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TONE THINKING
EAR TESTING

CAROLYN ALDEN ALCHIN

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TONE THINKING
AND
EAR TESTING

A work that directs the student in helping himself to develop discriminative hearing from the simplest beginning to difficult modulations and chromatic harmonies

by
CAROLYN ALDEN ALCHIN
Author of
"APPLIED HARMONY"

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PREFACE.

Music is the union of *tone* and *rhythm*, so it naturally follows that the study of music should begin with the training of the *Ear* and *Feeling*.

Thinking in terms of sound is a pre-requisite for sight-singing and all truly creative work, and as the study of Harmony and Counterpoint should be the study of tonal and rhythmic relations, *Tone-Thinking* and Ear-Training should precede or accompany the study of those subjects.

Every advance in music education renders more clear the advantage and the necessity of understanding the NATURE OF MUSIC, hence the need and demand for ear training of a high order, work which includes something more than mere pitch of sounds.

Another advantage of value is the habit of observation that is cultivated. In time, one finds his power of attention always on the alert; not by conscious effort, but by habit. The perceptive faculties are always on duty.

As rhythm is the most elementary factor of music, and as there *is* no music without rhythm, the first command should be, *feel and hear rhythm*, and the second and third are like unto it.

Rhythm includes the grouping of tones in a beat: beats in a measure or bar: the grouping of measures or bars into sections and phrases, followed by the longer phrases that are equivalent to line or verse in poetry; and the grouping of lines or verses into stanzas. The increased lengths are introduced as the ability to think and hear increases. Much of the spirit of a composition depends upon the rhythm.

The expression of ideas is impossible except through form. Thinking and hearing in phrases is as necessary for appreciation, interpretation and composition, as form is to a picture, or the grouping of words together for the expression of ideas.

Since melody is intoned rhythm, it merits the next consideration. Absolute pitch is unnecessary, but *relative pitch* is

most important if one expects to feel and hear the quality of tone resulting from key-relationship.

If the real beauty of the tone world is not a sealed book, one should hear the *nature of the material of music*, not only that arising from key-relationship, but the harmonic relations and the relation of both to rhythmic accents. As every ray of light includes all color, so every tone includes the harmonic prism. A study of overtones as illustrated in modern music will illuminate this fact.

Much is being said and written about self-expression. How is one to express himself if he has no feeling for, or understanding of the material that he is using? We cannot express ourselves in a language that we do not understand, so why expect to do it in music? Do the color blind attempt to paint?

It is really pathetic to see students of harmony toil over their work which they neither hear or think, trying to write acceptably with no idea of tonal or rhythmic relations, trying to create with what to them, is lifeless material.

Those deficient in the power to think music resort to arbitrary rules, and as rules apply to specific cases only, they are valueless as a means for development of the music sense, excepting as the pupil deduces them from his own experience. In the examinations of so-called advanced students, only a small proportion show any signs of real musicianship. Why?

There are teachers of technic and teachers of music. The latter should so direct the work of the pupil that *hearing* and *feeling* are unavoidable. To listen well and profitably in the way of appreciation, one's knowledge *of* and feeling *for* tonal and rhythmic relations should be so complete that it is a part of one's self. One should unconsciously hear as the discriminating artist sees shades and effects of color. Training should be continued until the beauty of a great work can be appreciated without being marred by any detail or factor.

In this work the author has provided *self-help* with every lesson. First, because effort means life. One never assimilates until he makes independent effort and application. Second, because no teacher has the time for all that should be done. For the average student, the cultivation of discriminative hearing

is a matter of years, requiring persistent, well-directed effort. The necessity of dictation makes the teacher's help indispensable, but a pupil should be required to study and prepare lessons as in other branches of music education.

The material has been introduced progressively, and in each case related to all of the preceding material in various ways, the requirements increasing in difficulty as the power and understanding of the student increases. Harmonies are introduced before the melodies upon which they are based, because it is easier and better pedagogy to first perceive synthetically, then follow with the analytical hearing of the parts. Much emphasis has been placed on the various relationships, because upon that depends the power to anticipate and think in larger units.

Small children may not be able to do all of the home work, but if properly presented and with but *one new fact in a lesson*, they will do everything but play some of the more difficult examples. Because a thing never has been done, is no reason why it could not or should not be tried. Successful teachers continually set higher standards for themselves.

CAROLYN ALDEN ALCHIN.

Los Angeles, California.

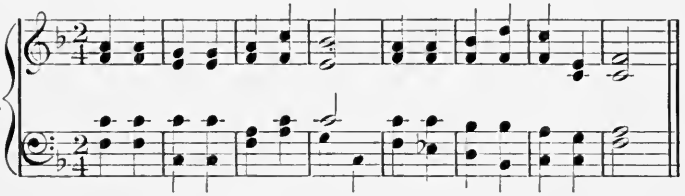
CHAPTER I.

1. *Music is the union of tone and rhythm.*

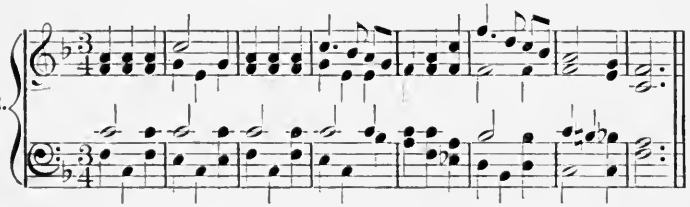
As it appeals to the *ear* and *feeling*, the first step in studying it should be training the ear to *discriminate between sounds and rhythms.*

2. Since there is no music without rhythm, begin by first observing the regularity of beat or pulse, then the regularity of strong and weak beats. Some students feel the former only. In that case, they should listen to music with strongly defined and marked rhythms until they not only feel the beat, but *the measure;* that is, *strong*, *weak*, *strong*, *weak* (two-pulse measure); or *strong*, *weak*, *weak* (three-pulse measure). The harmonies accentuate the rhythm, so it is easier for the student to hear the accents than in a single part. Use only two or three-pulse measure in the beginning:

Ex. 1.

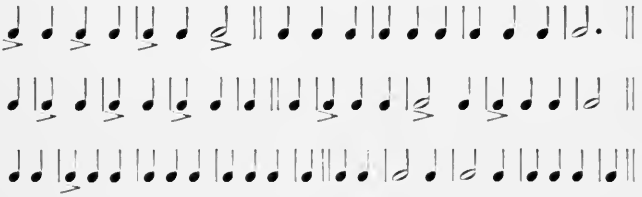


Ex. 2.



3. When the student can distinguish the measure of simple compositions, follow with dictation from one tone:

Ex. 3.



Direct attention to and exaggerate the feeling of progress from the weak pulse to the strong, letting the voice connect "two-one," or "three-one" as though the weak and following strong were inseparable.

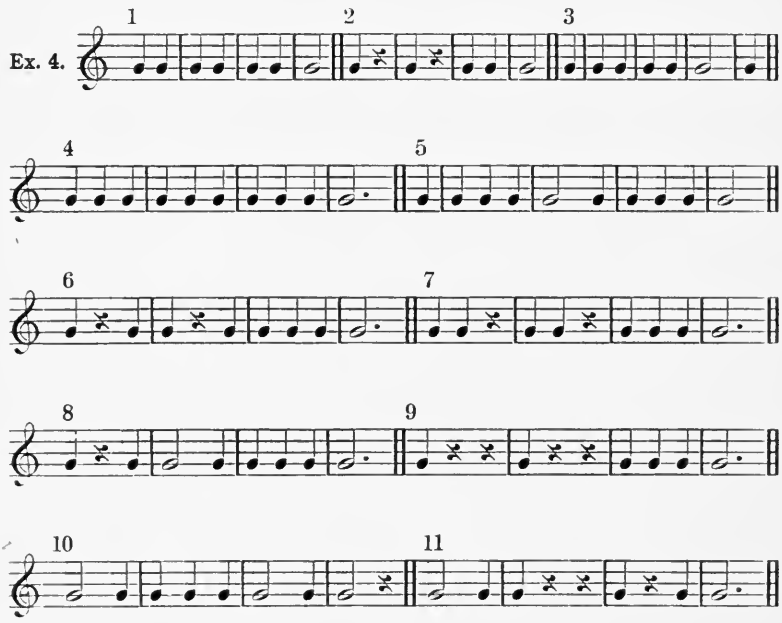
4. Clap the hands or make any movement that will help to acquire a physical sense of rhythmic accents. The writer uses the following movements, suggested by the Dalcroze system: For the strong pulse, drop the hands at the sides, letting the weight fall from the shoulder. This is valuable for any one who needs practice in relaxation, and especially so for pianists.

a. For the weak pulse, raise the hands above the head. As one should feel that the weak pulse progresses to the strong, this movement is very significant.

b. For a three-pulse measure, the arms may be raised to a horizontal position on the second pulse, then to the perpendicular position, a position always used for the weakest pulse of a measure, or *bar*, as some prefer to call it.

5. When one can hear and feel the measure and make the arm movements with precision, the following may be used for ear tests, the student naming the measure, two or three-pulse:

Ex. 4.



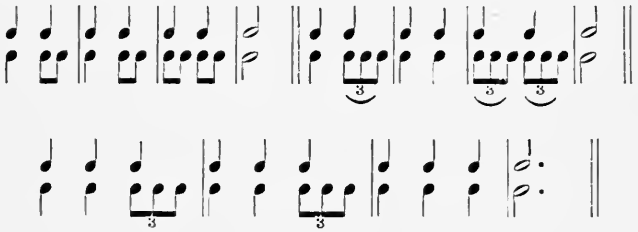
a. These should be expressed by physical movements, also written on the blackboard by the students. As they should be written in perfect time, there should be no attempt to make round note-heads. A small stroke is sufficient, and for the half notes a second stroke above the first which will be complete when the stems are added, this too being done in perfect time.

Hearing these without a change of pitch directs the attention to the one purpose of the lesson, the rhythm.

6. When the student writes what has been heard, he may be told that the bars are placed to locate the accented notes. Be *sure* that the grouping within the bars is felt, also *their relation to* the following accent. Isolated measures should never be considered.

7. The sense of rhythm is more rapidly developed by the use of the divided beat. For the very young, or those lacking in rhythmic feeling, the divided beat may be illustrated by words of two or more syllables, also by playing or singing two or more notes while the student sings one. For example:

Ex. 5.



8. Employing syllabic accentuation corresponding to the rhythmical, care should be taken that one does not depend upon that indefinitely, and so fail to develop a keen sense of rhythm from the music itself.

a. The writer has a strong objection to the use of the word "and" in counting, as it takes too much time and stress. *Two notes in one pulse should be heard and felt as a unit, or a two syllable word, not two distinct words.*

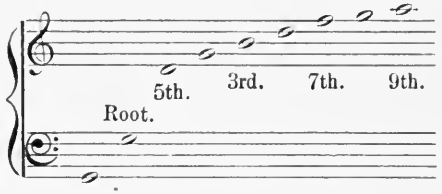
Try This: To the count, add a light, unaccented syllable such as "ly"; counting, *one-ly, two-ly*, etc.; and for the triplets, *one-a-ly, two-a-ly*, etc. Whatever is used should be something that groups itself easily and rapidly.

CHAPTER II.

Overtones, Tone Relations, Key, Bird Notes and Other Dictation Exercises.

9. In rhythm we have time relation. *Nature gives us space relation in the overtones*, some of which are here given:

Ex. 6.



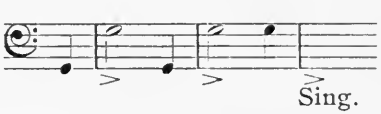
As seen in the foregoing, after the octave occurs the *fifth*, which is followed by the harmonic root or generator *above*. After years of teaching and observation, the writer is convinced that the order of presenting material according to Nature's Plan is not only the most scientific and logical, but it is by far the easiest way and brings infinitely better results.

10. *Sight-singing and tone-thinking* are factors of ear training. Sight-singing associates the sound with the symbol, and if one can *think* the sound of a tone or interval, he is quite likely to recognize it when given in dictation.

11. The First Step in Tone-Thinking is to Establish the Measure, preferably Three-Pulse, as that is easier than Two-Pulse.

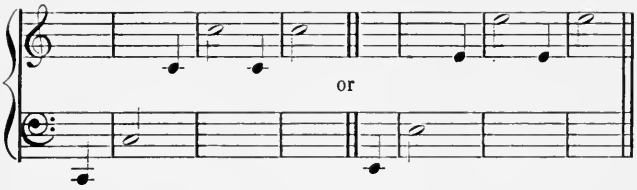
12. Next, *play* and count two measures as at Ex. 7, exaggerating the accents, then *sing* some tone higher on the next accented pulse. No pitch should be taken on the piano, but the student should sing just what seems to "go itself."

Ex. 7.



a. One who feels the rhythm will sing either the fifth or the octave above. Should it be the octave, sing an octave both above and below any pitch that is possible for the voice, and *after singing*, test the accuracy by playing it. For example, play the notes of the bass staff and sing those on the treble:

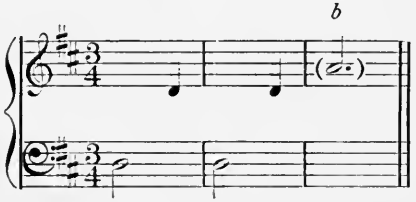
Ex. 8.



b. One is more likely to sing the fifth than the octave, and it is the next tone desired, because it is the next one of the harmonic series.

c. Under no circumstances should the desired tone be played first. With strongly marked accent, play the first two measures of Ex. 9, hold with the pedal and sing a tone higher. If one feels the rhythm, he rarely fails to sing a fifth higher, as at *b.* Some keys are easier than others, but eventually one should be able to think a given interval from any given tone.

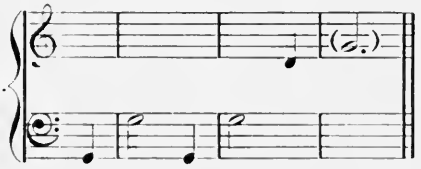
Ex. 9.



The tone that generates is called the ROOT.

13. Play the pattern at Ex. 10, excepting the last tone, sing the fifth and another tone higher, taking it on the accent as in the example. Because it is the next tone in the harmonic series, the root, which is a fourth above the chord-fifth is the tone one naturally sings.

Ex. 10.

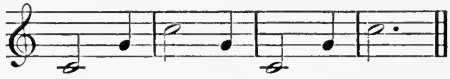


14. Having sung the tones required in the foregoing examples, find them on the keyboard and observe the distance between each, counting both the first and last tone of the interval. *The name of the interval is determined by the number of staff degrees represented, and the specific type by the kind of seconds or steps included.*

15. Seconds are said to be *large*, when, as they appear on the keyboard, there is a tone between them. For example, F♯ lies between F and G, so the interval from F to G is a large second, and from either to F♯ is a *small* second.

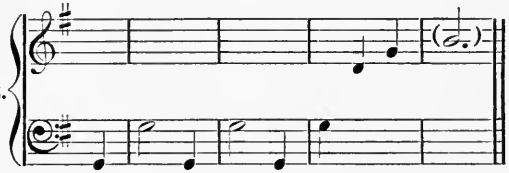
16. The octave that includes two small seconds as in the foregoing examples is said to be PURE. The term PERFECT is also applied. Fifths and fourths including one small second are said to be PURE or PERFECT. For eye training, write the pattern at EX. 11 in several keys, singing and naming while writing:

Ex. 11.



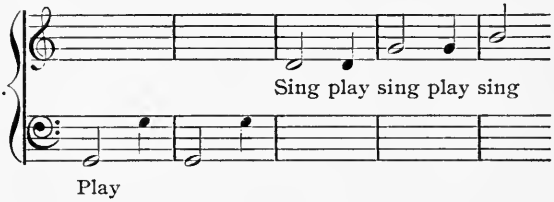
17. Play *with strongly marked accent*, the first three measures of EX. 12 and sing another tone on the following accent. If one feels the rhythm, the tone in the parenthesis will be taken. If one fails to think it, play again, exaggerating the accent:

Ex. 12.



18. For self-testing, sing a tone on the strong beat of the measure, and while holding it, play the same on the third beat. For example:

Ex. 13.

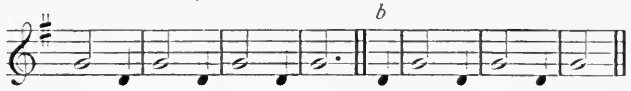


19. A KEY is a group of tones that are related to a *tone center* which is always a harmonic point of rest. In key relation, this tone is called THE TONIC, the syllable name, DO. Everything else in key is named and numbered according to its relation to, or distance from the TONIC.

The technical name for the fifth above the Tonic is DOMINANT, *the syllable name*, SOL.

20. Beginning with any pitch that is easy, take a tone as Tonic, and sing the Dominant below, returning to the Tonic on the accent as in Ex. 14:

Ex. 14.



One can use scale numbers or syllables, according to preference.

21. Beginning with the weak pulse, take a given tone as Sol—the scale-fifth—and sing the Tonic above, as at Ex. 14, *b*.

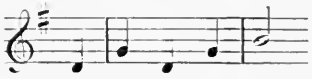
Employ at Least Two Accents, Never Less. More Are Better.

An inexperienced student should be shown how to find the intervals on the keyboard so that they can be played correctly from the first.

22. The syllable name of the tone located a third above the root is Mi, and as both of the steps from Tonic are large, it is said to be a *large third*.

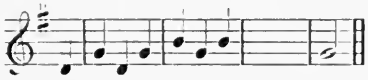
Sing and write Ex. 15 in several keys, doing it in perfect time:

Ex. 15.

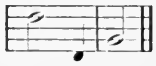


23. Sing Ex. 16 and supply two tones for the vacant measure, one higher and one lower:

Ex. 16.



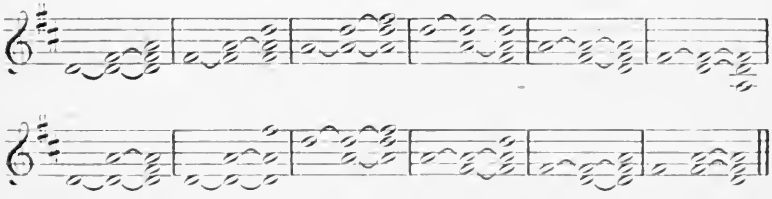
Solution:



As the fifth is the next overtone, few if any will fail to take it.

24. In classes, let the students sing the three tones in chord relation, beginning with one and adding the others as at Ex. 17:

Ex. 17.



For individual work or self-help, sing the tones consecutively, taking with the piano *afterwards* and holding until one hears the voice part as a component of the whole.

25. A THREE-TONED CHORD IS CALLED A TRIAD. *Comprised of a large third and pure fifth, it is said to be* a MAJOR TRIAD.

Observing the structure of a major triad, what are the steps or seconds from third to fifth? With one small second, the interval is said to be a *small third.**

26. With the different positions of a triad, as at Ex. 17, one sees that it is either a combination of thirds, or a third and a fourth. Since two of the three positions include a fourth, by all means learn to *think* and *hear* them, beginning with the different chord degrees and not always the root.

A fact to remember is, that *in a triad, the interval of a fourth is always from chord-fifth up to root.*

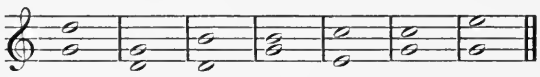
27. In taking the intervals from dictation, one means of identifying or distinguishing the fourth from the fifth is the effort to place a chord degree within the two notes forming the interval. It is easy to sing a chord degree within a fifth, much less so within a fourth, especially at this stage of the work.

28. What is the interval from fifth *up* to third? *Sixths that include but one small second are said to be large.*

29. What is the interval from third *up* to root? *A sixth including two small seconds is said to be small.*

30. With either piano or voices, hold two tones of a chord and sing the third one. For example, a third should be added to the fifth in the first measure of Ex. 18, and both above and below the fourth in the second measure:

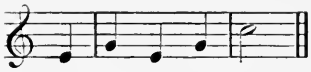
Ex. 18.



31. Beginning with chord-third and finding the fifth and root above is much more difficult than beginning with other chord degrees. It is made more easy by establishing rhythmic progress like the following:

---

*The writer uses the term *large* and *small* in preference to major and minor because they convey a better idea of distance or size, just as *diminished* is used to distinguish something smaller, and *augmented* something larger. Theorists who use these terms have a very good reason for doing so.

Ex. 19. 

Do this, beginning on different degrees of pitch.

32. Although they are incomplete, as we understand melodies, the following bird notes are well worth using. If, incidentally, one is led to a larger interest in birds, the little songs will serve a double purpose.

When the exercises are given for dictation, the student should

First, tell the rhythm.

Second, sing with a neutral syllable to show that the melody has been correctly retained.

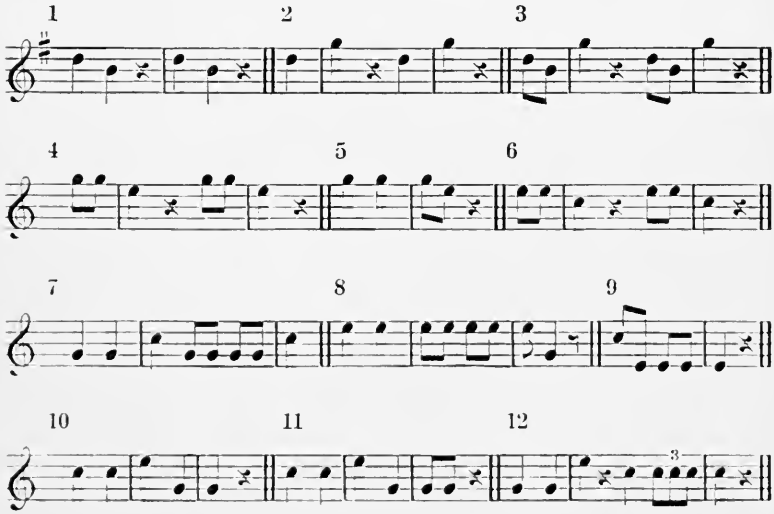
Third, name it by scale numbers or Sol-fege syllables.

Fourth, write it in perfect time.

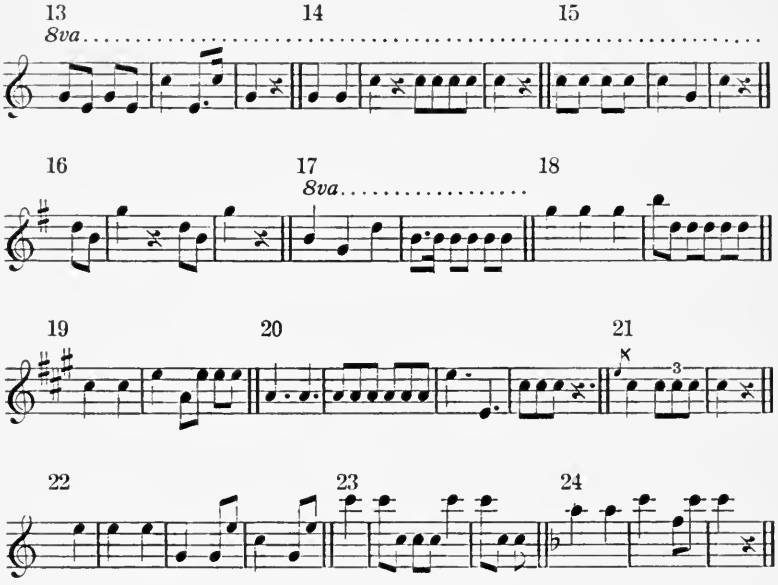
Having made the note-heads in time, put on the stems in the same way, and lastly, the bars, just as the accent occurs. Dots, flags, etc., may be added afterwards. Summarizing the order of work: *FEEL, SING, NAME, WRITE*, and a child should play them if he is doing work at the keyboard.

BIRD SONGS.

Ex. 20.



The next number includes a dotted-eighth and sixteenth, the latter almost seeming to slip in between the beats. If one cares to apply a syllable to it, use the vowel *a*, saying "two-a *one*"; and in No. 17, "*one*-a two-ly", etc.

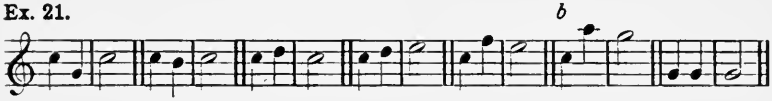


CHAPTER III.

Tonal Relations Continued: Minor Mode of Key. Cadence. Scale-Second in Melodic and Harmonic Relations.

33. As a result of relation to the *tone-center*, every tone in key possesses either the quality of progression or repose. Singing the patterns at Ex. 21 and noting the character of each scale degree, one hears and feels that Do and Mi, scale 1 and 3, are tones of repose, and the remaining ones, tones of action progressing to the repose tones, such movement being called the *resolution*.

Ex. 21.



Notice that Re, scale-second, moves both ways. Which is the stronger tone of repose, Do or Mi?

a. Sol, scale-fifth has a synthetic quality, combining with both progression and repose tones in harmonic relation. *Melodically*, it is a tone of action resolving on the Tonic. Occurring at the close of a melody, or in contrast to preceding tones of action, Sol has the quality of repose, Ex. 21, *b*.

34. Before doing detail work with all of the key material, it is well to use Sol, the Dominant, as a distinct progression tone in melody, as in Ex. 24.

The law of contrast compels one to hear a change of quality in successive measures, especially between the last two, or the last two pulses of a melody.

35. A change of melodic quality (progression or repose) means a change of harmony.

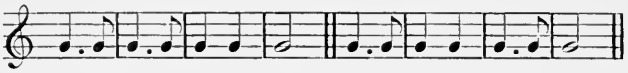
Every Melody should have at least Two Measure Accents and at least Two Different Harmonies.

36. Section is a term applied to the rhythmic group next larger than a bar or measure.* A section may be two bars or three, *not more*. At Ex. 22 each pattern consists of two

*As there is no universally accepted terminology for much of theoretical work, the writer has employed that which seems the most significant and comprehensive.

sections. Number 1 of Ex. 24 is a three-bar section. In groups of four or more bars, *rhythmic balance or proportion is maintained by having an equal number of accents in each section.*

a. In learning to hear in sections, the ear must have distinguishing points or places to rest, so it is well to change the rhythm, or repeat a distinct pattern, as at Ex. 22:

Ex. 22. 

b. In the beginning, the harmonic contrast should be associated with rhythmic accents, then one learns to anticipate the changes of harmony on the accented beats of the measure and section.

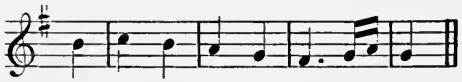
c. In a three-measure phrase, the contrast must necessarily fall on the second measure. In a four-measure melody, the contrasting quality may fall on the second or third measure, but the beginning of the third measure which is also the section accent, should be progression quality, in contrast to the close, which would naturally be the tonic quality. See Ex. 24 and others.

37. PHRASE is a term applied to a group of two or more bars or measures marked by a pause that is equivalent to a punctuation mark in literature. As a phrase refers to the *content*, it may be indicated by a comma, interrogation point, period, etc. Like sentences in language, a phrase may be long or short, the length depending upon the harmony, while the section is only a rhymthmic grouping of twos or threes, like pulses in a measure. Ex. 23 contains two sections, but one phrase.

38. *The close of a phrase is called a* CADENCE. When the Tonic falls on the last of a rhythmic group, the close is in the nature of a period or completion of a sentence.

a. When a progression tone falls on the last of a rhythmic group, as it frequently does in melodies of more than four bars, the close is in the nature of an interrogation, so it may properly be called a "Rising Cadence."

39. In Ex. 23, the repose tones falling on the weak pulses and the weak measure of the phrase give no sense of pause, so there is no cadence until the last measure, when the Tonic and the strong rhythmic accent occur together:

Ex. 23. 

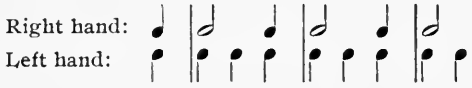
Rhythmically, the weak pulses demand the strong: Harmonically, the progression tones seek equilibrium. When the two occur simultaneously, there is a cadence, and the phrase is complete.

a. FORM is outlined or given shape by the cadences, so hear everything as leading to some kind of cadence.

The teacher will observe that in the first tone-thinking required, and the first dictation work, the stronger tones fall on the accented pulses.

The patterns of Ex. 24 are so written that the progression tone, Sol, falls on both progression beats and measures.

40. Using the material of Ex. 24, first tap the measure and time values, one hand marking the former, and the other hand the latter. For example, No. 2 should be tapped as indicated in the following:



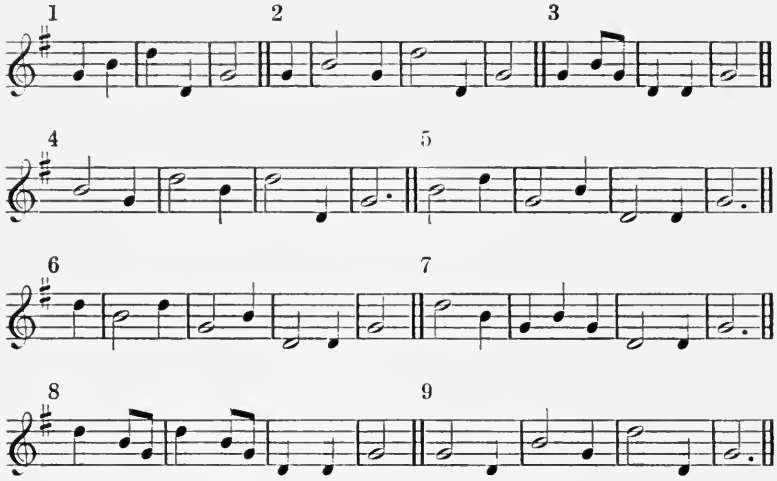
Reverse the operation, letting the right hand tap the pulses and the left the time values.

a. Sing the melodies, and if the Tonic and Dominant harmonies can be played with them, so much the better, as that accentuates the harmonic quality of each measure. *The melody should not be played,* but only the harmonies on which they are based. *Sight-singing means tone-thinking, and tone-thinking precedes or greatly assists discriminative hearing.*

b. The better one feels the harmonic regulation of a melody, the more sure one is of pitch. With the simple melodies taken at a lively tempo, many have but one harmony to a measure. Many of them have been so written, because that enables a student to think the measure as a unit, and not note by note which is fatal to sight-singing, ear-training, or the harmonization of melodies at sight.

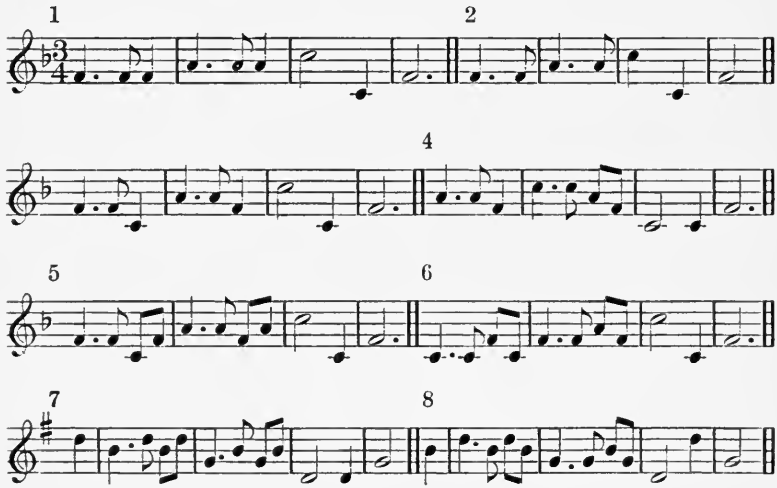
41. Taking the melodies from dictation, the student should first name the measure (two or three-pulse): second, state the harmonic quality of each measure, *progression or repose* or Tonic, Dominant, etc., if one happens to be familiar with the technical names of the harmonies employed: third, sing the melody with a neutral syllable to prove that the tune has been retained; then name by syllable or scale number and write in perfect time as directed in paragraph 32.

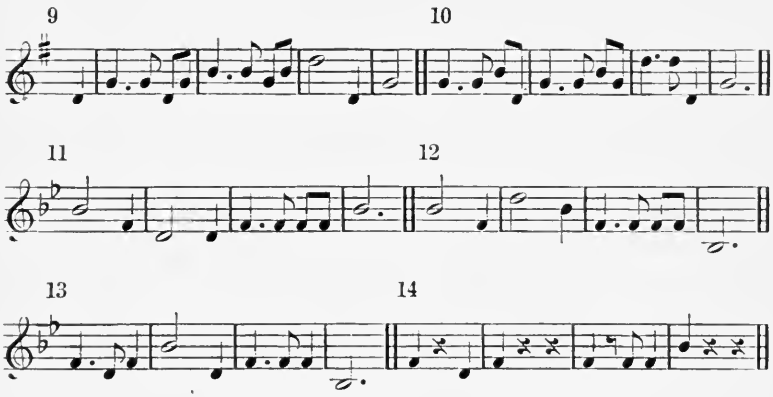
Ex. 24.



42. Introducing the dotted-quarter note, compare the length with quarter notes by tapping the beat of the measure with one hand and the time values with the other, as in the preceding lessons. If one is weak in rhythm, this should be done with each example before it is sung.

Ex. 25.

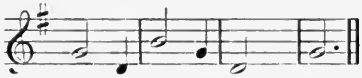
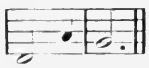




43. After 1, 3 and 5 of scale, there is a reason why the scale-2nd should be the next tone introduced. Employing the Dominant as root and harmonic-generator, its fifth, the next overtone, is the scale-2nd. Experience with both children and adults has proven that this is the next easiest tone to consider.

Teachers who have sung the scale for years and are accustomed to teaching it, naturally think the scale order of presenting material is the easier. As a matter of act, the discrimination between seconds is much more difficult than between harmonic intervals. Incidentally, one gets the necessary chord training when it is most needed.

44. Sing the following and supply a tone for the third measure:

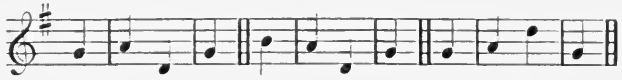
Ex. 26.  Solution 

Should one fail to sing Re, the fifth above the Dominant, test the feeling for rhythm. Without that, even the very talented often fail. If with well-established rhythm one fails, play the Dominant chord for that measure.

When untrained singers (old or young) are asked to do what has been required here and in the preceding lessons, with no idea of what is expected, they invariably sing the tones as they occur in the overtone series. The teacher should *not* play it first, but let the student find the tone with only the suggestion to sing something higher.

45. ANACRUSIS is the technical name applied to the fractional part of bar or measure at the beginning of a phrase. The anacrusis throws more weight on the first accent than it would otherwise have, so a tone may be emphasized by beginning a phrase with an anacrusis:

Ex. 27.

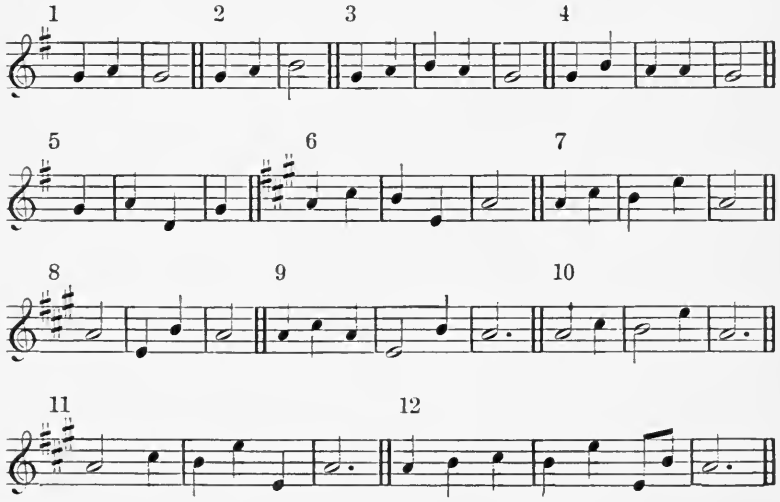


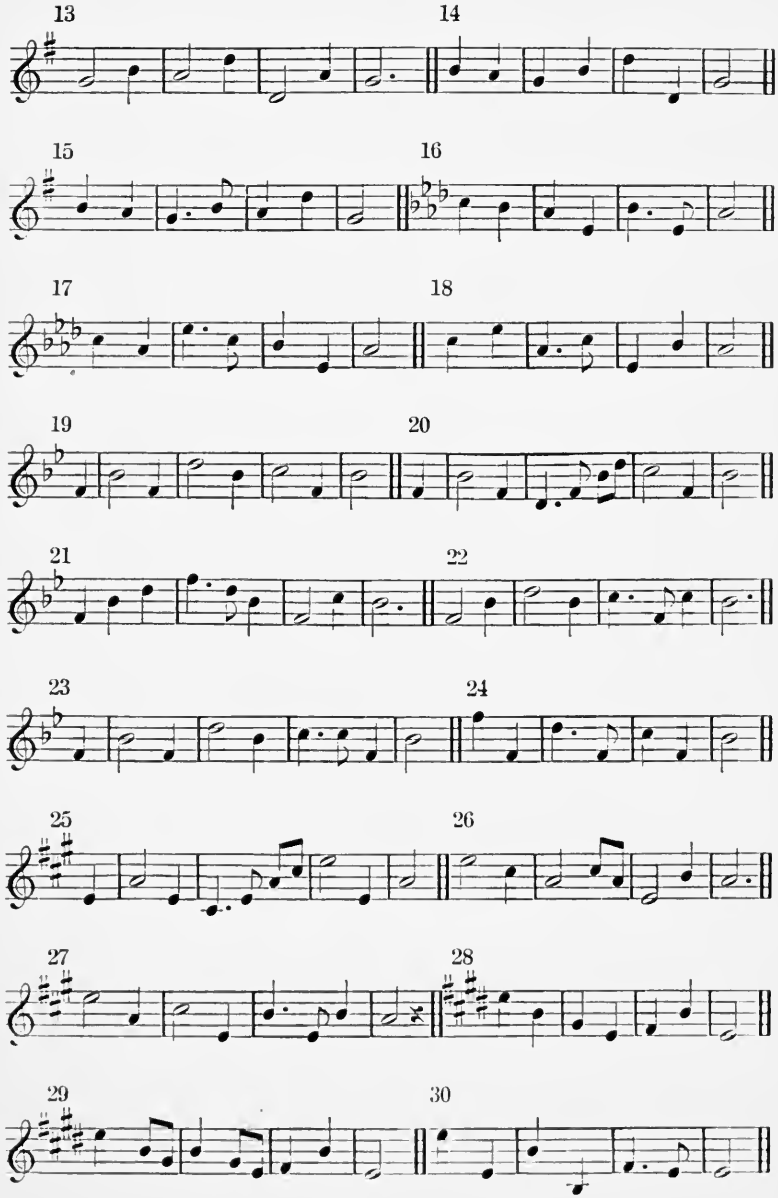
As shown in Ex. 21, when moving directly to resolution, Re, scale-2nd may resolve on the Tonic or the scale-3rd.

46. Taking the following exercises from dictation, observe the closing tone and how it is approached—from above or below. If one is very slow in retaining the melodies, follow the direction of the melodic movement with chalk or pencil, then, remembering what is above or below the cadence tones, one must surely recognize definitely.

Observe especially the harmonic character of the second measures, which, in a four-bar melody may be either Tonic or Dominant. By listening for the measure and section quality, one acquires the habit of thinking and hearing in larger units, an absolute necessity for correct phrasing, breathing, and intelligent work in harmony.

Ex. 28.

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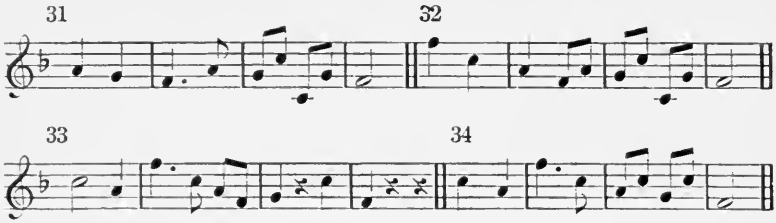
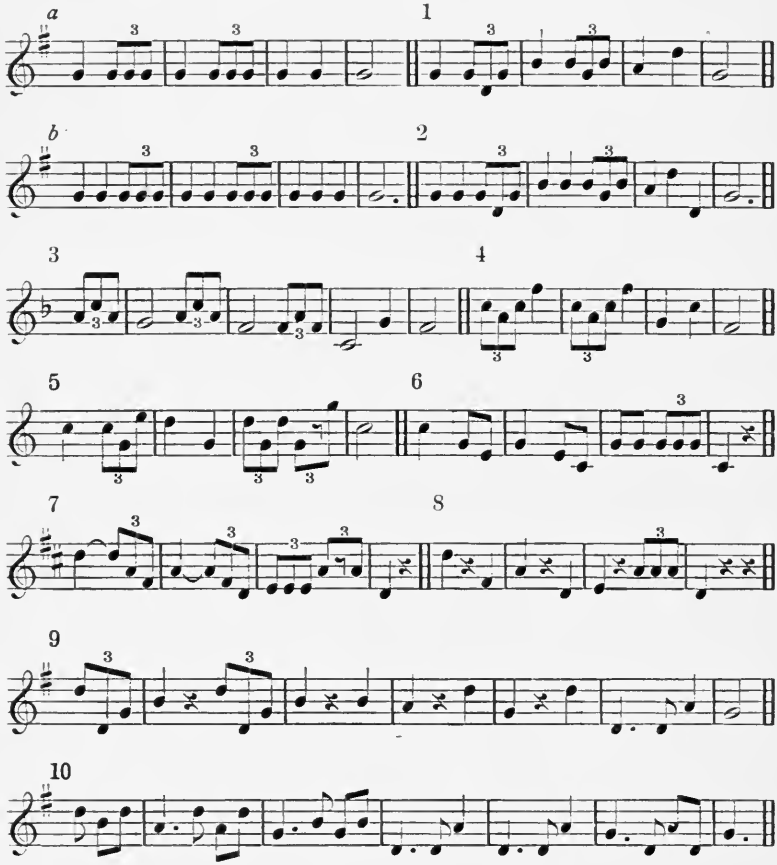


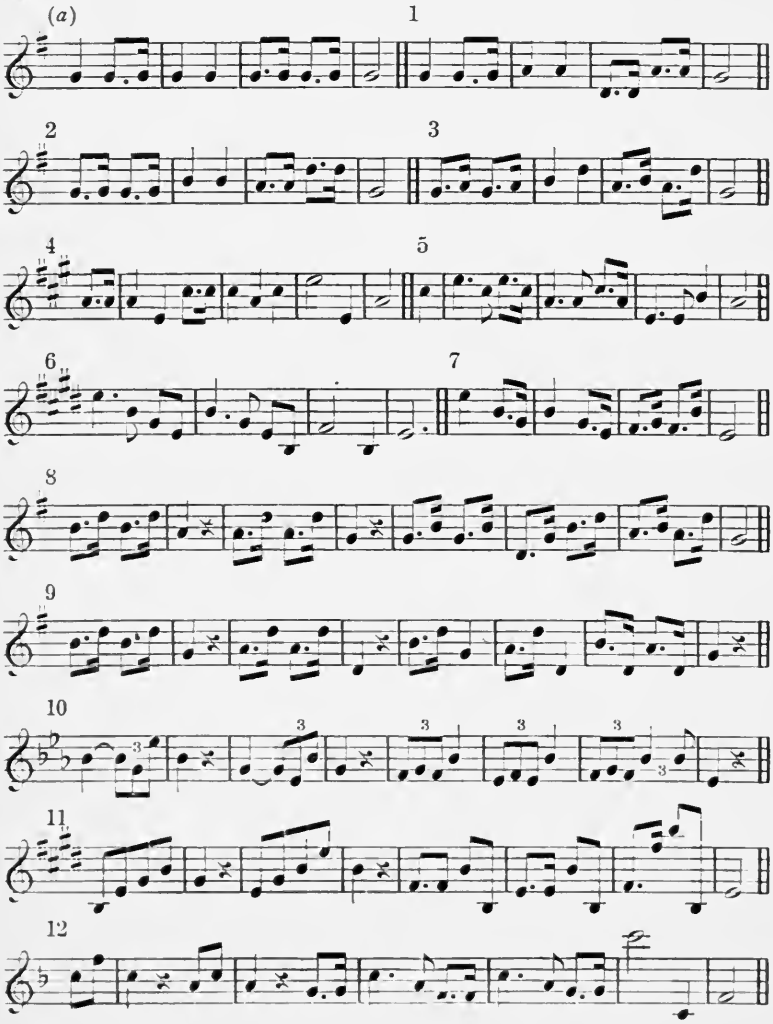
47. Returning to the triplet again, tap the rhythm, and proceed as before:

Ex. 29.



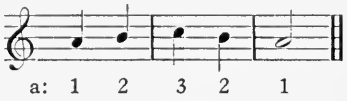
48. Drilling on the dotted-eighth and sixteenth, observe the imitation or repetition of either melodic or rhythmic figures. Mark the groups as A, B, etc. For example, Nos. 2 and 3 are A + A, rhythmically, and No. 4 is A + B. Do this before trying to write the melodies from dictation:

Ex. 30.



49. In the minor mode of a scale or chord, the third is small. The scale syllable is Me, pronounced "May". Sing Do, Re, Me, not La, Ti, Do, or 1-2-3, *not* 6-7-8.

Ex. 31.

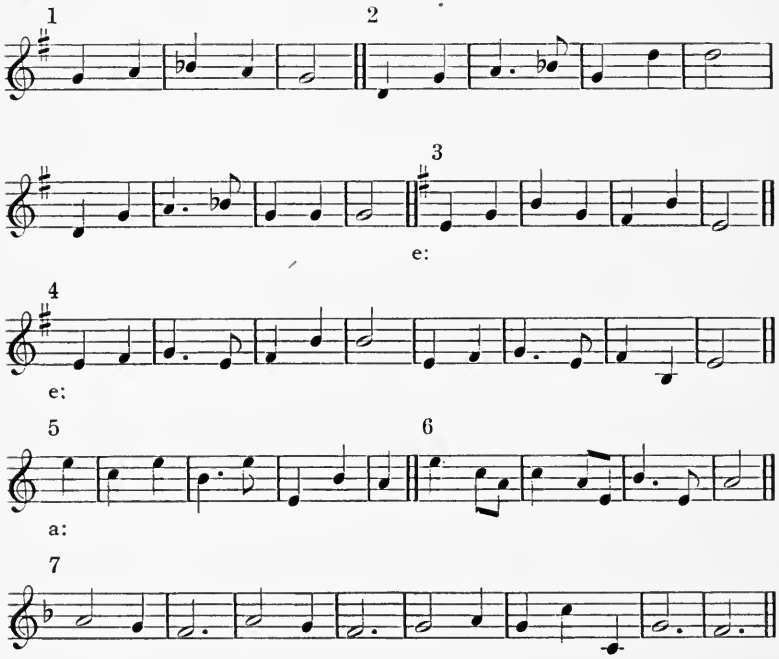


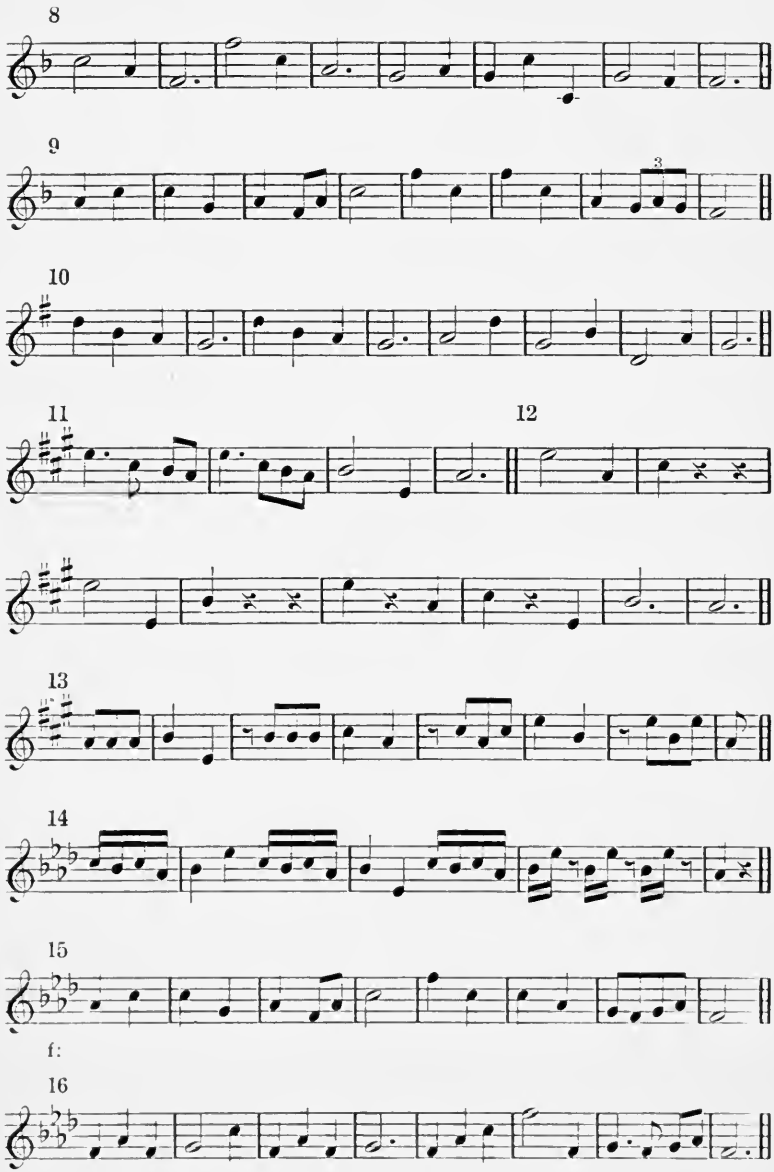
At a slow tempo like the foregoing, the minor mode suggests a darker shade of color, or a more serious idea. At a rapid tempo, minors are very playful, so one should not get the impression that the minor mode is sad.

50. What kind of a second is the interval from Do to Re? From Re to small third? What kind of a fifth from Re down to Sol? What is the interval from Re up to Sol?

If one has difficulty in thinking the minor mode, sing a given pattern in the major mode first, then in the *tonic minor*, not the relative. Sing all of them in the minor mode:

Ex. 32.

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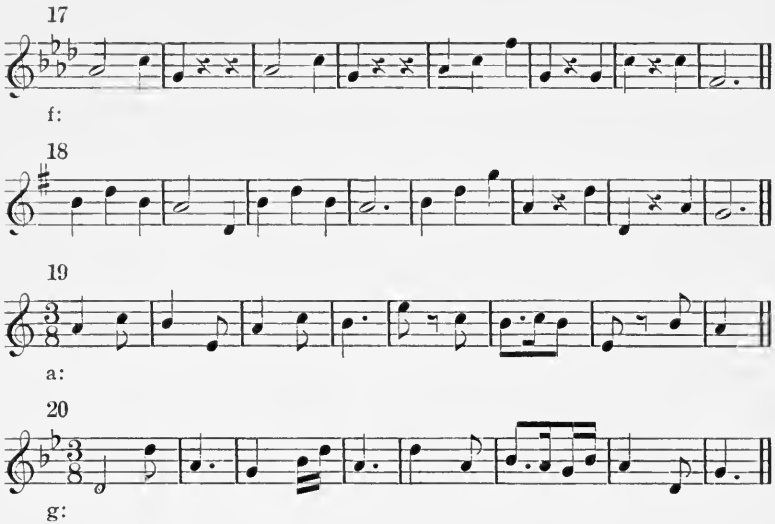
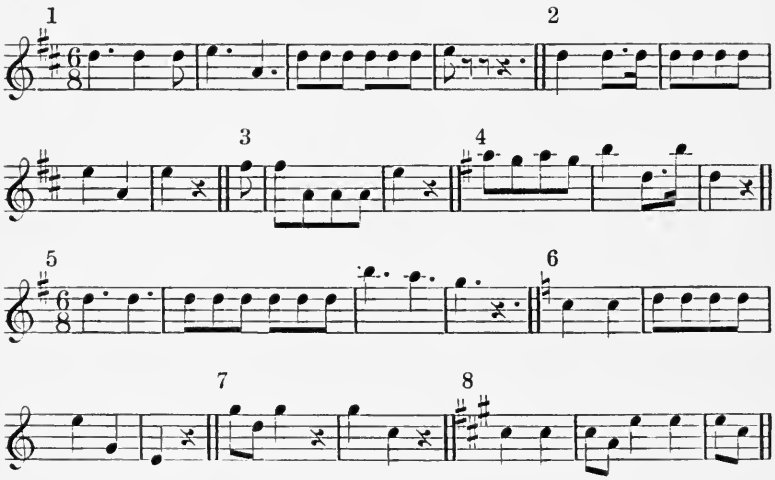


51. The six-eight measure seen in the following is a compound of three-pulse taken at a rapid tempo. This measure is often counted *two* instead of six, counting the accents only, giving the effect of a two-pulse measure with triplets:

BIRD SONGS.

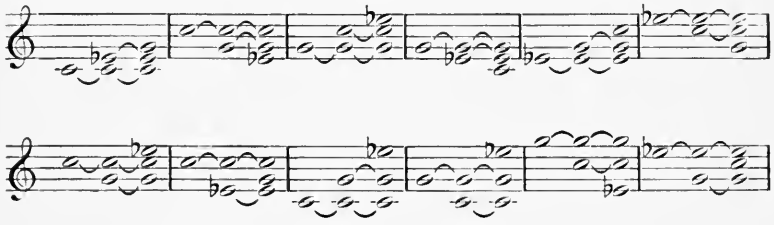
Ex. 33.



52. Sing the degrees of a minor triad, holding each with the piano, or if in class, with other voices until the entire chord is heard. *The tones should not be played for the student, who should be able to think them without aid.* If one is studying alone, the pitch may be tested by the instrument.

It is well to alternate the major and minor mode, changing Me to Mi if the syllables are used.

Ex. 34.



Students have more or less trouble with the minor mode. The principal reasons are: first, the use of major syllables which destroys the feeling for the Tonic. The so-called relative minor is only relative in the matter of signature. The Tonic and Dominant are the elements that define or establish key, and these are lost when one thinks of a minor Tonic as the sixth of the scale. Dealing with melody only, this might be done, but it is very confusing to have one system for melody and another for harmony.

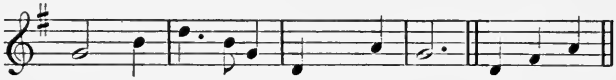
Another reason for not doing the minor keys well is the lack of practice. If one thought in one mode as often as the other, there would be no lack of understanding and facility.

CHAPTER IV.

Scale-Seventh in Melodic and Harmonic Relation. Authentic Cadence. Chord Inversions.

53. Every tone generates a pure fifth and large third, so the next tone to be considered after the Dominant-fifth is its third, the scale-seventh. This tone should not be given to the student, but let him find it if possible, by singing the following pattern or something similar, supplying a tone for the pulse between D and A:

Ex. 35.



Solution.

If one should not sing Ti, scale-7th, play it as given in the solution. When it is found, observe its scale relation to the Tonic, also its chord relation to the Dominant.

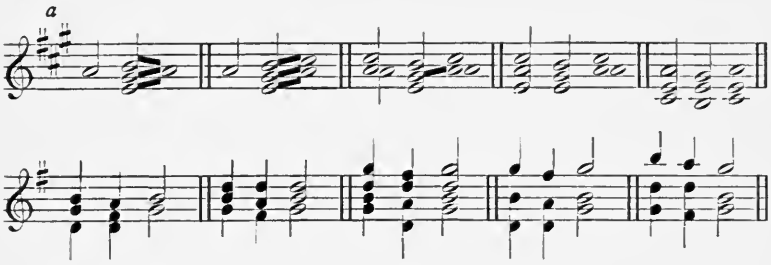
54. They who use the syllable names are less likely to be confused with the scale and chord numbers which are not the same, excepting in the Tonic harmony. Whatever the names or means employed to keep the scale and chord numbers distinct, *it must be done.* The lack of this knowledge is a great handicap in the study of harmony. If necessary to drill on it, sing both relations. For example, Ti, chord-three to Do will go; Re, chord-five to Do and Mi. Using the scale numbers, scale-7th—chord-third: scale-2nd—chord-fifth. Playing the harmonies, Tonic and Dominant, with the various degrees, helps vastly in acquiring the feeling for harmonic quality.

55. What is the interval from Do down to Ti? Moving directly to resolution, what does Ti demand? What other tones demand Do?

56. Employing the three tones in chord relation, we have the Dominant harmony which the teacher and more experienced student has used in the preceding lessons.

57. In class work, all sing a given Tonic, and different ones the three tones of the Dominant triad, closing with the Tonic as at Ex. 36, *a*; then with the various resolutions as given in this example:

Ex. 36.



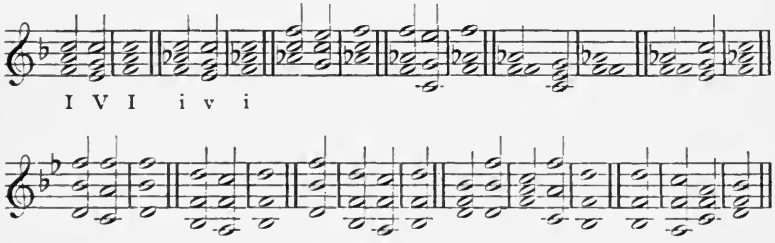
58. This relation of the Dominant harmony followed by the Tonic is called the AUTHENTIC CADENCE.

Play the different positions of the cadence in both modes, both open and close position.

In doing individual work, play two tones of the chord and sing the other.

59. The chords of a key are designated by Roman numerals that correspond to the scale degree of the root. In the minor mode they are smaller and with dots above:

Ex. 37.



60. After playing the foregoing patterns in many keys, *both modes*, the student should name them from dictation, stating the chord degrees that occur in the outside parts. For example, No. 1: Tonic, root and fifth; Dominant, third and root. In this illustration, the lowest part has been mentioned first. As it is usually more difficult to hear, give it the first attention.

Written, the example would appear like this:

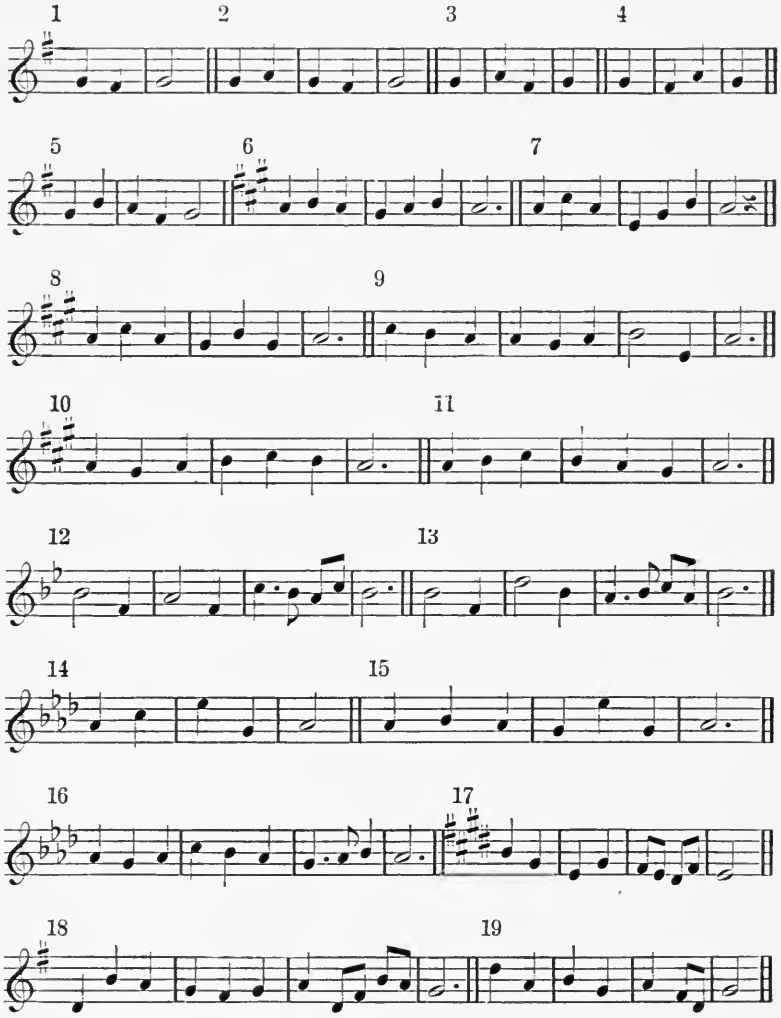
5	8	5
I	V	I
8	3	8

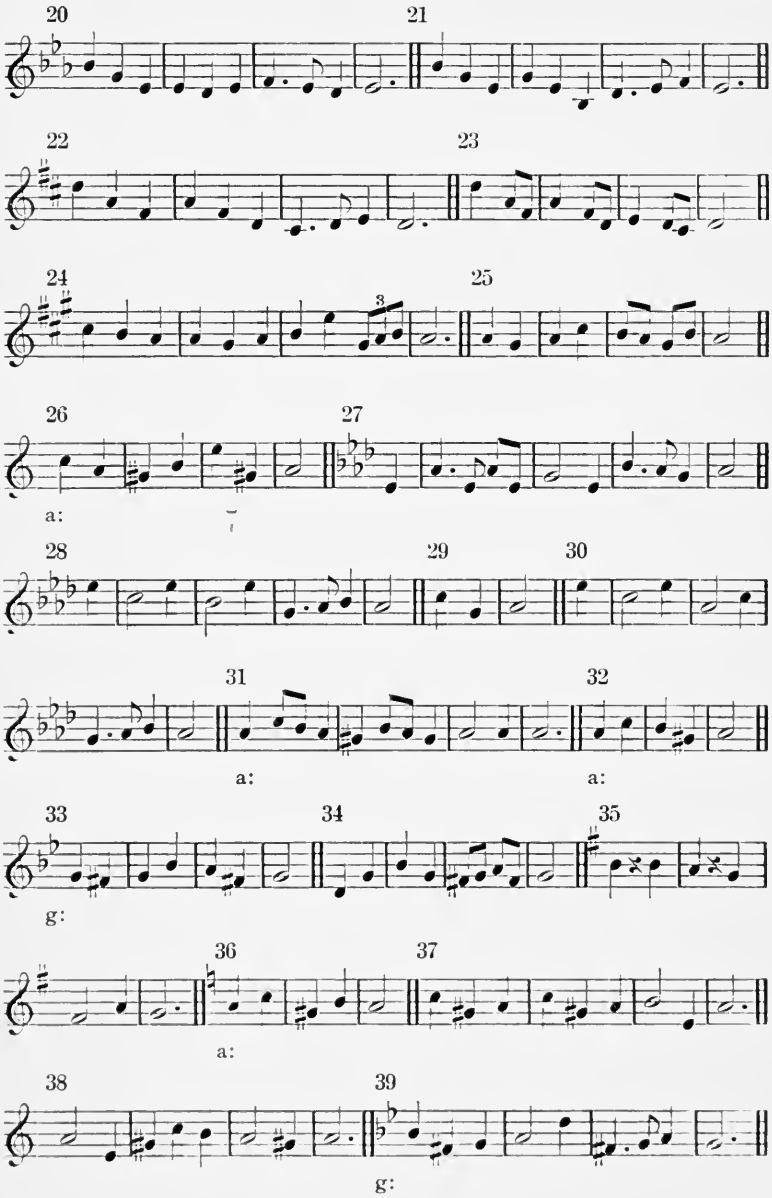
Attention is called to the fact that the *Arabic numerals indicate the chord degree, not the scale numbers.*

For home work, these patterns taken from dictation should be expressed in music notation and the full triad written as in Ex. 37. The work should be brought to class for correction.

61. Sing the following exercises in both modes, after which they should be written from dictation:

Ex. 38.

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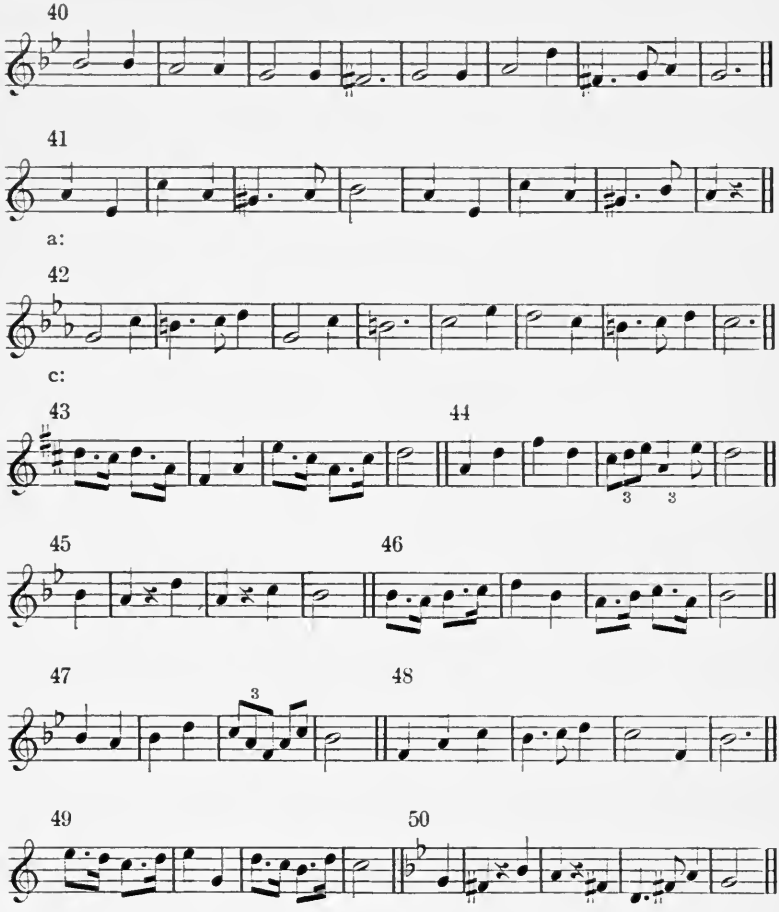
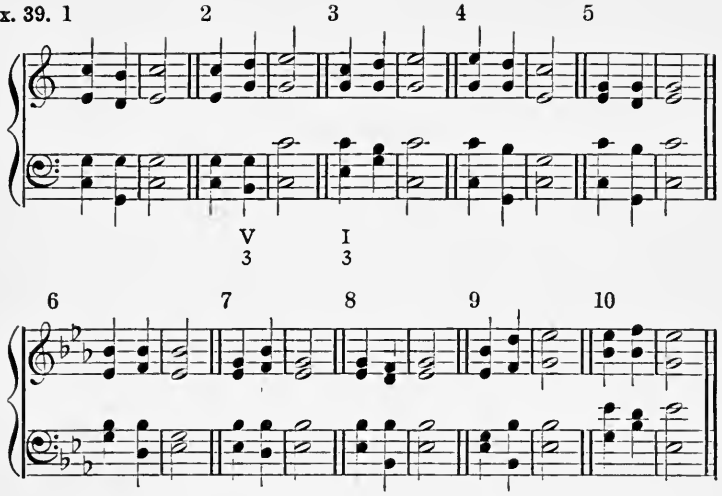


To vary the work, more harmonic study is placed here, after which the melodic dictation will be resumed.

62. In four-part music, necessarily one degree of a triad must be doubled. Referring to Ex. 6, one sees that *Nature's plan has more roots than fifths*, and *more fifths than thirds*. Knowing that, listen for two roots or fifths, but not two thirds. The latter may occur later, but not at this stage of the work.

63. *A chord is said to be inverted when other than the root occurs in the bass.* It is said to be in the *first inversion* when the chord-3rd occurs in the bass, as at *a*, Ex. 39.

Ex. 39.

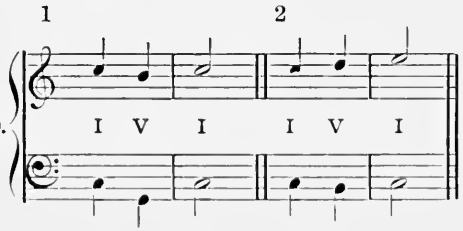


For self-help, play the chords and mark the degrees of both the outside parts. By all means, *transpose every pattern into several keys*. This is one of the very best means of ear training as well as hand training, and should be done persistently. This should be one of the important tests required by the teacher.

64. In taking from dictation, the student may only be able to recognize the harmonies and write the Roman numerals at the first hearing; and it may be necessary to have the pattern repeated when taking the outside parts. Eventually, all should be recognized at one hearing.

Reversing the process of the preceding lesson, write the Roman numerals that indicate the harmonies played, then the two outside parts in staff notation. Nos. 1 and 2 of Ex. 39 would appear like this:

Ex. 40.



65. *When there are inversions, one oftener hears the chord-root or fifth in the upper part if the chord-third or seventh is in the bass, and vice versa. This is not always so, but the most frequent.*

For home work, the chords should be completed, the inversions indicated, also the chord degree of the upper parts.

66. When the chord-5th occurs in the bass, the chord is said to be in the *second inversion*, which is indicated by the figure 5 below the Roman numeral.

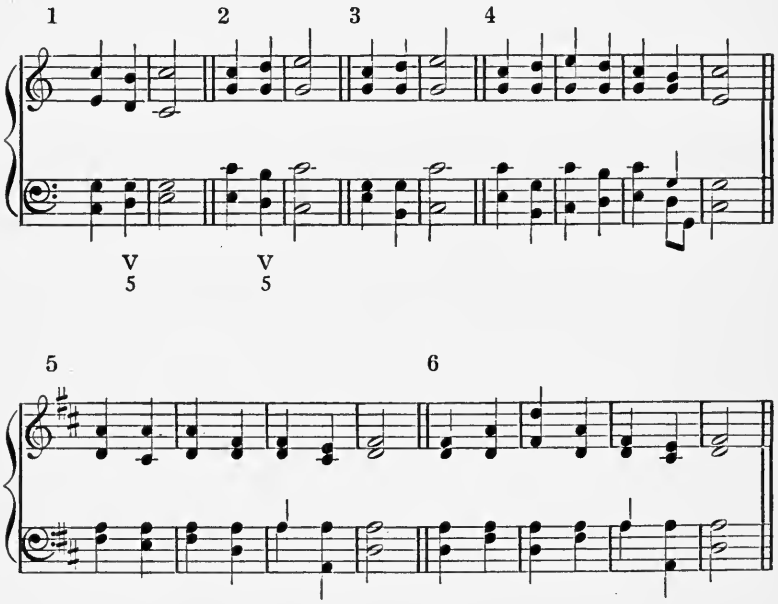
In this inversion of a triad, the bass note is usually doubled.

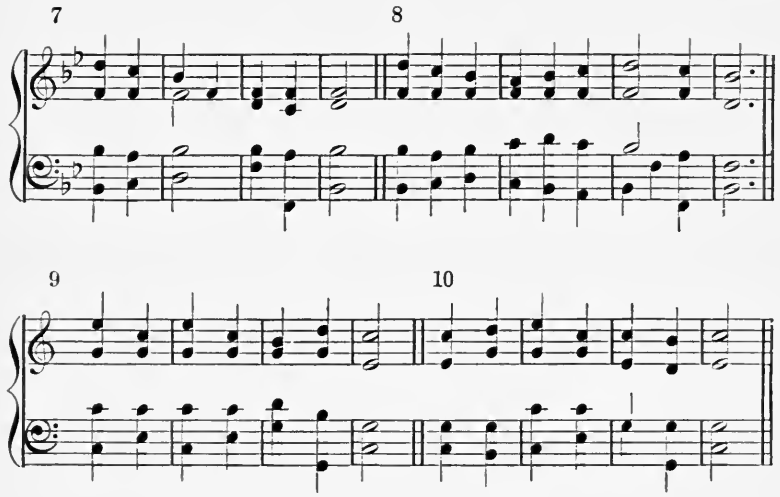
I and V are of similar quality, the former possessing more of the Dominant quality than of the Tonic. If one has difficulty in distinguishing them, remember that $\underset{5}{\text{I}}$ is followed by a Dominant, almost invariably, while V demands the Tonic only.

67. When the *Authentic Cadence* closes with the root position of both V and I, it is said to be "*Perfect.*" Otherwise, it is "*Imperfect*" and less final in effect. Because of the progression quality, the second inversion of the Tonic $(\underset{5}{\text{I}})$ is not used for the *last* chord of a cadence.

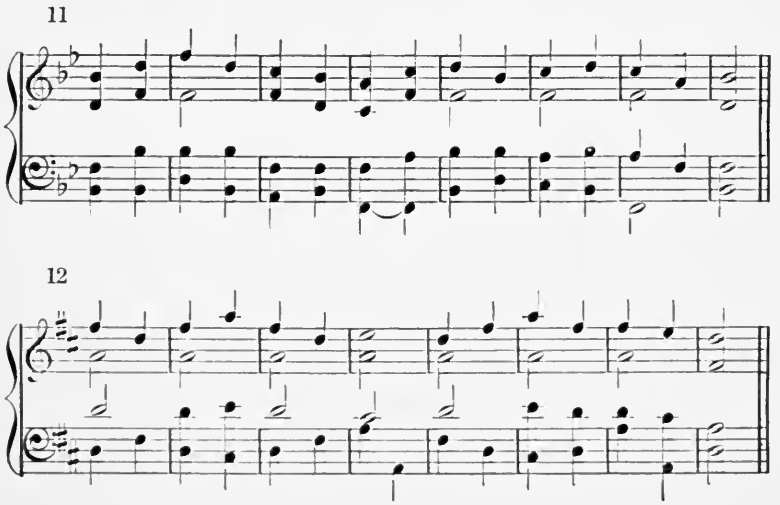
68. Play the following in both modes and mark the inversions before they are written from dictation:

Ex. 41.





69. When the Dominant chord falls on the rhythmic cadence as in the middle of Nos. 11 and 12, it is sometimes termed a "*half-cadence*," also "*rising cadence*." As the effect is similar or equivalent to the interrogation point of literature, the term "rising cadence" is appropriate.



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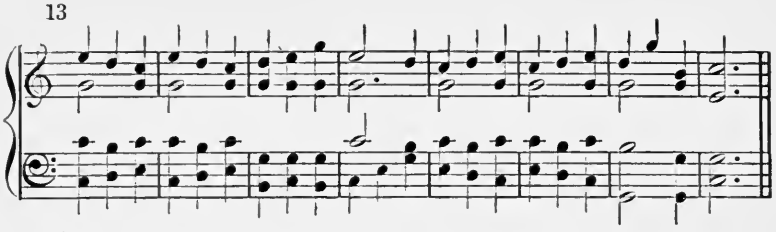

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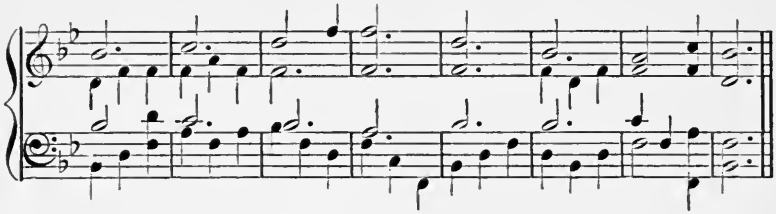
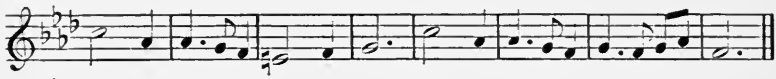


70. Sing the following and mark the sections or phrases, A, B, C, etc., after which they may be written from dictation:

Ex. 42.

1



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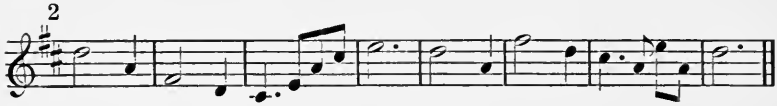

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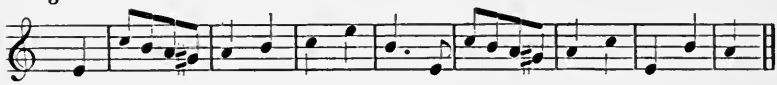

a:

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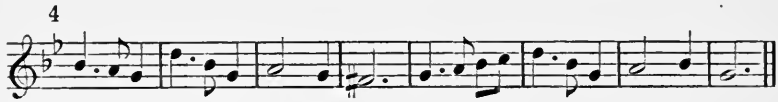

g:

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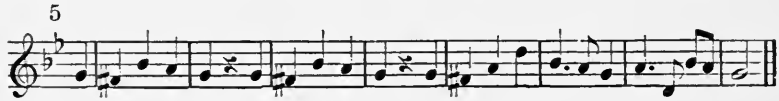

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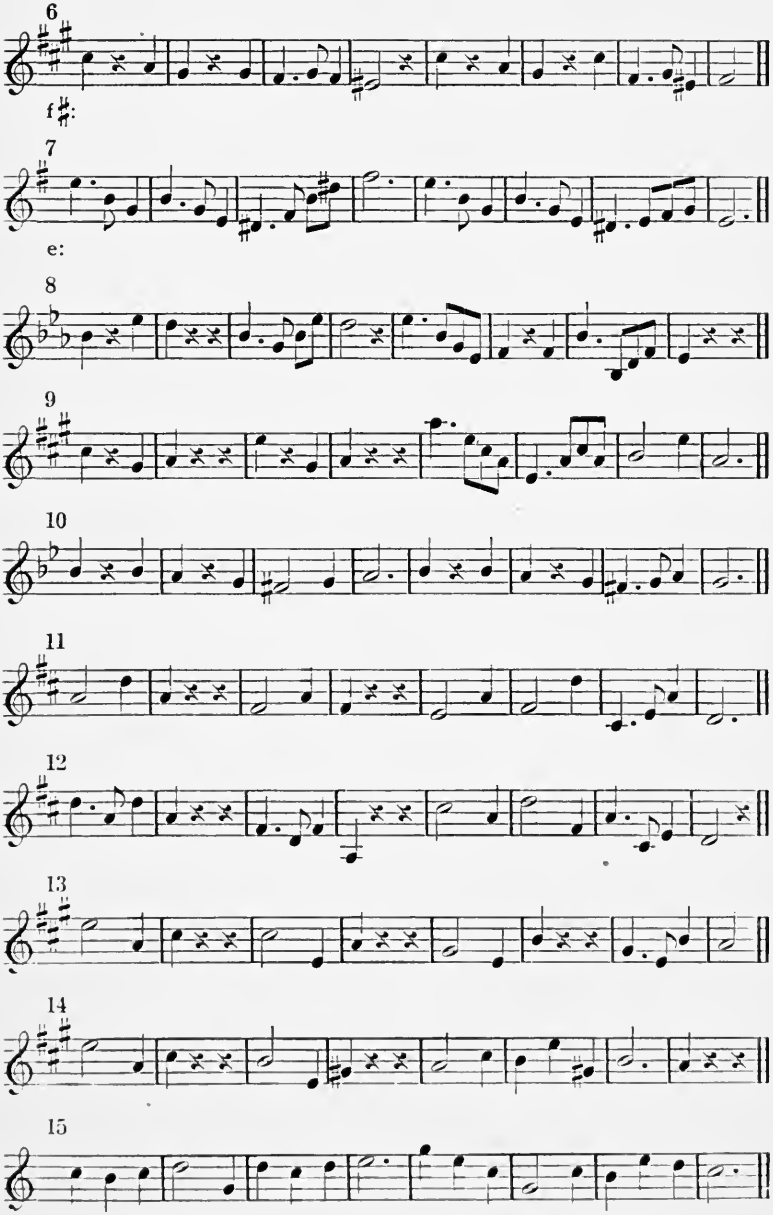
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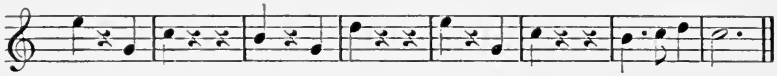

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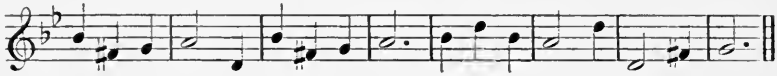

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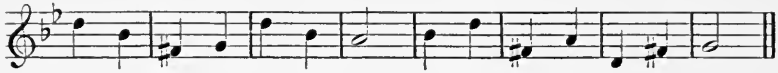

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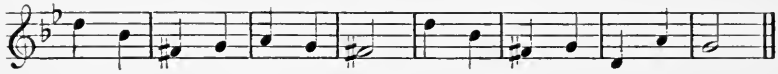

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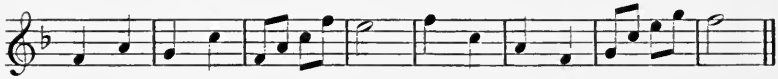

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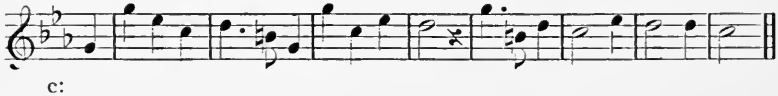

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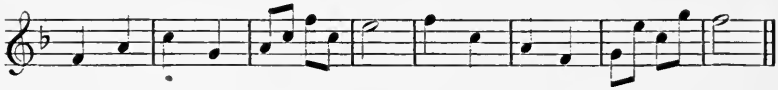

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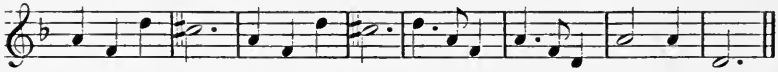

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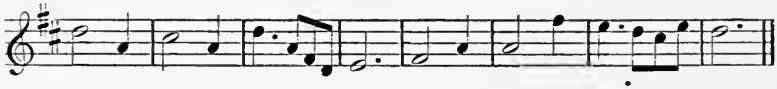

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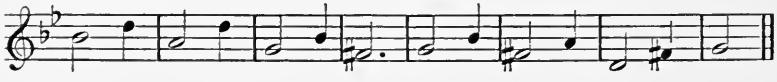

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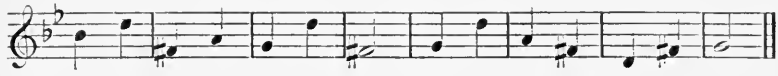

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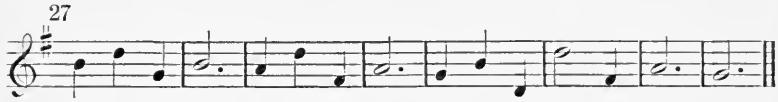

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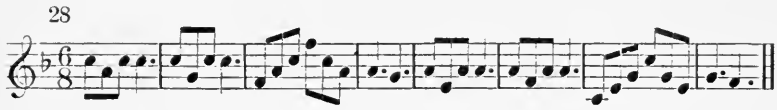

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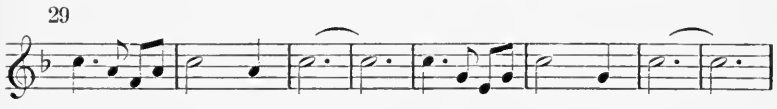
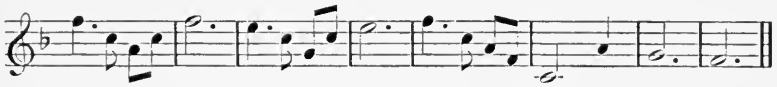
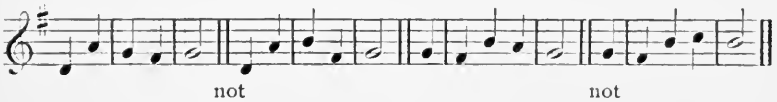




71. What is the interval from Ti, scale-7th, to Mi? What kind of a fourth?

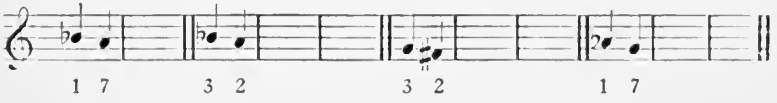
72. Unless it moves chord-wise, after an interval of a fourth or more, the melodic direction is *usually* contrary to that of the leap:

Ex. 43.



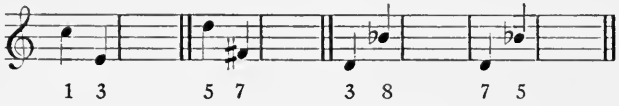
73. Consider the following intervals as indicated and complete the melody by adding one or more measures:

Ex. 44.



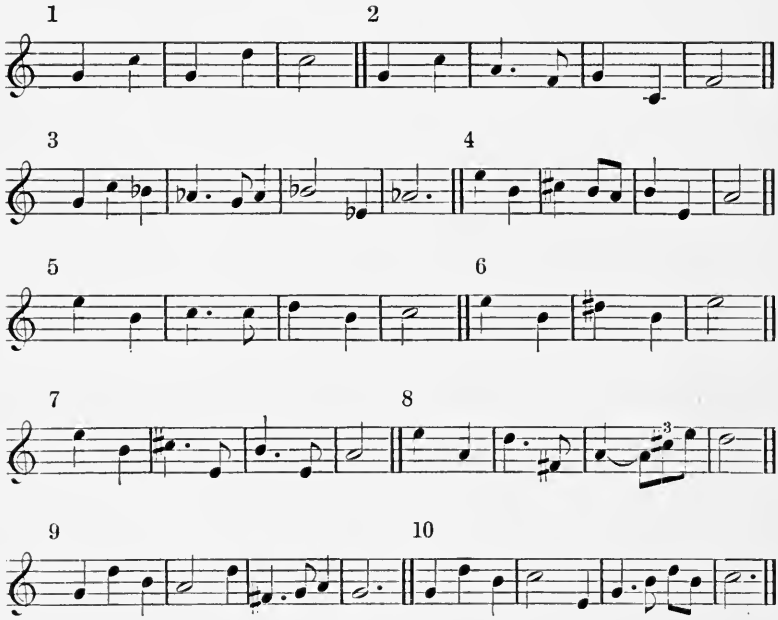
74. What is the interval from Sol, scale-5th up to scale-7th? What other large third has been sung? What is the interval from Sol *down* to Ti? What other small sixth has been sung? Add to these as in the preceding example, thinking the tones as indicated:

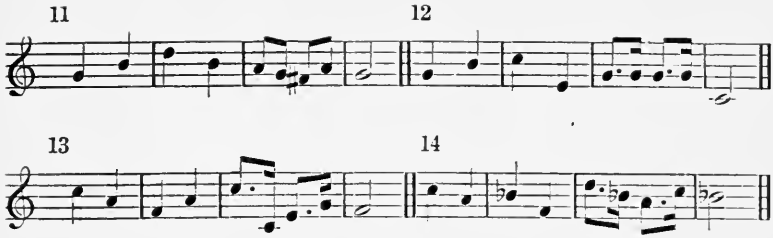
Ex. 45.



75. For the following exercises, the teacher should play the first two notes for the student to name the interval, then the whole melody for the student to find the Tonic. For example, at No. 1 the reply would be "a pure fourth." What pure fourths have been heard and sung? From Sol *up* to Do, scale-fifth to Tonic, and from Re *up* to Sol, scale-second to Dominant. Listen for the Tonic and tell which of these fourths it is, then name the complete melody:

Ex. 46.





76. What is the distance from the scale-seventh up to the small third? How many small seconds are included? *An interval that is smaller than pure or small is said to be* DIMINISHED, *so this is a diminished fourth. It occurs in the minor scale only, and in this one place, unless made so by chromatic alteration.*

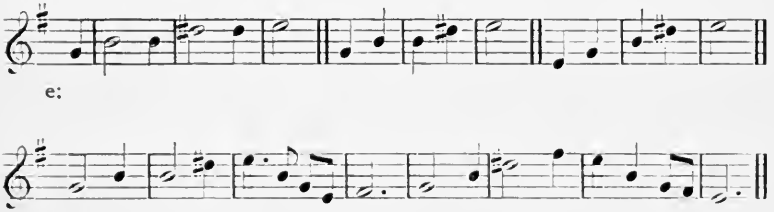
FOR SELF-HELP, SING THE INTERVAL IN DIFFERENT KEYS, testing the pitch with an instrument.

77. What is the distance from the small scale-3rd, Me, up to large scale-7th? How many large seconds are included? *An interval larger than pure or large is said to be* AUGMENTED, *so this is an augmented fifth.*

Diatonically, it occurs nowhere else in scale. The tendency of an augmented interval is to diverge, so there are two reasons why this particular seventh should resolve on the Tonic and move contrary to the principal given in paragraph 72. Both the nature of Ti, scale-7th and the augmented interval demand this resolution.

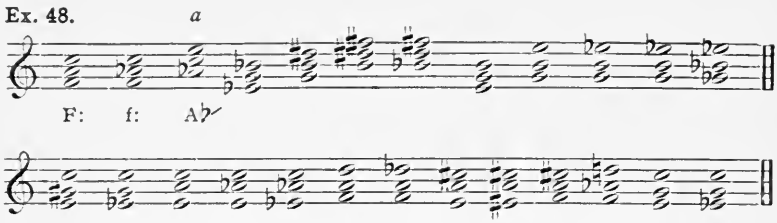
Singing consecutive large thirds is difficult for most people, but it is much easier if one thinks it in key where it actually occurs.

Ex. 47.



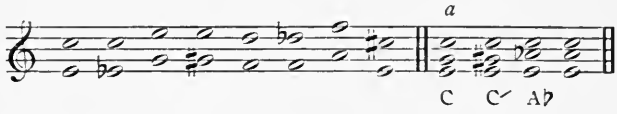
78. The triad built on the small scale-3rd is known as an augmented triad because of the augmented fifth which it contains; *a*, Ex. 48. Name the different types of triads from dictation, or indicate in writing by the signs, +, —, ⁄, for major, minor and augmented, respectively:

Ex. 48.



79. From dictation, name the types of sixths of Ex. 49, then sing a tone which will complete the triad, making three distinct types as at *a*:

Ex. 49.

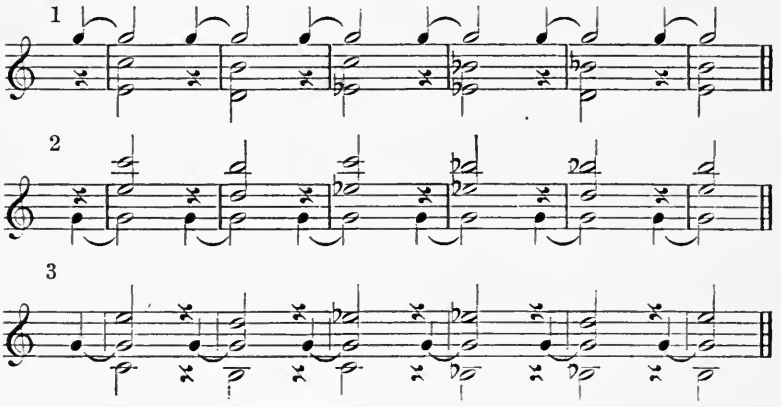


One can do this without the aid of a teacher by testing at the piano.

Write the root letter under each, using capitals for the major chords, small letters for the minor, and the acute sign for the augmented.

80. In the following examples, G is used as root, third and fifth of both major and minor triads. For home work, do this in many keys, keeping the given tone in each of the three parts as shown in the copy. For training in *tone-thinking*, sing the tones that are to be added before playing them. For an ear test, this should be played in class.

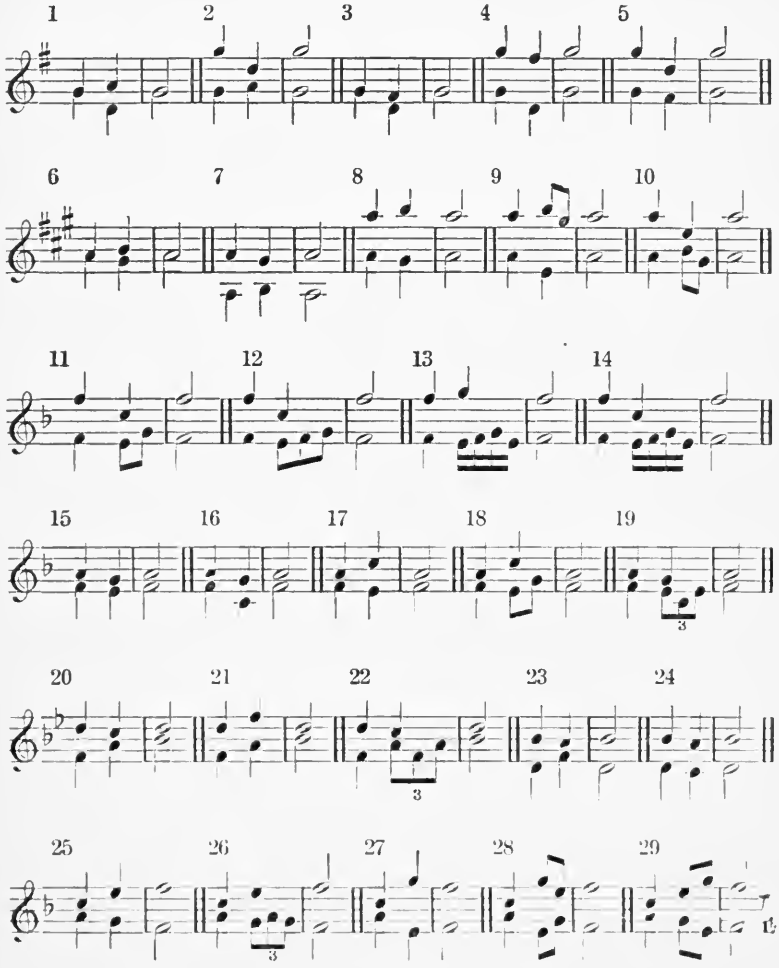
Ex. 50.

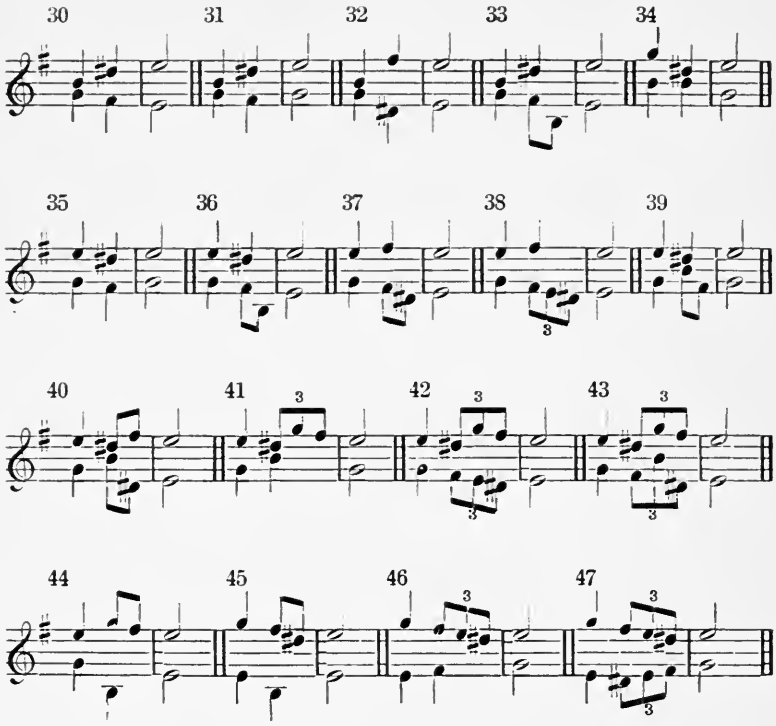


81. Taking two-part work from dictation is more difficult than three or four-part. Knowing that the low part must close with the root or third, listen for the direction of the approach. Knowing what resolves on the Tonic from either side, listen for what must be; also the same way for the approach to the third.

For self-help, sing one part while playing the other, testing as usual:

Ex. 51.

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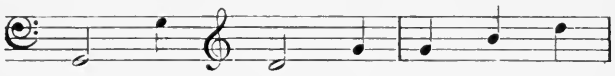
CHAPTER V.

Scale-Fourth: Dominant Seventh.

82. Play the harmonic series of Ex. 52 and sing a tone higher:

Ex. 52.



Few there are who will not sing F, a small seventh above root, and when placed in scale relation, the fourth of the scale.

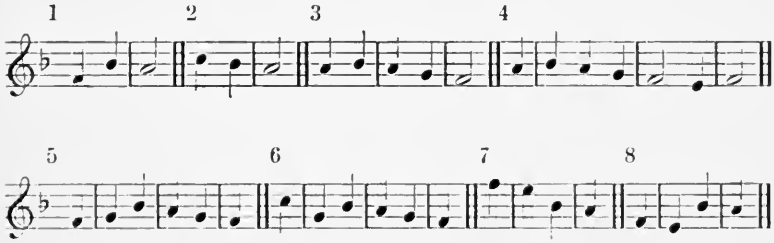
83. From Ex. 21, one hears that Fa, scale-4th, demands or resolves on the scale-3rd. What kind of a second is it? What other small seconds have you heard?

The small seconds are the intervals that determine a scale, and they may be recognized by the melodic direction in which they move to cadence.

84. What type of fourth is the interval from Tonic to scale-4th? Sing and resolve the fourths that have been considered in the preceding lessons.

85. Place the scale-4th in melodic relation with the preceding scale degrees something like the following, and transpose to different keys and modes:

Ex. 53.



Some successful teachers think it an excellent practice to sing from the scale numbers instead of the notes on the staff, at least a part of the time.

It is good practice in *tone-thinking*, because one has no aid from the staff positions. It is sometimes convenient, especially at a concert, when a passage might not be remembered.

86. Writing the scale numbers, place a dash over or under the figure to indicate the melodic direction, if the interval exceeds a third. For example, in the fifth group, the mark *below* 5 indicates the fifth higher than the preceding tone. In the eighth group, the mark *above* 7 indicates that Ti, scale-7th is to be taken *below* the preceding tone. In other words, sing above or below the dash.

Ex. 54.

1—4 | 3. 1 | 2—4 | 3. 1—3 | 4—2 | 1—7 | 1.

1—3 | 2—4 | 3. 1—3 | 5—4 | 3. 1—3 | 5—3 | 4—2 | 1.

1—3 | 4—2 | 5—5 | 1. 1—3 | 2—4 | 7—2 | 1.

1—3 | 4—2 | 5—7 | 1. 5—3—1 | 2—4—7 | 1.

5—1—3 | 4—7—2 | 1. 5—1—3 | 4—2—5 | 1.

5—3—1 | 4—2—7 | 5—3—2 | 1. 5—3—1 | 7—2—5 | 4—2—3 | 1.

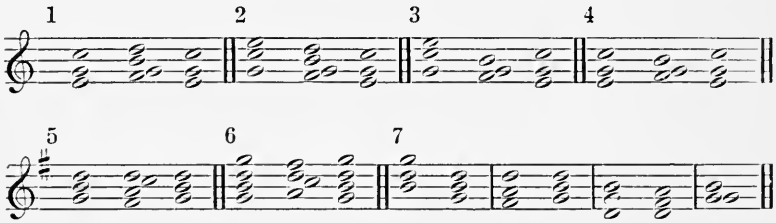
Melodies taken this way from dictation should be written on the staff at home and sung by letter names at the class recitation.

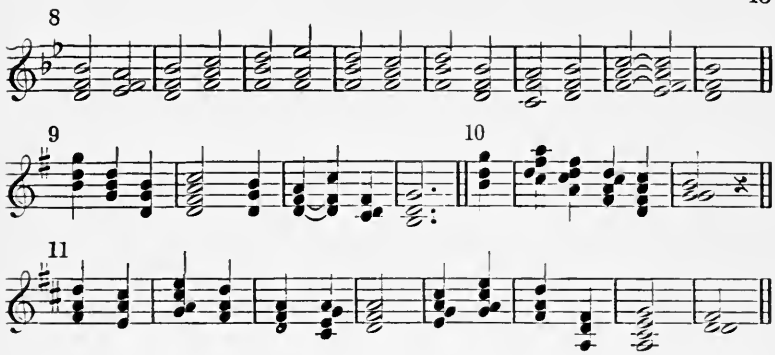
It is unnecessary to include more examples of this work, as all of the melodies can be so written if one chooses.

87. As seen in Ex. 52, Fa, scale-4th is a small seventh above Sol, the root and generator of the Dominant harmony. This four-tone chord is called the *Dominant-seventh* chord.

88. Play the following exercises and mark the chord degrees of the outside parts as in the preceding lessons. As it is very important that one should think and hear the material in both scale and chord relation, sing each part, naming both relations. This work should be done at home, as the teacher's time is needed for what a student cannot do for himself.

Ex. 55.





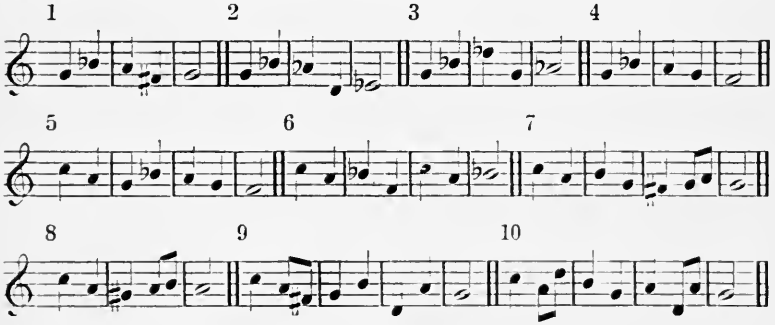
89. What is the distance from scale-7th *up* to scale-4th? How many small seconds does the interval include? What is the name applied to an interval that is smaller than pure?

What is the interval from scale-7th *down* to Fa, the scale-4th? What is the name applied to an interval larger than pure or large?

What type of third occurs between scale-2nd and 4th?

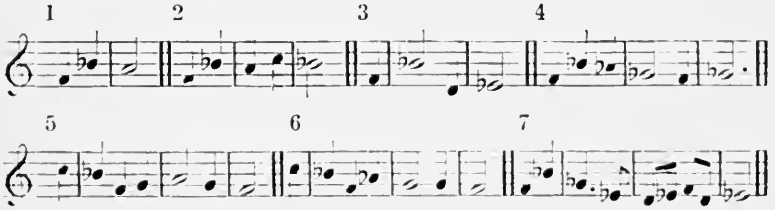
90. For individual work, sing the following and find the key-note of each. In class, write the same from dictation:

Ex. 56.



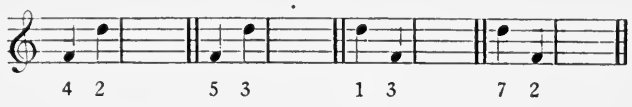
Follow the same plan with these:

Ex. 57.



91. What is the interval from Fa, scale-4th up to scale-2nd? What other large sixths have you heard? Resolve these in the keys indicated:

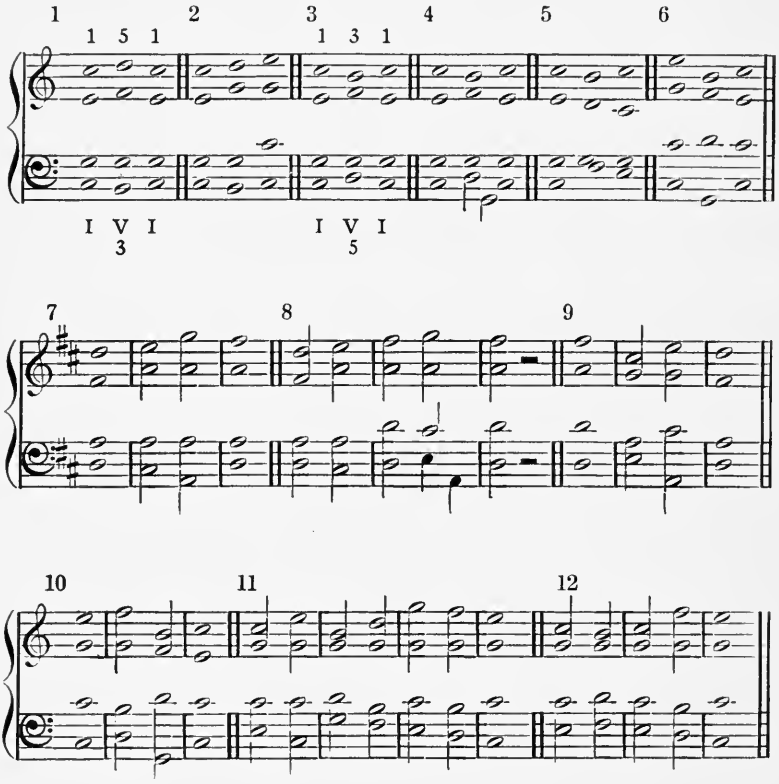
Ex. 58.

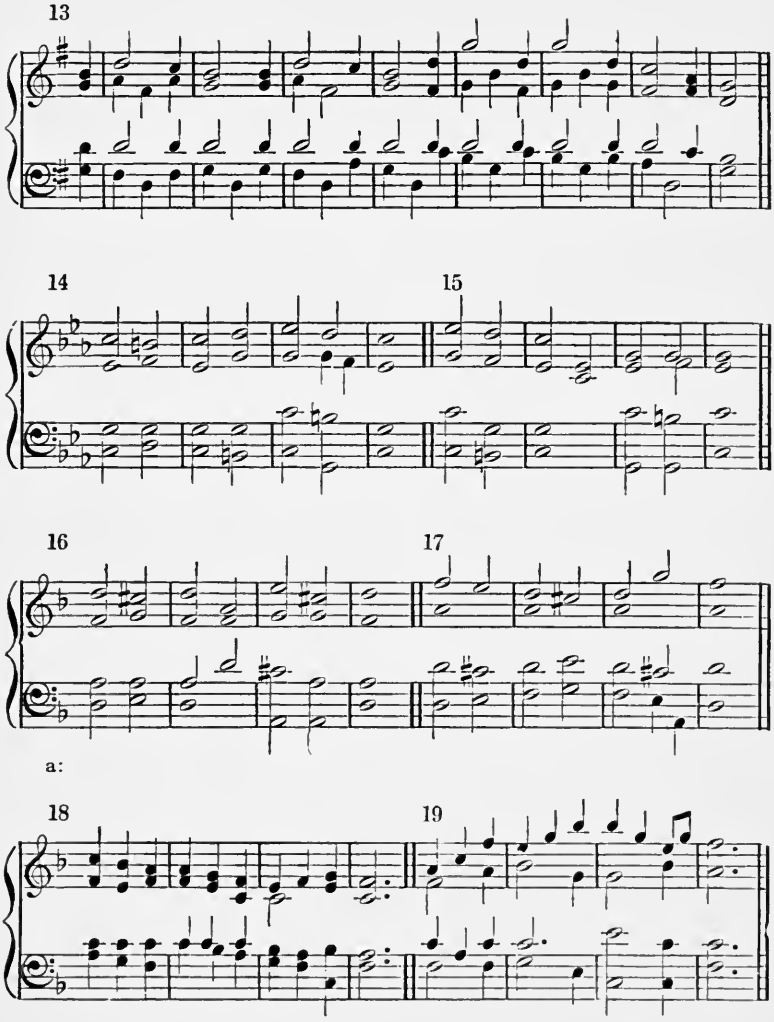


92. What is the interval between Fa, scale-4th and Me, the small 3rd? Sing 1–4–3 in both modes.

93. Play and mark the chords in the following, indicating the inversions, also the chord degree of the upper part:

Ex. 59.





94. When doing the individual work which prepares one for the class dictation, observe the things that usually occur. For example, that the Dominant harmony is major in both modes of the key.

If third or seventh occurs in the upper part, the root or fifth is likely to be found in the bass.

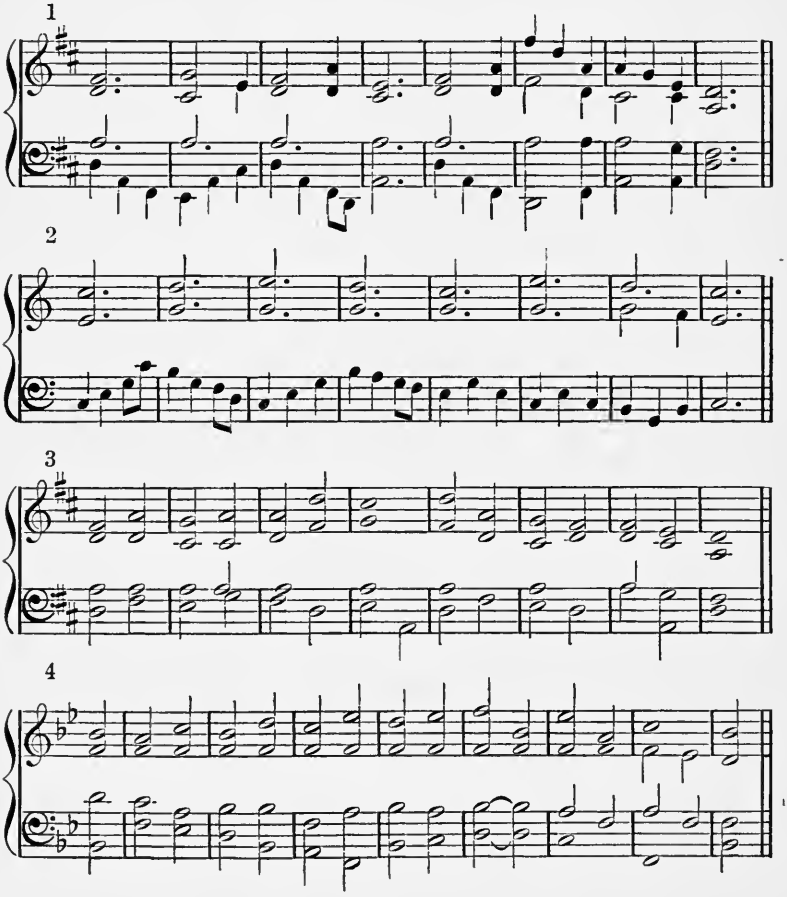
If there are leaps in the upper part, the bass is likely to move by step or remain stationary.

This is especially true when the harmony changes. With different positions of the same harmony, all of the parts may move by leap.

With only two harmonies, it is difficult to retain two or more phrases. *Listen for repetiton or general direction to rhythmic accents.*

There are advantages in taking the dictation by writing as one plays. It means quick recognition and quick movements of the hand. In doing this, anticipate as much as possible.

Ex. 60.



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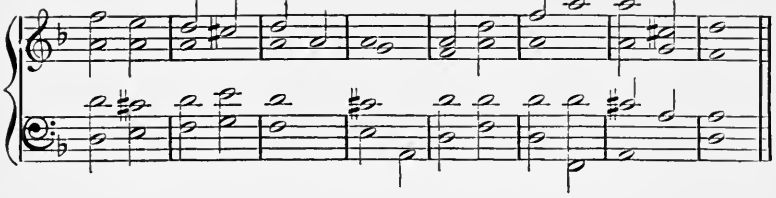

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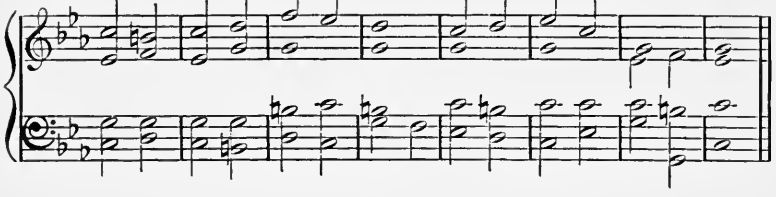

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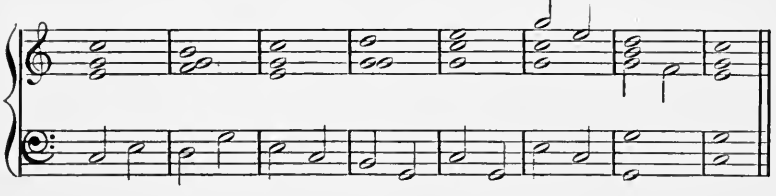

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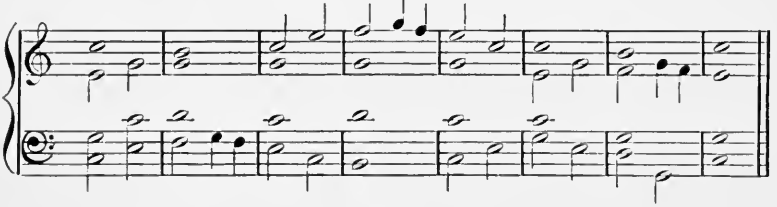

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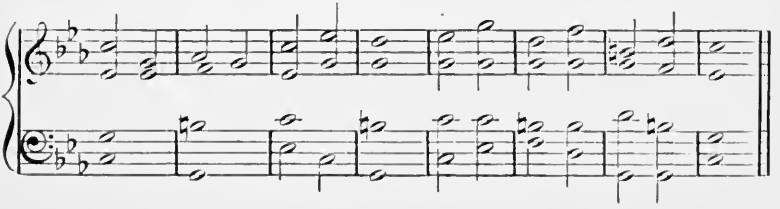
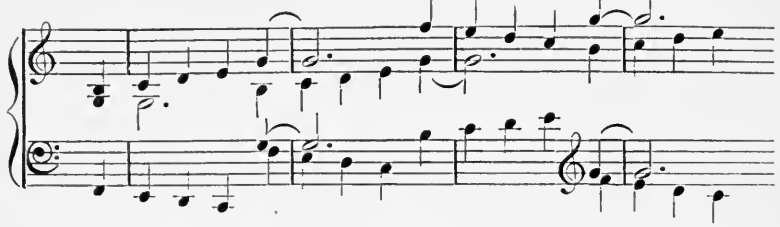
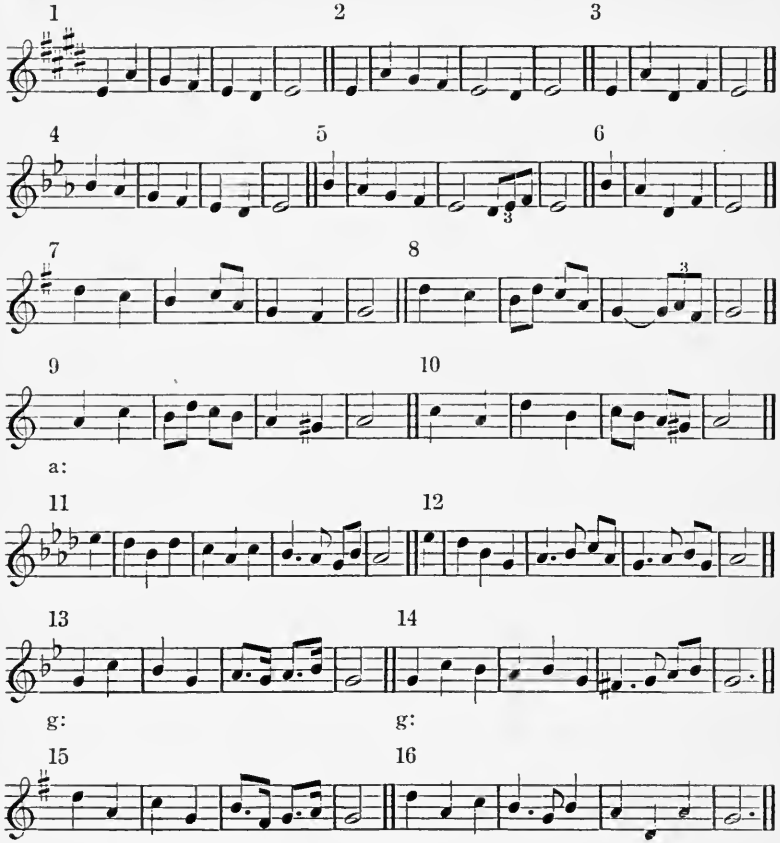


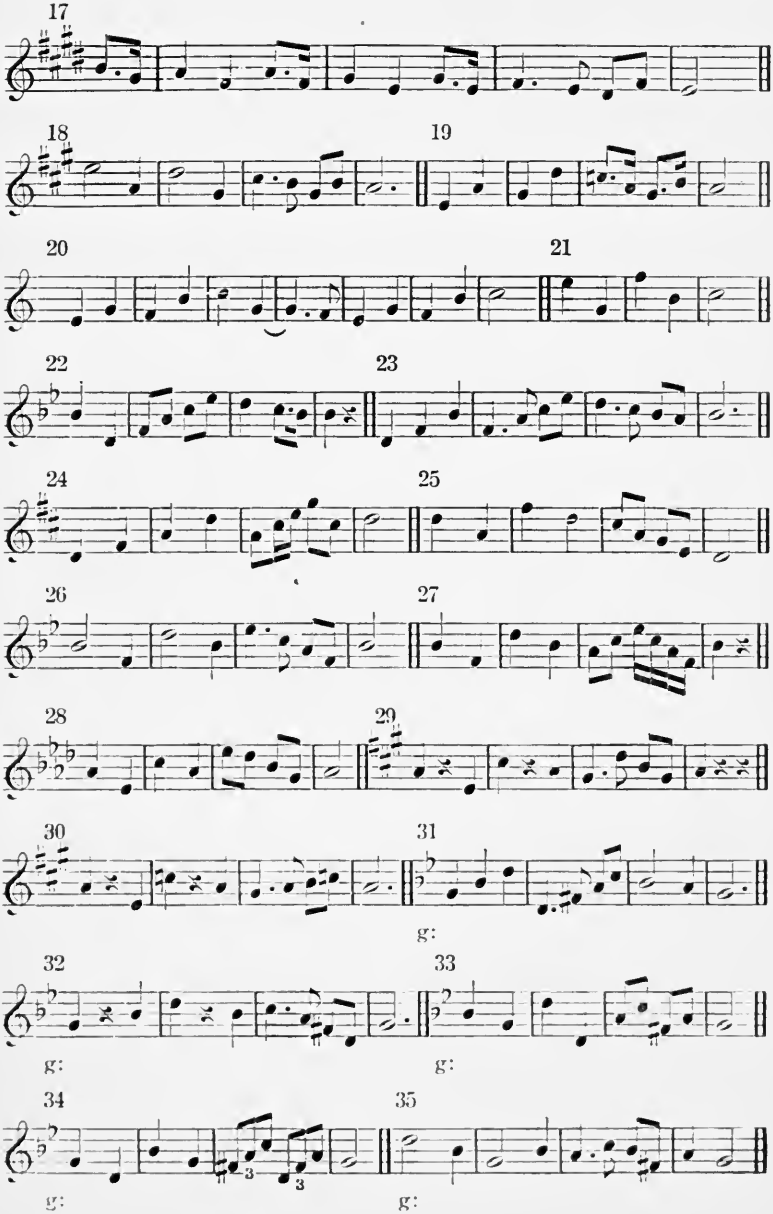
10 Beethoven: Op. 10.



95. Dictation including Fa, the scale-4th in relation to all of the preceding scale material:

Ex. 61.

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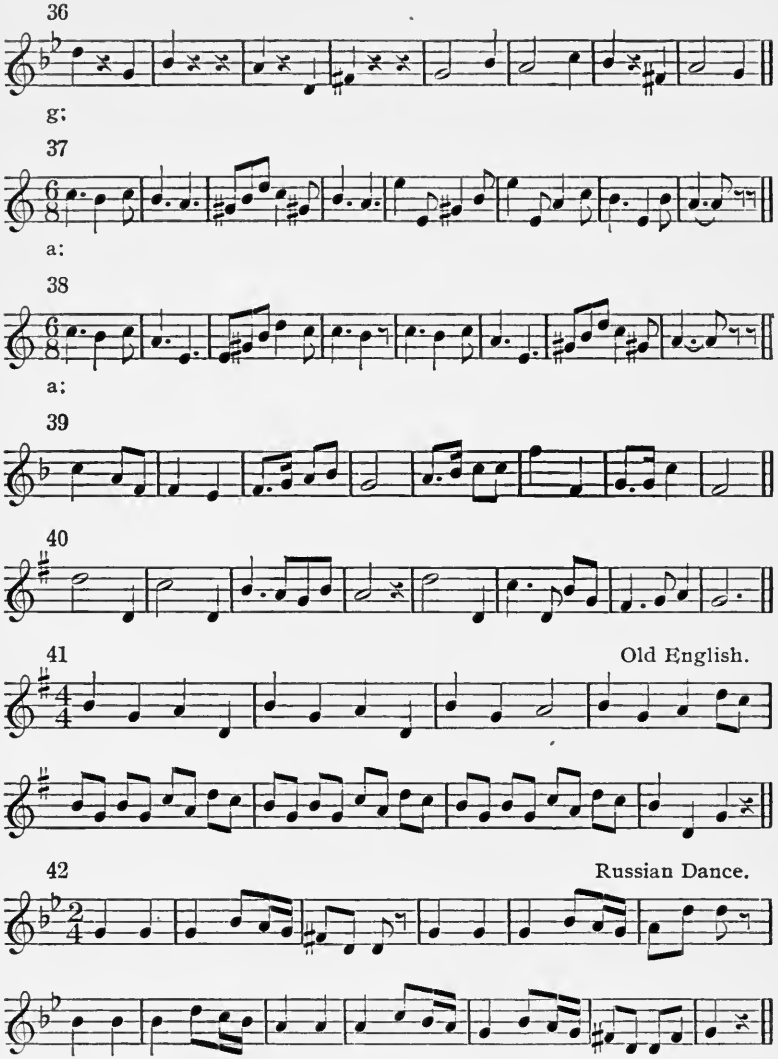


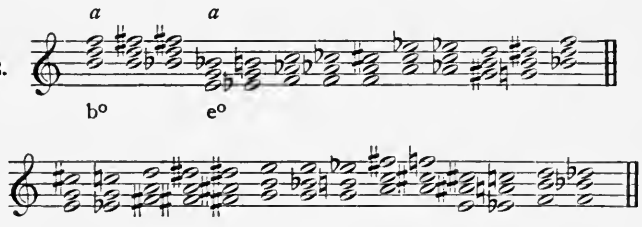
96. When scale-4th occurs as fifth of the Subtonic harmony, on the large scale-7th it forms a *diminished triad.* As a result of the diminished-fifth, there is an augmented-fourth in both of the inversions of the chord. Hearing that, one is sometimes confused in the aural recognition.

a. The diminished mode of a chord is indicated by the sign, o, as at Ex. 62. *In four-part work, the third of a diminished triad is usually doubled.*

97. What is the mode of the Subtonic chord built on the *small* scale-7th? In this case it is not heard as a part of the Dominant. Why?

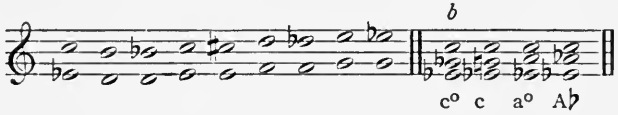
98. Before taking them from dictation, play and mark the chords of Ex. 62, indicating both the root and the mode:

Ex. 62.



99. First sing, then write the note that will complete the various triads of which these sixths could be a component, as at *b:*

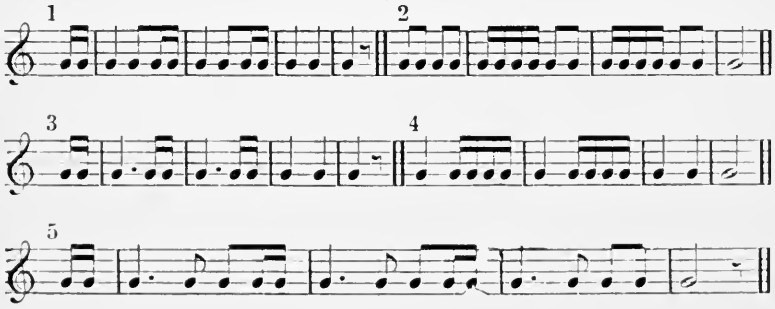
Ex. 63.

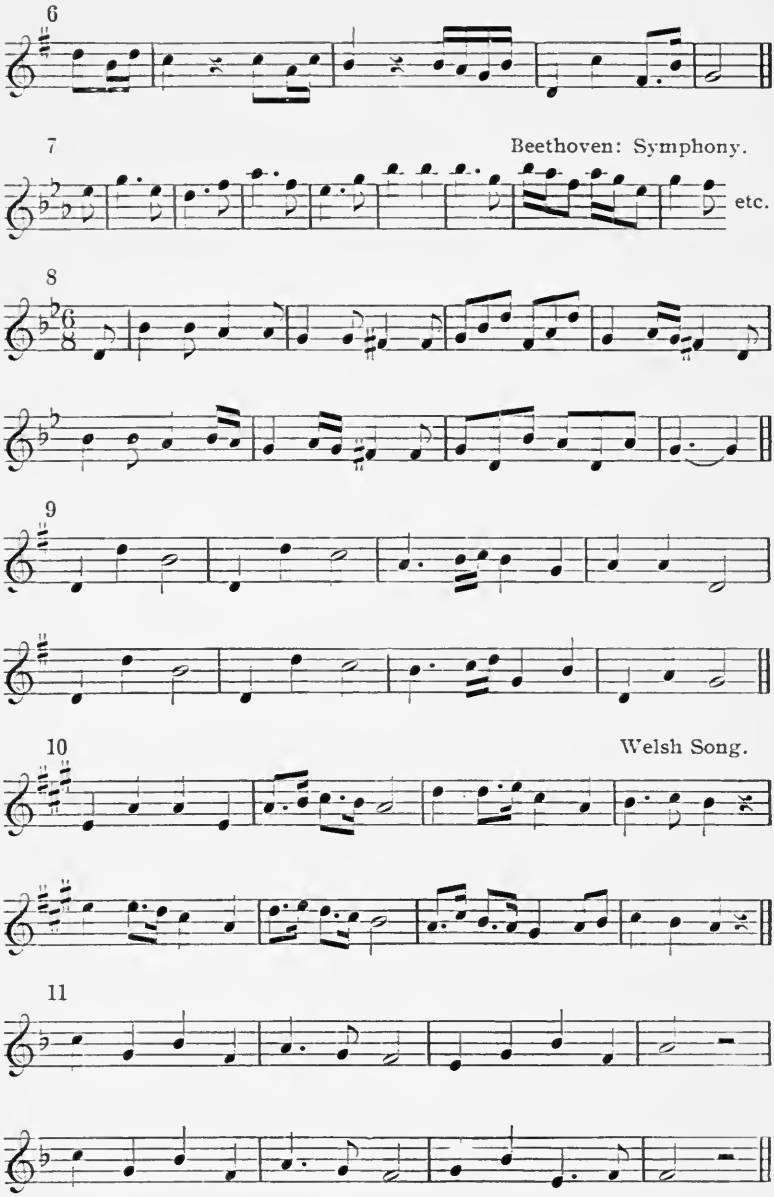


100. As one takes the longer and more difficult melodies from dictation, listen for repetition, imitation, sequence or striking rhythmic figures. One should always hear and feel the grouping.

Tap the rhythms which include the sixteenth notes before singing or writing them from dictation:

Ex. 64.

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Beethoven: Symphony.
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Welsh Song.
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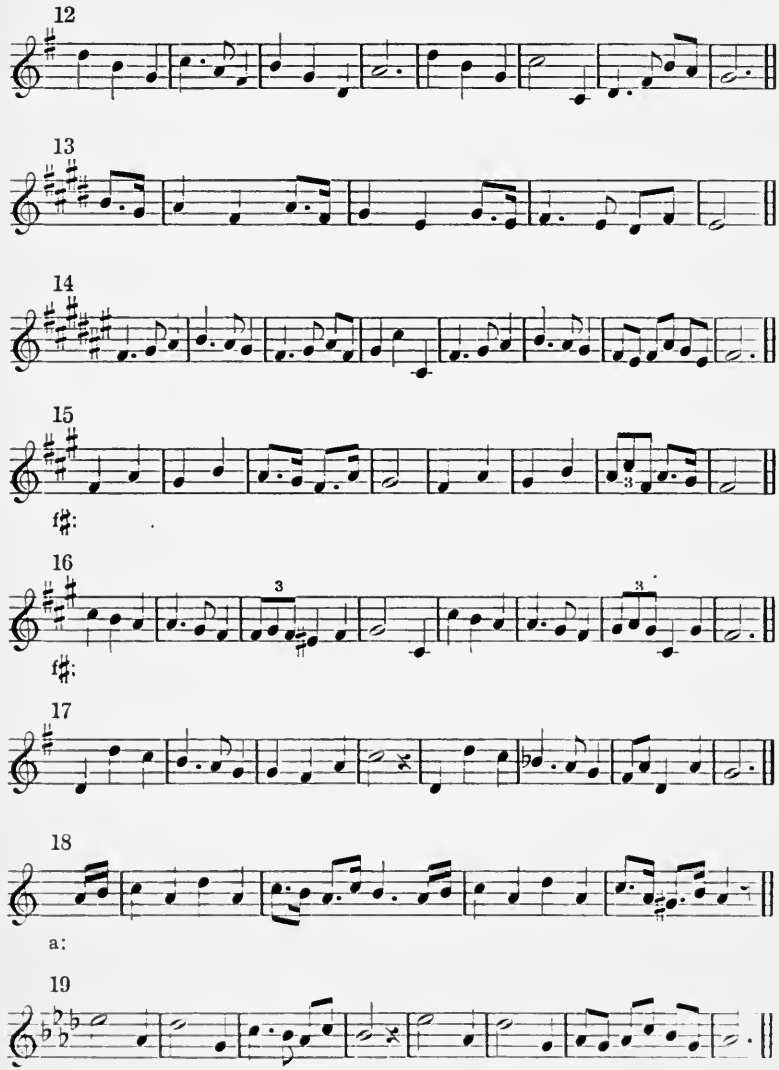
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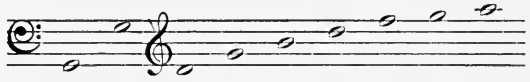
CHAPTER VI.

Dominant-Ninth. Scale-Sixth, La. Subdominant Harmony. Tetrachords.

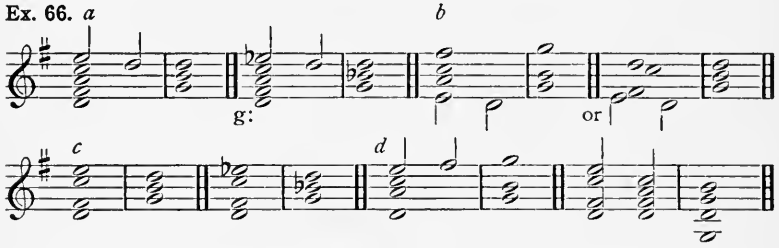
101. Continuing the harmonic series, after the sixth overtone which was considered in the previous chapter, the intervals are in seconds, the root and octave of the harmonic-generator following the seventh, and after that, another large second, which is a ninth above the generator. Placed in scale relation, it is La, the scale-6th:

Ex. 65.



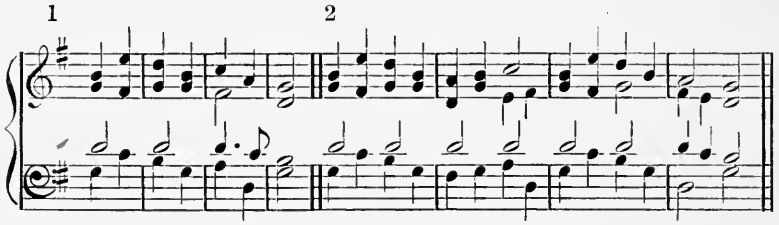
102. In its harmonic relations, the ninth of the Dominant is more likely to be heard in the upper parts, especially in the lower registers. The distinguishing characteristic of the Dominant-ninth is its demand for resolution on the root before the chord as a whole resolves, an effect that is not true of the Dominant-seventh. The demand is felt very emphatically when the ninth falls below the third, as at *b*. Sometimes the ninth resolves with the chord, as at *c*, and sometimes it ascends to the third, as at *d*:

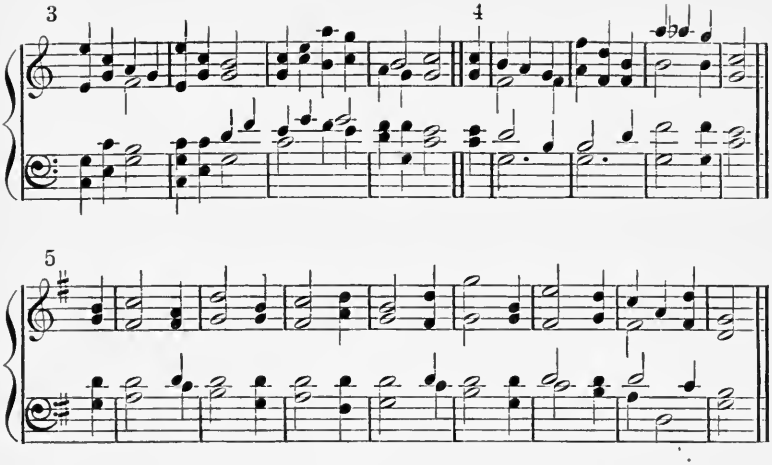
Ex. 66. *a* *b*



103. Play and mark the chords in the following before taking them from dictation:

Ex. 67.

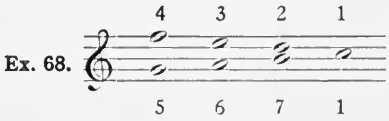




104. The syllable name of the small sixth is *Le*, pronounced "Lay". It is used in two forms of the ascending minor scales and in all three of the descending forms.

105. There are also two sevenths employed in the minor scales, large and small; the syllable name for the latter being *Te*. While there are many different modes of scales, only the major and the three forms of the minor are considered in this work. The study of other modes is recommended when these are fully mastered.

106. With the sixth, the diatonic scales are now complete. With the natural tendencies of the scale material as shown in Ex. 21, it groups itself around a tone-center, the Tonic, falling into the two tetrachords of the scale:



Observe the tendency of the tetrachord as a whole: one down and the other up to the tone-center.

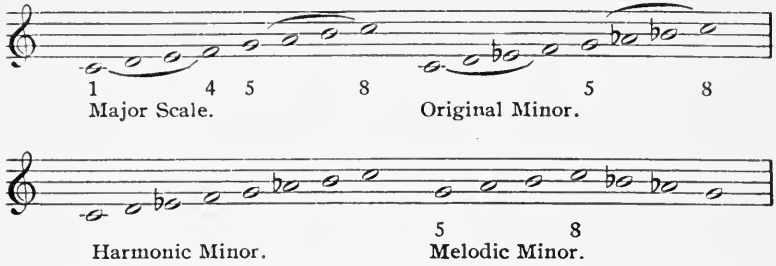
107. Considering the scales by tetrachord (1 to 4 and 5 to 8), one sees and hears that the two tetrachords of a major scale are identical.

a. The small third of the minor mode makes a tetrachord that is distinctive and peculiar to that one location in scale (1 to 4), so it may be given the distinctive name of *minor tetrachord*.

108. The small 6th and 7th of the original form of the minor scale locates the small 2nd between 5 and 6 of the scale. As this type of tetrachord is found in the original form only, it may be designated as the *original tetrachord.*

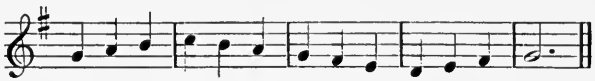
109. The small 6th and large 7th is peculiar to the harmonic form of the minor scale, so that tetrachord (5 to 8) may be designated as the *harmonic tetrachord.*

Ex. 69.



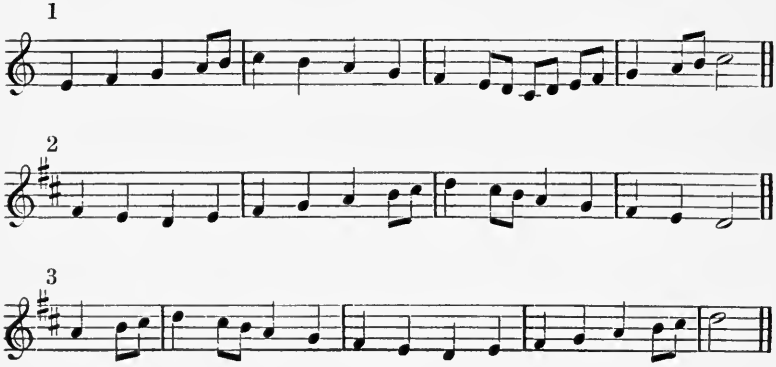
110. The best melodies are above and below a tone-center, rather than all above, and one will find it advantageous to practice singing that way, as well as from Tonic to Tonic in another octave.

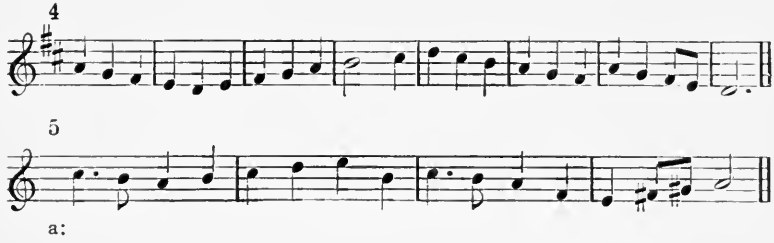
Ex. 70.



a. Practice beginning on different degrees of the scale:

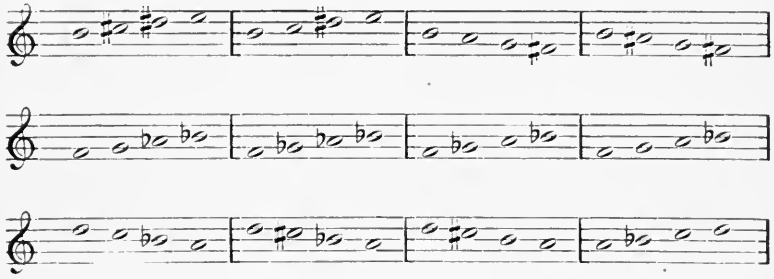
Ex. 71.





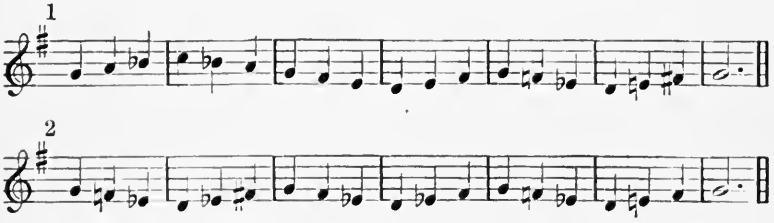
b. Considering the following as 1 to 4 or 5 to 8 of scale, name and write them from dictation:

Ex. 72.



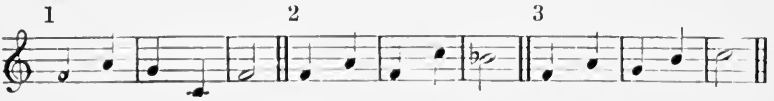
111. Keeping the Tonic as a tone-center, sing both above and below, alternating the various forms of the upper tetrachord, 5 to 8:

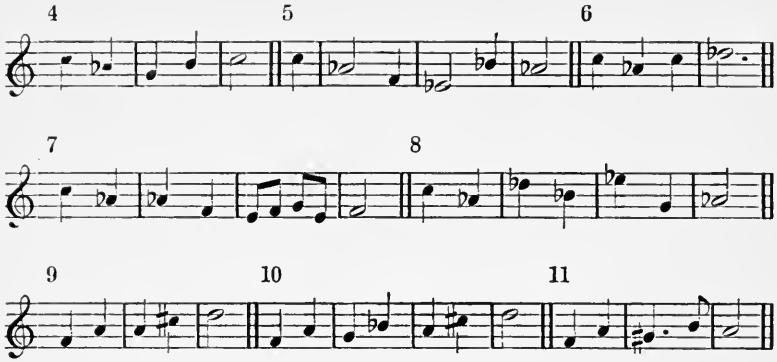
Ex. 73.



112. What is the interval from the Tonic *down* to the small sixth, Le? What other large thirds have you heard? Name them in the following:

Ex. 74.

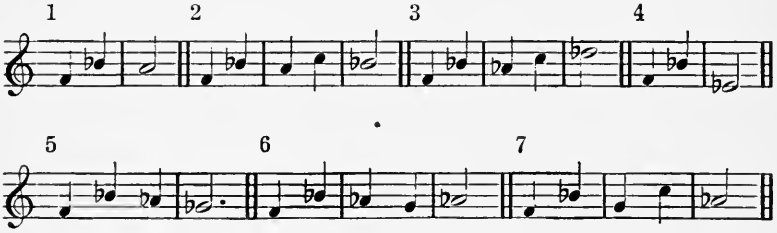




113. What is the interval from large scale-3rd up to large 6th? From the small 3rd to small 6th? What other pure fourths have you heard?

Sing and resolve them, after which write from dictation:

Ex. 75.

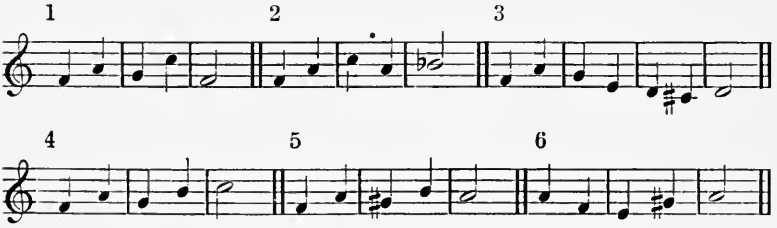


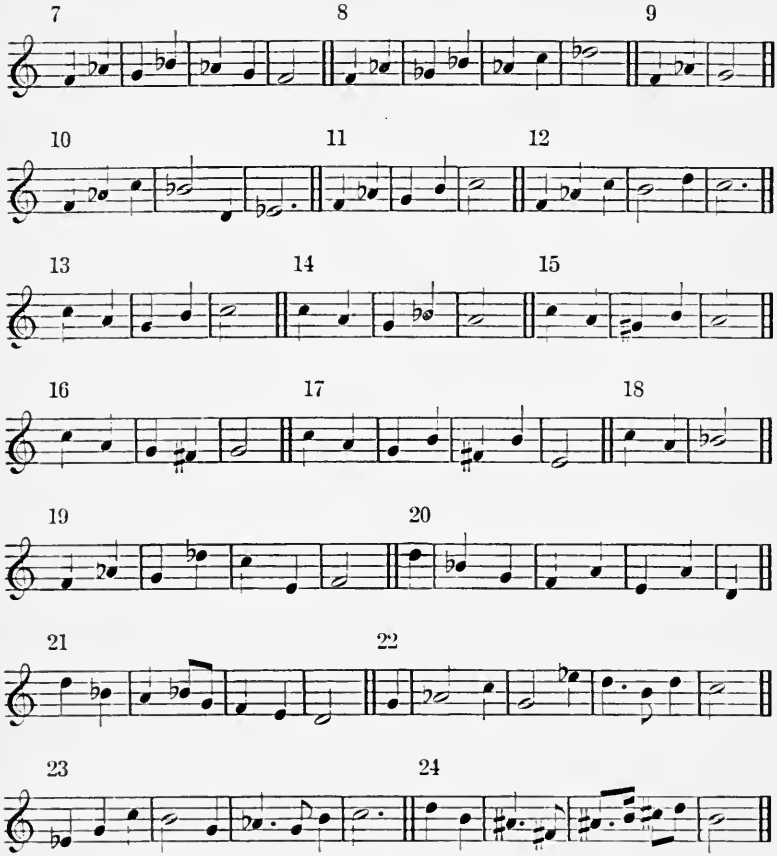
114. What is the interval from scale-3rd *down* to scale-6th? What other fifths have you heard?

What is the interval from scale-4th up to large 6th? To small 6th?

115. Write from dictation, indicating key:

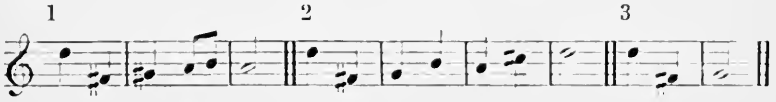
Ex. 76.

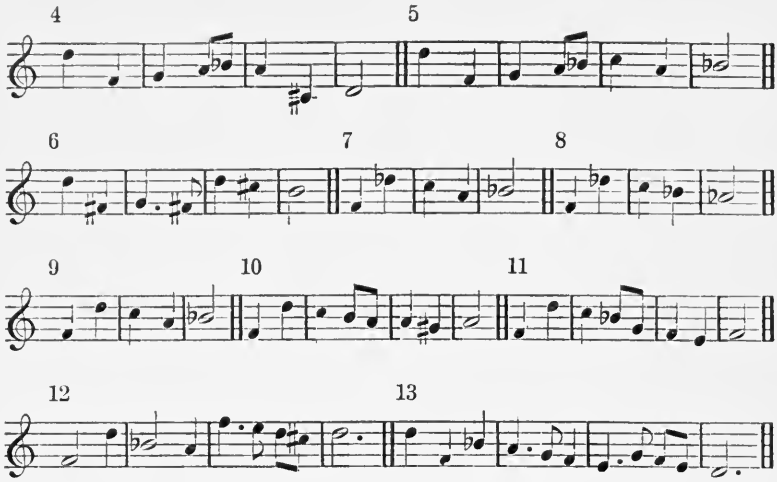




116. What is the interval from scale-4th down to the large 6th? The small 6th? Proceed as before, and in finding the keys, *remember* that the only tones of repose are one and three of the scale. Listen for those tones at the close. Songs occasionally close with the fifth, but not when a key is to be established.

Ex. 77.

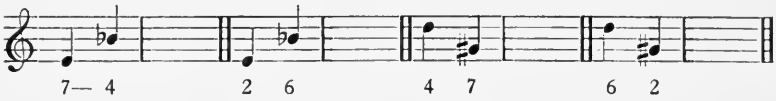




117. What is the interval from scale-2nd up to the small 6th? What other diminished fifth have you heard?

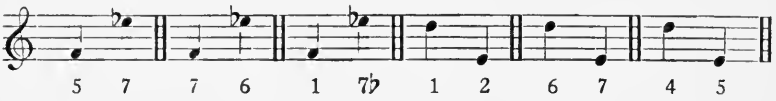
Sing and resolve these as indicated:

Ex. 78.



118. What is the interval from the large 7th up to the large 6th? Resolve these as indicated:

Ex. 79.



119. What is the interval from large 7th down to small 6th? As this is found only in the harmonic minor scale, diatonically, it may always be recognized as such. It might occur by means of chromatic alteration, but it is less usual.

120. What is the interval from the large scale-7th up to the small 6th? As this is peculiar to this one place in a minor scale, it is easy to locate. However, with chromatic alteration it is frequently used.

Thinking or recognizing the foregoing examples without first knowing the key is excellent practice, and very practical in connection with the study of modern music where the tonality is so often obscure.

The greatest benefit derived is that of hearing and feeling the difference in *the nature* of an interval which arises from key relation. As an interval only, there is no difference aside from pitch, but in its *key relation*, also harmonic relation, there is a vast difference in the nature of intervals. Going back to Ex. 76, observe the difference in the feeling or nature of the first third in No. 1 as compared with that of No. 3 and others following.

121. The tones falling at the extremes of the tetrachord—1, 4, 5 of scale—are called the "primary tones" of a scale, and the harmonies of which they are root, are the "*primary harmonies.*"

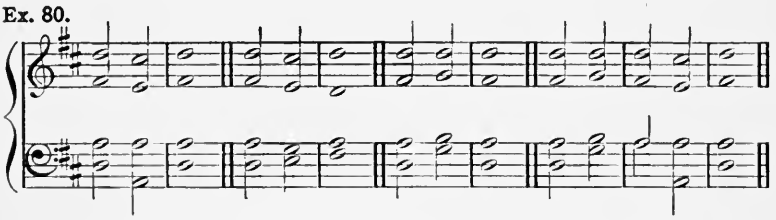
As the trend of the Subdominant tetrachord is down to the tone-center, so is the trend of the harmony built on the Subdominant.

122. Employing scale-4th as chord-root and the scale-6th as chord-3rd, one hears a new harmony, the SUBDOMINANT, resolving *down* to Tonic. What scale degree is the chord-5th?

a. As root, the scale-4th is free in its resolution, falling a fourth to Tonic or moving up a step to the Dominant, as seen in the following example.

b. We now have three harmonies which demand the Tonic harmony,—V, VII and IV:

Ex. 80.



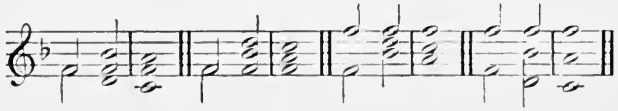
c. As VII° is identical with 3–5–7 of the Dominant-seventh chord, and as the scale-5th is the harmonic generator of VII°, one hears it as V7 without the root.

d. Built on the small scale-7th, the Subtonic harmony has a quality that is quite distinct from the Dominant-seventh.

THE CADENCE IV–I, IS CALLED THE "PLAGAL CADENCE."

123. In class, all sing the Tonic, and different members the various degrees of IV and its resolution, as at Ex. 81:

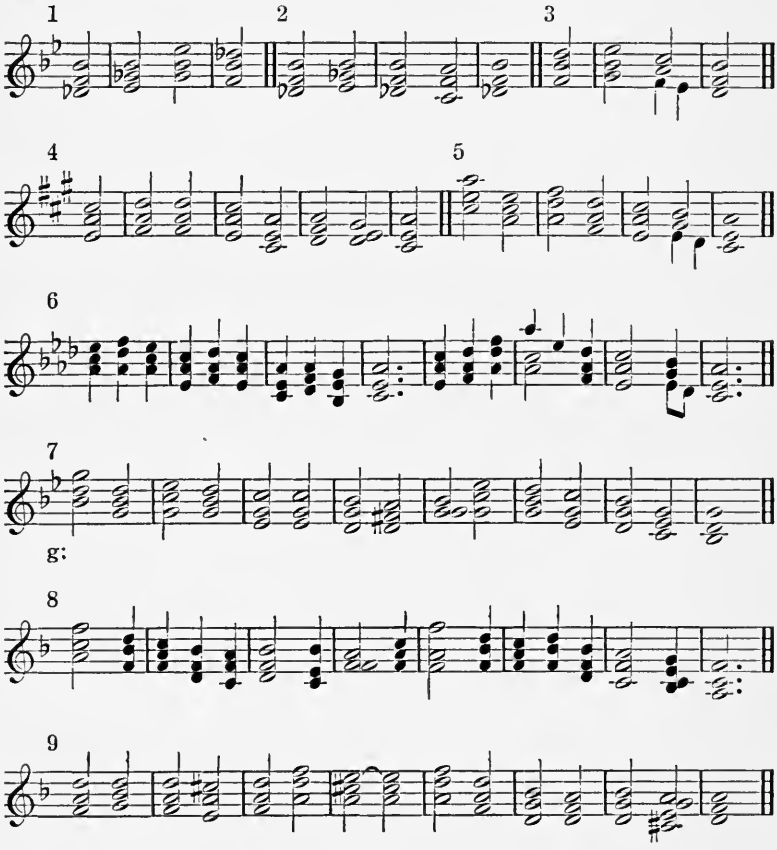
Ex. 81.

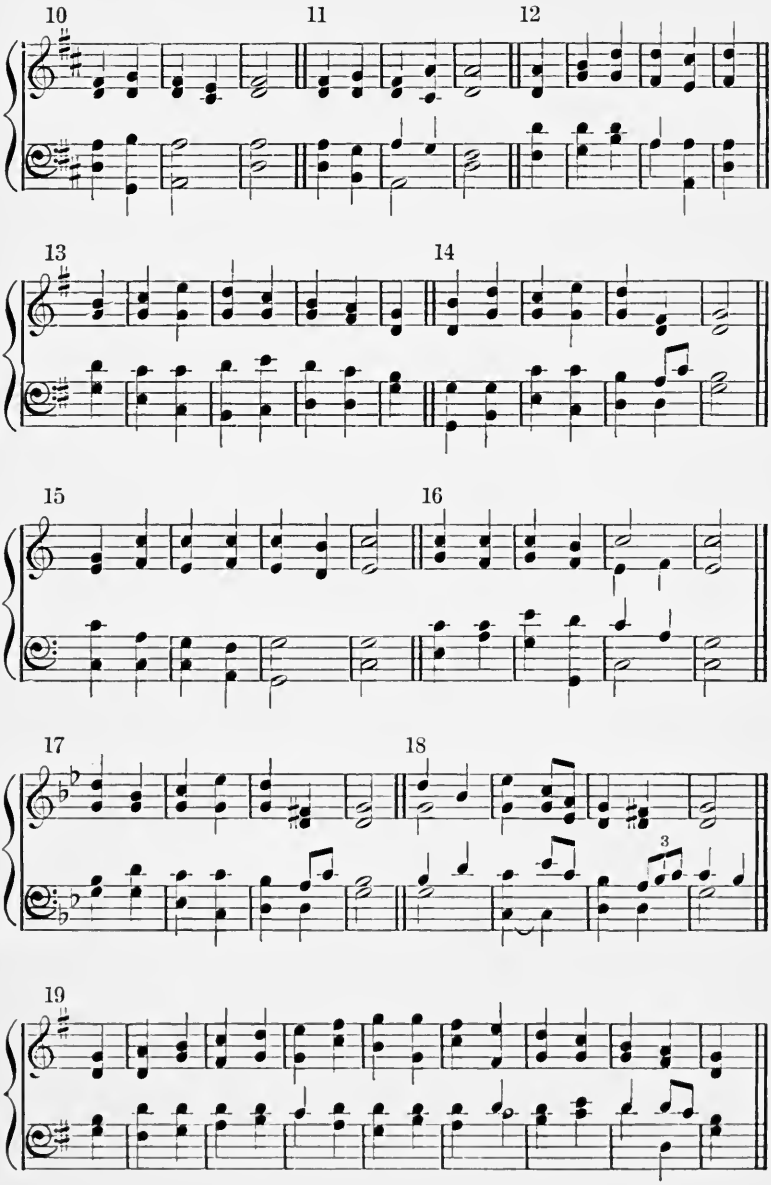


a. As the harmonic form of the minor scale is generally used in chord relations, both the Tonic and Subdominant harmonies are in the minor mode. Play the following chord groups in both modes, and sing and name both the scale and chord degrees of each part, as in the first lessons with the Dominant harmony.

Writing from dictation, after the Roman numerals have been recorded, sometimes write the outside parts on the staff, completing the chords and indicating the harmonic degrees at home; sometimes write the harmonic degrees of the outside parts from dictation, and express it all by staff notation at home.

Ex. 82.

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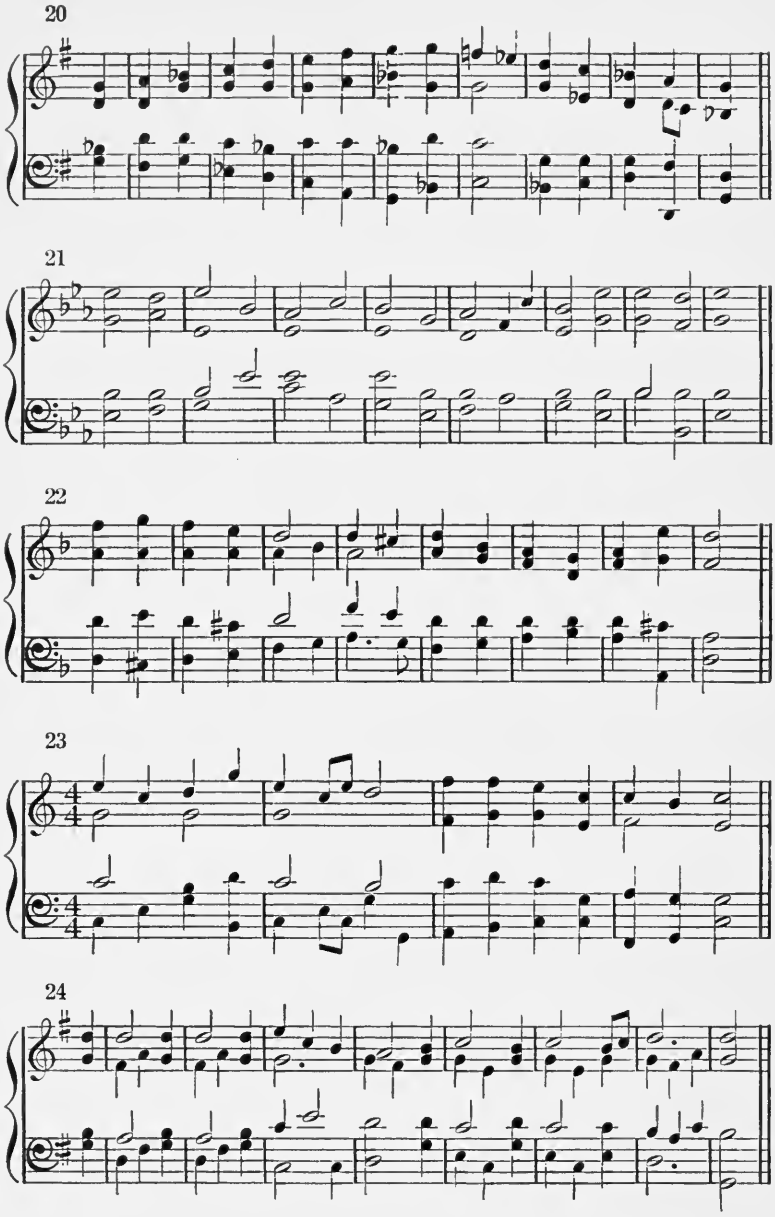
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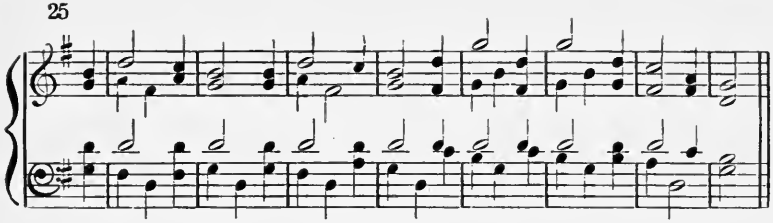

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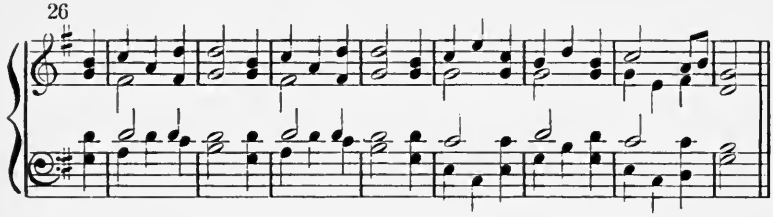
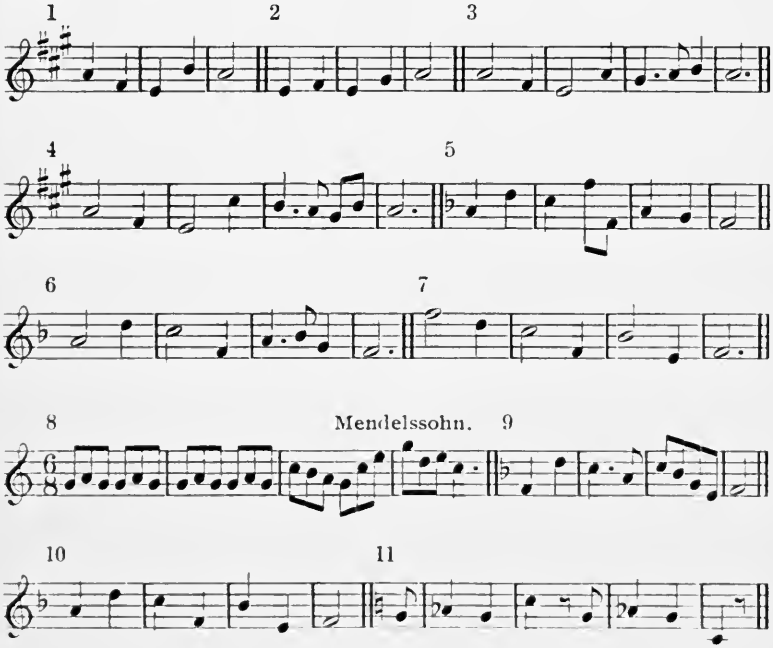
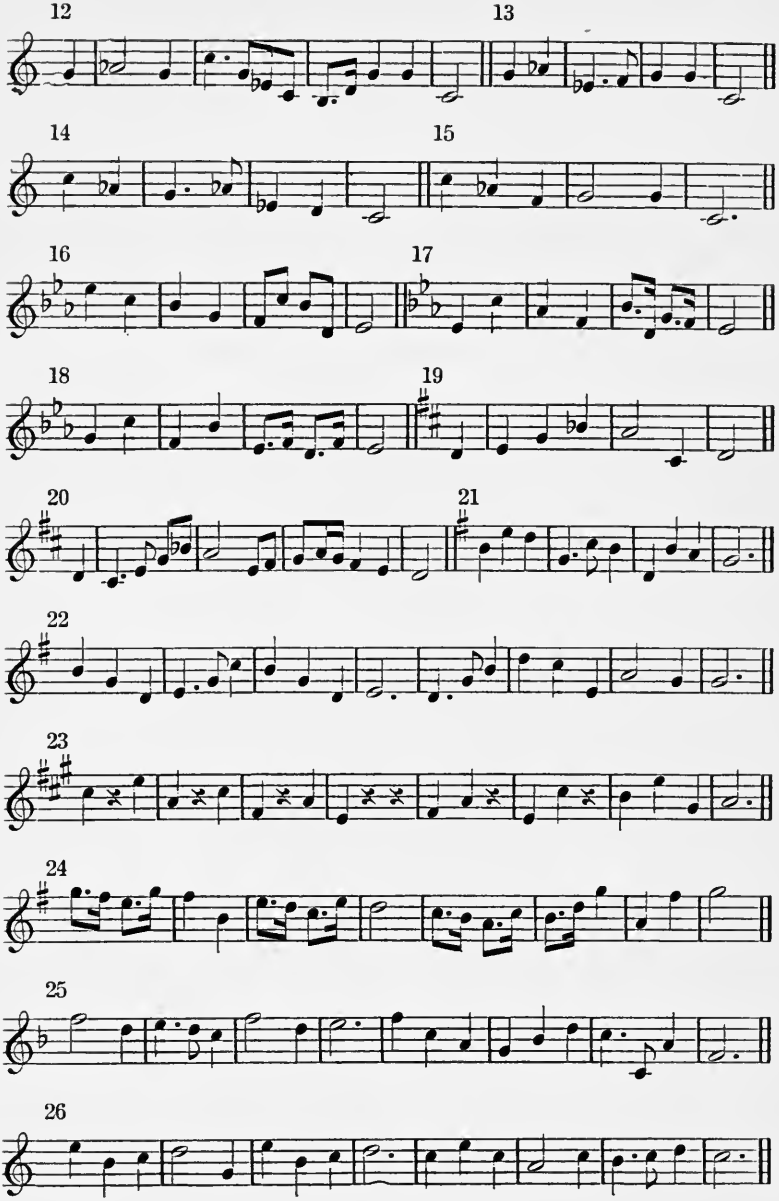


124. Sing these in both modes and write from dictation:

Ex. 83.

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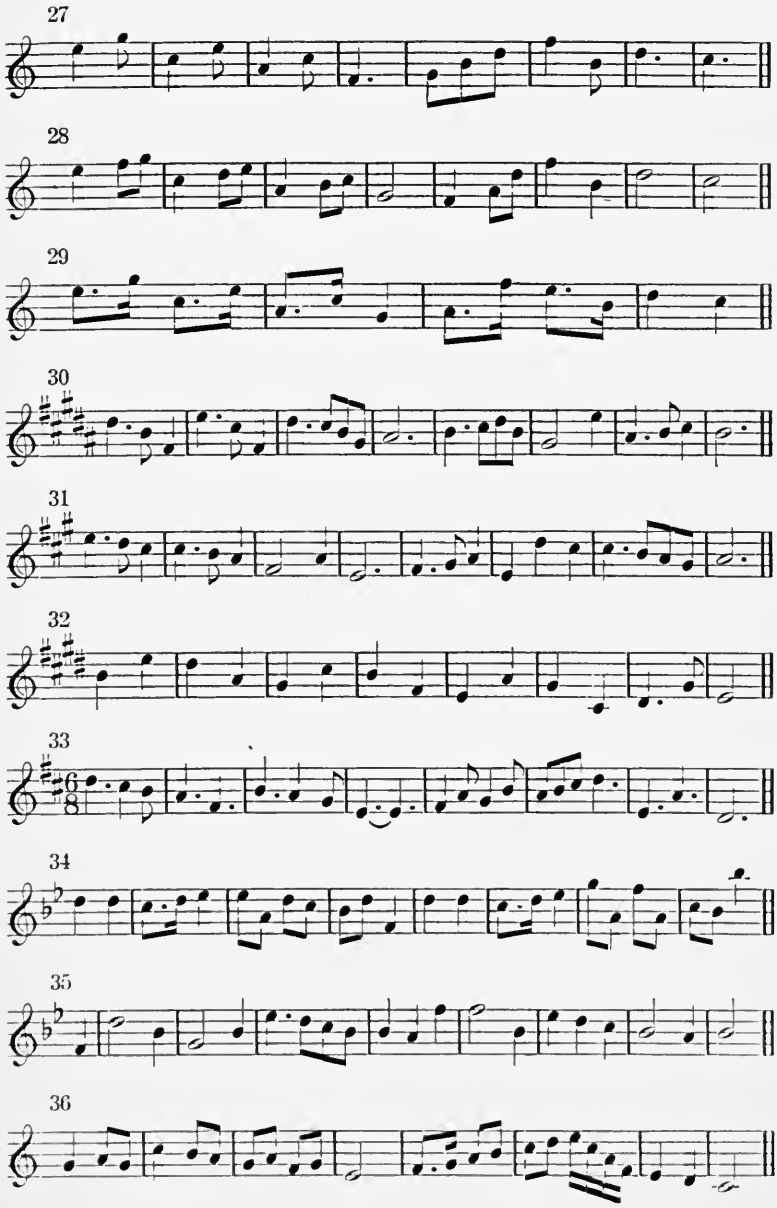
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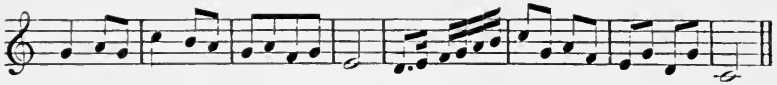

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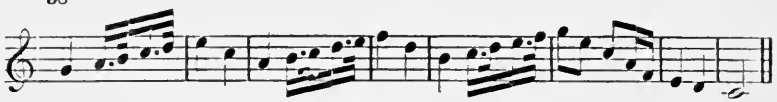

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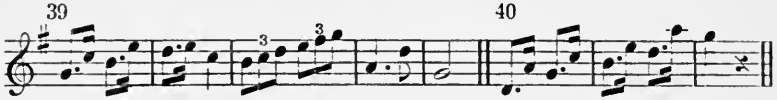
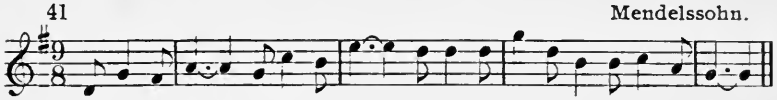


41 Mendelssohn.



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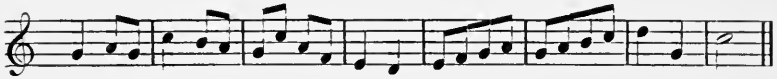

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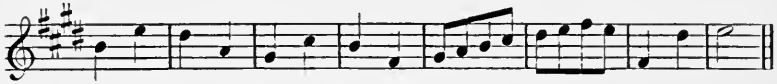

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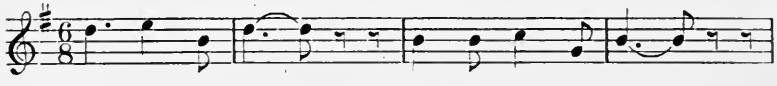

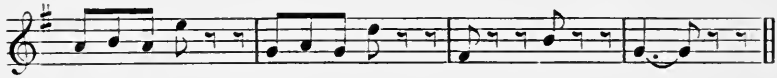

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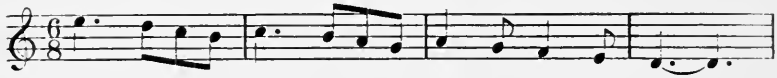

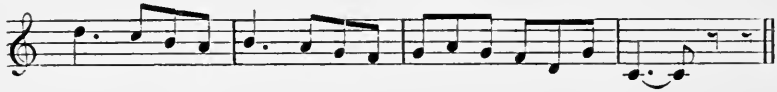

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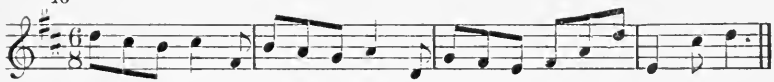

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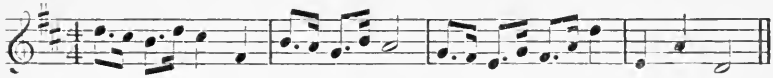

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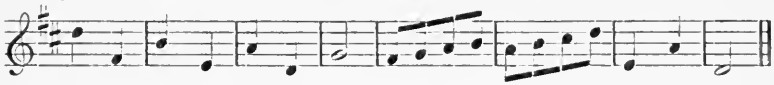

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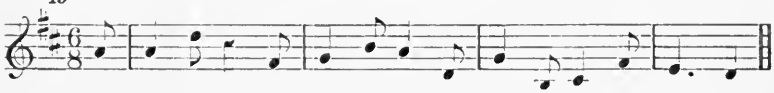

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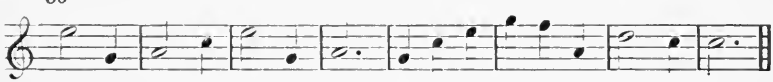

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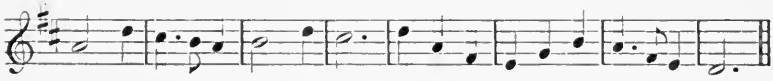
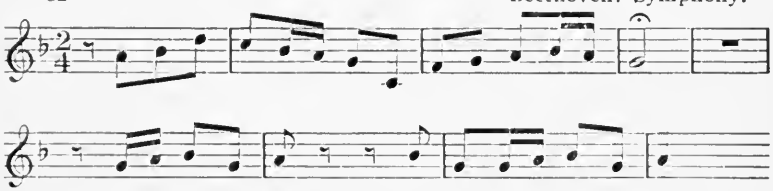


52 Beethoven: Symphony.



53 Beethoven: Symphony.

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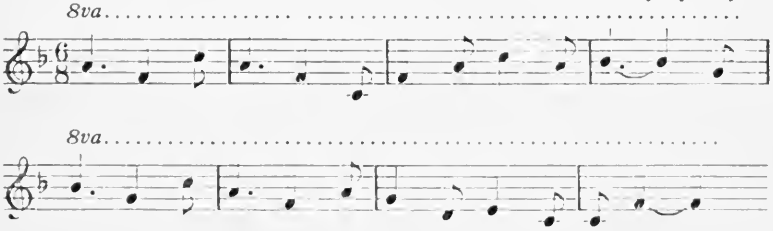
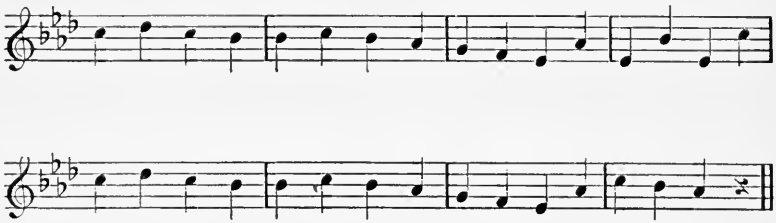


54 Chopin: Op. 42.



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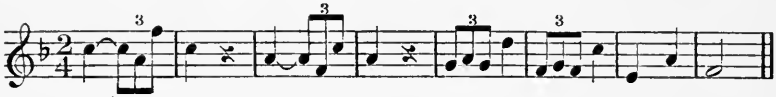

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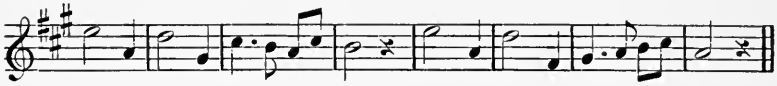

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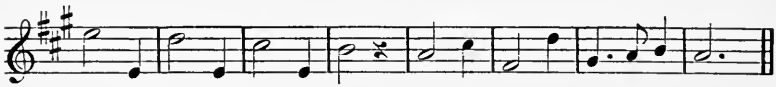
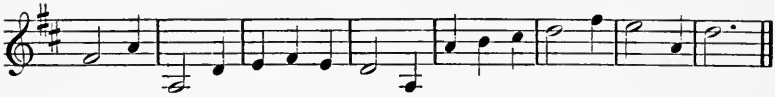
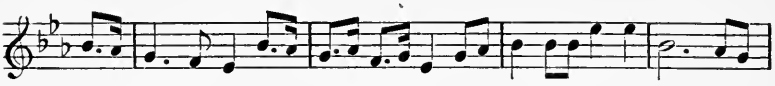
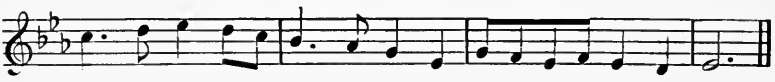


58 Beethoven: Symphony.

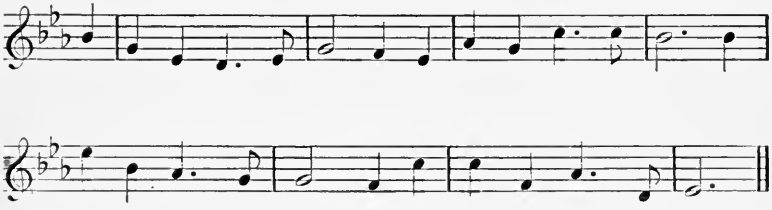


59 Old English.

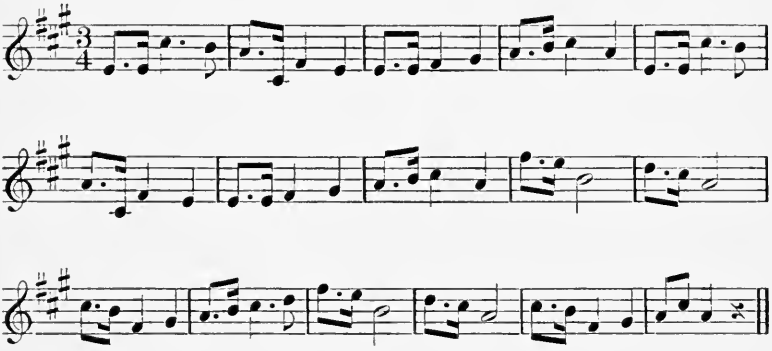




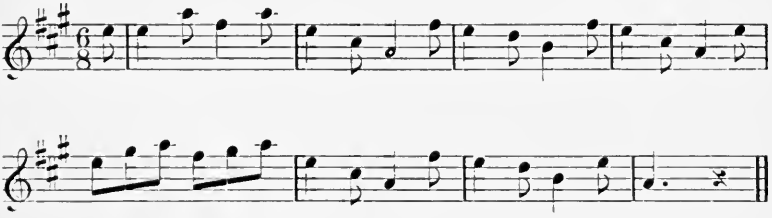
60 Mendelssohn.



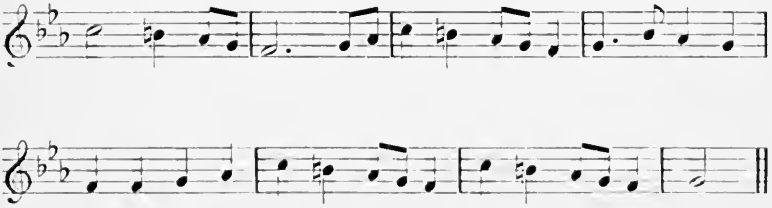
61 Polish Air.



62 De Beriot.



63 Serbian Folk-Tune.



CHAPTER VII.

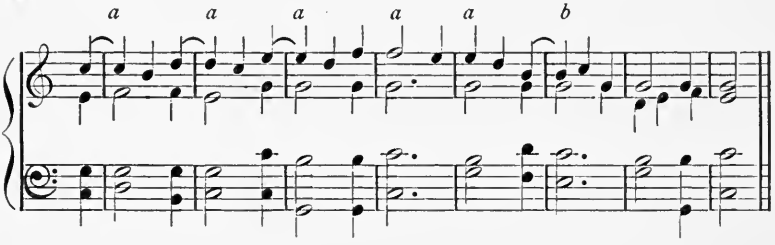
BYTONES.

125. In this work, all non-chordal tones are termed "Bytones." A tone generated by the harmonic root is a harmony tone; any other is a *bytone*, and always dissonant. Sevenths and ninths are dissonant, but when they are generated by the harmonic root, as they are in the Dominant harmony, they are not considered *bytones*. So it follows that while *all bytones are dissonant, all dissonances are not bytones.*

There are specific names for the different kinds of bytones, but theorists disagree upon the terminology of all excepting *Suspensions* and *Anticipations*, so the author has omitted all names excepting these two, leaving it for the teacher to supply those preferred. A detailed discussion of the various bytones and their specific names appears in the author's text, "Applied Harmony."

126. A SUSPENSION *is a bytone that occurred as a harmony tone in the preceding pulse.* The rhythmic necessity of changing the harmony on the accent results in a suspension of any tone that does not move with the remainder of the chord. Ex. 84, *a:*

Ex. 84.

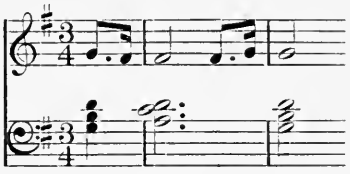


a. The tone that becomes a suspension is called the "*preparation*," and it is not considered a suspension *unless the suspension and the preparation both occur in the same part.*

b. The suspension may resolve up or down, *usually* the latter. The term "*ritardation*" is sometimes applied to the upward resolution, *b.*

127. When one or more of the parts resolves prematurely, the effect is known as "*Anticipation.*" In this excerpt F♯ of the anacrusis anticipates the chord-3rd of the next measure; and G of that measure anticipates the root of the next chord:

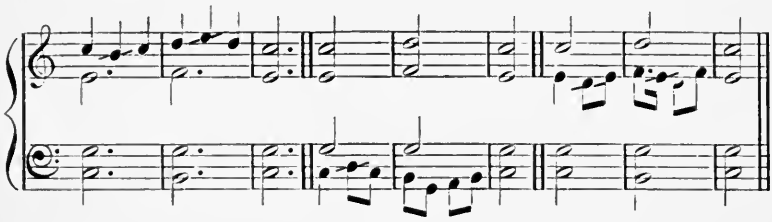
Ex. 85.



128. As will be seen in the analysis, bytones may occur in any part, and in two or more parts simultaneously. They are all of a decorative nature, and it is not always easy to hear the harmonic substructure.

They have been freely employed in the preceding melodies, and from this time they will be included in the harmonies. They should be marked before coming to class and may be indicated as one finds convenient. The writer places a little mark through the note-head:

Ex. 86.



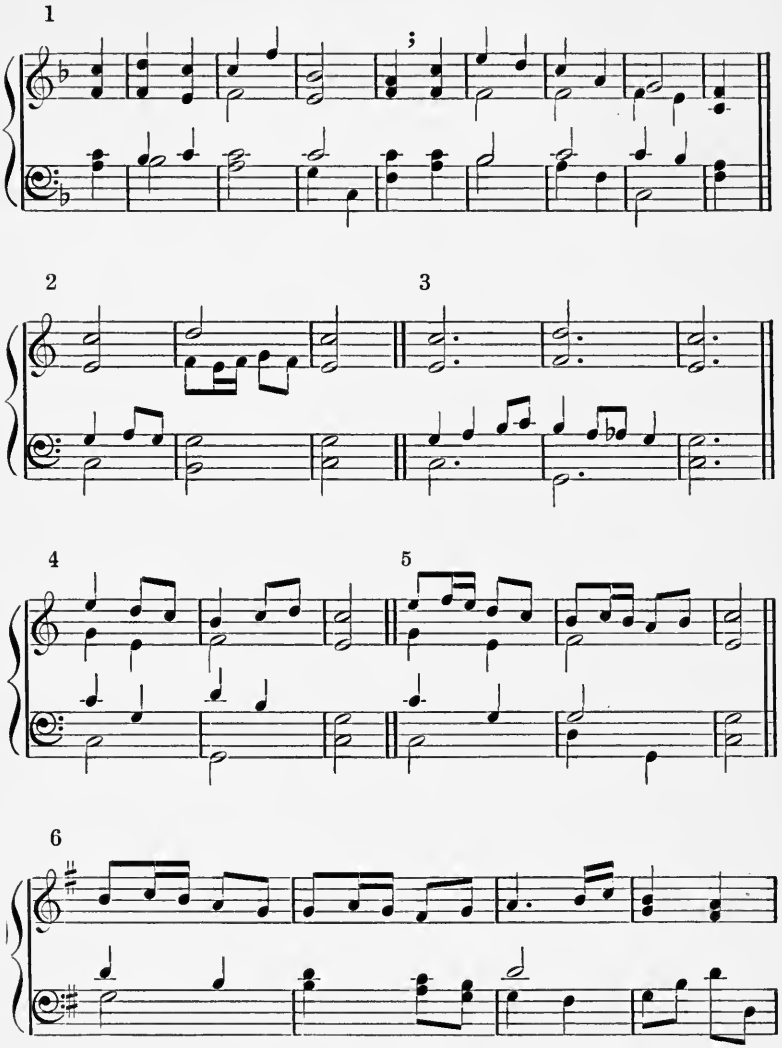
129 One must acquire the ability to hear harmonies in phrases. In so doing, anticipate the natural relations, the contrasts that are likely to occur on rhythmic accents, and contrasting cadences. In selections of length, and sometimes with no more than four measures, there will be repetition or imitation.

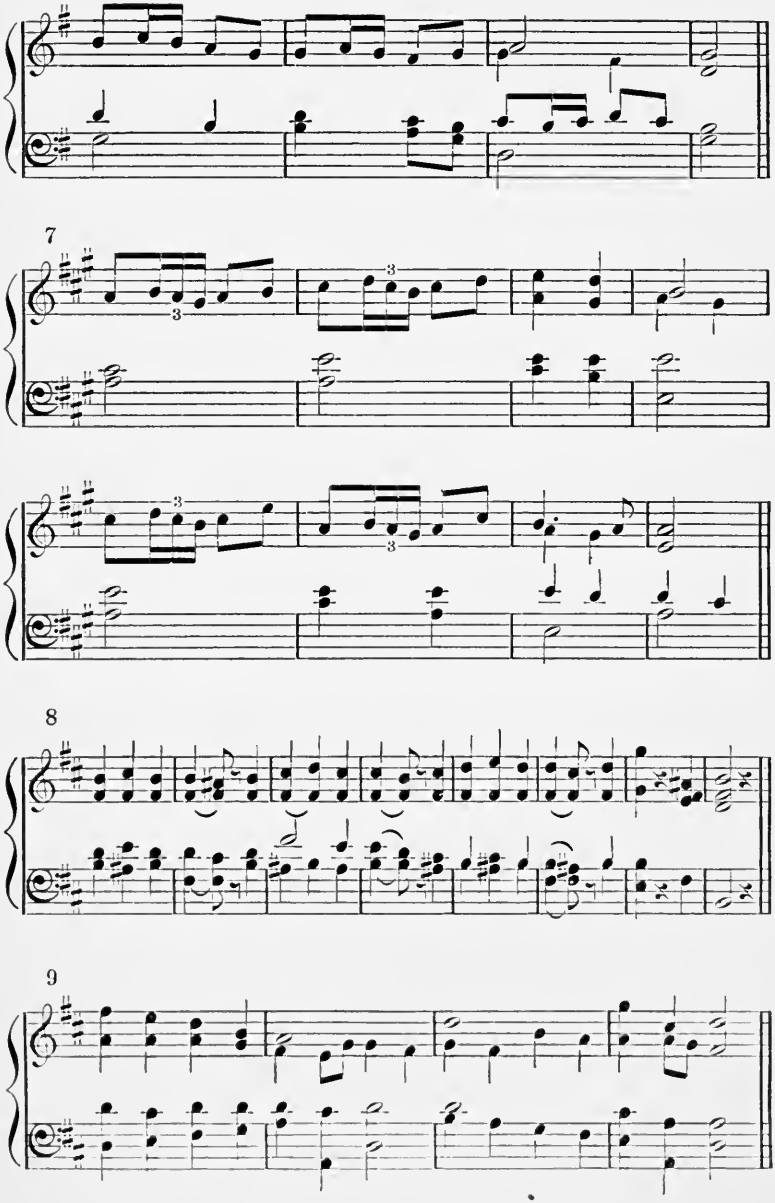
The repetition of a phrase is not always exact, especially when leading to a different cadence. The rhythm may be the same, but the harmony must necessarily be different.

Sometimes there is melodic and rhythmic imitation, but harmonic contrast.

130. Before taking the following from dictation, mark the phrases with the punctuation marks of literature, indicate the harmonies and their inversions, also the bytones:

Ex. 87.

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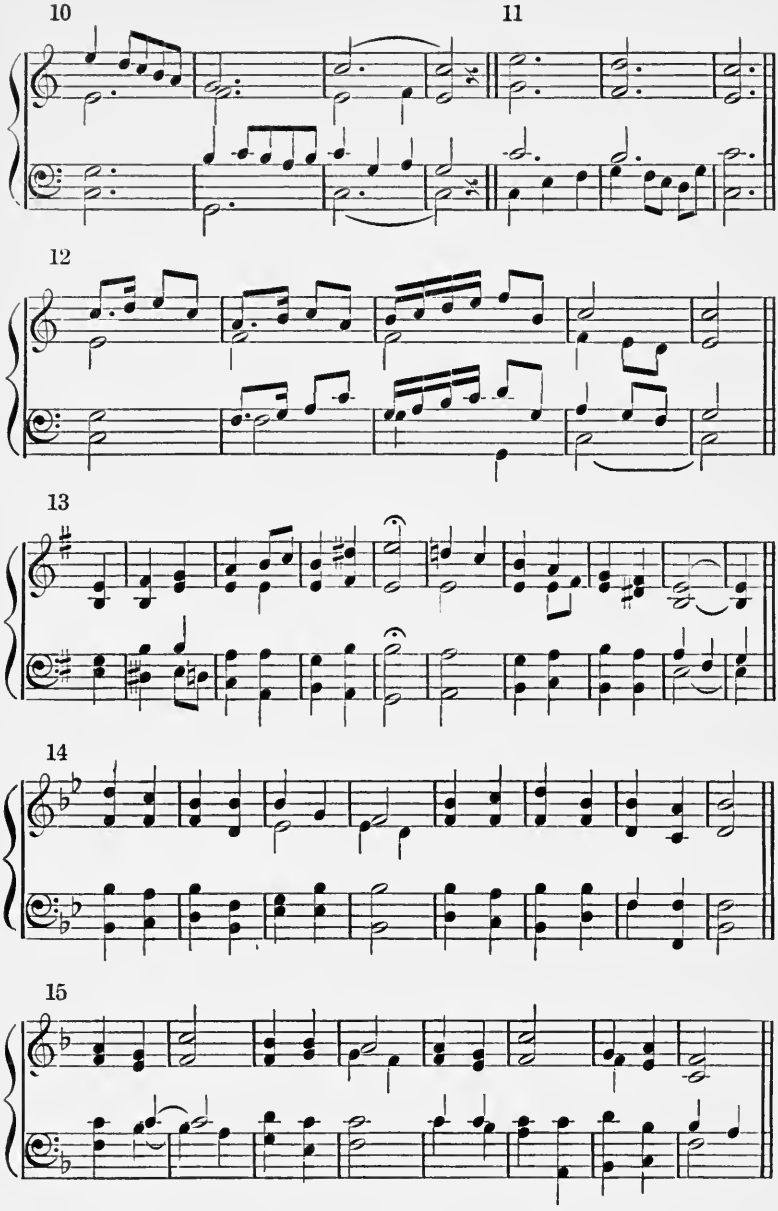
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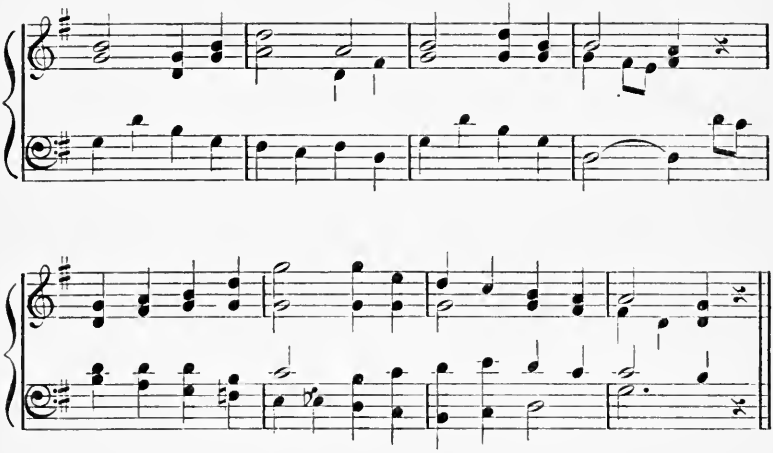

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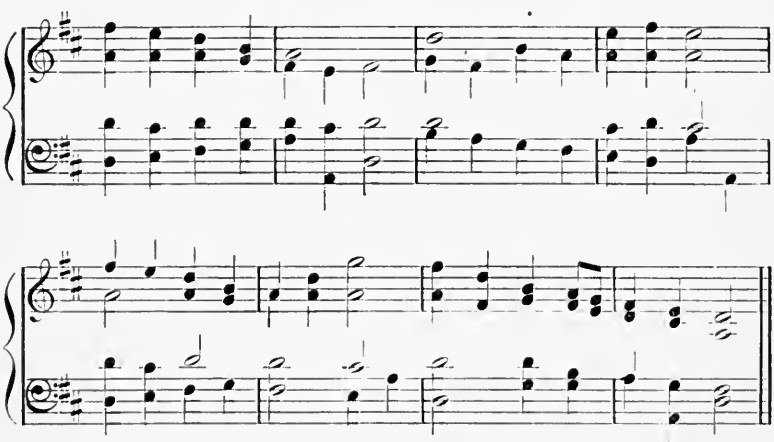

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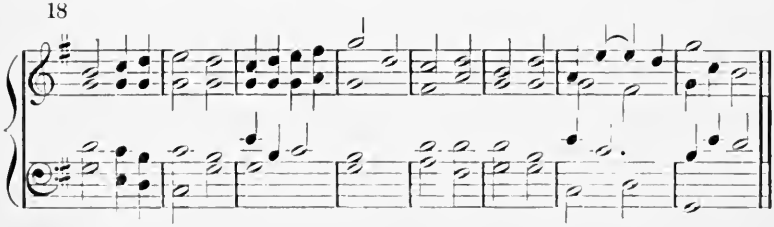

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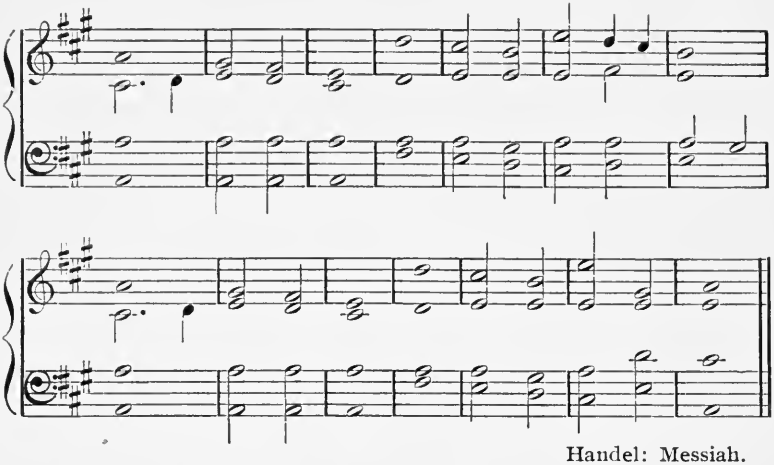
Chant.



Handel: Messiah.

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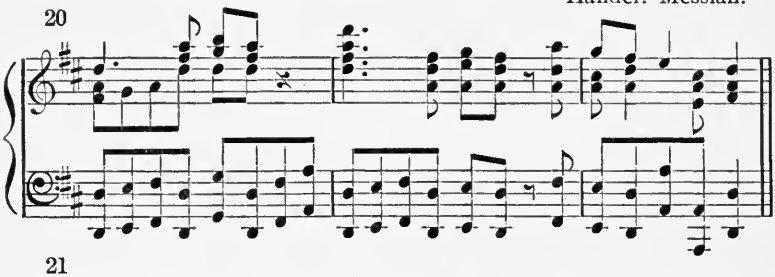

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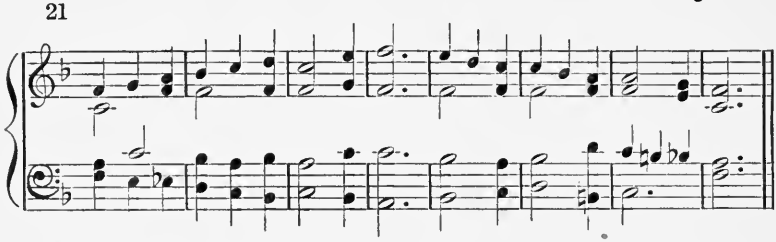

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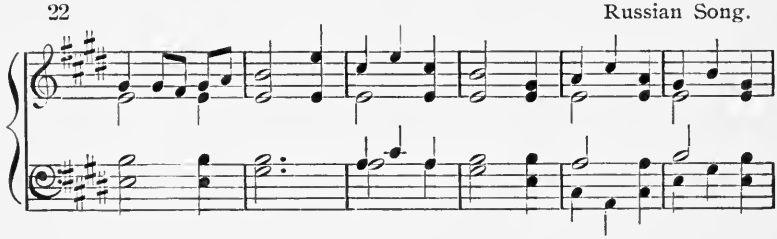
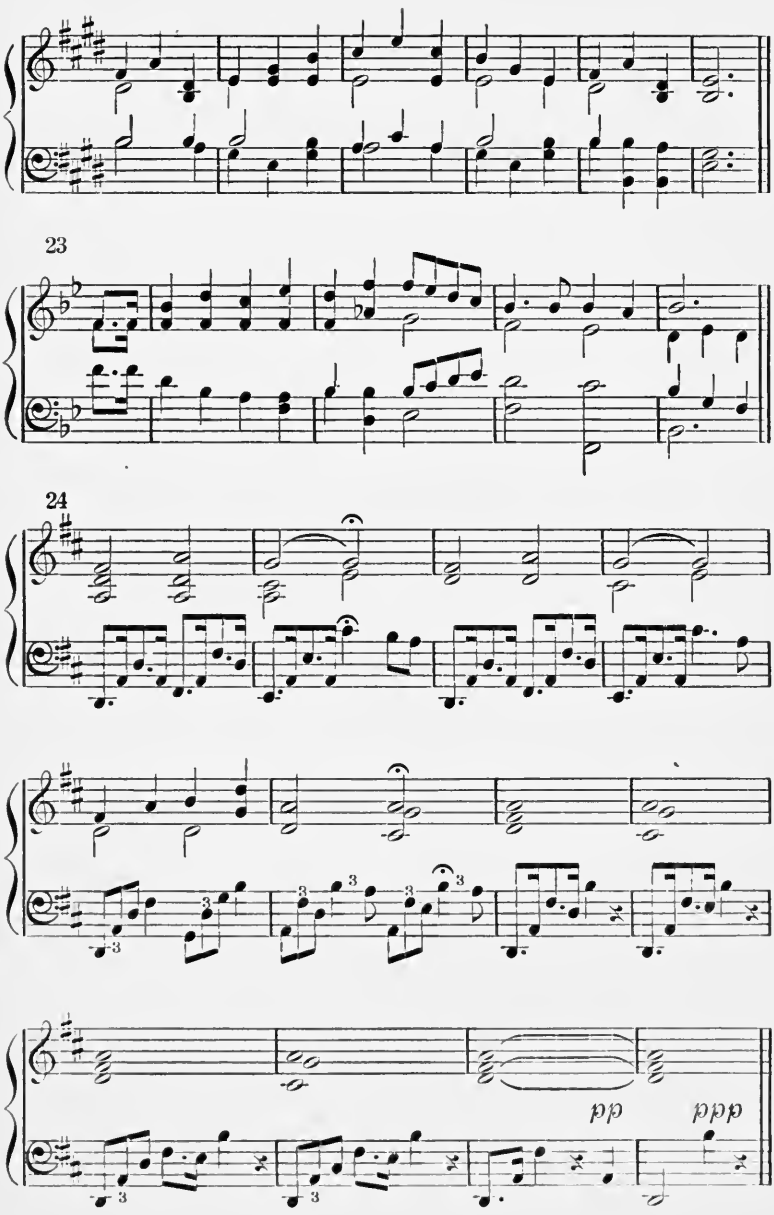
Russian Song.

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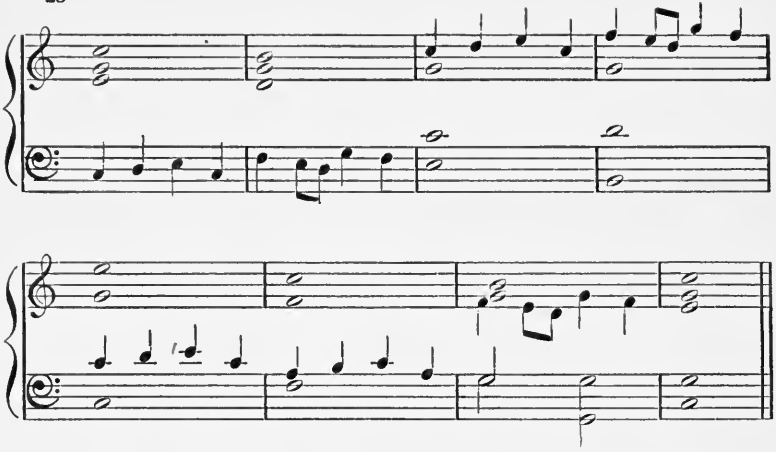
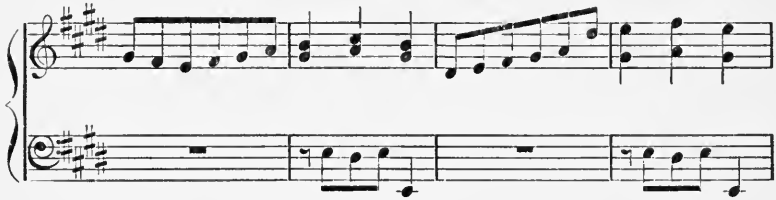
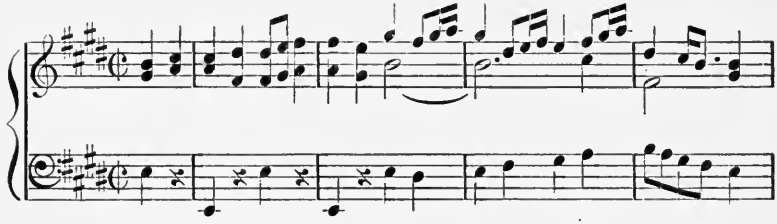


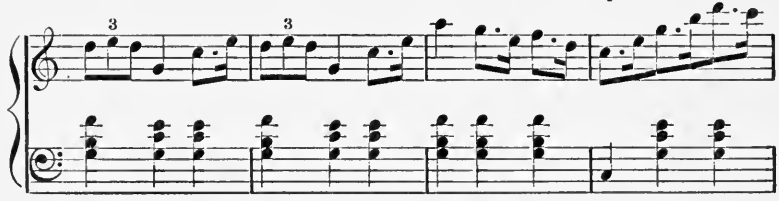
26 Bach.



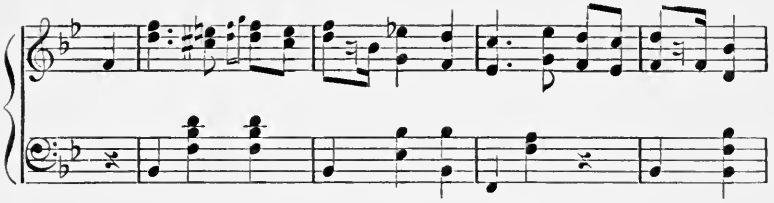
27 Bach.



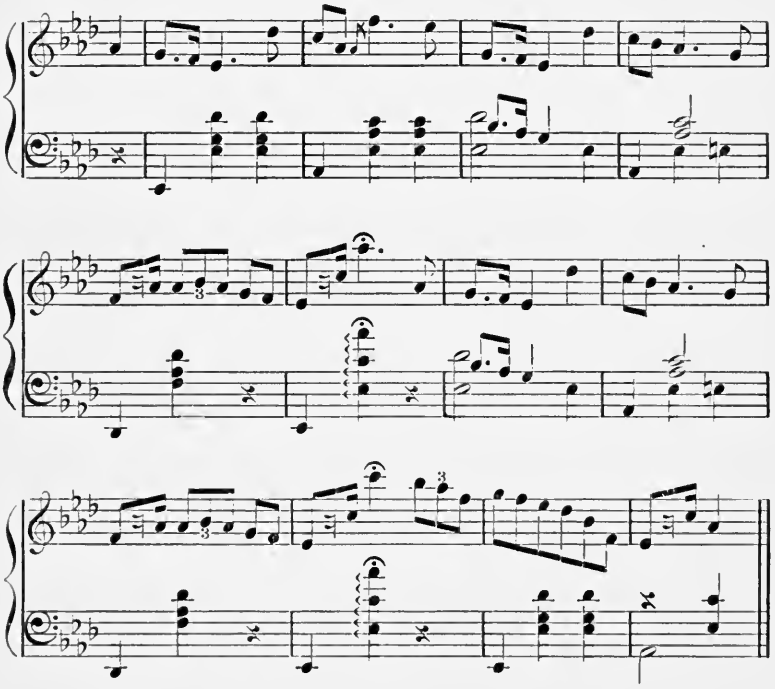
28 Chopin: Mazurka.



29 Chopin: Mazurka.



30 Chopin: Mazurka.



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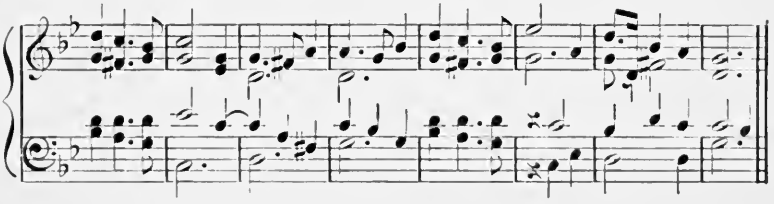

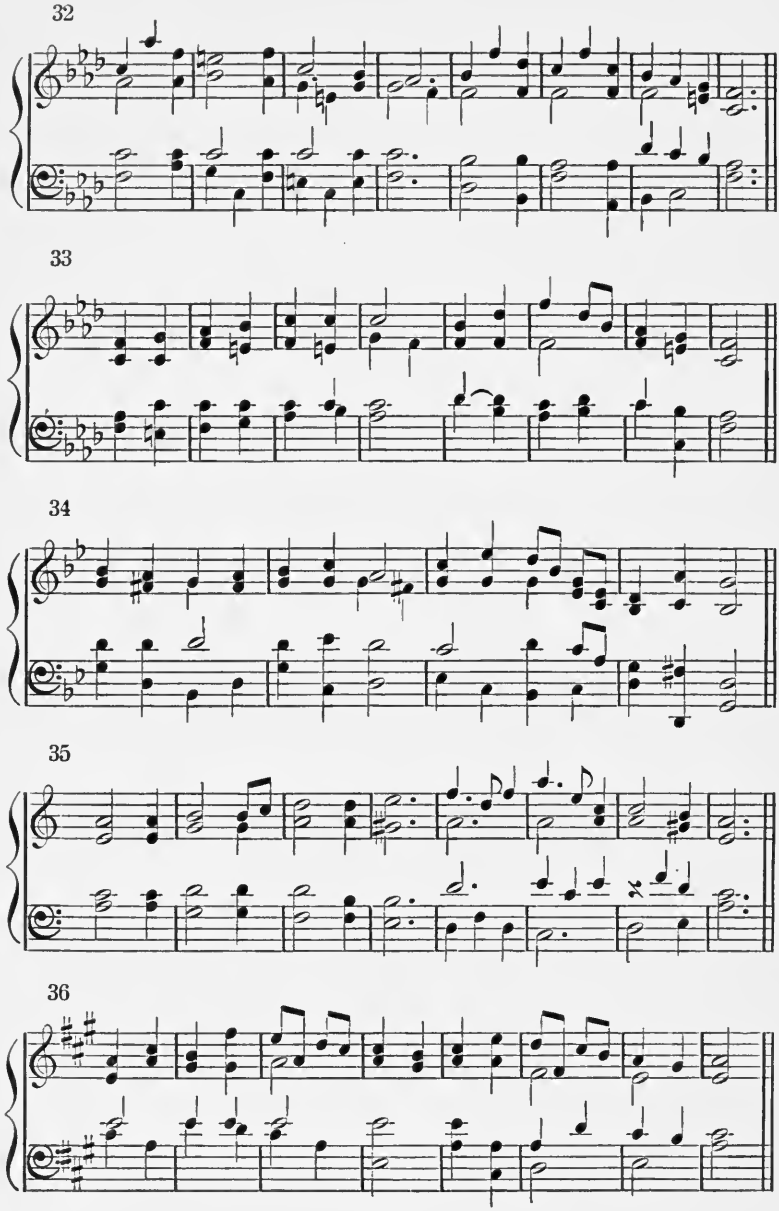
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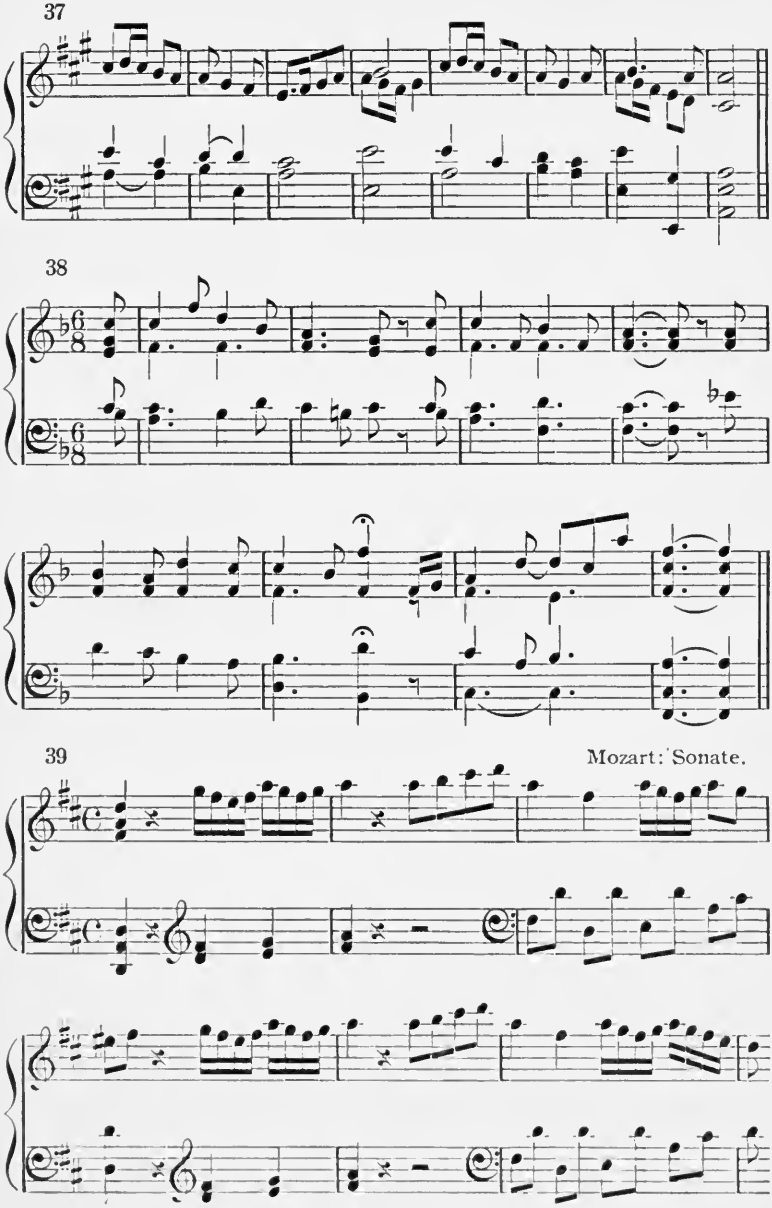
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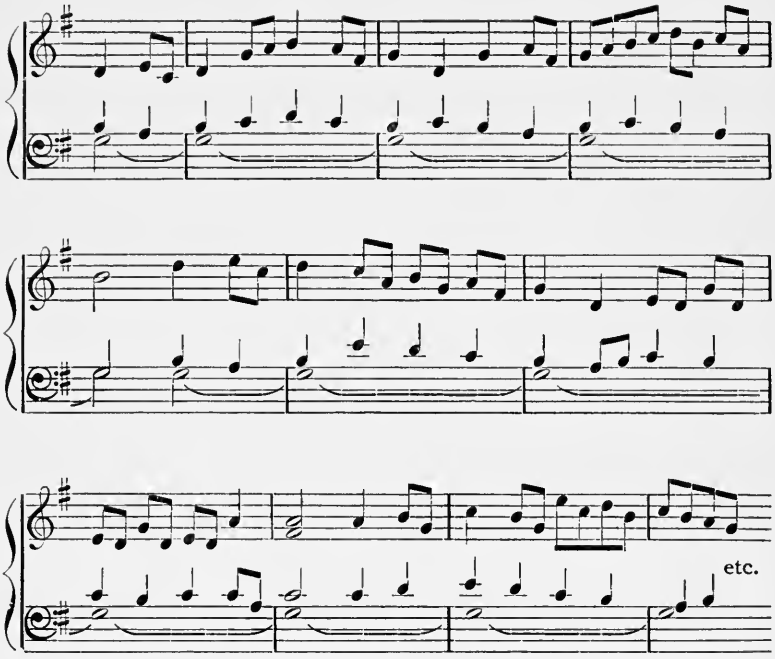
39
Mozart: Sonate.

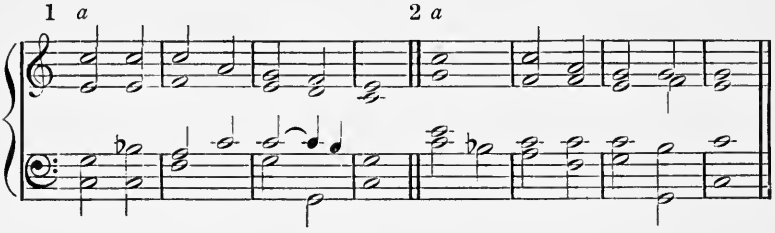
40 Bach.



131. One frequently finds the Tonic harmony with a small seventh, which creates a demand for the Subdominant harmony. Ex. 88, *a*.

The construction of this is identical with the Dominant-seventh, but as it is *not* built on the Dominant root, it may be termed a chord of the "first species." The French schools classify the various forms of the seventh chords by *species*.

Ex. 88.



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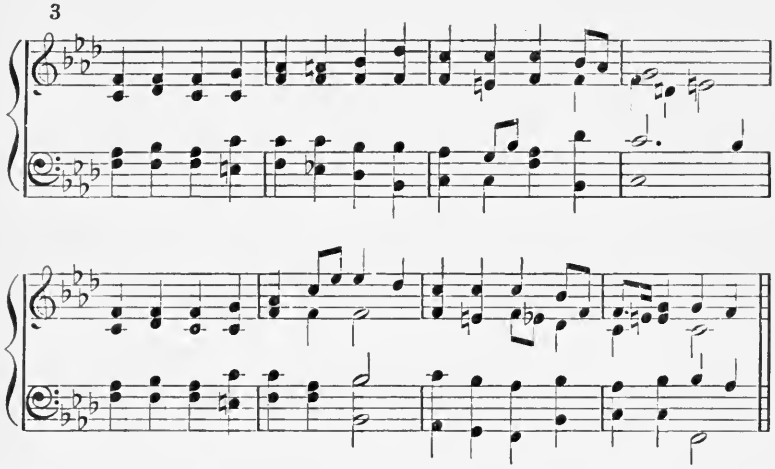
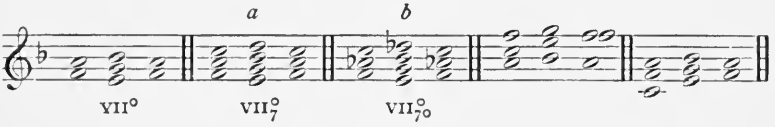


132. Employing La, scale-6th as chord-7th, it forms what is known as the "third species" of a seventh chord. *a*, Ex. 89. What is the order of thirds in the construction of this chord?

Ex. 89.



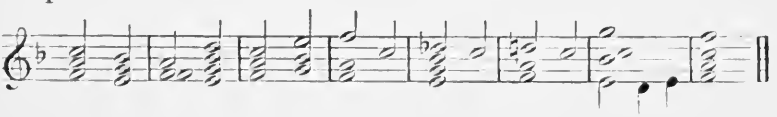
133. In the minor mode of the key, *Le*, the small 6th is a *diminished seventh* above the root of the Subtonic chord, *b*, the only place in a key where the diminished-seventh chord occurs *diatonically*.

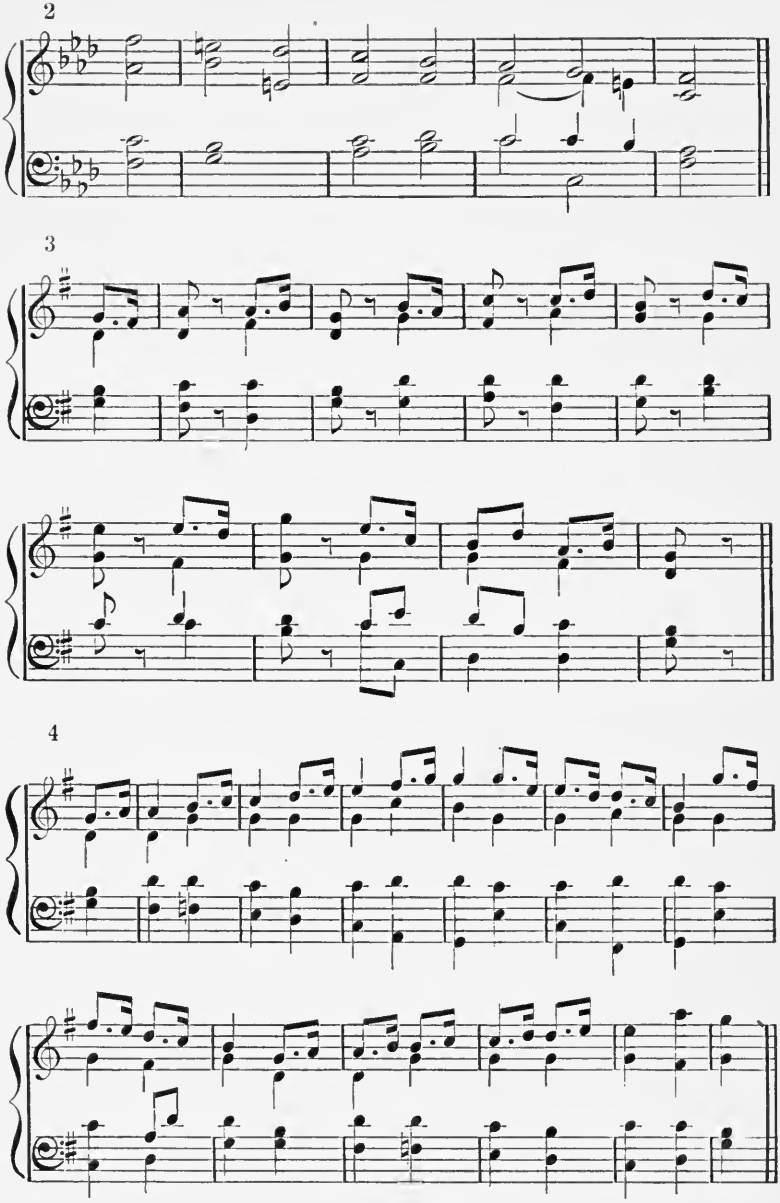
This form of the chord is indicated by the second degree mark. With one degree mark (VII$^{\circ}_{7}$), the diminished fifth is indicated: two degree marks (VII$^{\circ}_{7}$) indicates the diminished-seventh also. What is the order of thirds in this chord?

134. Because the Dominant is the harmonic generator, either species of the Subtonic harmony appeals to the ear as a Dominant-ninth without the root, and it is so classified by some theorists.

Ex. 90.

1




2
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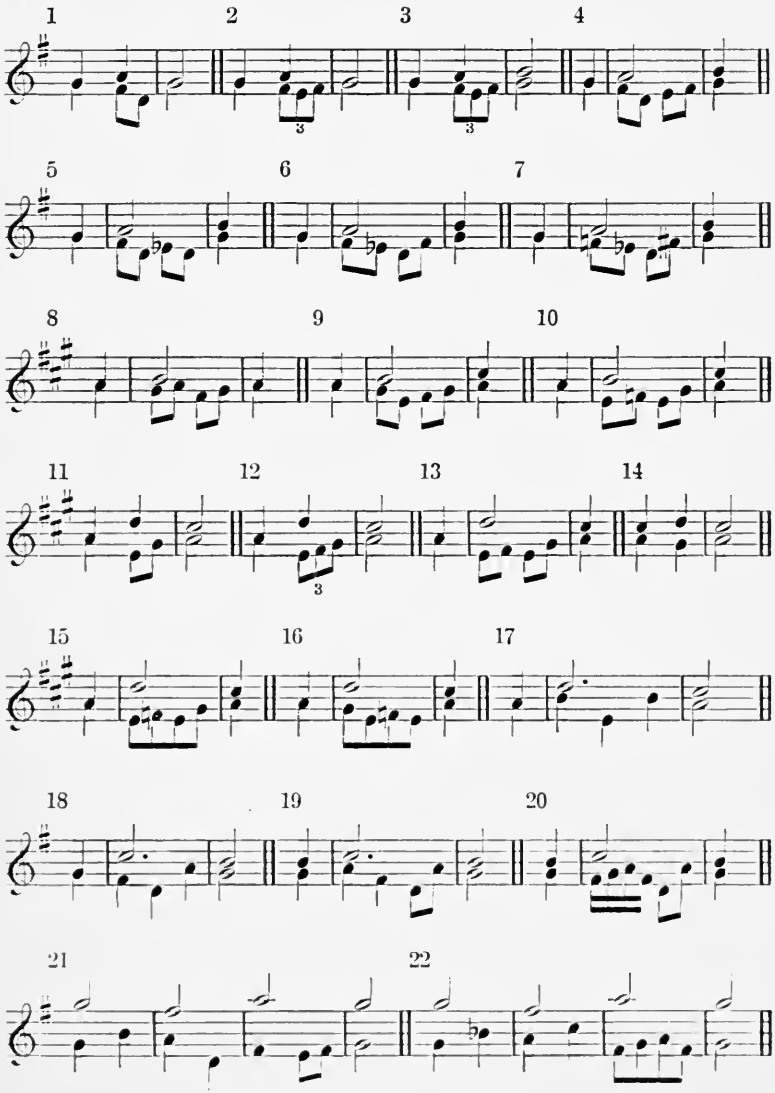
135. For self-help in this two-part work, sing one part and play the other.

Ex. 91.



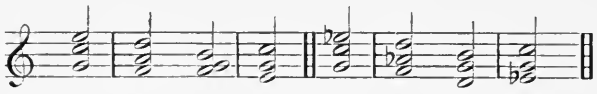
CHAPTER VIII.

The Supertonic Harmony. Melodies Requiring Its Use.

136. The Supertonic Harmony, built on the scale-second, is very similar to the Subdominant, and sometimes difficult to distinguish, especially in the first inversion.

a. What scale degree does it include? What is the mode of the Supertonic harmony in the major key? In the minor key?

Ex. 92.

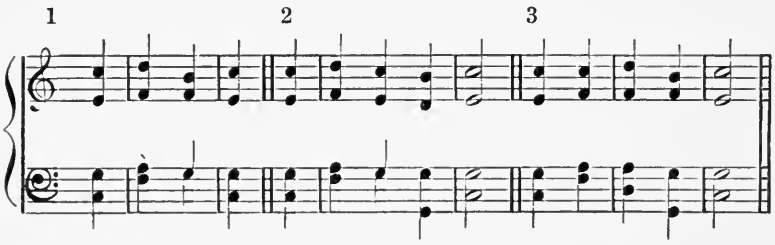


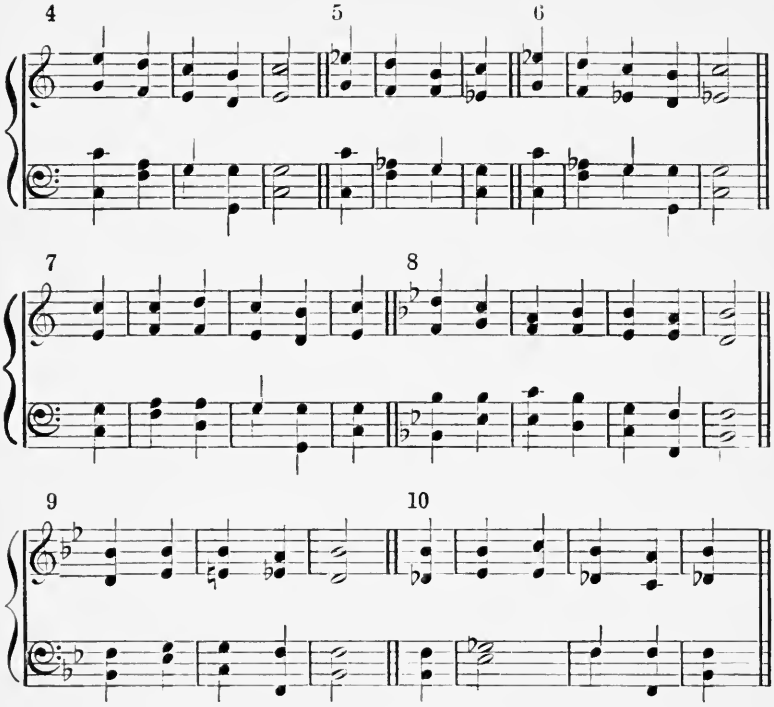
b. Although the individual tones of the Supertonic chord demand repose, on account of the root relations, it demands the Dominant harmony. It is often followed by $\frac{I}{5}$, because that is practically a progression chord, possessing more of the Dominant quality than of the Tonic, especially when it falls where the rhythm demands a progression harmony.

The distinguishing characteristic of a chord is what it demands, and by that it may be recognized, aurally.

137. With the use of the Supertonic harmony the cadences may be extended to three, four and five chords:

Ex. 93.





138. The seventh and ninth are often heard in the Supertonic harmony, especially the former. What scale degrees are they?

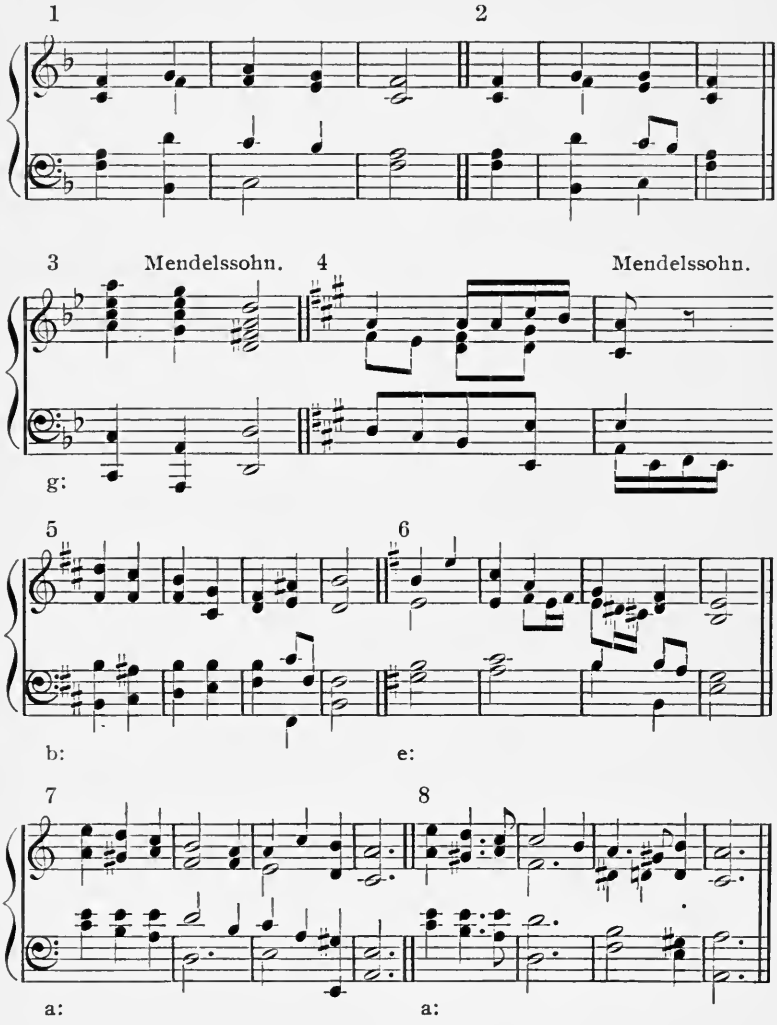
139. When the first inversion is employed, it is sometimes difficult to distinguish between that and the Subdominant-added-sixth. With the latter, the Tonic is present in the chord. As a component of the Supertonic, the Tonic would be a chord-7th, and most likely to progress downward, as in No. 2, Ex. 94. At No. 1, the Tonic does not progress or resolve as a seventh usually does, neither does the harmony resolve as the Supertonic usually does,—to another progression chord, so this would be considered the Subdominant-added-sixth. (IV+6.)

140. Because the nature of the Tonic is what it is,—a free tone, occurring as the seventh of the Supertonic harmony, it is sometimes left by leap, as seen in Nos. 3 and 4, Ex. 94. The individual character of the Tonic is stronger than the chord relation. One also sees the same freedom with the scale-3rd as seventh of the Subdominant harmony.

For individual work, play the following examples and name the harmonies from sound first, then verify by the notation and mark them.

When taking them from dictation, proceed as in the preceding lesson.

Ex. 94.



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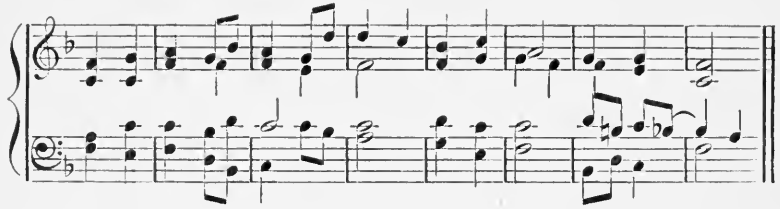

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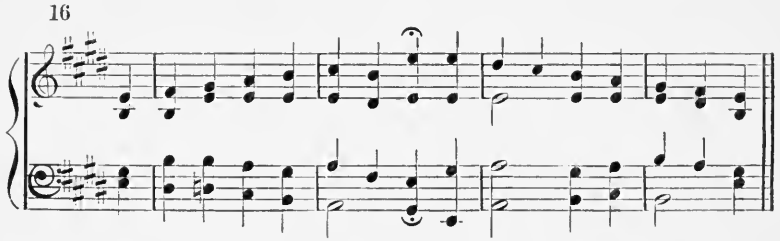

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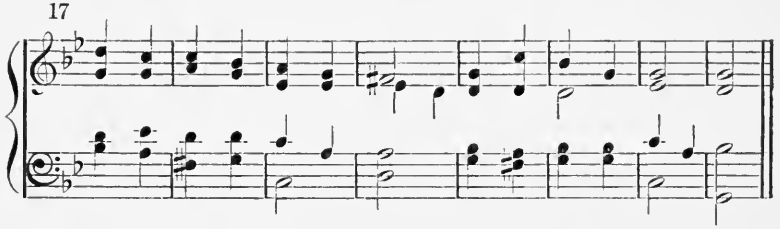

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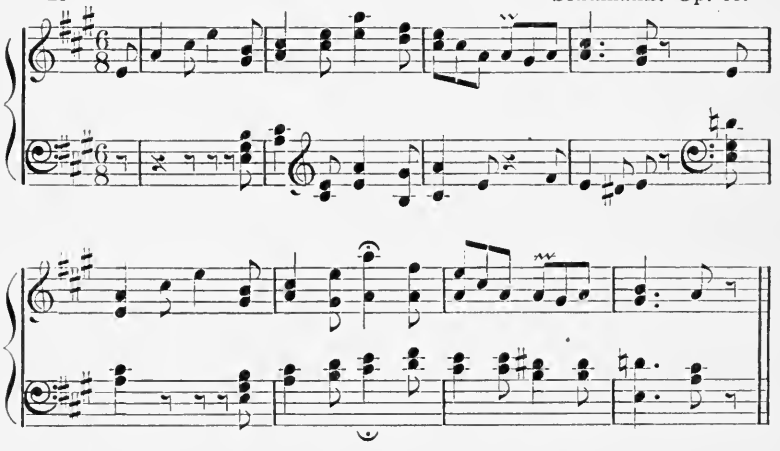
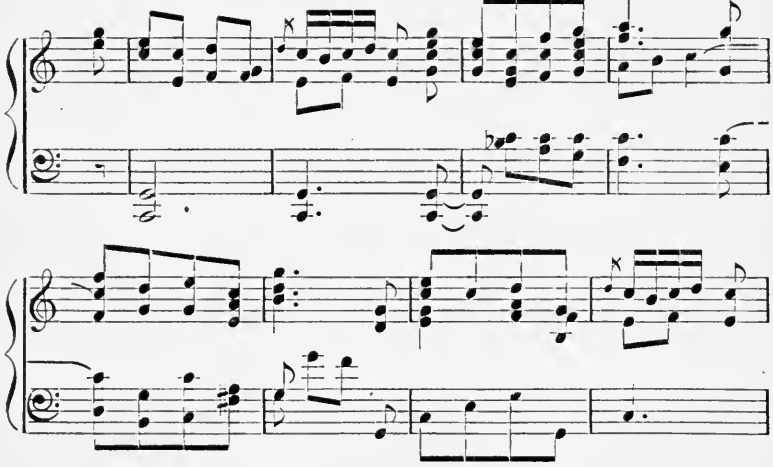
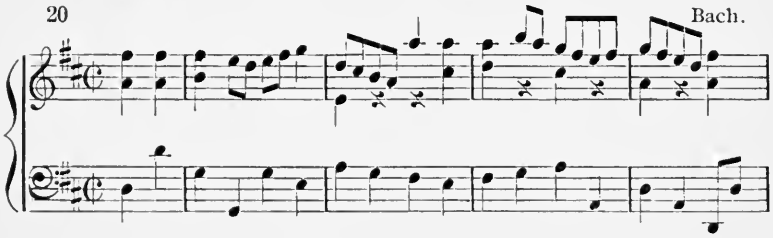


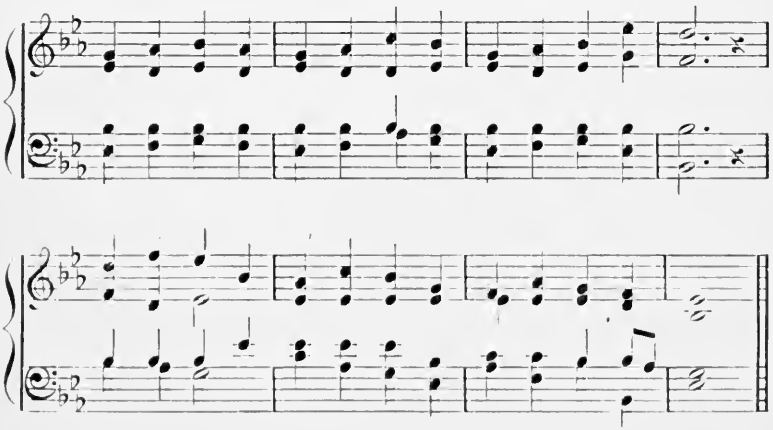
12 Schumann: Op. 68.



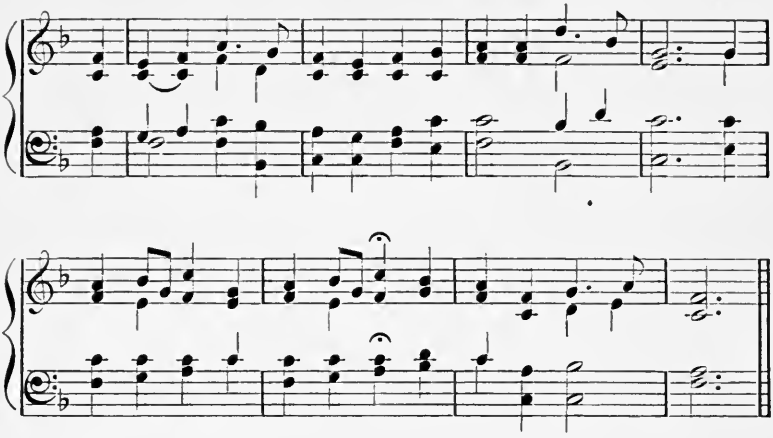
20 Bach.



21 Melody from Reinecke.



22 Melody from Reinecke.



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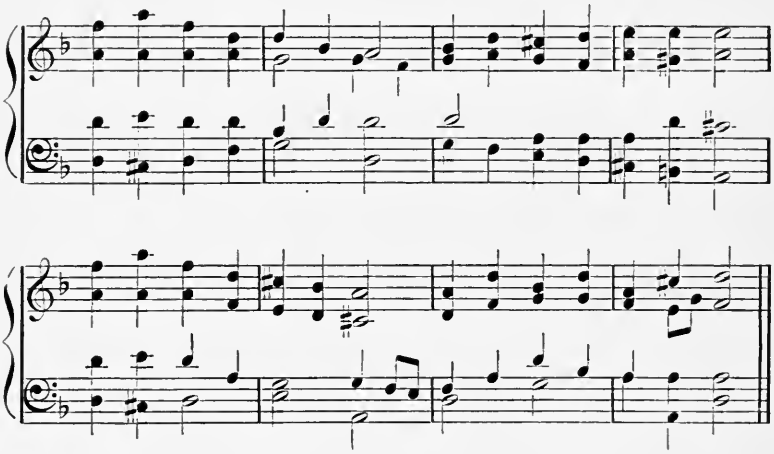
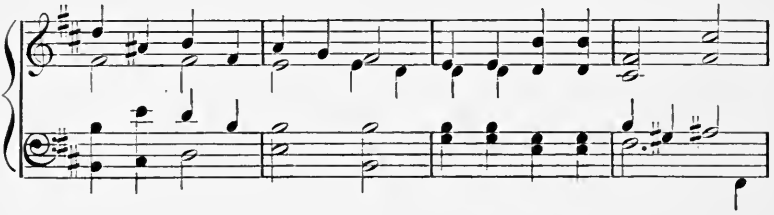
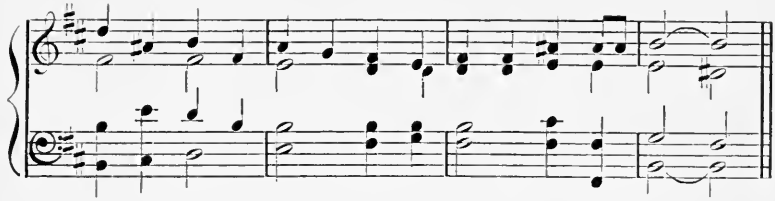
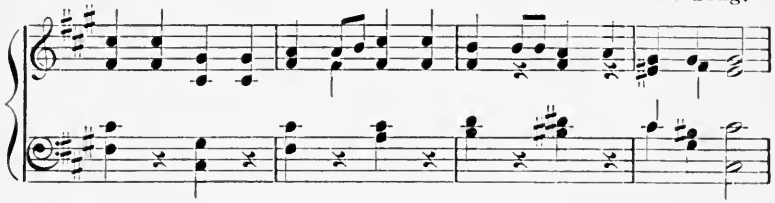


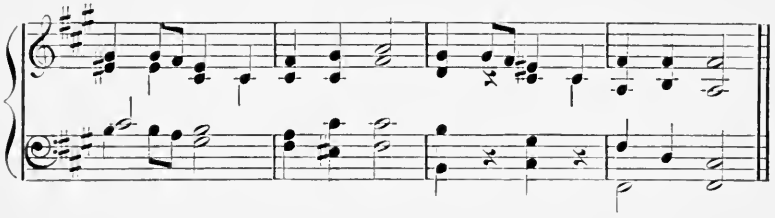
24 Finnish Folk Song.



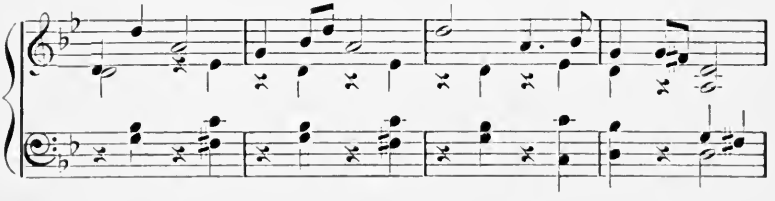


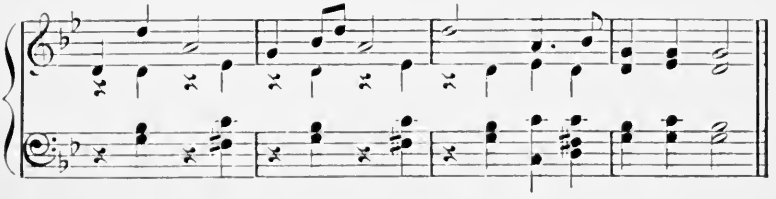
25 Finnish Folk Song.



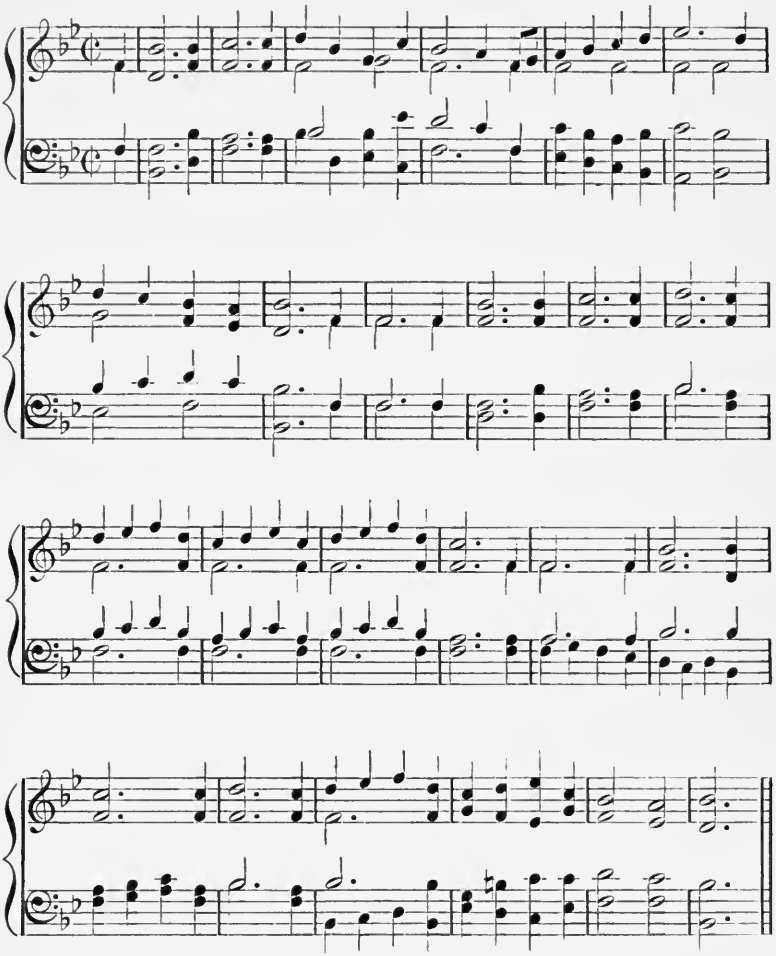


26 Norwegian Air.





27 Haydn: Creation.



141. Whether one is conscious of it or not, the fact remains that they who have the strongest feeling for harmony experience the greatest degree of success in ear training. The systems of harmony based on mechanical principles are of no musical value whatever, but when the student *hears* and *feels* what is written, also the harmonic substructure of a melody, he has a true basis for musical development.

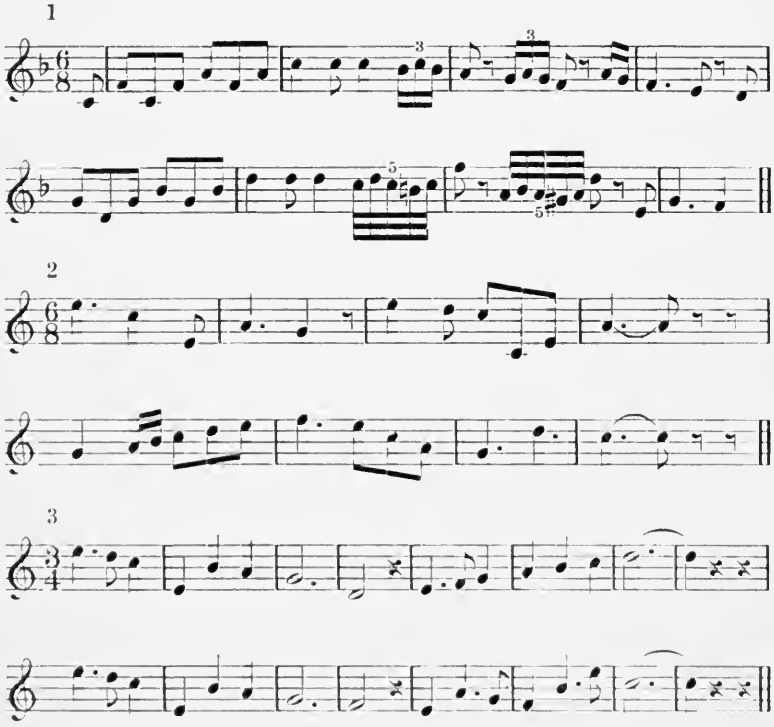
a. If one is sufficiently advanced to do so, the author recommends playing a simple chord accompaniment with the sight-singing. If the teacher can play a good accompaniment *that does not include the melody*, it should be done for the less experienced student. This "if" is said advisedly, because there are *few* who can improvise even a simple accompaniment, well.

b. Only a very few of the melodies following the harmony work require more harmonies than those that have been previously given. This classification of the melodies is valuable only to those who can hear and feel the harmonic regulation.

c. Because so much depends upon the feeling for the harmonic regulation of a melody, much emphasis should be placed upon the harmony work.

142. In taking the following melodies from dictation, after naming the phrases, A, B, etc., state those in which the Supertonic quality is heard:

Ex. 95.



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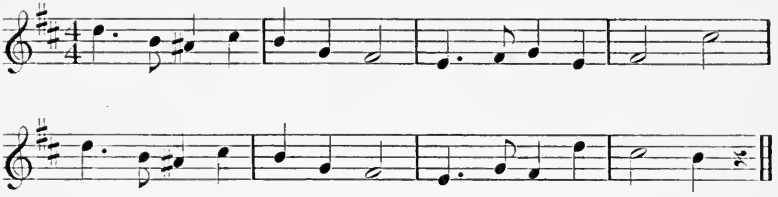
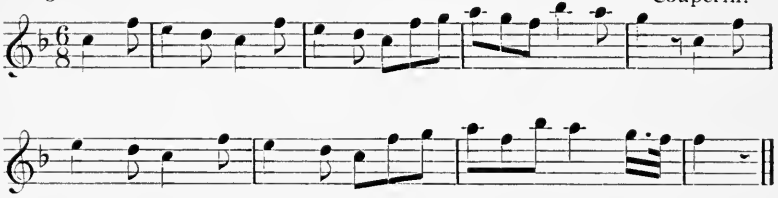
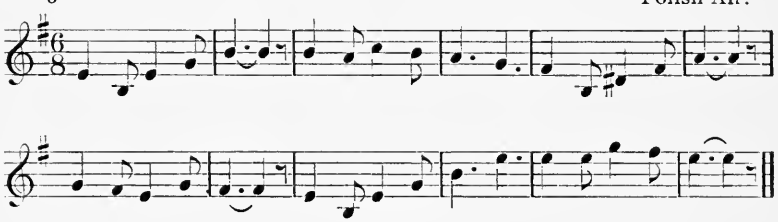


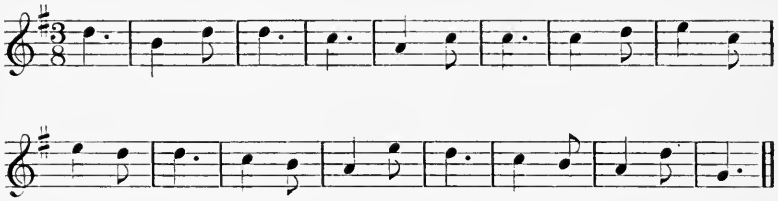
5 Couperin.



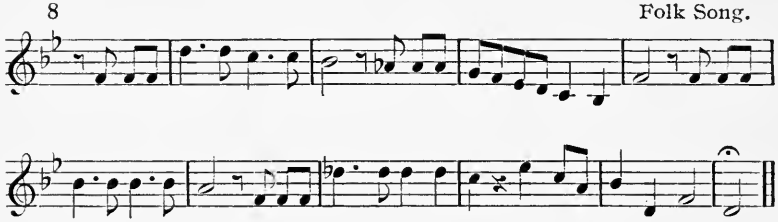
6 Polish Air.



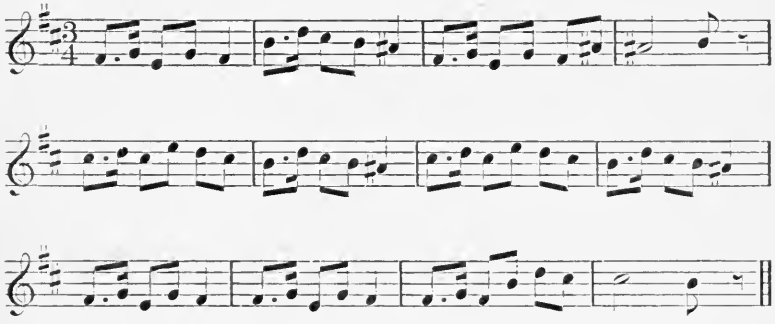
7 Polish Air.



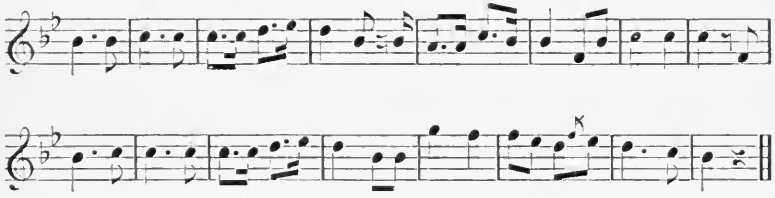
8 Folk Song.



9 Folk Song.



10 von Flotow.



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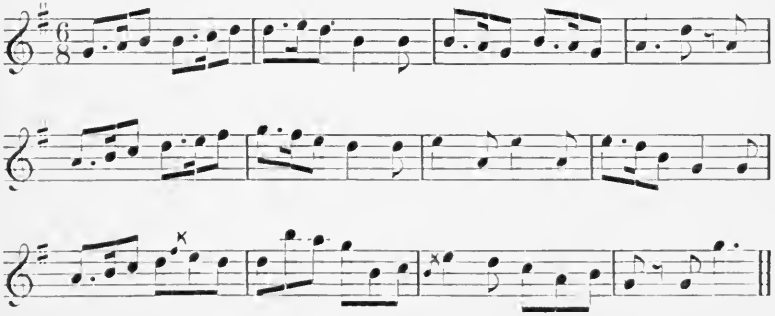

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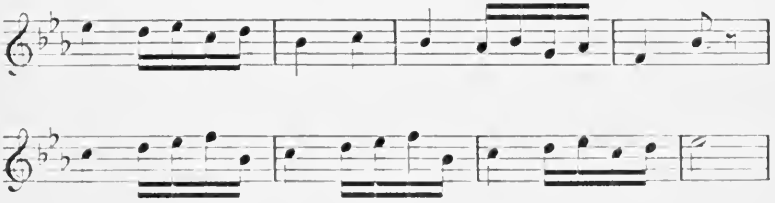

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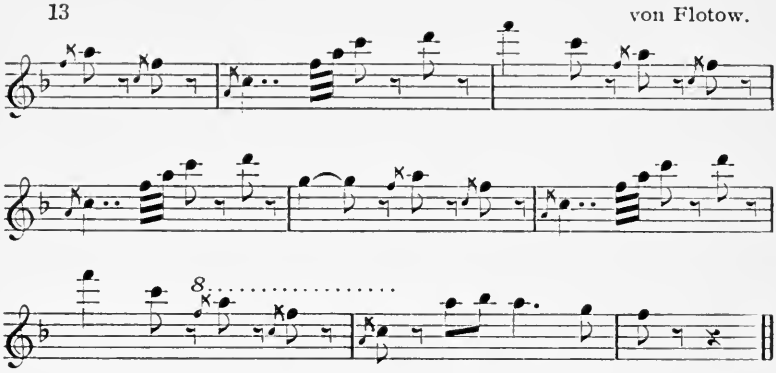
von Flotow.



143. Some good training in proportion may be acquired by completing the following melodies.

Ex. 96.

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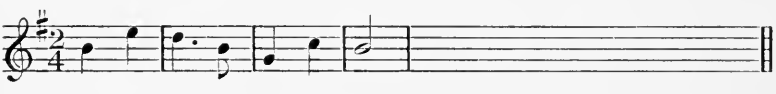

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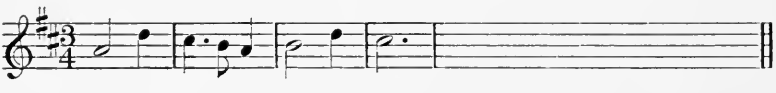

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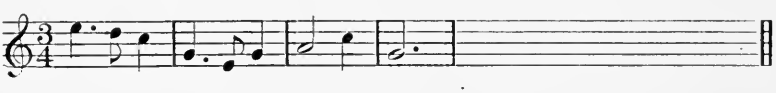

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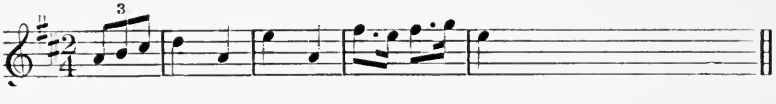

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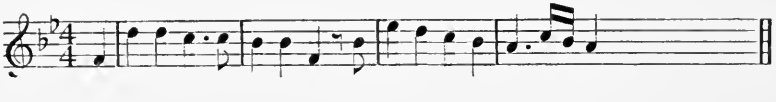
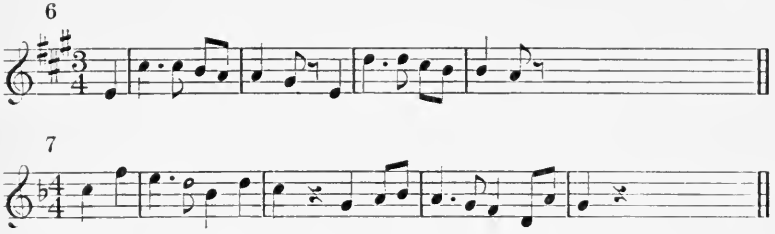
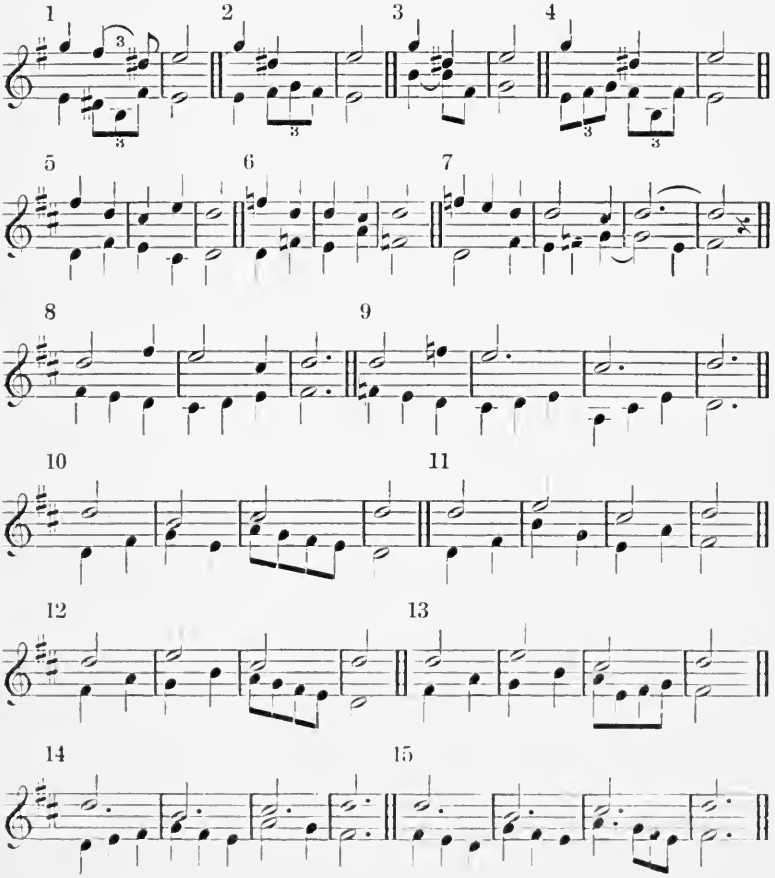
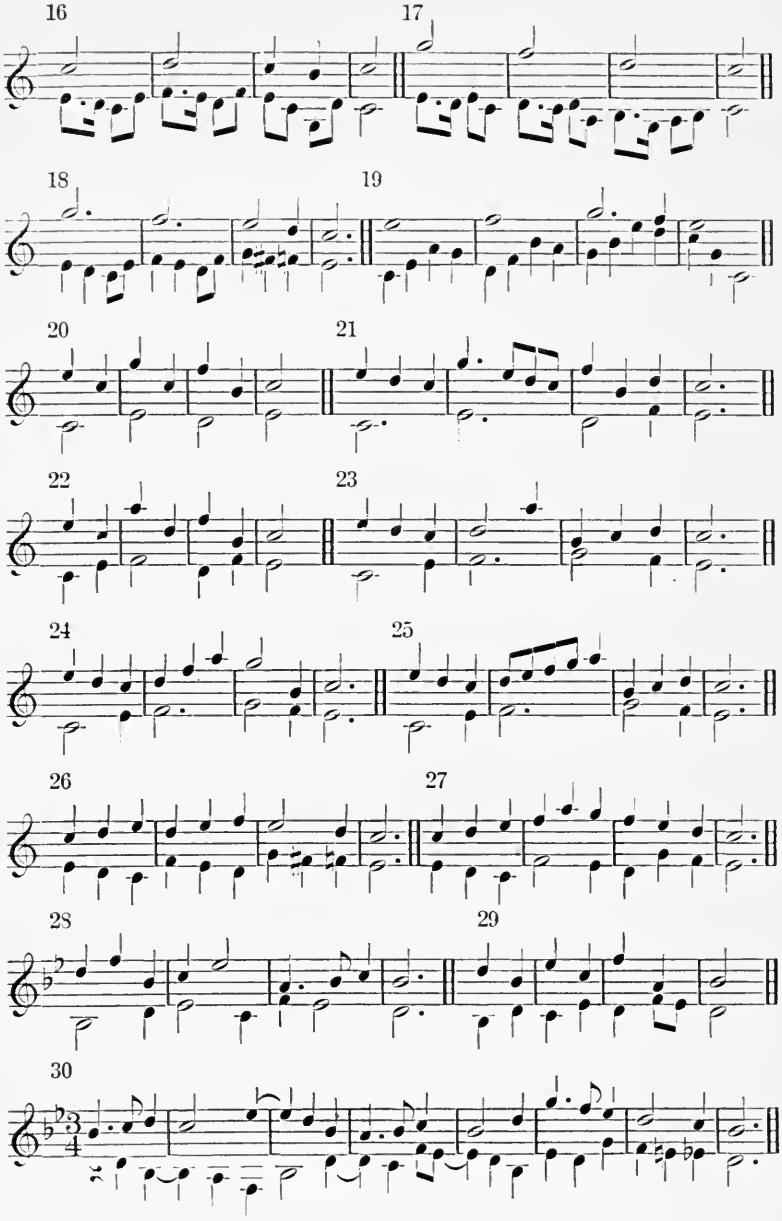




144. Two-part work including the Supertonic harmony:

Ex. 97.

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CHAPTER IX.

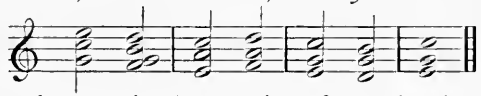
The Submediant Harmony.

145. What is the mode of the chord built on the sixth degree of the major scale? On the small sixth of the minor scales?

146. The Submediant harmony demands the Supertonic, but progresses to the Subdominant equally well.

In contrast to the preceding harmonies, the Submediant leads *from* cadence; in other words, it *delays* the close:

Ex. 98.

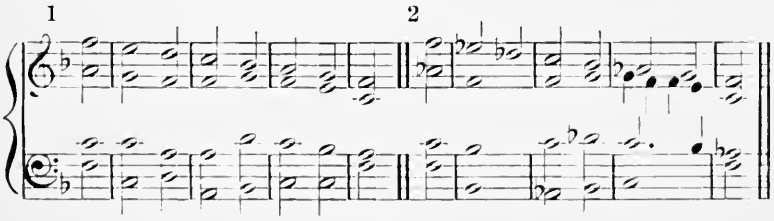


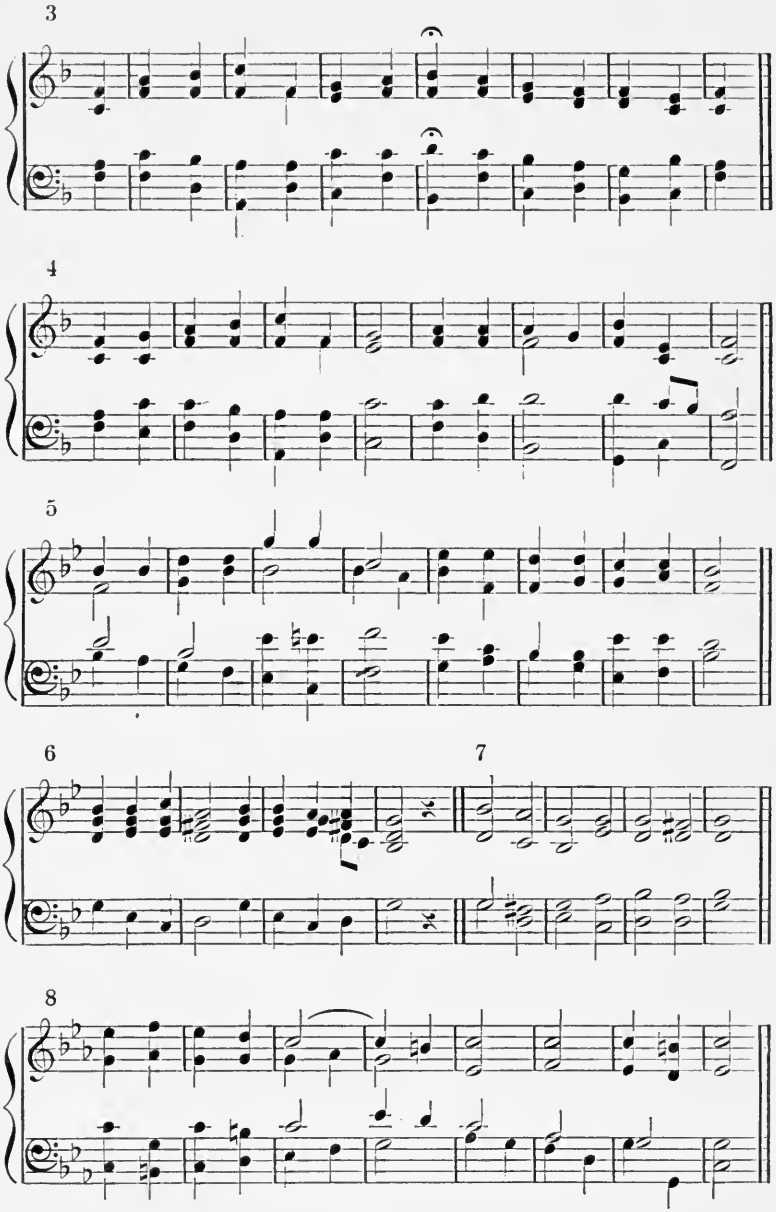
147. The three major harmonies of a major key are termed the *primary chords* of a key. The three minor harmonies of a major key are often termed the "*substitutional harmonies*," being used in the place of the primary harmonies when the harmonic relations would naturally demand the latter. As such, the Supertonic is a substitute for the Subdominant, and the Submediant is a substitute for the Tonic. For example, the Dominant demands the Tonic. If a full cadence is undesirable, the Submediant is employed instead of the Tonic, which delays the cadence, as seen in the foregoing example.

148. There are so many good hymns in which this harmony may be found, the author considered it unnecessary to include more excerpts for analysis.

The teacher will find it profitable to play as the students dictate, their choice being what is naturally demanded by the chord relations. For example, No. 1. After V, the second chord, the Tonic will be expected. When VI is played, the fact that V did not resolve will make it easy to recognize VI, *the substitute for I:*

Ex. 99.

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Mozart.

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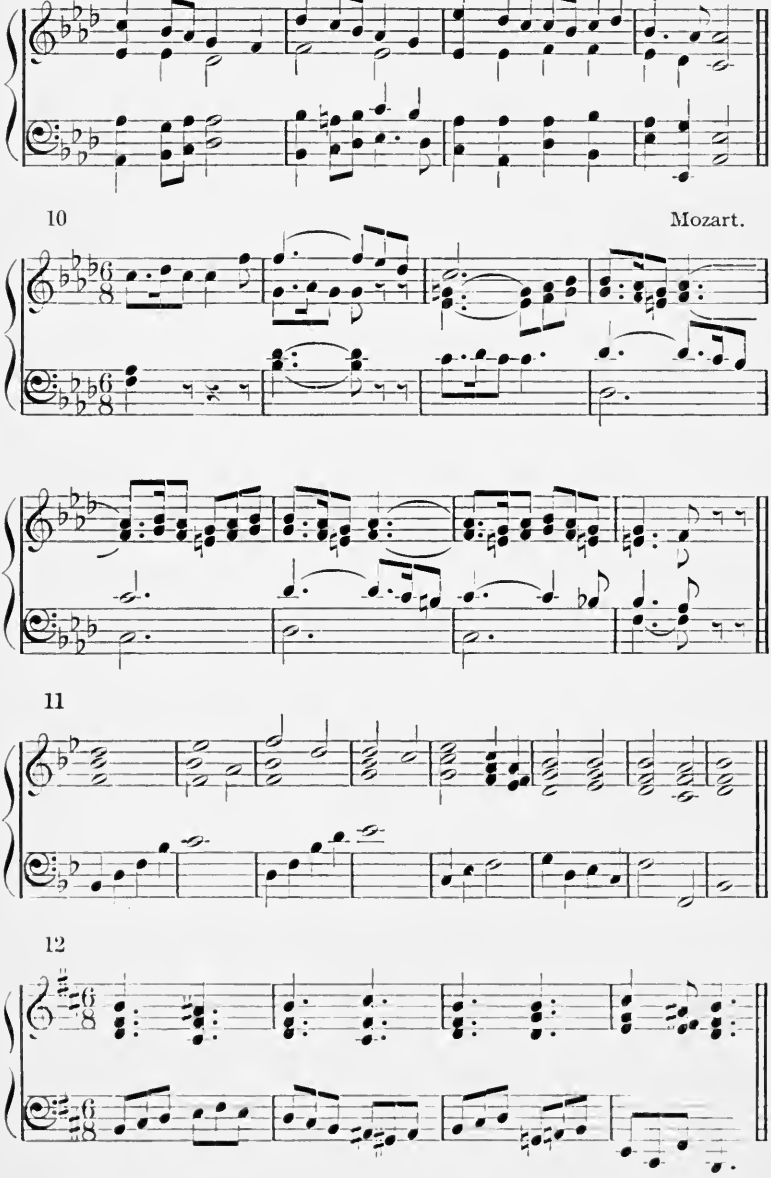

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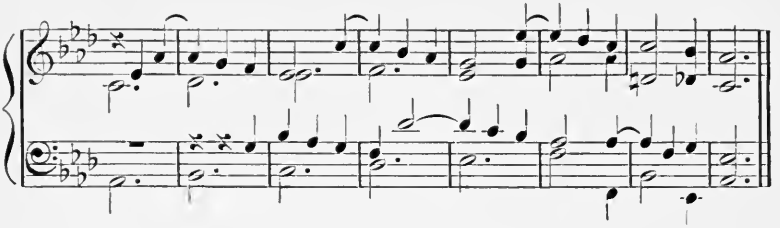

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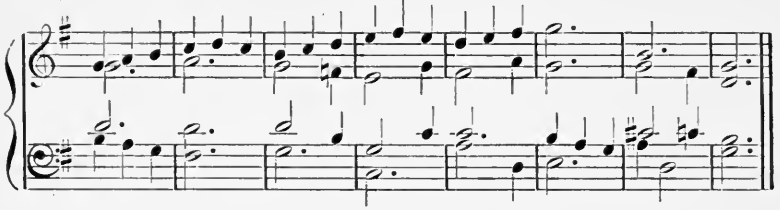

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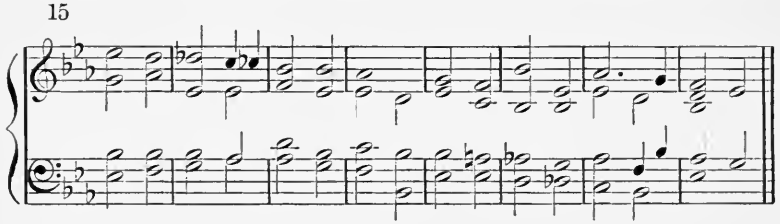

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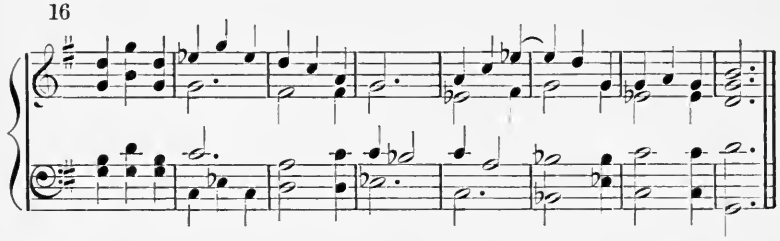

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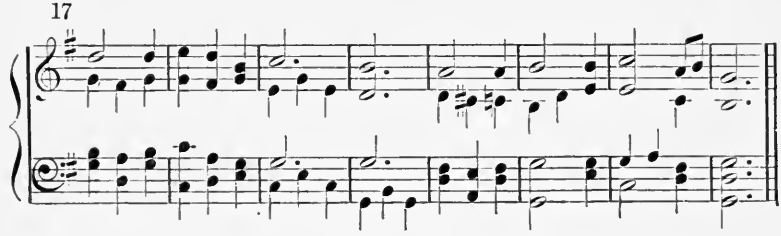

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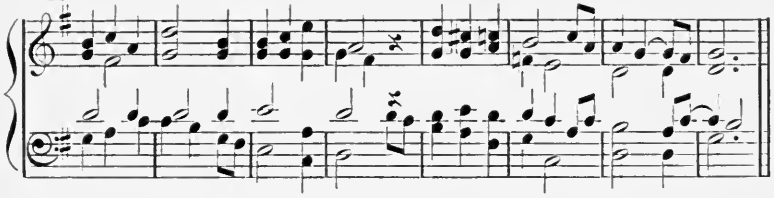

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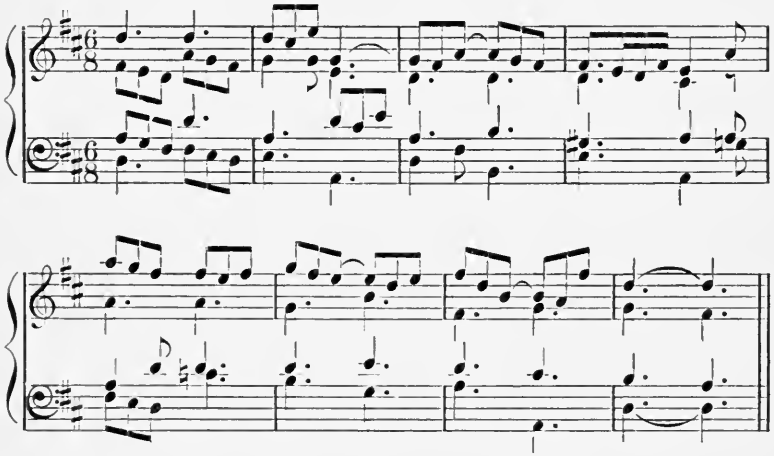

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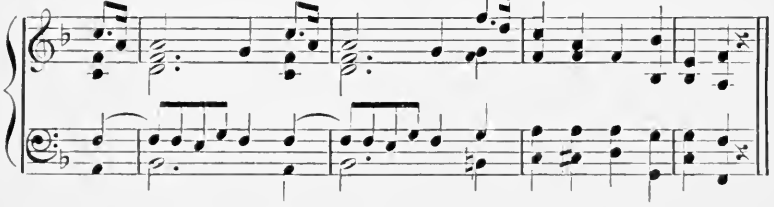

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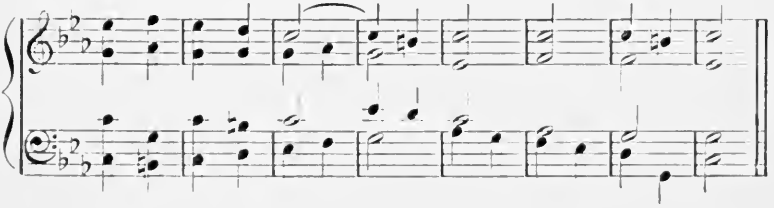

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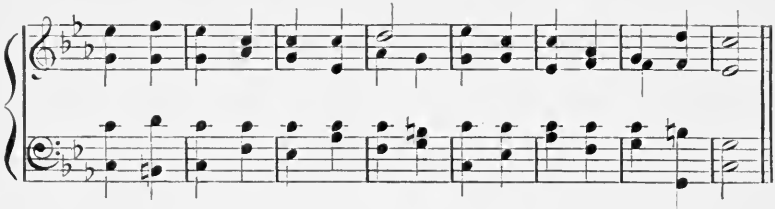

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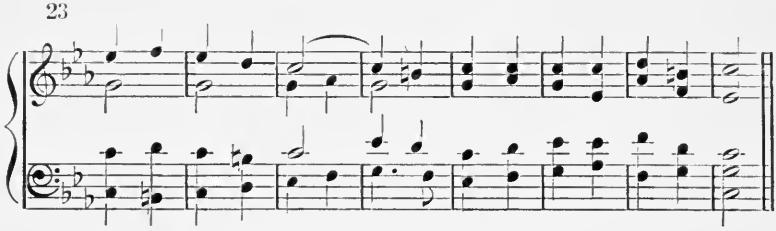

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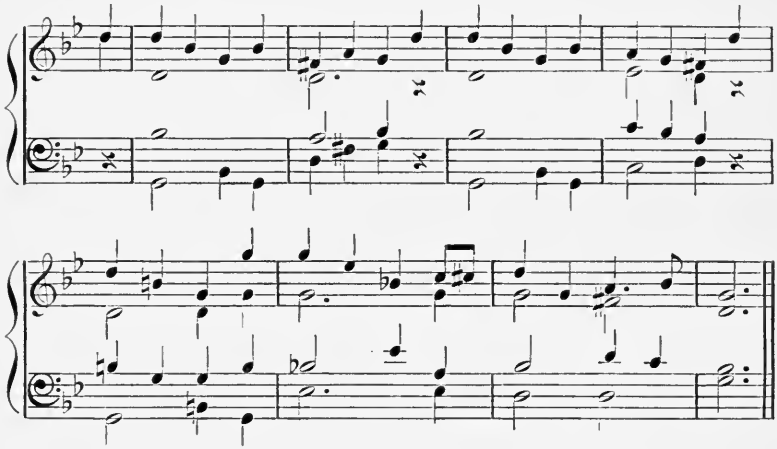

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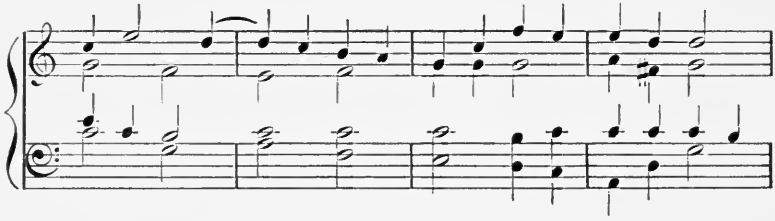

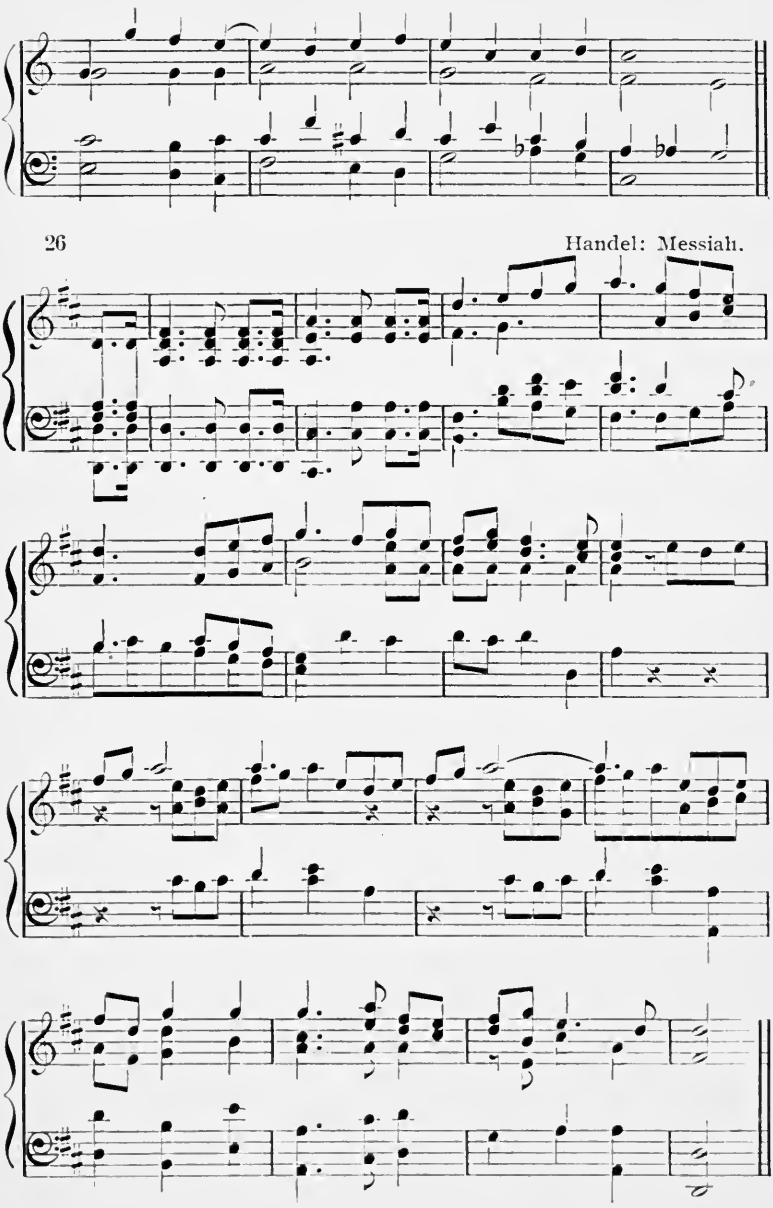
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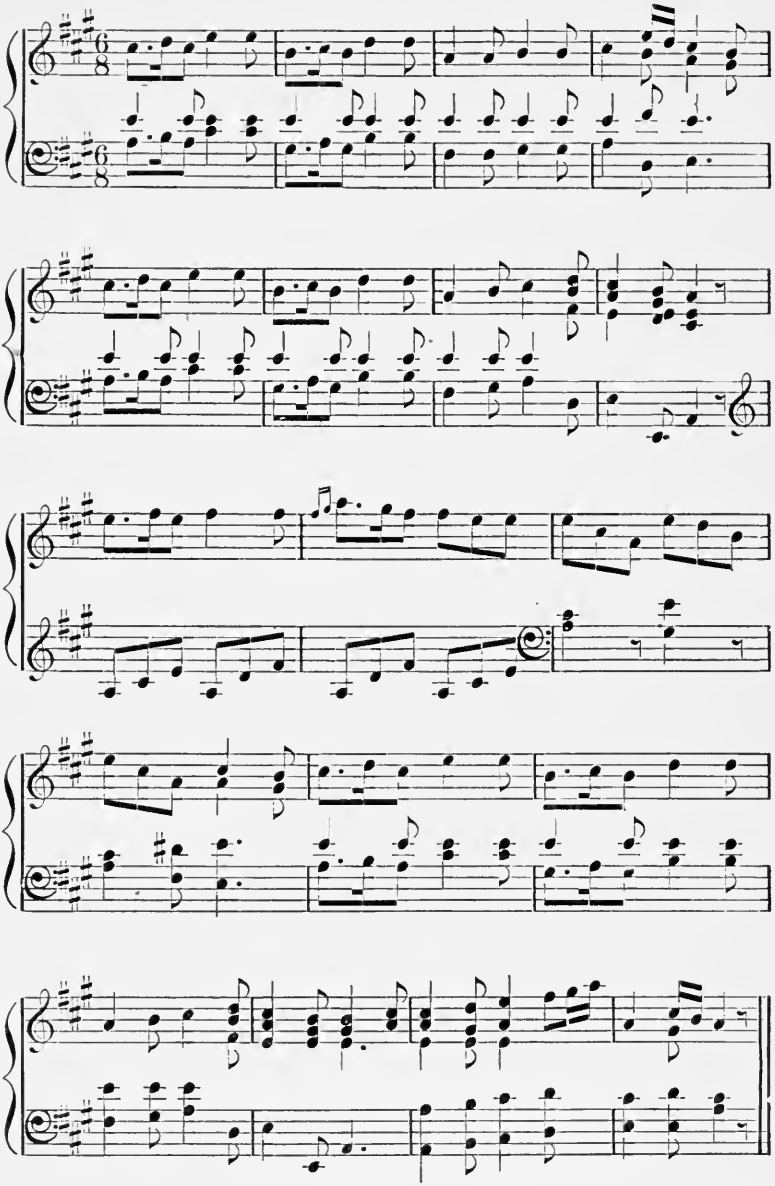
Handel: Messiah.



CHAPTER X.

The Mediant Harmony.

149. What is the mode of the chord built on the third degree of the major scale? Of the harmonic minor scale?

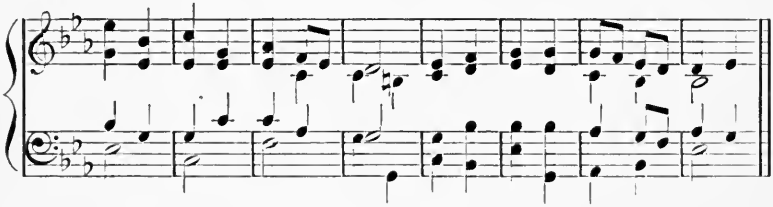
150. The Mediant harmony demands the Submediant, but in the minor mode the demand is less strong than that of the other harmonies that have been considered in the preceding lessons.

The Mediant harmony progresses smoothly to both the Supertonic and the Subdominant. Employed near a cadence, one is more likely to hear the latter than the Submediant.

151. The Mediant harmony may be followed by the Dominant, and when employed as a substitute for the latter, it may be followed by the Tonic.

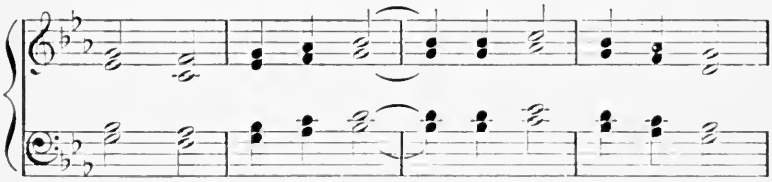
When the Mediant is employed as a substitute for the Dominant, it is usually (*but not always*) *expressed in the major mode*, and preceded by the Supertonic, as a Dominant might be:

Ex. 100.



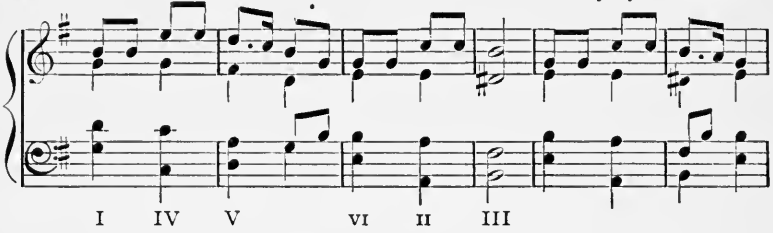
152. When the bright effect of a Dominant harmony is undesirable, the minor Mediant is a very effective substitute:

Ex. 101. Dupont: Poems of Autumn.



153. Very frequently one hears a passage of primary harmonies followed by a similar melodic pattern harmonized with the substitutional harmonies,—II, VI, III:

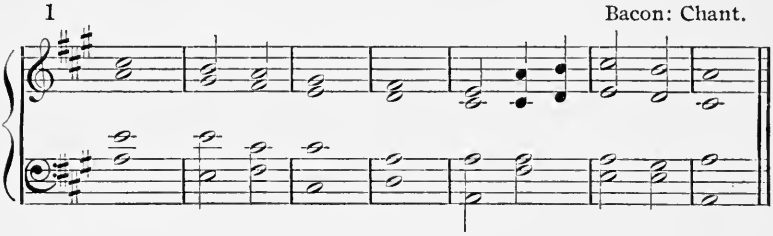
Ex. 102. Melody by Reinecke.



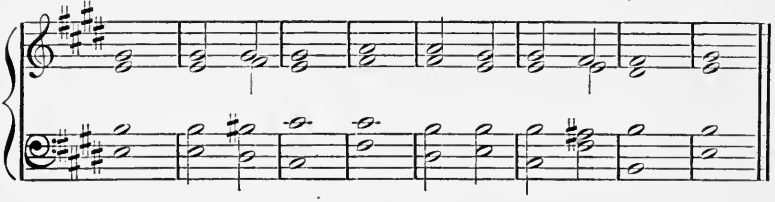
154. In taking the dictation, listen for the connection of VI and III, the two substitutes having the same relation as I and V.

Ex. 103.

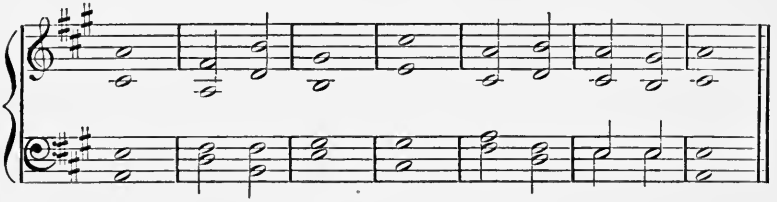
1 Bacon: Chant.



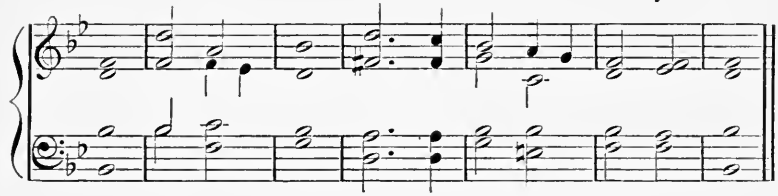
2 Propert: Chant.



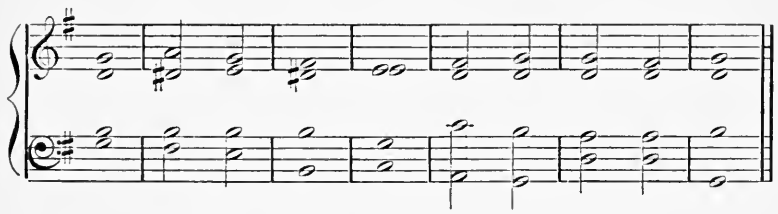
3 Aldrich: Chant.



4 Ouseley: Chant.



5 Novello: Chant.



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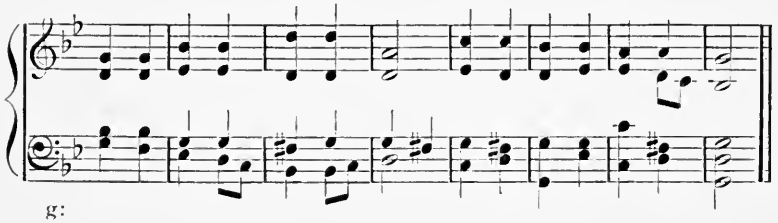

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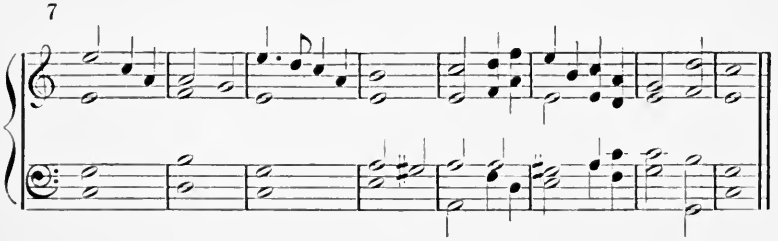

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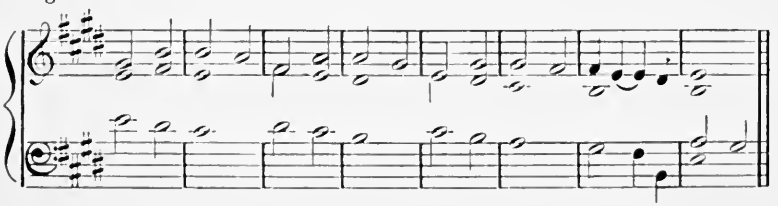

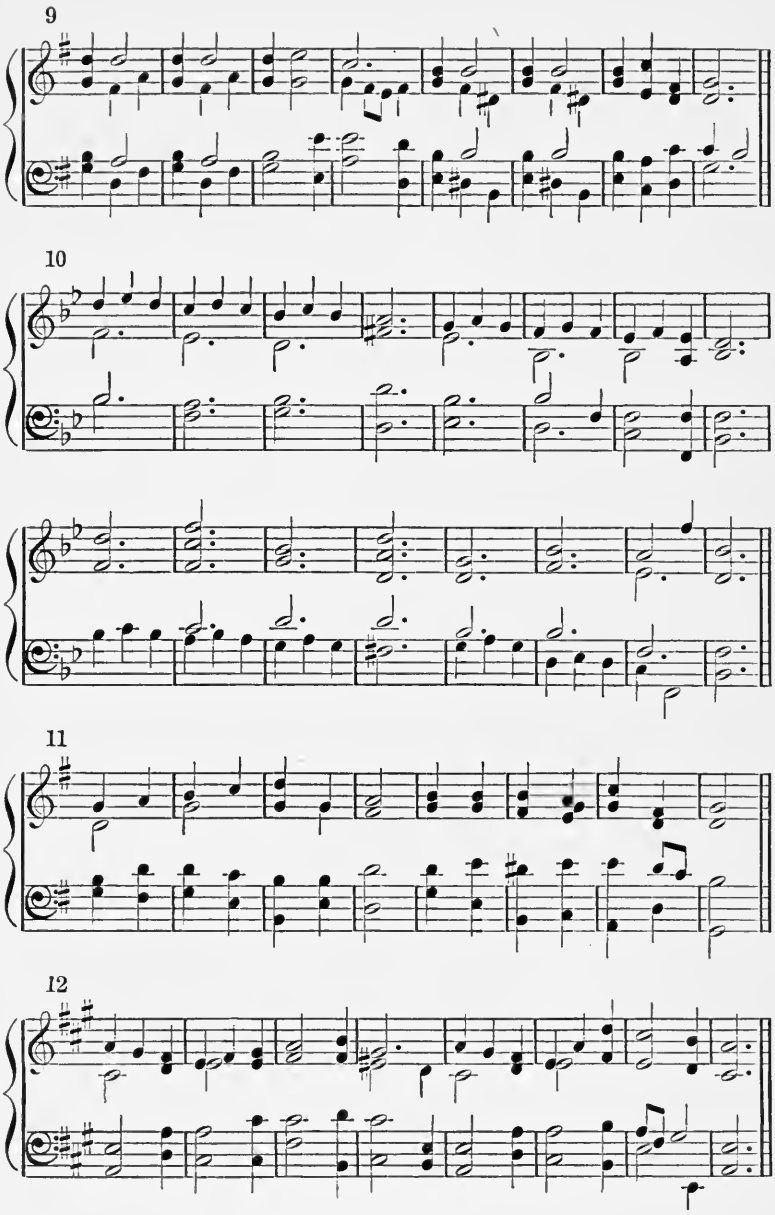
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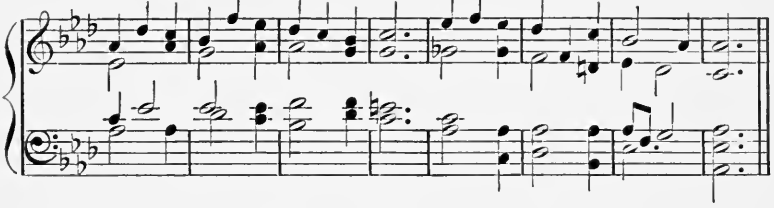

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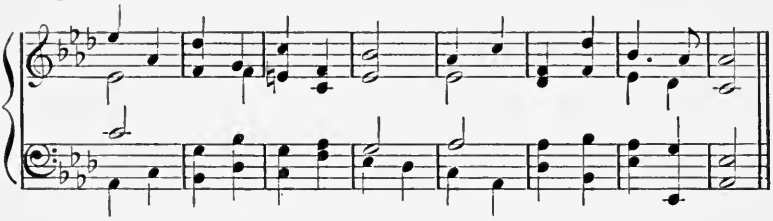

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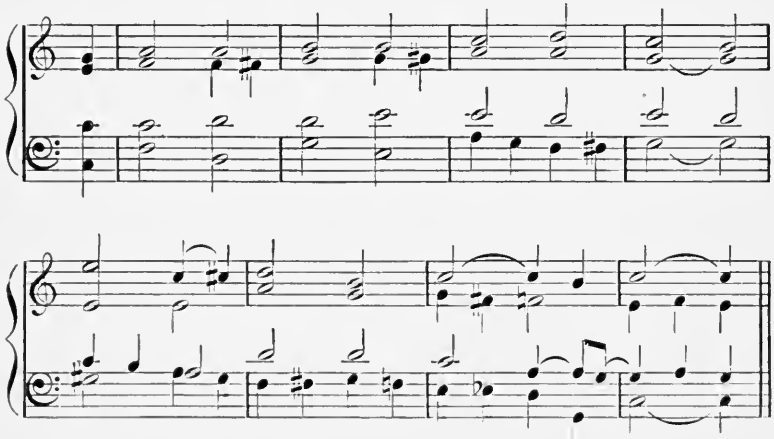

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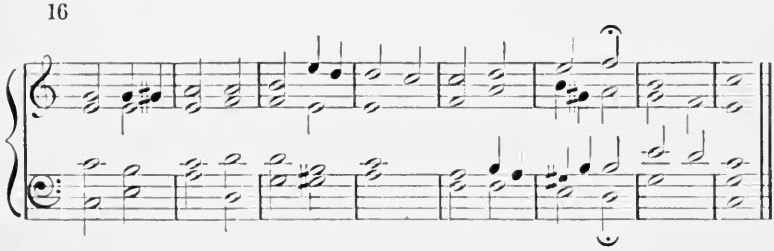

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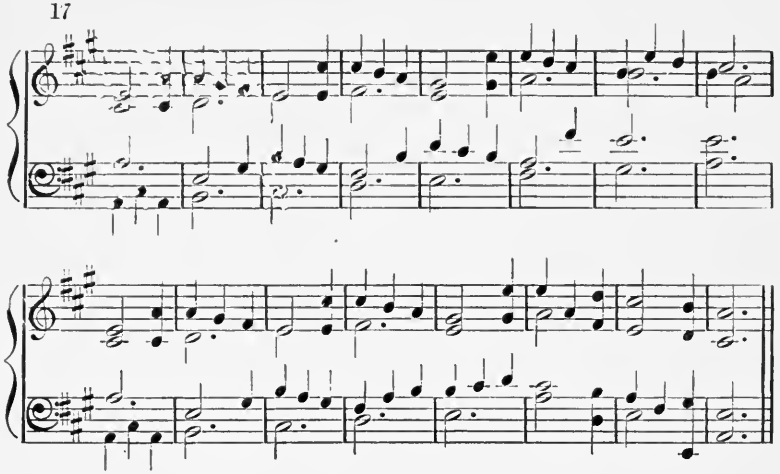

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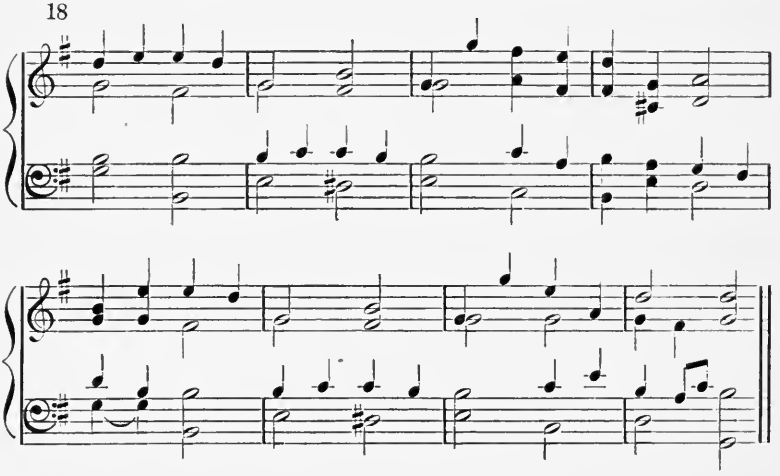

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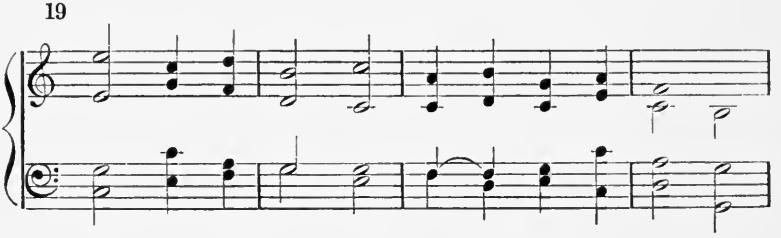
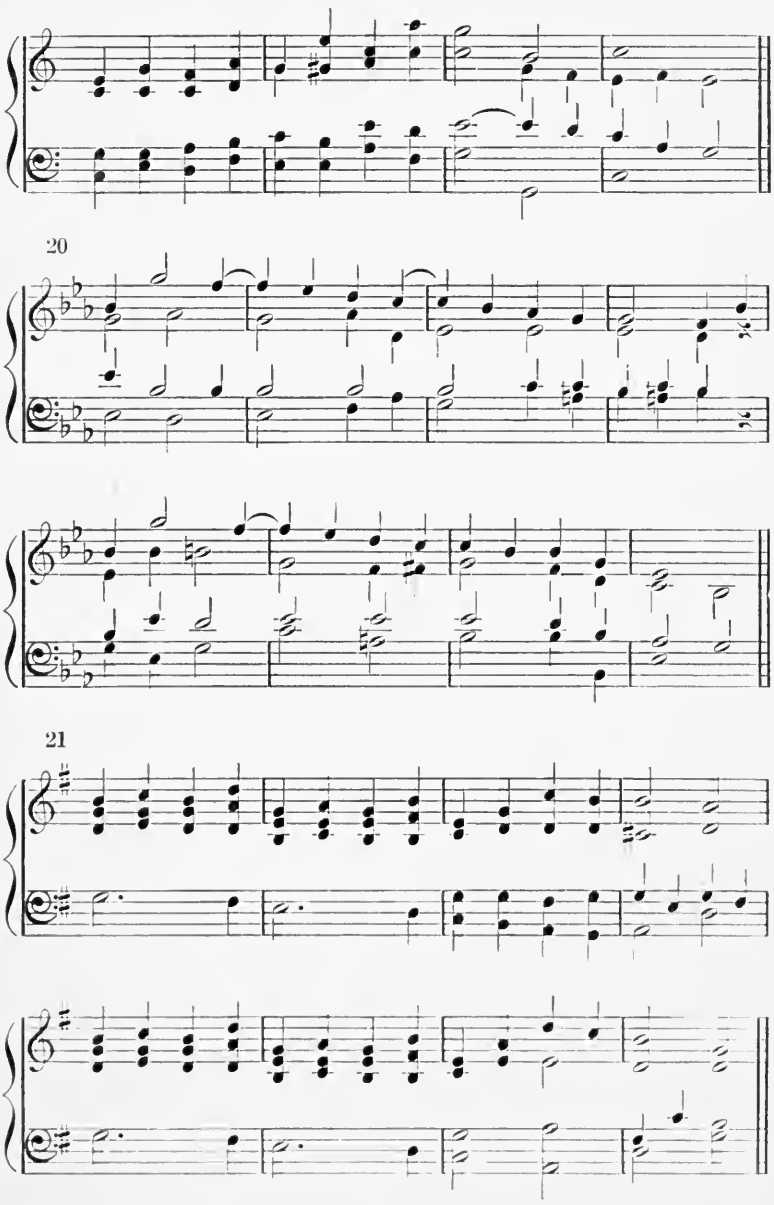
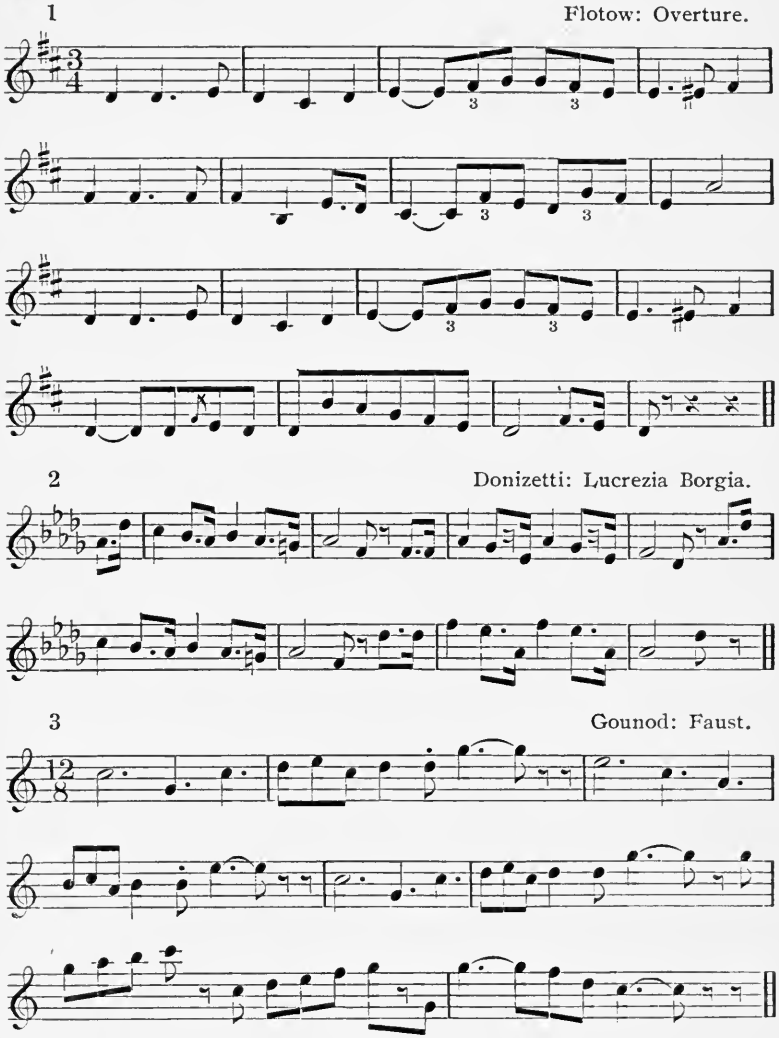


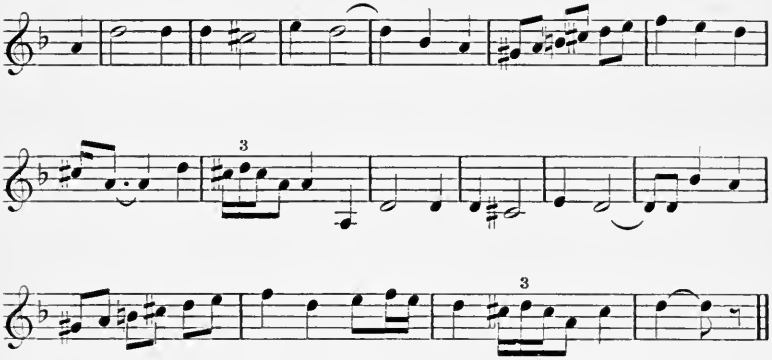

20
21

These melodies do not all require the Submediant or Mediant harmony in the harmonization, but they are placed here because the rhythms and melodic line are more difficult than those of the preceding lessons:

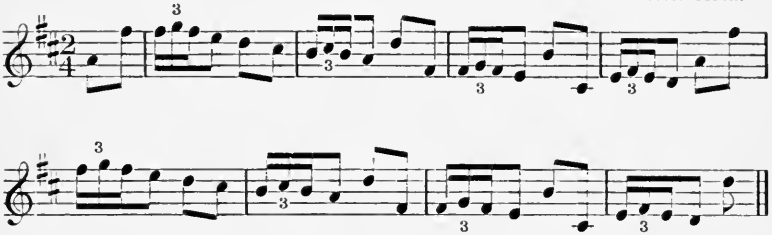
Ex. 104.



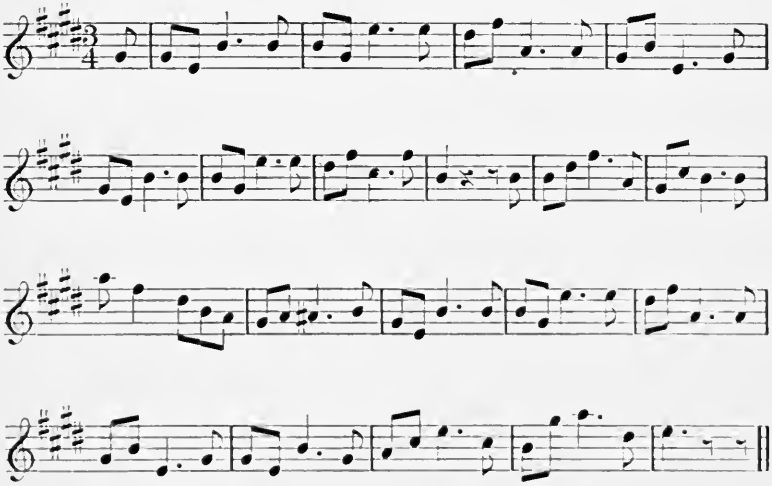
4 Lalo: Violin Air.



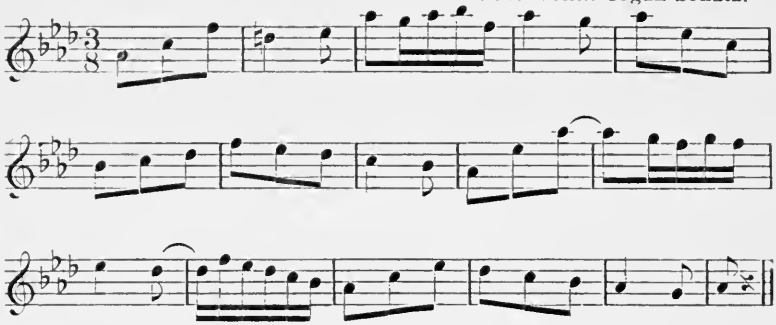
5 Donizetti: Aria.



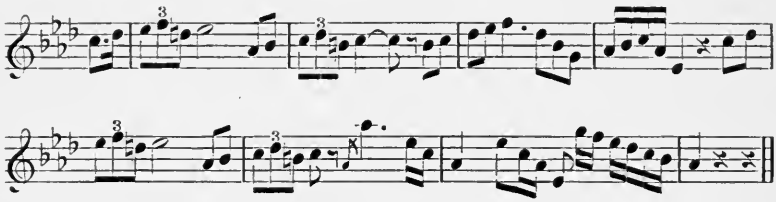
6 De Beriot.



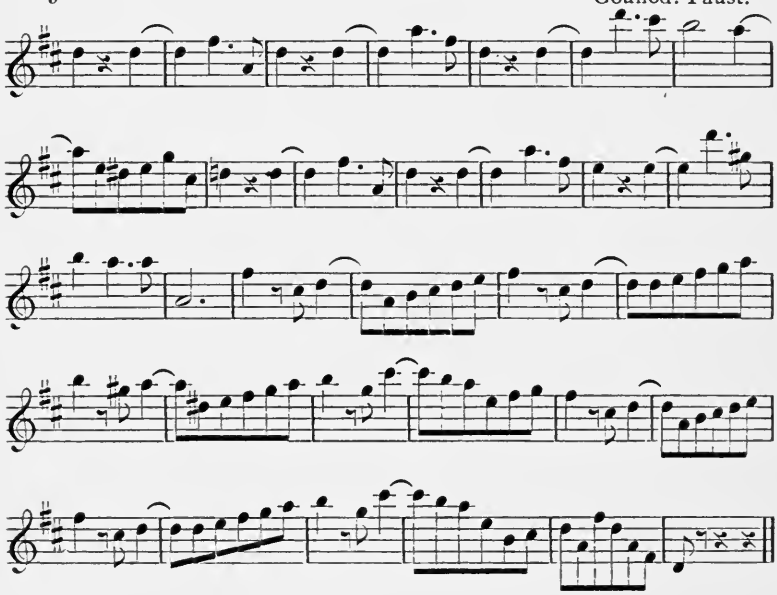
7 Mendelssohn: Organ Sonata.



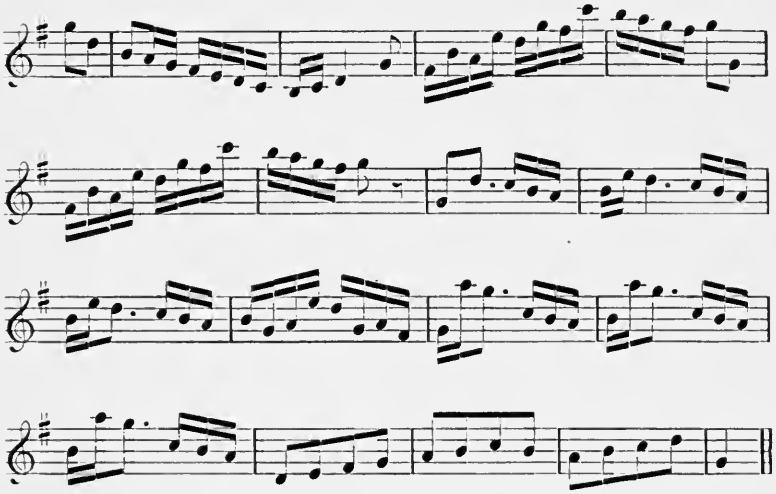
8 Bellini: La Sonnambula.



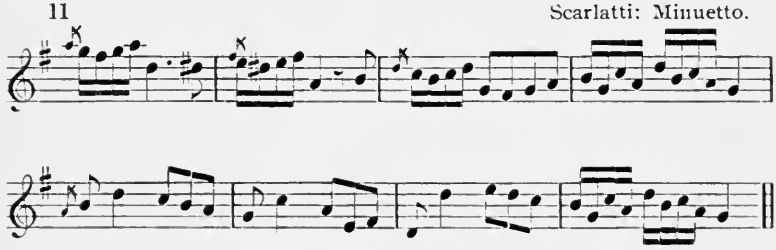
9 Gounod: Faust.



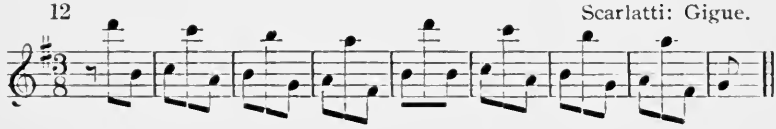
10 Scarlatti: Toccata.



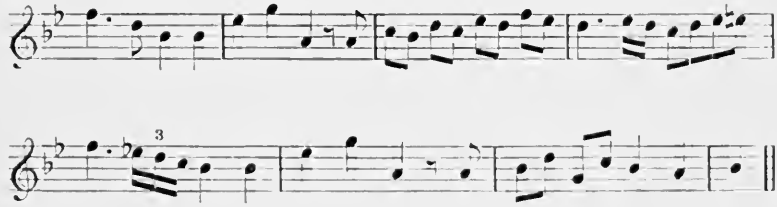
11 Scarlatti: Minuetto.



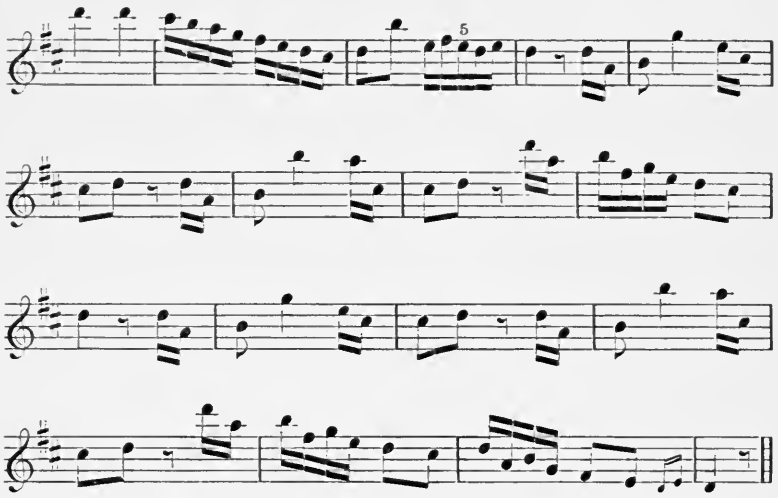
12 Scarlatti: Gigue.



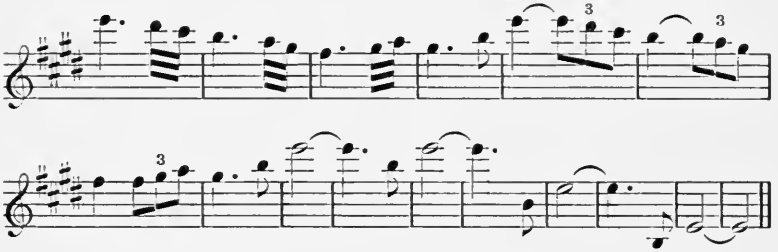
13 Mozart: Sonata in B♭.



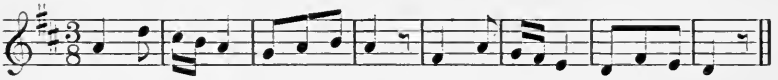
14 Scarlatti: Bouree.



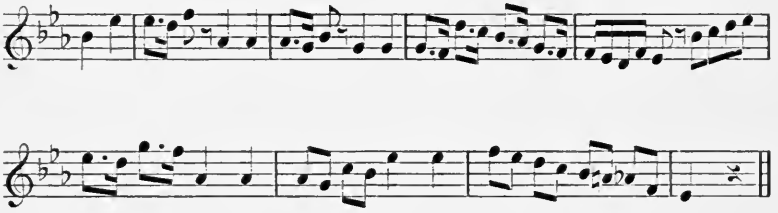
15 Mendelssohn: Overture.



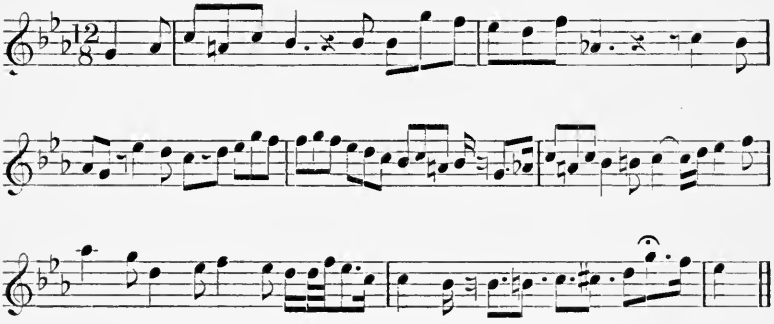
16 Donizetti.



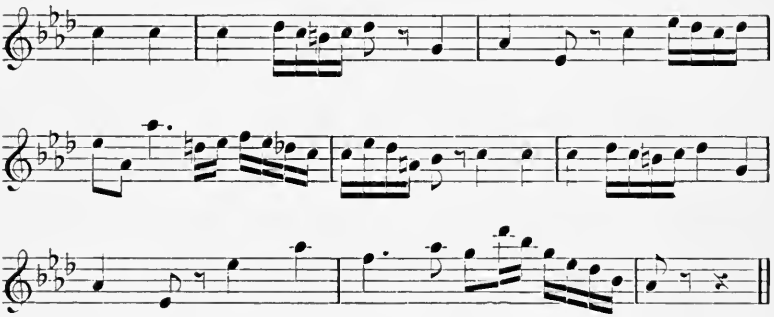
17 Donizetti: Lucrezia Borgia.



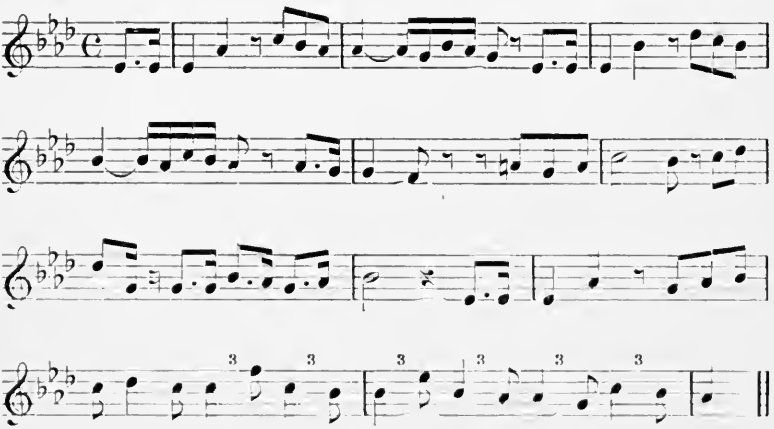
18 Bellini: La Sonnambula.



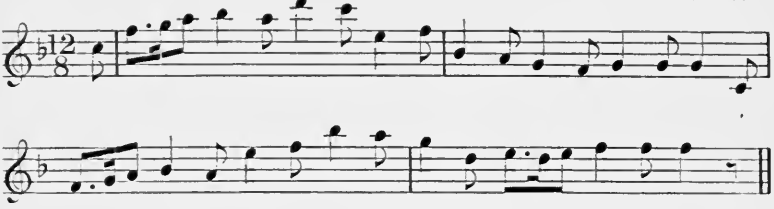
19 Bellini: La Sonnambula.



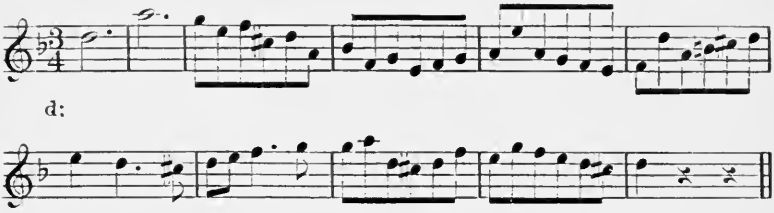
20 Bellini: La Sonnambula.



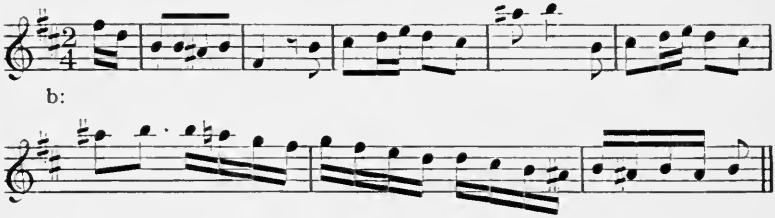
21 Scarlatti: Siciliano.



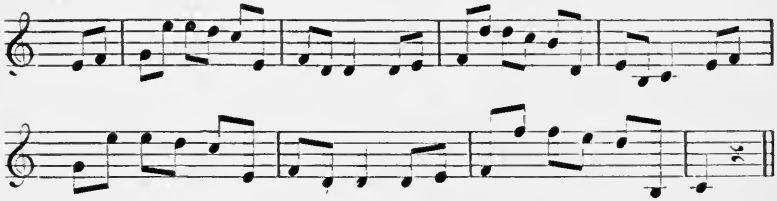
22 Scarlatti: Courante.



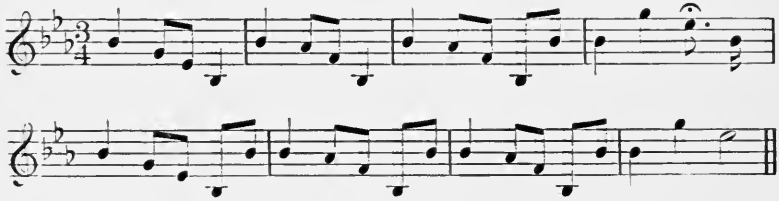
23 Scarlatti: Bouree.



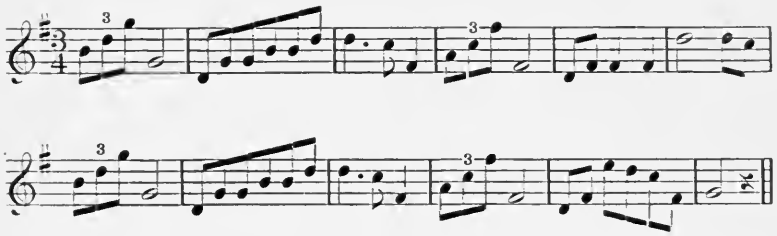
24 Old Austrian Air.



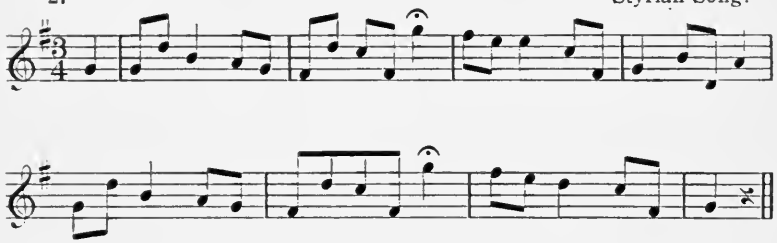
25 Traditional.



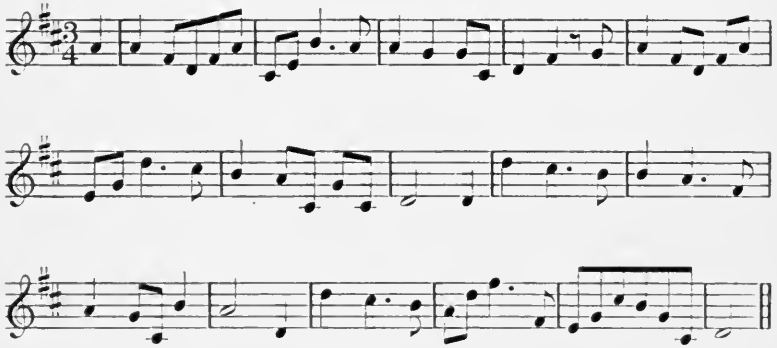
26 Folk Song.



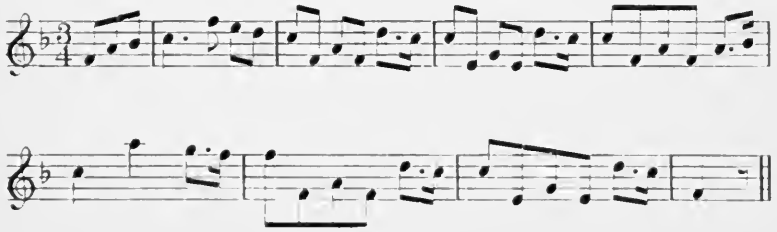
27 Styrian Song.



28 Styrian Song.



29 Tyrolese Air.

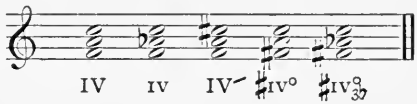


CHAPTER XI.

Chromatic Material.

155. Every tone within the octave belongs to the key, but only certain ones to a given scale. Inasmuch as it is all key material, the writer suggests that each tone be given a definite name in preference to the oft-used term, "lowered" or "raised" this or that. Consider each tone as an independent factor of key, employed for certain definite, desired effects. With the possible pitches for each degree of the staff, various modes of a chord are heard. For example, in the key of C, the following modes of the Subdominant harmony are frequently found.

Ex. 105.



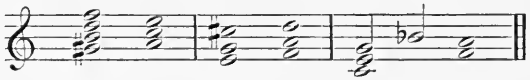
That which does not belong to the scale in which a composition is written may be considered as chromatic material of the key, in distinction to the diatonic material of the scale.

156. Chromatic material is employed for the embellishment of harmonies; to create melodic direction of a part; to create a demand for other than the logical harmony, and to create a certain character or color for the harmonies.

Tones chromatically sharped are up-leaders; flats, down-leaders. This direction has nothing to do with flats or sharps that happen to be diatonic degrees, but only those that are foreign to the scale.

157. Ex. 106 shows the Dominant harmony with the augmented root demanding the Submediant instead of the Tonic; the Tonic harmony with the augmented root demanding the Supertonic; also the Tonic with a small seventh, the latter creating a demand for the Subdominant harmony:

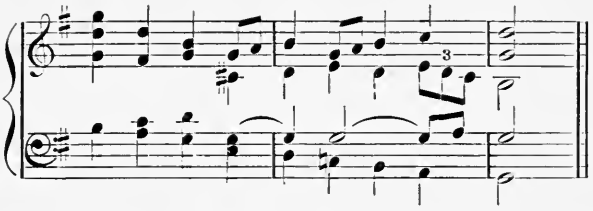
Ex. 106.



158. One of the most commonly used chromatic tones is the augmented scale-4th. The pure 4th is a down-leader. To create a demand for resolution in the other direction, the augmented 4th is employed, and incidentally, the quality of the chord in which it occurs is brightened.

Wagner: Siegfried.

Ex. 107.

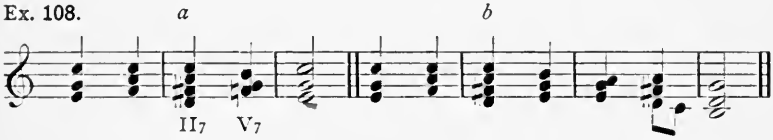


159. Chromatic material may be associated with a modulation, but if it finally becomes a member of the new scale and key, it is no longer chromatic, but diatonic in the new key.

A complete modulation is not effected unless there is a well-defined cadence in the new key which establishes a new tone-center.

a. At Ex. 108, the D chord is followed by V7-I of the original key, C, so there is no change of key and F♯ is a chromatic tone in the Supertonic harmony. At *b* of the same example, the D chord is followed by a well-defined cadence in the key of G, and the D chord is heard as the Dominant of that key:

Ex. 108.



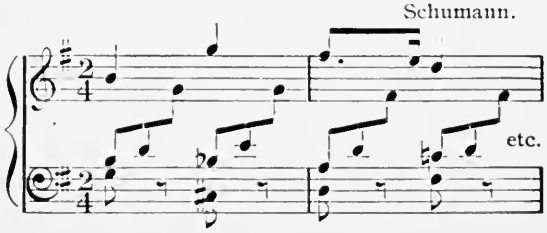
b. So it follows that in the use of chromatic material, one *may* hear a modulation, but not necessarily so. *Key is the result of relationship*, and no single chord can establish it excepting the second inversion of a triad which falls on the strong accent of a measure, said triad asserting itself as a new Tonic.

160. A chromatic tone may occur as a bytone, as root, third, fifth of a triad, and sometimes as seventh or ninth.

161. Chromatic chords may be employed consecutively without obscuring the tonality if the chromatic tones are borrowed from both the flatter and sharper sides of a key:

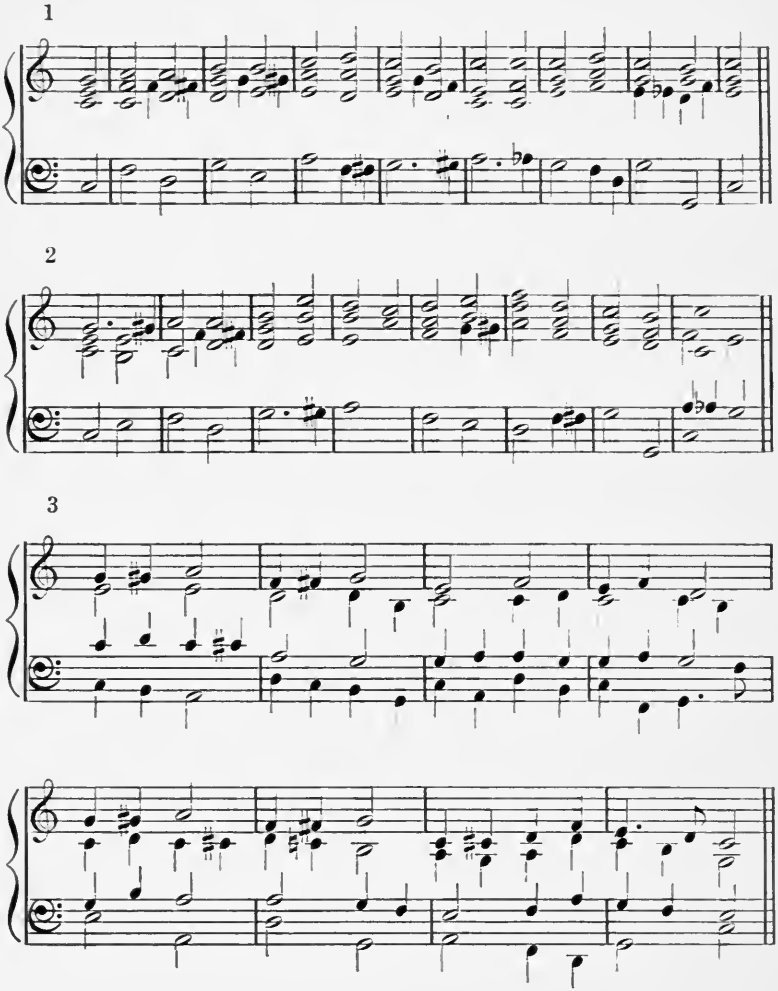
Schumann.

Ex. 109.



162. In listening and thinking, keep the Tonic in mind, and if there is no change of *tone-center*, consider the chromatic material as such, and name the harmonies according to the altered modes. The following examples include some of the chromatic material of key employed as mentioned in the foregoing paragraphs:

Ex. 110.



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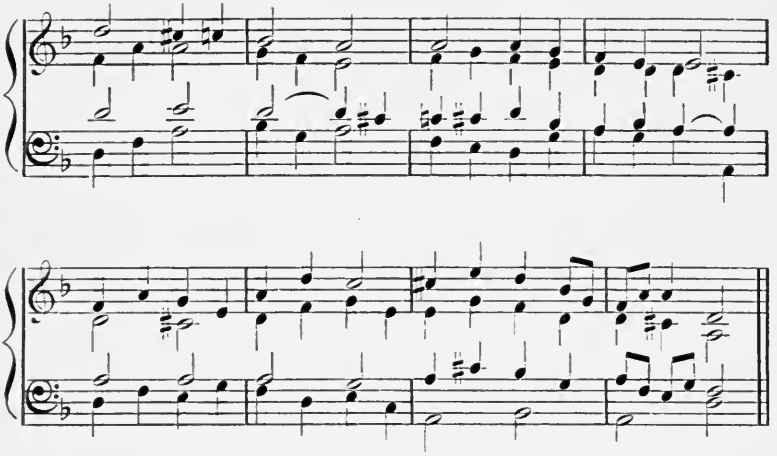

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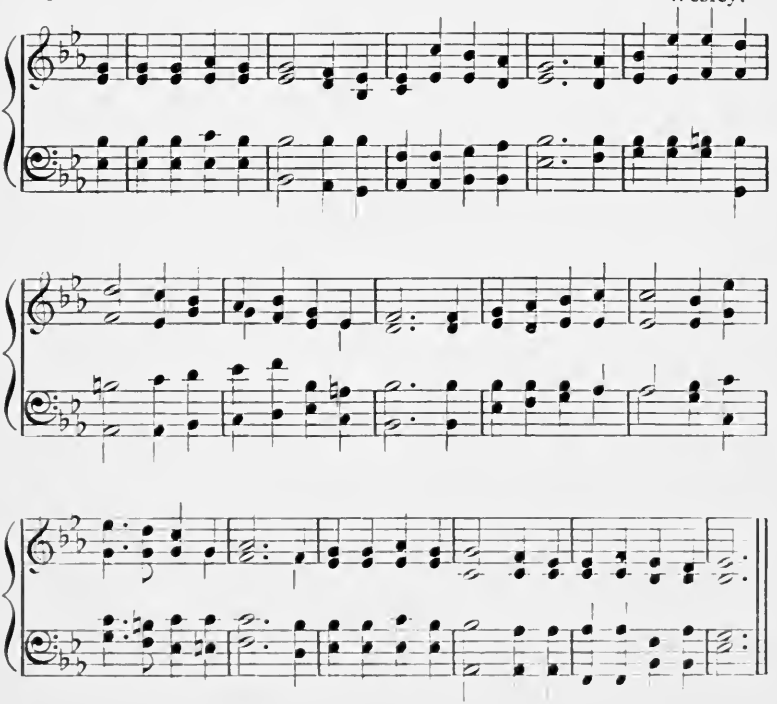
Wesley.



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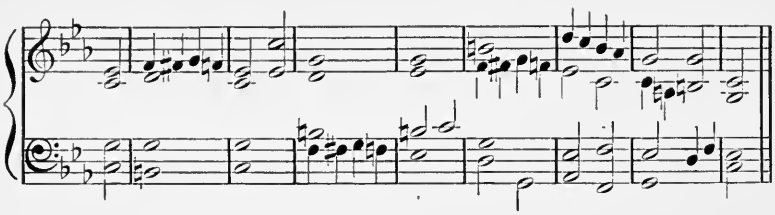

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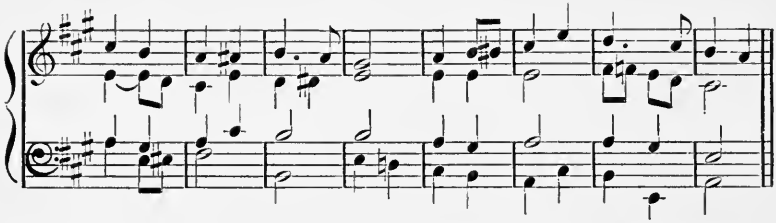
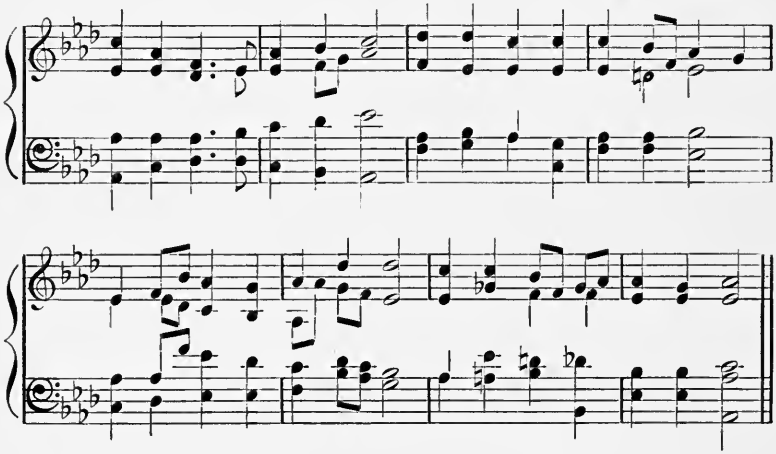
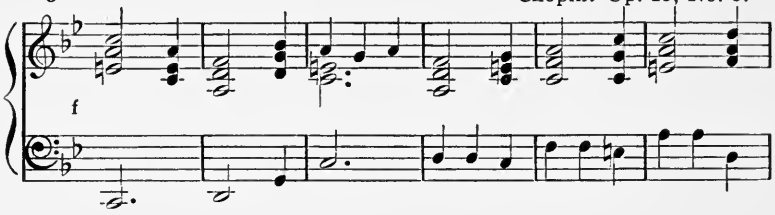
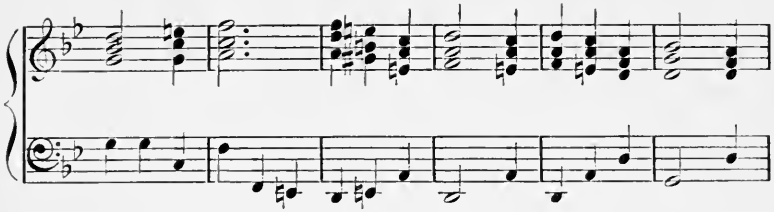


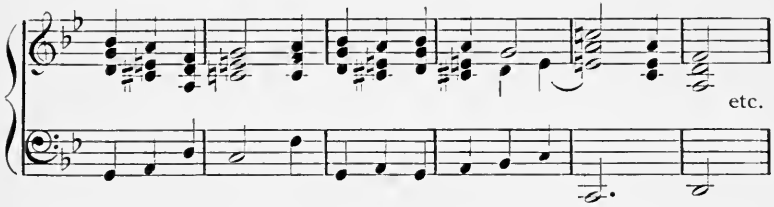
8 Arr. from Mendelssohn.

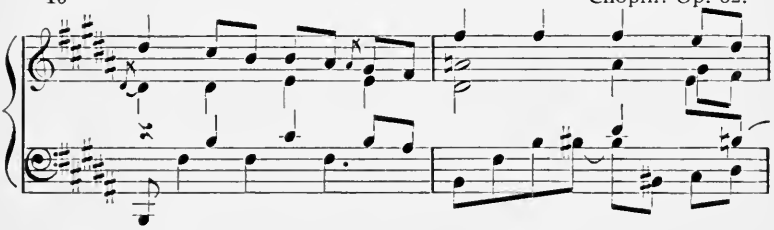


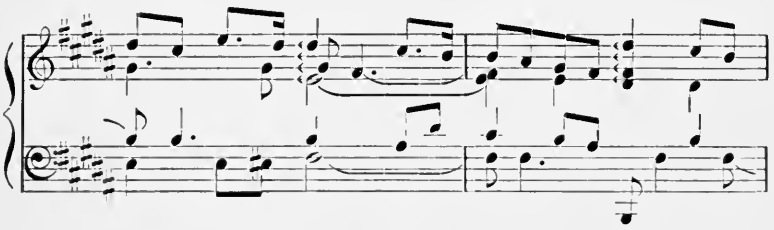
9 Chopin: Op. 15, No. 3.

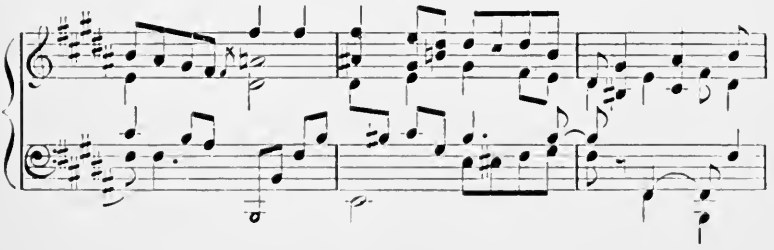




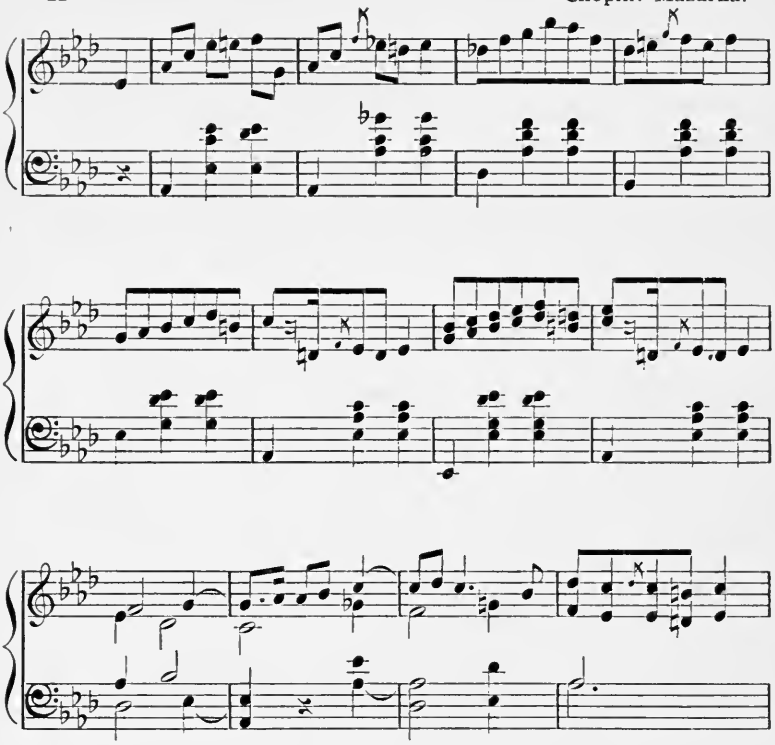

etc.







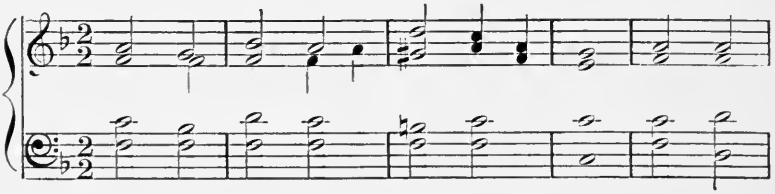
11 Chopin: Mazurka.

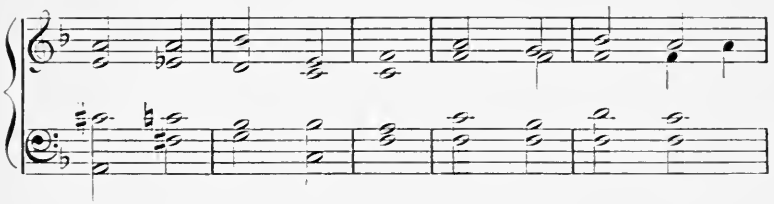


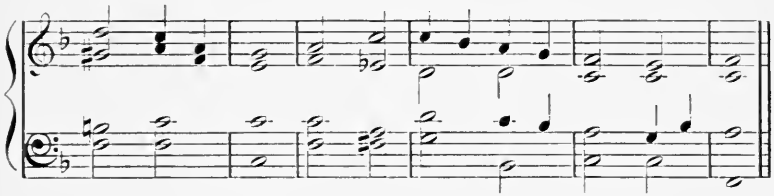
163. The augmented scale-4th and 2nd are often found embellishing the Tonic harmony:

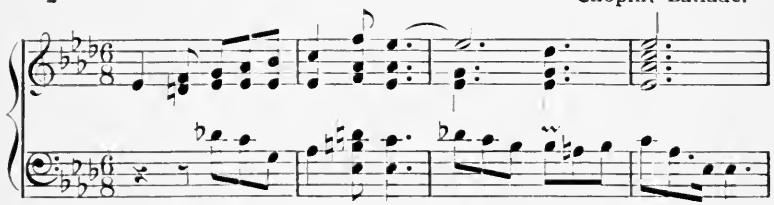
Ex. 111.

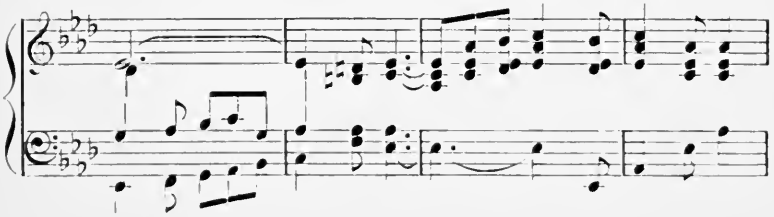
1 von Weber.







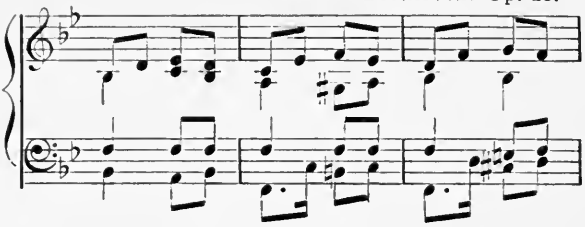




164. The augmented scale-6th and 1st embellish or lead to the Dominant in the same way:

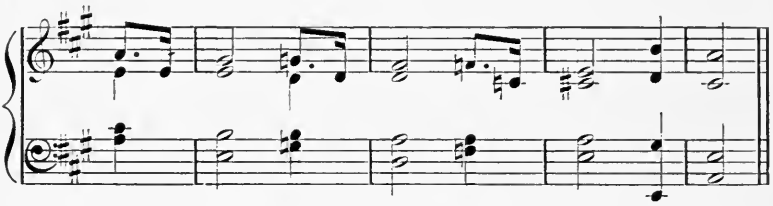
Beethoven: Op. 18.

Ex. 112.



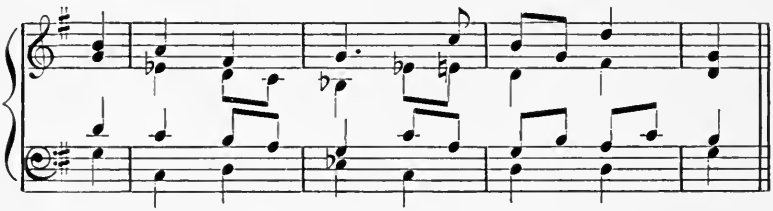
165. The employment of chords on the small 6th and 7th of the major key is very interesting:

Ex. 113.



166. One sometimes hears the substitutional harmonies in the modes of the minor keys:

Ex. 114.



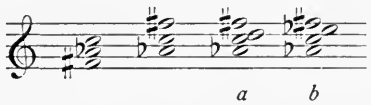
With the wealth of material available, it is needless to include more here.

CHAPTER XII.

Augmented-Sixth Chord. Neapolitan-Sixth.

167. Another type of triad is formed of a diminished third and fifth. In the first inversion, this is what is known as an *augmented-sixth* chord,—a large third and superposed augmented fourth:

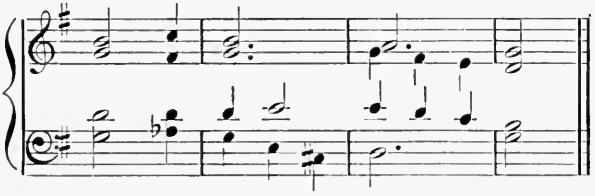
Ex. 115.



The chord sometimes appears with the added-sixth, *a*, also the small seventh, *b*.

168. With the small scale-2nd, the augmented-sixth is heard in the second inversion of the Dominant-seventh chord:

Ex. 116.

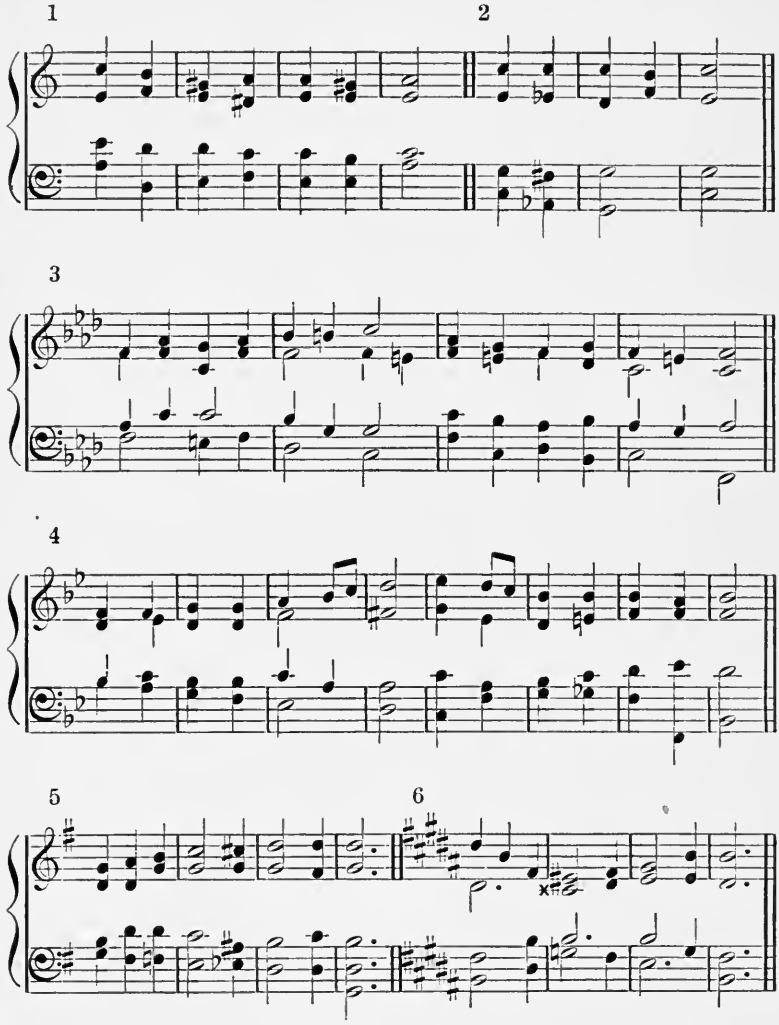


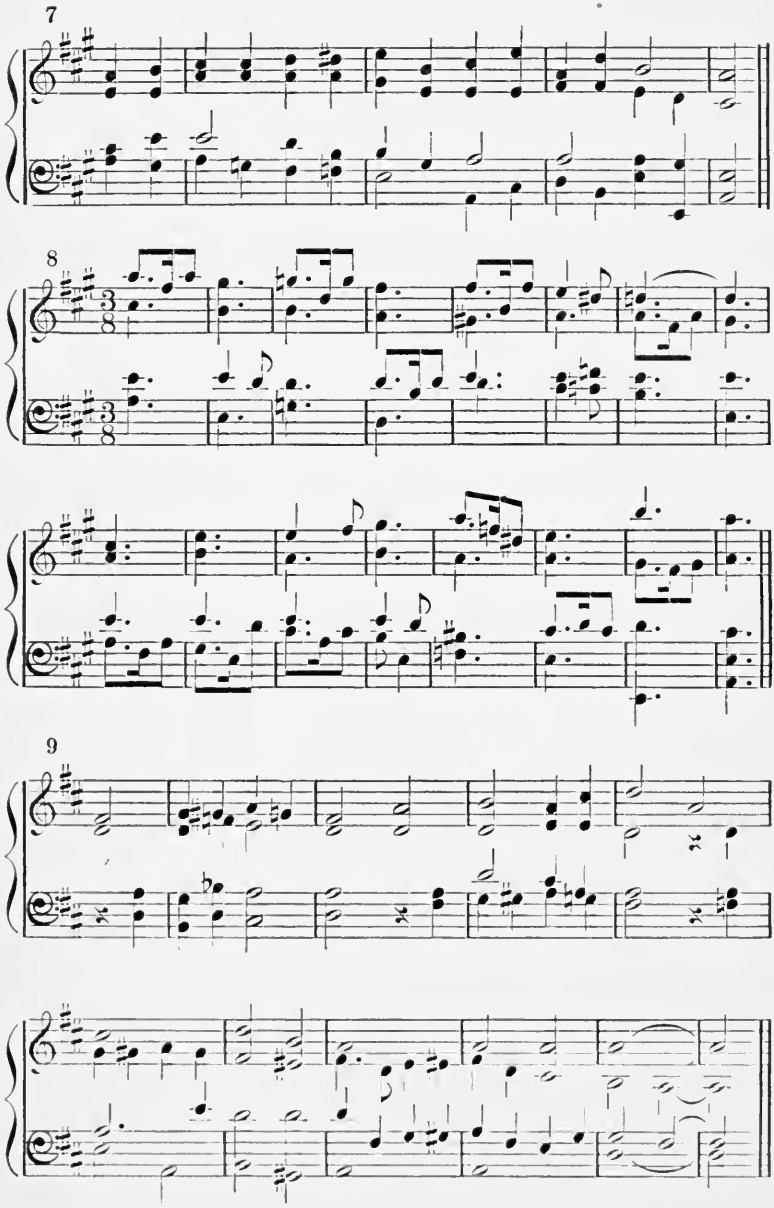
169. The distinguishing characteristic of this chord is the strong demand of the augmented interval for resolution in contrary direction. Sometimes only one of the tones resolves, but the demand is the same. Although it is possible to build the augmented-sixth on various degrees of the scale, one seldom finds it on any but the augmented-scale-2nd and 4th.

170. The augmented-sixth mode of the Subdominant harmony includes the small scale-6th and augmented scale-4th. The resolution is the same as any other mode of the harmony, excepting the root which naturally moves up to the scale-5th. The ♯4 makes the chord brighter, and with the seventh present, it is frequently used for commanding, heroic effects. One of the distinguishing characteristics of this interval is the tendency of the two tones to diverge, *the flatter tone falling below the sharper*.

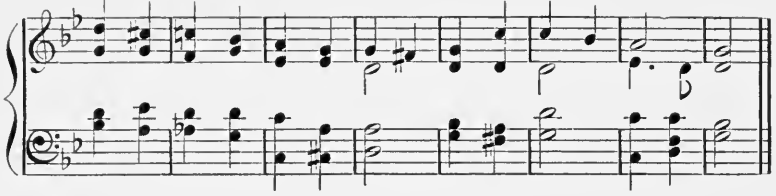
171. As will be observed, the use of the small scale-2nd creates a plaintive and sometimes pathetic element, quite unlike the Subdominant. Listen for the same resolution that the diatonic harmonies would have:

Ex. 117.



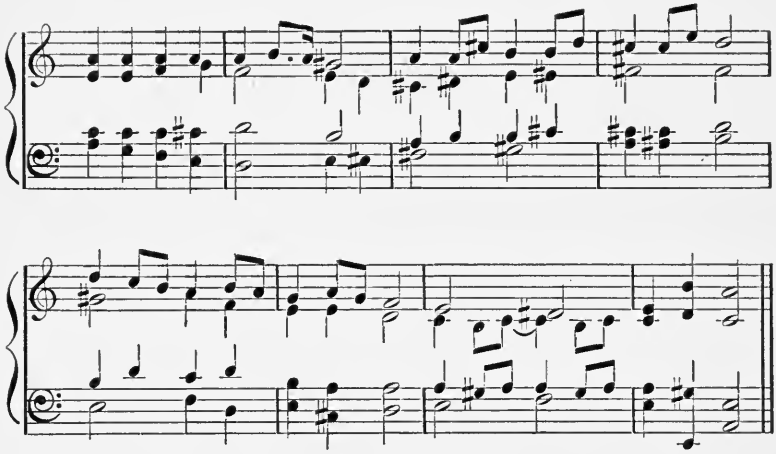

7
8
9

10

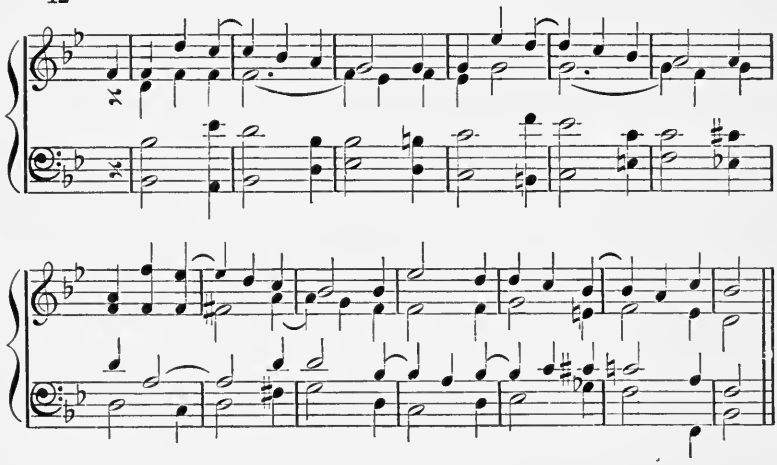


g:

11



12



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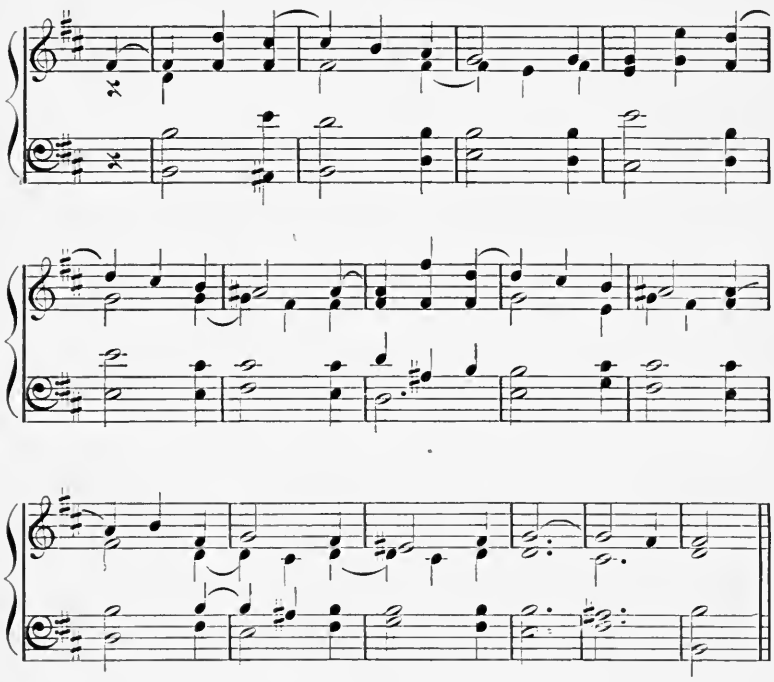

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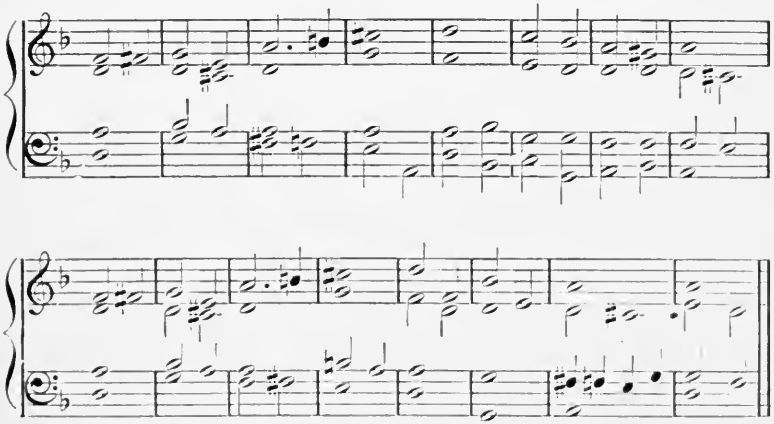
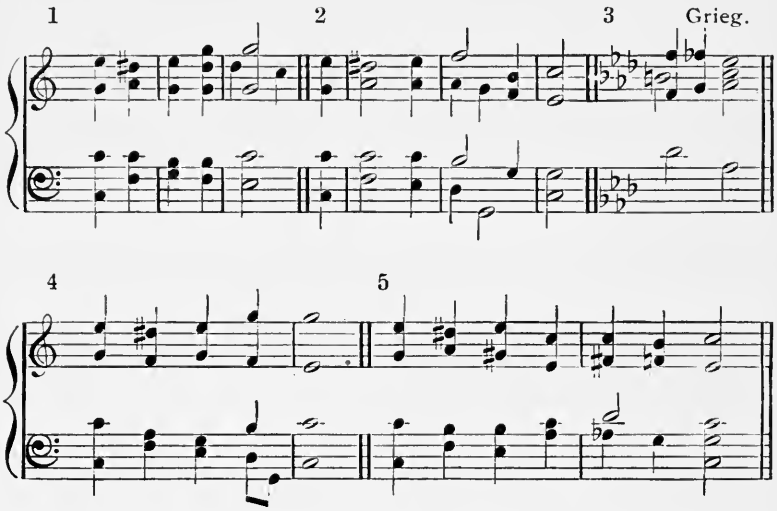


172. One may hear the augmented-sixth mode of the Supertonic triad, the root being the augmented scale-2nd.

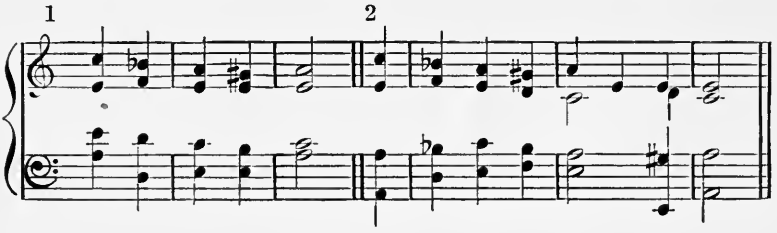
Ex. 118.



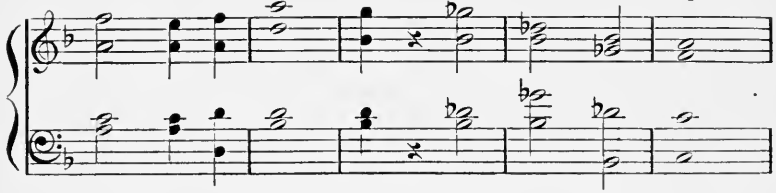
With the seventh (No. 2) or the added-sixth (scale-7th) as in Nos. 3 and 5, the effect is especially pleasing. Some very interesting excerpts which include the augmented-sixth chord on various degrees of the scale may be found in the author's text, "Applied Harmony."

173. When Rä, the small second of the scale occurs as root, with the pure fifth the first inversion is known as the "Neapolitan-sixth." While it oftener occurs in the minor mode, it is not necessarily so:

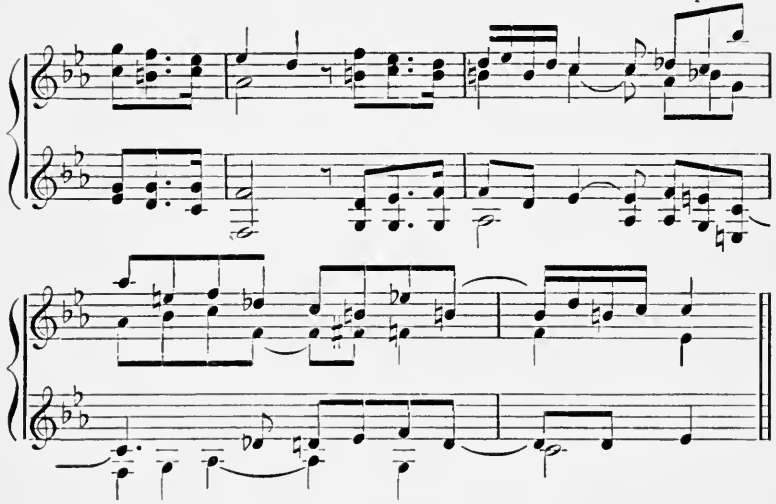
Ex. 119.



3 Brahms: Requiem.

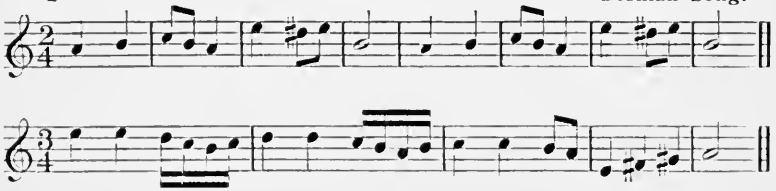


4 Schumann; Op. 68.

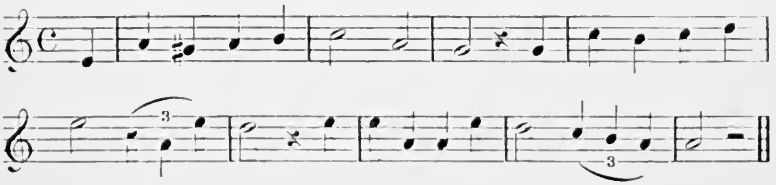


Ex. 120. MELODIES FOR DICTATION.

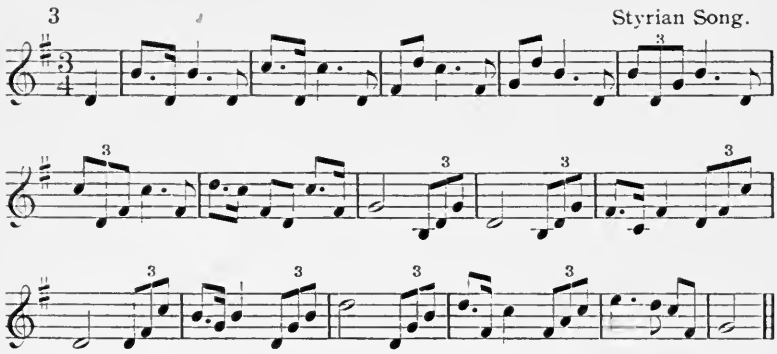
1 Bosnian Song.



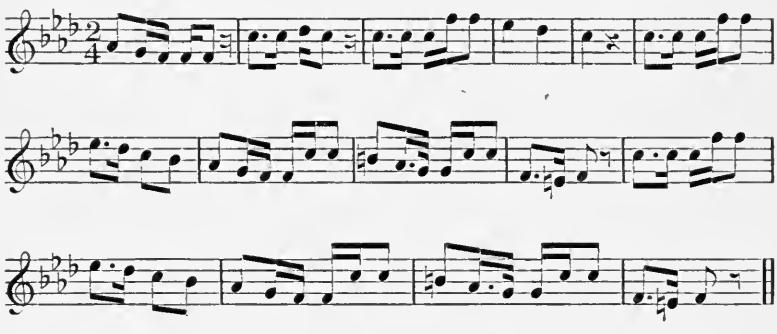
2 Old Servian Song.



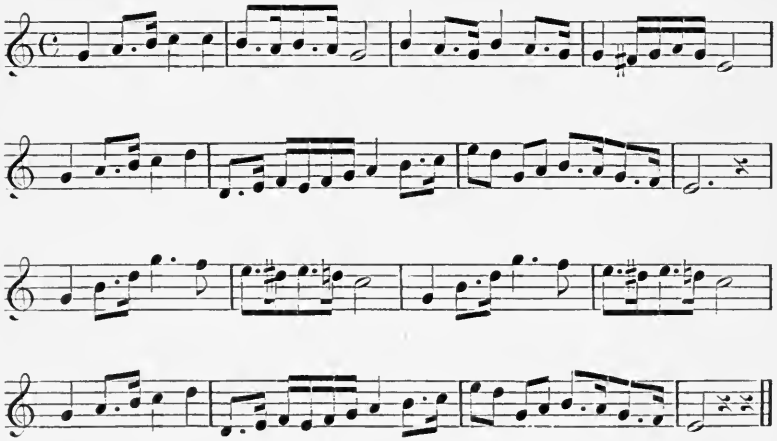
3 Styrian Song.



4 Hungarian Air.



5 Greek Song.



CHAPTER XIII.

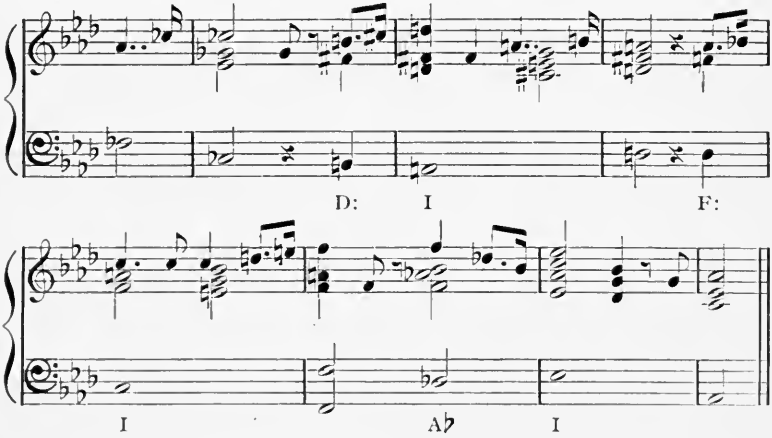
Modulations Continued.

174. *A change of key means a new tone-center, a new Tonic.* The change of key is *affirmed* and *confirmed* by decisive chords of the new key which fall on important rhythmic accents.

a. Confirmation implies a cadence, and as V7 includes the two scale degrees which have a fixed resolution,—2 and 4, it is the essential chord of the new key, and the one for which to listen, with its resolution on Tonic. *7 to 8 fixes key*, and *4 to 3 fixes mode.*

b. V7 is sometimes preceded by $\frac{I}{5}$ falling on the accent, the latter *affirming* the new Tonic. Observe this in the following excerpt from "Lohengrin", by Wagner:

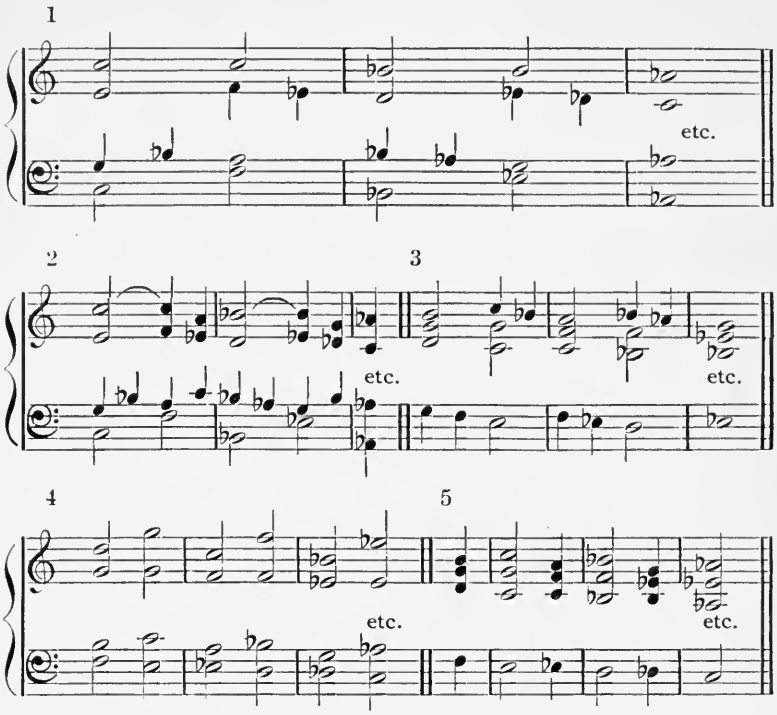
Ex. 121.



175. As the minor chords of a key are more or less obscure, it naturally follows that the primary chords,—I, V and IV are employed for the confirmation of a new key. In the minor mode of a key, the Tonic chord is used more persistently, repetition making the change more positive.

176. One of the simplest transitions is effected by the addition of a small seventh to a major triad, converting it into a seventh chord of the first species which is taken as a V7, resolving on a triad whose root is a pure fourth above that of the V7, affirming and confirming a new key:

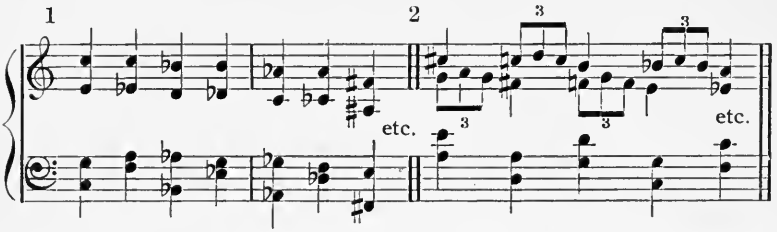
Ex. 122.



In taking these from dictation, locate the chord-sevenths and thirds.

177. Another common change is from V7 to V7. Observe the root relations:

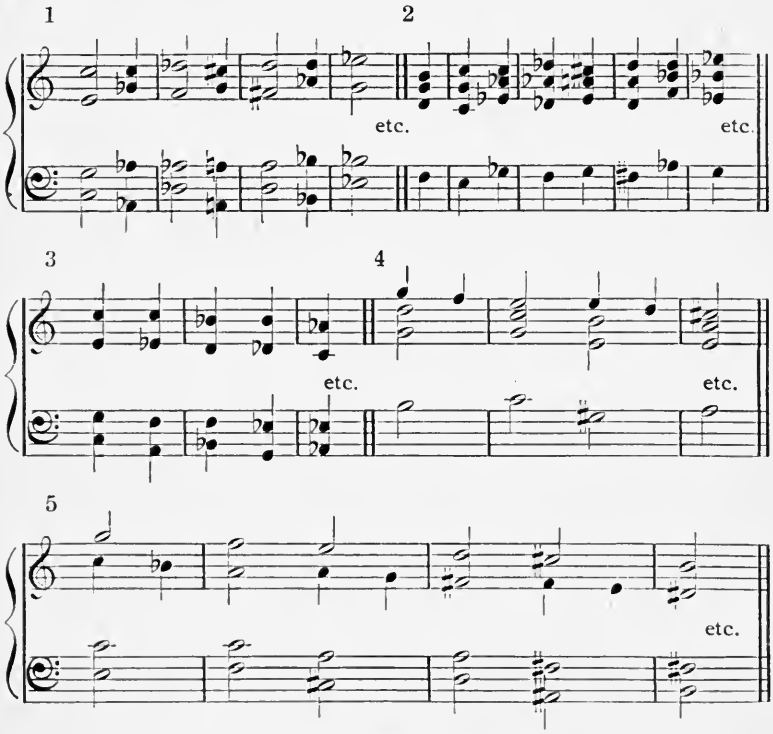
Ex. 123.



For home work, these sequences should be played, following the circle of keys back to the starting point.

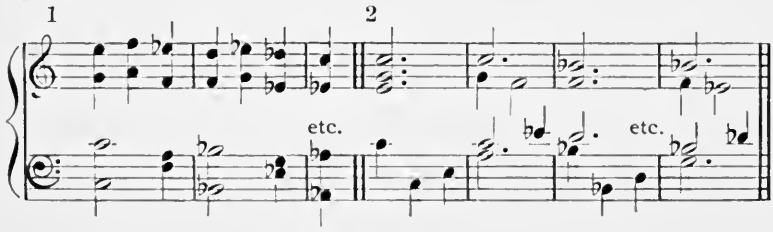
178. In the following, a tone of the Tonic is taken as a certain degree of V7. Play them, completing the circle as in the preceding examples. Taking from dictation, locate the common tone and state its relation in each chord:

Ex. 124.



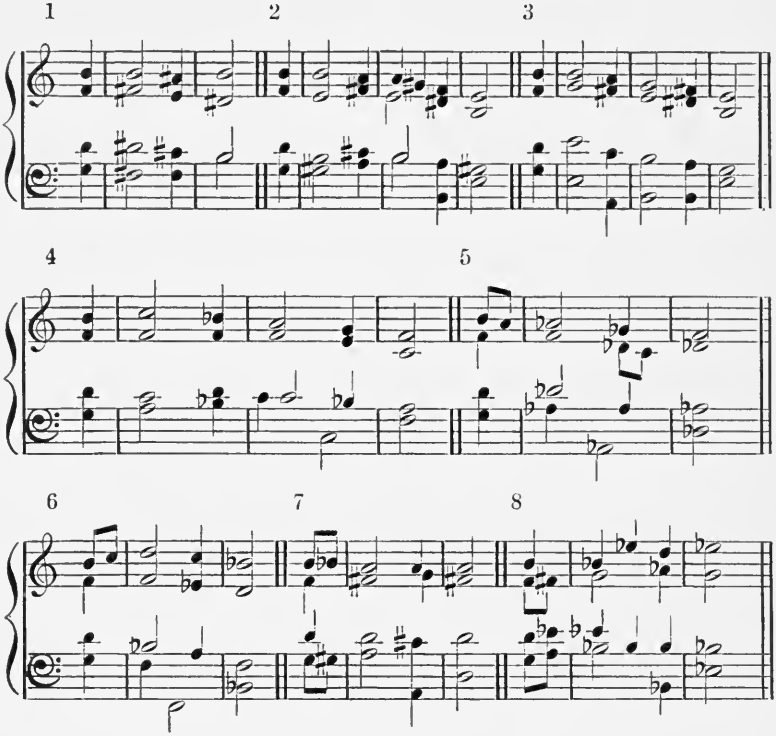
179. The following, which were suggested by Durand in his text for harmony, includes the Subdominant harmony:

Ex. 125.



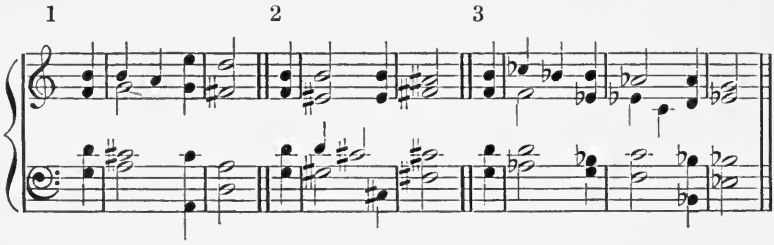
180. One degree of V7 taken for one of I is interesting and effective. Before taking them from dictation, play them, observing the various transitions:

Ex. 126.



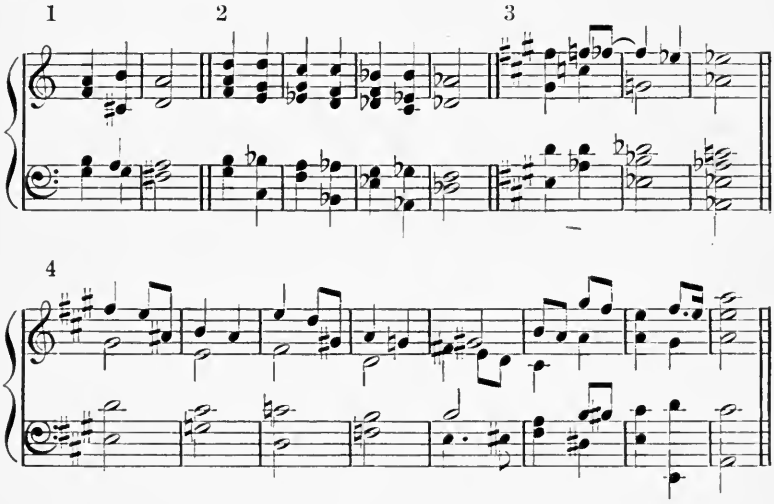
181. A tone common to V7 and V9 of another key is interesting:

Ex. 127.



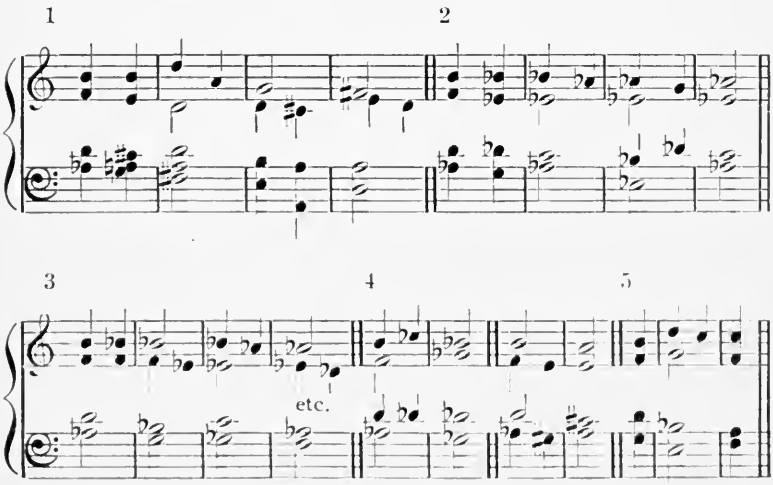
182. V9 to V9 is not difficult to recognize:

Ex. 128.



183. VII°_{7} to V7 and V9 is another common means of modulating:

Ex. 129.



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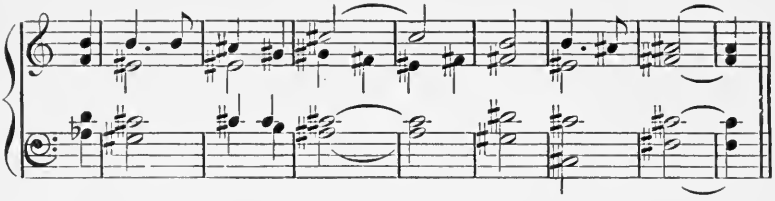


184. Modulating by means of a common chord is one of the simplest, therefore much used devices. *One diatonic chord may be taken for another:*

One chromatic chord may be taken for diatonic of another key:

One diatonic chord may be taken for a chromatic of another key.

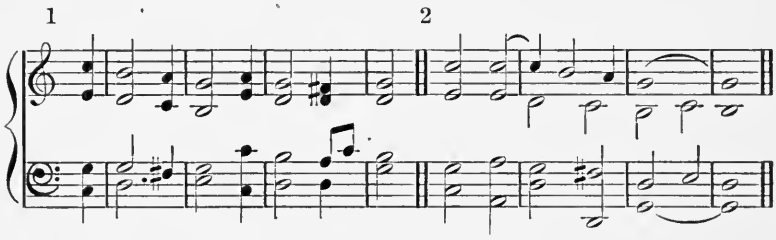
One chromatic chord may be taken for another chromatic.

185. Ex. 130 includes modulations where one diatonic chord is taken for the diatonic of another key. For example, in No. 1, the second inversion of the G chord (V) affirms a new Tonic of G, and the change of key is *confirmed* by the following V7 of the key of G.

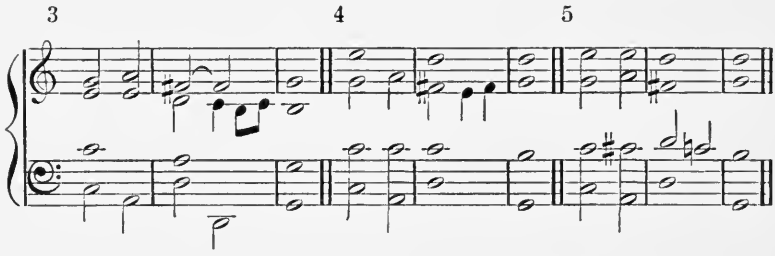
At No. 2, VI of C is taken as II of G, the key being *affirmed* and *confirmed* by the second inversion of the G chord on the accent and V7 following.

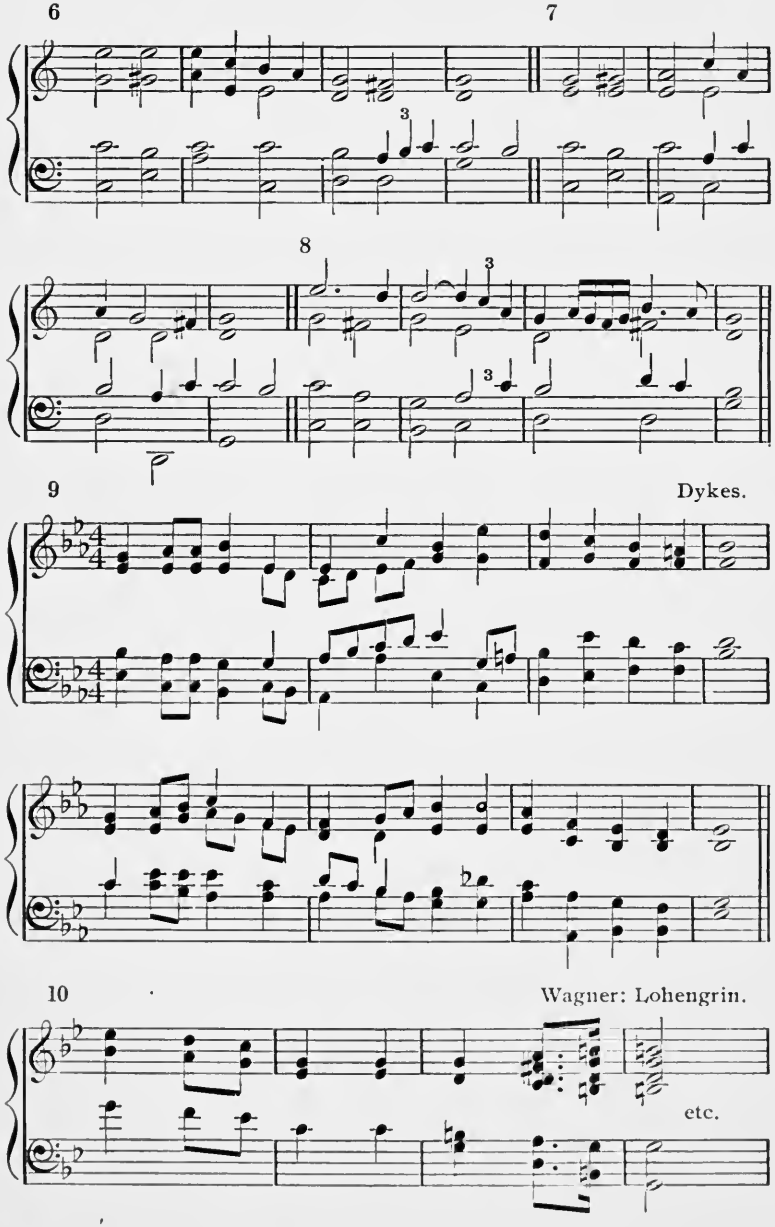
Ex. 130.

1 2



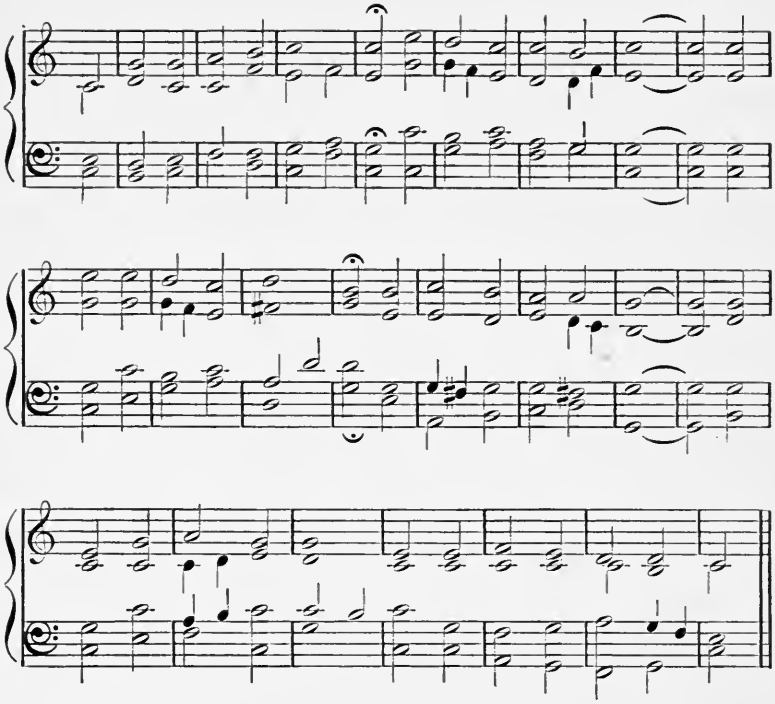
3 4 5




6
7
8
9
Dykes.
10
Wagner: Lohengrin.
etc.

11

Teschner.



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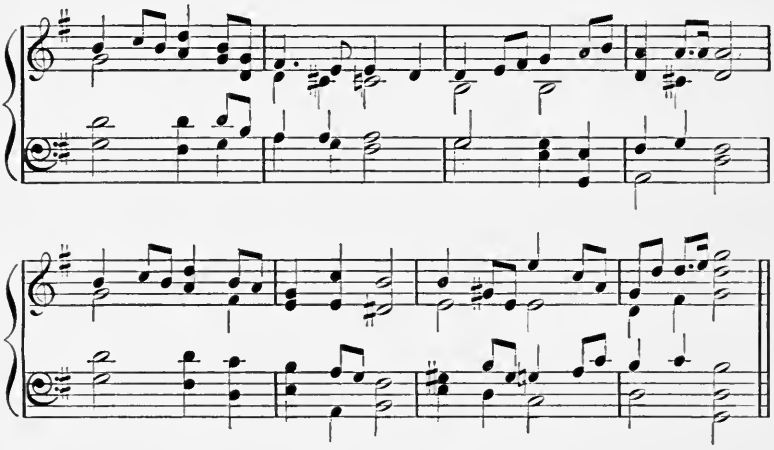
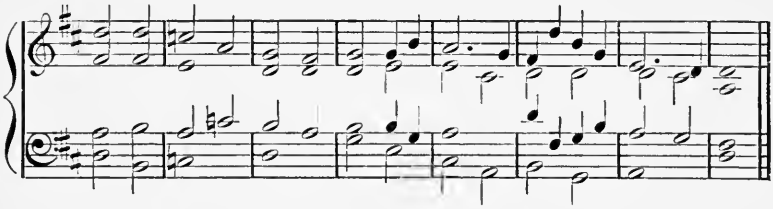


186. Modulating to the Subdominant key is less easy than to the Dominant. Listen for the darker effect that is given by the flatter tones. At No. 1 of the following example, VI is taken as III of the new key:

Ex. 131.

1



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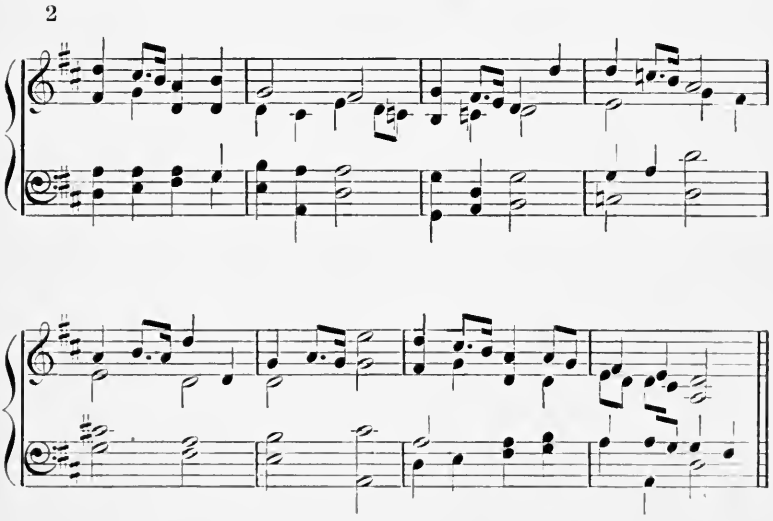
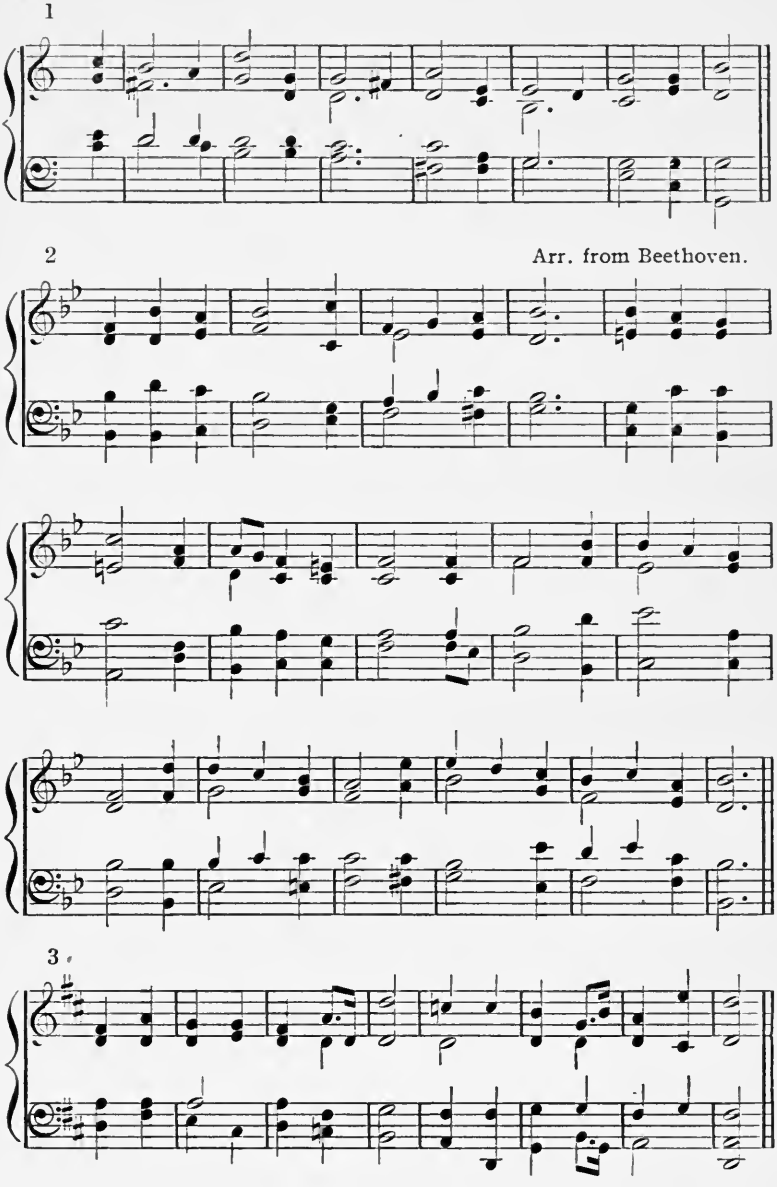


187. Example 132 includes modulations where the pivotal chord is chromatic in the old key, but diatonic in the new. In No. 1. VII of C is taken for III of G. In No. 2, the C chord of the fifth bar is chromatic in B♭, but the diatonic V7 in the key of F which follows:

Ex. 132.



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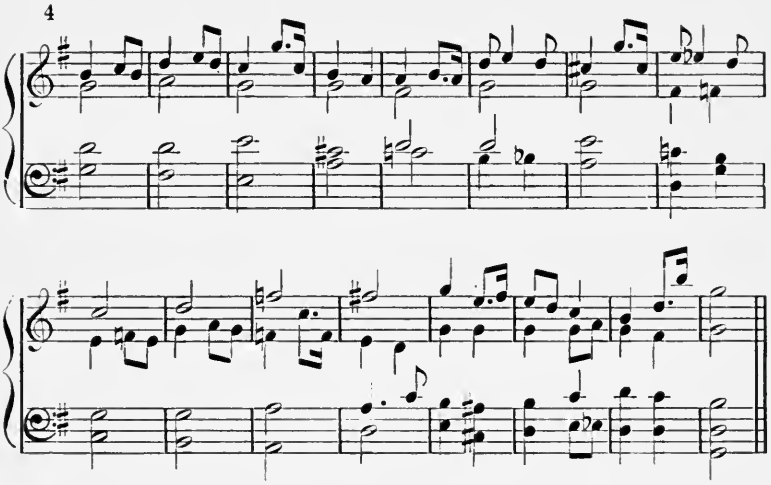

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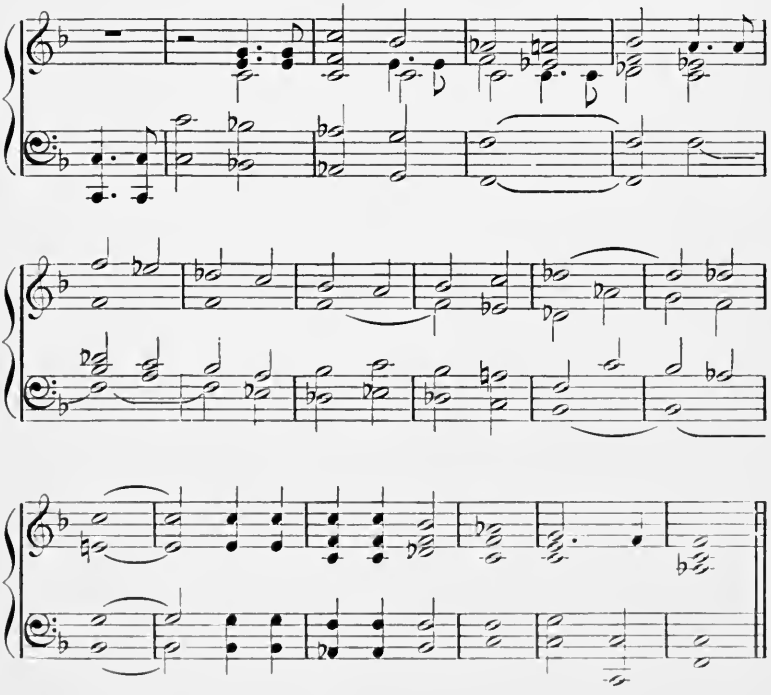
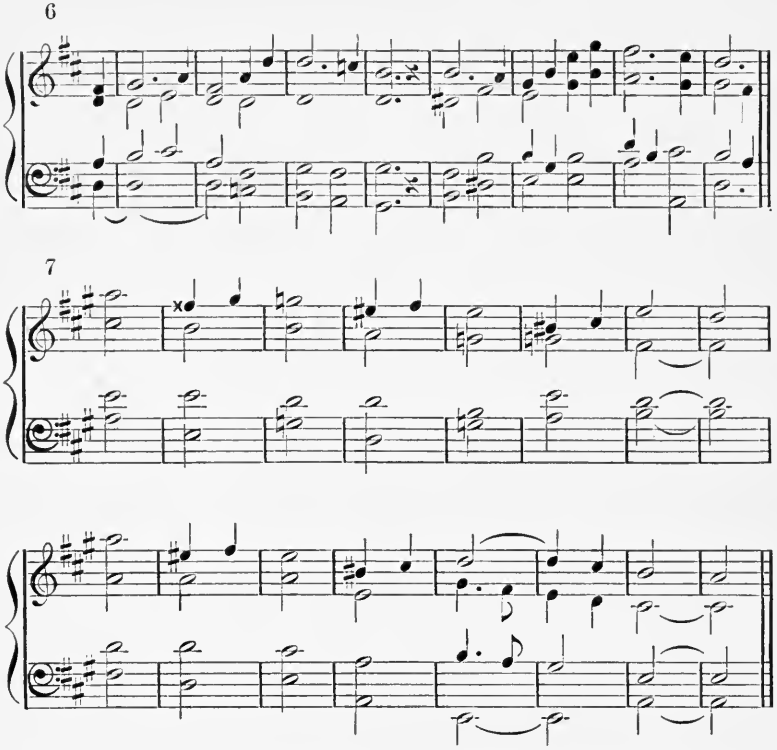
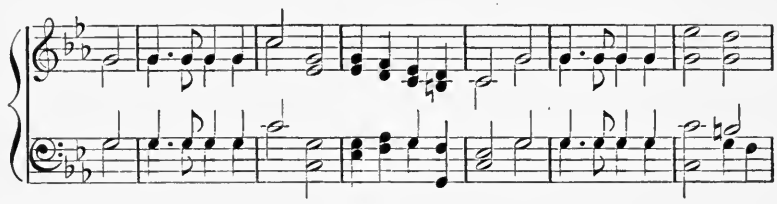


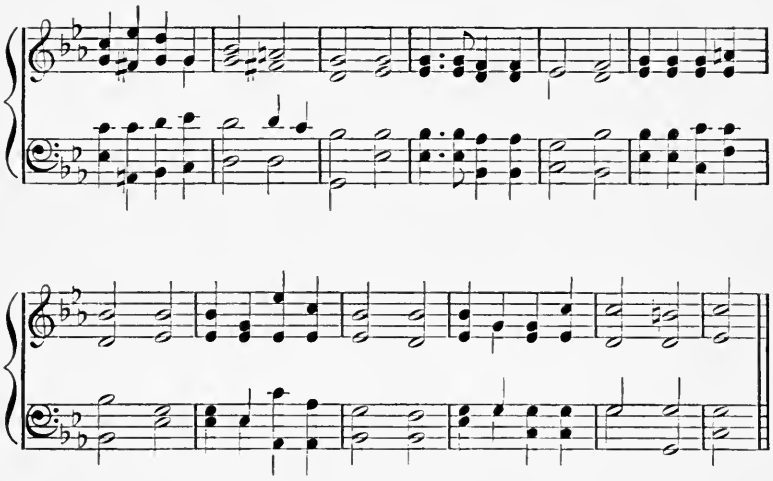


188. In the larger forms, one is more likely to hear the changes of key occurring with the phrases. This is not necessarily so, but oftener, excepting in the repetition of small figures in sequence. In four bar phrases, the material peculiar to the new key seldom appears until the last section or very near to it. Observe the form of this number:

Ex. 133.

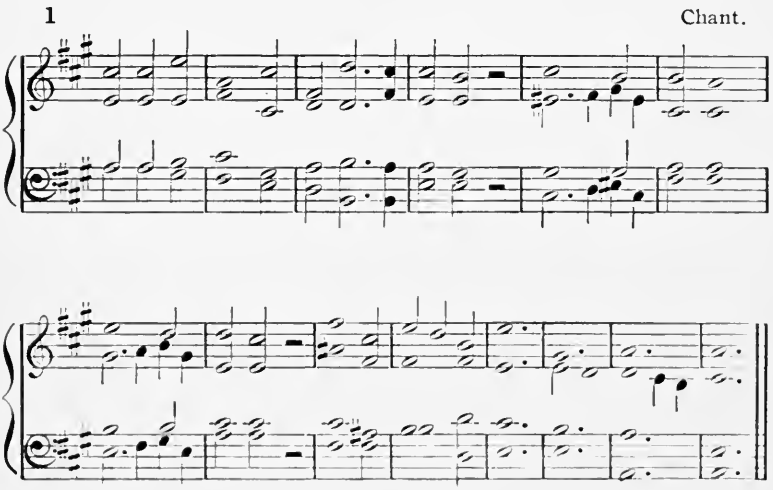
Mendelssohn.





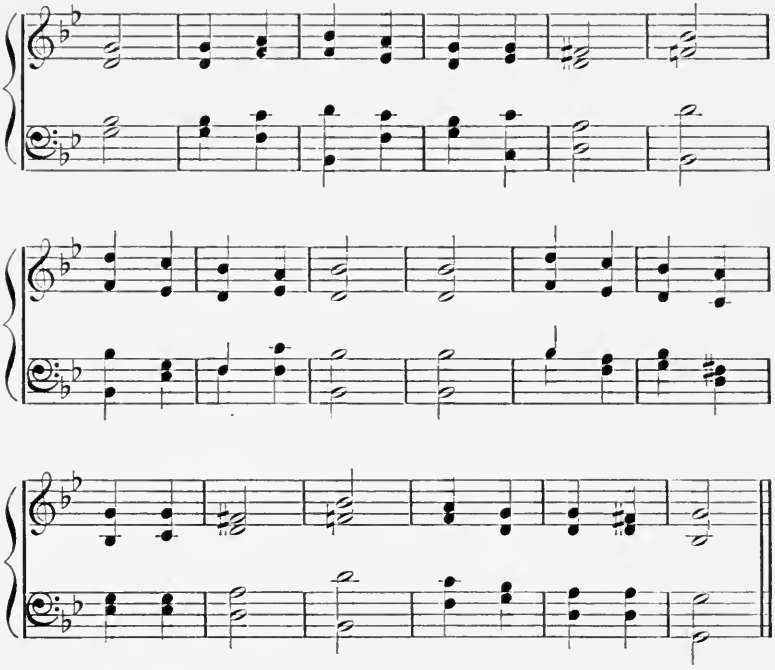
189. Another familiar change is to a small third above or below:

Ex. 134.

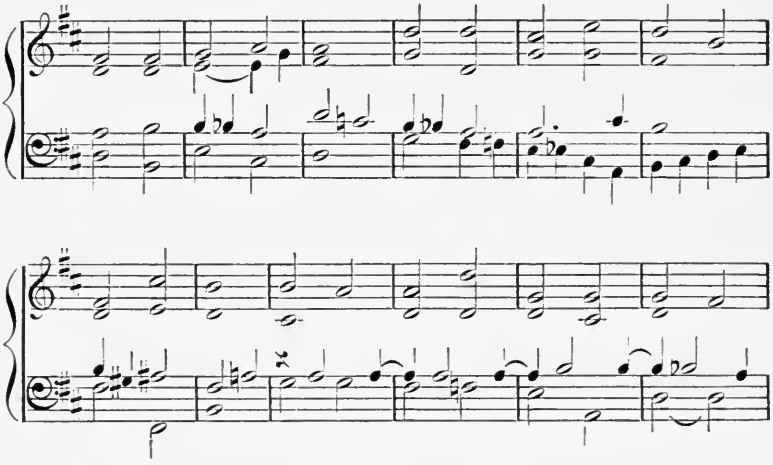


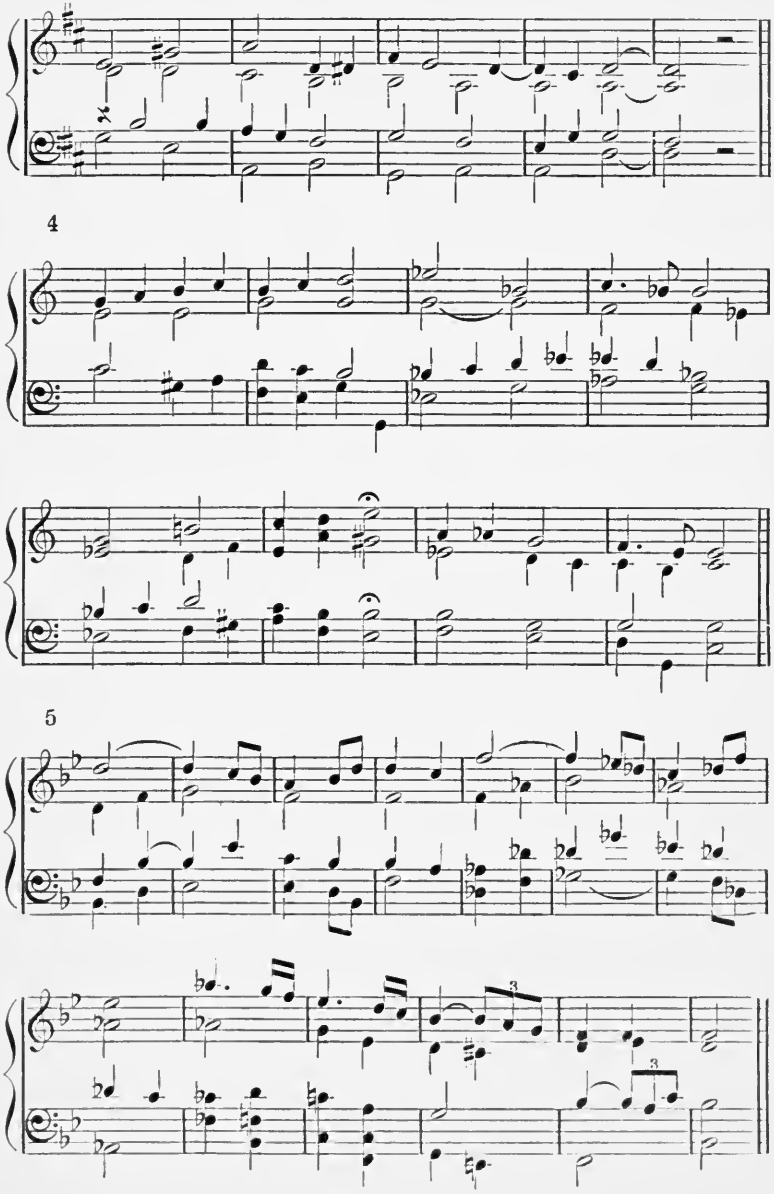
2

Kirby: Hymn.



3




4
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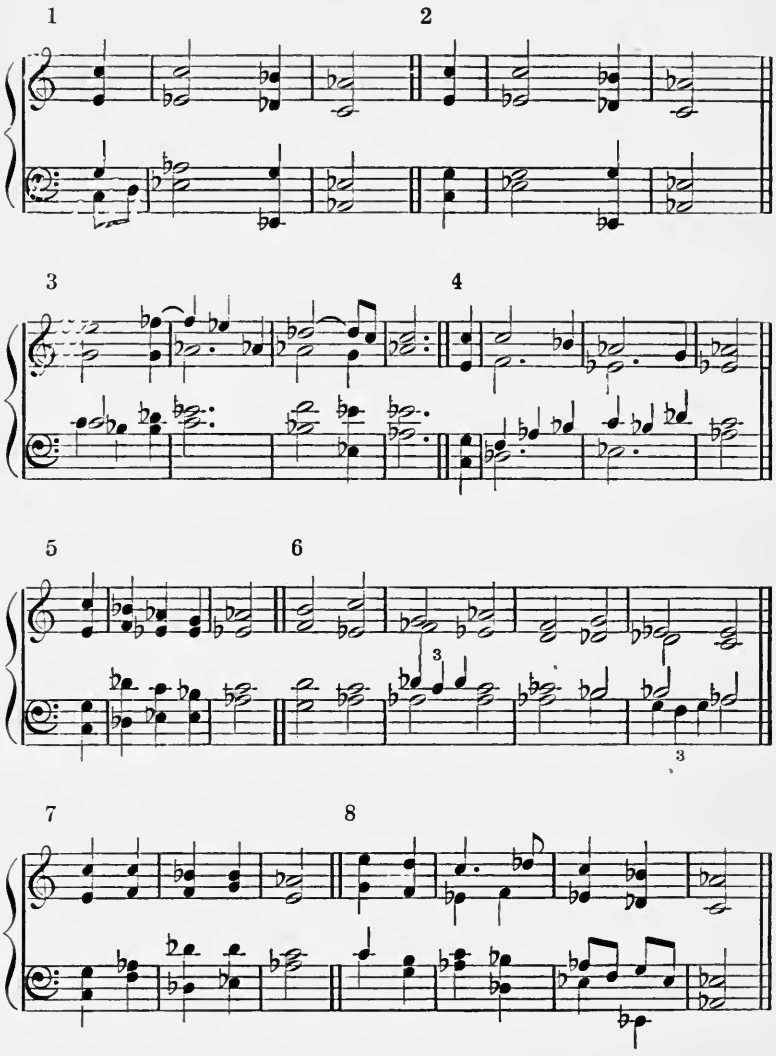
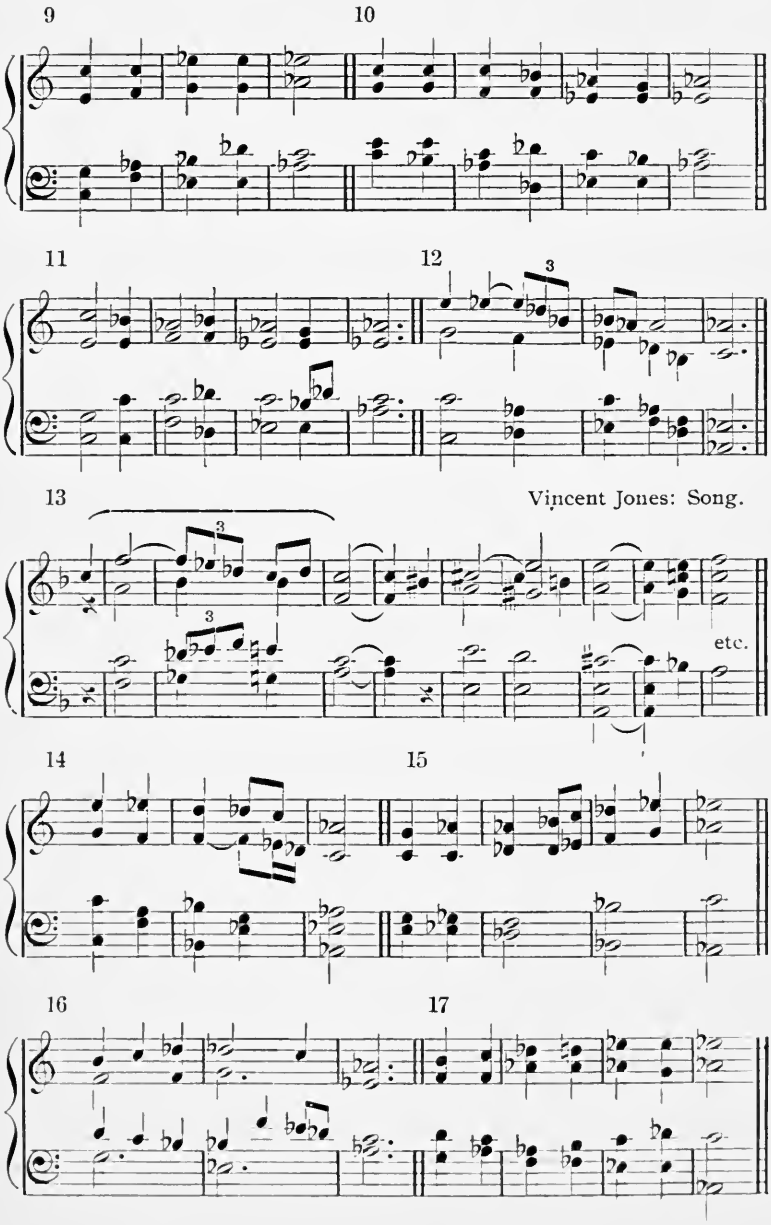
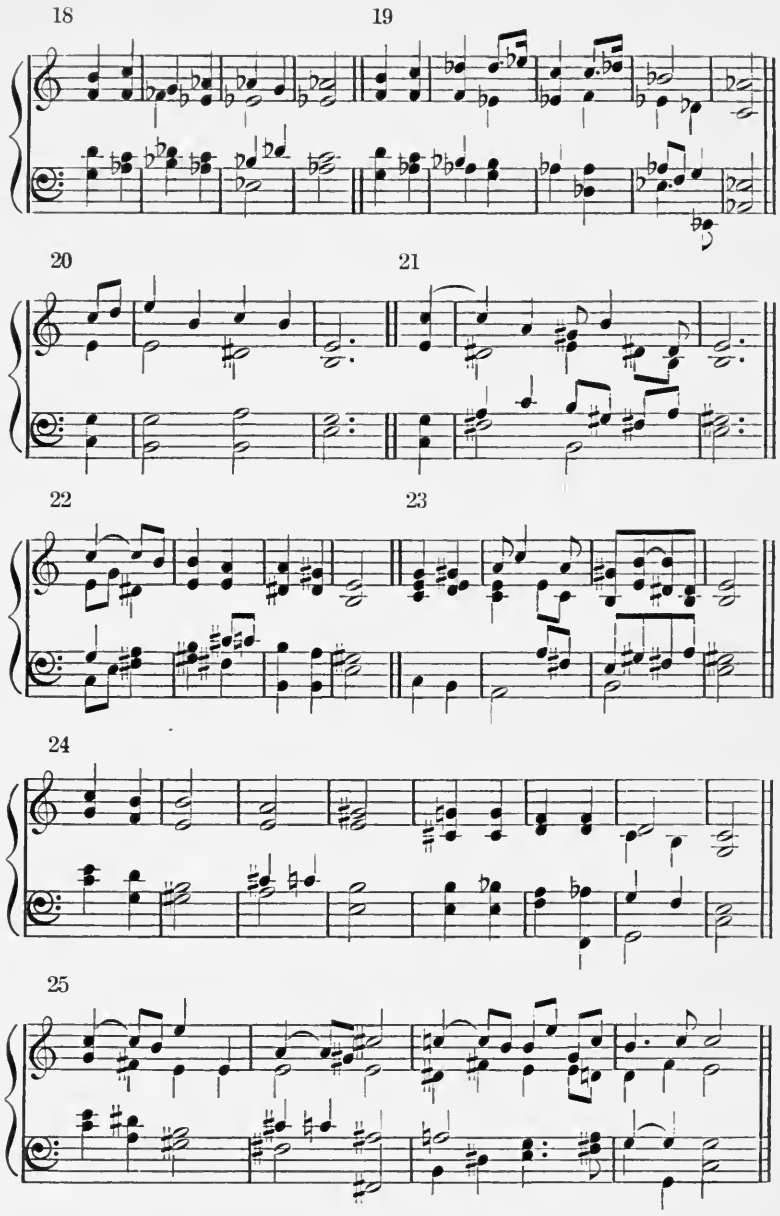
190. Modulation to a key a large third above or below is very interesting. Some of the following examples began with V7, presupposing a previous phrase in that key.

Ex. 135.




9
10
11
12
3
13
Vincent Jones: Song.
3
3
etc.
14
15
16
17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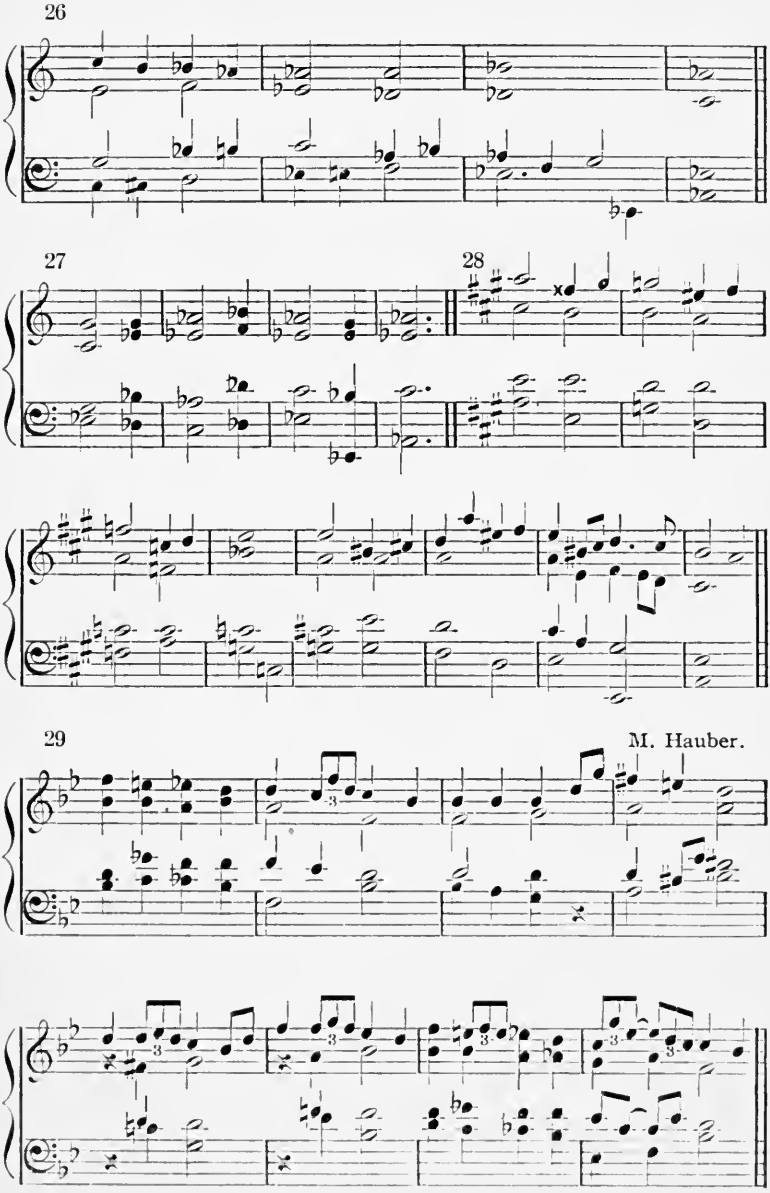
26
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28
29
M. Hauber.

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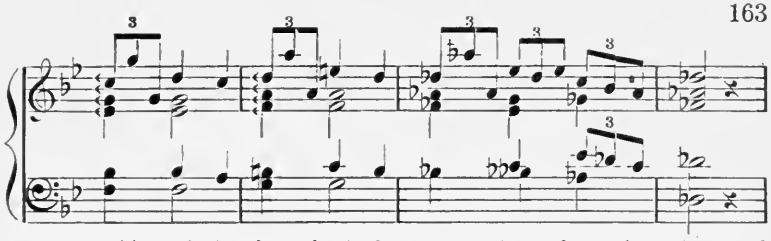
32

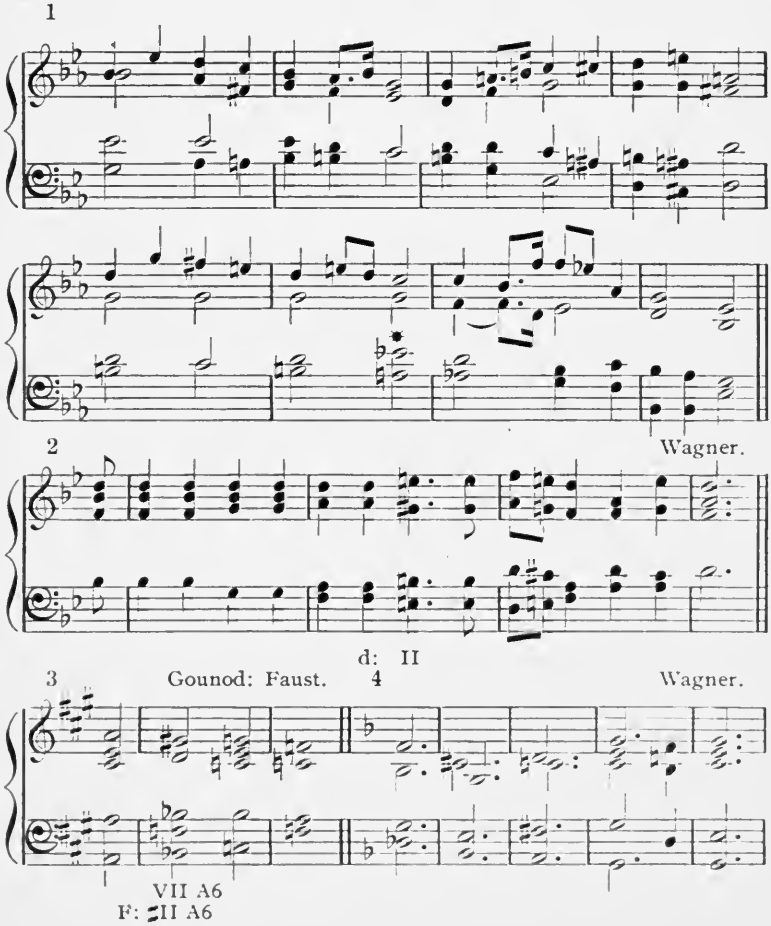
33

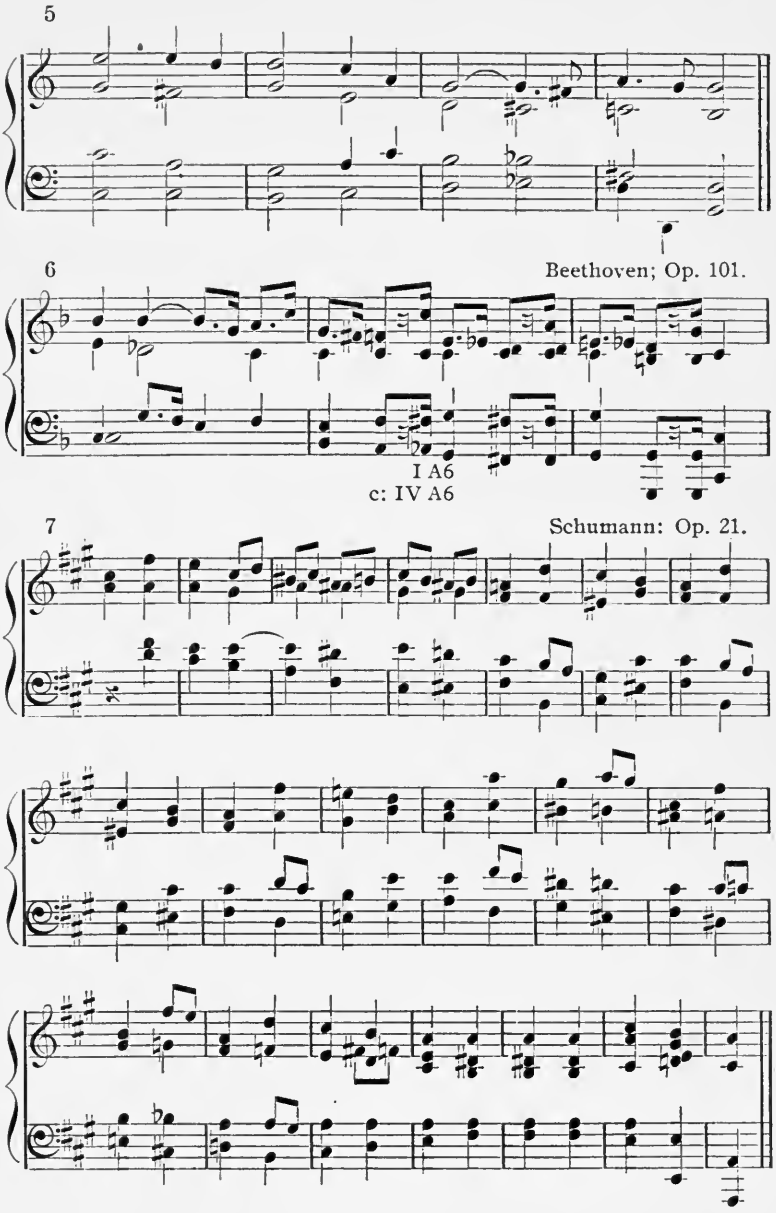
Vincent Jones: Romance.



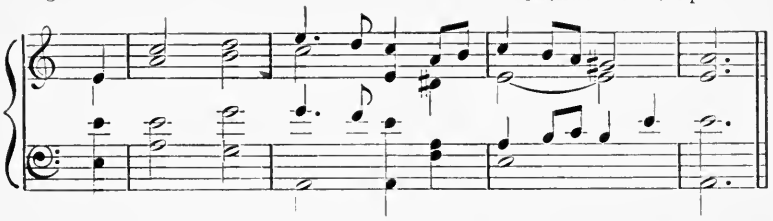
191. The following includes examples of a pivotal chord that is chromatic in both keys:

Ex. 136.




5
6
Beethoven; Op. 101.
I A6
c: IV A6
7
Schumann: Op. 21.

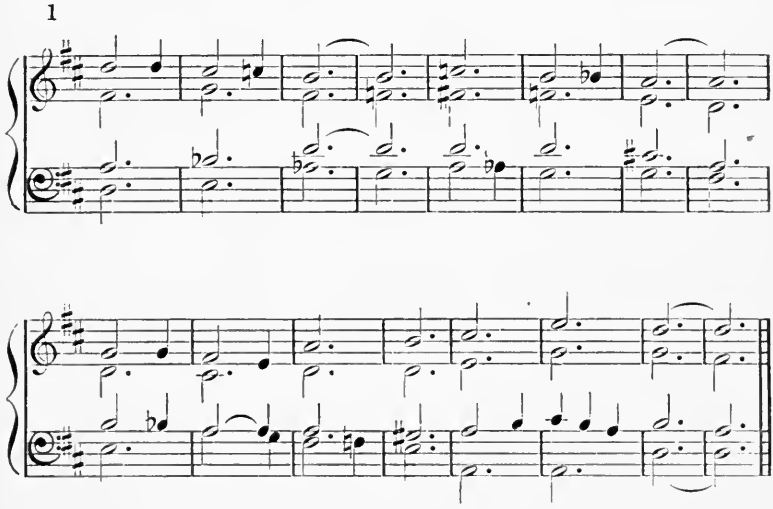
8 Mendelssohn: Op. 41.



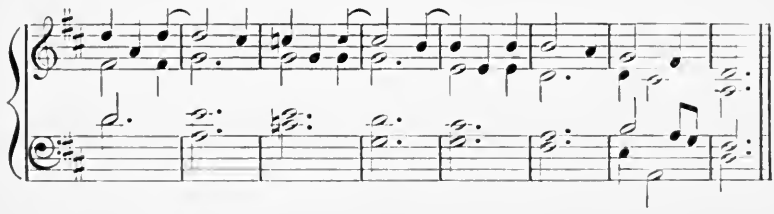
192. Carefully analyze the changes to remote keys before taking them from dictation.

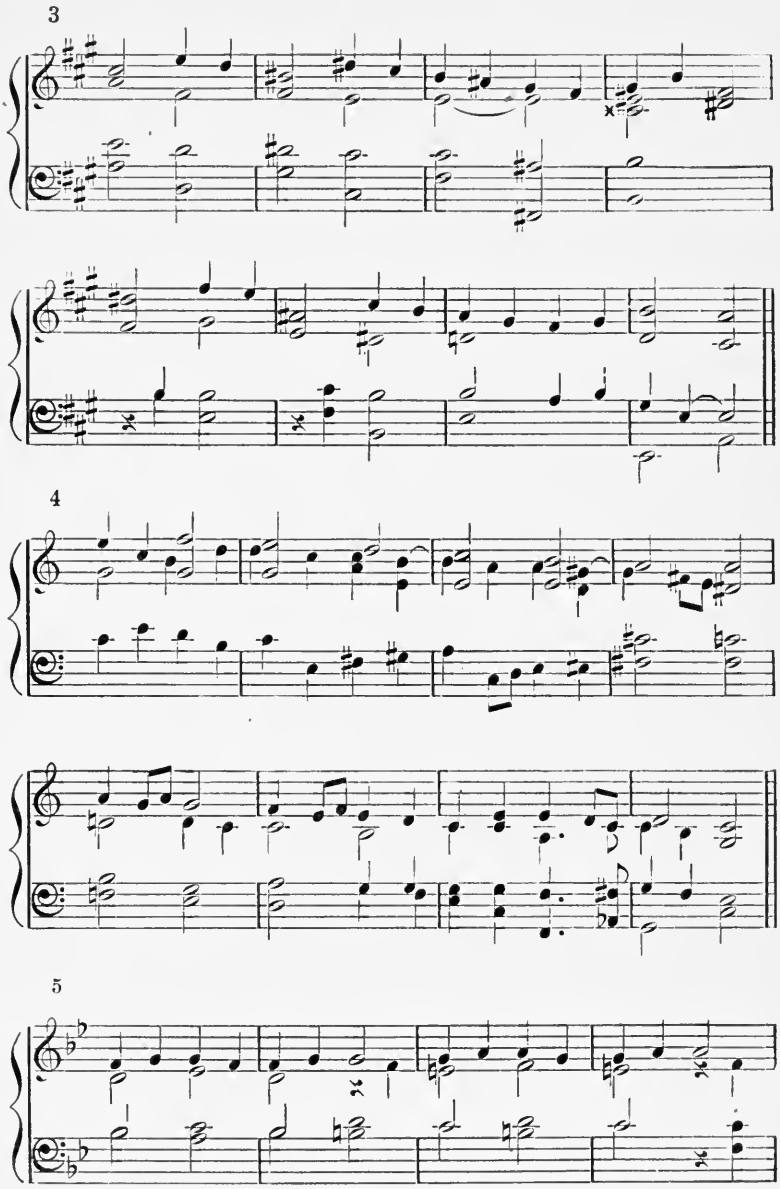
Ex. 137.

1



2

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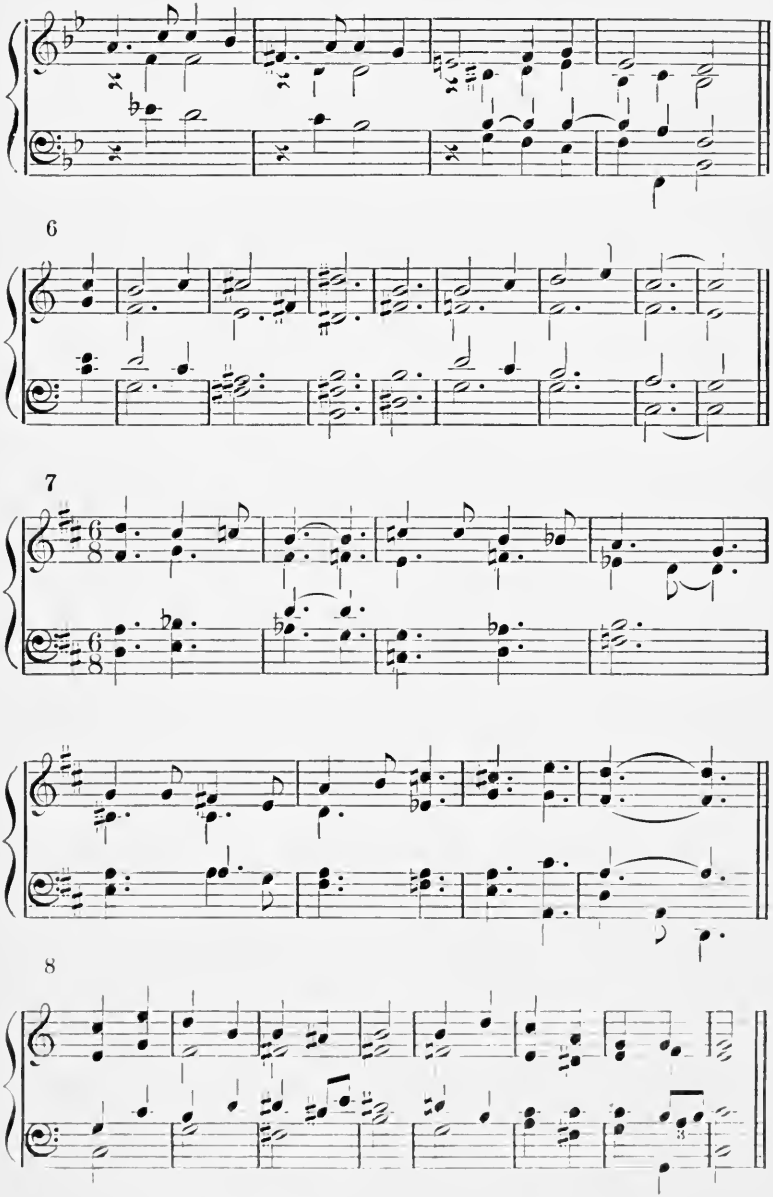
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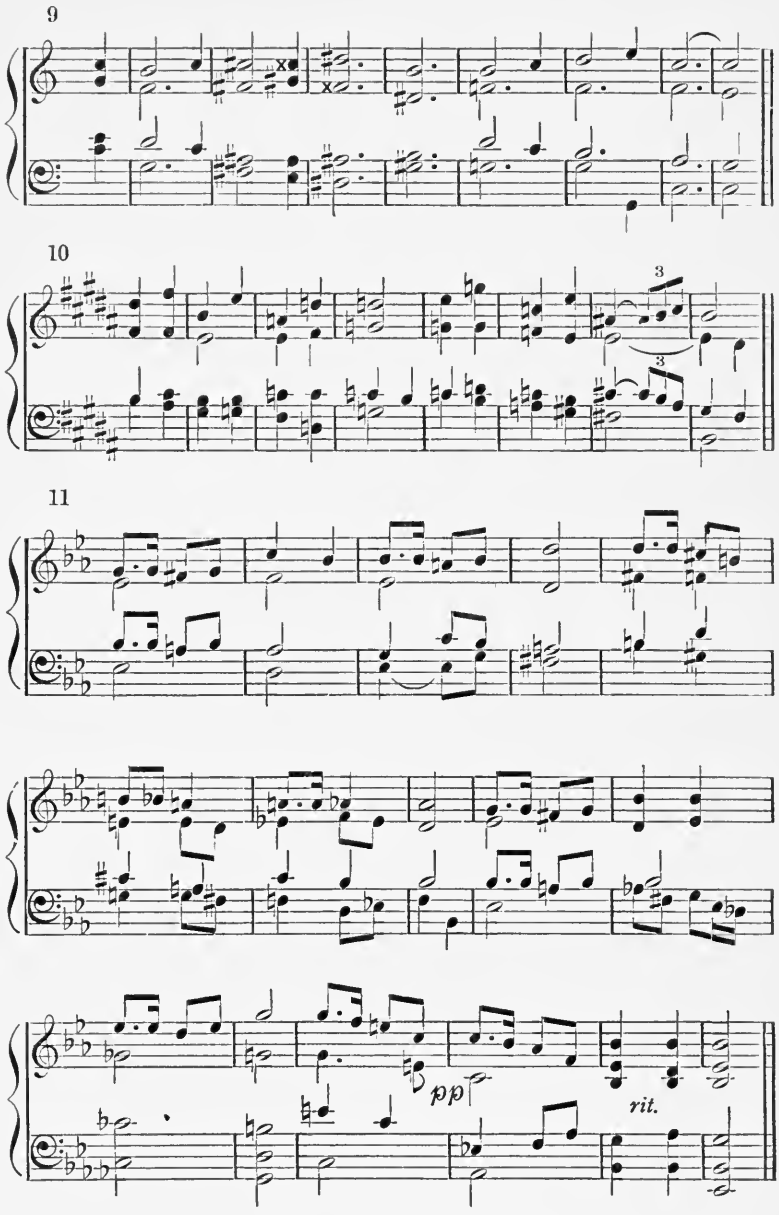
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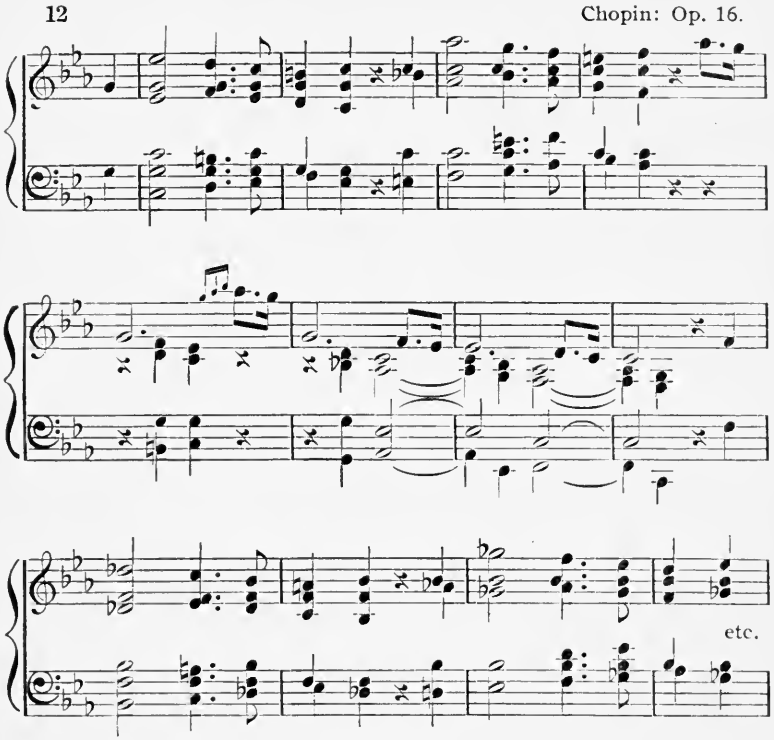
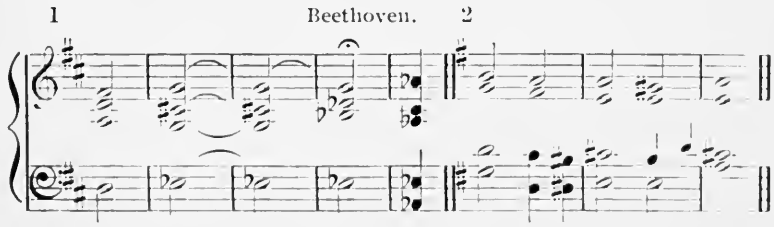
rit.

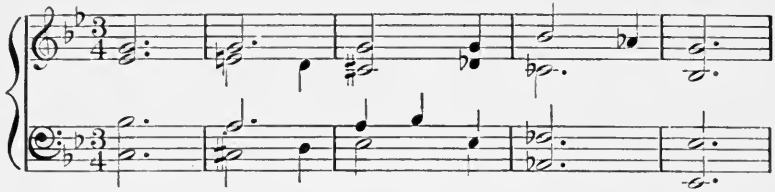


193. Interesting changes of key are easily made by means of enharmonic changes. This is done to establish different chord relations for one or more tones. For example, C sharp of the third chord in No. I is expressed as D flat in the fourth chord, becoming a Dominant seventh of the new key:

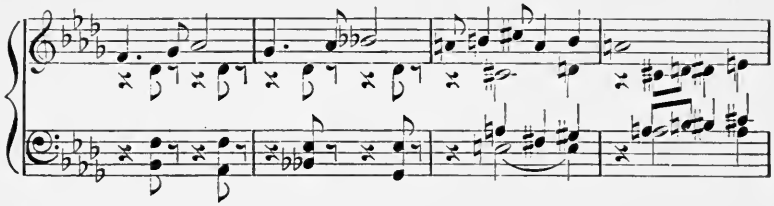
Ex 138.



3 Dvorak: Requiem.

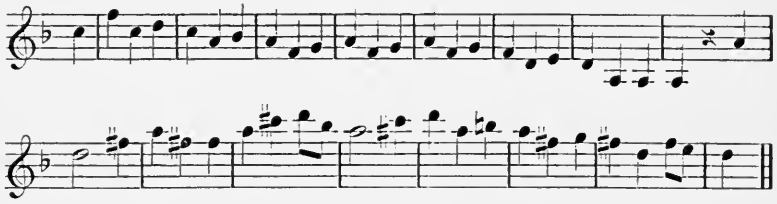


4 Franck.

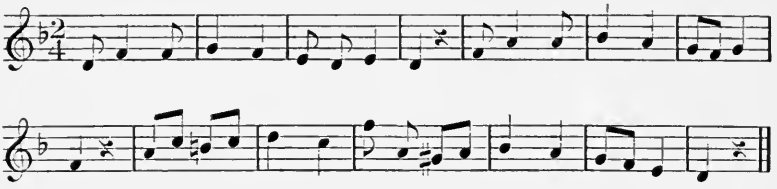


Ex. 139.

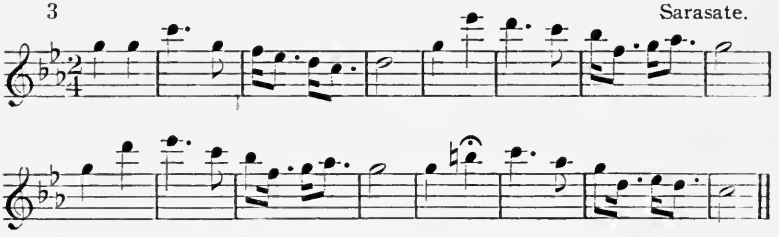
1 Beethoven: Symphony.



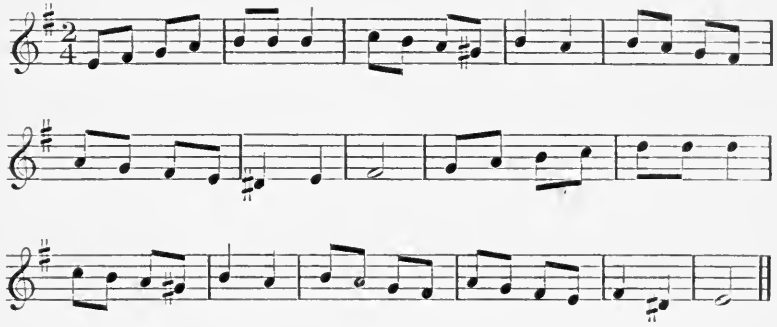
2 Hungarian Air.



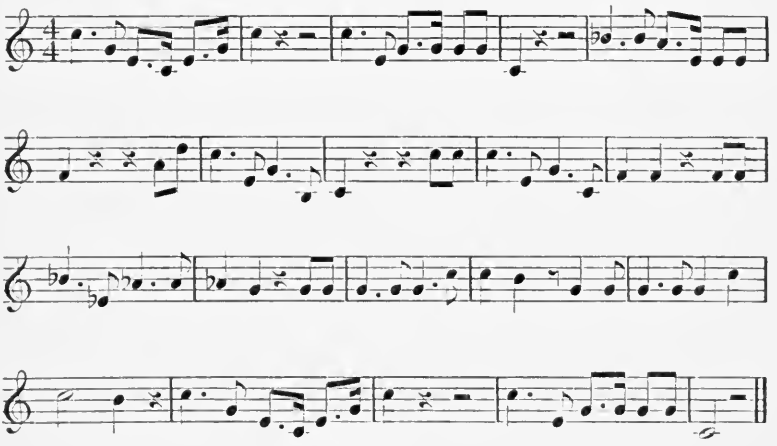
3 Sarasate.



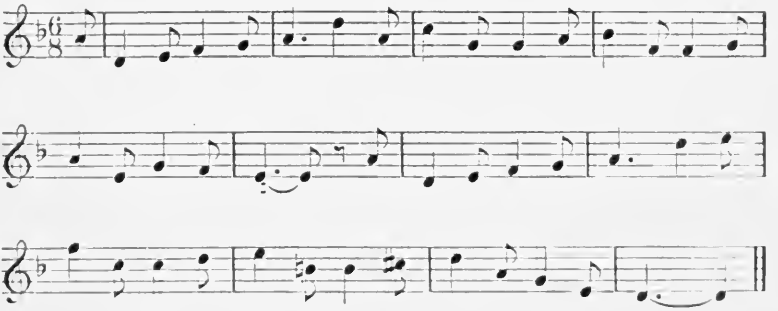
4 Russian Folksong.



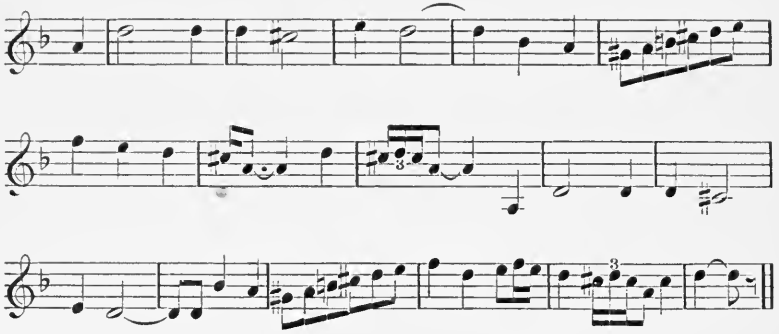
5 Schumann.



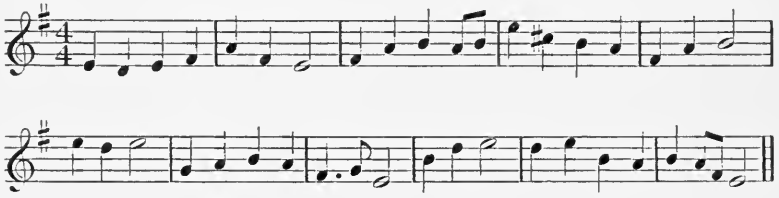
6 Old Welsh Song.



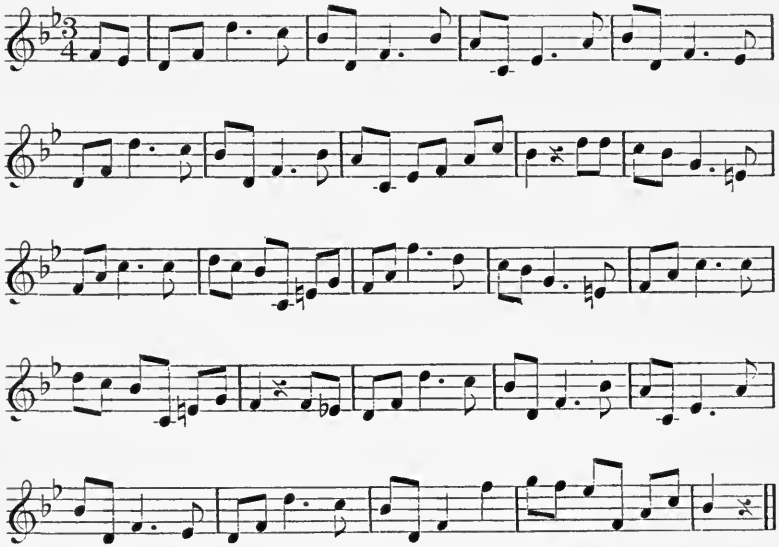
7 Lalo.



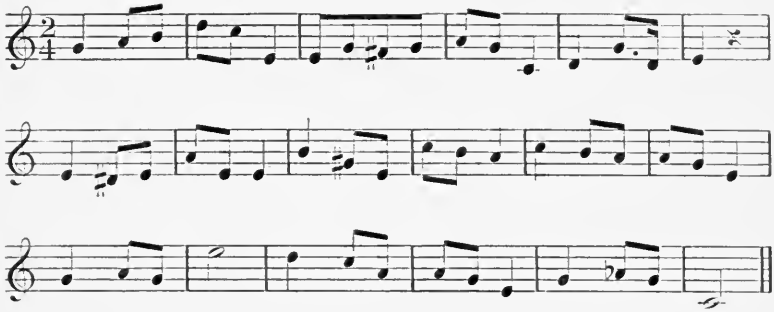
8 Japanese National Hymn.



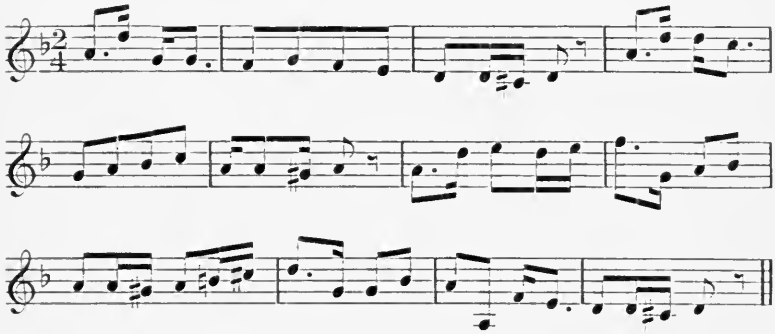
9 Tyrolean Air.



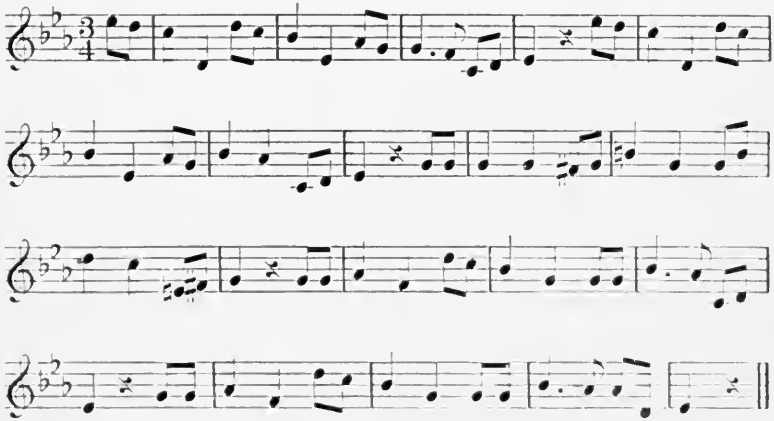
10 Polish Song.



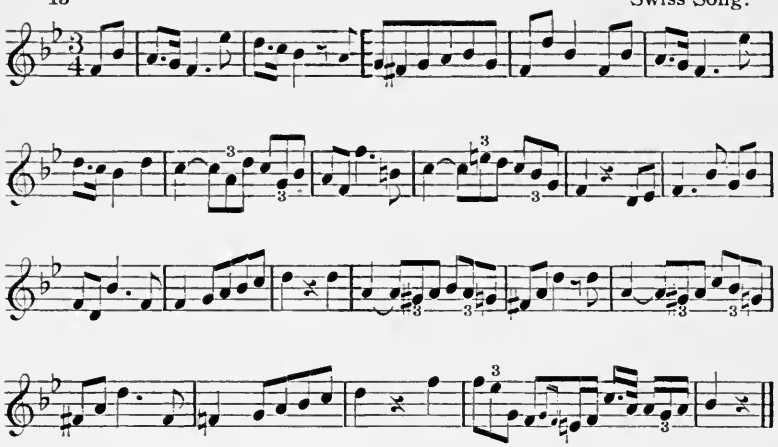
11 Hungarian Air.



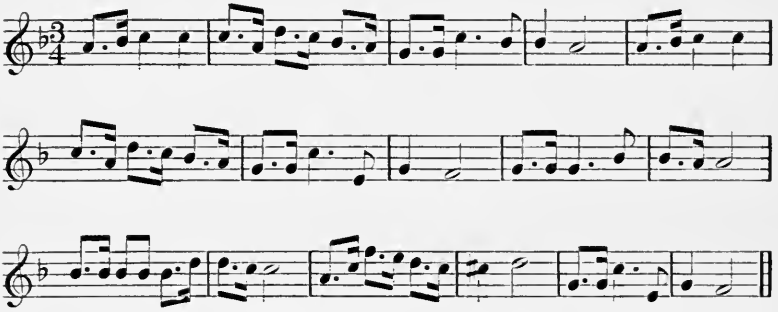
12 Swiss Song.



13 Swiss Song.



14 Polish National Song.



As there is such an abundance of good material that can be used from this grade on, it would be unnecessary to include more in this volume.

The author recommends Schumann Op. 68 and 15: The Bach Album of selections from the Suites: The small forms of Grieg and other modern composers. Following these, no really good composition will be amiss.

If one makes an analytic and synthetic study before taking from dictation, much will be gained, especially if the harmonies are decided by *sound*, and not the notation only.

For the average person, proficiency in this work requires years of persistent effort. Only the observing eyes and ears are rewarded with success.

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