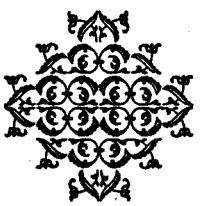
Library : MT 50; M877f

FIGURED HARMONY AT THE KEYBOARD

R. O. MORRIS



PART I

OXFORD UNIVERSITY PRESS
44 CONDUIT STREET · LONDON, W.1

LEWIS MUSIC STORE
NEW YORK

INDEX OF SUBJECT-MATTER

PART I

PART II

MT
224
M877F
v.1

959042
Copy 2

INTRODUCTION

OF LATE YEARS a marked change has come over our methods of teaching harmony, counterpoint, and the various allied subjects which used to be grouped together under the misleading title 'Musical Theory'. It is being more and more recognized, in the first place, that the prime object of this study is essentially 'aural' in character, i.e. that it seeks above all to make the student more keenly aware of chord-relationships *as actual sound*, and thus widen the range and intensify the acuteness of his harmonic perception. In other words, we have come to realize that harmonic study is in its essence a form of aural training, just as the latter in turn is to a very large extent a particular method of studying harmony. The two subjects are not absolutely coincident, but their aims and methods have so much in common that those who consider them one are certainly less in error than those who consider them distinct and unrelated.

We are also more ready than we were to admit that all such studies are means to an end rather than ends in themselves. The nature of that end can best be realized if we recall the old definition of an educated man as one who knows something about everything and everything about something. That is not only true of education in general; it is true of the various branches of education—music, law, history, what you will—in which we have to specialize to earn our living. A musician should not only be master of his own special craft, be that piano-playing, choir-training, conducting, or anything else; he should also have a general acquaintance with musical literature, and be able to appreciate the differences of style and method that characterize the various schools and periods of musical history. In short, he should be not merely a musician, but a cultivated musician. And this he cannot be without an adequate knowledge of harmony and counterpoint, for these are the very stuff of musical speech; on them depend alike the form and the content of music as we in the West understand it. Harmonic study may therefore be taken as indispensable; the question is not whether it shall be taught, but what is the best method of teaching it.

When I was young, harmony was taught exclusively by means of figured-bass. One was given a bass with serried ranks of figures massed in close formation underneath it; in accordance with these hieroglyphics one put down various dots, dashes and smudges on the staves above, and took the result to one's teacher. He scanned it rapidly through, drew various parallel lines in blue pencil to show where the consecutive fifths and octaves were, and that was that. No attempt was made to regard the thing from a musical point of view, or to consider whether consecutive fifths have a less noticeable effect in some positions than in others, or anything of that kind. Much less was it one's teacher's concern to find out whether the student had any idea of the actual sound of what he put on paper. The lesson might have been regarded, conceivably, as an exercise in free-hand drawing; it certainly was in no sense an exercise in music. Consequently, figured-bass fell more and more into disrepute, and any intelligent teacher to-day will tell you that working out figured exercises on paper is the worst possible method of teaching harmony. Indeed, it is not, properly speaking, a method of teaching harmony at all, for it does nothing to develop the power of inward hearing or to awaken the consciousness of chord-progressions as the relationship of one sound to another. In these vital respects it leaves the student at the end precisely where he was in the beginning.

But as soon as figured-bass is transferred from the notebook to the keyboard (which it ought never to have left), the situation is completely changed. The signs become sounds; a correlation between eye, ear, and hand is established; and the student who keeps his ears open while he is playing finds a steady increase in the power and accuracy of his

inward hearing. Ultimately this becomes the power to 'read music', as it is called, i.e. the ability to form an inward realization of what a page of music is going to sound like without having heard it actually played. And this faculty is one that is highly prized by musicians; quite rightly, for it bestows an enormously increased power of musical study, i.e. of widening and deepening one's acquaintance with the masterpieces of musical literature. I do not mean to suggest that reading music is the same thing as hearing it; it is a far less vivid and joyous form of musical experience, and those who pretend otherwise talk cant. But reading is an invaluable accessory to hearing, and those whose acquaintance with music is limited to what they actually hear during performance are at a sad disadvantage compared with those who can also hear inwardly.

There are doubtless many who would give cordial assent to all or most of the foregoing, but who would hesitate to put figured-bass in the very forefront of harmonic study, as I myself advocate. Ernest Fowles, for example*, proposes at a very early stage to set the student at work upon decoration—'the decorative treatment of passages founded on two chords' is the actual phrase employed. The number and complexity of the chords is to be gradually increased, until finally the entire resources of modern harmony are thus absorbed and assimilated. Figured-bass, on the other hand, is not to make its appearance until quite a late stage in the proceedings, and even then not 'in strict parts'; part-writing is to be acquired by the preliminary study of counterpoint, which Mr Fowles apparently regards as something sharply differentiated from harmony—one might almost say, hostile to it.

With all of this I am in total disagreement, although I am convinced that Mr Fowles and myself are working sincerely for the same end. I think that figured-bass should come first; that it should pay a strict regard to the principles of part-writing, that harmony and counterpoint should join forces at the earliest possible moment; finally, that pianistic decoration should only appear at a much later stage. To go fully into the reasons underlying all this would be to prolong this Introduction to an inordinate extent, and might even give it the appearance of a polemic, which is far from my intention; I wish merely to show what widely-differing methods may commend themselves to those who have ultimately the same purpose in view.

One or two general features of the book perhaps call for slight comment and explanation. Part I is shaped very much on the lines of a harmony text-book: it works its way from chord to chord, as all such books have to do, proceeding gradually from the simple to the more complex. A few brief remarks will be found in each section about the new material introduced, but the student should not infer from this that he can do without a proper text-book on harmony. He will have to work on paper as well as at the keyboard, and this work is unsuitable for that purpose. It may supplement the other book, but it cannot supplant it. The exercises in Part I are threefold—(1) short chordal passages, (2) sequences, (3) longer and more varied exercises. For the idea of using sequence consistently for a particular purpose, I gladly express my obligation to Mr F. T. Arnold, whose monumental work of research on this subject† was published last year. Mr Arnold's book is intended primarily for scholars, but one chapter is entitled 'Practical Hints', and there the suggestion is made that extended sequences afford a useful method of getting the 'feel' of a chord into the fingers. I have verified this over and over again by experience.

Part II is devoted largely to practice in the Bach Chorales. This scarely needs justification. I have little sympathy with the present indiscriminate Bach-worship (especially of

*See his very interesting and suggestive little book, *Eye, Ear and Hand in Harmony-Study* (O.U. Press), especially pp. 16, 17, 52.

† *The Art of Accompaniment from a Thorough-Bass as Practised in the XVIIth and XVIIIth Centuries.* By F. T. Arnold, M.A. (O.U. Press).

his heaviest and gloomiest works); it is a phase, and like all such phases it will pass. But its passing will leave Bach the harmonist unshaken on his throne, for in this respect he is the greatest of them all. His resources were incomparably richer and more varied than those of any predecessor, contemporary, or successor, at any rate for a century or more after his death. Imagine the 371 chorales harmonized by Handel, or Mozart, or Beethoven, or indeed by anyone before Wagner; should we have read them through twice, or even once? I doubt it. Yet as they stand, they are a veritable compendium of harmonic resource; incomparable in their fullness, richness, and variety, they stand now as they always have stood, and always will stand, the very foundation-stone of harmonic study, alike the inspiration and the despair of those who strive to copy them.

In conclusion, I should like to express my obligations to Mr Aubyn Raymar for the care and patience he displayed in going through the MS and checking the figures; also to Mr Howard Ferguson for his kindness in correcting the proofs; finally, to Sir Hugh Allen, who was in no small measure the instigator of the work.

R. O. M.

Chelsea, April 1932

Books by the same Author

PUBLISHED BY THE OXFORD UNIVERSITY PRESS

THE OXFORD HARMONY

Vol. I. Diatonic Harmony

Price 10*s.* 6*d. net*

AN INTRODUCTION TO COUNTERPOINT

Price 5*s. net*

THE STRUCTURE OF MUSIC

Price 6*s.* 6*d. net*

CONTRAPUNTAL TECHNIQUE IN THE SIXTEENTH CENTURY. *Price* 12*s.* 6*d. net*

In conjunction with Howard Ferguson

PREPARATORY EXERCISES IN SCORE-READING

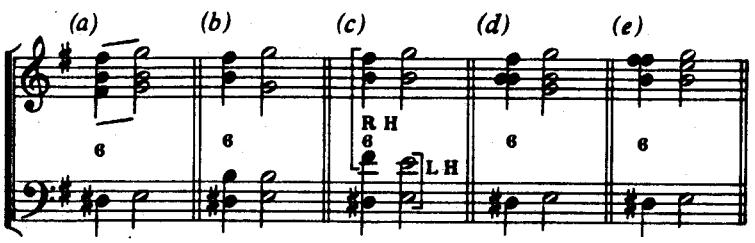
Price 10*s.* 6*d. net*

PART I

THE EXERCISES in Part I have been specially devised for the benefit of students who are beginners in harmony. The various sections proceed chord by chord, much in the manner of a harmony text-book, with the exception that simple modulations are introduced almost from the beginning. This causes no extra difficulty to the beginner at the keyboard, because the sharps and flats necessary to effect the transitions from key to key are indicated with mathematical exactness by the figures, while the exercises are thereby made more interesting from the very outset. In paper-work it is otherwise; modulation is best deferred until the preliminary stages have been mastered.

It is generally found, I think, that in the earliest stages of figured-bass playing it is best to keep the chords in close position, the left hand playing the bass only, while the right hand strikes the remaining notes of the chord. This may cause a certain awkwardness in passages where passing notes, changing notes, etc., are used with any freedom; but these passages can almost always be managed successfully by means of a little finger-sliding, with help from the sustaining-pedal to preserve the *legato*. At any rate, I have found myself that the advantages of this method (for beginners) far outweigh its drawbacks, and the exercises in Part I have been specially contrived for performance in this manner. But of course they can equally well be worked without this restriction, and will therefore, I hope, be found serviceable also by teachers who advocate the free employment of both hands from the first.

In regard to prohibited consecutives, my own advice would be to abstain from octaves at all costs, but not to worry overmuch about fifths, except between extreme parts and (to a smaller extent) between adjacent parts. It is worth remembering, too, that fifths of which the lower notes are one whole tone apart are much more noticeable in practice (whatever theorists may say) than fifths of any other kind. It will also greatly help the student if he will remember that unison doublings may be and should be as freely used at the keyboard as on paper—in other words, that it is often expedient for the right hand to strike not three notes but two. Nor does it matter if such unisons occur on a note that is theoretically too high for the tenor voice. Let me give an example:



Here (*a*) shows the octaves that have to be avoided. (*b*) and (*c*) show the way in which the parts would be assigned on paper to the different voices, and of course any one playing in open position, using both hands, would naturally choose one of these. (*d*) and (*e*) show simple and satisfactory solutions for the beginner who is confining himself for the time being to close positions on the keyboard.

The method recommended for using the exercises in Part I is as follows:

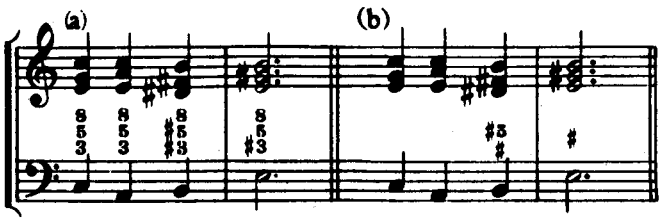
First of all the short cadential progressions should be learnt, so that they can be played without hesitation in any key, major or minor. The bass of each should be copied out in various keys, sharps or flats being added to the figures where necessary to transform a major progression into a minor one. All, or practically all, of the cadences in Part I can be so transformed, and it appeared to me that (apart from the saving of space) the

slight mental exercise involved would be good for the student. The perfect cadences should also be worked sometimes as interrupted cadences, the sixth note of the scale being substituted for the final tonic. It will be found when this is done that the inner parts have to move in quite a different manner, the third being doubled in the final chord, whether major or minor.

When the cadences have been learnt thoroughly, the sequences should be worked in the same way; but not all of these are suitable for transformation into the minor. (Experiment will quickly show which are.) I would lay great stress on the need for absolute sureness and accuracy in playing the cadences and sequences in each section before attempting the remaining exercises in the same section.

§ 1. COMMON CHORDS (Root Position)

These require no figures, except when a note has to be altered chromatically for the purposes of modulation. The note so altered is then denoted by a figure indicating its interval from the bass note, to which the necessary ♯, ♭ or ♮ is prefixed. Compound intervals are ignored; tenths, twelfths, etc., are respectively figured the same as thirds, fifths, etc. When a ♯, ♮ or ♭ appears prefixed to no figure, it applies to the third from the bass. A single example will make this clear:



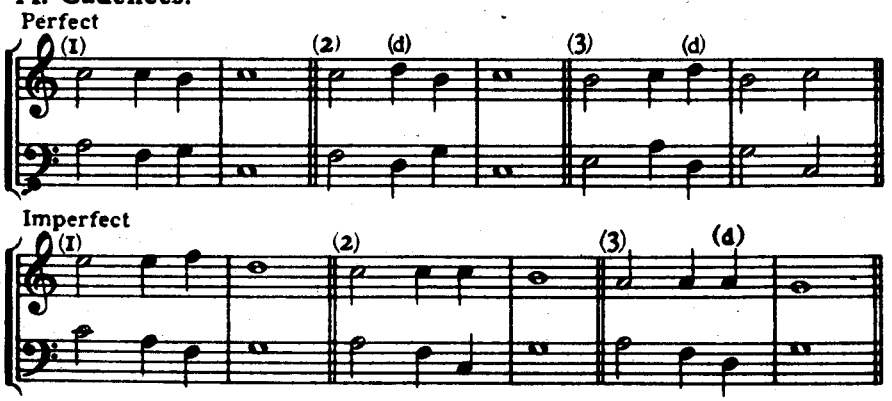
At (*a*) we see the full theoretical figuring, in which every note of every chord is given a figure indicating its interval from the bass.

At (*b*) we see the same progression figured as it would actually be figured in practice.

[N.B.—In old editions it is often assumed that in the absence of figures the 5th of a triad is to be taken as perfect, whether diatonic to the key-signature or not; an augmented 5th is then indicated by the sign 5; a diminished 5th by the sign 5. *Cf.* Arnold*, 863, note 1.]

It will be noticed that the figures are arranged vertically in order of magnitude: this of course does not necessarily mean that the 8th must come in the soprano, the 5th in the alto, and so on. The upper part of the chord may be taken in any position without affecting the figuring in any way. The figures show what notes are to be present; they do not show in what order they are to be assigned to the respective voices. This is determined first of all by the melody, and after that by the need for smooth and orderly progression of the middle parts. In this connexion the old harmony maxim 'Leave a note unchanged where you can' is worth bearing in mind, though it must not be considered inflexible.

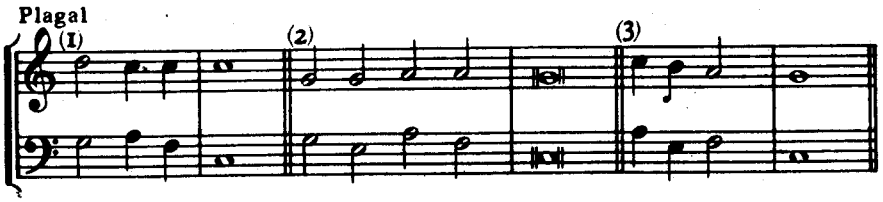
A. Cadences:



*References to 'Arnold' throughout this work indicate the great book whose full title and description will be found in the Introduction.

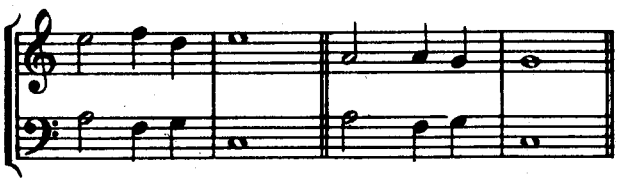
Copyright, 1932, by the Oxford University Press, London.

Printed in Great Britain.



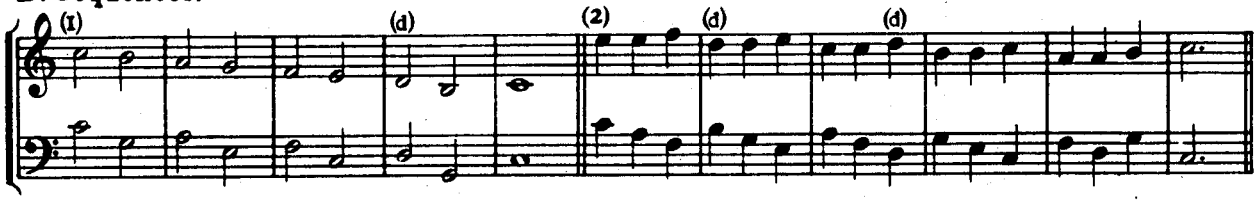
In the above, the letter (*d*) indicates that a diminished triad must be used when the progression is transformed into a minor key. Apart from this, the student should rigorously abstain from using diminished triads in root position, except when they occur in a sequential series such as those given below.

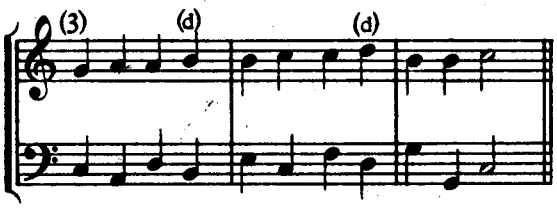
The cadences should also be worked with varying arrangement of the upper voices, e.g.:



and similarly with the remainder.

B. Sequences:

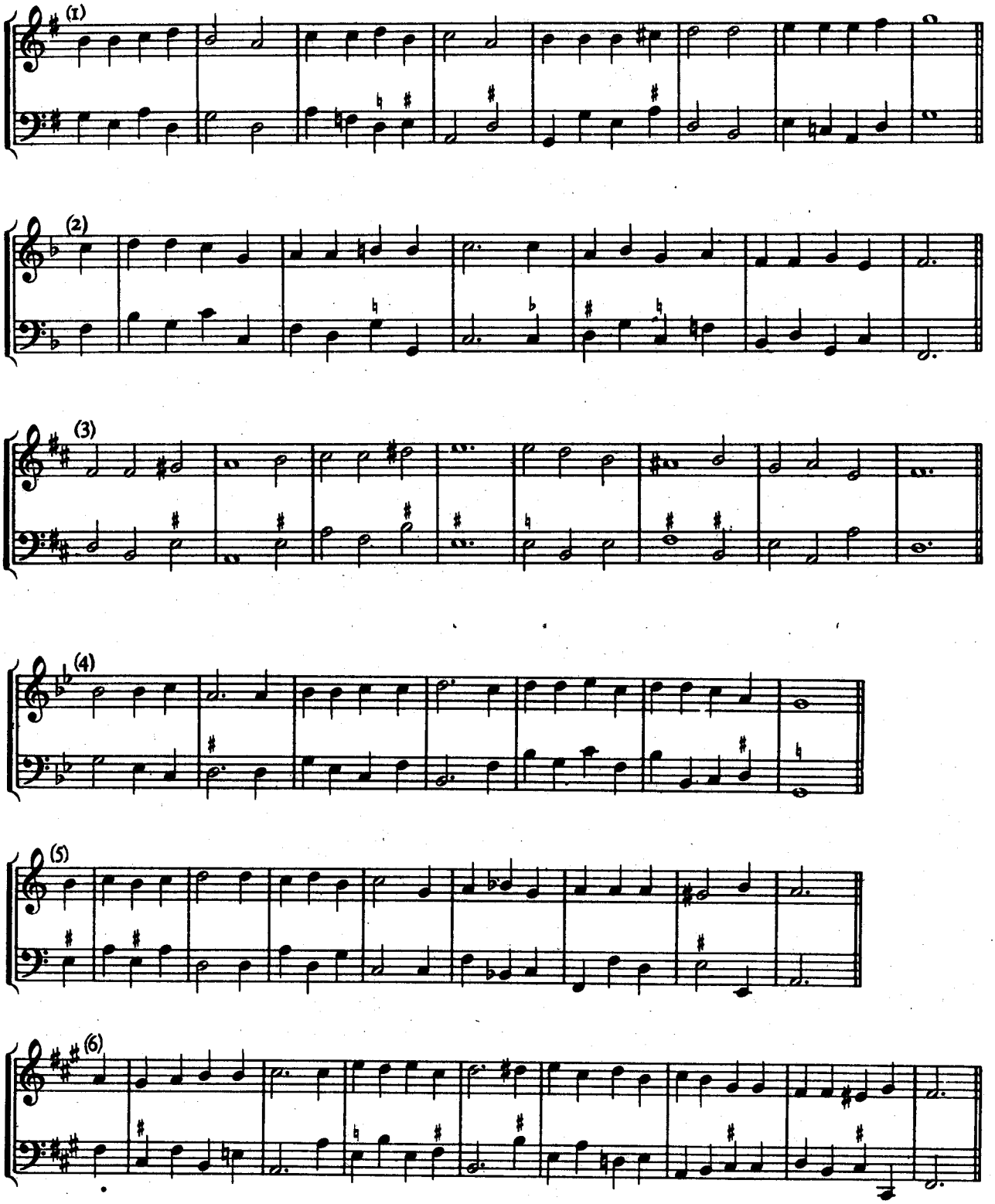




In the above, the letter (*d*) indicates as before that the triad here is either a diminished triad as it stands, or will become one when the progression is transformed into the minor. Such indications will not be given in future; the student will have to use his own discretion. By using the major sixth of the melodic minor scale, a minor cadence can often be formed without recourse to the diminished triad (e.g. in the penultimate bar of No. 2 of the above).

In the foregoing cadences and sequences, the note to be doubled is always the octave. In working the longer exercises which follow, the student should remember that it is perfectly legitimate, and often convenient, to double the fifth instead, or, in minor triads, the third. In major triads the doubling of the third is best avoided when possible; it is, however, necessary at times. It is also quite feasible to omit the fifth of a chord altogether, in which case the octave is redoubled.

C. Exercises:



§ 2. FIRST INVERSIONS OF THE COMMON CHORD
(Chords of the Sixth)

Here the notes that complete the chord are the third and sixth from the bass; the full figuring is therefore $\frac{6}{3}$, but in actual practice the figure 6 alone is used, the third being taken for granted.

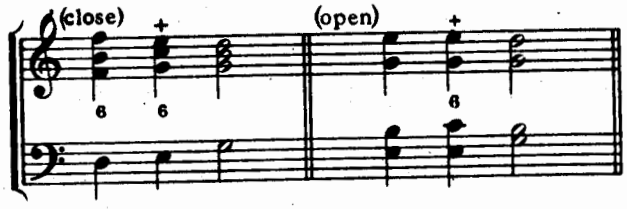
Doubling:

(1) If the chord is the inversion of a *major* triad, double the third or 6th in preference to the bass note.

(2) If it is the inversion of a *minor* triad, any note can be doubled with quite satisfactory effect.

(3) If it is the inversion of a *diminished* triad, double the bass note or the third rather than the 6th.

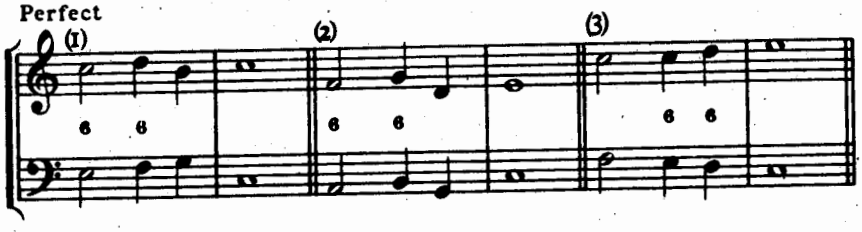
Note particularly that (1) and (3) are preferences, not prohibitions. A specially frequent exception much favoured by J. S. Bach is the case where the bass note is doubled in the top voice:



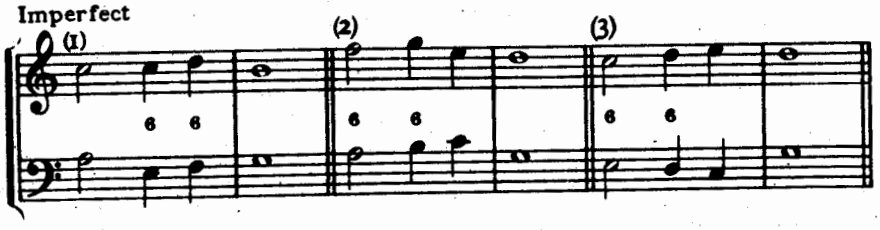
Note also that although a diminished triad in root position is usually best avoided, the first inversion of such triads can be freely used.

A. Cadences:

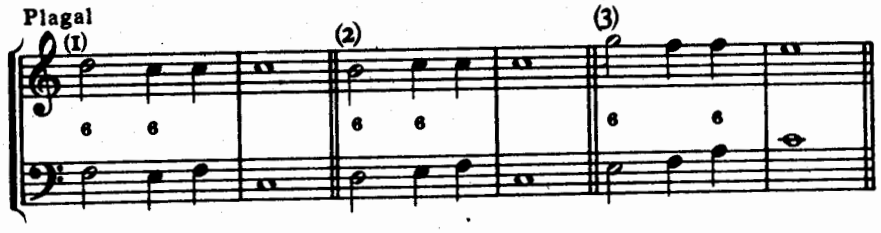
Perfect



Imperfect

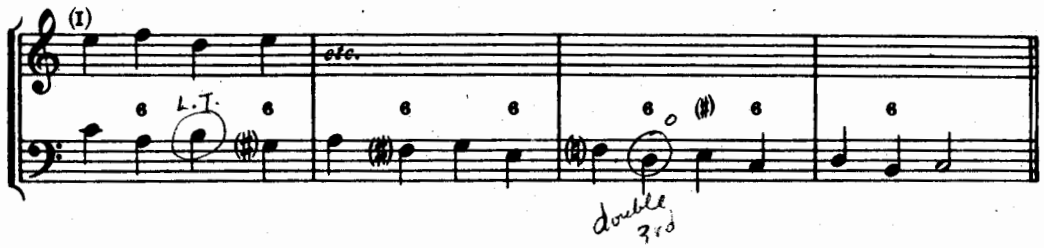


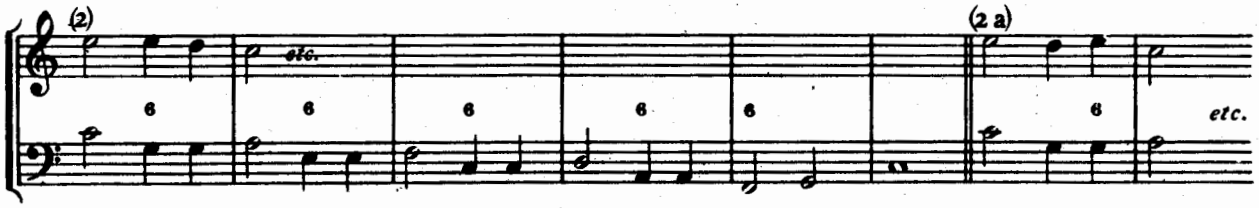
Plagal

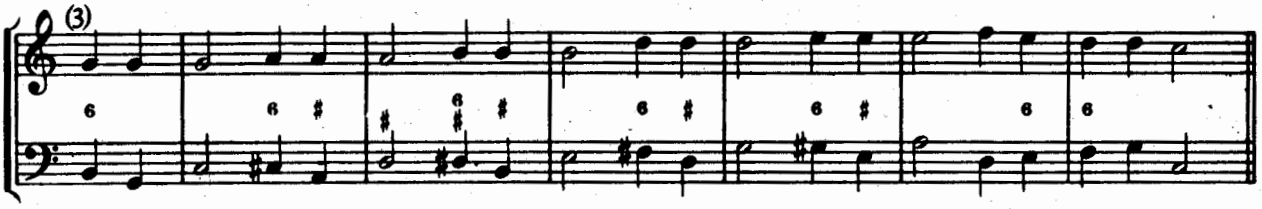


B. Sequences: (In working these the student should remember that in a succession of $\frac{6}{3}$ chords, it is usually expedient to keep the 6th in the top voice, otherwise the difficulty of avoiding consecutive fifths may be great.)

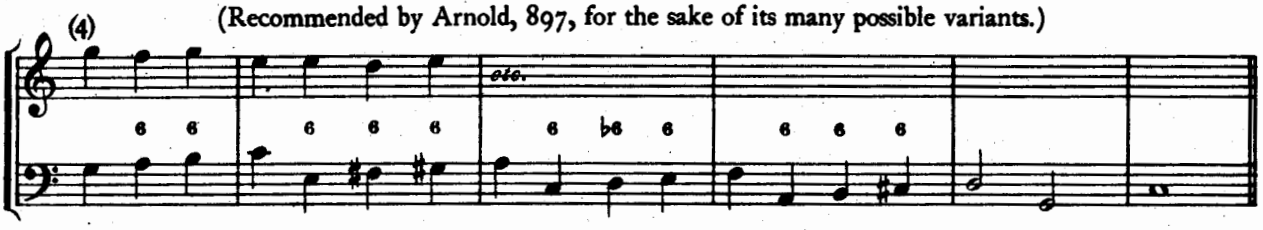
(The signs in brackets indicate possible varieties in detail.)



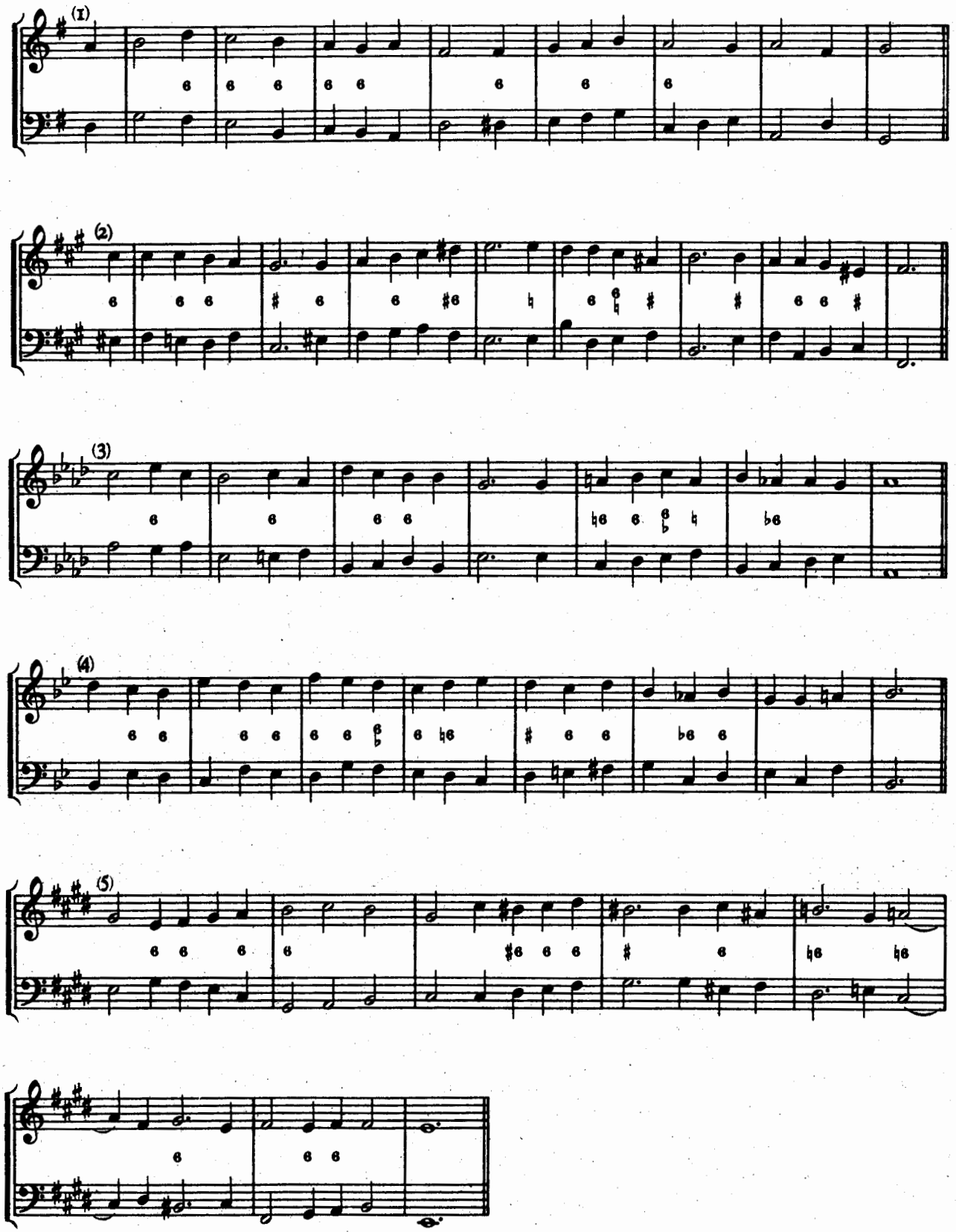




(Recommended by Arnold, 897, for the sake of its many possible variants.)



C. Exercises:

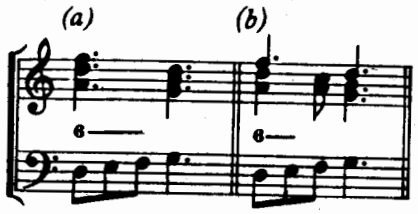


§ 3. SECOND INVERSIONS OF THE COMMON CHORD (CHORDS OF THE SIX-FOUR); PASSING NOTES (UNACCENTED)

This chord is figured $\frac{6}{4}$; it can be used either as a cadential chord, followed by $\frac{5}{3}$ on the same bass note, or as a passing chord, in which case both outer parts are best approached and quitted by step.

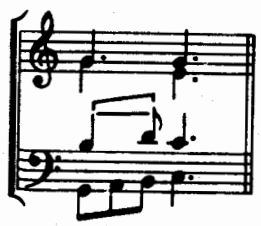
The bass note is the one to double as a rule, though the doubling of the sixth and (more rarely) the fourth can occasionally be justified by the progression of the parts.

Passing notes, and also subsidiary harmony notes, are indicated by a dash when they occur in the bass. The exact duration of the dash must be carefully observed, as the following example shows:

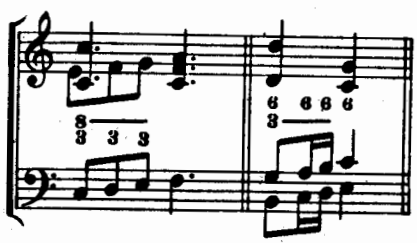


At (*a*) the dash holds for all three notes, and the upper parts remain unchanged. At (*b*) the dash holds for the first two notes only: the third note is therefore a fresh harmony, and in the absence of other figures the common chord of F major is indicated.

Even when the length of the dash indicates that there is no change of harmony, it is sometimes necessary for one of the upper voices to move in order to avoid consecutives; e.g.:

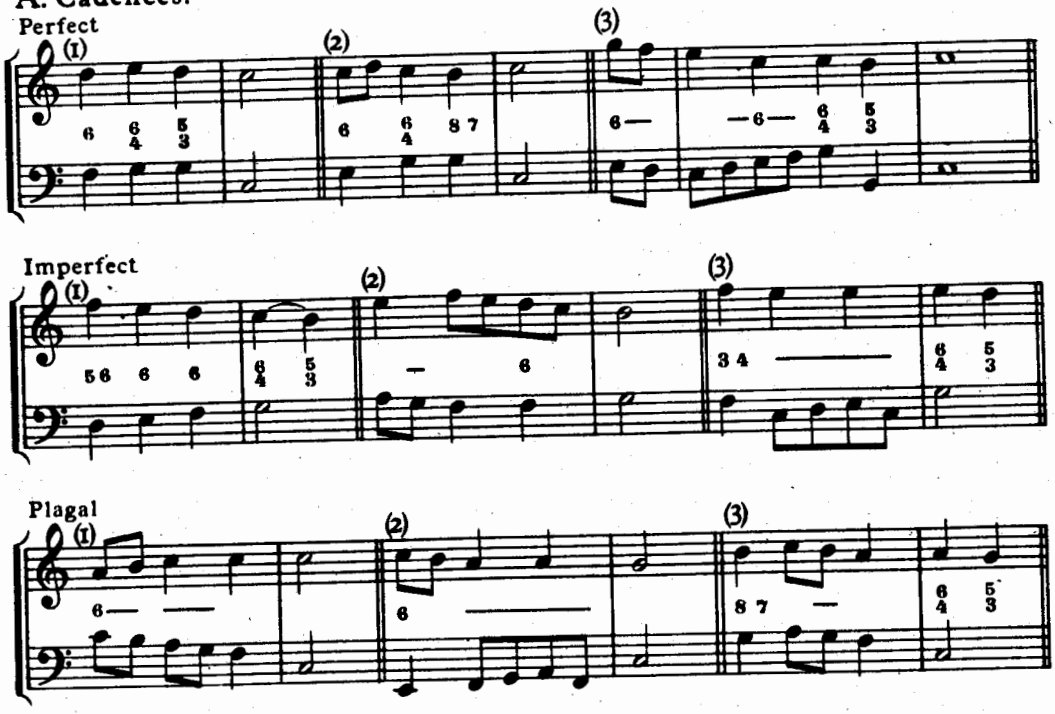


Passing notes in the upper voices are not as a rule indicated by any figures, unless it is desired to show that a given part is required to move in a particular way and no other. Where the melody is given, there is no difficulty in seeing which notes are passing notes; in the other voices, their introduction is left as a rule to the discretion of the player. Doubled passing notes in 3rds or 6ths are occasionally indicated thus:

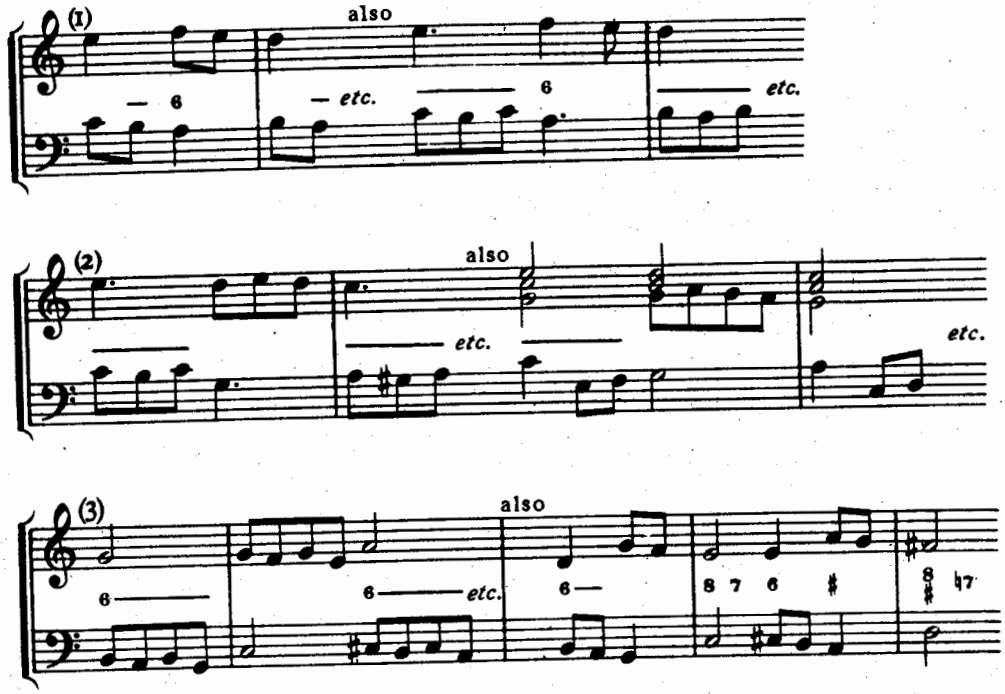


but the absence of such indication does not mean that the player is forbidden to introduce them if suitable; on the contrary.

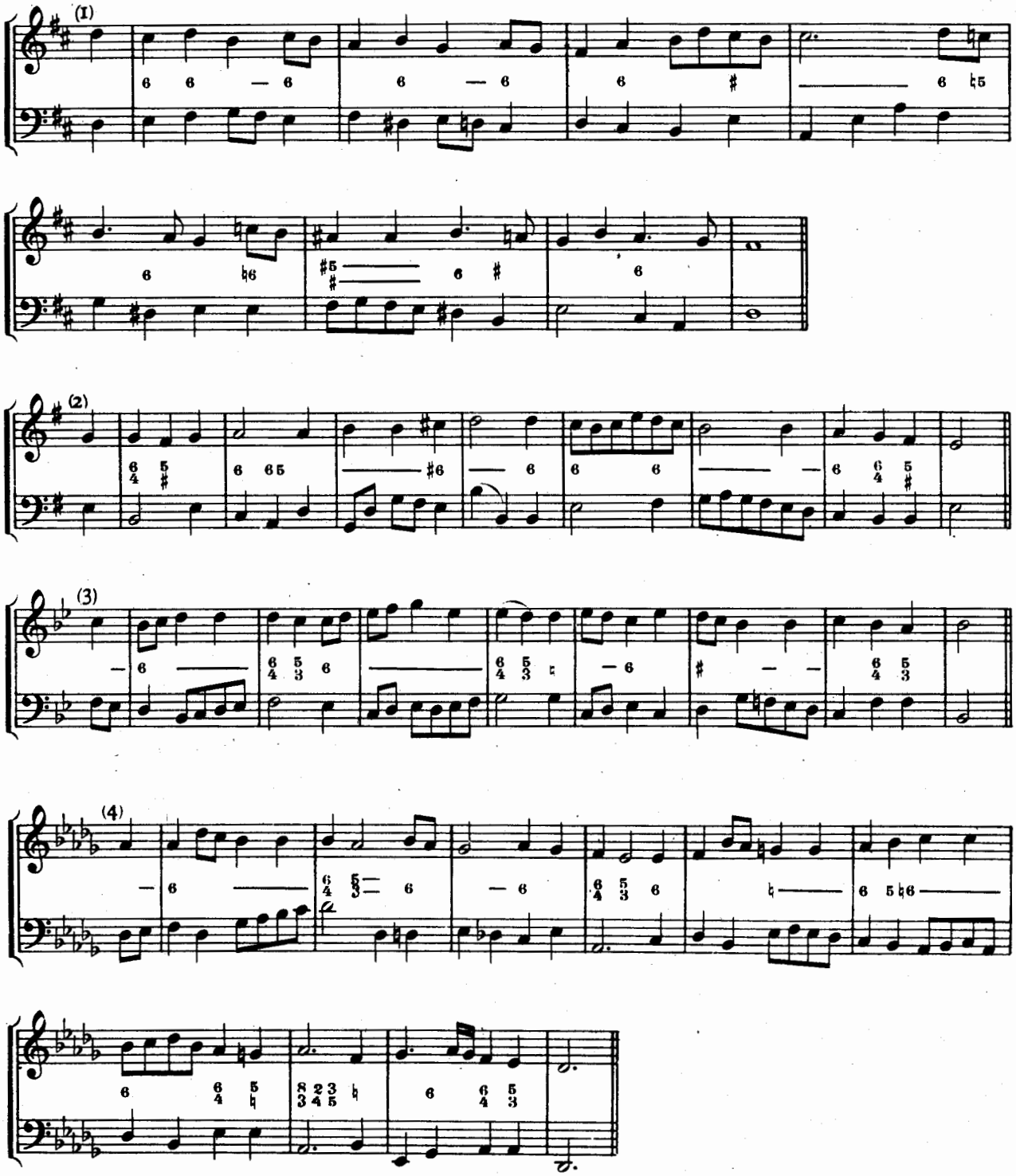
A. Cadences:

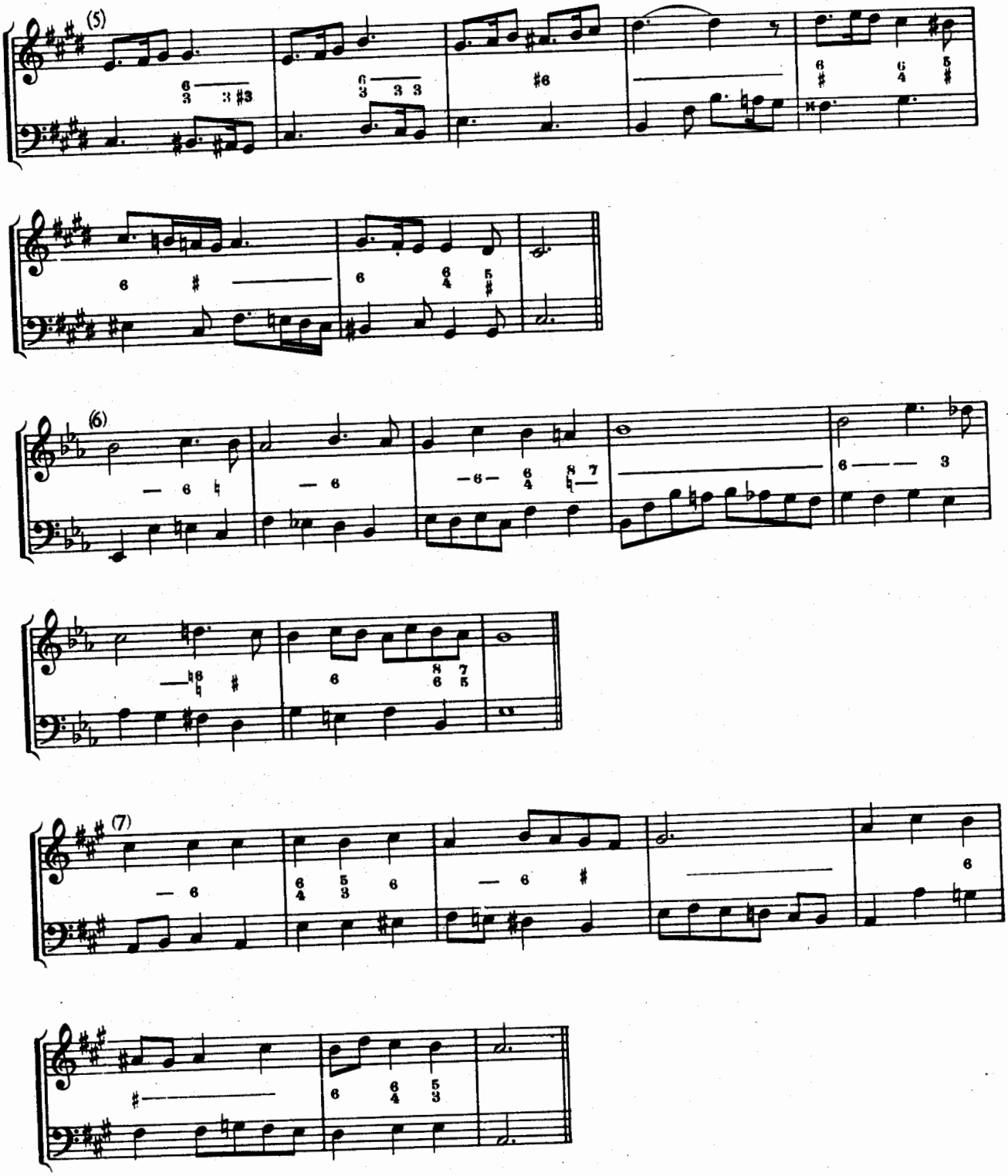


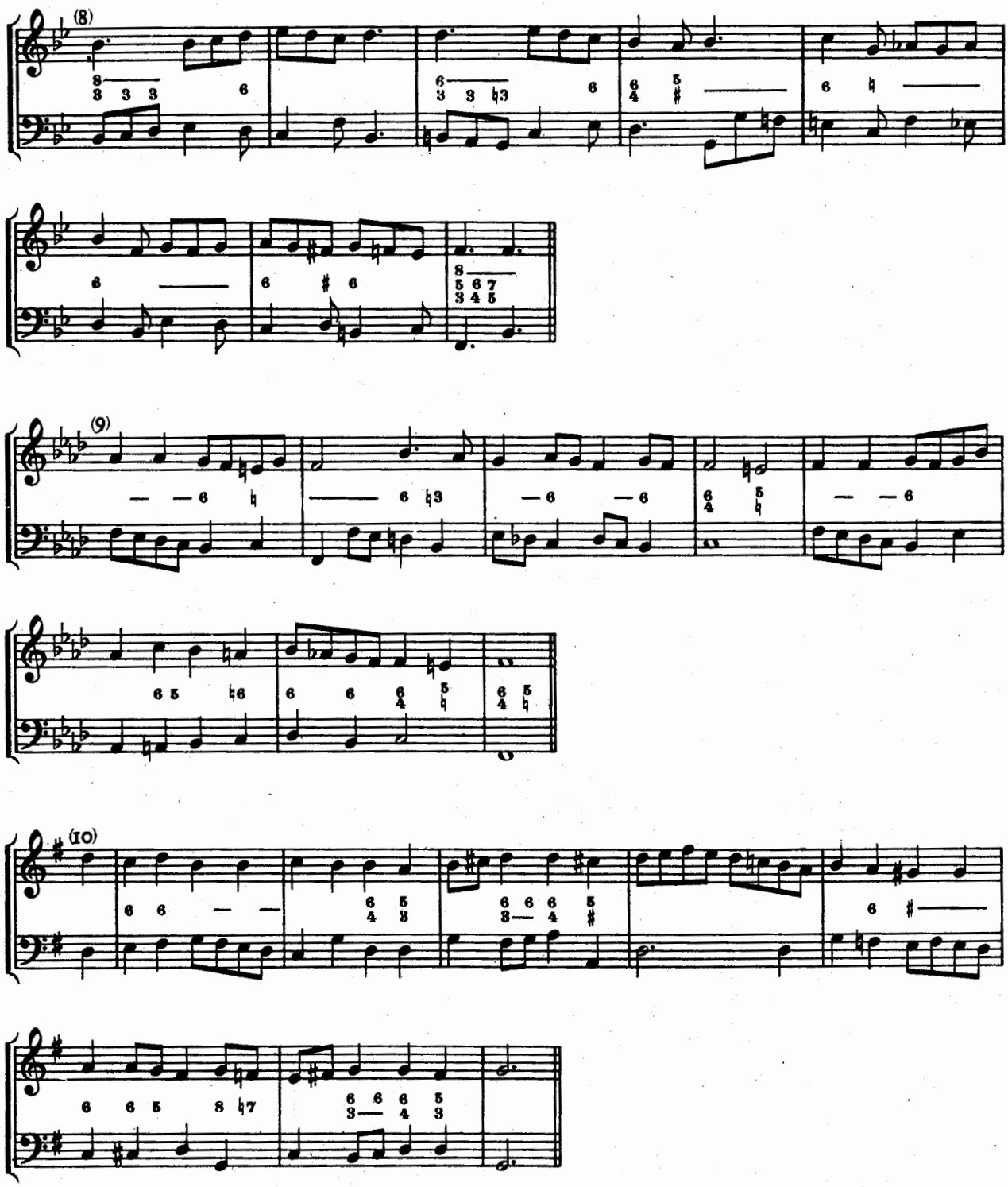
B. Sequences: Those given in § 2 should be amplified in various ways by the introduction of passing notes in the different voices, e.g.:



C. Exercises:

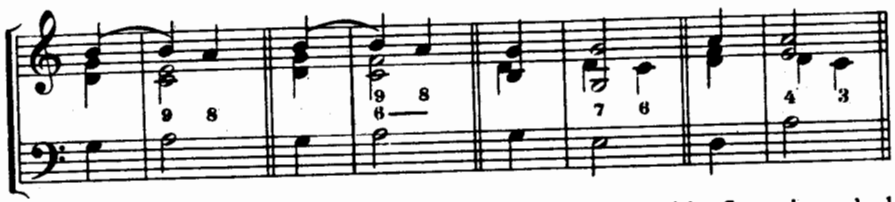



(5)
(6)
(7)

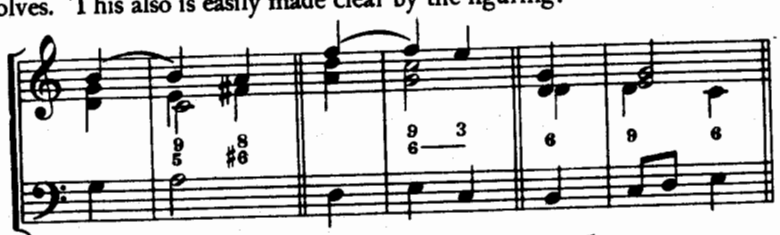

(8)
(9)
(10)

§ 4. SUSPENSIONS (SINGLE)

In the upper voices these are figured respectively 9 8, 7 6, and 4 3, the first figure denoting the nature of the dissonance in relation to the bass, the second the note on which it resolves. The remainder of the chord is sounded at the time the dissonance occurs, the full figures implied being respectively $\begin{matrix}9 & 8\\5 & —\\3 & —\end{matrix}$, $\begin{matrix}7 & 6\\3 & —\end{matrix}$ and $\begin{matrix}8 & —\\5 & —\\4 & 3\end{matrix}$. The 9 8 suspension may also occur in connexion with a chord of the sixth, the figures shown in this case being $\begin{matrix}9 & 8\\6 & —\end{matrix}$. The dissonant note may either be tied over (suspended) or struck again; there is no difference in principle. Examples will make all this quite clear:



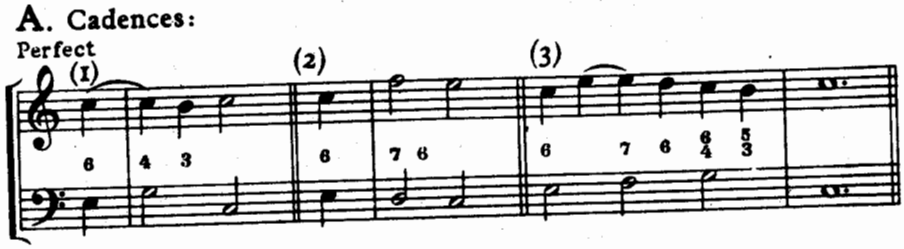
The upward resolutions 7 8 and 2 3 are also commonly met with. Sometimes the bass or one of the other voices moves to a new harmony note at the same time as the suspension resolves. This also is easily made clear by the figuring:



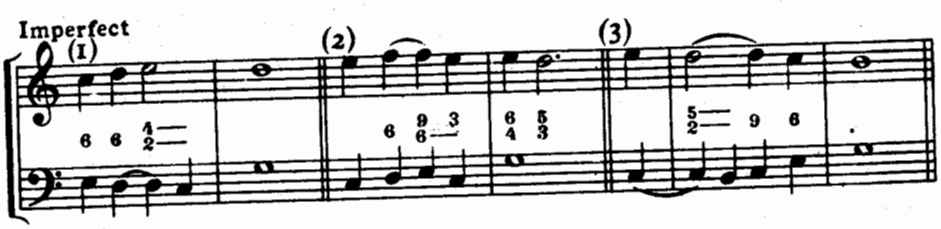
Suspensions in the bass are indicated by the figures $\begin{matrix}4 & —\\2 & —\end{matrix}$ or $\begin{matrix}5 & —\\2 & —\end{matrix}$ according as the chord of resolution is a common chord or chord of the sixth. The student must remember that forbidden consecutives are not, strictly speaking, 'saved' by a suspension; but much depends on circumstances. 'Ornamental' or 'delayed' resolutions are not as a rule indicated in detail by the figures, but may of course be employed at the performer's discretion.

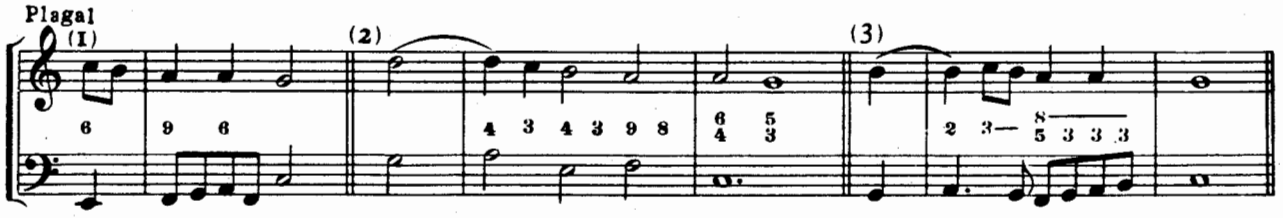
A. Cadences:

Perfect

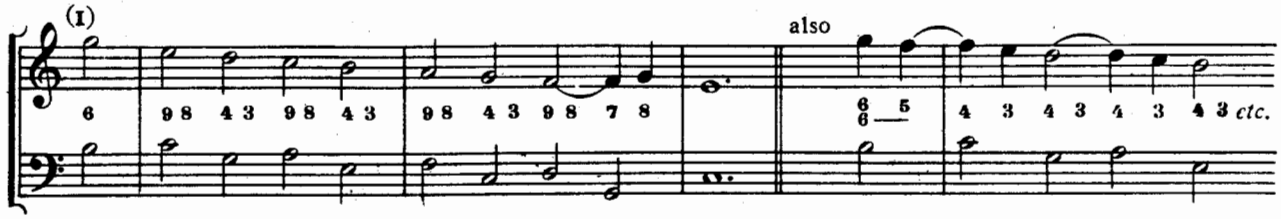


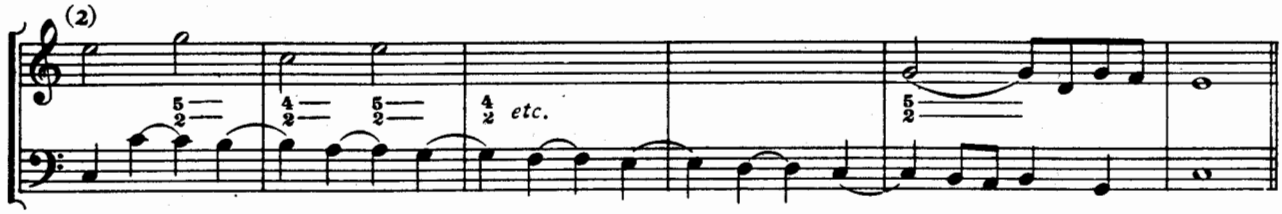
Imperfect

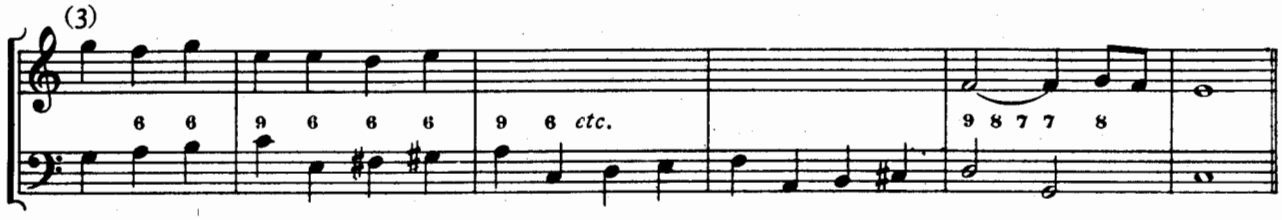




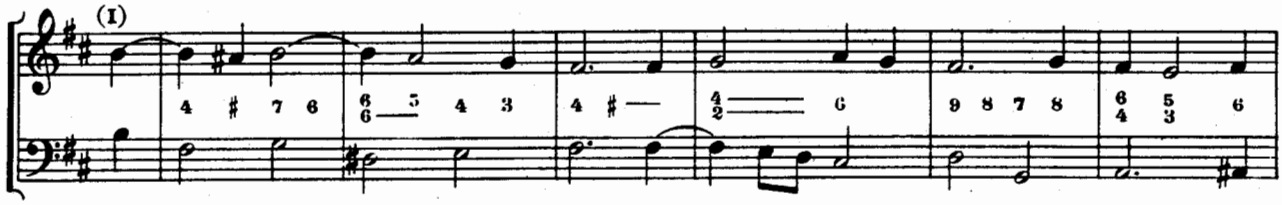
B. Sequences:

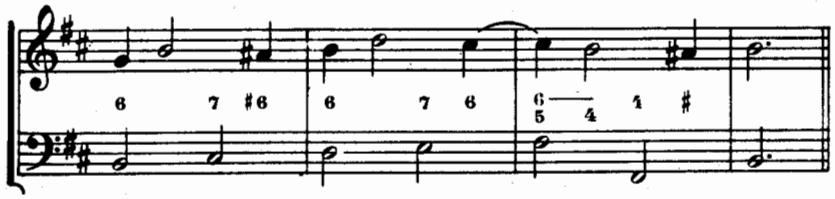


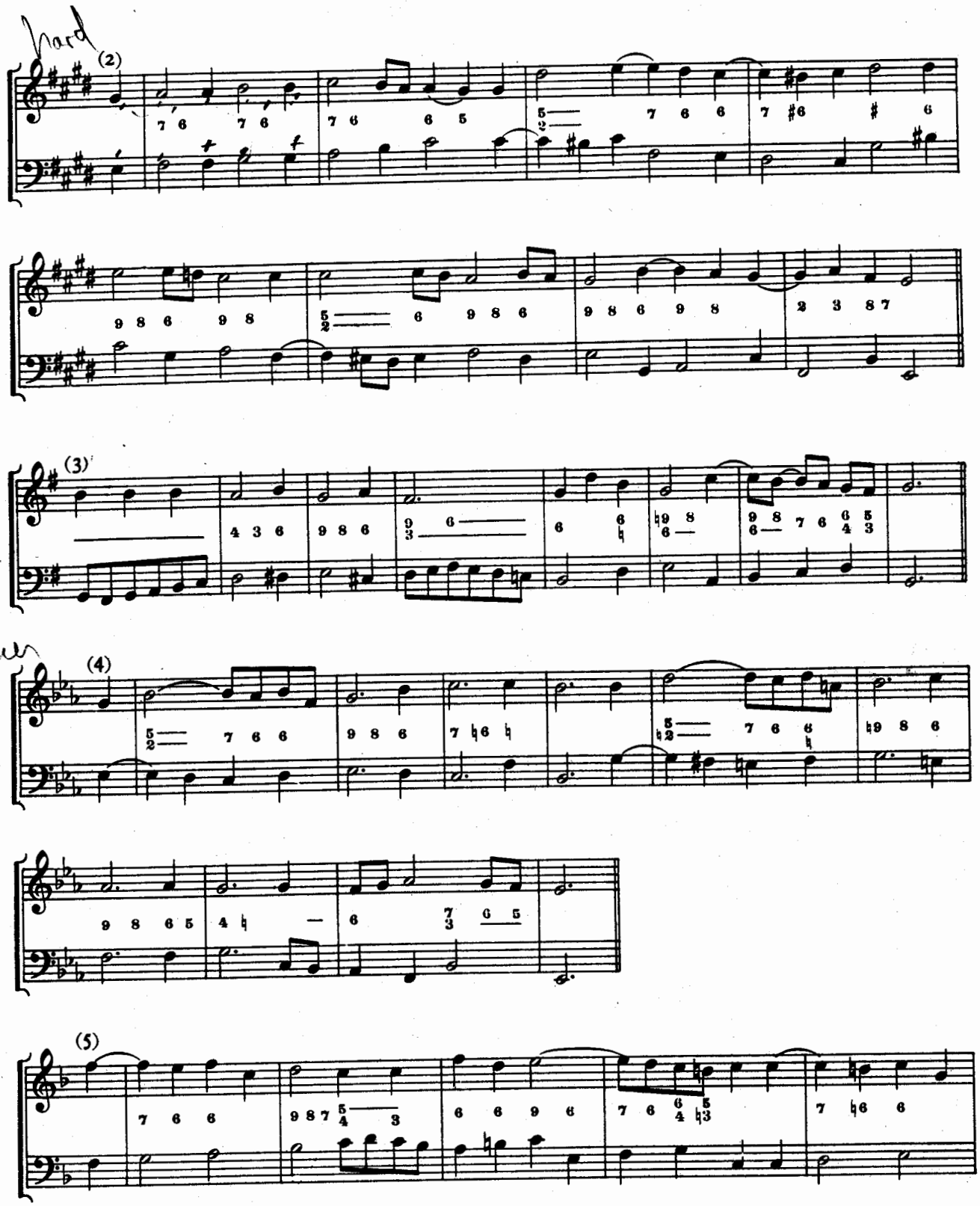


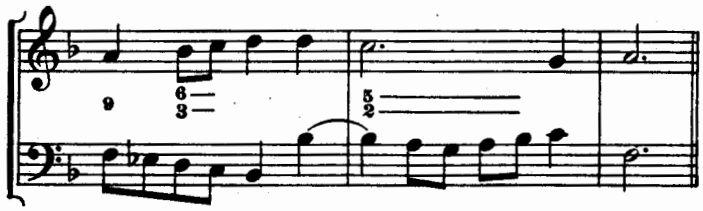


C. Exercises:

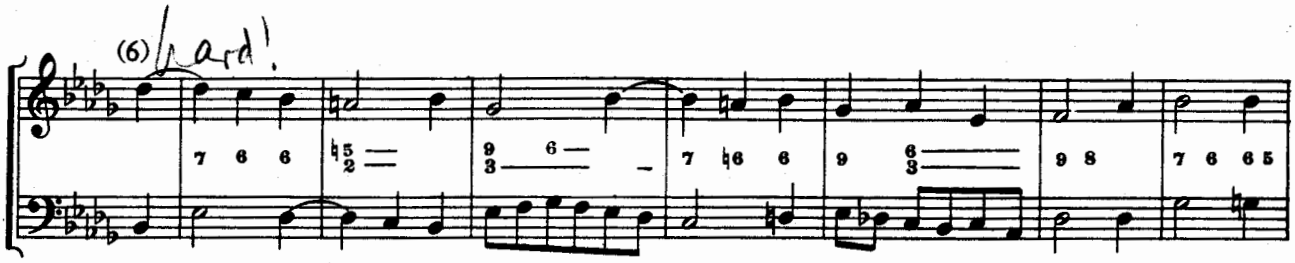


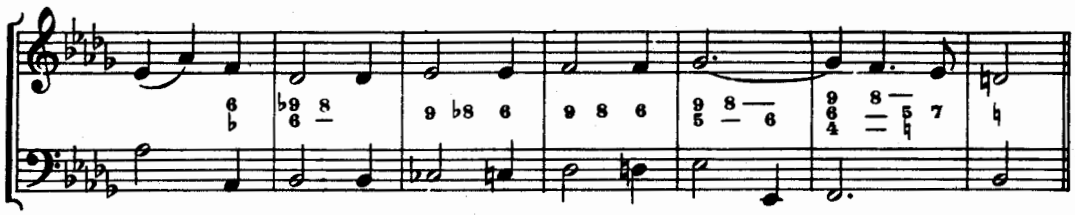



hard
(2)
(3)
(4)
(5)

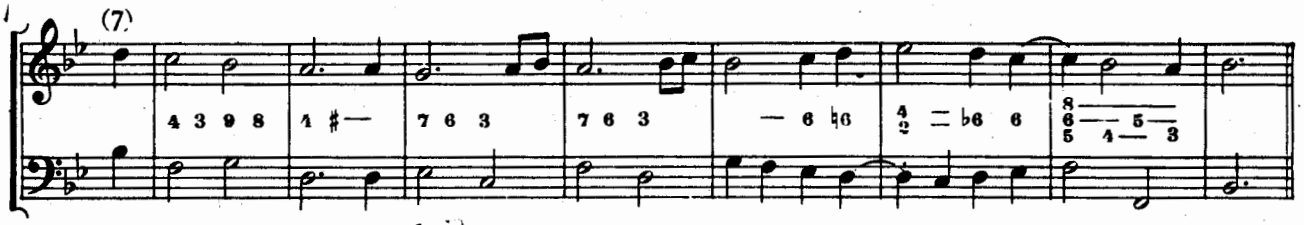


(6) hard!

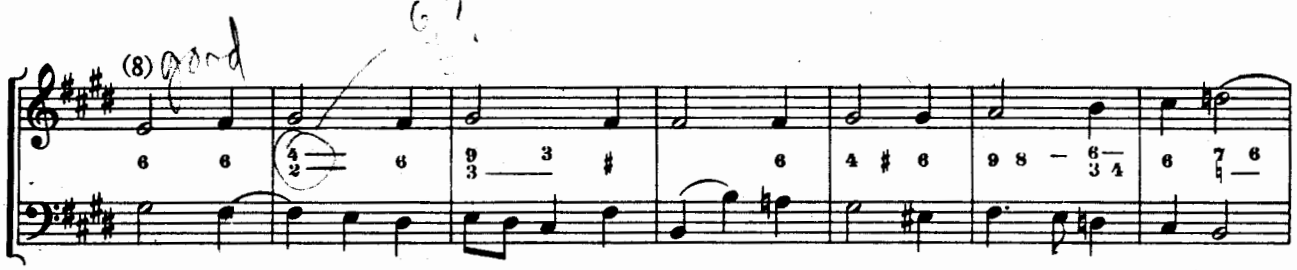


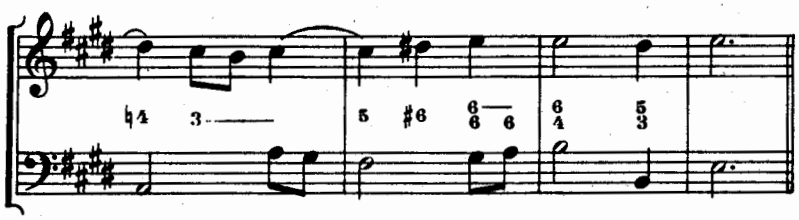


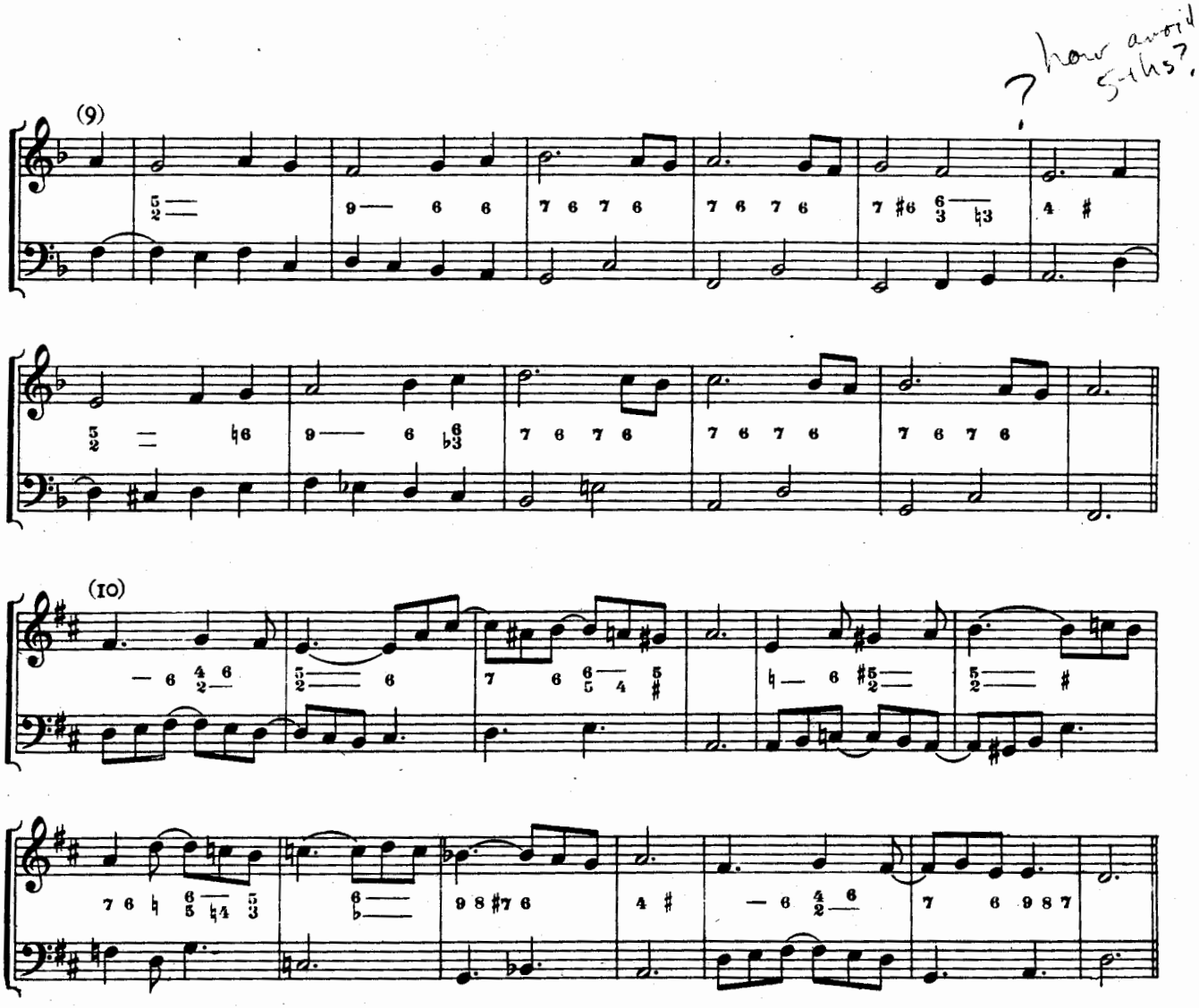
(7)



(8) good






(9)
(10)

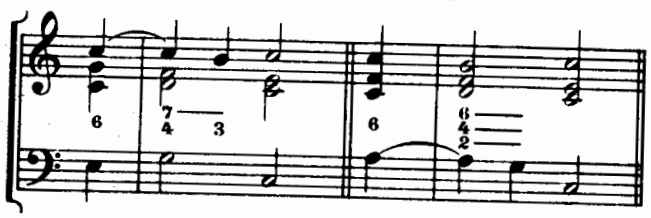
§ 5. THE CHORD OF THE SEVENTH (ROOT POSITION)

This chord is figured simply as 7 (short for $\frac{7}{5}$). It is a four-note chord; no note therefore need be doubled in 4-part harmony. Sometimes, however (especially in sequences), it is convenient to omit the 5th; in that case, the root is doubled, and the full figuring of the chord, strictly speaking, would be $\frac{8}{3}7$. Such details are best left to the performer's discretion; in practice it is seldom necessary or advisable to use more than the simple figure 7.

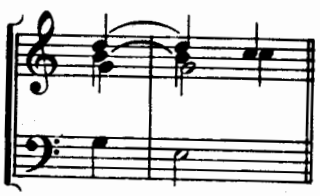
The chord of the seventh on the 5th of the scale is the 'Dominant' Seventh; the rest are 'Secondary' Sevenths. The Dominant Seventh may be approached freely; in the others, the seventh should be prepared in the previous chord.

In harmony proper, it is usual, and expedient, to learn the Dominant Seventh in all its positions before proceeding to the others. In learning figured-bass, it is best to treat them all on an equal footing, so that the student may learn at once to associate the figuring with all chords of the seventh and not with the dominant only. I have found by experience that this habit is not easily unlearnt, if it is once acquired.

Suspensions constantly occur in connexion with the seventh, more especially the Dominant Seventh, and such figurings as the following should be memorized:



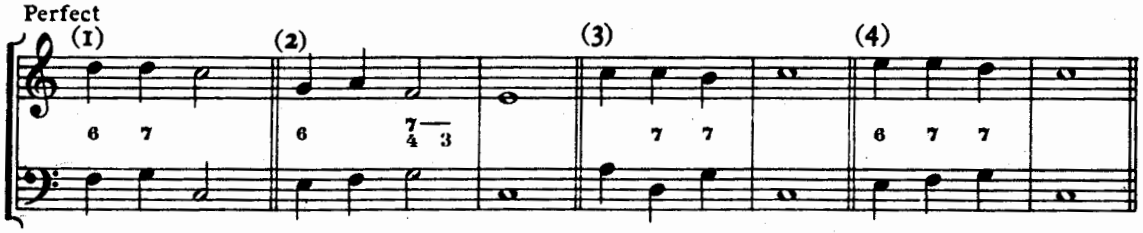
Note also that 7 followed by 6 still indicates an ordinary 7 6 suspension (i.e. it is short for $\frac{7}{3}\,\frac{6}{-}$ not for $\frac{7}{5}\,\frac{6}{3}$). Such a progression as this:



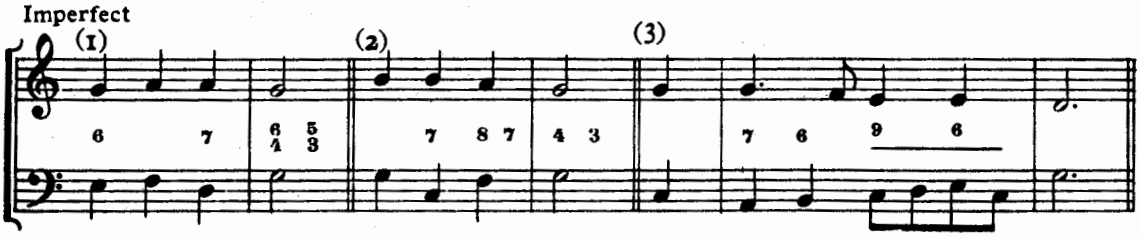
is not figured as 7 6 but as $\frac{7}{5}\,\frac{6}{6}$ or $\frac{7}{5}\,6$, so that there is no real ambiguity. It belongs, properly speaking, to the category of double suspensions, and is not employed in these exercises until that section is reached (§ 11).

A. Cadences:

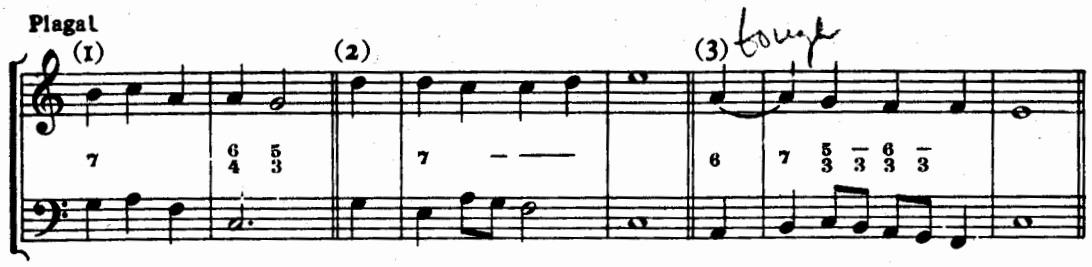
Perfect



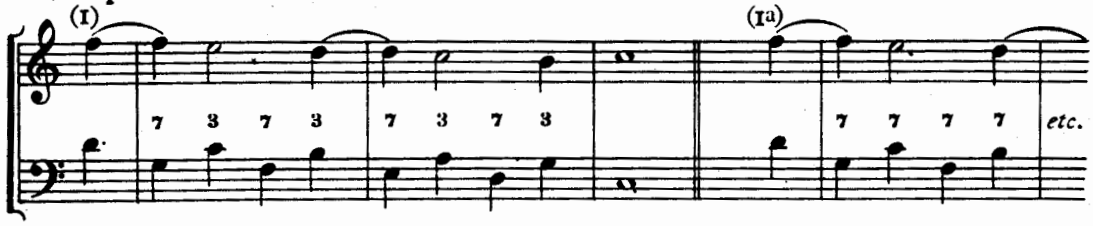
Imperfect

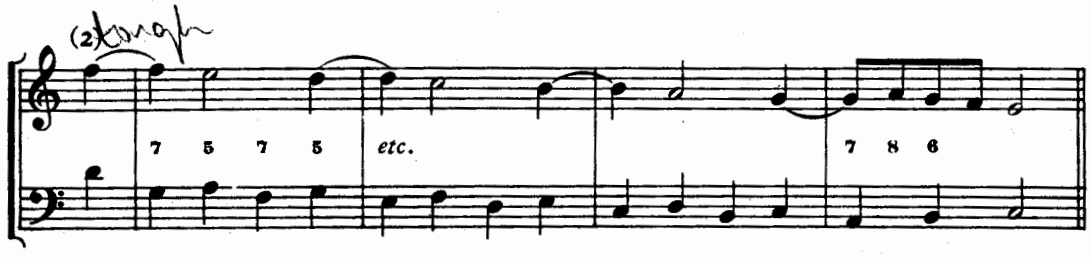


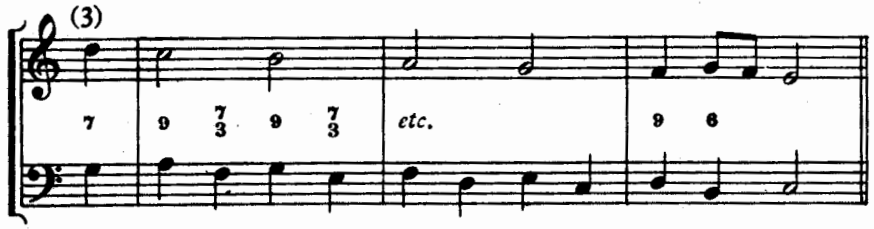
Plagal

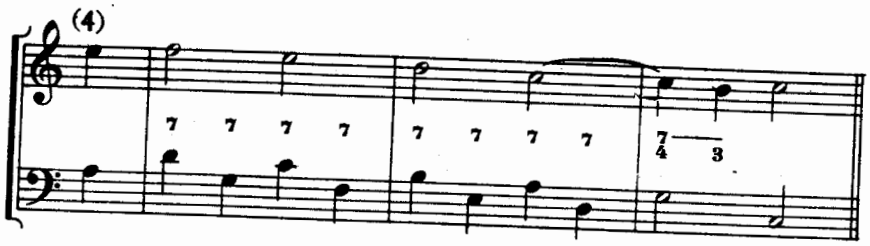


B. Sequences:

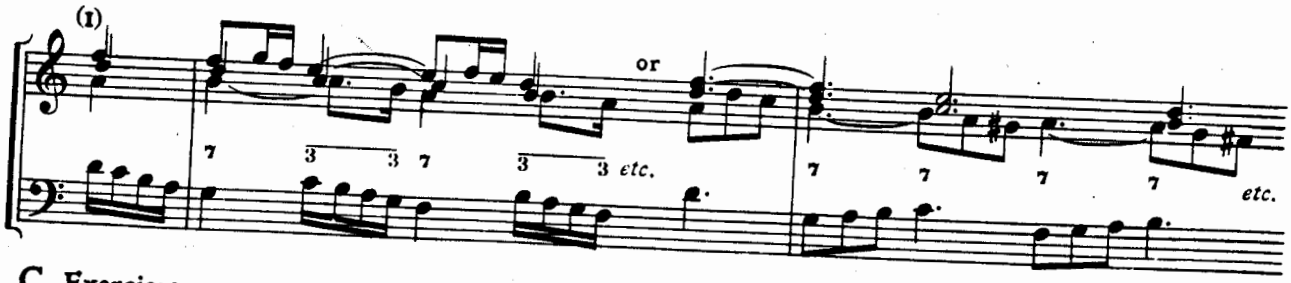




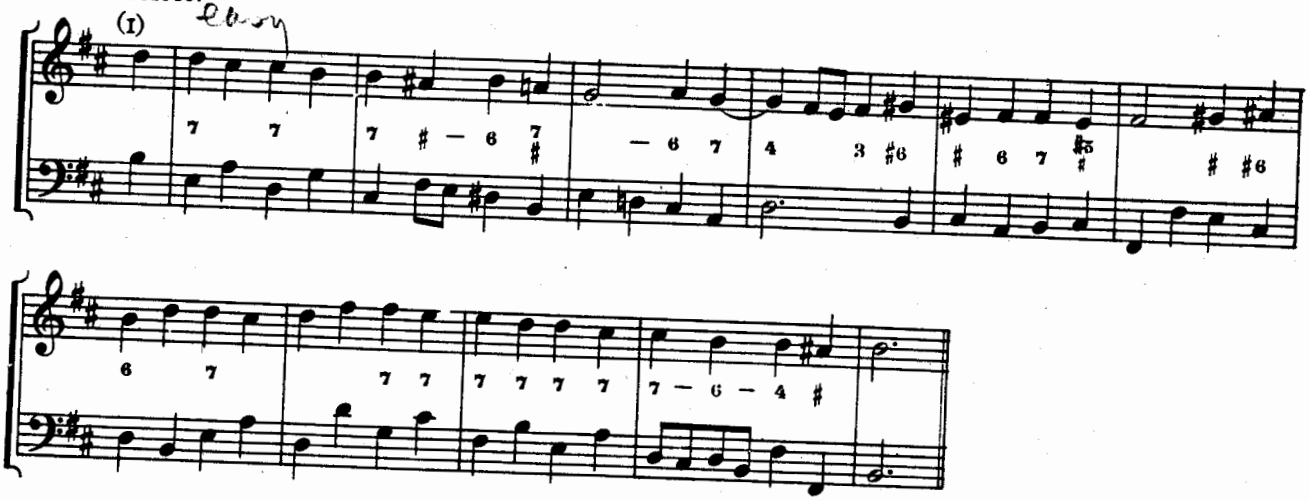


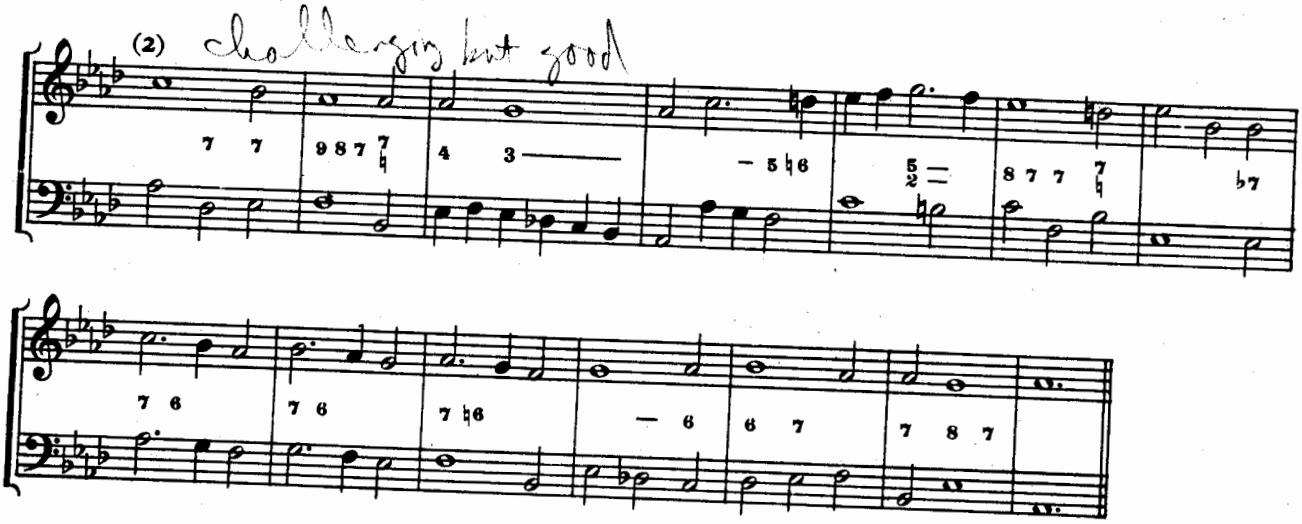


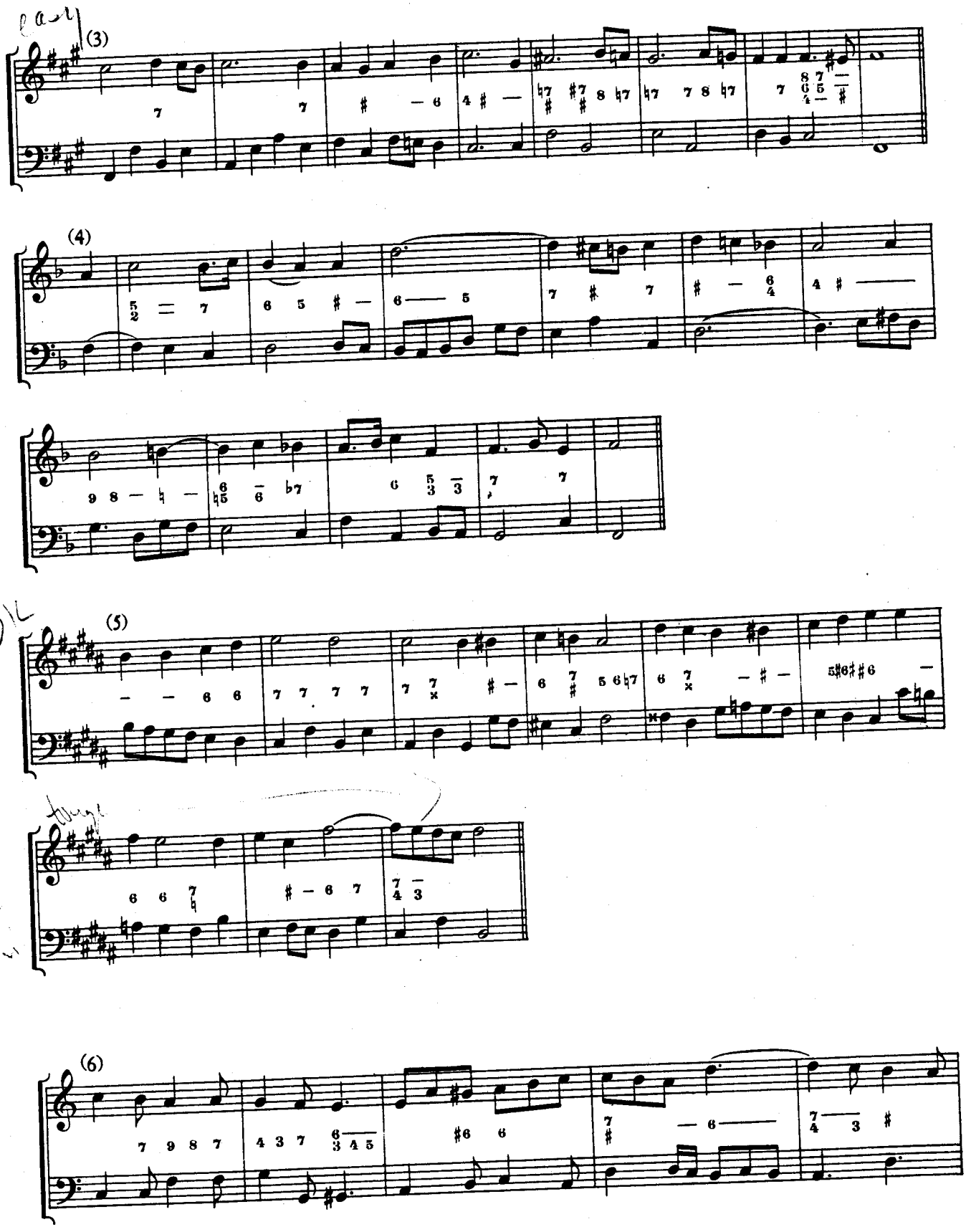
It will also be worth while for the student to amplify some or all of the above sequences by means of passing notes, e.g.:

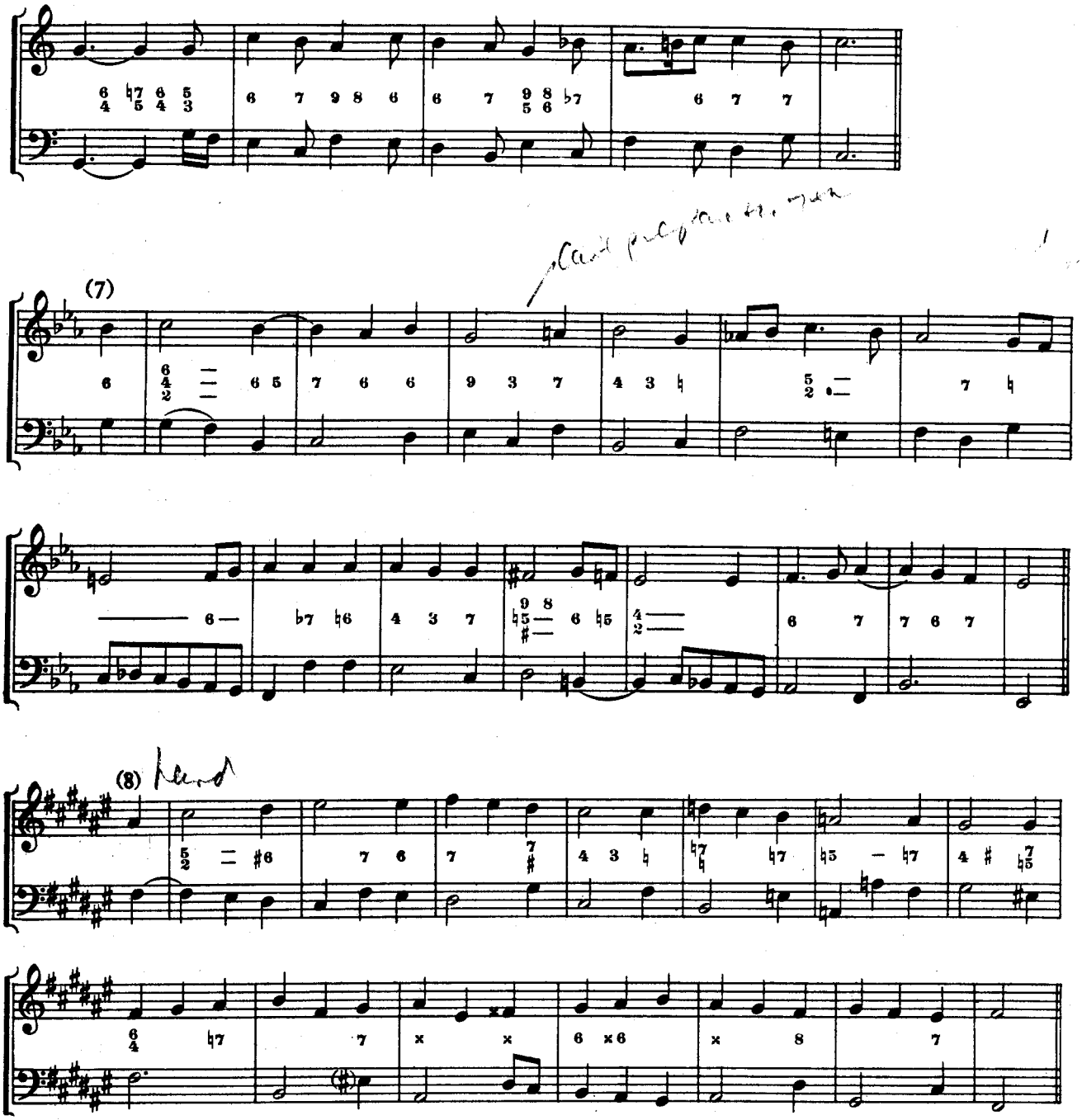


C. Exercises:





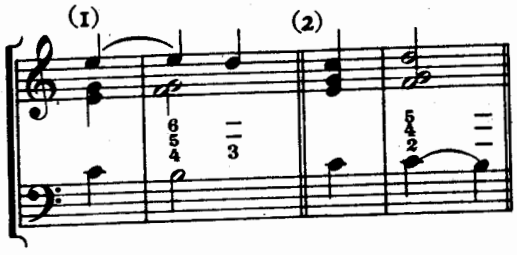

(3)
(4)
(5)
(6)



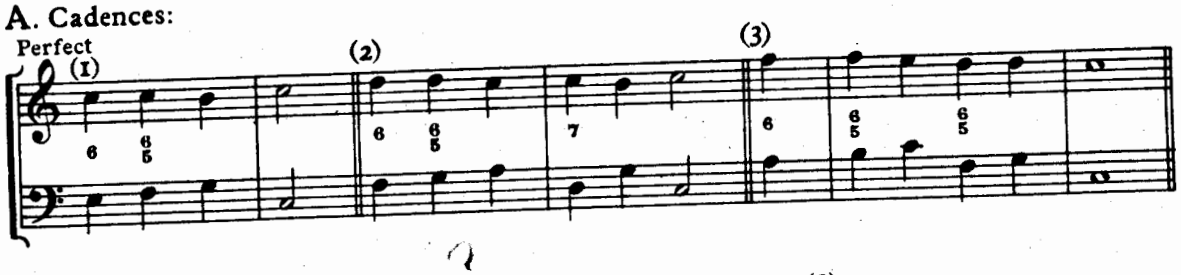
§ 6. THE FIRST INVERSION OF THE SEVENTH
(The Six-Five)

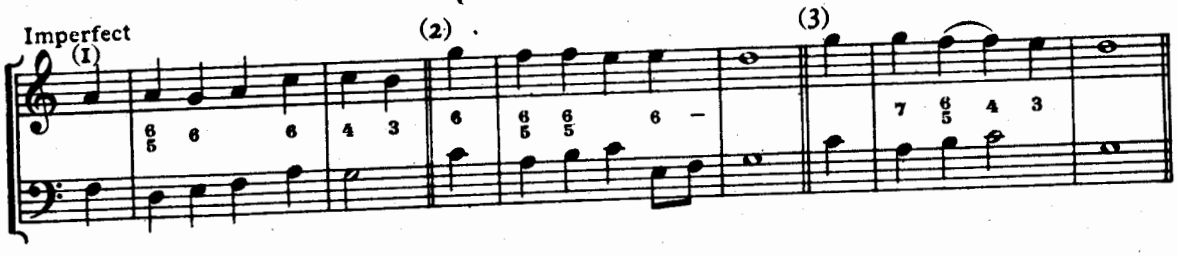
This chord is figured $\frac{6}{5}$ (short for $\frac{6}{5}_{3}$). The $\frac{6}{5}$ on the leading note is of course a 'Dominant' Seventh inverted; the rest are all 'secondary'. Normally the bass moves up one step to the resolution, which is usually a common chord. But successive $\frac{6}{5}$'s on the 6th and 7th degrees of the scale are of frequent occurrence; in this case the 6th of the first is best taken in the top part, remaining to become the 5th of the second chord (see below, sequence No. 3). Likewise this chord, like other essential discords, may resolve into its own root position, or into one of the other inversions (as in sequence 2). The $\frac{6}{5}$ on the leading note, like the other dominant sevenths, may be approached freely; in the others, the 5th from the bass (i.e. the 7th from the root) should be prepared.

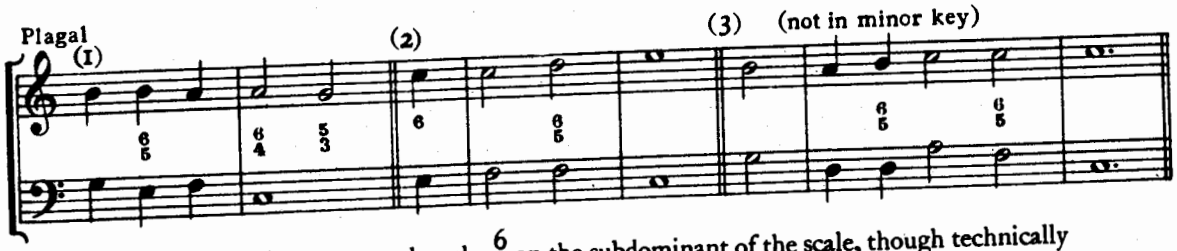
The following suspensions are of frequent occurrence in connexion with the $\frac{6}{5}$, and the figures should be memorized:



A. Cadences:

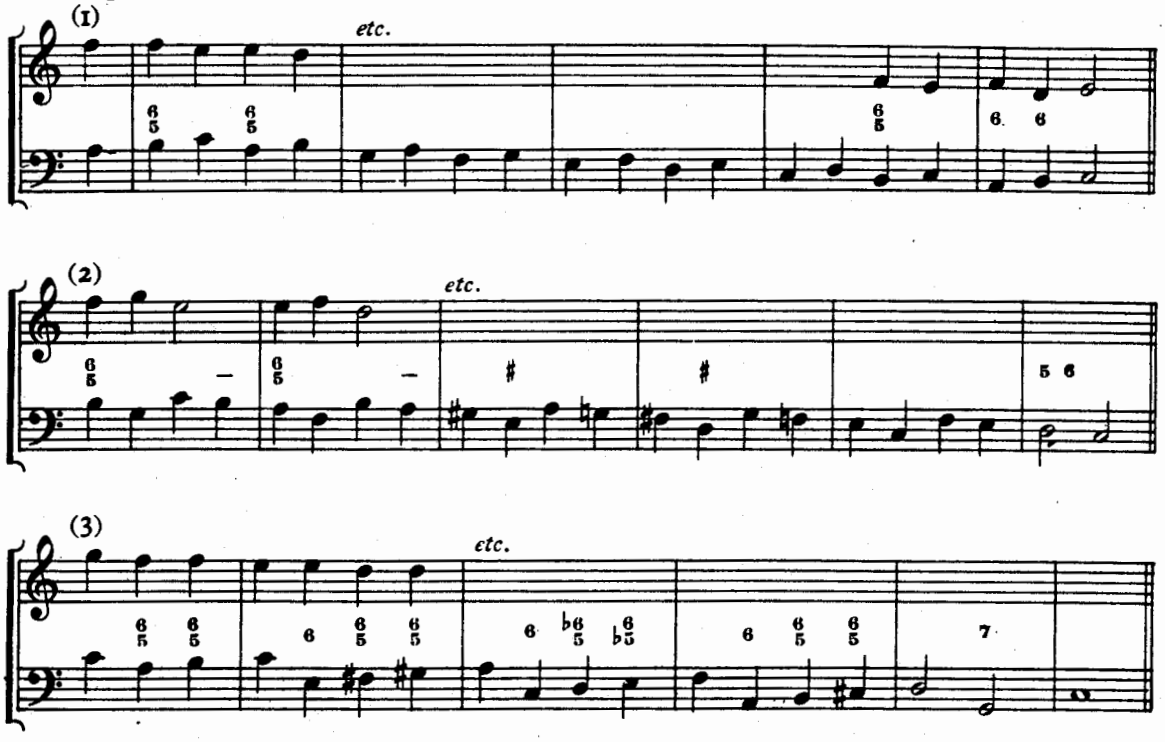




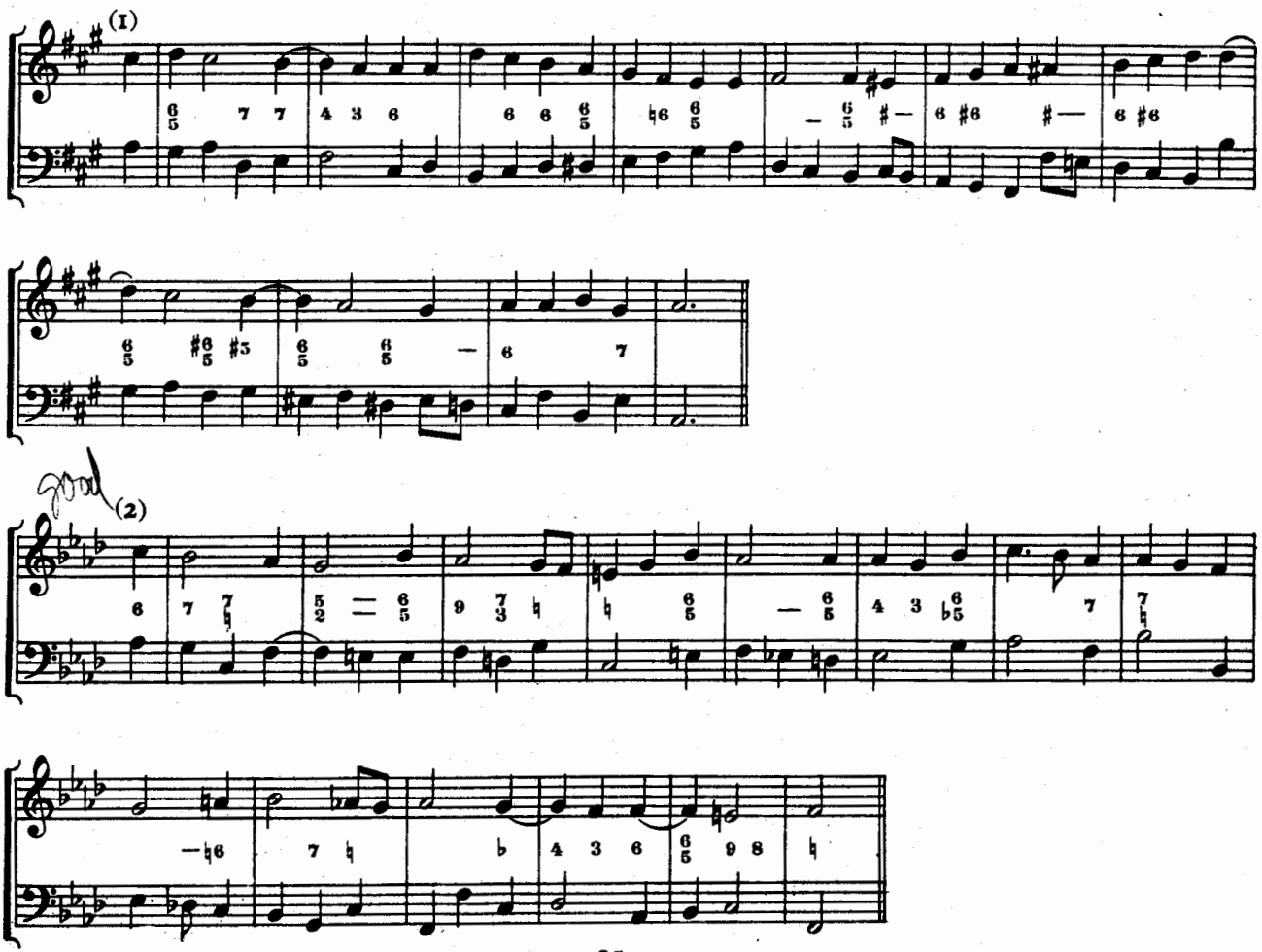


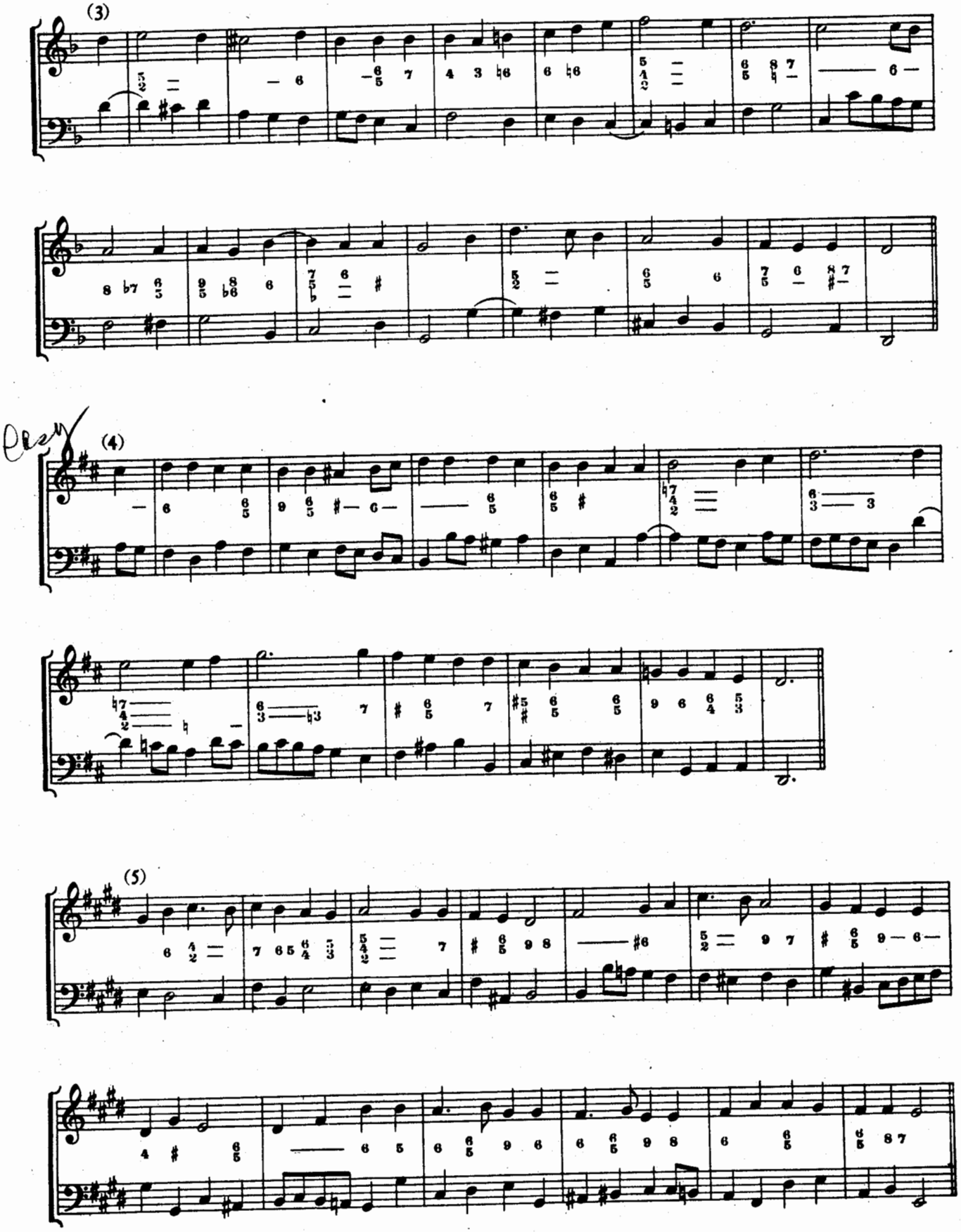
Note the last two examples: the $\frac{6}{5}$ on the subdominant of the scale, though technically an inversion of the supertonic seventh, is here felt rather as a variant of the subdominant triad (the so-called 'added sixth').

B. Sequences:



C. Exercises:



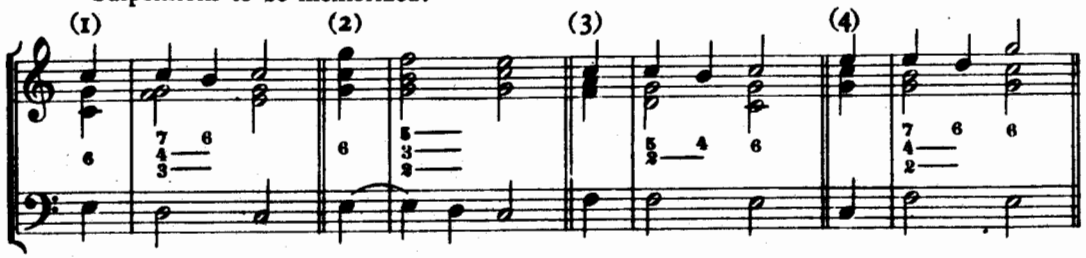

(3)
(4)
(5)

§ 7. THE REMAINING INVERSIONS OF THE SEVENTH

(THE $\frac{4}{3}$ AND $\frac{4}{2}$ CHORDS)

The second and third inversions of the seventh are figured respectively $\frac{4}{3}$ and $\frac{4}{2}$ (short for $\frac{6}{4}$ and $\frac{6}{4}$). In both, the normal progression of the bass is one step down, but the bass of the $\frac{4}{3}$ can also move upwards by step. The general behaviour of the chords can be inferred from what has already been said of the 7 and $\frac{6}{5}$ chords.

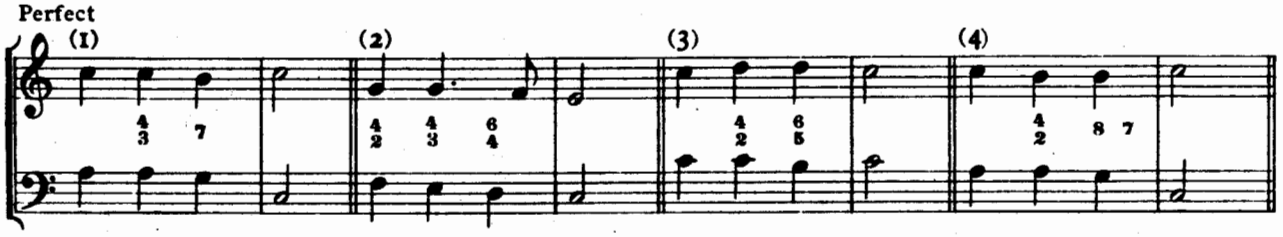
Suspensions to be memorized:



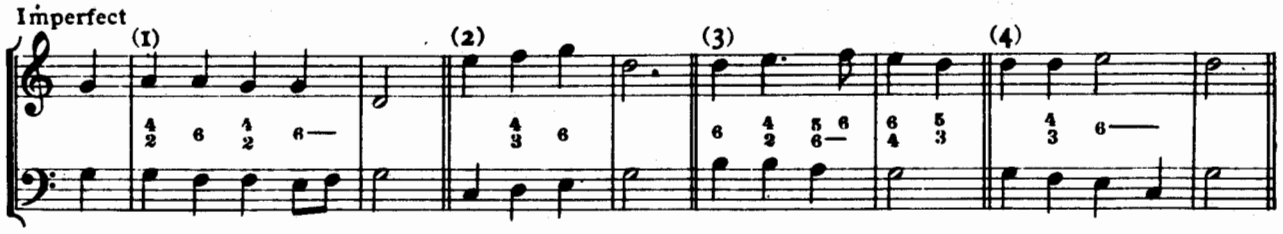
Remember that the suspensions illustrated above in the top part occur just as frequently in one of the middle parts (figuring of course the same), and also that they are just as liable to occur with 'secondary' as with 'dominant' inversions (again, of course, with the same figuring).

A. Cadences:

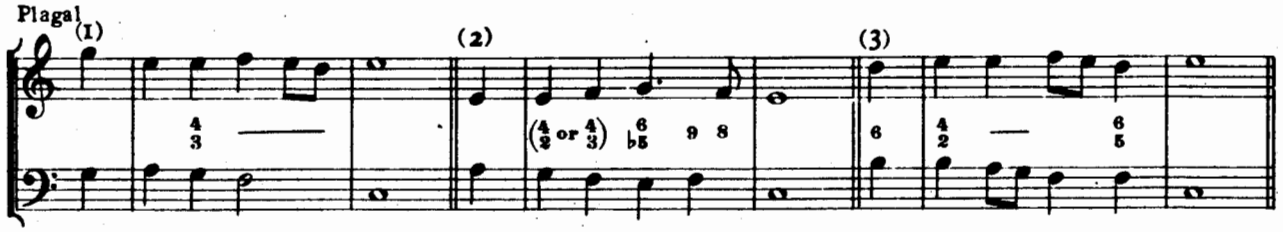
Perfect



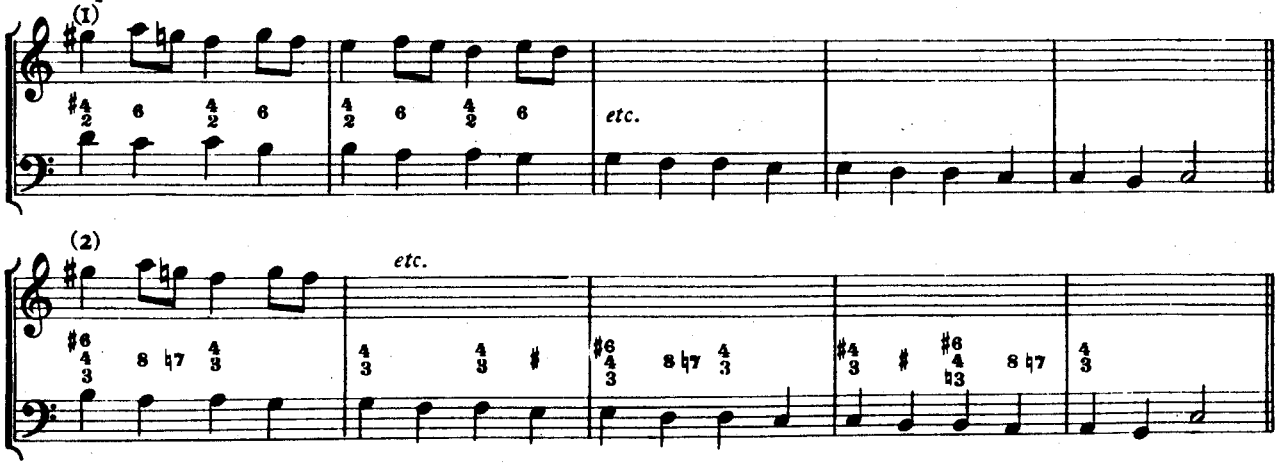
Imperfect



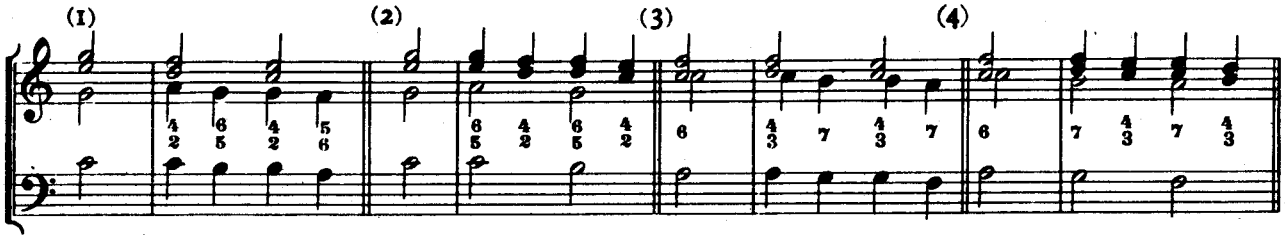
Plagal



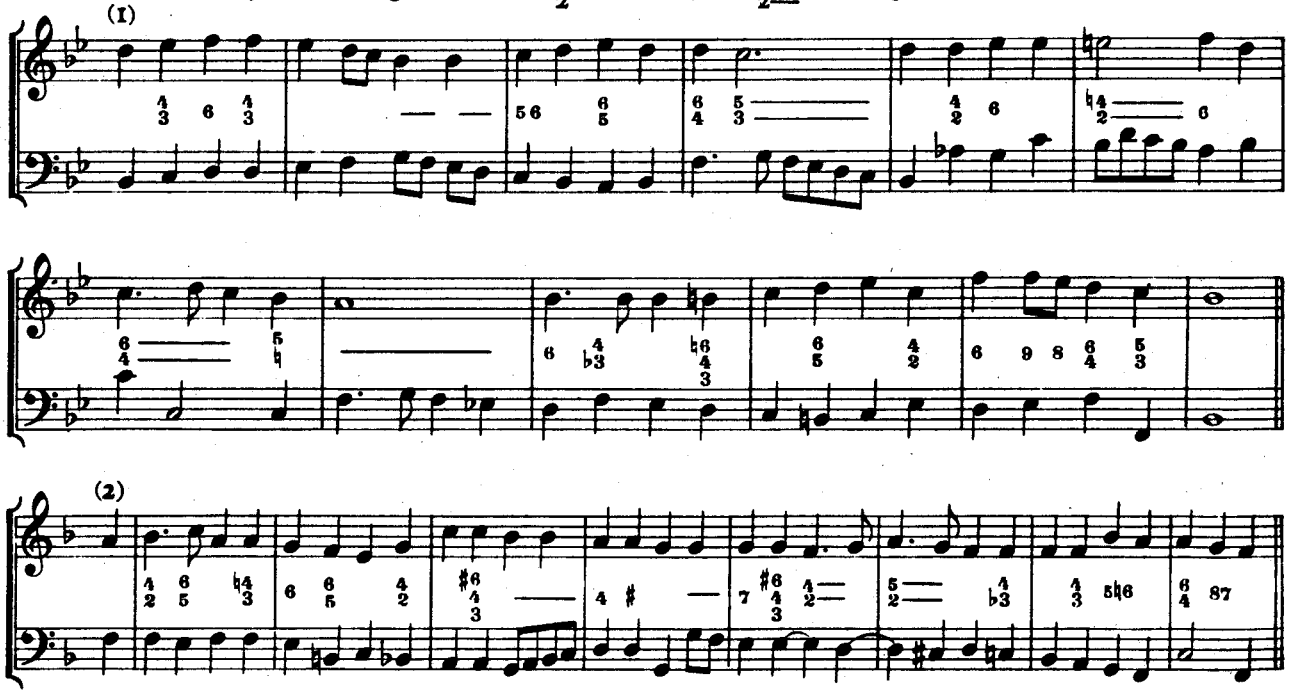
B. Sequences:

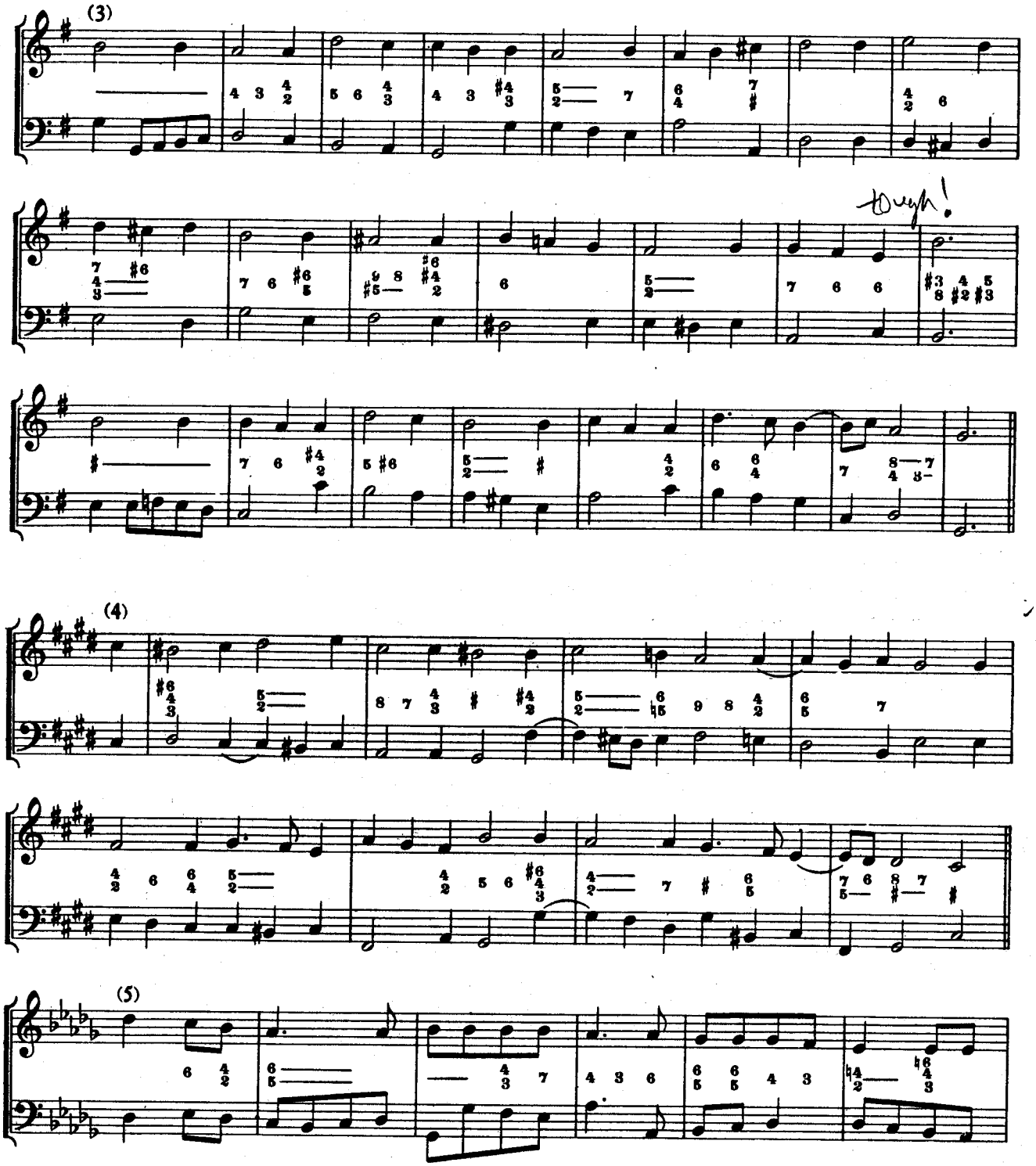


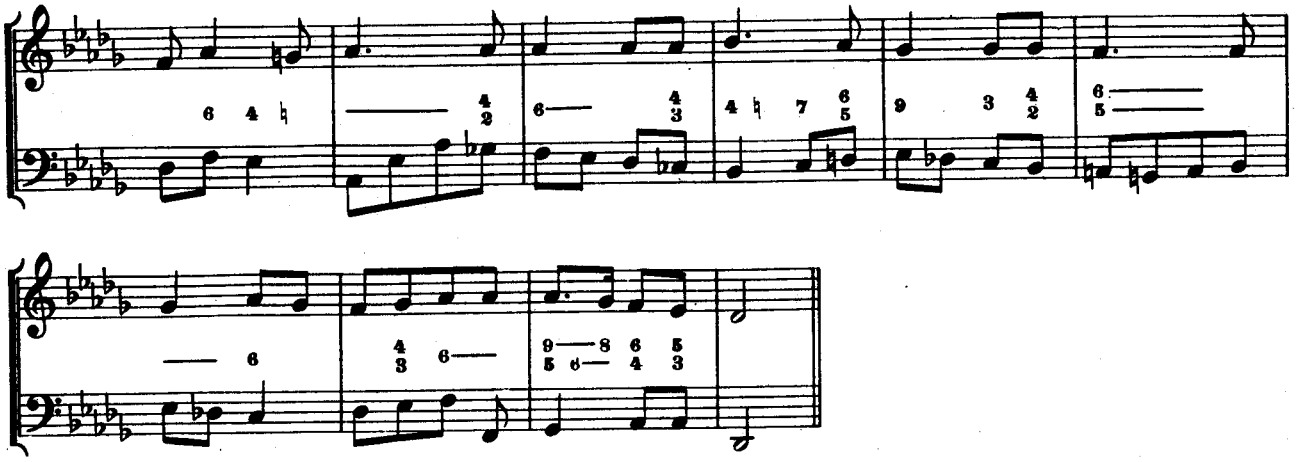
Also such chains as the following, which the student can continue for himself until a suitable cadence is reached. These chains can also be regarded as chains of double suspensions and deferred, if it seems better, till § 11. Personally, I think they belong more properly to the present section.



Exercises: (N.B. Distinguish between $\frac{4}{2}$, the chord, and $\frac{4}{2}$—, the suspension in the bass.)

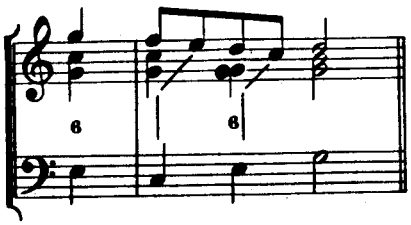



(3)
Ouch!
(4)
(5)

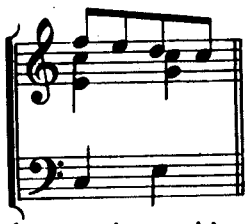


§ 8. ACCENTED PASSING NOTES; SIMPLE ORNAMENTATION (CHANGING NOTES, ANTICIPATIONS, ETC.)

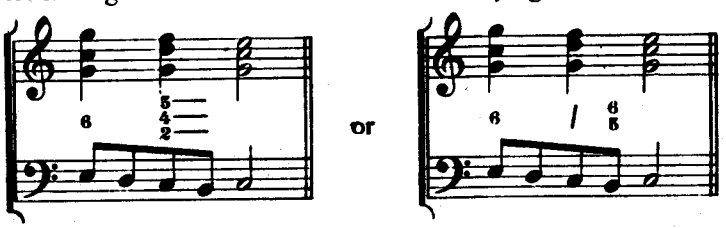
Accented passing notes in the upper voices are not as a rule indicated by the figures, but introduced at the discretion of the performer. When they occur in a melodic part already given (as in these exercises), they are not hard to see; they should be struck boldy together with the chord (indicated by the figures directly underneath them) of the note on which the resolution occurs; this note, however, should not as a rule be doubled by any of the other parts except the bass, e.g. Thus:



not (except for special reasons):

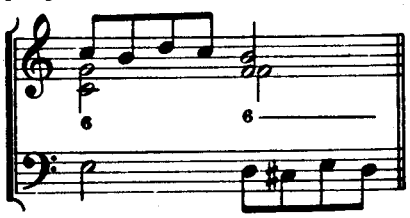


Accented passing notes in the bass are shown either (1) by figures indicating the dissonance, followed by dashes, precisely as in the case of the suspensions, or (2) by an oblique dash placed under the dissonant note, the figures of the real harmony being placed in vertical alignment with the note of resolution, e.g.:

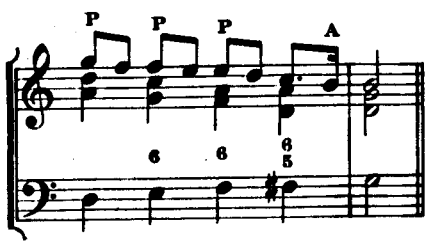


The latter is by far the simpler method, and is adopted throughout this book. (*Cf.* Arnold, 783.)

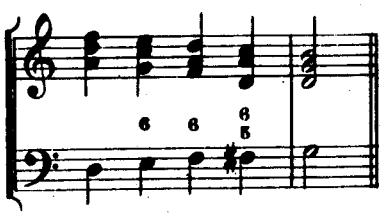
Changing notes in the upper parts are not usually indicated by figures; in the bass they are shown by a dash, e.g.:



Anticipations are not shown by figures; if present in a given melody or bass they have to be recognized at sight by the performer for what they are. Thus the following phrase



is figured precisely as if no anticipations or passing notes were present:

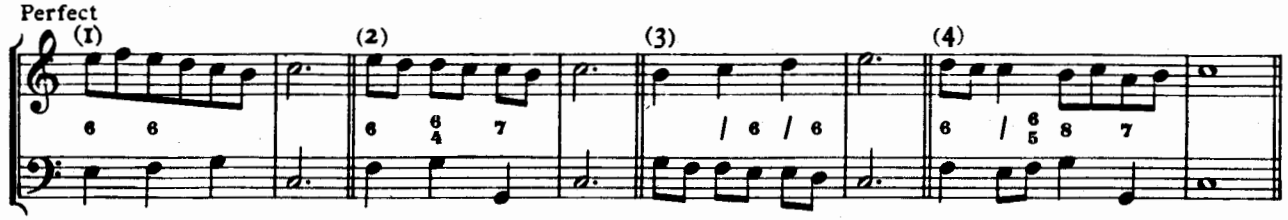


39842

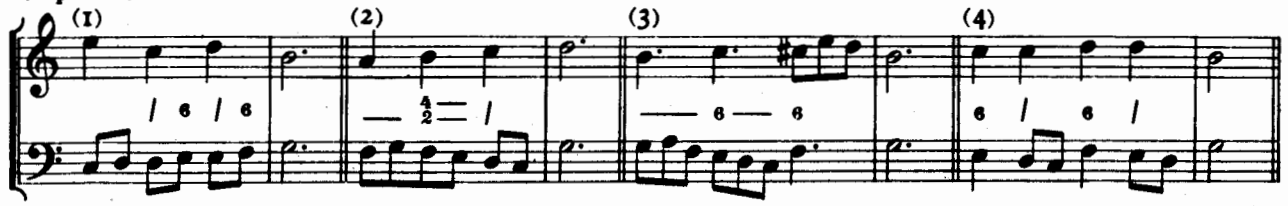
In the first of these, the passing notes are indicated by the letter P, the final anticipatory note by the letter A.

A. Cadences:

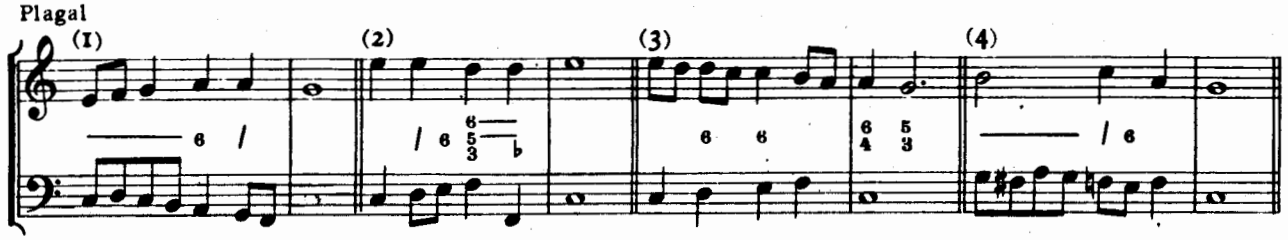
Perfect



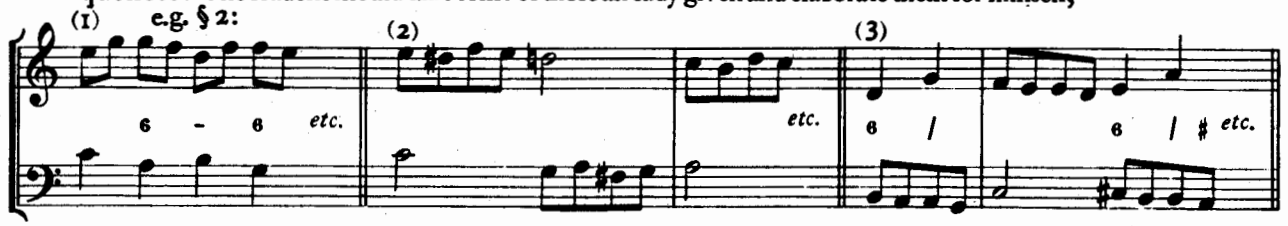
Imperfect



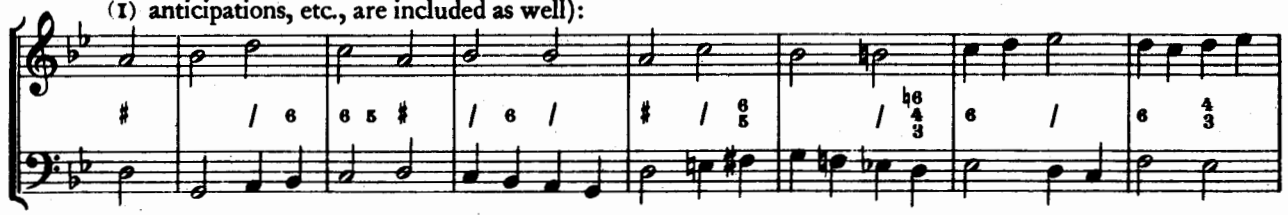
Plagal

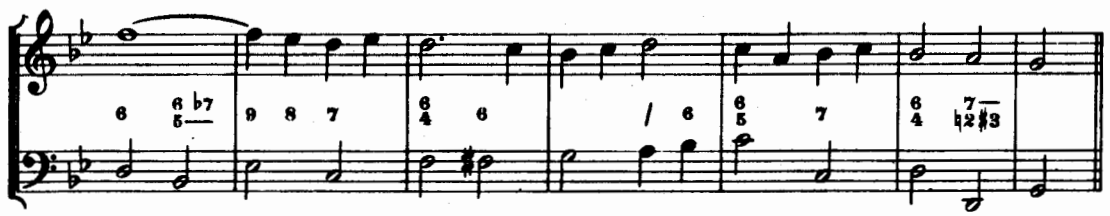


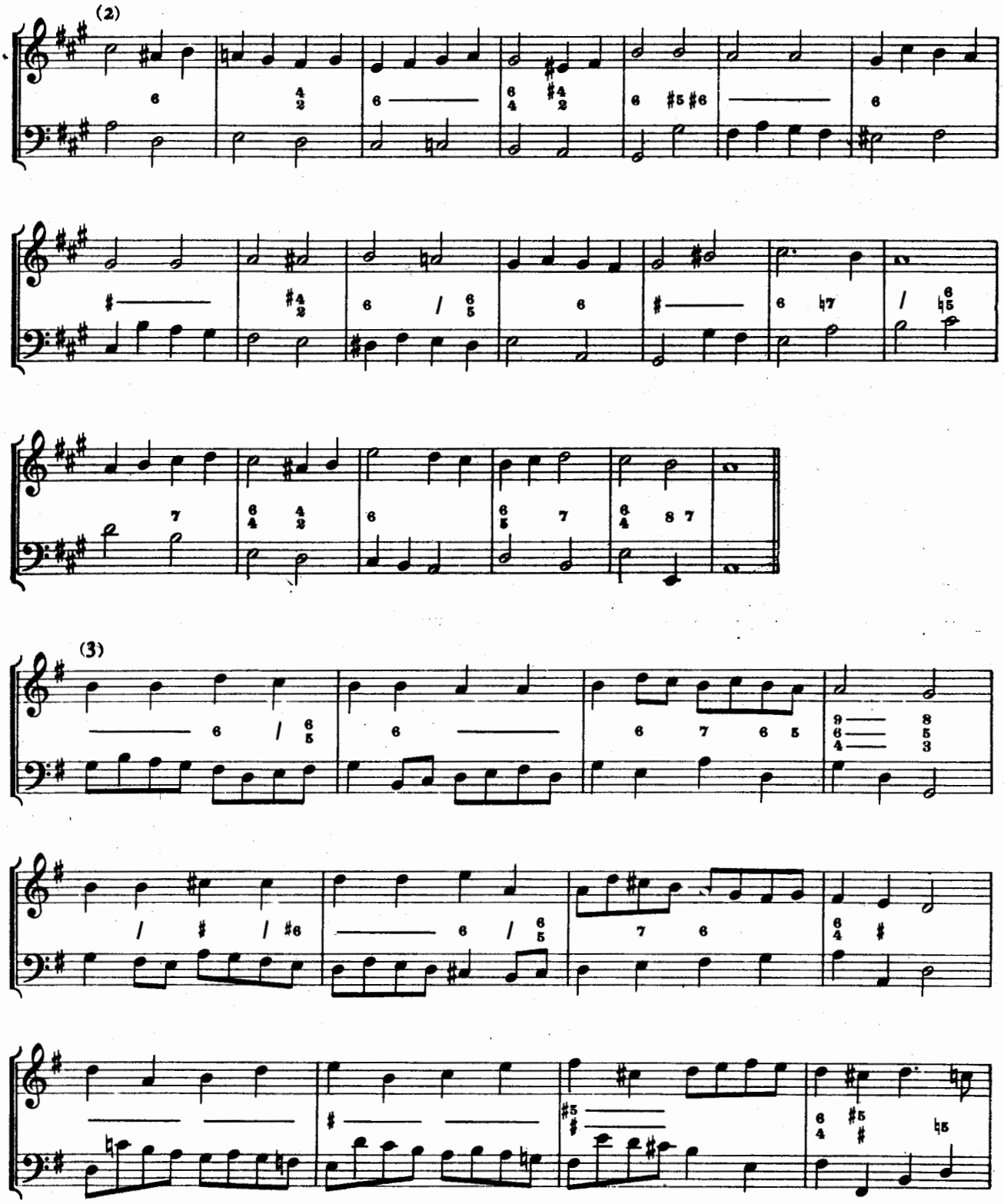
B. Sequences: The student should take some of those already given and elaborate them for himself,

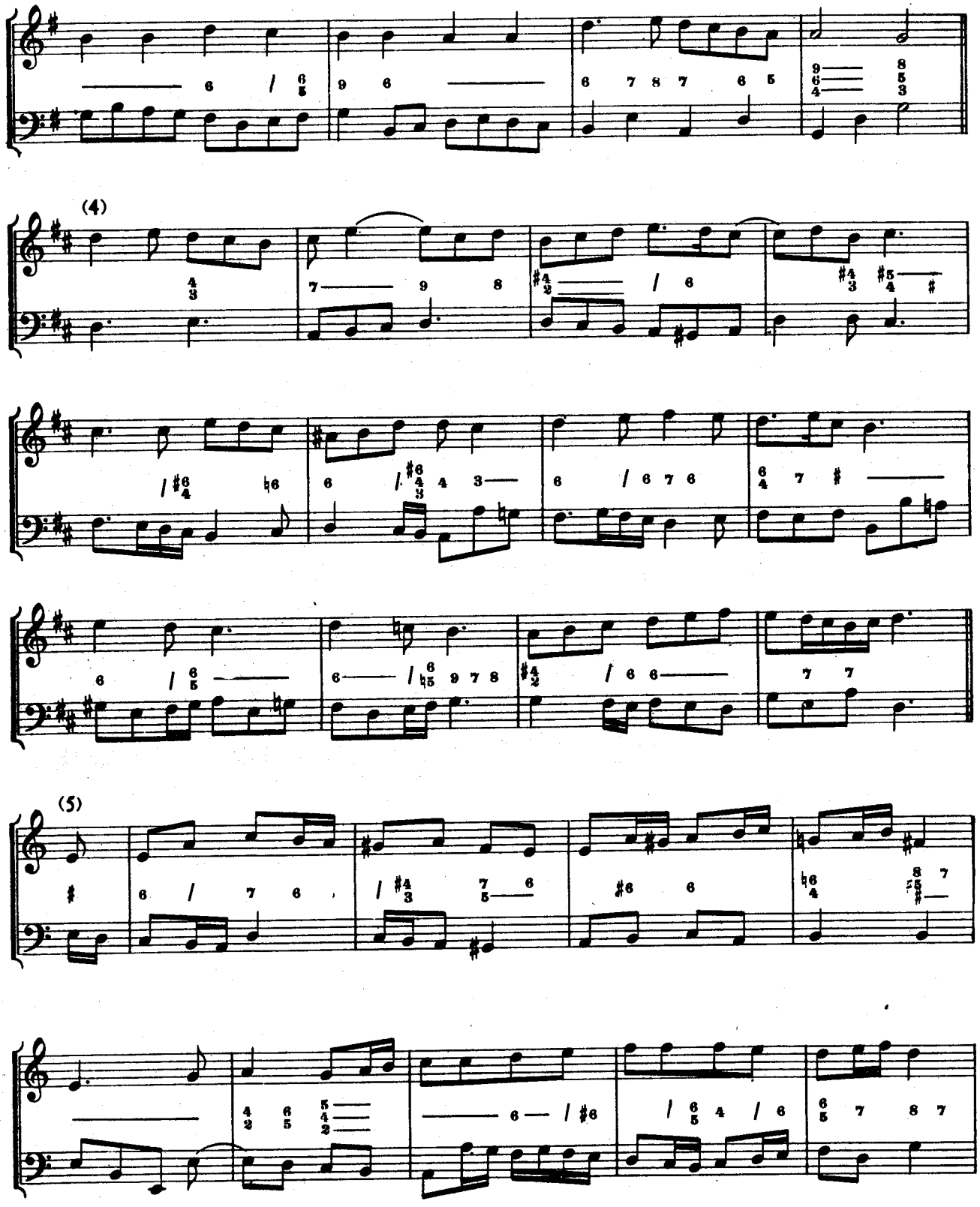


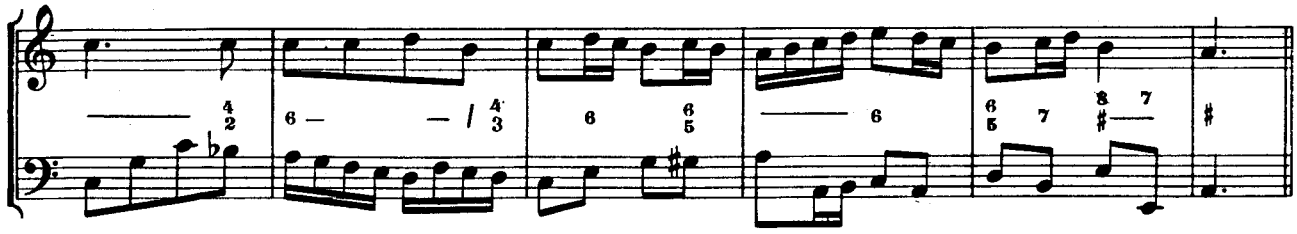
C. Exercises: (in Nos. 1 to 5 passing notes only are used; in the remainder, changing notes, (1) anticipations, etc., are included as well):



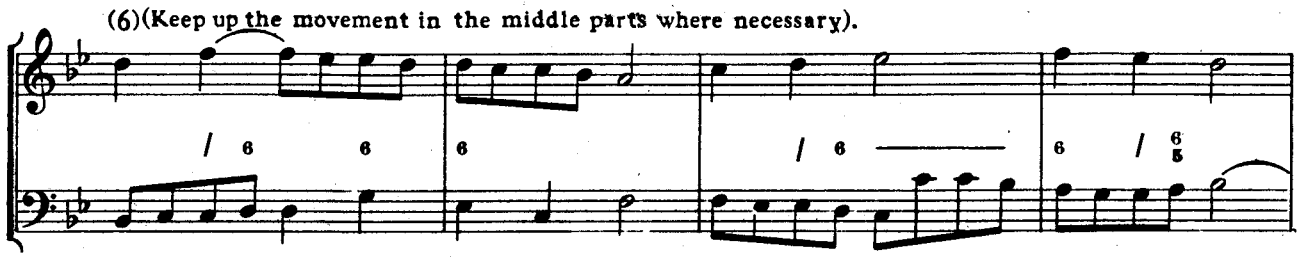


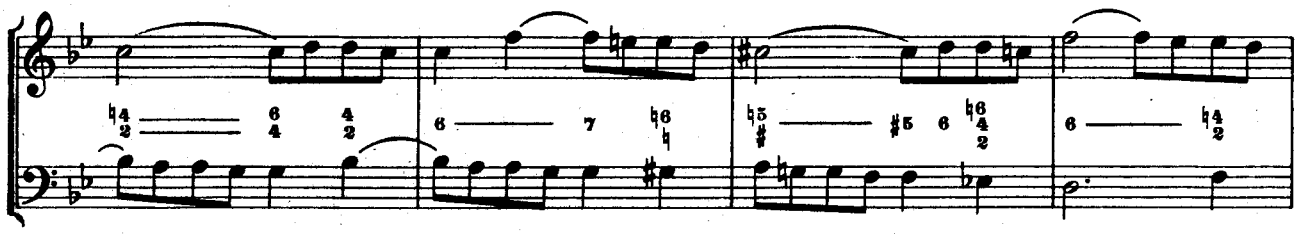

(2)
(3)

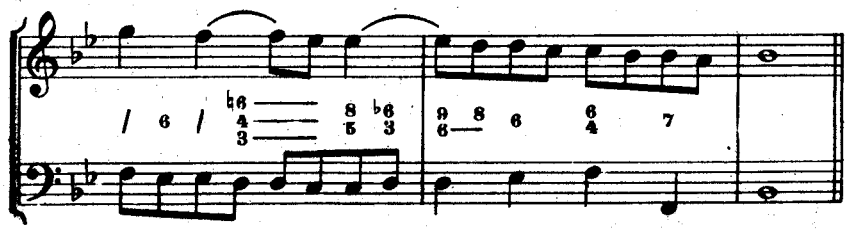

(4)
(5)



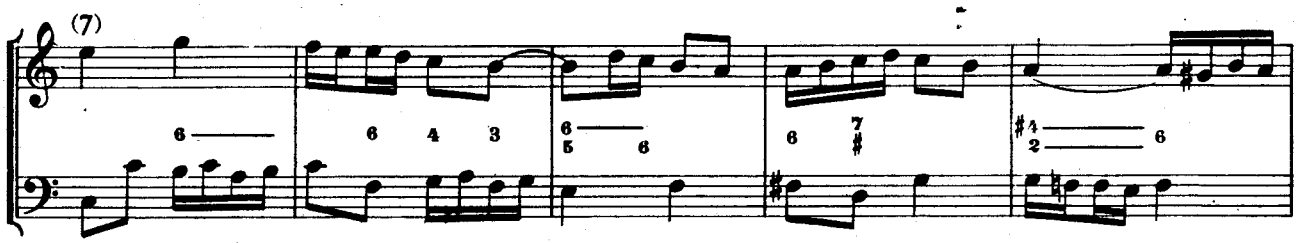
(6)(Keep up the movement in the middle parts where necessary).

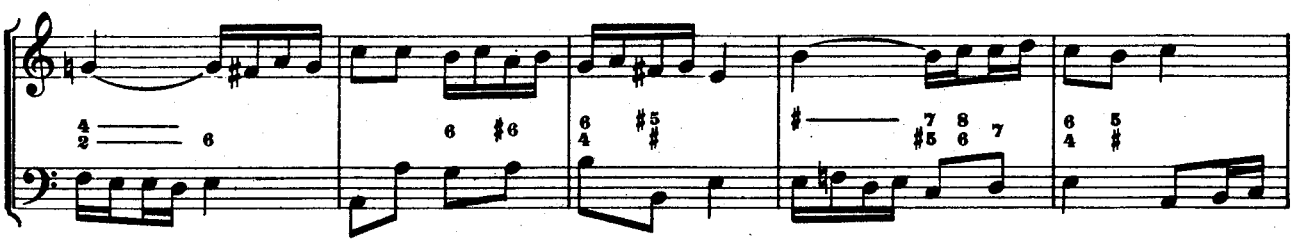


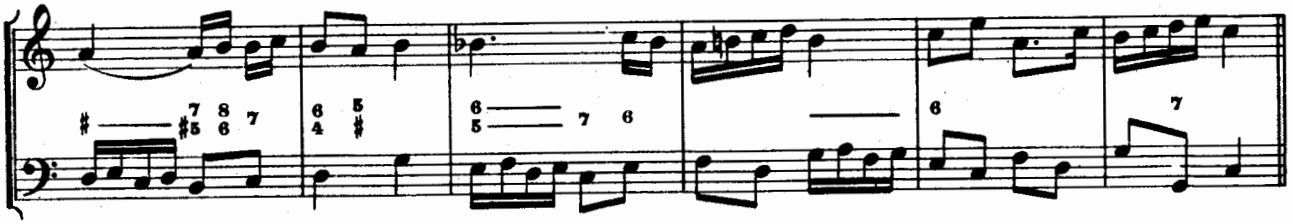




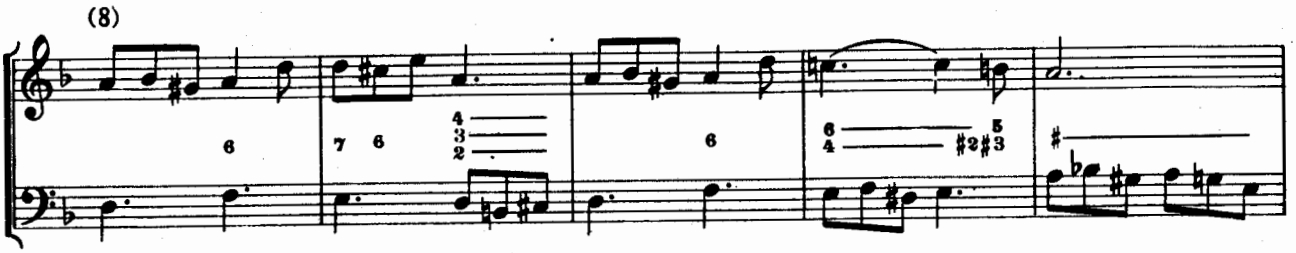
(7)

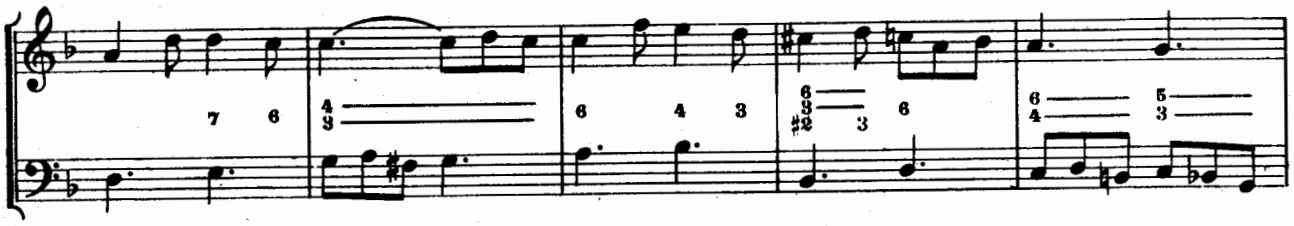


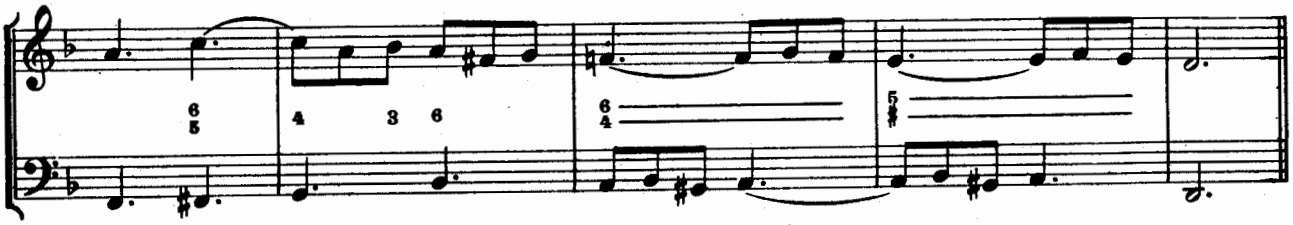




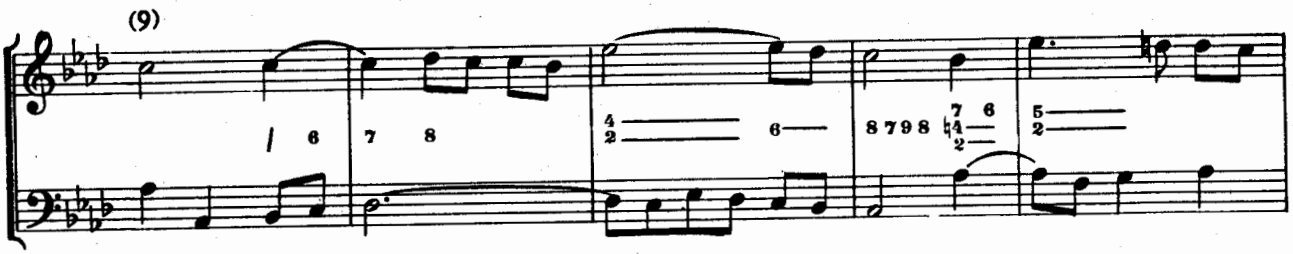
(8)

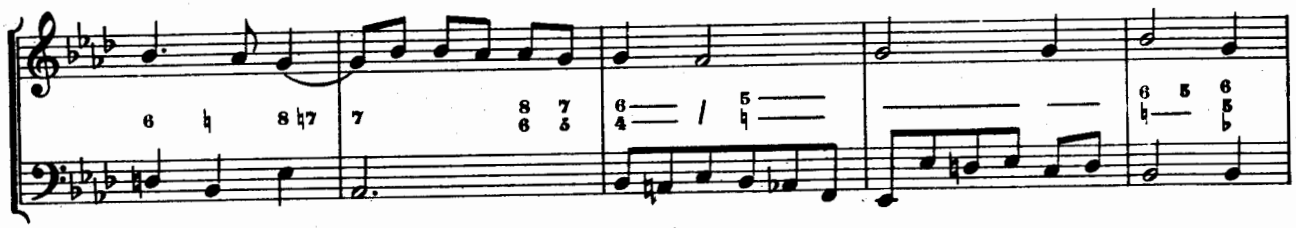


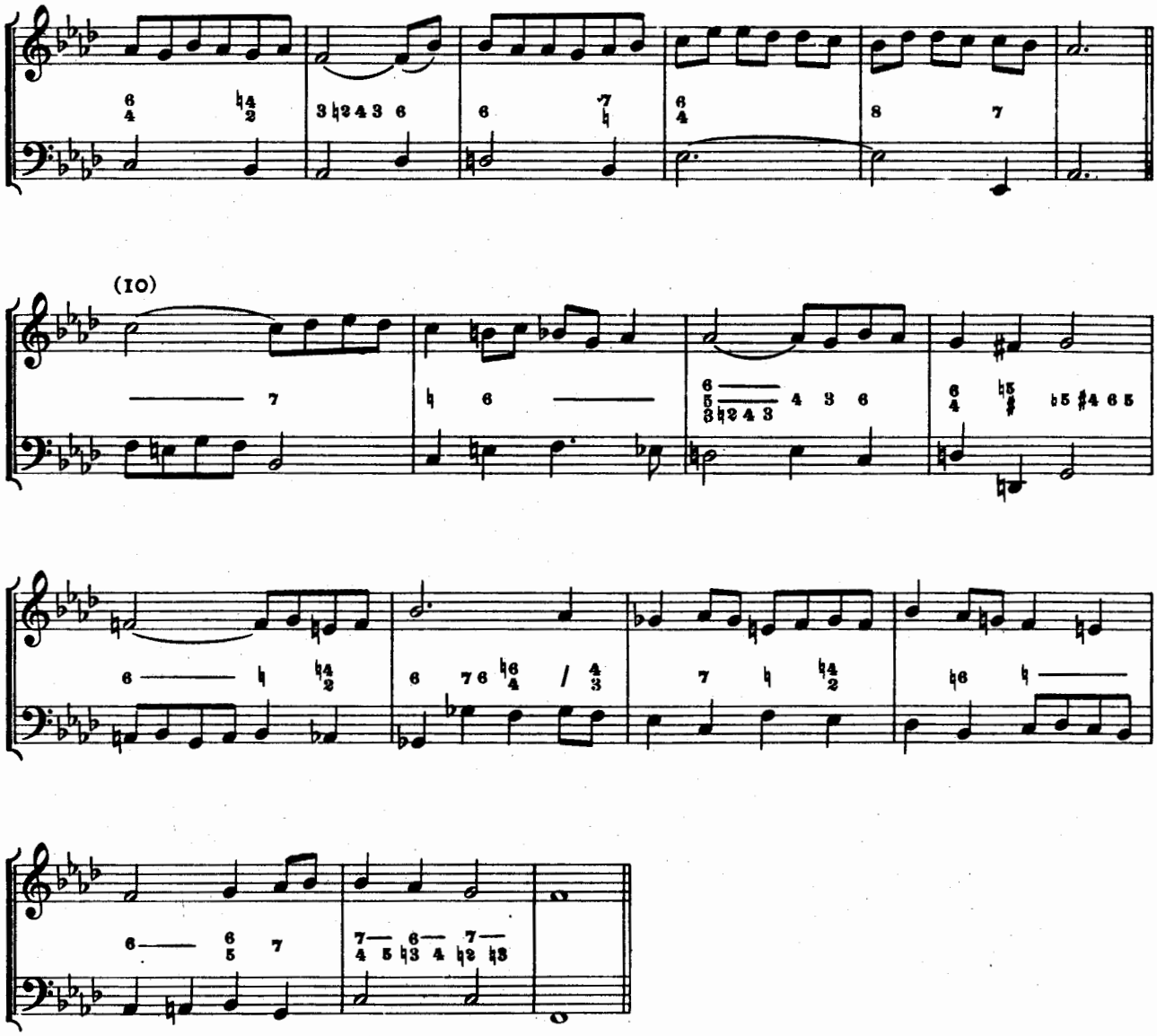




(9)






(10)

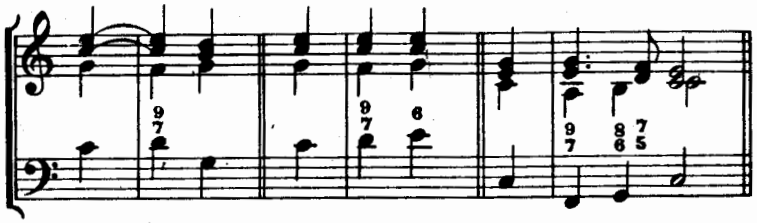
§ 9. THE MAJOR AND MINOR NINTHS; THE DIMINISHED SEVENTH

1. The Ninth in Root Position

Take any diatonic chord of the seventh, and add to it the ninth note from the bass: the result is a chord of the ninth. If the seventh is minor, the ninth may be either minor or major; if the seventh is major, the ninth must also be major.

In four-part writing, one note has to be omitted. In the root position this note is usually the fifth. In the so-called inversions, the root is invariably left out; but as the result is merely a chord of the seventh (dominant, secondary, or diminished, as the case may be), it seems simpler to say frankly 'the chord of the ninth is never inverted', instead of trying to explain the harmless necessary sevenths in terms of a purely fictitious root.

In resolving this chord, the ninth and the seventh usually stand or fall together, the bass moving in the same way as a chord of the seventh. The figuring is usually $\frac{9}{7}$, e.g.:



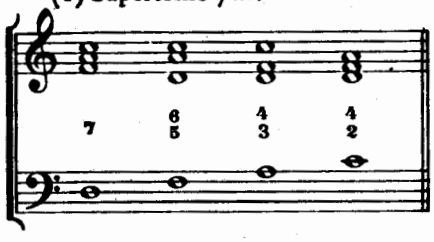
Note also the stepwise resolution of a ninth to a seventh as shown in perfect cadence No. 1 below.

2. The Diminished Seventh

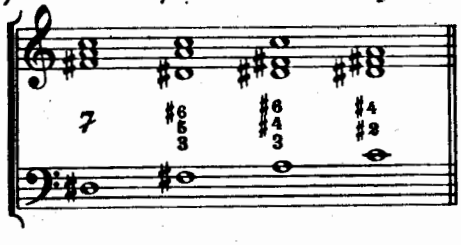
This chord consists of a minor third, a diminished fifth, and a diminished seventh, or (to put it differently) of three minor thirds superimposed one upon the other. In the root position it is indicated here by the figure 7. In the eighteenth century the stroke through a figure was constantly used to denote the chromatic alteration of a note, the position of the stroke showing whether the note was to be raised or lowered. Composers, however, were by no means consistent in their practice, and it seemed more convenient, generally speaking, to use the ordinary ♯ and ♭ signs for the purpose of this book; but in this one case the stroke has been retained, as it serves to indicate at a glance the uniform and distinctive character of the diminished seventh (*cf.* Arnold, ch. xxiii).

In the inversions, the figures used are the same as those for the other sevenths—$\frac{6}{5}$, $\frac{4}{3}$, and $\frac{4}{2}$—, of course with the necessary sharps or flat to indicate any desired modifications. An example will serve to show the difference between the diminished and the other sevenths in this respect:

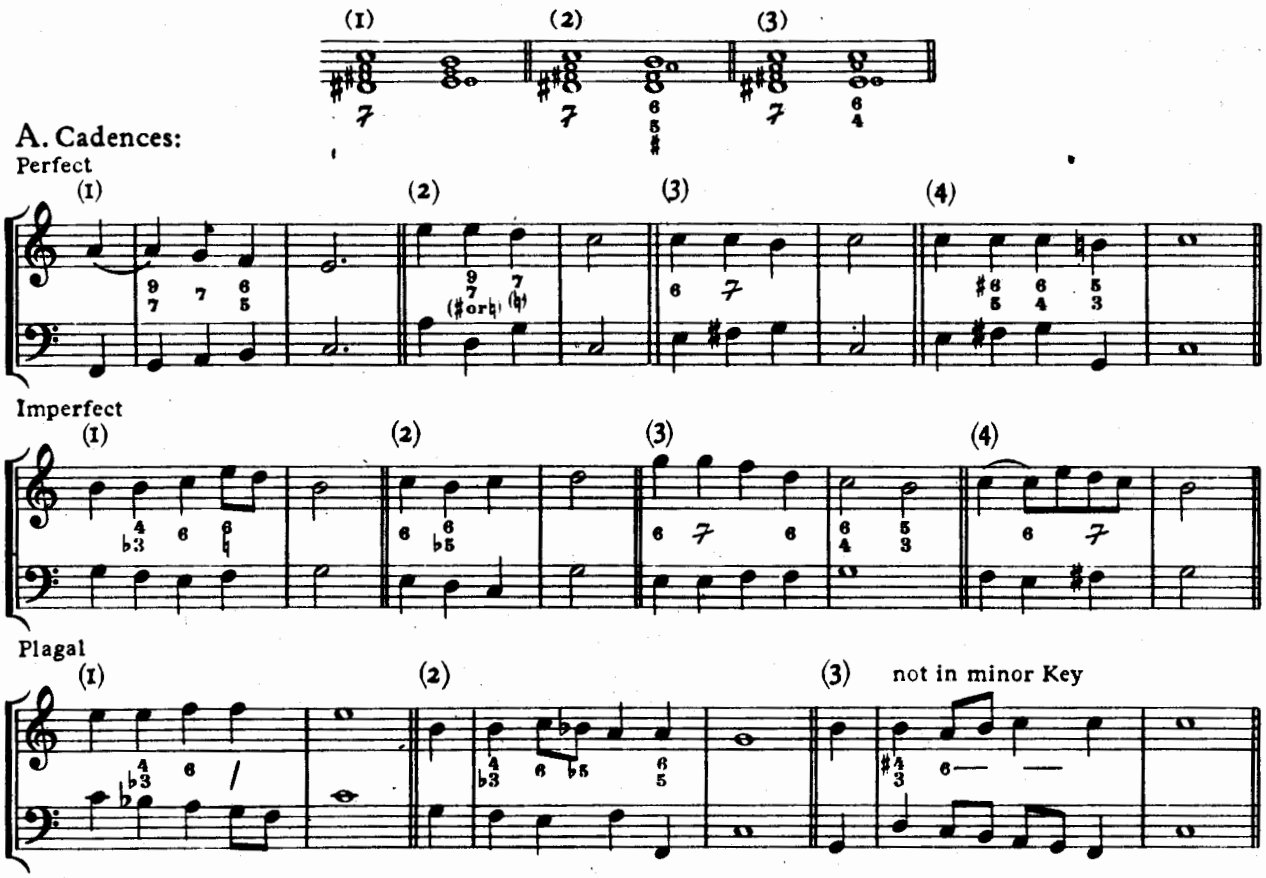
(1) Supertonic 7th:



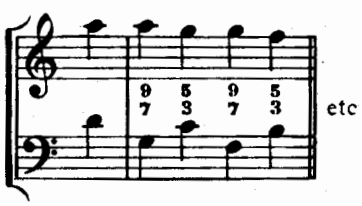
(2) Diminished 7th on the raised supertonic:



Rules for the resolution of this chord (which requires no preparation, but is *always* chromatic in any key) can be found in the harmony text-books; meantime, the student who plays carefully through the following exercises will find that his ear soon acquires an instinct for the chord's behaviour, especially if he bears in mind the general tendency of the diminished seventh to resolve inwards, whichever may be the voices between which the interval occurs. As an alternative to this general tendency, the upper note of the interval may fall, while the lower remains, or the upper may fall, while the lower rises (the intervening notes are printed small for clearness' sake):



For ninths, take § 5, sequence No. 1, and start as follows:

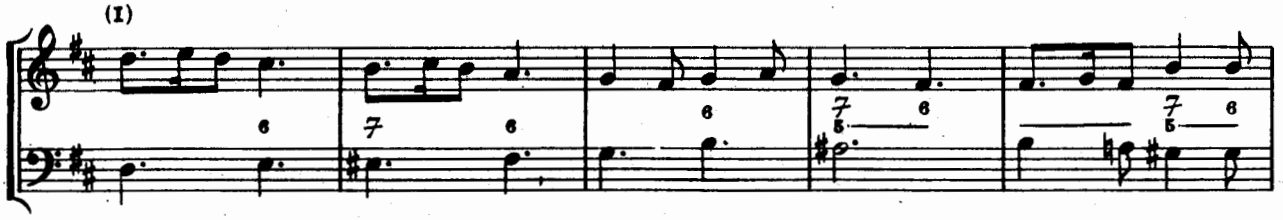


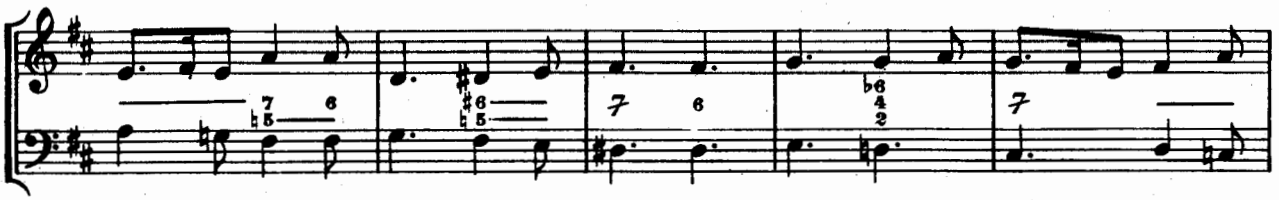
This may be equally well figured $\frac{9}{7}\,7\,\frac{9}{7}\,7$, etc.

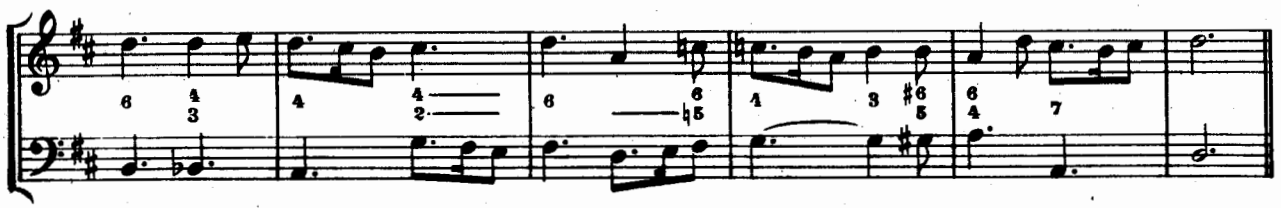
It is theoretically possible to construct a sequence of diminished 7ths, but the result would be too offensive to be inflicted on the readers of this book.

C. Exercises:

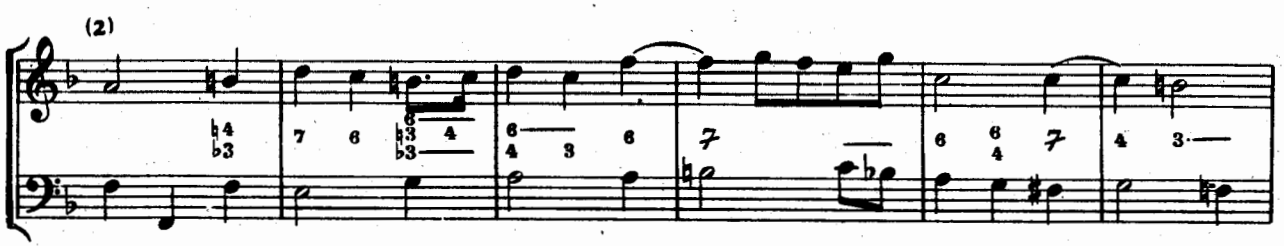
(1)

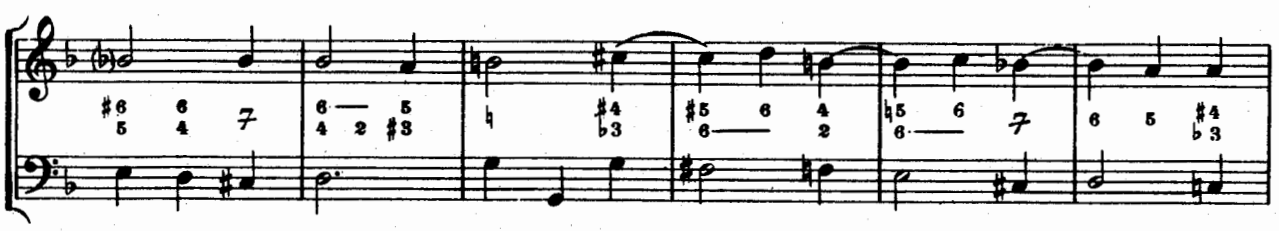


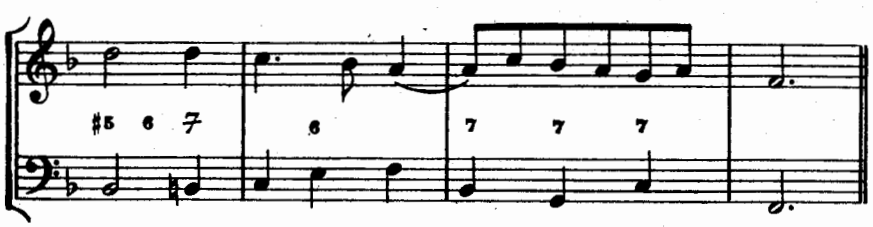




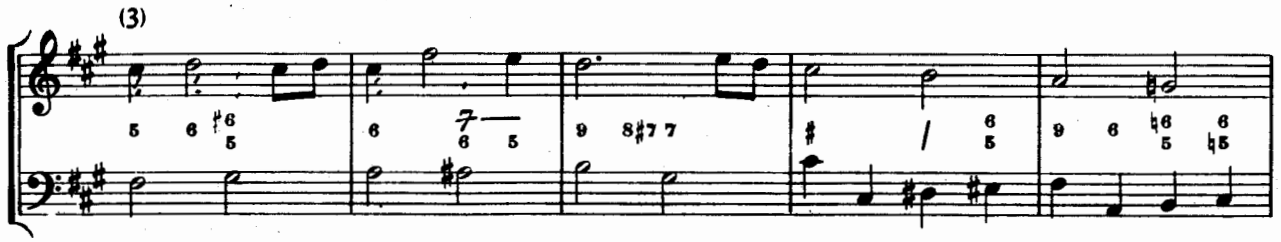
(2)

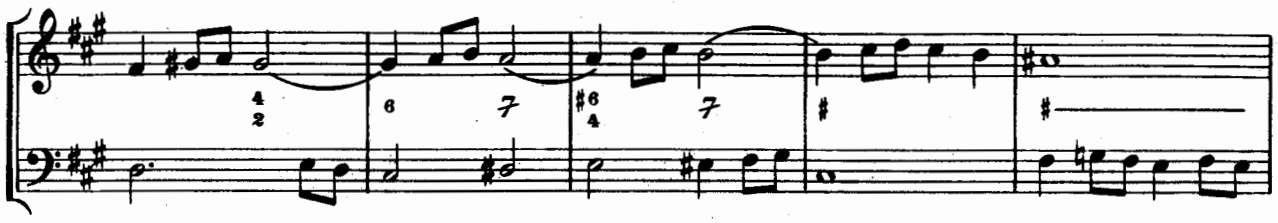


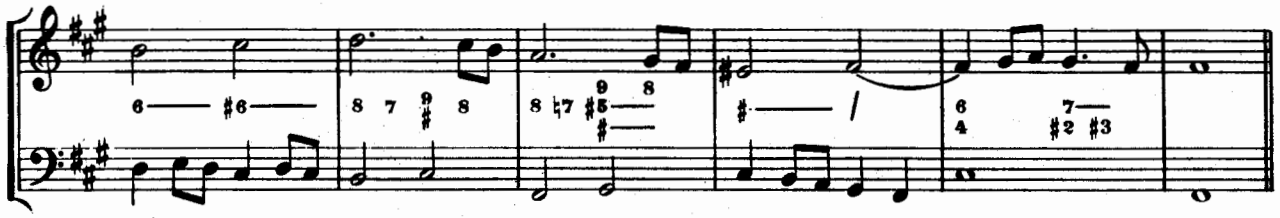




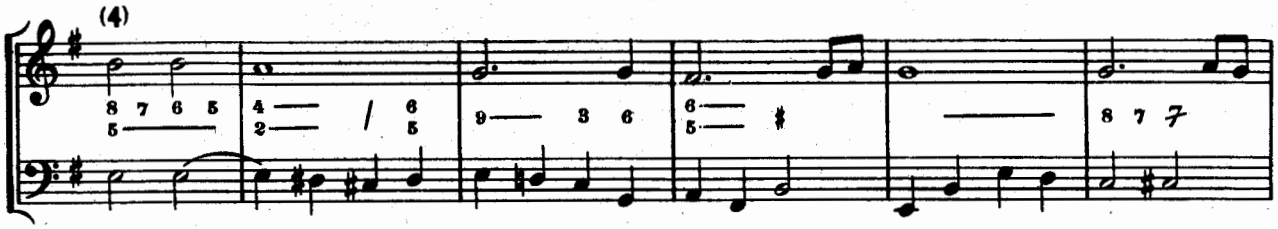
(3)

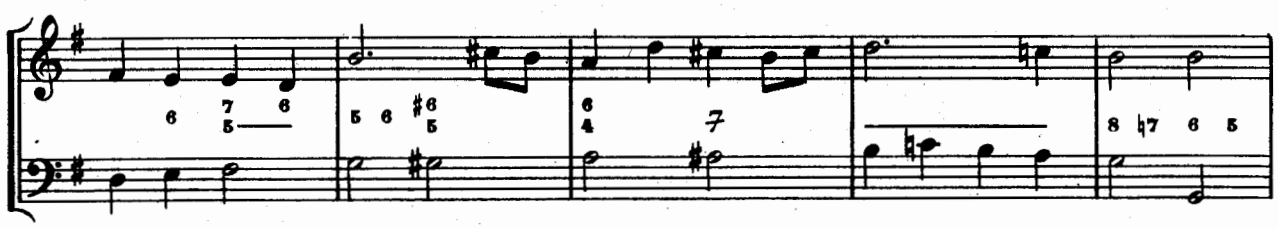


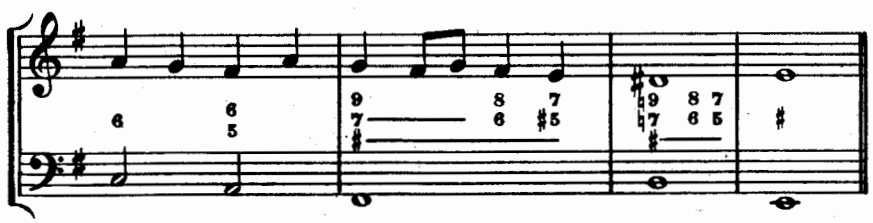




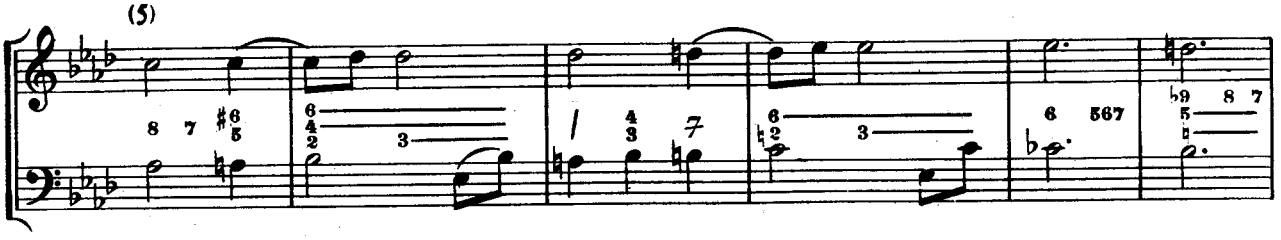
(4)

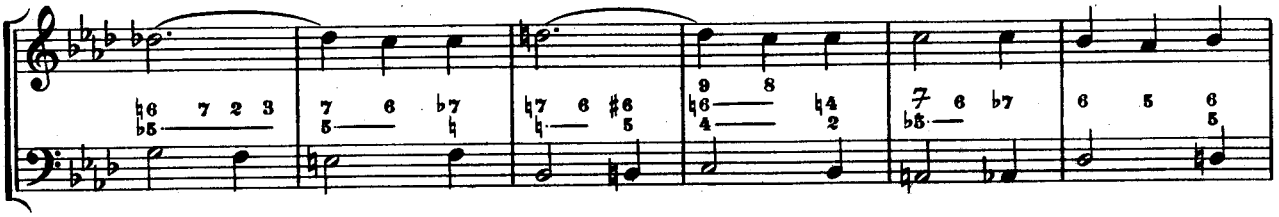


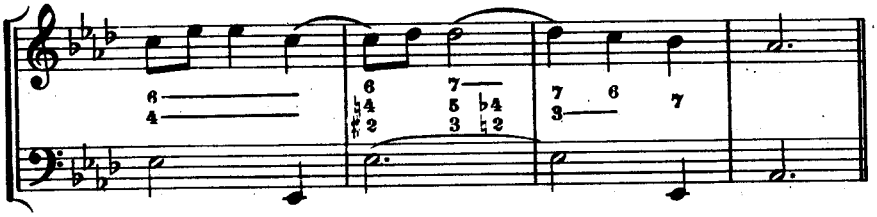




(5)





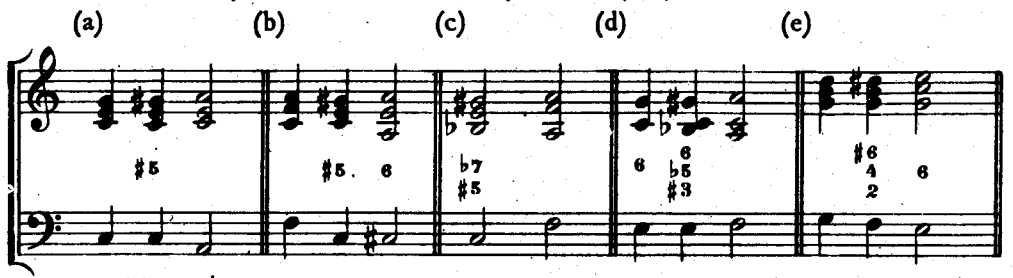


§ 10. THE REMAINING CHROMATIC CHORDS (THE AUGMENTED TRIAD; THE AUGMENTED SIXTH; THE NEOPOLITAN SIXTH)

(1) The augmented triad is a major triad with a sharpened fifth. This fifth resolves upwards. The chord is very commonly preceded by the 'natural' triad, which thus affords a kind of preparation for it; but such preparation is by no means inevitable (*a* and *b*).

This augmented fifth may also appear in the chord of the dominant seventh; in this case the fifth rises and the seventh falls, so that the third is doubled in the ensuing chord of resolution (*c*).

The inversions of these chords may also be used. They present no difficulty, provided the upward tendency of the raised fifth is fully realized (*d*, *e*).

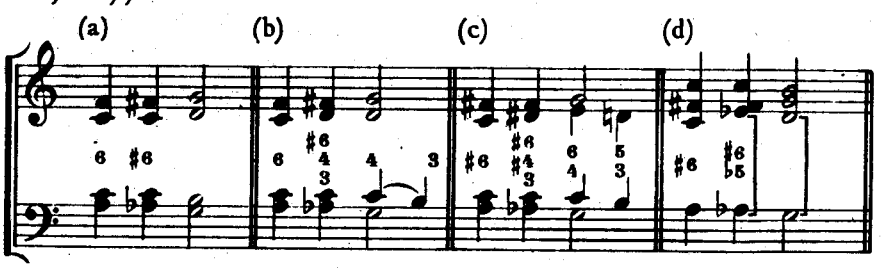


All positions of the augmented triad are satisfactory; but when the seventh is also present (as in *c*, *d*, *e*, above), it is best to keep the raised fifth in the top part.

(2) The chord of the augmented sixth is, essentially, a $\frac{6}{3}$ chord on the submediant, of which the sixth is raised and the submediant itself flattened, the third being doubled at the unison or octave. This is known as the 'Italian' sixth ((*a*) below).

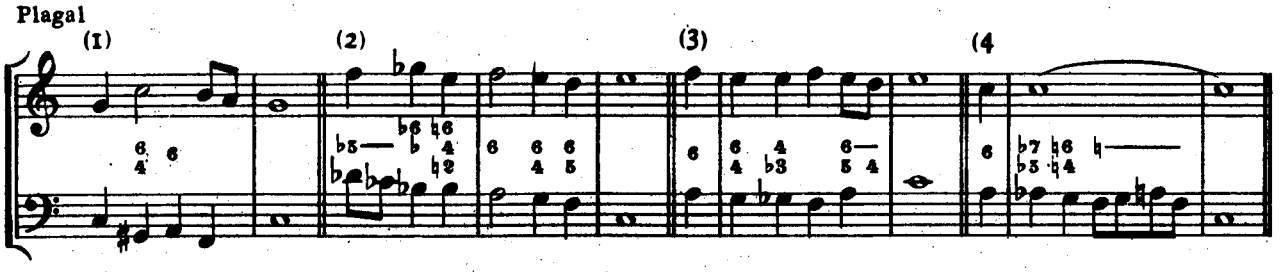
Sometimes the fourth is present as well as the third; the chord is then known as the 'French' sixth (see (*b*) below). Sometimes, again, the fourth is augmented, or written enharmonically as a perfect fifth; this is the 'German' sixth (see (*c*) and (*d*) below).

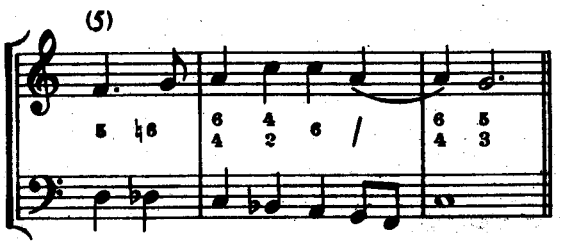
The resolution of all these is on to the dominant, either directly or via the cadential $\frac{6}{4}$. The latter is necessary in the case of the German 6th, if consecutive fifths are to be avoided. (The late Charles Wood always maintained that the fifths so arising are legitimate and even inevitable, but this view found scant favour in the eighteenth century (Arnold, 686).)



(3) The Neapolitan Sixth is the first inversion of the major triad formed on the flattened supertonic; the bass usually moves up to the dominant, the resolution again being either direct or via the cadential $\frac{6}{4}$ (*a* and *b*). Alternatively the bass remains to form a dominant $\frac{4}{2}$ (*c*):

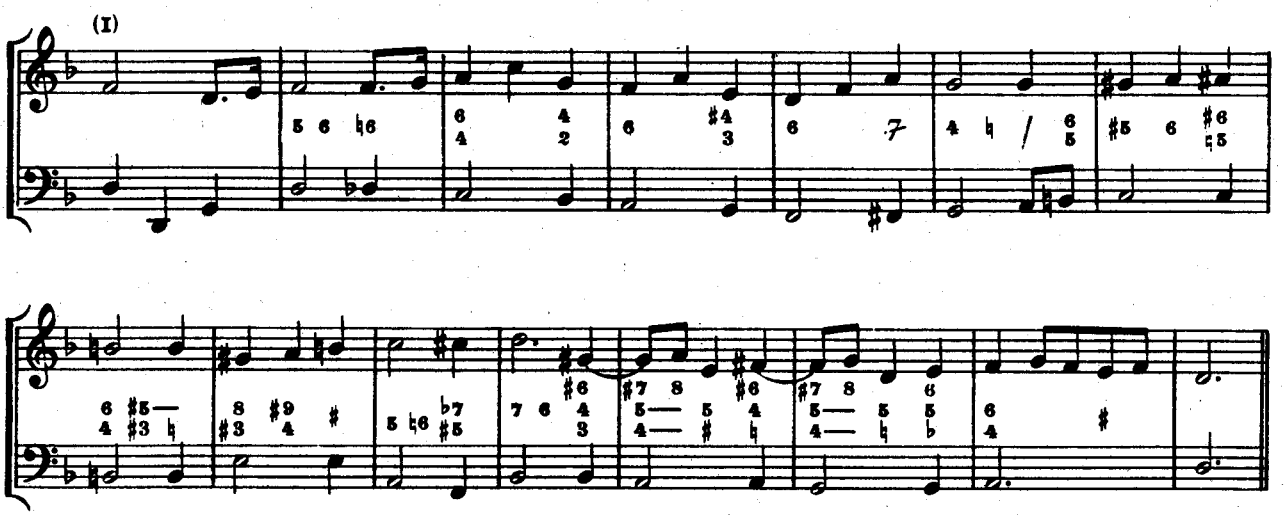
Plagal



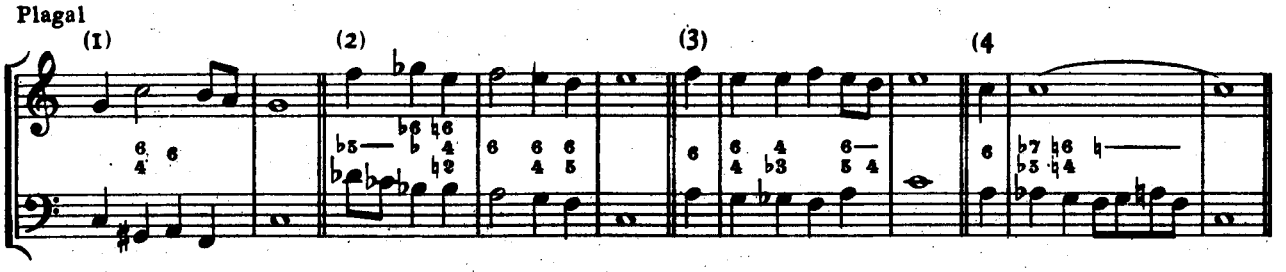


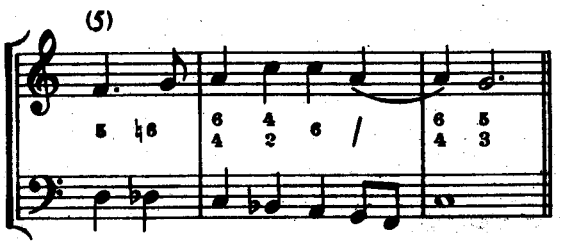
A sequence of augmented sixths would be even more deplorable than one of diminished sevenths.

C. Exercises:



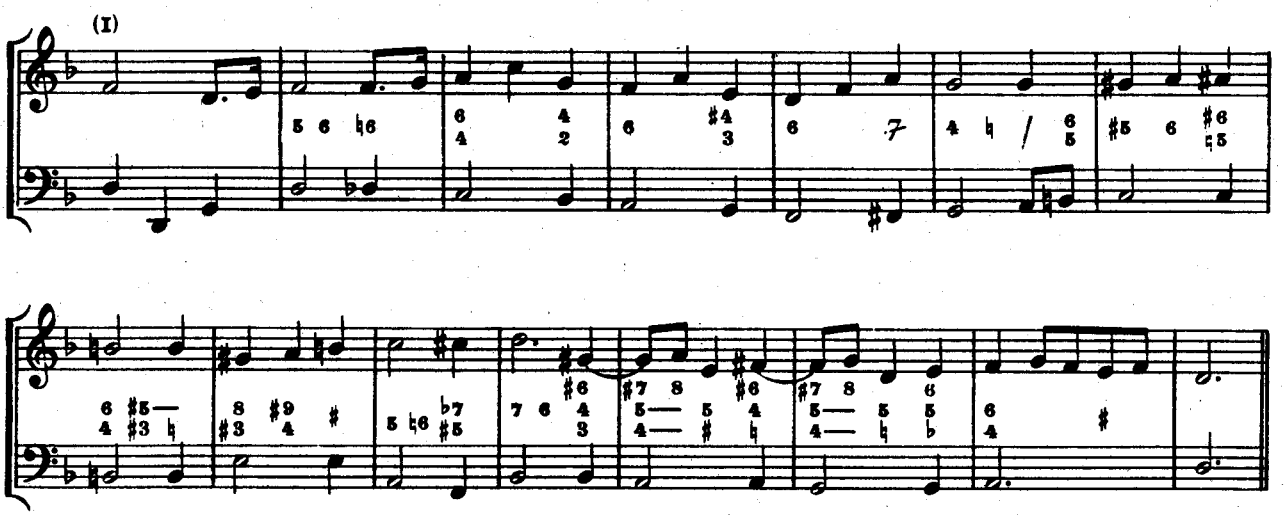
Plagal

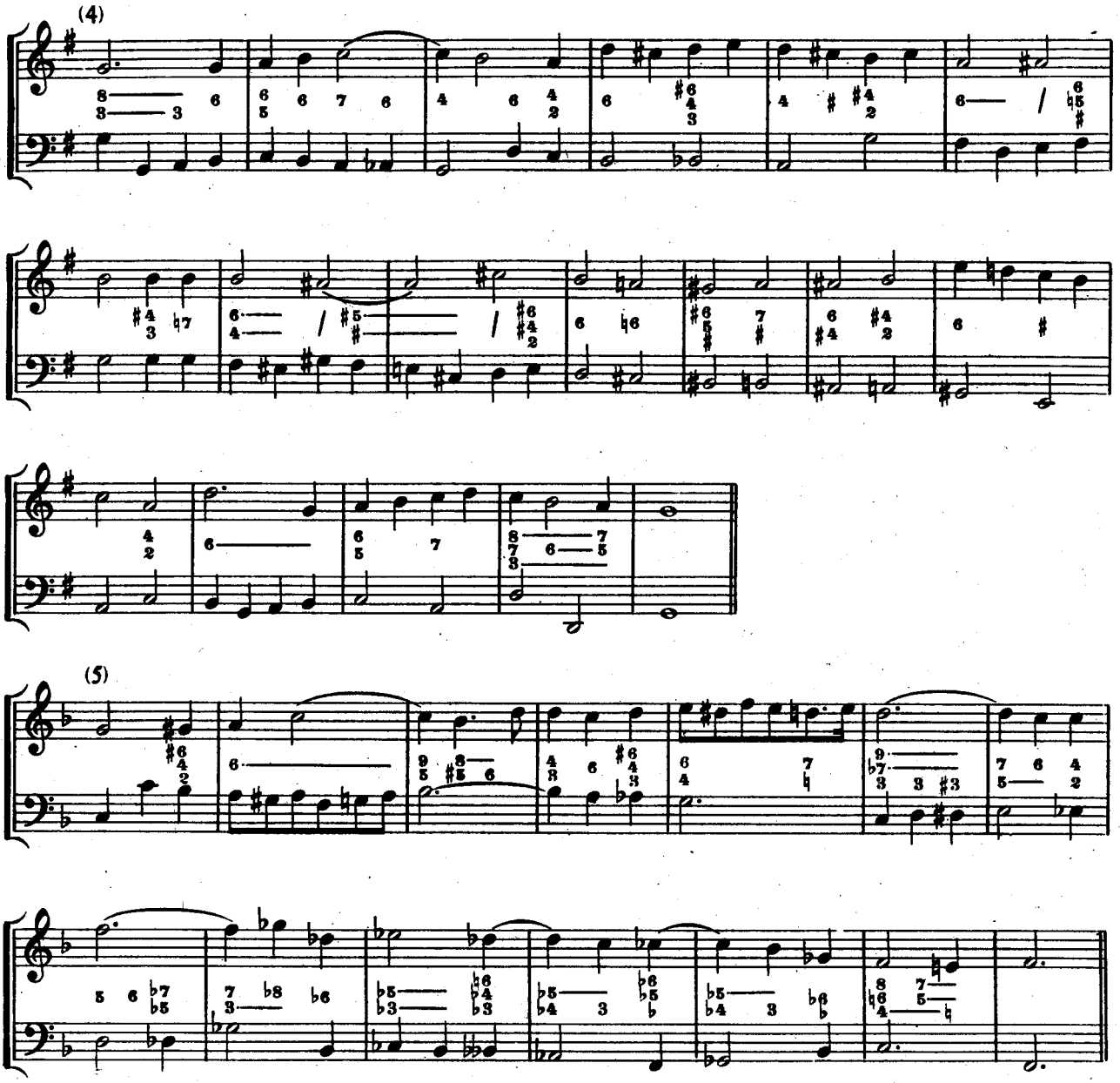


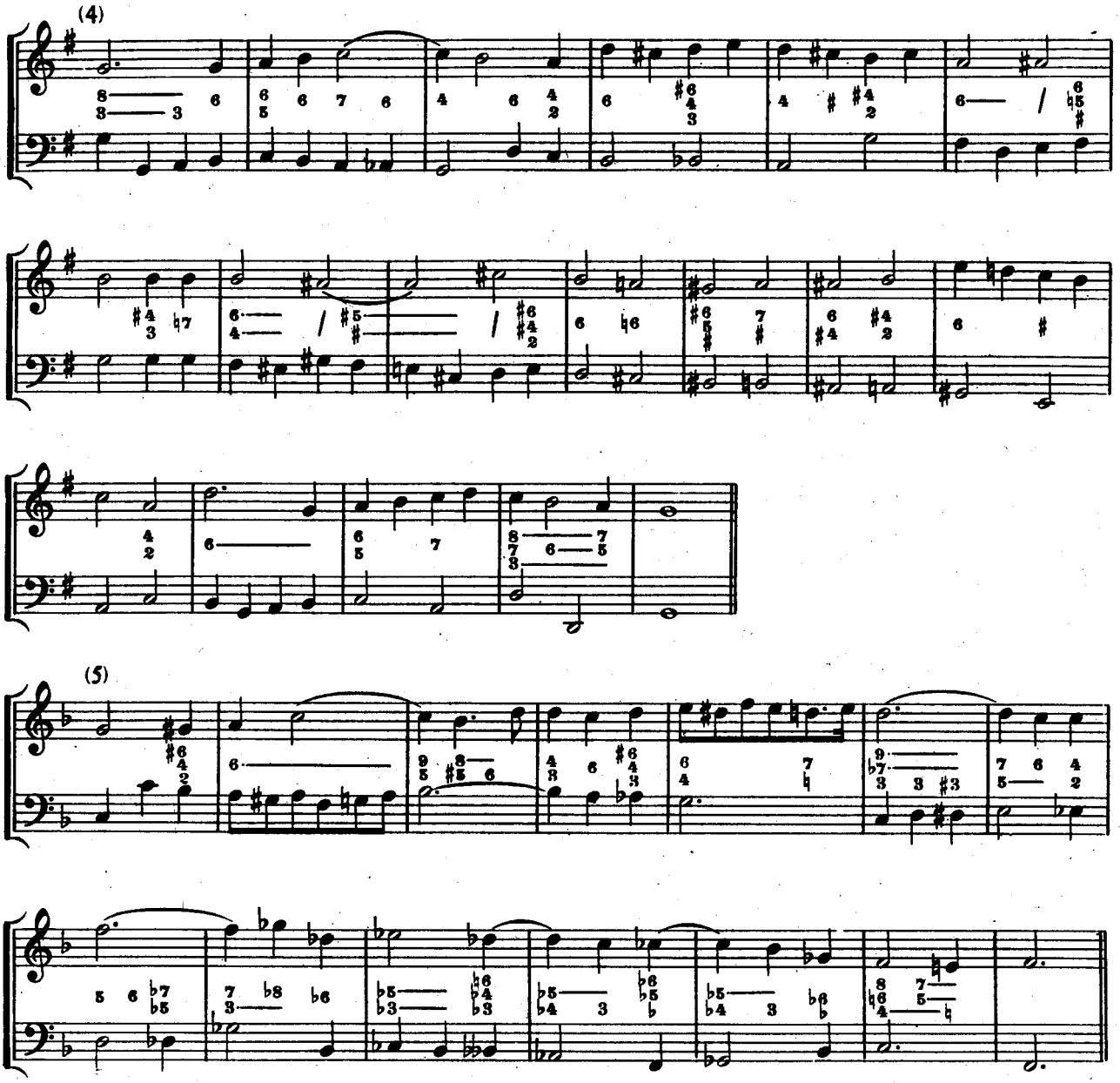


A sequence of augmented sixths would be even more deplorable than one of diminished sevenths.

C. Exercises:




(4)
(5)


(4)
(5)

§ 11. DOUBLE AND TRIPLE SUSPENSIONS

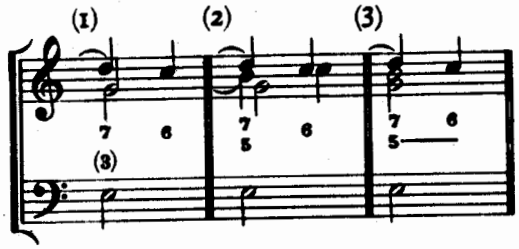
These do not differ in principle from ordinary single suspensions; the only difficulty lies in the figuration, for the more complicated suspensions naturally involve more elaborate figuring. I do not think it worth while trying to memorize every possible combination; the most commonly met with are:

Double: $\begin{matrix}9\\7\end{matrix}\ \begin{matrix}8\\6\end{matrix}$, $\begin{matrix}9\\4\end{matrix}\ \begin{matrix}8\\3\end{matrix}$, and $\begin{matrix}7\\5\end{matrix}\ \begin{matrix}6\\6\end{matrix}$ (or $\begin{matrix}7\\5\end{matrix}\ 6$).

Triple: $\begin{matrix}7\\4\\2\end{matrix}\ \begin{matrix}8\\3\end{matrix}$ and $\begin{matrix}9\\7\\4\end{matrix}\ \begin{matrix}8\\3\end{matrix}$

Of these, the $\begin{matrix}9\\7\end{matrix}$ is simply an ordinary dominant or secondary ninth treated as a double suspension (the same also often applies to such figures as $\begin{matrix}4\\3\end{matrix}$ and $\begin{matrix}6\\5\end{matrix}$: see above, § 7).

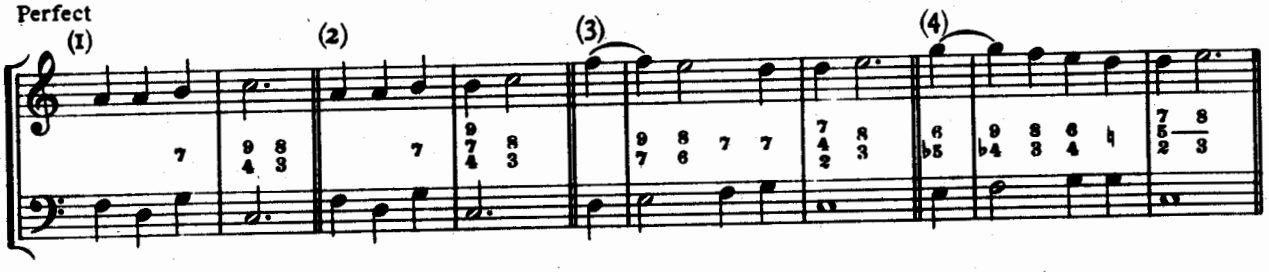
The $\begin{matrix}7\\5\end{matrix}$ is simple enough, but distinguish carefully:

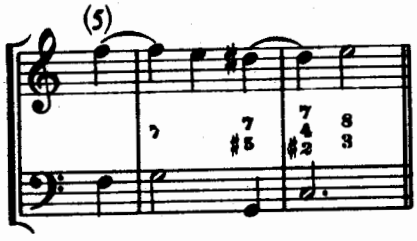


The $\begin{matrix}7\\4\\2\end{matrix}$ and $\begin{matrix}9\\7\\4\end{matrix}$ are really the same chord, the different figurings being used respectively according as the 2nd (or 9th) resolves up to 3 or down to 8. The figuring $\binom{8}{3}$ of the resolution does not necessarily mean that the 5th is to be omitted from this chord.

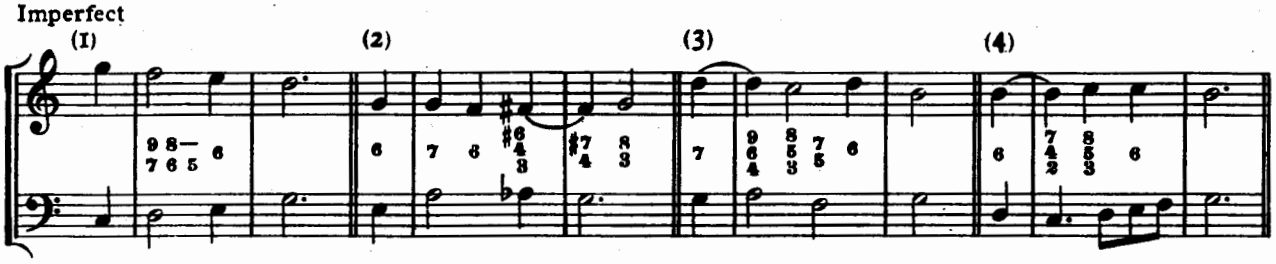
A. Cadences:

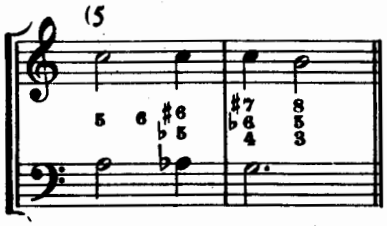
Perfect



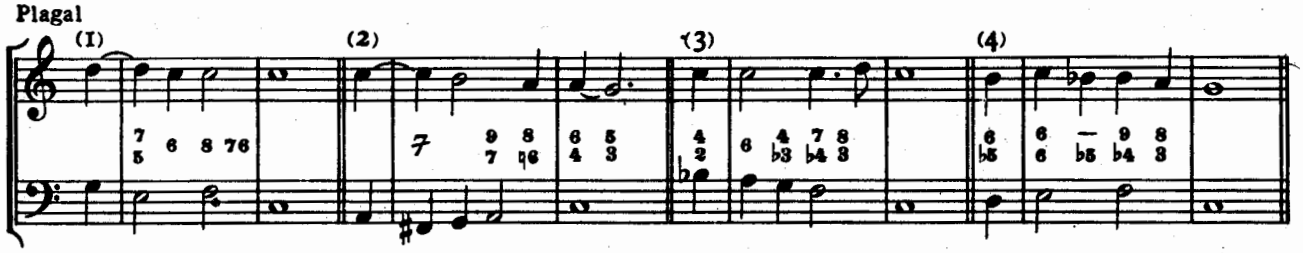


Imperfect

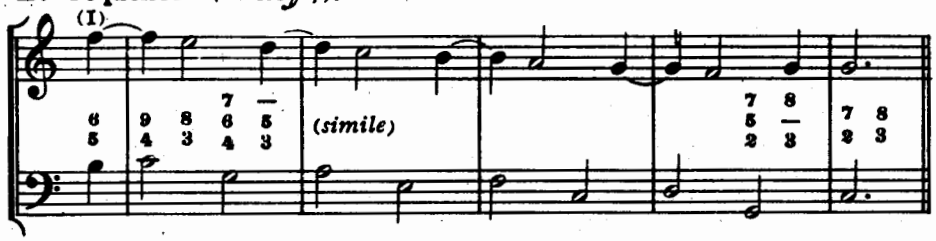


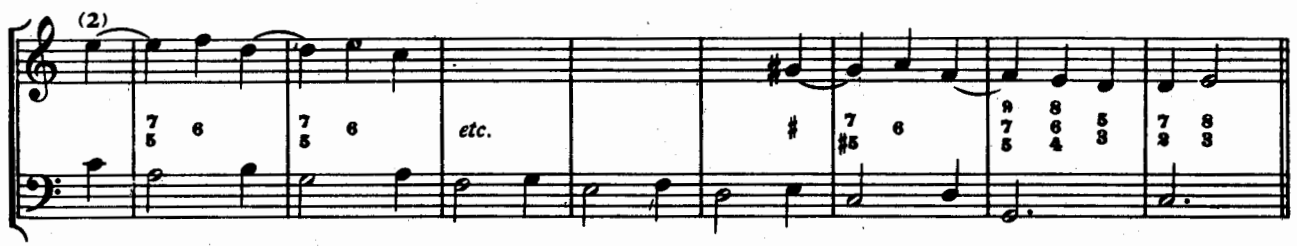


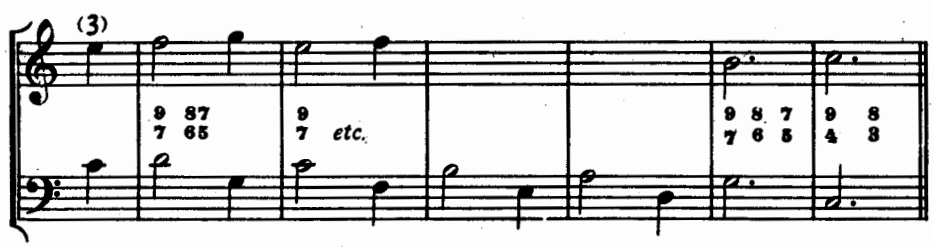
Plagal



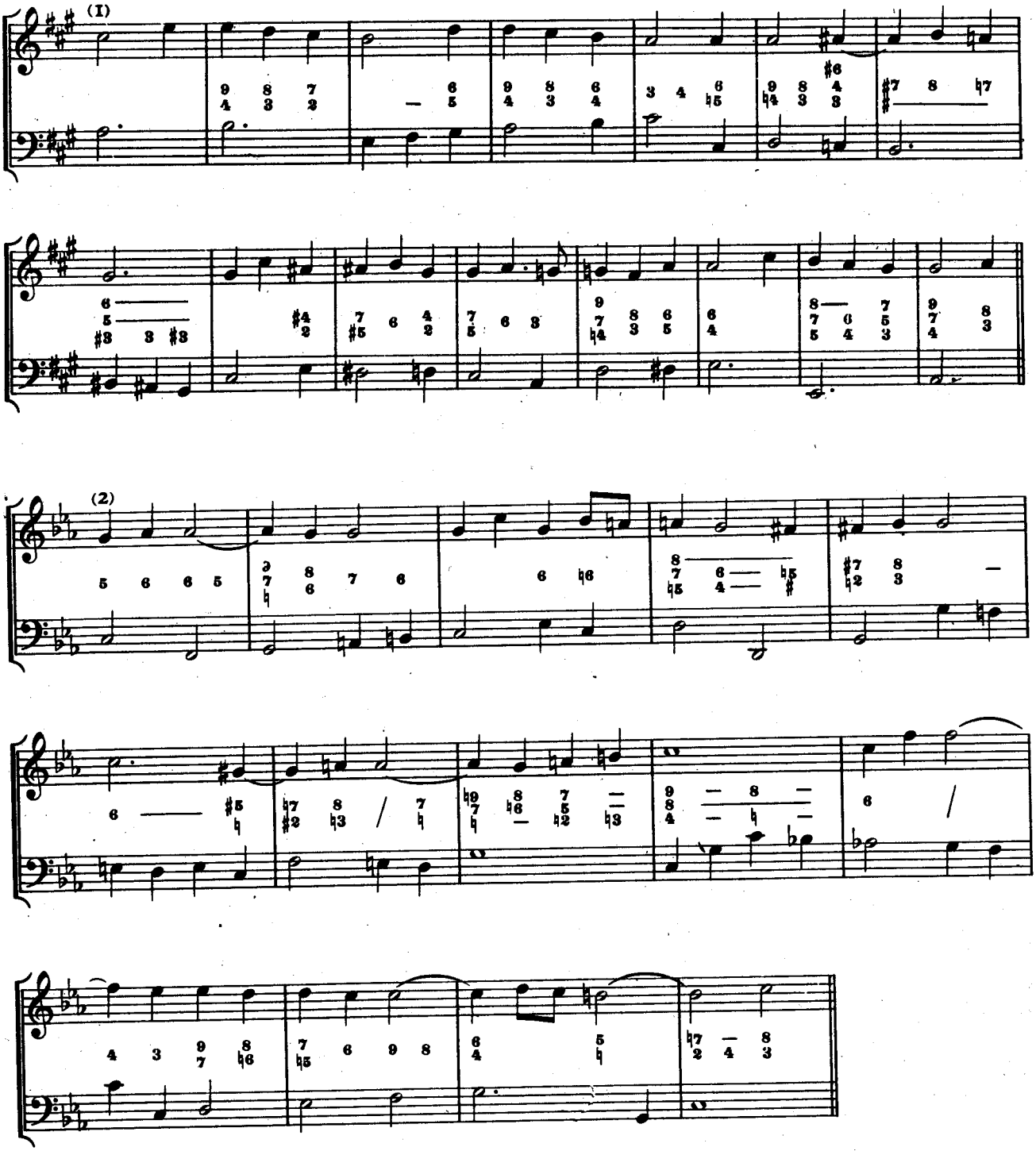
B. Sequences (cf. also ∫ 7):

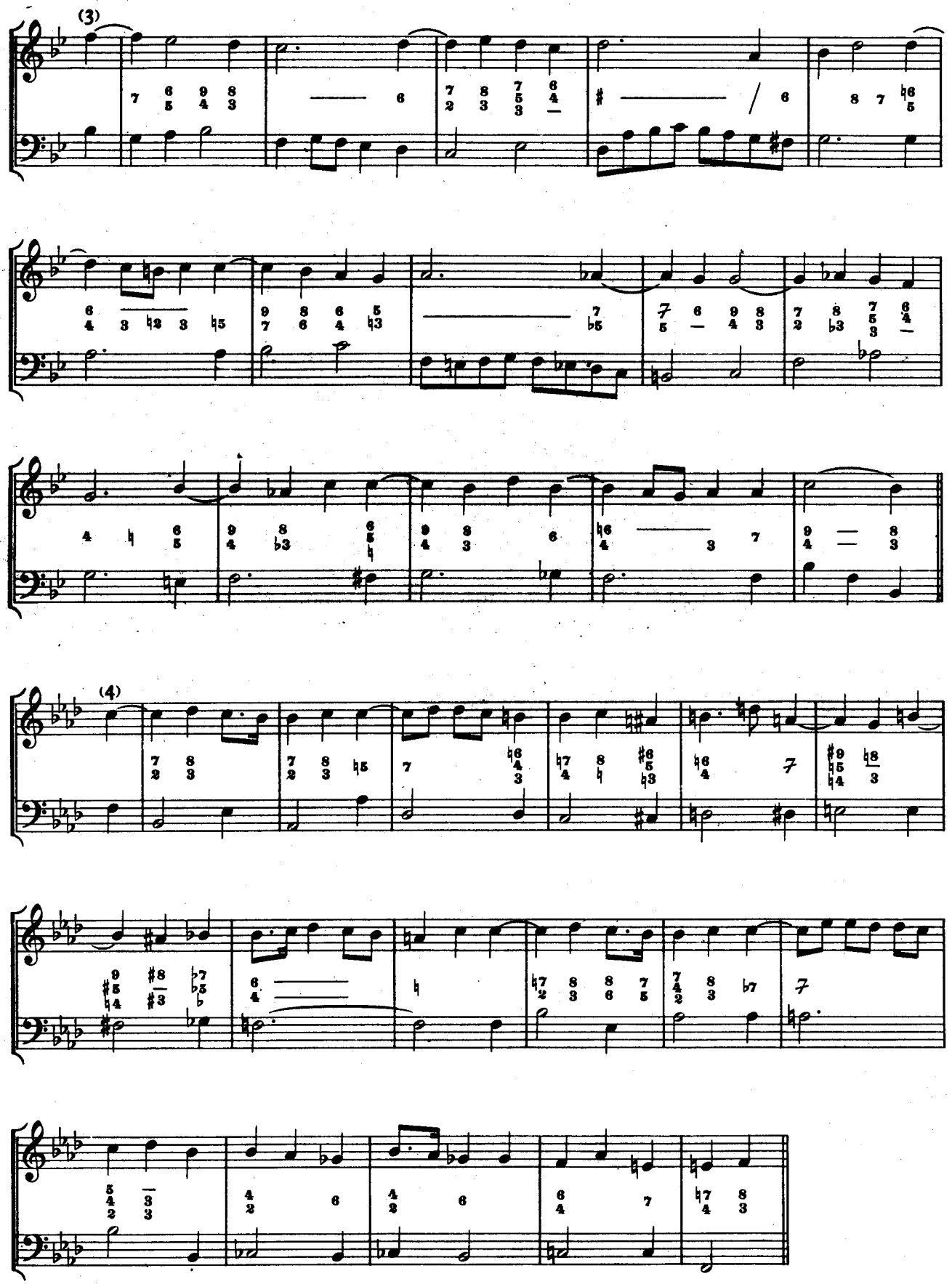






C. Exercises:




(3)
(4)

§ 12. RESTS IN THE BASS

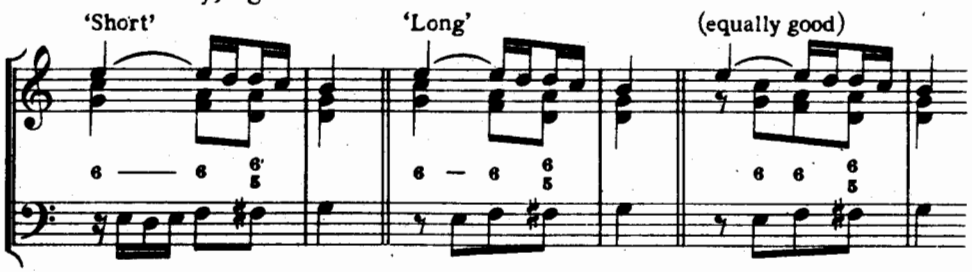
The question here is not of long rests, such as half or whole bars or longer periods. These present no difficulty; the harmony is completed for the time being by the upper voices, and the *continuo* player has merely to count his beats till his next entry. Our concern here is with short rests, i.e. rests of a single beat or some still smaller duration.

First, it must be understood that 'short' and 'long' in this connexion are relative terms. If the given part contains a fair proportion of semiquavers, or (still more) of demi-semiquavers, the quaver is, relatively speaking, a 'long' note, which will normally require its own harmony. In *alla breve* time, on the other hand, semiquavers are rare, and the quaver, and even the crochet, have to be considered as 'short' notes.

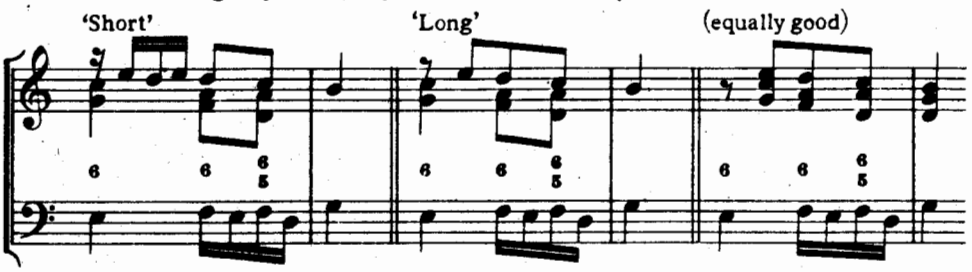
This borne in mind, the following general rule will be found useful:

If the rest, and the note or notes following it, are 'short', it is best to sound the rest of the chord together with the melody note.

If the rest is 'long', the rest of the chord may still be sounded with the melody note, or the melody note may be sounded by itself, and the rest of the chord sounded together with the bass entry, e.g.:



The same holds good, *vice versa*, of rests in the melody:



A very little experience will enable the student to decide which of the two latter is best in any given context. In the above example there is nothing to choose between the two, but the player must always be guided by circumstances.

It will be noticed that:

(1) The figure(s) indicating the chord may be vertically aligned either with the rest itself or with the note immediately following it.

(2) The dash following the figure, here as elsewhere, gives invaluable help to the performer in showing the duration of a particular chord. It must be said, however, that in actual eighteenth century notation, composers were lazy about this, and ambiguities often arise which could have been prevented by means of the dash. This occurs not only in connexion with rests, but with regard to figured-bass in general. The following hints given by Dr Dunstan (*Basses and Melodies*, pp. 156-7) are well worth keeping in mind.

§ 12. RESTS IN THE BASS

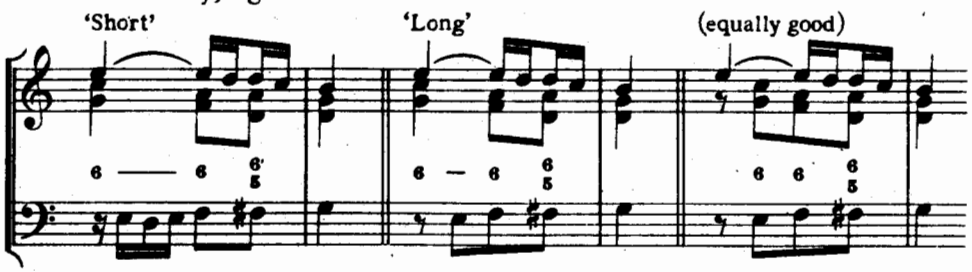
The question here is not of long rests, such as half or whole bars or longer periods. These present no difficulty; the harmony is completed for the time being by the upper voices, and the *continuo* player has merely to count his beats till his next entry. Our concern here is with short rests, i.e. rests of a single beat or some still smaller duration.

First, it must be understood that 'short' and 'long' in this connexion are relative terms. If the given part contains a fair proportion of semiquavers, or (still more) of demi-semiquavers, the quaver is, relatively speaking, a 'long' note, which will normally require its own harmony. In *alla breve* time, on the other hand, semiquavers are rare, and the quaver, and even the crochet, have to be considered as 'short' notes.

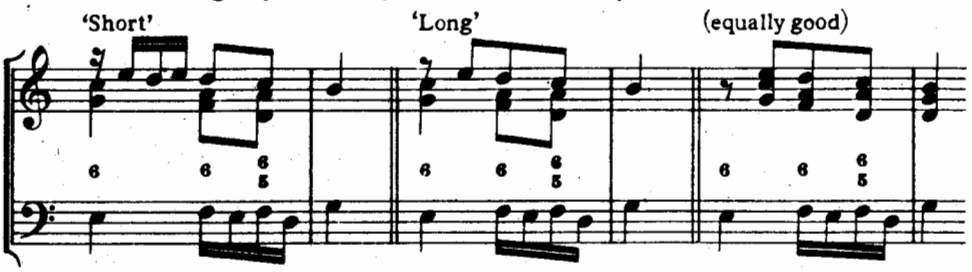
This borne in mind, the following general rule will be found useful:

If the rest, and the note or notes following it, are 'short', it is best to sound the rest of the chord together with the melody note.

If the rest is 'long', the rest of the chord may still be sounded with the melody note, or the melody note may be sounded by itself, and the rest of the chord sounded together with the bass entry, e.g.:



The same holds good, *vice versa*, of rests in the melody:

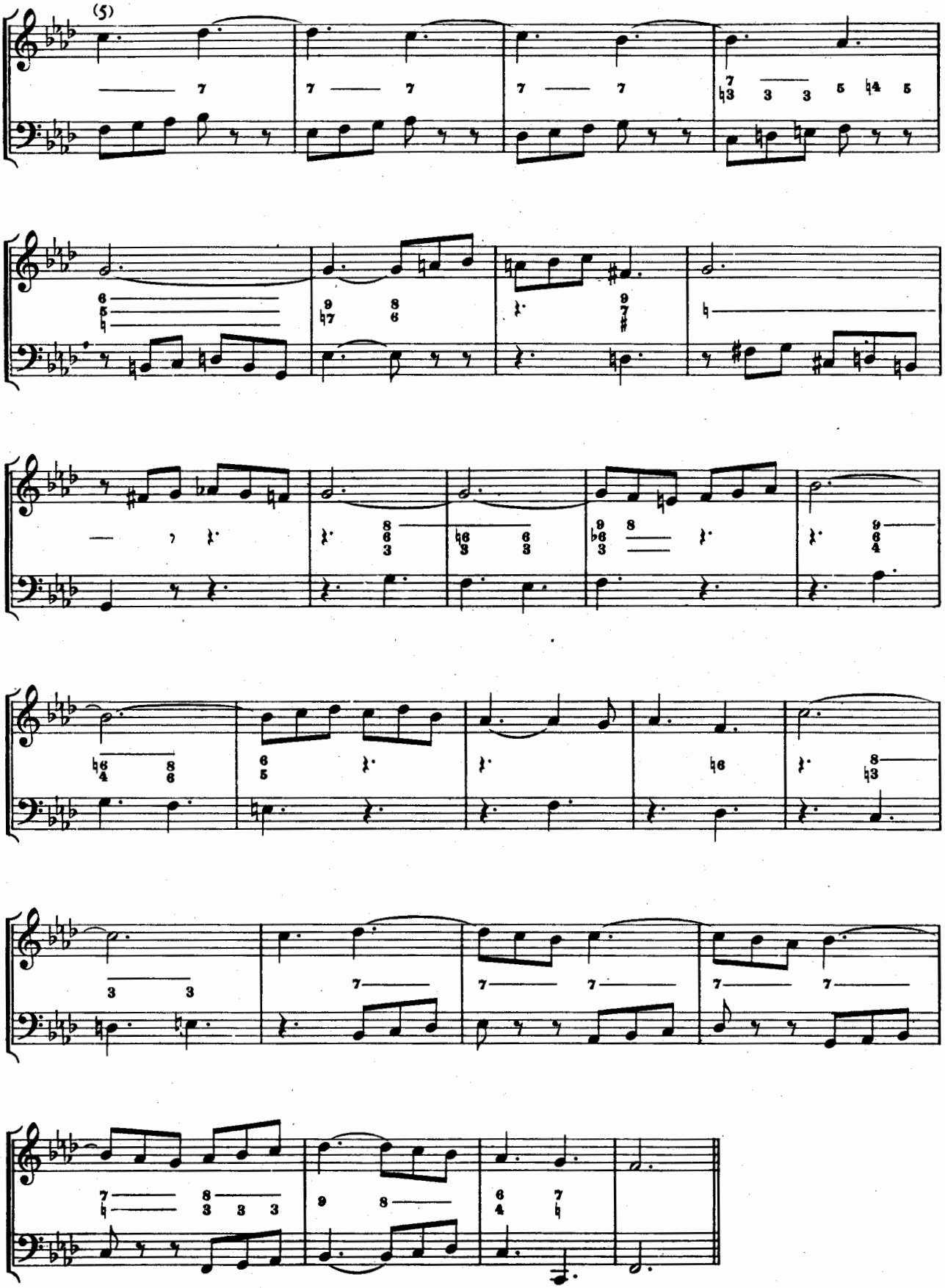


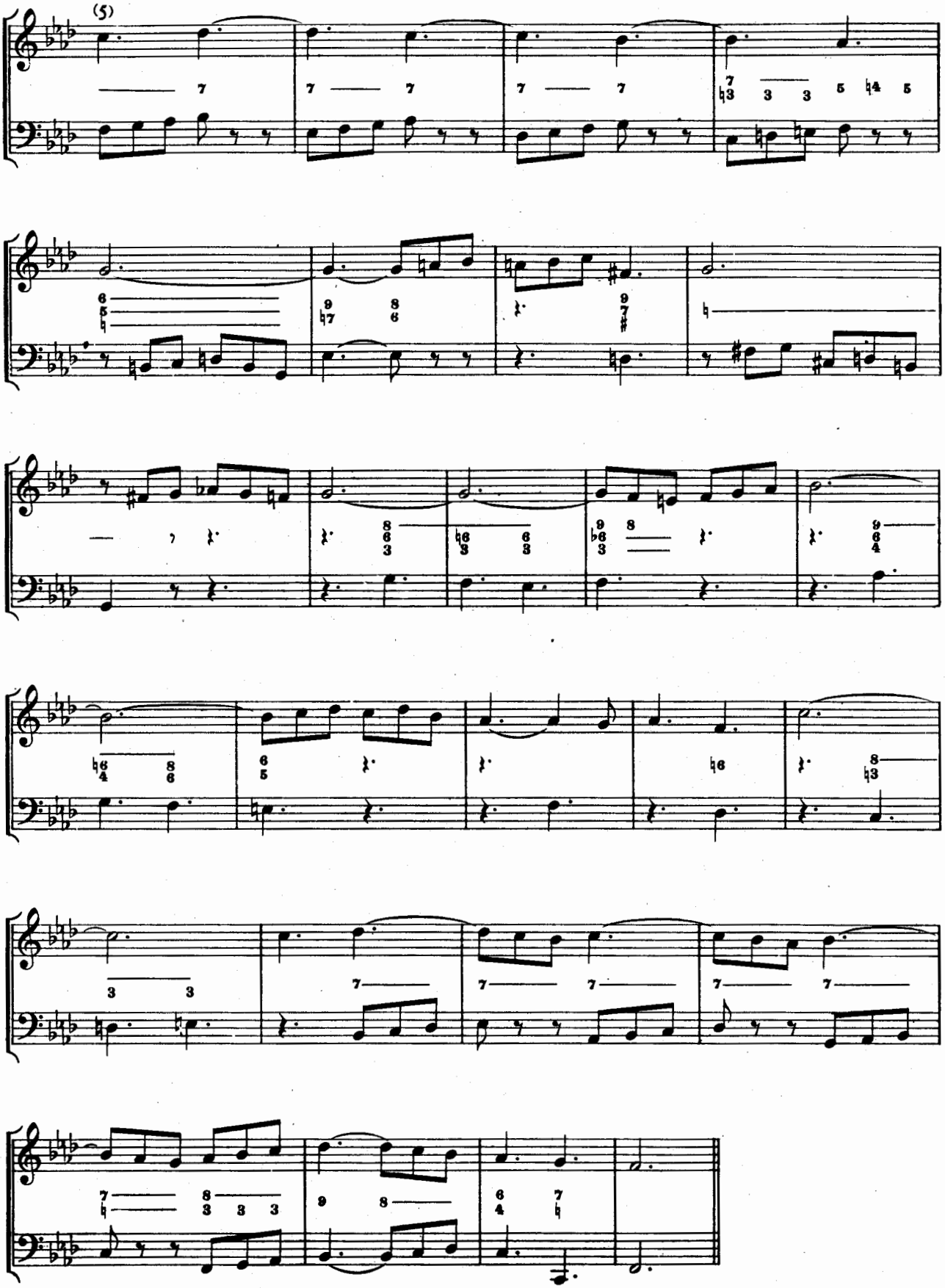
A very little experience will enable the student to decide which of the two latter is best in any given context. In the above example there is nothing to choose between the two, but the player must always be guided by circumstances.

It will be noticed that:

(1) The figure(s) indicating the chord may be vertically aligned either with the rest itself or with the note immediately following it.

(2) The dash following the figure, here as elsewhere, gives invaluable help to the performer in showing the duration of a particular chord. It must be said, however, that in actual eighteenth century notation, composers were lazy about this, and ambiguities often arise which could have been prevented by means of the dash. This occurs not only in connexion with rests, but with regard to figured-bass in general. The following hints given by Dr Dunstan (*Basses and Melodies*, pp. 156-7) are well worth keeping in mind.


(5)


(5)