guide to pupils.

Leipzig, October 1888.

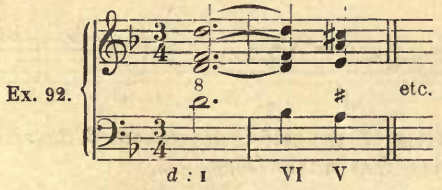
S. Jadassohn.

Hints for the Working of the Exercises of the Manual of Harmony, with special Regard to Self-Instruction.

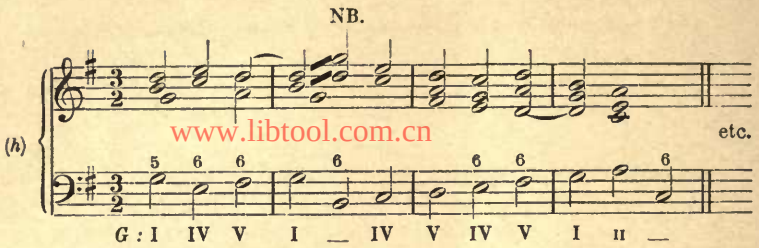
To § 31, Page 38. The triad can also be used without the fifth in four-part harmony, as has been already shown in Ex. 67, Bar 5. Hence Ex. 92 could also begin as follows:



This, indeed, frequently becomes necessary for the correct progression of the voices. (Compare Ex. 67, Bar 5). The Tonic Triad in Ex. 92 could not contain the fifth, if the Bass should begin on the upper *D* and the octave of the fundamental be given in the Soprano.

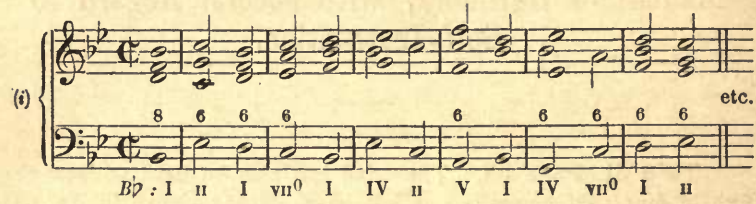


To § 34, Page 50. "More difficult Exercises", 118[b]. The second of these exercises (*h*) should begin as follows:

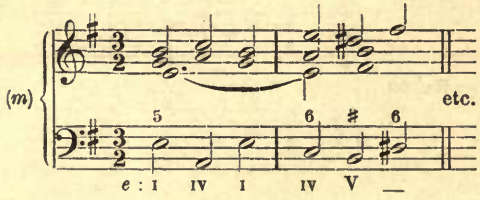


NB. In the second bar the progression of the Soprano and Alto in skips occurs within the same chord and is therefore good.

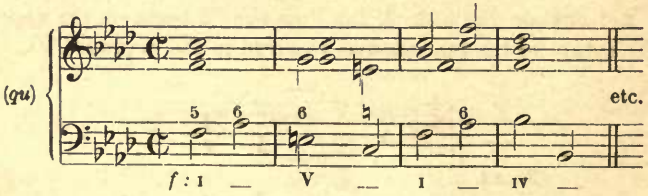
The third exercise (*i*) would begin:



The sixth exercise (*m*) would begin:



The last of these exercises (*qu*) would begin:

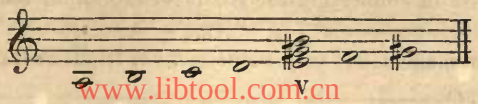


The doubling of the third in the chord of the sixth must always be avoided, when that is the *leading tone*.

To the Exercises 137, § 37, Page 60.

The sixth of these exercises (*f*) can begin as follows:

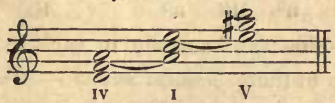
The Dominant Triads besomes *major* by raising the seventh degree.



It is formed exactly alike in major and minor; *E* $G\sharp$ *B* is the Dominant Triad both of *A* major and *a* minor. These three primary triads of the minor scale bear the same relation to each other as the primary triads in major (as shown in Ex. 34).

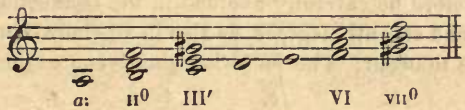
Primary triads in minor

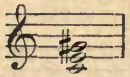
78.



On the remaining degrees of the minor scale are found the triads.:

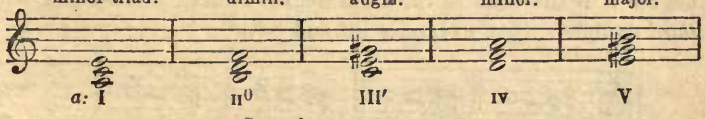
79.



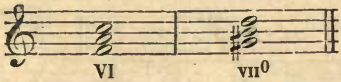
Those on the second and seventh degrees are *diminished*, that of the sixth degree is *major*. On the third degree is found a new chord, viz. a triad with *major third* and *augmented fifth*.  It is called the **Augmented Triad.** It is indicated by III′, as already shown in Ex. 79. The triads of the minor scale are presented in regular order in Ex. 80.

Primary triad of the Tonic. minor triad. Secondary triads. dimin. augm. Primary triads. minor. major.

80.



Secondary triads. major. dimin.

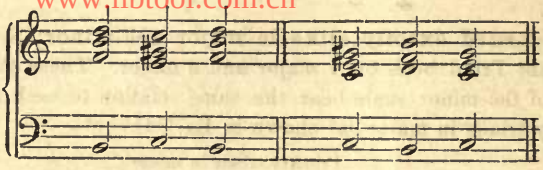


There are only four *independent* triads in the minor key. They are the three primary triads of the first, fourth, and fifth degrees, and the secondary triad of the sixth degree. The dissonant triads of the second, third and seventh degrees are *dependent*. The greater number of dissonant triads in minor (three to one, as compared to major) result from the necessary chromatic raising of the seventh degree of the minor scale. Owing to these *dependent dissonant* chords, and especially to

the distance of a step and a half from the sixth to the seventh degree, difficulties arise in connecting the triads of the minor scale with each other.

We shall not make use of such successions of triads as those in Ex. 81:

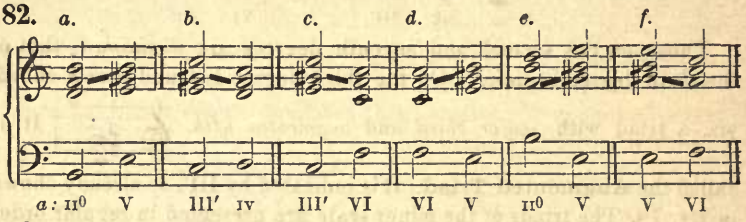
81.



although no objection can be made to such leading of the voices.*)

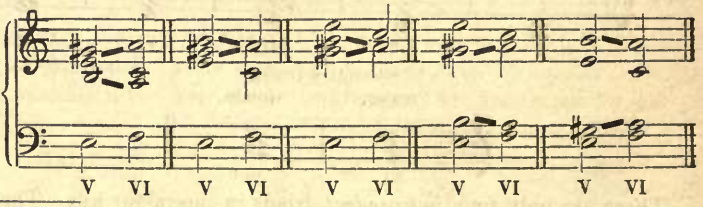
§ 28. The step of the *augmented second* — from the sixth to the seventh degree — is an interval difficult to be sung perfectly in tune.**) It must therefore be carefully avoided in the connection of the chords of the sixth and seventh degrees, as also in all chord-connections where it is possible to occur. The following chord-connections are very bad.

82.



§ 29. In connecting the triads of the fifth and sixth degrees, when the Dominant Triad is first, the step of the *augmented second* can be avoided only by doubling the *third* of the following chord (on the sixth degree). If the triad of the sixth degree is first, it is written with the *third* doubled. (See examples 83 and 84.)

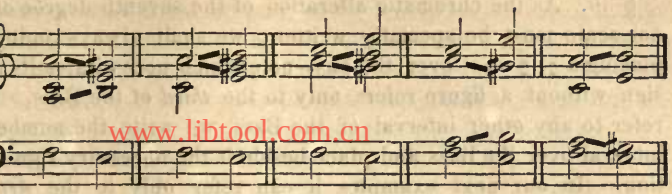
83.



*) The principle to be observed in pure writing is to prepare dissonances and to resolve them into consonances. A succession of several dissonant triads, the first of which is not prepared, and the second does not resolve into a consonant chord, must be avoided as being contrary to the laws of pure writing (strict style).

**) It is most difficult in an upward progression, if after the *sixth* the *seventh* is sung as leading tone. It is of course easier when, in a downward progression, after the octave the *seventh* is sung and then the *sixth*. But in the examples in *this* textbook the pupil is strictly forbidden the use of either progression.

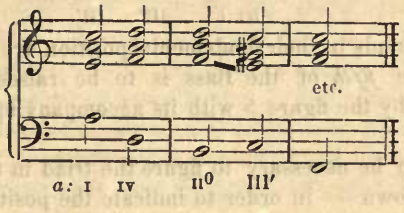
84.



a: VI V VI V VI V VI V VI V

In the connection of the triads of the second and third degrees (which seldom occurs) the step of the *augmented second* can be avoided by contrary motion, which the bass-progression necessitates.

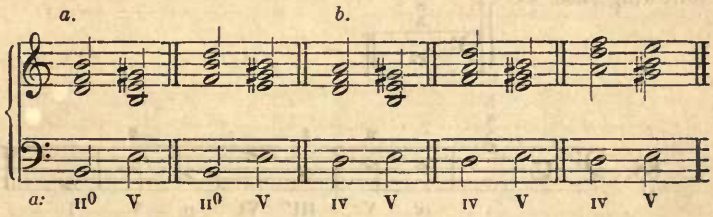
85.



a: I IV II^0 III'

In the same way we shall make use of contrary motion in connecting the triads of the second and fifth, and fourth and fifth degrees, even though in the former case *consecutive octaves* would not occur by progression in parallel motion.

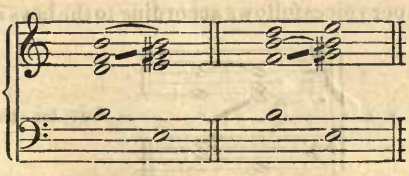
86.



a: II^0 V II^0 V IV V IV V IV V

At Ex. 86 *a.* we had to deviate from the principle of retaining the tone common to two chords in the same voice, because (in *close position*) we could not have retained the tone *B*, and could not lead *F* to *G*♯. Progressions of this kind:

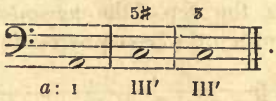
87.



must *always* be avoided.*)

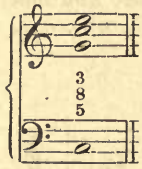
*) If the second chord were written in the *open* position, *B* could be retained in

§ 30. As the chromatic alteration of the seventh degree of the minor scale must be specially written, we shall always indicate it by placing a ♮, ♯ or × over the bass-note which necessitates its use. This sign without a figure refers only to the *third* of the Bass. If it is to refer to any other interval of the Bass, we write the number of that interval over the Bass and place beside it the necessary sign of alteration. (In our next examples it can refer only to the *fifth* of the Bass.) When the sign of alteration is a sharp (♯) a dash through the figure (5) suffices to indicate it, e. g.

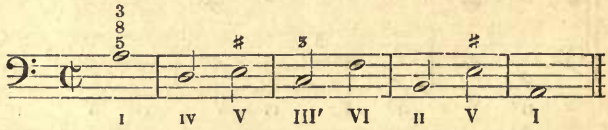


Although triads in their fundamental position are not usually figured, whenever the *fifth* of the Bass is to be raised it is necessary to indicate this by the figure 5 with its accompanying sign of alteration: 5, 5♮ or 5×.

It may also be necessary to figure the triad in the beginning — as is already known — in order to indicate the position of the Soprano, and of the other voices also. It is figured, 3, 5, 8, or $\frac{5}{3}$, $\frac{8}{5}$, and in the following case $\frac{3}{8}$.



88.



Therefore the above Bass through its figuring, gives occasion for the following remarks:

1. The upper voices must be so arranged that the Soprano takes $\bar{\bar{c}}$, the alto $\bar{a}$ and the Tenor $\bar{e}$ and from this the progression of the upper voices follows according to the laws already known to us.

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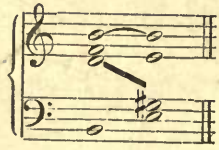
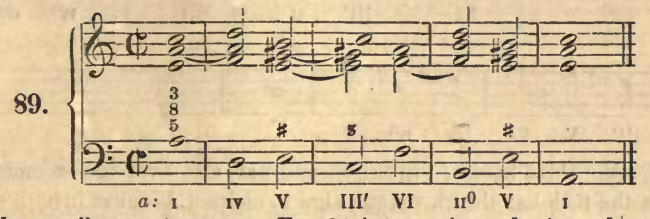
the same voice, e. g.  . But for the present the pupil must confine himself to the *close* position so as to avoid confusing difficulties that might occur in the open position. Besides, the open position is not necessary to our present purpose.

2. The sharp without a figure over the bass-note *E*, shows that the *third* of the bass-note, in the Dominant Triad, is to be chromatically raised.
3. The dashed figure 5 (5) over the bass-note *C*, shows that the *fifth* of the Augmented Triad must be $G\sharp$.

No. 89 shows the working of the example.

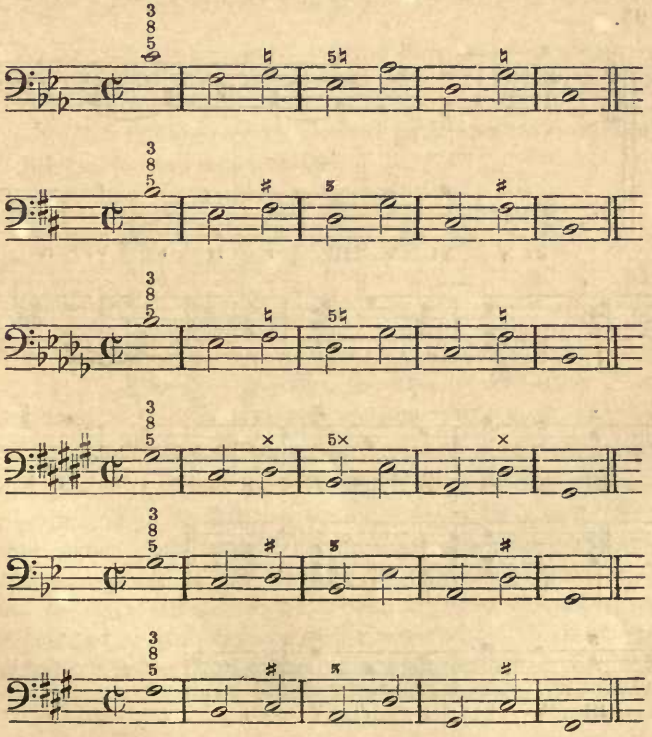
89.



The pupil may transpose Ex. 89 into *c* minor, *b* minor, $b\flat$ minor, $g\sharp$ minor, *g* minor, $f\sharp$ minor and *f* minor, in order to accustom himself to the minor triads of all keys. For this reason we give the transposed bass with the necessary signs of chromatic alteration.

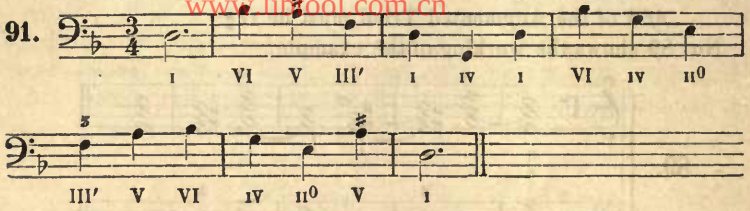
All figures and signs over the bass-notes are called *Thorough-Bass Notation.*

90.



§ 31. Ex. 91, second bar, shows the connection of the triad of the sixth degree with that of the fifth degree, and in the fifth bar that of the Dominant Triad with the triad of the sixth degree.

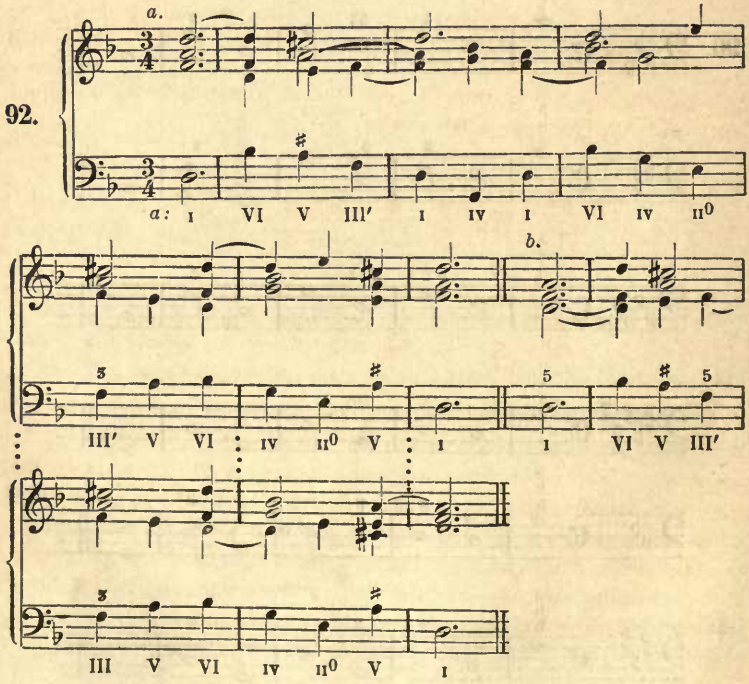
91.

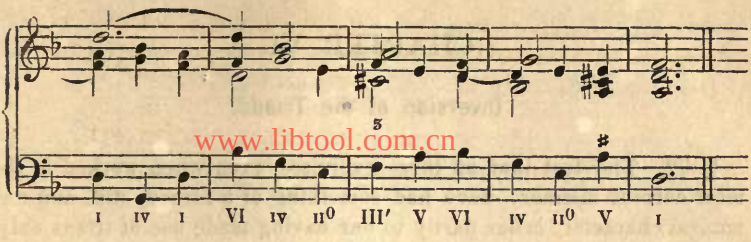


Over the third note (*F*) in the second bar, also over the second note (*A*) in the fifth bar the chromatic sign is omitted, because in both cases the seventh degree of the scale had already been raised. We call attention to the fact that in these exercises every chromatic alteration holds good throughout the bar.

The Bass of 91 is shown worked in two ways in the following example, which the pupil must carefully study and then transpose into $e\flat$ minor and $C\sharp$ minor, before he works out the basses of Nos. 93, 94 and 95.

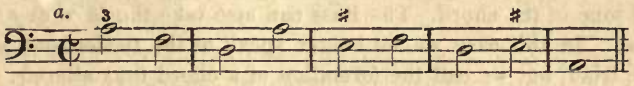
92.





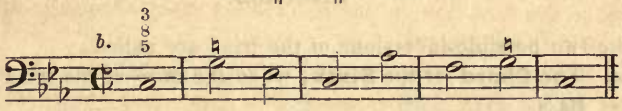
Exercises.

93.



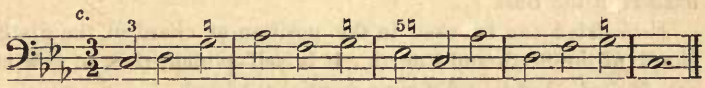
The same position of the first note of the Soprano is to be kept in the transposition of this exercise into *c*, *b*, *b♭*, *g♯*, *g*, *f♯* and *f* minor.

94.



In working Ex. 94 in *c♯* and *d* minor, the Soprano must begin with the *octave*, and in *e* and *e♭* minor with the *fifth* of the Bass.

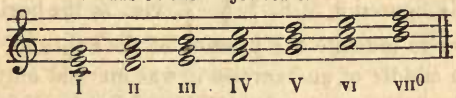
95.



In concluding this chapter we give the pupil another view of all the triads of the major and minor scales.

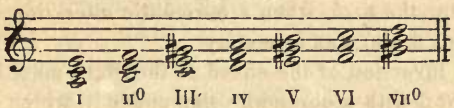
Triads of the major scale.

96.



Triads of the minor scale.

97.



We have seen that these triads differ according to their structure; that there are *major* triads on the first, fourth and fifth degrees of the major scale, and on the fifth and sixth degrees of the minor scale; that there are *minor* triads on the second, third and sixth degrees of the major scale, and on the first and fourth degrees of the minor scale; that the *diminished* triad is on the seventh degree of the major, and on the second and seventh degrees of the minor scale, and that the *augmented* triad is on the third degree of the minor scale.

CHAPTER VI.

Inversion of the Triads.

§. 32. The fact that all these exercises, even when worked in the most correct manner, have had something of a forced, stiff, and unnatural character, is due partly to our having made use of triads only, and partly because we could employ them in their *fundamental position* only — that is, in that position in which the Bass takes the *fundamental* tone of the chord. The Bass can also take the *third* or *fifth* of the triad. In this case we no longer speak of the *fundamental position* of the triad, but we call the formation of a chord thus altered:

Inversion.

The two possible inversions of the triad are called:

a. The **Chord of the Sixth**, when the *third* of the triad is in the Bass,

b. the **Chord of the Sixth and Fourth**, when the *fifth* of the triad is in the Bass.

Each triad can be used in the position of chord of the Sixth, and chord of the Sixth and Fourth. It is self-evident that no new chords are formed, but that different positions of one and the same chord are used.

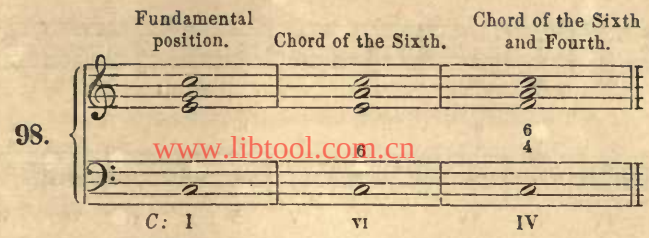
The fundamental position of the triad has been, as we know, only exceptionally figured 3, 5, 8, $\frac{8}{5}$, $\frac{8}{3}$, $\frac{3}{8}$, viz: at the beginning of an exercise (in order to indicate the position of the Soprano, or of all the voices). In the middle of an exercise it was marked only by a chromatic sign over the bass-note for the *third*, and by the figure 5 with a chromatic sign for the *fifth*, when a chromatic alteration of these intervals (in the minor scale) was necessary.

The first inversion of the chord of the Sixth must be figured 6, or $\frac{6}{3}$, or the figure 6 with a chromatic sign under it, which refers to the *third* whenever that *third* requires a chromatic alteration.

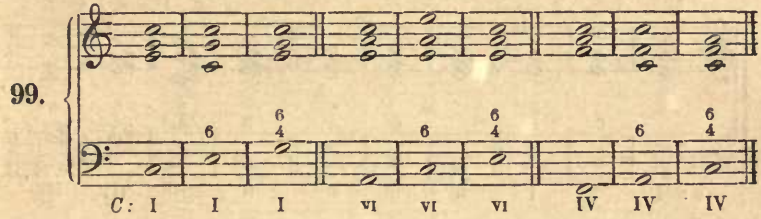
The second inversion, the chord of the Sixth and Fourth, is always figured $\frac{6}{4}$.

We shall therefore write the Triad of *C* in its fundamental position (*C E G*) over the note *C*, when it is not figured (or when figured 3, 5, 8 etc.). *C*, when figured 6 (or $\frac{6}{3}$), indicates the chord of the Sixth of that triad, in the fundamental position of which *C* is the *third*.

C figured $\frac{6}{4}$, indicates the chord of the Sixth and Fourth of that triad, in the fundamental position of which *C* is the *fifth*.

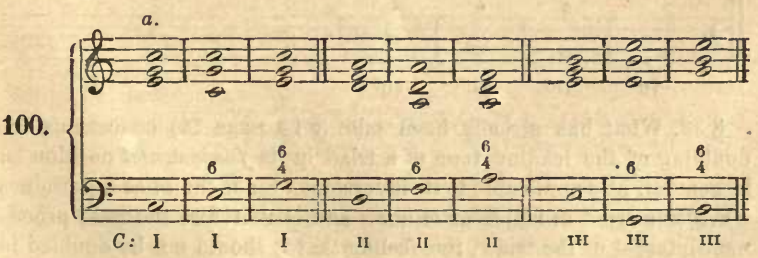


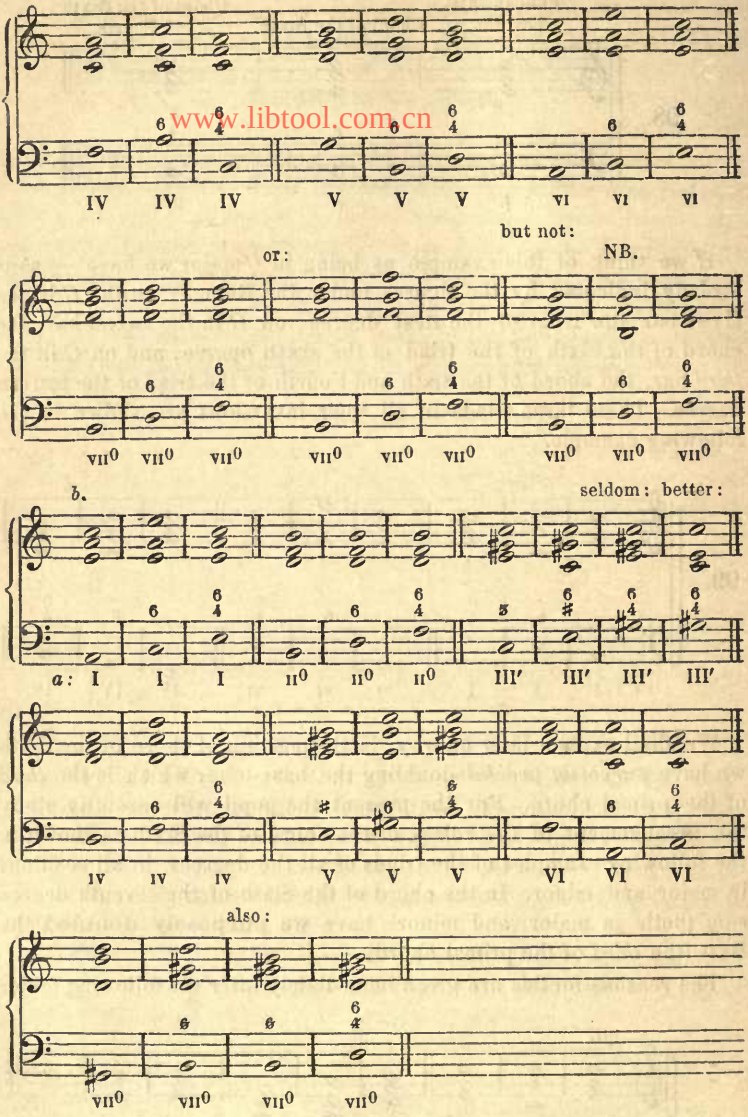
If we think of this example as being in *C* major we have — as is already indicated by the figures under the Bass — on the *C* in the first bar the triad of the first degree, on *C* in the *second* bar, the chord of the Sixth of the triad of the sixth degree, and on *C* in the *third* bar, the chord of the Sixth and Fourth of the triad of the fourth degree. These three triads in all their inversions are shown in the following example.



We shall explain later on why, in the position of chord of the Sixth we have *purposely avoided* doubling the bass-tone, which is the *third* of the primal chord. For the present the pupil will carefully study the arrangement of the voices of the chord of the Sixth as shown in the following examples of the triads of all the degrees, in all positions in major and minor. In the chord of the Sixth of the seventh degree *only* (both in major and minor) have we purposely doubled the Bass (the *third* of the primal chord).

The reasons for this are given immediately after the following table:



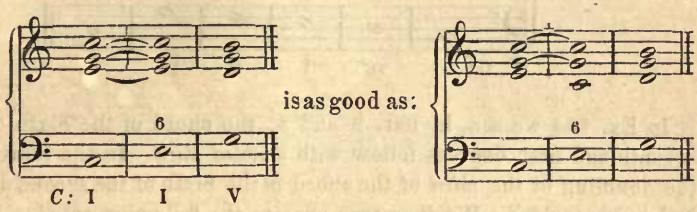


§ 33. What has already been said (§ 13 page 14) concerning the doubling of the leading tone of a triad in its *fundamental* position is, in general, also applicable to its inversions. Since the *third* determines whether a triad in major or minor, and is therefore the most prominent interval of the triad, the feeling that it should not be doubled in

the chord of the Sixth is much stronger because it (the third) is in the Bass, which, being an outer voice, makes it more prominent. *Any* interval, if placed in an outer voice, becomes more prominent than if in a middle voice. We shall, therefore, double the *third* in the chord of the Sixth only —

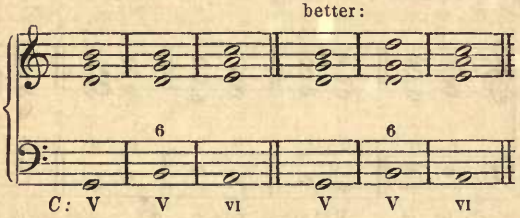
a. When a smoother leading of the middle voices can be obtained by retaining a tone. e. g.

101.



But the consideration to be had for the leading tone must not be disregarded. Therefore the following chord-connection would not be advisable.

102.

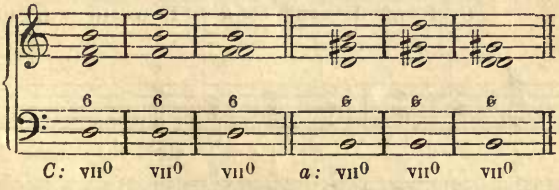


b. On account of this consideration for the leading tone we must avoid doubling the fundamental of the primal chord (which is the leading tone of the scale) in the chord of the Sixth of the seventh degree in major or minor.

Therefore the rule in four-voiced writing is:

In the chord of the Sixth of the triad of the seventh degree, double the Bass — the *third* of the *primal chord* —, or the *third* of the Bass — the *fifth* of the *primal chord.*

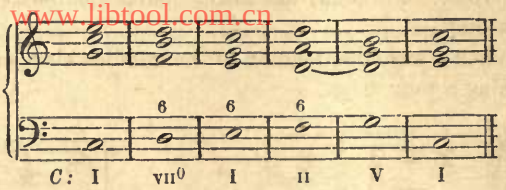
103.



c. Moreover, the *third* of the primal chord *must* be doubled in the chord of the Sixth, if in two or more succeeding chords of the

Sixth *parallel fifths* or *octaves* cannot be otherwise avoided, and when an unforced leading of the voices makes the doubling of the *third* more natural than that of the *fundamental*.

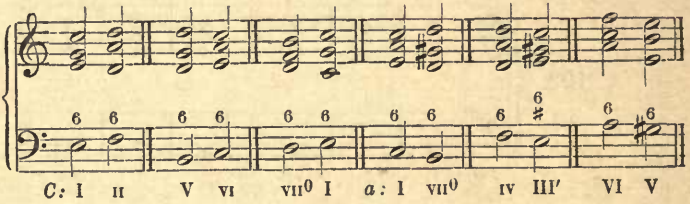
104.



In Ex. 104 we see, in bars 2 and 3, the chord of the Sixth of the seventh and first degrees follow with *doubled third*. In the fourth bar the doubling of the *third* of the chord of the Sixth of the second degree had to be avoided. We therefore present the following rule:

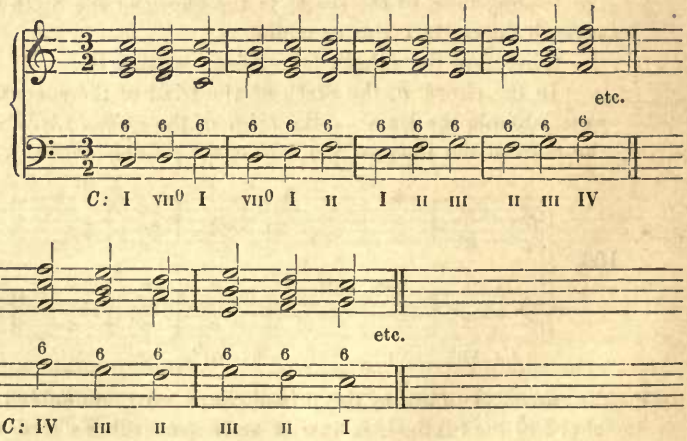
If two or more chords of the Sixth follow *by degrees*, the *third* must, in most cases, be doubled in each alternate chord in order to avoid faulty progressions (*parallel fifths* and *octaves*).

105.



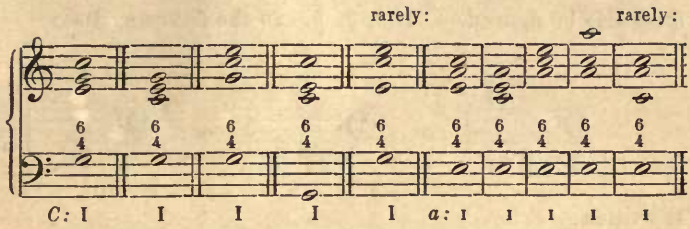
Sequence of Chords of the Sixth.

106.



§ 34. In the chord of the Sixth and Fourth the doubling of the Bass, which is the *fifth* of the primal chord, is most advisable. The *fourth* of the Bass (the *fundamental* of the triad) may also de doubled. Only in exceptional cases (when it tends to a natural leading of the voices) may the *sixth* of the Bass (the *third* of the primal chord) be doubled.

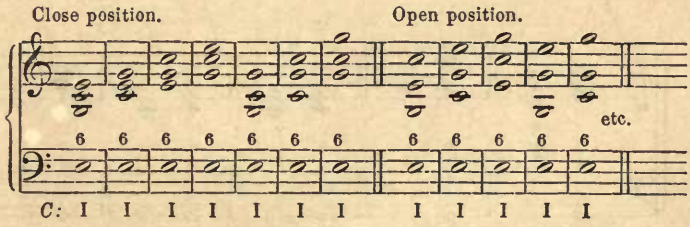
107.



As was shown in Ex. 37, (§ 13) that, when the fundamental is in the Bass, the upper voices may take any position in the triad, so also in the inversions of the triad the upper voices may be grouped over the bass-note at pleasure. Therefore in the chord of the Sixth and the chord of the Sixth and Fourth the upper voices may be written in various positions to each other and to the Bass, e. g.

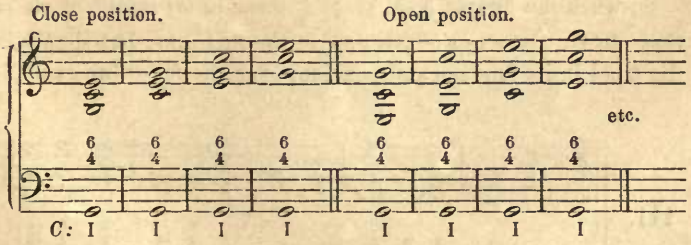
Chord of the Sixth.

108.



Chord of the Sixth and Fourth.

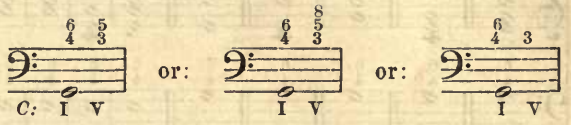
109.



The pupil has already seen from the examples in 100*b* that each chromatic alteration of an interval of a chord must be indicated, by the necessary sign of alteration over the bass-note for the *third* of the

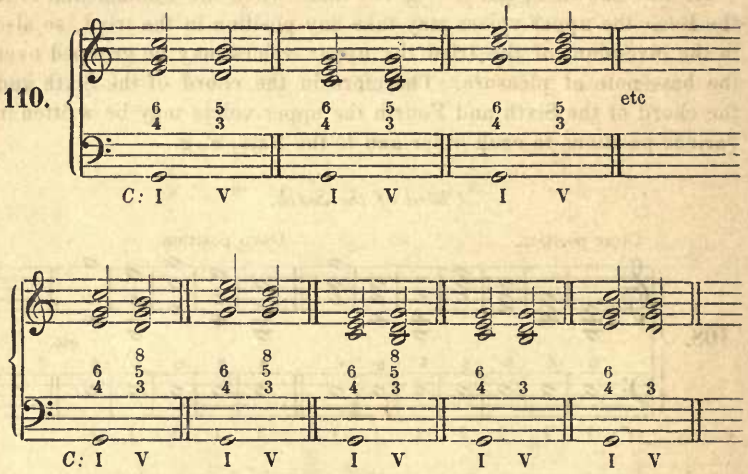
Bass, and for any other interval by a figure with the chromatic sign belonging to it, and that accordingly it must be written before the corresponding interval in the upper voice.

If two or three figurings are found *side by side* over one bass-note, it is to be understood that each figuring has an equal part of the value of said bass-note. In such cases the fundamental position of the triad must also be figured, 3, 5, 8, $\frac{5}{3}$, $\frac{3}{5}$ $\frac{8}{3}$. So the following Bass:



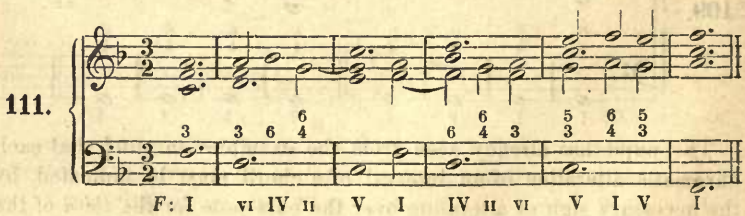
is written:

110.



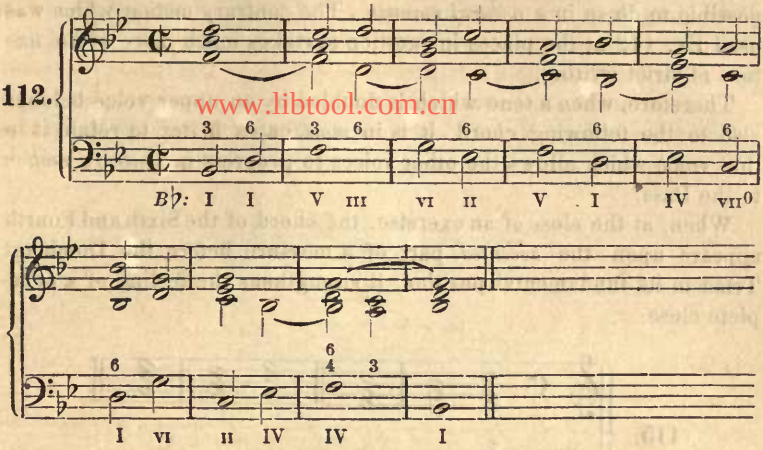
So when the figures 3, 5, 8, $\frac{5}{3}$, $\frac{8}{5}$ $\frac{}{3}$ *occur in the middle of an exercise*, they do not refer to the position of the Soprano, but simply indicate the triad in its fundamental position. See the following example.

111.

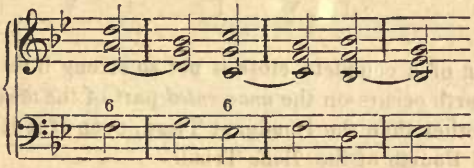


Another example.

112.

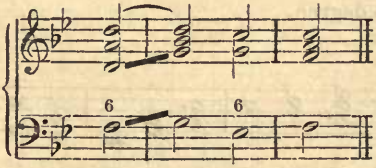


The leading of the voices from bar 2 to bar 3, and from bar 3 to bar 4



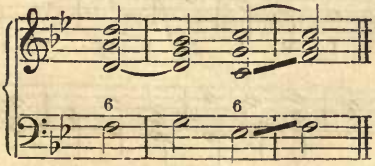
is better than:

113.



or:

114.



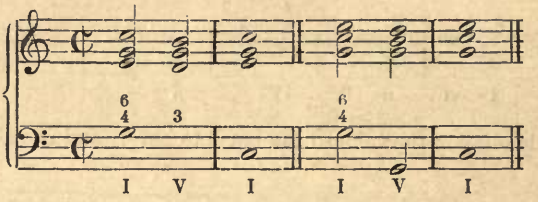
In both examples (113 and 114) occur *concealed octaves* over a *whole-step* between Tenor and Bass. While we have not as yet forbidden the pupil to write such *concealed octaves* between an outer and a *middle*

voice, we would urge the necessity of avoiding them whenever it is possible to do so in a *natural manner*. The contrary motion which was used Ex. 112 at the places in question partakes much more of the nature of strict writing.

Therefore, when a tone which is doubled by an upper voice belongs also to the following chord, it is in *most* cases better to retain it in that voice which allows the other voices to progress in *contrary motion* to the Bass.

When, at the close of an exercise, the chord of the Sixth and Fourth appears upon the *accented* part of a measure before the Dominant Triad in its fundamental position, it strengthens the feeling of a complete close.

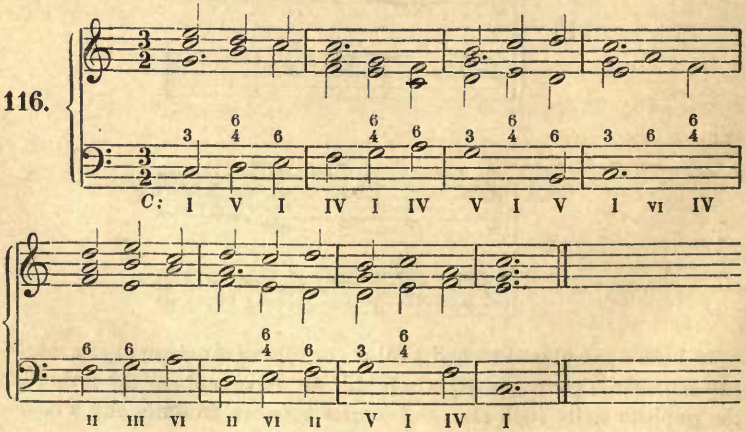
115.



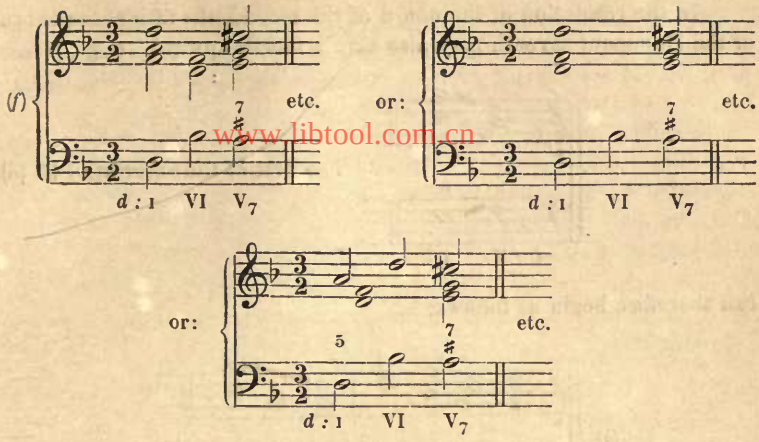
The feeling of a complete close is not so strong if the chord of the Sixth and Fourth occurs on the *unaccented* part of the measure and before a chord other than the Dominant Triad, even if it is the chord of the Sixth and Fourth of the *Tonic* Triad.

It is still less felt if the chord of the Sixth and Fourth (on the *unaccented* part of a measure) is the inversion of another triad than of that of the first degree.

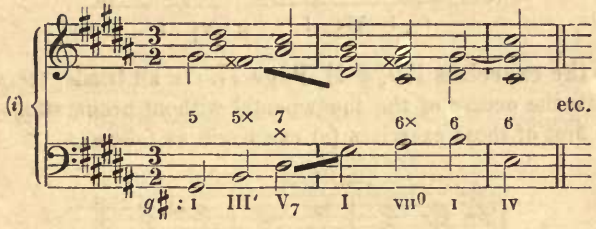
116.



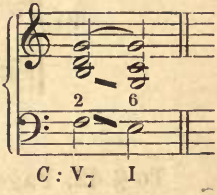
For page 49 See after page 32.



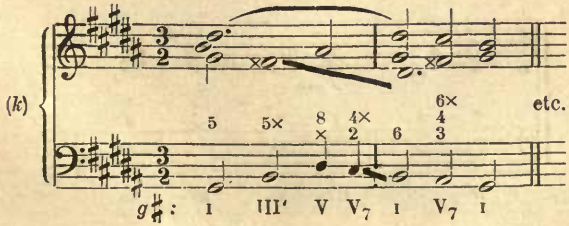
The last of these exercises will begin as follows:



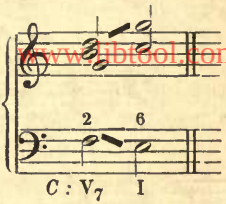
To § 38, Page 64, Ex. 142, Bar 6 (*f*)



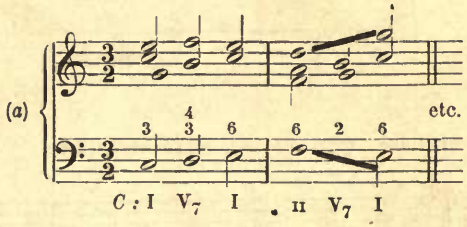
In this case the leading tone in a middle voice can also descend, because concealed consecutive fifths do not ensue. The first of the exercises 145 (*k*) Page 67, can therefore begin as follows:



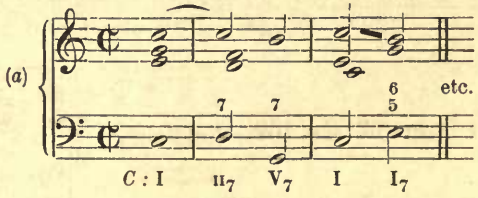
In the resolution of the chord of the second, the fifth of the chord of the Dominant seventh may also skip a fourth upward, e. g.:



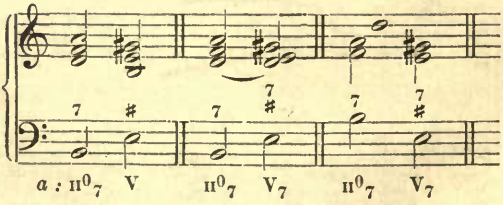
The first of the exercises 145 (*a*) can therefore begin as follows:



To the exercises 170, § 41, Page 77. In all triads, the seventh can follow the octave of the fundamental without preparation: therefore the first of these exercises (*a*) can begin as follows:



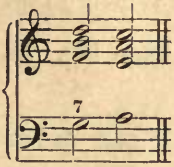
To § 42, Pages 78 and 79. The chord of the seventh on the second degree resolves into the dominant triad or, with stationary third, into the chord of the Dominant seventh. The fifth of the chord of the seventh on the second degree must always descend, in these resolutions, in order to avoid the augmented second upward; e. g.:



The resolution of the chord of the seventh on the seventh degree in the minor scale is always non-cadencing. See Examples 179, 180, 181 and 182, Pages 81, 82 and 83.

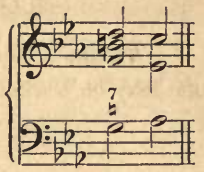
To § 44, Ex. 187, Page 87. The pupil will notice from Ex. 187, that, in four-part harmony, the chord of the Dominant seventh in the fundamental position must always be given *complete in all its intervals*, when it resolves into the triad on the sixth degree. In connecting these two chords in the minor scale, the third of the triad on the sixth degree must always be doubled.

In Major:



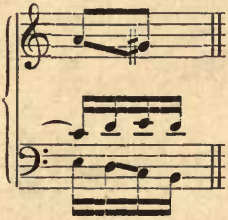
$C: V_7$ VI

In Minor:



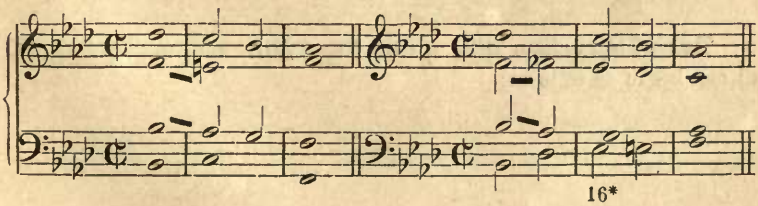
$c: V_7$ VI

To § 46, Ex. 203, Page 97. MOZART, however, in the fugue of the *C* Major Fantasia, Bar 8, has written consecutive fifths of this kind, even in three-part harmony, which, with reference to the prohibitions in four-part harmony, demands still greater foresight. Compare the following passage:

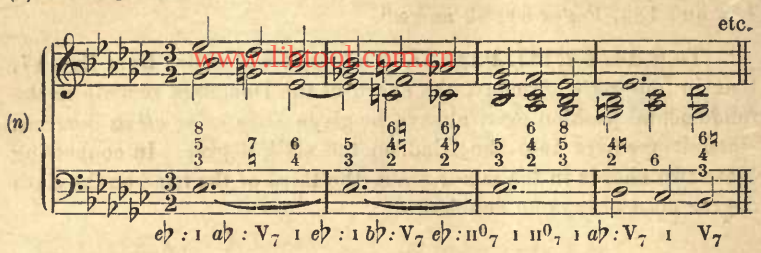


. The effect of these consecutive fifths between Soprano and Bass is, in this exceptional case, excellent.

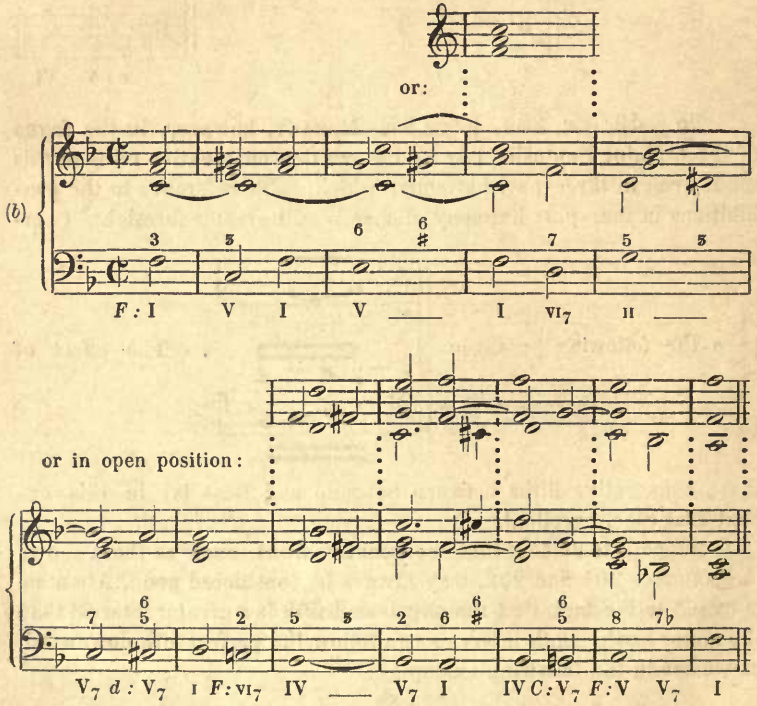
Hence it is evident that, consecutive fifths, such as those shown in Examples 201 and 202, may always be considered good. Attention is called to the fact, that the augmented fifth is a greater interval than the minor sixth. Both intervals can follow the perfect fifth downward, as we see in the following examples.



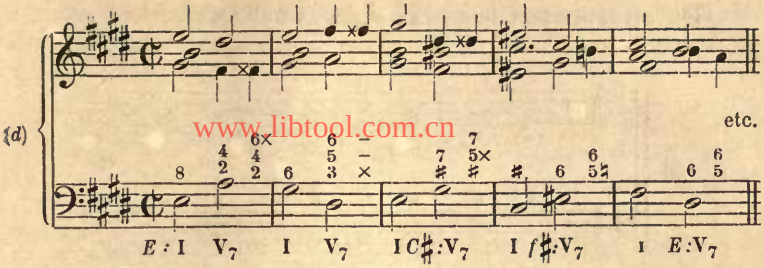
To the Exercises 207, § 47, Page 99. The thirteenth exercise (*n*) can begin as follows:



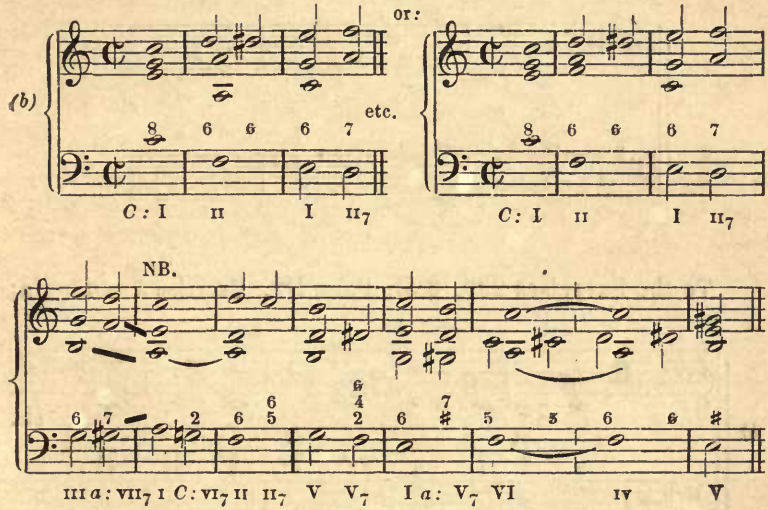
To the Exercises 217, § 48, Page 105. The second exercise (*b*) may be worked as follows:



To the Exercises 222, § 49, Page 110. The fourth exercise (*d*) can begin as follows:

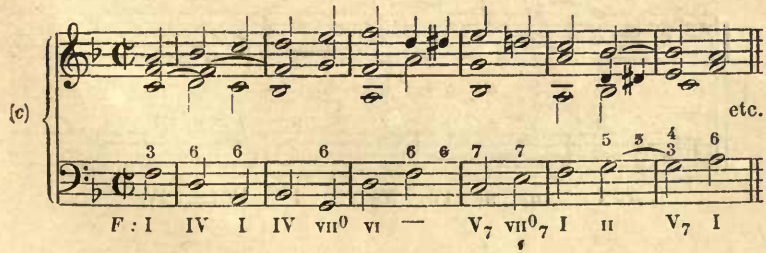


To the Exercises 225, § 50, Page 113. The second exercise (*b*) can begin as follows:

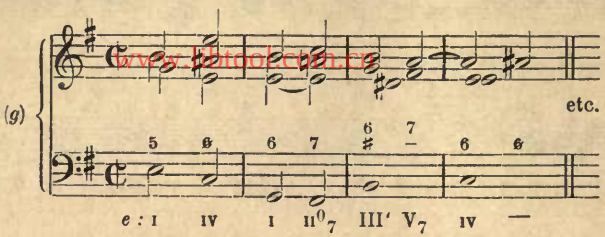


NB. Such progressions are found with the best masters in pure writing. *They are always allowable, when the Bass goes in contrary motion.*

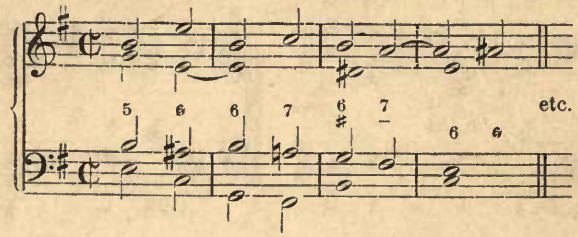
The third exercise (*c*) can begin as follows:



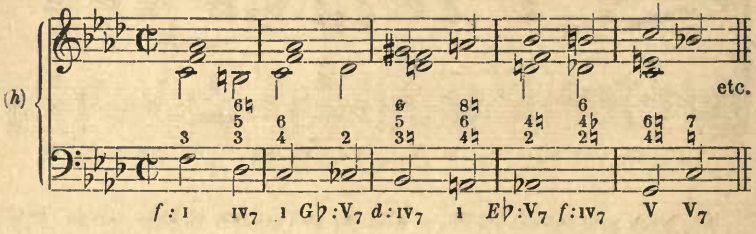
The seventh exercise (*g*) can begin as follows:



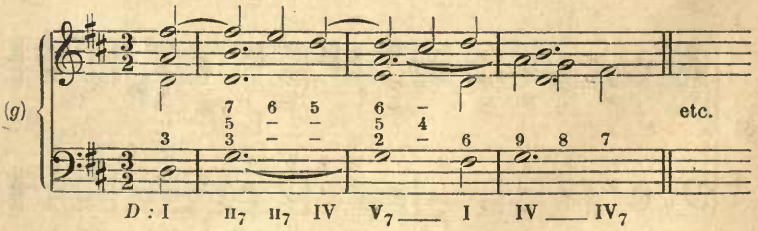
or in open position:



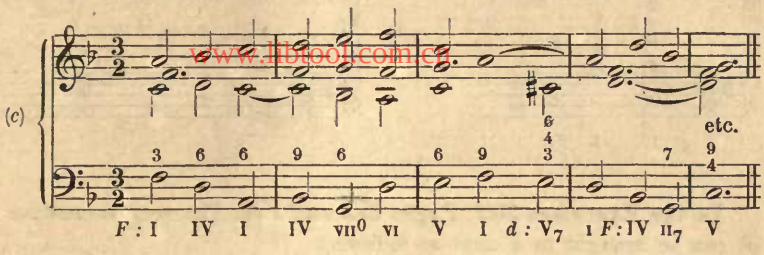
To the Exercises 239, § 51, Page 119. Exercise *h* will begin:



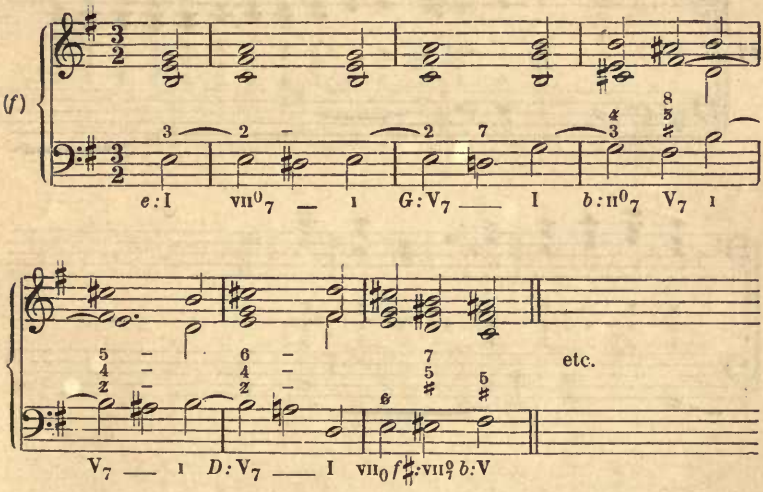
To the Exercises 275, § 54, Page 138. Exercise *g* will begin as follows:



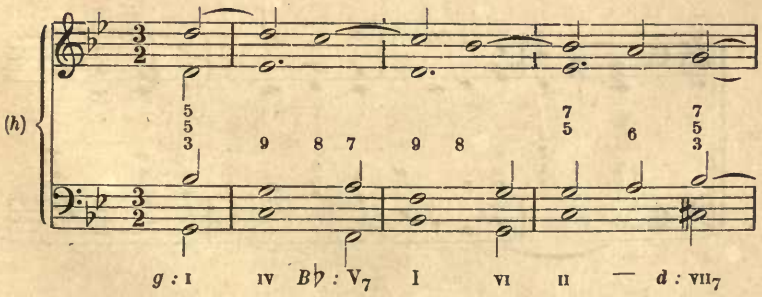
To the Exercises 294, § 56, Pages 148 and 149. Exercise *c* might begin as follows:

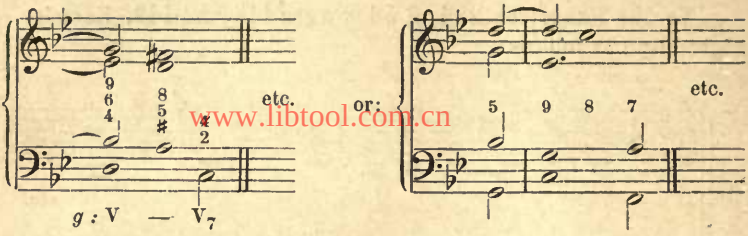


Exercise *f* can begin as follows:

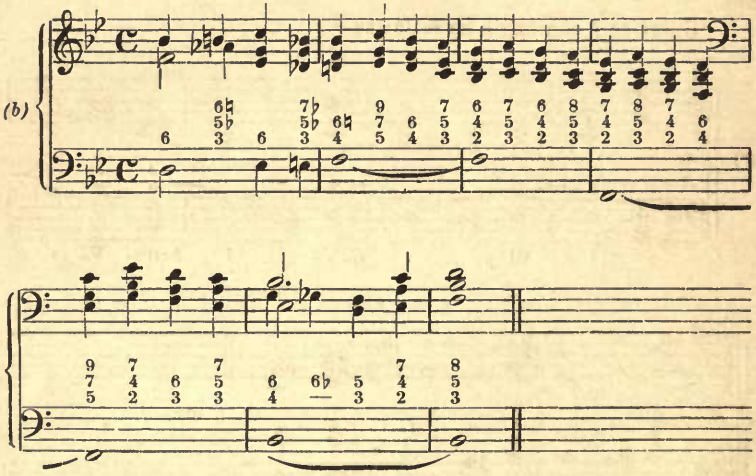


Exercise *h* can begin:

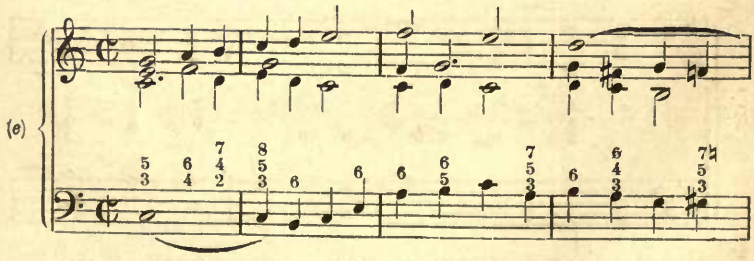


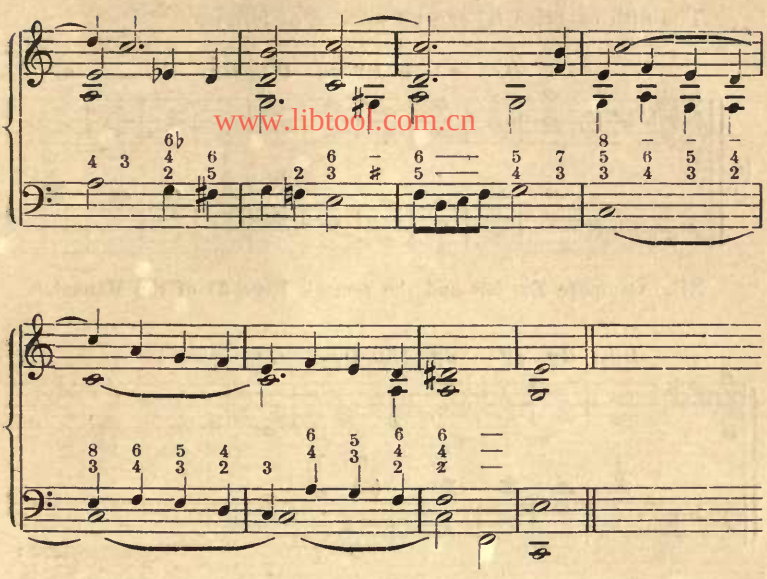


To the Exercises 309, Pages 155 and 156. The second exercise (*b*) can be brought to a close as follows:

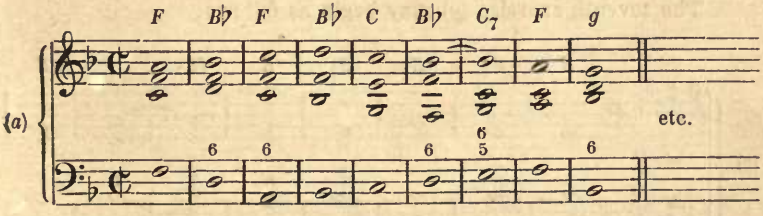


To the Exercises 309, § 58, Pages 155 and 156. Exercise *e* can be worked as follows:

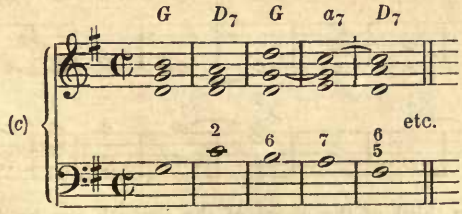




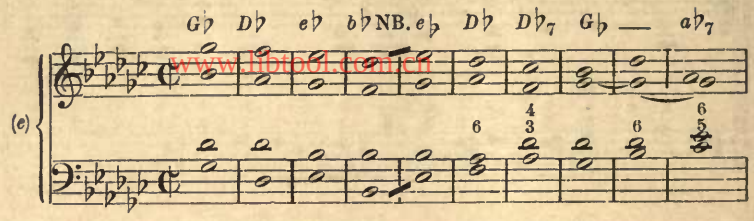
To the Exercises 349, § 61, Pages 174 and 175. The first of these (*a*) can begin as follows:



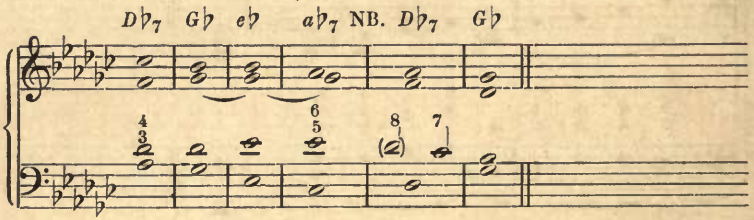
The third exercise (*c*) can begin as follows:



The fifth exercise (*e*) can be worked as follows:

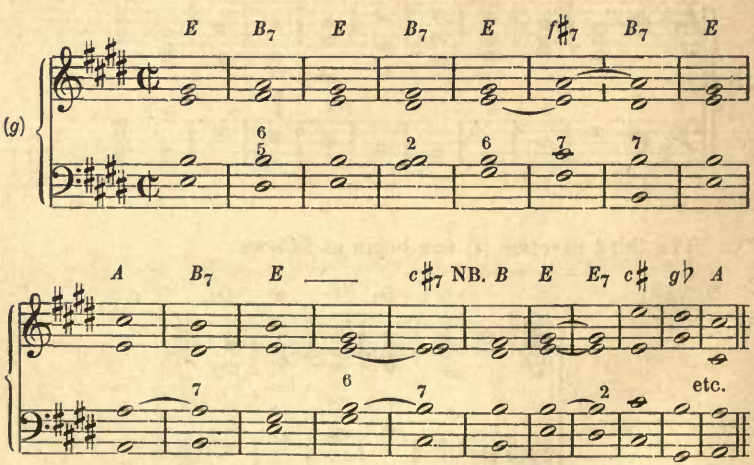


NB. Compare Ex. 59b and the remark Page 23 of the Manual.



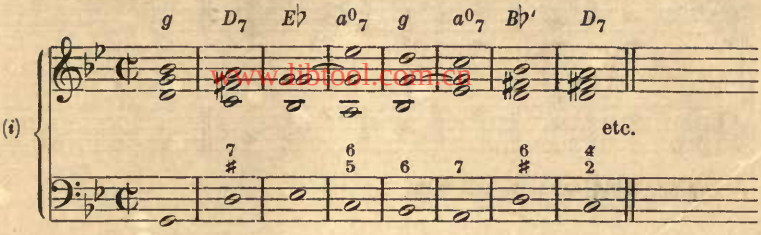
NB. The octave may either precede the seventh or enter freely by a skip, in contrary motion to the Bass.

The seventh exercise (*g*) may begin as follows:

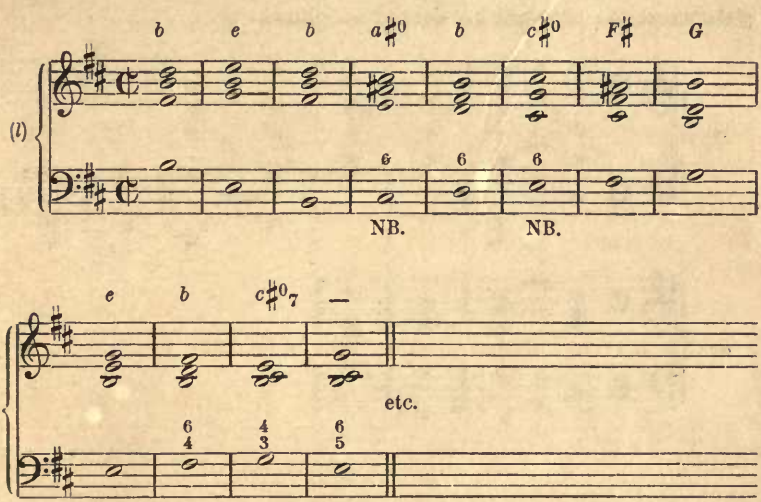


NB. The third of the chord of the seventh can be doubled, when it is not the leading tone. See remark, Pages 54 and 55 of the Manual.

The ninth exercise (*i*) can begin as follows:

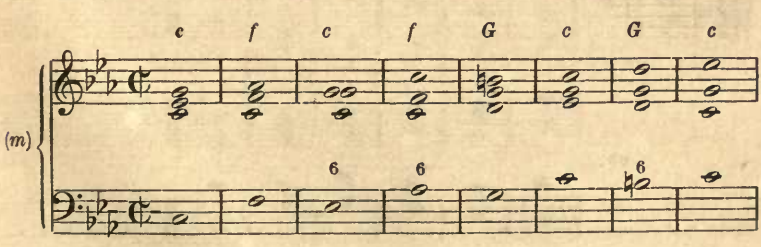


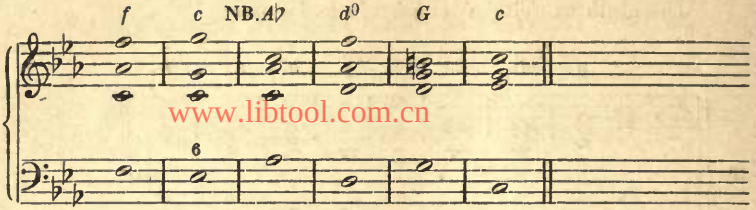
The eleventh exercise (*l*) can begin:



NB. The best position for diminished triads is that of a chord of the sixth.

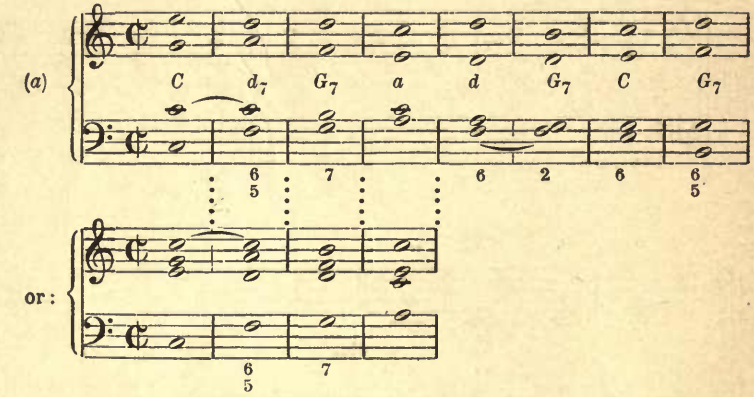
The twelfth exercise (*m*) may be worked as follows:

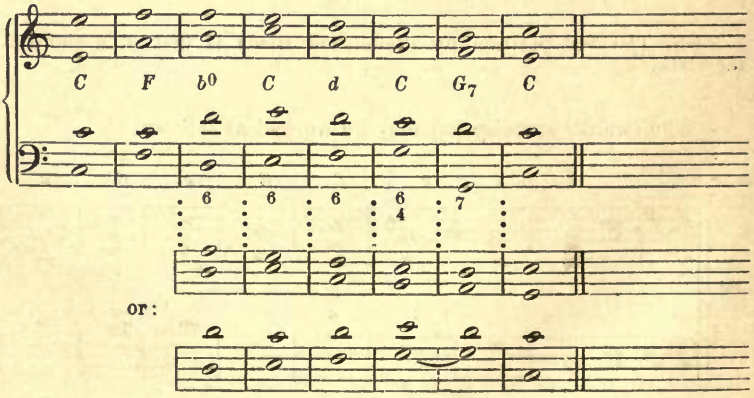




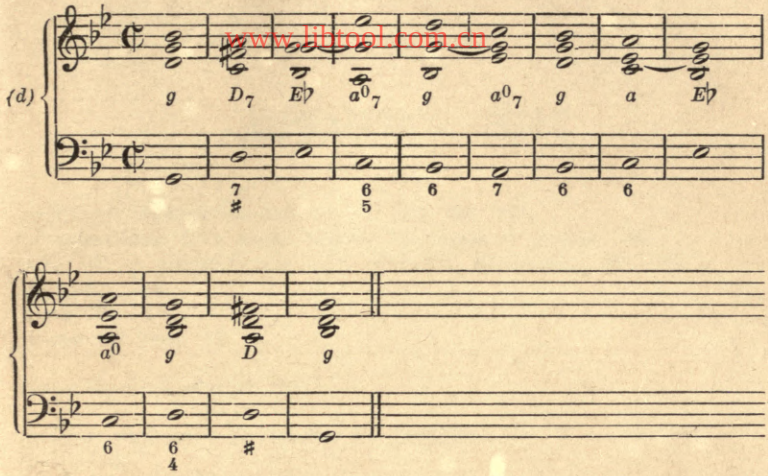
NB. Triad without the fifth.

To the Exercises 352, § 62, Pages 176 and 177. The first of these exercises (*a*) might be worked as follows:





To the Exercises 353, § 62, Page 177. The fourth of these exercises (*d*) is to be worked as follows:



ALPHABETICAL INDEX.

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