OPULAR HANDBOOK
OF
USICAL INFORMATION

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AUGENER LTD., LONDON

AUGENER'S EDITION No. 10116.

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OF

MUSICAL INFORMATION

BY

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LONDON: AUGENER LIMITED.

AUTHOR'S PREFACE.

THE *Musik-Führer* was published with the object of making the music-loving public better acquainted with the masterpieces of ancient and modern times by means of essays, intelligible to all, and illustrated by examples. This *Popular Handbook* will furnish the answers to the greater number of questions which present themselves to the thinking public when listening to the performance of musical works.

With this end in view, this little work, written for the educated amateur, and particularly for the concert-goer, will contain an outline of the history of music, general information on the elements of music and form, and an essay on the most important instruments, their employment, etc. A catalogue of contents is combined with a glossary of musical terms, names of musicians and writers on music, etc., with explanations and remarks.

It is self-evident that the separate articles can be in no sense exhaustive ; they can only present the most necessary information in the clearest possible manner. Nevertheless, in the following chapters many things must be mentioned which, if they are to be intelligible to the reader, render it necessary to go back to the beginning. The aim has been so to educate the amateur, that he may, in future, be in a position to comprehend, as a work of art, as a consciously felt whole, that which he has hitherto allowed to impress him unconsciously ; to

feel its relationship to nature and to the history and development of music; in a word, he will learn to listen consciously and intelligently.

The reader will not only glean information from this little book, he will, above all, be spurred on to penetrate more deeply into musical science, and to become better acquainted with the glorious creations of the great masters. If it should appear to the reader that we have here and there gone too far into detail he must remember the words of Goethe:

"If you would enjoy the whole, you must perceive the whole in the smallest part."

THE AUTHOR.

TRANSLATOR'S NOTE.

THE Author in many cases devotes only a few words to subjects which cannot be made intelligible to the reader under such circumstances. It would perhaps have been better to avoid touching upon them at all, but it has been thought advisable not to alter anything in the course of the work. The translator has, therefore, in some cases supplied additional information, and in others has referred the reader to works in which he can study at greater length what has only been glanced at by the Author. All notes or interpolations by the translator are enclosed in brackets [ ].

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POPULAR HANDBOOK OF MUSICAL INFORMATION.

PART I.

HISTORY OF MUSIC.

THE History of Music may be divided into three periods, each distinguished by important developments in the theory and practice of music.

A. *The Ancient Period* (to the 9th or 10th century after Christ), the period of "Homophony" (unison). The ancients knew "Polyphony" only in the form of unison, or doubling in the octave.

B. *The Middle Ages* (to the end of the 16th century), the epoch of the development and perfection of polyphonic vocal music, and the development of musical notation.

C. *The Modern Period* (during the 16th century), development of instrumental music (about 1600), accompanied melody, and harmony.

The Ancient Period.

Concerning the practice of music by the ancients we have a certain amount of detailed information, but of their compositions little remains. We are well informed, on the other hand, concerning their musical instruments and notation, also concerning the theory of music, owing to the minuteness of all the accounts of ancient times.

The Egyptians. That music must have played a not unimportant part amongst the ancient Egyptians is proved by the pictorial representations on sarcophagi and tombs, as well as by the narratives of the Greek authors of a later period.

Among the instruments of percussion are rattles, drums (either in the form of an egg, flattened at the ends, or of a small barrel, covered with the skins of animals, which are played with the hand or with drumsticks, and are carried crosswise), large drums, cymbals, etc. They also possessed wind instruments: flutes with five holes, held straight from the mouth or transversely; double flutes, the two pipes of which separate from each other at the mouth of the player, at an acute angle; their trumpets, whose tone Plutarch compares to the "bray of an ass," are mostly conical in form, the tube suddenly widening to a bell. The harp is the representative string instrument, together with instruments of the mandoline and lute kind. The development of the harp can be traced through all ages from the most primitive form to the most elaborate, with decorations and paintings.

Of the tone-system of the ancient Egyptians next to nothing is known. They employed music in their religious services; the burial of the dead, pageants, dances, weddings, were all rendered more impressive by the employment of music. According to the accounts of Greek authors, the music of the Egyptian people appears to have been of a cheerful kind.

The Chinese had, and still have, an enormous number of instruments of percussion of all kinds: bells, plates (of all kinds of materials) suspended on frames and tuned in a certain manner, drums small and large, and the well-known tam-tam. Here, also, we find flutes (Pan's Pipes) and other very remarkable wind instruments of strange appearance. Only two string instruments are to be met with, which, however, are held in high esteem (silk strings over flat resonance boxes, resembling the modern zither).

Their music-system, like all music-systems in their early stage, is known to have been based on a diatonic scale, which originally consisted of only five sounds, and lacked the semitone step; later, however, it was extended to a diatonic scale of seven degrees.

The notation of the Chinese is borrowed from the characters of their written language, and for the uninitiated is not recognisable as music notation.

The Indians also possessed in the most ancient times a diatonic scale of seven sounds, for which they used a notation apparently based on Sanscrit characters. By difference of arrangement the Indians formed with this tone-material thirty-six different scales. Probably at a later period they divided the octave into twenty-two parts, and made a distinction (only theoretically, however) between large and small tones and semitones.

The Indians had, besides various percussion and wind instruments, a very important instrument, the "Vina," the attribute of the God of Music (Nareda); it consisted of a cylindrical body with seven metal strings over nineteen frets or bridges. Another string instrument (played with a primitive bow) called "Serinda" or "Ravanastron" exists in India, and would, if absolute proof of the date of its invention could be produced, rank as the most ancient instrument of the violin kind; it is, however, the general opinion that the latter instrument, together with one resembling the guitar (Majondi), originated with the Arabians or Persians.

The Arabians possessed a tone-system of seventeen sounds (with third-tones), the intervals being of strikingly accurate intonation. The Arabic-Persian theory of music is so far worthy of note that in it the consonance of thirds and sixths was asserted, these intervals ranking as dissonances according to the theory of the West, at that time based on the Greek theory of intervals. The Arabic-Persian theory of music (theory of measurement) expresses the size of intervals by the numerical ratio existing between the length of the string producing the lower note and that of the string producing the higher note. Numbers were

employed for the writing and naming of sounds, but no system of notation by their means, serviceable for the practice of music, has come down to us.

We are indebted to the Arabs for the kettle-drum and glockenspiel, but particularly for the lute, whose Arabic name, "Al'ud" (so strongly resembling "aloe wood,") points to the popularity of this instrument among the Arabs. We have descriptions of the lute from the 10th century. The Arabs possessed several primitive string instruments (Rebec or Rubeb, Rebab, and Kemangeh), which have had no influence on the development of the string instruments of to-day.

The Greeks looked upon music not only as an accessory to public worship, or as a pastime for the aristocracy, but as an independent art to be cultivated for its own sake ; and they made it a part of education. The ethical influence of music was more highly appreciated by them than is the case at the present time. The tone-system of the Greeks was closely connected with their poetry, the ancient metres regulating their vocal as well as their instrumental music. It must not be assumed (as some investigators attempt to prove) that the Greeks possessed polyphony in our modern sense ; we undoubtedly have many reasons for coming to the conclusion that their polyphony consisted, whether in choral singing, accompaniment, or solo songs, only of unison or doubling in the octave. Unfortunately detailed reference to the music system of the Greeks, with its scales built on the basis of the tetrachord, is impossible within the compass of this little work ; the subject will, however, be brought under the notice of the reader in the following chapter on the old church modes. Among the instruments of the Greeks are the Lyre, Kithara, Phorminx, Magadis and Trigonon (all string instruments more or less alike), the flute, the trumpet, [Salpinx] and other instruments of no artistic value.

Ptolemy describes an important instrument, the Monochord, which was employed for the testing of intervals ; it consisted of a long sound box with a

string stretched over a movable bridge (one of the forerunners of our pianoforte).

The Semeiographic notation [a notation of signs] was highly developed, and borrowed its signs from their alphabet. The notation of vocal and instrumental music was not the same, and to the uninitiated appears anything but simple.

The Middle Ages.

1. The Tone-System.

Church Modes.—As we found it impossible in the preceding section to go further into the question of the tone-system of the Greeks, we at once introduce the reader to the "octave-system" of the Middle Ages, the so-called church-modes, which in those days played the part of our modern tone-system. The tone-system of the Greeks and that of the Middle Ages have this in common, that both are unlike our modern tone-system.

Tetrachord.—The Greeks built their tone-system (before it was complicated by the influence of the chromatic and enharmonic elements of later days) on the basis of so-called *Tetrachords.* (Tetrachord was originally the name of the four-stringed lyre of the Greeks; the four strings were tuned in four conjunct notes). A tetrachord is a succession of four sounds within the compass of a fourth. Two tetrachords of similar construction being placed one after the other resulted in a succession of eight sounds, which received their names from the grouped tetrachords; *e.g.*, the series of notes E♭F♮G♮A ‖ B♭C♮D♮E consists of the tetrachord E⌢F G A and the tetrachord B⌢C D E. Both tetrachords are identical in construction, their sounds being arranged in the order of one semitone and two tones. A Tetrachord thus constructed was called a *Dorian Tetrachord* (*see* p. 6), and a scale resulting from two such tetrachords in succession was called a *Dorian Scale.* A *Phrygian* tetrachord consisted of tone, semitone, tone. A Lydian tetrachord of tone, tone, semitone. New scales were added later, by re-modelling, to those already in existence, but they need not be considered here.

In the earliest period the Dorian tetrachord was the standard, and thus became the basis of the whole Greek tone-system, which was compiled by grouping and blending Dorian tetrachords. Out of the system thus formed, it became possible to construct new scales by means of slight changes.

Connected with these ancient scales, we find in the earliest ages of the Byzantine Church an "octave-system" or scale-series which, without claiming to be a "scale" in the modern sense, reaches from one note to its octave above.

How these scales were in course of time modified, borrowed by Western Europe, and again much altered, we have not space here to describe. Enough that henceforth the Western Church possessed a similar octave-system, which has been traced back to Ambrose, Bishop of Milan (born at Trèves, A.D. 333; died at Milan, A.D. 397).

The oldest of these scales lack both key signatures and accidentals, and their individuality consists entirely in the position of the tones and semitones; for instance, the first Church mode, called the "Dorian scale" or "Dorian mode," was represented by the scale-series from D to D:

D E⌢F G A B⌢C D.

and was distinguished from every other scale-series by the position of the semitones, which occurred between the 2nd and 3rd, and 6th and 7th degrees of that scale; every scale-series so constructed was a Dorian scale. In later times (the original scale material, which we will hereafter describe, not being found sufficient) these scales were transposed, *i.e.*, the scale-series belonging to one particular note was made to start from another note. In order to make the scale-series F—F into a Dorian scale, it was only necessary to choose such a signature as would cause the semitones to fall in the right place, viz.: F, G⌢A♭, B♭, C, D⌢E♭, F; this is therefore a *transposed* Dorian scale.

Thus, if we meet with an old chorale, which is throughout in no modern scale, we know we have to do with one of the church modes, or a transposed

church mode; *i.e.*, the composer has from a chosen note constructed a certain church mode, and, in order to give the right succession of tones and semitones, has employed the necessary accidentals.

A composition, which is written in a certain church mode, must begin and end with the note which, as we shall see, is the key-note or "final." Later, it was permitted, exceptionally, to begin on the 3rd or 5th from the key-note, also cadences in the middle of a composition might indicate modulations; with few exceptions, however, the close of the whole composition on the final remained the rule.

The following is a list of the scales in use at that period; the original scales are those marked 1, 3, 5, 7. The slurs show the position of the semitones:—

Authentic Modes.—Church Modes.

1.	D	E⌒F	G	A	B⌒C	D		Dorian		
3.	E⌒F	G	A	B⌒C	D	E		Phrygian		*Authentic* (from the Greek word signifying "ruler.")
5.	F	G	A	B⌒C	D	E⌒F		Lydian		
7.	G	A	B⌒C	D	E⌒F	G		Mixolydian		

In order to have at disposal a larger number of scales (before transposition or change of signature was thought of), new scales were developed out of those already existing, in the following manner.

Let us consider these scales as divided into two scale-series, one of five notes and another of four notes, *e.g.*, the scale from D to D as divided into one series, D to A, and another series, A to D (A being common to both); we place the series A–D under the series D–A, and the result is a new scale A to A. Re-arranging, in this way, the other "authentic" scales or modes, we obtain the "plagal" scales or modes, the invention of which is attributed to Pope Gregory the Great.

Plagal Modes.—Church Modes

2.	A	B⌒C	D	E⌒F	G	A		Hypo-dorian		*Plagal* (from the Greek word signifying "collateral")
4.	B	C	D	E⌒F	G	A	B	Hypo-phrygian		
6.	C	D	E⌒F	G	A	B⌒C		Hypo-lydian		
8.	D	E⌒F	G	A	B⌒C	D		Hypo-mixolydian		

Later were added C to C (Ionian), and A to A (Æolian), with their plagals G to G, and E to E.

The key-note (final) of an authentic scale was the note on which the scale began, whilst the key-note (final) of the plagal scale was the initial note of the authentic scale out of which the plagal was formed (always the 4th degree of the plagal scale).

B quadratum, B rotundum.—As we have already pointed out, the ancients used no accidentals. The first to be employed was a flat before the note B, introduced in order to avoid the melodic progression F–B, an augmented 4th. To obtain a perfect 4th instead of an augmented 4th, the ♭ (B quadratum = square B, B ♮, also called B durum = hard B) was lowered a semitone, changing B quadratum into B rotundum (♭) = round B, B ♭, also called B molle = soft B. [Hence the use, by the Germans, of the letter h or H, (h = square B), for the note B, and the use, by the French, of the word *bémol* = flat.]

The transposition of the church modes, gradually becoming necessary, led to the use of several sharps and flats, but a long time elapsed before the permanent key-signatures were placed at the beginning of a movement as they are to-day.

The old church modes were eventually superseded by the scales mentioned above as being added later, the Ionian authentic scale C to C, and the Æolian authentic scale A to A, *i.e.*, our C major and A minor scales. It was from these two scales and their plagals that our modern tone-system was developed, becoming the basis of harmony as we know it. The appearance of the Ionian and Æolian scales occurred in the middle of the 16th century, and the introduction of our modern keys in the 17th century.

Ambrosian and Gregorian music. — It may be mentioned that Bishop Ambrose introduced into Italy the "*Hallelujah*" and the "*Antiphon*" for two choirs, probably also the "*Responses*" (songs divided between priests and people), and that he himself composed hymns. Gregory (died A.D. 604) is said to have

selected and reformed the materials of church music. Although the terms "Gregorian" and "Ambrosian" are applied to the church music of these respective periods, it is not possible to discover any radical difference between the two. In course of time the earlier rhythmic character of Gregorian song stiffened into a monotonous succession of notes of equal length (*cantus planus* = plain song), although we must assume that, even in those days, the text, influencing by its natural accent the rhythm of the melody, never allowed the notes composing it to be absolutely of equal length.

Hexachords and sol-fa syllables.—Finally we must mention the sol-fa syllables as names for notes. They existed at the period of the church modes; and their introduction is attributed to the monk Guido of Arezzo (born *c.* A.D. 995—1050) who used them in teaching singing. He divided the entire tone-system into groups of six sounds, "*hexachords.*" The six notes of the hexachord he designated by the syllables Ut, Re, Mi, Fa, Sol, La (about A.D. 1030). In Italy and France these note names are still in use, another syllable (Si) being added for the 7th sound: Ut, Re, Mi, Fa, Sol, La, Si. In Italy [and sometimes also in France] the syllable Do is used instead of Ut.*

2. Notation.

One of the most interesting subjects in the whole range of musical history is the development of musical

*The syllables are the initial syllables of the lines of a hymn to St. John:

Ut queant laxis
Re-sonare fibris
Mi-ra gestorum
Fa-muli tuorum
Sol-ve polluti
La-bii reatum
Sancte Johannes.

It must be mentioned that although in France and Italy these syllables are simply used as names for the notes C, D, E, etc., Guido used them for the different degrees of his hexachords, on whatever note they started, Ut 1, Re 2, Mi 3, Fa 4, etc., and he must therefore be considered as the originator of the tonic sol-fa system.

notation. In the following chapter we will take a cursory view of the most important facts concerning the origin and growth of our modern notation.

The notation of the ancient civilized peoples consisted, as we know, mostly of *letters* of the alphabet used as signs for the noting down of musical sounds. The letters served the purpose theoretically, but when it became a question of singing a melody from this notation the lack of clearness resulting from rows of letters must have been obvious, and a notation like that of the Greeks, with over 100 signs, was quite out of the question.

The *neume* system of notation, however, had a material advantage over the letter notation. Traces of it are first found in the 8th century. It consisted of a series of dots and little strokes, bent in an upward or downward direction, grouped together in lines, the upward and downward movement of which indicated the rise and fall of the melody.

Two signs of our modern notation, the *shake* (tr) and the *turn* (∾) are relics of these neumes.

A certain amount of clearness was obtained by this notation, but it left some important questions unanswered. For instance, from neumes placed over the syllables of the text, how is it possible to know by how many degrees the melody rises or falls, the duration of each note, or the pitch of the initial note of the melody?

The last difficulty was met by so-called *Tonaria*, signs indicating the initial notes of the particular church modes in which the various songs were written. (It must not be forgotten that at that time music was used solely for the service of the church.)

For indicating duration of sounds, however, the neumes were inadequate, and as their number increased, they became less trustworthy for this purpose. Singing music at sight from such a notation was out of the question, and it was scoffingly said by authors of that period that singers were eternally learning and never becoming perfect, no two ever

being of the same opinion, as each followed his own particular teacher.

In the course of time many experiments were made with a view to rendering neume notation less indefinite.

Letters.—The monk Hermannus Contractus (A.D. 1013-1054) had the happy idea of placing over the text Roman letters, thus indicating the distance between one sound and the foregoing one, or whether the sound on which the preceding syllable was sung had to be repeated. The pitch of the initial note was taken as known. For example, if the letter T stood over a syllable, it indicated that the melody *rose* a whole tone; if a dot appeared next to the letter, then the melody *fell* the indicated interval. The other intervals were indicated in the same way; S = semitone, TS = tone and semitone (minor 3rd), etc. The idea was excellent, unless accidents occurred in copying; the dot, for instance, might be missing, or appear in the wrong place, etc. Another experiment was the combination of neumes with Greek notation. Many of these ideas were unpractical; one, however, was excellent.

Lines. — The monk Hucbald of St. Amand in Flanders (A.D. 840-932) placed the text syllables between lines and stated at the commencement where the semitones occurred. All this, however, remained far behind the achievements in this direction of the Benedictine monk Guido of Arezzo (A.D. 995-1050) who gave the neumes a fixed pitch by drawing through them a red line to which he gave the name of F-line [small f, *i.e.*, f on the 4th line of the bass staff]; the neumes were also formed with thicker heads, in order that it might be clearly seen whether they were on this F-line, above, or below it. A second line, green or yellow, was afterwards added, which fixed the position of C [middle C].

Lines and letters.—Later, in place of the coloured line, the letters F and C were used; this was the origin of our F clef (bass clef) and C clef (alto, tenor, soprano, and mezzo-soprano clef). The letters F and C were

borrowed from the *Roman letter notation*, which sufficed for indicating the pitch of notes, but, as already shown, had not the clearness of neumes*. F and C were chosen in order to draw the attention of the singer to the semitone step lying below F and C. The G clef (violin clef) was first employed when under the G an F ♯ was to be sung.

Mensurable Music.—The blending of the two elements [lines and letters] was an excellent idea, and the innovation soon met with approbation. The number of note-lines grew to ten, although later four or five were regularly used. The thicker heads of the neumes became at last square, and then began the period of the inauguration of mensurable music. After many experiments notes were formed and time-signatures were developed (commencement of the 12th century).

In the 14th and 15th centuries the figure 3 was in favour; normal time was triple time, and a note was worth three of the next smaller kind. Among other signs, triple time was indicated by a circle O at the commencement of the staff, and duple time by a half circle C, the origin of our C ($\frac{4}{4}$) time-signature. In the 13th century, both these time-signatures appeared, and also the G clef  .

An incredible complication of time-signatures, note-forms and note-values arose during the period between the 14th and the 17th centuries. *Bars* in the singer's parts first appear after 1600, and about 1800 the

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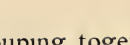
* *The Roman letter notation* dates from the 10th century. A treatise ascribed to the monk Notker (Balhulus) mentions it as used for the organ, the *Rotta* (a string instrument of the early Middle Ages) and the hurdy-gurdy. Notker is the first who mentions the notation, and as something apparently well-known. Examples of the oldest organs have the note names of the Roman letter notation inscribed on the keys. The sounds of the octave C—C or (small c—c′) were then called A, B, C, D, E, F, G, A, the A corresponding to the C of to-day. Since the time of *Odo von Clugny* (died A.D. 942) the letters have had their present meaning.

connecting lines grouping together quavers and semi-quavers, etc. () were first borrowed from the Organ and Lute tablatures.

3.—Instruments and Instrumental Music.

The Organ.—An instrument which in the Middle Ages attained great importance was the organ, the origin of which (in principle) is traced back to Ktesibios of Alexandria (B.C. 170). A representation of the organ in the 4th century exhibits it as very small and ornate, and provided with bellows. Manuscripts of the 10th and 11th centuries exist, giving instructions for the manufacture of organs as school instruments with eight, fifteen, and, less often, twenty-two notes, tuned in C major. In the year A.D. 980 stood in Winchester Cathedral a large organ with two keyboards (for two players), each keyboard having twenty keys, and for each key ten pipes (consequently 400 pipes) and twenty-six bellows.* Later, when the mechanism of the organ became more complicated and the pressing down of the keys more difficult, the keys were made a foot broad and 1½ ells long, the player being compelled to make use of fists and elbows. The pedal board (key-board for the feet) was introduced into Italy in the middle of the 15th century by Bernhard the German. It is said to have been invented by Ludwig v. Balbeke (about A.D. 1325). In the course of the 15th and 16th centuries the construction of the organs rendered possible a more rapid mode of execution. At the close of the Middle Ages all the larger organs in Germany had several keyboards and a pedal board. (For further details, *see* p. 120).

Among *wind instruments*, those chiefly in use were the families of fifes, shalms and cornets. From the family of shalms sprang the *oboe* and *bassoon.*

[* Another description of this organ gives the figures 400 pipes, forty pipes under the control of each key, and thirteen pairs of bellows. Both descriptions appear to be taken from the same source, viz., that of the poem of the monk Wulstan.]

The *string instruments* of the Middle Ages culminated in the family of lute instruments. From the lute sprang the *viol*, and from the latter the violin, which was made in Italy at the beginning of the 16th century. Caspar Duiffoprucgar (Tieffenbrucker, born 1511, died 1571) is thought to have been one of the first makers.

Hurdy-gurdy.—A string instrument much in favour from the 10th to the 13th century, was the *Organistrum*, *Lyra*, *Drehleier* or *hurdy-gurdy*, later also called *beggar's* or *peasant's lyre.* Over a body resembling that of our string instruments, many strings (or pairs of strings tuned in unison) were stretched, of which one (or a pair), by means of a keyboard, could be "stopped." They were set in vibration (and also those not connected with the keyboard) by a wheel, rubbed over with resin, which was turned by a handle projecting from the tail-end of the instrument. Consequently all the strings resounded continuously, those not connected with the keyboard being "drone" or "bourdon" strings, the others producing the melody notes by means of the keyboard. The instrument gave thus, like the bagpipe, a drone bass. From the 10th to the 12th century it was the household instrument of the nobility; later it obtained the name of beggar's or peasant's lyre.

Clavichord.—The earliest instrument, resembling in principle of construction our modern pianoforte, was called the clavichord. Its origin dates from the 14th century.*

The tone of the instrument (which was in the form of an oblong box, about seventy centimètres long) was produced thus: when a key was struck, a piece of

[* The string instruments generally held to have been the forefathers of our modern pianoforte are (1) the monochord of the Greeks already mentioned, the movable bridge of which developed into "tangents" (metal tongues) which at one and the same time divided the string and set it in vibration, the part of the string not intended to sound being damped by the hand; (2) a harp-like instrument, sometimes called psaltery, cembalo or dulcimer, in which several strings were made to sound in the manner just described. The names Clavier (German), clavichord, clavicembalo, etc., come from the Latin clavis—a key.]

metal called a "tangent" or "plectrum" set the string in vibration. Later, instead of these metal tangents, quills were fixed on the lever of the key, and these plucked the string. Leather plectra were also employed. (A clavecin of buffalo hide was invented by Pascal Tasquin, 1723–1795.)

Spinet.—Spinet or Virginals was the name given to the little instrument in the form of a table. The name comes either from "spina" = thorn (*i.e.*, the quill which plucks the string), or from the name of the clavichord manufacturer, Johannes Spinetus. The larger instrument with quill or leather plectra was called clavicembalo.

Hammer-Klavier.—Bartolomeo Cristofori (born in Padua, 1655, died in Florence, 1731) is held to be the inventor of the pianoforte (Hammer-Klavier), in which little hammers covered with leather strike the strings. The invention was made known in 1711.

The *instrumental music* of the Middle Ages developed gradually out of vocal music. Previous to the 16th century music was almost entirely vocal, the instruments merely doubling the voice parts, or, whilst one part of the score was sung, completing the other parts. It thus often happened that in performing a polyphonic work, originally written for voices only, one part would be sung whilst the others would be played on instruments. Composers of the period took this custom into consideration; thus, on the title-page of a "Ricercare," by Jacques de Buus (about 1550) we find:

"Da cantare e sonare d'Organo e alteri Stromenti." (To be sung or played on the organ or other instruments).

The *Lute* was already very generally employed as an accompanying instrument at the beginning of the 16th century. Entire vocal compositions were arranged for the lute, and finally music of a character suited to its capabilities was specially composed for it. In place of the sustained notes of the human voice, which could not be rendered on the lute, ornamentation was used in order to cover the resulting gaps, and a new element was thus introduced into composition. Simple little

symphonies (preludes and postludes) were also introduced before and after vocal compositions which were accompanied by the lute.

Later, in discussing the Oratorio (Form p. 96), we shall speak more fully of the "figured" instrumental part used to indicate the desired harmonies, called "*figured bass*," "*thorough-bass*" or "*continuo*" (*i.e.* a continuous bass part). This bass part was at first executed on the lute, which varied in size. The accompaniment gradually attained more independence, and a great impetus was thereby given to the development of instrumental technique and consequently of instrumental composition (Figured-bass, *see* p. 141). Later on the "continuo" was performed on the organ and harpsichord instead of on the lute instruments.

4.—Origin of Polyphony.

Composers of the 15th and 16th Centuries.

The earliest form of *polyphony* sprang from the "*pedal-point*," *i.e.*, the execution of an independent melody over a sustained bass-note, an idea already made familiar by the bagpipe, hurdy-gurdy, and other instruments, in which a bass note sounds continuously whilst an independent melody is played. The first attempt at allowing two distinct parts to sound at the same time against each other was the so-called "*Organum*," described by Hucbald; it consisted in the singing of a second part, in fourths or fifths, parallel to the first part, an effect anything but edifying to our modern ears. At cadences and entrances of the melody the parts were in unison. A variation of this was the "Organum Vagans" (wandering organum) which allowed seconds and thirds as passing notes.

Descant ("discantus") was a development of organum. Similar motion was the basis of organum, in descant contrary motion was introduced and strictly carried out. A book of rules, of the 12th century, directs that a second part in alternate octaves and fifths should be added to the notes of a "cantus firmus" (tenor or

original melody); later, passing notes and even freely introduced auxiliary notes crept in.

Faux-bourdon was a system of three-part writing in general use in the 13th century. To the tenor (from tenere = to hold, *i.e.*, holder of the principal part, the cantus firmus) two simultaneous parts were added, which formed thirds and sixths with the principal part. Octaves, fourths, and fifths occurred only occasionally; fifth, octave, and unison at beginning and end; fourths between the accompanying parts.

Descant and Faux-bourdon formed a new point of departure, and we trace in the 14th century the gradual development of counterpoint, which, in the hands of the great masters of the 15th and 16th centuries, attained such a high degree of perfection.

We cannot end this section on the musical life and progress of the Middle Ages without glancing at the development of secular music, as shown in the songs of the troubadours, minnesingers and mastersingers, and in folk-songs.

Troubadours and Minnesänger.—The knightly poets and singers, the *Troubadours* (who from the 11th to the 14th century brought to a hearing at the courts of kings and princes their fresh and tuneful songs, the melodies of which, less fettered by innumerable rules than church music, were written to words erotic, satirical, didactic, and even historical in character), were called in France, Trouvères; in Italy, Trovatori; in Spain, Trobadores; and in Germany, Minnesänger (minnesingers).

One of the most important is Adam de la Halle (A.D. 1240—1287). Among others may be mentioned Guillaume Machault, Thibaud IV., King of Navarre, Heinrich von Ofterdingen, Wolfram von Eschenbach, and Walter von der Vogelweide. The Knights were often assisted by followers, who performed or accompanied the songs, and were called *minstrels* (ménestrels, ménétiers, or jongleurs). These servants of the Knights were musicians by profession, who, about 1400, formed n the towns a privileged Guild. They roved about,

played at dances, and were always welcomed by the people; nevertheless, the musicians ("the wandering people") were looked upon as "dishonourable people," and were outlaws. At the head of their guilds stood "fife kings," "music counts," and "violin kings"; according to some accounts the musicians were obliged to submit to their decisions, and they defended the interests of the guild in every way, even against secular potentates.

Meistersänger.—From the Knights the cultivation of song and poetry passed to men of the people, called "*meistersänger*" (mastersingers), who formed entire schools; and, although it cannot be said that the art made any substantial advance through the establishment of the mastersingers, who adhered too rigorously to form and rule, yet on the other hand a feeling for the ideal was roused in the people. Hence the folk-song did not fall into oblivion, and, in the 15th and 16th centuries dance tunes, street ballads and other songs, with their spontaneous melody and naïve character, exerted a great and cheerful influence on the development of the art of music.

Among the most important mastersingers may be mentioned Hans Sachs, Heinrich Frauenlob, Michael Behaim, Hans Rosenblüth and Hans Folz. Mastersinger schools flourished during the 14th century in Mainz, Strasburg, Frankfort, Würzburg, Zurich and Prague; in the 15th and 16th centuries at Augsburg, Nuremberg, Colmar, Ratisbon, Ulm, Munich, etc. The schools of Nuremburg, Strasburg and Ulm existed even in the 19th century; in the year 1839 the last members of the Ulm school handed over their "insignia" to a choral society of that city.

The Modern Period.

1. The Period of Transition.

The end of the Middle Ages beheld a series of important masters of counterpoint, amongst whom the composers of the Flemish school hold the principal

place, although their achievements had also their doubtful side. Their chief aim being to shine as masters of counterpoint, the art of counterpoint certainly attained an unexpected degree of perfection; but in proportion as they became masters of form, so form became their one aim and end, and their music may be said to resemble an artistic, but empty, shrine.

So early as the second half of the 16th century, men of artistic taste in Italy began to criticise unfavourably this over-elaborated art. In the year 1580, in Florence, a society of artists and art patrons, who were in the habit of meeting for social intercourse at the house of Count Bardi, came to the conclusion that the music of the day was a mistake, and that a change for the better could only be effected by a revival of the ancient art; they took their stand on Plato's definition of music: "Music is a combination of word, harmony and rhythm, that is, the relation of a well-ordered series of long and short syllables in words and high and low notes in sounds. Music is nothing else than the art of giving to words their correct 'quantity.'" Bardi's declaration of war against contrapuntists is comprised in a few words:

"Music nowadays consists of two elements, one being what is called 'counterpoint,' the other the 'art of singing.'"

Bardi (not an agitator only, but also an amateur composer), Cavalieri, Vincenzo Galilei (father of the famous astronomer), but chiefly Caccini, together with others influenced by them (amongst whom may be mentioned Jacopo Peri, Bonnetti, Brunelli, Durante, Aquilano, etc.) composed only "monody," *i.e.*, vocal solos with instrumental accompaniment. The instrumental accompaniment (see instrumental music of the Middle Ages), constructed according to the figured bass, was at first naturally rather primitive, but later became more complicated. This "new music" met with great approbation; even Michael Praetorious, of Brunswick, the important author and composer, did not regard this new style of composition with distrust,

but recommended it to his fellow-countrymen for imitation.

Before this time, however, one of the greatest masters of any age, *Giovanni Pierluigi da Palestrina* (1514–1594, who, at the suggestion of the Council of Trent, 1545–1563, undertook the reformation of church music), without altogether rejecting polyphony, had employed it only as a means to an end, not, as in the case of the Flemish composers, as the end itself.

The Italian composers mentioned above were followed at the beginning of the 17th century, by a number of highly-gifted musicians, amongst whom we will name, as the most important and influential, *Claudio Monteverde* (1567–1643) and *Carissimi* (*c.* 1604–1674), who became pioneers of the new order of things.

The rise of the Oratorio (which see), but particularly of the Opera, or rather "music-drama," is closely connected with this development of Florentine art, in which music is employed to enhance the effect of the words.

2. The Development of Dramatic Music in Italy.

An influential and important composer of Italian opera was *Alessandro Scarlatti* (1659–1725). He was incredibly prolific, his operas numbering 100. He is called the founder of the Neapolitan school, which although originating in the Florentine school, cultivated the "bel canto." "Bel canto," as its name implies, is the exclusive predominance of melody, often at the cost of dramatic fitness, the accompaniment being comparatively unimportant.

Such a treatment of the voice parts in opera, aiming at vocal effects, necessitated a corresponding development in singers. (One of the most important Italian singing masters was *Nicola Porpora*, 1686–1766.) Singers, for their parts, when they had acquired skill, wished to display it, and would only consent to sing a *rôle* when it offered them the opportunity of creating a sensation ; hence composers later often wrote the vocal

numbers of their works specially for certain singers. The Italian method of voice training, intended to develop technical dexterity and beauty of tone, was then, and remained, unique of its kind.

Among Scarlatti's most important successors are *Durante* (1684–1755), *Porpora* (1686-1766), *L. Vinci* (1690–1732), *Pergolesi* (1710–1736), *Jomelli* (1714–1774), *Piccini* (1728–1800), *Paësiello* (1741–1816), *Cimarosa* (1749–1801), *Zingarelli* (1752–1837). Piccini was a very prolific opera composer, highly esteemed in his day. To him is ascribed, as an innovation, the introduction of more elaborate finales (reminiscent of the different scenes of the opera) with changes of time and key. In Italy his comic opera, "La buona figliuola," had a great triumph. Later, 1776, he went to Paris, and there became the centre of the party of "Piccinists" working against Gluck, without, however, himself taking an active part in the controversy. In *Pergolesi* we see the founder of "opera buffa," *i.e.*, comic opera, in which he interpolated "Intermezzi" (amusing episodes). Pergolesi was succeeded in this particular line by *Logroscino* (born *c.* 1700 ; died 1763), *Cimarosa*, *Paësiello* and *Galuppi*, also the German, *Johann Adolf Hasse* (1699–1783), who studied in Italy. Under the influence of Mozart, *Ferdinando Paër* (1771–1839) created many excellent operatic works, chiefly after his removal to Vienna. *G. Rossini* (1792–1868), born in Pesaro and called the "Swan of Pesaro," was for a long period the most important Italian opera composer. He charmed Italy no less than Germany, France, and England, with the loveliness of his melodies. Besides "William Tell," "Tancredi," "Otello," "La gazza ladra," the "Stabat Mater," etc., he created in his "Barber of Seville" an immortal "comic opera." Rossini's successors were *Bellini* (1801–1835), whose "Norma" is still found in the répertoires of to-day, and *G. Donizetti* (1797–1848) with his "Daughter of the Regiment," "Lucia di Lammermoor," "Lucrezia Borgia," etc. *Verdi* (1813-1901) was the most famous of the Italians ; among his operas, of very unequal merit, the most

important are "Il Trovatore," "La Traviata," "Rigoletto," "Aïda" and "Otello." Verdi was an Italian opera composer in the strongest sense of the word; his earlier works are certainly melodious, yet often trivial, the situation and the music often at loggerheads or the latter superficial in character.

In order not to forget "young Italy," we must mention *Pietro Mascagni* (born 1863), "Cavalleria Rusticana"; *Leoncavallo* (born 1858), "Pagliacci"; [and *Puccini* (born 1858), "La Bohème," "Tosca," and "Madama Butterfly."]

3.—The Violin and its Masters.

We have seen that dramatic music originated in Italy, that country also becoming subsequently the birthplace of the art of singing; Italy is also the home of the violin, the first violin virtuosi, and the earliest composers for the instrument. Therefore, before we trace the further development of Italian dramatic music, we will give a short account of the violin and its masters.

We have already seen how instrumental music developed in consequence of the development of accompanied melody, and we must not overlook the fact that instrumental music, on its side, exercised great influence over the improvement in the construction of musical instruments, this improvement again re-acting favourably on the inventive ability of the composers, who were eagerly bent on using the capabilities of the instrument for the benefit of the art. Hand in hand with development of instruments and instrumental composition naturally goes development of virtuosity; the greater the difficulties to be overcome, the greater the demand for executive skill on the part of performers.

Violin Makers.—After the violin had attained its present shape (*see* pp. 14, 109), it soon reached, through the skill of violin makers who have hitherto never been surpassed, the highest degree of perfection. The founder of the school of violin makers at Cremona was *Andrea*

Amati (died 1611); the most important among his successors was his grandson, *Nicola Amati* (1596–1684). The Amati violins were distinguished by a soft singing tone, whilst the instruments made by *Antonio Stradivari* (1644–1736) and his two sons (*Francesco* and *Omobono Stradivari*) possess greater volume of tone. The 'cellos and violas, as well as the violins, of these masters are models of perfection; gambas (viola da gamba = knee viol, viola da braccio = viola = arm-viol), lutes and mandolins were also made by them. *Andrea Guarneri* (1626–1698) produced violins between the years 1650–1695. His sons were *Giuseppe* and *Pietro;* his nephew *Giuseppe*, called "del Gesu" (1687–1745), *Gasparo di Salo* (1542–1609), *G. P. Magini* (1588–1640), the brothers *Stainer* (*Steiner*) in the Tyrol, particularly *Jacob Stainer* (1621–1683), and the Italians *Ruggieri*, *Bergonzi, Guadagnini*, etc., produced excellent violins.

Violin Virtuosi.—The first violin virtuoso was *Arcangelo Corelli* (1653–1713); he and *Antonio Vivaldi* (born *c.* 1680; died 1743) contributed substantially to the formation of violin technique by their compositions, violin solos, trios for two violins with organ or 'cello, etc. *Giuseppe Tartini* (1692–1770) was the most prominent violinist of that period (composer of the sonata called "Il Trillo del Diavolo"). *Nardini*, *Viotti*, *Locatelli* and *Torelli* must also be mentioned. Among the German masters the most prominent is *Johann Georg Pisendel* (1687–1755).

The most important of all violinists was *Niccolo Paganini* (1782–1840), whose skill bordered on the miraculous; indeed, if the half of what has been related concerning his performances is to be believed, they were unsurpassable.

Among the *virtuosi*, and, in some cases, excellent composers for the violin, in the 18th and 19th centuries, may be mentioned *Baillot, de Bériot, Ole Bull, David, R. Kreutzer, Mazas, Spohr, Strauss, Vieuxtemps, Wieniawski, Dancla, Lady Hallé, Joachim, Ysaÿe, Sarasate, Sauret, Léonard, Wilhelmj, Brodsky, Herrmann, Burmester, Gabrielle Wietrowetz, Arma Senkrah,*

Teresina Tua, [*Henry Blagrove* (1811–1872), *John T. Carrodus* (1836 1895), *Henry Holmes* (1839 1905)].

The influence of Italian dramatic music made itself felt also in other parts of Europe, for the Italian opera companies soon made their way into France, and the demand for important solo-singers in that country, as well as in Germany and England, was met, in the early days, almost exclusively by Italy, the home of the art of singing.

4. The Development of Dramatic Music in France.

The first operas heard in France were performed by an Italian opera company, invited to the French court by Cardinal Mazarin (1645). Operas by *Peri* and *Cavalli* were performed, and in 1671 Perrin and Cambert opened the first French opera-house, with a composition by *Cambert*. French opera, however, first attained importance through *Lulli*. *Jean Baptiste de Lulli* (1633–1687) was a Florentine by birth, but came to Paris as a boy of twelve. His operas (*see* overture) contrasted favourably with those of the Italians, in that he adopted the system of the old Florentine school, *i.e.*, giving prominence to the recitative which was closely connected with the text. His airs are melodious, and he avoids, to the great gain of the music, undue repetition and distortion of words, and unnecessary ornamentation. *Jean Philippe Rameau* (1683–1764) was not only a harpsichord virtuoso and excellent theorist, but began, when advanced in life (in his 50th year) to compose operas, and carried further the principles of Lulli. If Lulli's operas are more dramatic, in those of Rameau the instrumental and vocal numbers, as well as the accompaniments, are richer and fuller. *Jean Jacques Rousseau* (1712–1778) must be looked upon as the creator of "mélodrame."

In the meantime, the reform in opera effected by *Chr. W. Gluck* (*see* Gluck, p. 32) had taken place in Germany. Piccini was chosen as leader of a party in opposition to him, and this was not without lasting

influence on a musician like *Cherubini* (1760–1842). Cherubini, an Italian by birth, exhibits in his works originality and admirable skill; they include, besides the operas "Médée," "Anacréon," "Les deux Journées" ("The Water-carrier"), and the comic opera, "Le Calife de Bagdad," church compositions, symphonies and chamber music. *Etienne Nicholas Méhul* (1763–1817), a contemporary of Cherubini, is known by the operas "Euphrosine" and "Joseph in Egypt"; a large number of other works of Méhul are no longer heard, except, perhaps, the overture to "Le Jeune Henri." Important works were produced by *Gasparo Spontini* (1774–1851), "the representative of the glory and pomp of the French Empire." With his "Vestale" he carried off the decennial prize instituted by Napoleon I., and followed this by a second masterpiece, "Ferdinand Cortez." His love for brilliant instrumentation and scenic display urged him to pay too much regard to externals. *Duni* (1709–1775), *Philidor* (1726–1795), *Monsigny* (1729–1817) and *Grétry* (1741–1813), are the most important representatives of "opéra comique," the rise of which was the result of the performances in Paris of the works of Pergolesi and Logroscino (works which divided all Paris into two camps, that of the "buffonists," partisans of comic opera, and that of the "anti-buffonists," partisans of French national opera). These composers were followed by *Boieldieu* (1775-1834), whose "Calife de Bagdad," "Jean de Paris," "La Dame Blanche," and several other operas prove him to have been an important lyrical composer, and *Auber* (1782–1871), whose "Fra Diavolo," "Le Maçon," "La Muette de Portici," "Le Domino Noir," etc., belong to the genre of grand opera. The first named is a gem.

With *Giacomo Meyerbeer* (1791–1864) the highest point of grand opera was reached. "Robert le Diable," "Les Huguenots," "Le Prophète" (not to mention others which cannot compare with these) are works the importance of which must not be underrated. But both in the instrumental and vocal music there is

too much evidence of straining after effect. "L'Africaine" was performed for the first time after Meyerbeer's death. *Hérold* (1791–1833), chief opera "Zampa," and *Halévy* (1799–1862), particularly in "La Juive," proved themselves important composers with high aims. *A. C. Adam* (1803–1856) achieved a brilliant success with his "Postillon de Lonjumeau."

Interesting among composers of the "younger school" are *Hector Berlioz* (1803–1869), a clever musician and master of instrumentation (chief opera "Benvenuto Cellini"); *Saint-Saëns*, born 1835, who, as regards instrumentation, follows in the path of Berlioz, although his treatment is more subjective; his opera "Samson et Dalila" is a really fine work; *Ambroise Thomas* (1811–1896) is coquettish, charming, and melodious rather than profound; his opera "Mignon" is included in the répertoire of every country; *Charles François Gounod* (1818–1893) whose opera "Faust" won for him universal and enduring fame; and *Georges Bizet* (1838–1875) whose opera "Carmen" obtained well-deserved success, the composer dying, however, shortly after its production. *Maillart* (1817–1871), with "Les Dragons de Villars" (Glöckchen des Eremiten,") and *Léo Delibes* (1836–1891), composer of "Le Roi l'a dit," made valuable contributions to comic opera. Delibes also composed very graceful and melodious ballets, *e.g.*, "Sylvia," and particularly "Coppélia." French operetta finally found in *Jacques Offenbach* (1819–1880) a champion who [excepting in the case of his "Les Contes d'Hoffmann] unfortunately wasted his gifts on compositions of an insipid kind, "Orphée aux Enfers," "La belle Hélène," "Mariage aux Lanternes," etc. *Charles Lecocq* (born 1832) followed the Offenbachian style of composition with "Fleur de Thé," "La Fille de Madame Angot," "Giroflé-Girofla" and several other operettas which, on the whole, reach a higher level than those of Offenbach, exhibiting better workmanship. [Of later composers may be named *Massenet*, *Bruneau*, *Charpentier* and *Vincent d'Indy*.]

5. Dramatic Music in England and Russia.

Opera in *England* (that is, national English opera) only flourished for a comparatively short period. Its representative composer, towards the end of the 17th century, was *Henry Purcell* (1658–1695), who, besides a number of operas (of which "Dido and Æneas" and "King Arthur" are the most important), wrote several church compositions, which cause him to be considered the forerunner of Handel. *Thomas Augustine Arne* (1710—1778), the composer of "Rule Britannia," wrote about thirty operas and incidental music to plays (Shakespearean and others) which are admired for their flow of melody.

[Among British opera composers may be mentioned *Michael William Balfe* (1808–1870), ("The Bohemian Girl," etc.); *John Barnett* (1802–1890), ("The Mountain Sylph," etc.); *Frederick Corder* (born 1852), ("Nordisa"); *Frederic H. Cowen* (born 1852), ("Pauline," "Thorgrim," "Signa," "Harold"); *Eugene d'Albert* (born 1864), ("Der Rubin," "Ghismonda"); *Sir Alexander Mackenzie* (born 1847), ("Colomba," "The Troubadour"); *Sir Charles Villiers Stanford* (born 1852), ("The Veiled Prophet of Khorassan," "Savonarola," "The Canterbury Pilgrims"); *Sir Arthur Sullivan* (1842–1900), ("Ivanhoe" and a number of comic operas); *Arthur Goring Thomas* (1851–1892), ("Esmeralda," "Nadeshda"); *William Vincent Wallace* (1814–1865), ("Maritana," "Lurline," etc.)]

Russia, has in "Cephalos and Prokris" by *Araja* (1700—*c.* 1767), an Italian by birth, her first opera in the Russian language. *Cavos* (1776–1840) wrote fourteen Russian operas. *Werstowsky* (1799–1862) and *Glinka* (1804–1857) were the creators of a genuine Russian national opera. Both were important composers. Werstowsky's "Gromoboy," "Der offenbare Traum," "Sehnsucht nach dem Vaterland," etc., and Glinka's "Russland und Ludmilla," and particularly "Life for the Czar," have won for him enduring fame. *Anton Rubinstein* (1830–1894) wrote

important Russian operas: "The Demon," "Kalaschnikoff" and "Gorjuschka" (*see* Rubinstein, p. 47). *Peter Tschaïkowsky's* (1840-1893) "Eugen Onegin" (text by Puschkin), "Schmied Wakula," "Opritschnik," "Tscharodeika," and others, enjoy in Russia universal popularity. Tschaïkowsky was undeniably one of the most original and gifted composers of late years.

6. The Rise of Dramatic Music in Germany.

Opera and Operetta.

Heinrich Schütz (1585–1672), the gifted composer of "Passion Music" (*see* p. 97), gave Germany the first German opera, "Daphne," produced at Torgau in 1627; the text exists, but the music has unfortunately been lost.

The first permanent opera house was founded in Hamburg in 1678, and flourished until 1738, during which time a large number of well-known musicians made Hamburg the centre of musical life in Germany. The names of the most important opera composers of that period are: *Joh. Theile* (1646–1724), *Nic. Strunck* (1640–1700), *J. S. Kusser* (1657–1727), *Reinhard Keiser* (1674–1739), *Joh. Mattheson* (1681–1764), *Telemann* (1681–1767), and *Handel* (1685–1759). Of these (setting aside the few works which Handel wrote for Hamburg), Keiser was the most important; the number of his operas was no fewer than 120, some of them being really melodious works. Telemann was a skilful and prolific composer, much esteemed in his day. He wrote forty operas. Mattheson was more important as author than as opera-composer, although much that is excellent may be found in his eight operas. Handel, after he quitted Hamburg in 1707, composed in Italy and London (before devoting himself principally to oratorio) a large number of operas, including some which are very fine. (For Hamburg he wrote only "Almira," "Florinde," "Daphne" and "Nero," the last three of which are not in existence.) In Handel's time began the rise of

comic opera in Germany. The founder of the operetta (musical play), which developed into the genuine comic opera, is *Johann Adam Hiller* (1728–1804). "Der Dorfbarbier," "Liebe auf dem Lande," "Der Erntekranz," and "Die Jagd" are among his most popular works. In his operettas, music of a song-like character is assigned to ordinary people, whilst persons of quality perform arias. His music is inoffensive and melodious. His successors were *Joh. Schenk* (1753–1836), with "Der Dorfbarbier," and *C. Ditters von Dittersdorf*, (1739–1799) with his "Doktor und Apotheker," full of naïve humour and fresh melody.

7. The Leadership of Germany in Music.

The Period of Bach and Handel.

The lead taken by Germany in the art of music became undeniably apparent during the 17th and 18th centuries, and up to the present time it has remained undisputed. The two giants, Bach and Handel, are the landmarks. Bach and Handel, born in the same year, and from time to time residing at no great distance from each other, nevertheless differ widely in their art work, although possessing several things in common. They were never personally acquainted with each other.

The works of the two composers were influenced by their lives. Those of Bach are mighty and lofty, and not altogether free from rigidity and harshness; without looking to right or left, he goes the way his genius leads him, unconcerned as to whether the world at large understands him in his devout simplicity and meditative greatness. Handel is a man of the world; his compositions are engaging and brilliant rather than meditative; notwithstanding the deep piety which distinguishes him, he makes more concessions to the world around him, and is consequently more intelligible to the amateur than Bach, yet, like him, Handel towers giant-like above his contemporaries.

Johann Sebastian Bach (born 1685 in Eisenach, died 1750 in Leipzig) is unsurpassed as a master of the church cantata (*see* p. 98). The "St. Matthew Passion," the "St. John Passion," and the "Mass in B minor" are colossal works, and he also wrote the "Ascension," "Easter," and "Christmas" oratorios. Bach cultivated the art of fugue as no one has done either before or after him; his organ fugues are a treasure for organists, and "Das Wohltemperierte Klavier" is a master-work. Not less great, in their way, are the two-part and three-part Inventions, the "Art of Fugue," the Partitas, Suites, etc. We must also mention his speciality as a composer for the violin and 'cello; for the former instrument he wrote six sonatas, and for the latter six suites, without any accompaniment, setting the performer a difficult task, as he wrote in a very polyphonic style for these instruments, a style hitherto unknown. His orchestral suites are, for the most part, extremely interesting and beautiful. The number of Bach's works is enormous, so we must content ourselves with this reference to the most important of them.

Georg Friedrich Handel (born 1685 at Halle, died 1759 in London) has also bequeathed to us an immense number of works. His oratorios are the most important of his compositions, as we shall see when discussing the art-form of the oratorio. The "Messiah," which Handel wrote in 24 days, is the finest example of this class of composition, and must rank as the composer's masterpiece. He also wrote a considerable number of instrumental works; organ concertos, sonatas, fantasias and fugues. The "Concerti Grossi" are worthy of mention; the sixth still remains a special favourite with concert-goers. They are twelve in number, and may be described as a combination of suite and sonata; they have, on an average, from four to six movements. The old dance forms are not unduly prominent, but are interspersed with slow movements and "allegri" in the fugal style.

One of the most important composers of this period was a son of J. S. Bach:

C. Ph. Emanuel Bach (1714–1788) was the father of modern pianoforte playing, for he was the first who systematically fixed the position of hand and finger, and introduced method in fingering. Before his time the thumb and little finger were excluded from ordinary use, and the passing over of the fingers was to a certain extent arbitrary. His activity as a composer was considerable; 210 solo works, 52 concertos, 18 symphonies (of which the four which were published are still heard with pleasure), 22 examples of "Passion" music, and many other works have come down to us. Most interesting is his "Essay on the true art of Piano-playing," a book in which he gives a faithful description of the condition of piano-playing at that period, and at the same time gives expression to his ideas for its improvement.

We must mention also a work by a contemporary of Bach and Handel, which until lately was performed annually in Germany, *i.e.* the Passion-Oratorio "Der Tod Jesu" by *Graun* (1701–1759). Other cantatas and motetts by the same composer have proved less long-lived.

Muzio Clementi (born 1752 in Rome, died at Evesham 1832), like Ph. E. Bach, rendered signal service to the technique of piano-playing. Besides his "Gradus ad Parnassum," which is still of importance as an indispensable educational work for pianists, Clementi wrote 106 sonatas (of which 46 are for violin, 'cello or flute) and the sonatinas which are known to every pianoforte player. A large number of other works are less known and less important.

Prominent composers of pianoforte studies are *J. B. Cramer* (1771–1858) and *Ignaz Moscheles* (1794–1870), both pupils of Clementi; their works are held in high esteem.

Carl Czerny (born 1791 at Vienna, died 1857 at the same place), whose works exceed 1,000 in number, has secured an honourable place in piano educational literature with his "School of Velocity," "Forty Daily Exercises," "School of Virtuosi," etc.

Ch. W. Gluck. — A phenomenal figure, whose chief works took the form of dramatic music, and who, in this line, effected radical changes and became an example for others after him, was *Christian Willibald von Gluck* (born 1714 at Weidenwang, in the Upper Palatinate, died 1787 at Vienna). The first works of this tone-poet were on the lines of Italian opera, but a knowledge of the music of Handel (with whom, when in London, he became acquainted), and also of that of Rameau, awakened in him ideas of reform, and gradually effected in his work the change which in "Orfeo," produced in 1762, became clearly apparent. "Armide," "Alceste," "Iphigénie en Aulide," and "Iphigénie en Tauride" followed. In all these compositions Gluck advocated, in opposition to the then universal practice of the Italian school, the principle of closely connecting the music with the text and action, not permitting the latter to be interrupted by the development of a musical form (Air, etc.), holding that all stereotyped ideas must give way to dramatic meaning and living expression. Gluck (in this matter harking back to Caccini * and Claudio di Monteverde) found in Paris, where his operas were performed for the first time, zealous supporters among the partisans of Lulli and Rameau, in opposition to whom, the so-called "Gluckists," stood the "Piccinists," the admirers of the Italian school, of which Piccini was the triumphant head. Gluck gained the day.

Franz Joseph Haydn and his Contemporaries.— *Joseph Haydn* (born 1732 at Rohrau, Austria, died 1809 at Vienna). Father Haydn, as he is frequently called, is the father of our modern instrumental music. Building on the foundation laid by C. Ph. E. Bach, he not only developed the form of the sonata and symphony, but spiritualised it. Naïveté, dainty

* Caccini had summed up his "Maxims" in the sentence, "a noble scorn for music," *i.e.*, subordination of pure music to the sense of the text.

humour, and kindly depth, far removed from intricacy, pervaded all his works. In discussing the symphony (p. 92) we shall see that Haydn added to it the minuet; and, which is far more important, he introduced new features in instrumentation, individualising each instrument, and employing it in its own peculiar manner. Haydn's Sonatas are well worthy of study, but his most important works are the Symphonies, Trios, Quartets, and his Oratorios, "The Creation" and "The Seasons." The art song and opera have gained little through Haydn.

Among Haydn's contemporaries must be mentioned *Ditters v. Dittersdorf* (*see* p. 29). He wrote string quartets and sonatas, which, unfortunately, are seldom heard, although their natural freshness and charm, coupled with a kindly naïveté, reminiscent of Haydn, render these works well worth revival.

The reappearance of the art-song took place about this time. During a long period, after the polyphonic songs of the 15th and 16th centuries, nothing of great importance was produced in this line. In the second half of the 18th century composers again appeared who, inspired by the poems of Goethe, set them to music. *Friedrich Reichardt* (1752–1814), *Karl Friedrich Zelter* (1758–1832, who founded in 1809 the first male voice choir), and *Friedrich Heinrich Himmel* (1765–1814) wrote songs which became "folk-songs." As a master of ballad composition (and, as such, a forerunner of Franz Schubert and others), *Johann Rudolf Zumsteeg* (1760–1802) was prominent in his day; his ballads, romances, and songs may lay claim to more than merely historical interest.

W. A. Mozart and his successors. — *Wolfgang Amadeus Mozart* (born 1756 in Salzburg, died 1791 in Vienna), may be considered as the most gifted of all masters, as well as the most versatile. What particularly affects us in Mozart's music, side by side with that childlike simplicity which pervades the smallest fragment of melody, is a purity of feeling, which, enhanced by beauty of tone in performance,

holds the hearer irresistibly spell-bound. As a composer of instrumental music he has created symphonies, in which, as to "form," he did not perhaps go beyond Haydn, but the "matter" is more deeply significant. His piano sonatas, variations and fantasias are gems. Mozart's music is generally given to the young pianoforte player too early; for the sonatas, although not difficult to comprehend (and this is the reason why they are taken in hand so soon), require, with few exceptions, extraordinarily well-developed technique and very subtle interpretation. The same, in a still higher degree, holds good of Mozart's pianoforte concertos; our modern virtuosi fight shy of the fine filagree-work contained in them; to them it is an easier matter to startle the audience by dazzling technique and multiplicity of notes, than to devote themselves to works which in a single line exhibit more skill than is contained in a whole page of our modern virtuoso-literature. To song-literature Mozart has contributed little; on the other hand he has raised an imperishable monument to himself in his divine "Requiem" (*see* p. 95). The violin sonatas are sufficiently well known, and on his string quartets it is not necessary to waste a word. If during his short life Mozart created immortal masterpieces in every branch of musical composition, this is particularly the case in opera. His contributions to "opera semi-seria" (serious opera with comic scenes) are works which can scarcely be excelled in their thoughtful depth, charming grace, and sincerity. Mozart proves himself in these works a master of "ensemble"; such "finales," with their polyphonic treatment of parts, etc., and beauty of form and tone-colour, had never been written before. Mozart's operatic masterpieces are "Le Nozze di Figaro" (1785), "Don Giovanni" (1787), and "Zauberflöte" (1791).

Important composers who followed in the footsteps of Mozart were *Joseph Weigl* (1766–1846), whose chief work, "Die Schweizerfamilie," shows the influence of Mozart); *Peter von Winter* (1754–1825), the composer of "Das unterbrochene Opferfest"; and *Zumsteeg*

(1760–1802), who accomplished most as a ballad composer. His operas, the most important of which was "Die Geisterinsel," are antiquated.

L. van Beethoven.—Ludwig van Beethoven (born 1770 at Bonn, died 1827 at Vienna). We are justified in acknowledging in him, the latest of the three stars of the "classical constellation" Haydn—Mozart—Beethoven, the most important composer since J. S. Bach. What we admire in his great forerunners we find again in Beethoven, but still more deeply thought out and expressed in a more gigantic, emotional and forcible manner. The melodic features of Beethoven have, so to speak, bolder outlines than those of his predecessors and successors. The instrumentation of this master exhibits a variety and finish which remain unique in the history of music. Beethoven's chief importance lies in his symphonic creations; his nine symphonies may be regarded as a reflection of the composer's life, with all its joys and sorrows. The discussion of the form of the symphony in the second part of this work will illustrate more clearly the influence of Beethoven on this art-form. Next to the symphonies, the pianoforte sonatas give us the deepest insight into the individuality of the composer, and they will remain the goal of artists and dilettanti who take their art seriously; for the unfathomable profundity and beauty of thought and form ever newly presented to us in these works have hitherto remained unequalled. The same may be said of his pianoforte concertos, works of power and beauty, "symphonies for the piano." Beethoven has given violin literature a masterpiece in each individual sonata for violin and piano; they may, moreover, be regarded as tests both for the violinist and the pianist. The "Beethoven Concerto," as it is called, the violin concerto in D (Op. 61), is decidedly the "paragon" concerto for beauty and difficulty; Professor Joachim was regarded as the performer "par excellence" of this work. Beethoven's string quartets and piano trios, etc., are of special importance, and must be considered as the perfection of this style of composition.

Beethoven has composed, besides incidental music and overtures to dramatic works, only one opera, "Fidelio," with its four overtures (the real "Fidelio" overture and three "Leonora" overtures, the third of which is commonly played as an entr'acte.) Its admirable dramatic and characteristic qualities and the richness of the orchestration render this one opera of Beethoven's "unique" in the whole of musical literature. Beethoven's influence on vocal music is comparatively small. Besides some beautiful songs, the "Choral Fantasia," and the last movement of the "Choral Symphony," only his "Missa Solemnis" (*see* p. 95) need be mentioned. With regard to Beethoven's vocal music, in spite of its undeniable beauty, it must be observed that the composer makes scarcely any allowance for the limitations of the human voice, a fact which renders the performance of his choral works very difficult.

Finally we must draw attention to the difference manifest in the style of the works of Beethoven's later period and those of his earlier period. Certainly in all the works already alluded to, and particularly in his quartets (op. 127, 130, 131, 132, 135) it is the "introspective Beethoven," whose inner soul has lost touch, so to say, with the outer world, it is Beethoven the philosopher who speaks, and an unearthly charm pervades these works of the great master struggling after spiritual light.

F. P. Schubert and his contemporaries and successors in song composition.— Franz Peter Schubert (born 1797 in Vienna, died there 1828) is the creator of the modern song. Endowed with warm and fine feeling and inexhaustible inventive faculty, Schubert possesses a richness of harmony, a faculty of melodic flow, and a tenderness which is almost unequalled. Schubert has given us masterpieces in his song-cycles "Die schöne Müllerin," "Die Winterreise," "Schwanengesang," and in such songs as "Erlkönig," etc., whose value rests, leaving out of the question the "singable" character and charm of the melody, in the grasp and truthful

expression of the particular "mood." The accompaniments of Schubert's songs, in comparison with those of his predecessors, are much more independent, more characteristic, and richer in harmony. Schubert is much more important as a composer of instrumental music than is generally supposed; his sonatas (though these are less often played), "Moments musicals," "Impromptus," etc., (which, as regards the form, suggested to Mendelssohn and Schumann their piano miniatures), and his compositions for four hands, are in great favour. He is no less esteemed as a symphony composer; among his symphonies the great C major symphony is the most important, whilst the "Unfinished B minor" is unequalled in beauty and pathos. Schubert is particularly important as a composer of string quartets, piano trios, etc.; musical literature can produce nothing finer than, for example, the variations on "Der Tod und das Mädchen." Although he wrote about twenty operas, he has attained no importance as an opera composer; if his operettas, operas, and "mélodrames" contain much that is beautiful, they lack dramatic force. Selections from them are made for concert performance.

Among Schubert's contemporaries, *Karl Löwe* (1796–1869) is prominent as a composer of ballads; of their kind no more beautiful examples exist than "Der Nöck," "Archibald Douglas," "Die Uhr," and "Heinrich der Vogler." *Robert Franz* (*Knauth*) (1815–1892) may justly be considered a successor of Schubert; his poetic, thoughtful songs are perfect works of art.

If not, from an artistic point of view, reaching the highest level, the songs of *Franz Abt* (1819-1885) have become, to a certain extent, public property; that they contain melody of a popular kind, and sincerity of feeling (sometimes somewhat too sentimental) cannot be denied.

The songs of *Adolf Jensen* (1837–1879) enjoy great favour, and contain much that is admirable. He may be accounted, in song composition, a disciple of

Schubert and Schumann. Jensen has, moreover, a good name as a piano composer; he has proved himself, in piano pieces of a small kind, a thoughtful and charming lyrical writer.

The name of *Hugo Brückler* (1845–1871) will be unknown to many of our readers, yet they may be earnestly recommended to form a more intimate acquaintance with the few works of this composer, who unfortunately died prematurely; they are nobly conceived and finely worked out. Brückler's works are songs from Scheffel's "Trompeter von Säckingen" (Op. 1 and 2), "Seven (posthumous) Songs," published by Jensen, and a "Ballade," published by Becker.

The Romantic School. — The appearance of the "romantic" element in the art of poetry was not without its influence on the art of music, which also has its "romantic" period, originating in dramatic compositions based on romantic poems. The first and most important of the romantic composers is:

Carl Maria Friedrich Ernst Freiherr von Weber (born 1786 at Eutin, died 1826 in London). With his unique opera, "Der Freischütz" (1821), thoroughly German in character, he sang himself into the hearts of the German people; skilful workmanship, depth of feeling and wealth of melody endow this work with eternal youth. "Euryanthe" (1823) and "Oberon" (1826) are, after "Der Freischütz," his most important operas, and to these may be added the music to the play "Preciosa" (1820). "Silvana," "Peter Schmoll," and "Abu Hassan" are works of an earlier date; the opera "Die drei Pintos," which remained unfinished, was completed by Gustav Mahler. Weber's importance as a piano composer must not be overlooked; his sonatas, concertos, rondos, variations, polonaises, the "Invitation to the Dance" (Die Aufforderung zum Tanz), and his pieces for four hands, are valuable compositions, and, in some instances, require brilliant technique. Weber was himself an excellent pianist. For orchestra Weber wrote, among other less known works, the "Jubilee" Overture, and for his favourite instrument, the clarinet,

concertos, duets and variations; many other chamber works are seldom heard. Weber's vocal works (apart from some compositions of larger dimensions, but less importance) consist of songs, some very beautiful choruses for male voices (the text taken from Körner's "Leyer und Schwert"), quartets, duets, etc.

Heinrich Marschner (1795–1861) comes next to Weber. His "Hans Heiling" is a very important work, and "Der Vampyr" and "Templer und Jüdin" are often performed.

A composer who, though influenced by the romantic school, shines chiefly as a lyrical writer, is *Louis Spohr* (1784–1859). Of his operas, which lack dramatic power, ("Faust," "Jessonda," "Der Berggeist" and "Die Kreuzfahrer"), "Jessonda" alone has held its ground. His violin compositions are very fine, and retain the favour of the public by reason of their suave melodies. As Spohr was himself a prominent violinist—he wrote also an excellent violin school—these compositions have the additional merit of being eminently suited to the instrument. Spohr wrote, besides numerous chamber works, several oratorios, nine symphonies, concert overtures, masses, hymns, cantatas, etc.

Felix Mendelssohn-Bartholdy (born 1809 in Hamburg, died 1847 in Leipzig), was also under the influence of the romantic school. Mendelssohn was a highly gifted musician. From the year 1820 (in 1818 he played the piano in public for the first time) he composed continually, and at seventeen years of age (1826) he wrote the overture to "A Midsummer-Night's Dream," never surpassed by him in riper years. He composed with extraordinary facility, and his work is characterized by warm feeling and a sweetness bordering on sentimentality. His oratorios, "St. Paul" and "Elijah" are decidedly the most important creations in this line since Haydn; next to these come the symphonies and concert overtures. His violin concerto is one of the most beautiful ever written, and his piano concertos are favourites with the public. His most popular works, apart from the Caprices, Sonatas, etc., are the "Lieder

ohne Worte," charming tone-pictures in small frames. Mendelssohn also wrote incidental music to "Antigone," "Œdipus," "Athalie," and "A Midsummer-Night's Dream" (15 years later than the overture). The "Walpurgisnacht," for soli and chorus, is frequently performed, and his songs contain much that is beautiful. To the opera he contributed only a fragment, "Lorelei" (to words by Geibel), which is very effective, and some operettas.

Robert Schumann.—One of the most important representatives of the romantic school is *Robert Schumann* (born 1810 at Zwickau, died 1856 near Bonn), whose activity in the field of song composition, to begin with, was very great. Tender feeling, coupled with fiery passion, characterise these songs, and the accompaniments are brought into greater prominence than was hitherto the case. Schumann, although a "romantic," was also a lyrical writer. In his compositions the fineness of structure is in the highest degree admirable. His numerous solo piano pieces are unrivalled "cabinet pictures," which often display (as does his instrumental music generally, in comparison with music of the older style), an ostentatious "freedom of form," even lack of form. The symphonies of this master are often underrated; in his symphony in B flat he has given us of his best, although the writer of these lines is of opinion that the D minor symphony is not far behind it, whilst those in C and E flat can safely be placed side by side. Schumann's "Paradise and the Peri," "The Pilgrimage of the Rose," his A minor Concerto for the piano, his chamber works, quartets, quintet, violin sonatas, etc., contain much that is indescribably beautiful. His opera "Genoveva" is a beautiful work, but ineffective for the stage; the music to "Manfred" (by Lord Byron) and Scenes from "Faust" (by Goethe) are unfortunately heard almost exclusively in the concert-room.

F. Chopin.—Frédéric François Chopin (born 1810 at Zelazowa-Wola, near Warsaw, died 1849 in Paris) is one of the most original and most important composers

of pianoforte music, a branch of the art he cultivated almost exclusively. Individual in form and matter, the compositions of this master exhibit much sincere feeling, pure poetry, enchanting harmonies, noble heart-stirring melodies, dazzling technique, sublime vigour, and charming grace. Chopin is a tone-poet in the truest sense of the word. Of the few songs written by him, some have become popular.

8. The Principal Representatives of German Opera from Kreutzer to R. Wagner.

Konradin Kreutzer (1780–1849) wrote an immense number of operas, among which his lyrical opera "Nachtlager in Granada" is likely to live; those next in importance being "Konradin von Schwaben" and "Der Verschwender." Kreutzer's compositions exhibit beautiful melodies, "singableness," and a certain element of popularity.

Albert Lortzing (1801–1851) takes a prominent place among composers of comic opera. The cheerful humour and lively freshness of his principal works, "Zar and Zimmermann," "Die beiden Schützen," "Der Waffenschmied," and "Der Wildschütz" will keep his memory green. His fairy opera, "Undine," contains much that is beautiful.

Otto Nicolai (1810–1849) was one of the few of Lortzing's imitators who met with success. "The Merry Wives of Windsor" has secured him an honourable place among composers of comic opera.

Friedrich von Flotow (1812–1883) has won the heart of the general public with his operas, "Stradella" and "Martha." The music is unambitious and graceful, though frivolous from an artistic point of view.

Richard Wagner. – Richard Wagner (born 1813 at Leipzig, died 1883 at Venice), holds an exceptional place, for his life-work effected a revolution in opera. Apart from two works of the master's youth, his first opera was "Rienzi" (produced with great success in Dresden, 1842), a work which, it must be admitted, shows little

sign of emancipation from the customary form of grand opera "*à la* Meyerbeer." His second work for the stage, "The Flying Dutchman," must be regarded, however, from quite a different point of view. It is true that formal airs and choruses are not yet abolished, but already a large proportion of the work is devoted to recitative, and above all the "Leitmotiv" appears. By "leitmotiv" is meant a motive or phrase which (rhythmically or melodically) characterises a certain person or action (or course of action), and which is always heard if the particular person or action becomes important, either by being visibly present on the stage, or by being referred to in words. Thus leitmotives, by being grouped together and developed, contribute in no small degree to the finish and unity, both outward and inward, of the work.

In "Tannhäuser," both as regards form and matter, it is less the innovator than the inspired composer and great dramatic writer who speaks. It was produced, as were the foregoing works, at Dresden, in 1845, and met with no greater success than "The Flying Dutchman." The work was beyond the comprehension of the public, a fact partly to be attributed to Wagner's audacious harmonic progressions, the wealth of dissonances and frequent "interrupted cadences" (*see* p. 79), in which the close of one melody becomes the starting point of another. All this, in conjunction with the novel treatment of the orchestra, which, with its brilliant instrumentation, stood out more independently than it had hitherto done, bewildered the audience.

In the year 1850, through the efforts of Liszt, "Lohengrin" was produced at Weimar. In this opera, although in a sense it is still more melodious than its predecessors, the "leitmotiv" becomes more important. During the political disturbances of the year 1848, Wagner was, with others, drawn into the vortex, and he was obliged, after he had taken part in the rebellion of May, 1849, to quit his fatherland. In Paris, his first place of refuge, he did not stay long. In Zurich he pitched his tent for a longer period (until

1855), and here composed several important works. In Paris, to which city he had again betaken himself in 1860, in order, by command of Napoleon III., to rehearse "Tannhäuser" (which, however, in consequence of violent protests, had to be withdrawn after the third performance), he wrote the pamphlet on the "Music of the Future." Wagner was pardoned in 1860, and his music-drama in three acts, "Tristan und Isolde" (finished in 1859), was put upon the stage at Munich in 1865. This work marks the beginning of the third and most important period of the master's life-work. Ensemble movements are almost entirely avoided; the recitative, without losing its close connection with the text, becomes an uninterrupted melody, and the task of presenting and developing the themes is transferred to the orchestra. Music, poetry, dramatic representation, and mise-en-scène are combined in this work of art.

"Die Meistersinger von Nürnberg," finished in 1867, was produced at Munich in 1868. In the year 1864, the King of Bavaria, the artistic Ludwig II., had attracted Wagner to himself, and assisted him most generously, first in Munich and then in Triebschen, near Lucerne, where "Die Meistersinger" was finished. In 1869, the Prologue to the "Nibelungen" tetralogy, "Rheingold" (composed 1853–1854), and in 1870 "Die Walküre" (finished 1856), the second part of the tetralogy, were produced at Munich. The third and fourth parts of this colossal work, "Der Ring des Nibelungen," were produced, together with the first and second parts, in August, 1876, in the theatre specially built at Bayreuth for the realisation of Wagner's art theories. "Siegfried" was finished in 1869 and "Götterdämmerung" in 1874. "Parsifal," completed 1882, marked the culmination of the life-work of the aged composer, who in this work, without being untrue to his established principles, conceded more to pure music than he had done in his later music-dramas. It was performed for the first time in 1882, at Bayreuth, which has the monopoly of performance.

Much has been said and written for and against Wagner in professional and unprofessional quarters, much more than we, in our short sketch, can possibly deal with, and the composer was compelled to do battle, with iron will, for his opinions and his works, before he prevailed. As to Wagner's importance and position as a composer, opinions are now unanimous; as to the justification of this or that characteristic of his art-work, opinions may still be divided. The reader must, however, be warned against judging his works from the superficial impressions of a single performance, or merely a concert performance of extracts from his music-dramas; nor must he measure them by the standard of other operas. Wagner created the music-drama, and this must be judged by the fundamental principles laid down by him, the substance of which we have given. Above all, the hearer should make a sympathetic study of what to him is novel, without prejudice.

Wagner's work must be regarded as the culmination of a development in art gradually effected by Caccini, Claudio di Monteverde, Gluck, and Wagner himself.

9. Dramatic Music from Wagner to the Present Day.

The music of this period, apart from the composers who are avowed opponents of Wagner, is more or less influenced by him.

Among composers of less importance from the point of view of opera, their works being out of date (F. Hiller, Reinthaler, Reinecke (*see* p. 47), etc.), *F. von Holstein* (1826–1878), the composer of the opera "Der Haideschacht," is worthy of mention. *Joachim Raff* excelled in other branches of the art. *Peter Cornelius* produced, in his "Barbier von Bagdad," an extremely beautiful and interesting work. *Karl Goldmark* (born 1830), who obtained great success with his "Königin von Saba" and "Merlin," is decidedly under the influence of Wagner; his instrumentation is brilliant,

almost exuberant (*see* also p. 50). *Eduard Lassen* (1830–1904) wrote valuable incidental music to "Faust." *Hermann Götz* (1840-1876) was an extremely gifted composer. The single opera, "The Taming of the Shrew," (for "Francesca da Rimini" is only a fragment), by this unfortunately short-lived composer, is one of the best works produced of late years. *Ignaz Brüll* (1846–1907) obtained success with his operas "Das goldene Kreuz" and "Das steinerne Herz." *Edmund Kretschmer* (1830–1908) is known and esteemed as the composer of "Folkunger," "Heinrich der Löwe" and "Schön Rohtraut," of which the first is the best and the most popular. *Victor Nessler* (1841–1890) had an enormous success with the opera "Der Trompeter von Säkkingen"; it is pleasing rather than musically important.

Operetta.—Operetta is well represented by *Franz von Suppé* (1820–1895), "Fatinitza," "Die schöne Galathea," "Boccaccio," etc.; *Richard Genée* (1823–1895), "Manon"; *K. Millöcker* (1842–1899), "Der Bettel-student," "Arme Jonathan," "Gasparone"; and particularly by *Johann Strauss* (1825–1899), "Fledermaus," "Der lustige Krieg," "Zigeunerbaron," etc.

Engelbert Humperdinck (born 1854) won all hearts in 1893 with his charming fairy opera, "Hänsel und Gretel." Unmistakably influenced by Wagner, Humperdinck shows himself, however, an original composer of fine feeling, who understands how to breathe life into his creations, and how to find suitable musical expression for the naïve and lyrical, as well as for the dramatic, elements of his subject.

10. Composers of Instrumental and Vocal Music from Wagner to the Present Day.

We must first mention *Niels W. Gade* (1817–1890), whose style shows the influence of Mendelssohn. He composed orchestral and chamber music, songs, for mixed voices and male voices, a cantata, "Erlkönig's Tochter," a very beautiful work, etc. Gade represents the music

of the North. *E. Hartmann* (1836–1898) wrote symphonies and the concert-overture "Nordische Heerfahrt." Another Northerner was *Edvard Hagerup Grieg* (1843–1907), whose original and beautiful orchestral suite (for strings) "Aus Holberg's Zeit" and music to "Peer Gynt" are worthy of note. Full of poetry are several of Grieg's piano pieces, also his violin sonatas and 'cello sonata. He has also written choral works with orchestra, and especially songs. Grieg took up a position of hostility to the music of Mendelssohn and Gade, which he condemned as too effeminate; in consequence, in many of his own works there are traces of a somewhat forced originality.

Ferdinand Hiller (1811–1885) composed operas, symphonies, vocal and orchestral works of various kinds, and became prominent as a writer on musical subjects.

Max Bruch (born 1838) is a disciple of Ferdinand Hiller. His symphonies, violin concertos and piano compositions are worthy of notice. Nevertheless, Bruch's true sphere is choral composition ("Odysseus," "Die Glocke," "Schöne Ellen," "Frithjof," "Das Feuerkreuz," "Lorelei," etc.). Mendelssohn's influence on Bruch is unmistakable.

Friedr. Robert Volkmann (1815–1883) shows in his works the influence of R. Schumann, without, however, losing his own individuality; his compositions exhibit excellent workmanship, and are characterised by a buoyant vigorous "swing." Besides numerous piano pieces, chamber music and vocal music, Volkmann's two symphonies and his Serenades for Strings must be specially mentioned.

Stephen Heller (1814–1888) in his piano works, mostly compositions of small dimensions (characteristic pieces, studies, nocturnes, etc.) proves himself a master of the smaller forms of composition. His works possess soundness and originality as well as grace and charm. They are "recital-works" in the best sense of the word.

Adolf Henselt (1814–1889), like Heller, a distinguished pianist, wrote brilliant drawing-room pieces, concert

paraphrases, etc., his best works being his concert studies.

K. M. Reinthaler (1822–1896) is known through his oratorio "Jephtha."

Carl Reinecke (born 1824) published operas (among them "Der vierjährige Posten" and "König Manfred"), symphonies, a number of soundly written piano compositions, fairy poems for soli and chorus, with piano accompaniment, and larger vocal compositions and chamber music, all the work of a clever musician. He is also an excellent pianist and teacher.

Theodor Kirchner (1823–1903), like Heller and Schumann, cultivated the "miniature" genre with excellent results. In these works, as in his transcriptions of songs by Jensen and Brahms, he proved himself an artist of fine and original feeling.

Moritz Moszkowski (born 1854) has obtained favour by his pleasing piano works, but particularly by an orchestral Suite in F (Op. 39) of sound workmanship.

Franz Liszt (1811–1886), whose orchestral works we will consider when discussing programme music (p. 48), is the founder of modern virtuoso technique. He wrote, besides symphonic poems for orchestra, a large number of vocal works and piano compositions, among which the transcriptions and paraphrases, studies, and particularly the Hungarian Rhapsodies, are often performed and are in great favour.

Hans von Bülow (1830–1894), who produced various songs, piano and orchestral works, was, as a pianist, certainly one of the most important interpreters of classical compositions, and an orchestral conductor of the first rank.

Anton Rubinstein (1830–1894), as a pianist, followed in Liszt's footsteps, and was of high importance as a virtuoso. As an opera composer he has already been mentioned, and he produced works of almost every kind. Among his symphonies the "Ocean" is the most important. Rubinstein's piano pieces, but particularly his songs, contain much that is excellent.

Anton Dvořák (1841–1904) achieved success as a national Bohemian composer.

Johannes Brahms (born 1833 in Altona, died 1897 at Vienna), was one of the most important of modern masters. Brahms had entire command of form, and the whole gamut of emotions; he was an earnest composer, of deep feeling, but by no means to be understood by all. His works must be studied sympathetically, and this, in consequence of the often complicated style of the master, is difficult for the amateur. The symphonies of Brahms are in every respect art works of the highest importance, and the same may be said of his "German Requiem," the "Schicksalslied," "Triumphlied," "Deutsche Fest und Gedenksprüche," and the Rhapsodie for Contralto solo. Among other works by the same composer are songs, a magnificent violin concerto, and violin and pianoforte sonatas.

11. Programme Music.

We will close this section with a glance at Programme Music, a branch of composition in which much has been, and is still being, accomplished.

By *Programme Music* is understood music which is written by the composer with the intention of arousing the imagination of the hearer in a certain direction, so that he may, whilst listening to the tone-poem, see with his mind's eye the representation of an occurrence, material or psychical. In order to influence the hearer, the composer provides the music with a suitable "programme" (description), or seeks to counteract the ambiguity of the composition by appending a motto or a poetical preface in words (*i.e.*, a "programme" of what the public has to expect).

The principle of such a style of composition has been condemned, partly with and partly without good reason. One of the cleverest works written against the capacity of music to represent a programme is Ed. Hanslick's "On Beauty in Music."

Programme music is extremely old, for we find compositions by Clément Jannequin, a disciple of Josquin des Près (in the middle of the 16th century), with the titles "La bataille," "La guerre," "Le caquet des femmes," "Le chant des oiseaux," "Le rossignol," etc., and by the Dutchman, M. Hermann (same period as Jannequin), a work called "Battaglia Taliana" (the battle of Pavia).

Among the composers of programme music the following are the most important. *Hector Berlioz* (1803–1869), a gifted composer and master of instrumentation, has illustrated by music the most fantastic subjects; his symphonies "Harold in Italy," "Romeo and Juliet," his dramatic legend "The damnation of Faust," his biblical trilogy "The Childhood of Christ," and particularly the "Episode de la vie d'un Artiste" (consisting of "Sinfonie fantastique" and "Lelio, monodrame lyrique"). are highly original works, offering to artists and amateurs not perhaps unmixed enjoyment, but much that is interesting. Berlioz is also the author of an excellent treatise on instrumentation.

Franz Liszt (1811–1886) is also a composer of programme music. His symphonic poems "Dante" (symphony), "Faust" (symphony), "Les Préludes," "Ce qu'on entend sur la montagne," "Tasso, lamento e trionfo," "Prometheus," etc., are compositions of noble conception and undeniable value.

Joachim Raff (1822–1882) an important modern composer. His symphonies "Im Walde," "Leonore," "Frühlingsklänge," "In den Alpen," "Gelebt, gestrebt; gelitten, gestritten; gestorben, umworben," etc., must decidedly rank as programme music. Raff also wrote several chamber works, solo compositions of very unequal merit, and a number of songs, male voice quartets, choruses, etc. The number of his works exceeds 200.

Saint-Saëns (born 1835), also a composer of programme music, has achieved success with his symphonic poems "Phaëton," "Le rouet d'Omphale," "La

jeunesse d'Hercule," and particularly "Danse Macabre" (Dance of Death); they are highly original and characteristic. In the domain of oratorio also he has won an honourable place with his biblical poem, "Le Déluge" and a "Christmas Oratorio" (*see also* p. 26). He has also contributed concertos to violin, 'cello and piano literature.

The following composers have joined the ranks of writers of programme music: *K. Goldmark* (born 1830), symphony "Ländliche Hochzeit" (*see also* p. 44). *H. Hofmann* (1842–1902), "Frithjof-Symphonie" and "Im Schlosshofe"; *H. Huber* (born 1852); and *Richard Strauss* (born 1864), "Aus Italien," "Don Juan," "Tod und Verklärung," "Heldenleben," "Sinfonia Domestica," etc. Strauss is a very gifted composer, rich in imagination, whose style of writing will probably become less complicated; he has also written a number of really beautiful songs, chamber works and symphonies.

Part II.

A.—The Theoretical and Practical Elements of Music.

Chapter I.—Theory of Music in General.

Sound—Pitch—Tone System—Intervals—Over- and Under-Tone-Series, as the basis of Major and Minor Scales—Chords - Triads—Melody—Harmony—Part Writing.

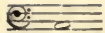
If in space, filled with air, bodies [solid, liquid, or aëriform] are set in vibration, there result sensations of hearing, which are called *sound.* If the vibrations are irregular, the resulting sound is *unmusical* (noise); if the vibrations occur at regular definite intervals, the sensation is called *sound* (musical sound).

In music we have only to deal with the latter.

Over-Tones.—What is generally called a *musical sound* (*i.e.*, one which is distinguishable from another by its pitch, unchanging and measurable) has been proved to be, almost invariably, the result of the simultaneous generation of several simple tones, the effect of the independent vibration of smaller sections of the sound generator (a string, or the air column in a wind instrument). The ear, however, does not receive these "*partial tones*" or "*over-tones*" (simple tones) of which the sound is composed, singly, but only the so-called "*fundamental tone*," the first in the series of simple tones composing the "clang," the one which stands out prominently from the others.*

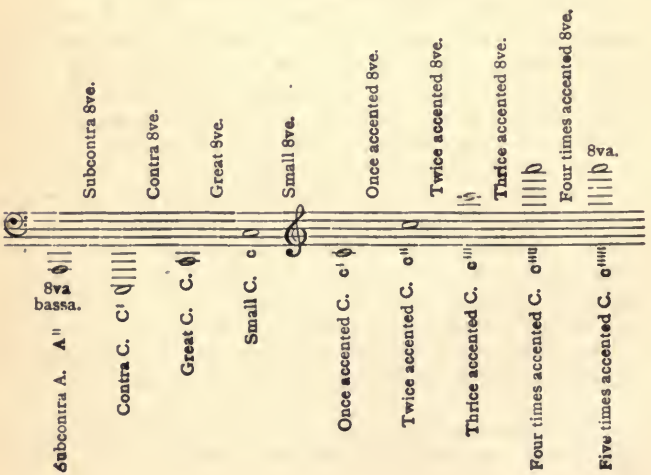
The *Pitch* of a sound depends on the number of vibrations which a sound generator performs in a given

[*For additional information on this subject, *see* "Sound and Music," by Sedley Taylor, and "Sound," by Tyndall.]

time; thus, small c  gives 128 vibrations per second; the 8ve below, great C 64 vibrations [continental pitch].

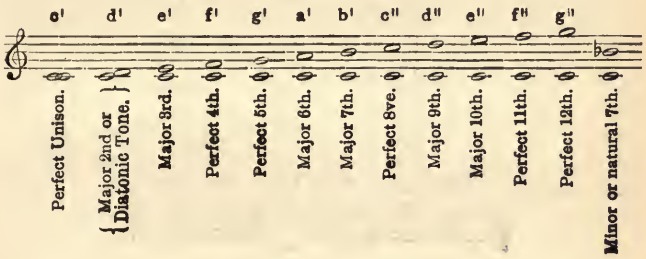
Tone-system.—The sounds used in practical music consist of the *scale sounds* [or *notes of the tone-system*] C, D, E, F, G, A, B, and the *derived notes*, *i.e.*, those which result from raising the pitch of the scale notes by means of sharp (♯) or double sharp (×), or lowering it by means of flat (♭) or double flat (♭♭). In order to avoid confusion in this large number of sounds, whose names often recur, and to determine the actual pitch of sounds with the same name, the notes of the tone-system have been divided into separate octaves, *i.e.*, into sections the extent of which includes the sounds from one note to the next of the same name above or below. Thus, every C in our tone-system receives a name which is a standard for all the other notes included between that and the next C.

OCTAVES OF THE TONE-SYSTEM.



Intervals.—The distance between two sounds of our tone-system is called an *Interval* (intervallum).

The following are the names of the intervals reckoned from c^1.



Perfect (*) *and major intervals* when made a chromatic (†) semitone larger are called *augmented.*

Major intervals when made a chromatic semitone smaller are called *minor.*

Perfect and minor intervals when made a chromatic semitone smaller are called *diminished.*

Inversion of Intervals.—A manipulation which can be effected with intervals must here be mentioned. One interval can be changed into another by means of what

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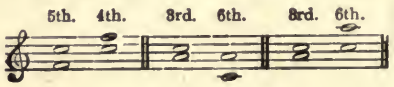
* The unison, 8ve, 5th and 4th have from the most ancient times (Pythagoras) borne the name of perfect consonances, because the *slightest alteration* (imperfection) in these intervals changes them to dissonances; hence the name *perfect intervals.* Later the 3rd and 6th were recognised as consonant intervals; these, however, remain consonant *when made a little larger or smaller.* Hence *major* (larger) and *minor* (lesser). The case is the same with dissonances, which remain dissonances, whether major or minor.

† A difference exists between diatonic and chromatic semitone-steps. Each of the scale-sounds forms with its own sound raised or lowered simply by ♯ or ♭ (C—C♯, C—C♭, A—A♯, A—A♭), or this simply raised or lowered sound with the doubly raised or doubly lowered sound by 𝄪 or ♭♭ (C♯—C𝄪, C♭—C♭♭, A♯—A 𝄪, A♭—A♭♭), the interval of a *chromatic* semitone. On the other hand, a semitone-step, whose sounds are not altered from the normal scale sounds, forms a *diatonic* se mitone (E—F, B—C, A—B♭, C—D♭, G—A♭, etc.

is called *inversion*, *i.e.*, placing the lower note an 8ve higher or the upper note an 8ve lower, thus:

The unison	becomes an	8ve
2nd	,,	7th
3rd	,,	6th
4th	,,	5th
5th	,,	4th
6th	,,	3rd
7th	,,	2nd
8ve	,,	unison



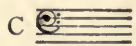
By inversion:

Perfect	intervals	remain	perfect.
Minor	,,	become	major.
Major	,,	,,	minor.
Diminished	,,	,,	augmented.
Augmented	,,	,,	diminished.

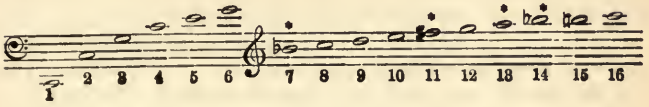
Scale.—Our modern music-system (*see* p. 72) is *diatonic*, *i.e.*, it has a preference for whole-tones (major seconds or so-called diatonic tones). The modern system is embodied in the *tone-ladder* or *scale*, the diatonic major and minor scale.

The most important note of a scale is that which begins and ends it, and gives it its name; *e.g.*, C, D, E, F, G, A, B, C, we call C major.

The Harmonic Series.—In order to demonstrate that the elements of a scale are not arbitrary, but are given by nature itself, we will consider more closely the previously mentioned phenomenon of over-tones, also called the "natural harmonic scale series" [harmonic series].

If a string of a certain length is set in vibration and produces the great C  , together with this note

also sound, although not audible to an ordinary ear without extraneous aid,* the following notes:—



Incidentally in discussing the wind instruments (horn, trumpet, etc.), which, without mechanism, can only produce this series of sounds, we shall return to the natural scale-series. We must remark that the series which has been taken arbitrarily from the *fundamental note* C can be taken from any other note. (According to the standard of interval relationship proper to this scale-series, the sounds are transposed by the same interval that any other fundamental tone chosen is distant from C.) The asterisk to certain notes indicates that our notation, which only contains twelve sounds in the 8ve, is not capable of giving with perfect accuracy the pitch of the 7th, 11th, 13th and 14th over-tones. These notes are *flatter* than the notation indicates, but are still too sharp to be rendered by the note a semitone lower; they do not exist in our system of notation.

Nos. 2, 3, 5, 7, 9, 11, 13, 15, are called *primary* over-tones, the others *secondary* over-tones (*i.e.* derivatives of the former).

The relation of this over-tone series to its fundamental tone can be expressed mathematically and physically by the relation of numbers. In order to produce tone 2, a sound generator must make twice as many vibrations as are necessary to produce tone 1; or, in the same time in which tone 2 makes twice as many vibrations as its fundamental, tone 3 makes three times as many, etc. Expressed in numbers: C of the great 8ve is to C of the small 8ve in the ratio of 1 : 2. Or the 2nd example, small c is to small g as 2 : 3, etc.

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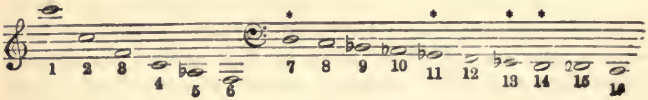
* If on the pianoforte the low C is struck and the pedal put down, when there is perfect silence, several of these overtones become audible one after another.

Chord and Tonic.—The simpler the ratio between two given quantities, the more quickly and directly will it be grasped, even if we are unconscious of the law. Therefore the ear rejects the 7th, 11th, 13th and 14th over-tones, as having no direct relation to the fundamental tone, for it feels the need of a certain proportion of the other intermediate tones in order to establish a connection with the fundamental tone.

Tones 8, 10, 12, 16 are complicated secondary tones, repetitions of primary tones in higher positions. Therefore the tones 1, 2, 3, 4, 5, 6 arrest the attention and demand closer investigation. If we reject the double representatives (two C's and G) we thus retain the sounds C, E, G, which form a *chord*, *i.e.*, the simultaneous sounding of several notes ; this chord is called the *C major triad*, and is recognised as the most important chord in the C major scale. The C major triad consists of a *prime* [ground note], a *major 3rd*, and a *perfect 5th.* It is from the prime that the other intervals are reckoned. This triad, when built on the 1st sound or *tonic* of a scale, is called the *tonic chord*, or *chord of the tonic.*

Proceeding in the same way as for the major triad (which takes its name from the major 3rd) we can evolve a *minor triad,* also given to us by nature, if we construct a *series of under-tones* [from a given fundamental.]*

Putting this idea into practice, we can imagine a string which will give Tone I. as the *highest* note of the series.

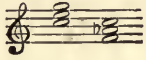


If we double the string in length, tone 2 will sound ; if we treble it, tone 3, etc. If we now select, under the same conditions as before, only the first six primary

* [*See, for further information,* "Harmony Simplified," by Dr. H. Riemann (Introduction).]

tones, omitting the repetitions, viz., two C's and F, we get the sounds F, A♭, C, a *minor chord* or *triad.* In this tone series 7, 11, 13, 14 are *sharper* than the notation indicates, but too low in pitch to be indicated by the semitone higher.

Triads generally take their names from their root (ground note or fundamental note), *i.e.*, from the lowest note, the principal note of that scale whose tonic chord the particular triad is. Thus the C major chord is the representative of the C major scale, the F minor chord of the F minor scale. According to their construction they may be called respectively a *C over-clang* and a *C under-clang.**



A. von Öttingen, building on the work of Moritz Hauptmann (1792–1868) and Helmholtz (1821–1894), combined the researches of both, and laid the foundation of a modern theory of harmony which has been used as a basis by many theorists, particularly Dr. Hugo Riemann (born 1849).

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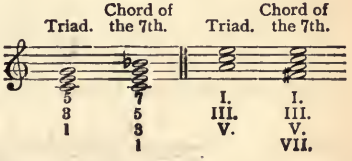
*[Much that the author says in this place will certainly not be intelligible to anyone who is unacquainted with the theory in question. The reader is referred to Riemann's "Harmony Simplified." It must always be borne in mind that in this system every chord built on the basis of a major triad is reckoned upwards from its prime in the usual way; on the other hand, every chord built on the basis of a minor triad is reckoned *downwards*, not from the bass note (root) of the triad, but from its 5th, which in this system is considered as the prime. This must be borne in mind in following the author's explanations. Arabic numerals are used to indicate the intervals of major chords, and Roman numerals for minor chords. Thus, a note figured 5 takes the 5th above, a note figured V. takes the 5th below.]



The most important points of this modern theory of harmony are the following :—

I. *Major is the reflected image of minor, therefore the exact reverse of minor.*

II. *There exist only three directly intelligible intervals, the 8ve, major 3rd and perfect 5th.*

No. I. can easily be illustrated in the following way.

The intervals of which a major scale consists are whole tones (1) or half-tones ($\frac{1}{2}$).

Major $C\overset{1}{}D\overset{1}{}E\overset{\frac{1}{2}}{}F\overset{1}{}G\overset{1}{}A\overset{1}{}B\overset{\frac{1}{2}}{}C$. From once accented c^1 to twice accented c^2 the order will form an over-tone series reckoned from the bottom note upwards, *i.e.*, d^1 is *over*-second (2nd above), e^1 is *over*-third (3rd above), etc.

Minor $C\underset{1}{}B\flat\underset{1}{}A\flat\underset{\frac{1}{2}}{}G\underset{1}{}F\underset{1}{}E\flat\underset{1}{}D\flat\underset{\frac{1}{2}}{}C$. The intervals of a minor scale are, from once accented c^1 to small c, in the order of an under-tone series reckoned *downwards from the top-note*, *i.e.*, $b\flat$ is *under*-second (2nd below), $a\flat$ is *under*-third (3rd below), etc.*

We must always bear in mind the fact, that out of an *over-tone series* from a certain C, the C major chord results, and out of an *under-tone series* from the same C an F minor chord results, C being in both cases the most important note, the *prime*, *i.e.*, the sound from which the other intervals are reckoned. If we construct from C a *scale*, *i.e.*, fill up with melodic passing notes the skeleton of the representative triad, we obtain for major and for minor exactly the same relationship.

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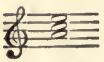
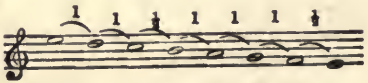
* [The minor scale here referred to is obtained by reckoning downwards from the upper note (the 5th, in this system considered the root) of the minor triad, thus : A minor triad :

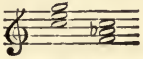


minor scale obtained by reckoning downwards from the note E



of which the above is a transposition.]

Laid out in reverse order, *both* triads consist of a prime, a major 3rd, and a perfect 5th, in the major reckoning upwards and in the minor reckoning downwards.



Major Minor

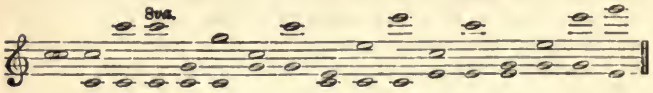
Scale and Key.—If these two chords are important for their *scales*, they are equally so for the key. *Scale* and *key* are not absolutely identical. Every one who has occupied himself at all with music knows that a certain piece is in a certain key, *i.e.*, that the melody of the piece in its development embodies a certain key (C major, A minor, etc.) It starts in this key, which is also prominent in important moments of development, moves in its course into other keys related to it, and so forth, and with this key, as a rule, the whole composition ends. This key cannot be personified by anything more precisely than by its scale; but one must not forget that the sounds of one particular scale include some which are also of importance in other scales.

With the sounds of the C major scale, for example, it is possible to construct also the A minor triad (A, C, E), the G major triad (G, B, D), the E minor triad (E, G, B), the F major triad (F, A, C), and the D minor triad (D, F, A); it is obvious, therefore, that one can use a single scale, and by means of it can modulate into various other scales. Within the scope of one key lie, in addition, a number of chords which contain other sounds than those of the scale of that key.

In earlier times, when the boundaries within which a melody could modulate were narrower than to-day, and the ideas and knowledge of key relationship were essentially different, scale and key were considered to be identical.

Consonance and Dissonance.—The idea of consonance (sounding together, *i.e.*, sounding well together) and dissonance (not sounding well together) can, on the basis of what has already been said, be thus defined:

1. As applied to intervals. All those intervals are consonant which can be constructed by means of the sounds of the major and minor chord. *Consonant*, therefore, are the unison (*i.e.*, the same sound produced by two generators at the same time), the 8ve above and below (the double 8ve, triple 8ve, etc.), the 5th and 4th above and below, with their compound intervals, and major and minor 3rd, including their compounds.



Dissonant intervals are those consisting of sounds which do not belong to the same chord (major or minor triad).

Dissonant intervals are the 2nd and the 7th with their compounds, as well as all augmented and diminished intervals.

2. As applied to *chords*. *Only the major triad* (over-clang) *and the minor triad* (under-clang) *are consonant; all dissonant chords are modifications of these.*

The classification of dissonant chords is much easier on this basis than on any other; it consists in:

*1. Adding a fourth note to the triad (a).
2. In place of one of the notes of the triad putting a neighbouring note, so-called "feigning consonances" (b).
3. The chromatic alteration of one of the notes of the triad, so-called "altered chords" (c).

The physiological effect of dissonant chords consists (unlike the satisfactory effect of the triad) in a feeling of unrest, of incompleteness; one or more notes of the dissonant chord require a further progression to other notes, the so-called *resolution*. Only after the final resolution does the ear find rest.

Dominant and Sub-dominant.—We will go one step

[* (a) See Riemann's "Harmony Simplified," pp. 55, 56.
(b) ,, ,, ,, p. 71.
(c) ,, ,, ,, p. 112.]

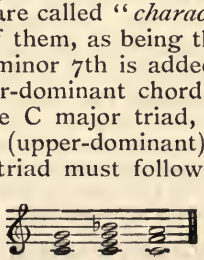
further, and consider the most important degrees contained in a scale. We already know the *tonic* as the 1st degree and bearer of the most important triad. Next in importance comes the 5th degree of every scale (the perfect 5th from the tonic), which is called the *upper-dominant*, or simply *dominant* (dominant, from the Latin *dominans* = ruling, dominating), and the 5th note below the tonic, which is called the *under-dominant* or *sub-dominant*. For example, if the tonic is C, the dominant is G, and the sub-dominant F.

Each of these two degrees can become the bearer of a triad, and these triads on the dominant and sub-dominant are, next to that on the tonic, the most important, because in the simplest little song, as in the most powerful composition, besides the key, the signature of which the piece bears, the keys of the two dominants are the ruling ones, and their influence on the construction of a composition is no mean one.

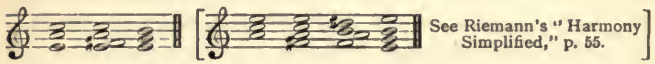
By *modulation* is understood the passing from one key to another, which for the moment becomes the principal key in place of the former one. It is possible to effect such a change of key in innumerable ways. The most usual means of modulation is the changing of a tonic chord into one of the dominant chords, or of one dominant chord into the other ; giving a new meaning to the chord, so to speak.

Such a change of meaning can also be brought about by the addition of a dissonance to a triad, which dissonance stamps the triad as upper or under-dominant of the key into which one wishes to modulate. Such dissonances are called "*characteristic.*" We will only explain two of them, as being the most important.

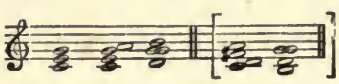
As soon as the minor 7th is added to a major triad it becomes an upper-dominant chord ; *e.g.*, as soon as B♭ is added to the C major triad, the C major triad becomes dominant (upper-dominant) of F major, therefore the F major triad must follow.



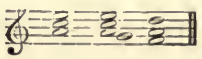
A minor triad, with a minor 7th added *below*, becomes the sub-dominant; for example, the triad of A minor with minor 7th below leads to the key of which A minor is the sub-dominant chord, *i.e.*, E minor.



The 6th added to a major triad makes this into a sub-dominant:



The under 6th added to a minor triad turns this into a dominant:

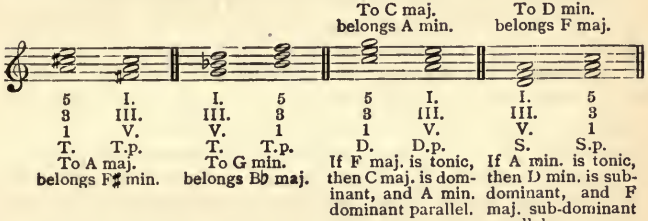


Parallel Keys.—Before we close this chapter with some remarks on melody and harmony we will glance shortly at the keys closely related to tonic, dominant and sub-dominant; they are in major keys the "relative" minor keys, and in minor keys the "relative" major keys; in one word, the so-called "*Parallel Keys*," *i.e.*, key-couples of different modes (major and minor) with the same key-signature (flats or sharps).† Without further explanation this can be seen, and the degree of relationship between "*parallel-clangs*" (*i.e.*, the triads of parallel-keys) can be shown if Arabic figures are used for the intervals reckoned upwards, and Roman figures for the intervals reckoned downwards. T.p. signifies Tonic parallel (key or chord), D.p. Dominant parallel (key or chord), and S.p. Sub-dominant parallel (key or chord), provided the chord to which we wish

*[Riemann and the other theorists who adopt this system regard discords built on the dominant triad of a minor key, with a minor instead of a major 3rd (*i.e.*, without the leading note), as dominant discords. Under ordinary circumstances this passage would not be in D minor.]

† [*See* Riemann's "Harmony Simplified," p. 71.

to find the parallel key, is [tonic], dominant, or sub-dominant of the key which must be considered as principal key (key of the tonic).



Of the two chords coupled together each is the parallel clang of the other; by this method of illustration the obvious association of the most important notes and their near relationship is made clear.

What is Melody? What is Harmony? And what is the object of the Study of Harmony?

A *Melody*, according to our modern ideas, is constructed by changing the pitch of sounds, their duration and intensity, and has, as its nucleus, the most important notes of a temporarily principal key. The tone and semitone-steps are considered rather as melodic steps, and the larger intervals as harmonic steps. In considering melodic progression, one melodic step must be mentioned, which necessitates, in most cases, a fixed progression of the melody; *i.e.*, the *leading-tone step.*

The term *leading-tone step** is generally given to the semitone-step from the 7th degree (leading note) of a scale to the 8ve; nevertheless, every raising or lowering of a note of a triad can have the effect of making it a necessary condition that the raised note should rise a semitone, and the lowered note fall a semitone; such a progression being in accordance with the leading-tone relationship. Hence the constant negativing of the

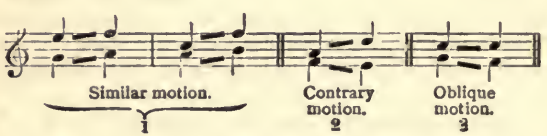
*[Riemann speaks of semitone-steps in general as leading-tone steps.]

natural factors of melodic construction would be *unmelodious*.

Harmony, in our modern sense, consists in several sounds being heard simultaneously, their relation to one another being such that they can be recognised by the hearer as a chord.

Harmony, as a theory, treats of the different kinds of chords, their origin, treatment, connection with one another, and their classification. The elementary ideas of Harmony are given by the Harmonic Series (*see* p. 54).

A *part* or *voice* in a composition is the name given to a series of notes, more or less connected, which the composer intends to be performed by one singer or one instrument, either alone or in combination with another or other parts. The most important part in a composition is called the *principal part* or *obbligato* part, the other parts being subordinate or filling up parts (ripieni). In a polyphonic composition the highest and lowest parts are called *outer parts*, those lying between these two, *inner parts*. If two parts proceed in one direction the motion of parts is called *parallel* (*similar*) (1); if both proceed in contrary directions, it is called *contrary* (2); if one part remains at the same pitch whilst the other rises or falls, it is called *oblique* (3).



The motion of parts under one another is subject to fixed rules, the rules of part-writing; but before one forms an opinion, with regard to a composition, as to whether, and to what extent, the laws of part-writing have been followed in its construction, one must ascertain whether one has to do with *real parts* or not. *Real parts* are principal parts of a composition which is described or recognisable as being in two, three, or more parts, or those which, standing out for a short

time, scarcely less prominently than the former, can be distinguished as independent subordinate parts; or, in other classes of composition, those which, at all events for several consecutive bars, form an independent whole; in one word, real parts are those entitled to be considered as individually existent. To such parts the rules of part-writing apply more or less strictly, whilst those parts of a composition which have no pretension to independence are less affected by these rules; indeed, are not affected at all by some of them. One must, however, separate the rules laid down for real parts from those applicable to ordinary composition. The general rules for ordinary composition are directed against progressions and combinations which are unmelodious, or impracticable as regards their execution, whilst the rules for real parts, besides enforcing the ordinary rules in a stricter form, concern themselves with the distance of the parts from each other, or, according to the particular system of harmony under discussion, with the forbidding or permitting of the doubling of certain notes, the possible progressions of a well written bass part, and so forth.

Chapter II.

Motive—Accent—Bar and Time—The æsthetic effects of Dynamics and Agogics—Phrasing—Measurement of Volume of Tone and Pace—Rhythm and Metre—Tone-system and Temperament.

The first chapter was devoted to the *material* with which we have to reckon in our art, a *sound*, its origin and its relations to others of its own kind. In the following chapter we shall consider the *employment* of this material in the construction of a melody.

Motive.—The elements, the smallest members, of a musical thought are called "*motives*," * from the Latin word signifying elements of movement, and no word can better describe the smallest part of a continuous rhythmical whole.

If we think of a single detached sound, it is endowed with no vigour, it possesses only the individuality of its tone; this is no longer the case if another is added in relation to it, and in such a manner that one can recognise the first as an assertion or question, and the second as a completion or answer. It is obvious, therefore, that the conclusion, as coping stone of the building, as answer to a question, should have the greater weight; or, as the musician would say, the second note, in comparison with the first note, should be more strongly accented. (Accented or strong beat = down beat; unaccented or weak beat = up beat.)

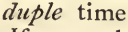
The *bar-line* has now the important function of marking the strong beat of the bar, and one must be careful not to regard the bar-line as a boundary post of the collective sounds, for it only indicates the note following it as that note towards which, as the culminating point, force is gradually developed.

The bar-line does not prevent us, therefore, from recognising relationship between notes as though it

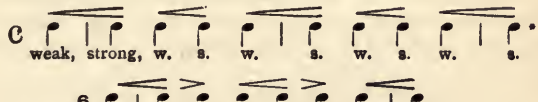
*[Accent on the second syllable.]

were not there; it gives us, on the contrary, the direction for a manifestation of force.

Accent.—In music, increase of force is indicated by the Italian word *crescendo* (growing), or by a sign symbolising the swelling of the sound  .

Time.—What we have said up to this point can be expressed thus, , and we have before us the germ of *duple* time, which we will later more fully explain. If one admits the law of inertia on the one hand, and, on the other, the feeling which couples greater expenditure of force with greater expenditure of time, a lengthening of the second note can well be understood. If the point of rest is prolonged, only a little need be added in order to give the note double its value,  ; *triple* time is thus obtained, and the sign signifying the reverse of crescendo (*i.e.*, diminution of volume) is only natural after the attainment of the culminating point. The sign for *decrescendo* is  .

A distinction is made between *simple* and *compound* times; the latter is constructed naturally by grouping together bars of the former. All accents of the second order (*i.e.*, compound) originate thus; within a bar of compound time, an accented and an unaccented beat still exist, the chief accent, however, resting on the first note-value after the bar-line.



Arsis.—By these examples one sees how, in $\frac{4}{4}$ time,

*[This, of course, is not the generally accepted meaning of compound time.]

the second crotchet always detaches itself from the first, and becomes the arsis (up-beat) of the next. We call "arsis" that incomplete bar which, setting aside the bar line, is taken in connection with the strong beat (first beat) of the next bar. The same thing occurs in the $\frac{6}{8}$ bar. The long note, which we employed in the above illustration of a "motive" in triple time, is here divided into two quavers, of which one is the stronger and the other comparatively weaker; the third quaver is thus again "arsis" to a new triple formation. If we here, in the inner part of the bar, speak of an arsis, it is to be understood in the sense that, although the strong accent of the second order, in the middle of the bar, is not indicated by a bar-line, the note preceding it stands in the same relation to it as an arsis to a thesis (an up-beat to a down-beat).*

Naturally the performance of a musical piece with slavish accentuation of the rhythm would be intolerable; the rhythm must rather subordinate itself to the "nuances" depending on higher considerations. It will perhaps not be new to many to find that this reciprocal relationship of accent and non-accent influences, not only the smallest formation of the bar-motive, but all groups of bars and phrases.

Symmetry.—Thus, like accented and unaccented beats of a bar, accented or unaccented bars, or accented and unaccented groups of bars, are opposed to each other. The position of the accented *bar* is, for musical logic, just as important as the position of the accented *beat* of the bar is for "time." As soon as the strong beat in a bar is displaced, if, for instance, it is repeated, or omitted, or marked earlier or later than one expects it to be, the symmetry is disturbed. A change from

* *Bars beginning with an up-beat* are much oftener met with in music than is generally supposed. A great part of the swing and energy, inherent in a melody, is due to this. A melody constructed thus holds the interest of the hearer much longer than one constructed on the contrary plan, a continual succession of complete bars. Complete bar rhythm is oftener found in folk-songs, dances and marches, as they do not call for complication in bar structure.

strong to weak, or *vice versâ*, is called "cross-accent" or "syncopation."

In general, the means used for "*disturbing the symmetry*" of bar or theme formation are these; (1) expanding the scheme of weak-strong or strong-weak, etc., by interpolation and prolongation of note-values; (2) changing strong accents to weak (cross accent or syncopation); or (3) condensing the scheme by omission.

Phrase.—As soon as a motive, as an independent symmetrical figure, is opposed to another, it becomes a *phrase*,* the length of which can be a matter of taste. At the beginning of a piece, when it first develops itself from the existing material, it is often only the length of a motive, whilst in the course of the composition it can grow into whole groups of bars and portions of movements.

Phrasing (not to overlook this subject, so much discussed at the present day) is, to quote its principal champion, Dr. Hugo Riemann, "Separation of phrases (*i.e.*, the more or less self-contained members of the musical thought), in performance by means of expression, and in notation by means of special signs."

What means has music at its disposal to perform a melody expressively, and thereby to separate it into members, conformably to the musical idea?

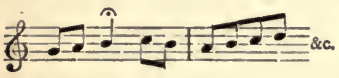
Dynamics.—First of all, the already described factors of crescendo and diminuendo, *i.e.*, the *dynamic* element, the varying intensity of sound. A crescendo or diminuendo does not always require to be indicated; it will often, unconsciously, be felt to be necessary. A musical figure which rises (except of course in the case when the composer, with a view to a particular effect, has directed the opposite) will generally be performed with crescendo, a descending figure with diminuendo.

Agogics.—Parallel with this, in most cases, crescendo is coupled with a slight increase of speed, and (*vice*

* [Generally called a section or half-phrase.]

versâ) a decrease of tone is accompanied by slackening of speed. We only need to observe our speech a little, in order to perceive exactly similar effects in expressing the emotions. Often only minute changes of tempo are required, such as the accentuation of the strong beat, already described, or the imperceptible dwelling on the same.

The direction for the accentuation of single notes, as also the long pause on a certain note, the composer is able to indicate by certain signs.



The sign 𝄐 implies a *pause* on the indicated note. The length of such a pause is left to individual taste, but due regard must be given to the character of the work and to the obtaining of particular effects in special cases.

Exaggeration of *light and shade*, and *change of pace* (tempo rubato), in the rendering of a piece, is to be avoided. The good taste of the performer can alone decide such matters.

Metronome.—We possess no means of measuring the degrees of tone-volume. On the other hand, for measurement of pace we are provided with one, even if only relative, in ourselves, namely, our pulse, which in a normal person, under normal conditions, makes about 78 beats per minute; this corresponds to a medium pace, and would in music, be expressed by the word "Andante" (Italian, going). Any movement more rapid than our pulse beat we feel to be quicker, or quick, and vice versâ. If, however, a soloist or conductor were to be guided by this chronometer alone, "tempo" would be in a bad way. In order to assist the feeling for tempo, which is inborn, although it may also be acquired by study, several appliances have been invented, which, visibly or audibly, as may be preferred, mark the divisions of the bar. The best known of these is *Maelzel's Metronome* which, by means of clock work, sets in motion a pendulum with a movable weight and regulated scale; the beats (oscillations) of the

pendulum are distinctly audible. If over a composition this direction appears, M.M. ♩ = 78, the metronome is to be set in such a manner that the pendulum will make 78 oscillations per minute, (*i.e.*, place the weight at the figure 78 on the scale), and each oscillation will equal a crotchet in value. The machine is thus an unfailing guide for the tempo of an entire work.

Metre and Rhythm.—Whilst *metre* depends on the stress values of sounds, *rhythm* treats of their different length-values and the artistic effects resulting therefrom ; it is difficult, however, to distinguish between the two. Some characteristic rhythms must be mentioned which occasion divisions of the bar, varying from the ordinary ones.

Triplets, Quadruplets, etc. — Triplets result if, in place of two notes, three are found, which are to be played or sung in the same time as the two. For example, if a crotchet is divided into three quavers instead of into two, these three quavers form a triplet of quavers. In the same way a triplet of crotchets results if a minim is divided into three instead of into two crotchets, etc. A slur with the figure 3 indicates the triplet. Although not so frequently, a triplet is sometimes found which stands in place of four notes (not two). For instance, three crotchets may be made to fill up a bar of $\frac{4}{4}$ time. The difference in the æsthetic effect of the two is obvious : in the first case, the triplet has the effect of hastening, and, in the second, of slackening. In the same way, *couplets*, *quadruplets*, *quintuplets*, *sextuplets*, etc. result, if two notes instead of three in triple time, or four notes instead of three (sometimes instead of six), or five notes instead of four or six, etc., occur ; these formations, like the triplets, can have different effects, according as they are used in place of smaller or larger numbers of notes. A slur, with the necessary figure beneath, stamps them as irregularities.

Syncopation is the tying of a note on the weak beat of the bar to the succeeding note on the strong beat of the next bar (for strong and weak *see* p. 66), contrary to

the usual division of the bar, so that a change of rhythm results.  &c.

Here the second quaver of the first crotchet, lengthened to a crotchet, extends into the second crotchet, the second quaver of the first crotchet and the first quaver of the second crotchet being taken together as one crotchet. The same thing is repeated with the second quaver of the third crotchet of the bar, the last quaver of the first bar being part of the last crotchet, united by means of the tie, as though the bar line were absent, with the first quaver of the succeeding bar.

Tone-System and Temperament.

The object of a *tone-system* is to systematize and explain theoretically the sound-relations used for the practical study of music. The tone-systems of all periods have points of contact, and these result from the important fact that they all are based on a *diatonic* tone system.

Diatonic (from the Greek) is the name given to a succession of sounds proceeding by degrees which are chiefly whole tones.

Chromatic is the name given to a tone-system in which the sounds move by degrees of a semitone (*see* p. 53, footnote).

Enharmonic is the name given to a system which refuses to identify as one and the same (as is done in practice), raised and lowered sounds, which, strictly speaking, represent different sounds. The meaning of this we will now explain.

Our tone-system is based on a *diatonic* scale, the notes of which produce the intervals of five whole tones (1) and two semitones ($\frac{1}{2}$). If one of these notes is provided with a ♯, ♭, x or ♭♭ it is said to be *chromatically altered.*

In order to form scales beginning and ending on other notes than C, constructed in the same manner as the C major scale, some of the notes must be chromatically altered (raised or lowered); for example:

G 1 A 1 B 1/2 C 1 D 1 E 1 F 1/2 G; or E 1 F 1/2 G 1/2 A 1 B 1 C 1/2 D 1/2 E; or E♭ 1 F 1 G 1/2 A♭ 1 B♭ 1 C 1 D 1/2 E♭ etc.

Complete list of scales which are possible in our tone-system, resulting from such chromatic changes of notes as are necessary to produce the interval-relationship proper to a major or minor scale.

C major	and	A minor	without	sharps or flats.
G ,,		E ,,	with	1 ♯
D ,,		B ,,	,,	2 ,,
A ,,		F♯ ,,	,,	3 ,,
E ,,		C♯ ,,	,,	4 ,,
B ,,		G♯ ,,	,,	5 ,,
F♯ ,,		D♯ ,,	,,	6 ,,
C♯ ,,		A♯ ,,	,,	7 ,,
F ,,		D ,,	,,	1 ♭
B♭ ,,		G ,,	,,	2 ,,
E♭ ,,		C ,,	,,	3 ,,
A♭ ,,		F ,,	,,	4 ,,
D♭ ,,		B♭ ,,	,,	5 ,,
G♭ ,,		E♭ ,,	,,	6 ,,
C♭ ,,		A♭ ,,	,,	7 ,,

All employable musical sounds, as has already been explained, not only as to their absolute pitch, but also in their mutual relations as intervals, can be expressed by mathematical formulæ (ratio numbers). The ear, however, does not make the same demands on pitch relationship as does exact science, which obtains its results by a different method of temperament (*i.e.* selection of sounds) from that of practice.

Temperament. The learned of all ages have occupied themselves in bringing the practically acceptable pitch of sounds into a system by calling in the aid of physics and mathematics, in order that the demands both of practice and of science, for accuracy of pitch in the sounds of the tone-system might be approximately satisfied. In all instruments, however, whose notes, as they exist, cannot be raised or lowered by the player, (for instance the Pianoforte), the choice of sounds (temperament), which as they exist in nature are

innumerable, is limited. It is, therefore, impossible in musical practice to make use of a keyed instrument which should have next to C a C♯, a C♭, a C𝄪, and a C♭♭, necessitating 35 keys for the octave. After the various researches of earlier centuries, which fruitlessly strove to reconcile the positive discrepancy between the intonation of the notes in practical use and the theoretical acoustical purity of a tone-system, there arose, towards the end of the 17th century the principle of so-called *equal temperament* (12 sounds to the 8ve), a *tone-system* which renounced all claim to the physically absolute purity of each single note, and distributed the inevitable inaccuracies equally in such a manner as to satisfy the ear.

With the establishment of this now universally accepted tone-system (whose cause was espoused by J. S. Bach, who named one of his works "*Das wohltemperierte Klavier*") arose the necessity of practically identifying theoretically different sounds on the keyboard; for instance, the key for F must also represent E♯, that for F♯ also G♭, etc. When one note is thus changed to another, that note is said to be *enharmonically changed.*

B.—Form.

Chapter I.

Art Form—Types of Form—Symmetry in Form—Influence of Harmony on Form—Cadences.

As a musical art-work, like any other, presents itself in an outer shape, and this outer shape can assume different *forms* (a Dance, March, Symphony, etc.), there must exist in our art a theory of form, having as its object the establishment of the different kinds of form, from the simplest to the most complex, as rational, and capable of development on fundamental principles. Already in considering the development of bar motives, we felt the importance of symmetry, likewise of disturbed symmetry (which, indeed, implies symmetry), in producing a satisfactory effect. Symmetrical arrangement, notwithstanding the variety of individual parts, unity in plurality, must be the aim of every artistic production.

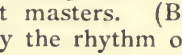
We will now describe the smaller musical forms, and their development into larger forms by being grouped together.

We must begin by considering the distinction, so important in form, between *duplex* [*binary*] and *triplex* [*ternary*]. We have already seen that the former was the germ of the latter, (*see* p. 67).

An example will best illustrate the phases of development in the shaping of musical thoughts into movements, periods, etc.

Half-Phrase.—Granted that a composer has written a "motive" with germinating possibilities, rhythmically interesting in construction; the simplest *development* of this is an exact repetition of the motive, but

interest may be enhanced by contrasting the second with the first, either by repeating the first on a higher degree of the scale, by enriching it with an up-beat, or by the interval relationships moving upwards instead of downwards (inversion of a motive). The first motive may correspond with the second in its metrical construction (with regard to the position of the strong accent), or it may be constructed differently. If this form-fragment (two motives), which is called a *half-phrase* [or *section*], were to be repeated over and over again with slight alterations, the effect would be uninteresting and wearisome. Nevertheless, a particular rhythm may sometimes characterise an entire movement without losing interest, as we see in the works of the great masters. (Beethoven's C minor symphony, especially the rhythm of the 1st movement



Phrase.—In order to enlarge this half-phrase to a *phrase* it is necessary to add a second half-phrase. The simplest kind of answer to two corresponding bars is the addition of two bars, the bar-motives of which (as a rule not imitations of each other) blend together, forming a whole.

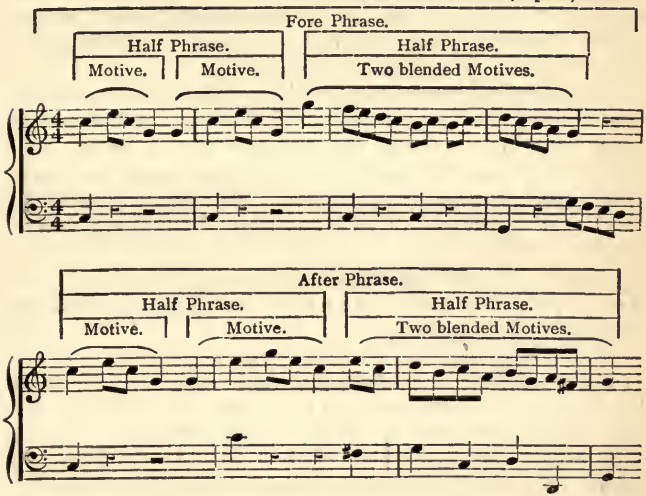
It must be remarked that similarity between two *bar-motives* (they are called bar-motives if their strong accents coincide with those of a bar containing two or three beats) produces the effect of separation, forcing into parts, whilst dissimilarity blends them into a whole. Two dissimilar bars can be answered by two equally unlike, but in such a manner that bars one and three, and crosswise, bars two and four, are felt to correspond.

It is by means of addition and omission of up-beats, rich melodic embellishment of the rhythmical melodic nucleus, rhythmical alterations, etc., that the separate parts are blended into various sentence-types.

Sentence.—In the same way that half-phrases were formed into phrases, 4-bar phrases can be made into

8-bar *sentences* by contrasting a *fore-phrase* with an *after-phrase* :—

CLEMENTI. Sonatina, Op. 36, No. 1.



Harmonic Changes.—Hitherto we have left *harmonic progressions* out of the question. With regard to that we must remark that all the strong accents of the smaller and larger formations (half-phrases, phrases, etc.) are the points at which a change of harmony is expected ; the stronger the accent is, the more probable is a change of harmony. If an up-beat exists, this generally belongs to the preceding harmony, and the strong beat brings the new harmony. (Of course, there are exceptions to this.)

The frequency of harmonic changes will materially depend, moreover, on the character of the theme (pace, melodic form, etc.).

We must now consider the aesthetic effect of the influence of the Dominant and Sub-Dominant of a key on the Tonic.

In the major key it is usual, in modulating, to work from the tonic upwards, *i.e.*, to the dominant ; in the

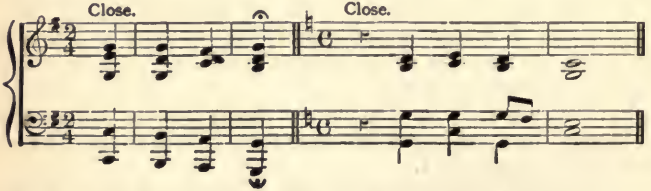
minor key from the tonic downwards, *i.e.*, to the sub-dominant minor (° S).* In the major key, on the other hand, the progression from tonic to sub-dominant has the effect of a forcing down below the level; in the minor key, the progression from tonic to minor upper-dominant has the effect of screwing up.

Here again is seen the origin of the development of major and minor; movement is felt to be natural in that direction in which the sounds of the mode were generated, *i.e.*, in major upwards (the upper-dominant side), and in minor downwards (the under-dominant side). In speaking of cadences we shall again return to this subject.

Among the innumerable harmonic progressions those will appear the simplest which yield to the natural tendency of a mode.

In placing side by side two bar-groups which are not in the same key (the employment of other keys is an aid to development and contrast), we must first quit the key for another naturally related to it, and the anti-thesis in the harmonic progression will be effected most naturally by harmonic inversion (in this sense working backwards), *i.e.*, we return from the new key to the original key; we thus obtain, in addition to the contrast, symmetrical rounding off, for we end, as we began, in the tonic key.

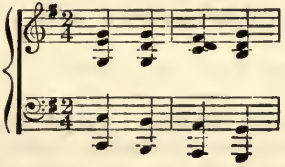
Close or Cadence.—We obtain, by the systematic arrangement of chord progression in this way, what is called a *close*, but a great part of the cadential



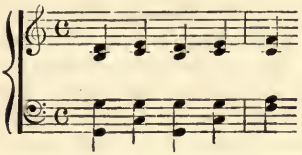
effect of such a harmonic progression (*e.g.*, C maj.—G maj.—G maj.—C maj.) depends on the fact that

[* *See* Riemann's "Harmony Simplified."]

the *chord* with cadential power (*i.e.*, the last chord) falls on a *beat* with *cadential power* (*i.e.*, strong beat). If this is not the case the close is unsatisfactory, and not only fails to be a close, but forms, on the contrary, a new point of departure.



No close, because the chord with cadential power occurs on an up-beat (the second crotchet of the bar), not a beat with cadential power.

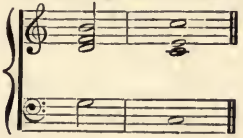


No close, because a chord, in this case not with cadential power, the sub-dominant of the key, falls on the beat with cadential power.

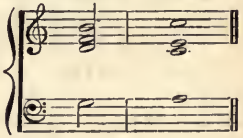
A *Half-close* consists of the chord of the Dominant struck on a beat of cadential power. Every dominant chord, or its parallel chord (*see* p. 62), can bear a half-close. If the sub-dominant chord occurs on the strong beat, the closing effect is entirely done away with.

The *Deceptive close* is really a close, but not carried out by all the parts, for, in the usual form of deceptive cadence, the bass rises one degree, instead of proceeding from the root of the dominant chord to the root of the tonic chord.

Perfect Cadence or Close.



Deceptive (Interrupted) Cadence or Close.



All closes become deceptive closes if the tonic chord does not appear in its true form, but as a *feigned*

*consonance**. (By "feigned consonance" is meant a dissonance in the garb of a consonance). The deceptive close, therefore, is not a true close, but forms, as it were, a new point of departure.

The number of half-closes and deceptive closes is very large, and it is impossible to give them here. The most important will, after what has been said, be clearly understood.

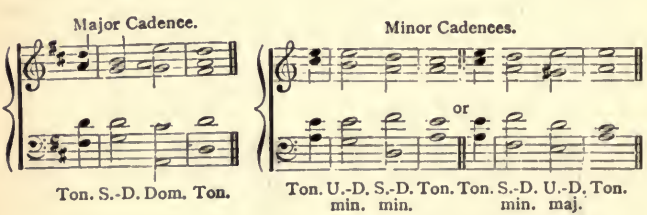
From the discussion of the close, we proceed to *cadences*, *melodic* and *harmonic*.

Cadenza.—A *melodic cadence*, or cadenza, on a pause, occurs in concertos for solo instruments, shortly before the end of a movement, and consists of brilliant passages, with elaboration of the principal themes. Cadences of this kind are nowadays often of very considerable length; earlier they consisted chiefly of ornamentation of the $\frac{6}{4}$ chord preceding the close, and were not written down by the composer. It was left to the discretion of the player to extemporise a cadenza at the place indicated by a pause.

A harmonic cadence† is a harmonic progression which, by its character, incontestably suggests a "close" to the mind.

A form of cadence exists which must be regarded as typical:

For major keys: tonic—sub-dominant—dominant—tonic.



For minor keys: tonic-minor—upper-dominant-minor

*[The reader is referred to Riemann's "Harmony Simplified," p. 71, etc.]

†[This distinction between cadence and close is not general.]

—sub-dominant-minor—tonic. Or, tonic-minor—sub-dominant-minor—upper-dominant-major—tonic.

With regard to the two forms of minor cadence it must be remarked that the first of the two, in which throughout the minor mode is preserved, is the earlier, and in former times was exclusively used; in modern music the second form is the more usual.

The above types can be elaborated in various ways: they remain as the "nucleus," but around them can be grouped, parenthetically, parallel keys and feigning consonances of all kinds, and dissonant chords of all kinds can be used as connecting links.

After this digression, which was necessary for the explanation of the terms *close* and *cadence*, we will now continue our examination of movement-formation, in which, owing to the necessity for continuation and contrast, phrases are combined into sentences; in effecting this half-phrases, phrases, and closes of all kinds enter into innumerable relationships with one another.

For the fashioning of larger forms, symmetry, in the sense in which we have hitherto regarded it, can of itself no longer be the only standard, for contrast or combination of forms ever increasing in length is finally no longer possible. If, as we have seen, the symmetry of small forms was occasionally disturbed, the departure from symmetry in larger forms becomes even more desirable. Take, for example, song compositions, in which deviation from symmetrical rules is rendered necessary by the text. Moreover, the rigid adherence to symmetry, if continued, becomes uninteresting. Although the foregoing rules may be accepted as fundamental, it may safely be said that (with the exception of marches, dances, etc.) few works of larger proportions will be met with which are absolutely symmetrical—counted out, so to speak, bar by bar.

The employment of various forms of deceptive cadence, calling for a further continuation, the addition of an "introduction" or of a "coda" (*i.e.*, postscript

or tail-piece), all tend to produce variety—loss of symmetry; hence the number of non-symmetrical forms becomes very considerable.

Song-form.—When the composition contains only one principal theme, *song-form* is the term universally used, whether the composition is intended for voices or instruments.

Binary form.—If, when a sentence or period is ended, the interest of its material is sufficient to allow of the addition of a second part, the whole is said to be in *duplex* or *binary form.*

In this binary form it is not necessary that both parts should be of equal length; as a rule the second part will be more developed; the first of the two parts may be in sentence-form, the second in period-form (*i.e.*, double the length).

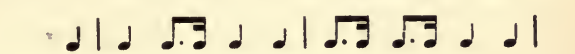
Triplex or *Ternary form* results when, with a desire to round off the movement, the composer returns to the first part and [after the second part is finished] repeats it. If the composition is in the major key, the middle [second] part will generally be in the key of the dominant or dominant-parallel [*i.e.*, relative minor of the dominant]; if in the minor key, it will generally be in the tonic-parallel [*i.e.*, relative major] or dominant minor.

Chapter II.

March — Dances — Suite — Song — Overture — Sonata — Sonatina — Rondo — Air and Variations — Symphony — Scherzo — Concerto — Mass — Oratorio — Passion Music — Cantata — Motett and its Development.

The March.—One of the simplest and oldest art forms is that of the dance ; the March must be classified as a dance, its aim being to regulate the movements of a large number of people. (The Polonaise of the present day is really a march and numbered among the dances.)

The time of the March (not the Polonaise) is duple or quadruple ($\frac{2}{4}$ or $\frac{4}{4}$). In order to avoid monotony, figures with dotted quavers are employed,

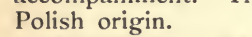


which have the advantage of marking more precisely the strong beat of the bar. The form of the march is symmetrical and clear. There is no objection to the second part being longer than the first.

A march generally consists of a first part (itself binary or ternary in form), the principal part, containing the principal theme ; this is followed by the second part or "Trio," after which the first part is repeated, and is often followed by a *Coda.*

The name "*Trio*" originated at the period when the first and last parts of dances and marches were written in two-part harmony, and the middle part in three-part harmony. The trio, although similar to the first part in time and pace, is nevertheless, from a melodic point of view, quieter and more song-like, and is also contrasted by being in another key (parallel key [relative major or minor], key of the dominant, etc.) ; it can also introduce entirely new matter. The close of the trio leads back to the first part, in the principal key.

The *Polonaise* is in triple time ($\frac{3}{4}$), the pace is moderate, and the following characteristic rhythm,

 appears either in the melody or the

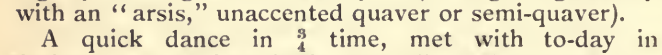
accompaniment. The Polonaise (Italian, Polacca) is of Polish origin.

In addition to these two dances, we will consider a series of dances, now obsolete, to which we will return when discussing the grouping together of movements to form the "Suite."

The *Allemande* is a dance of German origin, but it was taken in hand and developed by the French. It is in common time (generally $\frac{4}{4}$), and combines a certain dignity with graceful melody. (It begins generally with an "arsis," unaccented quaver or semi-quaver).

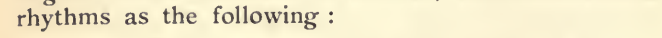
A quick dance in $\frac{3}{4}$ time, met with to-day in Switzerland and Swabia, is also called "Allemande."

The *Courante*, or Corrente, is in triple time ($\frac{3}{2}$ or $\frac{3}{4}$). An example of old date (1695) exhibits the following rhythm :



Later the Courante is characterised by a more uniform movement of quavers and semiquavers. "The rendering," says Türk, 1789, "must be serious in style, and staccato rather than legato. The pace is not very fast." Bach treats the Courante rather freely.

The *Saraband* is a dance of Spanish origin, in triple time, slow in pace and grave in character, either melodically interesting, or embellished with many ornaments, but without rapid passages. The Saraband usually begins on the first beat of the bar, and favours such rhythms as the following :



The *Gigue* is of a light and cheerful character and

quick pace, with the following characteristic rhythm: . The Gigue favours "imitation" (*see* p. 100.)

As a more rapid kind of Gigue, the *Canarie* must be mentioned. Both dances are in triple time, simple or compound.*

Gavotte.—The *Gavotte* is an old French dance-form in alla-breve time (*i.e.*, each beat is of the value of a minim, and two beats would be made in the bar; the sign for this time is ¢). The Gavotte always begins with a minim up beat, [third crotchet of the bar] and closes on a down beat. The character, according to Türk, is genial, rather lively, and well marked, the pace moderately quick.

Musette.—To the Gavotte is often added, as a Trio, a *Musette*, which is followed by a repetition of the Gavotte. Musette is the French name for the bag-pipe, which designation has been transferred to the movement of the same name on account of the characteristic "drone" bass, which, as in the bag-pipe, causes bass notes to continually sound simultaneously with the melody.

Passepied is an old French piece in triple time (3/8 or generally 3/8†). It resembles the Minuet, but is quicker and of a more lively character; it generally begins with a quaver up-beat. Bach sometimes opposes a second Passepied to the first.

Branle or Bransle [English, Brawl] is an old French round-dance, quick in pace, originally written for voices as well as instruments, with a refrain recurring after each strophe.

The *Minuet* (Italian, Menuetto) receives its name from the French "menu" (small), *i.e.*, a dance with small steps.

*[N.B. The author, in common with many others, does not use these terms in the ordinary sense: he includes under the head of compound time 4/4, 6/8, 9/8, and 12/8, considering 4/4 as compound *duple* (*i.e.*, two bars of duple time taken together), 6/8 as compound *triple*, *i.e.*, two bars of triple time taken together.]

† *See* note above.

It originated in Poitou, and was at first a quick, merry dance; in later times it was performed in a slower and graver, yet graceful manner. The Minuet is in triple time (generally $\frac{3}{4}$, less often $\frac{3}{8}$). The second Minuet or "alternativo" is the Trio, and is contrasted with the first part (Minuet I.) in key; when the first Minuet is in the minor, the second is sometimes in the major, when it is called "*maggiore*"; when the first is in the major, the second is sometimes in the minor ("*minore.*") (For the Minuet as a component part of a symphony, *see* p. 92).

Doubles was the name given in former times to variations, in which no change was made either in key or harmony, the theme being modified only by rhythmical figures, etc.

Passacaglia (Passecaille, French) is an old Spanish or Italian dance in triple time, pace moderate, the melody of which is written over a ground bass. (In some old compositions of the kind, the ground bass is absent).

Basso ostinato (ground bass, *i.e.*, persistent bass) is the name given to a bass part, consisting of four or eight bars which are perpetually repeated.

The *Chaconne* (or ciacona) is hardly distinguishable from the Passacaglia; it is generally in $\frac{3}{4}$ time.

Loure is also an old dance in triple time ($\frac{3}{4}$ or $\frac{6}{8}$*), slow in pace, with the characteristic rhythm:  .

It begins with an up-beat (though Türk says on this point in his Piano School, 1789: "This is not always the case.") It is a rule in performance not to detach [or shorten] the dotted notes.

Gaillarde (Gagliarda) is an old French dance-form in triple time, quick pace; it has three repeats of four, eight or twelve bars.

Rigaudon, an old Provençal dance-form in alla-breve time, lively in character. It usually consists of three eight-bar sentences, of which the third should be of con-

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* *See* note, p. 85.

trasting character; Mattheson directs that the latter should also be in a lower position, in order that the other themes may stand out with greater freshness in contrast with it.

Bourrée, an old French dance in $\frac{2}{2}$ or $\frac{2}{4}$ time; it begins with a crotchet up-beat, and there is frequently syncopation between the third and fourth crotchets. The character is lively.

Entrée, as a dance, generally in $\frac{4}{4}$ time, resembles a march. It is also the name of the old overture.

The *Suite* is a so-called *cyclical composition*, *i.e.*, a succession (suite) of several independent pieces, combined into a whole, the unity of which, in the oldest form of Suite, the *Partita*, lay in the similarity of key. Its component parts were Allemande, Courante, Saraband, and Gigue. Before the Allemande, however, often appeared a Prelude, Entrée or Overture, with a slow first part and a more rapid second part; also, between the Saraband and Gigue were often inserted one or several *Intermezzi*, a Bourrée, Gavotte, Passepied, Minuet, Loure, or Air (a song-like composition), sometimes with Variations. The Chaconne or the Passacaglia, if introduced, appear as final movements, after the Gigue.

Nowadays the keys of the different movements of a suite vary; moreover, the *modern suite* no longer confines itself to the old dance-forms, but consists generally of a series of pieces of more or less artistic workmanship, comparatively light in character.

The *Divertimento* (French, Divertissement) resembles the suite as a cyclical work; it has more than four movements (five, six, or more), which are less elaborate than those of the suite.

The *Serenade*, in its older form, also belongs to this category. It contained several minuet-like movements, and one or two slow movements (Air with variations, Adagio, or Andante), and began and ended with an Allegro, a March, or a fugal movement.

Among *Songs*, *i.e.*, compositions for voice, distinction must be made between *Art-Songs* and *Folk-Songs*. A

folk-song is either one which, the writer and composer being no longer known, is considered to have originated among the people, or one which has become "popular," and is therefore simple in style and easily understood. An art-song has higher aims, both as to the voice part and the accompaniment.

A song is either in the form of a "*strophe-song*," the several verses of which are sung to one melody (occasionally, however, one of the many verses may be set to a melody slightly different from the others), or of a *continuous-song*, in which the melody is closely allied to the text.

The *Overture* has undergone many transformations. Its name implies that it is an opening, introductory piece. The oldest form of overture, appearing under this name, was composed by the Frenchman, *Jean Baptiste Lulli* (1633-1687). It consists of three parts; a slow movement, a "Grave" of brilliant character, is followed by a more rapid second part, and the first part is then repeated. *Alessandro Scarlatti* (1659-1725), the distinguished Italian composer, who perfected the Italian opera-overture (called *sinfonia*, symphony), began the overture with an allegro movement, followed with a slow movement, and generally closed with an allegro in fugal style. The word symphony, in his day, meant nothing more than a polyphonic movement. *Handel* (1685-1759) was the first to write overtures to dramatic works which were intimately related to the works themselves; the different parts of the overture, moreover, were connected in an intellectual sense. After him, to *Gluck* (1714-1787) is due the merit of having given the overture increased importance as an independent piece, and at the same time a still closer connection with the opera itself.

At the present day there exist three kinds of overture. (1) The overture in sonata form with two Subjects, Free Fantasia and Recapitulation; *concert overtures* follow more or less strictly this form (Beethoven's "Coriolan," Mendelssohn's "Ruy Blas," etc). (2) The overture which, after the manner of a "pot-pourri," consists of a

selection of the most prominent melodies of an opera, loosely grouped together (Rossini's overtures, the modern operetta overtures of Suppé, Strauss, etc). (3) The overture which is constructed out of the thematic material of the opera, but in a logical manner, and is rounded off to a characteristic whole in keeping with the work which follows it ("Lohengrin," "Freischütz," "Hänsel und Gretel," etc.).

The word *Sonata* was formerly used to designate an instrumental piece as opposed to a vocal piece (*Cantata*, from Cantare—to sing). In earlier times the Sonata was principally for string and wind instruments, whilst the Toccata was for keyed instruments. The term *sonata* was first used by *Andrea Gabrieli* (about 1510—1586); unfortunately his Sonatas for Five instruments (Sonate a 5 istromenti) no longer exist. *Johann Kuhnau* (1660—1722) was the first who employed the designation "Sonata" for a "Klavier" composition. The oldest sonatas must be regarded as introductions (Preludes) to sacred vocal compositions; they bore a close resemblance to Symphonies and Overtures, as did the old Toccata and Fantasia, which were introductory pieces written for the Organ. About 1700, distinction was made between *Sonata da Chiesa* (Church-Sonata) and *Sonata da Camera* (Chamber Sonata); in the former the organ and instrumental tutti were used, in the latter no wind instruments were included. With the development of string instruments in the time of Corelli (1653—1713), who wrote sonatas for strings with accompaniment for the cembalo (the piano of his day, *see* p. 15), Violin Sonatas also came into vogue.

Chamber-Music, speaking generally, is that which is particularly fitted for performance in a small place, in contrast to Concert-Music, with orchestra or chorus. Nowadays by Chamber-Music is meant a performance of pieces by a few solo instruments, voices, string instruments, wind instruments, piano, or any other solo instrument, with or without accompaniment. Since volume of tone and variety of instrumentation cannot be so rich in chamber-music as in orchestral-music, the

interest of the composition must be maintained by other means; hence one speaks of a composition as being written in "*chamber-style.*" In the chamber-style the different instruments are treated more as solo instruments, prominent details of "nuance" and figuration being allotted to them individually.

Corelli (1653—1713) gave some of his sonatas four movements: Adagio — Allegro — Adagio — Allegro. *Domenico Scarlatti* (1685—1757) in Italy, and almost at the same time Kuhnau in Germany, perfected the sonata. Scarlatti introduced the characteristic form of the first movement, and after him *Philipp Emanuel Bach* (1714—1788), the most gifted of J. S. Bach's sons, *Joseph Haydn*, *Mozart* and *Beethoven*, established for all time its form and matter. These masters wrote sonatas for all kinds of solo instruments, also duets, trios, quartets, etc., and the transfer of the sonata to the orchestra originated the first movement of the Symphony. The sonata, as a cyclical form, was evolved from the old suite and the three-part overture; the suite gave it the group of different movements, and the principal (first) movement was a development of the overture.

Modern Sonatas have usually the following form: They consist of three or four movements: the first, the most important, being the Allegro; the second an Adagio, Andante, Largo, Grave, or Air and Variations; the third a Minuet or Scherzo with Trio (Adagio and Minuet sometimes change places); the fourth ("Finale") is quick or very quick (Allegro or Presto), a Theme with variations, a Rondo, or even a Fugue. The last movement is often similar in construction to the first.

The first movement of the sonata, the most important, contains a Principal Subject in the Tonic Key, followed by a Second Subject, which is connected with the first by a "Bridge-Passage," and the first part of the movement ends at the double-bar. The second part develops the themes, either in their entirety or in fragments, and is called the "Development" or "Free-

Fantasia"; in course of development modulations are made into remote keys, the harmonic element often outweighing the melodic. This part of the movement leads back to the principal subject, followed by the second subject, both in the tonic key. The first appearance of the second subject is generally in the dominant [if the movement is in a major key], or in the tonic parallel [*i.e.* relative major, if the movement is in a minor key]. A Coda closes the movement. The component parts may be enriched by the appearance of a third theme, independent episodes, or an introduction (this is generally the case in Beethoven's Sonatas).

By *Sonatina* is meant a small sonata, easy to understand and easy to play, generally in two or three movements.

Two forms which were mentioned as component parts of a sonata, but which can be used equally well as independent compositions, are the "Rondo" and the "Air with Variations."

The *Rondo* (French, Rondeau) might well have been discussed after the development of the Song-form earlier in this chapter, but it was necessary to mention individually the different dance forms, for in them lies the germ of more important forms. The Rondo was also originally a dance, combined with song. The name Rondo (German, Radel) signifies a song with refrain. The alternation of solo and chorus, the latter singing the refrain, contains the germ of the Rondo-form; it consists in the persistence of a principal theme, interspersed with parentheses (episodes).

Türk describes the Rondo in the following manner: "Rondo (Rondeau = circular piece), in singing, Round [or Roundelay], is a composition based on a short principal theme of a tender, cheerful, playful character. After each parenthetic section or couplet (episode) of which a rondo has often two, three, or more, the principal theme is repeated. The episodes do not usually appear in the principal key, but in various related keys, as E. Bach has shown in his rondos."

The most important feature, therefore, in the rondo-form is the repetition of the principal theme, with which more than one secondary theme is associated.

Air with Variations.—To "vary" a theme is to alter it melodically, harmonically or rhythmically, yet in such a manner that it is always recognisable in one way or another. The old "Doubles," which we have already mentioned, varied the theme with little freedom, but *Haydn*, and after him *Mozart* and *Beethoven*, rendered the different variations of a theme much more individual in character, admitted change of key and time, and even subordinated the theme as secondary to another principal melody written against it, etc.

Variations are of various kinds; but the theme itself must not be too complicated, or it would not be easily recognisable under its altered conditions, and it must be sufficiently interesting to arrest the attention in spite of many elaborations. It generally forms a sentence of eight or sixteen bars, with repeats.

An "Air with Variations" sometimes contains a Cadenza, and a Coda is often added; it may be an independent movement, or one of the movements of a cyclical work.

The word "*Symphony*" meant originally (beginning of the 17th century) a short instrumental introductory movement before an opera. Out of this "Overture" of the Italian opera, with its three movements (a slow movement between two Allegro movements) grew the symphony. *Giovanni Batista Sammartini*, living in Italy (born 1704, died 1774), in many respects a forerunner of Haydn, and others composed their symphonies on this plan. To *Haydn* the symphony is indebted for the Minuet, which he invested with incomparable "naïveté," archness and grace. He also introduced into the symphony the more elaborate thematic development found in his sonatas. *Mozart* and *Beethoven* endowed these forms with greater depth of inner meaning; the latter evolved the *Scherzo* from the Minuet, and became a pioneer inasmuch as he ventured to introduce a vocal movement with soli,

chorus and orchestra, into his immortal "Ninth Symphony." In the same manner *Schubert*, *Schumann*, *Mendelssohn*, *Raff*, and in later years *Johannes Brahms*, displayed in the old forms their own individuality, though they cannot be said to have further developed them.

The *Scherzo* (just mentioned as the creation of Beethoven, and since his time part and parcel of the Symphony) is similar in character to the Minuet of Haydn and Mozart, of which it is a development; it is, however, lighter and more humorous in character; its themes are more "short-breathed" and energetic, but at the same time have more inner meaning; moreover, the scherzo is not exclusively in triple time. As an independent composition, not forming part of a cyclical work, any movement of a humorous, burlesque, or cheerful character, without definite form, can be called a scherzo.

The word *Concerto* (from the Latin *concertare* = to vie with one another) originated in the 16th century, at a time when instrumental music was separating itself from vocal music, and several voice parts began to be provided with accompaniment, or several instruments were treated as being of equal individual importance, and allowed to "vie with one another." *Ludovico Viadana* (really Ludovico Grossi, born at Viadana, (1564–1627), was the first to write Concerti da Chiesa (Church-concertos) for one, two, three, or four voices, with organ bass. *Giuseppe Torelli* (died 1708) wrote Concerti da Camera (Chamber-concertos) and Concerti Grossi, for two violins (solo violins) accompanied by two violins, viola, and continuo (figured bass for instruments, *see* p. 16). The concerted instruments, the number of which afterwards grew to three or more, formed the "Concertino" (little concerto) in contradistinction to the accompanying instruments (the concerto), the number of which was gradually largely increased.

Nowadays a *Concerto* is generally for one solo instrument (occasionally two), with orchestral accompaniment. (If for two instruments, two violins, two pianos, two oboes, etc., the accompaniment is often absent). The

form of the concerto is generally that of the sonata, the solo instruments being treated in virtuoso-like manner. The melodic Cadence (Cadenza on a pause, *see* p. 80) is generally highly developed.

Under the designation "*Concerted - Music*" are included Concertos for instruments, Cantatas and Oratorios (works for voices and instruments, respectively secular and sacred in style), Quartets, Quintets, etc.

The *Mass* (*Missa*).—The name Mass, given to that part of Roman Catholic worship during which the Communion is administered, comes from the words used by the priest performing the act of consecration, who calls upon those not taking part in the sacrament to leave the church, "Ite missa est," *i.e.*, "go, it is dissolved" (which must be completed by the word "ecclesia" = the meeting or assembly).

The Mass is an old art-form which flourished in the 15th and 16th centuries; Gregory the Great (Pope from 590 to 604) had, however, already arranged the musical part of the sacramental ceremony. The parts of the mass set to music were, in the oldest times, sung in unison to the melodies collected by Gregory. (Gregory collected a part of these from traditional melodies and arranged them, but did not compose them.) As polyphonic music developed, it was chiefly to the mass that the masters of the 15th and 16th centuries devoted their energies. No important composer of that period failed to compose several masses, the form of composition in which he had the best opportunity of displaying his skill.

The principal movements of a mass are named in the following manner, after the initial words of the Latin text.*

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* The oldest Dutch, French and German masses have as basis a folk-song or "chorale" melody (or a fragment of such) on which the vocal web is woven, a means of obtaining popularity and uniformity. Later on, *canti firmi* from the Gregorian melodies were, with the sanction of the church, used for the same purpose.

I.	*Kyrie*	Kyrie eleison, etc.
II.	*Gloria*	Gloria in excelsis Deo, etc.
III.	*Credo*	Credo in unum Deum, etc.
IV.	*Sanctus*	Sanctus Dominus Deus Sabaoth, etc.
	Benedictus	Benedictus qui venit, etc.
V.	*Agnus Dei*	Agnus Dei, qui tollis peccata mundi, etc.

Distinction is made between the Mass ("Missa Solemnis," festival or high mass, which is performed on high festivals) and Low Mass ("Missa Brevis," consisting only of Kyrie and Gloria, and in this form commonly used in Protestant worship). A mass without organ or organ accompaniment is called "Missa a cappella." (A *Missal* is the book containing the liturgical service of the Catholic church).

Missa pro Defunctis, or *Requiem*, is a mass in memory of the dead. Its divisions are as follow :—

I. *Requiem—Kyrie.*
II. *Dies irae.*
III. *Domine Jesu Christi.*
IV. *Sanctus—Benedictus.*
V. *Agnus Dei—Lux aeterna.*

Gloria and Credo are wanting in the Requiem Mass, and in place of them the Requiem (the prayer for rest for those "fallen asleep in the Lord") is inserted before the Kyrie. Then follow the "Dies irae," etc. (reference to the last judgment) and "Lux aeterna" (reference to eternal bliss).

Prominent examples of beautiful masses, apart from those written before the time of Palestrina (1514–1594, in Italy), are the "Missa Papae Marcelli," by that master, *Mozart's* "Requiem," *Bach's* "B minor Mass," *Beethoven's* "Missa Solemnis," and the "German Requiem" of *Brahms.*

The Oratorio. *Filippo Neri*, appointed in 1551 priest at Rome, inaugurated meetings which were held in the oratory of the monastery of San Girolamo, and later in that of Santa Maria, and introduced music into the "Congregazione dell' oratorio" (the meeting in the oratory),

in that *Animuccia*, *Palestrina*, *Nanini* and others wrote music, at his desire, to biblical texts, called "Laudi," (Hymns of Praise), performed in combination with dramatic representations of subjects from biblical history, replaced later by personifications of abstract ideas. The "Rappresentazione di Anima e di Corpore" (Representation of the Soul and Body), by *Cavalieri* (born about 1550, died 1602), is considered to be the first oratorio. It consists of choruses and solos, the latter in the recitative style, which was a novelty, over a figured bass indicating the harmony. The bass thus figured was called *thorough bass* or *figured bass* (*see* p. 141). The accompaniment was for string instruments, lutes, viols, etc., or cembalo (harpsichord), and the actors performed on a stage. This form was retained by the successors of Cavalieri. *Carissimi* (1604-1674) was the first to abandon the scenic representation, and introduce the narrator. *Handel* (1685-1759) built on the achievements of his predecessors, and created immortal examples of the oratorio form. *Bach*, *Haydn*, *Mendelssohn*, *Schumann*, etc., also devoted their attention to this branch of composition, without, however, altering its form.

[Among British composers of oratorio may be mentioned *William Sterndale Bennett* (1816-1875, "The Woman of Samaria"); *Sir George A. Macfarren* (1813-1887, "John the Baptist," "The Resurrection," "Joseph," "King David"); *Sir Alexander Mackenzie* (born 1847, "The Rose of Sharon"); *Sir Arthur Sullivan* (1842-1900, "The Light of the World," "The Martyr of Antioch," "The Golden Legend"); *Sir Charles Villiers Stanford* (born 1852, "The Three Holy Children," "Eden"); *Sir C. Hubert H. Parry* (born 1848, "Judith, "King Saul"); *Sir Edward Elgar* (born 1857, "The Dream of Gerontius," "The Apostles," "The Kingdom," etc.).]

A distinction is made between sacred and secular oratorio: in the former the subject matter allied to music is biblical or religious; in the latter dignified, but secular in character. The modern oratorio has an

overture and consists of airs, recitatives, solo ensemble movements and choruses, sometimes also *a cappella* movements (unaccompanied vocal movements). The dramatic element, since there is no scenic representation, is contained entirely in the music.

Passion Music, or Passion Play, was the name given to musico-dramatic representations of the history of the sufferings of Christ; they sprang up in the early Middle Ages, and were performed during Passion Week; whether the music supported the action or interrupted it, it is no longer possible to ascertain. The Catholic church, however, possessed a kind of recitation of the history of the Passion (somewhat similar to the Gregorian songs, *see* p. 8), which was in part transferred to the Evangelical Church.

An example of this kind of work occurs in Keuchenthal's Song-book, in which we find melodies, largely recitative-like in character, with an introduction and final chorus in four parts, four [independent] voice parts representing the people or the disciples.

In the works of *Bartolomeus Gesius* (1555-1613) we see a further step forward, in so far as he puts into the mouth of the chorus contemplative reflections, "Lift up your hearts," "Thanks be to God," etc. The Evangelist is a Tenor-part, the words of Peter and Pilate are sung by a trio and the words of Christ by a quartet, etc.

Heinrich Schütz (1585-1672) has immortalized his name by introducing warm subjective feeling into his works, and rendering form and matter more expressive by employing choral movements as suitable for a number of people, whilst his Christ is interpreted by a baritone voice. The airs also are no longer recitative-like, as in the case of his predecessors, but more melodious and broader in style. Compared with the "Passion" of J. S. Bach, one misses, among other things, the chorales, which *Johann Sebastiani* (born 1622, died 1683) introduced after the manner of an aria with violin accompaniment. The perfection of this kind of composition is to be seen in the "Passions" of J. S. Bach; here we find the contemplative arias and choruses

of an ideal community (the so-called "Community of Zion").

Cantata was in former times the name given to pieces which were sung [in contradistinction to those which were played by instruments]. For extended vocal works, with solos and recitatives, the designation came into use after the year 1600, such works, however, not yet exhibiting any of the characteristics of our modern cantata. Since *Carissimi* (1604-1674), distinction is made between Cantata di Chiesa and Cantata di Camera. The cantatas which that master wrote for two and three voices and a few obbligati (independent) accompanying instruments, the recitatives of which he endowed with greater vigour, testifiy to a general advance in musical composition without approaching in any material degree nearer to the modern cantata. For the modern cantata, consisting of recitatives, airs, duets, trios, etc. and choruses, with orchestral accompaniment, the orchestra playing an important part, appearing occasionally independently in a sonata or symphony (overture), we are indebted to *J. S. Bach*, whose church cantatas are laid out sometimes in a grandiose style (occasionally with the designation church concertos) in two parts [sections], with orchestral introductions, sometimes on a smaller scale for a single voice.

These cantatas, as to their contents, are without dramatic and epic elements (if it be possible entirely to exclude the dramatic element) : they are the expression of one frame of mind, concentrated in chorale and chorus, with a certain share allotted to the soloists.

Motett.—The word is defined by Walter Odington (died after 1330), about 1300, as "brevis motus cantilenæ" (short movement in song). The old motett (motetus) is a vocal composition for several voices, of which the tenor (at that time the principal part) was based on a motive borrowed from the Gregorian chorale. Motetts were rarely written with accompaniment, and these only appear after 1600, the time of the rise of accompanied monody, when motetts were also written for one voice. The old motett was exclusively three-part.

The text for motetts is biblical. The principal composers of motetts are *Orlando di Lasso* (1532-1594), *Palestrina* (1514–1594), and *J. S. Bach*, who also incorporated the chorale in the motett.

Air (*Aria*) is the name given to a solo piece for voice, more important than a song, with orchestral accompaniment, from an opera, oratorio, mass, or cantata; when a separate composition intended for concert performance, it is called *Concert-Aria*. The so-called *Bravura-Aria* or *Coloratura-Aria* is an air written with a view to the display of technical skill on the part of the soloist. The *Grand Aria* (or *Da Capo-Aria*) consists of two principal parts of which the first is a vehicle for display, the second being, by way of contrast, quieter in style. The second part is followed by a repetition of the first part, still more richly ornamented than before.

An air of smaller proportions is called "*Arietta*" or *Cavatina;* it is not distinguishable from a song and may have been originally written with pianoforte accompaniment.

The fundamental character of an air is lyrical; this, however, does not exclude the possibility of its being very dramatic.

By *Recitative* (from the Latin *recitare* = to narrate) is understood a kind of song which is in close connection with the words, the chief characteristic being natural rise and fall of tone and natural accentuation, whilst the melodic element is only considered in so far as it is a means to an end. Recitative may be defined as "speech-song." A composition which is laid out on these lines is itself called, in a figurative sense, a Recitative.

Mélodrame is a composition without decided form, which is performed as accompanying music to a spoken text. *Jean Jacques Rousseau* (1712–1778), so far as we know, was the first who cultivated this form of art. *Georg Benda* (1722-1795) composed the first mélodrame in Germany. Melodramatic scenes appear in operas, and frequently in incidental music to dramatic works.

Chapter III.

Counterpoint—Canon—Fugue—Fughetta.

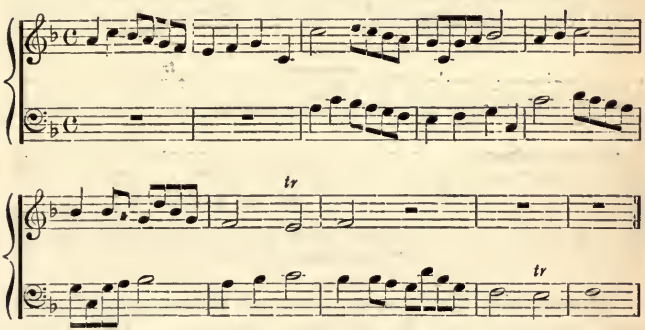
By *counterpoint* (Latin, punctus contra punctum, *i.e.*, note against note) is meant a species of composition in which several melodies (parts) are so combined as to form a satisfactory whole, without detriment to the independence of the separate parts. Accompaniments (as in most dances, marches, folk songs, etc.) are, for the most part, *not* contrapuntal in construction, but only the non-independent harmonic filling-up. An apparently simple two-part piano composition can quite well be contrapuntal, whilst an apparently complicated orchestral work may not contain any contrapuntal writing. Moreover, a composition need not be carried out from the first bar to the last in contrapuntal style; it may, perhaps, contain contrapuntal devices only here and there, or there may be two independent parts, and one or more filling-up parts which complete the harmony.

Imitative counterpoint (*Imitation*), in which one part repeats the melody of a preceding part (more or less exactly), whilst the first part is continued in company with it, was already known in the 13th century, although the name "counterpoint" as the designation for polyphonic composition first came into use in the 14th century. Polyphony dates, in its rudimentary state, from the 9th century, and gradually (*see* p. 16) changed from a rigid scheme to greater freedom in the progression of the separate parts, which finally became completely independent, one part being as important as another.

Philipp von Vitry (*c.* 1290–1361), an important theorist of the 13th and 14th centuries, was the first to give clear and strict rules for part progression. *Simon Dunstede* (*c.* 1351–1369) likewise wrote on the subject, and *Gioseffo Zarlino* (born 1517, died 1590), in his "Istituzione armoniche" (1558) gives the different

kinds of counterpoint (double counterpoint, etc.) and canon.

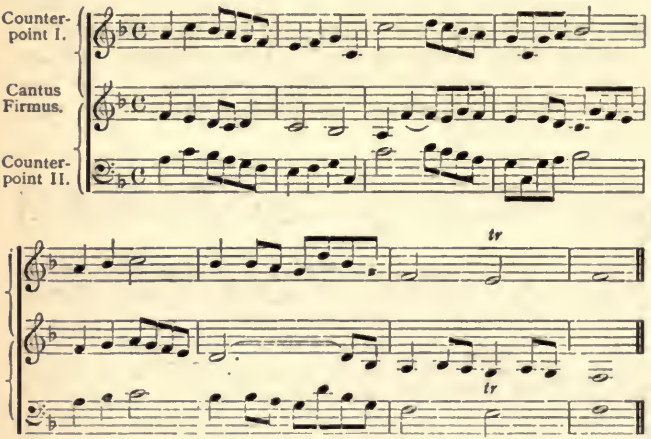
By *Canon* is meant a style of writing in which different parts, not simultaneously, but one after the other, perform the same melody, the intervals being either strictly imitated or modified by the transposition of the melody into another key. If the second voice or part, in imitating the melody, starts with the same sound (*i.e.*, in unison) or a 2nd, or 4th, or 5th, etc., higher or lower than the first commencing voice, the canon is said to be in the unison, under 5th, 4th above, etc., as the case may be. In the 15th and 16th centuries the canon form was complicated in endless ways. The name "canon" comes from the Greek word signifying "law," "rule," because the old contrapuntists did not write out the composition for all the voices, but only for one voice, providing directions (the rule, the canon) for the development of the other parts from the one. [For instance: *Canon in the 8ve*, *i.e.*, the second voice presents, at the distance of an 8ve, the exact repetition of the melody sung by the first voice.]



The many different kinds of canon are described in instruction books with great minuteness, but they have no great importance in themselves, as is the case with innumerable kinds of contrapuntal device. If a canon

is so constructed that the end leads back to the beginning, thus enabling it to be continued for ever (*ad infinitum*), it is called an "infinite canon," "circular canon," or "perpetual canon." If not so constructed it is a "finite canon." A circular canon "per tonos" is one in which the repetition always starts on a given interval higher or lower, and therefore can be continued perpetually.

Double Counterpoint, the most useful of all, places a "cantus firmus" (*i.e.*, a part which is considered as a principal part) against a second part, in such a manner that, without spoiling the effect or breaking the laws of counterpoint, the two parts can be inverted, *i.e.*, the upper can become the lower and *vice versâ*. This is of great value in the melodic development of a movement.



Counterpoint I. and Counterpoint II. are exactly the same melody only in different octaves. The same melody is possible either as upper part (Cantus Firmus and Counterpoint I. are to be played together) or as under part (Cantus Firmus and Counterpoint II. are to be taken together).

Fugue (from the Latin fugare = to chase, or fugere = to fly). In fugue, a theme enters which is taken up by the voices (or parts) in turn, and later is developed in an artistic manner.

So early as the 15th century the name "fugue" was given to movements in the stricter contrapuntal imitative style, especially canon; whilst compositions in free contrapuntal style were called *Ricercare* (from the Italian ricercare = "to go in quest of," *i.e.*, the theme), or more generally *Toccata*,* *Sonata*, or *Fantasia*. Only later was the name *Ricercare* or *Ricercata* used to designate an artistically worked-out fugue.

Fugues are distinguished by the interval formed by the entry of the second voice with that of the first voice; thus fugues are said to be in the unison, 2nd, 3rd, 4th, 5th, etc.; or one takes into consideration the kind of movement made by the second voice in comparison with that made by the first; this may be either similar or contrary, hence one speaks of a fugue in similar or contrary motion; or, finally, the value of the notes becomes the standard for the name of the fugue; *i.e.*, if the note values of the theme when taken up by the second voice are larger than those of the theme on its first appearance, the fugue is called a *fuga per augmentationem* (fugue by augmentation), and in the opposite case *fuga per diminutionem* (fugue by diminution).

Our modern fugue is called "*Quint fugue*," because the re-entry of the subject follows regularly in the 5th or in the 4th (*i.e.*, the under 5th, *see inversion of intervals*, p. 53). This class of fugue was developed to its present form in the 17th century, and *J. S. Bach*, in this style of composition, is absolutely unsurpassed. (For the vocal fugue *Handel* must be mentioned).

The construction of such a fugue consists of the following materials:

* The Toccata developed into a typical form; it began generally with a few full chords, followed by passages in fugal style. The modern Toccata (of Bach and later composers) is somewhat polyphonic in style, and characterised by rapid notes of short value.

(1) The *Subject* (Führer, German ; Sujet, French ; Guida, Soggetto, or Proposta, Italian ; Dux, Latin), principal or fore-phrase ; it is that part of the composition which begins the fugue, and is the basis of the whole.

(2) The *Answer* (Gefährte, German ; Réponse, French ; Risposta or Conseguenza, Italian ; Comes, Latin), after-phrase, the repetition of the subject in a second part.

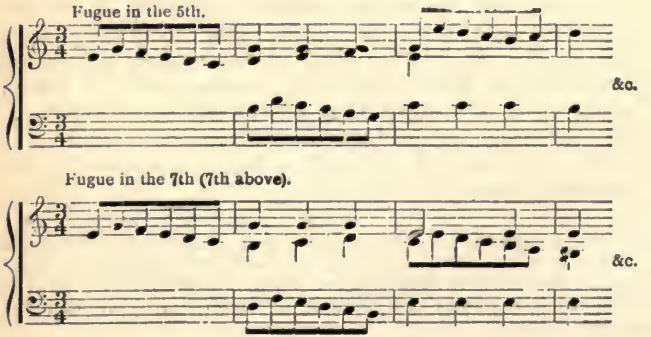
(3) The *Counter-subject* (contra subjectum), free-part written against the subject ; it is the melody added to the subject, generally at the entry of the answer, which melody, with the answer, forms a two-part phrase.

(4) *Episode*, an intermediate passage, during the silence of the fugue phrases, which leads to new treatment of the subject.

(5) *Repercussio* (Latin ; Widerschlag, German), is the order in which subject and answer enter in the course of the fugue.

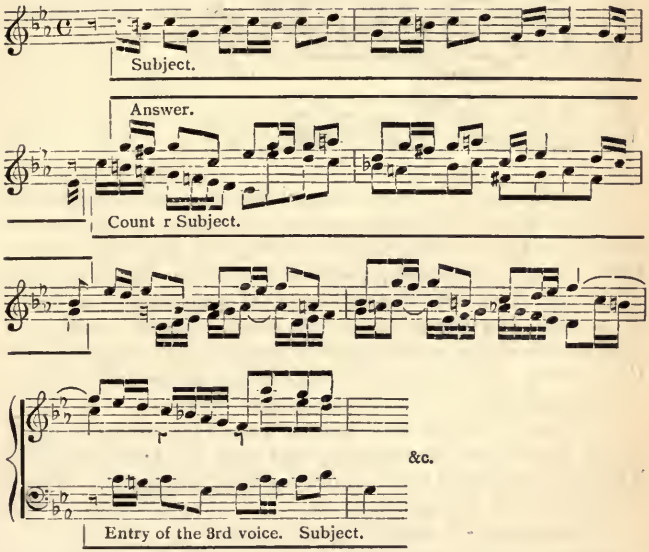
(6) *Stretto* (Engführung, German) is the drawing together of subject and answer at closer and closer intervals of time, and in all possible combinations.

Examples of the naming of a fugue according to the interval at which the second voice follows the first :

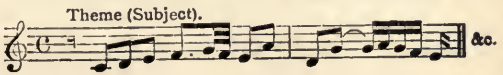


The interval numbers in the name of a fugue are always reckoned upwards from the starting voice, hence the first fugue is called a fugue in the 5th, not in the under 4th, and the second a fugue in the 7th, not in the under 9th [or 2nd]. In a canon, on the contrary, one would speak of a canon in the under 9th [or 2nd]. In both cases, so far as the naming is concerned, it does not matter in which octave the imitating melody begins.

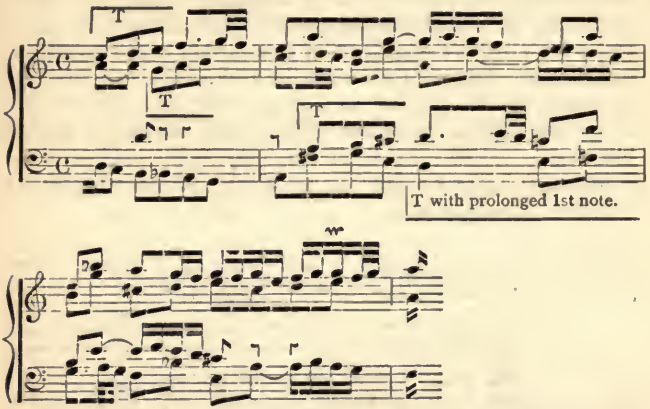
Example of a Fugue. J. S. Bach (Wohltemperiertes Klavier. Fugue II.)



Example of a Stretto. J. S. Bach (Wohltemperiertes Klavier. Fugue I.)



The successive entries of the theme in the stretto are indicated by T.



In fugue all the contrapuntal devices already mentioned (change of melodic movement, note values, interval of succession, etc.) are possible. Fugues may be in two, three, four, five, etc., parts. A fugue in five parts allows of 120 different changes of subject and answer. However, the employment of even a small number of the possibilities contained in a single fugue may render it a work of art, as the composer, in spite of many limitations, may give his fancy free play.

A *Double Fugue* is a fugue with two subjects, each being developed separately, and in a third development Theme I. becomes the counterpoint of Theme II. There are also triple fugues.

A *Fughetta* is a small fugue.

Fugato is the name given to a piece written in fugal style, without being a regular fugue; a fugato is often found, not as an independent piece, in the development section of a movement of a cyclical composition.

Part III.

Instruments used in the Orchestra—The Human Voice — Instrumentation — Figured Bass—The Orchestral Score and Score Reading.

Chapter I.—Orchestral Instruments.

Resonance-bodies.—The essence of every musical instrument consists in this: that an elastic body (string, stretched membrane, or, as in wind instruments, a column of air) is set in vibration, and reacts on another body which is capable of being thrown into sympathetic vibration with it; the latter is called the resonance-body (in string instruments the body of the instrument and the air enclosed in it; in the piano the sounding board; and in wind instruments the instrument itself). Without such a resonance-body the tone would be thin and of short duration. It is only when the resonance-body is brought into sympathetic vibration with the sound generator that the latter will communicate the generated sound waves in sufficient strength to the surrounding air and to the ear; therefore a sound only attains its full tone through the resonance-body.

Tone-colour.—If we think of a sound first as sung by a human voice, then as played on an oboe, finally as struck on the piano, and then let all three sound with equal force at the same time, we shall be able to distinguish between all three, although heard together. The individuality which characterises each of the sounds is called *tone-colour*. Tone-colour is the result of the compound character of a sound (clang), the presence or absence, the reinforcement or extinction of certain of the over-tones (*see* pp. 51, 54) which sound with the fundamental tone. This is also the cause

of the different qualities of vocal tone-colour which can be produced by the human voice.

Clangs.—Research has led to the following results:

(1) *Simple sounds* (sounds without over-tones), and such as have *few or weak over-tones*, are soft and pleasant in tone, without harshness, but not powerful, and in the lower register, hollow; *e.g.*, tuning-forks, stopped organ pipes, flutes, etc.

(2) *Clangs which produce, in moderate strength, a series of over-tones as far as the 6th*, are sonorous, and have, in comparison with the above (No. 1.) something noble in their quality; *e.g.*, the piano, open organ pipes, etc.

(3) *Clangs, which produce over-tones higher than the 6th*, are sharper, harsher in quality, (in wind instruments, although weaker, they give greater power of expression); *e.g.*, string instruments, reed pipes, the human voice.

(4) *Clangs which produce only the "odd" over-tones*, have something hollow in their quality; if the fundamental tone is prominent they sound full; if it is not prominent the tone is empty, and they become, if a larger number of such over-tones is present, of a nasal character; *e.g.*, piano strings struck in the middle, the clarinet, etc.

The material of which an instrument is made comes into consideration only in the second place, but it has a decided influence on the quality of tone; the modification of tone-colour is also possible by other means.

Classes of Instruments.—Instruments are divided into three classes:

(1) String Instruments.
(2) Wind Instruments.
(3) Instruments of Percussion.

I.—String Instruments.

String instruments are thus classified:

A.—Instruments whose strings are grazed or stroked with a bow.

B.—Instruments whose strings are plucked.

C.—Instruments whose strings are struck.

A.—*Bowed Instruments* (Streich Instrumente).

Bowed instruments are instruments of *free intonation*, *i.e.*, the pitch of each single note can, so far as the compass of the instrument permits, always be regulated by the player.

The Violin (*Geige, Ger.; Violon, Fr.*) is the highest in pitch of the bowed instruments, *i.e.*, its compass is from  ; in the orchestra higher notes will rarely be required, although Wagner in his "Tannhäuser" overture writes the E of the four-times accented 8ve. These and even higher notes can be confidently expected from soloists. Within the given compass, all chromatic notes (as in all bowed instruments) are easily obtained. The violin has four strings (strings of gut, of which the lowest is surrounded with silver wire). They are tuned in perfect 5ths

. The highest string is also called the "Quint."

If these strings are not shortened by the touch of the fingers of the left hand, their notes are called those of the "open strings." These sound more powerful than those of the shortened strings, on which account, music in keys which allow of the use of the open strings sounds more brilliant on the violin and is easier of execution. The tone-quality of the violin (as also that of the viola, 'cello, and double-bass) can be

modified by firmly fixing on the "bridge" of the instrument (*i.e.*, that part over which the strings are stretched) a small piece of wood, ivory or metal, a *mute* (sordino, It.; sourdine, Fr.) by which the vibration of the bridge is impeded, and the vibrations of the strings are not fully transmitted to the resonance box (the body of the violin, technically called "corpus"). This mute renders, therefore, the tone weak and veiled.

The composer indicates the use of the mute generally by "con sordini" and its disuse by "senza sordini." "*Pizzicato*" (abbreviation *pizz.*) is the mode of playing by which the sound is produced, not by the bow, but by plucking the strings with the finger; if the use of the bow is to follow, the direction pizz. is replaced by "col arco" (with the bow).

Harmonics. — The so-called "flageolet-tones" (harmonics, harmonic-tones) producible in the higher register of the violin, have an individual tone-quality, transparent and delicate, somewhat like that of the flute (hence the name flageolet, the flageolet being a species of flute-à-bec). They are produced by the player shortening the string (or a part thereof) by placing his finger lightly thereon; the string vibrates, in this way, in two, three, or four, etc., segments, according as the player partitions off the half, third, or fourth, etc., generating the particular over-tone of the series (*see* p. 55) determined by the division of the string.

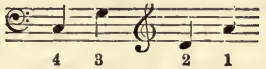
By a device seldom employed, the tone-quality of the violin can be altered, and the tone made weaker; *i.e.* the bow is placed, not in the vicinity of the bridge, where the tone is most brilliant, but over the finger-board. The composer's direction for this is "sul tasto" (It.) "Sur la touche" (Fr.), "über dem Griffbrett" (Ger.). The reverse of this, playing "on the bridge" (really in its immediate vicinity) is indicated by "sul ponticello" (It.), "sur le chevalet" (Fr.), "Am Steg" (Ger.), and in pianissimo has an ethereal effect.

Still less often, and principally to produce a drastic effect (*e.g.* in the "Danse Macabre" of Saint-Saëns),

the string is made to sound by striking it with the wood of the bow. The direction for this is "col legno" (= with the wood).

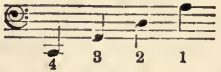
If the composer desires that the sound should be produced on a certain string, he indicates this to the player by the direction "sul G," *i.e.* to be played on the G string, etc.

The Viola (*Bratsche, Ger.*). This is distinguished from the violin by a larger body, and being tuned to a lower pitch; *i.e.*, the E string is wanting, whilst in the lower register it has a string for C, (the c of the small octave). The C string is thicker than the G string, and like it, is surrounded with wire. The viola is tuned thus:



It is necessary to mention that for the notes written for the viola the C clef on the third line is used; *i.e.*, on the third line lies the c^1 of the once accented 8ve (middle C), from which the other notes receive their names. On this account, the clef is called the viola clef [also alto clef.] The viola is held and played in the same manner as the violin.

Although the viola can produce high notes (and Gluck makes use of them), its tone-region is generally that of the tenor, alto, and mezzo-soprano voices, especially if a solo part be allotted to it. All that has been said in other respects of the violin applies also to the viola. The tone-quality of the viola in its deeper register has a certain harshness; in its middle register it is warm, but melancholy, and in the higher register very penetrating, not without shrillness.

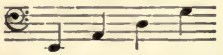
The *Violoncello, Cello* (*It.*), *Violoncell* (*Ger.*), *Violoncelle* (*Fr.*), is tuned thus: 

and is therefore an 8ve below the viola in pitch. It is much

larger than the viola, and is held, in playing, between the knees. When the 'Cello is not taking a solo part, or a leading part, it generally remains within the compass of the bass and tenor voices ; but, even in the orchestra, the d‴ of the twice-accented 8ve can be obtained. Harmonics, which the size of the instrument materially increases in loudness, are often used. All that was said in regard to the viola holds good also for the 'Cello. Apart from accompaniments, the tone-quality of the 'Cello, noble and sonorous, is particularly suitable for the "cantilena" (song-like) passages of a composition. For the 'Cello, the clefs most frequently used are the 'cello [or tenor] clef (the C clef on the 4th line), the bass clef, and occasionally for the highest notes, the G clef.

The Double-Bass, Contrabasso, formerly Violone (It.); Kontrabass (Ger.); Contrebasse (Fr.).

There are two kinds of double-bass ; one with four strings, the other with three strings. The double-bass with four strings tuned in 4ths, is the most generally used :



[Sounding an 8ve lower].

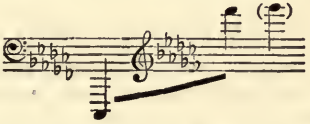
The instrument is played, standing, with a short bow, and has, for the orchestra, a compass of two octaves and a fourth. The notes for the double-bass are written an 8ve higher than they sound. The manner of playing is much the same as for the other bowed instruments, only the use of harmonics in the orchestra is more limited, although the length of the strings is favourable to them. The tone-quality of the instrument is powerful and of rumbling effect.

B. *Instruments whose Strings are Plucked.*

Of these instruments, our orchestra possesses the Harp, Guitar and Mandoline ; in the symphony orchestra only the harp is used ; the guitar and mandoline are mostly employed as accompanying instruments (for folk-songs, serenades, love-songs, etc.) The mandoline as a solo instrument holds a very unimportant place.

The use of the guitar and mandoline as orchestral instruments is limited to the opera orchestra.

The Harp, *Arpa* (*It.*), *Harpe* (*Fr.*) *Harfe* (*Ger.*). The "pedal harp" of our modern orchestra is an invention of Sébastien Erard (Paris, 1752–1831). The harp is played with both hands, and the music, like that for the piano, is written on two staves with G and F clefs. The harp is strung with from 46 to 47 strings, so that it has at command a compass of $6\frac{1}{2}$ octaves, forming in its original tuning the scale of C♭.



In order to be able to play in other keys, and to obtain chromatic notes, the player employs pedals, of which the instrument (apart from the pedal the use of which resembles that of the pianoforte) possesses seven. Each pedal acts on a certain note of every octave in such a manner that the player with a pressure of the foot can raise the particular note a chromatic semitone, *e.g.*, if the sound F♭ is raised to F, then the scale of the harp no longer possesses an F♭, and is therefore now that of G♭, with the signature of six flats. In the same way one note after another can be raised, until the instrument presents the scale of C. In order to obtain sharp keys, the mechanism of the pedal allows it to be pressed into a second position, whereby the note is again raised a chromatic semitone, so that the player, after all the pedals have been pushed into the second rest, can play in C♯. Since every chromatic change [or modulation] necessitates a movement of the pedal, chromatic passages are avoided as much as possible by composers. The instrument permits also the use of harmonics. The tone of the harp is unique in one respect, it bears the stamp of the "immaterial"; as Gevaert expresses it, "The sound of the harp delivers the soul from the weight of earthly passion,

and raises it to brighter regions," etc. Full and soft as is the tone of the harp in the lower and middle region, in the upper register, in forte passages, it is dry and hard.

C. *Instruments whose Strings are Struck.*

We find these represented in the gypsy orchestra (*i.e.*, in national Hungarian orchestras) by the Dulcimer [Cymbal or Hackbrett (*Ger.*), Tympanon (*Fr.*), Cembalo (*It.*)] The principle employed, as to mechanism, is illustrated by our pianoforte.

II.—Wind Instruments.

Wind instruments are classified according to the manner of sound generation, not according to the material of which the sound tube is made, although one speaks of brass and wood-wind instruments (brass-wind, wood-wind). Although the material is not unimportant it must be remembered that it is not the tube which produces the sound, but the column of air within it.

They are thus classified :

A. Wind instruments without reeds.
B. ,, ,, with reeds.
C. ,, ,, with cup-shaped mouthpiece.

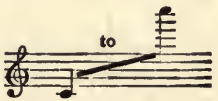
A. *Wind instruments without Reeds.*

The (*transverse*) *Flute. Flauto* (*traverso*), *It. ; Flûte* (*traversière*), *Fr. ; Flöte* (*Querflöte*), *Ger.*

Flute instruments generate sound thus : the current of air blown into the instrument strikes against the edge of the blow-hole (the aperture or opening of the instrument). Since the pitch of the sound depends on the length of the vibrating air column within the instrument, sound holes are made in the tube of the flute ; if all these holes are closed by the fingers of the player, they do not affect the tube (which in this case sounds the fundamental note of the instrument, *i.e.*, the lowest in the natural series of the note to which

the instrument is tuned), but the tube is shortened if one or more of them are opened. One end of the flute is open. If one wishes to obtain different notes from a given length of tube, one has at disposal the series of harmonic over-tones (*see* p. 55), as the air column within the instrument, by stronger blowing of the player, divides itself, according to the degree of strength applied, into different numbers of parts, the vibrations of which can produce the natural harmonic series.

Transverse Flute and Flûte-à-bec.—There are two kinds of flutes; those which are blown into from the side through a circular hole, and are consequently held transversely in front of the mouth of the player (hence the name "transverse flute"), and those which are blown into through a slit in the upper end of the instrument, and are held straight outwards from the mouth, like the oboe and clarinet. The last mentioned is called the "flûte-à-bec" (Fr.), Schnabel-Flöte or Gerade-Flöte (Ger.) In serious art the flûte-à-bec is scarcely ever employed; a few examples occur in earlier times.

Our modern concert flute, materially improved by Theobald Böhm (1794–1881), possesses a mechanism of *keys*, by means of which the sound holes are opened and closed. The only flute in use nowadays, the large flute in C, has a compass from 

and, like the bowed instruments, all the chromatic intervals. The tone quality of the flute is somewhat dreamy and tender; it is best in the middle register. The low notes are rather penetrating and mournful, the high notes brilliant and clear; the middle register possesses no great power.

There are flutes in D♭ and F*, but they are not employed now. When a D♭ or F flute is used, it is treated as a so-called "transposing instrument," *i.e.*, the sounds of the over-tone series of its fundamental sound will be noted in C major. It is therefore necessary to know whether the key of the instrument (*i.e.* the key in which it is made or tuned) is higher or lower than C. In relation to the flute in C, the flute in D♭ is a semitone higher than the normal instrument.

the flute in F† is a minor 3rd higher :

The Piccolo (*Small Flute or Octave Flute*). *Pickel-Flöte* (*Ger.*); *Flauto piccolo or Ottavino* (*It.*); *Petite flûte octave* (*Fr.*).

The compass of the piccolo corresponds to that of the large flute, but an 8ve higher in pitch. The tone quality of the piccolo, in its lower and middle register, is feeble ; the higher the note, the sharper and shriller the quality.

B. *Wind Instruments with Reads.*

Distinction is made between those with single and those with double reed. The reed is a little tongue of cane or metal, which vibrates by means of the current of air generated by the player ; it is either so fixed that it strikes against a part of the mouthpiece in vibrating, or it projects from the mouthpiece, detached, and vibrates between the lips of the player.

[* The flute in E♭ is sometimes, as here, erroneously called the flute in F. Hence the apparent discrepancy in the notation.]

† Flute in E ♭ (*see* note above).

The Clarinet. *Klarinette* (*Ger.*); *Clarinetto* (*It.*); *Clarinette* (*Fr.*).

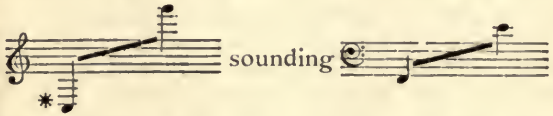
The soprano clarinet possesses a cylindrical sound-tube with a *single* striking or beating reed, which closes the lower part of the beak-shaped mouthpiece. The compass of the instrument consists, for orchestral purposes, of about $3\frac{1}{2}$ octaves; higher notes are possible, but are difficult to play and harsh in sound, and are therefore little used. The clarinet in C, the oldest, sounds as written. A peculiarity of the reed-blown cylindrical tubes is that, by "over-blowing" (*i.e.*, obtaining over-tones by blowing with greater strength), only the "odd" over-tones of the over-tone series of its fundamental note (*i.e.*, the note in which the instrument is said to be) can be produced. Thus from B of the once accented octave upwards, all the notes are produced only as over-tones ("odd" over-tones, 3rd, 5th, 9th) of the already existing scale. Thus is explained the hardness of the highest notes, which can only be produced, as ninth over-tones, by considerable expenditure of air power. The tone-quality of the clarinet is tender and capable of modification; the compass of the alto and soprano voice, whose orchestral representative the clarinet is, covers its best notes. The compass of the clarinet is

The other clarinets most frequently used are those in B♭ and A. The B♭ clarinet sounds a whole tone, and the A clarinet a minor 3rd, lower than written.

The Clarinet was constructed, about 1700, by J. C. Denner, out of the old shalm or shawm; its name has been traced back to the Latin clarus = clear.

The Basset Horn, or Alto Clarinet. Corno di Bassetto (*It.*); *Cor de Bassette* (*Fr.*)

The pitch of this instrument is a perfect 5th lower than that of the C Clarinet; its compass is therefore



After the Basset-Horn comes the low E♭ clarinet, standing yet a tone lower than the Basset-Horn. Sometimes (for instance in Wagner's works) the Bass Clarinet appears, an 8ve lower in pitch than the Soprano Clarinet in A.

"Little Clarinets" are those whose pitch is higher than that of the C clarinet; they exist, though only used exceptionally, in the high D, E♭, F and A; the last named is used in Austrian military bands.

The Oboe or Hautboy. Oboe or Hoboe (*Ger.*); *Oboe* (*It.*); *Hautbois* (*Fr.*).

This instrument has a tube which becomes gradually wider from top to bottom; from the mouthpiece protrude little tongues of cane (the *double* reed). The oboe is non-transposing; its compass is

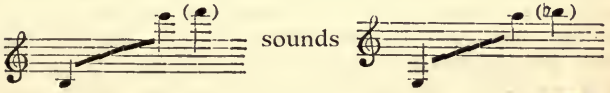
From D (twice accented d″), upwards, the scale which up to this note was produced by opening the sound holes, is continued by "over-blowing." In the oboe, as in the clarinet, the middle register, and the sounds immediately above and below it, are the best in quality. The tone quality of the oboe is not

* [The Corno di Bassetto has four additional semitones lower than the clarinet.]

absolutely devoid of tenderness and poetry, but it has a peculiarly squeezed, one might almost say squeaky, character.

The English Horn. Englische Horn (*Ger.*); *Corno Inglese* (*It.*); *Cor Anglais* (*Fr.*).

This may be considered as a larger oboe, an alto oboe. It is a transposing instrument in F, and therefore its notes sound a perfect 5th lower than written. Its compass

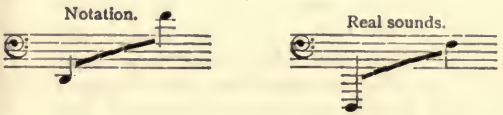


It has the form of the oboe, but its bell swells out rather more. The old French composers wrote for the instrument the real notes, using the Mezzo-Soprano clef, *i.e.*, the C on the second line; the Italians before Verdi wrote also the real notes, but in the *bass clef*, therefore an 8ve lower than the sounds. The tone-quality of the instrument is full and round, melancholy and dreamy.

The Bassoon. Fagott (*Ger.*); *Fagotto* (*It.*); *Basson* (*Fr.*) is looked upon as the bass of the oboe; it has a tone-quality which enables it, in its lower register, to produce absolutely weird effects, whilst the notes of its middle register can be so employed as to be irresistibly comic (*see* p. 137). Only in the higher register can the instrument sound poetic. The wind is introduced into this instrument through a so-called "swan-neck," an S-shaped metal tube, in order that the player may more easily manipulate it. The bassoon, the notes for which are written in the bass clef (sometimes the higher notes in the C clef on the fourth line), has a compass of almost three octaves—

Some notes, less reliable for orchestral use, may be added to these. The over-tone series of the fundamental note (*i.e.*, those which can be produced without "over-blowing") reaches to small f.

The Double-Bassoon. Kontrafagott (Ger); Contrafagotto (It.); Contre-Basson (Fr.) is related to the bassoon as the double-bass is to the 'cello. The double-bassoon gives the compass of the bassoon, but an octave lower in pitch, and its notes are written an octave higher than they sound:



The given compass is that generally made use of; the clumsy tone-quality and great power of the instrument stamp it as the bass-instrument "par excellence." Therefore rapid passages are unsuited to it.

The Organ. Orgel (Ger); Orgue (Fr.) The Organ possesses pipes of wood or tin (sometimes zinc) with and without reeds. The pipes stand over so-called "wind chests" (*i.e.*, channels, by means of which the air is introduced into the pipes). The wind is generated in bellows by an organ-blower, or more recently by means of automatic mechanism. The wind chests are again divided into a number of narrower passages, "grooves." The closing of the pipes against the wind chests is effected by two kinds of valves, acted upon by pressure on the key of the instrument; in the one case *one* pipe is opened, in the other a number of similarly constructed pipes (pipes of one family, with the same tone-colour), a "pipe-register." The register-valves are acted upon by the register-stops, which are manipulated by the player by means of the draw-stop-

handles, the label on each indicating the tone-colour that particular register will produce.

Open and Stopped Pipes.—Distinction is made between flue-pipes (without reeds) and reed pipes or reed-work. The flue-pipes are "open" or "stopped" (*i.e.*, tubes closed at the upper end). The open pipes have a clear, powerful tone, the stopped pipes a softer, duller tone. The open stops (series of pipes) are called principal,* since they are the most important and constantly used. Among the "principal" stops the 8-feet are the most important; they are called "8-feet" because a pipe of medium diapason,† the length and breadth of which are in correct proportion, of about eight feet long, produces the C of the great octave. This 8-feet C sounds if the key for great C is pressed down, *i.e.*, the pipe produces the note as written. The idea of 8-feet pitch is (really erroneously) transferred to every pipe which produces a note in the particular 8ve as written. Pipes producing the 8ve lower than the notation are called 16-feet; those producing the double 8ve lower than the notation 32-feet. On the other hand a 4-feet pipe sounds an 8ve higher, a 2-feet pipe a double 8ve higher, and a 1-foot pipe a triple 8ve higher, than written (indicated thus, *e.g.*, flute 4′, flute 2′, flute 1′, the stroke to the right of the figure showing this to be a foot-number). If all possible registers exist in the organ, its compass embraces 9½ 8ves. The labels Oboe, Flute, Trombone, Gedakt (stopped), etc., relate to the construction and tone-colour of the register. Either the composer indicates this or that tone-colour, or the player must "register" (*i.e.*, combine the different tone-colours) according to his own judgment. Besides the registers already named, there are others which cause two or more of the intervals which belong to the over-tone series of the note whose key is pressed to sound together with this note. Such a register (called

*[In France, Germany and Italy, not in England.]

†[The word diapason is used either in the sense of pitch or measurement.]

"mixture") can only be employed in such a manner that the resulting intervals do not stand out disagreeably; it should only serve to reinforce the already existing over-tones, and thereby render the tone more brilliant.

The organ has generally two, three, four, or even five keyboards, called "manuals" (from the Latin manus = the hand) in contradistinction to another keyboard, played with the feet and called the pedal-board (from the latin pes = the foot). The pedal board is arranged in the same manner as the manual, and has over and under keys [corresponding to the black and white keys] which are pressed down by the heel, the toe, or the ball of the foot. The pedals embrace about two octaves of the deepest notes of the organ. If the pedal part is at all independent, it is written on a separate staff, with the bass clef, under the two staves with the treble and bass clefs. Every large organ is also provided with contrivances, the purpose of which is to combine the tone-colours of several registers, or on pressing down a pedal, to cause the manual and its registers to sound in combination with the pedal note. Such contrivances are called "couplers." Finally the "swell" or crescendo pedal must be mentioned.

According to the size of the organ, it has more or fewer registers, pipes, couplers, etc. The gigantic organ in the convent at Ratisbon has 6666 pipes and 66 registers.

C. *Wind Instruments with cup-shaped mouthpiece.*

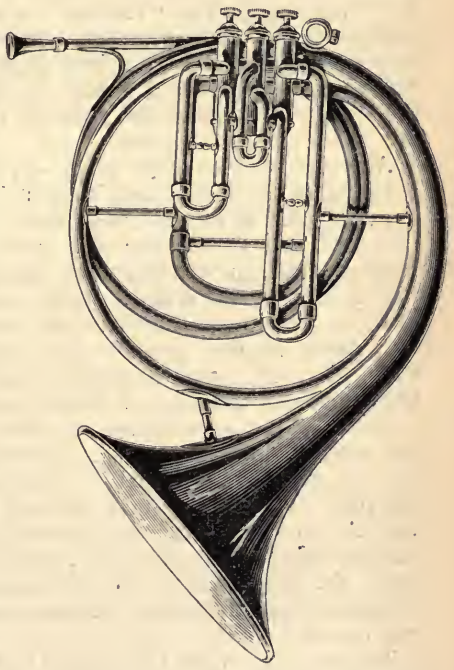
Mouthpieces.—The mouthpiece consists of a small globular cup which is placed at the narrow upper end of the instrument. Against this mouthpiece the player presses his lips, the vibration of which, in combination with that of the air column within the instrument, produces the sound. The player regulates the rapidity of vibration of the lips by different degrees of exertion. The shape of the mouthpiece is an important factor in the tone-quality.

A convex mouthpiece produces a ringing, clear tone; the flatter the mouthpiece the more prominent this quality becomes.

A funnel-shaped mouthpiece renders the tone feebler and more veiled. A type of the last named kind is that of the horn.

The Natural Horn. Waldhorn (Ger.); Corno (It.); Cor. (Fr.).

To the exclusive use of the natural harmonic series must be attributed, on the one hand, the inimitably beautiful, expressive tone-quality of the horn, on the other, however, its limited compass and the lack of purity of intonation in some of its notes. We saw (*p.* 55) which notes of the natural harmonic series were not available in music, and in the case of the horn, it rests with the player to correct the impurity of pitch of these notes. The method employed is the "stopping" (closing) of the note in order to change the pitch. The "stopping" is effected by the player, whilst blowing, introducing his hand into the bell of the instrument (*i.e.*, the opening out of which the sound proceeds); the more the orifice



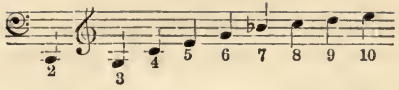
is narrowed by the hand the lower becomes the pitch of the note (it can be lowered almost a tone), but at the same time, the more muffled becomes the tone. It is, of course, a drawback that the thus corrected note should differ from the others in tone-quality; the art of the player consists, in this case, in *mitigating* this discrepancy by equalising as much as possible the weak and strong notes. By "stopping" the player can obtain some of those notes which are absent from the harmonic series, by flattening the existing notes a semitone; it is not possible to flatten a note a whole tone by "stopping." The "forcing" of a note (*i.e.*, slightly sharpening it, by means of stronger blowing and pressing together of the lips) is possible, but not to be recommended as a rule. In contradistinction to the "stopped" notes, the notes of the harmonic series are called "open" notes.

Notation of the Horn part.—With regard to the notation of the horn part, it must be pointed out that great C (the C of the great 8ve) is always taken as the *first note of the over-tone series* [N.B.—Not the fundamental], in whatever key the horn may be. With the exception of certain notes written in the bass clef (an 8ve lower than the real sound)*, horn music is written in the G clef. To alter the pitch of a horn, *i.e.*, to make it produce another note, which then becomes the first of a new series of over-tones, a piece of the sound tube is taken out and replaced by another, either longer or shorter. This movable section of tube is called a "crook" (Ger., Stimmbogen). The high, medium and low tunings are written in very different ways. An example will explain this, and it must be pointed out that the first note, the fundamental note, is uncertain†; the useful compass lies, therefore, between the 2nd and 16th overtones.

The horn in high C (C alto) has thus the following open notes:

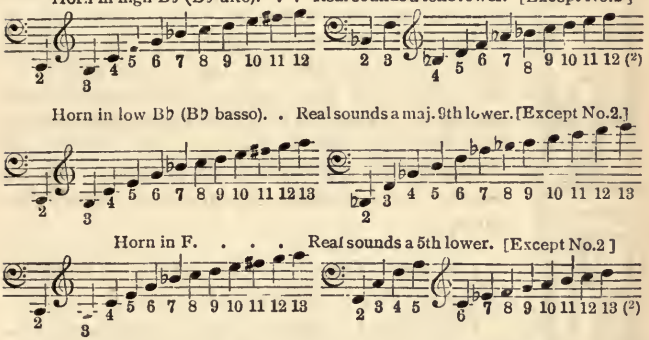
* *See* footnote, p. 125.

† [Therefore it does not appear in the example.]



The real sounds correspond to the notation [except No. 2].*

The figures give the numbers of the over-tones of the harmonic series.

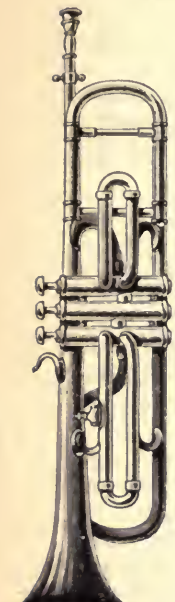


From these the reader can form an idea of the other tunings and the relationships between the notation and the real sound.

After what has been said, it will be self-evident that, if the natural horn is to be used for melody, the possibilities of the natural scale must be borne in mind in the selection of notes, nor must it be forgotten that rapid showy passages are not suited to the instrument. In horns, trumpets, trombones, etc., damping of the tone is possible thus: into the bell of the instrument are introduced perforated wooden cones, also metal dampers of various forms, which check the vibrations of the air in the tube; the "timbre" is thereby much altered, the tone becomes rather nasal, diminished in volume, and sounds as if at a great distance.

* [Except No. 2 which sounds an 8ve higher (*see* p. 124). Note also that in the case of the horn in C (C basso), the notes written in the treble clef sound an 8ve lower (see horn in B♭ basso), whilst the notes written in the bass clef sound as written.]

The natural horns and trumpets are, in their construction, completely analogous to the valve horn and trumpet (*see* p. 127).



The Natural Trumpet. Tromba or Clarino (It.); Trompete (Ger.); Trompette (Fr.).

Like the natural horn, the natural trumpet can only generate a series of over-tones, but on the natural trumpet this series forms *exclusively* the note material; the stopped notes are too bad for use, and therefore the 7th, 11th and 14th over-tones are not available. The pitch of the natural trumpet, like that of the horn, can be altered by "crooks." The natural trumpet is no longer used, being replaced by the valve trumpet.

The Slide Trombone (Trombone). Trombone (Fr. and It.); Posaune (Ger.).

The sound tube of the trombone is a double one; a narrow tube is placed within a wider one, and can be pushed into and drawn out of it. By thus changing the length of the tube, a complete chromatic scale can be obtained from it; we shall see how this is effected. The possible lengthenings of the tube, by drawing out the "slide" are called "positions." The six positions * which are made use of produce a scale descending by semitones, and a natural harmonic series, can be obtained from the fundamental note produced by each new "position," as well as from the fundamental note of the instrument before drawing out the slide. All the notes thus obtained give for the Tenor Trombone a compass from E of the great 8ve to B♭ of the once-accented 8ve, with all the chromatic intermediate notes.

[* There are seven positions, including the first, when the slide is undrawn.]

The Tenor Trombone is the most important; it possesses a full, brilliant tone, noble both in its power and softness, and equal, legato notes can be produced up the whole scale. The notes are written in the tenor clef (C clef 4th line). Similar to it are the Alto and Bass Trombones, the music for which is written in their corresponding clefs (C clef 3rd line and bass clef). The Alto Trombone is a 4th higher in pitch than the Tenor, the Bass Trombone a 4th lower. All trombones are non-transposing instruments, *i.e.*, the notes sound as written.

Wagner uses in the "Nibelungen-Ring" a Contra-Bass Trombone, a gigantic instrument, whose notes are an 8ve lower than those of the Tenor Trombone.

Valve-Instruments.—Valve (*Eng.*); *Ventil* (*Ger.*); *Piston* (*Fr.*).

Valve is the name given to the mechanism, of different kinds, applied to the instruments and set in action by pressure of the finger, by means of which the air column within the instrument is lengthened or shortened; *i.e.*, a separate portion of tube is (by opening or shutting) added to or cut off from it.

The principle is, in the main, the same as in the slide instruments, only simpler, for the lengthening of the tube by means of slides takes more time and is more clumsy, as well as more difficult, than the insertion of a tube length by pressure of the finger. The usual arrangement of three valves, each one of which makes the fundamental note of the instrument (and with it the series of over-tones produced by it) a semitone lower than the other (so that finally the player can produce the fundamental note flattened to the extent of three semitones), renders possible the formation of a long series of notes, but this series has gaps. In order to fill up these gaps the valves are used in combination, and the new tube-lengths thus obtained by the employment of two or all three valves together, render the production of the missing notes possible. Unfortunately the quality of the notes obtained by combination of valves is not altogether satisfactory.

Adolf Sax.—The gifted instrument maker, *Adolf Sax* (1814–1894), appointed in 1857 professor at the Paris Conservatoire, remedied this disadvantage by constructing instruments with *single* (not *combinable*) valves (Pistons indépendants).

Sax employs, starting from the maximum length of the tube, six valves, each of which raises the harmonic series of over-tones (produced by the maximum length) a semi-tone, shortening the tube length by cutting off a portion of it. The notes so obtained meet all requirements, and the universal employment of wind instruments constructed in this manner is to be recommended. These instruments are called "Instruments with *shortening pistons*," the older instruments, on the other hand, "Instruments with "*lengthening pistons.*"

Although not generally employed in concert and opera orchestras, it is necessary to describe an instrument much admired by amateurs as a virtuoso instrument.

The Cornet, Valve-Cornet. Ventil-Kornet (*Ger.*); *Cornet-à-Pistons* (*Fr.*).

The Cornet, a descendant of the old Post-horn, is generally constructed in the key of B♭. It is a very nimble instrument; it "speaks" easily, and is therefore fitted both for cantilena passages and for rapid successions of notes of all kinds. The tone-colour of the cornet, however, possesses little nobility; its tone, as a result of its construction, is not of great volume, rather "squeezed" and, under certain circumstances, absolutely vulgar in character; it blends excellently, however, with the other instruments of a military band.

The Bugle-horn. Tromba (*It.*); *Flügelhorn* (*Ger.*). *The Ophicleide. Ophikleide* (*Ger.*); *Basse d'harmonie* (*Fr.*). *Saxhorns.*

The natural cornet, or post-horn, is the forefather of a large number of instruments, which are now obsolete, or have been improved and have taken a permanent place in wind bands, whilst, with the exception of the

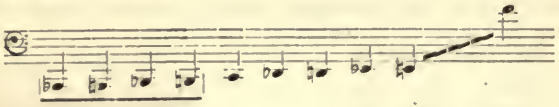
Bass-Tuba, they are never used in the concert orchestra.

Similar to the natural cornet, or post-horn, is the Bugle-horn or Signal-horn (Bugle), generally in B♭. This was made capable of producing chromatic notes by means of sound holes which were closed with keys, and hence it obtained the name Key-Bugle or Bugle-horn, of which the bass instruments were called Ophicleides, the lowest of all being the Double-Bass-Ophicleide. These instruments were also transformed by Adolf Sax, by means of valve mechanism, into the family of Sax-horns, of which there are seven different kinds, viz.: Piccolo in E♭, Flügelhorn in B♭, Althorn in E♭, Tenor-horn in B♭, Bass-Tuba, Bombardon in E♭, and Contra-Bass-Tuba or Helicon, which is generally bent into a circular shape.

The Bass-Tuba, also called Euphonium, Baritone, or Tenor-Bass in B♭.

This instrument is non-transposing. The Bass-Tuba in F has the best tone; its dimensions cause it to rank, so full and weighty is its tone, as the fundamental

instrument of wind bands. Its four lowest notes are bad, all the others good.



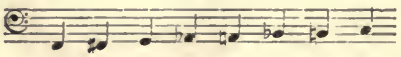
III.—Instruments of Percussion.

Distinction is made between percussion instruments of fixed pitch and those of indefinite pitch.

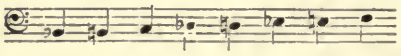
A. *Percussion Instruments of fixed pitch.*

Kettle-Drums. Pauken (Ger.); Timpani (It.); Timbales (Fr.).

A kettle drum consists of a half-globular kettle, the upper opening of which is covered with membrane (vellum), which can be stretched, more or less tightly, by means of screws fixed on the edge of the kettle. The change of pitch thus obtained extends to about eight semitones. A kettle-drum player manipulates generally two instruments, a larger and a smaller, the latter being a fourth higher in pitch than the former. (Drums can be tuned during a pause). The larger, deeper instrument is tuned to one of the following notes:



the smaller to one of the following:



Since Beethoven's time the music for the kettle-drum has been written as it sounds, but without signature at the beginning of the staff or accidentals before the notes.*

* [The names of the notes to which the drums are tuned are given at the beginning of the movement.]

The drum is struck by means of sticks (drum-sticks), which are either without covering (seldom) or covered with leather, felt or sponge. The sticks with sponge heads produce the softest tone, and are fitted, through their elasticity, for *p.* or *pp.* "rolls." Those covered with leather are harder, whilst the uncovered ones produce an unpleasant hard stroke.

"Timpani coperti" or "timpani con sordini" (muffled drums) are muted drums used for special effects; the drum is covered with a cloth in order to check the vibrations.

The Glockenspiel, or Cymbeln (Ger.), Jeu de Timbres, or Carillon (Fr.), consists of an arrangement of tuned bells [in modern days steel bars.]

The Glass or *Steel* Harmonica and the *Xylophone* (Wood Harmonica) consist of a series of tuned bars, of glass, steel, or wood, which are struck with drum-sticks.

The Steel Harmonica is now also constructed in the form of a small piano; its tone-quality is very sympathetic.

B. *Percussion Instruments without fixed pitch.*

Drums, large and small.

The *Bass Drum.* Grosse Trommel (Ger.); Tamburo Grande, Gran Cassa (It.); Grosse Caisse (Fr.).

Side Drum, Military Drum. Militär Trommel (Ger.); Tamburo Militare (It.); Tambour Militaire (Fr.).

The *Basque Drum* (Tambourine); Baskische Trommel (Ger.); Pandero (Spanish), consists of a membrane stretched on a ring or hoop; on the edge hang bells and pieces of metal. The instrument is either struck with the back of the hand, or shaken in the air in order to cause the bells to sound alone; or the player grazes the membrane with the finger-tip, producing a "roll." In all three ways the bells are audible.

The *Tambourin* (Fr.) is longer and narrower than the ordinary drum and is struck with a drum-stick; its name is generally, but erroneously, transferred to the Basque Drum.

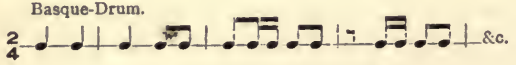
The *Tam-tam* (Gong), originally a Chinese instrument, is a thin metal disc, with bent edges, and is struck with a drum-stick covered with felt, whereby a booming, reverberating, weird sound is produced, which can be effectively utilised for dramatic purposes both *f* and *p* (Meyerbeer, Halévy, Spontini, Wagner, etc.)

Cymbals. Becken (Ger.); Piatti or Cinelli (It.); Cymbales (Fr.). Metal discs with leather handles, which are struck together or grazed against each other. They are used in various ways; in military bands they are played by the player of the bass-drum, in combination with it.

The *Triangle.* Triangel (Ger.); Triangolo (It.); Triangle (Fr.). A steel bar, bent into the form of a triangle, which is set in vibration by strokes from a little bar of the same metal. Rhythmical figures of all kinds can be easily executed on the instrument.

Castagnettes. Castagnetten (Ger.); Castanuelos (Sp.). Flat cases, of hard wood, in the form of a shell or pear, specially employed in Spain; the player holds a pair [hinged together with cord] in each hand, striking the two [forming the pair] against each other. The pairs are not of the same size; one hand manipulates the pair of higher pitch, which marks the rhythmical divisions of the bar, the other hand the pair of lower pitch, with which only the fundamental rhythm is marked [*i.e.*, the strong beat in each bar].

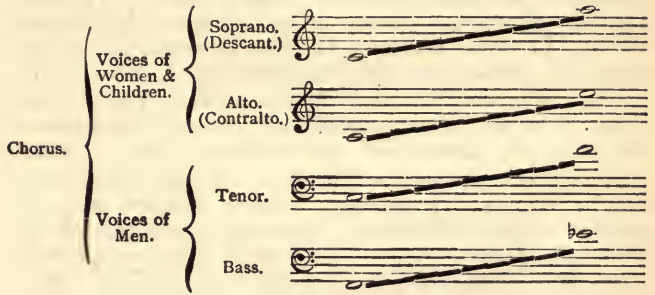
The rhythmical figures, which are to be played by percussion instruments of no fixed pitch, are, with reason, written on a single line, with the note values alone given:



Chapter II.—The Human Voice.

Human voices are classified according to age and sex, and within these classes of age and sex, according to individual peculiarities of the vocal cords (the organs which, by their vibrations, have the larger share in generating the sound), certain limits exist.

The voices of women and children belong to one class, those of men to another. In a chorus the voices are thus arranged:



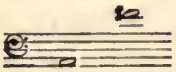
These voices can be sub-divided into 1st and 2nd Soprano, 1st and 2nd Alto, 1st and 2nd Tenor, and 1st and 2nd Bass, in which case the 1st voices take the higher notes.

If soprano, alto, tenor, and bass are combined in a choir, it is called a "mixed choir" (the voices of men and women mixed).

By proper training the compass of each of these voices can be extended; for instance, a solo soprano can sing as high as c‴ or even g‴. The singer, Agujari (born 1743 in Italy), possessed even the note c⁗. A bass can extend his compass to contra B; a tenor can reach c″ or c♯″.

Mezzo-Soprano is a female voice, which in compass varies between soprano and contralto, the best notes being in the middle register.

Baritone is a male voice with the compass:



It combines the power of the bass with the brilliancy of the tenor.

The following is a list of names of some famous opera and concert singers of modern times: Madame Marchesi, Lamperti, Götz, Stockhausen, Sieber, Hey (also important as teachers); Sopranos and Contraltos: Catalani, Schröder-Devrient, Sontag, Lind, Viardot-Garcia, Malibran, Artot, Patti, Lucca, Mallinger, Peschka-Leutner, Materna, Gerster, Sembrich, V. Voggenhuber, Lehmann, Sachse-Hofmeister, Schumann-Henck; Tenors: Schnorr v. Karolsfeld, Tichatchek, Vogl, Niemann, Wachtel, Götze, Alvary; Baritones: Marchesi, Kindermann, Mitterwurzer, Betz, Stockhausen, Gura, Lissmann; Basses: Staudigl, Levasseur, Skaria, Krolop. [Amongst British singers may be mentioned *John Braham*, 1774–1856 (tenor); *A. J. Foley* (Foli) 1835–1899 (bass); *Janet Patey*, 1842-1894 (contralto); *Edward Lloyd*, born 1845 (tenor); *John Sims Reeves*, 1822–1900 (tenor); *Sir Charles Santley*, born 1834 (baritone); *Helen Lemmens-Sherrington*, 1834–1906 (soprano)]. Among the most important masters of harpsichord and pianoforte playing may be mentioned the following: D. Scarlatti, F. Couperin, J. S. Bach, K. P. E. Bach, Mozart, Clementi, Cramer, Kalkbrenner, Czerny, Field, Hummel, Mendelssohn, Moscheles, Thalberg, Liszt, Chopin, Henselt, Hiller, Reinecke, Tausig, Bülow, Rubinstein, d'Albert, Klara Schumann, Annette Essipoff-Leschetitzki, Sophie Menter-Popper, Teresa Carreño.

Chapter III.

Instrumentation and the Full Score.

Hector Berlioz, in his excellent book on instrumentation, after enumerating all the orchestral instruments, remarks:

"The art of instrumentation consists in the proper use of these different elements of tone-colour, employing them either to give individual colour to melody, harmony and rhythm, or to produce effects 'sui generis' (whether of set purpose or not), independent of all connection with the other three musical potentialities."

Since the reader of this little work does not take it up in the expectation of finding an exhaustive treatise on instrumentation, we will only look at the subject from a general point of view,—comparing the instrumentation of earlier times with that of to-day, touching on the question of the individuality of the different classes of instruments, and finally giving a few general æsthetic rules.

In the chapters on the "history of music" we traced the origin of instrumental music. The formation of the orchestra limited itself at first to the combination of instruments of the same family, but of different pitch; for instance, a lute orchestra was composed of Quinternas (the smallest kind of lute), Theorbos (a lower-pitched lute) and Bass-Lutes; contrast of tone-colour was therefore entirely absent. In the same manner the families of flutes, of shawms, and of viols were respectively grouped into ensembles. When, towards the end of the 16th and beginning of the 17th century, a demand arose for variety of tone-colour, wind instruments, particularly in Germany, began to play a distinctly important part.

Michael Praetorius (1571-1621) whose famous "Syntagma musicum" provides a graphic picture of the musical doings of the period, gives instances in which the wind instruments far out-number the string instruments,

and even monopolise the melody. Handel and Bach also are particularly partial to wind instruments. Handel has scored his "Fire-Music" for three Trumpets (three players to each part, nine in all), Kettledrums (three players), three horns (three players to each part, nine in all), three oboes (twelve, eight, and four players to the respective parts, twenty-four in all), and two bassoons (eight and four players to the respective parts, twelve in all). The symphonies of P. E. Bach are scored for strings, two flutes, two oboes, two horns, two bassoons, and harpsichord. He also divides his orchestra into Concerto and Concertino, the latter being the name for an ensemble of soloists (*see* p. 93), which generally consisted at that time of two oboes and a bassoon, called "wind trio." At the end of the 17th and beginning of the 18th century the string orchestra also, when it was employed alone, was divided into Concerto Grosso and Concertino. The Concertino, in contradistinction to the massed body of strings (Concerto Grosso or Ripieno), consisted of first and second violins and first 'cello. The band for which Haydn wrote his first symphonies was also weak in strings; the violas proceed without any independence, generally doubling the basses. Flutes, oboes, bassoons and horns are never absent, whilst, on the other hand, clarinets and trombones are never employed, and trumpets and drums only occasionally; nevertheless, Haydn's instrumentation is a landmark for us.

Later, when the strings had obtained the leading place, a more correct relationship existed between strings and wind, although the wind instruments were then too much subordinated. Bach, with his polyphonic style, is in a certain sense an exception, whilst Handel himself—who, when he employs solo wind instruments (obbligato trumpets, etc.), makes such demands on the executive skill of the players as to frighten even our modern virtuosi—employs the wind orchestra, as a rule, to reinforce the strings. Haydn, who furthered the development of instrumentation by giving greater consideration to the characteristics of

single instruments (among other things he has been able to obtain charming effects from the bassoon, *e.g.*, Minuet and Finale of the C major Symphony, Peters' (Score) Edition, No. 5, and arrangement for four hands, Augener's Edition, No. 8554*g*, or Pianoforte Solo, Augener's Edition, No. 6183*g*), even he, and still more Mozart, treats the natural horn as little more than a means of filling up the harmony. Beethoven was the first to give individuality to the horn, and his example was followed by C. M. v. Weber and other masters. The trombones did not fare much better, their splendid tone effects being, for a long period, employed merely to support the double-bass, or to mark important rhythmical parts of the bar. The clarinet, which came into existence comparatively late, had less cause to complain of being kept in the background, yet C. M. v. Weber was the first to endow it with an immortal soul. Mozart also, particularly during the last years of his life, wrote incomparably beautiful clarinet parts in his soli and ensemble works. We notice the same thing in the string orchestra; the viola, which in Bach's works, for example, is on an equal footing with the other strings, became through the influence of the Italians (middle of the 18th century), only an accompanying instrument, or was used merely to double the 'celli and bassi in octaves. The 'celli met with a similar fate; they were chained incessantly to the double-basses, and were seldom allowed a single line to themselves in the score (the combination of instruments co-operating in the performance of a piece); it was Beethoven, again, who freed them from this slavery, and made them "sing," as they are by nature fitted to do.

Apart from the designations "string" and "wind" orchestras, applied to them either as component parts of a "full" orchestra (containing both groups of instruments), or as independent orchestras (strings alone or wind alone), distinction is made between the "small orchestra," the "full orchestra" as symphony orchestra, the "full orchestra" as opera orchestra, and the military band.

The terms "small" and "full" orchestra are naturally modifiable, and have had, at different times, different meanings.

Mozart wrote (*e.g.*, his G minor Symphony (1788), a gem as regards tone-colour) for "small" orchestra, composed as follows: strings (violins, violas, 'celli and bassi), two horns, two bassoons, two oboes, one flute. Without overstepping the limits of the small orchestra, two clarinets, two kettle drums, and perhaps two trumpets, could be added.

The addition of horns, trumpets and trombones would change the "small" into a "full" orchestra, identical with an ordinary symphony orchestra, to which might be added, at most, harps, characteristic instruments of percussion, and perhaps corno inglese. The orchestra of an opera can, however, be considerably enlarged. A colossal orchestra is employed by Berlioz in his "Requiem" (Tuba mirum), which on account of its peculiarity, may be given here: four flutes, two oboes, four clarinets in C, (the corno inglese is absent), eight bassoons, twelve horns, four cornets-à-pistons in B♭, one double-bass ophicleide with pistons, eight trumpets, sixteen trombones, four ophicleides, sixteen drums, a bass roll-drum in B♭, one bass drum with two sticks, tam-tam, three pairs of cymbals, 1st and 2nd violins, violas, 'celli, and bassi.

More one can scarcely wish for, as even the drums are called upon to add to the harmony. This, however, is an exceptional orchestra; the half of the instruments would form a fully adequate "full" orchestra.

The composition of an orchestra, as also its treatment, must naturally depend on the purpose for which it is brought together; it would consist of quite different materials if it is to be used only for accompaniment from those which would be selected if (as, for instance, in an opera) it would occasionally be required to illustrate dramatic situations. It must always be remembered that the human voice, when accompanied, must as a rule be the first consideration, the orchestra,

at the moment of accompanying, never predominating. It is a remarkable fact that Wagner's accompaniments are generally played too loudly, for even an indicated "forte" should always be only relatively a "forte," and Wagner does not require the orchestra to be obtrusive. "Forte" is not always "forte," *f* in a battle piece is different from *f* in a prayer. Written directions can only indicate approximately the degrees of loudness, or the preponderance of one instrument over another.

This is the domain of the orchestral conductor. Hans v. Bülow (1830–1894) was a master of the art of performing an orchestral work in a plastic manner, bringing out the characteristic lines of the thematic design, and the dynamic or agogic elements, combining the tone-colours of the instruments by the most delicate "nuances," or allowing the tone-colour of a single instrument to stand out from the mass, making this individual part, in an artistic manner, a foil to the others.

To enable the listener to appreciate this art, and worthily criticise a performance, there is for artist and amateur one means only, *i.e.*, the study of the "full score."

The Full Score. Partitur (Ger.); Partitura (It.); Partition (Fr.). (Here it must be remarked that the French [and English] distinguish between *partition de piano*, pianoforte-score, and *partition d'orchestre*, orchestral score.)

In a modern orchestral score, with or without voice parts, the parts for the different instruments and voices taking part in the work are arranged on lines one above another in such a manner that what is to be heard at one and the same time can be seen at one and the same time. The order of the lines universally adopted is based on these two rules :

1. The instruments are grouped in families.*

[* Strings under the wind.]

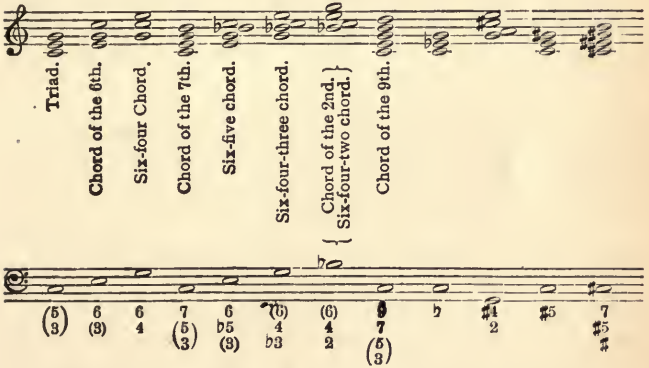
2. Each family is arranged in order of pitch.

Wood wind	Piccolos Flutes Oboes Corno inglese Clarinets Bassoons
Brass wind and Percussion	Horns Trumpets Trombones Tubas Kettledrums Instruments of Percussion of fixed pitch ,, ,, indefinite pitch
Strings	1st Violins 2nd Violins Violas 'Celli Bassi

Voice parts are generally placed between the violas and the 'celli; the soloists above, the chorus below. If the organ is employed its part is written at the bottom of the score. In old works the lowest part is the "continuo" or figured bass. The instruments less often used are placed in various ways; solo instruments stand either at the top of the score or over the strings. From the arrangement here given there are naturally exceptions, but they can hardly be recommended as regards clearness.

Chapter IV.—Figured Bass.

Figuring, the use of which has already been described (pp. 16, 96), consists of numbers which correspond to the size of the intervals ; 8 signifies 8ve, 5 = 5th, 6 = 6th, etc. The size of the intervals is, however, not always the same, but depends in every case on the key-signature (key) of the particular piece ; *e.g.*, if under the bass note A, figures occur indicating a chord with the 3rd from A, this note, if the composition is in C or G, will be C ; but it will be C ♯ if this is indicated [either by the signature or an accidental in front of the figure]. The figures most generally used are :



The component parts of the required chord can, subject to the rules of part-writing, be placed in various positions, *i.e.*, the sounds can be placed in different order one above another ; some of them can be doubled or omitted ; the chord can be divided between the treble and bass staves, or can be merged in the "figures" [passages] of the accompaniment, etc. We give here only the normal form [component parts] of the chords. The figures in parentheses are not always written, but are taken for granted ; therefore the triad is not figured

at all, excepting when one of the notes is to be chromatically altered by a ♯, ♭, ♮, etc., then the number and the accidental are written. An accidental *without* figure always refers to the 3rd. If a figure has a stroke through it (6), the corresponding note is to be raised a semitone. N.B.—Our examples are not to be looked upon as connected with each other, consequently no chord is provided with a ♮ to contradict what precedes; each separate chord is to be considered by itself in the key of C major. Further information on the subject must be sought in treatises on Thorough Bass and Harmony.

Chapter V. Score Reading.

Score Reading. — Every amateur should at least practise reading at sight from an orchestral score. Score-reading is not so difficult but what it can be learned in a comparatively short time. A few instructive hints may be given.

An amateur's first attempt should be the reading of a song familiar to him, and he should take care in following the voice-part to read the instrumental parts at the same time. Here the reading will give no trouble, since the text makes it impossible to go astray. The reader, however, must not be content with hearing, he must try to analyse thematically what he has heard, *i.e.*, he must try to recognise the principal theme, to follow its development, and above all to notice whether the theme, or a fragment of it, or a phrase growing out of it, appears in the accompaniment. This is important, because the reader accustoms himself in this way to distinguish principal from subordinate parts. Sometimes an important fragment of the melody appears in an apparently comparatively subordinate middle part of the pianoforte accompaniment; sometimes it forms the bass, etc.

The next attempt can be made with a work for violin and piano. Here there is already more to think about; in the first place both parts, that of the violinist and that of the pianist, are more complicated; moreover, once the thread is lost it is not so easily recovered. It is therefore important to exert not only the ear but also the eye, and this not only in following the melody, but also in grasping the purely external lines of what is written, which will be in close relation with what is heard. It is necessary, for instance, to know the "contour" of the melody of the theme, in order that in the event of the reader being unable to follow, and finding himself wandering aimlessly with eye and ear about the staves of a page, it may be quickly recognized, and the connection found. The reader must listen with

"all his ears" in order not to miss or misread obvious variations of the theme.

The best object for his next attempt will be a trio for strings. This will be still more difficult, inasmuch as in such compositions there is greater independence of the individual parts, and moreover the tone-qualities of three string instruments are less distinct from one another than those of the tone-generators of the ensembles already mentioned. This tends to sharpen the hearing. Here, however, one can also bring the eye to the aid of the ear; when one part of a movement is repeated, one will be able to follow the different parts more closely; ascertain, for instance, whether it was the higher notes which were played by the 'cello, or the lower notes by the viola, etc. But the reader must not anxiously creep along the violin part as the most prominent; he must endeavour to understand which part for the moment is the most important, or whether all are equally important, in which case the music is much more difficult to follow.

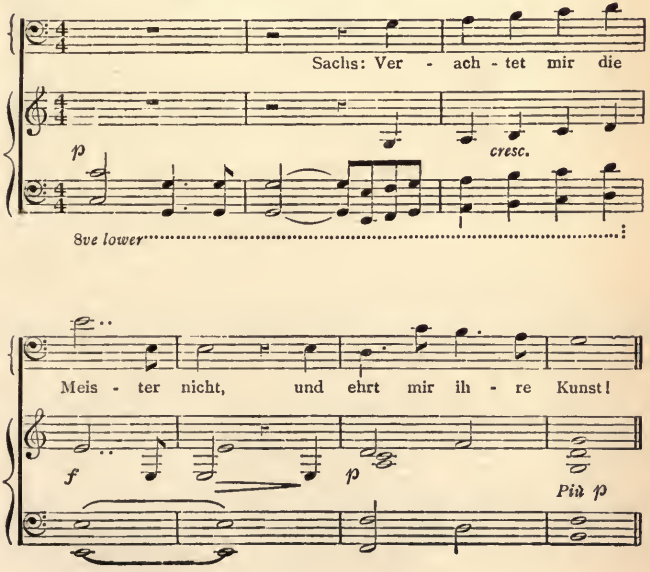
Finally, the reading of a string quartet is to be recommended (or one which employs three string instruments and a piano), and also vocal "ensembles."

If the student should then venture to read the score of a work written for "small" orchestra (Haydn's and Mozart's symphonies) [and should then hear them performed], he must not be dismayed if he does not hear much that he sees on paper, or, on the other hand, hears more than he thought possible on looking at the notes of the particular parts. That results from the fact that he did not take into consideration the composer's indications for different degrees of force for the different parts; or that in consequence of the doubling of a part, that part thus obtains greater fullness of tone; or, in other cases, that an instrument is capable of producing, in places desired by the composer, either very little tone-volume or a great deal. Often, again, the composer will allow the rhythmical element to predominate over the melodic; for example, whole passages of the flutes or the strings, etc., may be overpowered by the rhythm

of the trumpet, or horn, or drum. In order to be able to judge of such matters in advance, one must have some practice. It is useful to read through the score once or twice at home; then, before again trying to mentally realise the effect of the whole composition, compare, at a concert, the imagined effect with the actual effect, and correct accordingly.

In conclusion we recommend the reader to form his musical taste only on the works of acknowledged good composers; for just as taste and judgment may be educated, they may also be vitiated. We may here quote the words which Wagner puts into the mouth of Hans Sachs in the "Meistersinger," which may be taken to heart not only by the professional musician but also by every amateur of music who takes his art seriously:

"Scorn not the masters, and honour their art!"



INDEX AND GLOSSARY

Abbandonatamente, con **abbandono,** with soul, abandonment.
Abt, Franz (born 1819 at Eilenburg, died 1885 at Wiesbaden), *p.* 37.
A cappella, an unaccompanied vocal movement.
Accel., accelerando, becoming quicker.
Acciaccatura, *see* Vorschlag.
Accidental, sign for raising or lowering (*see* Transposition Signs).
Accompagnato, accompanied.
Accompagnement (*Fr.*), accompaniment.
Accordion, *see* Zieh-Harmonica.
Accrescendo = crescendo, getting louder.
Adagietto, not so slow as Adagio.
Adagio, slow.
Adam, Adolphe Charles (born 1803 in Paris, died there 1856), *p.* 26.
Adam de la Halle (1240—1287), *p.* 17.
Addolorato, painfully, sorrowfully.
Ad libitum = a piacere, at pleasure in time and style.
Æolian, *p.* 8.
Affabile, friendly, kindly.
Affettuoso, with emotion, feeling.
Affrettando, hastening.
After-phrase, *p.* 77.
Agevole, con **agevolezza,** light, graceful.
Agilità, movement.
Agitato, with excitement, agitation.
Agnus Dei, *see* Mass, *pp.* 94, 95.
Agogics, *p.* 69.
Agricola, Alexander, according to the latest researches a German, lived in Italy, Belgium and Spain, *c.* 1446—1506, an important composer.
Agricola, Martin (born 1486 at Sorau, died 1556 at Magdeburg); his works, partly in German and partly in Latin, are of great value for musical history.
Air, *pp.* 92, 99.
d'Albert, Eugen (born 1864 at Glasgow, lives in Berlin, Weimar, Vienna, etc.), pianist and composer.
Albrechtsberger, Johann Georg (born 1736 at Kloster-Neuburg, near Vienna, died 1809 at Vienna), teacher of Beethoven and friend of Mozart; distinguished theorist and author of several theoretical works.
Alexandre-Organ, *see* American organ.
Alla breve time, ¢ = $\frac{2}{2}$, *p.* 85.

Alla Marcia, in the manner of a march.
,, **Polacca**, in the manner of a polonaise.
,, **Siciliano**, in the Sicilian manner.
,, **Turca**, in the Turkish manner.
,, **Zingara**, in the gypsy style, *i.e.*, emotional.
Allargando, becoming broader.
Allegretto, cheerfully.
Allegri, Gregorio (born 1584 at Rome, died there 1652).
Allegro, quick.
Allemande, *p.* 84.
All'ottava (= 8va), an octave higher.
Alphabet notation, *p.* 11.
Alternativo, alternate, by turns.
Althorn, *p.* 129.
Alto clarinet, *p.* 118.
Alto clef, the C clef on the 3rd line of the staff.
Alto (1) contralto voice, (2) viola.
Alto trombone, *p.* 127.
Amati, *pp.* 22, 23.
Amati, Andrea, died 1611.
,, **Antonio**, born 1555, died 1638 [son of Andrea].
,, **Nicola**, worked from 1568—86 [brother of Andrea].
,, **Girolamo**, born 1556, died 1638 [son of Andrea].
,, **Nicola**, 1596—1684 [son of Girolamo, and the most eminent of the Amati family].
,, **Girolamo**, 1649—1740 [son of Nicola].
,, **Giuseppe**, beginning of the 17th century.
Ambros, August Wilhelm (born 1816 at Mauth, near Prague, died 1876 at Vienna), historian of music and aesthete, wrote an excellent history of music. He unfortunately died before the completion of his work. The 5th volume was compiled by Otto Kade, from materials left by Ambros.
Ambrosian Chants, *pp.* 6—8.
Ambrosius, born 333, died 397, *p.* 6.
American Organ, a kind of harmonium (*q.v.*), in which the reeds are made to sound by drawing in the air (instead of forcing it out).
Analysis (of a musical work), examination of the structure and component matter.
Andante, going, moderately slow. Also a movement in slow time.
Andantino, rather slower than Andante. [Andantino is generally understood to be rather quicker than Andante.] Also a composition of small dimensions in Andantino tempo.
Anglaise, old English dance.
Anima, soul, spirit.
Animato, con **anima**, (1) quickly, (2) with soul, spirit.
Animuccia, Giovanni (died about 1570), *p.* 96.
Answer, *see* Fugue, *pp.* 103, 104.

Anticipation (harmonic), the anticipation of an essential note of a chord by its appearance in a preceding chord of which it does not form a part; the anticipating note is generally a discord.

Antiphony, *see* Church music, *p.* 8.

Appassionato, with passion, emotion.

Appoggiatura, *see* Vorschlag.

Arabian tone-system, instruments, notation, etc., *p.* 3.

Araja, Francesco (1700–*c.* 1767), p. 27.

Arco, bow; col arco, with the bow.

Arietta, *p.* 99.

Arioso, a short melodic movement; in the style of a song.

Aristotle, 384–322 B.C., disciple of Plato. The treatises on music contained in his writings are very valuable.

Aristoxenos (born about 354 B.C.), disciple of Aristotle, the most important of the writers from whom we obtain information concerning Greek music. Aristoxenos is an opponent of the views of Pythagoras, as he bases his system, not on numbers, but on harmony.

Arne, Thomas Augustine (born 1710 in London, died there 1778), *p.* 27.

Arpeggio, chords broken, as on the harp.

Art-song, *p.* 87.

Assai, very.

A tempo, return to the original tempo after a previous slackening or acceleration.

Attacca, begin at once; this direction stands at the close of a section which is to be connected, without pause, with the following one.

Attack, the manner in which a singer or player produces the first note of a musical phrase.

Auber, Daniel François (born 1782 at Caen, died 1871 at Paris), *p.* 25.

Augmentation, *p.* 103.

Authentic, *p.* 7.

Auxiliary note, upper or under second, which follows the essential note and returns to it. When an auxiliary note is quitted by skip of some interval [a third] the name "changing note" is given to the auxiliary note and to the note thus reached by skip, which proceeds to a following note. [In the case of an "auxiliary" note thus quitted, the changing note is followed by the harmony note which precedes the auxiliary note. In the case of a "passing" note thus quitted, the changing note is followed by the note to which the passing note would have proceeded.]

B durum
B molle
B quadratum
B rotundum } *p.* 8.

Bach, Johann Sebastian (born 1685 at Eisenach, died 1750 at Leipzig), *p.* 30.

„ Karl Philipp Emanuel, called Hamburg or Berlin Bach (1714-1788), son of J. S. Bach, *p.* 31.

Bagatelle, the name of a piece of small dimensions, generally containing short musical ideas.

Bag-pipe, *pp.* 16, 85.

Balbeke, Ludwig von (about 1300) said to have invented organ pedals.

[Balfe, Michael William, distinguished British composer (born at Dublin 1808, died 1870). He wrote several operas, of which the best known is "The Bohemian Girl."]

Ballad, originally a dance song, now a narrative poem for solo voice with accompaniment for orchestra or piano ; if on a larger scale, with chorus, soli, etc. The word is also used in another sense for a purely instrumental composition.

Ballet-music, dance music, sometimes accompanied by voices, often allied to pantomimic action. Ballet music is either inserted in an opera, operetta, or play (although entirely disconnected with the work), or is an independent work in itself.

Banjo, a negro instrument, resembling the guitar, with a long neck, and a flat drum, open at the back, as a resonance-body. It has from 5 to 9 strings.

Bar, *p.* 66.

Bar-line, *p.* 66.

Bar-motive, *pp.* 67, 68, 76.

Barcarole, an Italian boat-song.

Bardi, Count, at Florence (1580), *p.* 19.

Baritone, *p.* 134.

[Barnett, John; born at Bedford, 1802, died at Cheltenham, 1890, composer of several songs and operas (The Mountain Sylph, etc.)]

Basque-drum, *p.* 131.

Bass, *p.* 133.

Bass-clarinet, *p.* 118.

Bass-clef, the F clef on the 4th line of the staff (*see* Clef signs, *p.* 11).

Basset-horn, alto clarinet in F (*see* Clarinet), *p.* 118.

Bass-ophicleide, *p.* 129.

Basso-ostinato, *p.* 86.

Bass-trombone *p.* 127.

Bass-tuba, *p.* 129.

Bassoon, *p.* 119.

Battuta, beat of the bar. "Ritmo de tre" or "quattro battute" = rhythm of 3 or 4 bars taken together as forming one bar of larger dimensions.

Beat of bar, *p.* 66.

Beats, the regularly recurring jerks or beats (reinforcements of tone), the result of sounding together two notes of slightly different pitch.

Beethoven, Ludwig van (1770—1827), *pp.* 35, 92.

Bell, of a wind instrument, the lower opening of a tubular instrument, which takes a bell-like shape.

Bell mouthpiece, *p.* 122.

Bellermann, Gottfried Heinrich (born 1832 at Berlin, died 1903 at Potsdam), writer on music, wrote a treatise on counterpoint and an important work on mensural notation and time-signatures of the 15th and 16th centuries.

Bellini, Vincenzo (born 1801 at Catania, died 1835 at Puteaux, near Paris), *p.* 21.

Bémol (*Fr.*), flat, ♭.

Benda, Georg (born 1722 at Altbenatky, died 1795 at Köstriz), *p.* 99.

Benedictus, *see* Mass, *p.* 95.

[**Bennett,** William Sterndale (born at Sheffield 1816, died in London 1875), composer of four pianoforte concertos, four overtures (Parisina, The Naïads, The Wood-Nymph, Paradise and the Peri), a symphony, The May Queen (Cantata), The Woman of Samaria (Oratorio), etc.]

Berceuse, cradle-song.

Berlioz, Hector (born 1803 at Côte St. André, Isère, died 1869 in Paris), *pp.* 26, 49.

Binchois, Gilles (born about 1400 at Hennegau, died 1460 at Lille), one of the earliest Flemish masters.

Bird, *see* Byrd.

Bis, twice, again.

[**Bishop,** Henry Rowley (born in London, 1786, died 1855), composer of 82 operas and vaudevilles, an oratorio (The Fallen Angel), a cantata (The Seventh Day), glees, part-songs, etc.]

Bizet, Georges (born 1838 in Paris, died 1875 at Bougival), *p.* 26.

[**Blow,** John, 1648—1708, famous organist and composer of anthems, services, odes, songs and organ pieces.]

Boccherini, Luigi (born 1743 at Lucca, died 1805 at Madrid), important composer of chamber music, particularly string trios, quartets, etc.

Boëtius, Ancius Manlius Torquatus Severinus (about 475—526 A.D. in Italy), philosopher and mathematician; his five books "De Musica" are of priceless value for the study of the music of the Greeks and the opinions of the Middle Ages derived therefrom.

Böhm, Theobald (1794—1881), *p.* 115.

Boieldieu, François Adrien (born 1775 at Rouen, died 1834 at Jarcy), *p.* 25.

Bolero, a Spanish national dance in $\frac{3}{4}$ time.

Bombardon, *p.* 129.

Bourrée, *p.* 87.

[**Boyce,** William (born in London 1710, died 1779), famous organist and composer of anthems, services, violin sonatas, symphonies, an oratorio (Noah), etc.]

Brace, } binding two or more staves together.

[**Braham,** John (born in London 1774, died 1856), distinguished tenor singer.]

Brahms, Johannes (born 1833 at Hamburg, died 1897 at Vienna).

Branle or **Bransle,** *p.* 85.

Bravura-Aria, *p.* 99.

Brendel, Karl Franz (born 1811 at Stolberg, died 1868 at Leipzig), writer on music, author of a history of music.

Bridge, in string instruments, the piece of wood standing perpendicularly on the body of the instrument, over which the strings are stretched.

Brioso, brisk.

Bruch, Max (born 1838 at Cologne), *p.* 46.

Brückler, Hugo (born 1845 at Dresden, died there 1871), *p.* 38.

Brüll, Ignaz (born 1846 at Prossnitz, died 1907 at Vienna), *p.* 45.

[**Bull,** John (born 1563 in Somersetshire, died 1628 at Antwerp), famous organist and composer). The composition of "God Save the King" is by some attributed to him.]

Buffo, comic, *e.g.*, opera buffa = comic opera; basso-buffo part, a comic part for a bass singer.

Bugle-horn (*see* signal horn), *pp.* 128, 129.

Bülow, Hans v. (born 1830 at Dresden), died 1894 at Cairo).

Burlesco, playful, comical.

Burney, Charles (born 1726 at Shrewsbury, died 1814 at Chelsea College), important historian of music.

Buus, Jacques de (c. 1535), *p.* 15.

Byrd (Bird), William (1543—1623, London), prolific and important English church composer.

C clef  indicates the particular line on which it occurs to be c^1, middle C. If on the 1st line of the staff it is called the soprano clef (or descant clef); on the 2nd line the mezzo-soprano clef; on the 3rd line the alto or viola clef; on the 4th line the tenor or 'cello clef.

Caccini, Giulio (born about 1550 at Rome—1618), *p.* 32.

Cadence, harmonic and melodic, *pp.* 78, 79, 80.

Calando, becoming quieter; indicates slackening of time and decrease of tone.

[**Callcott,** John Wall (born at Kensington 1766, died at Bristol 1821), composer of glees, catches, anthems, odes, etc.]

[„ , William Hutchins (born 1807, died 1882, London), son of the former, composer of songs, anthems, etc.]

Canarie, *p.* 85.

Canon, *p.* 101.
Cantata, *p.* 98.
Cantilena, a song-like melody.
Cantus firmus, *p.* 102.
Cantus planus (*see* church music), *p.* 9.
Canzone, a polyphonic secular movement [15th and 16th cen.] (chanson Fr.)
Canzonetta, a little canzone.
Cappella (a Cappella), unaccompanied vocal composition.
Capriccio, a piece, of undecided form, humorous and piquant in character, like the scherzo.
[**Carey**, Henry (born 1690, died 1743, in London), composer of ballads, operettas, and ballad operas. The composition of "God Save the King" is by some attributed to him.]
Carillon, a piece which imitates the sound of bells.
Carissimi, Giacomo (born 1604 at Marino, died 1674 at Rome), *pp.* 20, 96.
[**Carrodus**, John T. (1836—1895), esteemed English violinist.]
Castagnettes, *p.* 132.
Cavalieri, Emilio de (about 1550—1602), *p.* 19.
Cavatina, *p.* 99.
Cavos, Catterino (1776—1840).
[**Cellier**, Alfred (born in London 1844, died 1891), English composer of French origin, wrote several operettas.]
Cembalo, clavichord.
Chaconne, *p.* 86.
Chain, of shakes, a succession of shakes, generally without closing notes at the end of each shake.
Chamber-music, *p.* 89.
Chamber-sonata, *p.* 89.
Chamber-style, *p.* 90.
Changing-note, *see* Auxiliary-note.
Chanson = canzone (*q.v.*)
Cherubini, Maria Luigi (born 1760 at Florence, died 1842 in Paris), *p.* 25.
Chest notes, in generating chest notes the vocal cords vibrate in their whole length and breadth.
Chinese, tone-system, instruments, notation, etc., *p.* 2.
[**Chipp**, Edmund Thomas (born in London 1823, died at Nice 1886), organist and composer of an oratorio (Job), organ pieces, etc.]
Chopin, Frédéric François (born 1810 at Zelazowa-Wola, died 1849 in Paris), *p.* 40.
Chorale, a congregational song, introduced into Christian church worship.
Chord, *p.* 56; also used in the sense of "string"; *i.e.*, a trichord piano is one which has three strings to every note tuned in unison. The deeper notes of the piano have only two strings, and the lowest of all only one.

[**Chorley**, Henry F. (born in Lancashire 1808, died 1872), musical critic, dramatic poet and author of libretti for English composers, Wallace, Bennett, Benedict, Sullivan, etc.]

Chromatic, *pp.* 53 (footnote), 72.

Chrysander, Friedrich (born 1826 at Lübtheen in Mecklenburg, died 1901, Bergedorf), a very important writer on music, wrote a biography of Handel and edited Handel's works published by the Handel Society, of which he was the founder. He wrote valuable articles and numerous historical essays.

Church-modes, *p.* 6.

Church-music, *p.* 6.

Church sonata, *p.* 89.

Ciacona, *see* Chaconne.

Cimarosa, Domenico, (1749–1801), *p.* 21.

Cinelli, cymbals, *p.* 132.

Clang, *p.* 51.

Clarinet, *p.* 117.

Clarino, trumpet, formerly the name for the high solo trumpet.

Clavicembalo, *p.* 15.

Clavichord, *p.* 14.

[**Clay**, Frederic (born in Paris, of English parents, 1840, died 1889), composer of operas and operettas (The Black Crook, Babil and Bijou, etc.]

Clef sign, the sign standing at the beginning of every line, which, by its shape and position on the staff, gives to a certain line a fixed pitch.

Clementi, Muzio (born 1752 at Rome, died 1832 at Evesham), *p.* 31.

Close, *pp.* 78, 79.

Close-bearing beat, *pp.* 78, 79.

Closing notes of shake are the notes added at the end, consisting of the lower auxiliary and the principal note.

Coda, additional phrase or phrases at the end of a composition.

Col, instead of con il
Colla, instead of con la } with the.

Colla parte, an indication that in performance the marks of expression, changes of tempo, etc., of the accompaniment must be regulated by those indicated for the principal part, or those introduced, of his own accord, by the solo performer, singer or player.

Coll', before vowels, instead of con la or con lo, with the.

Coll'arco, *p.* 110.

Col legno, *p.* 111.

Collo, instead of con lo, with the.

Coloratura, florid passages, runs, trills, etc.

Colour, colouring, a term transferred from painting to music, to express the general effect of combination of tone-colours: *e.g.*, one speaks of sombre or bright or brilliant colouring in instrumentation; or the idea is transferred to abstract qualities, and one speaks of genial colouring, etc.

Combination-tones, sounds which result from the continuous simultaneous sounding of two notes of different pitch. Helmholtz calls them also "differential tones."

Comes = answer, *see* Fugue, *p.* 104.

Commer, Franz (born 1813 at Cologne, died 1887 at Berlin), published voluminous collections of ancient compositions "Musica sacra" (26 volumes) and "Collectio operum musicorum Batavorum sæculi xvi." (12 volumes).

Commodo, comfortably, easily; a suo commodo = at pleasure.

Compiacevole, pleasantly, agreeably.

Compound time, *p.* 67.

Con, with.

Con brio, brisk, lively.

Con fuoco, with fire.

Con moto, with motion.

Con tutta la forza, with all force.

Concertino, *pp.* 93, 136.

Concerto, *p.* 93.

Concert overture, *p.* 88.

Conseguenza, *p.* 104.

Consonances, *pp.* 59, 60.

Continuo, basso continuo, *pp.* 16, 96.

Contra-basso, *p.* 112.

Contra-bass trombone, *p.* 127.

Contra-fagotto, *p.* 120.

Contralto, *p.* 133.

Corda } string.
Corde } strings: una corda, due corde, tre corde = one, two, three strings.

[**Corder**, Frederick (born in London 1852), a gifted composer; his best known works are The Bridal of Triermain (cantata) and Nordisa (opera)].

Corelli, Arcangelo (born 1653 at Fusignano, died 1713 at Rome), *pp.* 23, 90.

Cornelius, Peter (1824—1874), *p.* 44.

Cornet-à-pistons, *p.* 128.

Corno = horn, *p.* 123.

Corno-inglese, English horn, *p.* 119.

Corrente or **Courante**, *p.* 84.

Counterpoint, *p.* 100.

Counter-subject (*see* Fugue), *p.* 104.

Couperin, François (1668—1733), *p.* 134.

Coupler, *see* organ, *p.* 122.

Couplet (of a Rondo), *p.* 91.

Coussemaker, Charles Edmond Henri de (born 1805 at Bailleul), died 1876 at Bourbourg), rendered great service to music by researches into the music of the Middle Ages.

[**Cowen,** Frederic Hymen (born in Jamaica 1852), composer of operas (Thorgrim, Harold, etc.), cantatas, symphonies, etc.]

Cramer, Johann Baptist (1771—1858), *p.* 31.

Credo, *see* Mass, *p.* 95.

Crescendo, growing louder, *pp.* 67, 69.

Cristofori, Bartolomeo (born 1655 at Padua, died 1731 at Florence), *p.* 15.

[**Croft** (or **Crofts**), William (born 1678, died 1727), organist and composer of anthems, violin sonatas, flute sonatas, etc.]

Crook, *see* horn, *p.* 124.

[**Crotch,** William (born 1775 at Norwich, died 1847 at Taunton), organist and composer of oratorios (Palestine, etc.), anthems, glees, organ concertos, etc.]

[**Curwen,** John (born 1816, died 1880), founder of the Tonic Sol-fa Method.]

Cyclical form, *p.* 87.

Cymbals, *p.* 132.

Czardas, a wild Hungarian dance, characterised by changes of tempo.

Czerny, Karl (born 1791 at Vienna, died there 1857), *p.* 31.

Czibulka, Alfons (born 1842 in Hungary, died 1894 at Vienna), composer of operettas and dance music.

Da, from.

Da Capo, from the beginning.

[**D'Albert,** Eugen Francis Charles (born 1864 at Glasgow), distinguished pianist and composer]

Dances, *pp.* 84–87.

Dancla, Jean Baptiste Charles (born 1818, died 1709), composer of violin music.

David, Ferdinand (1810—1873), highly important violin virtuoso, teacher (of Joachim and Wilhelmj), and composer for his instrument.

Deceptive [or **interrupted**] **Cadence,** *p.* 79.

Deceptive Modulation, sudden change to another key by an unexpected resolution of a dissonance; often synonymous with deceptive cadence.

Decrescendo, gradually decreasing the tone.

Dehn, Siegfried Wilhelm (born 1799 at Altona, died 1858 at Berlin), one of the most important theorists of his time, published treatises on harmony and counterpoint.

Delibes, Léo (born 1836 at Saint-Germain, died 1891 at Paris), *p.* 26.

Denner, Christof (1655—1707), *p.* 117.

Derived tones, *see* Overtones, *p.* 55.

Despres, Depres, Deprès, de Prés or **Des Près**, Josquin, the most famous of the Flemish contrapuntists of the second half of the 15th century.

Destra, right; mano destra, right hand.

Development, *p.* 90.

Diatonic, *pp.* 53 (footnote), 72.

[**Dibdin**, Charles (born at Southampton 1745, died in London 1814), opera singer and composer of operettas, etc.]

Dies irae, *see* Requiem, *p.* 95.

Differential tones, *see* Combination tones.

Diminuendo, decreasing the tone.

Diminution, *p.* 103; of intervals, *p.* 53.

Discant or **descant** = (1) soprano, (2) *see p.* 16.

Discant ,, clef, soprano clef (C clef on the 1st line).

Dissonance, *p.* 59.

Dissonances (characteristic), *p.* 61.

Dissonant chords, *p.* 60.

Ditters v. Dittersdorf, Karl (born 1739 at Vienna, died 1799 near Neuhauf), *p.* 29.

Divisi, divided, indicates for orchestral string instruments that they are not to play the several parts together by means of double stopping, but are to divide into 1st and 2nd parts.

Do, solmisation syllable for the note C.

Dolce, con dolcezza, softly, sweetly.

Dolendo, plaintively.

Dominant, *p.* 60.

Domine Jesu Christe, *see* Requiem, *p.* 95.

Dommer, Arrey von (born 1828 at Dantzig), author of an excellent musical dictionary and a handbook of musical history.

Doni, Giovanni Battista (1593—1647).

Donizetti, Gaëtano (born 1797 at Bergamo, died there 1848), *p.* 21.

Dorian, *pp.* 5, 6.

Double bar, indicates the end of a section of a composition).

Double chorus, a composition for two choirs, independent of each other, but performing at the same time.

Double fugue, *p.* 106.

Double-sharp, *p.* 52.

Doubles, *p.* 86.

Down beat, *p.* 66.

Doxology (*Gr.* = praise), The Gloria. The great doxology: Gloria in excelsis Deo. The little doxology: Gloria patri et filio, etc.

Drum, *pp.* 130, 131.

Due = two. **A due** = for two, signifies in an orchestral score that two instruments, for which the notes are only written on one staff (two flutes, two oboes, etc.), are to play the particular part together.

Due corde = two strings, indicates the disuse of the soft pedal, the use of which has previously been indicated by "una corda."

Dufay, Guillaume (1400—1474), important French composer.

Duiffoprugcar, Caspar (born 1511, died 1571), *p.* 14.

Dulcimer, *p.* 14.

Duni, Egidio Romoaldo (1709—1775), *p.* 25.

Dunstable, John (15th century), important English contrapuntist.

Dunstede, Simon (died 1369), wrote works on the theory of music, giving important information concerning the mensural music of the period.

Duo, composition for two different instruments.

Dur (*Ger.*) major.

Durante, Francesco (born 1684 at Fratta Maggiore, died 1755 at Naples), *p.* 21.

Dussek, Johann Ladislaus (born 1761 at Tschaslau in Bohemia, died 1812 at St. Germain), an excellent pianist, one of the first to obtain a large full tone from the piano. Composed many works for piano and violin.

Dux=subject, *see* Fugue, *p.* 104.

Dvořák, Antonin (born 1841 at Mühlhausen in Bohemia, died 1904, Prague), *p.* 48.

Dynamics, *p.* 69.

Ecossaise, contre danse in quick $\frac{2}{4}$ time, formerly a Scotch round dance in $\frac{3}{4}$ or $\frac{3}{2}$ time.

English horn, *p.* 119.

Enharmonic, *pp.* 72, 74.

Enharmonic change, *pp.* 72, 74.

Ensemble (1) The general effect of the performance of a work which requires the co-operation of several people. (2) The mass as distinguished from the individual (*i.e.*, an orchestra or a choir as distinguished from the soloists). (3) Ensemble playing is the performance of ensemble compositions, *i.e.*, those for instruments or voices for two or more performers.

Entr'acte (*Fr.*) music between the acts of a play or opera.

Episode, *see* Fugue, *p.* 104, Rondo, *p.* 91.

Equal temperament, *p.* 74.

Erard, Sébastien (1752—1831), famous piano manufacturer, inventor of the repetition action of the piano and the modern pedal harp.

Erk, Ludwig (born 1807 at Wetzlar, died 1883 in Berlin), known through his collections of folk-songs ("Liederschatz," Edition Peters), the first of which contains the gems of the German folk-songs, with simple accompaniment.

Espressione, expression.

Espressivo, with expression.

Euphonium, *p.* 129.

Fa, solmisation syllable for the note F.

Fagotto, bassoon, *p.* 119.

Falsetto, head-voice. In the production of falsetto notes the glottis can be closed; the glottis vocalis forms a fissure whilst the epiglottis is closed. The tone-producing vibrations are formed on the sharp edge of the vocal cords, and chiefly by air vibration rather than by reed vibration. Hence the more flute-like quality of voice in this register. *See* Flute.

Fantasia, a composition in no definite form. *See also p.* 103.

Fastuoso, pompously.

Faux-bourdon, *p.* 17.

Feigning consonance, *p.* 60.

Festivamente, festivo, festoso, solemnly, in a stately manner.

Fétis, François Joseph (born 1784 at Mons in Belgium, died 1871 at Brussels), theorist, historian and philosopher. His works are very valuable; the principal are: Histoire Générale de la Musique" (up to the 15th Century), and "Biographie Universelle des Musiciens, et Bibliographie Générale de la Musique."

Field, John (born 1782 at Dublin, died 1837 at Moscow). [Distinguished pianist and composer of nocturnes, concertos, sonatas, etc.], *p.* 134.

Fifth, *pp.* 53, 60.

Figured bass, *pp.* 16, 96, 141.

Finale, closing movement.

Fine, end.

Flageolet-tones (Harmonics), *p.* 110.

Flat, ♭ *pp.* 8, 52.

Flauto = flute, *p.* 114.

Flemish School, *p.* 18.

Flotow, Friedrich Freiherr von (born 1812 at the manor of Teutendorf in Mecklenburg, died 1883 at Darmstadt), *p.* 41.

Flue-pipes, pipes in which tone-generation is effected by a stream of air being driven against the sharp edge of the slit-like opening.

Flute, *p.* 114.

Flûte-à-bec, *p.* 115.

Folk-song, *p.* 87.

Foot (8 ft., etc.), *see* Organ, *p.* 121.

Fore-phrase, *p.* 77.

Forkel, Johann Nicolaus (born 1749 at Meeder, near Coburg, died 1818 at Göttingen), important historian of music, and bibliographer.

Form, *pp.* 75, 82.

Forte *f*, loud.

Fortissimo *ff*, very loud.

Forza, power.

Forzato, sforzato (*q.v.*)

Fourth, *pp.* 53, 60.

Franco of Cologne and Franco of Paris, probably the authors of important treatises on mensural music and the rise of polyphony with "Franco" as author's name. Franco of Cologne (12th—13th Centuries); Franco of Paris probably earlier.

Franz, Robert (real name, von Knauth) (born 1815 at Halle, died there 1892), *p.* 37.

Frets, the narrow strips of metal or wood which are placed crosswise on the fret-board (finger board) of some string instruments (lute, mandolin, guitar, zither), in order to indicate the places where the string is divided by the pressure of the fingers of the player's left hand on the frets, whilst the right hand plucks the string.

Frottole, Italian songs of the 16th Century, resembling folk-songs.

Fugato, *p.* 106.

Fughetta, *p.* 106.

Fugue, *p.* 103.

Fundamental chords, in figured bass, triads, chords of the 7th and 9th.

Fundamental note, of a harmonic series, of a triad, etc., *pp.* 51, 57, 58.

Funèbre, funereal, mournful.

Fuoco, fire; con fuoco, with fire.

Furioso, furious, wrathful.

Fux, Johann Joseph (born 1660 at Hirtenfeld, died 1741 at Vienna), theorist and composer, published an important work on counterpoint, "Gradus ad Parnassum."

Gabrieli, Andrea (*c.* 1510—1586), *p.* 89.

" Giovanni (1557—1612).

Gade, Niels Wilhelm (born 1817 at Copenhagen, died there 1890), *p.* 45.

Gagliarda or **gaillarde**, *p.* 86.

Galuppi, Baldassare (born 1706 at Burano, died 1785 at Venice), p. 21.

Gamba, viola da gamba, knee viol, an instrument resembling the 'cello.

Gavotte, *p.* 85.

Gedakt (= covered, stopped), stopped flue-pipe of the organ.

Genée, Franz Friedrich Richard (born 1823, died 1895 at Vienna), *p.* 45.

Gerber, Ernst Ludwig (born 1746 at Sonderhausen, died there 1819), author of a historic-biographical dictionary.

Gerbert, Martin Fürstabt v. St. Blasien (born 1720 at Horb on Neckar, died 1793 at St. Blasien), historian of music; his "Scriptores ecclesiastici de musica sacra potissimum" is a most valuable work for the study of musical history of the Middle Ages.

Gesius, Bartolomeus (*c.* 1555—1613), *p.* 97.

Gevaërt, François Auguste (born 1828 at Huysse), prominent scholar and composer. His book on instrumentation (translated into German by Riemann) is the best after that by Berlioz.

[**Gibbons,** Orlando (born 1583 at Cambridge, died 1625 at Canterbury), organist, and composer of madrigals, motets, anthems, hymns, services, pieces for the virginal, etc.]

Giga = Gigue, *p.* 84.

Giocoso, playful, bright.

Glareanus, Heinrich Loris of Glarus (1488—1563), learned theorist; his chief works "Isagoge in musicien" and "Dodecachordon."

Glinka, Michael Ivanovitch (born 1804 at Nowospack, died 1857 at Berlin), *p.* 27.

Glissando, gliding; on the violin a gliding of the finger on the string; sound following sound without accent and perfectly legato. On the piano the rapid execution of a scale (on white keys) by causing the finger nail to glide over the keys.

Glockenspiel, *p.* 131.

Gloria, *see* Mass, *p.* 95.

Glottis, the voice fissure.

Glottis vocalis, the fore part of the voice fissure, lying between the vocal cords.

Glottisschlag, attack in voice production, in which, before the utterance of the sound, the whole length of the glottis is closed.

Gluck, Christoph Willibald, Ritter von (born 1714 at Weidenwang), died 1787 at Vienna), *pp.* 24, 32.

Godard, Benjamin (1849—1895) composed operas, symphonies, and chamber music of a pleasing kind.

[**Goddard,** Arabella (born 1838), distinguished English pianist.]

Goldmark, Karl (born 1830 at Keszethely in Hungary), *pp.* 44, 50.

Gondoliera = Barcarolle.

[**Goss,** John (born 1800, died 1880), organist and composer of anthems, psalms, glees, songs, etc.]

Götz, Hermann (1840—76), *p.* 45.

Gounod, Charles François (born 1818 in Paris, died there 1893), *p.* 26.

Grandezza, dignity.

Graun, Karl Heinrich (born 1701 at Wahrenbrück, died 1759 at Berlin), *p.* 31.

Grave, earnestly, gravely.

Gravità, earnestness, dignity.

Grazia, grace; con grazia = gracefully.

Grazioso, gracefully.

Head-voice, includes the higher series of notes, those generated by the falsetto mechanism (*see* falsetto); it begins at the moment when the sound is generated by the vibration of the air-stream alone, without the vibration of the vocal cords; hence the flute-like quality of this register.

Hebenstreit, Pantaleon (1669–1750), inventor of the Pantalon or Pantaleon named after him (*q.v.*).

Helicon, *p.* 129.

Heller, Stephen (born 1814 at Pesth, died 1888 in Paris), *p.* 46.

Helmholtz, Hermann Ludwig Ferdinand (born 1821 at Potsdam, died 1894 at Charlottenburg), by his work "Die Lehre von den Tonempfindungen" (Treatise on Tone-sensations) rendered immortal service to music. He was Professor of Physiology and Physics.

Henselt, Adolf von (1814–1889), *p.* 46.

Hermann, Matthias (middle of 16th century), *p.* 49

Hermannus, called "Contractus" (the lame) (1013-1054), *p.* 11.

Hérold, Louis Joseph Ferdinand (born 1791 in Paris, died there 1833), *p.* 26.

Hexachord, *p.* 9.

Hiller, Ferdinand (born 1811 at Frankfort-on-Main, died 1885 at Cologne), *p.* 46.

,, , Johann Adam (born 1728 at Wendisch-Ossig, died 1804 at Leipzig).

Himmel, Friedrich Heinrich (1765–1814), *p.* 33.

History of Music, *p.* 1.

Hofmann, Heinrich Karl (born 1842 at Berlin, died 1902, Gross-Tabarz), *p.* 50.

Holstein, Franz von (1826–1878), *p.* 44.

Homophony = really unison; the word, however, is used in contrast to polyphony (*q.v.*) in the sense that in a composition one part predominates.

Horn, *p.* 123.

Huber, Hans (born 1852 at Schönwerth in Switzerland), *p.* 50.

Hucbald, Monk of St. Amand in Flanders (*c.* 840–930—? 932), important theorist; chief work "De Harmonica institutione," *p.* 11.

[**Hullah,** John Pyke (born 1812, died 1884), composer of songs and author of a "History of Modern Music," etc.]

Hummel, Joh. Nep. (born 1778 at Pressburg, died 1837 at Weimar).

Humperdinck, Engelbert (born 1854 at Siegburg), lives in Frankfort, *p.* 45.

[**Humphry** (or **Humphrys**), Pelham (born 1647, died 1674), composer of anthems, odes, songs, etc.; he was the first to introduce into English church music the new style which he had learned from Lulli.]

Hurdy-gurdy, *p.* 14.

Hyper (Greek), over (Latin, super), *e.g.*, hyperdiapente = upper 5th.; hyperdiatessaron = upper 4th. In connection with the names of the Greek scales it signifies a 4th higher, *e.g.*, hyper-æolian, hyper-phrygian, etc.

Hypo (Greek), under (Latin, sub), *e.g.*, hypodiapente = under 5th, etc. In connection with the names of the Greek scales it signifies a 4th lower; hypo-æolian, hypo-phrygian, etc., *p.* 7.

Il, (Italian) the.

Imitation, *p.* 100.

Indian, tone-system, instruments, notation, etc., *p.* 3.

Inner-parts, *p.* 64.

Instrumentation, *p.* 135.

Interlude, **Intermezzo** Entr'acte, a movement performed between the acts of a play or opera. By transference of meaning it has become the name of a short independent instrumental movement.

Intervals, *p.* 53.

Intonation. In instruments a distinction is made between those with "free intonation" and those with "fixed intonation"; in the former the pitch of every note can be altered at will by the player (*e.g.*, string instruments and the human voice); in the latter the pitch of every note is fixed by previous tuning (piano, harp, etc.). In almost all wind instruments the intonation can be slightly altered. Their pitch, in the main, depends on their construction, but slight modification is possible by strength of blowing, pressure of lips, etc.

Introduction, a term used especially for the short introductory sentence preceding the principal subject or theme of a composition.

Inversion (1) of intervals, *p.* 53.

(2) of a theme. The alteration of a theme in such a manner that, more or less strictly, the intervals of the theme are reversed, *i.e.*, rising instead of falling, and *vice versâ*.

Ionian, *p.* 8.

Jadassohn, Salomon (born 1831 at Breslau, died 1902, Leipzig). Known through his books on harmony, counterpoint, instrumentation, etc.

Janissary music. Music for a band consisting of wind and percussion instruments.

Jankó, Paul von (born 1856 at Totis in Hungary) inventor of the Jankó keyboard, which consists of six keyboards arranged, in terrace form, one above another; the two lower give a chromatic series of notes; the four upper rows of keys, as they act on the same levers as the lower ones, are only repetitions of the same chromatic series. The advantage of the Jankó keyboard is the small span for large intervals (the span for the octave

being only $\frac{5}{6}$ of the usual span). This renders new effects possible. A glissando passage of successive chromatic notes and in all possible intervals can be performed on these keyboards.

Jannequin, Clément (16th century), *p.* 49.

Jensen, Adolf (1837—1879), *p.* 37.

Joachim, Joseph (born 1831 at Kittsee, near Pressburg, died 1907 at Berlin), *p.* 23.

Jomelli, Nicola (born 1714 at Aversa, near Naples, died there 1774), *p.* 21.

Keiser, Reinhard (1674-1739), *p.* 28.

Key, *pp.* 59, 73.

Key. On wind instruments, a contrivance to open and close sound holes.

Key horn, Key trumpet, obsolete brass instruments with keys.

Key-signature, the sharps or flats which are placed at the beginning of a piece, or a portion of a piece, between the clef sign and the time-signature [nowadays repeated on every line].

Kiel, Friedrich (born 1821 at Puderbach, died 1885 at Berlin), important composer: oratorio "Christus," "Missa Solemnis," two Requiems, etc.

Kiesewetter, Raphael Georg (born 1773 at Holleschau, died 1850 at Baden, near Vienna), wrote valuable essays on musico-historical subjects.

Kirchner, Theodor (1823-1903), *p.* 47.

Kirnberger, Johann Philipp (born 1721 at Saalfeld, died 1783 at Berlin), esteemed theorist.

Klavier, *p.* 15.

Koechel, Ludwig (born 1800 at Stein on the Danube, died 1877 at Vienna), particularly known by his chronologically arranged catalogue of the complete works of Mozart.

Koschat, Thomas (born 1845 at Viktring), known by his Carinthian folk-songs.

Köstlin, Heinrich (born 1846), critic, author and æsthete.

,, Karl (born 1819, died 1894), important æsthete.

Kretschmer, Edmund (born 1830, died 1908), *p.* 45.

Kretzschmar, Aug. Ferd. Hermann (born 1848), writer on music; known by his numerous critical, analytical, and historical essays.

Kreutzer, Conradin (1780–1849), *p.* 41.

Kücken, Friedrich Wilhelm (1810–1882), composer of a large number of favourite songs.

Kuhlau, Friedrich (born 1786 at Uelzen, died 1832 at Copenhagen), composed, besides various chamber works, sonatinas, rondos and variations which are educational.

Kuhnau, Johann (born 1660 at Geising, died 1722 at Leipzig), *p.* 89.

Kullak, Theodor (1818–1882).

Kusser, Johann Siegmund (1657–1727), *p.* 28.

Küster, Hermann (1817–1878), known through his work "Popular Discourses on the formation and cultivation of musical judgment."

Kyrie, *see* Mass, *p.* 95.

L' (It.), the. The article before words which begin with a vowel, instead of la, lo, le (the latter the feminine plural article).

La, solmisation syllable for A.

Lachner, Franz (1803–1890).

„ Ignaz (1807–1895).

Larghetto, rather broad.

Largo, broad, slow.

Lassen, Eduard (born 1830, died 1904), composer of well-known and sterling orchestral pieces and songs, *p.* 45.

Lasso, Orlando di (born 1532 at Mons, died 1594 at Munich), *p.* 99.

Laudi (Latin), Hymns of Praise.

[**Lawes,** William (died 1645, composer of Anthems, etc).]

[„ Henry (brother of the former, born 1595, died 1662 in London, composer of masques, psalms, etc.)].

Le (*see* l') the.

Leading note, *pp.* 62, 63.

Leading note step, *p* 63.

Lecocq, Alexander Charles (born 1832 in Paris), *p.* 26.

Legato, bound, smooth; *i.e.*, a manner of playing in which one note is closely followed by another, without break.

Legend, a poem, the subject of which is epic or lyrical. The name is also used, in a transferred sense, for instrumental compositions.

Leggiero, light. In piano playing, a quality of touch in which the finger touches the key loosely and without stress.

Leitmotiv, *p.* 42.

Lentando, *see* Slentando.

Lento, slow.

Leoncavallo, Ruggiero (born 1858 at Naples), *p.* 22.

Libretto, text to vocal compositions, particularly those of larger dimensions, opera, oratorio, etc.

Lied, song, *pp.* 82, 87.

Lips, the sharp edges which border, above and below, the slit in an organ pipe. Hence the word "labial" applied to flue-pipes.

L'istesso tempo, the same time (as the preceding).

Liszt, Franz (born 1811 at Raiding, in Hungary, died 1886 at Bayreuth, *pp.* 47, 49.

Lo (It.), the. The masculine article before words which begin with certain letters, *e.g.*, sc. or st.

Locatelli, Pietro (1693–1764), important violinist, one of the first who obtained polyphonic effects on the violin by means of double stopping, *p.* 23.

Loco = in place, contradicts a preceding sign for 8ve higher or lower.

Logroscino, Nicolo (born 1700 at Naples, died there 1763), *p.* 21.
Lortzing, Gustav Albert (born 1801 at Berlin, died there 1851), *p.* 41.
Loure, *p.* 86.
Löwe, Johann Karl Gottfried (born 1796 at Löbejün near Köthen, died 1869 at Kiel), *p.* 37.
Lugubre, mournful.
Lully (Lulli), Jean Baptiste (born 1633 at Florence, died 1687 in Paris), *pp.* 24, 88.
Lusignando, coaxingly.
Lute, *p.* 15.
Lute tablature (*see* Tablature).
Luther, Martin (born 1483 at Eisleben, died there 1546), has obtained fame as a reformer of church music; he himself wrote the texts of hymns, and is said to have composed the music of some of them.
Lux aeterna, *see* Mass, *p.* 95.
Lydian, *p.* 7.
Lyre, *pp.* 4, 14.
M.D., main droite (Fr.), or mano destra (It.), right hand.
M.G., main gauche (Fr.), left hand.
M.M., Maelzel's metronome.
M.S., mano sinistra (It.), left hand.
M.V., mezza voce (*q.v.*)
Ma, but; **ma non,** but not.
[Macfarren, Sir George Alexander (born 1813, died 1887 in London), composer of several operas ("Robin Hood," etc.), oratorios ("John the Baptist," "The Resurrection," "Joseph," "King David"), cantatas, anthems, services, part-songs, overtures, string-quartets, etc.]
Mackenzie, Sir Alexander (born 1847 at Edinburgh). [Composer of orchestral, chamber and choral works, cantatas ("Story of Said," "Dream of Jubal," etc.), an oratorio ("The Rose of Sharon"), operas ("Colomba," "The Troubadour"), pianoforte pieces, songs, etc.]
Maëstoso, majestically.
Maggiore, major, *p.* 86.
Magini, Giovanni Paolo (1588–1640), *p.* 23.
Maillart, Louis (born 1817 at Montpellier, died 1871 at Moulins), *p.* 26.
Majeur (Fr.), major.
Man. or **M.,** abbreviation for "manuals"; in organ playing, a direction for "without pedals."
Mancando, dying away, decreasing in tone and slackening in speed.
Mandoline, *p.* 112.
Manual, *p.* 122.
Marcatissimo, very marked.
Marcato, marked, accented.

Marcia, march, *p.* 83.
Marpurg, Friedrich Wilhelm (born 1718 at Seehausen, died 1795 at Berlin), wrote theoretical essays.
Marschner, Heinrich August (born 1795 at Zittau, died 1861 at Hanover), *p.* 39.
Martellato, hammered; a broad staccato, executed with great power.
Martini, Giambattista (Padre Martini, born 1706 at Bologna, died there 1784), an eminent theorist and historian of music. His chief works are "Storia della musica" and "Exemplare ossia saggio fondamentale pratico di contrapunto."
Marx, Adolf Bernhard (born 1795 at Halle, died 1866 at Berlin), theorist and æsthete, biographer of Beethoven.
Marziale, war-like.
Mascagni, Pietro (born 1863 at Livorno), *p.* 22.
Mattheson, Johann (1681–1764, Hamburg) excellent littérateur, whose writings on musical history and theory are of the greatest interest, *p.* 28.
Measurement of pace, *p.* 70.
„ **volume of tone**, *p.* 70.
Measurement theory, *see* Arabians, *p.* 3.
Mediant, the third degree of a scale.
Méhul, Etienne Nicolas (born 1763 at Givet, died 1817 in Paris), *p.* 25.
Meistersänger (Mastersingers) and their Schools, *p.* 18.
Melodium-organ (*see* Alexandre organ).
Mélodrame, *p.* 99.
Melody, *p.* 63.
Mendel, Hermann (born 1834 at Halle, died 1876 at Berlin), author of a musical conversation dictionary (completed by Reissmann).
Mendelssohn-Bartholdy, Felix (born 1809 at Hamburg, died 1847 at Leipzig), *p.* 39.
Meno, less.
Mensur (Ger) (1) The scale of organ pipes, *i.e.*, the relation between their length and breadth; (2) The finger-relationship (*i.e.*, distance) between the sound-holes in wind instruments; (3) In string instruments the length of strings, distance between frets, etc.
Mensural or **Mensurable** music, *p.* 12.
Mersenne, Marie, Franciscan Monk (born 1588 at Oizé, died 1648 in Paris), famous as the author of "Harmonie universelle" and other similar works of research into the musical history of his time.
Messa di voce, in singing, the soft attack of notes, swelling to *ff*, and decreasing to *pp*.
Messe (Fr.), Mass, *p.* 94.
Messel (measurement theory), *see* Arabians, *p.* 3.
Mesto, sorrowfully.

Methfessel, Albert Gottlieb (1785–1869), favourite composer of songs, particularly for chorus and male voices.
Metre, *p.* 71.
Metronome, *p.* 70.
Meyerbeer, Giacomo (born 1791 at Berlin, died 1864 in Paris), *p.* 25.
Mezza-voce (*m.v.*), with half-voice, also used in piano music.
Mezzo = half, *e.g.*, mezzo-piano, mezzo-forte, etc.
Mezzo-soprano, *p.* 133.
Mezzo-soprano clef, the C clef on the 2nd line.
Mi, solmisation syllable for the note E.
Middle-parts, parts between upper and lower parts (outer parts) in music written in several parts.
Millöcker, Carl (born 1842, died 1899), *p.* 45.
Mineur (Fr.), minor.
Minnesingers, *p.* 17.
Minore (It.), minor, *p.* 86.
Minstrels, *p.* 17.
Minuet, *p.* 85.
Missa pro defunctis = Requiem, *p.* 95.
Missa Solemnis, *see* Mass, *p.* 95.
Misterioso, mysteriously.
Mixed Choir, *p.* 133.
Mixo-lydian, *p.* 7.
Mixtures, *see* Organ, *p.* 122.
Moderato, moderate.
Modulation, *p.* 61.
Moll (Ger.), minor.
Molto, very.
Monochord, *p.* 4.
Monody, New Monody, accompanied vocal part (originated in Italy about 1600), in contrast to polyphonic vocal music.
Monsigny, Pierre Alexandre (born 1729 at Fauquembergue, died 1817 in Paris), *p.* 25.
Monteverde, Claudio di (1567—1643), *p.* 20.

Mordent, sign  execution  The execution can be varied rhythmically.

Morendo, dying away.
[**Morley**, Thomas (born 1557), famous English contrapuntist of the 16th century, composer of madrigals, canzonets, airs, harpsichord pieces, etc.]
Moscheles, Ignaz, (1794—1870), *p.* 31.
Mosso, moved.
Moszkowski, Moritz (born 1854), *p.* 47.
Motett, *p.* 98.

Motion, similar, contrary, oblique, *p.* 64.
Motive, *p.* 66.
Mozart, Wolfgang Amadeus (born 1756 at Salzburg, died 1791 at Vienna), *p.* 33.
Muris, Johannes de (lived in the first half of the 14th century). important theorist.
Murky-bass, bass accompaniment in broken octaves:

Musette, *p.* 85.
Music-drama, *p.* 20.
Mysteries, the name given to scenic representations of biblical subjects, with music. They originated in the early Middle Ages.
Nachschlag, one or more notes, printed in small type, which follow immediately after a longer note, to which they are generally bound by a legato slur (see also closing notes of shake).
Nägeli, Johann Georg (born 1773 at Zürich, died there 1836), edited the works of Bach and Handel, and founded one of the first male voice choral societies (*see* Zelter).
Nanini, Giovanni Maria (born *c.* 1545 at Tivoli, died 1607 at Rome), *p.* 96.
Nardini, Pietro (1722–1793).
Natural horn, *p.* 123.
Natural-scale, series of over-tones, *p.* 54.
Naumann, Emil (born 1827 at Berlin, died 1888 at Dresden), wrote various popular books, amongst which "Die Tonkunst in der Kulturgeschichte" (The æsthetics of musical history) and "Illustrated History of Music" enjoy universal favour.
Nel (It.) instead of in il = in the.
Nella (It.), instead of in la = in the.
Nello (It.), instead of in lo = in the.
Neri, Filippo (born 1515 at Florence, died 1595 at Rome). *p.* 95.
Nessler, Victor (born 1841 at Baldenheim, Alsace, died 1890 at Strasburg), *p.* 45.
Netherland School, *p.* 18.
Neumes, *p.* 10.
Nicolai, Otto (1810–1849), *p.* 41.
Ninth, *p.* 53.
Nocturne, a composition of a dreamy kind without definite form.
Nohl, Ludwig (born 1831 at Iserlohn, died 1885 at Heidelberg), prolific writer on music; wrote biographies of Beethoven, Mozart, Wagner, etc.
Noise, *p.* 51.
Non, not.
Nonet, a composition for nine instruments or voices.

Normal pitch, chamber pitch [Paris chamber pitch, or low pitch,] the A of the once accented 8ve with 870 single (435 double) vibrations per second. It is the note to which, in chamber ensembles or orchestras, the instruments of free intonation are tuned. In the orchestra the instruments are generally tuned to the A of the oboe; in ensembles with piano, the latter gives the note; in unaccompanied vocal music the tuning fork is used.

Notation, *p.* 9.

Nottebohm, Martin Gustav (born 1817 at Lüdenscheid, died 1882 at Graz), a prominent writer on music, best known by his works dealing with Beethoven's life and art-work.

Notturno (It.), *see* Nocturne.

Novellette, a composition without definite form, containing a considerable number of new themes, hence the name.

Obbligato, *p.* 64.

Oblique motion, *p.* 64.

Oboe, *p.* 118.

Ocarina, a flute-like instrument, with bulging body and sound-holes; the latter form the only outlet for the air. The tone resembles that of a stopped organ-pipe.

Octave, *pp.* 53, 60.

Octave-flute, *p.* 116.

Octave sign, 8va... This sign, when placed over notes, indicates that (as far as the row of dots or dashes extends) the notes are to be played an 8ve higher; when placed under the notes they are to be played an 8ve lower.

Octave-system of the Middle Ages, *p.* 5.

Octet, a composition for eight instruments or voices.

Ode, a lyrical poem, or the music to which it is set.

Odington, Walter (died after 1330), writer on mensural music, *p.* 98.

Odo von Clugny (died 942), *p.* 12.

Oettingen, Arthur Joachim von (born 1836 at Dorpat), *p.* 57.

Offenbach, Jacques (born 1819 at Cologne, died 1880 in Paris), *p.* 26.

Onslow, George (1784–1852), important composer of chamber music, comic operas, symphonies, etc.

Open string, *p.* 109.

Opera, *p.* 20.

Operetta, opera buffa, comic opera, *p.* 21.

Ophicleide, *p.* 129.

Opus, op., work; *e.g.*, op. 18 = the 18th work of the particular composer.

Oratorio, *p.* 95.

Orchestra, *p.* 135.

Orchestral score, *p.* 139.

Organ, *pp.* 13, 120.

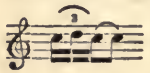
Organ Point, *see* Pedal Point.

Organ Tablature, *see* Tablature.

Organistrum, *p.* 14.
Organum, a form of polyphonic writing, *p.* 16.
Ornaments, shake, passing shake, mordent, turn, appoggiatura, acciaccatura, etc. (*see* respective articles).
Ossia = or; direction for an easier or more difficult reading of the notes of the text.
Ostinato, persistent (*see* basso ostinato), *p.* 86.
Ottava, 8ve sign.
Outer-part, *p.* 64.
Over-blowing, *p.* 117.
Over-tones, *p.* 51.
Overture, *p.* 88.
Pace, *p.* 70.
Pachelbel, Johann (born 1653 at Nuremberg, died there 1706) important organist and prominent composer for his instrument.
Paduana [Padovana, Pavane], an old Italian dance in common time, slow in pace.
Paër, Ferdinando (born 1771 at Parma, died 1839 in Paris), *p.* 21.
Paësiello, Giovanni (born 1741 at Taranto, died 1816 at Naples), *p.* 21.
Paganini, Niccolo (born 1782 at Genoa, died 1840 at Nice), *p.* 23.
Palestrina, Giovanni Pierluigi da (born 1514 at Palestrina, died 1594 at Rome), *p.* 20.
Palestrina-style (a cappella style), polyphonic unaccompanied vocal music.
Pantalon [or **Pantaleon**], a dulcimer of trapezium shape, improved by Pantaleon Hebenstreit, with double resonance board, and a separate set of strings over each resonance board, one set being of catgut, and the other of metal. It was played with wooden sticks.
Parallel (similar) motion, *see p.* 64.
Parallel chords, *p.* 62.
Parallel keys, *p.* 62.
Paraphrase, a piece in which the melody or subject is ornamented and varied.
Parlando, speaking, *i.e.*, in the style of a recitative.
[**Parry**, Sir Charles Hubert Hastings (born 1848, London), composer of oratorios ("Judith," "King Saul"), a pianoforte concerto, chamber music, symphonies, etc.]
Part writing, *p.* 64.
Partial-tones = over-tones, *p.* 51.
Partita, suite. *p.* 87.
Passacaglia, *p.* 86.
Passage, a rapid figure after the manner of scales or broken chords (*i.e.*, the notes of the chord are not struck at the same time, but one after the other.)
Passecaille = Passacaglia, *p.* 86.
Passepied, *p.* 85.

Passing notes, notes inserted between the principal (*i.e.*, harmony) notes of chords.
Passing shake, *see* Pralltriller.
Passione, emotion; con passione, appassionato = emotionally.
Pastorale, a composition of pastoral character; either a scenic representation of a rural idyll with music, or an instrumental piece which awakens the idea of a rustic scene, *e.g.*, dance of reapers, etc.
Pauken, kettle drums, *p.* 130.
Pause, 𝄐; General Pause for all instruments or voices in a score.
Pavane, *see* Paduana.
Pedal, on harp, *p.* 113.
,, on organ, *pp.* 13, 122.
,, on piano; the mechanism worked with the feet, used for lengthening and strengthening notes (right pedal, sustaining pedal), and for damping sounds (left pedal, soft pedal), Verschiebung (Ger.), *q.v.*
Pedal-board, *pp.* 13, 122.
Pedal point, *p.* 16.
Percussion instruments, *p.* 130.
Perdendosi, becoming softer, dying away.
Perfect consonances, *pp.* 53, 59.
Pergolesi, Giovanni Battista (born 1710 at Naples, died 1736 at Pozzuoli), *p.* 21.
Period, a portion of a composition, in itself complete, of no definite length, consisting of several phrases.
Perpetuum mobile, a composition consisting almost entirely of notes of short and generally equal value.
Pesante, weighty, and at the same time pathetic.
Petrucci, Ottaviano (born 1466 at Fossombrone, died 1539), inventor of note-types.
Philidor, François André (1726–1795), *p.* 25.
Phrase, *p.* 69.
Phrasing, *p.* 69.
Phrygian, *p.* 7.
Piacere, pleasure; a piacere, at pleasure or at will.
Piacevole, peacefully, pleasantly.
Pianissimo, *pp.*, very soft.
Pianists (celebrated), *p.* 134.
Piano, *p.*, soft.
Pianoforte, *p.* 15.
Piano trio, quartet, quintet, etc., ensembles of two, three or four instruments with piano (*see* chamber music).
Piccini, Nicola (born 1728 at Bari, died 1800 at Passy, near Paris), *pp.* 21, 32.
Piccolo, (1) Saxhorn, *p.* 129; (2) *See* small flute, *p.* 116.
Pieno, full; organo pieno = full organ *ff.*
Pisendel, Johann Georg (1687–1755), *p.* 23.
Piston, *p.* 127.

Pitch, *p.* 51.
Più, more.
Pizzicato (*pizz.*), pinched or plucked (string instruments).
Placido, quiet.
Plagal, *p.* 7.
Plaidy, Louis (born 1810 at Hubertusburg, died 1874 at Grimma), important piano teacher, best known by his technical studies for the piano.
Plato, (429–347 B.C.), important Greek philosopher and æsthete.
Poco, little.
Poco a poco, gradually.
Pohl, Karl Ferdinand (born 1819 at Darmstadt, died 1887 at Vienna), published biographies of Liszt, Haydn and Mozart.
Poi, then.
Polacca = Polonaise, *p.* 84.
Polyphony, music written in several *independent* parts.
Porpora, Antonio Nicola (born 1686 at Naples, died there 1766), *p.* 20.
Posaune, trombone, *p.* 126.
Possibile, possible.
Postlude, an organ piece, intended to be played after divine service.
Pot-pourri, a series of melodies more or less loosely strung together, without regard to their connection with one another.

Pralltriller, passing shake, sign  ,  execution  . The execution can be varied rhythmically.

Prätorious, Michael (1571–1621, Germany), important writer on music; his principal work, "Syntagma musicum," is the chief source of information concerning the music of his day, particularly the instruments of the 16th and 17th centuries, *pp.* 19, 135.
Precipitando = accelerando, quickening the pace.
Prefix to a shake, (*see* Trill).
Prestissimo, very quick.
Presto, quick.
Prima vista playing, playing at sight, without having previously studied the work.
Prima volta, first time.
Prime, *pp.* 58–59.
Primo, the first player in 4-handed pianoforte playing, duets and trios, etc.
Principal, *see* Organ, *p.* 121.

Principal note, in ornaments, the note over which the ornament sign occurs.

Principal part, *p.* 64.

Principal theme or **subject,** *pp.* 82, 90, 91.

Programme music, *p.* 48.

Proposta = dux, subject, *see* Fugue, *p.* 104.

[**Prout,** Ebenezer, born 1835, composer and distinguished theorist. His educational works (Harmony, Counterpoint, Double Counterpoint, and Canon, Fugue, Form, Applied Forms, The Orchestra, etc.) are of great value.]

Purcell, Henry (born 1658 in London, died there 1695), England's most important composer; [wrote operas "Diocletian," "King Arthur," "The Fairy Queen," etc., incidental music to several plays, odes, anthems, services, hymns, psalms, chamber-music, catches, etc.], *p.* 27.

Pythagoras, (born *c.* 582 B.C.) philosopher, the head of the Pythagorean school, which considered everything, including music, from the mathematical point of view. The ratio of numbers was the standard for consonance and dissonance; the 3rd was held to be a dissonance.

Quartet, a composition for four instruments or voices. A double quartet is a composition for eight voices, arranged in two sets of four voices each.

Quartole, quadruplet, *p.* 71.

Quasi, as if, almost.

Quatuor = quartet.

Quintet, a composition for five instruments or voices.

Quintole, quintuplet, *p.* 71.

Quodlibet = pot-pourri.

Raff, Joseph Joachim (born 1822 at Lachen, near Zurich, died 1882 at Frankfort-on-Main, *pp.* 44, 49.

Rallentando (rall.), getting slower.

Rameau, Jean Philippe (born 1683 at Dijon, died 1764 in Paris). Apart from numerous compositions, operas, cantatas, motetts, piano and violin pieces, etc., his fame rests on the authorship of a treatise on harmony, on which the theorists who followed him based their works. The theory of the inversion of chords, and the tracing of the various chords to their roots, originated with him, *p.* 24.

Rapidamente, / **Rapido,** } quickly.

Ravanastron = Serinda, *p.* 3.

Re, solmisation syllable for the note D.

Real parts, *p.* 64.

Recitative, *p.* 99.

Reed, *pp.* 116, 121.

Reed pipes, pipes in which the sound is produced by vibration of reeds, *p.* 116.

Reed work, (also called "regal"), reed registers, *see* Organ, *p.* 121.

Refrain, the repetition (rendered necessary by the words or the poem, or introduced by the wish of the composer) of closing words or closing lines of the verse of a song.

Regal, a small portable organ with reed pipes (obsolete).

Register (1) *see* Organ, *p.* 120.
(2) of the human voice, the compass of notes produced by the mechanism necessary for the formation of the particular register (chest, falsetto, etc.).

Registration, or registering, *see* Organ, *p.* 121.

Reichardt, Johann Friedrich (1752–1814), *p.* 33.

Reinecke, Carl Heinrich (born 1824 at Altona, lives in Leipzig), *p.* 47.

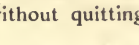
Reinthaler, Carl Martin (1822-1896), *p.* 47.

Reissmann, August (1825–1903), writer on music, wrote a large number of musical biographies, co-worker on Mendel's Dictionary of Music.

Relative chords are those which are composed of notes belonging to a particular key, *p.* 59.

Repercussio, repercussion (1) striking the key again; (2) *see* fugue, *p.* 104.

Repetition action, an appliance in piano mechanism which renders it possible to strike the key many times in succession without quitting it absolutely each time (*see* Erard).

Repetition signs,  or

Replica, repetition, senza replica, without repetition.

Réponse (Fr.) = comes, answer, *see* Fugue, *p.* 104.

Requiem, Mass for the dead (*see* Mass), *p.* 95.

Resonance, body, board, box, *p.* 107.

Rhapsody, an instrumental Fantasia, mostly consisting of national folk-songs, combined in a fragmentary manner. In its true [Greek] sense, a fragment of a larger epic poem with musical accompaniment.

Rhythm, *p.* 71.

Ricercare, *p.* 103.

Richter, Ernst Friedrich Eduard (born 1808 at Grossschönau, died 1879 at Leipzig), important theorist, wrote treatises on harmony and counterpoint.

Riemann, Dr. Hugo (born 1849 at Grossmehlra, near Sondershausen), gifted musician, scholar, theorist, æsthete, and teacher, whose "Harmony Simplified," together with other excellent works on time, phrasing, etc., are standard works on the modern theory of music. His critical essays on all branches of music, particularly history, together with numerous publications of music of earlier times, are valuable. Riemann has prepared "Phrasing editions" of the masterpieces of piano literature; and is also the

author of an excellent musical dictionary. His fundamental ideas are set forth in his work "Preludes and Studies," *pp.* 56, 57, 60, 62, 63, 69.

Rigaudon, *p.* 86.

Rilasciando, becoming slower.

Rinforzando, reinforcing the tone.

Rinforzato, with reinforced tone.

Ripieno, *pp.* 64, 136.

Risoluto, resolutely, with powerful attack.

Risposta = comes, answer, *see* Fugue.

Risvegliato, brisk, lively.

Ritardando, } getting slower.
Ritenuto, }

Ritornello, instrumental prelude, interlude, or postlude in vocal compositions; the word sometimes has the same meaning as "tutti" in concertos, etc.

Rochlitz, Johann Friedrich (born 1769 at Leipzig, died there 1842), published a work "For Amateurs of Music," as a continuation of a collection of songs of masters of earlier centuries.

Romantic School, *p.* 38.

Romanza, properly a poem in "Romance" (Provençal) dialect; an epic or lyrical poem of the days of chivalry, or a love-song. As instrumental music, a Romance is a tone-picture illustrating one of the ideas already mentioned. The name is, however, often used without any special meaning.

Rondo (Rondeau), *p.* 91.

Rossini, Giacomo Antonio (born 1792 at Pesaro, died 1868 at Passy, Paris), *p.* 21.

Round or **Roundelay,** a refrain song, in which, after a single voice has executed a strophe, the chorus repeats the last line.

Rousseau, Jean Jacques (born 1712 at Geneva, died 1778 at Ermenonville), wrote on musical subjects; published a musical dictionary. His attempt to replace musical notation by number-notation met with little success, *pp.* 24, 99.

Rubato, robbed; tempo rubato, with free rendering; with all liberty as regards dynamics (crescendo and diminuendo) and agogics (accelerando and ritenuto).

Rubinstein, Anton (born 1830 at Wechwotynez, died 1894 at St. Petersburg, *pp.* 27, 47.

Ruggieri, *p.* 23.

Saint-Saëns, Charles Camille (born 1835 in Paris), *pp.* 26, 49.

Sammartini, Giovanni Battista (1704–1774), *p.* 92.

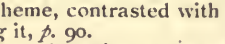
Sanctus, *see* Mass, *p.* 95.

Saraband, *p.* 84.

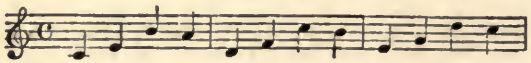
Sax, Charles Joseph (1791–1865), *p.* 128.

Sax-horn, *p.* 129.

Scale, from scala (It.)=staircase, a tone-ladder, *pp.* 54, 59, 73.
Scarlatti, Alessandro (born 1659 at Trapani, died 1725 at Naples), *pp.* 20, 88.
Scarlatti, Domenico (born 1685 at Naples, died 1757 at Naples or Madrid), *p.* 90.
Schenk, Johann (1753–1836), *p.* 29.
Scherzando, playfully.
Scherzo, *pp.* 92, 93.
Schubert, Franz (born 1797 at Lichtenthal, died 1828 at Vienna), *p.* 36.
Schumann, Robert (born 1810 at Zwickau, died 1856 at Endenich), *p.* 40.
Schütz, Heinrich (born 1585 at Köstritz, died 1672 at Dresden), *pp.* 28, 97.
Scioltamente, Sciolto, free in execution, unfettered.
Scioltezza, freedom, agility.
Score and **score-reading,** *pp.* 139, 143
Sebastiani, Johann (born 1622, died 1683), *p.* 97.
Second, *pp.* 53, 60.
Second subject, a theme, contrasted with the principal theme, and following it, *p.* 90.
Seconda volta, second time, *i.e.*, in repeating a section, when the bar marked Prima volta (first time) is to be omitted.
Secondo, the second player in four-handed piano playing, duets, trios, etc.
Segno, 𝄋 sign.
Seguidilla, a quick Spanish dance, in triple time, resembling the Bolero, with bars of castagnette rhythm, as prelude and postlude



Semi-serio, half earnest; opera semi seria, a serious opera, yet containing some comic scenes.
Semitone, *pp.* 53, 58, 72.
Semplice, simple.
Sempre, always.
Sentence, consists of two phrases, *p.* 76.
Senza, without.
Septet, a composition for seven instruments or voices.
Septuor=septet.
Sequence, (1) the transposition, step by step, of a melodic (or harmonic) fragment complete in itself:



(2) *see* Hallelujah songs.
Serenade, *p.* 87.
Serinda, *p.* 3.

Serio, serious, earnest.
Seventh, *pp.* 53, 60.
Sextet, a composition for six instruments or voices.
Sextole, sextuplet, *p.* 71.
Sforzato, strong accent on a single note.
Shake, *see* Trill.
Sharp, ♯, *p.* 52.
[**Shield,** William (born 1754, died 1829), composer of operas, pantomimes, songs, etc.]
Si, solmisation syllable for B.
Signal horn, *see* Bugle horn, *pp.* 128, 129
Signature, *see* Key signature.
Silcher, Friedrich (born 1789 at Schnaith, died 1860 at Tübingen), composer of various folk-songs.
Simile (sim,), indication that the execution of the following bar or bars is to be the same as that specially indicated for the first bar.
Sin'al, up to the.
Sixth, *pp.* 53, 62.
Slentando, getting slower.
Slide, *p.* 126.
[**Smart,** Sir George Thomas (born 1776, died 1867, London), distinguished conductor, organist, and composer of anthems, glees, etc.
,, Henry, nephew of the former (born 1813, died 1879, London), organist and composer of cantatas, songs, part-songs, organ pieces, etc.]
Smetana, Friedrich (born 1824 at Leitomischl, died 1884 at Prague).
Smorzando, dying away, a decrease of tone and slackening of pace.
Soave, soft, gentle.
Soggetto, subject, *p.* 104.
Sol, solmisation syllable for the note G.
Solfeggio, a singing exercise.
Solmisation, the naming of the sounds of a hexachord, *p.* 9.
Solmisation syllables, *p.* 9.
Solo, alone.
Solo-part, a principal part, standing out from the others, with or without accompaniment.
Solo-song, song for one single voice with or without accompaniment.
Sonata, *pp.* 89, 90, 91.
Sonata da Camera, chamber sonata, *p.* 89.
Sonata da Chiesa, Church sonata, *p.* 89.
Sonatina, *p.* 91.
Song form, *pp.* 82, 87.
Soprano, *p.* 133.
Soprano clef, the C clef on the first line.

Sordino, a mute, *p.* 110.
Sostenuto, sustained.
Sotto-voce, half loud, with muffled voice.
Sound, *p.* 51.
Sound-holes, the S shaped openings in the resonance box of string instruments. In wind instruments the holes (closed and opened either with the fingers or by mechanism) which are bored in the tube in order to enable the player to alter the length of the vibrating air column (*see* Flute, *p.* 114).
Space, the interval between two lines of the staff.
Spianato, plain, simple.
Spinet, *p.* 15.
Spirito, soul, spirit; con spirito, with spirit.
Spitta, J. Aug. Philipp (born 1841 at Wechold in Hanover, died 1894 at Berlin), one of the founders of the Bach Society, author of a biography of Bach, and numerous other works; he took part in the publication of the "Quarterly Magazine for Musical Science."
Spohr, Ludwig (born 1784, died 1859 at Cassel), *p.* 39.
Spontini, Gasparo (born 1774, died 1851 at Majolati), *p.* 25.
Staccato (stacc.), detached, *i.e.*, a manner of playing in which each note follows the other, short and detached.
Stainer (Steiner), brothers, *p.* 23.
[,, Sir John (born 1840, London, died 1901), distinguished English organist, composer of oratorios ("Gideon" and the "Crucifixion"), cantatas ("The Daughter of Jairus" and "St. Mary Magdalen"), services, anthems, etc., and author of theoretical works.]
[**Stanford,** Sir Charles Villiers (born 1852, Dublin), distinguished conductor and composer of operas ("The Veiled Prophet of Khorassan," "Savonarola,") etc., oratorios ("The Three Holy Children," "Eden"), symphonies, chamber music, etc.]
Stopped notes, *p.* 123.
Stopped pipes, *p.* 121.
Stops, *see* Organ, *p.* 120.
Stradivari, Antonio (1644–1736)
,, **Francesco** (1671–1743) } *see p.* 23.
,, **Omobono** (1679–1742)
Strascinando, becoming slower.
Strauss, Johann (born 1825, died 1899), *p.* 45.
,, **Richard** (born 1864), *p.* 50.
Stretto, *pp.* 104, 105, 106.
String duet, quartet, quintet, works to be performed by two, four or five string instruments.
String instruments, *p.* 109.
Stringendo, becoming quicker, hurrying.

Strophe (Greek), the word in its proper sense has the same meaning as the word *verse* (derived from the Latin). In the art of poetry, however, the two must be strictly distinguished; every single line is a verse, several verses or lines form a strophe. In the vernacular one speaks of verse lines and verses of a chorale or folk-song.

Strungk (Strunck), Nicolaus Adam (1640–1700), *p.* 28.

Sub-contra, *p.* 52.

Sub-dominant, *p.* 60.

Subjectum, subject.

Suite, *p.* 87.

Sul ponticello, on the bridge, *p.* 110.

Sul tasto, *p.* 110.

Sullivan, Sir Arthur Seymour (born 1842 in London, died there 1900) [distinguished English composer; he wrote oratorios ("The Light of the World," "The Martyr of Antioch," "The Golden Legend," etc.), an opera ("Ivanhoe,") a number of comic operas, incidental music to "The Tempest," "Merry Wives of Windsor," "Henry VIII." and "Macbeth," a symphony, overtures, songs, etc.], *p.* 27.

Sulzer, Johann Georg (born 1719 at Winterthur, died 1779 at Berlin), important æsthete.

Suppé, Franz von (born 1820 at Spalato in Dalmatia, died 1895, Vienna), *p.* 45.

Sur la touche, *p.* 110.

Sur le chevalet, *p.* 110.

Suspension, a note, consonant in one chord, held on into the following chord, in which it becomes a dissonance; it is subsequently resolved by step of a second.

Swell, *see* organ, *p.* 122.

Symmetry in form, *pp.* 68, 75.

Symmetry interrupted, *pp.* 68, 69.

Symphonic poem, *see* Programme music, *p.* 48.

Symphony, *p.* 92.

Syncopation, *pp.* 69, 71.

Tablature (1) among the Mastersingers the rules of poetry and music used in the composition of songs.

(2) a notation for the organ and lute, which employed letters and numbers in combination with rhythmical-value-signs. The period of tablature begins as early as the 10th century and continues to the 18th century.

Tacet, sign for silence; *i.e.*, the orchestra or chorus, for the time being, is to take no part in the performance.

[**Tallis** (or **Tallys**), Thomas (died 1585), famous organist and composer of church music.]

Tambourine, *p.* 131.

Tamburo, drum, *p.* 131.

Tam-tam, *pp.* 2, 132.

Tarantelle (It.), a Neapolitan, originally a Tarantine, dance in $\frac{3}{8}$ or $\frac{6}{8}$ time; pace variable.

Tardando, getting slower.

Tartini, Giuseppe (born 1692 at Pirano, died 1770 at Padua) important as a theorist as well as violinist and composer; he is the discoverer of combination-tones, *p.* 23.

Tasto solo, in piano or organ accompaniment with figured bass, indicates that the bass note alone is to be played (without accompanying harmony).

Tedesco, German.

Telemann, Georg Philipp (1681–1767), *p.* 28.

Temperament, **Tempered tone-system**, *p.* 73.

Tempo Primo, in the time indicated at the beginning [after a change in tempo.]

Teneramente, con tenerezza, tenderly.

Tenor, *pp.* 17, 133.

Tenor clef, the C clef on the 4th line.

Tenor horn, *p.* 129.

Tenor trombone, *p.* 127.

Tenuto, held.

Terzett, a composition for three instruments or voices.

Tetrachord, *p.* 5.

Thelle, Johann (1646–1724), *p.* 28.

Theme, a musical thought or idea, with significant characteristics, which is the basis of a portion of a composition.

Theme or **Air with variations**, *p.* 92.

Third, *pp.* 53, 60.

Thomas, Charles Louis Ambroise (born 1811 at Metz, died 1896 in Paris), *p.* 26.

Thorough bass=figured bass, *pp.* 16, 96, 141.

Tieffenbrucker, *see* Duiffoprugcar.

Tiersch, Otto (born 1838 at Kalbsbrieth, died 1892 at Berlin), clever theorist, who worked on the lines of Hauptmann and Helmholtz with a view to the reform of musical theory.

Timbre, generally used as synonymous with tone-quality; really, however, timbre signifies only the individual tone-quality caused by the difference of resonant material.

Time Signature, the direction written at the beginning of a composition [indicating the number and value of the beats in each bar.]

Timpani, drums, *p.* 130.

Tinctoris, Johannes (1446-1511), Belgian musician, author and scholar, compiled the oldest musical dictionary in existence.

Tirade, a "run" or "passage" in singing.

Toccata, (from the Italian toccare=to touch) a piece for keyed instruments, organ or piano, a kind of fantasia of indefinite form; it generally has an introduction with florid passages, is fugally treated and often ends with a regular fugue. Notwithstanding possible contrasts of tempo, the usual characteristic is rapid movement with short note-values, *p.* 103.

Tonality, *p.* 59.

Tone, *pp.* 5, 53, 58, 72.

Tone-colour, *p.* 107.

Tone-series, *pp.* 51, 54, 55.

Tone-system, *pp.* 5, 52.

Tonic, *p.* 50.

Torelli, Giuseppe (died 1708 at Bologna), *p.* 23.

Tranquillo, quiet.

Transposing instruments, *pp.* 116–119.

Transposition, *p.* 6.

Transposition signs, ♯, ♭, ♮, ×, ♭♭, *pp.* 52, 72.

Transverse Flute, *p.* 115.

Tre, three; tre corde, three strings.

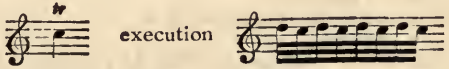
Tremolo, (1) trembling, quivering; in singing sometimes a desired effect, generally a defect.

(2) rapid repetition of the same note, resulting in a quivering, trembling movement.

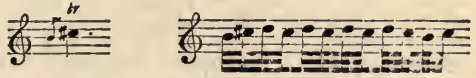
Triad, *pp.* 56–59.

Triangle, *p.* 132.

Trill, shake, an ornament which begins either with the principal note or the upper auxiliary note, and consists in the rapid, continuous alternation of the two notes.



(*see* Closing notes). The prefix to a shake (*i.e.* notes which are to be played before the shake and to be connected with it) is indicated either by a sign (𝆖 or 𝆕), or small notes written before the shake.



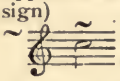
Trio (1) a piece in three-part harmony, *pp.* 83, 86,

Triole, triplet, *p.* 71.

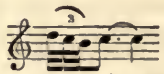
Triple-time, three beats in a bar. $\frac{6}{4}$ and $\frac{6}{8}$ are only to be considered as triple-time in very slow movements, otherwise they must be considered as two bars of $\frac{3}{4}$ time, and two bars of $\frac{3}{8}$ time, in one, therefore, duple time. *See* footnote, *p.* 85.

Tritone, the interval of the augmented 4th.

Tromba, trumpet, *p.* 126.
Trombone, p 126.
Trommel (Ger.), drum, *p.* 131.
Troppo, too much.
Trumpet, *p.* 126.
Tschaïkowsky, Peter Iljitsch (born 1840 at Wotkinsk, died 1893 at St. Petersburg), *p.* 28.
Tuba, *p.* 129.
Turco, Turkish; alla Turca, in Turkish style.
Türk, Daniel Gottlob (born 1750 at Claussnitz, died 1813 at Halle), eminent teacher and theorist, published a Pianoforte School and a Guide to playing from figured bass.
Turn, Doppelschlag (Ger.),
(sign)



execution



If the turn is after the note (*i.e.*, not exactly over, but to the right of the principal note), the execution of the ornament is different. The rhythm of the ornament is also modified according to circumstances.
Tutta la forza, with all possible power.
Tutti = all; *i.e.*, all the instruments or all the voices (in opposition to solo).
Tympani = Timpani.
Tyrolienne, a country waltz in $\frac{3}{4}$ time, quiet pace.
Un, one.
Un poco, a little.
Una corda, one string, *i.e.*, with soft pedal (*see* Verschiebung), damped, muffled.
Under-dominant, sub-dominant, *p.* 60.
Under-tone series, *p.* 56.
Ungarisch, in the Hungarian style, *i.e.*, music with striking rhythm, free and varied, particularly rich in syncopation; the motive  is characteristic. In Hungarian music ornaments are freely employed, and in order to obtain leading tone relationship the notes of the melody are frequently chromatically altered in a manner that appears strange to our ears. Polyphony is not in the nature of Hungarian music.
Unisono, unison, *i.e.*, strictly the same pitch. In orchestral playing also the simultaneous sounding of the same note but in different 8ves, *pp.* 53, 60.
Up-beat, *pp.* 66–68.
Upper-dominant, dominant, *p.* 60.
Upper-part, in polyphonic music, the top-part.
Ut, solmisation syllable for the note C.

Valve, *see* Ventil.
Variations, *p.* 92.
Varsovienne (Fr.), a Polish dance in $\frac{3}{4}$ time, quiet pace.
Veloce, quick, brisk.
Vélocità, rapidity.
Ventil instruments, Piston instruments, Valve instruments, *p.* 127.
Verdi, Giuseppe (born 1813 at Roncole, died 1901, Milan), *p.* 21.
Verschiebung (Ger.), is the name given to the damping apparatus set in action by the left pedal of the piano; it consists in the fact that the hammer does not strike all the strings (tre corde), but only one (una corda).
Viadana, Ludovico (born 1564 at Viadana, died 1627 at Gualtieri), *p.* 93.
Vibrations, *p.* 51.
Vigoroso, powerful, brisk.
Villanella, an Italian folk-song of coarse comic tendency.
Vina, *p.* 3.
Vinci, Leonardo (born 1690 at Strongoli, died 1732 at Naples), *p.* 21.
Viola, *p.* 111.
Viola da braccio = viola.
Viola da gamba = bass viol.
Violente, violently.
Violin, *p.* 109.
Violin-clef, distinguishes the line, round which the spiral part of the sign curves, as G-line, *i.e.*, the position of g′.
Violon (Fr.), violin.
Violoncello, *p.* 111.
Viotti, Giovanni Battista (born 1753 at Fontanetto da Po, died 1824 in London), the oldest master of modern violin-playing, and a prolific and important composer for his instrument, *p.* 23.
Virdung, Sebastian, priest and organist at Amberg, the author of "Musica getutscht und ausgezogen durch S. Virdung," an invaluable work, dealing with the history of instruments, reprinted in 1511.
Vitry, Philipp (Philippus de Vitriaco), (born *c.* 1290–1361), a prominent theorist, who effected many reforms, *p.* 100.
Vivace, lively.
Vivacissimo, very lively.
Vivaldi, Antonio (born *c.* 1680; died 1743), *p.* 23.
Vivo, lively.
Vocalises (Fr.), singing exercises for the study of correct voice production on the basis of vowel pronunciation.
Vogler, Georg Joseph (Abbé), (born 1749 at Würzburg, died 1814 at Darmstadt), known as the author of several works on the science of music.
Voice, *p.* 133.

Volkmann, Friedrich Robert (born 1815 at Lomatzsch, died 1883 at Pesth), *p.* 46.

Vorschlag (appoggiatura, acciaccatura), a note which ornaments a principal note, by being played before it and in connection with it. It is recognisable by being smaller than the others; it appears in the bar in the place of the ornamented note, and often has the principal accent. A Vorschlag is short [acciaccatura] when there is a stroke through the tail, or if its value is less than ½ of the value of the principal note. The long Vorschlag [appoggiatura] is played with the value indicated by its shape; the short Vorschlag as rapidly as possible. When these ornaments consist of more than one note they must be performed more or less quickly in proportion to the pace and style of the piece.

Wagner, Richard (born 1813 at Leipzig, died 1883 at Venice), *p.* 41.

[**Wallace,** William Vincent (born 1814 at Waterford in Ireland, died 1865), composer of operas "Maritana," "Lurline," "The Amber Witch," etc.]

Walther, Johann Gottfried (1684–1748), author of the first biographical-bibliographical-technical-musical dictionary (1732).

Weber, Carl Maria Friedrich Ernst, Freiherr von (born 1786 at Eutin, died 1826 in London), *p.* 38.

„ Gottfried, (born 1779 at Freinsheim, died 1839 at Kreuznach), made a name as a theorist by a new system of indicating chords by letters and figures.

Weelkes, Thomas, organist at Winchester about 1600, composer of Madrigals, etc.

Weigl, Joseph (born 1766 at Eisenstadt, died 1846 at Vienna), *p.* 34.

Weitzmann, Karl Friedrich (born 1808 at Berlin, died there 1880), writer on music and excellent theorist; his chief work was a "History of Piano Playing and the Pianoforte."

Werstowsky (1799–1862), *p.* 27.

Whole tone, *pp.* 5, 53, 58.

Wieniawski, Henri (1835–1880), important violinist and composer of some pieces for his instrument, *p.* 23.

Willaert, Adrian (*c.* 1480 or 1490–1562), founder of the old Venetian School, important composer of masses, motetts, madrigals, Psalms, etc.

Wind instruments, *pp.* 13, 114.

Winter, Peter von (1754–1825).

Winterfeld, Karl, G. A. V. von (born 1784 at Berlin, died there 1852), important biographer and historian of music; his work on Evangelical church music is excellent.

Xylophone, *p.* 131.

Zarlino, Gioseffo (born 1517 at Chioggia, died 1590 at Venice), distinguished theorist and composer; his chief works, "Istituzioni armoniche" and "Dimostrazioni armoniche" are epoch-making in that he therein distinguishes major and minor chords as being the reverse or opposite of one another (*see pp.* 57–59). He determines the 3rd as the ratio 4 : 5, and recognises the difference between the thirds of the major and the minor chords as being one of position only [not of size].

Zelter, Karl Friedrich (1758–1832), founded the first male choral society in Germany.

Zieh-Harmonika, a wind instrument with reeds, to which the wind, which is generated in folding bellows, has access by means of keys. The metal reeds vibrate partly, as in a Harmonium, by the pressing together of the bellows (pressing in the air), partly, as in an American Organ, by the drawing asunder of the bellows (sucking out the air).

Zingara (alla), in the gypsy style, emotional.

Zingarelli, Nicola Antonio (1752–1837) *p.* 21.

Zumsteeg, Johann Rudolf (born 1760 at Sachsenflur, died 1802 at Stuttgart), *p.* 33.

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