

How to Observe Harmony BY JOHN CURWEN









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TWELFTH EDITION.

How to Observe Harmony.

With Exercises in Analysis.

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JOHN CURWEN.



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NOTICE.

The first edition of "How to observe Harmony" was published in September 1861. It was the result of original investigation in the compositions of Handel, Haydn, and Mendelssohn. Of course it did not show anything new in Harmony, but it showed the necessity of exhibiting the well known habits of good composers under a new light, by means of a new Theory, and with a new nomenclature. The educational facilities which it offered for the studying of Harmony were eagerly seized by our Tonic Sol-fa friends. Within 10 years 800 students had wrought through the exercises, more than half of whom had obtained Honourable Mention in the *Reporter*, for the accuracy of their work. Even students who had not cared for our instructions in Singing and the use of instruments, were attracted to our method by the Harmony Courses. In one institution alone (the Andersonian University, Glasgow) about 293 students have, in four years, worked the exercises in both notations. They use both notations because, while the Sol-fa notation shows the nature and relation of the chords better, the staff notation in short score, displays more clearly, to those accustomed to it, the distribution and the relative motion of the parts.

This practice of Harmony Analysis, led many pupils (without my intending it) to attempt Elementary Composition. It seemed of no avail to show them the difference between analysing a picture, and painting one, between copying an architectural plan, and designing one. I was obliged to try and guide this new ambition, guarding it from at least gross errors. This led to my publishing the "Construction Exercises " which form part of my " Commonplaces of Music." Since the early chapters of these were published in a preliminary form (A.D. 1867,) 388 students have entered the course, and 135 of them have obtained Honourable Mention. These studies have again created a demand for a very much improved system of Observation and Analysis. Students feel that if they had observed more fully, and especially if they had observed the chains of progression, and the relations of phrase and cadence, as well as the chords, they would have been saved from many blunders in their early attempts at Elementary Composition. All this knowledge which young composers desire is exactly that which will be of use to the intelligent einger. It will enable him to sing more correctly, more confidently, and with a much greater fulness of enjoyment.

These incidents and reflections have led me to the present work, in which I have been very greatly assisted by those friends who are constantly engaged in correcting exercises. Our experience has suggested the importance of dividing the Analysis Course into two parts. It is easy to see in the case of many students, before they are half through the exercises, that they will get confusion of thought, instead of knowledge, by going on to the end. It is better that they should go back again, and cultivate accuracy of observation and attention by means of new exercises on those first principles which they have failed to apprehend.

The first eight steps, including the main principles of Harmony, form the "Pass stage." The remaining steps are called the "Honourable Mention stage." In our College Courses, every student who reaches the end of the "Pass Stage," without showing proofs of sufficient care and correctness, is required to go through the whole or an appointed part of the "Pass Stage" again, with a different set of exercises. When he can do this satisfactorily, he is allowed to "pass" to the next stage. Honourable Mention is given in the Tonic Sol-fa Reporter, at the end of the course, to those who have obtained a certain proportion of the highest possible number of marks. These Courses are carried on through the post. The dates at which exercises should be sent to the Secretary are given in the Calendar of the College. and fuller particulars appear from time to time in the Tonic Sol-fa Reporter. Teachers who have themselves obtained Honourable Mention can send up certain testing exercises of their pupils at the close for the Honourable Mention examination. The Secretary of the Tonic Sol-fa College, 27, Finsbury Square, E.C., is always ready to give information.

My thanks are due to B. St. J. B. Joule, Esq., to Edwin Monk, Esq., and to Messre. Novello, Ewer, & Co., for permission to use their chants and tunes.

I trust that this new work will help yet further to popularise the delightful study of Harmony.

November, 1872. JOHN CURWEN.

PREFACE TO THE SIXTH EDITION.

MR. CURWEN had for some time meditated an improved edition of "How to Observe Harmony," but illness and death prevented the accomplishment of his wish. The revision has, therefore, fallen upon myself, with the able assistance of Mr. Geo. Oakey, Mus.Bac. Valuable hints have also been received from Mr. Robert Griffiths, based on his experience of the use of the book in the examinations of the Tonic Sol-fa College; and from Mr. W. Litster, of Aberdeen.

In several respects the revised edition is made more handy and clear. An alphabetical index has been added, as well as a page giving "Leading Definitions" and "Rules for Writing Analysis," all of which will save the time of the student, and help him to be accurate.

An Appendix of difficult cases of analysis from leading composers has been added. The analysis of each quotation is given and discussed. These examples will anticipate many of the difficulties to be met with in the analysis of modern music.

Two slight alterations in the method of analysis have been made. First, part-pulse forestrokes are now to be numbered as well as full-pulse. Second, full-pulse afterstrokes are no longer to be numbered. Small letters are used instead of capitals for the signs of all the incidentals.

The text has been revised throughout, and sentences which caused confusion have been made more clear. The distinction between 2nds and 9the has been more accurately drawn. The course of exercises has also been to some extent shortened and simplified.

April, 1881.

J. S. C.

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LEADING DEFINITIONS.

1. Consonant chords .- A root with its third and fifth (p. 2).

2. Major and Minor chords .- Those in which the third nearest the root is respectively major and minor (pp. 2 and 23).

3. Bonding of chords.-The uniting of adjacent chords ry a tone common to both (p. 4).

4. Dissonance.-Two tones next each other in the scale counding together.

5. Discord.-A chord with one or more foreign notes added to it becoming an integral part of the combination.

6. Cadence .- The two closing chords of a musical division or section (p. 8 and 13).

7. Constituents of chords .- The root, third, and fifth of a consonant chord; and in addition the 7th, 9th, &c., of a discord.

8. Distribution of chords .- The arrangement of the constituents as to distance from each other.

9. Position of chord. - A statement as to which constituent is in the bass (p. 8).

10. Similar motion .- Two or more parts moving parallel to each other.

11. Contrary motion.-Two or more parts moving in opposite direction.

12. Oblique motion.-A part repeating a note, while another part or parts move from or towards it.

13. Weak-pulse cadence.-The final bass note being on a strong pulse, while one or more upper parts are not completed until the weaker part of the measure.

14. Sequence .- A repetition at a different part of the scale of a passage of melody or harmony.

15. Bys Tone.- A new note or notes of a chord restruck on the after part of a pulse while the remaining notes of the chord remain undivided (p. 39.) 16. Ornamental tones.—Bye-tones (p. 39) and consonant

passing-tones (p. 40). 17. Incidentals.—Tones foreign to a chord, whether struck

on the first or second part of a pulse, or on a strong or a weak pulse.

18. Forestroke.-A dissonant or foreign tone struck on a strong pulse, or on the first part of a pulse.

19. Afterstroke.-A dissonant or foreign tone struck on s weak pulse, or the second part of a pulse. 20. Constitution of chord.—A statement as to which con-

stituents are doubled or omitted (p. 43).

21. Crowning of chord.-A statement as to which constituent is in the highest part (p. 45). 22. Transition.—Passing to a new key.

23. Modulation .- Passing to a new mode-major to minor, or vice versa.

24. Transitional Modulation .-- Passing at once to a new key and a new mode.

25. Cadence Transition (with or without modulation) --Change in approaching a cadence, not extending backwards beyond the fourth-last chord.

26. Extended Transition .- Change of key extending backwards beyond the fourth-last chord of a cadence, or forwards into another section, or including a whole section, or more than four chords in any part of a section.

27. Passing Transition .- Short change of key in the beginning or middle of a section.

28. Seconds and Ninths .- In the primary form (p. 5) discords of this class are called Seconds; in the secon-dary and tertiary forms they are called Ninths, whether resolved upward or downward. See pp. 101 and 102.

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RULES FOR WRITING ANALYSIS.

(For additional rules see p. 110.)

1. The letters which represent chords to be in capitals-D, S, &c.

2. Positions of chords to be marked by a small letter, as Db. Sc. &c. The a position is taken for granted unless any other position is marked.

3. The forms of printed characters to be used in writing, rather than current hand.

4. The duration of each chord to be expressed by the ordinary Tonic Sol-fa time marks.

5. When a chord is struck several times in a measure it need not be renamed so long as the bass remains unaltered. The chord should, however, be renamed on the first pulse of each measure, unless the bass is a continued note.

6. All discords (see definition 5), to have the root-dis-tance number of the dissonance placed at the upper left hand corner of the chord name. For example: 7S, 7R, 67S.

7. Incidentals, such as bye-tones, passing-tones, &c., to be marked in small letters underneath the chord name. For example : D 8.

2 bye p

8. Two or more incidentals occurring in the D same pulse in different parts, to be placed one 0 under the other. For example: n

9. Two or more incidentals following one another in the same part to be marked side by side, with the sign "&" between. For example: n

10. Consonant passing-tones (p. 40) to be distinguished from ordinary passing-tones (p. 67) by the letter c. Thusc.p.

11. Continuous passing-tones (p. 72) to be distinguished by the letters cn. Thus-cn.p.

12. Afterstrokes, whether full or part-pulse, to be marked merely by a small letter under the chord name. See Appendix, ils. 237 and 249. [N.B.-But afterstrokes must be distinguished from discords. See definition 5, and rule 6. Compare il. 249, pulses 2 and 4 with il. 196, pulses 2, 4, & 8.]

13. Forestrokes, whether full or part-pulse, to be marked by a small letter, as h, o, uo, wf, or u. See ils 119-123 and 165-171. The root-distance number to be given in all cases. [Part-pulse forestrokes are numbered as well as full-pulse.]

14. Forestrokes, whether full or part pulse, occurring in the bass to be marked by the position-letters d or e, and the consonant chord on which they resolve renamed. See Appendix, ils. 241 and 246.

15. Crowning of chords marked by a small figure in the upper right-hand corner of the chord name. Thus-D⁵.

16. Constitution of chords marked by a small figure following the chord name. Thus-Db5.

17. In Cadence and Passing Transition. however short, the chords to be always named in the real key. The chords in the new key to be enclosed in parentheses. See il. 92 and Appendix, ils. 252 and 265. 18. In Extended Transition a bridge-chord to be used,

the chords being at once named in the real key. A bridgechord (p. 48) to be used for the return. No parentheses to he used in this case. See Appendix. ils. 262 and 266.

19. In all pieces, whether in the major or minor modes, which contain modulation, the chords of the minor mode passage or passages to be underlined.

20. In a piece strictly in the minor mode throughont, the chords need not he underlined.

How to Obserbe Harmony.

THE FIRST STEP.

1. Harmony and Melody.—Harmony consists of musical tones heard simultaneously, and Melody consists of musical tones heard consecutively. But harmony and melody are so closely related to each other, that in listening to a harmonized tune we can scarcely hear the one without observing the other. If we try to concentrate our attention on the tones which are struck together on any beat or pulse of the tune we find it difficult to do so without having also in mind and memory the melodic progression belonging to each tone. Hence, it has been said, that even in harmony every tone should give an account of itself, and say whence it comes and whither it goes.

2. The Normal major consonant chord.—Listen to illustration 1.7 *



How many tones did you hear? perhaps you did not notice *all* the tones. Let us sing them *consecutively* beginning at the lowest d, m, s. * Listen to them again simultaneously. How many did you hear. "I heard three." How did they sound together, well or ill? * Three tones thus sounding pleasantly together are called a "consonant chord" in its normal position. Let us analyse this chord turning to the modulator. What is the interval d m? "A third." What is the interval m s? "A third." Is there no difference between these two thirds? "One is major the other minor." St. Co. p. 46. Now be careful to notice and remember, which is the lower of the two thirds in this case? "The major third is at the bottom." Listen to il. 2. *



Does this major third please you? * Listen to il. 3. •

+ These illustrations must be sung by select voices, while the class listens with closed books. The parts should all be sung to one syllable, for the cake of facilitating comparison. The open syllable laa, with its rich quality of sound will do well, but the syllable loo with its purer and duller quality, will be more distinct. For the same reasons the select voices should all be of eimilar quality and similar degree of loudness; not one wiry the other soft, one strong the other weak. No one who has not tried it, can realise the difficulty of getting not only an equal balance of parts, but also a perfect tuning of the voices one with another. It is not fair to expect the pupils to copy by ear unless the teacher takes great pains in these respects. The teachers hand must guide the singers pulse by pulse,—so that the "attack" of each chord may be unanimous. This mark • indicates a pause while eccetting is done. The Pianoforte or Harmonium may be used for these

How to Observe Harmony.



Does this minor third please? * Both the thirds please well. When your cars are a little cultivated you will distinguish between the two and will like the major third better. Chords with the major third below are called major chords. But does not this ehord contain another interval? "Yes, a fifth d to s." Now listen to il. 4, and tell me the effect of the perfect fifth. *



"It is not so rich as the thirds; it is harder; it is stronger. Its two tones agree well." Then, we have in the major consonant chord, in its normal position, two *sweet* intervals,—the thirds, and one *strong*, *binding* interval—the perfect fifth.

a. The Root, Third and Fifth.—When a chord stands in this close normal position (two thirds one over the other) the lowest of its tones is called its Root, the middle tone its Third, and the highest its Fifth.

b. The Three Major Consonant Chords.-Let us now senquire, referring to the modulator, whether there are any other chords, in the common scale which are of the same structure. We have already studied the chord of which d is the root; now taking r for a root, could we raise the same kind of chord upon it? * You notice that r f l form a consonant chord in its normal position, but its major third is not below; and therefore it is not a major ehord. Taking m for a root what observation do you make? "The same as on the chord r." Taking f for a root what kind of chord is raised upon it? "A major consonant chord like that on d." Taking s for a root what kind of chord? "The same as those on d and f." Taking 1 for a root what kind of chord? "The same as that on r." Taking t for a root what kind of chord? "One different from all the others; it has two minor thirds." We shall at present attend only to the major consonant chords. Which are they? "DOH, FAH, SOH." Chords are named by their roots, and in the Tonic Sol-fa method their names are always written in capital letters,-D, F, S. They are thus distinguished from the tones, the names of which are printed in small letters.

c. Summary.—Thirds are the source of sweetness in harmony, the major third being sweeter than the minor. Fifths are the source of strength. Two thirds, one directly over the other, form a consonant chord in its normal position. Consonant chords combine sweetness and strength. The lowest tone of a chord in its normal position is called its root; the other tones are its third and its fifth. Chords which have the major third at the bottom are called major chords. There are only three such in the common scale, D, F, S.

3. Distribution of Chords. — Listen to il. 5. How does the second chord differ from the first. *

IL. 5. KEY Bb.

$$\begin{cases} s_1 := s := m \\ m_1 := m := m \\ d_1 := d_1 := m \end{cases}$$

"Two of its tones are raised an octave." At what interval does the third of the chord now stand from the root? Count on the modulator. "It is a tenth." And what has the fifth become? "A twelfth." This is true, but the tenth is still called the third of the chord, and the twelfth, the fifth. Listen to il. 6, and tell me how the second chord differs from the first. *



"One tone has been raised an octave." Is that all that has happened? "No, the third of the chord now stands above the fifth." Yes, this introversion of the upper tones of a chord is freely allowed, but it does not alter the name of the chord.

a. Summary.—Any of the upper tones of a chord, as it stands in its normal position, may be distributed to higher or lower octaves,—but it is not found necessary to distinguish by new names these various distributions. They, however, no longer stand in the close normal position.

4. Constitution of Chords.—It will be seen from il. 7 that under certain circumstances certain constituent parts of a chord are doubled, and from il. 16, certain constituents are omitted. It is only necessary here to observe the fast; the reasons may be observed later. See p. 43.

+ The paragraphs on left hand page. ‡ The same on right hand page.

What two chords are employed in this tune. "D and S." But have we not noticed that D, S, and F, are precisely the same in their structure. Why then is the first ohord not called F, or S, instead of D? * The reason arises from this fact,—that the ear naturally ascribes importance to the first consonant chord which strikes it, and necessarily compares with that chord those which immediately follow. Thus although D, S, and F are in structure the same, we prefer to give the name D to the "chord of first impression" (commonly the first struck, if not, the first accented) and we make the name S serve for the chord on its over-fifth, and the name F for that on its under-fifth.

a. The Pre-occupying Chord.—For some reasons not yet fully made clear to us, this preoccupying chord enthrones itself in the mind and immediately requires two chords, one founded on its fifth above, and the other on its fifth below, as its principal attendants. Other chords may be used, but these are chiefly employed, and others are admitted by virtue of relationship to them. The principal chord is called the Tonic, the chord on its over-fifth the Dominant and that on its under-fifth its Subdominant. These chords, in the Major Mode, are respectively D, S, and F. Of the Minor Mode, we speak later on. This system of chord-relation is the foundation of modern harmony. Composere and students, after trying many plans of harmonizing have gradually developed this,—which they feel to be best adapted to satisfy the human mind and ear. It makes both keys and cadences more definite than they used to be in ancient music.

6. Effects of D and S.—We have in this illustration only two chords D and S, and so common are these chords that on many a page of good musio scarcely any other chords are to be found. Listen to il. 7, and name the chords as you hear. $\dagger *$ Now that you have all named the chords correctly, listen again, and say what is the difference in their "mental effect." * If you take D to be the firm chord—the great chord of rest, what will you call S? Does it suggest rest? "No, let us call it the chord of motion." Yes, for the t cannot rest. These mental effects of chords, like those of tones, St. Co., pp. 4, 15, &c., are not physical but mental and relational.

7. Effect of F.—Lieten to il. 8, as far as the end of the fifth measure, and name the chords as you hear them. *



Listen to the whole of il. 8, and notice the first chord of the sixth measure, so as to describe its mental effect. * Listen again. * I think you will agree in calling it the Serious chord. Listen to the whole of il. 8 and name chords, as note par. 6. a. Summary.—Each of the chords partakes of the character which belongs to its root when that tone is employed in the melodio scale. This character

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⁺This naming may be by each pupil writing the name of the chord, or shewing the manual sign. If the pupils "call out" the name, there is a danger that the exercise may be left to only a few. Of course it will be better if the chord can be named by ear without looking at the notes, but this is not required at first. See Ear exercises at the end of each "stage." A good preparation for the coming Ear exercises, will be to allow the pupils first to name each II. while looking, afterwards with closed book.

is greatly enhanced when the root is in the lowest part and when it is doubled. D is the chord of rest, S of motion, and F of seriousness. These chords are closely related *physically* by their fifthe, and also by virtue of our *mental* associations.

THE THREE PRINCIPAL CHORDS OF A MAJOR KEY. s¹_____8¹ f١ m rł -d' d'----1 1 S · s f m r d .---- d tı h S1--SI $\mathbf{f}_{\mathbf{i}}$ \mathbf{F} D S

8. The Bonding of Chords .-- As the perceptions of harmony and melody - the stroke of the chords, and the flow of the parts-are blended together in the mind. it is necessary to observe how the chords flow into one another, or overlap. A succession of chords has been compared to a brick wall, in which the bricks can neither be placed in horizontal layers without regard to their bearing on the bricks beneath, nor in perpendicular piles without any bond to the bricks on either side. Observe il. 7. At the change of chord in the second measure the tone s overlaps. and may be said to form a Bond. The same tone overlaps in the change of chord between the eecond and third measures. What is the Bond in the other changes of chord in this il. ? * In il. 8, is there any Bond at the first change of chord? "No, not of the same kind." And yet the s is again repeated though not in the same part.

a. Direct, Indirect, and Implied .-- When a tone common to the two chords is repeated in the same part we will call it a Direct Bond; when it is repeated but not in the same part, an Indirect Bond. What kind of Bond occurs in the change of chord between the second and third measures of il. 8? * Again, what kind of Bond is there in the change of chord between the fifth and eixth measures of this il., and what is the tone which forms the Bond ? * Is there any Bond between the two chords in the eixth measure? "No there is no Bond of any kind." Yes, but these two chords are both very strongly bonded to the Tonic. One (S) takes its root from the fifth of the Tonic, the other (F) takes its fifth from the root of the Tonic. We may with Prof. Helmholtz regard this as an Implied Bond between S and F. Another form of Implied Bond is seen between the chords S and D when the fifth is omitted (though implied) in the latter chord.

b. Summary. — Adjacent chords are commonly bonded together, by having one tone which is common to both. When this tone occurs in the same "part" in both chorde the Bond is Direct; when in different "parts" it is Indirect. S and F have no Direct or Indirect Bond. But the very strong relations which both have to D form an Implied Bond between them.

9. Progression of S. — Apart from the physical Bonds above referred to, the menual effects of particular tones help to establish a strong relationship of chords. Thus, in the chord S, the strong piercing effect of t, as the leading tone to d', confines the onward-movement, or Progression of S to one channel. It is obliged to go to D. Two other chords sometimes receive it, but chiefly this. Observe that this flowing of one chord into another is managed as smoothly as possible. In ils. 7, 8, where S progresses to D, what tones does the tone s go to ? "To d or s." What does t go to ? "To d." What does r go to ? "To m." This is the commonest and smoothest progression of S to D; it requires the least motion of the parts.

••• For additional illustrations to this Step see "Chord-Naming Examples," Parts A and B, Exs. 1 to 3, at end of book.

THE SECOND STEP.

10. Dissonance.—What intervals have we called the source of sweetness in harmony? (par. 2 above) * What interval have we called the source of strength? * Now I wish you to notice another interval,—that which is heard when two tones stand next to one another in the scale, it is called a

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Second. Listen to il. 9, and tell me the effect on mind and ear of the two tones striking together. *

IL. 9. KEY G.

$$\left\| d := | \stackrel{\circ}{\mathbf{r}} := | d := | \frac{\mathbf{r}}{\mathbf{r}} = \frac{\mathbf{r}}{\mathbf{r}} = \frac{\mathbf{r}}{\mathbf{r}}$$

"It is harsh. There is something like a beating." Yes, it is a dissonant effect, and the continuity of the tone is interrupted, so as to produce a sense of "beating." Listen again to il. 10, and tell me what is the effect of *these* two tones striking together. *

IL. 10. KEY G. $\begin{cases} |d:-|\hat{d}:-|d:-|| & = \\ |d:-|t_1:-|d:-|| & = \\ \end{bmatrix}$

Yes, the effect is harsher still. It is a remarkable fact, which we need not test here, that when the distance between two adjacent tones is much *less* than a little step, or much *more* than a full step, the beating becomes less disagreeable. The singers of these illustrations will observe, that, in both cases, the lower of the two tones is the more difficult to hold, probably because its vibrations are less frequent. The tone which stands the lower of the two when they are placed close together (that is as a second, not a ninth or sixteenth, and not a seventh or fourteenth) we call the Dissonating tone, and that which stands the higher the Resisting tone. This beating of two tones close together we call a Primary Dissonance.

a. Primary, Secondary, and Tertiary.—But listen to the same tones when one of them has been moved an octave, and tell me what is the difference. il. 11. *

IL. 11. KEY D.

$$\begin{cases} |d^{i}:-|r^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d^{i}:-|d$$

"The tones are still dissonant but not so strongly so." Yes, we need not enter into the reason why these tones still remain dissonant though so wide apart, but we note the fact and call this kind of dissonance. Secondary dissonance. If one of the tones is moved *two* octaves we should call the dissonance Tertiary, and its effect would be very slight. Another thing which lessens the impression of a dissonance on the ear, is the place it holds in the measure. A dissonance ou the strong pulse, or on the stronger part of a pulse, is necessarily more strongly felt, than one on the weak pulse or on the weaker part of a pulse.

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b. Summary.—Dissonance arises from the "beats" of two tones close together. The little step forms a harsher dissonance than the greater one. The lower of the two tones thus close together is the more difficult for the singer to hold, and is called the *Dissonating* tone. The higher one is called the *Resisting* tone. The dissonance is called *Primary* when the two tones are close together, *Secondary* when an octave is added to one of them, and *Tertiary* when two octaves are added. The greater the distance thus created the less effective is the dissonance. Dissonances are also rendered more effective by accent.

11. Preparation and Resolution of Dissonance. —A Dissonance may be so smoothly introduced and carried forward that the ear may even enjoy its piquancy, just as the eye enjoys the shadow of a passing cloud on a beautiful landscape. Listen to il. 12. sung slowly, observing the dissonances, which have a star placed over them, and tell me how they differ in their effect. *



"The second is smoother, pleasanter. We like it." It is so, yet the dissonances themselves are precisely the same in both cases, Listen, now, to il. 13, noticing the disconances and telling me their effect. *



"The second dissonance is quite pleasant but the first is harsh." Yes, but the dissonances were again the same in themselves. What makes the difference? "The way in which it comes in and goes out." Yes, that is the secret; let me explain more fully.

a. Dissonances are introduced into music either for their piquancy of effect, or for the sake of securing a smooth flow of the parts. Sometimes the two objects are combined. But all harshness in music must necessarily have an apology for its admission, and the greater the harshness the stronger must be the apology. According to the saying of Mr. George Hogarth, "the sar remembers and expects" —remembers whence the tone came, and expects whither it is going. On this melodic habit of mind and ear is founded the apologies for dissonances.

b. Resolution.—The strongest apology is that the dissonating tone is going downwards to a consonance on the tone below, and this is called its Resolution. Listen again to the second parts of ils. 12 and 13 and notice the effect of Resolution.* The cases are very rare in which even a Tertiary dissonance is unresolved, and nearly all the resolutions are downward. When the dissonance is introduced for the sake of its own effect it is still obliged to make this apology for itself.

c. Preparation.—The next apology is, that the dissonating tone is simply the repetition or overlapping of one which has just been heard as a consonance in the previous chord. This is called a Preparation. Another apology is that the dissonance is moving stepwise from the tons above it in the scale to that which is below it. This we call Oblique preparation, as distinguished from the preparation just named, which may be called Horizontal. Listen again to the preparations was Horizontal, and which Oblique. *

d. Summary.—The resolution of a dissonating tone, is its descending to the tone helow, and so satisfying the ear that it was only forcing its way into consonance. The preparation of a dissonating tone is its coming smoothly out of the previous chord, either horizontally as a continuance of the last tone or obliquely from the tone next above it.

12. f against s.—The commonest of all dissonances is that of f against s. Its frequent occurrences may be ascribed to the fact that these two tones stand at the "dividing place of the scale," just where it has a tendency to fly off into the first sharp key,—the s becoming d of the new key, and the f gives place to fs or t of the new key. This being the case the strong assertion of f in spite of dissonance, becomes an assertion of the key, a thing always desired in modern music.

a. Secondary.—This dissonance is most frequently a secondary one, and it commonly occurs on the

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weak pulse. Its resolution, by a descending little step is very smooth and pleasant. It generally has an oblique preparation. Listen to il. 14. *



Listen again and tell me the degree of dissonance, (Primary, Secondary, or Tertiary) the sort of pulse (strong or weak) the resolution and the preparation, in the first case of this dissonance. * Do the same with the second case—the same with the third the same with the fourth. * The dissonance is often unprepared, as in the second and fourth cases, especially when it is one of the secondary or tertiary degree. The resolution is commonly *interrupted* when the same chord is repeated, as in the fourth case. Which is the smoothest of these cases — which the next in smoothness—which the harshest? *

b. Primary.—Listen to il. 15, in which all the dissonances take the uncommon primary form. *



Describe the degree, the sort of pulse, the resolution and the preparation in each of the four cases. * Which of these is the smoothest—which the next in smoothness—which the harshest ? *

c. Summary.—The commonest dissonance is that of f against s. It has the advantages of deciding the key, of striking against a strong resisting tone, and of resolving very smoothly. Its most common use is as a secondary dissonance, on the weak pulse and with ohlique preparation.

13. Seven-Soh.—Listen to il. 16_7 and tell me what is the third chord. *



Yes, it is the chord'S with f as a dissonating tone. Notice that a dissonance is always clearer when it strikes against the firm root of a chord, and especially when it strikes against one of the principal chords-Tonic. Dominant or Sub-dominant. Therefore the dissonance f against s is constantly introduced into the chord of S. Count on the modulator, and tell me what is the interval between s and the f above it. "A seventh." The chord S with a dissonating f is called seven-soh and written 7S What is the degree of dissonance in the last chord but one, il. 16; primary, secondary or tertiary? "Secondary;" What in the third chord? "Secondary as to the Tenor, tertiary as to the Base." On which pulse, strong or weak, does the dissonance occur in this il.? * What is the preparation in the first case? * Is there any in the second ? "No it is unprepared." In what "part" does the dissonance occur in the first case—in the second ? * Listen again to il. 16. and name + the chords as Note, par. 6. *

14 Amhignity of Key.—In listening to the D, without seeing it and without hearing other chords related to it, can the ear decide what chord it is? "Yes" "No." Let us look on the modulator. Would there be anything to prove that it is not F, of the first sharp key? "No." What else might, it be mistaken for? "S, of the first flat key." Of course S, and F are in themselves alone, equally ambiguous, with D. Now Look sgain and tell me what ambiguity there is in 7S. "None." Yes, it is the dissonance f against s which enables it to define the key better than S could do. S marked the key by relationship and mental effect only, but when a 7S is sounded, it also marks the key physically. It is the Unquestionable Dominant.

Summary.—f against s in the chord of S, makes 7S —a chord which has the property of deciding the key absolutely. (See "Partial Dissonance," par. 41.)

15. Progression of 7S. - When f is a dissonance: on what tone must it resolve in the next chord. "On m." What tone of the S chord went to m in: ils. 7, 8? "r" The tone m is the third in the chord of D, and its doubling would make the chord very sweet-too sweet for the closing chord of a musical line. If we wish to avoid this doubling of m in the resolution of 7S, where must r go to? "Either to s or d." But a leap to s would not promote the smooth flowing of one chord into another. Therefore it is better that r in 7S should go to d. Sing the second part of il. 16, and notice the resolution. * Sing the first part of il. 16; is there any difficulty about r here? "No, by the doubling of the root the fifth of 7S (r) is omitted." True, but in this resolution the fifth of D is retained ; whereas in the other, it was omitted. In the smooth resolution of 7S into D, the fifth must always be omitted, either in one chord or the other. Listen again to il. 16 and observe these resolutions carefully. *

Summary. — The introduction of f (with its definite resolution on m) into the chord S, makes it generally advisable that r (instead of going to m as before) should go to d or else be omitted.

16. The Full Cadence.-The last impression is most important, because it reminds us of all that has preceded it, and the pause which follows gives us time to reflect and enjoy. It is so with the last impression of a procession, a drama, an oration, a human life. It is especially so with the last impression of a piece of music. Turn to what we said before, on Chord Relation and the Mental. Effects of chords in paragraphs 5, 6, 7. With the idea that a close or cadence in music is something for the mind to rest upon, which of the three principal chords could be most satisfactorily used as the last? "Of course D, the chord of rest." What chord could best precede it. so as by contrast to bring out its effect? "S, the chord of motion." The chords D and S contain how many tones of the

+ If the "Manual Signs" are used I recommend that for Seven-Soh the sign for S should be used, but that the thumb should be laid down upon the palm, instead of standing up.

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scale? "Five." Yes, and sub-dominant, F, contains the other two, so that when these chords are used in auccession F, S, D. the whole scale is marshalled before the ear,-the tones d and a the Tenic and Dominant being necessarily strengthened and repeated. What chord then will best precede the S in a cadence, with the view of completing the scale and contrasting the effect ? "F." Listen to the last cadence of il. 7. * Of what cherds was it formed ? "S to D." Listen to the last cadence of il. 8 and compare it with il. 7. Which was the more complete and restful? "IL. 8." What made it so? "The F preceding the S." Listen to the last cadence of il. 16, and tell me whether it is more or less perfect and conclusive than that of il. 8. "More." What made the difference? "The 7S." The word cadence is not necessarily confined to the final close of a piece of music. It is used to represent the close of a musical line, which may require a more or less decisive cadence.

a. *Perfect and Semi-perfect.*—All the closes hitherto used are different forms of what we call the D cadence. This cadence is called *perfect* when d itself is in the bass. It is entirely so when d is also in the air. But sometimes m or a may be in the highest part. Listen to the first cadences of ils. 8, and 16, and tell me whether they are as entirely conclusive as the closing cadences. * Cadences of this kind we may call *semi-perfect*.* Properly the word cadence refers only to the two closing chords, but as you have already observed the *Approach* to a cadence is almost necessarily regarded as part of the cadence itself.

b. Summary.—A movement of chords which the ear accepts as giving a sense of completeness to the close of a musical line, or of a piece of music, is called a *cadence*. The principal cadence is that made by the movement of the Dominant Chord into the Tonic which, in the major mode, is S or 7S going to D. It is called the D cadence, or the Tonic cadence of the major mode. This cadence is more impressive when approached by F, and is more decisive when 7S is used instead of S. It is called Perfect when d is in the Bass and air, and Semiperfect* when d is in the Bass, but m or a is in the **air**.

THE THIRD STEP.

17. Positions of Chords.-In all the Illustrations we have hitherto used the root of each chord has been in the Bass; but under certain circumstances, the Third of a chord may be in the Bass, or even its Fifth, or Seventh, or other dissonance. When the root is in the Bass we say that the chord is in the *a* position, when the *third* is in the Bassin the b position, when the fifth-the c position, the seventh-the d position, and when any other diasonance is in the Bass the e position. We indicate the positions by small italic lefters thus, Da, Db, Dc, Fb, ^{7}Sa . $^{+}$ Any other than the *a* position we may call Inverted positions. The normal position of chords (par. 2) is an a position; but the a position is not necessarily close,-it may be "distributed" as in par. 3. The major chords are undoubtedly better in the *a* position. They sound atronger, fuller, more sonorous. For the reason of this see my "Musical Statics." The composer therefore does not use the other positions without a special purpose. If we can come to understand the reasons which guide his tastes and form his habits, we shall observe and appreciate music more easily.

18. Dc. Listen to il. 17, and tell me what the second chord is.



+ Those who use the manual signs will find a difficulty in indicating the "positions," unless they make their pupils stand up and make all the signs, for the *a* position with the hand hanging down by the side, those for the *b* position with the hand straight out from the shoulder, those for the *c* position with the hand directly over the head.

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"It is D with its fifth, s, in the Bass, or Dc." Listen again and tell me the chord on the first pulse of the sixth measure. "The same." If we wished to avoid Dc in these cases we should change the Bass tones into d. Listen to the first and second chords of il. 17 laad alowly using Da on the aecond chord. * The second chord was of course as smooth and sweet as the first. Now listen to the same using De on the second chord. * Was it as sweet and smooth in the chording as before? "No, there was a tartness in it." Try the same experiment with the last chord of the fifth measure and the first chord of the sixth. * If there is this slight degree of harshness in Dc why is it used ? Before we try to answer this question let us see whether it sounds better for that would be a sufficient answer if we had no other. Listen to the first part of il. 17 first using Da and then Dc, and tell me what is the difference. * "I feel that Da is all right and smooth but Dc makes me feel that I am coming to a close soon." Its semi-harshness is like the reining in of a horse when you are going to stop, or the first breaking up of a party. Besides this, notice that the a being thrown into the bass has an importance given to it and prepares us for the S chord which follows, but being truly the chord of D it foreahadows the full close to which the music is moving. Listen also to the second part of il. 17 sung first with Da and then with Dc. * What is the difference? "The Bass with De flows much more smoothly." Yes, the leap to d was awkward and a good melody in the Bass is next in importance to a good melody in the air.

a. Its d treated as a Dissonance.--- Notice that the interval of a fourth is commonly regarded, as neither sweet nor strong, but unmeaning and negative in its effect, and a fourth from the Bass or lowest part is specially disagreeable. In obedience to this feeling the d in this chord of De is commonly treated as a dissonance with horizontal preparation. It is as though, in this Dc chord the ear was perplexed between the two chords-Dand S, and had to some extent allowed the tone s which occupied the weighty and influential position of Bass to regard itself as a root and so to require the d and sometimes the m to behave like dissonances in the chord of S. It may help the listener to recognise chords if he remembers that when in a cadence m r d or sf m occur in the air, the first m or s is almost always harmonized with Dc; so that if in listening he does not catch the Bass he may know it from

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the air. Listen again to il. 17 and name the chords as they are sung.

19. Db.-Listen to the first part of il. 18, and tell me what is the second chord.*



"It is D with m in the Bass." What is it called ? "Db." Listen to the second part of il. 18 and name the second chord. "Db." If we wished to avoid the b position in these cases we should use d in the Bass and m in the Tenor of each chord. Now listen to the first and second chords of the first part of il. 18 laad alowly, first with Da and next with Db on the second chord, and tell me whether Db tunes together as smoothly as Da. * To me it seemed not so harsh as De hut not so perfectly tuned as Da. Try in the same way the first two chords of the second part. *

a. Contrary Motion.—Now try the whole of the first part with Da, and afterwards with Db; which do you prefer, and why? "Db; it gives a pleasanter motion to the Bass." Yes, that is a sufficient reason for the b position. Try the second half of the il. with Da and Db; which do you prefer? "Db ia very much better." Yes, there is a better motion in the Bass; but is that the only cause? Liston again. * "I notice that the first four tones of the Bass, move in contrary motion, with the air, that is when one goes up, the other goes down." Listen once more, and and you will notice that this is a great source of your enjoyment, and a good excuse for Db. * Listen again to the whole of il. 18 and name the chords as they are sung.

20. Fb.—Listen to the second part of il. 19 and name the second chord.





"Fb." If we wish to make this Fa we have only to change the Bass 1 into f and the Contralto into 1. Listen to these two chords, first with Fa and then with Fb; which is the more full and sonorous, in its tuning, the Fb or the Fa? "Fa." Now listen to the whole second part of il. 19 with Fa and afterwards with Fb; which do you prefer ? * You prefer Fb because it makes a smoother Bass and gives contrary motion to both Contralto and Soprano. Once more listen to the whole of il. 19 and name the chords as they are sung.

a. Summary.—The commonest case in which a chord takes one of the less sonorous positions is that of D_v in cadences, on the strong pulse, just before S or 'S. It allows a smooth bass; it strikes a note of warning for the cadence, and its semiharshness sets off the smooth resolution of S into D which follows. This is one use of the *e* position The much pleasanter *b* position is freely used to promote smoothness of melody in the Bass, and is very agreeable when it helps to shew off a "contrary motion" with one of the other parts.

Written Exercises are invaluable as a means, first of revising and fixing in the memory the knowledge already gained, and secondly of securing the mastery of the subject by each individual. In writing Harmony Analysis Exercises it is important to make them very clear and easy for the corrector, with ample space between each line in which corrections may be entered. For greater distinctness we make it a habit to draw the letters which represent the chord like capital letters in print. Those who send their Exercises to be corrected at

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the College, use the Tonic Sol-fa music paper, "Reporter" size, using one space for a pulse (except when the pulses are frequently divided, when two spaces should be used), and leaving *three* lines batween each of the lines they write upon. The following analysis of il. 7 will show the proper way of writing the analysia of a chant. Notice that when there is no mark of position after a chord, the *a* position is taken for granted.

$$\left\{ \begin{bmatrix} \mathbf{\hat{D}} & \mathbf{D} : \mathbf{S} & \mathbf{D} : - \end{bmatrix} \begin{bmatrix} \mathbf{\hat{D}} & \mathbf{D} : \mathbf{D} & \mathbf{S} : \mathbf{S} & \mathbf{D} : - \end{bmatrix} \right\}$$

The following Analysis of il. 26 further explains the plan :---

$$\begin{vmatrix} \mathbf{D} & \vdots - & | \mathbf{D}b & \vdots \mathbf{F} & | \mathbf{S}c & \vdots \mathbf{D} & | \mathbf{S} & \vdots - \\ \end{vmatrix}$$

$$\left\{ \begin{vmatrix} \mathbf{S} & :- & | \mathbf{D}\delta : \mathbf{D} & | \mathbf{F} & :^{\mathbf{T}}\mathbf{S} & | \mathbf{D} & :- \\ \end{vmatrix} \right\}$$

Ex. 1. Write the Harmony Analysis of il. 7, 8, 16.

Ex. 2. Analyse ils. 17, 18, 19.

Ex. 3. Name the ils. which contain perfect D cadences, placing first those which are approached $|D_{c}: {}^{7}S|D$, next those approached |F:S|D, next those approached |S:S|D, and next those approached |S:TS|D.

Ex. 4. Find all the semi perfect D cadences, placing first those which are approached |S:S|D, next |D:S| D, next |Db':S| D, next |Dc:TS| D, next |D:TS| D, next |Dc:S|D.

Ex. 5. Name the ils. in which Dc occurs, stating in each case from what bass tone its Bass comes and to what bass tone it goes.

Ex. 6. Name the ils. in which $D\delta$ occurs, stating in each case its apology.

Ex. 7. Find a case of contrary motion between the Bass and an upper part; and write the chain of chords by which it was secured.

Ex. 8. Write all the different upper parts (including Contralto and Tenor) you find in the foregoing ils. which are built on the following chordal plan, : $F \mid Dc$: $S \mid D$. Write also the additional upper parts which are here obtained by the introduction of 7S instead of S.

Ex. 9. Write, as above, the upper parts found in the previous ils. on the following plan, : D | F: S | D. Write also the additional upper parts gained by 'S instead of S.

Ex. 10. Write the chordal plans* by which an upper part, |s:f| | m is harmonized in the above ils. placing first the cadential plans, and next those not in a cadence—the non-cadential.

Ex 11. Write the chordal plans by which any apper part: $\mathbf{f} \mid \mathbf{m} : \mathbf{r} \mid \mathbf{d}$ (or: $\mathbf{f} \mid \mathbf{m} : \mathbf{r} \mid \mathbf{m}$) is harmonized in the previous ils: and that upon which: $\mathbf{m} \mid \mathbf{f} : \mathbf{r} \mid \mathbf{d}$ (or: $\mathbf{m} \mid \mathbf{f} : \mathbf{r} \mid \mathbf{m}$) is harmonized.

• For additional illustrations see "Chord-Naming Examples," A, 4 to 7; B, 4 to 6.

THE FOURTH STEP.

21. Cadence of Suspense.-In par. 16 we studied the construction of a full restful close to a musical line; but if musical lines were continually bringing us to the same full close, we should soon grow weary even of rest. Some marked resolution of two chords-some cadence-was therefore wanted. which would suggest the feelings of pause and temporary rest mingled with those of suspense and expectancy. Modern harmonists early discovered that the smooth and beautiful resolution of dominant moving to tonic, set the other way, that is tonic to dominant would, while it clearly marked the key, by putting the "chord of motion" last. answer this purpose. We call it the S cadence. Listen to il. 20, name the two cadences and describe their different effects on the mind.



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Ex. 12. In il. 7 there are four changes of chcrd, name each change, and the nature of the bond (direct, indirect, or implied) which exists between the chords, thus, "D to S, direct," &c. In il. 8 there are five changes of chord. Name each progression and the nature of its bond. Do the same with ils. 18, 19.

Ex. 13: In ils. 16, 17, and 18 there are five cases of 78 on the weak pulse. In how many is the dissonating f prepared obliquely and in how many is it unprepared? In how many cases is the dissonance tertiary, in how many secondary?

Ex. 14. There are six cases in the foregoing examples of an upper part moving, thus, $:r \mid \mathbf{m}$, what chords are used under them? There are five cases of $:r \mid d$, how many have the chords 7S D and how many SD?

| Notice the Fb well excused for the contrary motion | it creates between Air and Bass. Listen to the

whole of il. 20 and name the chords. *

a. The Bass Cadence | t₁ : d | s. -- Listen to il. 21, and say what is the difference between the two cadences. *



How would you name the second cherd of this il ? "Sb." In order to change it into Sz we should have to write s_1 for the bass and t_1 for the contralto, Listen to the first phrase of this il. first with Sz and then with Sb as the second chord.; which is better ? "Sz is firmer and fuller, but Sb makes a smoother bass." Yes, and Sb is constantly thus used in the approach to the S cadence. Listen to the whole of il. 21 and name the chords: *

• i.e., the names of the chords

b. The same with 7S .—Listen to il. 22 and name the two cadences. *



Listen to the first phrase of il. 21, and the first of il. 22, and 'ell me how they differ in chords. "Il. 21 has Sb, and il. 22 has 'Sb." Listen again, and say which has the smoother air. "Il. 22." Listen again, taking care that the contralto is fairly sounded, and say which of the two chords is the more sonorous. "Sb." Yes, but 'Sb is much used in the approach to the S cadence, instead of Sb because of the smooth melodial effect of its f. Listen to the whole of il. 22, and name the chords. *

c. The Bass Approach : $f | t_1 : d_{-}$ Listen to il. 23. * II. 23. KEY Bb. R.G. $\begin{pmatrix} d :- d : l_1 | r : d t_1 :- d :- d : s_1 | l_1 : t_1 | d :- d :- s_1 : f_1 | s_1 : s_1 | s_1 :- s_1 :-$

Notice that it has the same S cadence as il. 21, with $|t_1:d|_s$, in the bass, but is it so smooth? "No, not quite." The "approach" f | t_i is bolder than $d | t_i$, but it has a good effect. Listen to the whole of il. 23, and name the chords. *

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d. Entered from Db.—Listen to il. 24; what are its cadences P *



Compare the first phrase of il. 22 with that of il. 24, and say how the cadences differ. "Il. 22 has D, and il. 24 Db." Make il. 24 third chord into Da, by putting d in the bass and m in the tenor. Now listen to that phrase, first with Da, and next with Db; which is the pleasanter ? * When it improves the melody, Db is a convenient part of the S cadence.

e. Similar and Contrary Motion .- Listen again to il. 24 what are the opening chords of its second division? "Db and Sc." Here then are two inverted positions together. If one is somewhat harsh should not two be more so ? Let us change them into a positions by making the bass of the second chord s_i , and by making the bass of the first chord d and the tenor m. Listen to the second part, of il. 24 first with Da Sa and then with Db Sc; which is better ? "Db. Sc." What is the reason? * There is a strong melodic excuse; not only is the bass made smooth, but it is placed in exact contrary motion with the air. Listen also to the third phrase of il. 25, and notice the same bass m r d approaching a S cadence, and well excused by its similar motion with the air in thirds. Notice that similar motion does not necessarily mean that the intervals taken by the two parts are the same; it only means that they are in the same direction, up or down. Listen to the whole of il. 24, and name the chords. *

1. Summary.—The principal cadence of suspense is that of D going to S. The D is often preceded by Sb or ^{7}Sb in order to make the smooth bass phrase

: d $| t_1 : d | s_1$ and sometimes f is used instead of d. Another smooth bass phrase much used in approach to cadences is | m : r | d or : m | r : d which isspecially pleasant when it has *contrary* motion to another part, or when it moves in thirds or sixths with *similar* motion to another part. This Scadence may often, for the sake of a melodial bass, be commenced with Db instead of Da.

g. Sections.—Portions of Melody and Harmony closed in this marked manner by cadences, are called Sections. The cadences thus cut up the music into distinct portions or Rhythmical divisions. These divisions correspond with the *lines* in poetry. Shorter divisions are called Phrases, and longer ones Periods.

22. Consecutive Fifths and Octaves.—Listen to the second part of il. 21, and name its first and second chords. "Db and Fb." Here, then, is another case of two inverted positions. Alter Fb into Fa by making the bass f_1 and the tenor 1. Listen to the second phrase, first with Fa, second with Fb, and say which you prefer. "Fa is very good, but Fb is more lively." Yes, it also prevents the mere monotonous repetition of a chord. But for Db there is also another and a different kind of excuse; it avoids "consecutives."

a. Fifths.-Retaining then the Fb, let us alter the Db into Da, what is the effect? "Very good." Yes, but listen to the two phrases of the chant sung together, and notice how the end of one moves into the beginning of the other, —first trying Da, and then Db; which is better? "Db." Why? * The reason is that the ear objects to any two "parts" in tho music moving in fifthe with one-another in successive chords. By a fifth in this case is understood not only s fifth, but also a fifth and an octave. Thus the first of these two chords has s₁ in the bass and r in the air, while the second chord has d in the hass and s in the air and these are fifths in consecutive chords and between the same parts; they also move, that is they are not mere repetitions of the same notes. Repeated notes whether in the same or different chords are not objectionable. Let us alter the Fbof il. 22 to Fa,* There will then be consecutive fifths between the a r and Bass; listen to the second part of this il., first using Fa, and then Fb; which is better? "Fa with the fifths, sounds hard." Why the car objects to them is not thoroughly known. unless it is a sufficient explanation that the fifth of a tone acts as a dominant-reminds the ear of a key.

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and that two successive dominants suggest to the mind two keys—two scales, just when it wishes to recognise only one. "The fifth," says Mr. Joseph Green, "represents, in music, fixation." It is the most definite of intervals. Consecutive fifths draw attention to the melodies they carry, and they aro worst whon the melodies themselves are composed of tones which would in harmony dissonate. Thus d r is a dissonant melodic progression, and d t is still more so. When sung as melody only (unless very slowly) there is no feeling of dissonance, but when each tone is reinforced and emphasised by inard fifths, the dissonance is felt.

b. Discovery of Fifths.—The harmony observer will often have to watch for these unwelcome fifths. In the Tonic Sol-fa notation he will quickly see the root of a chord, and notice whether its fifth stands above it. If it does, follow the two parts in which the root and fifth occur into the next chord, and see whether those parts make a fifth there. Repeat the process with every chord. The eye will very soon learn thus to detect consecutives.

c. Octaves .- Now I wish you to listen to consecutive octaves. You will not find their effect hard like the fifths, but please notice how they influence the "parts." Let us alter the Fb in the opening of the second phrase of il. 21 by putting f in the tenor; there will then be s | f in the tenor and s | f in the air, moving in octaves. Listen to the whole of il. 21 first using the f, and second employing the d as it stands; how do the air and tenor parts flow in the one case, and how in the other? "With fit is more vague-the parts are blank." Ycs, the octaves obscure the flow of the parts. Again try il. 24; alter the tenor of the third chord of the second phrase, from s to d^{\dagger} ; the bass will then move $d \mid s_{i}$ in octaves with the tenor. Try the whole il. first with the octaves, then without, and again notice the effect the octaves have upon "parts." You will not be surprised that consecutive octaves are avoided by composers. The knowledge of these "laws of the ear" will help you to understand the "habits of chords" and to interpret them more easily.

d. Summary.—When two "parts" move in fifths (or fifths with an octave added) one with the other, the effect, when carefully noticed, is felt to be hard. When two "parts" move in octaves, the effect is to make those parts undistinguishable from one another Therefore consecutive fifths and consecutive octaves are avoided by composers, except in some cases which are described in my "Construction Exercises."

* Also altering Alto d to I,.

23. Weak-pulse Cadences.—In all the cadences we have, thus far, studied, the accent is on the last pulse; but it is quite common to hear the accent on the last pulse but one. It is the same, in poetry, with such lines as the following "Jerusalem the golden." It is interesting to observe how, in music, this sort of cadence is harmonised. One way of harmonising a cadencefalling on the weak-pulse is shewn in il. 25. Listen to it, in the closes of the first and third sections. * Are they D or S cadences?



a. De in a weak-pulse S cadence.—Listen to il. 25. * What chord is on the strong pulse? "De." What did we notice about the tone d in De entering a D cadence when we studied ils. 17, 18, 19, in par. 18? "That, being a fourth from the bass, it was often prepared and resolved like a discord." Is there anything like that here? "Yes, both with the d and the

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m." This smooth melodial progression is pleasant to the ear-like a stream of water shooting over a ledge of rock.

b. The Bass Cadential Approaches, $|\mathbf{l}_i: \mathbf{d}|$ and $|\mathbf{f}: \mathbf{l}|$ s and $|\mathbf{1}: \mathbf{f}|$ s.—In il. 25 observe the elegant approach to the S cadence by help of Fb—the approach to the D cadence by the use of the same chord, but with a contrary waving of the bass to that which is found in il. 21—and the double "inverted positions" in the approach to the last cadence. which is well excused for the sake of the bold bass-melody approaching the D cadence. What excuse can you find for Sb in the opening of the second section of il. 22, and the last of il, 25—and what excuse for Db at the opening of the second sections of il. 25 and il. 23? Listen to the whole of il. 25, and name the chords. *



Notice that it has the same bass cadence $|\mathbf{r}:d| \mathbf{s}_{|}$ as il. 25—but is it so smoothly approached? "No, the stepwise motion : $\mathbf{m} | \mathbf{r}$ is smoother, but f is bold and pleasant." Yes, but notice that in this case of the bass tone f approaching a cadence, as in the other shewn at il. 23—the *tone* f must be in the *chord* F not an inverted position of some other chord. The knowledge of this will assist the pupil in reading chords by ear. Listen to the whole of il. 26, and name the chords. *

24. Transferred Resolution.—Listen to the last two measures of il. 22, and notice that the resolution of t, in the first Schord is transferred to the second S chord, which resolves it properly, but in a different part. Listen to the last two measures of il. 24, and notice the resolution of f in ⁷S. It, also, is "transferred" to the second ⁷S chord, which resolves it, but in another part.

25. Consecutives by contrary motion .- Notice that in the last two chords of il. 25, there are consecutive octaves between air and bass; but the octave in the first chord is really a double octave, in consequence of which the two "parts" have to move in opposite directions. This contrary motion of the parts is regarded by the ear as a sufficient apology for consecutive octaves, especially where, as in this case, there is no other way of harmonizing the given air; but it is not commonly regarded as eufficient apology for consecutive fifths, although it lessens their effect. Listen to the last section of il. 25, first with the Bass singing d₁, so as to make octaves by similar motion, and then with the Bass singing d so as to show the effect of contrary motion. *

26. s in S going to m.-Listen to the first four measures of il. 24, first with Da as the last chord (the Bass being altered to d and the Air to m) and then as it stands with Db as the last chord. Which of the two resolutions is smoother? "The first." Yes, s going to m in the resolution of S, though it makes no harsh or hard effect, produces a somowhat ungainly melody, and must therefore have an apology. If the s is doubled, and one of the two is properly resolved (as would be the case if you made the last chord, in this instance, into Da by altering its Bass into d and its Tenor into m) the ear is satisfied; it is still better satisfied if the s which does not go to m, is simply continued into the next chord, forming a "bond." Another apology for this irregularity, is when it occurs between the closing chord of one section, and the opening chord of another; the natural pause in such a place makes the smooth connection of the parts less essential. See a similar case in il. 25. See a case, not between sections, in il. 26, and another in the air of il. 28. Cases may be found in which, even without being doubled, the s goes to m, but there should be some good melodial apology to excuse so awkward a progression.

27. The Semi-perfect D cadence. — One instance of this (with m in the Air) was studied before, par. 16; the other comes before us in il. 25. Listen to it, and describe its effect. * It is neither so restful as the perfect D cadence, nor so expectant as the S cadence.

Ex. 15. Analyse ils. 20, 21, 22.

Ex. 16. Analyse ils. 23, 24, 25.

Ex. 17. In ils. 20 to 26 there are six different forms of approach to the Perfect S cadence. Write the chordal plan of the last four chords in each case, showing first those approaches which have the tone t as the third-last in the Bass, -next those which have r, -next those which have d.

Ex. 18. Name all the foregoing ils. in which Fb occurs once or twice, describing, in each case, its apology of contrary or oblique motion, or similar motion in thirds or sixths, or of elegant flow of melody.

Ex. 19. Name all the ils. from 20 to 26 in which Sb occurs, describing, in each case, its apology.

Ex. 20. Name all the ils. from 20 to 26 in which Sc or 7 Sc occur, describing their apologies.

Ex. 21. Write the most meledious air which you find over the plan |Sb:D|S; and the best you find over $|{}^{7}Sb:D|S$; and the best you find over $|{}^{7}Sc:D|S$; and the best you find over $|{}^{7}Sc:D|S$.

Ex. 22. Find all the cases, in ils. 20 to 26, of similar motion in thirds or sixths, extending to three or more chords, and not occurring between sections, and all cases of contrary motion of thirds or of thirds and sixths intermixed.

Ex. 23. Write the chordal plans which in ile. 20 to 26 you find under the following upper parts: -- one under : | s: f | m; two under : s | f : m $| m: r; one under : d | r : d | t_i; and one under : d | f : m | r.$

Ex. 24. Write the fourth and fifth chords of il. 21, and the seventh and eighth chords of il. 22, so as to make Consecutive Fifths, altering according to instructions on page 13.

Ex. 25. Write the second section of il. 21, and the second section of il. 24, so as to make Consecutive Octaves, according to instructions in par. 22.

. See "Chord-Naming Examples," A, 8, 9; B, 7, 8, 9.

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THE FIFTH STEP.

28. Imperfect D Cadences.—Hitherto, in all our D cadences the bass has moved from s to d; this is the proper cadential motion, but let ussee whether, for variety's sake, even at the sacrifice of some of the perfect sonorousness of a full close, we cannot obtain other forms of this cadence. If we 'call them Imperfect it is not because they are unsatisfactory, but only somewhat less conclusive than the Perfect cadences.

a. The Bass Cadence | s: f | m.—Listen to il. 27, and notice the last cadence; how does the bass move? *





"Straight downward to d." Yee, the cherd Da is entered with a stepwise bass from 'Sc. What is the effect when compared with 'Sa | Da? * Listen again, and study the first cadence; how does the bass more? * "It moves stepwise." Yes, and it gives us two cherds in inverted positions, the 'Sa', which is new in these exercises, going to Db. Let us alter the cadence into 'Sa going to Da, by making the bass: $e_1 \mid d$ and the tenor : $f \mid m$. Now listen to the cadence both ways; which makes the fuller and more decisive close, and which the softer, and the more suitable for an imperfect cadence with something of expectancy in it? * Listen to the 'whole of il. 27, and name the chords. • †

b. The same with Dc.—Listen to the first section of il. 28; have you heard this cadence before? *

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+ Note that 'Sd is followed by Db.



"Yes, it is like the first in il. 27." It is; but it is differently approached; how? "It comes from Dcinstead of Sa." Let us alter the second chord of il. 28 into Sa, by changing d in the contralto to t_1 and m in the air into s; let us listen to the two approaches; which sounds better ? * You hear the Dc sounds harder, but it has its apology in a stepwise motion downward, which is aided in this case by contrary motion with the air, and what may be called oblique motion with the tenor. See another case of contrary and oblique motion producing a fine effect, in the third cadence of this il.

c. The Bass Cadence $| l_i : t_i | d.$ —Listen to the second cadence of il. 28; * how is it begun ? "By Sb going to D." Yes, this is another form of the imperfect D cadence; it is here approached by Fb for the sake

of a pleasant Bass melody, having contrary motion with the contralto. It might be approached by Dbin the same place, with a different air.

d. Inverted Chords.—Listen again to the first and second sections of il. 28;* how many inverted chords have we here in succession? "Five." If this wore not a tune made on purpose for illustration we should not have preferred so many; they are somewhat rough in their effect on the ear, and the Bass singer feels them to be infirm—difficult to hold. Even the removal of one of them gives a greater sense of security; alter the fifth measure by making the Bass | d : d and the Tenor | m : s, and listen to the two sections in both ways. * But the il. as it stands is perfectly right and it yields an example of two chordal habits, which the Harmony observer should understand. These are:—

e. Upward resolution of f in ⁷Sc.—First, the upward resolution of f in ⁷S, when r is in the Bass; perhaps the explanation of this is that r, being in the Bass, naturally struggles to be the root of the chord, and so far succeeds as to liberate f from the downward progression to which its resisting tone s had condemned it, just as the s in Dc tries to treat its d as a dissonance in the chord of S. See Par. 18. Another example will be found in the first section of il. 37; and—

f. The c position.—Secondly, the upward stepwise progression of the Bass in a c position. You will have noticed already that in Dc the continuous progression as in cadences, is the commonest, and that the downward stepwise movement, as in the first section of il. 28, is also acceptable to the ear; in the chords Sc and 'Sc the downward stepwise progression is the commonest and pleasanteet as in il. 27, and the third cadence of il. 28. The upward movement, however, in il. 28, m. 5 sounds very well; it is aided by the f a third above which waves from s to s as the r does from m to m. If s, or worse, r is put in the place of f, the chord will not sound so well.

g. The Bass cadential approach : $\mathbf{m} \mid \mathbf{t}_1 : \mathbf{d}_1$.—Listen to the last section of il. 28, and notice its opening; how does the Bass move? ": $\mathbf{m} \mid \mathbf{t}_1 : \mathbf{d}_1$ " This is another elegant form of cadential approach, like the : $\mathbf{m} \mid \mathbf{r} : \mathbf{d}$ of il. 24, the : $\mathbf{f} \mid \mathbf{t}_1$: \mathbf{d} of il 23, and the : $\mathbf{f} \mid \mathbf{r} : \mathbf{d}$ of il. 26.

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h. The Grand double cadence.—Notice that in this as in many similar cases, we have something like a S cadence forming part of the approach to a D cadence. Alter the air of the third last chord to r and listen to the section stopping on that chord; you havo immediately the principal cadence of expectancy. Now listen to the whole section as it stands, and you have the well approached cadence of rest. Now listen once more to the whole of il. 28, and name the chords. *

i. The Bass cadence $| \mathbf{d} : \mathbf{r} | \mathbf{m}$.—Listen to the first section of il. 29, and study yet another Imperfect D cadence, well set off by its contrary motion to the Air and oblique motion to the Tenor.



It shows us also Sc (as il. 28 showed ⁷Sc) with upward stepwise motion of the Bass. Notice also the Bass m t₁ d which we had in il. 28; it is not quite so pleasant here as there because more slowly moving. Listen to the whole of il. 29, and name the chords. *

29. Plagal Cadence.—Listen to the first section of il. 30, and notice the cadence; what chord have we here going to D? *

	IL. 30. KEY D.						R.G.
(â ^î	s :l	s :-	m	f :s	f :r	m :-
\	m	m :f	m :-	d	d :d	d:t	d :-
ì	d	d' :ā'	d' :-	s	1 :d'	1 :s	s :-
(d	d :f	d :-	d	f:m	f :s	d :-



Yes, the subdominant instead of the dominant. This is commonly called a Plagal cadence. Does such a cadence in itself decide the key? "No, it is ambiguous." See par. 14. But it is somewhat solemn in its effect, and when the key has been decided, by S or 'S being heard just before it. the effect is not only more satisfactory but more solemn. Let us test this by listening first to the Plagal cadence alone, and then to the same cadence, in the quick repetition of the chant, while the perfect Tonic cadence, still lingers in the ear. * It is only after this mental association of key has been established that the peculiarly fine and awe inspiring effect of the Plagal cadence is accepted by the mind. In il. 33, last section, we have a Plagal cadence well prepared by S, listen to its fine effect. * Notice that the Plagal cadence is very commonly used in Psalm tunes when the air has : 1 8. It is (unless you use the exceptional progression "T | D il. 61) the only way of harmonizing that air, in a D cadence, without changing the key and so make : 1 | s really into : r | d. Listen again to the whole of il. 30 and name the chords. *

a. Summary.—Imperfect D cadences are those in which the Bass moves stepwise either to Da or to Db; if to Da making the bases : $t_1 \mid d$ or : $r \mid d$; if to Db making the bases : $r \mid m$ or : $r \mid d$; in all cases it must be the chords S or 'S which move into the chord of D. A distinct name is given to another D cadence in which the chord of F moves to D; it is called the Plagal cadence.

30. Imperfect S Cadence. — Perfect cadential motion (that is from Tonie to Dominant or *vice versa*, in the α position) is not so essential in Dominant cadences as in the more important Tonic cadences. We therefore accept as perfect, among S cadences, $D\delta$ to S, although $S\delta$ to D is imperfect in D cadences. In both cases the "step-wise bass" distinguishes the imperfect from the perfect.

a. The Bass cadence : $d | t_1$. — Listen to the first section of il. 31, and say whether the S cadence is much weakened in effect. *

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"Not much." Only enough to justify the title imperfect. Listen to the whole of il. 31, and name the chords. *

b. The Bass cadence f | s.—Listen to the first section of il. 32, and notice the cadence. *



It is a S cadence approached stepwise from below. Does the chord of the Tonic move to the Dominant as before? "No, it is F to S." Yes, but although the Tonic is not heard, there is no "ambiguity" of key as in the Plagal cadence, for the tones f and t when heard close together can indicate only one key. This is a commonly occurring Imperfect S cadence, more common than the last. 'Listen to the whole of il. 32, and name the chords. *

c The Bass cadence : 1 | s.-Listen to the third section of il. 33, and name the cadence. *

BASS CADENOES : $f_1 | d | | : d | t_1 | | .1 | s | | : f_1 | d : d | | : f_1 | s_1 : s_1 | | | s_1 : d_1 | | | t_1 : d | |$ 19



It is an imperfect S cadence, with Fb moving to S.

31. More Weak-pulse Cadences .- In il. 25 we studied the weak-pulse Dc S cadence, with the | d : t, and | m : r for upper parts. Other cadences of this kind, which are conducted by means of consonant chords, can now be observed.

a. The | Fc : D cadence with air | f : m.-Lieten to the second section of il. 33; observe the cadence. What are its chords? * What is its air? * From what chord is it entered ? "From F." Yes, and thus it becomes a Plagal cadence. See p. 17 and the last cadence of this il. Listen to the whole of il. 33, and name the chords. * Listen to the second. section of il. 34, and observe the cadence ; what are its chords? *

 $m_1 : f_1 | s_1 : -$ || d $|d:d|t_1:d||r|$ s :s |f :m |r :d | $|\mathbf{s}_1:\mathbf{d}_1||\mathbf{s}_1||\mathbf{m}_1:\mathbf{d}_1||\mathbf{d}_1:\mathbf{d}_1$

m

From what chord is it entered? "Sb." Yes; you can now compare it with the different harmony of the same air in il. 33; which do you like better? * The Plagal form is the commoner.

b. The | Dc : S cadence again.-We studied this cadence in il. 25, but it was then entered, as a perfect cadence, by D. Listen to the first cadence of il. 34; what are the chords? * How is the same cadence now entered? "From F." Yes it is an imperfect | Dc : S cadence.

c. The |S: D cadence with airs $|t_i: d$ and |r: d. -Listen to the third and fourth sections of il. 34 : what are the chords? What the airs? * These cadences are the same as the ordinary D cadences. only with the last chord on a weak-pulse instead of a strong one; but in all the cases of the weak-pulse cadence previously studied, there is an intervening De or Fe between the proper first and second chords

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G.O.

]f :m [

d :-

 $|\mathbf{s}_1 : \mathbf{s}_1 | \mathbf{l}_1 : \mathbf{s}_1|$

s:m r:r

of the cadence. These cadential airs $|\mathbf{r}|$: d and $|\mathbf{t}_1|$: d are perhaps more commonly harmonized by means of a dissonance to be afterwards explained. Listen to the whole of il. 34, and name the chords. *

d. Summary.—Imperfect S cadences are those in which the Bass moves stepwise to Sa or Sb; if to Sa, making the Basses: $f \mid s \text{ or }: 1 \mid s$; and if to Sbmaking the Bass : $d \mid t_1$. The Bass : $1 \mid t$ is little used. For the first, second, and last named Basses, Fa or Fb may be used as the first chord of the cadence, instead of D. The weak pulse $\mid Dc$: S cadence may be entered, like the etrong pulse, by F or Fb as well as D. The weak pulse $\mid Fc$: D cadence may be entered like the D cadence, and a weak pulse $\mid S$: D cadence may be made.

32. The F cadence moves from D to F. It is not much used, because it has the same "ambiguity" as the Plagal cadence without the same effect of grand repose. As in the case of the Plagal cadence it is neccessary for S (or 'S) D to be heard just before it, in order to a good effect. \dagger

a. The Bass cadence : d $| f_1$.—Listen to the first section of il. 35; study the effect of the cadence, and name it. *





b. The Bass cadence : $d \mid 1, \dots$ Listen to the third section of il. 35; study the effect of the cadence, and name it. * Listen to the whole of il. 35, and name the chords. *

c. The Bass cadence: $m \mid 1$.—Listen to the first section of il. 36, and study the effect of a F cadence entered by Db. *



Notice that the key has already been defined by 7S; else a F cadence would have been undesirable so early.

+ Note that F cadences are not classified as perfect and imperfect. How to Observe Harmony. **d.** The Bass cadence: **s** | **f.**—Listen to the third section of il. 36, and study the effect of a F cadence entered from Dc. * S could not have been used in this place, first, because the Tonic is more effective here, and second, because, although Fa goes to S, S does not go to Fa, for S is one of the chords which has a fixed progression, see par. 9.

e. Dc on a weak-pulse.—Notice in this case that the Dc is on a weak pulse, and has the apology not only of a downward stepwise progression for its Bass, but also of contrary motion between Bass and Air. Compare it with Dc on a strong pulse, in il. 28. Listen to the whole of il. 36, and name the chords. *

33. Consecutives have already been studied pp. 13 and 15, but a brief reference to exceptional cases will help the ear to observe the progression of chords more easily. We have noticed (p. 13) how the fifth gives strength and emphasis to the chord in which it stands, and especially to the two tones by which it is made. The octave gives emphasis in a less degree, and without the sense of hardness. This emphasis is increased when the second of the two chords is on a strong accent. When to these considerations is added the well understood fact that the "principal" chords of the scale are those which will best bear emphasis, and that the "substitutionary" chords are better without it, we have the principles which must guide us in the study of consecutives. As, however, this study is chiefly important to those observers who intend afterwards to be Composers, --- we have not required it in the exercises at the close of this step.

a. Unison Passages. — Composers sometimes intentionally make two or more parts run together (in unison or octave) for a whole section, or for nearly a whole piece. This kind of Consecutive octaves is not objected to.

b. Octaves by contrary motion. — Octaves by contrary motion were shown at il. 25; but they should always occur between Tonic and Dominant or Tonic and Sub-dominant, and this holds good also of the minor mode of which the Tonic is L, the Dominant ^{se}M, and the Subdominant R.

c. Fifths between Tonic, Dominant, and Subdominant in special cases.—This readiness of the three principal chords of the key to bear the emphasis which consecutive fifths give (see p. 13), is shown in a few

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exceptional cases. For example listen to the first section of il. 37, and observe the consecutives fifths, between Tenor and Soprano in the chords Db F. *



d. Unequal Fifths.—Listen to the second section of il 37, and notice the consecutive fifths between the Tenor and Contralto of De 7S; do you observe any peculiarity here? * "The second fifth is a diminished one." Yes, and the consecutives descend This case of Unequal fifths is common in cadences, and is not objected to by the ear. Listen again to the first section, and observe unequal consecutives between Contralto and Soprano in the chords 7Sc Db; is there any difference? * "The diminished fifth comes first, and the consecutives ascend." Yes, this is the sort of unequal consecutive which the ear dislikes. Composers sometimes use them, however, only not between the highest and lowost parts where they are most noticeable.

e. Ill-approached fifths and Octaves. — Most writers would object even to the Approaching of fifths and octaves by similar motion when they are between the highest and lowest parts. They might not allow even the pause between the beginning and ending of sections as an excuse for the illapproached fifth between the highest and lowest parts in il. 49, and they might object to the way in which the octave is approached at the beginning of the fifth measure of il. 53. But this objection does not apply when there is simply a change of position in the same chord as in il. 37, fifth measure.

1. Approach of Fifths, from Subdominant to Tonic, and from Tonic to Dominant.—There are, however, many examples in which the fifth of the Tonio (D or minor l) is thus approached from the chord of the Sub-dominant (F or minor R) when the upper part moves only one step. See il. 41, end of second section. The same thing is allowed when the Dominant (S or minor eM) is approached from the Tonic. See ils. 46, beginning of first section, and 24, end of first section.

g. Approach of Octaves, from Dominant to Tonic, and from Tonic to Sub-dominant.—There are also cases in which the octave of the Tonic is approached by similar motion from the Dominant. See il. 46, close of second section, and il. 54, close of second section. The same thing is allowed when the Subdominant is approached from the Tonic. See il. 30, beginning of second section. Listen to the whole of il. 37, and name the chords. * Study also a special, and not disagreesable case to be found in vocal music, in the first section of il. 38, where F enters Dc.



h. Ill-approached Fourths.—Even a fourth (or a fourth and an octave) gives something of emphasis, and the esr objects to its being approached by similar motion in the two outer parts. Alter in il. 24, the first two notes of the Air in the second section to : $d^i \mid s$, and listen to the altered il. * You there have an accented fourth approached by similar motion, not pleasant to the ear. In il. 38, on the scented pulse of the aixth measure, you have another case; but as this is merely a changs of position in the same chord the ear does not object to it. Listen to the whole of il. 38, and name the chords. *

Ex. 26. Analyse ils. 27, 28, 29, 30.
Ex. 27. Analyse ils. 31, 32, 33, 34.
Ex. 28. Analyse ils. 35, 36, 37, 38.

Ex. 29. In ils. 27 to 38 there are five forms of spproach to the Imperfect D cadence. Write the chordal plan of the last four chords in each case, showing first those ending $: \mathbf{r} \mid \mathbf{d}$ in the Bass, next $: \mathbf{t}_1 \mathbf{d}$, next $: \mathbf{f} \mid \mathbf{m}$, and last $: \mathbf{r} \mid \mathbf{m}$.

Ex. 30. Find all the cases of Plagal cadence in ils. 30 to 38, and describe them as first, second, &c., cadence in such an il.

Ex. 31. In ils. 27 to 38 there are five different modes of approach to the Imperfect S cadence. Write the chordsl plan of the last three chords in each case, showing first, those approaches in which the Bass ends with : $d | t_1$, accord, those in which it has : $l_i | s_i$, and third, those in which it has : $f_i | s_i$.

Ex. 32. Find all the cases of the F cadence, and write the chordal plan of the last three chords in each case.

Ex. 33. Name all the cases in ils. 27 to 38, of the upward resolution of f in ⁷Se, as being in such an il., such a messure, and such a pulse.

Ex. 34. Name all the cases of what we have called the Grand Double Cadence, in ils. 24 to 28.

Ex. 35. Name all the cases of s in S going to m in D, in ila. 24 to 38, placing first those which are in the bass, and second, those which are in the upper parts, and in each of these classes first, those in which the s is double, and next, those in which it is single.

Ex. 36. Name in ils. 25 to 34 seven cases of the weak pulse cadence, and write down in each case the chordal plan of the last three pulses.

Ex. 37. Name all the cases of transferred resolution in ils. 22 to 28, not occurring between sections.

Ex. 38. Name all the cases in its. 17 to 37 of consecutive unequal fifths, giving the il., measure, and pulses.

. See "Chord-Naming Examples," A and B, 10 to 13.

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THE SIXTH STEP.

34. The Substitutional Chord R consists of the tones r f l. In studying the major chords (par. 2) we could not help noticing that the chords on r, m. l. and t. were of a different structure from the major chords. Notice again from the modulator, that R M and L, when put into their normal positions, have their minor thirds below. They are called minor chords. Properly the tone r should be a komma lower when it tunes with f or l, than when it tunes with t, therefore the proper name for this chord would be RAH, and all instruments free to give the pitch the mind dictates would sound it so. See St Co. p. 46, "The Grave Ray." Listen to the chord R, take care to hear all its tones and observe its effect. * Now (after a pause) listen to the chord D: which sounds the sweeter? * Yes, the major chord is the more "sonorous;" there is something of roughness to the ear in a minor chord. Its a position is about equal in sonorousness to the bposition of a major chord. See the essay on "Musical Statics." But minor chords are very useful in introducing variety to the Harmony. In the major mode they are chiefly employed in places where one of the principal chords S or F (the Dominant or Subdominant) would indeed be fuller and more sonorous, but where one of these is more convenient. We therefore propose to call them, along with the chord on t, the Substitutional chords of the key, as distinguished from the three principal chords D, F, S. The minor chords (R, L, and M) are too unsonorous to be used in the c position. R is chiefly wanted in its b position ; L is principally employed in its a position, and T is found most useful in its b position. The chief points of convenience, which call for the substitution of these chords are first, the securing of a better flow of melody in one of the upper parts by means of the new tone,-second, the avoidance of "consecutives,"-and third, in the *a* position, the fuller development of the mental effect of the Bass tone, see Summary p. 3.

a. The Bass cadence r s d.-Listen to il. 39, observe the second cadence, and name its third-last chord. * 17 30 WEV C 0 Ð

	11. GO. AMI O.							0
(ŝ	f	:s	1 :-	∥€	d :s	1 :t	d' :-
Y	m	r	:d	f :-	f	m :d	f :r	m :
ì	d	s	:d'	₫' :-	s	s :d'	1 :s	s :-
(d	r	:m	f :-	r	d :m	r :s	d :-
	F	Tau	to	Observe	Har	nonv.	R	

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"It is R." Yes. In par. 16 we noticed how important the chord F is in this third-last place of a D cadence. In il. 18 we noticed its use as a fourth-last chord with Dc intervening, and in par. 8, we noticed that there is no bond, direct or indirect, between the chords F and S. This last was acknowledged as a weak point in the progression F, S, but we observed that there is a kind of implied or understood bond between these two chords, in the fact that they are both bonded to the great ruling chord of the key, D. There are therefore three reasons why R is a good substitutional chord for F in this place. First, because it allows a new tone in the Bass as in il. 39, and in the Air as in il. 40,-secondly, because it supplies, in the tone r, an actual (and not merely an implied) bond with the next chord, and third because the mental effect of **r** is hest brought out in the *a* position, (see Summary p. 3) and the rousing effect is in this case agreeable. It makes a beautiful approach to the D cadence.

b. Fixed Progressions -- It will help you in recognising chords, if you at once notice that no other chord than R is commonly used to harmonize the **r** in this cadence. If Sc or 7Sc were used here we should have a c position without either continued or stepwise resolution, and it does not sound well for the Bass of a c position to leap. Exceptionally, however, this progression, Sc (or, hetter because of the supporting f, 7Sc) 7Sa Da may be found; hut the tone s must fall into the comparative dimness of the lower octave, so that the **r** may sound as though its resolution on **d** were only interrupted. Try the experiment in il. 39, by changing the l of the Air of this R chord into t, and the l of the Tenor into s, and changing the r in Alto of the S chord into f, making the Bass s go down. * You have heard enough to prove that in listening for chords, when you hear the Bass r s d, it may almost always be taken for granted that the tone r in that place is harmonized with the chord R. We may call this one of the "fixed progressions." Listen to the whole of il. 39, and name the chords, .

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c. The Bass cadential approaches : m | r and : f | r. —Listen to il. 40, and name the last four chords; how do they differ from the last four in il. 39? •



"Ir. 39 begins with Db, il. 40, with F." Yes, one makes a smooth, and the other an elegant approach of the Bass melody to the D cadence. Notice that the chord Rb might be used in the place of this F, were it not that the ear much prefers, when changing to the strong accent, to have a change of chord. Try the experiment by altering the Treble of this F chord into r, and the r of the following chord into l_1 . * You notice that not only is Fa better in itself than Rb, but it is also important to have a new chord with the new strong accent. Listen to the whole of il. 40, and name the chords. *

35. The Progression R to D.—Iu the second section of il. 41, alter the Bass of the fourth chord to d, and its Air to m¹, and listen to the progression Ra to Da; is it a smooth and good one $\hat{f} *$

· IL. 41.	KEY C.	KEY C. REV. W. H. HAVER			ERGAL.
/ m s :r	m :-	a	$t:r^{1}$	d' : 1	s :-
d ti:r	ā :-	m	r :f	s :f	m :-
s s:s	s :-	s	s :1	d1 :d1	d' :-
(d s ₁ :t	, d :-	d	s :r	m :f	d :-
•		~			
/ m r :s	m :-	S	1 :d'	$\mathbf{r}^{1}:\mathbf{t}$	d' :-
) d r :t	d :-	m	f :s	f :r	m :-
s s:s	s :-	d'	d' : d'	l :s	s :-
(d t, :s	d :-	d	f:m	r :s	d :-

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The awkwardness of this progression is so obvious that Harmonists agree in condemning it. They say there is no bond between the two chords, but neither is there any bond-direct or indirectbetween F S, and L S, and yet these two progressions are approved by the ear, -where is the difference? Helmholtz's theory of honds enables us to see it. Between F and S we have noticed par. 8) an implied bond of both with the key tone; a little thought will shew you that there is the same mutual relation to the key between L and S; but the "implied" bond between R and D would be S. and that carries the mind away from the Tonic to its most dangerous rival. The fear of consecutive fifths is another theory to account for the avoidance of this progression. If 1, the fifth of R, moved to s, its nearest tone in D, there would be fifths, and if it moved to the d above there would be what is often felt to be an awkward melody in the upper of the two parts. With this corresponds the fact, that, while the bond must necessarily be the same whether you go from D to R or from R to D yet the progression Da to Ra is much less unfrequent than that of Ra to Da. Why? * Because the note s, the fifth of the chord D, can avoid going up to 1 (so making fifths) by moving smoothly down to f. Whatever may be the truth of these theories, they correspond with the practice, among modern musicians, of avoiding the progression Ra to Da. But, for some reason not made clear to us, the b position makes this progression less objectionable. Liston to it as it stands, in the second section of il. 41. * Again, changing the Bass r into f so as to get both chords in the b position, listen to an equally allowable movement. * But this would
spoil the imitation of the previous Air by the Bass. If the Tenor 1 were changed into t we should employ the chord To (which we have not yet studied) and so avoid the R altogether as well as give a "delayed resolution" to the S. For modern ears this would he better—closer to the key, but Mr. Havergal was intentionally writing in the style of the older harmonists, whose "sense of key" was not so critical as ours. We can now understand why Ra, though used in the D cadence, is *not* used in the corresponding S cadence; because the Bass $|r:d|s_1$ would necessitate the "awkward progression" Ra to Da. Listen to the whole of il. 41, and name the chords. *

a. Summary.—R is a minor chord, and as such, is ueed, in the major mode, for variety. It is employed as a Substitute for F, where the tone r is wanted in Air or Bass. In the *a* position its chief use is in approach to the D cadence when the Bass moves $|\mathbf{r}:\mathbf{s}||\mathbf{d}$. It is not used with the Bass S cadence $|\mathbf{r}:\mathbf{d}||\mathbf{s}|$ because the progression $\mathbf{R}u$ to Da is unpleasant.

36. The Substitutional Chord Rb.—The principal use of R is in ite b position,—and that chiefly as a substitute for F in both D and S cadences. It is not so sonorous as the major chord F, but it has the advantage, while leaving the tone f in the powerful position of Bass, of also affording in its tone r a real bond with the coming chord S. Modern composers seem to prefer Rb to F in this place. An additional advantage arises when the composer desires the tone r in one of the parts.

a. The Bass cadence | f : s | d with Rb.—Listen to il. 42, and notice the last cadence. *



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Now alter the Air of its second-last measure to $|\mathbf{d}: \mathbf{t}_{h}$ and the Tenor to $|\mathbf{l}|:\mathbf{r}$, and compare the two progressions F ⁷S D and Rb ⁷S D. * A similar comparison may be made between F S and Rb S, in il. 43 by altering the three last notes of Tenor to $|\mathbf{d}|:\mathbf{s}$ [s. * In il. 42, Rb is substituted for F because the tone r is wanted for the air; in il. 43, because the tone r is desired for a "bond," and it is quite convenient for the Tenor melody to use it. Indeed if it had used d' there would have been consecutive fifths. Now, listen to the whole of il 42, and name the chords. *

b. The Bass cadence : f | s with R5.—Listen to the first cadence of il. 43, and notice its socond-last chord. *



What chord have you hitherto found in this entry to the imperfect S cadence. "Fa." Yes, and it still sounds the more sonorous and firm, as you may hear by altering the Air to d! and comparing the two. * It is evident that Rb was substituted, in this place, only because the tone r was wanted in the air. When : 1 | s is in the Bass of a S cadence or in the approach to a D cadence, the 1 would not be harmonized with Rc because of the unsonorous c position. Listen to the whole of il. 43, and name the chords. *

c. The weak-pulse S cadence and the Bass cadence | s : s | d with Rb.—Listen to il. 44, and notice the first cadonce; what kind of cadence is it ? *

SIXTH TONE ROYAL. IL. 44. KEY F. |s :f |m :r ||r |m :f m:r d :t | d :-d :r s :f d :f s :s

37.

We studied it before, il. 34, but then it was approached from F, what is here used instead? "Rb." Yes, it enables the Contralto to move in similar motion, in thirds, with the Air. Listen to the second cadence of il. 44, and notice R_{i} again substituted for Fa, just before Dc in approaching a D cadence, one of the favourite places of Fa. See par. 34. * The reason of the substitution is not very obvious, for the tons r is not wanted for the Air, and it cannot, in this case, form a bond; its only excuse is its making similar motion in thirds with the Air. The want of bond between R and D is unmistakably felt in both these cases. This chord of Rb going to Dc strikes the ear with a certain roughness, which was not unwelcome in the old ecclesiastical style of harmony; but compare with F going to Dc (by altering the tone r to d) and the ear will not doubt which of the two makes firm well-bonded harmony. Listen to the whole of il. 44, and name the chords. *

d. Summary.—Rb is substituted for F in the Bass cadences, $|\mathbf{f} : \mathbf{s} | \mathbf{d} || : \mathbf{f} | \mathbf{s} : \mathbf{s} | \mathbf{d} || : \mathbf{f} | \mathbf{s}$ and :f $| \mathbf{s} : \mathbf{s} .$ Its substitution is very agreeable when the tone r can be used as a bond between chords, or when it is wanted for greater melodic smoothness in any of the parts.

S7. d against r.—At par. 11, and il. 12, we studied incidently the dissonance d against r. It is, next to that of f against s, by far the commonest dissonance in music. Its habits, however, are in contrast with those of f against s in three respects. First, it is nearly always horizontally prepared, while f against s is nearly always obliquely prepared or unprepared. Second, it is quite commonly a "primary" dissonance, whereas f against s is s

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seldom more than secondary or tertiary. Third, it occurs almost exclusively on the strong pulse, while f against s is chieffy heard on the weak pulse. d against r being more dissonant in degree, and occuring on the strong pulse needs the better preparation.

a. The chord ⁷Rb.—As f against s was most commonly found in the chord ⁷S, so d against r chiefly occurs in the chord R, in which the dissonating d forms a seventh. By far the commonest use of ⁷R is in the *b* position, and in the approach to D or S cadences. In fact Rb, substitutional for Fa in cadences, mors frequently appears with the dissonance than without it. Listen to il. 45, and notice the third-last chord; what is it? *



Compare it with $R\delta$ in the same place, by altering the d to r or l_1 . * Which is better? "The dissonant chord sounds better than the other?" Yes, its d supplies a horizontal bond between the chords D and R, and so makes the progression acceptable to the ear. Listen to the whole of il. 45, and name the chords. If the manual signs are used, the thumb laid in the palm of the hand, while the signal for R is given, can be used as a sign of 'R. * Listen to il. 46, and notice 'Rb on a weak pulse where in il. 44 we observed Rb. *

	Ŀ	L. 46.	KEY G.			SIXTH	TONE.
{	(m d s d	r :r t ₁ :t ₁ s :s	m : d : s : d :	m d s d	d :r d :d f :1	m :r d :t ₁ s :f	d :- d :- m :-



It is not common to have any dissonance on a weak pulse "horizontally" prepared, for the horizontal preparation and downward resolution, form so smooth a melody and so satisfactory an apology for dissonance, that the ear *prefers* to have such "a dissonance brought out into notice by strong accent. Therefore 'Rø is rarely used in this place.

b. Delayed resolution of ⁷R.—Notice that in il. 46 the resolution of the dissonant d in ⁷R is delayed, while it traverses another chord as a consonance. Alter the Air of the third -last chord to r, and the Contralto to t_{i} , and then compare the effects of delayed resolution, and immediate resolution. Compare il. 57.

c. The chord 'Ra.—We remember (par. 34) the "fixed progression" | Ra : Sa | D. In il. 39, this Ra was preceded by Db without a bond, and in il. 40, by Fa with two bonds. Listen to both and say from which chord Ra is the more pleasantly entered. * "From F." Yes, but cannot a bond be obtained even with Db? Listen to il. 47. *

"The seventh makes the bond." If you substitute the tone l₁ for the Tenor d, and f₁ for the Contralto l₁ in this ⁷R, you can compare the bonded with the unbonded progression. * The \mathbb{N}^n sounds clear and sonorous, but unconnected with what precedes;

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the 'Ra (though somewhat hard) is heard to come out of the Db, and compels you to regard three chords as one homogeneous mass. Listen to the whole of il. 47, and name the chords. * Listen to il. 48, and notice 'Ra in the same position as 'Rb in il. 46, with the same bond and the same "delayed resolution." *



Listen to the whole of il. 48, and name the chords. *

d. The R cadence is very rarely employed, because it bears no good relation to the key. Sometimes when r is in the Air, and the composer wishes to bring out its mental effect very strongly, as in some chants, he harmonises it with the chord R instead of S. Listen to the first section of il. 49, and notice a R cadence, which seems to have been substituted for a F cadence in order to obtain contrary motion between Air and Bass *



Listen to the whole of il. 49, and name the chords. • Very rarely even 'R is used in a cadence.

e. The chord 4S.—The dissonance d against r is also found in the chord S; what number from the root would the dissonance d be in this chord $\mathcal{P} *$ We will call the chord 4S. If the "Manual Signs" are used, 4S can be signalled by dropping the fourth finger while holding the sign for S. The dissonance is not so firm in this chord as in the chord of R, for its resisting tone is the fifth, not the root. Since ⁷R has come into use, 4S has been less employed in cadences. Listen to ils. 50 and 51, naming the chord 4S in each. *



In which il. is the dissonance primary, in which secondary? * Which part has the resisting tone, and which the dissonance in il. 50? * Ditto, in il. 51? * Listen to the whole of ils. 50 and 61, and name the chords. * Listen to the second section of il. 52. *

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What chord resolves 'S in the last cadence? • "7S." What chord resolved it in ils, 50 and 51? *

f. Summary. — The chord R, with a dissonating seventh, is used both in its a and b positions, just where Ra and Rb would be used, except on weak pulses, where a horizontal dissonance is not proferred. In coming from D, especially in its a position, 7R is much to be preferred to R because of the bonding d. The R cadence has so small a power of indicating the key that it is generally avoided. The chord 4S resolves its dissonance into the chord S or 7S.

38. The weak pulse D cadence with ⁷S.—In ils. 33, and 34 we had a weak pulse D cadence; what was the air, and what was the strong pulse chord ? * In il. 52 we have a weak pulse D cadence with the same air, what is the strong pulse chord ? "⁷S." Now in second and third measures, alter the Alto to to t_1 [d :-, the Tenor to [d :s | 1 :s, and the Bass to $|t_1^{*}:s_1|$ [d :-; you will then have the Fc form of this cadence. Listen to the two forms, and describe their different effects. * Listen to the whole of il. 52, and name the chords. *

39. The Coupled Dissonance ⁴⁷S.—Listen to il. 53, and observe the third-last chord. *

	IL. 53.			KEY]	Eþ.	B. St. J. B. JOULE.					
ſ	ŝ	[m	:s	11:-	ΠÎ	s :d	f :f	m :-			
١.	d	d	:d	d :-	1,	$\mathbf{t}_i:\mathbf{d}$	d:t	d :-			
Ś	m	s	: m	f :-	f	f :m	r:s	s :			
	d	d	:d	1,:-	r	s ₁ : s ₁	si : si	d :-			



Here we have the two commonest dissonances united in one chord, f against s as a tertiary, and d against r as a secondary. The f is unprepared, is continued in 'S of the next chord, and then resolved. The d is horizontally prepared as usual, and resolved in the same chord on which it strikes. A moment's study of the modulator will show that it is a necessity of all dissonant sevenths, that they should resolve on a different chord from that on which they strike, and of all dissonant fourths, that they should resolve on the third of the same chord on which they strike.---that third never being heard with the dissonance, except at a tertiary distance. The Dc in this cadence is worth notice: it resolves ⁷Sa and is continued into it, so that the Bass holds on. Listen to the whole of il. 53, and name the chords.

a. Delayed resolution of 4S.—Listen to il. 54; what is the second chord of the second section? *



"4S." How is its dissonance, d, resolved? "It is carried on through the next chord, and then resolved." Yes, it becomes a consonance in Dc—it traverses Dc—and is then resolved in 7S. This is a case of delayed resolution. Study also the ils. 46 and 48. Listen to the whole of il. 54, and name the ehords. *

b. Summary.--The weak pulse D cadence has sometimes Sb or ⁷Sb D as well as Fc D. Dissonances consonant with each other intrude together into a chord. In this case each dissonance followe its own law of resolution, the sevenths being resolved on another chord, and the fourths on the same.

Ex. 39. Analyse ils. 39, 40, 41.

Ex. 40. Analyse ils. 42, 43, 44, 45.

Ex. 41. Analyse ils. 46, 47, 48, 49, 50.

Ex. 42. Analyse ils. 51, 52, 53, 54.

Ex. 43. Write the chordal plans which in ils. 39 to 54 sre found under $l t d', r t_l d$ (or r' t d'), r r d, or f r d, in the Soprano.

Ex. 44. Write down one of each of the different ehordal plans to be found in any of the preceding illustrations of the present step having the Bass |s:s|d; Ditto, |f:s|d; Ditto, :f|s:s|d, Ditto, |r:s|d.

Ex. 45. There are in ils. 39 to 54 two, forms of the imperfect S cadence. Write down their chordal plans.

Ex. 46. There are in ils. 36 to 53 five forms of the perfect and imperfect F esdence; write their chordal plans.

Ex. 47. In the ils. thus far we have had five cases of the weak pulse S cadence, and five cases of the weak pulse D esdence. Write the chordal plans of the last three chords, and over them the airs in each ease, placing the D cadences first.

Ex. 48. Name all the eases of ⁷Se in ils. 20 to 37, placing first those in which the Bass moves m r d. next, those in which the Bass has f r d, next, those with d r m, and last, those with m r m in the Bass. Name all the cases of Se. Name also three different cases of De, with their apologies.

Ex. 49. In ils. 39 to 54 there are fourteen cases in which some two or more parts move in similar motion, in thirds or sixths, for more than two pulses; name them all. It will be sufficient to indicate the first of the three or more pulses. The parts between which this relation is established should be shown by the letters S for Soprano, C for Contralto, &c.,--thus, il. 44, m. 2, p. 2, S.C. There are also five eases of contrary motion, in two or more parts in thirds and sixths for more than two pulses, name them all in the same manner.

*** See "Chord-Naming Examples," A, 14 to 17; B, 14 to 18. How to Observe Harmony. ATTE ETROP OFFICER MODILY (MOD

THE SEVENTH STEP.

	Inc P	TUNET	CHOUD	WODOL	AIOI	.u.	
d	(d)	d	d				
				t	t	t	
l	1	1	ı.		(])		
			ş	s		8	
	f	f		(f)	f		
m	-	_	m			m	
	r			r	r		
d	(d)	d	d	(d)			
				t	t	t	
2	1	1			(1)		
			Ş	s		8	
	f	f	m	(f)	f		
			1.6			m	
	r			. r	r		
		d	d	(d)			
				t	t		
		1					
				s			
		f					
L	R	\mathbf{F}	D	S	т	м	

40. The Chord Modulator.—The three principal chords of a major key have already been shown in the diagram, page 4. These are all major chords. But in par. 34 it was shown that the minor chords R, L, M, and the dimensished chord T, even in the major mode, are with great advantage substituted for F or S when a different note is wanted in the

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Bass, or in an upper part, or where a better bond is sought for. Excepting the chord L in "surprise cadences" and M in some rare cases, nothing can ever be substituted for the Tonic, D. In the Chord Modulator at the side, the substitutional chords are printed in smaller letters than the principal chords, instead of which they are occasionally employed. And the dissonant tones most commonly introduced are printed in italics with brackets.

41. The Substitutional Chord T. - The chord T is different in structure from the other chords we have studied. In its normal position it presente two minor thirds, one over the other. The tone lying between the two thirds has an uncertain effect, the f above requiring it to be a komma lower, rah, and the t below expecting it to keep its place. See par. 34. And the root with the diminished fifth forms what is called a "partial dissonance,"-that is to say, although the tones themselves do not dissonate their early partials, or harmonics, dissonate strongly. Both the uncertainty and the dissonance are less felt in the b position. Hence although Ta is sometimes used, especially in three part harmony, for the Basses t_i d s_i, or s_i t_i d, or t_i e, d, and in "Sequences" as at next Step, the principal form of the chord is Tb. Te is but little used except as a substitute for 7Sd in three part harmony.

a. To with the Basses m r d - f r d - d r m - Tb is used as a substitute for Se or 'Sc, wherever the smoothness of the parts requires it. Listen to il. 55, and observe Tb with the Bass m r d; compare Se and 'Se in ils. 24, 25, &c. *

\mathbf{I}	L. 55.	KEY	G.		R.G.
':d	d :r	:m	r :- :s	f :m :r	d :- ∦
:s ₁	d :ti	:d	t _i : :d	$\mathbf{l}_1:\mathbf{s}_1:\mathbf{f}_1$	m,:-
:m	s :f	:m	s :- :s	d :d :t ₁	d :-
:d	m :r	:d	s::-:m;	$\mathbf{f}_1:\mathbf{s}_1:\mathbf{s}_1$	d :-
	T0				





Listen to il. 58, and notice T δ on the strong accent approaching the D cadence; compare 7Se in il. 43. *

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and name the chords. *

42. The Dissonance l against t in ⁷T.—Listen to il. 60, noticing the second chord of the second section. *





You hear a very beautiful piquant effect; it is the l, unprepared as it usually is, beating against the root of this chord (making a seventh) and then resolving on s in the next chord. What is the "degree" of the dissonance in this case? "More than tertiary." Yes, it may be called Quaternary. At such a distance, the dissonance is scarcely felt. Its commonest and most acceptable appearance is as a tertiary unprepared strong pulse dissonance in Ta. Though the \hat{a} position of \hat{T} is so seldom used without the dissonance, yet with it Ta is preferred. The dissonating tons is sometimes in other parts, but when it is in the Bass it has to be prepared and that horizontally. Listen to the whole of il. 60, and name the chords. The manual sign for 7T may be the hand pointing upward, but the thumb held close to the palm, and covered by three fingers. * Listen to the first section of il. 61, and study the effect of this dissonance on a weak pulse. When unprepared, its 1 is generally approached from below. *

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What is the degree of the dissonance in this case? "Tertiary." Listen to the third and fourth sections of il. 61, and notice this dissonance again, on a holding tone, and in Tb, the degree of the dissonance being closer than before, that is secondary. * Listen to the whole of il. 61, and name the chords. *

a. Summary.—The chord T is principally used, in its b position,—except in three part harmony, or with a seventh, or in sequences. It is a convenient substitutional for 'Sc, and is used in most of its favourite places. The principal dissonance being removed, it has the advantage of a freer progression than 'Sc; its f more often ascending to s, and being often doubled, and its r occasionally leaping to 1. The most common dissonance in this chord is that of 1 against t, and this dissonance makes the *a* position acceptable. The dissonating 1 is generally unprepared, but sometimes prepared obliquely, and if in the bass, horizontally.

43. The Substitutional Chord L.—This minor chord is used first, as a substitute for Fb in the approach to D and S cadences, or wherever the tone m is wanted for an upper part instead of $f_{,-}$ second, as a substitute for Fb in cadences where the "sad" effect of the bass tonol has to be especially brought out, or wherever m may be wanted in the upper parts instead of $f_{,-}$ and, third, as a substitute for D in cadences, when the dominant or one of its substitutionals (that is S, or ${}^{7}S$, or ${}^{7}b$) instead of moving to D, surprises the ear by moving to L.

a. L in the habits of Fb.—In such cases of Fb as are found in ils. 22, 25, 33, L could be substituted for Fb. In respect of sonorousness there is not much choice between the two chords. The points of convenience mentioned in par. 34, must decide which is to be used. In other cases L could not be substituted if f is to be retained in the Air. Listen to il. 62, and notice L with the Bass: $| \ | \ s \ : \ s \ | \ d$, d being in the Air. *



Listen again, and name the chords. * Listen to il. 64, and notice L with the Bass: 1 | f : s | d. *

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IL. 64. KEY Bb. DR. HILES. r:m $l_1 := || \hat{r} || s_1 : \hat{d} || \hat{d} : t_1 || \hat{d} := || \hat{d} || \hat{d} : t_1 || \hat{d} := || \hat{d} || \hat{d} : t_1 ||$ $\|\mathbf{f}_1 \| \mathbf{f}_1 : \mathbf{m}_1 \| \mathbf{r}_1 : \mathbf{f}_1$ S1:S1 t₁:d r $l_i:r$ $\|\mathbf{r}_{1}\|_{\mathbf{S}_{1}}$: $\|\mathbf{f}_{1}\|_{\mathbf{S}_{1}}$ Listen again, and name the chords. * Listen to il. 65, and notice L with the Bass : I | r : s | d. * IL. 65. KEY A. BATTIGHILL. lm :đ s_i :m r :r :t t, :- \mathbf{d} : \mathbf{l}_1 s: :d t S. $\mathbf{l}_1:\mathbf{s}_1$ 81 : Listen again, and name the chords. * Listen to il. 66, and notice L with the Bass |1 :f |6 :s| |d. * IL. 66. KEY D. FIFTH TONE. 1:1]m :f m :r d :-d f :f m :d :r $d:t_1$ d :-d':1 d :-:f

D

Listen again, and name the chords. * Listen to il. 67, and notice L with the Bass |1|: f | s. *

Listen again, and name the chords. *

b. The entry and exit of L.-L has two honds with D. It easily comes out of that chord; it can also go into it. Its root is also bonded to F and R. In these progressions, there is no difficulty, but why should L so often come out of and sometimes go into S and 7S, with which chords it has no hond? First, let it be remembered that the chords S and ⁷S move into L almost as smoothly as into D. The tones d and m are entered and left as in the chord D, the tone 1 easily moves to or from s, and the binding mental effect which key relationship throws around the tone t (see par. 9) is easily felt. Second, it is easy to see why the chord L is allowed to come from 7S or S. The ear is so much accustomed to hear D after S, 7S, or T, that an effect of sweet surprise is felt when the soft l enters in the Bass instead of d. This feeling of surprise when not too often awakened is very agrecable. Third, let it also be remembered that there is a strong implied bond, between the chords L and S, a bond to the Tonic itself. And last, let it be noticed that just as (par. 35) D R makes a smoother progression without sonsecutives,-than R D, so does S L, than L S. In S L the r can easily go down to d without making fifths, but in L S the m cannot move amoothly to r. but must akip to either s or t_1 . The bonds of \mathbf{L} with S are much hetter than those of R with D, but the ascending progression is in both cases the more used. Study the entry and exit of L coming from D, in ils. 63, 65, 66, 67. * Listen to L coming from S and ⁷S, in ils. 62, 64. * In the old fashioned harmony of il. 62, the natural progression of t is

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changed. The want of unity between the chords is somewhat excused by the similar motion in thirds between the two upper parts, and the contrary motion of the Bass. In the case of ⁷S, as at il. 64, this cannot be done, unless the t were raised above the f. If t as it atands were to go down to 1 there would be consecutive fifths.

c. The Surprise Cadence with the Bass : s [1.—Listen to il. 68, and notice the first cadence. *



The ear has been so much accustomed to S; ⁷S, or Tb moving into D, that its resolution into L produces a pleasant feeling of surprise and expectancy, and yet this progression is very smooth. In the preaent case t r and f follow their commonest recolution. This is called the surprise cadence. Observe in the third section how Dc is entared and left. Listen to the whole of il. 68, and name the chords. * Listen to il. 69, and atudy the surprise cadence entered by S instead of ⁷S. *

PROGRESSION OF L. SURPRISE CADENCES : \$ |1 ||:t |1 ||:r |1 ||. BASS |1 : s |d || |1:t ||d |. 35



d. The Bass cadence $|\mathbf{d}: \mathbf{t}_1||_1$.—Listen to il. 70, and study the surprise cadence entered from Sb. *

	IL. 70. KEY D.							BATTISHILL.				
$\langle $	∣ đ ^î	s	:s	d :	-	∣â	1	:s	f	:f	m :-	1
١	m	m	:r	d :	-	d	d	:d	đ	$:t_1$	d :	
5	s	s	: s	m :	-	s	f	:s	1	:s	s :-	
l	d	d	$:t_1$	1,:	-	m	f	:m	\mathbf{r}	:s _i	d :-	
6	22.	-				-# 		+		<u> </u>	- E	F
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<u> </u>	• •			1	1-		 -				· { · · ·	

Listen again, and name the chords. *

e. The Bass cadence |1:s|d.-Listen to the first section of il. 71, and study L in one of the habits of Fb. *

$$\begin{cases} \hat{\mathbf{d}} & | \mathbf{m} : \mathbf{f} & | \mathbf{m} : \mathbf{r} & | \hat{\mathbf{d}} & | \mathbf{t}_{1} : \mathbf{l}_{1} & | \mathbf{s}_{1} : \mathbf{m} & | \mathbf{r} : \mathbf{r} & | \\ \mathbf{d} & \mathbf{d} : \mathbf{s}_{1} & \mathbf{s}_{1} : \mathbf{s}_{1} & | \\ \mathbf{d} & \mathbf{d} : \mathbf{s}_{1} & | \mathbf{s}_{1} : \mathbf{s}_{1} & | \\ \mathbf{d} & \mathbf{s}_{1} : \mathbf{s}_{1} & | \\ \mathbf{d} : \mathbf{t}_{1} & \mathbf{d} : \mathbf{c} & | \\ \mathbf{d} & | \\ \mathbf{t}_{1} : \mathbf{s}_{1} & | \\ \mathbf{d} : \mathbf{c} & | \\ \mathbf{t}_{1} : \mathbf{s}_{1} & | \\ \mathbf{t}_{1} : \mathbf{t}_{1} & | \\ \mathbf{d} : \mathbf{c} & | \\ \mathbf{t}_{1} : \mathbf{t}_{1} & | \\ \mathbf{t}_{1} : \mathbf{t}_{1} & | \\ \mathbf{t}_{2} : \mathbf{t}_{1} & | \\ \mathbf{t}_{1} : \mathbf{s}_{1} : \mathbf{t}_{1} & | \\ \mathbf{t}_{1} : \mathbf{t}_{1} & | \\ \mathbf{s}_{1} : \mathbf{t}_{1} & | \\ \mathbf{t}_{1} : \mathbf{t}_{1} & | \\ \mathbf{s}_{1} : \mathbf{t}_{1} & | \\ \mathbf{s}_{2} : \mathbf{t}_{1} & | \\ \mathbf{s}_{1} : \mathbf{t}_{1} & | \\ \mathbf{s}_{2} : \mathbf{t}_{1} & | \\ \mathbf{s}_{1} : \mathbf{t}_{1} & | \\ \mathbf{s}_{2} : \mathbf{t}_{2} & | \\ \mathbf{t}_{1} : \mathbf{t}_{2} & | \\ \mathbf{t}_{2} : \mathbf{t}_{2} & | \\ \mathbf{t}_{1} : \mathbf{t}_{2} & | \\ \mathbf{t}_{2} : \mathbf{t}_{2} : \mathbf{t}_{2} : | \\ \mathbf{t}_{2}$$

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Listen also to the last section, and notice L in another of the habits of F^b, entered with surprise from ⁷S. *

f. Exceptional Progressions S to Fb.—Listen to the second section of il. 71, and notice this undesirable progression, having, however, the strong apology of contrary motion between Air and Bass. *

g. The Bass cadence |f:r|l.—Listen to the third section of il. 71, and notice a new form of the surprise cadence. * It is not entered from S or 7S but from the substitutional Tb. In the *c* position of 7S, it would not have sounded well for the Bass r to leap to l, but here we have a *b* position, therefore r is somewhat more at liberty. A peculiarity of a case of this kind is that you will always find 1 t d' in one of the upper parts.

h. New Double cadence. — Listen to the last section of il. 71, and notice the surprise cadence, flowing into the principal cadence, just as the S cadence did in il. 28. * Listen to the whole of il. 71, and name the chords. *

i. The Bass cadence $|l_1:t_1|d$.—Listen to the first section of il. 72, and notice what chord you have in the place of Fb when the tone m is wanted in the air. *

	\mathbf{I}	г. 72.	KEY G.				G.O,
1	(m)	m :s	d:-	$\ \hat{\mathbf{r}}\ $	f:m	$ \mathbf{r} :\mathbf{r}$	d :-
	SI	1 ₁ :s	s, :-	t	d :d	d :t	d :-
Ś	d	d :r	m :-	s	f:s	1 :f	m :-
	d	1, :t	d :-	S	1, :d	$f_1:s_1$	d :-



j. Exceptional Progression again.—In il. 71 we had S moving to unaccented Fb. Listen to the second section of il. 72, and notice S going to accented Fb. * As S goes more smoothly into L, that chord would have been better than Fb in il. 71, but in il. 72 L could not be used with f in the air. Listen to the whole of il. 72, and name the chords. *

k. The L cadence.—Listen to the first section of il. 73, and notice a substitute for the Fb cadence, D moving to L. *



It is not a surprise cadence, because not entered from S or 7S. It is not much used, for fear of confusion with the Tonic cadence of the minor mode, but in this case the key has been so perfectly established by 7S going to D, that there is no danger of this kind, and the mental effect of the tone 1 comes out strongly against the t just heard.

1. Summary.—The chord L is used as a substitute for Fb in all its habits, even in the Fb cadences; and it is used as a substitute for D in the surprise cadence. Even in non-cadential passages it is frequently employed, and in these passages it often comes out of chord S and 'S (with the feeling of a pleased surprise) but it seldom goes into them. Its best bonds are to F R and D.

Ex. 50. Analyse ils. 55, 56, 57, 58, 59.

Ex. 51. Analyse ils. 60, 61, 62, 63, 64.

Ex. 52. Analyse ils. 65, 66, 67, 68, 69.

Ex. 53. Analyse ils. 70, 71, 72, 73.

Ex. 54. Name all the cases of Tঠ in ils. 55 to 59, placing first those in which the Bass moves $|\mathbf{m}:\mathbf{r}\rangle$; d, second, those which have the Bass : \mathbf{m} | $\mathbf{r}:\mathbf{d}$, third, those which have $|\mathbf{d}:\mathbf{r}|$, $|\mathbf{m}$, fourth, $|\mathbf{f}:\mathbf{r}|$ d, fifth, $\mathbf{f}|\mathbf{r}:\mathbf{d}$, and sixth those in which \mathbf{f} is resolved upward.

Ex. 55. Write three notes of the Air and Bass where ⁷T occurs, (ils. 60 and 61,) including the note before and the note after ⁷T, placing first ⁴Ta on a strong pulse, next ⁴Ta on a weak pulse, and next ⁴Tb.

Ex. 56. Name all the cases of La in ils. 62 to 73, placing first those in which L enters D, next Db, next S, next 75, next Sb, next F, next R, next Rb, next 7Rb.

Ex. 57. Write the chordal plans of the last three chords of all the forms of surprise cadence given in ils. 68, 69, 70, 71.

Ex. 58. Write the last three chords of the L cadence, il. 73. And write the Air and Bass of the section containing the surprise cadence entering the D cadence in il. 71. Write the Air and Bass of the exceptional resolutions of S into Fb.

Ex. 59. Name all the cases in ils. 62 to 73 in which the melody t l occurs in any of the parts, and the chords with which they are harmonized.

• See "Chord-Naming Examples," A, 18 to 24; B, 19 to 24. How to Observe Harmony.

THE EIGHTH STEP.

44. The Substitutional Chord M.—The chord M is quite as good, in itself, as any other minor chord -as RAH, for instance, or L. It is physically the same. Why then is it almost excluded from modern music, and why do some of the instructors say "There is no chord on the third of the major scale?" * The fact of the steady disuse of this chord is undoubted. There are only three reasons which I can sec. First, though not more unsonorous than any other minor chord, it carries you more, than they do, out of the scale; the third partial of its fifth contradicting the scale, which is not the case with RAH, or L. Second, the mental effects of its root and fifth are more contradictory than these of any other chord except T. which has a diminished fifth and a strong "partial dissonance." See par. 41. Third, because it is very little wanted. The better cherds, D or S. are preferred. The chord T, which is less sonorous than M, is more used because it is more wanted. Let us notice a few cases in which these chords are specially required. But first we must understand the nature and effect of a sequence.

45. Sequence.—Listen to the hass of il. 74. What do you notice in its form of movement? *



Yes, it goes up and down on a plan. Beginning with s_i it goes 'down a third and up a fourth ' five times, and, except for the f taking the lower octave would have done so six times. Listen to the contraite of il. 74. What form of movement do you notice: beginning with the third s_i ? "The same as in the bass," Yes, but with a contrary accent.

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These repeated forms or wavings of meledy are called meledic sequences. When several "parts" are heard together, each with its own meledic sequence, the passage is called a Harmonic sequence. In this il. the harmonic sequence is imperfect, for, in the Soprano and Tenor there are only fractional sequences, a few 'repeated tones rising a second.' Nevertheless, any thing in the form of sequence is gratifying to the ear.

a. Anti-melodic intervals. — The interval f to t ascending, and that of r to se are said to be anti-melodic. Certainly they are not agreeable to the ear. Listen again to the Contralto and Bass of il. 74, and observe how this interval is excused to the ear by the previous establishment of a sequence. * Notice that if you begin with this interval, or sing it before the ear has acknowledged the sequence, its harshness is still felt. *

b. M and T in sequences.—Listen again to il. 74, and name the chord on the strong pulse of its seventh measure. "Ma." Why was not Do used in that place? * Yes, because the composer wanted to get $\mathbf{\tilde{t}}$ in the Contralto for the sake of the sequence in that part, and the feeling for sequence is a sufficient apology for an unsoncreus chord. Listen again and name the chord which occurs on the strong pulse of the fourth measure, and the weak pulse of the sixth. "Ta." Why was not 'S used in these places ? * Yes, because its own S was not wanted to complete the sequence in any of the parts, and to force it in would have spoiled the sequence. Again our natural love of sequence excuses the unsonorous chord Ta. An additional reason why s should not be in the Bass in these cases, is that it would make consecutive fifths. Now, alter the air of the opening phrase in il. 74 into $d \mid t_i : t_i$ the Contralto into $\mathbf{m}_{1} | \mathbf{r}_{1} : \mathbf{s}_{1}$, and the Tonor into $\mathbf{d} | \mathbf{r} : \mathbf{m}_{1}$ listen to the first section in each of the parts separately, and say whether the sequence is not improved, that is to say brought further back? * New listen to this first section with all the parts, and with these alterations; what chord have we on the third pulse? "Ma." What had we before? "Db." Does the Ma form of this section sound as we'l as the Db form? Listen to it in both ways. * Certainly, Ma does not sound well in this place, although it allows us to have a more perfect sequence. It sounded well in the seventh measure, because tho feeling of sequence was very strongly established, but here you feel that it is better to sacrifice the

perfection of the sequence than to use this unsonorous chord at the beginning of one. The same objection applies to the introduction of Ta before the sequence has made itself felt. Listen to the whole of il. 74, and name the chords. * Listen to il. 75, name the first chord of the second section. *



"Ma." What is its apology? * Ah, you did not see that it was in a sequence, although the flow of the movement is delayed by the necessities of the cadence and the reciting tone. Notice that the motion of the Air is down a third and up a fourth as far as the tone d, what is the motion of the Bass? * What of the Contralto? * What of the Tenor? * Listen to the whole of il. 75, and name the chords. *

c. Ma with double contrary motion.—We have already loarnt that a very strong apology is necessary for Ma. Such an apology is found from the pleasure the mind has from double contrary motion. Listen to il. 76, and notice why Ma is substituted for Db in the fifth measure. *



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Listen to the whole of il. 76, and name the chords. * d. Mb passing, with contrary or similar motion.— Listen to il. 77, and notice the second chord of the fifth measure : what is it? *



"Mb." Why was not S used here? * Plainly, because the composer wished m in the Air, in order to make double similar motion with the Bass and contrary motion with the Tenor. Notice that the Bass of this unsonorous chord is used in smoothly passing from 1 to f. Study also the chord Ma in this il. and its apology. * Describe the sequence in each part. * Listen to the whole of il. 77, and name the chords. *

e. The Chord of S with m.—Listen to il. 78, and name the second-last chord. *



""S." Yes, notwithstanding that to the eye it is Mb, we call it 'S because in this place the ear expects the dominant chord. In this case the m is a consonant intruder. Change the note m into r

and compare the two effects. The m seems to anticipate, or strike beforehand, the m of the next chord. The effect is that of a composer's freak, and could not often be repeated. The ear feals from habit that the chord is still S. Notice that f of the preceding chord is interrupted "in its resolution in order that the Tenor may move in pleasing sixths with the Air. Probably this motion in sixths for four pulses, suggested and excused the use of m in the Air as well as of s in the Tenor. Listen to the whole of il. 78, and name the chords.*



" "S." Here also r could have been used instead of m, but then the beautiful similar motion with the Tenor would have been spoiled. Again, the composer might, by putting d into the Contralto, retain the note m and use the chord Dc, but then the m would not have been produced with the same prominence. In Dc it is almost lost in its sweet blending by thirds and sixths with d and s, but in ⁶S it gains the same kind of rough effect from the fourth beneath it, which d gains in Dc. Observe that the note m is only thus substituted for r when it is wanted in the Air. The commonest form of this substitution is connected with a dissonant m intruding into 7S, of which we shall speak hereafter. Listen to il. 79, and name the chords. * f. Summary .- The chord M is much less used in new than in old music, for various reasons, but chiefly because it is the worst of the minor chords, and is little wanted. Ma is chiefly used as a substitutional for Db, and when anything like a sequence or double contrary motion has impressed its movement on the mind, a good composer does not

object to use boldly this otherwise undesirable

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chord. For the same reason he would use, when necessary, the chord Ta as well as the interval f t in sequences. Mb is occasionally employed as a substitute for S, when the base tone s is passing, and there is the spology of similar or contrary motion. An apparent Mb is called ⁶S when used in the place of S or ⁷S in D cadences with a peculiar effect.

46. A Bye-tone is a tone occurring on the weak part of a pulse, which is different from that just struck in the same "part," but belongs to the same chord. Listen to the first section of il. 80, and name its third chord. *



"7S." What tones were introduced on the weak part of the pulse ? * Did they alter the character of the chord? "Only made it more lively." It is curious to observe how the resolution of fis "transferred " to the Tenor, hut only " interrupted " in the Air. Listen to the second section of il. 80, and say on what pulses there are bye-tones. * "Second and Third." Yes; in the Soprano, the bye-tone mskes the melody more lively, and secures an imitation of a previous Tenor phrase. In the Contralto, the two bye-tones simply make a more melodious passage. In the Tenor, the bye-tone prevents what would otherwise be heard as consecutive octaves. Listen to the whole of il. 80, and name the chords. . In analysing such bye-tones we mark the chords as in the illustration.

a. Bye-tones in Bass.—When a bye-tone occurs in the Bass, altering the position of the chord, its effect on the ear is much more decided and important. Listen to the second section of il. S1, and notice its third chord. *



The deep resonant Bass gives great effect to its tones; and m in the entry of the D cadence is commonly expected. We have therefore laid down for our analysts the rule that a bye-tone in the Bass re-names a chord, as is shown in the illustration. Listen to the whole of il. 81, and name the chords. *

47. Consonant Passing Tones.—A passing tone is one which passes in a stepwise melody from the tone above to the tone below, or from the tone below to the tone above. Some of these tones are dissonant with the chord, and others consonant; some occupy a full pulse and others only the weak part of a pulse. It is to the weak and consonant ones that I wish to direct your attention. Listen to il. 82, and notice the Contralto in the second and third pulses. *



On the first part of the pulse the chord R is struck, but what is the chord on the second part of the

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pulse? "Tb." Yes, but the t, not occurring in the Bass, scarcely produces effect enough upon the ear to make us feel a change of chord. We therefore simply call it a consonant passing tone, and analyze as in the illustration. Listen to the second section of il. 82, and notice its third chord. What is the first chord struck, and what would be the chord on the weak part of the pulse if f were strong enough ? * You will remember the difficulty we had about the progressions Ra Da, and La Sa, pp. 24, 34. The consonant passing tones here illustrated, occur very frequently where their only object seems to be, the binding together of R and D, or L and S. Listen to the first section of il. 82. and observe the binding of R to D. * In the second section, L and S are at present bound together by the preparation and percussion of a dissonance, but alter the third last note of the Air into t, and then listen to this section, observing the binding effect of the consonant passing tone. * Listen to whole of il. 82, and name the chords. * Listen to the second section of il. 83; what is the chord first struck on its third pulse ? *



What would be the second chord of that pulse, if m were strong enough ? * This consonant passing tone seems to be introduced simply to make the Air more smooth and lively.

48. Secondary Chords.—In all our study of harmony we have noticed three things. First, that the Bass (being in a position in which it can best throw its partials or harmonics up into the other parts, and being expected by the ear to have a greater swing of vibration, or in other words to be louder than they are) is the most important part in

harmony; and second, that a weak pulse produces less impression on the ear than a strong pulse, and that the second part of a pulse produces less impression than the first; third, that the root and third of a chord are the most effective parts of it. The first of these principles led us to re-name the chord when required to do so by a bye-tone in the Bass as in il. 81. The second forbade our hearing distinct new chords where the consonant passingtones occured in ils. 82 and 83. The third combined with the first, suggests to us the following rule of analysis for the weak part of a pulse-that a new chord must be distinctly named as it is undoubtedly felt by the ear, when the root and third appear together in any voices, and when either the root or third appears alone in the Bass. This we call a "Secondary Chord." In addition to this we reckon that the seventh in 7S plays so important a part in modern harmony, that it should be acknowledged as making a secondary chord, whenever it occurs in the Bass, and we think it should be acknowledged in its most effective position, the D cadence, in whatever voice it may occur.

a. Convenient Secondary Chords.—Listen to the first section of il. 84; on what pulse did you hear a secondary chord? *



"The third." What chord is it? "Tb." Notice that without the t₁ in the Contralto, r would be simply a bye-tone, and without the r the t, would be simply a consonant passing-tone. It is the root and third newly struck together, which compel the ear to acknowledge a new chord-shock. Listen to the second section of il. 84; on which pulse did you hear asecondary chord? "The third." Yes, here we have the root of the new chord in the Bass as well

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as its third in an upper part. The chord F is so often heard in this approach to a D cadence, that the ear cannot fail to recognise it. Every one must feel that it improves the melody. Omit this f_1 and l_1 ; listen to the section again, and judge for yourselves. Perhaps you will say Why was not the chord F used at the beginning of the pulse? Try it, and you will immediately hear consecutive fifths between Bass and Soprano. Listen to the whole of ils. 83 and 84, and name the chords. *

b. Anti-consecutive Secondaries.—Listen to the first section of il. 85; on which pulse do you hear a secondary chord? *



"The second." What are the two chords? " L and Fb." If the Tenor I were omitted, what consecutives would you notice? "Octaves, between Tenor and Soprano." If the Contralto f were omitted what consecutives would there be between Tenor and Contralto? "1 m and s r would make consecutive fifths." Listen to the second section of il. 85; on which pulse do you hear a secondary chord? "The third." What are the two chords. of the pulse? "F and Rb." Notice that in melody the soft pulse I going to the strong pulse dI is not generally desirable; the r therefore in this case greatly beautifies and brightens the Air. Notice also that if Rb had occupied the whole pulse, r being substituted in the Contralto for d f, there would have been fifths between the Contralto and Soprano. We thus see how useful secondary, chords are, as well as Bye-tones, in saving the ear from the effect of fifths and octaves. Listen to the whole of il. 85, and name the chords. *

c. Effective Secondaries.—Listen to the second section of il. 86, and notice its third pulse; what are its chords ? •



"F and R." Now listen to the Air of that section alone and notice how important the r in this chord is to the bold effect of the melody. Leave it out, and the melody becomes tame. It is evident that the composer meant it to be emphasised by his putting r in the Bass, and so making a secondary chord; for r is not at all wanted in the Bass for the sake of melody. Listen again to the second section of il. 86, and notice the first pulse. * There we allow f_i in the Bass to make the chord 'Sd, because of its great importance in harmony and its ready binding with Db.

d. Cadential Secondaries.—Listen to the second section of il. 86, and notice the second-last pulse. *There we allow f (though not in the Bass) to make a secondary chord, because the ear habitually expects it in a perfect D cadence, when r goes down to d and not up to m (see p. 7) when ϵ requires a step between itself and m. Listen to the whole of il. 86, and name the chords. * Listen to the second section of il. 87, and observe the second-last chord ? *



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In the second half of the pulse the root of S is not re-struck, at all, and the third is not in the Base, but the progression Da S D is so common in perfect D cadences, that the ear cannot fail to recognise S in that place. We are obliged therefore to name a secondary chord here. Notice the consonant paseing tone in the Bass of the first chord in the second section of il. 87. If it had been the root or the third of the chord F the ear would have acknowledged it, as making a secondary chord, but it is only the fifth, and besides it would give a *c* position. Listen to the whole of il. 87, and name the chords. * Listen to the second section of il. 88, and notice 'S established as a secondary chord (as in il. 86) by force of cadential habit. *



Listen to the first section of il. 88, and notice the second pulse of the second measure. * Here a secondary chord S^b is established by the third being newly struck in the Bass, and this chord was really needed to give any feeling of cadence. Listen to the whole of il. 88, and name the chords. *

e. Exceptions.—Listen to il. 89, and notice the second pulse of the third measure. *



For the same reasons that in ils. 87 and 88 the cadential habits of the ear compelled us to accept secondary chords, they here compel us to reject them. Although the root and third of a new chord are struck, the ear regards them as parts of the next chord struck hefore their time. The progression ⁷S Dc Da in a full cadence would be contrary to our habits: we know besides that the composer did not mean us to feel De in that place, we therefore ignore it. Listen again to il. 89, and notice its third pulse. * There although the root and third of the chord R are struck, yet it would be in the *c* position, and we know that the composer did not mean us to feel the c position of a minor chord in the major mode. We therefore analyse r and f as consonant passing-tones; for the object of analysis is to find out the mind of the composer. Listen to the whole of il. 89, and name the chords. * It should also be mentioned that we shall afterwards shew certain tones on the weak part of a pulse which might otherwise he called consonant passing or waving tones, but which form the distinguishing tones of a new key or mode. These we shall reckon sufficiently important to create a secondary chord. See p. 69.

f. Summary.-Bye-tones, or tones of the same chord newly struck and not mere repetitions of the tone last struck in the same part, are used for ornament and for the prevention of consecutives. A byetone in the Bass requires the chord to be re-named. Consonant passing-tones, being in the middle of any three tones in a stepwise melody, are used, especially in two cases, for the binding of chords. and for ornament. The ear does not willingly acknowledge a new chord on the weak part of a pulse; hut when the root or the third of such a chord is in the Bass, or when the root and third together are struck in the upper parts, there is generally the sense of a new chord-shock. But there are exceptions both ways. The importance of f in 7S makes itself felt even when f alone is newly struck in the Bass, or in any "part" at the second-last chord of a full cadence. The unsonorousness of the

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c position in the three minor chords, makes the ear as unwilling to recognise it, as the composer would be to make it felt. The : S (or 'S) |D form of cadence is so fixed in the ear that we are glad to recognise it even by the help of a secondary chord, as in ils. 87, and 88. For the same reason we refuse to have it interfered with as in il. 89. We try to make our analysis correspond both with what the composer means, and what our own ear feels.

49. Mental effects of Substitutional chords.— It may assist the memory in recalling these chords —if we give them names corresponding to their mental effect. As F was called (p. 3) the Serious chord, R, its substitutional, may be called the Semiserious chord, and L, its occasional substitutional, the Sorrowful chord. As S was called the moving chord, T, its substitutional, may he called the Weak Moving chord, and M, its occasional substitutional, the Unmeaning chord.

50. Exceptional progressions of S and 'S.—At pp. 4, 7, and 15 the common, and some of the uncommon, progressions of these chords have been shown. It should also be noted that r in 'S& sometimes goes to s, that in Bach's slow moving Chorales, and in some other old music t sometimes goes down to s when the Bass rises so as to make contrary motion. Even in modern music the t, in S (not 'S) may go upword to any note (m¹ f!, &c.), provided it is not approaching a full close.

51. Constitution of chords.—By the constitution of a chord we mean the manner in which its constituent parts (the Root, Third, and Fifth) are doubled or omitted.

a. Complete chords.—In about two thirds of all four part music there is no omission of any constituent, but the Root is constantly doubled. It is evident that all major chords give out their proper mental effect the better for this doubling of the Root. Let us call this complete chord, with or without the doubling of the Root, constitution 1. Out of 10 chords in il. 27, how many have constitution 1? "All, of which six double the root." Listen to 11. 27. *

b. Trebling of the Root.—The Root having the principal effect in a chord (being in fact its essence) is often even trebled, when the Fifth cannot be conveniently introduced. Let us say that a chord with the Root trebled has constitution 2. Listen to the last section of il. 28, and observe that in the endence, t cannot go down to s, except in very slow music, and that the constitution 2 sounds very well. ***** c. Doubling and Omission of the Fifth.—The Fifth, being the source of brightness or sharpness in a chord, is not so important to its existence as the Third—the source of its sweetness, or the Root the source of its being. It is therefore very freely doubled or omitted as the flow of the "parts" may require, without making a vory noticeable difference. Let us regard a chord with its Fifth *omitted* as constitution 5, and with its Fifth *doubled* as constitution 6. In il. 23, listen to cases of D 6, Dc 6, Db 6, and D 5 and 2. * In il. 29, listen te Sc 6, and Dc 6. * In il. 31, listen to S 6, Sb 6, and D 5 and 2. * In analysing insert the 1 thus, D 1, 6, &c.

d. Doubling and Omission of the Third .- But the doubling or omission of the Third is a more serious matter, because it is not desirable to have an overbalance of sweetness in a chord, and it is worse still to have none. Except for some intentionally bold and hard effect a chord is never left with "a bare Fifth." In 7S we find the Third from the Root (t) omitted, but there is always a Third from the Seventh (r) left sounding in the chord. The omission of the Third in 4S is easily understood, for that chord is confessedly dissonant. and its Fourth is only a temporary substitute for the coming Third. Listen to il. 50. * The free doubling of the Third in the chords L, R, M, and T. may be abundantly seen in such ils. as 64, 66, and 56. The doubling of the Third (t) in the chord S with its strong melodic tendency to d of the next chord, would cause consecutive octaves. Its doubling in the b position of D and F, in which it occurs already in the loud sonorous Bass, decidedly requires the new familiar apology of contrary metion. Even in the a and c positions of these chords the sweetness is generally felt to be too streng, unless the attention of the mind is drawn away from it by similar or contrary motion of the parts. In Da and Fa, however, the third is sometimes doubled for special enriching effect, but seldom where the ear is most critical, that is on the last chord of a cadence. The doubling of the third in the minor chords R. M. L. and in the diminished chord T is, however, a different thing: for these chords are in themselves semi-dissonant, and can bear a little additional sweetness. Let us speak of a chord having its Third omitted, as having constitution 3, and of one with its Third doubled, as having constitution 4. In il. 57, second chord the Da 4 is excused by contrary motion of the Air with Contralto and Bass. In il. 60, the Da 4 is almost obligatory because of the resolution of ⁷T with its

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dissonance in the Air, but constitution 4 is not objectionable in Da. In il. 68, the Da 4 at the beginning sounds rich and good. In il. 59, the Db 4 is well excused by the contrary motion of the Centralte against the Soprane and Bass. In il. 65, the Db 4 is excused by contrary motion between Soprano and Bass. In il. 61, (⁷T going to D) we have first the kind of doubled Third shewn in il. 60, avoided, as it is often done, at the expense of a somewhat awkward melody in the Contralto. We have on the second pulse of the second section, a D 4 even in the b position (Db 4). It has the apology of contrary motion between Air and Bass. This is quite satisfactory. If the Air in the third chord in this section had been 1 and the Tenor f. there would have been no apology for this doubled third in the b position of a major chord. But it would have been difficult to avoid. If the composer had put s d in the Bass he would have made a perfect close at the very beginning of a section. If $t_1 \mid d$ had been in the Bass there would have been octaves with the Contralte, and if that were altered there would still remain unequal fifths in the outer parts between the close of one section and the beginning of the next. In the close of the third section there might easily have been Da 4 on the very accent of the cadence. But this was avoided by letting the 1 in Tb go up to s. Many composers are indifferent about the introduction of a little too much sweetness into a chord, if it gives them the least convenience in the conduct of their "parts."

e. Omitted Root.—By the word Root in this book we do not mean the theoretical origin of a chord, but its principal tone actually heard, or very obviously implied; so that we do not acknowledge omitted Roots except in cases where the mind is necessarily conscious of them. This is the case with Dc and sometimes Db, in three part harmony (see tenth step) and occasionally in four-part harmony where the habits of the ear point to D rather than the "unmeaning" and commonly avoided chord M. Thore are also eases in instrumental accompaniment in which the root having been struck at the commencement of a measure, the ear *feels* it through the rest of the measure. Even in vocal music there are cases in which what appears as the chord T is really heard as ⁷S. Omitted root is marked om.

52. Position of chords. — When the Bass moves stepwise, the α position of chords is avoided for fear of consecutives, unless one of the upper parts moves in contrary motion with the Bass. The ear naturally dislikes many inverted positions, or many minor chord *a* positions, consecutively. But a succession of *b* positions is acceptable to the ear when they make a stepwise Bass, see il. 77. Even two successive *e* positions may be *rarely* excused by this stepwise motion of the Bass, thus by altering the first section of il. 28, making the Air: $\mathbf{r} \mid \mathbf{s} \parallel$ and the Tenor $|\mathbf{d}|$: $\mathbf{t} \mid \mathbf{d}^{|} \parallel$, its chordal progression might be made : $Da \mid De$: Te $\mid Db$. Listen to it in both ways. * By altering the second cadence of il. 34, making the Tenor: $\mathbf{s} \mid \mathbf{d} \parallel$ and the Bass : $\mathbf{r} \mid \mathbf{d} \parallel$, the chordal plan might be $\mid Sb : "Se \mid Fe : Da$.

53. The Crowning of chords. — The mental effect of a chord is much influenced by the constituent which takes the highest part. This we call the crowning. The proper mental effect is best assisted when the Root is there; this we call the First Crowning, and we indicate it by a figure 1 placed above and to the right. When the Third is in the Air, we say that the chord has its Third Crowning, when the Fifth, its Fifth Crowning, and we indicate the chords thus, $D\delta^5$ called " $D\delta$ fifth," or $^{7}Se^{7}$ called " ^{7}Se seventh." These crownings become more important to the student in the study of cadences.

54. Cadence Relation.—The idea of cadence has been explained at pp. 7, 8, 11. In order that a sense of unity may be produced by a piece of music, it is necessary that its cadences should bear some relation to each other, and for the sake of variety the cadences should not be all the same. Any one who wishes to observe music usefully, and to enjoy it thoroughly should know something of the relation of cadences. The relation of cadences may be divided into Simple and Complex. Simple relation is when two cadences only are concerned, as in a single chant. Complex relation is when there are more than two, as in a double chant, psalm tune, march, dance, &c.

a. Simple Relation.—We have already noticed, p. 8, that the conclusiveness of a cadence is much affected by the tone which stands in the highest part, that it is most conclusive when its root is in the highest part, that it is less conclusive when its third is in the highest part, and that it is less conclusive still when its fifth is there. Again we have noticed, p. 16, that the conclusiveness of a cadence is still more affected by a stepwise entry of the Bass, particu-

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larly when the cadence chord is in its b position. The composer has thus, without any difference of chord, the means of showing some slight contrast between cadences; but when a difference of chord is made, the contrast becomes more powerful. By these various means the composer seeks to produce both variety and unity in his piece. Let us take the strongest contrasts first. The two cadences which contrast best, and yet are best related to the key, are those of the Tonic and Dominant. Therefore the cadence relation of strongest contrast, is that of S with D. Listen, fixing your attention on the cadences, to il. 22, where you have the relation S-fifth to D-first, which may be written thus, S⁵ to D¹. * Compare this with il. 42, where you have a S-third (S³) cadence approached stepwise. * For purposes of analysis when the last chord of a cadence is entered stepwise we may place a small dot close above the letter thus, S3, and we will speak of these cadences as "stepwise S," &c. Compare it also with il. 31, where you have a Sb⁵ cadence. * You notice that the contrast here is not only between one mental effect and another, but between one weakly set forth in the b position, and the Fifth crowning, and the other strongly set forth in the *a* position, and the First crowning. With much less power of contrast, the Sub-dominant compares with the Tonic; listen to the cadences of il. 53. * A similar sombre effect is produced by the plagal cadence D⁵ with D¹; listen to the cadences of il. 66. * The L cadence gives the effect more of surprise than of contrast when compared with the D. Listen to the cadences of il. 70. * Even without altering the chord, composers contrive to give some contrast by putting the first cadence into the b position and giving it the fifth crowning; listen to il. 54, where you have Db⁵ with D¹. * Much less of contrast is to be found in stepwise D-third (D³) with D¹. Listen to il. 85. * And less still in the same cadence-relation without the stepwise entry. Listen to il. 46. *

b. Complex relation.—In pieces like the double chant, or like the ordinary psalm tune, there are four cadences. To secure unity in the piece the first three must bear relation to the last and principal cadence, the second of them bears the chief relation because it divides the tune into two parts, which have some sort of reply in them the one to the other. This second section therefore usually closes in the Dominant, which has the most marked power of reply to the final Tonic, or in the key of the Dominant. The other cadences are kept subordinate to these two. IL 68, has a good variety of cadences, and maintains well its unity by placing S⁵ at the end of the first period and D¹ at the end of the second period, the two are made to declare unity of key and variety of mental effect. The inferior cadences at the ends of sections are pleasant and varied. The cadence analysis of this il. would

stand thus, $L^3 S^5 Db^5 D^1$. Listen to the following double chants and say which gives the most agreeable variety of cadences. Its. 71, 61, 59, 73, 41. *

Ex 60. Analyse for chord-names and constitution, ils. 74 to 79.

Ex. 61. Analyse for chord-names, constitution, bye-tones, and passing-tones, ils. 80 to 85.

Ex. 62. Analyse for chord-names, constitution, bye-tones, and passing-tones, ils. 86 to 88.

Ex. 63. Analyse for chord-names and crowning, ils. 74 to 79.

Ex. 64. Analyse for chord-names, crowning, bye-tones, and passing-tones, ils. 80 to 85.

Ex. 65. Analyse for chord-names, crowning, bys-tones, and passing-tones, ils. 86 to 88.

Ex. 66. Name in ils. 74 to 78, two sequences in which the Bass rises a fourth and falls a third; and one in which the Bass falls a third and rises a fourth.

Ex. 67. Name in ils. 74 to 78, two cases in which the Contralto replies to the Bass after one pulse, and one case in which the Soprano replies to the Bass after one pulse.

Ex. 68. In il. 74, what parts have contrary motion with the Bass? ditto 75, ditto 77?

Ex. 69. Name the ils., and the measures in those ils., in which a perfect harmonic sequence is carried out.

Ex. 70. Name the places in this step in which anti-melodic intervals are excused for the sake of sequence.

Ex. 71. Name also those in which Ma are similarly used, and in addition those in which Ta are thus excused.

Ex. 72. Name the place in which Ma is excused by contrary motion. Name the place in which Mb with a stepwise Bass and contrary motion is excused, and name the places in which the consonant ⁶S occurs.

Ex. 73. Name the place in which bye-tonss occur with the apparent object of preventing consecutives. Name the places in which they occur for no other apparent object than that of smooth melody or "reply." Name the place in which the hye-tone occurs in the Bass. See par. 46.

Ex. 74. Name the place in which that consonant passing-tone occurs which is often used to smooth the connection between the chords R and D. Name the place in which this same passing-tone is strengthened into a secondary chord. Name the place of another consonant passing-tone binding the chords L and S, and another also intended merely to smoothen the melody.

Ex. 75. Name the places of the convenient secondary chords, of the anti-consecutive secondaries—of the effective secondaries—of the cadeutial secondaries. Name two cases in which the Root and Third of a chord are struck on the weak part of a pulse without the ear recognizing a secondary chord.

Ex. 76. How many cases of constitution 1 dc you find in ils. 81 to 89? Ditto constitution 2? Ditto 5? Ditto 6? Ditto 3? Ditto 4?

Ex. 77. Name all the cases in ils. 81 to 89, in which the b position of major chords occurs—ditto, the c position—ditto, the a position of minor chords —ditto, the b position

Ex. 78. Find two cases not already mentioned of the cadence relation S^3 with D^1 .

Ex. 79. Find five such cases of S⁵ with D¹.

Ex. 80. Find three such cases of F³ with D¹.

Ex. 81. Find four such cases of D^s with D^1 .

Ex. 82. Find one or more cases of Fb^1 with D¹, of \mathring{R}^3 with D¹, of \mathring{S}^1 with D³, of Fb^3 with D³, of $\mathring{D}b^1$ with D¹, of \mathring{F}^1 with D³.

Ex. 83. Find one or more cases of \mathring{D}^1 with D^1 , of D^3 with D^8 , of \mathring{D}^5 with D^1 , of $\mathring{D}b^5$ with D^3 , of \mathring{L}^8 with D^3 , of \mathring{L}^3 with D^1 , of \mathring{L}^5 with D^1 .

Ex. 84. Write the cadence analysis of ils. 41, 59, 61, 71, 73.

• * See "Chord-Naming Examples," A and B, 25 to 38.

	N	10	DULA'	гс	DR.	
\mathbf{r}^{I}	8	d	f			
		t	mi	1	r	8
đi	f	v		-		
t	m	1	\mathbf{r}^{i}	s	d١	f
•		-			t	m
1	r	S	DOH	f		
			TE	m	1	r
S	d	f	ta le			
	t	m	LAH	r	S	d
f			la se			tı
m	$\mathbf{l}_{\mathbf{l}}$	r	SOH	d	f	
			ba fe	t_{I}	m	1,
r	si	d	FAH			,
		t,	ME	1	r	ន
d	$\mathbf{f}_{\mathbf{f}}$		^{ma.} re	•		
t.	m	1	RAY	$\mathbf{s}_{\mathbf{l}}$	d	f
			ra de		\mathbf{t}_{1}	m
1	$\mathbf{r}_{\mathbf{i}}$	s	DOH	$\mathbf{f}_{\mathbf{i}}$		
			tı	mj.	1	\mathbf{r}_{i}
ន	dı	fi				_
	t ₂	M	1,	$\mathbf{r}_{\mathbf{l}}$	s _i	dı
$\mathbf{f}_{\mathbf{I}}$	-					\mathbf{t}_{2}
m	12	$\mathbf{r}_{\mathbf{i}}$	s _i	đ	fi	
	-	_		\mathbf{t}_2	mį	\mathbf{l}_2
\mathbf{r}_{I}	\mathbf{S}_2	dı	\mathbf{f}_{1}			
		\mathbf{t}_2	m,	\mathbf{l}_{2}	\mathbf{r}_{j}	\mathbf{S}_2

55. The Factors of Transition.—The nature of Transition to the first sharp and first flat removes has been already fully explained in St. Co., pp. 49 to 52. Listen to il. 90, notioing especially the third section. *

	\mathbf{I}	ь. 90.	key E	,.		Dr. W	ESLEY.	
1	ŝ	f :m	r :-	$ \mathbf{\hat{f}} $	m:r	d :t _i	d :-	I
V	đ	t ₁ :d	t ₁ :-	t	d :1	s ₁ : s ₁	s ₁ :-	
Ś	s	s :s	s :-	8	s :f	m :f	m :	
(m	r :d	s ₁ :	\mathbf{r}_{1}	$\mathbf{m}_{i}:\mathbf{f}_{i}$	s ₁ : s ₁	d :-	
	· _				-			

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What is the mental effect of the last chord ? Does it give you the feeling of a Dominant chord-the chord of motion and expectancy, or of a Tonic chord-the chord of rest? "It is certainly not the chord of motion, and yet it is not the chord of rest which we had at the end of the second section." You are right. It is a new Tonic, which the music has elected for itself. The Fifth of the old key has been chosen for the Tonic of the new. How is it that the ear has been made to recognise a new Tonic in this place? Listen again, and name the elements which you notice of a new key relationship. * "The new tone fe is the first thing." Yes. it sounds like t of a new key, it is put instead of f of the old key which is said to have been sharpened. although it is really blotted out, a new tone of a sharp effect being substituted. We call this Transition to the first sharp key. But there is another element of change almost equally important; I mean the motion of the Bass. In all the cadences we have hitherto studied have you noticed this. motion of the Base | r : r | s : - before? "No."

In fact it has been avoided, because in shape and form it is exactly the same thing as the very familiar Bass cadence |s1:s1 |d. Suppose we translate this section as though it were in the first sharp key. Turn to the modulator and tell me what would the first chord be? Name each of its tones from the Bass upward and then name the chord. "F, De, S, and "S, D." This is the same cadence to which we were first introduced at il. 17. In this case there is yet another element in the music suggesting transition; it is in the melody itself. It has often been noticed that t 1 s (t and s being accented) naturally suggest to the mind the exceedingly familiar m r d of the lower part of the scale. But to show that the harmony is the chief cause of the changed effect, let us alter it so as to omit the fe and the peculiar form of the Base without altering the Air, make the Contralto :m |r :d |r, the Tenor :s |s :m |r, and the Bass :d [s₁:1₁ |t₁ and listen to the effect. * You now feel that instead of the new Tonic you have the old Dominant. Try again the original form of the cadence and say what is the difference between the two effects and which is the better in this place. You cannot do this by listening to that section alone; you must listen to the whole piece and compare its cadences. * You feel that what we may call the ^sD cadence is both brighter and firmer than the S cadence, and as it introduces more variety into the tune it is the better in this case. Whatever mukes us feel a change of key-whether a new tone distinguishing the new key or the customary progression of chords to a Tonic or any thing else which has that power over our minds-we call a Factor of Transition. See further, par. 62, 68.

56.-The Transmutation Chord.-For the purposes of analysis it is important that we should know, as definitely as possible, on which chord the change of key takes place. In the third section of il. 90, we know that the three last pulses carry the chords S, and 7S, D; they cannot be anything else. But the fourth-last chord might be translated in two ways and the fifth-last is still less decidedly connected with the new key. On which chord as a matter of fact does the ear feel itself making the change? * Although there is no new distinguishing tone till we come to the fe, yet no one whose ears have been accustomed to the well known place of Dc in Tonic cadences could help feeling that the change had come on the first chord of the secondlast measure. Another reason for this feeling is

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that the ear has been accustomed to have the Bass. of Dc continued in the next chord, as in this case. while it has also been accustomed to hear the Bass of Sc (r) ascending to m or descending to d, but not continued to R. We therefore think that a practised ear would feel itself entering a new key as soon as its cadential Dc were struck. It would be quite allowable to take the change on the chord before that, because it might be said that the composer evidently thought of that whole section as in the new key, but on the second chord of the section we must change. We shall call the presumed chord of change the Transmutation Chord. Those who would learn to translate music from the Staff Notation into the Tonic Sol-fa Notation (using for extended transition the better method of noting. that is by bridge-notes) should exercise a careful judgment in choosing the most natural transmutation chord. With the view of developing such a power of judgment we shall study the place of transmutation in each of the following examples. In analysis we name the chords according to the true key, even where, as in Cadence or Passing Transition, the Tonic Sol-fa Notation uses the imperfect method of writing. In such cases, however, we distinguish the chords of the new key by placing them within parentheses. See il. 92, p. 49. For Extended Transition (p. 51) we use bridge chords without parentheses, thus, DS or PD &c.

57. Departing and Returning Transition .--After Transition into a new key, the return to the old key may also be called Transition. We name it Returning Transition. The first f after a fe is the distinguishing tone of a return from the first sharp key. Departing Transition or that which departs from the original key of the piece, is commonly made more effective and important than Returning Transition. But cometimes a striking effect is obtained by the Return as well as by the Departure. Listen again to il. 90, and notice the Returning Transition in the last section. * Which is the distinguishing tone of Return to the old key? "The f in the Air." Yes, for the original key is practically the first flat key to its own first sharp key.

58. Bass Cadence |m:r|d.—Listen to il. 91. Let it be sung twice through in order that the key may be well established, and then notice the first section; what Transition does it take r *



"It goes into the first sharp key." Yes, but it has a different Bass from that which we last studied. This Bass is the same as that Soprano. It is found convenient in the Sol-fa notation not to write mere Cadence or Passing Transition on what is called the better method, that is, with bridge-tones; hut it would be a useful exercise for the pupil to do so. Look at the modulator and tell me what are the true notes for the Bass? "|m:r |d." For the Tenor? "|d:t₁ |d." For the Contralto? "|s₁ :s, |s," For the Soprano? "|d :f |m." Of course nothing can establish a new key so perfectly as the setting up of a new 'S moving into its D. and any familiar cadential motion of the Bass will greatly enhance the effect. Which do you feel to he the Transmutation Chord ? "The chord before fe." Yes, it is Sb of the old key transmuted into Db of the new key. What is the next chord? "7Sc." The next? "D."

59. Bass Cadence |r:r |d.-Listen to il. 92, and observe the second section. *

	IL	. 92	. KBY	Gł.		I	E. Ed	WARDS	
,	â	1	$:1_{l'}$	SI	:-	ŝ	m	:r	١
	81	f ₁	$:\mathbf{f}_{1}$	\mathbf{r}_{1}	:-	SI	81	: 8 ₁	1
Ś.	m	d	:r	ti	:-	r	d	: r	1
(d	f_1	$:\mathbf{f}_{\mathbf{I}}$	s,	:-	t t	d	:t _l]

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You notice the dissonance at the beginning of the second-last measure. You have been accustomed to a dissonance in that place. What is it? "TR." Yes, we studied it in ils. 45 and 47—the Bass in this case flowing rather differently. This dissonance of "R being common on the second-last accent of a cadence and the dissonance "L being altogether uncommon how would this second-last accent of R." What is the next chord? "Tb." The next? "D." Notice that if L of the original key is on this second-last accent, it generally foretokens Transition. Listen to the whole il. and observe the last.

60. Bass Cadence 'r :s !d.—Listen to il. 93. and notice the third section. *

Е



What is the Transition ? "To the first sharp key." Yss, and you notice that we have the same decided cadential dissonance that we had in the last il. There is no doubt that the ear will acknowledge the new key as far back as that. But what is the chord immediately preceding it? "M." We have ample proofs, see p. 37, that the chord M is an unmeaning chord, never used by modern writers except for necessity's sake; and yet here it is employed most beldly. The apology is that it is M in process of being Transmuted into L of the new key. The Bass is $l_i | \mathbf{r} : s_i | d$. The same which we studied in il. 65. This is evidently the feeling of the composer's mind ; musical purists, however, would say that the composer has not yet made his mind sufficiently felt to excuse this chord. We, however, sannot refuse to accept it as part of the new key. What is the next chord? "'7R." The next? "'S." The next? "D."

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61. Convenient and Effective Transition .--- The distinguishing tone of Transition is always most strongly emphasized when it is harmonised by the Dominant or Dominant Seventh of the new key. In ils. 90, 91, and 93, we had the Dominant Seventh, and in il. 92 its substitutional chord Tb. These chords are therefore used when Transition is taken for the sake of Transitional effect. But sometimes the composer does not wish his change of key to be so very marked. He wishes to get quietly back into the old key without attracting special notics to its distinguishing tone, or, as we shall see later, he may even go into the new key as quietly as possible in order to produce a marked effect when he returns to the old. In such a case, he avoids the cadential Bass and uses-not the Dominant Seventh but-any other chord which contains the distinguishing tone. Sometimes he gently insinuates the distinguishing tone on some weak part of a pulse and in an inner "part," before it is more distinctly heard, and sometimes even this has to be preceded by that most gentle hint of a coming key-the simple assertion of its Tonic chord. It is thus that Transition may be introduced in a gradual and unobserved manner like the dissolving views of a magic lantern, when the object is convenience rather than Transitional effect. In il. 90, the Return Transition was taken by 7S moving to D. Here then we had Effective Transition both Departing and Returning. But in il. 91 the Returning Transition is taken for convenience rather than effect, by means of the Sub-dominant chord. If you alter the Contralto of that chord into t₁ and the Soprano and Tenor into s you will have the chord 7S. Listen to this Returning Transition first, as made in the more vivid manner, and next in the merely convenient form. * Notice that when once this Returning Transition has been heard, it is felt to occur one chord earlier, that is with the beginning of the line.

62. Sense of New Commancement.—The return to the old key does not require its Transmutation chord to be so marked and decided, or its distinguishing tone to occur so early as in the case of Departing Transition. The car has a natural tendency to return to the principal key of the piege, and to recognise its old Tonic the moment it is strongly asserted. To this may be added the consideration that the mind naturally conceives of music, not in isolated chords, but in whole Phrases or in Sections,—so that if the chord progression favours the idea, we like to feel that the new key enters along with the new musical idea, that is with the Phrase or the Section. So that the "Sense of New Commencement" may be regarded as a new Factor in Transition. Listen to the Returning Transition in the last section of il. 93. * The distinguishing tone does not occur till after two measures, and yet every one of you has an unmistakable sense of "New Commencement" in the old key as soon as that Section opens, and the chord Db is undoubtedly the Transmutation chord of this Returning Transition. This is evidently a case of Transition for Convenience rather than for Effect. Listen to the whole of il. 93, and notice the brightening effect of this Transition in the third section. *

63. Extended and Cadence Transition.—Listen to il. 94, and notice the second and third sections. *



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What Transition is here taken? "Transition to the first sharp key." Where is the distinguishing tone? " t_1 in the Air." In what chord is it placed? "Th." Yes, and this chord is subsitu-tional for 'Sc. Which is the truest Transmutation chord ? * The chord immediately preceding (that is D Transmuted to F) may certainly be so regarded; but the "Sense of New Commencement" justified the writer in beginning the new key a chord earlier. How far does this Transition extend. "To the end of the third section." How do you know? "By the distinguishing tone and the form of cadence." Transitions which are only made for the sake of a cadence, and include only the two closing chords or the third or fourth last chords of approach thereto are called Cadence Transitions. Those which extend forwards beyond a cadence into the next section, or extend backwards beyond the fourth last chord of a cadence, or include more than four chords in any part of the section, or embrace a whole section, even though as in the third section of a double chaut (see Il. 93) it may not include more than four chords-are called Extended Transitions. How is the Returning Transition in il. 94 taken, promptly or gradually? "Promptly." What is the chord which carries its distinguishing tone? "'T." Listen to the whole of il. 94, and notice how this extended departure from the original key makes the Return, with its imitation of the first phrase all the more effective.

64. Sudden Transition is made without the intervention of any chord common to the two keys, which can reasonably be regarded as the Transmutation chord, or by the Dominant Seventh ('S or $7^{ee}M$) without other preparation. See par. 70. Listen te il. 95, and notice the Transition of the second section *

	_1	L. 90.	KEY D .	A.t.	PRATT.							
1	a	m :s	d' :-	$ \hat{\mathbf{r}}_{\mathbf{s}} $	m :r	d :t,	d :-					
•	d	d :r	m :	$\mathbf{r}_{\mathbf{S}_{i}}$	$\mathbf{s}_1: \mathbf{l}_1$	$\mathbf{s}_1 : \mathbf{s}_1$	s ₁ :-					
	m	s:s	d :-	1 r	m:f	m :r	m :-					
(d	\mathbf{d} : $\mathbf{t}_{l'}$	1,:-	fet	d if	$\mathbf{s}_{ }:\mathbf{s}_{ }$	d ₁ :-					
	f.D. fe BSb D &c.											
1	£ d∣	s:m	11:-	∥€]	d ⁱ :f]	m :r	d :					
1	fid	d :d	d :-	r	d :r	d :t,	d :-					
ì	d g	s :s	1 :-	s	s :1	s :f	m :-					
l	1 ₁ m	m :d	f '-	\mathbf{f}	m:f	s ::si	d :-					
	FD	&c.										



Where does the distinguishing tone come? "On the very first chord, So." Can the preceding chord be regarded as common to the two keys? "No; it is a distinct cadence chord in the old key." Then. in this case, there is no Transmutation chord-the change is sudden. Listen again to il 95, and notice the sharp effect of this Sudden Transition. * Another form of Sudden Transition is shewn in il. 97. Is the Returning Transition in il. 95, sudden or gradual? "It is gradual." Yes, it begins with the simple modest assertion, three times over, of the old Tonic. But this hint is quite sufficient (taken in connection with the ear's memory and the sense of a new commencement) to make the first chord of the third section felt as Fb of the departure-key transmuted into Db of the old key. Listen once more to the whole of il. 95, observing all these points. *

65. Passing Transition.—Listen to il. 96, and observe the second section. *

	1	L. 9	96.	KEY F.			Dr.	Снірр.	
	ŝ	1		14.	J.	la if	ا س	4.	,
	a,	m	;r	u :-		8 .1	lei : r	u	Ĭ
ļ	s	d	:t _l	1 ₁ :-	d	d :d	d :t	d :-	h
	m	s	:f	M :-	f	ta:1	s :f	m :	
l	d	d	: s _i	1,:-	$\mathbf{f}_{\mathbf{I}}$	m _l :f	si : si	d :	

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What transition occurs here? "Transition to the first flat kev." Which is the Transmutation chord? "(F becoming D.)" What is the next? " $({}^{7}Sb.)$ " And the next? "(D.)" And the next? "We don't know how to name it, for it is the decided beginning of a cadence in the old key." Yes, you must treat it as such, just as you did in the case of il. 90. It is a badly progressing Sc becoming a good and familiar De. Your Transition is thus cut off before it reaches a sectional cadence. It is true that the motion of a Dominant to its Tonic may be said to form a cadence wherever it occurs, but the word cadence receives its full meaning only when it is connected also with the close of a line-that is the close of a distinct rhythmical division of the All the cases of Transition we have music. hitherto studied conduct the music to such a cadence. But sometimes, for the sake of ornamen' a brief Transition is introduced which is contra dicted almost immediately and never reaches so far as a sectional cadence. This we call a Passing Transition. It is remarkable that this Passing Transition confines itself almost exclusively to the flat remove, and that the flat remove attaches itself almost exclusively to Passing Transition. That is, there are few cases of Passing Transition which use the first sharp key, and the first flat key is seldom employed in Extended or Cadence Transition. The natural mental effect of the flat removedepressing and serious like its distinguishing tone -will sufficiently account for this. The mind does not desire to be long overshadowed with gloom, but a passing cloud on a summer's day-only adds, by momentary contrast, a rich consciousness to our pleasure. It may also be noticed that while other Transitions are often taken in a gradual and noneffective manner (the distinguishing tone being clothed in some other chord than that of the new Dominant) this Passing Transition is always taken iu an Effective manner. That is, to use the above illustration, the passing cloud is no indefinite mist: it comes indeed with a heavy shadow but is very fleeting. Thus, in the previous illustrations, our

ears have often been brought back from the first sharp key, by the tono f placed in the chord of the Sub-dominant instead of the more effective Dominant Seventh, which is always used in Passing Transition. Listen again to il. 96, observing all these effects. *

Listen to il. 97, observing specially the last section. *



What Transition have we here? "The first sharp key." Is it continued to the sectional cadence? "No, for it is stopped by f in the very next chord." It is then—Passing Transition, and that in the key which is the less commonly so used. How is the distinguishing chord entered? "From F." When the fe of Transition comes direct from f in the previous chord how can there be a Transmutation chord? "There is none." This then is even a more Sudden Transition that which we studied in 11, 95, where the cadence chord of the last key

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could be pressed into service as the Transmutation chord of the change. The Returning Transition, however, in il. 97 is of the same kind as the Departing Transition, in il. 95; for the new Tonic on the second-last accent is immodiately Transmuted into the cadential Dominant of the old key.

Listen again to il. 97, and observe the second section. What is the Transition? "First sharp." What is the Transmutation chord? "Sb becoming Db." What is the distinguishing chord? "Tb." What the next? "D." Observe that this is the same cadence which we had in il. 91, with the substitutional chord for Sc.

Listen to il. 98, and notice the last section. *

_	IL. §	98.	KE	r G.			Ε	IEL	en P	'1 T M	AN.	
/{m	s	:f	m	:-	m	r	:đ	f	:m	r	:-	l
)] a	r	:t	đ	:-	d	\mathbf{t}_{I}	:d	t,	:đ	t,	:-	
s	s	:s	s	:-	S	s	: s	s	: s	s	:-	
[] d	t_{l}	:s;	d	:-	đ	f	:m	r	:đ	s,	:-	l
Πî	l d	:r	m	:-	i ê i	f	:r	đ	:ti	1 a	:-	I
$\int t_1$	d	:t	d	:-	đ	d	:1,	S,	:s1	S	:-	
) s	s	:s	s	:-	s	f	:f	m	:f	m	:-	
\ f	m	:r	d	:-	ta	1_{1}	: f ₁	s,	:s;	đ	:-	
-05	<u>^</u>		-		<u>_</u>		1				1n	
Ø	5		-	3	3	17		1,		12		
ľ	_	j.		1	-			1	لہٰ ا		J	
<u>e</u> r				Ē	Ē	Ē		Ŧ		-		=
			_	<u> </u>	.u			<u> </u>		4	<u> </u>	-
25		ΞΞ	1	H=	Ê	E	=	1				=
9 -			-		<u>ti</u>			1-		Ť	<u> </u>	=
	e.	ر لي	1	d	æ						1	
ΘT	Í			2	15.	1.		T		12		-

What Transition opens that line? "A Passing first flat Transition." In what "part" is the distinguishing tone? "In the Bass." Is it Sudden or Gradual Transition? "Sudden; for it comes out, of the cadence - chord of the last key, like that in il. 95."

Where is the Returning Transmutation chord? "Ro approaching the final D cadence, in its nabitual way, is recognised by the ear as $L\delta$ of the Passing key willingly Transmuted into $R\delta$ of the eld key."

66. Flat-key Cadence.—Listen to the first and third sections (omitting the second) of il. 99, and observe the third section. *

DR. RANDALL. IL. 99. KEY E. B.t. ll∮d |f :m 1m :lm :r d : ld :r $ml_1 s_1:s_1$ s₁:-.f₁|m₁:m d :t d :sd t :d d :t d :-|d :- \mathbf{r}_1 : \mathbf{d}_1 SI : SI f TC 1mif:s |1:d $\mathbf{t}_1:\mathbf{d}$ d:ti $f_1 d d : ta_1 l_1 : -$

What is the Transition? "First Flat." Passing, Cadential, or Extended? "Cadential, because it reaches a cadence, and it cannot be 'extended' beyond, because t_1 in the Contralto stops it." What is the Transmutation chord? "Fb becoming Db." What is the Bass? " $|\mathbf{m}:\mathbf{r}| d$." Yes, it is like that in ils. 28, 91, and 97. This "flat key cadence" is rarely desired by the ear, except in the circumstances to be next explained.

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67. Oscillating Transition.-Listen to the whole of il. 99. What is the first Transition which occurs? "First sharp key, extended through the whole of the second section." What brings that Transition to a close? "The assertion of the old Tonic, the sense of a new beginning and the f in the Air of the second chord of the third section." What follows? "The first Flat key which we just noticed." You pass then from the first sharp key through the Tonic chord of the old key to the first flat key and back again. It is like the oscillation of a pendulum still faithful to its resting point. This oscillating transition is not uncommon. Sometimes it enters the first flat key and then swings across to the first sharp key before it returns. Often there is no intervention of the old key. It is a transition of two removes when considered as between the two related keys, but the ear remembers the old key so well that the music is never felt to be more than one remove from that. Listen again to il. 99, and notice the softened and yet heightened effect of ta when fe has been heard in the preceding phrase.

Listen to il. 100, and study the same effects with the distinguishing tones in the Bass. Describe each transition—its remove, its transmutation chord, its distinguishing chord, &c.



54



Transitional Imitation .- Listen once more 68. to il. 99, and observe the relation of the second and fourth sections; what is it? "They are the same only in different keys." Are the Airs the same? "Yes." The Basses? "Yes." The Tenors? "No, the Tenor of one imitates the Contralto of the other, and the Contralto of the one imitates the Tenor of the other." Listen again to the chant, and notice that while this Transitional Imitation causes a beautiful variety in effect, it also produces the feeling of unity. It helps to make us feel that the piece "hangs well together." This Transitional Imitation has such a power with the mind that it often becomes a Factor of Transition even without the help of any distinguishing tone especially if some well known cadence is introduced. Thus, in Additional Exercises, part I, of "Standard Course," p. 18, score 1, the transition is not made by any distinguishing tone, but simply by the sense of Transitional Imitation moving to the well known Surprise cadence. Again, at p. 26, score 4, the transition is made in a similar manner. No distinguishing tone appears except in the accompaniment towards the end, but the duet of Tenor and Soprano is so plain an imitation, in the first sharp key, of the preceding duet between Bass and Contralto, that the mind changes the key immediately.

69. Transitional Sequence.—Listen to il. 101; what do you notice in the first half of it. *

IL.	101.	KEY	G
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x.

			D.t.						
:8[d	: s ₁	m	;rs	d'	: 8			
: s,	8	: s _i	181	;t _i m	d	$: \mathbf{t}_i$			
:m	d	:t,	∤đ	r s	8	: s			
:d,	m	$:\mathbf{r}_{1}$	d _i	:∎,đ	m	:r			

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"There is an immediate imitation ; the second phrase is just like the first, but in another key." When in studying the chords M and T (p. 37) we first observed these consecutive imitations what did we call them ? "Sequences." This, then is a sequence made by the holp of transition. By what remove is this present Transitional Sequence made? "The first charp." Is the imitation Harmonic or only Melodic? "It is Harmonic, with the same interchange of the inner parts as in il. 99." Yes, this interchange is necessary to suit the range of the voices, for the melodies are raised or lowered to a different pitch when placed in a different key. What is the mental effect of this sequence? "Elevating." Yes, the general effect of this transition seems to have attention expressly called to it by the sequence.

Listen to the first half of il. 102; what do you observe? *

IL	. 102	2. K:	er D.	f. G.			G.O.
/ :m	s	:f	M	; Im	8	:f	m)
b: (t	:r	d	:dsi	81	: s _l	1s1 (
):s	8	:s	s	:fd	\mathbf{t}_{1}	:r	d l
] (:đ	S1	$:t_i$	d	;fd	8	$:t_{l}$	d -)
D.t.	†			†			
/:rs	1	:t	d'	:d	m	:r	d -
): ^s id	d	:r	١đ	:d	d	$:t_{i}$	I d
):rs	fe	:f	m	:fe	8	:f	(m.
(:,* _I m,	r	:s,	1	:1 ₁	s,	:#	d l

+ See "Chromatic fe," p. 58.

G.O. |m[|] |d |s |d



"A transitional sequence." Is it Harmonic? "Yes, but like the last in its inner parts." By means of what key is it made? "By the first flat key." What is its mental effect? "Tis difficult to say." Yee, the ascent in pitch, in this case, is naturally elevating in its mental effect, but the flat key is naturally depressing. There results a tender, touching effect. This kind of sequence is however, far less common than that with the sharp key.

70. Summary of Transition .-- From these studies it will be seen that there are at least seven points of view for the student in observing a Transition. He may ask himself first, what is the Remove? Is it to the first sharp key, or to the first flat key or to the second sharp, or flat, or the third ditto, and so ou? To this question will afterwards be added, does it change its mode as well as its key; and, if so, in what manner? Second, what is the Factor? What is it that makes a new key present to the ear? Is it a new tone-a distinguishing tone? Is it some habitual progression of chords towards the Tonic? Is it an imitation with similar cadence of some previous passage? Is it a quiet resumption of the old key-a new commencement? Third, what is the Transmutation Chord? What is the chord on which your ear would naturally begin to feel a change of key? Fourth, what is its Extent? Does it affect a Cadence only? Is it merely Passing, making a harmonic cadence indeed, but not at the end of a line? Is it extended beyond these limits either way? Fifth, what is its Relation ? Is it a Departing Transition or is it one Returning to the previous key? Is it a Principal Transition, that is Departing from the Principal key of the piece? Or is it a Subordinate Transition, departing from some Subordinate key of the piece? Sixth. what is its Manner of Entry? Is it Gradual, announcing its appearance merely by some chordal habit, or by its distinguishing tone without the Dominant Seventh chord, 7S, or in any other unemphatic manner? Is it Sudden, coming in markedly with the Dominant Seventh, or break-

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ing off from the old key with violence so that not even the previous chord can possibly be taken as common to both keys — a true Transmutation chord? Seventh, what is its Object? Is it introduced chiefly to produce the mental effect of its distinguishing tonc, and if so, what is that Effect? Or, is it quietly brought on for the Convenience of returning to the old key, or of preparing for an Effect by, and bye?

We also notice the new powers of Cadence-of Imitation-and of Sequence which Transition puts into the hands of the composer.

71. How to write Transition .- In the common Staff Notation Transition is not clearly expressed. The reader comes upon a flat, a sharp, or a natural and if he wishes really to understand the music he has to ask himself does this indicate Transition ; if so what Transition ? or, does it lead into the Minor mode? or, is it merely the contradiction of some other sign in the notation? Even good musicians have often to make a careful investigation before they can answer these questions, and even then there may be differences of opinion. I have taken great pains in "Staff Notation" to assist the interpreter of keys. The student who wishes to become a good translator from one notation into the other will find it necessary to work through all the exercises in the fourth, fifth, and sixth steps of that work. But the Tonic Sol-fa notation is obliged to be definite, and except in the simple cases of Passing and Cadential Transitions it must choose its bridge-tone-its Transmutation chord. This has compelled Tonic Sol-faists to study the subjects of Transition and Modulation, more closely than is common with elementary students ; and it has also given Tonic Sol-fa singers, even the humblest of them the groat advantage of always knowing what key they are in; and what relation that key bears to the Principal key of the piece.

a. The improper method of writing Transition (that which retains the notes of the old key using fs, ts, &c., for the distinguishing tones of the now, instead of employing the bridge notes sd, sr, &c., and writing in the proper key) causes a contradiction between the names of the notes and the Mental Effects which are really produced by them, and one tone (1) commonly used in the first sharp Transition, is really a komma higher as the second of the new key, than when it is the sixth of the old key. [It is sometimes called *lay*, and so corresponds with the ray of the new key, the old lah corresponding with the rah of the new key.] This confusion of Mental Effect is trying and disappointing to the singer but on the other hand, the reading of a double note (the bridge-note "1, "f, &c., of the better notation is a difficulty to learners. It is true that this difficulty is soon overcome, and the pupil then demands above all things the true representation of mental effect, But a large propertion of our pupils learn to sing only for the sake of Psalmedy, in which Extended Transition is little used, and for their sake (to remove even an apparent hindrance from their path) we have adopted the habit of writing Cadence and Passing transition in the impreper notation. This has proved no serious inconvenience to the more advanced singers, and it enables us to distinguish these Transitions from those longer ones in which the mental effects of tones undergo a more sustained ohange.

b. The convenience of the music-reader must, of course, be the chief object of all music-notation, and this necessarily introduces some exceptions. For example, when the improper notes would give us unwonted syllabic association, the better notes are easier. Thus, d' ta may be quite easy, but f ta or s ta, or di ta f, or 1 ta s are very difficult to the singer simply because he has not been accustomed to any association of interval or mental effect between those syllables : but write the same intervals in the true way as 'd f, and 'r f, and d's f d, and ¹m f r, and their relation and mental effect are perceived at once. Again r de r may be easy, but r de t, de r or li ti de r are much more easily understood when they are written truly as "1, se, ba, se, 1, and in base 1. Again m fes fem rem becomes anite simple when it is written with its proper mental effects thus, l_i t_i d t_i l_i sei l_i,-and d d ma r d loses all its mystic look when it is written $l_1 l_1 d t_1 l_1$.

72. Analysis of Transition. — The following analysis of some of the Transitions in the Additional Exercises, part I, of "Standard Course," will be of service to the student. See "Seven points," par. 70.

Add. Ex., page 12, sc. 2, m. 1. 1st, First sharp. 2nd, eustomary Approach to Cadence |d :f :s |t :d' in the Bass : and distinguishing tone. 3rd, *D. 4th, Extended. 5th, Departing from the Pricipal key. 6th, Gradual. 7th, Bright Effect. The returning Transition is 1st, First flat. 2nd, distinguishing tone. 3rd. None, but the cadence chord of the last key. 4th, Extended. 5th, Returning from Subordinate. 6th, Sudden. 7th, Effect of f.

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Add. Ex., p. 12, sc. 4, m. 4, 1st, First sharp. 2nd, fe. 3rd, ⁷¹Rb. 4th, Cadential. 5th, Departing from Principal. 6th, Gradual. 7th, Tender effect. The return is 1st, First flat. 2nd, Sense of new commencement. 3rd, ¹³S. 4th, Extended. 5th, Returning from Subordinate. 6th, Gradual. 7th, Convenience.

Add. Ex., p. 14, 4, 8. 1st, First sharp. 2nd, fe The sense of new commencement may well be pleaded for making the transition begin with the section, and for writing it in the better notes, but the rapid movement allows it little more than a cadential effect. 3rd, ⁵D δ , or ⁵D. 4th, Cadential or Extended. 5th, Departing from Principal. 6th, Gradual. 7th, Tender effect, preparing for the Transitional Imitation which follows. The return is 1st, First flat. 2nd, f. 3rd, ⁵S. 4th, Extended. 5th, Effect of f in Bass and Seprano.

Add. Ex., p. 32, 4, 2. 1st, First flat. 2nd, ta. 3rd, None. 4th, Passing. 5th, Departing from Principal. 6th, Sudden. 7th, Effect of ta. The return is 1st, First sharp. 2nd, t. 3rd, zR. 4th, Extended. 5th, Returning from Subordinate. 6th, Gradual. 7th, Effect of t.

Add. Ex., p. 22, 3, 1. 1st, First sharp. 2nd, fe (in Tc). 3rd, None. 4th, Passing, but would have been Cadential if it had not been followed by so complete a Cadence in the old key. 5th, Departing. 6th, Sudden. 7th, Effect of fe. The return is 1st, First flat. 2nd, An end-of-the-line cadence. 3rd, PS5. 4th, Extended. 5th, Returning. 6th, Gradual. 7th, Convenience.

Add. Ex., p. 21. 1, 4. 1st, First sharp. 2nd, Approach to Cadence, and fe. 3rd, ⁶D. 4th, Extended, that is going beyond a Cadence. 5th, Departing. 6th, Gradual. 7th, Bright effect. The return is 1st, First flat. 2nd, ta (in R). 3rd, none. 4th, Extended. 5th, Returning. 6th, Sudden. 7th, to prepare a contrast between s 1 ta, in one key, and s 1 t in another.

Add. Ex., p. 20, 1, 3. 1st, First sharp. 2nd, Sense of new commencement and fe. 3rd, DFA. 4th, Extended. 5th, Departing. 6th, Gradual. 7th, Tender effect of new t, and brightening effect of the Cadence. The return is 1st, First flat. 2nd, Sense of new commencement and ta in Bass. 3rd, DSA. 4th, Extended. 5th, Returning. 6th, Gradual. 7th, Convenience.

Add. Ex., p. 24, 2, 1, 1st. First sharp. 2nd. Form of melody in the Air :t.s |m would have been very unwonted. The Transition might be taken a measure later. 3rd, SD. 4th, Extended. 5th, Departing. 6th. Gradual. 7th. Tender and brightening effect. The first return, D.C. is, 1st, First flat. 2nd, Sense of new commencement, and 3rd, DS. ta in Bass. 4th, Extended. 5th. Returning. 6th, Gradual. 7th, Convenience. The second return, p. 25, 1, 3, is 1st, First flat. 2nd. Sense of new commencement. 3rd, DS. 4th. Extended. 5th, Returning. 6th, Gradual. 7th, Convenience.

73.

Add. Ex., p. 19, 3, 1. 1st, First flat. 2nd, ta in Bass. 3rd, ^PDb. 4th, Extended. 5th, Departing. 6th, Gradual. 7th, Subduing Effect of new 1. The return is, 1st, First sharp. 2nd, the new t in ⁷Dc. 3rd, ⁿF. 4th, Extended. 5th, Returning. 6th, Gradual. 7th Brightening effect of a confident close, prepared by the contrasted effect of previous key.

73. Chromatic fe.-When we studied il. 90, we observed that the chord following the one in which fe stood became, in mental effect, the Tonic of a new key. Listen to it again, noticing the effect * Now, listen to the second section of il. 101, and notice whether fe there helps to create a new key in your mind. * "No, certainly not a new key, but it produces a peculiar effect." Well, then, let us enquire why it does not lead, as before, to a new key, and let us analyse that peculiar effect which it does produce. Into what chord has the fe of transition always moved hitherto? Look at ils. 90 to 93, and then answer. "Always into the chord S, which is only the D of its own key disguised by the improper form of denoting transition." Yes. fe was always the t in the chords S, 7S, Tb, or 7T, going to the new D. Is that the case in the second section of il. 101? How does the fe move? "Into De of the old key." Yes, and in the old cadential place of Dc. That cannot be mistaken : it has the Dominant tone of the old key at the bottom of the chord and the Tonic above it; and besides. if Dc were translated by the ear into Fc of the new key, it would mean nothing-would be out of place for no habit suggests it. Listen to the effect of this new progression of fe; peculiar as it is, does it make you in the least doubtful of the key? * "No, it even seems to make the key stronger." Yes. it disturbs, for a moment, your sense of the old key, by threatening to leave it, only to embrace it

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again with the tighter grasp. This peouliar effect, whether produced by fe or any other tone, we call *Chromatic*. It is well adapted for excited passionate expression. If the chord in this case were transitional what would you call it? "(7Sb.)" Yes, but as it is Chromatic we will call it ⁷⁴eRb. We put in the fe te distinguish it from ⁷Rb. Before we leave il. 101, notice the transition at the beginning of the fourth measure. It is like that in the third section of il. 100. They are both Sudden, but that is a sudden transition from the original key, this from the transition key—making the Return very marked.

a. Listen to il. 102, and notice the two fe's in the second section. * What chord does the second fe enter? "Doof the eld key, in its eld cadential place. fe cannot disturb the key there; it is chromatic." Yes, the case is like that of il. 101, except that fe stands in a different chord. If this chord were producing a transitional effect what would you call it? "(Tb.)" Yes, but being chromatic we call it Now, tell me what chord the first fe enters? FEb. "7S." Can that be translated into the D of a new key? "No, it is the Unquestionable Dominant Seventh (p. 7) of the eld key; it cannot be mistaken." Then, hore again we have a chromatic fe which instead of changing the key only declares more loudly its loyalty to the eld. Before we leave il. 102, let us compare this first fe with the case of Sudden Transition in il. 101. That might have been written : tfe | f, like this instead of :t | taf. and then we should have taken it, at first sight for a chromatic. But the t is not like a new fo threatening transition without accomplishing it; it is simply the t of the then existing key. It is the ta which is new; and that does not merely threaten a Sudden Transition, but accomplishes it. Nevertheless, the felt fact that this t does not belong to the original key gives it in some small degree the effect of a new Chromatic fe. Listen again to the whole of ils. 101 and 102, and notice the effects. *

b. Listen to il. 103, noticing the effect of fe in the second section; does it change the key or is it Chromatic? *

IL. 103. KEY A.				L .	Dr. CROTCH.			
1	ď	d :t _i	d :-	$\ \hat{\mathbf{i}}\ $	s1 :d	d :t ₁	[d :-]	
)	s	s ₁ : s ₁	s ₁ :-	\mathbf{f}_{1}	m _l :fe	s _i : s _i	s ₁ :-	
	m	m :r	m :-	đ	d :d	r :r	m :-	
(d	d :s,	d :-	\mathbf{f}_{1}	d :1,	S : S	d ₁ :-	

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"Chromatic," What makes you feel that the music has not left the original key? "The chord which , carries fe has not moved into Dc or into 7S as before; it has actually moved into the chord S which in il. 90 we felt to be only a disguised D!" No, it is not S but 4S; it is 4S on the second-lastaccent of the cadonce, its habitual place when helping to decide the key. If we were to try and make it transitional To moving to ⁴D—a chord which has itself to be resolved .--- it would make a quite unre-cognizable "Dominant to Tonic." Notice that this chromatic fe occurs most frequently just before the second-last accent of the cadence, in the habitual place of $\mathbf{R}b$ as in il. 101, or of $\mathbf{F}b$ as in ile. 102 and 103. We can try the effect of substituting f for fe in each of these cases. * Listen again to il. 103, and name the chords. *

74. Summary of Chromatics.—A chromatic chord is (in nearly all cases) a chord which is capable of moving into the next chord so as to create a transition, but which, instead of that, actually resolves into some very characteristic chord of the old key. It is a transition nipped in the bud. There are only two or three chromatic chords, rarely occurring, which could not be resolved transitionally. See "Common Places of Music." fe is the only chromatic tone we have studied; we have found it in the chords ¹⁶Rb and FEb. It also occurs in ⁴R and ¹FE. We have found it resolving into Dc, ¹S and ⁴S. Db is also accepted as an effective chromatic assertion of the old key. See p. 112.

 IL. 104. KEY E.
 G.O.

 $(:d^i | m : f | s : d^i | t : d^i | \widehat{1})$ $(:d^i | s : d^i | f | s : d^i | \widehat{1})$
 $:m | d.s_i:l_i.t_i | d : m.f | s.r.m.d | f$ $(:d : s_i:d.r | d : d^i | r^i : s.m | 1)$
 $:s | s.m:d.r | d : d^i | r^i : s.m | 1$ $(:d : f_1.r_i | m_i : 1) | s_1 : d | f_1)$

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Ex. 85. Analyse for chord, position, and incidentale, with special regard to par. 56, ils. 90 to 93.

Ex. 86. Ditto, ils. 94 to 97.

Ex. 87. Ditto, ils. 98 to 100.

Ex. 88. Ditto, ils. 101 to 103.

Ex. 89. Analyse, with special regard to pars. 46 to 48, pp. 39 to 43, ils. 104, 105, 106.

Ex. 90. Three factors of transition (1st, the distinguishing tone, 2nd, the Base shape, 3rd, the Air shape) are described in par. 55, another in par. 62 (New Commencement), and another (Transitional Imitation) in par. 68. What are the Factors of Transition in the second section of il. 92, the third of il. 93, the second of il. 94, the second of il. 95, the second of il. 96, the fourth of il. 98, the second phrase of il. 101, the third phrase of il. 102.

Ex. 91. Name, in ils. 90 to 103, two examples of the transition Bass cadence $|\mathbf{s}| \cdot \mathbf{s} | \mathbf{d} ||$ three examples of the Bass $|\mathbf{m}| \cdot \mathbf{r} | \mathbf{d} ||$ one of $|\mathbf{r}| \cdot \mathbf{r} | \mathbf{d} ||$ and one of $|\mathbf{r}| \cdot \mathbf{s} | \mathbf{d} ||$

Ex. 92. Name in ils 90 to 103 five cases of transition taken quietly and gently, for convenience eake, as described in par. 61.

Ex. 93. Name in ils. 90 to 103 three cases in which a "sense of New Commencement" points out the Transmutation Chord.

Ex. 94. Name in ils 90 to 103 two cases of Cadence Transition, two of Extended Transition, two of Passing Transition, and two of Sudden Transition.

Ex. 95. Name in ile. 90 to 103 examples of the Flat Key Cadence Oscillating Transition, Transitional Imitation, and Transitional Sequence.

Ex. 96. Name in ils. 90 to 103, cases of chromatic fe.

Ex. 97. Analyse the transition (as in par. 72) in "Additional Exercises," p. 13, score 3, measure 3, and its return; also that in Add. Ex., p. 15, sc. 3, m. 3, and its return.

Ex. 98. Analyse the transitions in Add. Ex., p. 16, sc. 3, m. 4; also that at p. 12, sc. 5, m. 4; and that at p. 18, sc. 1, m. 2, and their returns.

Ex. 99. Analyse the transitions in Add. Ex., p. 32, sc. 1, m. 2; also p. 18, sc. 3, m. 1, and their returns; and p. 23, so. 1, m. 1, without the return.

Ex. 100. Analyse the transitions in Add. Ex., p. 26, sc. 2, m. 2; p. 26, sc. 4, m. 3; p. 27, sc. 4, m. 1; p. 30 40. 1, m. 2, and their returns.

*• See "Chord-Naming Examples," A and B, 39 to 42. How to Observe Harmony.
THE TENTH STEP.

75. Sectional Relation.—Cadence relation was studied pp. 45, 46. See also St. Co. p. 69 where it s shown that a more or less expectant cadence made a conclusive cadence necessary, and so created a feeling of suitableness one to the other like the "Harmony" of well contrasted colours. But in order to make a good tune there must be something more than an orderly relation of cadences. The whole section (including its melody and harmony) must carry with it some mark of relationship to the other sections, something to show that the different sections belong to one another, are part of the same whole. There must be something in the melody of one section, something in its Rhythm, something in the motion of its parts, which reminds you of related things in another section. For a very beautiful tune there must be even more than this dry sense of unity; the sections must follow each other with natural development of feelings-in a connected flow of ideas. Now let us find for ourselves what are the little links which connect in our minds, one section with another. Many of the illustrations given above have no pretension whatever to beauty of relation; it was impossible to secure this when we had a very limited number of chords and were obliged to illustrate certain chord progressions. Some of them, therefore, have little or no relation between the sections and many of them have only contrasted cadences or contrary motion in the cadence melodies of either Air or Bass. But all the really good tunes, have cadence relation strongly marked.

76.---by Contrary Motion.---Listen to il. 55. * What is there in the second section which makes you feel that it belongs to the first? "One has the expectant cadence, the other the conclusive." Yes. but what elso is there? What for example in the Soprano part of the two sections? "One goes up and the other goes down." Yes, they move in a contrary direction but with similar intervals. This is called contrary motion. You must also notice that at the last step in these cases the contrary motion changes into similar; each section goes downward in its close. Listen again and notice how very strongly one reminds you of the other. * What is there in the Bass part? "One goes down and the other goes up." Yes, but not with so perfect a similarity of interval as in the Soprano, although the contrary motion is clearly felt. Notice that we are not here studying the

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relation of parts within a section, but the relation of one section to another.

Listen to il. 58. What is the melodic relation in the Soprano part? "|d!:m!|l:-goes up downbut |r!:t||d! goes down up." Yee, the melodicesdo not move stepwise as before; they wave; wemay call this a case of contrary*Waving*. You maynotice something of the same kind in the Bass.Listen to it again, and notice how thoroughly wellrelated the two sections are. In both the instancesnow studied the contrasted cadences strengthen thefeeling of relation.

Listen to il. 56. * What is the relation of these two sections in the Soprano? "The first goes up is |l:t |d, and the second goes down is |f:m|r." Yes, and then it adds a final cadence. A rather poor example of contrary opening, with similar close, is in the Soprano of il. 66, but as the second section starts from the same tone as the first, this little bit of contrary motion is clearly felt.

77.---by Similar Motion.--Listen to il. 17.* Here there is no marked hond of expectant and conclusive cadence. What other bond is there? "The Soprano closes both go down-ward with only a third difference in pitch." Yes, and the Tenor closes do the same. When you hear the second phrase you cannot help being reminded of the first, whether or not you happen to notice what it is that reminds you. In music we are constantly feeling effects without noticing the causes, but when we do see the causos we enjoy the effects more fully and perfectly. In il. 27 we have a case of not very strong relation in which the Soprano of the second section repeats the Bass of the first, while the Bass of the second imitates it.

Listen to il. 67. * What is the bond of unity between the two phrases? "The expectant answered by the conclusive cadence." Yes, but what else? "The Soprano of the second section reminds us of the first." Yes, it opens with a similar *waving* for four intervals (that is four intervals move in the same directions though they may not be of the same kind) but it adds a cadence. This similar motion, plus-cadence, is a very common bond of unity in the Air of a chant. Listen to il. 82. * What is the bond here? "The same as the last, except that the second d interfores with the flow of the imitation." Yes, and that d is only an ornamental dissonance leading to t.

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78.-by Rhythmic Imitation, is the imitation by one section of a Rhythmic form which has just occurred in a corresponding part of another section. Listen to il. 88.* What is the Rhythmic form used in the Soprano closes of each section ? "TRAA TAA-TAI TRAA." You feel that these Rhythms help to make the sections belong to one another, and that the contrary motion of the melody, does not at all weaken the relation. Listen again and notice the Tenor. * "There we have the same Rhythm with similar motion." Yes, and you will notice that the Rhythms are in corresponding places; they are both in the cadence. You may have the same Rhythm in both sections, but if they are not in corresponding places they convey no sense of relationship, as in ils. 82, 85. Listen to il. 80; there you have the same Rhythm in the two sections, but does it occur in corresponding places? * "Not quite, and yet one reminds us of the other." It does, because though the "places" do not correspond if reckoned back from the cadence, yet they both stand in the middle of the imitation phrase, and are truly corresponding places. The same may be said of the Tenor of this chant, where the contrary waving makes the Rhythms perhaps a little See more on the subject of less noticeable. Rhythmic Imitation, St. Co. pp. 37, 70.

79.-by Development of Feeling.-Just as we look at any lyric song, or psalm, or hymn, and expect to find in its opening the declaration of some thought or sentiment -- in its progress the rising and falling of appropriate emotions-and in its close the quiet or excited conclusion of the whole matter,---so in any tune which is to interest our minds there must he this same golden thread of emotional unity. In St. Co. p. 70, some illustrations of this subject are given under the fifth requirement of the Analysis of musical form in the Exs. 133, 135, 137. Listen to il. 68. * Let us take the first section as the assertion of some thought or emotion. Now listen again, and notice the second section. Is there nothing more in it than this quiet assertion? "Yes, there is more feeling." Well then, as these two sections make a Period, we will write down on the blackboard Ia Assertion. Ib FEELING. Now listen again and notice the third section. * Which of the previous sections is it related to? "The first." What is the difference? "The third section is more excited." Then we will write down , IIa More excited Assertion. Listen again and notice the fourth section. * Which of the previous

sections does it most remind you of? "The second." Well the second section expressed feeling, what is the difference? "You feel more sure about it." Yes, it is a similar feeling more confidently expressed. We can then write down the emotional form of this tune as follows

Ia Assertion.

Ib FEELING.

IIa MORE EXCITED ASSERTION.

IIb More confident Feeling.

Let us now notice the Melodic and Harmonic Relations which have bound these sections together and contributed to produce this beautiful emotional form. In analysing cadences, p. 45 we noticed that the second cadence of a double chant, bears the chief relation to the final cadence, and that the first cadence is commonly related to the third. In fact the double chant consists of two Periods of two sections each. In this chant what is the relation botween the second and fourth sections? "Similar closes and similar openings of Soprano." What between the first and third? "Contrary wavings of Soprano." Yes, and notice also that the first and second are related by similar closes, and again the first and last.

Listen to il. 59. * If we call the first section an Assertion of Sentiment what would you call the second? "Very excited Feeling." Yes, we may write down the first Period thus, Ia ASSERTION. Ib STRONO FEELING. Listen again and notice the third section. * What is the effect? "It is quieter." Yes, it is not only quieter than the second section, but it is a quiet contrast to the first. The first mounts upward from s, to d, and the third waves quietly downward from m to t₁. We may call it a quieter and less earnest Assertion. Listen again, and notice the fourth section. * What is the effect? "Still more subdued feeling." We may then write down the second Period thus, IIa QUIETER ASSERTION. IIb QUIETER FEELING. The whole Emotional Form will stand thus.

Ia Assertion.

Ib STRONG FEELING.

IIa QUIETER ASSERTION.

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IIb QUIETER FEELING.

80.—to the Point of Excitement^{*}—The place of greatest excitement is the thing which chiefly distinguishes one tune from another, and in observing a tune, we must notice both the character of this

How to Observe Harmony. * which is sometimes the excitement of depression.

musical point of excitement, and the place it occupies, just as in studying a group of statuary we should observe the principal figure, or in a picture the point of brightest light or most marked effect, or in a work of Architecture the character and position of the tower or the epire. In il. 68, the excitement is in the II*a* section; compare this with ils. 61 and 90. In il. 59 the excitement is in the I*b* excitetion; compare it with il. 35. In il. 97 the excitement seems to culminate in the II*b* eection.

81. Analysis of Sectional Relation.—This subject is more fully developed in my little books entitled "Musical Theory," Booke I, II, III. But, to give the pupil confidence in the principles here announced, it is well that he should, even here, test by his own ear and judgment, the following brief analyses of the simpler pieces in *Additional Exer*eises.

"God Speed &c.," p. 1, has two Periods of two Sections each. Ib is a simple repetition of Is. IIs has an excited succession of descending Phrases answering to the short ascending phrases which open the previous sections. IIb glorifies and repeats the musical assertion which closed the first section; the Rhythmic imitation being exact. The emotional form corresponds generally with the first form given above. The Point, however, is in Ib; so that we may modify the description thus

Ia Assention.

Ib WARMER ASSERTION.

IIa Excited feeling.

11b BOLD AND BRILLIANT ASSERTION.

"Jackson's," p. 2, has two Periods of three Sections each. Is opens with a descending phrase reminding us, by contraries, of the opening of Ia; it closes with similar motion changing to contrary. Is etarts a fifth higher than 1b but takes the same downward direction of its phrases; it contains the point of greatest excitement in the first period. He reminds us, in its opening a step lower of Ia and in its close it imitates the wavings of Ib. IIb starts on the same note as IIa, and has the same tones in the middle, but ascends more boldly both before and after. If o on the contrary, by its emphatic f and quiet descent, hushes the excitement of Ifb. The Point in this Period is IIb. The "emotional form" is,

Ia QUIET ASSERTION.

- Ib RISING FEELING.
- Is BOLD CONFIDENCE.

IIa RENEWED AGSERTION. IIb More excited freeling.

II COUIET ASSURANCE.

"The Fortune Hunter," p. 4, has two Periods of two Sections each. Ib opens with similar ascending motion to Ia and closes with contrary descending motion. Both IIa and IIb have a downward motion in contradistinction with the openings of both Ia and Ib.—IIb beginning a third higher than IIa. The Point of the whole is evidently at IIb. Its emotional form is

Ia Assertion of bright feeling.

Ib STRONGER ASSERTION OF THE SAME.

IIa AN OUTBURST OF GAIETY.

11b A more bold and resolute utterance of the SAME.

"How beautiful," p. 12, has three Periods of two Sections each. The first Period closes with the ⁶D cadence, the second with a ^sD³, the third being in the Air giving a feeling of expectancy. The last Period replies in the D cadence. The internal cadences of each Period are as follows, I 7Sb⁵, SD. II F³, ⁸D³. III F⁵, D. The closing sections of the first and second Periods are chiefly descending in the melody. The close of the last Period replies to them with a bold ascending passage. The reply of III a to I a is very obvious, and the imitation by IIb of Ib, a step lower is necessarily felt by the ear. The rhythmical relation between IIa and Ia both using TAA-efe in corresponding places also impresses the mind. Thus there is not a single section which does not bear its manifest relation to other sections. All the forces of the tune gather up their strength for the last section which contains the Point of excitement. The emotional form is

- I DECLARATION OF A SENTIMENT.
- II AN BLEGANT BUT LESS EMPHATIC REPETITION OF THE SAME.
- III A BOLD RE-ASSERTION OF THE SENTIMENT GIVING RISE TO STRONG FEELING.

82. Summary of Sectional Relation.—The means by which one part of a tune shews its connection with the other parts are as follows:—Ist, Melodic Relation, when one section imitates the other hy repetition or by contrary, or similar motion. This is mest felt when in the highest part, next when in the Base, but also felt in the inner parts. 2nd.

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Rhythmic relation, when similar rhythms are used in corresponding places of two answering sections. 3rd, Cadence relation, principal cadences being employed to close Periods and inferior cadences to close internal sections, and the principal cadences answering to each other. 4th, Relation to some one Point of excitement or depression characterising the tune. And öth, A connected flow of ideas or a natural development of feeling.

83.

83. Three-part Harmony.—At par. 41, p. 30, it was said that certain exceptional chords were used in three-part harmony, and in par. 51, p. 43, 44, reference is also made to the principles which necessitate a difference between three and four-part harmony. Let us now observe some of these differences and the reasons for them. ILS. 107 and 108, are the same in Bass and Soprano as il. 35, let as compare them with that il. section by section.

Listen to the first section in each. *

IL. 107. KEY G. The same as il. 35., arranged for S.C.B. $\begin{cases}
\begin{vmatrix}
\vec{n} & s : s & f :- \\
d & s_1 : m_1 & l_1 :- \\
d & t_1 : d & f_1 :- \\
d & t_1 : d & f_1 :- \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{m} & s : s & f :- \\
d & r : m & d :- \\
d & r : m & d :- \\
d & t_1 : d & l_1 :- \\
\end{array}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & f :- \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & f :- \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & f :- \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & f :- \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s : s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f :- \\
\vec{n} & s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s : s & f & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s & s & s & s & s \\
\hline
\vec{n} & s & s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s & s & s & s & s \\
\end{bmatrix}$ $\begin{array}{c}
\vec{n} & s & s & s & s & s \\
\hline
\vec{n} & s & s & s & s & s \\
\end{array}$

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IL.	108.	ĸ	er G	• '	The fo:	sai r S.	ne as T.B.	il.	35, 1	ırra	nged	
(Â	s :	s :	f :-		r	m	:d	f	:m	r	:-	
} s	s :	m	1:-	.	f	m	:s	8	:s	s	:-	
(d	t _i :	d :	f ₁ :-	.	8 ₁	d	:m	r	:d	tı	:-	
(16	ls:	s :	f :-	• 11	ŕ	m	:f	m	:r	d	:- 1	
s	s :	m :	f :-	.	S	s	:d	s	:f	m	:-	
(d	$ \mathbf{t} :$	d	I ₁ :-	.	\mathbf{t}_1	d	$:1_1$	S	:sl	d	:-	
				-	·		-	Dc om	•			
6	÷			2				1	-			
f	Ĩ				ŕ					2		
	•											

What is the "Constitution" in the first chord? "Constitution 1 in ils. 35 and 108, and Constitution 5 in il. 107." The fifth could have been inserted. but the composer no doubt felt that the Contralto melody would be improved by the fall from d. and that the Air would be better supported by a third under it than by a sixth. What are the Constitutions of the second and fourth chords? "1 in the fourpart harmony, 5 in the three-part." Yes, the fifth is omitted, as it very often is in three-part harmony because the Root and Third are the essential parts of a chord, and must be included, but it does not always suit the convenient flow of melody to add the fifth. That it was possible to include the fifth in these cases is seen from the third section of il. 107 where the same Air and Bass are used. But considerations of variety, and of suitability to the compass of the vocal part concerned make it advisable to double the Root instead. This is the case in section 3 of il. 108. Listen to the second section of each. * What do you notice? "Fifths omitted in the second, third, and fifth pulses of

this section in il. 107." Is this the case in il. 108? "No." Can you explain the difference? * The middle part in il. 108 is well within the easy range of a Tenor voice, but the middle part of il. 107 would be, nearly all of it quite above it; on the other hand the middle part of il. 107 is similarly well placed for a Contralto voice, which could indeed take the lower sounds written in il. 108 for the Tenor, but not so effectively. [All this should be carefully shown on the Voice Modulator, see St. Co. p. 106.] Besides this it is found pleasanter in harmony for the upper parts to be kept as far above the Bass as is at all convenient. Therefore if the Tenor in il. 108 could oasily take the middle part as it stands in il. 107, the harmony would sound better; but it cannot. Listen to the same section again; what do you notice on the first chord? "In. 108 changes from S to ${}^{7}S$ in order to get a smooth melody by the help of f." What do you notice on the fourth pulse? "That il. 108 omits the Third in 'S." Yes, this is not uncommon in three-part harmony, and is allowed, see p. 44. In il. 107 the same chord is changed from ⁷Sc into To: of course the chord is not so strong but the melody is brought into a better part of the Contralto voice. What do you notice in the sixth pulse? "In il. 107 the chord is changed from Sb to Ta." No, we must not call it Ta because the diminished fifth of T could not be inserted there. It would make a very undesirable cadence, even if the f were resolved. We shall be obliged to call it Sb om, see p. 44. Listen to the fourth section in each. * What do you notice on the fourth pulse? "That il. 108 omits the Root of the chord, for we could not call it the unmeaning chord Mb," (see p. 39). Yes, we will call it Dc om. Three-part harmony often has recourse to this contrivance. Now let us compare ils: 109 and 110 with il. 35. Listen to the first section in each. *

IL. 109. KEY G. The same arranged for S.C.T. $\begin{pmatrix}
\widehat{m} & s : s & f :- \\
s_i & t_i : d & l_i :- \\
d & r :m & f :- \\
\end{bmatrix} \begin{pmatrix}
\widehat{r} & m : d & f :m & r :- \\
t_i & d : d & t_i : d & s_i :- \\
d & m & r : d & t_i :- \\
\end{bmatrix}$

$$\begin{cases} \vec{m} & s : s & f := | \vec{r} | m : f | m : r | d := \\ s_1 & d : m | l_1 := | t_1 & d : r & d : t_1 & d := \\ d & m : d & f := | s & d : f | s : s & d := \\ \end{cases}$$

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"The first and second parts in ils. 109 and 110 are the same, or nearly so." Yes, there is not much difference between a second Soprano and a Contralto part, except that the Contralto now and then strikes a lower tone, or takes a lower phrase; but is there not a difference in the third part? "Yes, in il. 35 the Bass sings: $d \mid t_1 : d \mid f_1$; in il. 109 the Tenor takes higher ground and sings: $d \mid r : m \mid f_1$; in il. 110 the Contralto, starting an octave higher sings more within its own range: $d \mid s_1 : m_1 \mid f_1$."

Ť

Yes, a composer naturally and necessarily notices these points, but even the observer will enjoy his music better when he sees how well the voices are placed. Notice that this adaptation of parts to the compass of the voices sometimes makes it necessary to change the chord itself as in the third sections of ile. 109 and 110, in the second section, fourth pulse of il. 110 (see par. 41, p 30), also fourth section, third pulse of il. 109. Notice another case of Sb om, in il. 110, section 4, pulse 1. Notice the necessity of bald unisons, not unfrequent in three part harmony, in il. 107, section 4, pulse 6, and il. 110, section 2, pulse 3. Observe also an imperfect cadence in the final close of il. 110, which is only excusable where a smooth Contralto, or Tenor have to be used for the lowest part instead of a boldly moving Bass

84.

a. Summary.—We have found that in three-part harmony the fifth of the chord is frequently omitted, that the substitutional chords T and B are frequently used and that even Unison, and omitted Roots, must occasionally be allowed. The causes of these changes are first the necessity of not omitting the Root and Third of a chord, second, the necessity of good and varied melody in the parts, and third, the necessity for the parts being made to lie in the best region of the voice for which they are written.

84. Two-part Harmony is necessarily less strict than three or four-part harmony, in reference to constitution and position of chords and the omission of Roots, and is more free in its use of substitutional chords; but it is more strict in its avoidance of consecutives and in the requirement of good relation between the only two parts. Although two parts cannot possibly make a chord, yet there are reasons in "Musical Statics" which make them suggest a chord, and every effort is made in twopart harmony to indicate the key, the cadence and the chord progression, as far as two-part harmony can do it. Listen to ils. 111 and 112, and compare them with il. 35. *

IL. 111. KEY G. S.C. $\begin{cases}
\begin{vmatrix}
\widehat{m} & | \mathbf{s} : \mathbf{s} & | \mathbf{f} : - \\
\mathbf{d} & | \mathbf{t}_{1} : \mathbf{d} & | \mathbf{r} : - \\
\end{bmatrix} \begin{pmatrix}
\widehat{\mathbf{r}} & | \mathbf{m} : \mathbf{d} & | \mathbf{f} : \mathbf{m} & | \mathbf{r} : - \\
\mathbf{t}_{1} & \mathbf{d} : \mathbf{t}_{1} & | \mathbf{s}_{1} : \mathbf{d} & | \mathbf{t}_{1} : - \\
\end{bmatrix} \\
\begin{pmatrix}
\widehat{m} & | \mathbf{s} : \mathbf{s} & | \mathbf{f} : - \\
\mathbf{d} & | \mathbf{s}_{1} : \mathbf{m} & | \mathbf{r} : - \\
\mathbf{t}_{1} & \mathbf{d} : \mathbf{t} & | \mathbf{d} : \mathbf{t}_{1} & | \mathbf{d} : - \\
\end{bmatrix} \\
\xrightarrow{How to Observe Harmony.}$



Notice the first section in each. In il. 111 the cadence is altered, for it was important to keep the Contralto up to distinguish it from a Bass, and to have fallen on to l, after a bare fifth would have left that fifth without the apology of contrary motion. The R cadence is not disagreeable, and the stepwise ascent of the Contralto prevente the bare fifth from being noticed. In il. 112 we have a bold Bass movement; the octave, on the second pulse, is not felt to be unpleasant because of the contrary motion. Notice the second section in each. * In il. 111, the third pulse alters its chord, and the fourth gives us the skeleton 'S chord. We could not have had : d | r, instead of : $|\mathbf{s}|$, because the r, being one step above d in the Air, would have laid hold of the ear, and suggested a continuance of the Air instead of the Contralto, thus promoting a "con fusion of parts." In il. 112, there is room for the

well known Bass movement. Notice the third section of each. * In ils. 111 and 112, there are bald octaves, excused by contrary or oblique motion. In the fourth section of il. 111, notice the chord F changed into what the habits of the ear would make us call $R\delta$ if we had to fill up the chord. In il. 112, second and fourth cadences, notice how bare fifths are allowed for the sake of cadential habits. For fuller studies of this kind of harmony see "Common Places," p. 62.

85. Part-pulse Incidentals.—We have already, p. 39 to 42, studied the ornamental *Consonant* tones on the weak part of a pulse, —the Bye-tone, the Consonant Passing-tone and the Secondary chord. These were all essential parts (Root, Third, or Fifth) or otherwise consonant in the chord in which they stood, and being conconant their interposition prevented the ear from feeling the effect of consecutives. This is not the case with the tones we are now about to study. The Dissonant and Incidental tones strike sometimeson the fore part and cometimes on the after part of a chord. Let us take those which strike on the after part, the weaker part, first.

86. After-stroke Incidentals.— The apologies best accepted by the ear for these Incidentals are that they are Passing, Anticipating, Waving, Hanging, and Guiding.

a. Passing-tones.—Listen to il. 113, and notice the first chord; what are the *Essential* tones of this chord $\beta *$



"d, m, s." What are the intruding *Incidental* tones? "r, f." Against what does f dissonate?--"r?" * Yes, but the dissonance is not very striking;

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how is that? "They go so smoothly from one tone to another." Yes, and there is another reason they move in sweet thirds one with the other; they hunt in couples. Tones which thus pass stepwise on the scale, are called Passing-tones. Now give me a similar account of the first chord in the second section. * Listen to il. 114, and notice the first chord of the second section; how would you describe r ? *



"A Passing-tone." Yes, but without a companion. There are similar cases in the first chords of the third and fourth sections. Notice the second chord of the fourth section; what would you call t? "It is like a Passing-tone, but it moves upwards from one tone to another." Yes, we call it an upward Passing-tone. Notice the same thing also

in the Bass of the the third section, with a consonant companion. Notice also f and 1 as Passingtones in the chord of D. The 1 is not really dissonant to anything that is actually sounded with it, hut being an intruder into the chord, and a companion of the dissonance, it is treated as one. Listen to each of the ils. 113 and 114, both with and without their Passing-tones and say what is the use of them. "They make the parts smooth. They give liveliness to the music." Yes, and they also supply occasionally pretty passages of imitation. Compare the Bass of the third section in il. 114 with the Soprano of the fourth. The stalic p is the sign for a part-pulse Passing-tone, 2p for two Passing-tones, &c.

b. Anticipation-tones.—Listen to il. 115, and notice the third chord of the second section; are m and d Passing-tones? *



"No, hecause they do not move stepwise down. It is as though the tone of the next chord were struck a moment before its time." Yes, they are called Anticipation-tones, and although not so common, or so acceptable, as the smooth Passingtones, they are far from disagreeable if not too often used. Their sign in Analysis is the italic a. The cases we have referred to in 1. 89, and that in the third chord last section of il. 122, may be called consonant Anticipation-tones, and marked c.a.

c. Waving-tones.—Listen to il. 116, and observe the third chord of the last section; is it a Passing or an Anticipation-tone? *

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"No, it moves up from a tone, and then down to the same tone in the next chord." Yes, we call it an upward Waving-tone. Listen to il. 117, and notice the first chord in the third section; how would you describe t,? *

	IL.	11'	7.	KEY	F.]	R. R.	\mathbf{R})ss.	
,	l s	l d'	:s	11	:-	1	ŝ	l s.f	:m	l r	:fe	اء	:-	ł
	đ	đ	٠đ	a	•_		5	t.	• 4	"	• 7	¥.	·	ľ
ł	Ľ	Ľ	•u	L L	:	Ì	u	 	•4		.u	0		H
ł	10	s	:m -	I			S	s	S	s	:r	r	:-	li
١.	d	[m	:d	f	:-	l	, m	r	:d	t ₁	:1,	81	:-	ļ



"It waves down." Yes, we call it a downward Waving-tone. These Waving-tones only disturb the peace of the chord by a momentary wilfulness. They are very pleasant when rarely and tastefully used. Their sign in Analysis is the italic w.

d. Hanging-tones.—Listen to il. 117, and notice t_1 in the first chord of the last section; is it pleasant? * "Not very." But it is quite allowable, for though not connected with the tone which follows, it hangs on to the chord tone. We give the name Hangingtone to a tone which is thus connected by one step upward or downward with the chord tone. Such tones are generally introduced either for the sake of imitation, or for companionship with some other weak pulse dissonance. Their symbol is hg.

e. Guiding-sones.—Listen to il. 118, and notice the third chord of the third section; what apology has r? *

IL. 118. KEY Eb				b	. Bþ.t.				. Elvey.				
,	d [®] t∣]]. e	s:f.m	r	:-	af f	ml,.t	:đ	d	:t,	d	:-	
(m .	f.n	n:r.d	t,	:-	r	٩f,	:s,, l ,	1,	:8,	6,	:-	
ł	6	1	:1	t	:-	6	۶đ	:d	f	:f ,	m	:-	
l	d	f	:f	8	:-	t,	df,	:m,.f,	r,	:r,	a,	:	
١.	·	-				**							





It does not really dissonate although it is foreign to the chord, but if it did, it might be excused because it guides the ear down to d, and is a consonant companion to the other dissonance. Such tones are called Guiding-tones and their sign is the italic g.

f. Exceptional Secondary chord.—Listen to the fe in the third chord of il. 116. * How would you analyse it? "It is a Consonant Passing-tone." (p. 40.) Yes, but as the fe is the distinguishing tone of a new key, we think it has importance enough to make a "Secondary chord." What would that Secondary chord be? "Tb going to D, in parenthesis." See p. 43.

87. Fore-stroke Incidentals.—The apologies for Incidentals on the first part of a pulse are first, that they are always "resolved" on the tone helow, or occasionally on that above them, and next that their preparation is Horizontal, Over-Oblique, Under. Oblique, Waving, or even that they produce a beautiful effect when Unprepared. (See Rule 13.)

a. Horizontal Forestrokes.—Listen to il. 119, and notice the second pulse of the last section. *



What is the chord? "D." What is the intruder? "f." How is it resolved? "By a step downward." Yes, nearly all dissonances thus humble themselves and bow to the prevailing force of harmony. How is it prepared? "By the same tone, in the same part, of the previous chord." Yes, we say it is Horizontally prepared, and call it a Horizontal Forestroke, the sign for which is h, and number the dissonance according to its distance from the root. See Rule 13. b. Oblique Forestrokes.—Listen to il. 120, and notice the third chord of the last section. *

•	Il.	120. F	er Eþ.		•		DUPUIS.			
7	1 B	11.t:d'	t :-	IIÎ Î	11.t:d	f	: [7]	Ir :-	1	
V	a	d.r:m	r :-	a	f :m	r	:đ	t. :	1	
Ś		f :s	8 !-		r :m.f	8	18	8 .	l	
(a	f im.f	8 !	l m	r .d	ŧ	• 7	e	ł	
•		How to (Dherve	Harr	nonn.		•••	101 10	'	



What is the chord ? "F." What is the intruder? "s." How is it prepared ? "By its coming down from the tone above it." Yes, we call this Oblique preparation, or when we wish to distinguish it from the next Over-Oblique. The sign for this Forestroke is the italic o.

c. Under Oblique Forestroke.—Listen to il. 121, and notice the third chord of the last section. *



What is the chord? "F." What is the intruder? "m." How does it resolve? "By a step upward." How is it prepared? "By a step from below." Yes, it is this stepwise motion which apologises for it. These Under-Oblique Fore-strokes, as we call them, are not common. Their sign is u.o.

d. Waving Forestrokee.— Listen to il. 122, and notice the second pulse. *



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What is the chord? " Fc." What is the intruder? "r." How is it prepared ? "It is like the Waving-tone we had amongst the Afterstrokes." Yes, and we call it a Waving Forestroke. It sometimes waves upward, sometimes downward. Its sign is w.f. Notice how these Incidentals promote imitation. Listen to the Air of the third section imitating that of the first section a third higher. Notice also the Tenor of the fourth section imitating the Air of the third. Observe that the "run" in the first section is made by the help of Fore-strokes, and the corresponding one in the third section, by the help of After-strokes. It is plain that the harmoniser can in such cases, treat either the first or the second tone of the pulse as the intruder. If he chooses the first, he produces bright Fore-strokes, if the second, emooth Afterstrokes.

e. Unprepared Forestrokes.—Listen to il. 123, and notice the third chord of the last section. *

IL. 123. KEY	r G.	Spofforth.				
/ a] a :t, a	:- ∥rd	t, :m	r :d	t,:-		
d d :s, s,	:- 8,	8, 18,	s, :fe,	s, :-		
) mi s :s.f m	:- r	r :d	r :r	r :		
{ df m :r d	:- t, I	., a, :đ	$\mathbf{t}_1 : \mathbf{l}_1$	s,:-		
•	•					
/ a d :t, d	:- r	m :8.f	m :r,	d :-		
s,1, s, :s,1 m	:- s	s, :1,	s,d:t	d :-		
)dd:r m	:- t,	d :d	d :s.f	m :-		
(m,f, m, :r, d,	:- s,	d ; f,	s, :s,	d, :-		
		»F.F #		· · · ·		
-01	^					
6	0 0					
5			74	P		
	J I			1		
CHARTER F	18 18		18-2	I SIE		
		HE F		╤╤═╟╴		



88.

Is it horizontally or Obliquely prepared? "No, it is unprepared." But it is bright and pleasant if not too much used. We call it an Unprepared Forestroke and mark it *u*. Some would regard the occurrence of the same tone in the previous chord, though in another part as a sort of indirect preparation.

88. Less common Incidentals.—Listen to il. 124, and notice the second pulse. *





What is the cherd? "D." What is 1 in the Air? "Oblique Fore-stroke." Notice what prepares it. "A dissonant Passing-tone." Yes, it is the not uncommon case of a dissonant Fore-stroke prepared by a dissenant After-stroke. What is the 1 of the Tenor? "An upward Passing-tone." Yes, it dissonates strongly with the s abeve it, which is an

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essential of the chord. Notice how the Tenor of the third measure imitates the air of the first and how the air of the third measure imitates the Tenor of the first by the help of these incidentals. Observe also how in both cases the contrary motion between Air and Tenor makes the Incidentals especially beautiful. Compare the second chord of the first measure with the second chord of the third measure. The toncs employed are exactly the same. They can be interpreted either as D with two Incidental l's, or as Lb with two Incidental s's. Which is the true interpretation? In the first measure, the Tonic chord has already filled the ear, and it is more natural to suppose the next chord the same, than anything different. In the third measure, the Sub-mediant (L) has filled the ear, and it is more natural to feel the next chord as the same in its b position than as any other. Besides that the chord progression L D would be unusual.

Nere. — When two or more incidentals of different kinds occur in the same pulse we place them in the analysis one under the other. When one part-pulse dissonance follows another in the same part we write the analyses on the same line, not one under the other. See Rules 8 and 9.

a. Continuous Passing-Tones. Listen to il. 125, and notice the first pulse. *







What is the chord? "D." How do you account for tl? "They are Passing-tones of two steps instead of one." Yes, we call them Continuous Passing-tones, and mark them cn.p. They are not much used, but are agreeable to any extent when connected with contrary motion. In the second pulse of the fourth measure, there are two sets of cn.p. running in company; one of the tones (m) is really an essential of the chord itself, but being a companion of the intruder (s) it is itself treated as such. In the last chord but one there is a curious case of what we call Waving Anticipation-tone. The Anticipation tone makes a momentary wave.

89. Analysis Table.—The table on the next page will show the signs and symbols which we use in Analysis. The symbols have been invented for the use of those who do not employ the English language, and to whom p does not represent the idea of passing, nor h that of horizontal. They have the advantage over the other signs of showing the upward of downward movement of the Incidentals, but are liable to be incorrectly written. The signs for the Full-pulse Dissonances, formerly written in capitals, are now written in small letters, like the part-pulse dissonances.

Ex. 101. Show the cadence relations of (pp. 45, 46,) I.e. 23, 28, 32, 33, 34, 35, 36, 54, using Roman figures for the periods (see p. 13) and letters for the sections in each as pp. 62, 63. Place a comma after the symbols for a section, and a semicolon and stroke after those for a period : thus, Ia ${}^{7}Sb^{5}$, Ib F $| D^{5} := Ha De S^{5}$, $Hb S^{5}$, $= HHa D^{5}$.

Ex. 102. Show ditto, ILS. 44, 49, 50, 56, 57, 63, 65, 79.

Ex. 103. Show the cadence relations as above, and then describe the melodic relations as pars. 76, 77, in the lis. 18, 19, 26, 29, 62, 78.

Ex. 104. Show, let, the cadence (as Ex. 101), 2nd, the melodic (as Ex. 103), and 3rd, the

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emotional (pp. 62, 63) relations of ILE. 73, 93, 95, 99, and 104.

Ex. 105. Show let, the cadence (as Ex. 101), 2nd, the melodic (as Ex. 103), 3rd, the rhythmic (par. 78, p. 62), and 4th, the emotional (pp. 62, 63 relations of ILE. 105, 106, 113, 118, 122.

Ex. 106. Analyse for Chord, Position, and Constitution, ILS. 107, 108, 109, 110.

Ex. 107. Name the chords (supposing them filled up) of I.e. 111 and 112, placing an asterisk over those chords in which these I.e. differ from IL. 35.

Ex. 108. Analyse for Chord, Position, and Incidentals, I.c. 113 to 117. See "Rules" at the beginning of this work.

Ex. 109. Analyse for Chord, Position, and Incidentals, ILS. 118 to 121.

Ex. 110. Analyse for Chord, Position, and Incidentals, ILS. 122 to 125.

Ex. 111. Analyse for Chord, Position, and Incidentals, "Going home," Add. Ex. p. 2, "Spring life," p. 3, omitting the two-part phrases.

Ex. 112. Analyse for Chord, Position, and Incidentals, first verse of "May time," Add. Ex. p. 5, and "The Waits," p. 8.

Ex. 113. Analyse for Chord, Position, and . Incidentals, "Cuckoo," p. 9, and the first verse of "Bon Accord," p. 11.

Ex. 114. Analyse for Chord, Position, and Incidentals, "Hope will," Add. Ex. p. 12, "Come Freedom's," p. 13.

Ex. 115. Analyse for Chord. Position, and Incidentals, "Time for joy," Add. Ex. p. 15, "How beautiful," p. 12.

Ex. 116. Analyse for Chord, Position, and Incidentals, "My lady" (first verse only), Add. Ex. p. 21, "We fly by night," p. 20.

Ex. 117. Show, as in Ex. 104, of "Waits," Add. Ex. p. 8.

Ex. 118. Show as in Ex. 105, "Come Freedom's," p. 13, and "Night," p. 22.

SIGNS & SYMBOLS OF DISSONANCES.

1	NAME OF DISSONAN	ICE.				
, ·	Horizontal Forest	roke	SYMBOL.	USED THUS. D	ABBREVIATION.	USED THUS. T)
1	HOUNDEDHIN I OLOS	A O MO		<u>4</u> —		ĥ
1	Oblique	,,	-	F	0	⁴ F
1				4		0
	Upward oblique	,,		D	uo	D
Ł			,	2		40
			$\langle \frown \rangle$		£	т
1	Waving	**	{ <i>⊂</i>	· 'n {	wj	D of
			(\vec{n}		uj
			ί.v.	FÍ		
1.	IInnnonarad		<u> </u>	9A (8	F
١	oubiebaien i	**)^	D (*
			(7V		
			(-	D)		ъ
1	Passing Tone		2	$\overline{\mathbf{n}}$	P	U n
			1-	D		p
1			<i>\</i>			
ļ	a m		(v	v l	g	D
	Guiding Tone		5	D (•	9
			(A)		
			$(\frown$	D)		ħ
<	Waving Tone		2	<u></u>	90	L L
			1			w.
			Ì.	D I		
	A 41 1 41 105		<u>\</u>	ĩ (a	D
	Anticipation Ton	8	5	D		a
			(
1.		•	(.	D)	1	T
ę.	Hanging Tone		<i>\</i>	'n {	ng	
			1.	4		~~y
			1	,	_	-
	Bye-tone (consona	ant part-	·	Dį	byo	D
	pulse Incident	tal)	5	1		oya

FORESTROKES.

AFTERSTROKES.

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THE ELEVENTH STEP.

90. The Modes.-In St. Co., p. 83, it is shown how in the old times, when Melody alone was cultivated, the Scale was used in various "Modes." The composer gave a character to his tune, by making some one tone of the Scale the most prominent and effective. In one tune one tone, in another tune another was thus honoured, and sometimes the tune "Modulated," or changed the tone which it brought into prominence. Thus the old melodists had what we may call the DOH mode, the RAY mode, &c. They gave effect to a tone by placing it under an accent, or in a close, and by either falling upon it from the fifth tone above, or leaving it for that over fifth. The power of the over-fifth to give emphasis, is not fully explained; but we know that the fifth is the first sound which appears after the octave in the series of Harmonics, whether we refer to the artificial Harmonics produced by blowing into a tube with more and more force, or to the natural Harmonics (or more properly Partials) which go to make the peculiar quality of a tone in read or stringed instruments. At p. 3, of the present work, it is shown that as soon as a certain chord is chosen for the Tonic the principles of modern Harmony require it to have two attendants. -one built on the over-fifth, the Dominant, and another on its under-fifth, the Sub-dominant. These are the Principal chords of a key; other chords, as those of the Super-Tonic, the Sub-mediant, and the Leading tone are Subordinate and Substitutional. See the first chord Modulator, p. 30. This "modal usage" we called Chord Relation, and in the Illustrations as far as the Eighth Step we have been studying those habits of the ear-those established and accepted "Chord Relations" - which have gradually grown up during the last 200 years in connection with what we may now call the Doh Mode. The early harmonists tried to apply this same principle of Chord Relation to the other Melodic Modes. Let us take il. 22 with its Tonic and Dominant cadences, and try the effect of changing its mode.

a. Chord Relation.---It will now be convenient to have distinct names for that system of Chord Relation which modern Harmony has established. The first or principal tone of a Mode is called its Tonic, the second its Super-Tonic, the third its Mediant, the fourth its Sub-dominant, the fifth its Dominant, the sixth its Sub-mediant, the seventh its Leading tone. b. The Ray Mode.—If we suppose ray to be the Tonic of il. 22, the effect will be the same as though we had made two flat removes on the Modulator, or as though all the music had moved one step up without altering the former place of the little steps. If r is the Tonic of the Ray Mode, what is the Dominant? "1." What is the Sub-dominant? "s." Listen to the Air of il. 126 (it can be played from the Staff Notation of il. 22, if the player simply supposes the signature to be that of three flats), and notice how truly the mental effect of r is hrought out in the last cadence. *

	IL.	126 . F	κεν Ε β.	R is	F. (Ray	mode of	il. 22.)	1
(Î	s :f	m :-	∥î î	f :r	m :đ	r :-	ľ
}	1	l ₁ : r	d .:-	m	r :r	d :1	1,:-	l
Ì	r	m :1	1:-	1	1 :s	m :m	f :-	
	r	d :r	1.:-	d	r:t	$1_1 : 1_1$	r :-	

Listen to the Bass and notice how the movement to or from its over-fifth (though in a lower octave) heightens the effect. * Now listen to the new Tonic, Dominant, and Sub-dominant moving in the same Chord Relation as before; what is the effect of the Cadences? "They are too heavy and harsh." Yes, the ear is not content with two Minor chords in a close. See what is said on Minor chords, p. 23. To remedy this the old harmonists changed the d (in a cadence) into de. Listen to this change; I think you will find the Harmony more agreeable. It gives a Leading tone to the r, but gives the Tonic a weak and poor effect by leaving it Minor, while both its Dominant, and Sub-dominant are Major. * The oldest writers tried to mend this by introducing fe in the chord R and so making the Tonic also Major This gave them a Major cadence exactly like that of the Doh Mode (two sharp removes off) and so deprived the Ray Mode of all its characteristics. Listen also to this effect. * The more changes we introduce into a mode the more we lose its characteristic effect. Handel has in "Egypt was glad," and other choruses, several cadences introducing both fe and de, like Ray Mode cadences, but later musicians have abandoned the attempt to use this mode with Harmony.

c. The Lah Mode.—In "Construction Exercises," p. 90, the reasons why tunes in the Soh Mode, the

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Me Mode, the Fah mode, and the Te Mode, of the Ancients could not well be harmonized on modern principles are fully given. Let us now study the Lah Mode. If lis the Tonic what is the Dominant? "m." Sub-dominant? "r." IL. 127 is the same chant written in the Lah Mode (it can be played from the Staff Notation of il. 22, if the player will only imagine the signature to be that of four flats). Listen to its cadences. *

91.

 $\begin{array}{c|c} \text{IL. 127. KEY } \mathbf{A}\mathbf{b}, \ L \text{ is } F, \ (Lah \text{ mode of } il. 22.) \\ \hline \mathbf{d} & \mathbf{r} : \mathbf{d} & \mathbf{t}_1 :- \\ \mathbf{m}_1 & \mathbf{m}_1 : \mathbf{l}_1 & \mathbf{s}_1 :- \\ \mathbf{l}_1 & \mathbf{t}_1 : \mathbf{m} & \mathbf{m} :- \\ \mathbf{l}_1 & \mathbf{s}_1 : \mathbf{l}_1 & \mathbf{m}_1 :- \\ \mathbf{l}_1 & \mathbf{s}_1 : \mathbf{l}_1 & \mathbf{m}_1 :- \\ \mathbf{s}_1 & \mathbf{s}_1 : \mathbf{l}_1 & \mathbf{s}_1 & \mathbf{m}_1 :- \\ \end{array}$

"They have three heavy Minor chords together." Yes, but make the Dominant Major by altering all the s's into se's; I think you will find the effect smoother, with enough of brightness to show the Minor cadence without overbalancing it. Listen to this. * Certainly this is the only one of the old Minor Modes which has held its own, with this alteration, side by side with the Modern principles of Chord Relation to a Tonic.

d. Effect of Leading tone .- Listen to the Air of il. 126, first with and then without the de; in which way does the bright hopeful, prayerful effect of r best come out? * "It is much better with d." Listen to the Air of il. 127, first with and then without the se. * In which way is the sad and sorrowful effect of 1 best developed? "With the s." Yes, for melody, the old unaltered modes are the most effective, even when for Harmony they are awkward. Thus we have lost something by Modern Harmony. But we have gained cadences with all their varieties, introducing the Section, the Period, and all the other developments of Musical Form; and we have gained that definiteness of key which gives us Transition and Modulation, with all their manifold powers of musical expression. Those, however, who have once heard the manly Minor, the Ray Mode, among the mountains of Scotland and Wales, will wish it to be retained for unison singing even without Harmony.

91. The Modern Minor, see St. Co., p. 86, sometimes sharpens the sixth of its scale (changing f into ha) as well as the seventh, but chiefly for melodic purposes. Nearly all the habits of chords

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hitherto studied in the Doh Mode may be simply transferred to the Lah Mode, but there are some differences which we shall presently study.

THE SECOND CHORD MODULATOR.

7	(1)	1	I			
				se	se	80
ſ	f	f	m	m	(f)	rı,
	r	r		(r)	r	
d		(d)	q			d
,	ъ (7)	,	Y	t	t	
ı	(7)	T	÷	se	se	88
f	f	f	m	m	, (f)	74
	r	r		(r)	r	
	t	(d)	d	t	t	đ
		1	I	se	se	
		f		m		
		r				
R	Т	R	Τ.	5e][SR	se 🎵

Listen to il. 128, and 24 (it may be sung or played from the staff notation of il. 24, a little step higher in pitch, by the player supposing; that he has the signature of one sharp, and using a sharp for every D,) and notice the chords as Tonic, Dominant, &c. *

IL. 128. KEY G. L is E. Compare il. 24.										
- 11										
_										
-11										
•										
•										

What are the first three chords? "Tonic in the a and b positions." What is the fourth chord? Fifth? "Tonic b." Sixth? " Dominant." "Tonic." "Dominant c." Seventh? Eighth " Dominant Seventh." and Ninth? Last? "Tonic." Yes, they may be thus named in both modes, but we must have a way of distinguishing the Major from the Minor mode in our analysis. What would you call the first chord in il. 128? "Call it L." Yes, but again we must distinguish the much used L, with all the chordal Relations of the Minor Mode, from the L which is comparatively aeldom used in the Major Modo. Let us therefore call this Minor Lah, print it in italic capitals, and write it with a line underneath. In analysing this is done with all chords in the minor mode. What shall we call the fourth chord? It is M, but as the third is sharpened to se we call it SE-ME, and write it *M. What would you call the third-last chord? Although the third, se, is omitted (just as the third is sometimes omitted in 7S) it is evidently implied. "Then we must call it '7se M." Listen to the whole of il. 128, and

name the chords. * Listen to il. 129, and compare it with il. 30 (il. 129 can be played from the Staff Notation of il. 30, by supposing the signature to be one flat and using a sharp for C). *

	IL.	129.	KEY F. <i>L</i>	is I	O. Com	pare il.	30.	
(î	m :f	m :-	ď`	r :m	r :ti	d :-	
١.	d	d :r	d :-	1,	$1_{1}:1_{1}$	l ₁ : șe,	l ₁ :-	l
ì	1	1:1	1:-	m	f :1	f:m	m :-	
l	1.	1_1 :r	1,:-	1,	r :d	r:m	1,:-	
-	•••	R	•••				•	

What is the "Chord Relation" of the third chord? "It is the Sub-dominant." Yes, we will call it Minor R. Minor R corresponds with Major F, as Minor Lcorresponds with Major D. Notice that the Plagal cadence, going from Sub-dominant to Tonic, is not

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nearly so much used in the Minor as in the Major, probably because of its bringing two Minor chords together in a cadence. Listen to the whole of il. 129, and name the chords. *

Listen to il. 130, and compare it with il. 34, while you study the effect of the weak-pulse cadence in the Minor Mode (il. 130 may be played from the Staff Notation of il. 34, by supposing the open signature of key C and using a sharp for G.) *

	IL.	130). 3	(EX	C. 1	is 🖌	1.	Com	pa	e il.	34.		
(aि∣	1	:1	1	:se	î	t	:d'	m ⁱ	$:\mathbf{r}^{i}$	$ \mathbf{r} $:d'	l
	m	m	:f	m	:-	m	se	e:1	m	:m	f	:m	ļ
Ì	1	1	$:\mathbf{r}^{\dagger}$	đ١	:t	đ١	m	: d'	t	:t	1	:-	l
(1	d	:r	m	:-	1	m	:1	se	:se	1	;-	l
	~												
	d'	1	:1	se	:1	t	[m]	:m ⁱ	r	:d'	t	:1	1
V	m	m	:f	m	:-	se	1	:1	f	:m	61	:-	
Ì	1	1	:r'	t	:d'	t	1	:d'	\mathbf{r}^{i}	:1	t	:d'	
(\mathbf{I}_{1}	đ	r	m	:1	m	đ	:1	1	:1	se	:1	
$\mathbf{L}i$ ch	Listen to the whole of il. 130, and name the chords. \Rightarrow												

Listen to il. 131, and compare it with il. 44, (il. 131 may be played from the Staff Notation of il. 44, by supposing the signature of four flats and using a natural for E.) *

IL. 131. KEY Ab. L is F. Compare il. 44.								
	đ	m :r	d :t _i	$ \hat{\mathbf{t}} $	d :r	d :t _i	1 ₁ :-]	ĥ
	1	$1_1:t_1$	1 :se	se	$\mathbf{l}_{i}:\mathbf{t}_{i}$	l _i :se	1 ₁ :-	
	m	m :f	m :-	m	m:f	m:r	d :-	
	1,	$\mathbf{d}_{ }:\mathbf{r}_{ }$	m,:-	m,	$\mathbf{l}_{1}:\mathbf{r}_{1}$	m, :m,	1,:-	
		Tb						

What is the Chord Relation of the third chord? "Super-Tonic." Yes, we will call it Minor *Tb*. Minor *T* corresponds with Major R. Listen to the whole of il. 131, and name the chords. *

Listen to il. 132, and compare it with il. 47, (il. 132 may be played from the Staff Notation of il. 47, by supposing the signature to be that of two sharps and using a sharp for A.) *

How would you describe the first cadence? "It ia a cadence on Minor Rb." Yes, it goes from Tonic to Sub-dominant. It is like the Major F cadence. There lies the same objection against it which we felt against the Minor Plagal cadence in il. 129. How would you describe the third last chord? "It is Minor T with 1 dissonating. The 1 is prepared and resolved." Yes, we will call it Minor 'T. It corresponds with Major 'R. Listen to the whele of il. 132, and name the chords. *

Listen to il. 133, and compare it with il. 51 (il. 133 may be played from the Staff Notation of il. 51, by supposing the signature to be one flat and using a sharp for C.) *

IL. 133. KEY F. L is D. Compare il. 51.

$$\begin{pmatrix}
\widehat{1} & m : f & m : - \\
d & d : r & t_1 : - \\
m & 1 : 1 & se: - \\
1_1 & 1_1 : r & m : - \\
\end{bmatrix} \begin{pmatrix}
\widehat{m} & 1 : d & t_1 : m & d : - \\
t_1 & 1_1 : 1_1 & 1_1 : se_1 & 1_1 : - \\
se & m : m & m : m & m : - \\
d & 1_1 & m_1 : m_1 & - \\
\end{bmatrix}$$

Observe the primary dissenance of 1 against t which we had as a secondary, and in a different chord, in il. 132. Here it makes ${}^{4}M$, the corresponding dissenance with ${}^{4}S$ in the Major. Listen to the whole and name the chords. *

Listen to il. 134, and compare it with il. 55 (il. 134 may be played from the Staff Notation of il. 55, by supposing the signature to be that of two flats, and using a sharp for F.) *

IL. 134. KEY Bb. L is G. Compare il. 55.

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What is the Chord Relation of the third chord \mathbf{P} "It is the chord on the Minor SE in its b position, like Major Tb." Yes, it is the chord on the Leading tone. Listen to the whole of il. 134, and name the chords. *

Listen to il. 135, and compare it with il. 60 (il. 135 may be played from the Staff Notation of il. 60, by supposing the signature to be the open signature of C and using a sharp for G). *

	IL.	13 5. в	LEY C. L	is A	l. Com	pare il. (50.
(î] se:m!	r':-	â'	f :m	$ \mathbf{r} :\mathbf{r} $	d' :-
	m	m : m	f :-	1	t :d'	t :se	1 :-
Ĵ.	ď	t :1	1 :-	1	r' :d'	f' :m'	m':-
	1	t ₁ :d	r :-	1	se ₁ :1,	r:m	1,:-
					7SE		

What is the Chord Relation of the second chord of the second section ? "It is a chord on se like that on t in the Major with a seventh." Yee, but the remarkable thing is that this seventh (f) does not dissonate against the root SE as that on the Leading tone of the Major did. The Chord consists of three Minor thirds. You will find it beautiful but not strong. Although there is no dissonance we will call it "SE to show its correspondence with "T. Listen to the whole of il. 135, and name the chords. *

Listen to il. 136, and compare it with il. 68 (il. 136 may be played from the Staff Notation of il. 68, by supposing the signature to be two charps, using a sharp for A.) *

	IL.	13	6. :	KEY	D.	1	5 is J	В.	Сеп	ıpa	rə il.	68.		
1	m	d'	:t	1	:-		t	đ	:1	r	':d'	t	:-	
Y	d	m	:r	d	:-		m	m	:m	m	:m	m	:- :	ŀ
)	ď	1	:se	1	:-		se	1	:1	s	e:1	se	e:-	Į
$\left(\right)$	1	1	:m	f	:-		m	1,	:d	t	:1 _!	lm	:-	
				F	,									
(rì	d'	:t	m	:-	1	se	1	$:\mathbf{r}^{I}$	d'	:t	1	:-	
J	m ,	m	:m	m	:-		r	m	:r	m	:r	đ	:-	ĺ
Ì	se	1	:se	1	:-		t	1	:1	1	:se	1	:-	
()	m	m	:r	d	:-	l	t,	đ	: f	m	:m	11	:-	

What is the Chord Belation of the third chord? "Dominant Seventh." What does that chord generally resolve into? "Tonic." Does it do so here? "No, but into the chord which corresponds with Major L." Yes, it is the Dominant Seventh moving to the Sub-mediant. It is the Minor "Surprise cadence." Its lest chord we will call Minor *P*. The alternative Sub-mediant in the Minor ba is not used in this case. Listen to the whole of il. 136, and name the chords. *

92. Differences of Major and Minor.—Some of the chordal habits to which we have been accustomed in the Major Mode cannot be carried out in the Minor Mode, on account of its peculiar structure and its alternative tones. Let us study these cases.

Listen to il. 137, and compare it section by section with il. 35. •



We have here the undesirable Minor R cadence with its two Minor chords. How do the two ils. differ in the second chord? "In il. 137 the seventh is introduced into the Dominant." Yes, this is far more generally the case in the Minor than in the Major. Without the dissonance the Dominant sounds too bright by the side of its unsonorous Tonic; the resolution of the dissonance also gives to the Tonic its due importance. What do you notice in the third section? "The Bass is quite different." What would have been the corresponding Bass? ":1, se,:1, f." What tone would have followed? "se," That would have given us the "unmelodio interval" of the modern Minor f to se. But the harmonizer had yet another reason for the change; if the Minor R cadence is undesirable, much more is that on Minor Rb. The R cadence is still preserved with a variation in its approach. What is the fourth last chord? "The Sub-dominant, Minor Rb." Notice that the alternative ba, is of no use in this case.* Listen to the whole of il. 137 and name the chords.

Listen to il. 138, and compare it with il. 40. *



What difference do you notice? "The Air is altered at the end." Yes, if the Air had been, in imitation of the Major, :1 |t :se | 1 we should have had the chord of Miner T in the a position. We have had Minor Tb, il. 131, but Ta brings into greater prominence its unsonorous diminished fifth, and on this account it is not used without s dissonant seventh. The dissonance distracts attention from the unsonorousness of the chord, and binds it to the chord which follows. On this account it was necessary to alter the Air here. Listen to the whole of il. 138, and name the chords. *

• A Major Sub-dominant chord ("R) in the Minor mode, is occasionally to be met with in old music. How to Observe Harmony. What difference do you notice? "The Bass is altered at the end." Yes, if the Bass had been if $|t_1 : m | 1_1$, as in the last il., and as in our corresmonding Major, we should have had the rejected chord Minor Ta, and should have been tempted to alter the Air in order to introduce the seventh. But the writer thought it better not to spoil the Air especially as he found he could improve the Bass. Listen to the whole of il. 139, and name the chords.

Listen to il. 140, and compare it with il. 70. *



What difference do you notice? "The Bass of the first section does not sing $|\mathbf{l}_1|$, $|\mathbf{l}_1|$; $|\mathbf{se}_1|$ ba₁ as might have been expected in a close imitation of the Major." Exactly, but the alternative, Sub-mediant, ba, is not used in such as cadence, and it is much more smooth and melodic in going down to \mathbf{f} , to

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use s instead of se. We thus have with a stepwise Bass Mb instead of $e^{ab}Mb$. Listen to the whole of il. 140, and name the chords. *

Liston to il. 141, and compare it with il. 82. *



What do you notice in the first section? "Ba is used." Yes, for melodio elegance, giving us a corresponding Consonant Passing-tone to that with which we have grown familiar in the Major, and making the chord ^{ba} T. Listen to the whole of il. 141, and name the chords. *

Listen to il. 142, and compare it with il. 85. *



What difference do you notice in the first section? "The Bass does not correspond." No, if the Bass had been made $[f_1 : se_i | l_i$ we should have had the same bad melodic progression which we found avoided in il. 137, and the alternative chord BA is not liked in such a place. If the Bass had been $|f_i : s_i | l_i$, using the stepwise *Mb* instead of ^{se}*Mb* as in il. 140, it would have sounded too like a Major cadence. The Bass might have been made $|\mathbf{d}:\mathbf{t}, |\mathbf{l}|$. From this we learn that the progression $|\mathbf{L}:Sb|$ D in the Major cannot be imitated in the Minor, and that although in the Minor the use of **ss** instead of *s* is the rule, the use of **ba** instead of **f** is the exception. What difference do you notice in the second section ? "The Air is altered; it should be: f.t." Yes, but the tritone **f** to **t** is very unmelodic, and **ba ss** is smoother. The ba is harmonically treated as an upward Oblique Forestroke, in the chord of 7 asMd. Thus far we have seen ba to be more desirable in melody than in harmony.

Listen to il. 143, and compare it with il. 53. -



Notice on the third-last pulse the coupled dissonance $^{*7}M$, corresponding in the Minor with ^{47}S . Notice that Minor R is used in the a position in the first cadence instead of the b position, which is suggested by the corresponding Major, for the reasons given, p. 79, il. 137. Notice also that the b position of Minor T is used instead of the a position suggested by the Major, first, because the a position is not used without a 7th, and next, because the change enables us to avoid in the Contralto the unmelodic progression f, to 89.

93. Modulation means, properly, change of Mode. This may or may not be associated with change of Key. *That* is Transition. Let us first study Simple Modulation.

-to Relative Minor .- Listen to il. 144. *

IL. 144. KEY D.

1	m	:m.m	8	: 8	1 m	:-	m	:1.1	1	:50	11	:-	1
)	d	:d.d	t,	:t,	d	:-	đ	:m.m	m	:r	đ	:-	Į
Ì	8	:s.1	r	: 5	8	:-	s	:d'.d'	ď	:t	1	:-	í
ļ	a	:d.1	s ,	: 8,	a	:-	la	:1,.d	m	:m	11	:-	į
					-	-							

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What is the effect of the second section? "Painful excitement." Yes, and if the Phrase had fallen to the lower octave there would have been a subducd and sad effect. How is this effect produced? "By the Minor." Yes, by treating 1 as a Tonic from the second pulse to the end of this section. This is called Modulation from the Major to the Relative Minor.

-to Relative Major.-Listen to il. 145, and notice the second section. *

It.	145	. к	вч С	ż.						
/: 1	d	:t,	۱l,	:1	8	:f	l m	m	s	:d .r)
\ :m	1,	:58,	{ 1 ,	:d	8,	:1,.t,	ſđ	: 8,	s,	$:\overline{I_1}$
j:d	m	:m	d	:d.r	m	:f	8	:m	r	:m (
(:1,	11,	:m,	$\{\mathbf{l}_{1}\}$:f,	m	:r,	Id,	:d	t,	:1,)
/ 101	:r	1 d	:	1-	: M) s	:1	1	t	:m \
18,	:8,	m	:		:s,	t	:r	i	r	:đ
)1a	:t,	a	:	1-	:d	r	:f	8	s	:8 (
(₁₀₁	: 5,	d,	:	1	:d	t	:1	i 1	9 1	:d
/1=	:d	រទ	:r	m	:1,	łđ	:t,	1,	:	(
Is.	:d	It.	:t,	d	:1,	į 1,	:89,	1,	:	1-
3 r	:m	18	:5	8	:d.r	m	:m	đ	:	1-
{ t,	:1,	s,	:s,	a,	:f,	[m,	:m,	1,	:	I

G



94.

What is its effect? "It brightens the music." How is this done? "By going into the Major." Yes, in the course of a Minor tune d is treated as a Tonic; indeed the first cadence is in the Major. This Modulation from the Minor to the Relative Major causes the same kind of brightening effect in Minor tunes, which is produced in Major tunes by transition to the first sharp key.

94. Transitional Modulation is Transition to the Relative Major or Relative Minor of another key.

IL. 146. KEY F.

(E	ron	• " Co	ngre	gatio	nal	Chur	ch M	fusic.	"	Ву р	ermi	ission	.)
1	d	:r	m	:m [f	:m	r	:	r	;M	f	:1	
V	ន	:	s,	:đ	r	:d	t,	:	$\overline{I_1}$:	1,	:r	ļ
51	m	:f	ន	:8	s	:s	s	:	f	:5	1	:1	Í
(1	d	:	d	:d	t,	:d	ទ	:	r	:	r	:r)
									_				
1	s	:f	m	:	m	:f	s	:0	1	: 8	I I	: m	١
J	m	:r	de	:	d	:	d	:d	f	:m	r	:d	1
3	1	:1	1	:	s	:	s	:s	r	in.	f	:s.l	2
6	đe	:r	1,	:	d	:r	m	:d	t,	:d	r	:m.f)
\mathbf{n}) r	:	s	1-	f	何	:f	m	:1	: [d	:	1
V	t,	:	Ī	:-	-	đ	:đ	a	:t	;,	d	:—	ľ
ş	t	:—	s	:-	-	s	:f.]	ls	16	1.f	m	:—	I
	18	:	łt	, :-	- 1	d	:1,.1	Ĕ, s,	: 6	5, I	d	:—	I
•													

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What is its effect? "It has a subduing, softening, effect." Yes, it is made by a Transitional Modulation to the Relative Minor of the first flat key. Do you notice the relation botween the second and first sections? "They form a sequence." (see pp. 37, 55). Yes, this is a favourite mode of producing sequence one step higher, when it is desired to avoid the exciting effect of "two sharp removes without modulation."

-to Subordinate First flat Minor. At p. 56 reference is made to the distinction between Principal and Subordinate Transition. The same distinction may be made among Transitional Modulations. Listen to il. 147 and study the third section. *

IL.	147	7. ĸ	ey D				E.	G. 3	Mo	NK.	
(From	n " A	Ingli	can H	ymn	Boo	ok."	Bу	per	mis	sion.)
Ì∣s ∣	:—.m	1 ̈ :	1 t	:1	s	:m	Įď	:1	1	:f	1
) d	:d	d :	d r	:m	r	:d	jm	:m	f	:f	ŧ
) (m	:s	f :	f]f	:m	s	: 5	ļ1	:d'	1	:t	(
{ jā	:đ]f, :	f r	:d	t,	:d	$ \mathbf{l}_{i} $:1,	r	:r	J
			A	.t.							
/ \$:m	r :-	° d	:t,	đ	:m	r :	do	r	:f)
Iđ	:đ	t, :-	— ^r s	,:→.S,	s,	:m,	1, :	1 , ;	1,	:f,	t
) jd'	:s	s :-	— s d	:r	đ	:d	r :	—.m	r	:r	(
(j.m	:d	s :-	^t ,@	ι:−. f ,	鱼	:d,	f, :	s,	f,	:T,)
								f.	D.		
/] t 1	:r	s	:m	jđ	:t,	łđ	:	· '	r 1	:t)
\']s,	:s,	s,	: 8,	js,	:8,	s,	:	l t t	₽, f	:- ,f	Ľ
) Ir	:t,	d	:d	lq	:r	m	:	1	r a'	:- ,r'	(
(] s,	: f ,	m,	:d,	jm,	: s	a	:	- jte	¢,f	:r];



With what key does it commence? "With the first sharp key." What key does it go into? "The Relative Minor of the original key." Yes, but it is also the first flat Minor of the key from which it departs. That key being a Subordinate and not a Principal one, we call this a Subordinate First flat Minor Modulation. It makes a sequence of the same kind as that last named.

-to First Sharp Minor.-Listen to il. 148, and notice the second section. *

IL. 148. KEY Eb. G. A. MACFARREN. (From "Anglican Hymn Book." By permission.) Bb.t. :" 1 | t,d :r :d.r/m :d :d :d d :t, :1 :0 :m.f :ť. :1, 8, :s, d :df, m; .:r, Įm,

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f.Eh. :t. l d s.f:f :m r :r.m : f.d. : ന. d :d ;d å :t. :r :80. :8 :r :f :m.f(:r r1:d r :d :d : 3 :8 :1 :đ ľ :0

What is its effect? "Wild and sad." Yes, it is made by Transitional Modulation to the Relative Minor of the first sharp key. This change is not very frequently used, because its weird effect is somewhat strange to the human mind.

-to First Sharp Major.-Listen to il. 149 and study the third section. *

IL. 149. KEY Eb. E. G. MONK. (From "Anglican Hymn Book." By permission.) /:m | s :1 | s :r | f :f | m :s | 1 :d' | 1 :fe| s :- | - \ :d | d :d | d :t, | d :s, | d :r | m :d | m :r | t, :- |- | m :f jr :s | f :r |s :e | m :m | l :l | s :- |-(:d | d :f, |s, :s, | 1, :t, | d :t, | d :1, | d :r | s, :- |-) • For the present read this Fah as Me; + this Soh as Fah; ; and this Ray as Doh. See ils. 162, 165, and 193.

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In what key does it commence? "In Eb the original key, but in its Minor Mode." To what does it change? "To the Major of the first sharp key." Do you notice the Relation between the first and second parts of this section? "The second phrase forms a Harmonic Sequence to the first, one step lower." Yes, this is a mode of producing Sequence one step lower when it is desired to avoid the depressing effect of "two flat removes without Modulation."

95. Sequential Oscillation —At p. 54 a very common "Subordinate" Transition of two removes was explained, and we called it Oscillating Transition. There it occurred between the ending of one section and the beginning of another, and it did not lead to Sequence. When it occurs between different phrases of the same election and does not change the mode, it commonly creates Harmonic Sequence. See "Construction Exercises" p. 118. But when it is between the end of one section and the beginning of another it is seldom designed for imitation, and may change the mode. Listen to il. 150 and study the third section. *

IL. 150. KEY C. REV. J. B. DYKES, Mus. Doc. (From "Hymns Ancient and Modern." By per.)

/ :d	m	:m s	: 8	1	:1	8	:sd	
∫:đ	đ	:d m	:m	f	:f	m	:s d	(
) :m	8	:- s lg,	:t	1	t :d'.	r' m'	: ^r '8	(
(:d	đ	:d _l d	:đ	f.	s :1 .	t jď	:tm	1
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	(f	: 8	IW	:d	d	:t,	jđ	:8,	taι	:ta	۱
1	a	:t	,] đ	:1,	s,	:s,	15,	:m,	នរ	:s,	ł
	f	:r	រុវា	:s .f	r	: r	lu –	:d .	d	:d	(
	r	:8,)d	:m,.f	8,	: 8,	lg 🛛	:d	iπ,	:m,)
		.1			.*			. 4	.1		、
	11	11 ₁ -	a	:a	ויין	:M	a.	: U		ir . 4)
ł	11	:1 ₁	1	:1,	IS,	:5,	1,	:80	11	:U	Ş
	la	:a	r	:r	ļr	:0	I M	:r	in.	:1	۱
	ΙI,	:I,	Ie,	:10	s,	: 58,	1,	: t ,	۱a	:r	I
	1 d	:t.	11.	1.U. :1.m	Im	:m	ıf	:f	lfə	:fe	١
	lī.	188.	11.	m.t.	ta.	:	.11.	:d	a	:d	I
3	 	:m	14	d g	s	18	11-1 11	:1	1	:1	ł
1	m	:m	17. 11.	 . 1 m	a	: d	IF	٠f	- -	'- T	١
`	1.4	•••	1-1	• ••			1-		-	• ••	'
1	8	: 8	ន	:1	8	:m	11	r :-	d	a ll	
1	jt,	:f	ŧ	:r	in.	:d	1	t, :-	.d	a [
1	8	:r'	đ	:ď'	[ď	:5	1	ľ:-	m	m	
l	s	:t,	a	:fe	S	;s,		s, :-	đ	a	2
							;				-
ſ			13	HE.			-		3	3-7	E.
	7 7	2.2	22			T T			- 13		5
_			1 1	1 1	1			L	: (
			11		d'	11	1	ň	i 1 1		
		┍┎╻						<u>i</u>		2 d	=
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											11111 1111

to Observe Harmony. * Analyse Cadences in relation to original key. This is *D*

Subordinate key G, then existing, it passes to the first flat key. Let us study this on the Modulator, To what does it move ? "To D, the first sharp key of G." Is there between the keys C and D any Transmutation chord ? "No, it is a sudden Transition." It is sudden as regards the two Oscillating keys, but the intervening chord is the Subdominant of the previous key and the Tonic of the original key of the piece. Note that in il. 100 p. 54, both Tonic and Dominant of the original key intervene between the two Oscillating keys. To what key does the Oscillation return? "To the previous key, G, but in the Minor Mode." Now listen to this il. again and study the fifth section. . With what key does it begin? "It goes suddenly from key G Lah Mode to key F." Yes, it docs; but the ear is always ready to imagine the original key. If we do this, and if we suppose the first chord to be in the original key, then this fifth section contains the same Oscillation from and to the original key, which the third section shewed us from and to the key of its Dominant, G. This in fact seems to be the effect on the mind in listening to the tuno; the second Period is felt to begin with an Oscillation in the Dominant, and the third period to reply to it with a corresponding Oscillation in the Tonic. Shew me the Sequence in each Oscillation. . Show me all the points in which one Oscillation imitates the other. * The manner in which the Bass of one Oscillation is lifted up into the Soprano of another cannot fail to strike you. Now, notice the change of key between the end of the fourth section and the beginning of the fifth. We have said that it may be understood in two ways, with or without an intervening chord in key C. If that chord is not supposed then the Transition is one of two removes from G, Minor Mode, to F; in fact it may be regarded as an Oscillation through the key of C; but note that it changes Mode and therefore could not create a Sequence, even if wanted here.

96. Miner Transition.—Simple change of *key*, without change of *Mode*, occurs in the Minor just as in the Major.

-to First sharp key.-Listen to il. 151 and study the fourth section. *

	ĨL,	15	1.	KEY	D.			G. A	1. M	[ACF/	ARREN.
(]	Fro	oo ".	Ang	lican	H.	ymn i	Boo	k."	By	per	mission.)
ř	m	:f	1	:68	11	:t	d'	:1	6	: 1	£limn '
	d	:d	r	:t,	m	:r	d	:m	m	:内	r :d (
)	ď	:1	t.	:m	m	:50	1	:ď	a'	:1	1.t:d'
	1	:f	r	:m	d	:t,	11	$:\mathbf{l}_{t}$	ļą	:d	r :m

+ For the present make this l. See p. 119. How to Observe Harmony.



What key is it in? "D, L is B." To what key does it pass? "To the first sharp key.—A, but it still remains in the Minor Mode." Yes, it is Transition from Minor to Minor of the first sharp key, and produces a similar effect to the same "remove" in the Major—exciting if the music moves upward, or "softly touching" if the music remains low.

‡ To complete balance of rhythm, double the time of this section or pause on last chord.

-to First Aat key.-Listen to il. 152, and study the second and third sections. *

IL. 152. KEY G.	LADY THOMPSON.
(From "Anglican Hymn	Book, by permission). Id $d:ff m:$
lemirmd :t.	1.1.:t.1. se. :-
lemirmid it.	m.m.:r.d.t. :
le m r m d :t.	1.1. :rr. m. :
fG	Dtm.
/ 'm',t :d',d' d' :t	's.d':t.r' d' :)
1,m .m :m.f m :r	rd.m:r.f m : (
] 1,m .r' :d'.l s :s	ſем.в:в.t d' :— (
(de,se,.se,:1,.f d :s,	1,8,.8,:8,.8, d : /
d.f.C.	G.t.
$(^{d'}r'.r':d'.t t:1)$	d'.d':f'.m' ^r 's :
) maf.f :m .r r :d	m ,m :1 .s ^s d :t,
*1.1 :ss.se se :1	d'.t :d'.d' 1 r.m :f
\[@r.t,:m.m[1,* :I,	$[1.s:f.d]^r s_i :- /$
/is.m:r.mid :t.)	1.f:r.m/d : 11
d.d:t.t. 1, :se,	1,1,:s,f,m, :
m.s:f.fm :m.r	d.d.:t.t.d :
(d.d:s.se, 1, :m,	f.r.:s.s.d :
00 C	NO. I. PANNI
- ESS	
	e e e e e e e e e e e e e e e e e e e
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What is the key of the second section? "G, Lah Mode." To what does it change? "To the first flat key of G, that is C Lah Mode." Yes, it is a Subordinate Transition from Minor to "the Minor of the first flat key." Listen again to il. 152 and study its Transitions period by period. In the first period the music moves? "From Major to Relative Minor." In the second? "It Oscillates (without sequence) from the first flat Minor to the first sharp Major." In the third? "It begins again with the first flat Minor and modulates to the first flat Major." Yes, but this return to C is very sudden. In the fourth? "It returns to the original key, first making a Minor Mode cadence and then a Major one."

97. Two Removes, in which Subordinate keys seem to oscillate through some prevailing key have been studied in il. 150. Two removes direct from the Principal key are also used for the purposes of sequence. A Transition of two sharp removes changes r into d; one of two flat removes changes ta into d. In the Minor Mode the sharp removes change t into l, the flat removes s into l. Our illustrations will be in the Major.

-to Second sharp key.-Listen to il. 153, and notice the beginning of the second period. *

	Tr.	153	3	- 	Б.				- G	RΟ	ΟΔΒ	RV.	
,				.1									۰,
1	B	:m	I	:1	s	:1	Im	:a	I	; r	լո	; 8	
)	d	:d	١đ	:d	đ	:t,	۱đ	: B ₁	t	:r	١đ	:d	(
)	m	:8	ſ	:f	ß	: B	្ពន	:m	s	:8	s	: 5	(
[d	:d	$\mathbf{I}_{\mathbf{I}}$:f,	m	: B ₁	Iq	:đ	r	:t,	١đ	:m,	ļ
									G	.t.m	ι.		
1	۱f.	:m	r	:—	s	:f	ĮM	:d	18	:f	ļm	:d)
J	d	:d	t _i	:—	8,	: B ₁	8,	:8,	1,8	ו:s	 B	: B ₁	ł
	1	:1	r	:	r	:r	18	:m	m r	:r	B	:m	(
	f,	:fə,	S 1	:	t,	:t,	Jđ	:d	det	,:t,	Įđ	:đ)
	f.(α.							f.]	F.			
1	ľċ	ŀ:1	ļt	:r'	d'	$:\mathbf{r}^{I}$	μm ¹	:	f'd	:8	(m	:8	ĥ
)	d	s : 1	f	:r	m	:f	18	:	۲ d	:m	ļđ	:r	l
	11	l':d'	ļB	:s	ď	:t	ď'	:	d's	; ß	S	: 8	Ì
l	1,0	n:f	ន	:f	m	:r	١đ	:	۱m	:d	Įđ	:t,)
1	1	:f	Im	:r	s	:d	Ir	:f	m	:r	ıđ	:	n
	d	:r	id	:t.	d	:d	it.	:d	đ	:t.	iđ	:	
3	m	:f	18	:5	8	:m	15	:1	ß	:f	1m	:	I
1	1.	:r.	18.	:f.	m.	:1.	18.	:f.	8.	: B.	ıđ	:	l
ke i	his	Me.	See	ק, '99		1	1-1		-1	. ~1	1.4	•	14
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What do you observe? "A Sequence." Yes, a Sequence rising direct from the prevailing kcy, by means of a sudden Transition of two sharp removes. What is its effect on the mind? "It is exciting. It seems to repeat the idea with a stronger emphasis." Yes, but if the composer does not wish to produce the effect of two flat removes in returning, how is he to get back to the original key? "Here he does it gradually; he first takes one flat remove, and then another." Yes, and in both cases, especially the second, he introduces his distinguishing tones without any marked prominence.

-to Second flat key .-- Listen to il. 154, and study the beginning of the second period. [Note that each of these periods has three sections]. *

IL	. 15	i4 .	KB	τD.				G	во.	OAB	EY.	
/:s	m	:r	١đ	:m	8	:f	Įm	:d	f	:s	j 1	١
:m	d	:t,	١đ	:đ	r	:t,	Jđ	:d	r	:m	١f	1
):đ'	8	:f	ļm	:1	8	:8	s	:8	t	:ď'	jď	(
(:d	d	: s,	1	:1,	t,	: r	Įđ	:m	r	:đ	ļf)
	Ha	n ta	nh.	omena	Has							



What do you observe? "Another Sequence, but it goes down." Yes, it is a Sequence taken from the original key of the piece, moving down one step, by means of a sudden Transition of two flat removes. What is the effect on the mind ? "It is

not exciting." No, it expresses eubsiding rather than rising emotion. If the composer after this wished to give the exciting effect of two sharp removes he could have done so in his return; but how does he return? "Gradually, and without appearing to seek Transitional effect." Yes, but you must remember that cometimes the composer seeks his effect in the return to the old key, rather than in the departure from it.

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98. Three Removes.—Transitions of three removes are commonly associated with Modulation. The excitement of three new sharps is heightened when a Modulation to Major is added; and the depression produced by three new flate is deepened by a Modulation from Major to Minor. If you examine the Modulator you will see that the three sharp removes change l into d, and three flat removes change d into 1. The fact that the artificial dominant $s^{e} M$ of the third remove corresponds (excepting kommatio difference) with the Major dominant of the other key—favours the use of this remove.

-to Tonic Minor.-Listen to il. 155, and study the first section of the second Period. *

	Ιı	. 15	5.	KEY	E.				G	EO.	0.	KEY.	
1	M	:r	١đ	:d,	t	:ď	s	:m	s	:d	r	:m	
1	đ	$:t_i$	d	:m	f	:m	r	:d	đ	:đ	jt,	:d	
)	s	:5	8	s	ĩ	:8	8	:s	6	:1	۱f	:8	
(a	:r	Įm	:đ	r	:d	jt,	:đ	m	:f	r	:d	
					s. ċ	l.f.C	. L	is E.					
1	f	1 m	T	:-	-	mad	:t,	11,	:1	1	59	:1	1
y	r	:đ	lt	. :-	-	a 1	, : 50	_] 1,	:đ		r	:đ	•
	1	:8	18	:-		s m	:m	m	:m		r	:m	Ì
(t,	:đ	8	, : -	-	·a 1	, :t,	₫	:1,		t,	:1 ₁	
			E	l.t.m.	1.								
(i	m	:đ	la	•m :]		8	:f	m	: r	I	đ	:	1
)ı	t,	:1,	1	it p'	:	m	:d	đ	:t,	1	d	:	
)i	m	:m	177	s :1	1	m	:1	8	:f	1	m	:	
1	se ,	:1,	1	,d :1	η.	Jđ	:1,	s,	:8,	1	đ	:	



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What do you observe? "It is like the beginning of the tune only in the Minor mode." Yes, it is the Minor mode taken at the same pitch as the previous Major; in this it differs from the Relative Minor. You notice its effect of wild rather than natural sourow. How is the return mads? "Suddenly." Yes, the composer needed a bright effect to conclude with.

-to Tonic Major.-Listen to il. 156. *

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IL. 156	3. KEY	G.	`	E. G. 1	Monk.
(From "	Anglicar	1 Hymn	Book."	By per	mission.)
(11, :-	1, :r	lg :L	m :	d :-	t, :a)
) 1, :- ·	1, :1,	$ 1_1 :1_1$	1, :-	 1, : -	1, :1,
) 1, :-	1, :1,]d :r	m :-	f :−	f :m (
(11, :-	1, :f	m, :r,	đ, :-	f, :-	(r, :m,)
/	14 .	14	1 # .m	1 10	ι ε , , ,
	L,	ju :-		11 .1	
	se, :-	11, 1-	a : 181	[1] iA]	1, 1- }
	m :-	lw :-	1 :8	ir :ae	r :-
\]f, :r,	im, :-	µ, :-	11, :s,	I, :m,	r :- /
				E.t.m.l.	
(r :-	n:d lq	:1, m	:- - : '	"s " :1	js :m }
) [8, :- 8	s, :s, l	:1, 89,	:- <u> </u> - : '	t _i r d:d	d :t, (
) t, :- d	i :d jd	:r m	:- - : '	^m s s :1	jm :s 🕻
(18, :- 0	1, :m, f	:f, m,	:- - :*	₽,t,d:d	[d :s,]
					13
(d :1	m :s d	:10 8	im II :	- r :-	a :-
) d :d	d :r d	:d r	: a a :	- t,:-	d :-
)[m :1	s :s f	e:1 js	:8 1 :	- <u>s :f</u>	m :-
{ 1, :f,	d :t, 1	, :1, t,	:d f, :	- 8,:-	a:-
		1 1			
	115	100	Same in	3	28-
	1 []			111.	
· .					
0:10	100				TOT
\sim - i	11-1-1	110		P P AL	e+==



Supposing this tune to be divisible into three periods, notice the beginning of the third. What is the Transition? "It is three sharp removes, and it is a Modulation to the Major." Yes, you notice also a melodic Sequence, and the bright and confident hopefulness of the effect. Observe in the closing part of the tune yet another sharp remove, probably intended to prepare for the solemn return to the last key in the final close. Notice also that this tune begins in one Mode and closes in another, having the same tone as Tonic,—as is not unfrequently the case in more extended compositions. It hegins in G, L is E, and ends in E. For the study of more distant removes see "Staff Notation," p. 28 to 33, and "Construction Exercises," p. 154.

99. Analysis of Modulation .- It will easily be seen that Modulation may be analysed under the same seven points as those which are used, in analysing Transitions p. 56. We ask curselves, 1st, What is the Remove of this Modulation ? Is it to the Major or to the Minor ?--- to the Relative or to the first flat or first sharp key ?--- to the second flat or sharp key ?--- to the Tonic Major or Tonic Minor ?--- and so on. 2nd, What is the Factor of Modulation, what makes the new mode present to the ear ?---some distinguishing tone of the Minor ? some habitual progression of chords characteristic of the Minor?-some Imitation, or a new commencement? 3rd, What is the Modulation chord? -on which chord does the car naturally begin to feel a change of mode? 4th, What is the Extent ? is it a Cadence Modulation, a Passing Modulation, or an Extended Modulation? 5th, What is its Relation ? Is it Departing or Returning, Principal or Subordinate Modulation ? 6th, What is its Manner of Entry ?- is it Gradual or Sudden Modu-

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lation? 7th, What is its Object ?—is it Modulation for Effect or for Convenience or for Preparation of Effect? The following are examples, il. 145 second measure. 1st, To Relative Major. 2nd, **B** in first chord of the third measure. 3rd, The fourth in the second measure, F. 4th, Extended 5th, Departing. 6th, Gradual. 7th. Effect. Il 146, measure 5. 1st, First flat minor. 2nd, Transitional Sequence. 3rd, $\mathbb{R}L$. 4th, Extended. 5th, Departing. 6th, Gradual. 7th, Imitation. II. 146, measure 9. 1st, First sharp major. 2nd, D in measure 9. 3rd, D. 4th, Extended. 5th, Returning. 6th, Sudden. 7th, Convenience and Effect.

Ex. 119. Analyse for chord and position ils. 126 to 131.

Ex. 120. Ditto, ils. 132 to 137.

Ex. 121. Ditto, ils. 138 to 142.

Ex. 122. Translate the following ils. into the modern Minor (altering the key so as to place l or l, on the old pitch of d) and write the names of the chords underneath 7, 8, 16,

Ex. 123. Ditto, ils. 21, 22, 25,

Ex. 124. Ditto, ils. 27, 29. 31.

Ex. 125. Ditto, ils. 37, 46, 50.

Ex. 126. Analyse, as in pars. 09 and 70, the Modulations and Transitions and Transitional-Modulations and their returns, in il. 144, second section, and il. 147, close of third section, and, 148, second section.

Ex. 127. Ditto, il. 149, beginning of third section, and il. 150 fourth and fifth sections, and il. 151, fourth section.

Ex. 128. Ditto, il. 152, seventh measure, and the same ninth measure, and il. 153, sixth measure, and il. 154, eighth measure, and il. 155, fifth measure.

Ex. 129. Ditto, "Lord, in." Add. Ex., p. 33, sc. 1, m. 3; and "Rise, my," p. 33, m. 3; and "Father," p. 34, sc. 2, m. 5.

Ex. 130. Ditto, "Harvest," Add. Ex. p. 40, sc. 4, m. 2; and "Away," p. 43, sc. 3, m. 2; and "If I," p. 46, sc. 1, m. 2.

Ex. 131. Ditto, "How lovely," Add. Ex. p. 59, sc. 1, m. 3; and "Ye spotted," p. 83, sc. 4, m. 1; and p. 84, sc. 1, m. 1.

Ex. 132. Ditto, "The stout limbed," p. 79, sc. 1, m. 1; and "The shepherd's," p. 90, sc. 1, m. 2, and p. 90, sc. 2, m. 2.

Ex. 133. Analyse for chord, position, and incidentals, ils. 143 to 146.

Ex. 134. Ditto, ils. 147 to 150.

Ex. 135. Ditto, ils. 151 to 154.

Ex. 136. Ditto, "Lord," Add. Ex. p. 33; "Rise my," p. 33.

Ex. 137. Ditte, "The stout limbed." Add. Ex. p. 77.

THE TWELFTH STEP.

At this stage of the pupil's progress it is not necessary for me to continue the conversational and experimental style hitherto adopted; noither is there room for it. Besides, the subject to be next treated has recently been so illuminated by the discoveries of science, that an entire re-arrangement of its Theory is necessary,—and even a dogmatic exposition of this takes all the room I can give to it.

100. Full Pulse Dissonance.-Professor Helmholtz has shown that dissonance in music arises from the beating together of two adjacent tones or their partials. What is called "heating" is really a series of cessations of sound, the vibrations of one tone "interfering" with the vibrations of another, and preventing them from being heard. The elementary principles of this subject have been treated, with some care, above at pp. 4, 5, 6, and ehould now be studied and tested again by the ear. My tract on "Musical Statics" explains the matter more fully. There are eight points which should be observed in every dissonance when the student wishes to master its nature and effect. 1st, its 3rd, its Accent. Percussion. 2nd, ite Degree. 4th, its Preparation. 5th, its Resolution. 6th, its Unord Relation. 7th, its Interval from the Root. 8th, its Object.

1st. Percussion of Dissonances.—The important musical points to notice about the stroke of the intruding tone, are first, into what chord it intrudes, second, against what constituent of that chord it beats, and third, what tone, if any, of that chord it displaces. Thus we may describe a dissonance as having its percussion "against the fifth of S, displacing the third." The strongest resisting tones are the roots of chords; the next are the fifthe. The dissonances which can be most freely used are those which strike against the roots of chords, and dis-

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Ex. 138. Show the cadence relations (as Ex. 101) of ils. 145, 147, 149.

Ex. 139. Ditto, ils. 153 to 156.

Ex. 140. Analyse as Ex. 105 "Bon Accord," Add Ex., p. 11; and "Hope," p. 12; and "My lady," p. 21.

Ex. 141. Ditto, "Nearer," Add. Ex. p. 34; and "Hear me," p. 17 as far as p. 18, sc. 1, m. 3.

*** See "Chord-Naming Examples," A and B, 43 to 62.

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place nothing. But besides these physical points there is a point which stands in relation to taste and feeling. In the act of percussion the proper mental effects of both the dissonating and the resisting tone are strongly asserted. These mental effects are greatly modified in the Minor Mode by the new chord relationship, and the new cadential habits thrown around them, but they are not obliterated. The pupil will be reminded of all these circumstances when he answers the question, ---what is the tone of the scale which dissonates, and against what tone of the scale does it strike?

2nd. Degrees of Dissonance. --- A "partial," or natural harmonic, is not a separate and independent tone, but a small part of some ordinary complex tone,-some tone, for example, of a reed or stringed instrument, or of the human voice. It goes to make up the quality, the colouring or klang-tint of a tone. These partials are found in various proportions in the tones of most instruments. 'The Ist partial is the principal sound itself, the 2nd (which in the violin is about one tenth as loud) the octave of that sound, the 3rd (one tenth as loud as the last) the octave fifth, the 4th (one tenth as loud as the last) the double octave, the 5th the doubleoctave-third, the 6th the double-octave-fifth, the 7th a little flatter than the double-octave-flatseventh, the 8th the treble octave, and so on, always decreasing in loudness. If two principal tones, standing at the distance of a second (great or small) heat against one another, that beating we call primary dissonance. Thus,-



If two principal tones stand at the distance of a seventh or a ninth, they do not beat against one another, because they are too far apart for beats to be heard. Thus, for example, if the two tones were delivered by large closed organ pipes, which have no partials, no beating whatevor would be heard. But on most instruments and with the human voice one of the principal tones will beat against the second "partial" of the other, and that beating is called secondary dissonance. Thus,—



If two tones stand at an interval of a fourteenth or sixteenth they do not beat against one another, but one of them beats againsth the *fourth* partial of the other (which is the double octave) this we call *tertiary* dissonance. Thus,—

IL. 159. KEY E.	
(:s f :- m m s :d'	
$(:m_2 s_2:- d s_2 f_2:m_2)$	

If two tones stand at an interval of a twenty-first, or a twenty-third they do not beat against each other, but one of them beats against the *eighth* partial of the other. The eighth partial has in most instruments so very small a quantity of sound, that this can scarcely be called dissonance at all, but we may denominate it *quaternary* dissonance, or dissonance of the fourth degree. Thus,—



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Thus far we have concerned ourselves only with seconds, and octaves added to seconds. These are the most important because octaves strengthen one another, even among partials. See "Musical Statics." But there are other sorts of dissonances. If two principal tones, which are *not* next to one another in the scale, nevertheless have early, and therefore strong partials beating together they are said to be *partial* dissonances. This is the case between t_1 and f, where the second partial of f which is f beats against the third partial of t_1

which is fel. If the f is below, thus, then we

have the partials d² and t¹ beating together. The case of the interval se to r, in the minor, is the This doctrine of Partials and Principal same. tones also accounts for the manner in which the octave-fourth (eleventh) and octave-sixth (thirteenth) are treated as dissonances (even though not intruders into the chord, see p. 9)-because hoth these tones would dissonate against the strong third partial, or octave-fifth, of the Bass tone. We have thus five Degrees of dissonance, the Primary, Secondary, Tertiary, Quaternary and Partial. The Partial dissonance beats more strongly than the Quaternary, and in its close position is as strong as the Tertiary. It should * also be mentioned that the most effective (strongly beating) dissonances are in the middle range of absolute pitch; for when seconds are high in absolute pitch, the beats are so frequent as to be less noticed, and when they are low in pitch they are so seldom as to be less impressive.

3rd. Accent of Dissonances.—It is quite obvious that dissonance, like everything else in music, is made more prominent by being placed on a strong accent. Dissonances on the strong pulse (as well as on the strong part of a pulse, p. 69) are called Forestrokes, and dissonances on the weak pulse (as well as on the weak part of a pulse, p. 67) are called Afterstrokes. The question whether a dissonance is a Forestroke or an Afterstroke influences the kind of preparation required and the effect produced.

4th. Preparation of Dissonances. — At the beginning of p. 5 it is explained that to find which of any two beating tones is to be called the Dissonating tone, and which the Resisting tone, we must place the two together in their closest position, and regard the lower one as the Disson-

ating tone, because it is really weaker, and more difficult to hold. There are, however, some rare cases, as in ils. 164, 173, 179, in which the intruder does not come in, as usual, with a new chord but where it enters a chord already struck, so that there is no doubt that the lower of the beating tenes is the chord tone, and the upper is the Dissonance,-cases which are peculiarly treated. In continuation at pp. 5, 6, the nature of preparation is shown as one of the apologies for the Dissonating tone, and the effect of Horizontal and Oblique preparation is fully exhibited in connection with part pulse Dissonances, pp. 69, 70, 71. But it should be understood that the fact of a Dissonating tone having been heard as a Consonance in a previous chord is not only an apology to the ear, but a help to the voice in singing. giving it firmness and confidence. This is especially the case with Horizontal preparation. Primary and secondary Ferestrokes, that is Dissonances having a strong Degree and a strong Accent, nearly always require this strong preparation. Afterstrokes, even though they be Primary, are commonly satisfied with Oblique Preparation. Unprepared Forestrokes especially in the Primary Degree are scarcely used, but even Primary Unprepared Afterstrokes are sometimes employed. In the case of Forestrokes, besides observing whether the preparation is Horizontal, Oblique, Upward Oblique, Waving, or whether the Dissonance is Unprepared, the analyser should note the name of the preparation chord, and the part of that chord to which the preparation tone belongs. Thus, " h as Root of D," or " o as fifth of D." In the case of Afterstrokes it is not necessary thus to name the preparation chord. For a table of the signs and symbols both of Forestrokes and Afterstrokes see p. 74.

6th. Resolution of Dissonances.—The Resolution is the æsthetic end and aim of the Dissonance. The ear is only disturbed for a moment in order that it may the better appreciate the rest which follows. The Resolutions most satisfactory to the ear are those which fall on the sweet Third of a chord, and especially those which are received into the most important chords of the key, the Tonic, Dominant, or Sub-dominant. After the 3rd of a chord, the Root is preferred for resolution, and after that the Fifth. Thus in describing Resolution we nay say "on third of D," or "on third of its own chord S." It should be noticed that some Disson-

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ances are resolved in the chord which they strike, and others into some other chord. In the one case we call them Self Resolved and in the other case uncommon dissonances, named above, which enter a chord (waving or unprepared) after it has been struck, are resolved upward; other Dissonances naturally go downward. By this kind of analysis we shall distinctly bring before our minds the three successive chords with which every prepared Dissonance is connected, —the chord of Preparstion, —the chord of Percussion, —and the chord of Resolution.

6th. Chord Relation of Dissonances.— As the Resolution is the most important effect of a Dissonance, and as its value is in proportion to the importance of its Chord Relation,—it is well to describe the place of a dissonance in those general terms of Chord Relation which are equally applicable to the Major and Minor modes. See p. 75. Thus we shall not only speak of a Dissonance as moving from the chord of R to that of S but as moving "from Supertonic to Dominant," which latter phrase would remind us of the corresponding Minor Dissonance moving from Minor T to ^{se}M.

7th. Interval from the Root.—The relation of a Dissonance to the Root of the chord into which it intrudes is very important. Many peculiarities of Preparation, Percussion, and Resolution arise from this fact. It is obvious that the only possible intruders into a Consonant chord must be 7ths, 2nds, 4ths, 6the, and their octaves. Thus in the chord of D the only intruders except chromatic tones would be the 7th, t, 2nd, r, 4th, f, and 6th, 1; and in the chord S the only intruders would be the 7th, f, 2nd, 1, 4th, d, and the 6th, m. The effect of these intruders is mainly intruder in the chord S the only intruders

influenced by the consideration of what chord it is into which they intrude, but it will be useful to study first the neccessary conditions which each one of them is plsced, spart from that consideration. This can be done by keeping before our minds the diagram at the side, which represents in Roman figures the constituents of a chord, and in Arabic figures the dissonances which stand ready to intrude into it. [In speaking of the Root

 $\begin{array}{c} \operatorname{III} rd \\ > \\ \operatorname{Ist} \\ \end{array}$ $\begin{array}{c} \operatorname{6th} > \\ \operatorname{Vth} \\ \operatorname{4th} > \\ \operatorname{III} rd \\ \operatorname{2nd} > \\ \operatorname{Ist} \\ \operatorname{7th} > \end{array}$

of a chord we always mean the apparent and obvious Root. See pp. 2, 44. The *Partials* or natural harmonics (*parts* of a tone) vanish so fast in degrees of loudness, that they cannot be regarded as models of a chord for co-ordinate principal tones. They form nature's colouring of a single tone but it is certainly unphilosophical to call them nature's chord, unless you use the word chord in a different sense from the common one.

The 7ths are most used because they have the best Percussion, that is against the Root of the chord, and the best Resolution, that is on the Third of another chord, that other chord having its Root a 4th above the last. They cannot be self-resolved (except in two cases to be afterwards named) because the 7th going downward would only fall upon the 6th which is itself a Dissonance. These 7ths are so acceptable that even when Primary and on a strong accent, they seldom need Horizontal Preparation. Even a close Sequence of 7ths following each other pulse after pulse becomes acceptable to the ear when Horizontal Preparation is employed. See il. 196. The 7ths have commonly the Oblique preparation, but they are very frequently, whether as Forestrokes or Afterstrokes, quite unprepared. It may be noticed that the 7ths introduce a new Third (new sweetness) into the chord; they make a Third with the Fifth. This allows the Third of the chord to be sometimes omitted. Our pupils have been already rendered familiar with the principal 7ths in use, that is, 7S, 7R, 7T, and 7se M, 7T, ĩŜΕ.

The 2nds (that is second tones in a chord, with Primary degree of Dissonance) are so undesirable that, with certain exceptions to be afterwards named, they are scarcely ever used except as Passing Afterstrokes. As they cannot displace the Root, they displace the Third and are self-resolved upwards. Their chief employment is in the Secondary or Tertiary Degree, when they are called 9ths (not 2nds) even the 16ths being called 9ths. The 9ths have in addition to the Percussion against the 3rd a Secondary or Tertiary Percussion against the Root. They displace the octave of the Root but not the Root itself. They may be self-resolved upon the octave of the Root, or they may have outside Resolution on the 5th of a chord whose Root is a fourth above the last. These 9ths are frequently "coupled" with 7ths in the same chord, in which case they must always have outside Resolution, because the 7th can have no other, except where upward Resolution may be employed. In these cases, as yet another 3rd (source of sweetness) is added to the chord, the original 3rd (even at the

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risk of ambiguity) is sometimes omitted. When the 9ths are strengthened by the company of the 7ths they can be used either as Forestrokes or Afterstrokes with various Preparation, but when they are solitary Dissonances they have to be placed in the secure, though prominent position of Horizontal Forestrokes.

The 4ths have a good Percussion against the fifth of a chord, which as a Resisting tone, stands next in value to the Root. They have the best Resolution, that is on the third of their own chord. But, on the other hand they displace the third, except in rare cases when the third stands at a Tertiary distance. For a double full pulse Dissonance in the Primary Degree would be unendurable. Not only so, but they leave the chord at the point of Percussion without any sweetness in it, for unlike the 7ths they introduce no new third into the chord. The Percussion is therefore peculiarly harsh, and needs the strong Horizontal Preparation. But having this the 4ths are freely used as Forestrokes. As Afterstrokes they commonly have the Oblique Preparation. Our pupils have already been rendered familiar with the principal 4ths in use 4S and ⁴M. They have also studied the coupled Dissonance ⁴⁷S, see p. 28.

The 6ths are peculiarly placed because they have no Resisting tone of the chord above them, against which they may strike and then fall humbly down to their Resolution. In fact the 6th disputes the office of Root, and is itself an inverted under-third to the existing Root. In speaking of Preparation and Resolution we have shown that the lower of the two tones is properly the Dissonance. If however, this 6th is to be treated like a dissonance (and not as the Root of a chord, the old 5th being regarded as its 7th) it must resolve upward. But there is a curious case to be named afterwards, in which the dissonant 7th is to be regarded as the dissonant tone against which the 6th strikes and then resolves downward on the displaced 5th. These abstract considerations of what must occur to a Dissonance, when standing at any given interval from the Root will prepare the student to study the new conditions which key relationship throws around it.

8th. The Object of Dissonances.—The student will soon notice that dissonances are made either for convenience or for effect. If for convenience, it is to secure a stepwise flow of parts, or to bind together chords which would not otherwise be well bonded (see pp. 4, 27) or to make unsonorous chords, like Ta, see il. 60, p. 32, and il. 138, p. 79, endurable for the sake of the Dissonance, or purposely to dim the sonorousness of a chord, see il. 137, p. 79, or to call special attention to one of the principal chords of the key, the Tonic, Dominant, or Subdominant. It is plain that a Dissonance by its clearly marked melodic path does necessarily call attention to the chord on which it resolves, just as the harshly uttered "hark" calls attention to some quiet sound which follows, or a comet directs the eve to the part of the heavens in which it disappears. In modern harmony everything tends to establish these principal "chord-relations" (see p. 3) in the ear. This is notably the case with those Dissonances which are so very common and which we have already studied, 7S and 7se M calling attention to the Tonic, while 4S, 4M, 7R, and minor ^{7}T call attention to the Dominant. If the Dissonance is for effect, it is to develop the natural and proper mental effect of the dissonating tone, by the very circumstances of resistance and pressure which surround it. The Dissonances of effect are commonly placed on a strong pulse, as Forestrokes. The Dissonances of convenience are commonly found on the weak pulse, as Afterstrokes. The smoothest, however, of the Horizontal Forestrokes, when in the Tertiary Degree can scarcely be said to be introduced for any Dissonant effect. The observer of Dissonances should carefully note the object of the composer in introducing them.

101. Classification of Discords. - The object of a classification is two-fold. First to help the clear comprehension of the subject, and secondly to help the memory of the learner. Both are assisted if we can seize upon some great ruling principle which governs the habits and practices we have to study. It is pleasant to find that the great "enlightening fact" of key relationship, on which our Tonic Sol-fa method is built asserts itself here as well as in all the other departments of musical study. The two sets of facts hitherto relied on for the classification of Dissonances have been the various kinds of "preparation" and the various "intervals from the Root," referred to above. But if we use the first we are immediately puzzled by finding the same dissonances (the same as to degree, percussion, resolution, interval from the Root and even accent) prepared in different ways; so that this is a classification of preparations only and not of discords. And if we use the

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second, we are met by another sort of difficulty. The classification is misleading and insufficient. It is "misleading" because it suggests to the student that a 7th on one chord of the key is as much used and as valuable as a 7th on another, and leaves him to imagine that 4ths on the Submediant or Leadingtone would be quite as allowable as a 4th on the Dominant, which is not only not the truth but very far from the truth. It is "insufficient," because it does not give a clear comprehension of the chord relationship of Dissonances, -and we have repeatedly seen that this æsthetic principle overrules in music. all other principles. It is only when we have the apology of Sequence that certain Dissonances may be taken on any chord of the mode or key. We have noticed that a Dissenance calls attention, by the direction of its path, to the chord on which it resolves, and it would be contrary to the modern principles of chord relation, thus markedly to draw attention to any but the great characteristic chords of the mode. We find then that the dissonances most used and most acceptable to the ear are first those which resolve on the Tonic (Major or Minor) second those which resolve on the Dominant, and third those which resolve on the Subdominant; and that if Dissonances are sometimes found resolving on the chords of the Supertonic, the Mediant, the Submediant, or the Leading tone, it is when these chords can be regarded as substitutionary for the greater ones. To illustrate this doctrine, let us take the Dissonance of the 7th. The student will soon be able to verify the fact that the use or disuse of this discord on particular chords of the scale is to be accounted for entirely by their chord relation. Thus, there is except in sequence, almost no 7th on the Mediant, because it might suggest the relative Minor and would be unmeaning; there is seldom a 7th on the Tonic or the Submediant because it would only find the inferior resolution of the Subdominant. and more seldom one on the Subdominant because it would commonly resolve on the Supertonic: there is often a 7th on the Supertonic because it resolves easily on the Dominant; and the commonest 7ths of all are those on the Dominant and Leading tone because they resolve on the Tonic. Under each of these headings (Tonic, Dominant, and Subdominant Resolution) those Dissonances are of most importance which resolve first, on the . 3rd, second, on the 5th, and third, on the Root, and under each of these Resolutions those Dissonances are preferred which make their Percussion first as 7the, second, as 4the, third, as 9ths, or 2nds, and

fourth, as 6ths. A full and, as far as the "Text Book" and "Historical Specimene" are concerned, an exhaustive analysis of these Discords is given in "Construction Exercises." We have only room here to study them in the commonest forms and appearances.

102. Tonic Resolution. — The overwhelming majority of all Dissonances resolve on the Tonic. Not only are the Dissonances resolving on the Tonic more than twice as numerous as those resolving on the Dominant, but some of them are twice as largely used as the most used of those which resolve on the Dominant. It may also be noticed that the number of those which resolve on the Subdominant or its substitute the Supertonic, is quite insignificant compared with those which find their rest in the greater chords of the key.

—on the Third.—The principal of these are 'S resolving on the third of D and ⁷se M resolving on the third of Minor-L, (for which see p. 6, 7, 17, 31, 43, 76, 77, &c.) but the 4ths on D and on Minor-L have not yet been studied. Listen to il. 162, and observe the fourth chord. *

IL. 162. KEY D.						DR. W. HAYES.							
{	d' m	s r	:f :t, :8	f đ	:ጠ :— :—		t r f	:d' :m :s-	r' f 1	:d'.t :m.r :s	d' m	:- :- :-	
(d	t,	:s,	d D h	- ם	f	r	:đ	I	: 5	đ	:-	11
	<u>}</u>						•					đ	E
1460	2				ļ		1					d	Æ

First, what is its Percussion? "Against the 5th of D, displacing the 3rd. f against the octave partial of s." Second, what is the Degree of the Dissonance? "Secondary." Third, what is its Accent? "A full pulse Forestroke." Fourth, what is its Preparation? "Horizontal, as 7th of S." Fifth, what is the Resolution? "Self resolved on 3rd of D." Sixth, what is its chord Relation? "Within the Tonic." Seventh, what is its interval from the

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Root? "A 4th." Eighth, what is its object? The effect of f." [See Con. Ex., p. 137.] Listen to il. 163, observe the fourth pulse, and answer the questions as above. *

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IL.	163.	$\operatorname{key} \mathbf{E}_{r}$		Rev.	E. G.	BECE	WITH.	
m̂f	m :1	r :d	ll î	l.s:f	: s	:f]	м :-	N
s,	t, :se	1, :-	1,	1, :1	l, s,	:t,	d :-	
m	m :m	m :	f	m :1	f r	:8	8:-	
a	se,:m	1, :-	r	de :	r t,	:s,	d :-	ll
~		- <u></u> Ъ Ъ	~					
'l âî	d' : d'	d' :-	jî tî	d':t	.1 s	:fj	m :-	H
dr	m.f:s	f :-	r	8 :f	m	:r	d :-	ļ
s	d' :d'	đ' :	r ′	d' :d	' d '	:t	d' :-	
(] m f	s.l : ta	1 :-	s f	m :f	s	:s,	d :-	It
. A				~	-	_1		
K	0.01		F	.e			F	Ŧ
0	•	47 1	2	• 1		7		
~			1	- e	┛┛	·		
S.	2 2	•	2				∙₽₽	E
	1	· · ·				•		
2						==		H
;;;	»	1-4	2	ΞĘ			HZ	H
-								
0	-211			Ť	Ē	Ē		Æ
<u>~</u> \$						i f		:H :
First Seco	,"Aga nd"S	inst the econdary	5th c	of <i>L</i> , c Third	lisplac	ing 1 For	the 3rd estrok	1."
Four	th, "H	orizonta	l as 7	h of a	е́М."	Fift	h, "Se	lf-
resel	the par	third of .	L." {	Sixth,	"Wit in the	hin tl Mine	he Ton	ic,
Seve	nth, "	A 4th."	Eig	hth,	'The	effec	t of	r."
[See	Con. E	x., p. 13	7.]]	Listen	to il.	164.	*	1
IL	. 164.	key A					.G.O	•
/ a	1, :t	d :-)(m	r :s	a la	:r	m :-	1
) m,	f, :s,	e, :-	s,	f, :s	1, 1 ,	:1,	s, :-	
d	d :r	d :	a	t, :d	l d	:d	d :-	
(d,	f, :f,	[m, :-	d,	[r, :m	ι[f	:f F	d₁ :	G
						p		



We have in the second-last chord a very uncommon Dissonance (r against d, moving upward) but as it resolves on 3rd of the Tonic, it is named here. See what is said on sixths above, p. 93. Its complete analysis is as follows :--- First, "Against the 5th of F, r against the octave partial of d." Second, "Secondary." Third, "Afterstroke." Fourth, "Passing." Fifth, "Upward on 3rd of D." Sixth, "Subdominant to Tonic." We could have the corresponding chord 6R, but as plagal cadences are not common in the Minor, (see p. 77, il. 129) it is scarcely used. Seventh, "A 6th." Eighth, "To introduce the effect of a rousing dissonance struggling against the gloom of the Plagal cadence." [See Con. Ex., p. 146.] For the sake of comparison it may be useful to place under the new light we have obtained on the subject of Disconances, the familiar 7S and 7se M.

Liston to il. 16, and notice 7S in the third pulse. * It is first, "Against the Root of S." Second, "Tertiary." Third, "Afterstroke." Fourth. "Passing from 5th of D." Fifth, "On the 3rd of D." Sixth, "Dominant to Tenic." Seventh, "A 7th." Eighth, "To establish the key." Listen to the same il., and notice the second-last chord. * It is first "Against the Root." Second, "Secondary." Third, "An Afterstroke." Fourth. "Guiding preceded by the chord of F." Fifth. "On the 3rd of D." Sixth, "Dominant to Tonic." Seventh. "A 7th." Eighth, "Fer effect of f and establishment of key." Listen to il. 28, and notice the third chord where the Dissonance is primary but well prepared. Listen to il. 25, second-last chord, where there is a double Secondary Dissonance, well prepared. Listen to il. 26, second-last cherd, where the Dissenance is secondary against the Bass, and primary as against the Contralto. As it is unprepared the Dissonating effect is very marked. See a strong case of this Dissonance primary and Unprepared in il. 49. See it in il. 70, as an Horizontal Afterstroke. See it as an Horizontal Forestroke of the primary degree in il. 95. Listen to il. 128, and notice ^{7se}M in the

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second-last chord. It is first, "Against the Root." Second, "Secondary," Third, "An Afterstroke." Fourth, "Passing, as Root of M." Fifth, "On 3rd of L." Sixth, "Dominant to Tonic." Seventh, "A 7th." Eighth, "To establish the key." Listen to il. 130, second cadence, where this Dissonance has Delayed Resolution. See il. 138, second-last chord where the Dissonance is primary but Horizontally prepared. See also ile. 139, and 141.

—on the Fifth.—The pupil has already been rendered familiar with the principal chords which resolve on the 5th of the Tonic. They are 'T and 'SE. See p. 32, il. 60, and p. 78, il. 135. These chords sometimes resolve on the Dominant. [See Con. Ex., p. 138.]

-on the Root.—The Dissonances resolving on the Root are *D, and its corresponding Minor *L. Listen to il. 165, and study the second chord of the second section. *



It is first, "Against the Secondary 3rd and Tertiary Root of D, r against the octave Partial of m, and the double octave Partial of d." This double Dissonance would be too harsh if it were in the Primary degree, but it might be Primary as to the 3rd and Secondary as to the Root. Thus r might be in the Tenor and s_1 in the Soprano. This Dissonance does not occur either with the Root as Primary or with the Root displaced. Second, "Secondary and Tertiary." Third, "A Forestroke." Fourth, "Horizontal as 5th of S." Fifth, "Selfresolved on Root of D." Sixth, "Within the Tonic." Seventh, "A 9th." We call it a 9th not a 2nd because it never occurs as a 2nd whon Horizontally prepared. Eighth, "The effect of \mathbf{r} ."
[See Con. Ex., p. 139.] Listen to the corresponding Minor in il. 166, and notice the second chord of the second section. *

I. 166. KEY D. L is B. G.O.

$$\begin{pmatrix}
1 & 1 & :t & d' & :- & t & t & :1 & se & :se & 1 & :- & m & m & m & m & :r & d & :- & m & m & :r & d & :- & m & m & :m & m & :r & d & :- & t & d' & :d' & t & :t & 1 & :- & t & d' & :d' & t & :t & 1 & :- & t & d' & :d' & t & :t & 1 & :- & t & se, & 1, & :d & m & :m & 1, & :- & s_L & s$$



-with coupled Dissonances. -- When two Dissonant tones, with the interval of a 3rd or a 6th between them, enter a chord together, they seem to strengthen each other,-so that some Dissonances which are seldom allowed as solitary intruders are freely welcomed when supported by harmonious company. Two common cases of Dissonances coupled, though not in 3rds or 6ths, have been already studied in 47S, p. 28, il. 53, and 47M, p. 81, il. 143. In these cases the Dissonances were, first, the 7th against the root, the 4th against the fifth. Second, both Secondary. Third, forestrokes. Fourth, the 7th o or u, the 4th h as Root of the Tonic chord. Fifth, the 7th continued through another pulse and then resolved on the Tonic, the 4th immediately self-resolved. Sixth, Dominant to Tonic. Seventh, 7ths and 4ths. Eighth, effect of d and f. [See Con. Ex., p. 142.] The Dissonating 9ths, also run in couples with the 4ths. Listen to il. 167, and notice the second-last chord of the third section. *

lt d' :m.f s 2 h The Dissonances are, first, the 9th against the

IL. 167. KEY D.

d t. d.r:m.r r

ld :s,

mr]m.f:s.f|f :m ||d't||1 :s.f|m :f

d't|d'.r':m'.r'|r':d'||lt|d':d.r|m :r f :m

:-

dt, 1, :s, f, m,

d't 1 :s.f d't 1 :s.f m

1,t, d :d

ltd':s

:d

:--94DD 2h

Root-the 3rd being omitted, and the 4th against Second, the 9th Tertiary, the 4th the 5th. Secondary. Third, Forestrokes. Fourth, both h. Fifth, the 9th on Root and the 4th on the 3rd of the Tonic. Sixth, within the Tonic. Seventh, 9th and 4th. Eighth, effect of f and r. Sce the same Dissonance in 3rds, and in a different degree in the second-last chord of the first section. [See Con. Ex., p. 140.] Listen to il. 168, and notice the second chord. *

IL. 168. KEY G. L is E. REV. JNO. RADCLIFFE. $\begin{vmatrix} \widehat{1}_{i} & | t_{i} : d & | 1_{i} : - \\ m_{i} & | m_{i} : m_{i} & | m_{i} : - \\ d & | r : m_{i} & d : - \\ 1_{i} & | 1_{i} : 1_{i} & | 1_{i} : - \\ \end{vmatrix} \begin{pmatrix} \widehat{m} r & d : f & | f.m:r.d & d : t_{i} \\ t_{i} & | 1_{i} : 1_{i} & | 1_{i} : se_{i} \\ m & m : r & | 1 : f & m : - \\ se_{i} & | 1_{i} : r & d : r & m : - \\ \end{vmatrix}$ 240

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:f,



There you have, in the Minor mode, a 9th and 4th, both "upward oblique Forestrokes" and both resolving upward into the Tonic. [See Con. Ex., p. 141.]

-of overflowing Chord.—Cases in which several Dissonances (not necessarily in 3rds with each other) move on towards their usual resolution when consonant—may be called the overflowing of one chord into another. They conduct themselves quite differently from ordinary Dissonances. Let us take the 7ths and 4ths. In the cases of 7ths and 4ths on the Dominant, ils. 53 and 143, the 4th resolved at once on its own chord, and the 7th was continued so as to resolve on the Tonic; the preparations also were different, the 7th being w or o, and the 4th being h. But it is not so with the everflowing 4ths and 7ths on the Tonic. Listen to them in il. 169, and notice the second-last chord in the fourth sections. *

	IL.	16	19.	KE	r C.	L is	A.				6	ł.0.	
(î	d'	:t	1	:-	IF.	d'	:r'	18	:f	f	: m	1
	m	m	:50	1	:-	f	m	:r	d	:t,	t,	:d	
Ś	ď	1	:t	ď	:-	r '	đ٩	:1	s	:5	s	:-	
ľ	1	m	:m	1	:-	se	1	:f	m	:s	a	:-	
											74D	D	

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They are resolved one (the fourth) downwards and the other (the seventh) upwards, but in the same chord; the preparations are the same, both h; and the dissonances have themselves a "partial" dissonance with each other. The 7th seems to present an exception to the rule (p. 29) of 7ths having always an outside resolution. Here they are selfresolved it is true, but only by an upward progression which is but an apology for Dissonant resolution, while it is quite natural as a consonant resolution. In these cases the Root and Fifth seem to assert the right of the Tonic to the accent of the measure: in other cases the Root alono stands firm to this post. [See Con. Ex., pp. 140, 141.] Listen to il. 170, and notice the second-last chord of the third section. *

IL. 170. KEY Ab.	GOODENOUGH.
$ \begin{pmatrix} \widehat{m, f_i} e_i : 1_i, t_i r : d \\ m, f_i e_i : 1_i, s_i s_i : - \\ dr m : f, s f : m \\ r d : d \\ r d : f : s f : m \\ r d : d \\ r d $	1, :f m :r f ₁ :f, e, :- d :r d :t,



Here in ^{9se4}L we have the exact counterpart of the last in the Minor mode. [See Con. Ex., p. 141.]

-in an exceptional case,-Listen to il. 172, and notice the third chord and the third-last chord. *

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Here are two cases, one on the weak pulse and the other on the strong, which remind us of the apparent Mb" p. 38, il. 78; but f decides the chord. The 6th dissonates, at Secondary distance, against the familiar 7th. In the first case the 6th moves like a Hanging tone. See p. 69. In the other it is regularly resolved, the resolution of the 7th being delayed. [See Con. Ex., p. 142.] Listen to the same, and notice the second-last chord of the third section. * Here we have 67se M the counterpart in the Minor, of the first case; but it should be noticed that they differ in Resolution. In the one we have the regular cadence, in the other the surprise cadence. The surprise cadence can be equally well used in the major, and the regular cadence can be used in the minor. These Dissonances are sometimes found resolving on the Dominant, as in the last section. [See Con. Ex., p. 143.]

103. Dominant Resolution.—Next to the Tonic, the Dominant is the most important chord of the mode, and therefore receives much of the attention which Dissonances draw to their Resolving chord.

103.

—on the Third.—The principal Dissonances resolving on the Third of the Dominant are already familiar to the student. They are ⁷R, pp. 26, 27, 18. 45 to 48,—Minor ⁷T, p. 78, 11. 132,— ⁴S p. 28, ils. 50 to 52,—and ^{4se}M, p. 78, il. 133, and p. 80, il. 141. The 6ths on the Tonic also resolve on the Dominant, but 6ths (see pp. 93 and '99) are peculiar and rare. Listen to il. 173, and notice the second chord of the second section *



There you have ⁶D, the lentering as an "Oblique Forestroke resolving upward like other 6ths." It does not here resolve on the Dominant but on its Substitutional, the chord of the Leading tone. [See Con. Ex., p. 138.] Listen to il. 174, and notice the second chord of the third section. *

	IL.	17	4.	KEY	r Bþ	•	-		-	E. J	. He	PK	INS.	
(s,	d	: s,	11,	:-	li	î,	t,	:d	m	:r.d	đ	:t,	ł
١,	m,	s,	: m ₁	f,	:-		\mathbf{f}_1	f,	:m,	fe,	$:fe_i$	s,	:-	
ì	d	d	:d	d	:-	1	r	r	:d	d	:r	m	:r	
(d,	m,	:d,	f,	:-		$\mathbf{r}_{\mathbf{i}}$	s,	:1,	1,	:r,	ទ	:-	
	~						~							
[t,	m	:r	d	:-	11	ť	m	:r.d	d	:t,	d	;-	11
}	se	1,	:m,	m,	:-		1,	s,	:s,	s,	:f,	m,	:	
Ì	r	ď	:t,	d	;-	I	đ	d	:8,	m	:r	đ	.:-	
l	m,	ba	se,	1,	:-	li	f,]d,	:m,	s,	: s,	đ,	:-	
		ba	e											
		100		-										

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There is the corresponding 6th in the Minor. It is called ^{ba}L . The ba has upward-oblique preparation and upward Resolution. It resolves into the Dominant. [See Con. Ex., p. 139.]

-on the Fifth.—The only cases are those of the 7th on the Sub-dominant, Major and Minor, ⁷F and ⁷R. Listen to il. 175, and notice the third chord of the second section. *



The corresponding dissonance in the major is quite as much used. In both modes the dissonances are nearly always on the weak pulse. [See Con. Ex., p. 143.]

-on the Root.—The 9ths are the only solitary dissonances which thus resolve, and even they occasionally resolve on the 5th of the Tonic. Listen to il. 176, and notice the third-last chord *





9ths and 2nds are also found without the 7ths. Listen and notice the second chord of the second section. * Here we have, in 2S a second occurring alone without the 7th. Notice that it is Primary against the Contralto and that it resolves upward. Being Primary, and being the higher of the two Dissonating tones, it could not resolve downward. Indeed it is sometimes doubtful which of the two is to be regarded as the Dissonance. In this case the s of the Bass is prepared and resolved as an h. One of the sohs is always thus resolved, and if it is not thus prepared you will commonly find the l herizontally prepared. But all this preparation is unnecessary if the 1 is accompanied by another Dissonance moving in thirds with it, that is by the f or d. You can test this assertion by changing the r of the present chord into d making 42S, and comparing the two. You can test it again by listening to the second chord of this il. * Here you have in ⁹⁷S, the s unprepared and unresolved. the l only prepared by an Upward Oblique motion, and resolved in a curious way by a leap to the lower octave. But notice that the lis only a Secondary Dissonance and is accompanied by f which is properly resolved. Listen again to the second

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chord of the third section of the same il. * Here in ${}^{97}M$ we have the exact counterpart in the Minor of the case last mentioned. The indirect Upward Resolution is again repeated. In ⁹⁷S this peculiar Resolution was used for the convenience of the voice, to prevent its going too high. In the case of ⁹⁷M it is employed to save the awkward upward progression f se, for this progression is much less unpleasant when taken downwards. Here we have shown ⁹⁷S and ⁹⁷M as Forestrokes, but they are more common as Afterstrokes. The reason why the alternative 6th of the Minor mode, ba is not used in this and many other cases, is that it would make the progression sound too much like the Major ; its effect would be ambiguous. [See Con. Ex., p. 139.] But study il. 180, second chord of the second section, a somewhat exceptional case, where ba occupies a similar position in the Minor to l in the Major of il. 179. *

	IL.	18	0.	KEY	F.		ALI	RED	B	ENNE	т т,	м	в.	
()	a	r	;r	m	:-	m`	m	; m	m	: m	1	m	:-	11
V	đ	r	:r	m	:-	t,	1,	:t,	đ	:t,.	1,	t,	:-	
1	d	r	:r	m	:-	se	ba	:se	1	:se.	ba	sə	:	
(d,	r,	:r,	m,	: '	m,	m,	: m,	m,	:m,		m,	:-	
						40	a M							
	$\hat{}$			1		÷.	swj N							
	m	I.	:1	8	:-	6	S	:8	1	8 18	. 1	s	:-	
2	m	ļf,	:f,	s,	:	d	t,	:d		r≁:d	.t.	d	:-	I
1	m	f	ï;	8	:-	m	r	: M		f :m	.x	m	:-	1
()	m,	f,	:f,	s,	:-	s	s,	; 8,		s, :s	,	d,	:	1
		_				_								-
E	2-	<u> </u>	F 1-		=	₩	-	1=1	-	+	<u> </u>	1	≠	F
E	₽_	ġ.	1	-	7	H-5	-			٤		E	33	E
ľ			1.	1			Ē	1		<u>ا</u> ا	5			
			1	I.	1	8.0				ي و ا				
6);	•				T.					- 140	-		E
2	20	-		-	P	lize	┶┲		+_			±.e	2-1	E
			1	1	+		ł	1				1		
-	0	<u>م</u>		-			<u>~</u>		┟╌		-	.	1	-
R	65		-	-	2		Ŧ			-				E
F	<i>,</i>	-	7	7	1			1		1		-		
Ł			`_	1	_			1	L		'n		Į.	
Æ)				_		E		Ŧ			E		Е
E	~9		-	-		-H-ª	-+		<u>-</u>	F	-	Ę	Ţ	E
			•	•								-		

Notice, however, that its introduction is aided by its waving in thirds with the consonant incidental 1; in fact it seems a case of two part harmony between Contralto and Tenor accompanied by a continuous Dominant. See pedal tones p. 108. Study the seventh and fourth in il. 181. Listen to the third last chord. *



There in ⁷⁴R you have the 7th as h and the 4th as # both properly resolved. Note that this is essentially a resolution on the Dominant 7th. [See Con. Ex., p. 146.] In il. 182 we have a threefold discord. *



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The 4th is prepared and self-resolved; the 9th coupled with it but unprepared; the 7th is continued and resolved in another chord. This is illustrated both in the Major ³⁷⁴S and in the Minor ³⁷⁴M. These being all properly resolved and one of them horizontally prepared we naturally regard them as the Dissourances rather than the Dominant in the Bass. [See Con. Ex., p. 141.]

104. Subdominant Resolution,—There are but few Dissonances which resolve on the Subdominant because it is a less important chord of the mode; a few resolve upon its substitutional chord the Snpertonic.

-on the Third.-Listen to the 7ths in ils. 183 and 184. *





In il. 183 we have the seventh on D as an Afterstroke, passing. It may also occur as a Forestroke with similar preparation. When it is an h, the t has to be prepared in the chord of S, and never finds its proper consonant Resolution; therefore it is seldom used in this form. In il. 184 on the second-last chord of the first section we have the corresponding seventh on Minor L as an Afterstroke, passing. This may also be an oblique Forestroke. But in the Minor it cannot be Horizontally prepared because we have no proper Minor mode chord that would prepare it; the sis only used in this place (instead of se) to avoid the awkward melodic progression se to f. If the melodic phrase were not going stepwise downward, the tone ss would be used. Of this we have an example in the third chord, where se occurs as a waving Afterstroke. Note that the "leaping" c position of the Tonic here is excused because it is within its own chord, the Bass striking the fifth as it moves from the third to the first. [See Con. Ex., p. 145.] Listen to the fourths in ils. 185 and 186. *

	IL.	18	5. к	EY	А.			Is	AAC	Pri	NG.	
,	<u></u>	lm	• * d	ı t	•1	ı£	lf •m r	12	•	ı a	•_	п
	m,	s.	:8.	f.	:-	a	1. :s.f.	m.	:r.	m.	:-	
Ś	đ	d	:t.d	d	:-	1	1, :1,	s,	:8,	8	:	1
	a	d,	:r,m	f,	:-	f,	r, :m,.f,	s,	s,	a,	:-	I
				4F	\mathbf{F}							

Dr. G. J. ELVEY. IL. 186. KEY F. L is D. :1 :80 | 1, :1, :d :1, :t, ď |m :f.r|d :1 :d 1, :1, :se. 11 m 1 :1 r 11 :f m :-.r | d || r d :r m :m.

In il. 185 at the fourth pulse we have ${}^{4}F$ as an Oblique Forestroke. The t could not be Horizontally prepared for the same reason as in ${}^{7}D$ il. 183, and also because it would require to be propared in the chord S and so cannot find its proper resolution in Fa. In il. 186, at the end of the third section, we have the corresponding Minor ${}^{4}K$ is used instead of se for the same reason as in the fourth measure of il. 184, and it is Obliquely prepared because there is no proper Minor chord to prepare it Horizontally, and even if the unaltered *M* could have been employed we should have the

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progression not generally preferred, M R corresponding to S F in the major. [See p. 21.]

-on the Fifth.-There are no Dissonances resolving on the fifth of the Subdominant, because it is the same tone as the Root of the Tonic, and composers always prefer to use the Tonic.

--on the Root.-The ninth on the Subdominant self-resolved may be studied in il. 187. *



The corresponding Minor ${}^{9}R$ might be used. We do not call this the 7th on the submediant (${}^{3}L$ or ${}^{7}F$) because it is obvious that the submediant chord would not bear to be completed by the addition of its 5th. It is evident that the ear regards it as ${}^{9}Fb$ om., or in Minor ${}^{9}Rb$ om. The same Dissonance may occur in the *a* position of the Subdominant. But in the following case of outside Resolution the 5th of the submediant chord is inserted, and we thorefore regard the Dissonance

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as a 7th. See it in Minor, il. 188 second chord of second section. *



105, 106,





In il. 194, second chord of the second section, we have ${}^{94}\text{R}\delta$, and in il. 195, second chord of the last section, we have the corresponding Minor ${}^{94}\text{T}\delta$. [See Con. Ex., p. 146.]

105. Sequence of 7ths.—The Horizontally prepared 7th is so acceptable to the ear that a sequence of 7ths is not uncommon. And for the sake of the sequence, chorde otherwise undesirable, like Ta and Ma are allowed. See p. 37. Thus in il. 196 every chord is dissonant, except the first and the last, and yet it sounds very pleasantly. *



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106. Persisting tonss.—The importance, to modern Harmony, of the Tonio and Dominant is so great, that the ear is often satisfied that one or other of them should pass straight on through the musio. regardless of concord or discord, the only limitations being that the tone thus held on, or repeated, should both begin and end in a consonant chord. When this persistence of Tonic or Dominant does not extend beyond a single measure, we add to our analysis of the chord, the words "persisting d" or "persisting s" or in the Minor Mode "persisting I or m." Listen to il. 197, third pulse, and observe "persisting d" in the Bass. *



Listen to il. 198, third section, and observe "persisting s" in the Contralto. *

	IL.	19	B. 18	ΈŸ	Aþ		COLONEL LEMON.							
1	i m	11,	:t,	d	:-	II r	1 m	: r'	d	:d	1 t.		ñ	
1	s,	f,	:f,	m,	:-	s,	s,	:8,	Б,	:fe,	s,	:-		
5	d	a	:8,	a	:-	t,	a	:r	m	:d	r	:-		
(d , 1	f,	$:\mathbf{r}_{1}$	d,	:-	s,	a	:t,	1,	:1,	s,	;-		
	\sim					~								
(ន	d	:r	m		rd	t,	:đ	m	:r	d	:-	1	
)	s,	s,	:8,	s,	:-	f,	f,	:m,	s,	:f,	m,	:	1	
Ì	t,	d	:f	m	:-	11,	r	:d	d	:t,	đ	:-		
	s,		:t,	đ	:-	f,	s,	:1,	8	:s,	đ,	:-		
		per	s. S											



107. Pedal.—When the persisting or continuing Tonic or Dominant extend beyond a single measure they are called Pedal tones or Organ points. When there is a Bass Pedal the other parts must necessarily have good Bass apart from the Pedal. We therefore, in analysing, name the chords independently of the Pedal tone, and place them in square brackets to indicate that a Pedal tone is present. Like the "persisting tones," the Pedal also should begin and end in consonant Harmony. Listen to a Tonic Pedal in il. 199, and to a Dominant Pedal in il, 200. *





There must be nothing like a decided change of key during the progress of a Pedal, lest the Pedal tone should he deprived of its recognised character as Tonic or Dominant of a particular key. But such seeming Transitions, and Chromatic Resolutions as those in ils. 201 and 202 are occasionally employed. These Chromatics are explained, pp. 112 and 116. Listen to ils. 201 and 202. $*^{\dagger}$



An Inverted Pedal is the same thing as a Pedal but introduced in some upper part. Sometimes both sorts of Pedal are used. See Con. Ex., pp. 147 to 149. See Double Pedal, il. 228, and Broken Pedal, il. 229.

+ See also ils. 261 and 262.

108. Ornamental Incidentals within a chord.— Incidentals are more freely employed when the chord in which they occur has already been struck. This is especially the case when they occur in coupled 3rds or 6ths, and when the chord in its Consonant form is about to be struck again. Examples may be found in il. 203. *

I. 203. KEY C.
(
$$d^{1}:t | 1:s | 1:t | d^{1}:r^{1} | t:d^{1} | 1:t | d^{1}:r^{1} | m^{1}:-$$

 $m:- |-:-| d:- | -:- | d:r | m:f | s:-|$
 $s:- |-:-| f:- | s:-| 1:- | s:-| -:- | d:- | -:- | d:-|$
 $d:- |-:-| f:- | m:-| f:- | s:-| d:- | -:- | d:-|$
 $d:- |-:-| f:- | m:-| f:- | s:-| d:- | -:- | d:-|$
 $p \circ p \delta p u u u k$
($d^{1}:r^{1} | d^{1}:t | d^{1}:r^{1} | m^{1}:r^{1} | 1:t | d^{1}:m^{1} | r^{1}:- | d^{1}:-|$
 $1:- | -:-| f:- | s:-| n:-| 1:s | d^{1}:-| f:-| s:-| d^{1}:-|$
 $1:- | -:-| f:-| s:-| 1:-| f:-| d^{1}:-| f:-| d^{1}:-| f:-| d^{1}:-| 1:-| f:-| d^{1}:-| d^{1}:-| d^{1}:-| d^{1}:-| 1:-| f:-| d^{1}:-| d^$

This il. is not like a psalm tune or a part-song, in which each part is of nearly equal importance, and in which a fresh chord, or a fresh form of a chord is struck at nearly every pulse. It is more like a Soprano solo with humming accompaniment, in which there is necessarily less motion than in the solo, and as little change of chord as possible. Compare "Angel of hope," Add. Ex., p. 48. Listen to il. 203, and observe in the first measure that the passing Afterstroke t resolves upon the oblique Forestroke l, as we found was not uncommon among the part-pulse dissonances. Sce p. 72.

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Moreover this I does not resolve upward, like the ⁶D in il. 173 but downward like a part-pulse dissonance. Both Incidentals proceed stepwise from a consonance, and must continue in the same direction, till another consonance is reached. In the second measure we have r as a Hanging tone, which is very uncommon except as a part-pulse dissonance; moreover we find it here with a curiously interrupted or transferred Resolution. Both the r and the t seem to oscillate around the d and then find their rest in it. In the third and fourth measures we have examples of coupled Incidentals. The two parts move in sympathy, and they form correct two part Harmony with one another. This must always be the case when two parts move whilst the other parts arc stationary. In the fifth measure we have r in L not in the Minor mode, and horizontally prepared as usual (IL. 163), but in the Major mode treated as a passing tone. We have also t in L in the Major treated as a downward waving tone instead of the horizontal ⁹L in the Minor to which we have been accustomed. See il. 166. Compare the seventh measure, second pulse, where we have the same dissonance in a secondary degree as a passing tone. In the sixth measure we have "R not Prepared and Resolved as we have been accustomed to see it. (see ils. 45 to 49) but like an upward Oblique Forestroke among part-pulse Incidentals. The chord on the third pulse of this sixth measure we naturally interpret as 'S with a Consonant Waving Forestroke self resolved, rather than as the little used chord Mb. Very rare also except as partpulse Incidentals are the Guiding m with its companion the Anticipating s in the last pulse of the seventh measure.

109. Two as one, and one as two.—In such cases as il. 203 it is often (not always) desirable to treat two pulses as one, and to analyse accordingly. In a slowly moving psalm tune the composer generally changes his chord with every pulse, but in a psalm tune or part song in which the melody moves very quickly, such a constant change of chord would bo ungainly, and in such cases it is often desirable to analyse two pulses as one. On the other hand in some of the bold choruses of Handel as "Then round about the starry throne" in which this constant change of chord is introduced for the sake of its own striking and rousing effect, it is necessary for the analyser to treat each single pulse as two. Compare Standard Course, "What is a pulse?" p. 65. But the analyser is not at liberty to do this without writing over his analysis "two as one" or "one as two," or to use this liberty for less than a long phrase or a section.

110. Interrupted Resolution.—Listen to il. 204, second section, second chord. *



Here, the ear so clearly recognizes the resolution of s on the next pulse but ene, that we cannot regard it as unresolved; we must describe it as having interrupted resolution. But the interruption does not so often last for a full pulse as for part of a pulse. This may be heard in the third-last chord of the same il., where the chordtone l, interrupts the resolution of d. There is, however, continuity of mind where there is no continuity of sound. We therefore regard this as a full-pulse dissonance. See two interesting cases in Add. Ex., "Hear me when," p. 17, sc. 2, m. 3; and ditto "Hallelujah," p. 26, sc. 3, m. 2, p. 1.

111.—Rules of Convenience.—For the sake of uniformity in Harmony Analysis the following rules must be observed, in addition to those at the beginning of the work.

21.—As the Dissonances in ⁷S, ⁷T, and ⁴S, ⁷R, have been very fully treated in the first part of this book, and as it is *known* to the student, that the Dissonances in the first two are almost always unprepared or obliquely prepared, and in the second two almost always horizontally prepared, it is better not to mark their preparation apology except when occasionally they are prepared in some different way. This rule applies also to those of the corresponding Minor chords, ^{7ee}M, ⁷SE, and ⁴M, ⁷T, and to all the chromatic discords named in the next Step that are formed on the dominants of the relative keys, as ^{7dero}T, keD, ^{7de}L, &c.

22.-All peculiarities of Resolution of dissonances as Forestrokes or as constituents of Discords (see definition 5) whether full or part-pulse, should be shown in the analysis. Delayed Resolution as in ils. 46, 48, 54, may be abbreviated, del. res. Indirect Resolution, as in il. 179, may be abbreviated ind. res. Interrupted Resolution, as in il. 204, may be written int. res. Upward Resolution, as in il. 179. is marked up. res., and Herizontal Resolution, as in il. 258, hor. res. As chromatic chords are intentionally resolved differently from the same chords when transitional, we shall find the dissonances in them moving in various irregular ways. When there is anything peculiar, either in their preparation or resolution, which cannot be described by any of the terms above used, we write chr. underneath the chord.

23.—Chromatic constituents to form part of the name of the chord, thus, ^{1a}F, ^{ta}D.

24.—Chromatic Afterstrokes to be named in analysis, thus, D.

25.—Secondary chords are, as will be seen in ils. 84 to 89, mostly consonant, but the following discords will be admitted as secondaries:—7S, ⁷T, ⁷R, ^{7se}M, ⁷S.E, ⁷T, and the chromatic discords formed on the dominants of the related keys, as ^{ta}D, ^{7fe}R, ^{7de}L, ^{7sre}T, &c.

26.—The Dissonances in Discords (see def. 5), such as those referred to in the foregoing rule, are to be numbered in accordance with rule 6, whether occurring on the weak pulse or on the weak part of a pulse.

27.—Where a Pedal tone (either Bass or inverted or both) is used, the chords, whether Dissonant or *Consonant* are to be analysed independently of it.

28.—The distinction between the bracket, p. 108, par. 107, and the parenthesis, p. 48, par. 56, should be carefully noted.

29.—In analysing persisting tones (par. 106) it is not necessary to number in the chord the Dissonance which persists. It will be enough to write *pers.* **d**, *pers.* **s**. &cc.

30.-When a chord is repeated or continued in the same position for several pulses, it should be named only at the first pulse of each measure, and its duration shown by continuation marks. If part-pulse or weak-pulse Incidentals occur their apologies can be placed under the continuation mark of the proper pulse; but if a full-pulse or strong pulse Dissonance intrudes, the chord must be distinctly named and numbered, and it must be named again when it returns to its consonant form. Thus-

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 $|\mathbf{D}:-:-|^{24}\mathbf{D}:\mathbf{D}:-|\mathbf{S}:-:-|\mathbf{D}:-:-|\mathbf{D}:-:-||$ 81; "The Spring," only p. 52; "Harvest," p. 39; 2w name all the different kinds of 7ths, except 7S and 31. - Such a passage as this - (s ;-.d') part-pulse 7ths, 7D, 7L, &c., giving the score, meamay be analysed as under instead of m :−.s sure. and pulse in which they occur. thus-|D :-- || so as to show the d' :- ,m' Ex. 164. Ditto, the different kinds of 9ths. rhythm. 3 byes 32. - Two-part harmony is not d' :- .d' Ex. 165. Ditto, ditto, 2nds. analysed. $\mathbf{D}:-\mathbf{D}$ Ex. 166. Ditto, ditto, 4ths. Ex. 142. Describe as in par. 100, 102, the Ex. 167. Ditto, ditto, 6ths. eight points of the following discords:-- ⁹D, il. Ex. 168. Ditto. ditto. coupled dissonances. 173; baL, il. 174; 9S, il. 176. Ex. 169. Ditto, ditto, overflowing Dominant. Ex. 143. Ditto, 980 M, il. 177; 9780 M, il. 178; ²S, il. 179; ⁹⁷M, il, 179. Ex. 170. Ditto, ditto, Holding tone and Pedals Ex. 144. Ditto, 4ba M, il. 180; 74R, il. 181; Ex. 171. After studying over again Cadence Relation, p. 45, 46, 64, analyse the cadences (as 974 M. il. 182. Ex. 145. Ditto, *F, il. 185; *R, il. 186. Ex. 101) of the following pieces :---Ils. 92, 97, 137, 144, 145, 146, 169. A cadence in the Tonic of Ex. 146. Ditto, "F, il. 188; "F, il. 189; "R, the Relative Minor of the first flat key is marked il. 190; 9R, il. 191. thus, RL. Ex. 147. Ditto, "Rb, om., il. 192; "R, il. 193; Ex. 172. After studying over again Sectional ⁹⁴Rb, il. 194; ⁹⁴Tb, il. 195. Relation, pp. 61 to 64, analyse (as Ex. 105) the relations of ils. 147 and 148. Ex. 148. Analyse for Chord. Position. and Incidentals, ils. 162 to 168. Ex. 173. Ditto, ils. 150 and 151. Ex. 149. Ditto, ils. 169 to 174. Ex. 174. Ditto, Add. Ex., "The Quail," p. 14; Ex. 150. Ditto, ils. 175 to 180. "Time for joy," p. 15; "Lord," p. 33; "Rise," Ex. 151. Ditto, ils. 181 to 187. p. 33. Ex. 152. Ditto, ils. 188 to 193. Ex. 175. Ditto, Add. Ex., "Father," p. 34; Ex. 153. Ditto, ils. 194 to 198. "O the joy," p. 57; "Where the," p. 65; "Morning," p. 79. Ex. 154. Ditto, ils. 199 and 200. Ex. 155. Ditto, "God speed," Add. Ex., p. 1; "Jackson," p. 2; "Fortune Hunter," p. 4. Ex. 176. After re-studying the analysis of Transition and Modulation, pp. 56, 57, 89, analyse Ex. 156. Ditto, "Thou shalt," p. 7; "Quail the Transitions, Modulations, and Transitional Mod-Call," p. 14; "Hear me," p. 17. ulations, never omitting the returns,-in ils. 163, Ex. 157. Ditto, "Come let," p. 24; "Hallelu-172. jah," p. 26. Ex. 177. Ditto, Add. Ex , "Nearer," p. 35, sc. Ex. 158. Ditto, "Nearer," p. 34; "The 1, m. 1; ditto, p. 35, ec. 1, m. 3; ditto, p. 35, sc. 2, Gipsy's," CHORUSES only, pp. 36, 37, 38. m. 1; ditto, p. 35, sc. 2, m. 3. Ex. 159. Ditto, "Harvest home," p. 39; "The Ex. 178. Ditto, Add. Ex., "Away," p. 42, sc. Spring," p. 50. 3, m. 1; p. 42, sc. 3, m. 6; "The Spring," p. 52, Ex. 160 Ditto, "Awake," p. 62. sc. 3, m. 1. Ex. 161. Ditto, "Theme," p. 66. Ex. 179. Ditto, Add. Ex., "The Spring," p. Ex. 162. Ditto, "The woods," v. l, p. 71; 51, sc. 5, m. 1; "Theme," p. 68, sc. 5, m. 2; "O "Ye spotted," p. 81. Saviour," p. 86, sc. 1, m. 2. Ex. 163. In "Jacksons," Add. Ex., p. 2; "Hear me," p. 17; "Hallelujah," p. 26; "Theme," Ex. 180. Ditto, Add. Ex., "The stout only p. 68; "How lovely," only p. 61; "God limbed," p. 78, sc. 5, m. 3; "Saviour breathe," p. speed," p. 1; "Gipsy's," p. 35; "Ye spotted," p. 92, sc. 1, m. 4; "The Spring," p. 52, sc. 1, m. 3. *.* See "Chord-Naming Examples," A, 63 to 69; B, 63 to 68. How to Observe Harmony.

THIRTEENTH STEP.

112. Chromatic Resolution.-A development of the subject of Chromatics will be found on pp. 58, 59, and these paragraphs should be thoroughly mastered hefore proceeding to the studies of this step. On the theory that chromatics may, with few exceptions (to he presently noted), be regarded as Transitions nipped in the bud,-we shall seek in each case for the Transitional Model; that is we shall find out what the threatened Transition is, for it is the resolution which makes the Chromatic effect. It is worth noticing that the chords which are most used as the distinguishing chords of Transition, are also the chords most used with Chromatic Resolution,-first, those from the first sharp key shewing fe and re, next, those from the first flat key, shewing de and ta, and next, those from the third flat key, shewing la and ma. After these we have chords showing ra with la. whose nearest models are in the fourth flat key. Then chords with re and f in opposition and la and fe in opposition, which, it is evident, cannot have relation to any one key.

113. Chromatic re and fe.—The tones fe and re remind us naturally of the first sharp remove. They occur together in the chords, fore T, 7 fore T, ^{7 fe}RE, and as incidentals within the chord D. The most natural interpretation of these chords would be to suppose them the seM, 7seM, or 7SE, of the first sharp key (see the Modulator), and we should expect them to be followed by L of that key, which would be called M (not $e^{R}M$) in the original key. Thus would be made a Transition (and if the original key were Major, a Transitional Modulation) into the first sharp key. But when instead of that the chord moves to some characteristic chord, like se M, 7se M, Lc, or Lb, of the original key we feel that the Transition was only threatened and that the ear has faster hold of the original key than before. Listen to il. 205, and notice the second chord fere T. +

IL. 205. KEY D L is B. G.O. $\begin{pmatrix}
\widehat{m} & \text{re :r} & d & :- & \widehat{m} & 1 & :t & d' & :t & 1 & :- \\
d & t_1 & :t_1 & 1_1 & :- & d & r & :t_1 & m & :r & d & :- \\
1 & fe & :m & m & :- & 1 & f & :fe & 1 & :se & 1 & :- \\
1_1 & fe & :m & m & :- & 1 & r & :re & m & :m & 1_1 & :- \\
fe & re & fe & re & m & :m & 1_1 & :- & r & :re & m & :m & 1_1 & :- \\
\end{bmatrix}$

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Its Transitional model is ^{se} M of the first sharp key, but if it were Transitional it would resolve into M which would be the same thing as L in the new key. It, however, asserts its Chromatic effect by resolving into the Dominant 7th of the original key. Listen again to the fourth-last chord where we have the same fore T. resolving chromatically into the third position of the Tenic of the original key. * Compare the second part of il. 102, where we have analagous Resolutions of Chromatic fe (without re) in the Major mode. The pupil may try to find other Chromatic Resolutions, that is other Resolutions strongly asserting the old key, for this chord, and he will find that the tone t prevents its moving to the Major chord Dc. In the Minor t is not the leading tone, and may be doubled (as it must be in this chord unless we were to commit the harshness of doubling one of the Chromatic tones). But in the Major mode t is the leading tone and cannot be doubled without consecutive octaves, see p. 44. Listen to il. 206, second chord, and fourth-last chord, where you have the same chord with the 7th upon it, reselving Chromatically in a similar manner. *

Il.	206.	KEY A	. L is	F#	•		G.O.			
î,	1, :se.	1. :-	l F	a	:t,	đ	:t,	1,	:-	11
m,	fe,:m,	m, :-	11	1,	:l,	1,	: 60 ₁	1,	:-	
m	re :r	d :-	r	m	:fe	m	:r	d	:-	li
d 7 fe i	t, :m, "° <i>T</i>]1 , :-	£,	m,	:re,	m,	:m,	1,	:-	ł



Note that the Dissonance in the second case has delayed Resolution. Compare with the Chrematic Discord on the *Major* Supertonic in the close of il. 101. Although the resolution is only *delayed* in these cases the dissonance might have been simply continued *without* any downward resolution, like d in [†]R il. 258. This we call Horizontal resolution. Listen to il. 207, and observe the first chord of the last section. *



If it moved to M instead of to ^{se}M, we should naturally regard it as ⁷SE going to L in the first sharp key, but as it moves to the Dominant of the original key, we analyse it as ^{71e}RE. As in ⁷SE, p. 78, there is no real dissonance, no apology is needed for the seventh. Listen to il. 208, first chord of second section, where the same chord resolves chromatically on the Major chord Dc.*

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As the chant is in the Major, this chord threatened Modulation as well as Transition, and its Chromatic offect is all the stronger as it implied a clinging to the old mode as well as the old key. The doctrine and practice of Chromatic chords was never very carefully explained till Mr. Macfarren wrote. Hence it is that musicians write some chromatics—this particularly—either with a sharp or with the flat of the tone above, so that the chords ⁷⁶eRE and ^{ma}FE are interchangeable. We prefer the second interpretation because, as we have seen, rs properly belongs to the Minor mode. Listen to il. 209, second chord. *



I



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This chord may be analysed either as fereD. with two Waving Forestrokes within the chord of D (see il. 226), or as maFEc, the d in both parts heing continued instead of resolved in the ordinary way. We prefer the first interpretation and would regard it as a model of ornamental Chromatic tones, running in couples. In either case the chord is Chromatic not Transitional, for it moves to the Tonic of the original key. See two parts moving while the other two parts stand, above in il. 203. Notice in passing that the cadence of the third section is a case of overflowing Dissonances, which reminds us of ils. 169 and 170. It is not Chromatic like FEb il. 103, pp. 58 and 59, hut a clear case of flat key cadence (p. 54). If il. 103 had its last measure cut off, we should regard the cadence left as transitional (SD), not Chromatic. If the s in the third cadence of il. 209, had outside resolution (on R or Tb) we should call it Chromatic. Compare Add. Ex., p. 59, sc. 5, m. 1.

114. Chromatic de and ta.—These tones naturally remind us of the *first flat* remove. Listen to il, 210, the second chord of the last section. *

	Ίг.	210	0. :	KEY	Ξþ	. <i>L</i> is	C	8	Sir	J. Go	oss,		
	ŝ					ŝ		fro	m]	Beet	нол	EN.	
(m	m	:m	m	:-	mfe	8	:8	6	:8	6	:-	1
Y	d	đ	:đ	r	:-	dr	m	:m	f	:m.r	m	:-	
١	1	1	:1	t	:-	d'	ď	:d'	r	:d'.t	ď	:	
(1	1,	:1,	se,	:-	1,	6,	:s,	8,	:6,	đ	:-	
	Bþ	.t.				f.Eþ.							
1	G.	đ	:r	m	:- 1	It ba s	el 1	: m	1 m	:m	1 m	:-	н
l	m1.	1.	:1,	6Đ,	-	s,r	a	e :đ	lt	:d.r	a	:	1
5	m]	d	:1,	t,	-	n t	m	:1	1	:se	ī	:	H
l	df.	f.	:f.	m.	-	n.t.	1	. :1.		:m:	1.	:-	
`	,	• - 1			- •	1 1-1	de j	5				•	

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There you have ${}^{de}L$, whose Transitional model is ${}^{se}M$ of the first *flat* key. This chord is most used in the old style of Harmony on the Minor Tonic cadence where it is called the Picardy Third, but is little used in Modern music. In il. 210, if it had resolved on R we should have deemed it a Transition to the first flat key, but as it resolves on the Tonic of the original key we cannot help feeling its Chromatic effect. The part which has de has generally a sliding melody like this **r** de d. Listen to il. 211. *



Here we have the chord TA with two Chromatic Resolutions. Its model is F of the first flat key. It is the commonest form of what is called the Neapolitan Sixth, having a "minor sixth on the second of the scale." Listen to il. 212, and notice the third chord of the second section, and second chord third section where you have the same de_L as in il. 210 with a 7th resolving Chromatically on the Dominant. *



Listen again to il. 212, second chords of first and fourth sections and notice the corresponding Chromatic Discord on the Tonic of the Major mode, resolved chromatically on ⁷S and on another Chromatic chord ⁷teR. Notice that this other Chromatic chord immediately resolves on D.e. Listen to il. 213, and notice the third-last chord of the third section. *

	IL.	213	В. в	EY	D.						G	ł 0.	
l	a l	ា	;fe	5	:-]] 🔒	S	:s	8	:s	f	:-	11
ł	d	d	:d	r	:	r	đ	: r £	r	:d >	đ	:-	11
١	m	8	:1	t	:-	t	ď	:ta	t	:ď'	ď	:-	I
l	đ	đ	:1,	8,	:-	s	m ra	:m taM	f	:m	ļı	:-	
	•					0							
L	(in	េន	:se	1	:-	n t	ď,	:ď	α,	:t	(d'	:	1
١	đ	de	:r	m	:-	r	m	:d	r	:f	m	:-	1
١	1	m	:m	1	:	se	1	:d'	1	: s	8	:-	H
(1, _t	ta a Di	:t,	d	;-	t,	1,	: M	f	: 8	d	:-	U
	1	-DI Tow	to i	068	erve	Harn	non	y.					



Here we have both de and ta in the same chord. and if we examine the Modulator we shall find that its Transitional model is ${}^{7}SE$ of the first flat key, but instead of going to the chord R (which would be L in the first flat) it goes to the Dominant 7th of the original key and so makes a Chromatic Resolution. Listen again to il. 213. third chord of second section. * Here we have what is often regarded as a different chord (rata M whose Transitional model would necessarily he 'SE four flat removes away) but what we prefer to regard as the same chord differently written, and introduced . in the Major mode, just as we found 7feRE differently treated in ils. 207 and 208. We prefer this interpretation because of the nearer Transitional model. But writers in the staff-notation have fallen into the habit of writing it with a sharp (making d de r) when it occurs in the Minor and with a flat (making d rs r) when it occurs in the Major mode. Here it resolves Chromatically on the Dominant 7th in both modes, but, of course, the Chromatic effect is stronger in the Major because the chord then threatens change of mode as well as change of key. The correlative of the chord in the Minor is ta7 deL, and in the Major, ra taD. Listen to il. 214, and notice the 6th chord. *

Iı	. 214.	KE	ч D /	i 18 <i>B</i> .			G.().
:m	m : m	m :1	s :se	41:t	ta:1	se:1	d':t	I
:d	dø:r	d :d	de:r	d :m	m :re	r :d	m:r	a
:1	ta:t	1:1	t :t	1 :se	s :fe	f.m:m.l	1 :se	1
:1	6 :88	1:f	m :m	1,:m.r	de:d	t, :1,	m :m	1 ,
			'DE b	r i				-
		•••						



Here is a chord resembling the last with the exception that the 7th is sharp and not flat. This sharp 7th is not to be found in the Transitional model, but being a note of the original key it is easily introduced. This chord does not suggest *change* of key, but it suggests *uncertainty* of key, which its Resolution instantly removes. It resolves on the Minor Dominant.

115. Chromatic la and ma.—These tones naturally suggest Transitional medels in the *third flat* remove. Listen to il. 215, and notice the first chord of the last section. *



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It is ${}^{h}F$ with its model in R (the Minor Subdominant of the third flat key) but instead of moving to any chord of that key, it resolves into Dc of the original key. Listen again to il. 217, third chord. * Here is maD with its model in the Minor Tonic of the third flat key resolving Chromatically in the Major Dominant of the original key. Listen to il. 218, and study the second and the fourth-last chords. *



They are in different positions, ^{ma}LA, whose model is F (the Major Subdominant) of the third flat key resolving chromatically into the original Dominant.

116. Unrelated Chromatics.—Certain less commonly used Chromatic chords which do not threaten any definite change of key, nevertheless, purposely unsettle the key in order that they may, by their Resolution, affirm it strongly. Listen to il. 219, second chord. *



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This chord has no model, unless we could suppose that the ear can remember removes as far as the fourth flat. In the third chord of the second section we have it in its b position, and here, counting from f_i in the Bass to ra there is a Minor 6th, in this case plus an octave. The chord in this position is also called a Neapolitan Sixth; but the form of Neapolitan Sixth shewn in il. 211 being more nearly related is more commonly used. Listen to ll. 220, second-last chord of second section. *

IL. 220. KEY C. Lis A. Rev. J. C. CROSTHWAITE.

 1
 t
 :d'
 t
 :d'
 t
 :d'
 1
 :1
 :se
 :

 m
 m
 :m
 m
 : m
 m
 :m
 m
 :res
 m
 : : i
 i
 :1
 t
 : : i
 t
 :s
 i
 :1
 t
 : : :
 : :
 :
 :
 m
 m
 :m
 m
 :m
 i
 :m
 :m
 i
 <td

This is a chord of very peculiar structure, which we should have named RE if there had been any third above it, for root and third we reckon the great essentials of a chord. Reckoning from the Bass, it has an *augmented* 6th between f and re. The chord has come to be called the Italian 6th. Its f suggests the original key, while its re suggests the first elarp key, but the doubt is settled by a strong Chromatic return to the original Dominant. Note that this is a chord raised on the Submediant of

the Minor mode; that Submediant which is a Major third below its Tonic. A corresponding chord on the Major Submediant, which is made to be a Major third below its Tonic, and which is also called the Italian 6th (between la_1 and fe) may be studied in il. 221, with two Resolutions.



It has no Transitional model. Its fe suggests the first sharp key, and its la the third flat key, but the dispute is immediately ended by the Resolution either into the Dominant or into the c position of the Tonic of the original key. Listen to il. 222, fourth last chord. *



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Here is another chord having an augmented 6th (between la_1 and fe) above its Bass, and also a 5th, ma, which is sometimes written re. This chord is called the German 6th. Listen to il. 223, fourth last chord, and study another Chromatic chord without Transitional model, containing another augmented 6th from the Bass (la_1 to fe) but having r instead of ma.

Tr.	22	à .		ะ`ำค				2		R R	4 D N	DV	
		0.	D 10 1						•		ADP		
([m]	f	:fe	B	:-	-	m	1t	:r	m	:r	d	:-	H
) a	1,	:r	r	:-		d	đ	:d	đ	:t,	a	:-	1
) 8	1	:1	8	:-		8	f	:fe	9	:f	m	:-	
(a	d	:d	t.			ta,	1,	:la,	6,	:8,	đ,	:-	1
							4	^f eLA					
· · · ·	<u>~</u>		<u>+</u> -	<u>ب</u> ب	_	ա≏	-		-	-1			0-
6	- 2 -			2	-						-		Æ
9-	_		F-	F		.u			ب		┛╌╌┡		
	-	<u>'</u>	1	1				I, İ	•	J 'T		1	
(A)-				<u>~</u>	_			e_1e.			-	<u></u>	æ
S.			É	F5	-			-60	=		-=		ŧ
					-		+						_

Listen to il. 224, and notice the corresponding chord of the *Minor* mode. The chord in this form (whether in Major or Minor mode) is called the French 6th.*

In all these cases the augmented 6th to the Bass (re in the Minor above f, or fe in the Major above la), may be reckoned a constituent of the chord, and as its progression is uniform it need not, although a dissonance, be apologized for in the analysis. The 4th to the Bass in the form of the chord seen in ils. 223 and 224 having also a comparatively free progression needs no further notice in analysis than the number of the dissonance in the chord name. The same rule applies to the augmented sixths in il. 225.



Here more strongly than in il. 220, f with t asserts the original key, and re the first sharp key, but the third position of the original Tonic immediately asserts itself. Listen to il. 225, and in all the chords which are there analysed except the last, study other but far less common forms of the augmented 6th. *



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Notice that in all the cases of augmented 6th which we have given, the 6ths do not bear inversion into 3rds, but any other note of the chord may be placed in the Bass. Listen again to il. 225, and study the fifth-last chord $7 \approx D$. It is quite as often used without the 7th. It is the Mediant of the Minor mode. The se being a dissonance to the Bass needs preparation, but to save the awkward progression se f it is resolved upwards.

117. Ornamental Chromatics.-As we noticed in par. 108, il. 203, p. 109, that Incidentals are more easily introduced when placed within a chord so is it with Chromatics, especially when they are taken waving like under or over leading tones, or sliding from one scale-tone to the next. Thus we explain the uncommon Dissonances and Resolution. in il. 226,-the fe and re, in m. 1; the le and de, in m. 2; the ta in m. 3, p. 2; the ma in m. 3, p. 4; the de, in m. 4; the la, in m. 5, p. 2; the fe. in m. 5, p. 4; and the de (substituted for r), in m. 7. * When these Chromatics occur as afterstrokes they are to be marked under the chord-name as chr. p., chr. w., &c. When they are "constituents" they must, under Rule 23, form part of the name of the chord.





118. Analysis of Accompaniment.-In instrumental accompaniments chords are often broken and distributed over a whole measure, or half a measure, instoad of being struck fully at once on the first pulse of the measure. Thus in il. 227, m. 1 to 10, the Base notes which fill but one pulse are to be regarded as occupying the whole measure, and the other notes are to be looked on as commencing at the beginning of the measure. *

IL	. 227	. KEY	F					G.O.
/ m	:r :	d is,	:d	: 17	f :m	:r	d :	- :)
}	:đ: :s,: :m,:	d s, m,	:d :s,	:d :s,	:t, :s, :f,	:t, :8, :f,		:d:d: :m, :m,
\ a,	: :	m,	:	:	8, :	:	1, :	: :)
/ ^d '	:1	::1	s	:m	:d	ľ	:t	:1
١.	:s :d	:s :d		:m :d	:m :d		:r :t,	r d
λ.	:s,	:8,		:8,	:8,		s,	:fe,
(m m,	:	:	a d,	:	:	r,	:	:)
(s	:	:] m	:	r :d	s,	:đ	:m)
2	:r ;t,	:r :t,	'	s,:d,	m:d.s,		s,:d .	mtd.s,
H-	:8	:8,						
[] 8	:	:	(d _i		:	d _i	:	• /
(]f	:m	:r	8	:	:50	\mathbf{n}	:	в:f \
)	:d.	:t,.	đ	:	:	1.4	ſ:ſ.	f: .r/
		•••••	ן"ו	•	•	13	,:1,.	l,: .s,∖
[] 1.	1,:d .:	f :r .f,	[m,	:	:	f.	:	:s,.)

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notes in the melody which must also be recognised in the analysis thue $|D: -: - |Db: -: - |^7S: -: - |^7S$

and $(Dc: -: {}^{7}S)$, &c. It is as though all the notes (not including the pass.) were pushed back to the beginning of the measure; written thus, the consecutive unisons in m, 10 would disappear. The

Rhythmic-chordal accompaniments in m. 1 to 8, as well as the Arpeggic accompaniments, m. 9 and 10 are felt by the ear as only broken forms of sustained chords. M. 11 would be thus analysed $|\mathbf{F}:-::^{7}\mathbf{Sd}$.

The m. 13 to 15 are in the same style as m. 1 to 8, only with greater rhythmical variety, and they should be analysed in the same way.

119. Examples of Analyses.—A few examples of rare or difficult analyses are here added, with remarks on each case.

II. 228 is a case of *Double* (Tonio and Dominant) *Pedal*, with pure two-part harmony above it. As we do not analyse two-part harmony, the analyser has only to place empty square brackets beneath the music.



IL. 229 is a case of *Broken Pedal*. The Tonic Pedal is heard on every accent, although the chord is "broken" as in Rhythmic chordal or Arpeggio accompaniment. See il. 227. In instrumental music the Pedal is sometimes much more broken than here. In this case, besides the Pedal, only two-part harmony is left, so that we mark the passage like that in il. 228.

IL. 229. KEY Ab. W. MACFARREN'S "Cradle Song." :m.d|f :m.d/m :d.r/m :m.fle :1 18 :d.d 1, :m,.f, s, :f (m :s..m.[s] :đ.r | đ ſđ :8 łđ đ :8 :8 :8 How to Observe Harmony.



In il. 230, second chord, we have a peculiar case of *Interrupted Resolution* (see p. 110), in which r resolves on the d of the next pulse but one, but with an interruption. The s₁ interrupts as a consonance, and then joins itself to the resolution by quick stepwise dissonances; — so that both the dissonance r and the interruption, s₁ l₁ t₁ direct the ear to the resolution d. When one part-pulse dissonance follows another in the same "part," we write the analysis on the same line, not one under the other, and place the sign "&" hetween.



In il. 231, we have the dissonant fourth (d) repeated in another pulse, though in the same chord, before its resolution. It may be called a *Continued Waving tone*. The second w is marked by a continuation line. The 1 in the Air of the second pulse we treat as a guiding tone resolving like the second in il. 179, and the sixth in il. 173. Its resolution is *interrupted* not by a consonant tone (ils. 204, 230), but by the repetition of a dissonance (d), already sounding in the chord.



In il. 232, we have a sequence of sevenths (see il. 196), the dissonances being first in the Bass, next in the Contralto, and next in the Tenor. The min the first case and the d in the second are Out dissonances, the progress of the dissonance itself being cut by a silence, while the resolutions are regular. It has no interrupted resolution. The 1 in the third case is a dissonance with delayed resolution, that is, passing as a consonance through another chord. Notice that, in analysis, we do not repeat the h, in such cases, but simply use the continuation mark. Notice a case of Omitted Root. Sss p. 44. The chord 'S is struck on the medium pulse of the third last measure, and on the strong pulse of the second last; and as all the parts except the Tenor are simple continuations we think that the ear will regard 7S as the prevailing chord to the end, and the tones in the Tenor as only ornamental incidentals within the chord.

	IL. 2	232.	. 1	KEY	F.	М	en's '	s "Orpheus,				
							-	h his lu	te."			
1	: m .m j	f .,s	::f	1	:f .f	f .,	s:f	T	:f.f	f.,s:f	1	
١	:t ₁ .t,	đ	:đ	I	:d .d	đ	:d	1	:d.d	t, :t,	1	
Ś	:s.s	1	:1	T	:1.1	1	:1	Т	:1.1	1 :1	Ì	
(:m .m	m T F d	:m	1	:m.m 7Fd	r R	:r	I.	$r.r^{7}R$	r :r 7Tb —		
		υ h			_	w h	_		_	w h del.re	s.	
		-		~ •								

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In il. 233, the third pulse illustrates Omitted Root. See close of par, on p. 44. The chord 'S is in the ear from the beginning of the measure, the third pulse heing the same as the first with the substitution of the ornamental chromatic fe for the root s; and the music still moves on in the chord 'S. Notice that in the second measure D is the prevailing chord as S is in the first. Therefore we do not regard the second last chord as maFE, but as maD (il. 217), with waving fe.

	IL.	233.	ĸe	¥ C .	8	Sullivan's Vic	" Joy tor s. "	to	the
(s	:1.8	fe	: 5	s	:1.s fe	:s .se	1	11
١	f	:f.f	f	:f	m	:m .m ma	: ma.ma	r	
١	t	:t.t	it	:t、	ď	:d'.d' d'	:d' .d'	ď	
(r	:s,.s	ir teisc om. wf	:8	đ	≤s₁.s, d fe maD wf	:s ₁ .s ^{ma} Dc chr.p	fe	ľ
	\$						- 515		I
	0							Į.	
-				1-1-1					

In the Base of il. 234 we have three cases of Double Waving tones, that is, first a wave upwards and then a wave downwards from the chord-tone in the same part and in one pulse. In the third measure we have a case of "overflowing chord" something like those in ils. 169 to 171, but with the chord struck first in its b position (displacing for a time the root), and moving to its a position at the same time that the dissonances move to their resolutions.



In il. 235, as the music moves quickly, and as the chord 'S is struck on the three successive accents, we think the ear would regard the le m and de of

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the weak pulses as ornamental coupled wavings within the chord ⁷S. See il. 226. But if the music were slower we should suppose that the composer had written 1s with a sharp instead of ta with a flat for supposed convenience of the singer. Compare il. 213.

IL. 235. KEY G. BARNBY'S "A wife's song."



At the opening of il. 236 we have a case of sudden transition. See p. 51. The t and se of m. 2, p. 1, are distinguishing tones of the first sharp key, while the f in the previous pulse equally distinguishes the original key, so that there is no true transmutation chord, and the transition is sudden. The second part of the fourth pulse cannot truly be regarded as a secondary chord (p. 40), because it is not consonant, nor is it 7S (p. 41), and the Soprano and Contralto tones are obviously mere passing tones. The printer, in order to avoid the wide bridge-tone rese, which on our plan of "equal pulses for each line" would have "spread" the music too much, made the bridge-tones on the weak part of the previous pulse,—but the analyser is not obliged to do so, he gives the true sudden transition. The analyser is independent of "printer's convenience." Notice, that in the first, second, and third pulses of the second measure a secondary chord is really struck (p. 40), but as the chords ⁵⁰ M and ⁷⁸⁰ M really fill and dominate the whole measure the ear does not give this recurring Le the importance of a secondary chord but feels its new tones as only waving within se M or 7se M. In the same way, at the third and fourth pulses, the se, which is still counding in the ear, is "supposed" to remain in the chord, although apparently absent. The analyser should always study the obvious meaning of the composer and the witness of his own ear.

IL. 238. KEY F. From MACFARREN'S "The Three Fishers." C.t. f.s:f.s|].s:l.*d'|t.d':t.d'|r'.d':r'.t r.m :r.m if .m :f.m1 sel :sel it .l :t .sel 11. r :r r IΠ :m .m r :r **!**1, :-.1 .r IM :m .m Fb fere'T se M. 7se M R R F'b 2.10 20 2 10 2p210 2cp 2 10 2 bue f.F. d'.t :d'.t |d'.t :d'.t | d's.fe:s .fe|s .l :s .f | m.re:m.reim.f :m.r 1.se:1.se;1.se;1.se;1.se :1 ٢d It. :t, .t, 18 : 8 1 :1 14 It, :t. .t.] 6 :8 FD ^{7}Ld L 7Sb n 2 chr.10 2 chrw. chr.w chr.w 917. 110 chr.m chr.w

Ex. 181. Name all the Chromatic Concords (*i.e.* Chromatic Chords without dissonance) in ils. 205 to 218.

Ex. 182. Name all the Chromatic Discords (as ⁷⁴⁰ re7, ⁷⁴⁰ RE, &o.) in ils. 205 to 218, placing first those which have the dissonating tone resolved regularly, *i.e.*, by downward step, and second those which have it resolved in any other way, *i.e.*, upwards or horizontally.

Ex. 183. Name all the unrelated Chromatic Chords (see par. 112), in ils. 219 to 225, placing first those which are consonant, and second those which are dissonant, or in other words have tones which when placed in their nearest position are less than a Minor third apart. Ex. 184. Name the uncommon Chromatic discords in Il. 226, giving the measure and pulse in which they occur.

Ex. 185. Restudying the rules, p. 110, analyse for chord, position, and incidentals, ils. 205 to 218.

Ex. 186. Ditto, Add. Ex., "Away," p. 42; "Sunshine," p. 44; "If I had," 1st and 3rd verses, p. 45; "O the joy," p. 57.

Ex. 187. Ditto, ditto, "At first the mountain rill" (first verse only), p. 53; "How lovely," p. 58; "Where the," p. 65; "Morning," p. 79.

Ex. 188. Ditto, ditto, "O Saviour" p. 85; "The shepherd's," p. 88.

Ex. 189. Ditto, ditto, "Saviour," p. 91; "Loud the," p. 93.

Ex. 190. Rostudying pars. 108, 109, p. 109, analyse for chord, position, and incidentals, ils. 226, 227. Add. Ex., "Gipsy's," p. 35; "Night around," p. 22.

Ex. 191. Ditto, Add. Ex. "Angel," p. 48 "Home," p. 74.

Ex. 192. After re-studying the analysis of Transition and Modulation, pp. 56, 57, 89, analyse the Transitions, Modulations. and Transitional Modulations in Add. Ex. "At first," p. 54, sc. 3, m. 1; "Where the," p. 65, sc. 3, m. 5; "The woods," p. 72, sc. 2, m. 1; "O Saviour," p. 86, sc. 2, m. 1.

Ex. 193. Ditto, "O Saviour," p. 87, sc. 4, m. 1; "Saviour," p. 92, sc. 3, m. 2; "Loud the," p. 94, sc. 1, m. 2; and sc. 5, m. 1.

Ex. 194 Analyse the relations (as Ex. 105) of "Away," Add. Ex., p. 42; "Sunshine," p. 44.

Ex. 195. Ditto, "The Shepherd's," Add. Ex. p. 88, verse 1; "Saviour breathe," v. 91.

e See "Chord-Naming Examples," A, 70 to 75; B, 69 to 75. How to Observe Harmony.

APPENDIX.

PASSAGES FROM LEADING COMPOSERS ANALYSED AND EXPLAINED.

It is intended in the following pages to show the application of the rules of harmony analysis in unusual forms of discords and incidentals, to be met with in the works of standard composers. The student is recommended to refer to these examples when difficulties arise.

IL. 2 KE	237. x Bh.	"Tł	ieme Sul	HANDEL. blime,''	(Jephth	a).
(1^1)	: ¹ d	ľ	:5	I ^S	:m	n
) 1,,s,.f	,,,,:f,d,r.m	fs.	s,,1,:t,,d.	r,t _i d,r.m	1, 2 : M	
f ,s .1	,s : 'm',r'.d'	,r't,1,1	t ,d':r',d'.	t,r's	:5	
('f F	·r 1 RL	s S	:f 'Sd	[m ,r.d Db]	,t _i :d D	li
2 p &	wcn.p `p&hg	bye & w &	p 2 p & p	bye 2 p	2 w	

In the first pulse, the third notes of the alto and tenor, though notes of the chord, are not properly bye-tones, because of the passing notes between the first and third notes. The whole figure is stepwise : hence it is more convenient to treat all the notes following the first as foreign to the chord. The analysis is, therefore, as above. This rule applies also to the second pulse. When, however, this kind of figure occurs in the bass (as in the fifth pulse) a new chord-note gives a new position, and it becomes necessary to rename the chord, as in the case of ordinary bye-tones in the bass. Observe also that although in the last quarter of this pulse a secondary chord (Sb) is made out according to rule (p. 42), no new chord is felt by the ear, the alto and bass figures being mere ornaments in the chord of D.

In the third pulse, the s_1 in alto is approached by leap, and is therefore treated as a bye-tone. In the

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fourth pulse the fourth notes $t_1 \& r^1$ in alto and tenor are bye-tones for the same reason. The fact that these notes occupy only a quarter of a pulse does not make it any less necessary for us to analyse them.

In the second and sixth pulses are further examples of secondary chords (M and D) which are apparent and not real. The notes are analyzed as incidentals. In the second pulse is a case of ooupled waving anticipation tones (il. 125).

IL. 239.		GERSBACH. "Going home."							
í lai	.t	:1	. 5	j1	. 8	:f	.m	1	
) m	. s	:f	.m	٦1	. M	:r	.đ		
) s		:	.d	lđ		:d			
1 <u> a</u>		:-	.d	ld	T	:d			
D 10		20°	D	2 w /	, D	20	ענ		
буe									

sixth pulse.

We regard the chord of D as established throughout this measure, and the intruding notes as part-pulse dissonances, notwithstanding that these mostly occur on the first part of the pulse, and that in pulse 3 they are really consonant.

CIRO PINSUTI. "A Spring Song." IL. 240. KEY G. :m .r 1d :d d :1, 8, s :f М : 5 :f s, :1, .t, [d .r :m .f De cn, p

The l_i t_i in bass, second pulse, might be regarded as uo and p. But the passage must be considered as a whole—*i.e.*, as a series of passing notes against upper parts standing still. According to this view it is better not to consider the d and m (pulse 4 and 5) as changing the position of the De chord.

W. JACKSON. "Sisters of the Sea." IL. 241. KEY Bb. m.d :1 - .r :s -.d :f : .f, it, .r : .m, [1].d : .r, [s..t,: .d, :-.d ,t, d m :-.r.d /r :-.t.,l.(t. : -,1,,s, d :-.1,,8, 1 :-.s,f.|s :-.t,.1,|t :-.f.,m, Lb Fb Sb Sb Mb Fb FbRb Mb MbDb 20 20 om 20 om. om. 20 h int.res. h int.res. h int.res. bye bye - .1, :r .d |t, .s, :s $f_{1,1}$; .d. |r. .r. : 1,.d :f .m |r .t, : (- .f, : RЛ 7Sd h int.res. 2p 2 byes 2 byes q

This is a sequence, complete in all the parts; moreover the parts have an independent rhythm. The entry of the alto upon f, a new note, dissonant with the chord which has possession of the ear, hints at the establishment of a secondary chord, F δ . The last notes in the same pulse heard from tenor and bass (d and l_i) complete the secondary chord. The r and t_i in tenor and bass are oblique forestrokes to the secondary chord F δ . The duration of the forestrokes being so brief, we name the .chord according to its

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consonant form. In the third pulse (soprano) we have a case of interrupted resolution of the 9th on S in its b position; we cannot call this 'T because it contains no fifth. These remarks all apply to the subsequent phrases of the sequence.

IL. 242. CIRO PINSUTI. "A Spring Song." KEY G. :f .m lr :t .1 h :s .f im :1 .s If d.t,:1, |r .d :t, m.r :d :1 m :f 8 1, :- .d |t, :- .m |r :- .r |d :- .fl Ľ FbFc T SbSc D LbLc R TbTc. p p p p p р p This is another sequence. Notice that the liberty allowed in sequences even apologises for Le in the

IL. 243. HANDEL. "Lift up your heads" (Messiah). KEY F :t .t |1 .t,d':r'.r |s .I,t:d' |--:t 1- .r :r .r r .d :- .r,mif : m :- .m.r (: .s)f .f :f .f m .f,s:1 .1, jr .m,f:s γM F 9R6 R6 om cn.p. h 2p -.1,s:1 .s [fe d .t₁ :d lr. m (|a'.d :d' :t 1.8 :1 18 78d 9L9R6 Rb Db 7RТb D 2 w om ph int.res.

In third measure, first pulse, we have a case of interrupted resolution in a different form. The dissonant t in soprano instead of leaping to a chord note, moves stepwise, passing through its resolution, which is not accomplished until the second pulse. We therefore take no further notice of the 1 s in first pulse than is indicated by the words "int. res." As the leap of an octave in the bass here does not alter the chord position, there is no need to notice it in the analysis.

In the second pulse we analyse the discord as ⁹Rb. This is evident from what follows in the second half of the measure. To call the discord ⁷F will be wrong. In the fourth pulse the discord is called ⁷M. To call it ⁹Db would be in accordance with some other writers on harmony. This may be allowed.

Looking at the first measure as a whole we see that the 7th R chord reigns throughout. Although, therefore, the seventh is omitted in the beginning of the second pulse, we do not rename the chord in its consonant form.

	IL. 245 KBY (i. J.	A. SULLIVAN. "O God, Thou art worth							
1	d' :	- 1	8	:—	Í		:	- II		
М	s :	-	f	:—		m	:			
3	m':	-	t	:		ď	:			
()	:	8 9	1 'Se w f	:0.: 78 bye	f	d' .d'	:d' .	a'		

This is an exceptional case, which violates all rules of harmony. Its apology is that the bass passage is a "subject" which has been previously worked in the other parts. The ear, therefore, bears its recurrence even though in striking dissonance with the harmony above. The chief difficulty to the analyst is in the f (4th pulse) which leaps upwards to d¹. As this note is evidently an intrusion we call it a "bye-tone."

IL. 24	<u>16</u> .	Васн	. "1	Rejoice	ə, red	deemed flock.		
KEY	D.	. .						
/:1 .t	la.	.6 :	1.8	- u		: 8		Y
1:1	8	:	8	8		:	· ·	l
):r'	1'	:	r	đ	ı	:		Ì
·(:r	jr	:	8	i m		:r ⁹ De wf	.™ Dð	}
{]d'	:	1-	:1	L	r'	:	-	١
1-	:m	1	:-	_	1-	;f	e	l
) Id'	:d' .	a' a'	.r' :ċ	ľ.t	1	.r' ;d	1. . r l	Í
(if m ⁴ De Di wf	:r 9De 0	d f D F w	:1 7 <u>1</u> w	f f f f p	8 (4Se wf	.fe :m S5 97 bye a	Se S	1
Hat	n ta C	hearna	Harm	onn.				

1	-		:t		[m,	'	:		1-		-11
V	-		:t		1-		:se		1		
ì	t	. m ⁱ	:r'	, d'	lt	, m ⁱ	: r'	. d'	ď	,	
(8		:fe	. s	1	.se	:ba	.m	1		
	D		$^{7}\mathrm{D}d$	D)	⁴Me	ыМЪ	base <u>M</u>	e ** M			
		g	wf	p	w f	r	w f	a			

This illustration shows the method of marking part-pulse forestrokes in the bass. See pulses 5, 6, 7, 9, 10, 11, 13, 14, 15. The chord is named in its dissonant position, and renamed in its consonant position. The sequence, though not perfect in all the parts, decides us to analyse the second phrase as in the sharp key.

	IL,	24	7.	KEY	в.		J. B.	ARNBY.	"Phœbu	us."
1	d		:-	.d	:r,d	e.r,m	d	:	:	11
)	8,		:-	.8,	;fe,	.f	m	:	:—	- 11
	m		:d	.d	:d	.t,	d	:	:—	
	d	.t,	:d	.ta. taDd7	:1, ieRc	.8, ⁷ S . hg a	a,	:—	:—	li

The second half of the second pulse is treated as a secondary chord, though dissonant, and the cadential motion compels us to treat the second half of the third pulse as a new chord. When the music moves much in half-pulses, secondary chords, whether dissonant or consonant, must be expected. To these secondary chords we may have fore- or after-strokes as in full pulse chords. In the third pulse we have a chromatic waving tone to the one chord, and a hanging anticipation tone to the other.

IL. 24 SPOHR. '	8. KEY F . 'Praise His aw	ful nam	e" (<i>L</i> a	st Judge	nent).
/ :8	(,f :m	:r	(f)	:`	11
) :d	de .,r :d	:t,	d	:—	li
3:8	1 .,1 :8	:	f	:—	
(:m,	f, .,f, :s, 4deR& R&	:—	1,	:	ll
	om h uo	1.01		(]	-h - 4

Here we regard the chord Rb as reigning throughout the whole of the second pulse. The note de is therefore a chromatic forestroke, and is included in the name. The chord is renamed in its consonant form when the dissonance is resolved.

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In measure 3 we have a dubious chord, which we name $L\delta_b$ because a horizontally prepared discord, if it is not self-resolved, will usually be resolved on a chord whose root is a fourth above the root of the first chord. In measure 5 the chord is named $S\delta_b$, not ⁷T, because it is not immediately resolved upon D. The dissonance is first resolved, and the root then appears.

IL. 250. KEY C.

		A. S	5. Sv	LLIVAN	. "	0 hush	the	e, my	babi	e."
						G.t.				
(s	: M	:M	8	:	: "l,	8,	:1,	:t,	
y	m	:d	:d	m	:	:ďf,	m,	: m,	:f,	1
)	8	:—	:	1	:—	¦'r .	m	:d	:r	(
(d	:d	:d	d	:	:df,	8,	:8,	:81)
				٩ů	_			Do		
	-			h ho	r. res.			р		
(d	:r	:0	f	:—	:	m	:—	:r	
y	6,	:l,	:t,	d	:	:	t	:	:t,	
)	m	:f	:8	1	:-	:—	8	:—	:f	1
(8,	: 8,	:s _i g	947 S	:s,	:s,	8	:—	:8 ₁ 78	ll
				9 m f	_		· 0 ·		0	
			<i>c n</i>	a 101						

In pulse 4 the chord is similar in appearance to that in pulse 5 of the previous example. But the \mathbf{s} has no resolution, hence we regard it and m as constituent notes; and the 1 as intruding. The passage breaks ordinary rules. In measures 3—6 the passage may be regarded either as a dominant pedal, or the dissonances may be accounted for as in the above analysis.

```
IL. 251. KEY D.

G.A. MAGFARREN, "We give Thee thanks, O Lord."

\begin{cases}
: f | s : 1 | t : - | - : | : s | 1 : r' | r' : s | d' : - | \\
: r | r : r | r : - | - : | : r | m : 1 | s : - | : m | \\
: 1 | 1 : 1 | s : - | - : | : t | d' : r' | m' : - | : d' | \\
: r | m : f | s : - | - : s | s : - | - : f | m : - | : d' | \\
: g R_e & 7 Ld Rb <sup>9</sup> Db \\
2 uo & h int. res.
\end{cases}
```

How to Observe Harmony.

In pulse 10 we have again the combination of pulse 8 of the previous example, but we read it differently. Here the s in bass, by its preparation and resolution, becomes the dissonance, and the chord is therefore 'L. In the last measure, looking forward, we see the D chord established, and treat the r as a 9th with int. res. 'M would naturally go to L, and would contain the 5th of the chord.

IL. 252. KEY Db. G. A. MACFARREN. "Blessed are the poor." (1:-.sis:s m':- i-:m 1::r m:f s:- i1:t f:- if:f m:- i-:d d:- id:d d:-.fif:f t:- id::r' m':-.r'id:ta 1:- is:f m:m' im':r' is:- i1:t d':-.t i1:s f:-.m :r s:- is:s ${}^{97}S = {}^{947}Se^{7}Sb = {}^{7}Se^{7}Sb = {}^{7}Se^{7}Sb = {}^{7}Se^{7}Sb = {}^{7}Se^{7}Sb = {}^{7}Sb = {}^{7$

In the 3rd pulse we read the S chord, according to the golden rule of harmony analysis—"consider a passage in its surroundings." The l and d' are intruders, and not consonant notes. In pulses 8—10 transition is clearly made out, and the new tonic chord reigns through pulses 9 and 10. We therefore treat the r in soprano as a guiding note, because ⁷Lb is unnatural.

	IL.	. 25	í 3.	key B.							• •			
				Sir	J.]	Bene	DIC	r.	"Н	unti	ng S	ong.'	,	
'	t,	:1,	:t,	lq	$:t_1$:d	r	:d	:r	m	:-	:r	1	
)	f,	$:\mathbf{f}_{\mathbf{f}}$	$:\mathbf{f}_{\mathbf{f}}$	łf,	$: \! \mathbf{f}_{1}$	$:\mathbf{f}_{1}$	f,	$:f_i$	$:\mathbf{f}_{1}$	i m _i	:-	: 8,	l	
	r	:d	:r	١d	:r	:d	6	:8	:8	js	:-	: M	l	
• .	s,	:	: 8,	11	:8,	:1,	t,	:1,	:t,	d	:t,	:ta	1	
le	l.ree	. 2w		20	Sw			2u	,		'	~ DIC		

No doubt the composer's analysis of the above passage would be, pulses 1-9 dominant 7th, pulse 10 tonic. But there are several irregularities which render a more minute analysis advisable. We read pulses 4 to 6 as Fb, and the notes in pulse 5 must therefore be reckoned as incidentals in Fb, not as 'S. The music is too rapid to establish a new chord.

	IL.	254	4. кл	ay A	ι.						
			J	. Ва	RNBI	r**	Thy	merc	y, 0 I	ord.	"
(ľ	: M	:r	8	:—	:d	d	::	f:m.r	d	11
)	r,	:8,	:8,	8,	:d	:t,	1,	:	:t ₁ .t	d	
)	t,	:	:	d	:—	:8	8	:f	:-	Μ	
	8,	:8,	:f,	m,	:—	:	f,	:r,	:s,	đ,	ľ
	7S		7Sd	Dь			۶F	7R	67 S 7 S		
		сp				p	h	ind.r	es. 0		

In pulse 2 the context leads us to regard 'S as still continuing, and we do not acknowledge Mb. In pulse 8 the d in soprano leaps to another note of the chord, while the alto gives its resolution. We account for the irregularity by the term "indirect resolution."

IL. 255. KEY G. J. BARNBY. "A Wife's Song." $\begin{cases}
 f := |m := |r := |-:d | d := |-:-| \\
 t, := |d := |1, := |t_1 : d | e_1 := |-:-| \\
 r := |m := |f := |-:f | m := |-:-| \\
 g_1 := |e_1 := |s_1 := |-:s_1 | d_1 := |-:-| \\
 g_1 := |e_1 := |s_1 := |-:s_1 | d_1 := |-:-| \\
 u up.res. a \\
 hg a
 \end{cases}$

In pulses 8 and 9 the d in alto leaps to s, instead of standing. This irregularity we describe as a "hanging-anticipation" tone. The more familiar case of m in 678 leaping to d, and of d in ^{6786}M leaping to 1 (II. 172) we now call also hg a.

256. G. A. MACFARREN. "Sigh no more, ladies." KEY F. Lah is D.

$$\begin{cases} \left| \frac{1}{...m} \right| \stackrel{m}{=} :r :r \\ :\frac{1}{...m} \left| \frac{1}{...m} :r :r \\ \frac{1}{...m} :r \\ \frac{1}{...$$

We read the chord in pulse 2 as ${}^{7}T$ because that chord is immediately established, and receives ultimately (pulse 7) a horizontal resolution.

257. G. A. MACFARREN. "Gather ye Rosebuds." **REY G.** D.t. (: m | f.s. m :-.d | 1., r. is :-.m | m | 1. is :s. f | f :m |): .t, d.r. m :-.s, t, .t, .t : d :-.d | d f :f :m .r | r : d |): .s. s. :-.1:s. s. s. :-.m :s. f :f :f :m .r | r : d | d f :f :m .r | r : d | 1. :1 | M 5 074 Se85 975d 976EN750 750 98 1 L S Suo h. int. res. om o Sh How to Observe Harmony In pulse 8 we read the chord as ⁷S not ⁸T because, as in il. 249, it is not immediately resolved on D, but is followed by ⁷S. The combination in pulse 2 is the same in half-pulses as that in pulses 3 and 4 of il. 252.

258. G. A. MACFARREN. "O mistress mine." KEY Eb. (id |m|:-:f| |s|:-:-|1|:s|:f| |d':-:s|id |d:-:d| |d:-:-|d|:d:d| |d:-:d|im |s|:-:s| |s:-:-|s|:s|:s| |s:-:m|id |d:-:r| |m:-:-|f|:m:r| |m:-:d|D - - F Db TR 2 p pers. s. hor. responses

Here we have, in pulses 4 and 10, the same combination of notes. In pulse 4 the f and r move stepwise, and are therefore described as passing notes. In pulse 10, however, the f leaps, and we therefore regard it as a chord note, with s persisting.

259 K). Ry G.	HENRY SMART. "Autumn Song."							
:6	-:8 1	:6	d	:		:	-	:6	li
:s,	t, :- t _i	:	đ	:m	ma	:r	đ	:	
: m	f :- f	:	m	:8	lfe	;f	m	:	11
:d,	d := d ${}^7Se {}^{97}S$ $w {}^{07}S$;	d D	:ta, ^{ta} Dd n	ן1, ∞FE2	:1a, ^{71a} Rc	a, De	:	ll

We describe measure 2 as persisting Doh. The Doh in soprano, measure 3, being a constituent of each chord, is not called a persisting tone.

IL. 260. KEY Ab.					F. CLAY. "The Rose."						
	ıt,	:8	:	1,	:f	:	m	:ma	:r	d	11
	t,	:	:t,	1,	:—	:1, }'	8,	:d	:t,	d {	
	f	:	:f	f	:	:f	6	fe	:f	18) m	$\ $
)	r	:	;r	d	:-	:d	t,	:1,	:t,	d	
	8,	:—	:—	s,	:	:s,	l 6,	:	:81	l d ₁	1
	[Tð	7S	, <u> </u>	Fc	—	_	۴Sb	maF]	Eð'S]	Ď	
							h	pers.	soh.		

This is a pedal passage, and it is hest to mark the pedal from the first, as is done above. In measure 3 the upper octave of the pedal sounds in the second alto. This is noticed in the analysis. IL. 261. W. MACFARREN. "Praise ye the Lord."

 $\begin{cases} \begin{vmatrix} \mathbf{m}^{(1)} & \cdots & |\mathbf{r}^{(1)}| & \mathbf{d}^{(1)} \\ \mathbf{s} & \cdots & |\mathbf{1}^{(1)} \\ \mathbf{s} & \cdots & |\mathbf{s}^{(1)} \\ \mathbf{s} & \cdots & |\mathbf{s}^{(1$

Another case of pedal, with a sequence in the upper parts. The first and third pulses of each measure have forestrokes; the chord is defined on the second and fourth.

$\begin{cases} \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{cases} & :t_1 & d & :d & t_1 & :l_1 & t_1 & :- \\ m & :- & fe & :fe & :l & m & :- \\ & :s_1 & l_1 & :l_1 & t_1 & :d & s_1 & :- \\ & & & Lb & 'Tb & - & Lc & Rb & Lb & - \\ & & & & & ba., ba & se & :se & l & :- \\ t_1 & :- & d & :d & .d & r & :r & m & :- \\ \end{bmatrix}$
$ \begin{cases} m := & fe := .fe s :1 & m := \\ & :s_1 & 1_1 & := .1_1 t_1 & :d & s_1 & := \\ & & & & & \\ & & & & & & \\ & & & & & $
$ \begin{pmatrix} : : : : : : : : : : : : : : : : : : $
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
$\begin{cases} \text{'m} := ba : ba, ba se : se 1 := \\ t_{1} := d : d_{1}, d_{1}r : r m := \\ a : a_{1}, a_{2}r := a_{1} := \\ a : a_{1} a_{1} := \\ a$
$\begin{cases} m := ba : ba, ba se : se 1 := \\ t_1 := d : d_n d_1 r : r & m := \\ m := ba : ba, ba se : se t_1 := ba : ba : ba, ba se : se t_1 := ba : b$
) t, : d :d.,d r :r m :
ון —: הן הי הו הי הי - ו
$ \underline{s}_{i_1} := 1_{i_1} : 1_{i_1} \cdot 1_{i_2} \underline{t}_{i_2} : \mathbf{t}_{i_1} \underline{d}_{i_2} := $
$L_0 \longrightarrow OKOAL \longrightarrow 786 Mc \longrightarrow Lb$

Here the transition is not made through a dominant. The shape of the air, more than the actual progressions, decides the transition.

IL. 263. SPOHR. KEY G. "Great and wonderful." (Last Judgment.) |r : - m| 1, :- |1 :- - :- | | : | : | : | : | $|t_1 : - ...de| r :- - ...d .1_1 f :r.m |$ $|1_1 : 80, 8_1 | s_1 :f_1 ..., |f_1 :m_1 | r_1 :f_1 ..., |$ ${}^9SEe SE(SEc^4 Lo Lb) Rb Lo on h w bye$

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We prefer to analyse this as a passing transition, because the altered chord moves to the tonic of the key to which it belongs. The fourth in the bass is regularly resolved.

IL. 264.				" How	H. sweet is	SMART.	mor	ning.	9 -
	:re	m	:m	:8	f.r:d	:t	đ	:`	I
)	:d	đ	:ta,	:ta,	1,.1,:8,	:f,	m,	:	
)	:1	1	; 8	:d .de	r.f:m	:r		:8	l
•	:f	m	:d taD	:m taDb chr.p.	f _i .f _i :6 ₁	:8,	81.8	:8,	łł

According to the strictest view, we have at pulses 4---5 a transition. But it is so quickly effected that we prefer to treat it as a chromatic passage, especially as the ^{ta}D chord belongs neither to the original key nor to the new key which is threatened.

	IL.	265	. KE	r Gh.	Tee) <i>(T</i> ~	SI SI	OHR.	л
	I m	:-	Lora	r.dit,	tea:	iven '	- (La :	87 Jui 	igmen IM	ק. \
)	1	:se,	1, :	- 1-	- :1,	5	Ð, ;−	I.	:t,	1
)	1	: `	1,:	t _i .d jr	:re	m e	:—	1	:60	(
	1	:m,	f, :		: :f	_ m	; m	jm	:)
		1	om u	'K0 °K 10depo	0	н ^{, во} Д	2			
			h j	p ho	r.res.					
	f	:f	.e ត្រ	:ď'] d'	:t.1	. j1 –	:8.1	i m	
)	d	:0	a r	:ma.r	r	:r.d	l t _i	:d .1	đ	
)	1	:	8	:fe	8	:	1-	:	8	
	m	:r.d	LIL.	:1	8	:-	1.8	:1,.1	i a	
	'Fd	'R(B	To Do	MAN SC'S	10)*8	8	88	"Be	80 D	
	n	A ind a	40	wf		a	A	2 uo		
		e1600.7				P				

The passage occupying pulses 12--16 might be regarded as chromatic, but the Db of the new key decides the transition. As 'S (pulse 15) takes the position of Dc in the tonic cadence we consider it as marking the return. On the first half of pulse 12 we have 'R with indirect resolution, the **d** in alto being transferred to the base. In pulses 3-5 we keep the Rb chord instead of changing to Tc at pulse 5. Notice that in the "F chord, pulse 6, re is a constituent note, which needs no apology. This is the case whether the 4th or the 5th from, the bass is added to the chord. These are likewise constituents, and need no apology, but the constituent used must be shown, the 4th by the figure, and the 5th by the constitution sign 1.

	IL.	266.	KEY	Głb.			8	POHR.	
		" L	ord G	d of	Heave	n" (<i>L</i>	ast Jr	ıdgmen	it).
l	11	:	1	:0	lgi	:—	1-	:t	
١	[1 ,	:		: M	۱f –	:fe	m	:	(
۶	1	in /	a	:	1-	:re	m	:—	(
(Įđ	:t,	11,	:-	 7fe	:1, BE7 <u>SE</u>	6 6 1 6 1 6 1 6 1 6 1 6 1 6 1 8 1 8 1 8	:)
1	1-	:1	 1	:0	1—	:fe	m	`—	1
١	j f	:—	m	:	Te	:	m	:	-
)	lgi	:	t	:—	11	:	8	:—	l
(:— (d TAd	t, 4Lc h	:	t 1 5750 <u>M</u> 7 h	:— 188 <u>M</u>	m, L	:]

This passage, read as a whole, clearly progressee to a cadence in the relative minor of the first sharp key. The chord at pulse 7 is therefore not read as Dc. Nor is it Fc of the new key, for the 8th pulse provee it to be Lb. The f, pulse 9, is a chromatic in the new key.

~	IL.	267	KEY	F.						
U	. Pn	NSUTI.	•••1n :	this	hour	of sof	tened	splen	dour.'	,
1	8	:f.	:t "l	8	ŀ	d'	:d'.	:ŧ.,1	a .d'	1
١	đ	:d .	:re.,re	m		a	:f.	: ma	m.m	ĺ
)	ta	;1.	:d' .,d'	đ١		ta	:1.	:d'	d'.e	
(f.	:f.	:fe.,fe	8		f	:f ₁	:fe	6,.6,	
		. 400	• K E mel	CE -			ama F.	EmsF.	E	
			u					0		

These two quotations show how the same chord (^{ma}FE) may be written in two ways by the same composer in the same piece of music. We prefer ma to re in this chord.

	IL. 268.	KEY C.	G. A.	MACFARREN.
(m:- f:s	[1 :t]d':r']	m':- -:d	1:- - :-
	d :- jr :m	f :s j1 :t	d':- -:s	f :- - :-
Y	m':~ r':d'	t :1 s :f	m:- ~:s	d' :- 1- :-
	d :d' t :1	s :f m.ir	d :- -:m	f :- j- :-
	Thirds in	contrary motio	on.]	

Here we find the two upper and two lower parts coupled in thirds, moving in contrary motion; this we call double contrary motion. Pulses 5 to 7 cannot be analysed by the rules of ordinary discords, and we therefore mark the whole passage as above.

Bow to Observe Harning.
CHORD-NAMING EXAMPLES.—PART A.

Arranged progressively according to Mr. Curwen's "Musical Theory," Book V, and "How to Observe Harmony."

Ex. 1. KEY A. G.O. Ex. 2. KEY G. G.O. ď m:d |r:- ||m|s:d |m:r | d :- || $f:s \mid m:d \mid t_1:d \mid r:t_1 \mid d:s_1 \mid t_1:r \mid d$ $|\mathbf{s}|:\mathbf{d}$ $|\mathbf{s}_1| |\mathbf{s}_1| |$:m |d :m |r :m |r:r |m:m |r:r |m d d :d d :s, d :- $|s_1:d||s_1:s_1||d:d|$; $s_1:s_1||d|$ ld :d ld :d Ex. 3. KEY Bb. G.O. Ex. 4. KEY F. G.O. (:m |r :m |f :m |r :s |m :d |l₁:t₁ |d || |f :r |m :-||r|m:m|f:r| d :m $\begin{vmatrix} d : t_i & d : - \\ 1 : s & s : - \end{vmatrix}$ $\begin{vmatrix} \mathbf{t}_1 & \mathbf{d} & : \mathbf{d} & \mathbf{d} & : \mathbf{t}_1 \\ \mathbf{s} & \mathbf{s} & : \mathbf{s} & \mathbf{l} & : \mathbf{f} \end{vmatrix}$ $\mathbf{f}_1:\mathbf{r}_1\mid \mathbf{m}_1\mid$ \d d :- $|t_1:t_1| |d:d$ $\mathbf{d}:\mathbf{s}_{\mathbf{l}} \mid \mathbf{s}_{\mathbf{l}}$):d t::d |d :d S | f₁ : s₁ | d :-||s₁|d:d $|\mathbf{s}_1 : \mathbf{d}_1 | \mathbf{f}_1 : \mathbf{d}_1 | \mathbf{s}_1 : \mathbf{s}_1 | \mathbf{d}_1 : \mathbf{d}_1 | \mathbf{f}_1 : \mathbf{s}_1 | \mathbf{d}_1 |$ f₁:s₁ Ex. 5. KEY G. G.O. Ex. 6. KEY G. G.O. m:d |r:m |f:r |m:f | s :t, |d :- | /:m ls :m ld :r lm :r ls :f lm :r ld $s_1:s_1 | t_1:d | d:t_1 | d:1_1 |$ $d d :d |s_1:s_1| |s_1:t_1| d :d$ **s**₁:**f**₁ |m₁:-|d :t₁ |d 1 :s |m :d d :r |d :s $|d:t_1|d:r|d:1$ s :f S :S $f_1:s_1 | d_1:f_1 | m_1:s_1 | d_1: |\mathbf{m}_1:\mathbf{d}_1||\mathbf{m}_1:\mathbf{s}_1||\mathbf{d}_1:\mathbf{s}_1||\mathbf{m}_1:\mathbf{f}_1||\mathbf{s}_1:\mathbf{s}_1||\mathbf{d}_1|$ d::m |s::d \:d. T. L. HATELY. Ex. 8. KEY G. Ex. 7. KEY F. G.O. ||m||f:1 |s:r s :m |r :-:s |m:d |r:m |r:s |f:l |s:f |m d d :d d :t₁ d :d $|:s_1|$ d :d $|s_1|:s_1|$ t :d |d :d d :d t₁:-|d :t_i |d s f :f s):m s :d |r :d |f :f |m:r |d S :S m :s S :S $|| \mathbf{d} || \mathbf{1}_{1} : \mathbf{f}_{1} || \mathbf{s}_{1} : \mathbf{s}_{1} || \mathbf{d} :$ ld :m $|\mathbf{t}_1:\mathbf{d}||\mathbf{s}_1:\mathbf{m}_1||\mathbf{1}_1:\mathbf{f}_1||\mathbf{s}_1:\mathbf{s}_1||\mathbf{d}|$ m :d **s**₁:-Ex. 9. KEY Eb. G.O. Ех. 10. кеу Е. R.D.M. s |s:f s :s :s |m :r :d |1 :s :f ||r |d :1 s :f $d t_1:s_1$ t_i d :d d :t₁ :d d :m :r d :- :d :d :d :t. m :r d :m f:r d' :d' :t dⁱ:t f :s :s: đ $\mathbf{r}:\mathbf{t}_{1}$ |d :lf m:f

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Ex.	11. KEY	Gł.		R.D.M.	Ек. 12 . к	ey F .		G.O.
() ^m '	f:s m	:-∥aî)	1 :s f :f	m:- /	d :s :f	f :m :s	1 :s :s :	s :- :-
) d	d :r d	:- d	d :d t ₁ :r	d :-	d :d :d	d :- :d	d :d :r	d':- :-
) s	f:r s	:- s	f:ss:s	s :-	m :s :1	1:s :m	f :m :r	n :- :-
(] d	1,:t, d	:- m	f :m r :t	d :- (d :m ₁ :f ₁	d :- :d	d:d:tid	a :- :- 🛛
Ex.	13. KEY	F.						G .0.
/:m	d :f m :d	t _l :ris:	f m :s (m :	ð r :- - :r	s:d f:m	f:s 1:t	d':d m :r	d:- -
):s ₁ :	f ₁ :s ₁ d :d	$\mathbf{s}_{i}:\mathbf{t}_{i} \mathbf{d}:$	$\mathbf{t}_{1} \mathbf{d} : \mathbf{s}_{1} \mathbf{s}_{1}$	1 t ₁ :- - :t ₁	d :d t ₁ :d	d :m f :r	d :d d :t,	d :- -
):d [d:r m:f	s:ss:	s s :r m :	s s :- - :s	s:f s:s	f :d' d':s	s:1 s:f	m:- -
:d	1 ₁ :t ₁ d:1 ₁	s ₁ :f m :	$\mathbf{r} \mathbf{d} : \mathbf{t}_{\mathbf{l}} \mathbf{d} :$	$\mathbf{n}_{i} \mathbf{s}_{i} := - : \mathbf{f}_{i}$	$m_{t}: 1_{1} s_{1}: d$	$ \mathbf{l}_1:\mathbf{s}_1 \mathbf{f}_1:\mathbf{f} $	m:f s:s	d :- -

. .

Ex. 14. KEY B).	ANONYMOUS.	Ex. 15. KEY C.	T. L. HATELY.
$ \begin{pmatrix} \widehat{\mathbf{d}} & \mathbf{t}_{1} : \mathbf{d} & \mathbf{r} : - & \widehat{\mathbf{m}} \\ \mathbf{s}_{1} & \mathbf{s}_{1} : \mathbf{s}_{1} & \mathbf{s}_{1} : - & \mathbf{s}_{1} \\ \mathbf{d} & \mathbf{f} : \mathbf{m} & \mathbf{r} : - & \mathbf{d} \\ \mathbf{m}_{1} & \mathbf{r}_{1} : \mathbf{d}_{1} & \mathbf{t}_{2} : - & \mathbf{d}_{1} \\ \end{pmatrix} $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	() \$\vec{s} m :s 1 :- 8 m d :m f :- 1 d' s :d' d' :- 1 d d :d f :- 8	s d':m' r':t d':- r s :s f :r m :- t d':d' 1 :s s :- s m :d f :s d :-
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	R.D.M. $m: f \mid r: r \mid d :- \mid$ $d: d \mid d: t_1 \mid d :- \mid$ $s: f \mid 1: f \mid m: - \mid$ $d: l_1 \mid f_1: s_1 \mid d :- \mid$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c} \mathbf{R}.\mathbf{D}.\mathbf{M}.\\ \widehat{\mathbf{f}} & \mathbf{s} : \mathbf{d} & \mathbf{d} : \mathbf{t}_1 & \mathbf{d} : - & \\ \mathbf{l}_1 & \mathbf{d} : \mathbf{l}_1 & \mathbf{s}_1 : \mathbf{s}_1 & \mathbf{s}_1 : - & \\ \mathbf{r} & \mathbf{s} : \mathbf{f} & \mathbf{r} : \mathbf{r} & \mathbf{m} : - & \\ \mathbf{f}_1 & \mathbf{m}_1 : \mathbf{f}_1 & \mathbf{s}_1 : \mathbf{s}_1 & \mathbf{d} : - & \\ \end{array} $
T- 10 C	РЪМ	T 10 T	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \vec{n} 1 : s f : f m :- d d : d d :t_1 d :- s f : s 1 : f s :- d f : m r : r d :- $

	Ex.	. 22 . K	ey C.		Dr. E. G. M	Ionk.	Ех. 23. кл	ay Bb.	S. ELVEY, M	us. Doc.
1	₫ ^ĵ	m:f	s:-	∦Î t:d	d :t d	d':- /	a m :r	d :- ∥Îĵ∣	t1 :d d :t	d:-]
Į	m	d :d	d :-	f f :r	r :r 1	m :- 📗 🐧	m _i s _i :s _i	m;:- f	$\mathbf{f}_{i}: \mathbf{m}_{i} \mid \mathbf{r}_{i}: \mathbf{r}_{i}$	1 Mi:-
1	d	d' :d'	d' :-	d r ⁱ : d	l 1 :s	s:-)	d d :t _i	d :- d	$\mathbf{r}:\mathbf{s}_{1} \mid \mathbf{s}_{1}:\mathbf{s}_{1}$	s :-
	d	1:1	m :-	$\ \mathbf{f}\ \mathbf{r}$:	f:s	d :- 🛛 🕻	d d :s,	$1_1 :- f_1 $	$\mathbf{r}_1 : \mathbf{d}_1 \mid \mathbf{s}_1 : \mathbf{s}_2$	ı dı :-
	Ex.	24 . к	BY F .		W. H. M	lonk.	Ex. 25. KE	ч G .	Dr. E. G	. Монк.
11	m	s :s	1:-	Î s :⊧	f :f r	m:-∦ ('	m r : m	d :- r	t ₁ :d d :t ₁	d:-
)	d	r :d	d :-	d t ₁ :d	$ \mathbf{I}_i: \mathbf{t}_i \mathbf{c}$	d :-)	d r :t _i	d :- 1 ₁	s ₁ : s ₁ s ₁ : s ₁	s _i :-
١	s	s:m	m :-	f r :r	f:s s	s:-)	s s:s	m:- f :	r :d r :r	m :-
(d	t _l :d	1,:-	$\mathbf{f}_{1} \mathbf{s}_{1}$:	$ \mathbf{r} \mathbf{s}_{ } \mathbf{c}$	d :- ' ($\mathbf{d} \mathbf{t}_1 : \mathbf{s}_1$	$\mathbf{l}_{\mathbf{l}} := \ \mathbf{f}_{\mathbf{l}}\ $	s _i :m _i s _i :s _i	d1 :-
	Ex.	26. ĸ	EY D.					.		R.D.M.
ŀ	s	d':1 s	:f m	:r s :m 0	.:m]l:s	t:d' r':t	d':s]1 :t	d':r' t :s	1 :1 s :d	d':t d'
):	m	s:f m	:d m	:1 ₁ d :d d	.:d r :m	f:m s:s	m:m d:r	s:f r:m	f:f m: f	s:f m
):	d '	d':d' d'	:d' t	:1 s :s]]	:s 1 :d	s:d t:r	d':t 1:f	s :1 s :m'	$\mathbf{r}^{i}:\mathbf{r}^{i} m^{i}:\mathbf{d}^{i}$	r':r' d'
(:	d	m:f s	:1 s	:f]m :d]]	1:d f :m	r :d s _i :s	1:m f:r	m :f s :d	d :t ₁]d :1 ₁	$\mathbf{s}_1:\mathbf{s}_1 \mathbf{d} $

	Ex.	27 . k	EY G.	R.D.M.	Ex. 28. KEY F.	R.D.M .
(đ	s :m s::s	f :-	$\hat{\mathbf{r}}$ s.d:r.f m :r d :- 1 d :1,r d :t d :-	$ (\begin{vmatrix} \hat{s} & d.m:r.t_{\parallel} & d :- \\ d & d & t_{\parallel}.s_{\parallel} & d :- \\ \end{vmatrix} \hat{r} $	m :1 s.m:f.r m :- d :r.fm.d:r.t, d :-
ĺ	m d	r :d t. :d	d :-	f s : f.l s : f m :- $f_1 m_1 : f_1 s_1 : s_1 d :-$	$\begin{cases} m & s : s & m : - & s \\ d & m d : s_1 & l_1 : - & s_1 \end{cases}$	\mathbf{s} : \mathbf{l} $\mathbf{d}^{!}$. \mathbf{s} : \mathbf{s} \mathbf{s} : $-$ \mathbf{d} : \mathbf{f}_{1} , \mathbf{r}_{1} \mathbf{s}_{1} : \mathbf{s}_{1} : \mathbf{d} : $-$
	Ex.	29. к	EY D .	R.D.M.	Ex. 30. кву G.	G. A. MACFARREN.
(dîî m	d':s	1 :-	s f m r.m:f m : -	$\begin{pmatrix} m & \mathbf{t}_1 : \mathbf{d} & \mathbf{s} := & \mathbf{r} \\ \mathbf{s}_1 & \mathbf{s}_2 : \mathbf{m}_1 & \mathbf{s}_2 := & \mathbf{s}_2 \\ \end{pmatrix}$	f :m r :t _i d :-
ł	S	1 :r'	d' :-		$\int \mathbf{n} \mathbf{r} \cdot \mathbf{d} \cdot \mathbf{d} \cdot \mathbf{r} \cdot \mathbf{t}_{i}$	r:d r:r m:-
(d	d :t ₁	1,:-	$\ m r : d s_1 : s_1 d :- \ $	$ \mathbf{d} \mathbf{s}_1:\mathbf{l}_1 \mathbf{m}_1:- \mathbf{s}_1 $	$ \mathbf{r}_{1}:\mathbf{l}_{1} \mathbf{f}_{1}:\mathbf{s}_{1} \mathbf{d}_{1}:- $
	Ex.	31. K	BY C .	R.D.M .	Ex. 32. кву Вр.	G. A. MACFARREN.
[ŝ	1 :t	d' :-	t d' :m' r' :r' d' :-	$\left(\left \widehat{\mathbf{s}}_{1} \right \mathbf{l}_{1} : \mathbf{s}_{1} \right \mathbf{d} := \ \widehat{\mathbf{r}} \ $	m :d d :t _i d :-
١	m	d :f	m :-	ss:ms:fm:-	$) \mathbf{m}_{1} \mathbf{f}_{1} : \mathbf{s}_{1} \mathbf{m}_{1} : - \mathbf{s}_{1}$	$s_1:m_1.f_1 = s_1:s_1 = s_1:-$
)	ď	1 :r ^j	s :-	r s :s.1 t :t d':	$d \mathbf{d} : \mathbf{d} \mathbf{d} : - \mathbf{t}_1$	t ₁ :d r :r m :-
$\left \right $	d	f.m:r	d :-	f m:d s:s d:-	$ \mathbf{d}_{ } \mathbf{f}_{ }:m_{ } 1_{ }:- \mathbf{s}_{ } $	m _i :l _i : s _i :s _i d _i :-

{	Ex. 8 s d m s d's d r	33. x V.t:1 s :f s :l n :f	BY C. s :- r :- t :- s :-	s d' m	l.t:d' f :s f' :m' r :m	r':d 1 :: r':m f ::	R.D.: I'.t d' s.f m '.r' d' s d	M. :- :- :-	$ \begin{array}{c} \mathbf{E}\mathbf{x}\\ \mathbf{f}\\ \mathbf{d}\\ \mathbf{s}\\ \mathbf{d}\\ $	a. 34. s.m: d : m.s: d :	кеч d.m r d t ₁ s s m.d s,	F. :- :- :-	mis dd.t. ss	:d.r m :l _t d :f s :f.r s	1 :r :t ₁ :f :s ₁	R.D.M. d : d : m : d :	
{	Ex.3 m dss ss	85. x .r:m ; :d :s .t _i :d	ey G. r :- t _i :- s :- s _i :-	m d s d	s.f:m r.t _i :d s :s t _i .s _i :d	r :: d :: 1 :: f ₁ ::	R.D.1 r d: t ₁ d: s.f m : s ₁ d:	M. 	Ex d s ₁ m d	. 36. m.d.: d, : s.m: d ::	KBY f.r d l ₁ s ₁ l.f m r s ₁	G. :t ₁ :- :r :-	a s, l, : n m : l a.1, 1	s.f m d d s.l s m.f. s	F :r :t, :f :s,	t.D.M. d:- d:- m:- d:-	
	Ex. 3 \$ f d 1 m f d 1	87. к f :m ı.tı:d f :s ſi :mı	EY G. 1 :- d :- f :- f ₁ :-	d m	m.d:r s ₁ :s d.m:s d :t ₁	.m f t, s .d r	:m 1 :d t :s s :d s	: :- ;; :- ; :-	m r d t s s	:d ;;:s; f:m :m	f : d : f : 1 ₁ :	Î r f t	s.f:m. r :d. r :m. t. :d.	r d l _i s _i f m f s _i	R :t ₁ :s ₁ .f ₁ :r :s ₁	d:- d:- m::- d:- d:-	
(: ; : ; :	Ex.3 s n ⁱ d	88. к d s m m	еч С. :d ¹ :s :m ¹ :d	r s t s.f	:s :s :d'.r' :m.r	di s mi d	:t .1 :f :f ⁱ :r	s m d ⁱ m	: d' : s : m' : d	l.t f r' f	: d' : s : d' : m	r f 1 f	:d :s.l :d :m.f	di s mi s	₽ : : :	:.D.M. t r ' 	}
):): :	s m d' d	M ¹ . r ¹ s d ¹ . r ¹ d . t ₁	:d' :s :m' :d	r t.s s.t s	:s :s :r' :f	d'.t s s m	:1 :f :d ¹ :f	s r t s	:m .f :d :d ⁱ :1	d d' m	:d'.r' :f :1 :f .r	m ` s d s	:r :s .f :t :s	d' m d' d	: : : : :		

E	с. 39. кеч	а д .	I	Or. W. HAYES.	Ех. 40. КВУ С.		JOHN DAVY.
(m]s :d t	ı:- ∥ŕ	` f∶m	r :r d :-	/ ŝ d':1 t:-	r d' : 1	s :f m :-]]
) s _l	s ₁ :fe ₁ s	ı:- sı	s, :s,	s ₁ :f ₁ m ₁ :-) m s :fe s :-	s s :f	m :r d :-
d	d :d r	:- t _i	r :d	d :t1 d :-) d' m':r' r':-	f' m' :d'	d':t d':-
d	m ₁ :1 ₁ s	ı:- sı	t :d	s ₁ : s ₁ d ₁ :-	$ \mathbf{d} 1_{i} : \mathbf{r} \mathbf{s}_{i} : - $	t, d :f	s :s, d :-

Ex. 41. KEY G. HENRY PURCELL. $\begin{cases} \left| \begin{array}{c} \widehat{m} & \mathbf{r} & :\mathbf{d} & \mathbf{r} & :- \\ \mathbf{s}_{1} & \mathbf{s}_{1} & :\mathbf{1}_{1} & \mathbf{t}_{1} & :- \\ \mathbf{d} & \mathbf{r} & :\mathbf{m}.\mathbf{fe} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & :\mathbf{1}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{r} & :\mathbf{m}.\mathbf{fe} \\ \mathbf{s} & \mathbf{s} & :- \\ \mathbf{m} & \mathbf{d} & :\mathbf{f} & \mathbf{r} & :\mathbf{r} \\ \mathbf{1}_{1} & \mathbf{s}_{1} & :\mathbf{1}_{1} & \mathbf{s}_{1} & :\mathbf{f}_{1} \\ \mathbf{m}_{1} & :\mathbf{r} & \mathbf{d} & :- \\ \mathbf{m} & \mathbf{d} & :\mathbf{f} & \mathbf{r} & :\mathbf{r} & \mathbf{d} & :- \\ \mathbf{d} & \mathbf{t}_{1} & :\mathbf{1}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{t}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & :- \\ \end{array} \right|_{\mathbf{1}} \left| \begin{array}{c} \mathbf{m}_{1} & :\mathbf{r} & \mathbf{d} & :\mathbf{f}_{1} \\ \mathbf{m}_{1} & :\mathbf{s}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & :\mathbf{s}_{1} \\ \mathbf{s}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & :- \\ \end{array} \right|_{\mathbf{1}} \right|_{\mathbf{1}} \left| \begin{array}{c} \mathbf{m}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & :\mathbf{s}_{1} \\ \mathbf{s}_{1} & :- \\ \end{array} \right|_{\mathbf{1}} \right|_{\mathbf{1}} \left| \begin{array}{c} \mathbf{m}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & :\mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & :- \\ \end{array} \right|_{\mathbf{1}} \right|_{\mathbf{1}} \left| \begin{array}{c} \mathbf{m}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{s}_{1} & \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf$ Ex. 42. KEY A. THOMAS ATTWOOD. Ex. 43. KEY Eb. THOMAS HEYWOOD. Ex. 44. KEY Bb. JOHN TRAVERS. $\begin{cases} \widehat{\mathbf{m}} & | \mathbf{l} : \mathbf{t} & | \mathbf{se} : - \\ \mathbf{d} & \mathbf{d} : \mathbf{r} & \mathbf{m} : - \\ \mathbf{l} & | \mathbf{l} : \mathbf{l} & | \mathbf{t} : - \\ \mathbf{l}_1 & | \mathbf{l}_1 : \mathbf{f} & | \mathbf{m}_1 : - \\ \mathbf{l}_1 & | \mathbf{f}_1 : \mathbf{f} & | \mathbf{m}_1 : - \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 & | \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 \\ \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1 : \mathbf{m}_1$ Ex. 45. KEY Bb. EDWARD J. HOPKINS. Ex. 46. KEY By. MAURICE GREEN. Ex. 47. KEY F. Rev. W. H. HAVERGAL. $\begin{cases} \vec{m} & \mathbf{r} : \mathbf{t}_{1} \ \mathbf{d} := \\ \mathbf{s}_{1} \ \mathbf{f}_{1} : \mathbf{m}_{1} \ \mathbf{m}_{1} := \\ \mathbf{d} \ \mathbf{l}_{1} : \mathbf{s}\mathbf{e}_{1} \mathbf{l}_{1} := \\ \mathbf{d}_{1} \ \mathbf{r}_{1} : \mathbf{m}_{1} \ \mathbf{l}_{1} := \\ \mathbf{f}_{1} \ \mathbf{f}_{1} : \mathbf{d} \ \mathbf{d} : \mathbf{t}_{1} \ \mathbf{f}_{1} : \mathbf{f}_{1} : \mathbf{f}_{1} \ \mathbf{f}_{1} : \mathbf{f}_{1} : \mathbf{f}_{1} : \mathbf{f}_{1} \ \mathbf{f}_{1} : \mathbf{f}_{1} : \mathbf{f}_$ Ex. 48. KEY Bh. ROGER ROWSON ROSS. $\begin{cases} \widehat{d} \mid d:t_{1} \mid d:- \\ \mathbf{s}_{1} \mid \mathbf{s}_{1}:\mathbf{s}_{1} \mid \mathbf{s}_{1} \mid \mathbf{s}_{1} \mid \mathbf{s}_{1} \mid \mathbf{t}_{1} \mid d:\mathbf{r} \mid \mathbf{m} :- \\ \mathbf{m} \mid d:\mathbf{r} \mid \mathbf{m} :- \\ \mathbf{d}_{1} \mid \mathbf{m}_{1}:\mathbf{s}_{1} \mid \mathbf{d}_{1}:\mathbf{r} \mid \mathbf{m} :- \\ \mathbf{d}_{1} \mid \mathbf{m}_{1}:\mathbf{s}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{m}_{1}:\mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:\mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:\mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:\mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:\mathbf{d}_{1} \mid \mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:\mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:\mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid \mathbf{d}_{1}:- \\ \mathbf{d}_{1} \mid$

				$\mathbf{E}_{\mathbf{X}}$. 49). 1	KBY	C.		_			Re	v. G	. Hea	THCO	TE.					
			1	s	1	:1	t		:—	∦t	Ì	ď	: d'	\mathbf{r}^{I}	$:\mathbf{r}^{l}$	m ⁱ	:	1				
				m	f	:f	e s		:—	s	eΪ	1	: s	1	: 5	s	:					
			Í	d	a	:r	ı r	d -	:	m	μ	m	: d'	d	:t	d	:—	1				
			(d	f	:r	s		:—	l m		1	:m	f	:s	d	:					
E x 50	0. к	EY	Bþ.																	Anor	ymc	ous.
$\langle \hat{\mathbf{i}}_i \mathbf{i}_i \rangle$:1	se	.:-	m	f	f	m :	r	m	:-	Шŕ	î	r :d	t	5ı :-	∥â	t _i	$:1_1$	1	:sej	1	:-
m f	: r i	m	:-	m,	r	:f _l	s ₁ :	ន	S	:		\mathbf{I}_{1}	se _i :1	1 8	ie ₁ :-	m	\mathbf{f}_{1}	$:\mathbf{f}_{1}$	m	:mj	m	:-
ad	:1,	\mathbf{t}_{1}	:-		1	r	d :	tı	d	:-	1	ŋ	m :m	1 r	ı :-	1,	r	:r	t	$:t_1$	d	:
$(1 \mathbf{f})$: f	m,	:-	de	\mathbf{r}_{1}	\mathbf{r}_{1}	s ₁ :	ន	d	:-		a	t ₁ :1	. P	ıı:-	d di	\mathbf{r}_{1}	$:\mathbf{r}_{\mathbf{I}}$	m	: m	12	:-
					•••	•	• •		• •				•									

Ex. 51. XEY G. Rev. Dr. H. ALDRIC	н. Ех. 52. кву С.	Dr. Aylward.
$ \begin{pmatrix} \widehat{m} & \mathbf{f} & :\mathbf{s}, \mathbf{l} \mid \mathbf{r} & :- \\ \mathbf{s}_{1} & \mathbf{l}_{1}, \mathbf{t}_{1}, \mathbf{d} & \mathbf{t}_{1} & :- \\ \mathbf{d} & \mathbf{d} & :\mathbf{d} & \mathbf{s} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :- \\ \mathbf{d} & \mathbf{l}_{1} & :\mathbf{m}_{1}, \mathbf{f}_{1} & \mathbf{s}_{1} & :\mathbf{s}_{1} & \mathbf{d}_{1} \\ \end{pmatrix} $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $.t:d d :t d :- :f.m m :r m :- f :d s :s s :- f :1 s :s d :-
Ex. 53. Key F. A. BENNETT, Mus. Do $ \begin{pmatrix} \hat{d} & d : f & m := \\ d,t_i & l_i:d & d := \\ m,s & f : l & s := \\ d & d : d & d := \\ s_i & l_i:f_i & s_i : s_i \\ d & d & d & d := \\ d & d & d & l_i : s_i & l_i : s_i \\ d & d & d & l_i : s_i & l_i : s_i & l_i \\ d & d & d & l_i : s_i & l_i : s_i & l_i \\ d & d & d & l_i : s_i & l_i : s_i & l_i \\ d & d & d & l_i : s_i & l_i : s_i & l_i \\ d & d & d & l_i : s_i & l_i : s_i & l_i \\ d & d & d & l_i & l_i : s_i & l_i \\ d & d & d & l_i & l_i : s_i & l_i \\ d & d & d & l_i & l_i : s_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i \\ d & d & d & l_i & l_i & l_i \\ d & d & l_i & l_i & l_i & l_i \\ d & d & l_i & l_i & l_i & l_i \\ d & d & l_i & l_i & l_i & l_i & l_i \\ d & d & l_i & l_i & l_i & l_i & l_i \\ d & d & l_i & l_i & l_i & l_i \\ d & d & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i & l_i \\ d & l & l_i & l_i & l_i & l_i & l_i \\ d & l & l_i &$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} R.D.M. \\ s : 1.f m : r & d : - \\ d : d & d : t_1 & d : - \\ s.d^!:f.1 & s : f & m : - \\ m_1 : f_1 & s_1 : s_1 & d : - \\ \end{array}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $
Ex. 57. KEY D. From THOMAS ATTWOO	D. Ex. 58. Key D.	Dr. CROTCH.

Ex. 59. KEY E. From T. WANLESS, Mus. Bac. Ex. 60. KEY Bb. Lah is G. R.D.M. ĩ 1, |d :d |m :-|d'.t:1.s| d' :--|s :f.m|r :d.t.|d :- || t r d :m | 1, :d.t. | 1, :-S; :-- $|1_1:1_1|$ r \mathbf{r} : \mathbf{r} d :d r :d 1;:s; m $l_1 | l_1 : se_1 | l_1 : se_1 | l_1 :$ se₁:-f :f d f :8 d :1 s S :S r m :t₁:r m :t; |m :m,r d :**f** d :-(|l,|**f**,:**f**,|m,:f ::f M :ti :d $\mathbf{f}_1:\mathbf{s}_1$ || filmi:ri | di :mi Ex. 61. KEY Eb. G.O. 1 :s.f:m.r|d :-.r:m.f|s.m:l.s:f.m|m :r :s |d':t.l:s.fim :-.f:s.l|f.m:s.f:m.r|d :-(:s :m $|\mathbf{r}|:\mathbf{s}_{1}:\mathbf{d},\mathbf{t}_{1}||\mathbf{l}_{1}:-\mathbf{t}_{1}:\mathbf{d},\mathbf{r}||\mathbf{m}|:\mathbf{r}|:-\mathbf{d}||\mathbf{d}|:\mathbf{t}_{1}:\mathbf{d}|$ m :f :m.r d :-.d:d $d : d : -.t_1 d$ s :f :d'.l s :-.f:m : \$ f :m:f:s S :S :S S :- :S f :d:r:m.f m l :- :s $d.r:m | f := m.r | d : t_1 : d | s_1 := m | d : r : m.f | s.m:d.l_1:s_1 | l_1 : m.f.:s_1 : d$:d t. Ex. 62. KEY F. G.O. ' | S :m.fls :d r :m.f m lm. :r.m|f : 8 11 :s.l| r :--|d :d $:s_{1}.l_{1}|t_{1}$:t d lđ :d $\mathbf{d} \cdot \mathbf{t}_1: \mathbf{d} \cdot \mathbf{r} \mid \mathbf{d}$:d r :-t, d |1.s:f.m jm.1:s s.f:m r :r r :d $|\mathbf{d} \cdot \mathbf{t}|:\mathbf{d}$:--S d 11 |f₁ :d :l₁ l tı :d S :51 11_{1} :--|r_i : 191 :m₁.f₁|s₁ :t.dlit m :f.s | 1 :r **i**1 |d| :s.f | m :f.m]r :-.m/d :--|d :1 |r.m:f.m |r $:d.t_1 | 1_1$ |d.r:m.r d :d |d d :ti :---|f :-.s |s.l:s.f| |s :d .m .s :1 :- .8 S :-m ;-.s s m $|\mathbf{d}_{1},\mathbf{t}_{1},\mathbf{t}_{1},\mathbf{s}_{1}|\mathbf{f}_{1}$ |f.m:r.d|s jl₁.t₁:d.r |m :r.d |s d :fr : 81

Ex. 64. KEY C. Ex. 63. кеу Ер. R.D.M. G.O. ∥dî∣t :1 if :m ||d^{(^^}|1 :s.flm :r s :f d :f 1d :m im :s s :f f :m m d d :d d:r:d ti :d $\mathbf{t}_1:\mathbf{t}_1$ d :- $\mathbf{d}:\mathbf{r}$ d d :d.r d :r SI mir d' :d' :− m S :S s s f :m f :f m :-s S : S f $\mathbf{d}^{!}:\mathbf{t}$ d \ | d d:ti 1.:f :f d d :t d : $m_1 f_1 | s_1 : s_1 | s_1 : s_1$:ll m S :S d Ex. 65. KEY D. G.O. Ex. 66. KEY D. HOOPER. $\|\hat{\mathbf{t}}\| + \|\mathbf{r}\| đ $d^{1} := 0$ ||s|f:m|r:r lm :f s :-|t:1 8 :d :s m :f.s fe:f m d :d d :d d:t d :m d :r r :d l r m :r :ti d' :d١ d':1 $d^{\dagger}:\mathbf{r}^{\dagger}$ 1 :t f :f 1 : 1r :f s s 8 :--8 1 m d d :d ir :r limilf::fi S| : S| m :-S s :f.mr : 81 im : d :

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DR. OAKELEY. Ex. 68. KEY Bh. Ex. 67. KEY E. DR. RIMBAULT. d r :m â`|l,:l, |l, -|| t₁ | d :d | |d :r :r | d :m :r s :-.f|m :s \mathbf{f}_1 $\mathbf{d}:\mathbf{t}_{1}$ d :- $|f_1:s_1|f_1:-$ 1; :s,.f d ti:ti s₁ |1,.t.:d mi tmi d :m, d 1 :s 8 :d :de r d:ti $\mathbf{l}_1:\mathbf{t}_1$ d :m s:-.flm:r : 8 r :-- $\|\mathbf{m}_{1}\|\mathbf{f}_{1}:\mathbf{m}_{2}\|\mathbf{r}_{1}:\mathbf{s}_{1}\|\mathbf{d}:$ d, f, :m, r, :- $|| s_1 | l_1 : s_1 | f_1 : s_1 | d_1 :$ d 11:--SI 181 G. W. MARTIN. Ex. 70. KBY G. G.O. Ex. 69. кеу Eb. ||Î|f:f|m:r|d:-|| r :1 is :-(:m]m :r :re[m :r :d |d :- :t, |d :-m d d :-1:đ $d.t_{1}:1_{1}$ d :t de r :r d:t 1 l₁ :-:d $:ta_{1} | l_{1} : s_{1} : f_{1}$ d :--Mi :-1:1 f :f s :-.f m :-:s 11 :f :fe s :s d :s \mathbf{r} r.m:f :r ۱ld d :d |d :- $\mathbf{l} \mathbf{r} : \mathbf{f}$ s :s, d :-11 \:d $|f_1:-:|_1| \leq |f_1|$:m fe::s::-|d₁:-Ex. 71. KEY C. G.O. Ex. 72. KEY F. G.O. 11 :ta :t | d' :de' :r' | m' :r' :re' m' :- :- | /:s |la:s :fe|s :m :r |m :m :f m :- | \:m | r :s, :d :se|1 :1 :1 M :M :M m :s se:- :d :d :d d :ra:r d :d1 :de1:r1 d':m':m' m':1 :1 f :m :re m :m :fe s.d':ta:t d' :t :-:-:s :se | 1 : 1, :t, | d : f : f | m :- :- | $|\mathbf{t}_1:\mathbf{d}_1:\mathbf{a}_1| = |\mathbf{s}_1:\mathbf{1}_1:\mathbf{a}_1| = |\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{d}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{d}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{d}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1:\mathbf{s}_1| = |\mathbf{s}_1:\mathbf{s$ 11 (:d G.O. Ex. 74. KEY G. Ex. 73. KEY C. G.O. :m' | re':r' :d' | d' :d' :ta | t :l :se | l :- || /:d |m :f :s 1 :r :s fe:f :f m :fe:m.l:f d :-1:d m :m :r d :d :d d :t, :d d :t1 :t1 : M fe:m :m d :-1:-:d' :1 1:1:ta | se:1:t1 : m 1:f1 :s :f t :m r :s :s 8 :- $1_1 := ||$:1 1 :se :1 re:m :r |r :d :m 1:d $|\mathbf{l}_1: |\mathbf{a}_1:\mathbf{s}_1|$ fe₁: f₁ : m₁ | re₁: r₁ : ra₁| d₁ :-Ex. 75. KEY Eh. G.O. :f In :d lđ :de :d.m |f :fe. 1:5 s r :r r ۰ ۱ М ---d :d :d d : 11 ld :ti d :ta :d :d t. |r t, 1 :la s : 8 la :s.f Im :1 11 :1 : 8 :8 se se f :d :fi f 11. f S : 171 : Si : M $|\mathbf{r}|$:m :re m ls :fe |f 1 :fe :la ď : M m :r : M I S ls :rl :d d :ti ld. :d :f |f :f lm r : 🖪 :r m M :1 f :f s :1 t :d |d' :d' dı :d' |d' :t đ١ :d r Im :d.t. |1. :la :fi d :r :ma r S1 81 :sı

CHORD-NAMING EXAMPLES.—PART B.

Arranged progressively, according to Mr. Curwen's "Musical Theory," Book V, and "How to Observe Harmony."

Ex. 1. KEY D. G.O. Ex. 2. KEY G. G.O. $d\hat{l}$ | s : d^{i} | t : - || $d\hat{l}$ | r': d^{i} | d^{i} : t | d^{i} : -|d:t₁ |d:m|s:r|m:d|r:t₁ |d| /:8 r:- m s:m m:r m:-s:- s t:d¹ s:s s:- $\mathbf{s}_{i} : \mathbf{d} = [\mathbf{s}_{i} : \mathbf{s}_{i} | \mathbf{s}_{i} : \mathbf{d} = [\mathbf{t}_{i} : \mathbf{t}_{i} | \mathbf{d} : \mathbf{d} = [\mathbf{t}_{i} : \mathbf{s}_{i} | \mathbf{s}_{i}]$ m m :m):m |m:r |m :d |r:s |s :m |s :r |m s :s d s :d d :s, d :ld:d |s₁:- $d = d : s_1 = d : d = s_1 : s_1 = d : d = s_1 : s_1 = d_1$ Ex 3. "KEY Ab. G.O. Ex. 4. KEY C. G.O. $\begin{cases} \widehat{d} & r : t_{1} \mid d := \\ s_{1} \mid t_{1} : s_{1} \mid s_{1} := \\ m \mid r : r \mid m := \\ m \mid r : r \mid m := \\ m \mid t_{1} : d \mid d : t_{1} \mid d : - \\ m \mid t_{1} : d \mid d : -$ /:s |s :s |1 :d¹ |t :r¹ |m¹:d¹ |d¹:t |d¹):m |m :m |d :m |r :s is :m |f :f |m]:d' |d':d' |1 :s |s :t |d':s |1 :s |s $\|\mathbf{d}_1\| \mathbf{s}_1 : \mathbf{d}_1 \| \mathbf{f}_1 : \mathbf{s}_1 \| \mathbf{d}_1 :$ d :d |f :d |s :s |d :d |f :s |d \:d Ex. 5. KEY Bh. G.O. Ex. 6. KEY A. G.O. $|m:d:1_1|s_1:d:m|f:1_1:t_1|d:-:-||$ $\left. \begin{array}{c} \mathbf{s}_1 \ : \mathbf{s}_1 \ : \mathbf{f}_1 \ | \ \mathbf{r}_1 \ : \mathbf{s}_1 \ : \mathbf{s}_1 \ | \ \mathbf{f}_1 \ : \mathbf{f}_1 \ : \mathbf{f}_1 \ | \ \mathbf{m}_1 \ : - \ : - \ | \\ \mathbf{d} \ : \mathbf{s}_1 \ : \mathbf{s}_$ $|\mathbf{d}|: \mathbf{m}_1 : \mathbf{f}_1 | \mathbf{s}_1 : \mathbf{m}_1 : \mathbf{d}_1 | \mathbf{l}_1 : \mathbf{f}_1 : \mathbf{s}_1 | \mathbf{d}_1 : - : -$ Ex. 7. KEY F. G.O. Ex. 8. KEY B₂ W. JACKSON. $\begin{cases} \mathbf{d} & \mathbf{r} : \mathbf{m} & \mathbf{f} : - \\ \mathbf{s}_{i} & \mathbf{s}_{i} : \mathbf{s}_{i} & \mathbf{l}_{i} : - \\ \mathbf{m} & \mathbf{r} : \mathbf{d} & \mathbf{d} : - \\ \end{bmatrix} \mathbf{\hat{r}} & \begin{bmatrix} \mathbf{m} : \mathbf{f} & \mathbf{m} : \mathbf{r} & \mathbf{d} : - \\ \mathbf{s}_{i} & \mathbf{s}_{i} : \mathbf{l}_{i} & \mathbf{s}_{i} : \mathbf{l}_{i} \\ \mathbf{s}_{i} : \mathbf{s}_{i} : \mathbf{t}_{i} & \mathbf{s}_{i} : \mathbf{t}_{i} \\ \mathbf{d} : \mathbf{d} & \mathbf{d} : \mathbf{t}_{i} \\ \mathbf{d} : - \\ \end{bmatrix}$ $\begin{cases} | \widehat{\mathbf{m}} | \mathbf{r} : \mathbf{m} | \mathbf{s} : - | \widehat{\mathbf{s}} | \mathbf{m} : \mathbf{d} | \mathbf{d} : \mathbf{t}_{\mathbf{i}} | \mathbf{d} : - | \\ | \mathbf{d} | \mathbf{r} : \mathbf{d} | \mathbf{t}_{\mathbf{i}} : - | \mathbf{r} | \mathbf{d} : \mathbf{d} | \mathbf{s}_{\mathbf{i}} : \mathbf{s}_{\mathbf{i}} | \mathbf{s}_{\mathbf{i}} : - | \\ | \mathbf{s} | \mathbf{s} : \mathbf{s} | \mathbf{s} : \mathbf{s} | \mathbf{s} : - | \mathbf{r} | \mathbf{m} : \mathbf{f} | \mathbf{m} : \mathbf{r} | \mathbf{m} : - | \\ \end{cases}$ đ $|| t_1 | d : 1_1 | s_1 : s_1 | d : |{\bf t}_1:{\bf d} | {\bf f}_1: || s_1 | d_1 : f_1 | s_1 : s_1 | d_1 : -$ Ex. 9. KEY D. G.O. Ex. 10. KEY F. R.D.M. $\begin{cases} | \hat{s} | s :d | r :- | \hat{s} | f :m | r :r | d :_{\tau} \\ | s_i | t_i :d | t_i :- | d | t_i :d | s_i :t_i | d :- \\ | m | f :s | s :- | s | s :s | f :f | m :- \\ \end{cases}$ ':m [s:s |s:dʲ]t:s |mʲ:rʲ]dʲ:t |dʲ] d r:d t :d r:r s:s s:s s t :d' |s :s |s :s |s :t |d' :r' |m' s::t: d:r m:r d d r :m f :- $\mathbf{s}_{1}:\mathbf{m} \mid \mathbf{r} : \mathbf{d}$ r :d $|t_1:s_1|d:-$ LONDON : J. CURWEN & SONS, 8 & 9, WARWICK LANE, E.C. Price 1d.

	Ex. S M S d	11. m :: d :: s :: d ::	ъвч D f s : d r : d t : l s :). - î - r - s - f	d':s d:d s:d' m:m	1 :t f :r d':s f :s	R.D. d' m s d	M. :- :- :-	E (: M (: d (: s (: d	x. 12 f d 1	2. 18 :m :d :s :d	Сву G f : d : f : f :	+. :1 1 :d d :f f :f ₁ d	::s :- :m :d	- t _i r r _i	:d :d :s :m,	d 1, f f,	G. :t _i :s _i :r :s _i	0. d s m d
\	E m:: s: d::	2x. 13 s l d]d s f m f	:	G. f m :- r d :- s s :- t ₁ d :-	- f :s - d :d - f :m - 1 ₁ :s	1:d d:d f:s f ₁ :m ₁	f :m t ₁ :d s :s r ₁ :d ₁	r : t ₁ : s : s ₁ :	s: d: m: d:	s s t _i d f s r n	:t: :s: :s :f	d :r s ₁ :t ₁ s :s m :r	m :- d :- s :- d :-	f : d : 1 : f ₁ :	s 1 d d s f m _i f	:d :d :f :1	I m :: d : s :: s ₁ ::	ζ.D.: r d t ₁ d f m s ₁ d	M. :- :- :-
{	Ex. s s n d	14. d:r s,:d s :s m :d	$\begin{array}{c c} \mathbf{KEY} \mathbf{F} \\ \mathbf{I} & \mathbf{r} \\ \mathbf{I} & \mathbf{t}_{1} \\ \mathbf{I} & \mathbf{t}_{2} \\ \mathbf{s} & \mathbf{s} \\ \mathbf{I} & \mathbf{s}_{1} \\ \mathbf{s} & \mathbf{s}_{1} \end{array}$	- s - s ₁ - d	Rice 1 ₁ : r 1 ₁ : 1 ₁ d : f f ₁ : r ₁	d :t d :t s ₁ :s m :r s ₁ :s	BELLAM	- - -		x. 15 f t ₁ s r	5. 14 :m :d :s :d	r : t : s : s ₁ :	- r - d - s	i 3 d m d	L :f :r :l f	owe m d s s	I :r :t _i :s ;s _i	MASC M d s d)N. :- :- :-
{	Ex. m d d' d	16. f :r d :t l :s r :s	кву Е m : d : s : d :	- d - s - s - m	r :m t, :d s :s r :d	r :r d :t l :f f ₁ :s	R.D.I d: d: m: d:	YE. : :	E s m d	ж. 17 l f r ⁱ d	: s :s :r' :t _i	.œv C d': s: d': d':	- m - s - d	r' s t s	:d' :m :d' :1	d' s r ⁱ s	R :t :s :r' :s	di s ni d	MI. :- :- :-
	Ex. m d s d	18. s :r r :s s :s d :t	$\begin{array}{c} \text{KBY } \mathbf{A} \\ \mathbf{f} \\ \mathbf{d} \\ \mathbf{f} \\ \mathbf{f} \\ \mathbf{l}_{1} \\ \end{array}$	 - t̂i - s _i - r - s _i	d :d f ₁ :1, d :f 1,:f	d :t s ₁ :s r :r s ₁ :s	R.D.I d : s ₁ : m : d :	¥ f. ; ; ;	E d s m m	x. 19 t ₁ f ₁ f r). 18 :d :s ₁ :m :d	тву G f: s ₁ : r: t ₁ :	- m - s - s - d	Jon 1 d f	атна : б : đ : s : т	N B f d 1 r ₁	:f :f :t _i :s :s _i	shii m d s d ₁	:
	Ex. s m s d	20. l :s r :m f :m t _i :d	KEY F f t t t s	. Pa n ŝ l r l s l t _i	arisian] f :m d :d d :s l ₁ :s ₁	Cone, 3 r :r l ₁ :t l :f f ₁ :s	rdend d: d: m: d:	ling. 	E m d d	x. 21 1 f d' f	:t :t :f :r' :r	d': m: s: d:). 	s m d'	:1 :r :1 :f	m d s s	I :r :t ₁ :f :s ₁	d d m d	M. :

()	En m d s d	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Dr. E. G. MONK. $t_1:d r:r d:-$ $s_1:m_1 l_1:s_1 m_1:-$ $r:d d:t_1 d:-$ $s_1:l_1 f_1:s_1 d_1:-$	Ex. 23. KEY G. $ \begin{pmatrix} s & f :m & r : d & f_1 \\ d & d : d & t_1 : d & f_1 \\ m & 1 : s & f :m & f \\ d & l_1 : d & s_1 : l_1 & f_1 \end{pmatrix} $	W. H. MONR. $\mathbf{s}_{1} : \mathbf{s}_{1} 1_{1} : \mathbf{t}_{1} \mathbf{d}_{2} : - \mathbf{s}_{1} : \mathbf{m}_{1} \mathbf{f}_{1} : \mathbf{s}_{1} \mathbf{s}_{1} : - \mathbf{d}_{2}
()	Ex s d m d	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	DR. E. G. MONK. s :d f :r m :- d :d d :t ₁ d :- s :1 1 :s s :- m :f r :s ₁ d :-	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c} R.D.M. \\ t_{i}:d & r :m & d :- \\ s_{i}:s_{i} & t_{i}:t_{i} & d :- \\ f :m & s :s & m :- \\ r :d & s_{i}:s_{i} & d :- \\ \end{array}$
{	:s :m :s :d	Ex. 26. KEY G. l:s f:s m:r d $r:m r:r d:t_1 d$ f:m l:s s:f m $t_1:d d:t_1 d:s_1 1$:m f :r m :l s :- - :d t ₁ :s ₁ d :r t ₁ :- - :l f :s s :f r :- - :l ₁ r :t ₁ d :f ₁ s ₁ :- -	:d m : r f : m s :d r : m :s ₁ d : l ₁ r : t ₁ d :d s ₁ : s ₁ :m m : f f : s m : f r :d :d l ₁ : r t ₁ : m d : l ₁ t ₁ : d	G.O. $\mathbf{t}_1:\mathbf{d} \mid \mathbf{l}_1:\mathbf{r} \mid \mathbf{d} := \mid -$ $\mathbf{s}_1:\mathbf{s}_1 \mid \mathbf{r}_1:\mathbf{f}_1 \mid \mathbf{m}_1:= \mid -$ $\mathbf{r}:\mathbf{d} \mid \mathbf{d} : \mathbf{t}_1 \mid \mathbf{d} := \mid -$ $\mathbf{s}_1:\mathbf{m}_1 \mid \mathbf{f}_1:\mathbf{s}_1 \mid \mathbf{d} := - \mid -$

Ex. 27. KEY Bb. Ex. 28. KEY G. R.D.M. R.D.M. $\begin{cases} \left| \widehat{d} \right| r : m.d \left| f := \\ s_1 \right| s_1 : d d := \\ m \left| s : s.m \right| f := \\ s \left| s : s.m \right| f := \\ s \left| s : r: f.l \right| s : f \\ m : r = \\ s \left| s : r: f.l \right| s : f \\ m : r = \\ $\begin{vmatrix} \mathbf{\hat{s}_{i}} \\ \mathbf{s}_{i}.\mathbf{d}.\mathbf{m}.\mathbf{d} \\ \mathbf{r}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{d}_{i}.\mathbf{d}.\mathbf{m}, \mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i}.\mathbf{s}_{i} \\ \mathbf{s}_{i}.\mathbf$ $\mathbf{d}_{1} = \mathbf{m}_{1} + \mathbf{d}_{1} = \mathbf{s}_{1} + \mathbf{1}_{1} = \mathbf{f}_{1} = \mathbf{r}_{1} + \mathbf{m}_{1} = \mathbf{s}_{1} + \mathbf{s}_{1} + \mathbf{s}_{1} + \mathbf{s}_{2} + \mathbf{s}_{1} = \mathbf{d}_{1} + \mathbf{s}_{2} + \mathbf{s}_{1} = \mathbf{d}_{1} + \mathbf{s}_{2} + \mathbf{s}_{2} + \mathbf{s}_{1} = \mathbf{d}_{1} + \mathbf{s}_{2} + \mathbf{s}_{2} + \mathbf{s}_{1} = \mathbf{d}_{1} + \mathbf{s}_{2} + \mathbf{s}_{1} + \mathbf{s}_{2} + \mathbf{s}_{2} + \mathbf{s}_{2} + \mathbf{s}_{1} + \mathbf{s}_{2} + \mathbf{s}_{1} + \mathbf{s}_{2} $|1_1:-||d||t_1.s_1:1_1.f_1||s_1:s_1|$ Ex. 29. Key E. R.D.M. Ex. 30. Key G. THOMAS SELLE. $\begin{cases} \left| \widehat{\mathbf{d}} \right| \mathbf{d} : \mathbf{r} \ | \mathbf{m} := \| \widehat{\mathbf{r}} \ | \mathbf{d} : \mathbf{l}_1 \ | \mathbf{d} : \mathbf{r} \ | \mathbf{d} := \\ \mathbf{l}_1 \ | \mathbf{l}_1 : \mathbf{t}_1 \ | \mathbf{d} := \\ \mathbf{m} \ | \mathbf{m} : \mathbf{s} \ | \mathbf{s} := \| \mathbf{f} \ | \mathbf{m} : \mathbf{d} \ | \mathbf{d} \ | \mathbf{t}_1 \ | \mathbf{d} : \mathbf{r} \ | \mathbf{d} := \\ \mathbf{f} \ | \mathbf{m} : \mathbf{d} \ | \mathbf{d} \ | \mathbf{t}_1 \ | \mathbf{d} \ |$ 1 r ·d f₁ :s₁ $|\mathbf{1}_1:\mathbf{s}_1| \mathbf{d}_1:- \|\mathbf{r}_1|$ m :f Ex. 31. KEY Bb. R.D.M. Ex. 32. KEY Bb. Rev. Sir F. A. G. OUSELEY. $\begin{cases} \begin{vmatrix} \widehat{\mathbf{d}} & |\mathbf{d} & :\mathbf{r} \cdot \mathbf{d} & |\mathbf{t}_1 := & |\widehat{\mathbf{s}}_1| \mathbf{1}_1 \cdot \mathbf{t}_1 : \mathbf{d} & |\mathbf{r} & :\mathbf{t}_1 & |\mathbf{d} := & |\mathbf{s}_1| \mathbf{1}_1 \cdot \mathbf{s}_1 & |\mathbf{s}_1 : |\mathbf{s}_1 : |\mathbf{s}_1 & |\mathbf{s}_1 : \mathbf{s}_1 & |\mathbf{s}_1 : |\mathbf{s}_1 : |\mathbf{s}_1 & |\mathbf{s}_1 : |\mathbf{s}_1 & |\mathbf{s}_1 : |\mathbf{s}_1 & |\mathbf{s}_1$:t₁ | d :- 1 m:-|

	Ex. M d s d	83. x f:s d:d f:m l ₁ :d	вт G. s :- r :- s :- t ₁ :-	(m d s d	l :r.m l; :s ₁ m :s d :t ₁	R.I f:m.r r d:d.t ₁ d f:s s l ₁ :s ₁ d	D.M. :- :- :-	Ex. d s ₁ m d	34. m.r :d d.t _i :1 s :m s _i :1	$\begin{array}{c c} \mathbf{KEY} & \mathbf{A} \\ & \mathbf{S} \\ \mathbf{S} \\ \mathbf{S} \\ & \mathbf{S} \\ \mathbf{I} \\ \mathbf{S} \\ \mathbf{I} \\ \mathbf$	A. - d - d - d) m.r :d s, :s s.f :m d.t ₁ :d	.r d .l s .f m .f s	$\begin{array}{c} \mathbf{R}.\mathbf{I}\\ :\mathbf{f}_{1} \\ :\mathbf{f}_{1} \\ :\mathbf{r}\\ \mathbf{I} \\ :\mathbf{s}_{1} \end{array}$	D.M. d:- m :- d:- d:-
	Ex. di m s d	35. x s :1 s :f d' :d' m :f	BY C. S :- r :- t :- S :-	m d d	r.m:f.s r.d:d s :1.d t ₁ .d:f.r	R.1 :t d f :r d :s f :s	D.M. I':- n:- s:- I:-	Ex. m d s d	86. d.m:s d :d m.s:d d :m	REY .f m .l _i d .d s i.f _i s _i	G. :r :t, :- :-	s f.l :: d r.l;: s l.f :: m; r, :	s.dim dddd sss	R. :f.r :t ₁ :r.f :s ₁	D.M. d:- d:- m:- d:-
	E M: d: s: d:	x.37. s:l.f m :d d' :l - :f	кву I m.f:s d :m d' :- l :s). :1 :r.m :1 :f.m	f : f :t _l .: l :s r :	f:m.f m r:d.t _i d :s s t _i :d.rd	:- :s :- :; :- :- :- :m.;	d ^l :t. r m :f s :f r d :r	l:s.f :m.r :d'.l :m.f	m :~ d : s.d': s :1	. f:s .) :- :d' :m.j	l s.d':d m :r d' :r f s :s	l':t :f ':s :-	d ¹ :- m :- s :- d :-	G.O. - :- - :- - :- - :-
	E :d ⁱ :m :s :d	x. 38. t r f r	кву С :d ⁱ :d :s :m	s d m d	:f .m :d :d ¹ :l:	r.m:f r.ș _l :t _l . s : t _l :s _l	m r d t d ¹ 1,	:s :d :s :m	l.t f f r	:d ⁱ :m :s :d	r r s t	:m' :s :d' :d	r' s t	: : :	G.O.
{	:d ¹ :s :d ¹ :m	t f r' r	:d' :s :s :m	s m d' d.s	:f.m :d.m :t :l.s	f.s:l. r.d:f. l.s:f f.m:r	t d' r m s d	:r' :s :r' :t _l	ու ո մ լ	:r'.d' :f :l :f	t r s.r [!]	:d'.r' :m.f :d'.t :s _l	d' m d' d		

1	Ex.	39 .	к	EY	D.	-		Тн	0MA	s Kr	LW	AY.			Ex.	40), к	BY	₿þ.	-	В	. Sf	. J	. В.	Jou	LE.	
ΊÍ	m	m :	fe	s	:-	∥đ	1	: 8	f	:f	m	:-	11	(Įm̃ į	d	:d	t	:- [$ \mathbf{\hat{r}} $	sı:d		d	:t	d	:	l
1	d	d :	d	t	:-	d	d	:d	d	:t _l	d	:-)	S	s,	:fe	S,	:-	S,	s, :m	$\mathbf{f}_{\mathbf{I}}$	s _i	:s _i	s	:-	
	8	1 :	1	s	:-	s	f	: s	1	:s	s	:-	ļ,)	d	m	: r	r	:-	ti	d :d		r	:r	m	:-	
	đ	1 ₁ :	r	s,	:-	m	f	:m	r	:s ₁	d	:-	ł		d	1,	$:\mathbf{r}_{\mathbf{l}}$	s	:- 1	\mathbf{f}_{i}	m _l :1		s ₁	:s,	d	:-	ļ

$\begin{array}{c c} \mathbf{Ex. 41.} \\ & \mathbf{r} \\ \mathbf{s}, & \mathbf{s}_1 \\ \mathbf{m}, & \mathbf{s}_1 \\ \mathbf{d}, & \mathbf{t}_1 \end{array}$	$ \begin{array}{c c} {}^{\tt KEY} G. \\ :d & t_1 : \cdots & \\ :r_{l_1.fe_1} s_1 : \cdots & t_1 \\ :d & r : \cdots & r \\ :l_1 & s_1 : \cdots & s_1 \end{array} $	THOMAS PUBOBLL. d :r d :t, d : d :l, s_1 :s, s_1 : d :f !m. :r !m. : l, :f_1 s_1 :s, d :	
Ex. 42. KBY E5. s s : d' 1 :- Î d d : d d :- r m s :m f :- f d m : d f :- f	` t :d' t :l s :- r :m r :d t ₁ : s :s s :fe s :- e s :d r :r s₁:-	$ \begin{array}{ c c c c c c c c c c c c c c c c c c $	GOBY. d :- d :- f m :- d :-
Ex. 43. KEY Bb. Lahis $\begin{vmatrix} \hat{d} & d & :m & \mathbf{l}_1 : - & \hat{r} \\ m_1 & m_1 : m_1 & d_1 : - & \mathbf{r}_1 \\ \mathbf{l}_1 & \mathbf{l}_1 : \mathbf{t}_1 & d & : - & \mathbf{l}_1 \\ \mathbf{l}_1 & \mathbf{l}_1 : \mathbf{s}_1 & \mathbf{f}_1 : - & \mathbf{f}_1 \end{vmatrix}$	a G. Sir F. A. G. OUSBLEY. $ \mathbf{r} : \mathbf{d} \mathbf{t}_1 : \mathbf{t}_1 \mathbf{l}_1 : - $ $ \mathbf{m}_1 : \mathbf{m}_1 \mathbf{m}_1 : - \mathbf{r}_1 \mathbf{d}_1 : - $ $ \mathbf{m}_1 : \mathbf{l}_1 : \mathbf{s}_1 \mathbf{l}_1 : \mathbf{s}_1 \mathbf{l}_1 : - $ $ \mathbf{m}_1 : \mathbf{l}_2 \mathbf{m}_1 : \mathbf{m}_1 \mathbf{l}_1 : - $	Ex. 44. KEY D. Lah is B. THOMAS S. $ \begin{pmatrix} $	DUPUIS. 1 :- 1 :- 1 :- 1 :- 1 :-
Ex. 45. KBY G. L $\widehat{\mathbf{m}}, \mathbf{r} \mid \mathbf{d} : \mathbf{m} \mid \mathbf{l}_1 : \widehat{\mathbf{f}}$ $\mathbf{l}_1 \mid \mathbf{l}_1 : \mathbf{se}_1 \mid \mathbf{l}_1 : \mathbf{s}$ $\mathbf{d}, \mathbf{r} \mid \mathbf{m} :\mathbf{r} \mid \mathbf{d} : \mathbf{m}$ $\mathbf{l}_1 \mid \mathbf{l}_1 : \mathbf{m}_1 \mid \mathbf{f}_1 : \mathbf{m}$	ah is E. d :m r :d t ₁ :- e ₁ 1, : 1 ₁ t ₁ : 1 ₁ se ₁ :- m :m f :m m :- 1 ₁ : d r : 1 ₁ m ₁ :-	$ \begin{array}{ c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c} P_{RATT.} \\ & 1_1 := \\ e_1 & 1_1 := \\ r & d := \\ r & 1_2 := \end{array}$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	HINDLE. $ \begin{bmatrix} i & d & :- \\ i & m_1 & :- \\ i_1 & s_1 & :- \\ s_1 & d_1 & :- \\ i_2 & d_1 & :- \\ i_1 & d_1 & :- \\ i_2 & d_1 & :- \\ i_1 & d_1 & :- \\ i_2 & d_1 & :- \\ i_1 & d_1 & :- \\ i_2 & d_1 & :- \\ i_1 & d_1 & :- \\ i_2 & d_1 & :- \\ i_1 & d_1 & :- \\ i_2 & d_1 & :- \\ i_1 & d_1 & d_1 & :- \\ i_1 & d_1 & :- \\ i_1 & d_1 & :- \\ $
Ex. 48. EV G. I $ \hat{\mathbf{l}}_1 \mathbf{l}_1 : \mathbf{t}_1 \mathbf{d} := \hat{\mathbf{m}} $ $ \mathbf{l}_1 \mathbf{l}_1 : \mathbf{se}_1 \mathbf{l}_1 := \mathbf{l}_1 $ $ \mathbf{d} \mathbf{m} :\mathbf{r} \mathbf{m} := \mathbf{m} $ $ \mathbf{l}_1 \mathbf{d} :\mathbf{t}_1 \mathbf{l}_1 := \mathbf{d} $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Sir HENRY R. B $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c c} \text{ISHOP.} \\ \mathbf{i} & \mathbf{l}_1 : - \\ \mathbf{e}_1 & \mathbf{l}_1 : - \\ \mathbf{r} & \mathbf{d} : - \\ \mathbf{u} & \mathbf{l}_1 : - \end{array}$

Ех. 49. кву А.	DR. E. F. RIMBAULT.							
$ \left\{ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$							
Ex. 50. KEY F.	DR. WILLIAM CROTCH.							
$ \begin{cases} \widehat{\mathbf{m}} \mathbf{s} : \mathbf{m} \mathbf{d} := \widehat{\mathbf{r}} \mathbf{m} : \mathbf{l} \mathbf{l} : \mathbf{se} \mathbf{l} := \\ \mathbf{d} \mathbf{d} : \mathbf{t}_1 \mathbf{l}_1 := \mathbf{t}_1 \mathbf{d} : \mathbf{d} \mathbf{t}_1 : \mathbf{t}_1 \mathbf{d} := \\ \mathbf{s} \mathbf{s} : \mathbf{s} \mathbf{m} := \mathbf{s} \mathbf{s} : \mathbf{l} \mathbf{t} : \mathbf{m} \mathbf{m} := \\ \mathbf{d} \mathbf{m}_1 : \mathbf{s}_1 \mathbf{l} := \mathbf{s}_1 \mathbf{d} : \mathbf{l}_1 \mathbf{m}_1 : \mathbf{m}_1 \mathbf{l}_1 := \end{cases} $	$ \begin{vmatrix} \widehat{m} & \mathbf{l} : \mathbf{s} & \mathbf{f} : - \\ de & \mathbf{r} : de & \mathbf{r} : - \\ \mathbf{l} & \mathbf{d} : \mathbf{d} & \mathbf{d} : \mathbf{t}_1 & \mathbf{d} : - \\ \mathbf{l} & \mathbf{l} : \mathbf{m} & \mathbf{f} : - \\ \mathbf{l} & \mathbf{s} & \mathbf{s} : \mathbf{s} & \mathbf{s} : \mathbf{s} & \mathbf{s} : \mathbf{f} & \mathbf{m} : - \\ \mathbf{l} & \mathbf{s} & \mathbf{f} : \mathbf{m} & \mathbf{r} : - \\ \mathbf{s} & \mathbf{s} & \mathbf{s} & \mathbf{s} & \mathbf{s} & \mathbf{s} & \mathbf{d} & \mathbf{s} - \\ \mathbf{s} & \mathbf{s} $							
	1							
Ex. 51. KEY Eb. Dr. DUPUIS.	Ex. 52. KEY C. THOMAS TALLIS.							
$ \left(\begin{array}{c} \widehat{s} \\ m \\ m \\ s \\ s \\ s \\ t_1 : d \\ t_1 : d \\ t_1 : d \\ t_1 : - \\ \end{array} \right) \left \begin{array}{c} \widehat{1} \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\$	$ \left\{ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							
Ex. 53. KEY Bb. Rev. F. A. J. HERVEY.	Ех. 54. кву Ар. G.O.							
$ \left\{ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \left\{ \begin{array}{c c c c c c c c c c c c c c c c c c c $							
Ex. 55. REY G. Lah is E. Dr. HAYES.	Ex. 56. KEY Bp. Lah is G. T. PURCELL.							
$ \begin{pmatrix} \widehat{m} & \mathbf{f} ::\mathbf{m}.\mathbf{r} & \mathbf{d} := & \widehat{m} & \mathbf{t}_1 ::\mathbf{d}.\mathbf{r} & \mathbf{t}_1 ::\mathbf{t}_1 & \mathbf{l}_1 := \\ \mathbf{d} & \mathbf{r} ::\mathbf{t}_1 & \mathbf{l}_1 := & \mathbf{l}_1 & \mathbf{se}_1 :\mathbf{l}_1 & \mathbf{l}_1 :\mathbf{se}_1 & \mathbf{l}_1 := \\ \mathbf{l} & \mathbf{l} ::\mathbf{se} & \mathbf{l} := & \mathbf{m} & \mathbf{m} :\mathbf{m} & \mathbf{m} :-\mathbf{r} & \mathbf{d} := \\ \mathbf{l} & \mathbf{l} & \mathbf{r} :\mathbf{m} & \mathbf{f} := & \mathbf{d} & \mathbf{m} :\mathbf{l}_1 & \mathbf{m}_1 :\mathbf{m}_1 & \mathbf{l}_1 := \\ \end{pmatrix} $	$ \left\{ \begin{array}{c c c c c c c c c c c c c c c c c c c $							
Ex. 57. KEY C. Lah is A. H. PURCELL.	Ex 58. REY G. Adapted.							
$ \left\{ \begin{array}{c c} \widehat{s} & se:l & se:- & \widehat{t} & r':d'.t & d':t & l:- \\ m & m:m & m:- & m & r:f & m:r & d:- \\ d^{i} & r':d^{i} & t:- & se & l:l & l:se & l:- \\ d & t_{i}:l_{i} & m:- & m & f:r & m:m & l_{i}:- \\ \end{array} \right. $	$\left\{ \begin{array}{c ccccccccccccccccccccccccccccccccccc$							

Ex. 59. KEY F. Lah is D. From W. H. SMYTH. Ex. 60. KEY F. KENT. $|\hat{\mathbf{m}}|\mathbf{f}:\mathbf{s.f}|\mathbf{m}:-||\hat{\mathbf{se}}|\mathbf{l}:\mathbf{d.t}_{1}|\mathbf{t}_{1}:\mathbf{t}_{1}||\mathbf{l}_{1}:-||\hat{\mathbf{se}}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{se}||\mathbf{s$ /|m|s :f |m :- ||r|m :s.f|m :r |d :-I₁:se₁ I₁:- $| \mathbf{a} | \mathbf{a} : \mathbf{t}_1 | \mathbf{a} := | \mathbf{t}_1 | \mathbf{a} : \mathbf{a} | \mathbf{a} : \mathbf{t}_1 | \mathbf{a} : \mathbf{a}$ d r :r |d :- $|| \mathbf{t}_1 | \mathbf{1}_1 : \mathbf{1}_1$ s s :s 1 1 1 1 1 -||m|m:m |m:r |d:s :s s : I s : s.f m :-||d |m :r |d :- $\mathbf{l}_{1} | \mathbf{r} : \mathbf{r} | \mathbf{l}_{1} := | \mathbf{r} | \mathbf{d} : \mathbf{l}_{1} | \mathbf{m} : \mathbf{m}_{1} | \mathbf{l}_{1} := | \mathbf{r} | \mathbf{d} : \mathbf{r} | \mathbf{r} : \mathbf{m}_{1} | \mathbf{r} = | \mathbf{r} | \mathbf{r} | \mathbf{r} | \mathbf{r} : \mathbf{r} | \mathbf{r} | \mathbf{r} | \mathbf{r} : \mathbf{r} | \mathbf{r} | \mathbf{r} | \mathbf{r} | \mathbf{r} : \mathbf{r} | \mathbf{r$ $|| s_1 | d : f_1 | s_1 : s_1 | d : -$ Ex. 61. KBY F. R.D.M. $\|\hat{\mathbf{d}},\mathbf{r}\|$ m.s:f.r $\|\mathbf{d} : \mathbf{t}_1\|\hat{\mathbf{d}}\|$ r.t₁:d.m $\|$ s.f:f.m $\|$ m :r $\|\hat{\mathbf{s}}\|\|$ l.s:l.t $\|\mathbf{d}\|$:s $\|\hat{\mathbf{m}}\|\|$ s.f:m.d $\|\mathbf{r}\|$:t₁ $\|\mathbf{d}\|$:- $\| \mathbf{s}_1 \| \mathbf{s}_1 \| \cdot \mathbf{s}_1 \| \cdot \mathbf{s}_1 \| \cdot \mathbf{d} \| \cdot \mathbf{d}_1 \| \cdot$ $d : f_1 | s_1 :$ d $d:d | l_i:s_i | s_i:$ m f :m.s r :f s :s s :s s :m s 1 :1 f.m:r.f m :d :d m :r m $\|\mathbf{d}\|_{\mathbf{t}_{1},\mathbf{r}:\mathbf{d}} = \|\mathbf{t}_{1}\|_{\mathbf{s}_{1}} \cdot \mathbf{f}\|_{\mathbf{m},\mathbf{r}} \|\mathbf{d}\|_{\mathbf{s}_{1}} \cdot \mathbf{f}\|_{\mathbf{m}} \cdot \mathbf{d}\|_{\mathbf{s}_{1}} \|\mathbf{d}\|_{\mathbf{s}_{1}} \cdot \mathbf{f}\|_{\mathbf{s}_{1}} \cdot \mathbf{s}_{1} \|\mathbf{d}\|_{\mathbf{s}_{1}} \cdot \mathbf{s}_{1} \|\mathbf{s}\|_{\mathbf{s}_{1}} \cdot \mathbf{s}\|_{\mathbf{s}_{1}} \|\mathbf{s}\|_{\mathbf{s}_{1}} \|\mathbf{s}$ $|\mathbf{l}_1| : |\mathbf{l}_1| |\mathbf{s}_1| : -$ Ex. 62. KEY C. Lah is A. R.D.M. :d¹.,t | r¹ :d¹ :m.balse :m.f lf |m :m.r |m |-.t :d!.r!|m!.f!:r! : S ld' :d :đ |f :m |d d t d m :m $:\mathbf{r}$ 18 : S :m :s |m :d' :1 f đ١ :dI $|\mathbf{r}|$ Ιt :t :t :d' se t |d| :s :s s :1 d :1 :1 s.f:m :d 1 l m :se 11 :s m r :ti d |t.1:t.d'|r' t d':se |1 :m'.r'|d 1:d1 :se |1.t:dⁱ.t |1 :t 11 :f :m f 1 1.f:m lm. :1 1 11 r m :se :m :se :m :di |d' ď 11 :m'.r'|d'.t :1 d |d| :m' :ml m :rl :r se :t f :f 11 :r 1t :m d :m $|\mathbf{l}|$:sei 11 :t ld. l m :m

Ex. 64. KEY F. Ex. 63. REY A. R.D.M. R.D M. $\begin{cases} \widehat{s} \ s : f \ m : r \ d \ d : t_1 \ d \ t_1 : d \ d : t_1 \ d \ t_1 : d \ d : t_1 \ d : - \\ m \ l \ d \ d \ s : - \ s \ f \ m \ r : s \ s : - \end{cases}$ â | m :r | r :d || r | m :f | r :m | d :- || $(|\mathbf{d}||\mathbf{f}_1:\mathbf{l}_1||\mathbf{s}_1: || s_1 | d : f_1 | s_1 : s_1 | d :$ f1:s1 d:~ ||d||s₁:d||s₁:s₁ |d :-R.D.M. Ex. 66. KEY Eb. EDWARD J. HOPKINS. Ex. 65. REY D. $\begin{bmatrix} d & d \\ s_1 & l_1 \end{bmatrix}$ |d :m f :m S : S $\mathbf{r}:\mathbf{s}_{\mathbf{l}}$

	Ex. 6	37.	KEY D),		C. 8	S. Jek	YLL.	E	lx. 6	8. RE	чD.			I	R. D.M .	
	dÎ m s s d d	:m :t ₁ :s :đ	1 :- d :r 1 :t d :-	s m di m	m:d d:sı m:m lı:sı	r :: l ₁ : f :: f ₁ ::	m d t ₁ d f m s ₁ d	:- :- :-	1 m d 1	fe re t t	e:m :m ⁱ e:m :m :se:l :t ₁ :d	re ¹ : fe: 1 : d :	r':d' m:f se:l t ₁ :l ₁	ta:1 f :r ta:s r :r	t :t n :r se:se n :m	t :1 r :d se:1 1 ₁ :-	
	Ex. 6 m r d d s f d d	89. ⊪ e:m :d e:s :d	f :- d :- l :- f ₁ :-	f t ₁ s	Cev. E. m :f d :d s :1 d :f ₁	W. E r :: d :: s :: s ₁ ::	r d t ₁ d f m s ₁ d	GER. :- :- :-		x. 7(s r s t ₁	0. key :s f :ra d :n f :ța _l l _i	E. :- :- :-	E. C m 1 d d s r s ₁ fe ₁	$\begin{array}{c c} \mathbf{C} & \mathbf{C} & \mathbf{R} & \mathbf{r} \\ \mathbf{r} & \mathbf{s} \\ \mathbf{t}_{1} & \mathbf{d} \\ \mathbf{s} & \mathbf{s} \\ \mathbf{f}_{1} & \mathbf{m}_{1} \end{array}$	w, Mu s :f l :t _l : s .f _l :s _l	s. Bac. m :- d :- s :- d :-	
	$ \begin{array}{c c} \mathbf{E}\mathbf{x}. & 7 \\ \hline \mathbf{s}_{1} & \mathbf{s}_{1} \\ \mathbf{m}_{1} & \mathbf{r}_{1} \\ \mathbf{d} & \mathbf{r} \\ \mathbf{d} & \mathbf{t}_{1} \\ \mathbf{d} & \mathbf{t}_{1} \end{array} $	'1. 1 : s ₁ : m _i : d : ta ₁	d :- f ₁ :- d :- l ₁ :-). d f ₁ d la ₁	m:d s _i :s _i d:m s _i :s _i	H. 1 ₁ ::: f ₁ ::: r ::: s ₁ :::	J. Fr t ₁ d f ₁ m ₁ r d s ₁ d ₁	ost. :- :- :-	E 1 1 1	x. 79	2. KEY :re m :l ₁ t ₁ :l se :f ₁ m ₁	F. L.	$ \begin{array}{c c} \mathbf{ah} \ \mathbf{is} \ \mathbf{D}, \\ \widehat{\mathbf{m}} \ \ \mathbf{s} \ : \\ \mathbf{d} \ \ \mathbf{de}: \\ \mathbf{l} \ \ \mathbf{m} \ : \\ \mathbf{l}_1 \ \ \mathbf{l}_1 \ : \\ \mathbf{l}_1 \ \ \mathbf{l}_1 \ : \\ \end{array} $	se 1 r m m m t ₁ d	R :t :r :se :m	.D.M. 1 :- d :- 1 :- 1 ₁ :-	
	Ex. 7 m d d d s f d 1	3. 1 r :d :fe 1:la ₁	xey G. m :r d :t ₁ s :- s ₁ :-	m d s d	f :fe d :d f :ma l _l :la _l	s :: d :: m :: s ₁ ::	R.D r m t _i d s s s _i d	. M . :- :- :-	E s m d	x. 74 M d s d	$\begin{array}{c c} 1 & \mathbf{KEY} \\ 1 & \mathbf{f} \\ 1 & \mathbf{f} \\ 1 & \mathbf{r} \\ 1 & \mathbf{r} \\ 1 & \mathbf{s} \\ 1 & \mathbf{s} \\ 1 & \mathbf{s} \\ 1 & \mathbf{t}_{1} \end{array}$	D. :m :d :- :d	s d' : m f : d' d' : d 1, :	d'd fes maim lais	R :t :s ¹ :r ¹ ₁ :s ₁	.,D.M. d':- s:- m':- d:-	
	Ex. :m :d :s :d	75. re d fe d	кеч :m :d :s :d	G. f d la f ₁	:m :d :s :s ₁	re d 1 fe _l	:re :1, :1 :f,	m t se m _i	:r :ti :se :mi	d d 1	:de :ta _l :m :s _l	r 1 ₁ f	:r :1; :1 :f;	m tı se mı	:	.D.M. 	
{ {	:m :d :1 :1,	f d la f _i	:m.d :d :s.m :s ₁	ra ta, s m,	:r :t ₁ :s :f ₁	s d s m	:fe :d :1 :re,	f t ₁ s r ₁	:m :d :s :d ₁	f d d 1	:fe :d :ma :la _l	s d m s ₁	:t _i :s _i :f :s _i	d si m d		 - -	

