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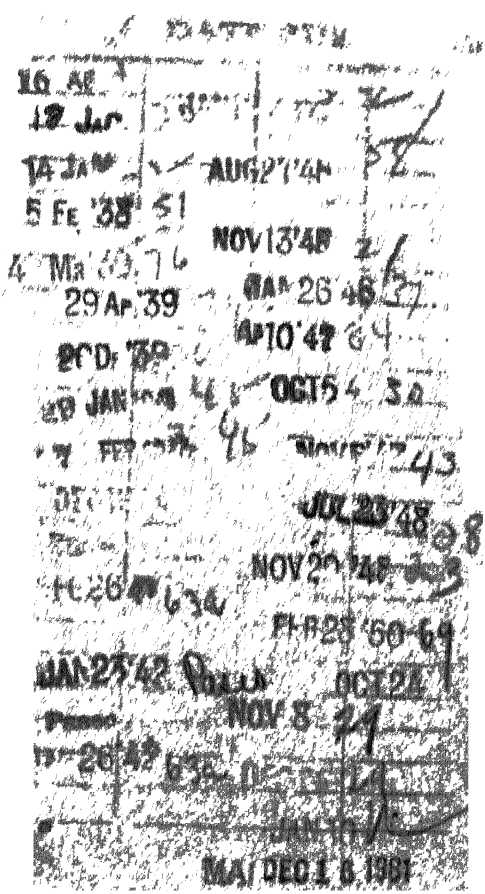

MEDIÆVAL MUSIC

An Historical Sketch.

BY

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PREFACE.

IN compiling this elementary treatise on 'Mediæval Music' many and great difficulties have had to be coped with; to solve them the best authorities have been appealed to, and, where such failed to supply the particular information sought for, that opinion which on mature consideration appeared most feasible has been given.

The difficulties in the treatment of the subject have been largely increased by the amount of prejudice and ignorance displayed by many—especially papistical—writers on musical subjects, who have never troubled themselves independently either to trace out or follow up the history of the very interesting subject of 'Mediæval Music.'

The short chapter on Harmonic or Monodic Music has been inserted with the object of showing in as clear and concise a manner as

possible the development the science of harmony had attained by the end of the sixteenth and beginning of the seventeenth centuries.

Any attempt to elucidate a complex and neglected subject like the present one, must of necessity call forth criticism both from those who are capable, and from those whose blind prejudice renders them incapable of expressing an opinion on the subject.

That this elementary work is perfect is not for one moment claimed, the writer being painfully aware of the inadequacy of his efforts to attain to such a desired result; the kind indulgence of the press and of the music-loving public for all shortcomings on his part, with a sincere desire to have made a contribution as accurate as possible on a little known subject, is the desire of the writer, who, in conclusion, tenders his grateful thanks to Mr. T. L. Southgate and to Dr. Wickham Legg, F.S.A., for looking over certain proof sheets, and to the former for supplying valuable notes on the Music of Egypt and of the East generally, and to the latter for much learned information and advice on Liturgical matters generally.

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Mediæval Music

INTRODUCTION.

'THE Romans had no musical system of their own; they adopted that of Greece, but so misapplied the Greek terms, that to-day they are one of the chief causes of the difficulty in the way of a right understanding and appreciation of the Greek system. Greek music, therefore, cannot be effectually learnt from Roman writers.' One who, perhaps more than any other, has made 'confusion worse confounded,' is Boethius, born in Rome 470, died 526 A.D. His tract on music contains nothing but matters of mere speculation and theory, translated, often erroneously, or at best not fully, from Greek writers of high antiquity; his account of the musical systems of Greece is mere chaos, and, to use the words of the late Sir F.

A. Gore Ouseley, Bart., Mus. Doc., Professor of Music in the University of Oxford, is 'no more useful to a modern musician than Newton's "Principia" to a dancer.' Rockstro, in his 'History of Music' says of Boethius' treatise: 'Unfortunately, this work, though once regarded as an indispensable text-book, is too abstruse and unpractical to render any real assistance to the modern student' (p. 13). He is now fortunately accounted as one whose writings are not to be relied on, and yet, until within a few years ago, his tract of mis-readings on music was a text-book at our Universities for obtaining musical degrees.

Of the musical histories of Sir John Hawkins and Dr. Burney, from which the padding of so many similar works has been drawn, the late W. Chappell remarked, alluding especially to their accounts of Greek music: 'Sir John had found that he could not understand Greek music; and my impression is, that he had not learnt the Greek language, which would sufficiently account for it. He therefore contented himself with giving 'an impartial state of the several opinions, that at different times have prevailed among the moderns. He wrote quite unintelligibly for general readers.' Of Burney he said: 'Dr. Burney's system of writing upon ancient Greek music was identical with that of Sir John

Hawkins, so far as reliance upon the moderns to have done all that was possible towards understanding it.'

Of Boethius he said: 'The treatise on music by Boethius, upon which Dr. Burney relied, has proved a most unfortunate inheritance for modern Europe. . . . No one scholar ever did, or could, learn anything from it; he was unable to teach that which he did not himself understand; he took up music simply as a branch of arithmetic. He had no practical knowledge of music; he could not even tell whether a Greek scale began at the top or the bottom! the words *nete* and *hypate*—"lowest" and "highest"—bewildered him,' which was 'inexcusable because he quotes from the treatise on music by Nicomachus, who fully explains these two words.' Having dispensed with the only sound grammars of Greek music, by rejecting the Greek treatises, Burney's difficulties soon began. At p. 17 of his first volume he says: 'The perplexity concerning the scale, is a subject that required more time and meditation than I was able to bestow upon it' (!). 'He had proved in his first volume that old English printing was too much for him to decipher, and what could he do among manuscripts? The reader who desires to know more of the deficiencies of these, until quite recently considered the two standard historians, should consult the introduc-

tion to the very able and exhaustive 'History of Music,' by the late William Chappell, F.S.A., only one volume of which he was spared to complete, and from which the above is quoted.

A writer in the *Sacristy* (vol. i., p. 129) states that 'Greek music is an almost insoluble problem. It was complicated to a degree.' He does not, however, make any attempt to solve the problem, maybe for similar reasons to Dr. Burney's.

So much darkness instead of light having been poured on the subject of Greek music, there is little wonder it should not be understood. With regard to the so-called 'Gregorian' music the greatest ignorance prevails. Histories after histories of music merely retail to us, without any original research, the old tale of St. Ambrose and St. Gregory's wonderful improvements in the music of the Church. This seems to be the common starting-point of most modern historians, of nearly all newspaper articles, pamphlets, lectures, etc., authorities for such statements never being given.

It would seem a waste of time to attempt any argument with that section of the Modern High Church School who can see nothing 'correct' unless it is a copy of the Italian Church, whether in music or ritual.

The English Church—of which we have every

reason to be proud—has as fine a music and a more suitable ritual than any the Italian Church can produce. Why, then, should Englishmen be asked to discard that which is national for an importation of a foreign mission?

By no possible reasoning can the crude, rude music—adopted at a period when in a state of apparent chaos, from causes explained within these covers—be shown to be the sacred property of the Church. Is it claimed that the state of any art, be it music, painting, sculpture or architecture at any particular period, because made use of by the Church at such time, is the sacred and peculiar property of the Church? This would infer that any advance which might afterwards be made in one or all of these arts was not so. It would thus divide the arts, not only into two kinds, but into two periods, sacred and secular, ancient and modern, and to make use of one—the sacred property of the Church—for secular purposes, would at least be an act of irreverence, while, on the other hand, to introduce into the Church the profane would be desecration!

The Church, as is well known, has done more than any power to foster the arts; she has incorporated into her buildings and services the most advanced and perfected of everything that the arts can produce. With music every

advance towards the perfection attained at the present day has been furthered by her; each new discovery was immediately adopted by her with greediness. The organ was at a very early period introduced into the Church, and mighty efforts were made, often by her own saints, to bring the instrument to perfection, to enable the vocal music of the Church to be accompanied by it. We find the early organ-builders endeavouring to keep pace with the gradual advances made—and incorporated into the services of the Church—from the tenth century, when the first 'accidental,' B flat, was added.

The attempt to reintroduce the crude chants of the Middle Ages is felt to be unsatisfactory by the very persons—ignorant of their history—who would urge their universal adoption to the exclusion of what we may be justly proud of, our National Chant, known as the Anglican Chant; for we find not only are they compelled to call in the aid of a nineteenth century florid accompaniment, but a host of French and other light 'endings,' and what Sir John Stainer calls 'foliations.' To the Continent recourse is had for the many clever adulterations of 'plainsong,' for which the French and Belgians are justly renowned.

Antiphons not now being used in the services of the Church of England, these so-called Gregorian chants rarely ever end on their final, and are

therefore incomplete. To hear Psalm lxxviii. with its seventy-three verses, excluding the Gloria, sung in octaves to a chant comprised of *four* notes, or Psalm cvi. with forty-three verses, to a chant of *three* notes only, will, it is believed, strike most people as apt to become a trifle monotonous and wearisome.

Then, again, the inconsistency of the advocates of this music on the grounds of its antiquity, is beyond question by the adoption and use of the free modern accompaniment, an anachronism and a gross incongruity. The late Dr. Dykes said that 'ancient melodies decked out in the license of modern harmonies are revolting,' and so they are. It is the fanciful and erroneous idea as to the origin and use of the miscalled Gregorian music, only, that has secured for the chants a place in the service of the Church of England by a very limited section of the sentimental clergy, who imagine, prejudiced with the aforesaid opinion, that there is some peculiar solemnity attaching to them. That this feeling of solemnity is not general, may be gathered from the expressions regarding them held by men whose opinions are, it will be admitted on all hands, entitled to respect.

There should be no antagonism between those who favour the Italian and those who favour the Anglican music, each being quite distinct. Anglican

music is music composed by Englishmen, especially for Englishmen, for the services of the Church of England, and has been the music adopted by the Church of England only, of which there is proof beyond a doubt; but as there are clergy in the Church of England who prefer to adopt the ritual and music of the Church of Italy, so are there those whose national and patriotic instincts guide them to adhere to the English ritual—not Sarum—and English music.

Mendelssohn says: 'I can't help it, but I own it does irritate me to hear such holy and touching words sung to such dull, drawling music. They say it is canto fermo, Gregorian, etc. No matter. If at that period there was neither the feeling, nor the capability to write in a different style, at all events we have now the power to do so, and certainly this mechanical monotony is not to be found in the Scriptural words; they are all truth and freshness, and moreover expressed in the most simple and natural manner. Why, then, make them sound like a mere formula? and in truth such singing as this is nothing more. Can this be called sacred music? There is certainly no false expression in it, because there is none of any kind; but does not this very fact prove the desecration of the words?' (In one of his letters to Lady Wallace.)

The late Canon the Rev. Sir F. A. Gore Ouseley,

Bart., M.A., Mus. Doc., Professor of Music at the University of Oxford, and Precentor of Hereford Cathedral, denounced the Plainsong as 'an offence' unto him.

The late Sir George Macfarren, M.A., Mus.Doc., Professor of Music at the University of Cambridge, and President of the Royal Academy of Music, in his 'Lectures on Harmony,' 2nd edition, p. 12 (Longmans), wrote: 'Those well-meaning men who would resuscitate the standard use of so-called Gregorian music in the Church of England evince mistaken zeal, and false antiquarianism, illogical deductiveness, artistic blindness and ecclesiastical error.'

The late Rev. Dr. Dykes, M.A., Mus. Doc., described them as 'having had their day.'

The late Dr. Samuel Sebastian Wesley deprecated 'the plainsong being intruded into our choirs.'

The late Professor John Hullah spoke of it as 'strange, dull, uncouth sort of stuff.'

The following legend is gravely related by Da Corte in his 'Storia di Verona,' p. 107 of the Venetian edition of 1744:—'Gregory the Great, to stimulate his devotion, used to visit the graves of the departed. Whilst so engaged, he once saw one of the tombs uplifted, and the head of a long-buried man appear, with his pale tongue thrust out, as if in agony. The saint, nothing daunted,

accosted the spectre, and was informed that he was the Emperor Trajan, condemned to suffer forever for his idolatry. Pitying so illustrious a sufferer, the saint resolved to importune the Divine mercy for him, and succeeded so well that the Almighty at length set the Emperor free and admitted him into Paradise. But, as the course of Divine justice had been interrupted, He resolved to inflict some bodily suffering upon the saint, who had been the means of its interruption, and accordingly ordained that Gregory should be afflicted with pain in the abdomen — *dolore intestinale* — except at such times as he should be occupied in saying Mass. Gregory then bethought himself of some way of avoiding his malady by prolonging the service of the Mass to the utmost extent, and so he instituted the chant called after him Gregorian, which was at first more prolix and dreary than it has since become. Some thought this rather hard of the saint, because this style of the chant, though it would relieve him of his pains, would be very apt to give *others* the pain in the abdomen from its length and dreariness.'

Another story of the Gregorian chant may not inaptly follow this. A certain prelate having attended service at an English church where this music was in use, was asked afterwards by the Vicar how he had liked the music. 'Oh, very

well,' was the reply. 'But,' said the Vicar, 'what did you think of the Psalms?' 'Oh, pretty well,' said the prelate. 'It is traditionally recorded,' said the Vicar, 'that the tones are the original ones to which David composed the Psalms.' 'Really,' replied the prelate, 'you don't say so! Ah! then I don't wonder at Saul throwing his javelin at him.'

Mr. Birbeck's very sensible and pertinent remarks, anent these chants and their place in the Church of England, in the *Newbery House Magazine*, vol. iii., 596, etc., should be noted. 'They are far from being devoid of interest, but it is not on that account their use should be urged to accomplish the speedy expulsion of all Anglican chants from the services of the Church.'

The study of the music of the Middle Ages is indispensable to the would-be educated musician; a just appreciation and true understanding of modern music can only thereby be attained. On the other hand, the systems of ancient music cannot be mastered and understood without the knowledge of the principles on which modern music is grounded.

'It is impossible clearly to understand what the established forms of musical structure meant, unless we knew how they had grown up: history was as much a key to the true philosophy of

music as acoustics, and that both ought to be studied together, as such a mode of study would assuredly clear away many of the fallacies by which musical theory was at present encumbered.'*

Of the many valuable works on mediæval music now available to the musical and theological student, the publications—which include facsimiles of rare and ancient service books—of the Plain Song and Mediæval Music Society cannot be too highly recommended. The address of the secretary is 14, Westbourne Terrace Road, W., from whom all information can be obtained.

The clergy, as a body, to whom the study and knowledge of music, whether Gregorian so-called or Anglican, is of such great importance, nay almost an essential, considering how closely is music interwoven with the services of the Church, rarely ever trouble to learn anything respecting it, taking for gospel any statement or assertion made by members of their own profession, in pamphlets, lectures, or letters in newspapers. Let them read, mark, learn, and inwardly digest, the works of trustworthy musical and liturgical writers, that they may be enabled to see that their choirs are taught to

SING WITH UNDERSTANDING.

* Dr. Pole, 'Trans. Mus. Ass.,' 1878-9, p. 97.

It should not be forgotten that chants, hymns, and services, can be, and are still, as of old, composed in these octave scales. It is a mistaken idea that anything written on a stave of four lines in square notes is an old 'Gregorian.'

CHAPTER I.

MUSIC OF THE EARLY GREEKS.

MUSIC differs from her sisters of the fine arts in that she is transient, and more nearly connected with pure sensation. Helmholtz observes: 'The sensations of tone are the materials of the art, and, so far as these sensations are excited in music, we do not create out of them any images of external objects or actions, nor, apart from words, actions, or association of ideas can emotions be conveyed by music.'

The art is purely conventional, and appeals to the mind in a manner totally different from the other arts. 'Music is incomparably the most original of arts; it is the pure creation of human intellect. Music is the perfection of an art, for it has no evil tendency; it also has a far greater and more immediate influence upon the mind than any other art.'*

Music is based on a trinity—sensation, rhythm, melody—which cannot be divided, else music, as an art, would cease to be.

* Chappell, 'History of Music,' xlvi.

Music is either vocal or instrumental; the former, a gift inherent in man, is the most ancient, and is more or less at the immediate command of all mankind. Instrumental, on the contrary, is a matter of cultivation, in which a certain amount of technical labour is necessary to overcome mechanical obstacles, before it can be made use of. The three divisions of instruments are pulsatile, wind, strings, and the three appear to have been adopted in this order. The wind, it is said, has never been cultivated where the drum, in some form, had not been in previous use, nor the strings where the pipe had not first been adopted.

The earliest form of music was homophonic, that is, one single part or melody. Helmholtz informs us that this kind still obtains in China, India, and among the Arabs, Turks, and the modern Greeks, notwithstanding the greatly developed systems of music possessed by some of these people.

The Pentatonic or five-note scale is the most ancient. It is found not only among the Chinese, but also the other branches of the Mongol race, the Malays of Java and Sumatra, the inhabitants of Hudson's Bay, and of New Guinea, the Fullah negroes, the inhabitants of North Africa and of Abyssinia, the Fijians, Hindoos, Siamese, Afghans, and in Asia generally, also in Mexico, Scotland, and Ireland. It is also said to be the natural

scale with very young children Olympus introduced the Asiatic flute with a scale of five notes into Greece, where the scale was at one period in use *

The national instrument of Greece was the lyre or phorminx It had four strings of equal length, but of varying thicknesses, in the absence of a finger-board, the strings could produce, on being plucked, the notes only to which they were tuned

Instrumental solo playing was of purely Asiatic origin, and in this way only was the Greek lyre used, it never accompanied the voice Before a recitation, a few notes by way of a prelude or introduction were twanged on it, possibly for the double purpose of arresting the attention of the auditory and of giving the pitch to the reciter

Thus was the lyre, and the method of using it, to the time of Terpander, the Æolian, a native of Lesbos, the then centre of Greek civilization and refinement, who flourished *c* 780—700 B C

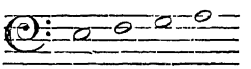
Terpander not only increased the number of the notes of the scale, but also the number of the strings on the lyre to correspond to them, he also introduced great improvements in the manner of using the instrument

A period of his life was spent in the service of the priests at Delphi, whilst here he is credited with having been the composer of hymns, called

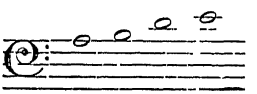
* Engel, 'Music of the Most Ancient Nations,' Chapter IV

nomes or laws, because the words were accompanied with the lyre in a regular and systematic order, a note for every syllable, for the first time.*

At another period he visited Sparta, the centre of the Dorian civilization, by request, to reform the music. The Dorian scale he found differed from his own, the Æolian; it comprised the notes E F G A:



whereas the Æolian embraced the notes A B D E:

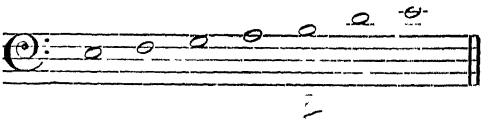


To these notes the strings of the respective lyres were tuned.

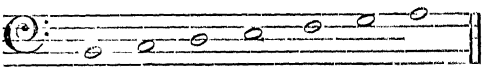
It is not unlikely, therefore, that to him is the credit due of joining the two scales at the common note A; the C in the Æolian portion of this octave scale was omitted, being out of tune, owing to the method in vogue of tuning the lyre, by which the interval from A to C was greater than a major third, whilst the interval from C to E was much less than a minor third. This improved and extended scale of seven notes Terpander applied

* Plutarch, 'De Mus.,' 28.

to the lyre of the Greeks by the addition of three strings corresponding to the three notes B D E:

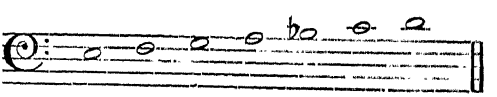


To Sappho, the poetess (*c.* 610), of Mitylene in the Island of Lesbos, has been ascribed the introduction into Greece of the Babylonian scale B C D E F G A:



formed of two tetrachords conjoined at E; and also the use of the plectrum.*

An effort was made to assimilate the symmetry of this seven-note scale of Sappho's. It was accomplished, possibly by Terpander, by lowering B in the highest tetrachord of his seven-note scale a semitone, filling up the gap between B and D, and omitting the upper E:†



* Plutarch, 'De Mus.,' 16; Rowbotham, 'H. of M.,' ii. 136. Suidas, art. 'Sappho.'

† Rowbotham, ii. 52.

The scale remained in this form to the time of Pythagoras.*

The method of using the lyre was still further improved by one Archilochus, *c.* 680 B.C., a poet of Paros, the accredited inventor of the elegy and classic Iambic, a contemporary of Terpander. Part of his life was spent in the gold-fields of Thasos, a small island in the Ægean Sea. Whilst here he was brought into contact with traders from Tyre, in Phœnicia, from whom he obtained, and learnt how to use, an Iambuca, a triangular-shaped instrument, very closely resembling the Egyptian Sambuca. The method of using this instrument differed considerably from the accepted custom of the Greeks with their lyre. The Greeks accompanied the songs note for note with the voice, whereas the accompaniment on the Iambuca was absolutely free and independent of the voice, and was played above it, the melody being in the bass.†

A true tetrachord with the Greeks always began with a semitone, and proceeded upwards in this order: semitone—tone—tone.

* Rowbotham, ii. 139.

† Plutarch, 'De Mus.,' cap. 28.

CHAPTER II.

THE MUSIC OF ANCIENT EGYPT, AND OF THE EAST GENERALLY.

THE ancient Egyptians, it is inferred from the contemporary sculptures and representations found in the tombs at Gizeh and elsewhere, were conversant with the diatonic system, probably as much so as we of the nineteenth century. The tombs of the great Pyramid of the kings at Gizeh are as early as the sixth year of Usertesen II., taking us back to a period nearly three thousand years before Christ.

Actual instruments found also in the tombs, not only support, but prove unquestionably and beyond all doubt this fact.* A pair of double flutes discovered in the tomb of the Lady Maket by Mr. Flinders Petrie, F.S.A., whilst excavating in the Fayoum, are fully and admirably described, with illustrations, in the 'Proceedings of the Musical

* *Musical Times*, vol. xxxi.

Association,' 1890-1891, by Mr. T. L. Southgate, who also played upon them at the Royal Academy of Music, to an English audience, some 4,000 years after they had been made.

Mr. Southgate* proved conclusively, from these and other ancient Egyptian flutes, that the scale of ancient Egypt was the same as our own; and that long before the Greeks had a scale at all, the Egyptians were using every note which we employ in our modern music. To this wonderful and mysterious people we are indebted for our scale. The Greek philosophers were merely the intermediaries in the descent of music, and were not the inventors of the scale as has been commonly supposed.

Fragments of these may be seen in the Louvre, the British, Paris, Florence and Leyden museums, and illustrations of these instruments will be found in the three volumes on the 'Manners and Customs of Ancient Egypt,' by the late Gardner Wilkinson, and notably in Rosellini's splendid work.

Their scale is assumed to have been diatonic, whilst for their instruments portions of the Chromatic and Enharmonic scales were employed. The latter scale comprised two quarter tones in the place of each of the two semitones and a major

* 'Proceedings of the Musical Association,' 1890-1891.

third in succession.* An account of the wonderful flute found at Akhmin, giving these intervals, has been described by Mr. T. L. Southgate.†

The musical systems of Babylon, Assyria, Nineveh and Phœnicia, were probably very similar, if they were not identical with that of the Egyptians.

From the diminutive size of the instruments of the Assyrians, as depicted, it is a reasonable supposition that they were partial to shrill, high-sounding notes, while the Egyptians, on the other hand, from the ponderous size of the majority of the harps depicted in the tombs, would seem to have favoured deep low sounds.

The lute or guitar tribe of instruments of Egypt, unlike those of early Greece, were furnished with a finger-board, enabling the sounding of two or more notes at one and the same time, as is done on the modern violin and instruments of that species in our own day.

Each separate body of vocal and instrumental performers was, according to the wall pictures, provided with one or more performers keeping time by clapping their hands, a proof that their music was rhythmical.

The orchestras show combinations of instruments of various shapes and sizes of wind and

* Engel's 'Music of the Most Ancient Nations,' 164.
† 'Proceedings of the Musical Association,' 1890-1891.

string being employed together This, with our knowledge of their being able to produce different notes simultaneously on their lyres, is fair pre sumption that harmony was known to and practised by them

The diatonic scale of Egypt has been proved, from original instruments found in the tombs, to have been the same as the Babylonian one said to have been introduced into Greece by Sappho* (*c* 610), and which was incorporated with that of Greece

Egypt, until the reign of Psammetichus I, was as impenetrable to the Greeks as the interior of China is to Europeans at the present day

Psammetichus I, 666—600 B C, threw Egypt open to the Greeks, who were not slow to avail themselves of the opportunity afforded them, and from this period is to be traced the great advances in all those arts and sciences in which afterwards they so signally excelled

Can it for a moment be doubted but that the Greeks, having borrowed both the lyre, the flute, and the scale from Egypt, would hesitate to adopt and incorporate into their musical system the 'harmony' of that people also? That they did use harmony is certain, but of course it was not so fully and completely developed as is our modern system, with the finger-board added to

* Plutarch, 16

their lyres they certainly possessed the means of making or combining any notes.

The harps of Egypt, strange to say, are always represented without a post to support the frame bearing the great strain of the strings*—so their tone could only have been feeble.

The systems of notation adopted by the Egyptians, Assyrians, Hebrews, etc., are unknown. With reference to that of Chaldæa, Sir Henry Rawlinson—*en passant*—states in his account of the clay tablets found at Nineveh, writing in April, 1853: 'On the clay tablets which we have found at Nineveh, and which are now to be counted by thousands, there are explanatory treatises on almost every subject under the sun; the art of writing grammars and dictionaries, notation, weights and measures, divisions of time, etc.'

The Chinese and Japanese use the same diatonic scale as we employ, but the music of the Egyptians, Persians, and portions of Turkey in Asia seems to be founded on the Arab scale, which itself is probably derived from the more ancient and complex system of the Hindoos, a system which divides its octave into twenty-two notes.

* Chappell, 'History of Music'; Gardner Wilkinson's 'Manners and Customs of the Ancient Egyptians,' corrected by S. Birch, 3 vols., 1878.

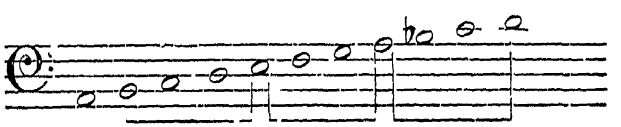
CHAPTER III.

PYTHAGOREAN SYSTEMS.

PYTHAGORAS, the philosopher, born in Samos B.C. 571, died 497, when about twenty years of age went to Egypt and Chaldea, where he spent some years investigating the subject of the immortality of the soul, and other matters. To him has been ascribed a further extension of the Greek scale, and the increasing of the number of strings on the lyre to fifteen.

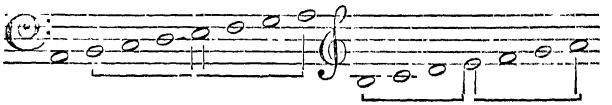
The two systems which bear his name are known as (1) the lesser or conjunct, and (2) the greater or disjunct systems.

The lesser or conjunct system comprised the scale of Sappho, the proslambanomenos or added note below, with the upper tetrachord of Terpander's later and improved scale added or conjoined above at 'a,' the tetrachords of Sappho and Terpander overlapping and being united or conjoined at E and A: hence the term conjunct:



The tetrachords are marked off for clearness.

The greater or disjunct system consisted of Sappho's scale with the proslambanomenos below, and repeated at the distance of an octave above, forming a complete scale of two octaves. The second and third tetrachords are disjointed at 'a,' hence the term 'disjunct system.'



These scales were transposed to any pitch required.

The proslambanomenos, or added note, was a note placed at the bottom of the scale, which although used and counted from, was not reckoned as part of the scale proper, because of the Greek rule, which required that each tetrachord should commence with a semitone.

Modulation.

Four kinds of modulation, mutation, or change were admitted:*

I. Genus, *i.e.*, from diatonic to chromatic or enharmonic. From chromatic to diatonic or enharmonic. From enharmonic to diatonic or chromatic.

II. System, *i.e.*, from the greater to the lesser or lesser to the greater systems.

* Chappell, 103. Euclid, p. 20.

III. Pitch, *i.e.*, usually from a closely allied 'key' by taking the fourth above or below for the new mese or key-note, which necessitated the addition of but one sharp or flat more or less than required by the mode or key from which the transposition was made, as from Dorian to Hypo-Dorian, or Mixo-Lydian modes.

IV. Melopœia, or change from gay to grave, and so on.

The 'key-note' was forbidden, under any circumstances, to be approached by an interval less than a tone.

The term Hyper- / Hypo was used to express the interval of a fourth above / below

as Dorian E {
- Hyper-Dorian A = modern sub-dominant.
- Hypo-Dorian B = modern dominant

The names of the modes were afterwards changed and were known as follows :—

Mixo-Lydian	= the key of	G	minor
Lydian	= ,,	F	,,
Phrygian	= ,,	E	,,
Dorian or Hypo-Mixo-Lydian	= ,,	D	,,
Hypo-Lydian	= ,,	C	,,
Hypo-Phrygian	= ,,	B	,,
Hypo-Dorian	= ,,	A	,,

When applied to the lyre, the Lydian and Hypo-

Lydian modes were taken a semitone higher, F♯ and C♯ minor being their equivalent modes, for reasons explained on page 32.

Mese.

The key-note of the Greek modes was called the mese, because, instead of being the first note of the mode or scale, as is customary with us, it was the middle note of the octave, or rather of the scale of seven notes; the eighth was not counted, being but a repetition of the first note at a higher pitch. From the mese or middle note, the octave was reckoned by counting four notes down, from, and including it, to five notes upwards from it; thus, in the Dorian mode the mese was G, and the fourth note below and the fifth above it = D, d, and within the range D—d the octave of the Dorian mode lay.

The mese may be likened to the key-stone in the arch, it holds and binds together the two tetrachords forming the octave.

But when a scale of two octaves was employed, the term mese, the middle note, was also applied to the note at the junction of the two octaves. Thus, in the Hypo-Dorian mode of two octaves, the note 'a' in the middle of the two octaves extending from A—a—a was called the mese. The mese, therefore, had two meanings: in one case it represented the key-note, *i.e.*, the fourth note,

and in the other the eighth—the fourth note, however, was still the mese of each of the two octaves It was, therefore, always the middle note of a scale or mode, and of both single and double octaves

'All the supposed inscrutability of the Greek modes rests upon the misunderstanding of this simple point—the difference between a complete Greek scale of two octaves and a single octave of the same It is that difference only which made them an insolvable riddle to Sir John Hawkins, as well as to others both before and after his time'

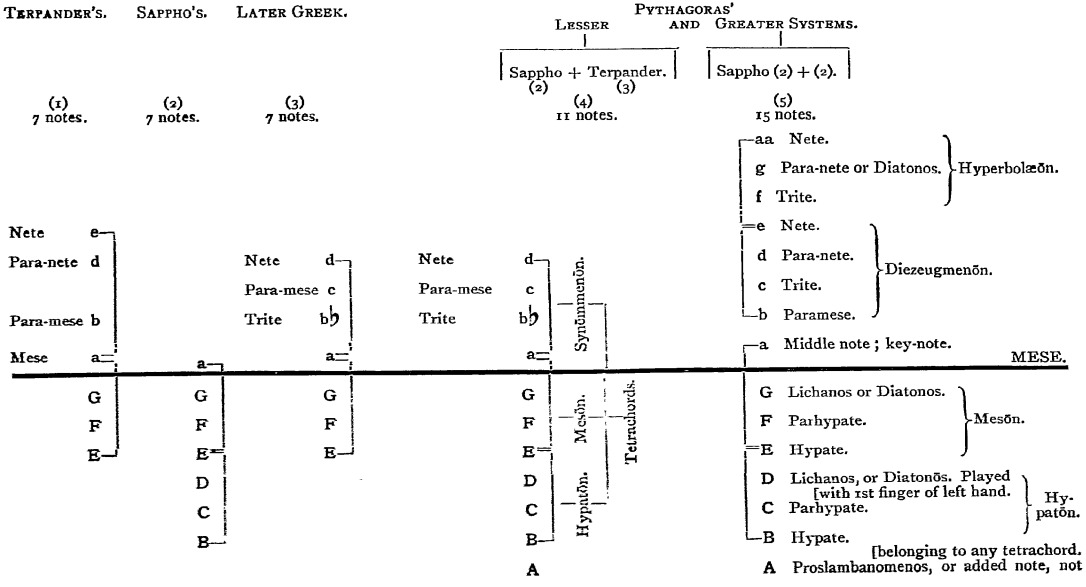
'If the Greeks would but have changed the name of their key note to one less misleading, when they made their lyres of eight or ten strings, it can hardly be supposed that their system could have remained so long a mystery to the moderns, or that the thorough identity of the Greek with our old minor scale should not have been perceived'*

In either case the mese, in its original place—the fourth note—can be found, in any mode or portion of a mode or octave, it is that note, which, counting from and including it, has the interval of a semitone between the second and third notes, both above and below it The mese being found, the mode of which it is the key note is always that which lies within the intervals of a fourth below and a fifth above it When the scale includes two octaves, the second octave is but a repetition of the lower one, at a higher or lower pitch

* Chappell's 'H of M,' pp 84 5

DIAGRAM A.

Comparative Table of Greek Scales, with the Names of the Strings of the Lyre.



The semitones, it will be observed in Diagram A, occupy the first place, that is, they occur at the beginning of each scale, and of all the above tetrachords forming the scale, the proslambano menos not being reckoned as a note of the scale, though used The white keys of our organs, A, B, C, D, E, F, G, form the intervals of the ancient Egyptian and Greek diatonic scale

The diagrams of Alypius, of Claudius Ptolemy* and others, down to that of Boethius, all alike prove that one Greek scale differed from another in nothing but pitch 'The tones,' says Bryennius, 'differ from one another in no other respect than in their positions as to acuteness and gravity, as has already been shown' *Καὶ γὰρ οὐδενὶ ἑτέρῳ οἱ τόνοι ἀλλήλων διενηνοχασιν, ει μὴ τῷ τε ὀξυτέρῳ καὶ βαρυτέζω τόπω τῆς τε θωνῆς καὶ τοῦ ὀργάνου ὡς εν τοτς ἔμπρ'ος θεν δέδεικται* †

Method of Tuning the Lyre

When tuning the octave, or seven stringed lyre, the Greeks had a rule that the first string should—no matter what the mode was—be constant, it never varied, somewhat after the custom we have of tuning one of the strings of our violins and other instruments of that class to A, from which all the other strings are then regulated

* Harmonicorum Libri tres ex Codd MSS, ed J Wallis, Oxonii, 1682, 4to

† Bryennius, p 481, fol, Wallis's ed, Chappell, 1 115 116

The first or lowest string of the lyre is usually taken to have been A, and the other strings were tuned from it To obviate the difficulty with the Lydian and Hypo-Lydian modes which required the A to be flat, these modes, as before mentioned, were taken a semitone higher in F♯ and C♯ minor respectively

Now, it is obvious that with the first string always tuned to A, one only of the modes could ever be applied to the lyre in its entirety What was done, therefore, was this that portion of each mode was taken, starting from A and proceeding upwards, and applied to the lyre, or rather the strings of the lyre were tuned to correspond with the notes of the particular mode from this point upwards the portions of each mode below A and above g or a had of necessity to be omitted The diagram B, p 34, explains this clearly The only mode which could be applied in its entirety was the Hypo Dorian The vertical lines contain the limited portion of each mode which it was possible to transfer to the lyre

The semitones in the modes never varied, they always occurred between the first and second intervals, excluding the proslambanomenos, and between the fourth and fifth

In the diagram, it will be seen that in those portions of the modes between the vertical lines to which the lyre was tuned, the semitones occur

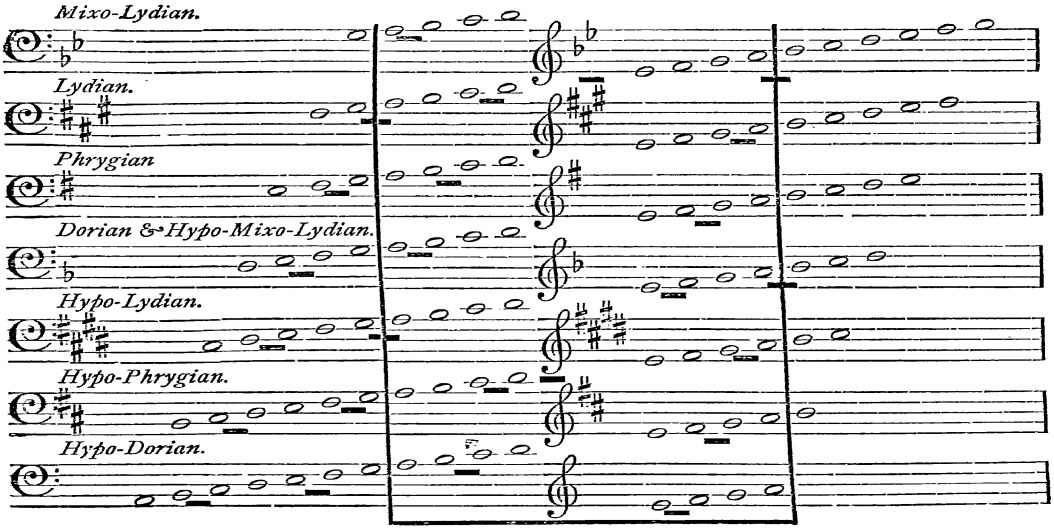
in different places in each. Now, if these portions are transposed to the key of A minor they appear as in the diagram C. Compare these with the mediæval modes in Chapter VIII., which have not, however, the same names. The names to the modes under (1) are the true Greek names, those under (2) are the false Greek names given to the Mediæval modes by Glareanus, born 1488, died 1563. It will be seen there is no affinity between them, except with the Hypo-Dorian mode.

The Dorian mode always occupied the middle of the system of modes. Each transposition, which we term key, bore the name of some Greek province.

If the method of tuning the lyre, as above described, is clearly understood, it will be obvious how great would be the confusion caused by taking the portions of the true scales on the lyre to be the complete scales themselves. A careful study of the diagrams B and C should render any such course an impossibility. One continuous proof runs throughout all ancient treatises on Greek music, that every mode or scale was tuned in precisely the same way, viz., always to its own *mese* or keynote. For that reason alone it must have been identical as to intervals, just as are modern scales.*

Chappell, 115.

DIAGRAM B.

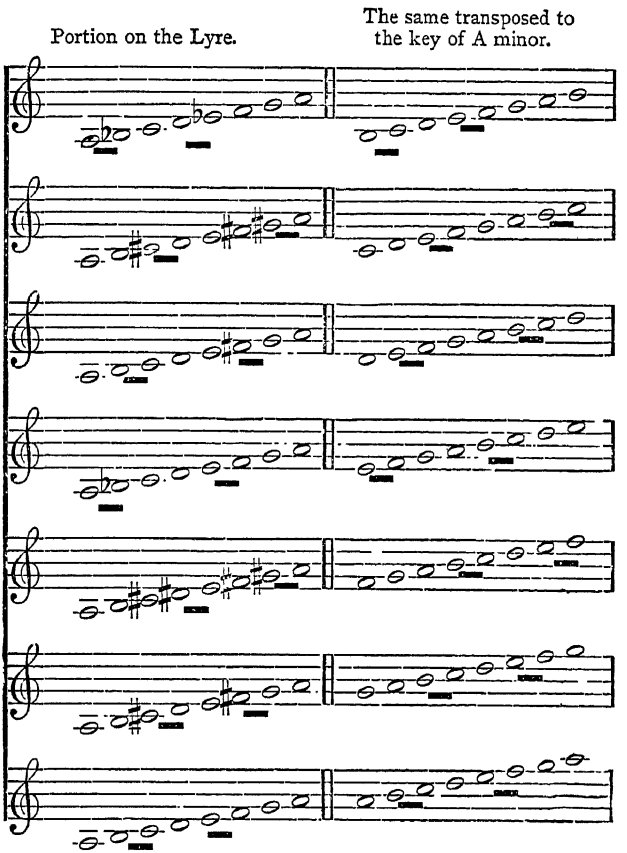


Portion applied to Lyre.

The scales really begin on the lowest note to the left outside the vertical lines and continue to the highest note on the right, but the portion only between the li[illegible]ould be applied to the Lyre. The voices were, in [illegible] restricted within the limits

DIAGRAM C.

The portions of each scale which could alone be produced on the Lyre.



The small lines under the notes mark the semitones.

CHAPTER IV.

THE CHRISTIAN ERA.—PTOLEMY'S IMPROVEMENTS.—SECOND CENTURY.

THE greatest of all improvements was made in the second century of the Christian era by Claudius Ptolemy, an Egyptian mathematician, born at Pelusium, who flourished 139 A.D. He insisted on a scale of not less than two octaves,* and rejected, therefore, the lesser system of Pythagoras,† and adopted the greater system; and here was the great improvement, which has continued to the present time. The tones in both the octaves were all major, and consequently sounded very harsh; he therefore ruled that the tones between the intervals of the fourth and fifth, and between the seventh and eighth, including the proslambanomenos, should be minor. This order of major and minor tones produced an effect exactly the same as our old or true minor mode does when played in tune.

* Chappell, 93. † *Ibid.*, 92.

$$\left.\begin{array}{l} \text{A—B} = \text{major tone, } \frac{9}{8} \\ \text{B—C} = \text{semitone, } \frac{16}{15} \\ \text{C—D} = \text{major tone, } \frac{9}{8} \\ \text{D—E} = \text{minor tone, } \frac{10}{9} \\ \text{E—F} = \text{semitone, } \frac{16}{15} \\ \text{F—G} = \text{major tone, } \frac{9}{8} \\ \text{G—A} = \text{minor tone, } \frac{10}{9} \end{array}\right\} = \left\{\begin{array}{l} 3 \text{ major tones} \\ 2 \text{ minor tones} \\ 2 \text{ semitones} \end{array}\right\} = \left\{\begin{array}{l} \text{The seven notes} \\ \text{of the diatonic} \\ \text{scale.} \end{array}\right.$$

These eight modes of Ptolemy's were formed by a series of six perfect fourths, taken upwards, or of perfect fifths downwards, starting from any note of the diatonic scale, and arranged in alphabetical order from the lowest note upwards, with the proslambanomenos placed a whole tone before this lowest note. Example: Let B equal the note, then B to E, E to A, A to D, D to G, G to C, C to F=B C D E F G A; place the proslambanomenos a whole tone below B, and the result is this scale, A B C D E F G A, or the first octave of the Hypo-Dorian mode.

The diagram D, p. 39, founded upon one by Zarlino, shows the perfected system of Ptolemy in a clear manner.

The difference between a major tone and a minor tone is $\frac{81}{80}$. The upper note in a major tone has nine vibrations to every eight of the lower note, hence a major tone$=\frac{9}{8}$, while in a minor tone the proportions are $\frac{10}{9}$, and $\frac{9}{8} \times \frac{9}{10} = \frac{81}{80}$.

The diminishing of the interval between the seventh and eighth degrees of the octave, from a major to a minor tone, was the first step towards

the ultimate substitution of a semitone for a tone between the interval of the seventh and eighth, which modern music for some reason deems a necessity (Chappell and others).

Lines and spaces, clefs and notes, as we understand the terms, were unknown prior to the twelfth century.

The major scale does not appear to have been generally adopted before the latter part of the sixteenth century.

Ptolemy, to bring the octave of all the modes into the middle of the voice, lowered or transposed the seven scales—the eighth being but a repetition of the first at a higher pitch—a fourth downwards. The diagram E pp. 40-41 contains, side by side, for clearness, the positions of the original and transposed scales at the interval of a fourth.

This lowering of the strings necessitated the use of either larger instruments or thicker strings. The vertical lines mark off the portion of the modes which could be accompanied on the lyre.

The proslambanomenos still appears as if it were a part of the system, and consequently the semitone in each of the two tetrachords forming the two octaves, seems to occur between the second and third degrees of the scale—A B C D, D E F G.

The tendency to move the semitone upwards, and the various attempts made to accomplish this, form not one of the least interesting subjects for observation.

Ptolemy's Perfected Greek System.

The Syntonus or Intense Diatonic.

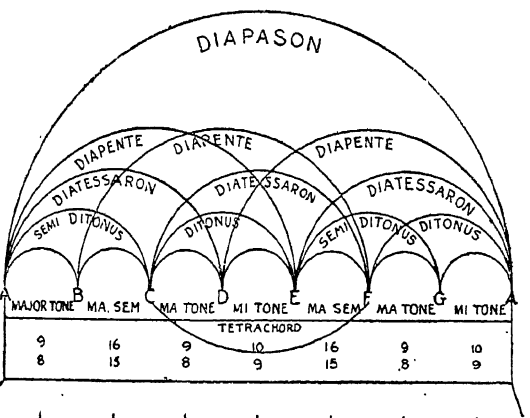
The diatonic tetrachord = { greater semitone in the ratio of $\frac{16}{15}$. / a major tone ,, ,, $\frac{9}{8}$. / a minor tone ,, ,, $\frac{10}{9}$. }

The diapason = an octave (*dia*, through ; *pason*, all), in the ratio of $\frac{2}{1}$.

The diapente = a fifth (*dia*, through ; *pente*, five), in the ratio of $\frac{3}{2}$.

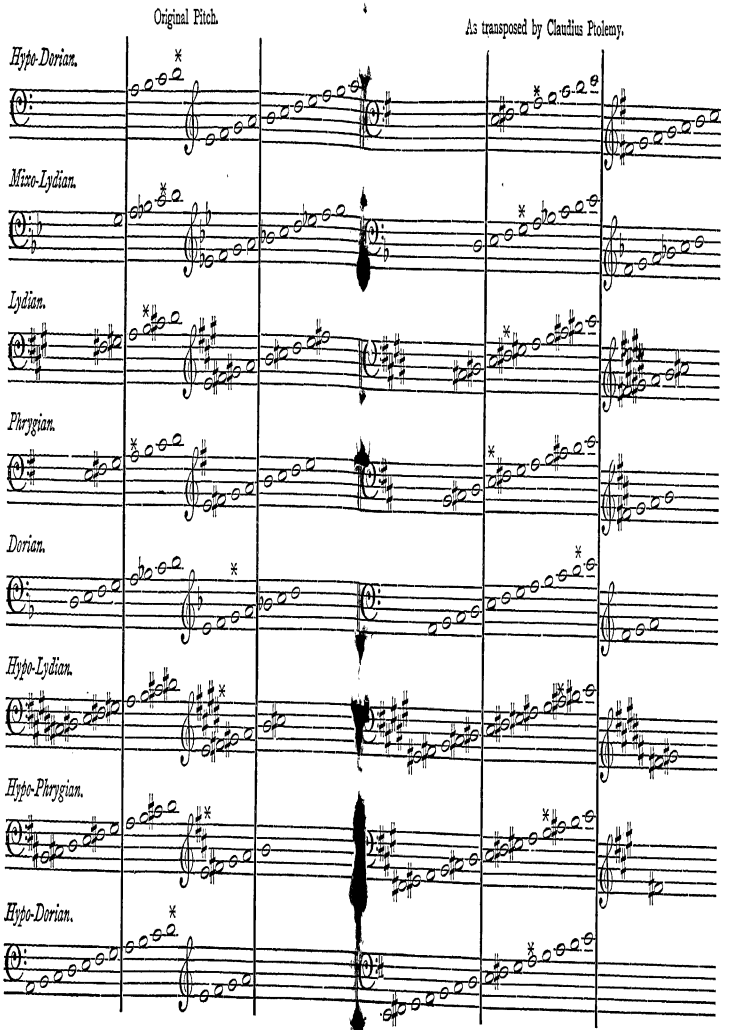
The diatessaron = a fourth (*dia*, through ; *tessaron*, four), in the ratio of $\frac{4}{3}$.

DIAGRAM D.



H. DORIAN	A	B	C	D	E	F	G	A
MIXO LYDIAN	G	A	B♭	C	D	E♭	F	G
LYDIAN	F♯	G♯	A	B	C♯	D	E	F♯
PHRYGIAN	E	F♯	G	A	B	C	D	E
DORIAN	D	E	F	G	A	B♭	C	D
H. L	C♯	D♯	E	F♯	G♯	A	B	C♯
H. P	B	C♯	D	E	F♯	G	A	B
H. D.	A	B	C	D	E	F	G	A

DIAGRAM E. EIGHT SCALES OF THE GREEK LYRE.



The asterisk denotes the mese or key-note of the mode.

The rule for finding the mese, and the key, is described in Chapter III., p. 28.

CHAPTER V.

THE CHRISTIAN ERA.—CLAUDIUS PTOLEMY TO ST. GREGORY THE GREAT, BISHOP OF ROME 590-604.

Antiphonal Singing.

ANTIPHONAL singing was essentially anti-Greek, introduced from Jewish and Syrian customs; witness the tradition which ascribes its introduction to St. Ignatius of Antioch, who was martyred about A.D. 107. It appears to have been incorporated into the service of the Church so early as 110 A.D.; for Pliny the younger, who in the second century had been appointed Pro-consul of Bithynia, reporting to the Emperor Trajan concerning the Christians, declared that, having examined many of them, he found the chief of their faults or errors was that they were 'accustomed to meet before daylight on a certain day and sing among themselves alternately—*secum invicem*—a hymn to Christ as God.'

St. Irenæus, a native of Asia Minor, and Bishop of Lyons in Gaul 177, is said to have intro-

duced into his diocese a Liturgy called by some the Ephesine Liturgy, but which is better known as the Old Gallican Liturgy, and there is some evidence that this Old Gallican Liturgy was used in the British Isles before and after the coming of St. Augustine in 596; St. Ignatius is reputed to have introduced antiphonal singing into the musical services of the Gallican Church in the West.*

Sylvester, Bishop of Rome 314-336, is supposed to have been the first to found singing schools at Rome, and in several towns where the Christian religion had become implanted.

During the episcopacy of Leontius, the semi-Arian, *c.* 350, who organized processions through the city, crying out, 'Where are they who assert that the Son is as great as the Father?' and singing, 'Glory be to the Father, in the Son, and by the Holy Ghost,' there were also in Antioch two laymen, of great repute for the sanctity of their lives, afterwards consecrated, the one Flavian, Bishop of Antioch, and the other Diodorus, Bishop of Tarsus. These holy men endeavoured to counteract the heresy of Leontius and his following, and, to further this end, organized counter-processions, going about the city, after the manner of the Arians, carrying lighted tapers in their hands, walking in couples, and singing,

* Hawkins, i. 105.

'Glory be to the Father, and to the Son, and to the Holy Ghost,' thus giving, as the Church has ever since, equal glory and praise to the three Persons in the one blessed and ever undivided Trinity. The method of singing was antiphonal, the men singing one verse, the boys responding. This antiphonal singing was exceedingly popular, and became almost universal.* Its popularity is said to have materially aided in drawing the people from their attendance at the heretical services of Leontius, the singing captivating the people.

St. Basil, Archbishop of Cæsarea 371, d. 379, was partly educated in Athens, where he became acquainted with the antiphonal method of singing known as the Alexandrian style, which was rather speaking than singing, through the example of St. Athanasius. He introduced the melodies of the chanters of Antioch, and antiphonal singing after the model of the singing in Egypt, Lydia, Thebes, Palestine, and amongst the Arabians, the Phœnicians, Syrians, and Mesopotamians, into the 150 sees in his province on sandy Cæsarea. To this and other innovations some of his clergy —notably Sabellus and Marcellus—in 363 objected, and took 'occasion to incense the Church

* Full authorities on the point of antiphonary and antiphonal singing are given p. 11, Chappell's 'H. of M.' Greek antiphonal is our congregational singing; where men sing, naturally, the corresponding sounds an octave below women and children.

against him, as having been the author of new devices in the service of God.'*

Damasus, Bishop of Rome 367-384, introduced the custom of chanting, instead of reciting the Psalms, into the Western Church and ordered they should terminate with the *Gloria Patri*, etc.

St. Ambrose, once the governor of Liguria, and who began life as a Roman magistrate, became the eighth day after his baptism Bishop of Milan, in the north of Italy, 374, being then thirty-four years of age; he died 398. He had a great admiration for St. Basil, whose music and antiphonal method of singing he introduced into Italy.

He is frequently quoted, without any authority whatsoever, as having founded, or introduced, a system of music peculiar in its use and adoption by the Church, fancifully called Ambrosian music, or the use of Milan.

St. Ambrose never claimed such honour; on the contrary, in a letter to his sister, St. Marcelona, he wrote that he merely wished to take upon himself the task of regulating the tonality, and the mode of execution of the hymns, psalms, and antiphons, that were sung in the church which he had founded at Milan.

There is some probability that his task consisted

* Hawkins (Novello's ed.), i. 106; 'Vales. in Socrat.,' lib. iv., cap. xxvi.

in the introduction of instrumental music as well as antiphonal singing into his diocese, he also ordained that the psalms and hymns should be sung after the style of the oriental churches, as St Basil had done

St John Chrysostom 380, died 407, was ordained deacon by Meletius, and priest or presbyter by Flavian, Bishop of Antioch He was consecrated Archbishop of Constantinople 380, in which place he introduced the antiphonal singing and ceremonial of Antioch

The 'Te Deum,' set to music, and known as the Ambrosian 'Te Deum,' was not the work of St Ambrose + The hymn itself did not exist until long after the deaths of St Ambrose and St Augustine

St Celestine, Bishop of Rome 422 432, is said to have ordained that the psalms should be chanted through at the beginning of, or rather before, Mass, in the course of the year, by taking sometimes one and sometimes another, and they were called the Introits, because sung whilst the priest entered, after vesting, and were sung antiphonally, one side of the choir responding to the other

The early Christians, having adopted the antiphonal method of singing in use in Antioch, and

* Hawkins' 'History of Music,' vol 1, p 107, note a, Novello's edition

introduced it into the West, made use of also, there can be little doubt, the musical system of Greece as finally settled by Claudius Ptolemy.

The musical system, as arranged by Claudius Ptolemy, was common to the Church, the theatre, and to the laity generally, with such modifications as we shall presently see.

CHAPTER VI.

SAINT GREGORY THE GREAT.—HIS INDIFFERENCE TO MUSIC.

TO St. Gregory I., the Great, Bishop of Rome 590–604, is ascribed by writer after writer, musical historian after historian, none ever quoting an authority in proof of their assertions or in support of them:

(1) The compilation of an Antiphonary.

(2) The founding of a musical school in Rome.

(3) The invention, or arrangement or re-arrangement of a system of music peculiar to the Church.

(4) The introduction of a system of notation by means of Roman letters.

These fictions on examination vanish, like smoke, into thin air.

(1) Did St. Gregory compile an Antiphonary?

Platina, in his 'Lives of the Popes,' who *en passant* does not mention or connect any Antiphonary with St. Gregory the Great, informs us that Melchiades, who was Bishop of Rome, 311-314, ordained, that no Christian should keep a fast upon a Sunday or

a Thursday, because those days were so observed and kept by the pagans.

In the year 589 the Council of Narbonne, by Canon XV. solemnly condemned the observance of Thursdays by the Church in any way, because that day was held sacred to Jupiter, and so kept not only by the pagans, but by many of the Christians also.

This prohibition remained in force until the episcopacy of Gregory II., who occupied the See of Rome, 716-731. This prelate enjoined the celebration of the sacred rites on the Thursdays in *Lent* only.

How remarkably this last detail is confirmed by the Liturgical books, has been well pointed out by Mons. Gevaert.* The Gelasian Sacramentary, at the end of the seventh century, does not provide a single Mass for any one of the Thursdays in Lent, and yet in that ascribed to St. Gregory I., at a time, too, when the observance of these days was solemnly forbidden, we find a Mass assigned to each, and the music apportioned to them is not new, but is borrowed from the Sundays after Trinity, or as they are termed in the Roman service books, 'after Pentecost;' they had no place in the Gelasian Sacramentary, being unknown until the end of the seventh or beginning of the

*'Les origines du Chant Liturgique de l'église latine,' 1890.

eighth century. Trinity Sunday was not invented till the eleventh or twelfth centuries.

The fact that the music was borrowed from pre-existing offices for the Sundays after Pentecost, and not new composed for these Thursday Masses, is reasonable proof that few, if any, melodies were composed under either Gregory II. or Gregory III. The Masses from which those for the Thursdays in Lent borrowed their music do not, as before stated, appear in the Gelasian Sacramentary, and therefore were not in existence before the close ot the seventh century.

St. Gregory I. has left us, in addition to a large number of theological tracts and homilies, a voluminous correspondence, including no less than 800 letters, covering the whole of the public as well as private life during his thirteen years' episcopacy. In these there is not a single line, allusion, or hint of any kind respecting either the chant of the Church or of an Antiphonary.

Of ancient writers, there is but one, and one only, who attributes the compilation of an Antiphonary to St. Gregory I.—John the Deacon, who flourished *c.* 880, that is, about 286 years after the death of Gregory I., whose assertions have remained uncorroborated to this day.

There is not an allusion in either the epitaph of Gregory, nor the description of the Liber Pontificalis, nor in any biography or eulogium of him.

Isidore of Seville, Bp. 601, d. 636, his contemporary, the Venerable Bede d. 735 in the next century, Paul Warnefried under the Emperor Charles the Great—do not make the remotest mention of or allusion to it. With regard to Isidore and Bede, who were so much interested and concerned with the Liturgy, both of them being also musical writers, the silence is more remarkable and significant.

The attribution of the Antiphonary to St. Gregory I. rests then on the sole and uncorroborated statement of John the Deacon; save this one, all are silent on the matter.

The first record we have of the existence of an Antiphonary is that of Paul I., Bishop of Rome 757-767, who sent one to Pippin, father of Charles the Great, in 760, in which the music for the great festivals is of the same character as that for offices only introduced in the time of Sergius I., Bishop of Rome 687, d. 701, who was a native of Palermo, of Syrian parentage, and became master of the Choir School at Rome. It is to him that Mons. Gevaert attributes the principal part in the composing of these melodies, which were afterwards collected and edited, he believes, by Gregory III., Bishop of Rome 731-741.

The documents from which John the Deacon bases his assertions do not in any particular agree with the calendar of the time of Gregory I.,

whereas they do with that of the Roman Liturgy at the beginning of the period 750. In consequence, the compilation of the Roman Antiphonary is antedated more than a century, and therefore, says Gevaert, 'if the epithet "Gregorian" has any real import, it implies that of Gregory II., Bishop of Rome 715-731, or, with more reason, to his successor, Gregory III., 731-741.'

(2) The founding of a musical school in Rome by St. Gregory I. may, in the absence of one tittle of evidence other than that of the *romancing* John the Deacon, be dismissed at once as a fable.

(3) It seems hardly necessary to discuss seriously the question of his having invented, improved, or arranged any system of music, peculiar or otherwise to the services of the Church, after what has been stated above; suffice it to add that, in support of any such theory, of proof there is none of any kind. On the contrary, St. Gregory I. appears to have been very indifferent to, and to have taken the very slightest interest in, Church music.

In a synod of 595, he says: 'In this Holy Church of Rome, which Providence has placed under my direction, it has for a long time been a reprehensible custom, and worthy of note, for the sacred ministry of singers, before entering into

Deacon's orders, to devote their whole time to the cultivation of their voices, altogether neglecting their office of preaching and of the distribution of alms; and the priests, each cultivating his organ to attain an edifying voice, irritating God, while they please the people with their accents,' he decrees 'that the Deacons shall not sing at all, except in the recitation of the Gospels in the Masses. As for the chants of the Liturgy, they shall be executed by the Sub-Deacons, or, if necessary, by the clerks of inferior degree.'*

(4) The invention of any system of notation cannot be attributed to St. Gregory I. Isidore, his contemporary, distinctly declares that no means of recording music existed in his day, and further that, 'unless sounds are retained in the memory, they perish, because they cannot be written.'† Amalarius Fortunatus, a principal ecclesiastic in the chapel of Lewis the Debonnaire, who was sent by Lewis to request of Gregory IV., Bishop of Rome 827-844, a sufficient number of singers to instruct the people, tells us that 'neither were there in Gaul or at Rome any books wherein it' —the chant—'had been written.'

It is certain, therefore, that the music known under the erroneous terms 'Church music,' or

* Gevaert.

† 'Nisi enim ab homine memoria teneantur, soni pereunt, quia scribi non possunt.'—Bk. iii., '*Origines*,' or 'Etymologies.'

'Gregorian,' was the invention of neither St. Gregory nor any other one man, but a recognised system, of gradual growth and development, the heritage of Church and lay folk alike.

It is quite a mistake to suppose that what is called 'Gregorian music' is of the age of St. Gregory. The word means nothing more than the 'use of Rome.' 'Nos Gregoriani et nos Ambrosiani,' 'We who follow the use of Rome, and we who follow the use of Milan.'* It is more than probable, almost certain, that the system of music to which St. Gregory's name has, without any reason, been assigned, came into existence between the eighth and tenth centuries. It was unknown in the days of Hucbald or of Notker, the monk and abbot of St. Gall, in the tenth century. Hucbald distinctly states that his tetrachords have the same succession of intervals, whether taken up or down—see Chapter IX. Notker says, in his 'De Octo Tonis,' that every chant of the first and second tones ends in B, of the third and fourth in C, of the fifth and sixth in D, and of the seventh and eighth in E, which differs much from the law of later times.†

The modern 'Gregorian tones' have been changed by altering the positions of the semi-

* 'Dictionary of Musical Terms,' Stainer and Barrett, 'Notation.'

† *Ibid.*

tones in the scales The first and second of later dates end on D, the third and fourth on E, the fifth and sixth on F, and the seventh and eighth on G The music cannot be the same, because the intervals follow in a different succession *

At the Synod of Cloveshoo, 747, while the churches of the Anglo-Saxons are instructed to regulate the liturgical chants, particularly those of the Mass, on the official version sent from Rome, no single allusion is made to, or the slightest hint given of, a book of chants bearing the name of St Gregory

Service-Books

Canon XIII

Among the Canons of Elfric, A D 957, occurs the following 'Now it concerns Mass-priests and all God's servants to keep their churches employed with divine service Let them sing therein the seven tide-songs that are appointed them, as the synod earnestly requires, *viz*, the uht song, the prime song, the undern song, the mid-day song—12 o'clock,—the noon-song—the hora nona, our 3 o'clock,—the even-song, the seventh—or night-song'—Canon XIX , and again 'The Priest shall have the furniture for his ghostly work before he is ordained, that is, the holy books, the psalter

* 'Dictionary of Musical Terms,' Stainer and Barrett, 'Notation.'

and the pistol-book, gospel-book, mass-book, the song-book, the hand-book, the kalendar, the Pasconal, or Martyrology, the Penitential, the lesson-book. It is necessary that the Mass-priest have these books, as he cannot do without them, if he will rightly exercise his function and duly inform the people that belongeth to him.'—Canon XXI.

The Coucher
Journals
Portasses
Primers
Processionals
} were abolished 3 and 4 Edward VI., c. 10 [1549-1550].

ANCIENT SERVICE-BOOKS.

Mass Books.

The Sacramentary was the priest's book at the altar; it contained the collects, prefaces, and the canon of the Mass.

The Antiphonary, gradual or graile, was the choir-book of the Mass; it contained the anthems introits, graduals, alleluias, tracts, offertories, communions, hymns, Sanctus, Creed, Kyrie, Gloria in excelsis — in fact, all the musical portions of the Mass. That erroneously attributed to St. Gregory, of which there is an imaginary transcript of the tenth century in the monastery at St. Gall, contains only the following portions of the service: 96 anthems, 150 introits,

111 graduals, 99 alleluias, 23 tracts, 102 offertories, 147 communions, 15 responds, and 4 hymns. From internal evidence, other than what has been pointed out by Mons. Gevaert, it is quite clear the original cannot possibly be of *earlier* date than the latter part of the eighth century. The probability is that it is not a transcript of so early a one, but is an original compilation of the tenth century.

The Epistolarium, or Pistol-book, contained the epistles, and the Evangeliarium, or Gospel-book, the gospels.

The Troper, or Sequentiary, the short verses or tropes after the epistle, together with tags to the introits, kyries, Gloria in excelsis, Creed, Sanctus, and other musical portions of the service.

About the eleventh century these are supposed all to have been merged into the Missal, or Book of the Mass.

The Ordinal was a directory of divine service, containing the rubrics, and is by some supposed to have been the same as the Pye.

The Manual, or Office-book, was the ritual book, and contained the order for baptism and other sacraments, blessing of holy water, order of processions, etc.

Hour Services.

The Breviary, Portiforium, or Portuary, was the Book of the Seven Hours.

The Psalter contained the psalms arranged for the different Hours, and the litany as used on occasions.

The Hymnarium, the hymns used at the Hours.

The Collectarium, the collects, orations, capitula, or short lessons used at all the Hour services except Mattins.

The Legenda, or Lectionary, the long lessons, from whatever source taken, and read at Mattins, the Nocturns on Sundays and certain other days.

The Prymer, or Primer, contained the little office of our Lady, the vigils of the dead and other prayers.

The Abbé Duchesne, the latest and best authority on liturgical matters, assigns the date of the Gregorian Sacramentary to the eighth century, and attributes it to be the work, not of St. Gregory, but of Adrian I., Bishop of Rome 772-795.

As St. Gregory died in 604, the Sacramentary and Antiphonary which bear his name are at least a century and a half later than his time.

The earliest mention of an Antiphonary was during the episcopate of Paul I. of Rome, 757-767.

CHAPTER VII.

INTRODUCTION OF THE ORGAN.—ITS EFFECT ON MEDIÆVAL MUSIC.—A.D. 150-1350.

THE Greeks and Romans derived their organs from ancient Egypt.*

The real home of organ-building in Europe was Constantinople. The primitive organs were furnished with four, six, or eight pipes. About the end of the second century the number of pipes had increased to fifteen, as shown, not only by engravings on coins, but from the express testimony of a writer to that effect.

By the time of Constantine the Great, at the beginning of the fourth century, the number of pipes had been increased to twenty-six. Optation, *c.* 324, a court poet of the time, and a master of conceits, wrote a poem on an organ, and so arranged his verse that it exactly represented the appearance of the instrument itself; that is, the first verse is of so many letters, the second of one letter more

* Chappell, i., xvi.

than the first, the third one more than the second, and so on. The appearance of the verses exactly imitates the gradual rise of the front pipes of an organ, pipe after pipe. To these are appended shorter verses, all of the same length, which stand for keys, and one is at the bottom of each pipe. There are twenty-six verses in all, and twenty-six keys to match. This shows the way organs were made at this period.

The Emperor Julian, called the Apostate, who died 363, is the reputed author of a Greek enigmatical epigram, the solution of which is evidently the *pneumatic-organ*. It has been literally translated by the late Dr. Rimbault as follows:—'I see a species of reeds: surely from another and a brazen soil have they quickly sprung—rude. Nor are they agitated by our winds, but a blast rushing forth from a cavern of bull's hide, makes its way from below the root of reeds with many openings, and a highly-gifted man, with nimble fingers, handles the yielding rods of the pipes, while they, softly bounding, press out a sound.' The *rods* were flat rules of wood. These rules were soon afterwards, and continued for upwards of five hundred years, to be called 'tongues,' doubtless from the protruding ends which stood out in front.

There is a curious representation of an organ depicted among the sculpture on an obelisk at Constantinople, erected by Theodosius, who died

A.D. 393. An illustration is given in Grove's 'Dictionary of Music and Musicians,' ii., p. 576.

The water-organ, which was a novelty in the reign of Nero, who died 68, had become so common and so popular by the time of Honorius, 625-638, that a nobleman's house was considered incomplete without one. Portable organs which could be carried by slaves from house to house where concerts or musical gatherings were attended by their masters, were also made in great numbers.

St. Jerome, who flourished at the end of the fourth and the beginning of the fifth century, *c.* 374, died A.D. 420, describes the organ of his day as being composed of fifteen pipes; of two bellows; and of two elephants' skins united to serve as a wind-bag.

Cassiodorus, Consul of Rome, in the early part of the sixth century, who died A.D. 560, aged about ninety, at his monastery of Viviers, says:—'The organ is like a tower, made of different pipes, which, by the blowing of bellows, a most copious sound is secured; and in order that a suitable modulation may regulate the sounds, it is constructed with certain tongues of wood from the interior, which the fingers of the master, duly pressing, elicit a full-sounding and most sweet song.'

One is mentioned as existing in the most ancient city of Grado, in Italy, in a church of the

nuns anterior to A.D. 580. It is described as being about two feet long and six inches broad, furnished with fifteen playing slides and thirty pipes—two to each slide—probably either in unison or at the distance of an octave apart.

The organ was early used in the public service of the Church. Platina, in his 'Lives of the Popes,' says it was first employed for religious worship by Vitalian I., Bishop of Rome 657-672, but, according to Julianus, a Spanish bishop, who flourished A.D. 450, it was in common use in the churches of Spain at least two hundred years before Vitalian's time.

St. Aldhelm or Ealdhelm, 668, died 709, Abbot of Malmesbury, and afterwards Bishop of Shirburn, fully describes the organ in his *Laus Virginitate.* This was most likely the English instrument. At the beginning of the eighth century, he says: — 'As he listens to mighty organs, each with its thousand blasts, the ear is soothed by the sound heard from the wind-giving bellows, while the rest shines in gilt cases.' He also tells us it was the custom of the Anglo-Saxons to ornament the pipes of their organs by gilding them.

The Venerable Bede, *c.* 673, a contemporary of St. Aldhelm, and who survived him twenty-six years, died 735, speaks with much minuteness of the appearance, method of playing, and the musical

effect of the organ of his day —'An organum is a kind of tower made with various pipes, from which, by the blowing of bellows, a most copious sound is issued, and that a becoming modulation may accompany this, it is furnished with certain wooden tongues from the interior part, which the master's fingers skilfully repressing, produce a grand and most sweet melody' The organ appears to have been unknown in Gaul and Germany at the time of Pippin, father of Charles the Great, who is credited with having introduced the singing and ceremonies of the Roman branch of the Catholic Church into Gaul Being urgently in need of an organ, both as an aid to devotion and as a proper accompaniment and support to the choir, he applied to the Byzantine Emperor, Constantine, surnamed Copronymus, soliciting him to forward one to Gaul The Emperor complied with the request, and in the year 757 or thereabouts, sent him as a present, in charge of a special embassy, headed by Stephanus, a Roman bishop 752-757, a great organ with leaden pipes, which was placed in the Church of St Corneille, at Compiegne * An organ, made by an Arabian named Giafar, *c* 822-826, was also sent to Charles the Great, in all probability the one described by Walafrid Strabo, *c* 842, as existing in a church at Aachen The following

* Grove's 'Dictionary of Music and Musicians,' Art. 'Organ'

account of this latter organ is in the main from Rowbotham's 'History of Music,' iii 259, 260 It was when the Greek ambassadors came to Aachen on a mission from another Constantine to Charles the Great, that stories began to spread about the Court of the wonderful instruments they had brought with them, and among others of a complicated instrument made of brazen cylinders, and bulls'-hide bellows, and pipes, which could roar as loud as thunder, and yet could be reduced to the softness of a lyre or tinkling bell To gain the knowledge of its construction, Charles the Great sent artizans into the ambassadors' apartments, bidding them pretend to employ themselves on some other labour, but really to examine the structure of the organ, so that they might make another like it The organ thus made stood in the Cathedral of Aachen

A new era in organ-building would seem to have been inaugurated in the time of Lewis I , the Pious, who died 840, by the arrival of one George, a Venetian, a learned priest, at the court of that monarch His organs were all water organs, and were not provided with bellows, a retro gression in the art of organ-building Most of the instruments spread throughout Gaul and Ger many at this date were built, if not under his direct superintendence, on his pattern Within a century after George's time, we know not where-

fore, the home of organ-building had passed from Italy and Gaul to Germany.

John VIII., Bishop of Rome 872, died 882, writing from Rome to Bishop Anno in Germany, said, 'Send me the best organ you can procure, and along with it a tutor, for we have none here.' England and Germany at this time appear as centres of organ-building, whence the largest organs are said to have come. The bellows, many of which were used to keep a steady flow and pressure of wind—for as one or more were filling, the others were exhausting—now began to be provided with feeders, instead of the old hydraulic arrangement.

The great and spacious monastic and cathedral churches of the Romanesque period, with their lofty roofs, were now beginning to cover the land. Immense organs, too, came in vogue, suitable to the large buildings which were to hold them; the small organs were totally inadequate, and would have appeared ridiculous, as well as almost useless, in such vast buildings. But, although the number of the pipes, and of the bellows to blow them, were greatly augmented, we do not find as yet any addition to the plain diatonic scale, representing the white keys of our present instruments. The levers, or 'keys,' were so broad, that it required the use of the fists of the player or players to strike them, hence the term organ-beater.

St. Dunstan 924, died 988, was a maker of organs, and is reputed to have supplied many great churches with them, including the Abbeys of Abingdon and Glastonbury. One, which he gave to the Abbey of Malmesbury, continued in good playing condition after a lapse of 130 years.

In the same century Count Elwin presented an organ to the Convent of Ramsey, *c.* 980-990, with copper pipes.*

St. Ethelwold, Bishop of Winchester 963-984, made organs with his own hands.†

Mr. Wackerbath,‡ gives a translation from an account in Latin by a monk of the name of Wulstan, who died in 963, of a remarkable tenth-century organ, erected in Winchester Cathedral by Bishop Elphege, who died 951: 'Such organs as you have built are seen nowhere, fabricated on a double ground. Twice six bellows above are ranged in a row, and fourteen lie below. These, by alternate blasts, supply an immense quantity of wind, and are worked by seventy strong men, labouring with their arms, covered with perspiration, each inciting his companions to drive the wind up with all his strength, that the full-bosomed box may speak with its four hundred pipes which the hand of the organist governs.

* Mon. Chron., R.S., 86.

† 'Chron. Mon. de Abyngdon,' Rolls S., ii.

‡ 'Music and the Anglo-Saxons,' pp. 12-15.

Some when closed he opens, others when open he closes, as the individual nature of the varied sound requires. Two brethren—religious—of concordant spirit sit at the instrument, and each manages his own alphabet. There are, moreover, hidden holes in the forty tongues, and each has ten—pipes—in their due order. Some are conducted hither, others thither, each preserving the proper point (or situation) for its own note. They strike the seven differences of joyous sounds, adding the music of the lyric semitone. Like thunder the iron tones batter the ear, so that it may receive no sound but that alone. To such an amount does it reverberate, echoing in every direction that everyone stops with his hand his gaping ears; being in nowise able to draw near and hear the sound, which so many combinations produce. The music is heard throughout the town, and the flying fame thereof is gone out over the whole country.' Dr. E. J. Hopkins, in his admirable account of the 'English Mediæval Church Organ,' pp. 17 and 18, gives an explanation and solution of this enigma, which he was the first to unravel, this result having also been published, with an illustration of the instrument, a few years ago in the article on the organ in Grove's Dictionary. 'The musical scale,' he says, 'simply consisted of the seven diatonic sounds, corresponding with the sounds of the white keys of a modern pianoforte,

with "the music of the lyric semitone," or B flat, added. No indication whatever can be traced as to the ranges of the three sets of playing-slides of this Winchester organ. I ventured, in the above article, on the suggestion that the lower row of tongues, which "the organist" governed, might have consisted of a set exactly corresponding with the two-octave range of Gregory's (*sic*) gamut of sixteen notes, as follows:

'A B C D E F G a ♭ ♮ c d e f g aa;

while the two remaining alphabets entrusted to the two religious brethren possibly consisted each of a set of notes corresponding with those of the Gregorian (*sic*) chants—twelve—making up the exact number of forty tongues in all:

'C D E F G a ♭ ♮ c d e f
C D E F G a ♭ ♮ c d e f
A B C D E F G a ♭ ♮ c d e f g aa;'

a conjecture the late Sir George Macfarren, in his 'Musical History,' p. 124, accounts 'most ingenious,' adding that it 'seems fully worthy of adoption.' Dr. Hopkins, in the same work, in quoting from an eleventh-century treatise, part of a larger work on 'Divers Arts,' written by a monk and priest of the name of Theophilus, states, *inter alia*, 'the number of notes was seven or eight, and they had one, two, or more pipes each. The handles of the slides were still called "tongues," and each was

marked with a letter, according to the rise and fall of the sound, so that it could be known to which tone it belonged. The lettering was an interesting feature, as showing the means taken to secure an agreement between the organ-sounds and the music of the plain chant that was indicated in the same manner.'

At the close of the tenth century many organs were in existence in the churches of Germany.

The key-board appears to have been invented during the eleventh century.

By the twelfth century the use of organs in our English monastic and cathedral churches had become quite common. Ælred, Abbot of Rievaulx, in Yorkshire, 1147—1167, though not condemning the use of the organ, awarded it but scant praise, as he also did singing. Baldric, who was living at the same period, defended it after a fashion; he says: 'We permit the use of the organ but do not count it a crime if certain churches are without one.'* Gervase, the Monk of Canterbury, describing the burning of the great church in 1174, mentions the destruction of the organ, but does not refer to it as if it were an unusual thing in a church. York Minster had its organ in 1190.

There seems to be little doubt but that the sharps and flats, in addition to the already existing B flat,—the lyric semitone—as represented by

* Hopkins, 'Med. Church Organ,' p. 23.

the black notes on the modern organ, were introduced in the middle of the fourteenth century. The earliest authentic account in support of this assertion is given on the authority of Prætorius.

Long before the close of the fourteenth century we find our great churches and abbeys not only plentifully supplied, but in many, as at Croyland, St. Albans, Fountains, etc., two organs were provided, one being usually placed on the rood-loft, or at the west end. An organ was placed at the west end in a loft or gallery at Meaux, Fountains, Buildwas. My brother, W. H. St. John Hope, suggests that the western organs may have been for the choir of the *conversi*, or lay brethren, who occupied the nave. The cathedral of Worcester possessed three organs, the cathedral of Durham five. Great organs are mentioned at Ripon in 1408.

The following is a short list of early English organ-makers.

John Gyse: freeman of the city of York, 1431.
William Fyvell or Nyvell:* freeman of the city of York, 1446-1453.
John Asshwell: freeman of the city of Norwich, 1446.
Arnalt Maynhamber: freeman of the city of Norwich, 1446.

* (?) William, organ-maker of Ripon organ, 1453. John Couper of York was paid 12d. for mending the bellows of the Ripon organ, 1399 and 1419.

1451. John Roose or Ross: freeman of the city of York, 1463-1469.
George Gaunt: freeman of the city of York, 1470.
John Lawless: of Kilkenny, 1476.
Edward Boyce: freeman of the city of York, 1478.
William Hall: freeman of the city of York, 1478.
Robert Borton: of Stowmarket, 1482.
Maurice Bironf: freeman of the city of York, 1485, d. 1510.
William Wotton: 1486.
1485. John Hewe, or Hugh: freeman of the city of York, 1488.
John Chamberlyn: 1509-1514.
William Lewes: 1514.
Thomas Smith: 1514.
Sir William Argall: 1517.
Anthony Duddington: 1519.
James Demps or Dempsey: freeman of the city of York, 1526-1531.
John de John: 1526.
John Howe: of the city of London, 1530.
William White: 1531.
John Vaulks: 1533.
William Beton: 1537-1544.
1537. William Treasurer: freeman of the city of York, 1540.
John Heweson: freeman of the city of York, 1545.
Robert of ——: of Crewkern, 1551.
John Chappington: of the city of London, 1596-1597.

The date before a name is that in which the maker has been found, prior to his admission as a freeman.

Organ building flourished to a great extent in Kilkenny, Ireland, in the fifteenth century.

For much new and valuable information respecting the early organ see 'The Mediæval Church Organ,' by Dr. E. J. Hopkins, in the *Archæological*

Journal, XLV.; 'The Organ, its History and Construction,' by Drs. E. J. Hopkins and E. F. Rimbault, London, R. Cocks and Co., third edition.

In the celebrated triptych by Van Eyck, 1426, 'The Adoration of the Lamb,' at Ghent, St. Cecilia is represented with a positive organ, with the chromatic division of the finger-board.

If the mediæval system of music was not the direct outcome of the necessarily restricted compass of the primitive organ, we must fall back on the only other feasible theory, viz., that the portions of the Greek modes applied to the octave lyres were adopted with their semitones occurring in different positions in each series of octaves.

Don Nicola Vicentino, a Roman musician, who flourished about the year 1492 and in 1555, published at Rome, in folio, a work entitled, 'L'Antica Musica Ridotta alla moderna Prattica, con la Dichiaratione, et con la loro spetie.' In it he says, after speaking of various musical inventions, 'And so from time to time one added one thing, and another another, as happened a little while ago, when in the organ to the third a *la mi re* above g *sol re ut*, a fifth was formed in e *la mi* with a round b, or as you may call it e *la mi flat*.'* Sir John Hawkins, i. 219, from whence the above is taken, remarks: 'This is a very curious anec-

* That is E♭.

dote, for it goes near to ascertain the time when many of the transposed keys could not have existed. The author is however mistaken in making e *la mi b* the fifth to a *la mi re*, for it is an interval consisting of but three tones. He had better have called it the fourth to b *fa*, which it truly is.' See Diagram H, p. 106.

CHAPTER VIII.

MEDIÆVAL SYSTEM OF MUSIC, EIGHTH TO TENTH CENTURIES.

FOR any Christian of the times of St. Ambrose and St. Gregory to have had the leisure, even if he had the ability, to construct a new musical system, was well-nigh, if not quite, an impossibility. The very empire of mighty Rome was shaken to her foundations by the successive inroads and attacks of the Huns, Lombards and Avars; to add to these perils, she was herself inwardly disunited, and, as was shortly after proved, 'the house divided against itself could not stand.'

The Church also was disturbed within by heresies. Every citizen, whether Christian or pagan, was deeply and vitally interested in the one common object of saving and defending the empire from the hordes that were almost continually pouring in upon her. Under such circumstances, and in the absence of any corroborative authority,

it is incredible to believe that St. Ambrose, St. Gregory, or any one man, could have accomplished the task of doing, more especially in such a period, that which must have been the gradual outgrowth of many centuries.

The mere suggestion that either St. Ambrose or St. Gregory did so infers either that there was no system, or that something was wrong with the existing one, for, if otherwise, why construct a new, and in the latter case a questionably better, one? Would it not have been both easier and wiser to have made some attempt to improve, were it possible to have done so, the system in common use at the time, *i.e.*, the later Greek system, as perfected by Claudius Ptolemy in the second century, and which is identical in all respects with our true or old minor mode, when played in tune?

There is not a shred or shadow of evidence, or even the vaguest hint given, that such an attempt to improve or alter this system was ever made, if we except the hexachordal one, which was never generally adopted, and soon disappeared, or that any new system was invented or discovered.

The introduction of the organ into the West in the seventh century, or earlier, with its limitation of notes, caused some modifications more apparent than real. A part only of a mode could be accompanied or played upon it, and this part, or octave

scale, gradually came to be looked upon as a complete mode, instead of being but a portion of one; and the chants written in these octave scales with their restricted compass, and the positions of their semitones varying in each, in course of time, were known as the 'plain-song' chants of the Church, and eventually were thought to possess some sacred import, which arose, not from any canonical order, but from the exigence of the organ, introduced as an accompaniment to the musical portions of the service of the Church in its early and primitive form.

If they—St. Ambrose and St. Gregory, and the early Christians in general—did not adopt the musical system of their country, the one in common use, from whence did they obtain one, and what was it? Hullah, speaking of the hypothesis that the music of the primitive Church may have been an altogether original creation, itself the result of a new faith, says it may be dismissed as inconsistent with all experience.*

We are, therefore, forced to the conclusion that the system of music which obtained in the West in the days of St. Ambrose and St. Gregory, as of their predecessors, was also the musical system of the Church. What this system was it has been attempted to explain within the covers of this volume. Such a view in no way detracts from

* 'Modern Music,' pp. 10, 11.

the sanctity of the musical services of the Christian Church, whose almost invariable custom it was, not to destroy everything pagan, but, on the contrary, to re-dedicate it to the service of Almighty God. If this was done with the temples, why should it not have been done with the music?

That the early Christians did not destroy or set aside everything that had been used in connection with pagan worship we know full well; on the contrary, the heathen temples were frequently re-dedicated in honour of Christian saints and martyrs, thus gradually transforming or fusing the old into the new—witness the Pantheon at Rome, re-dedicated by the Church in honour of the holy martyrs and of the mother of God, in place of its former dedication in honour of the great mother of the gods, Cybele; at Constantinople St. Sophia replaced Minerva. Lucius (*c.* 156 A.D.) is by tradition said to have converted heathen temples into Christian churches.

Hullah says: 'The Christians early participated in many indifferent heathen customs. They adopted the ram-bearing Hermes as the Good Shepherd, and used Orpheus as a symbol, if not a representation, of our Lord. They made sarcophagi of pagan forms, and adopted the basilica, essentially a secular structure, as their first church. Prudentius wrote in the language and metre of

Virgil. To be "poor in spirit," in the scriptural sense, is not surely of necessity to be poor in intelligence, or even in circumstances. Persons of high rank and culture were among them, to whom Greek music must have been as familiar as any other art. Why should they have forgotten or refused to use heathen *melody* only, availing themselves as they did of heathen architecture, sculpture and painting, and conforming to heathen customs involving no matters of principle?'*

The very same without a doubt was the case with the music of the temples, and many a melody which resounded in honour of Apollo or Jupiter was at a later period requisitioned to extol the praises of the one true God.

The earliest organs could not have provided for a large number of notes. Some writers inform us that the levers, which succeeded the slides, varied from three to four and a half inches in width; an octave therefore would, with levers of the former width, require a space of at least twenty-four inches, and if of the latter thirty-six inches. So cumbersome and unwieldy were they, that they were brought into play by a blow of the fist; the organist was in consequence known as the organ-beater.

With instruments such as these, it would have been impossible to have done more than accom-

* 'Modern Music,' pp. 10, 11.

pany the chants in unison. The decreasing of the width of these levers allowed the extension of the scale to fifteen notes, or two octaves.

Until the tenth century, the organs did not provide for more than two octaves, that is fifteen notes. These corresponded with the white keys only of our present organs and pianofortes, representing the diatonic notes of the scale of A minor.

Transposition from key to key, as in Ptolemy's time, and until the organ came into common use, with provision for the sharps and flats, was of course an impossibility. Hymns and chants were of necessity composed in this restricted scale and compass.

Flaccus Albinus-Alcuin was born in York, lived *c.* 750, died 804. He received his education there under Archbishop Egbert. Accepting an invitation from the Emperor Charles the Great, he took up his abode in Gaul as director of the educational enterprises of that monarch; it is stated* that it was at his instance the University of Paris was founded in 790 by Charles the Great. He is the first of whom we have any record, who is credited with having arranged and cast into form the octave scales, which were formed upon each of the notes of the diatonic normal scale of A minor, and in which all music during the above period presumably was written, and also with

* Hawkins, H. of M., i., 140.

having divided them into Authentic, derived from *αυθεντικός*=auctor et magister—the master tone, and Plagal, from *πλαγιος*, obliquus seu lateralis—subordinate or inferior.

The eight octave scales were placed in the following order:

1st Tone	...	D E F G a b c d
2nd ,,	...	A B C D E F G a
3rd ,,	...	E F G a b c d e
4th ,,	...	B C D E F G a b
5th ,,	...	F G a b c d e f
6th ,,	...	C D E F G a b c
7th ,,	...	G a b c d e f g
8th ,,	...	D E F G a b c d

The odd numbers were called the Authentics, and the even the Plagals.

If he did not arrange the scales as above, he is the first to mention them.* 'He speaks of there being four Authentic and four Plagal modes, and of their ordination by authority, that of Adrian, Bishop of Rome, contemporary with Charles the Great. A "Musical Catechism" by Alcuin is now in the Library at Munich.'†

The key to the two diagrams F and G, which illustrate the same thing, is as follows:

The first column contains the mediæval true

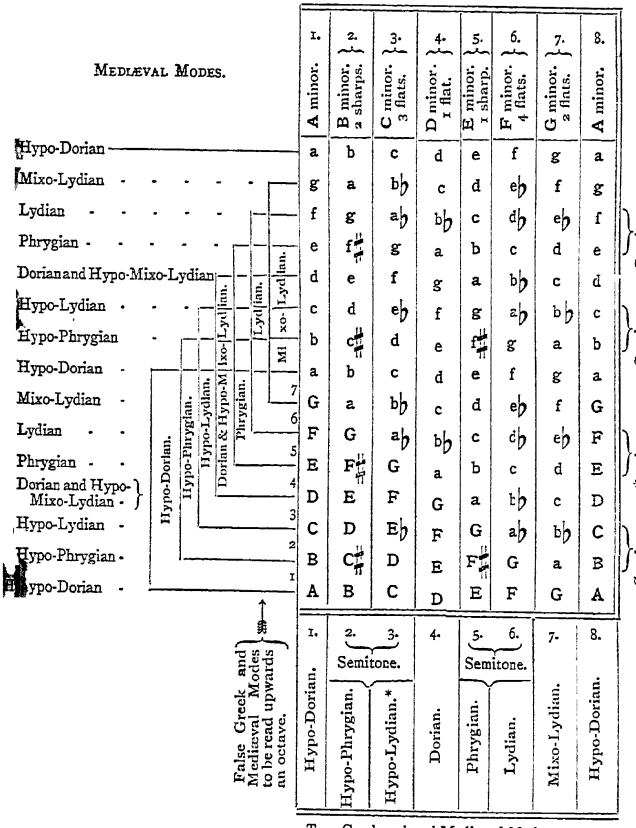
* Sir G. M. Macfarren, 'Six Lectures on Harmony,' pp. 10, 11. Dr. Riemann's 'Catechism of Music,' 89.

† Private letter from Mr. Rowbotham to the writer.

DIAGRAM F.

TABLE

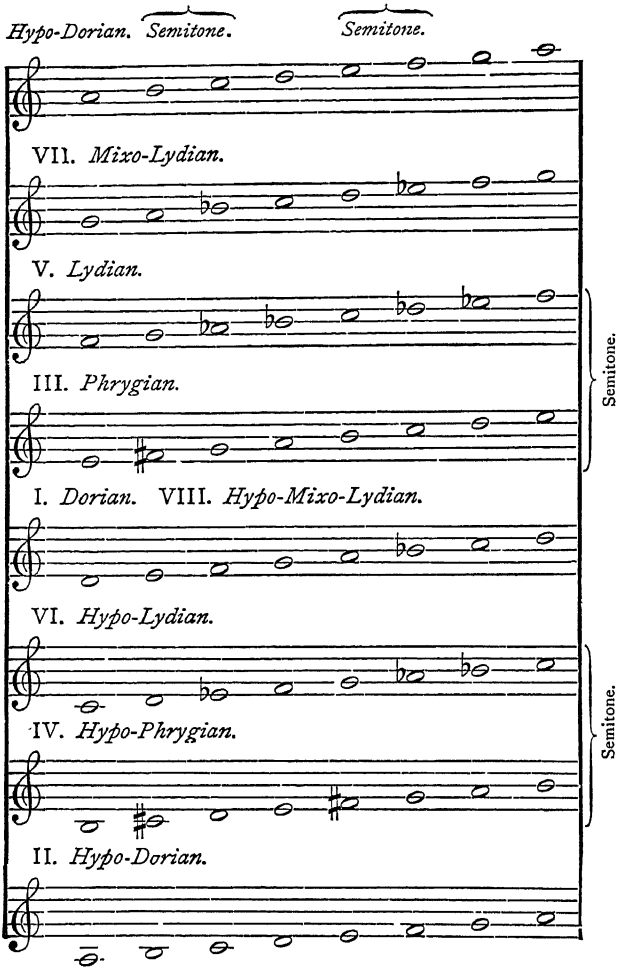
SHOWING THE DIFFERENCES BETWEEN THE MEDIÆVAL AND ANCIENT GREEK MODES, WITH THEIR TRANSPOSITIONS IN THE DIATONIC SCALE.



This diagram is given in duplicate—see diagram G—showing the notes in their positions on the lines and in the spaces to make the subject perfectly clear.

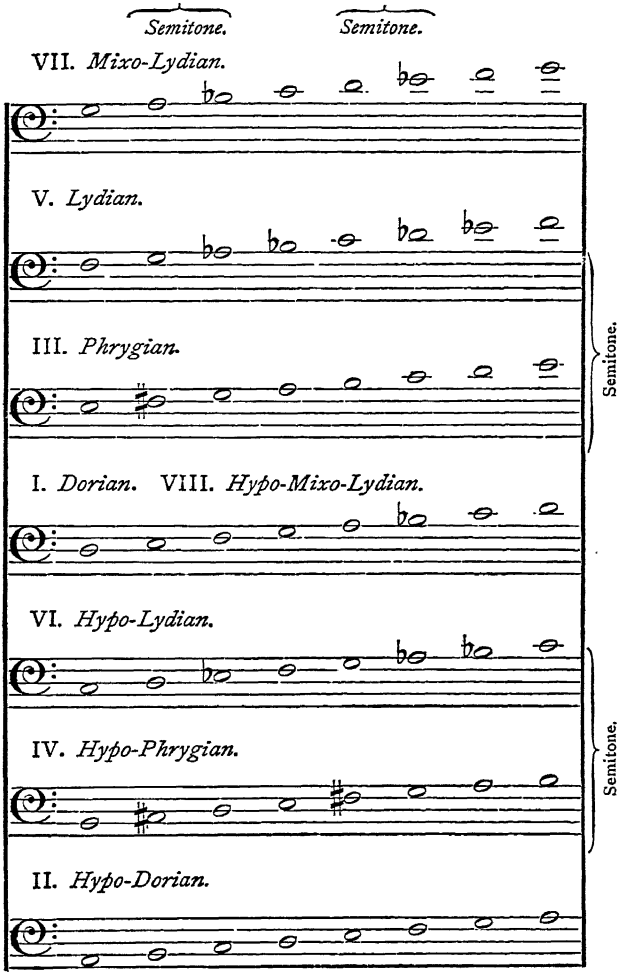
* See p. 32.

DIAGRAM G.



[This page should be read as if placed immediately over the following page.]

The true Greek and real Mediæval modes read left to right.



The true Greek and real Mediæval modes read left to right.

Hypo-Dorian mode in its normal position. Each of the octave scales or miscalled Gregorian modes starts from the note on the line immediately opposite to its name or number in the first column, and on reading upwards from this to its octave contains the scale in order of tones and semitones; the latter differ in each one.

Transposition is effected by taking any note to the right on the *same* line in which the name or number of the octave scale occurs, and reading up that column to the octave as before.

The key to which any octave scale strictly belongs—whether transposed or not—will be found to be (1) that of the note at either extreme end of the column, in diagram F, containing the note from which the original or transposition starts, and (2) in the bottom stave, p. 83, of the diagram G.

Supposing it is required to transpose the seventh or Mixo-Lydian mode a fourth higher, that is from G to C, on examining either diagram, and reading upwards from C, it will be seen to require B flat, to keep the semitones in their proper positions, and the extreme ends of the fourth column, diagram E, or the fourth note to the right on the lowest stave (p. 83), show that by this transposition the mode has been moved from the key of A minor into that of D minor, that is, from the true Hypo-Dorian into the true Dorian mode.

The true or real scales, out of which the mis-

called modes or octave scales are formed, that is the scale of A minor transposed into keys or different pitches, with the proper number of sharps and flats required, will be found on taking the note opposite the names of the modes as above, and reading *across* from left to right, or from the same note in the bottom line, and reading *upwards;* in either case, the key-note will appear at each end of the line or column, according to which way it is read in diagrams F and G.

The positions of the semitones are marked by brackets; those placed on the right of the diagrams denote where they fall when reading *upwards*, those at the top or bottom, when reading *across* from left to right.

The rule given on page 28 for finding the mese, or middle note of any true scale, and thence the key, applies with equal force to the mediæval modes; and it will be found that the note which has a semitone between the second and third intervals on both sides of it is the mese, and the true mode or key to which the portion of the mode really belongs—that is, from which it is formed—is the fourth note below such note.

The Greek names applied to the false or mediæval modes are very misleading, they were only introduced by Glareanus in the sixteenth century (compare 1 and 2, p. 35); in the true Greek modes they were used to represent the different pitches or

transpositions of the Hypo-Dorian mode, or key of A as we now call it. Instead of saying key of D or E and so on, the Greeks said Dorian and Phrygian mode, etc.

The 'Plainsong' chants to which the psalms are occasionally sung are frequently irregular, not ending as required on the final. The reason of this is that the antiphon, which followed as a sort of continuation, and always ended on the final, has been almost entirely suppressed.

In the modern grammars of Plainsong a melody is fancifully termed (1) perfect; (2) imperfect; (3) superfluous; or (4) mixed.

(1) When the melody includes the full octave of a mode, it is said to be perfect.

(2) When the melody does not range the full octave, imperfect.

(3) When the melody exceeds the octave, superfluous.

(4) When the melody includes or overlaps both the authentic and the plagal, it is known as mixed.

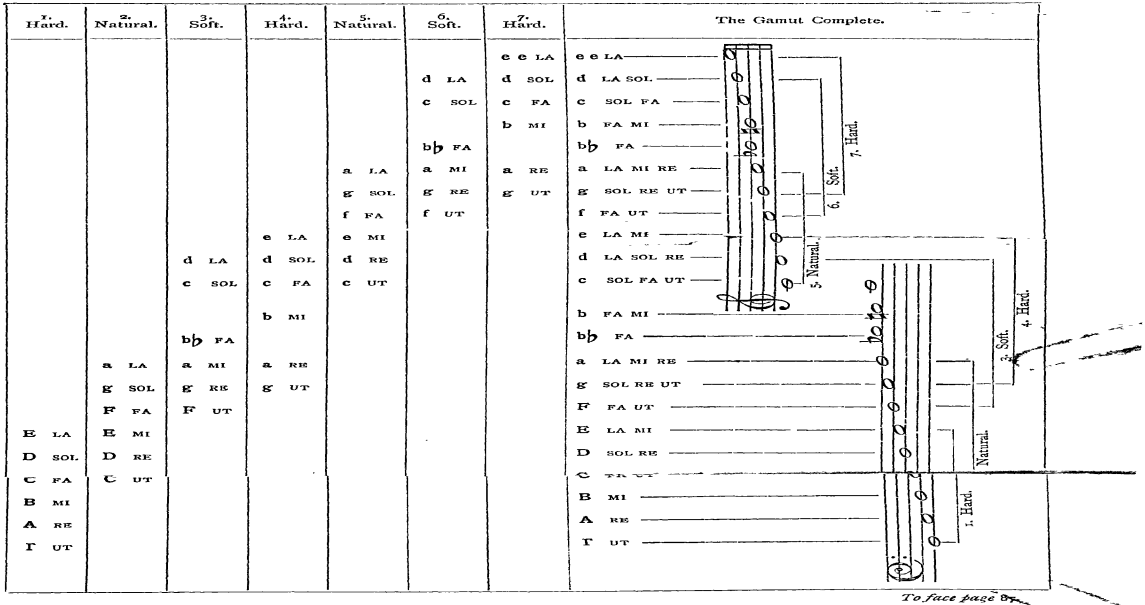
Should the melody include the tonic of the plagal as well as the authentic; or

Should the melody embrace a plagal with its octave above its final, it was known as *communis perfidis*.

It has been said that the authentics progress smoothly by intervals, whilst the plagals move by skips.

DIAGRAM J.

TABLE OF HEXACHORDS.



To face page 87.

Example.

D, la, sol, re =  D, sol, re =  and so on.

Before the eleventh century it is certain the number of modes was limited to eight. Glareanus, 1488-1563, in his *Dodecachordon*, treats of twelve.

The plagals, in a manner, corresponded to our so-called relative minor keys; they commenced a fourth below and ended on the tonic of the authentic mode. In the East the plagals are counted a fifth below their authentics.

The division into the so-called authentics and plagals was made by taking those four modes supposed to comprise a perfect fifth and a perfect fourth,—these were called the authentics; those four which were composed of a perfect fourth and a perfect fifth,—the plagals. The former were also known as the Harmonic division, and the latter as the Arithmetical. This division, as will be seen, is a purely fanciful one, for any one of the plagal modes, excepting the fourth,—Hypo-Phrygian—has a perfect fifth in each mode followed by a perfect fourth; and the same with the authentics, with the exception of the fifth—the Lydian mode,—all have a perfect fourth followed by a perfect fifth. The division, therefore, it is clear, is imaginary only.

In the Hypo-Phrygian mode only in mediæval music is the final approached by the interval of a semitone, and that always by descent and never by ascent.

The term dominant, in Mediæval music, was

used merely to describe the note which in the chants and hymns predominated, and had no other significance. In the so-called authentic modes, it was always the fifth note unless that note was B, when the sixth, C, was taken; in the plagal modes, it was always the third note below that of the corresponding authentic.

The supposed differences between the authentics and plagals were:

Authentics.	Plagals.
Formation of the octave by 5+4.	Formation of the octave by 4+5.
Final always the last note.	Final always the fourth note.

The first note of each octave of the authentics was the final of the plagals as well as of the authentics, but the last note also was the final in the authentics only.

An Irregular or Confinal mode was one that did not end on its final.

During the eighth and ninth centuries all intellectual development appears to have been stagnant; with the exception of a few rules on descant, in the works of Aurelianus and a few other writers at the end of the ninth century, little progress, if any, in the art of music was made, none is recorded. Early in the tenth century learning began to flourish all over Europe, especially in the arts and sciences; the study and consequent improvements made in music were soon manifested.

Although secular as well as sacred melodies were alike written in these octave scales or modes, it is not asserted that all secular music was restricted entirely to the limited compass and order of these modes.

The interval of the tritone, that is of the three whole tones in succession, which in the scale or mode of A minor occurs between the second and the sixth, that is F and B, was forbidden to be used, being too harsh for the ears of our forefathers; to obviate its occurrence, one of the extreme intervals forming the tritone was required to be raised or lowered a semitone, either by raising the F to F sharp, or by depressing B a semitone to B flat. This want does not appear to have been supplied until the tenth century, when, for the first time, the 'lyric semitone' B flat occurs, as has been previously noted in the account of the organ at Winchester, and no doubt was to be found on others of this and following centuries.

Hucbald, in the tenth century, in his system of tetrachords, which may or may not have been generally adopted in the tenth and eleventh centuries, has both the B flat and F sharp, but the writer is not aware of any composition of this period in which the latter was made use of.

Guido Aretino, in the eleventh century, introduces B flat in the third and sixth hexachords of

the system used by him. The systems of both Hucbald and Guido will be found explained in Chapter X.

The class of music which is now known as 'Plainsong,' can scarcely be of earlier date than the latter end of the eighth century, assuming in the absence of any other theory that it came into existence with the introduction of the organ, the common and general use of which may be taken to date from this early period, although used here and there, in isolated instances, some centuries before. The earliest compilation of 'Plainsong' of which there is any record is of the latter half of the eighth century, and to this period also is assigned the first mention of the scales in the form in which the 'Plainsong' is written; and further, that it was at this time the modes were cast into that form in which we know them.

There is not a tittle of evidence, nor a shred of information of any kind which even suggests that any alteration was intentionally made in the form or arrangement of the scale as finally settled by Ptolemy in the second century. The use of the organ as an accompaniment to the singing in its primitive form must have compelled the arranging of the vocal music in such a manner that it should conform to the exigences of the instrument, and we find that at the time the sharps and flats were added to the organ, then do the

also appear in the chants and hymn-tunes, or *vice versâ*, for the first time, which affords very strong corroborative evidence of the influence of the organ on the form and use of the mediæval octave scales.

It is also a significant fact, worthy of note in support of the above, that the Mediæval Regals or Portatives,* so called on account of the ease with which they could be carried about, were furnished with six, seven, or eight notes only, and it will be found on examination that within the compass of these limited diatonic scales nearly all, if not the whole of, the early chants and hymn-tunes were written.

The Positive was a small stationary organ.

* A Regal had reed pipes, a Portative had flue pipes.

CHAPTER IX.

USES OF THE ROMAN, MILANESE AND MOZARABIC LITURGIES, EIGHTH TO ELEVENTH CENTURIES.

THE use of Milan, there can be little doubt, differed somewhat from the use of Rome, not in the musical system—there being but one—but in the method or style of singing. The difference at the present day is striking. At Milan the ancient Greek rule of a note to a syllable appears to have been the custom, whilst at Rome, on the contrary, a string of notes was sung to a syllable, toying with it as long as the unfortunate singer's breath would hold out.

The adherents of the Roman use, if the writers quoted are to be believed, entertained the bitterest ill-feeling and rancorous animosity against those who upheld the use of Milan.

From the life of St. Eugenius, *c.* 775, we read* that till his time the use of Milan was more used by the Church than the use of Rome. Adrian I., Bishop of Rome, summoned a council for the

* Durandus, 'Rationale Divinorum Officiorum,' Lugd., 1574, lib. II., cap. ii., numb. 5. 'Div. Pin. Hist. Eccles.,' iii. 6.

purpose of decreeing the universal observance of the use of Rome. Eugenius arrived three days after the dissolution of the council; he, however, persuaded the bishop to recall the other prelates who had been present. Having re-assembled the council, it was the unanimous opinion of all present that the Milanese and Roman missals should be laid on the altar of St. Peter the Apostle, secured by the seals of most of the bishops, and the doors of the church shut, and that all persons should spend the night in prayer that God would show by some sign which of these missals He would choose to have used by the Church; and this was done in every respect. Accordingly in the morning, when they entered the church, they found the Roman missal torn to pieces and scattered here and there, but the Milanese missal opened and intact on the altar. This was taken by the sapient bishops as a sign of the rejection of the Milanese, which was ever to remain only in that church in which it was first instituted, whilst the Roman was accepted, the sign teaching them that as the pages were torn and cast asunder, so was the missal to be dispersed throughout the whole world.*

The Emperor Charles the Great, 743, died 814, at the instigation of, and being commissioned by, Adrian I., Bishop of Rome, and a synod of

* Hawkins, 'H. of M.,' i. 139.

Roman Catholic bishops—who passed a decree empowering him in the name of the Church to proceed through the length and breadth of Italy, and to utterly uproot everything, whether in music or ritual, which differed from the practice of the Church of Rome—posted to Milan, and seizing all the chant and hymn books containing the Milanese song, made bonfires of them in the middle of the city He also carried many with him across the Alps into Gaul, where they were made away with His agents were instructed to buy up every copy that could be found, or, in default of fair means, to take them by force Those of the clergy who refused to give up their books were to be put to the sword, and many, both of the higher and lower orders of the clergy, perished in this manner So thoroughly wholesale was the destruction, that when Eugenius visited Milan shortly after these events, with the express purpose of obtaining a copy of the Milanese chants, he could find but one missal in the whole town, and this had been secreted by a priest during the persecution in a cave outside the gates The same measures were taken throughout Lombardy, and in a few weeks the flourishing empire of the Milanese song was reduced to desolation, and the only fragment that escaped was, according to tradition, this very missal which Eugenius found

Charles the Great published a law, enjoining, with the severest penalties, that every clergyman in his empire should be perfectly acquainted with the music as sung in Rome, and be able to sing therein when required. In his 1st Capitulary, 788 et a. 789, or Legal Code of the Empire, no less than six statute laws exist, commanding the exclusive use of the Roman chant. Political motives, rather than any regard for art, were the strong reasons which led him to insist on such universal obedience; the doctrine of 'one Church, one empire' became clearer to him as his conquests increased in number, and at last developed into a great maxim of state.

The compulsion of the Roman modes upon Gallican use was, we know, one of the vexations resisted by the clergy of the latter nation under his rule.

The purity to which the Roman chant is reputed to have been restored by the zeal of Charles the Great, if it ever received any real bleaching, subsisted no longer in Gaul than to the time of Lewis the Debonnaire, his son and immediate heir, who succeeded to the empire of the West in 814; for in his reign the music of the Church was corrupted to that degree, that the Roman chant subsisted only in the memory of certain papists, who had been accustomed to the singing of it; for neither were there in Gaul, nor in Rome, any books

wherein it had been written. This strange circumstance is related by Symphosius Amalarius, or as he is more generally called, Amalarius Fortunatus, *c.* 814, d. 837, a principal ecclesiastic in the chapel of Lewis the Debonnaire, who himself was sent by Lewis to request of Gregory IV., 827-844, the then Bishop of Rome, a sufficient number of singers to instruct the people.* The Bishop answered, 'I have no singers of antiphons whom I can send to my son and lord the Emperor; the only remaining ones that we had, were sent from hence into Gaul with Walla, who was here on an embassy.' Amalarius then goes on to say, 'When I had been a long while affected with anxiety on account of the difference among the singers of antiphons in our province, and did not know what should be rejected and what retained, it pleased Him who is bountiful to all, to ease me of my scruples; for there having been found in the monastery of Corbie, in Picardy, four books, three whereof contained the nocturnal, and the other the diurnal office, by means of these books I discovered a great difference between the antiphons of our singers and those formerly in use. The books contained a multitude of responsaria and antiphons which they could not sing: among them I found one of those which were ordained by the apostolic Adrian. I knew that these books

* Hawkins, i. 141, 142.

were older than that which remained in the Roman city, and though in some respects better instituted, yet they stood in need of some corrections, which by the assistance of the Roman book might be made of them I therefore took the middle way, and corrected one by the other'

Notwithstanding this labour of Amalarius to reform the Roman chant, Nivers, 1683, asserts that the corruptions of music were then so great that it was very difficult to say where the Roman chant lay, and after all, the corrections of Amalarius Fortunatus were very ill received

A similar episode to that recorded on pp 92, 93, occurred in the year 1080, this time with the Mozarabic Church, the scene was in Spain Gregory VII, Bishop of Rome 1073-1085, exhorted, threatened, admonished, and entreated Sancius and Alphonso, the kings of Aragon and Castile, until, fatigued with the importunity of this restless pontiff, they consented to abolish the Gothic service in their churches, and to introduce that of Rome in its place Sancius was the first to submit to this innovation, and in the year 1080 his example was followed by Alphonso The methods which the nobles of Castile employed to decide the matter were very extraordinary First they chose two champions, who were to determine the controversy by single combat, the one fighting for the Rome Liturgy, and the other for

the Gothic service. The champion for the Gothic service proved the victor.

The fiery ordeal was next made use of to terminate the dispute. A brazier was lighted, into which both the Roman and Gothic liturgies were cast. The flames at once consumed that of Rome, while the Gothic remained unblemished, intact. Thus were the Gothic rites for the third time crowned with victory, and yet in spite of this the Liturgy of Rome was forced upon them, no doubt by the authority of the Bishop of Rome, and in this instance by the influence of Queen Constantia, who determined Alphonso in favour of the service according to the use of Rome.*

* Bona, 'De Rebus Liturg.,' lib. i., cap. ix., 216; Le Brun, loc. citat. 292; Jo. de Ferreras, 'Hist. de l'Espagne,' tom. iii., 237, 241, 246; Mosh., 'Eccl. Hist.,' ii. 341; Hawkins, 'H. of M.,' i. 141 note, Novello's ed.

CHAPTER X.

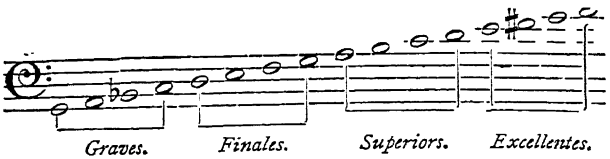
TETRACHORDAL AND HEXACHORDAL SYSTEMS OF HUCBALD AND GUIDO ARETINO—TENTH TO THIRTEENTH CENTURIES.

HUCBALD, Hubald, or Hugbald, a Benedictine monk of the convent of S. Amand sur l'Elnon, in the diocese of Tournay, in Flanders (born 840, died 930, and buried in the church of St. Peter in his own abbey), is reputed to have cast aside the cumbersome, quasi-intelligible and confusing system of neumes, or neumæ, which prevailed, and to have substituted a new method of notation.

This new system consisted in the arranging horizontally of any number of parallel lines, as the voice or instrument required. To the left, before each space formed by these lines, signs representing certain definite fixed sounds were placed. He arranged the scale as follows:

Graves =G A B♭ C
Finales =D E F g
G A B♭ C D E F g (*a*)

Superiors = a b c d
Excellentes = e f♯ g a
a b c d e f♯ g a (*b*) =



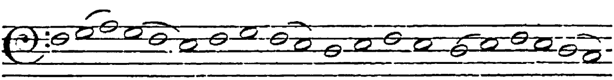
These four tetrachords were detached or disjointed, and the semitone in each occurred between the second and third intervals whether read upwards or downwards; the octaves (*a*) and (*b*) therefore do not agree as to the intervals; this difficulty, however, was obviated by placing the letters T = tone, and S = semitone, on the left before the space containing a note when it stood at the distance of a tone or semitone from the note immediately above it, showing clearly whether the voice was to proceed by the interval of a tone or a semitone. The words or syllables were written in the spaces or intervals = inter-valle, between the walls—only, and the letters T and S showed at a glance whether the interval from one note to another, reading upwards, was a tone or a semitone. The lines were not written on.*

* 'Mus. En.,' c. xiii.

EXAMPLE I.—ONE PART.

T (A)	a
T (G)	da / \ te / num \
T (F)	Lau / \ / mi \ de cœ \ / lo \
S (E)	\ do / \ e / \ li / \ rum
T (D)	\ cœlis / \ cœ / \ lau
T (C)	\

The above in modern notation:



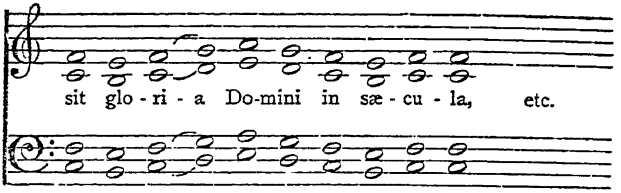
The number of lines were not limited, but were regulated by the extent of the scale used and number of parts required.

He used certain signs before the spaces in place of the letters inserted above for clearness.

EXAMPLE II.—FOUR PARTS.

T	Do \
T	/ mini \
T	sit ria / in \ cula, etc.
S	\ glo / Do \ sæ /
T	/ mini \
T	sit ria / in \ cula, etc.
S	\ glo / sæ /
T	Do \
T	/ mini \
T	sit ria / in \ cula, etc.
S	\ glo / Do \ sæ /
T	/ mini \
T	sit ria / in \ cula, etc.
S	\ glo / sæ /
T	

The above in modern notation:



For the graves he used the letter F with its arms on the left side—these were turned up or down for the notes G A C, whilst a form of the letter N was used for the B flat.

For the finales the arms of the letter F were on the right side, and were differently turned up or down for D E G; a plain stroke signified F.

For the superiors the letter F was used, as for the graves, but upside down; whilst for the excellentes the F's were similar to the finales upside down, the G being represented by X.*

Hucbald was undoubtedly the first to make use of a stave of parallel lines, and by the adoption of a sufficient number, as in example II., was enabled to write out his parts in score, of which the earliest instance known is his Organum, or rudimentary harmony, described in chapter xii.

'It is obvious that Hucbald's scale was not what the ecclesiastical or "Gregorian" scale is com-

* This system is fully described in his 'Musica Enchiriadis'; Lib. Corp. Chris., Cambridge, No. cclx.

monly supposed and said to have been He made all his fourths to have the semitone between the second and third notes, as in D E F G Hucbald's text is clear enough to anyone not prepossessed with the immutability of "Gregorian" music, for he says repeatedly that his tetrachords have the same succession of intervals whether taken up or down '*

It will be noted that we now find, for the first time, the semitone has been moved up a degree from the place it occupied in the Greek scales and tetrachords, where it always occupied the first place, for we have seen† that the proslambanomenos, though used, was not counted as a part of the scale—it now is

The position of the semitone is of the utmost importance It has passed through three stages in the history of the scale

1st	with the semitone in the	1st place = B C D E F G A
2nd		2nd place = G A B♭ C D E F G
3rd		3rd place = C D E F G A B C

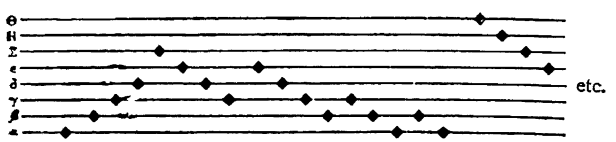
Hucbald's tetrachordal or four-note system was in vogue, in all probability, from the ninth to the eleventh centuries

* Stainer and Barrett, 'Dict. of Musical Terms' Art 'Notation

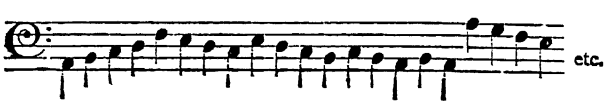
† P 26

About the same time that Hucbald's system of notation came in, another and somewhat similar one appeared, described by Vincentio Galilei* in 1581, and afterwards by Pater Athanasius Kircher, in which the spaces were left vacant, and the notes were indicated by dots, or points, written on the lines only, the actual degrees or pitches of the scale being determined by Greek letters placed before the stave on the left side:

EXAMPLE III.



The same in modern notation is:



The combination of these two systems,† with a limitation of the number of lines and other slight modifications, produced ultimately the system now in use.

Guido Aretino, or d'Arezzo, a monk in the Benedictine convent of Pomposa, between Ferrara and Ravenna (born at Apezzio *circa* 990, died 1050), is the reputed author of these four works:‡

* 'Dialago della Musica,' p. 37.

† See example from the Monastery of Vallambrosa, Hawkins, 158.

‡ 'Proceedings of the Musical Association,' 1878-1879, p. 79.

(1) Micrologus, *c.* 1024;

(2) An Antiphonary, *c.* 1024;

(3) Letter to Monk Michael;

(4) A small tract entitled 'De sex motibus vocum a si invicem et divisione earum.'

He unquestionably did much to advance the art of music, both in theory and in practice.

He did not invent:

(1) The staff;

(2) The shape of the pointed notes;

(3) The placing of the signs or notes between as well as on the lines;

(4) The hexachord;

(5) The monochord;

(6) The so-called Guidonian hand;

(7) The use of the syllables UT, RE, MI, etc.

(8) The two coloured lines.

The late Professor Sir F. A. G. Ouseley, Bart., Mus. Doc., truly said:* 'They would give the world at large to suppose he well-nigh revolutionized the art of music, not only by the excellent schools of music which he undoubtedly did set up, but also by several inventions, such as the system of hexachords, principles of solmization, Guidonian hand, of all of which he is not the originator.'

Fetis, in his 'Biographie des Musiciens,' proves from Guido's own words that none of these inventions were his in reality, though many of them

* 'Proceedings of the Musical Association,' 1878-1879 p. 79.

were adopted by him, and all were discoveries of his time.*

The syllables UT, RE, MI, FA, SOL, LA, SI, are said to have been taken from the first lines of a Latin hymn to Saint John the Baptist:

'UT queant laxis, REsonare fibris
MIra gestorum FAmuli tuorum
SOLve polluti LAbii reatum.
Sancte Iohannes.'

The last syllable, SI, is generally supposed to have been added by Ericus Puteamus, a Fleming, *circa* 1600.

The hexachordal system, erroneously ascribed to Guido, was arranged as on page ~~108~~ 37, in diagram J, with the solmization or syllables UT, RE, MI, FA, SOL, LA apportioned to the respective notes. The position on the scale of any note could be at once determined by the solmization shown on diagram J.

This system is built up of seven hexachords: three upon G, the hard = 1, 4, 7, two upon C, the natural = 2 and 5, and two upon F, the soft = 3 and 6. The position of the semitone in each, whether read upwards or downwards, is always between the 3rd and 4th instead of the 2nd and 3rd as in Hucbald's tetrachordal system; having been moved a degree higher, i.e., to the third place, it thus always fell between MI and FA.

* 'Proceedings of Musical Association,' 1878-1879, p. 79.

B occurs in the 1st, 4th and 7th hexachords above, and was called *b* durus.

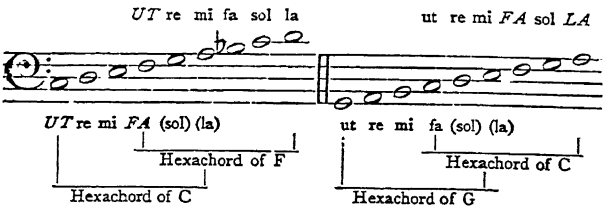
B♭ occurs in the 3rd and 6th hexachords above, and was called *b* molle.

These hexachords embraced a compass of two and a half octaves. From the sign Γ (gamma) being placed* below the old proslambanomenos it was called 'gamma-UT,' hence the term 'gamut.' The first eight letters were written in capitals, the next in italics, and the remainder in smaller italics. If a song or melody was limited to the extent of any one hexachord, the solmization—that is, adapting the syllables UT, RE, etc., to the sounds required—was clear and apparent. But if this limit was exceeded, and the melody included part of another hexachord, a change in the syllables—'mutation,' as it was termed—took place.

Mutation was only possible from C to F, F to C, or C to G, G to C, owing to the presence of B♭ in the third or F hexachord, and B♮ in the fourth or G hexachord.

The mutation usually took place at 're' in ascending, and 'la' in descending. At the point of mutation—that is, at the junction of the two hexachords—the syllables changed from the former to the latter; examples:—

* Aristides Quintilianus uses it as early as 110 A.D., and S. Odo in the tenth century. *Mus. Times*, xxx., p. 77.



The pitch of any note could be immediately known by a knowledge of the formation of the hexachords; for instance if [G] sol, re, ut, was the note, the pitch of which was required, it was obvious, from the diagram J, that it could only be G in the fourth hexachord; the size and form of the letter also determined the pitch and number of the hexachord to which it belonged. The only place where any difficulty might arise was with regard to FA UT, which in the second hexachord = C, and in the third and sixth = F.

The use of the musical hand appears to have been to illustrate the hexachords with the mutations.

The hexachordal system, clumsy as it is, was a great advance on the systems up to that time known, and most successful in the elucidation of the mediæval modes so long as they continued in general use. It was absolutely impossible in these modes to show, with anything like clearness or accuracy, the proper answer to a given subject in a real fugue excepting by this solmization, in which it was requisite to make the answer a strict one,

that the solmization in one hexachord should exactly correspond with the subject in another—otherwise it was no true answer, but merely 'limitation'; UT should answer UT, RE RE, in whatever hexachord is selected.

The system of hexachords continued from the commencement of the eleventh to the sixteenth century, when our present tonal system of the octave, through the influence of the chord of the dominant seventh, came into existence.

In the tenth century we first find the use of a line, on, above, and below which the neumæ are written. Coussemaker* gives a specimen, 'Ode d'Horace,' from the library of Montpellier, MS. 425: the line is black. He also gives a specimen† in two parts, each having a distinct line—the two are divided by a roughly-drawn line with a sort of leaf ornament at the left end. The MS. is 1139 in the National Library of Paris, and is given as of the eleventh century. He gives a specimen,‡ from a MS. in the same Library, of the thirteenth century. See also 'Musical Notation of the Middle Ages.'§

One of the earliest known instances of the use of the red and yellow lines is given by Cousse-

* 'Hist. de l'Harmonie du Moyen Age,' Plate X.
† On Plate XXIII.
‡ Plate XXVI.
§ Plain-Song and Mediæval Music Society's publications, Plate XII.

maker in the above work,* the red line has F before it, and the yellow C on the left The neumæ are written on, above, between and below the two lines, the MS is given as A 47, 'Archives du Chaptre de Padoue,' twelfth century A specimen, No 11, is given in the 'Mus Not Middle Ages,'† of the twelfth and thirteenth centuries two lines black, one red and one yellow, in all four During the twelfth century the stave of four lines, as used for writing the so-called 'Gregorian' notation at the present day, had become quite common—numerous examples could be given See Coussemaker, in work quoted above,‡ also 'Musical Notation of the Middle Ages'§ A stave of twelve lines was also in use at this period

It is somewhat inexplicable that such an erroneous statement as to the notation of the 'Winchester Troparium,' given on pp 469 and 470 in Sir George Grove's 'Dictionary of Music and Musicians,' vol II, should have appeared The same error was also made by the late Mr William Chappell, who was generally so very accurate, at a meeting of the Musical Association held in London, March 3, 1879, by Sir G Macfarren, and by others A specimen of this MS, 775

* Plate XXXVIII

† See Plate XVI, 'Pal Mus,' vol II, No 11, Plain-Song and Mediæval Music Society's publications

‡ Plates XXIV, XXV, XXVII, XXVIII, XXIX, XXX.

§ Plates IX, XI

Bod. Lib., is given correctly in 'The Musical Notation of the Middle Ages.'*

The four lines, in the twelfth and thirteenth centuries, were usually red. This was the transitional period of the neumæ to the square-shaped notes; the process was known as 'quadrating,' or 'squaring.'†

John Cotton, a monk of Tours—the first to recommend the use of contrary motion—writing in 1047, expresses a doubt similar to that of St. Isidore, *c.* 636, as to the interpretation of the neumæ of the Middle Ages. He says: 'The same marks which Master Trudo sang as *thirds* were sung as *fourths* by Master Albinus; and Master Salomo (in another place) even asserts *fifths* to be the notes meant; so that at last there were as many methods of singing as teachers of the art.'

The necessity of a clef, or key, to show what the notes on the lines and in the spaces represented, was supplied as early as the twelfth century. Two clefs, one 𝄡 representing C and the other 𝄢 F, were adopted, and the notes that were written on the lines or in the spaces, on or before which either the one or the other clef was placed, corresponded to that note. To obviate the use of ledger lines, these clefs were moved up or down the staff as required,

* Plain-Song and Mediæval Music Society's publications, Plate II.

† *Ibid.*, Plate XIV.

and provided for all the transpositions then possible. In fact, excepting to the mode a fourth above or fifth below, by the use of B♭ at the signature, transposition was an impossibility, so also was the alteration of any individual note, other than by B♭, until the introduction of sharps and flats in the next century.

A sharp or flat at the signature of any music indicates such to be a transposition either from the key of C major or of A minor.

As early as 1240 we find an Englishman, John of Fornsete, in Norfolk, a monk at Reading, not only using thirds, sixths, and passing notes, but a complete specimen of counterpoint in six parts, including the first strict canon — in the unison of one in four, with a pes, foot, or burden for two parts—known, a fugue, and a catch—all this in a rota 'Sumer is icumen in,' which is the most ancient and advanced illustration of harmony, as now understood, extant. The notes are black. The red note, the white or open note, and time mark are absent, though all of these were in use in the following century. This is the first English song, with or without music, and is probably not less than two centuries older than any similar composition out of England before the fifteenth century. A facsimile will be found in Chappell's 'Popular Music of Olden Times.'*

* Vol. i., pl. 1.

Guido says: 'A neumæ written without a letter or coloured line, is as useless as a well with plenty of water but without a rope to draw it by.'*

Gabriel Nivers, *circa* 1683, assigns as one of the causes of the corruption of the Cantus Gregorianus, the uncertainty of the method of notation prior to Guido's time, it being very difficult to comprehend and still more to retain.

Athanasius Kircher, *circa* 1602-1680, mentioning the same fact, says it was impossible to ascertain the difference between the tone and semitone, which is in effect saying that the whole contrivance was inartificial, productive of error, and of very little worth.†

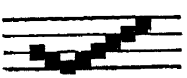
* 'Epist. Guidonis ad Mich. Mon.'
† Hawkins, 'H. of M.,' i. 1693.

CHAPTER XI.

MEASURABLE MUSIC. ELEVENTH TO SIXTEENTH CENTURIES.

STRICT time, as now observed, was quite unknown in the music of the Middle Ages, anterior to the eleventh century.

When a series of notes strung together, so often found in ancient manuscripts, occurred, somewhat after the manner of a modern run or cadenza, they were called 'Notæ Ligatæ,' or bound notes, and were sung, it is conjectured, somewhat quickly but smoothly, the accent usually falling on the highest notes:



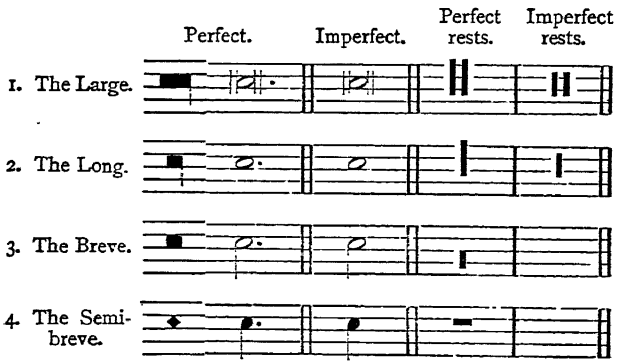
The mediæval 'modes' were purely diatonic. The first sharp or flat found is B♭, which, as shown in Chapter VI., appeared about the tenth century, and was the earliest demanded whilst the key of A minor was the only one in use, to obviate the occurrence of the tritone, or sequence of the three whole tones between F and B. A writer

has stated it occurs in a manuscript at the Monastery of St. Gaul as early as A.D. 790,* but this is most problematical and lacks corroboration; the weight of evidence being strongly against its use before the tenth century.

The word 'tone' is very often erroneously and synonymously used for and with the same meaning as the word 'mode,' with which it must not be confounded. A tone is, strictly speaking, an interval, and not a collection of intervals, whereas a mode is.

Franco, a monk of Cologne, *circa* 1047-1083, wrote the first book† on measured or timed music; he does not, however, lay any claim to be the originator of the system he explains.

To represent the different time-values, he made use of four signs:‡



* Codex S. Gallensis, 546.
† 'Ars Musica Mensurabili;' Bod. Lib.
‡ *Ibid.*, chap. iv.

Triple time, as emblematical of the Blessed Trinity, was 'perfect'; common time, 'imperfect.'*

PERFECT.

A perfect large = three longs = nine breves = twenty-seven semibreves.

A perfect long = three breves = nine semibreves.

A perfect breve = three semibreves.

IMPERFECT.

An imperfect large = two longs = four breves = eight semibreves.

An imperfect long = two breves = four semibreves.

An imperfect breve = two semibreves.

The semibreve being the lowest sign, and of the smallest value, could not be divided, nor could the large when used in the tenor of a *cantus firmus*.

A. Any single note, or any three of the same denomination, or their equivalents in immediate succession, were perfect, and retained their full value—equivalents counting as notes.

B. Two or more larges, longs, or three semibreves in succession, were always perfect, and retained their full value each, of three notes of the next in order.

* 'Ars Musica Mensurabili,' chap. iv.

C. When two breves or semibreves occurred in succession, the last one received double the value of the first one, ■■=■┣ and these were perfect.

D. A note immediately preceded or followed by one next in order of diminution, lost a third of its value, and became imperfect—┣■ ┣■=┣ ┣ ┣ instead of ┣ ┣ ┣ ┣, and so on.*

Five Modes or Measures of Rhythm.

1. ┣ ┣	= 𝅜. 𝅜.	= ▬ ▬	by Rule B above.
2. ■ ┣	= 𝅗𝅥 𝅜	= ∪ ▬	,, D ,,
3. ┣ | ■ ■	= 𝅜·𝅗𝅥 𝅜	= ▬ ∪ ∪	,, C ,,
4. ■ ■ | ┣	= 𝅗𝅥 𝅜 𝅜·	= ∪ ∪ ▬	,, C ,,
5.† ■ ◆	= 𝅗𝅥 𝅗𝅥	= ▬ ∪	,, D ,,

Note 3 and 4 above. To signify a large or long was to be treated independently of the next note, and to divide groups of similar notes in succession, as: ■ ■ | ■ ■ | ■ ■ ■ ■ ■ | ■ ■ ■ | ■ and so on, a short stroke or dot was used.

Example.

■ ■ ■ ■ ■ ■ written = ┣ ┣ ┣ ┣ ┣ | 𝅜 as sung = without divisio modi.

■ | ■ ■ | ■ ■ | ■ written = ┣· | ┣ 𝅜 | ┣ 𝅜 | ┣· as sung = with divisio modi = | or ·

* 'Ars Musica Mensurabili,' chap. v.

† The rota 'Sumer is icumen in,' is phrased in this mood, and written on a stave as adopted by Franco.

The method of singing any measure, or combination of measures, was thus easily determined.

Ligatures.

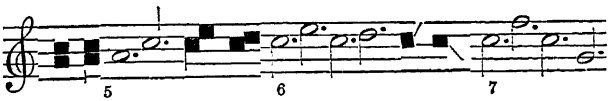
When ascending the first note counted as a breve[1]; if it had a tail, a long[2]; when descending, the first note counted as a long[3]; if it had a tail on the left, a breve[4].

If the first note had a tail on the left downwards it counted as a breve, upwards it counted as a semibreve.

Examples.

When the last note was placed immediately over the last note but one,[5] it counted as a long; as with the podatus, which embraced the intervals of a third, fourth, fifth, etc. The lowest note was sung first, ascending to the interval above. When the last note was placed at the side of the last note but one,[6] as a breve; when the last note was placed in obliquity to the last note but one,[7] it received the value of a breve, unless it had a tail descending on the right side, when it equalled a long.

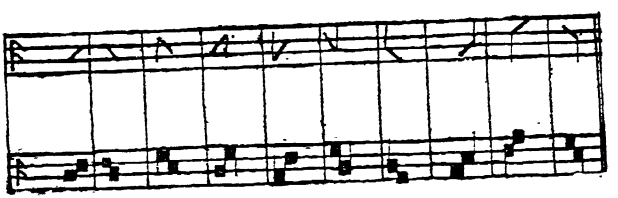
Examples.



All intervening notes were reckoned breves, unless one had a tail ascending on the left side, when it was counted as a semibreve. Larges always retained their full value.

Obliquity.

This was a sort of shorthand in which a dash or stroke was employed to represent two notes; the line or space where the ends of the dash or stroke began and ended corresponded to the two notes signified, the intervening notes being omitted; they seldom exceeded the compass of a



fourth. Of course, if the last note was required to be anything else than a breve, obliquity could not be used.

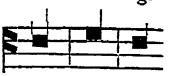
A syllable noted with a long ▀, wherever

placed, received an accent, and was sustained longer than a breve.

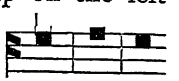
*Slurs and Appogiaturas.**

The eptaphonus with the tail up on the right side had the value of a long

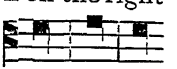
Written. Sung.



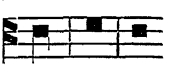
The eptaphonus with the tail up on the left side had the value of a breve



The cephalicus with the tail down on the right side had the value of a long



The cephalicus with the tail down on the left side had the value of a breve



The appoggiatura = half the value of the note it preceded, as is the present custom.

POINTS.

Perfection—a dot placed immediately after, and level with the middle of a note rendered imperfect by position, restored the note to perfection.

Ultimately the dot was transposed to the lesser prolation and was placed immediately after a note, and is still so used, to increase a note by half its value—it was known as the point of per-

* 'Ars Musica Mensurabili,' chap. vi.

fection. The modern pause sign 𝄐 is the old sign of greater prolation inverted.

Imperfection, or *Division*—the dot was placed somewhat high up, above and after a note. It was always placed between one of two short notes, on a higher level when the first was preceded, and the last followed, by a long note. It was only used in ternary measure, i.e., in triple or perfect time, serving, as does the modern bar, to show and maintain the threefold measure, and to prevent any confusion.

Alteration, or *Duplication*—a dot placed higher than in perfection and lower than in imperfection; it did not affect the note immediately before it, but it doubled in value the last of the two short ones that followed it. It only occurred before the first of two short notes which were followed by a longer one, or which were placed between two longer ones in perfect time.

Augmentation — a dot placed after a note lengthened it by one-half, as at the present time.

A stroke through a time sign denotes diminution in value or length, and consequently increase in pace.

The points of

Imperfection,
Alteration,
Augmentation,

were only used in ternary measure, and were at a later period succeeded by the use of red, black, and open notes.

Franco divided the intervals in this manner

Concords, or Consonances

Unison, as A to A Octave, as A to a	Perfect
Major third, as A to C♯ Minor third, as A to C	Imperfect
Perfect fourth, as A to D Perfect fifth, as A to E	Medial

Discords, or Dissonances

Minor second, as A to B♭ Augmented fourth, as A to D♯ Augmented fifth, as A to E♯ Major seventh, as A to G♯ Minor seventh, A to G	Perfect
Major sixth, as A to F♯ Minor sixth, as A to F	Imperfect

Unless this system, probably in use as late as the sixteenth or seventeenth centuries, is thoroughly mastered and understood, it is impossible to translate the music of the twelfth, thirteenth, fourteenth, and fifteenth centuries, into modern notation

Marchetto de Padova, in the thirteenth century, *c* 1274, was the first to enunciate the fundamental law of euphony, that every dissonance should resolve itself into a consonance

The minim = minimum, the least, as maxima = the long, or greatest, is said to have been invented in the thirteenth century, by Philippus de Vitriaco, Bishop of Meaux (died 1360), or by Johannes de

Muris (1300-1370) in the fourteenth century—it is not known for certain by which. Its introduction rendered a greater extension of rhythmical emphasis possible, though the new notes were subject to the same rules as the old ones.

The semi-minima, which we now call the crotchet, because of the hook which it once possessed, soon followed the minim: as did the lesser semi-minima, also called the fusa, or croma—in English, the quaver—from the fact that this note was only employed in embellishments, as the quilisma or quaver of the voice; the fusa was called 'crome,' inasmuch as it represented the amount of the proportional loss sustained by a note of superior value when it was coloured, in writing.

The red note, when used with a black one, lost a third of its value.

About the middle of the fourteenth century, *circa* 1378, the red notes disappeared, but the names remained; these were succeeded by white hollow, or outline notes, which were used with the black ones. They were subject to the same rules as the red notes had been; that is, they lost a third of their value when perfect, and a fourth when imperfect.* They were always written on a stave of five lines.

* *Musical Times*, vol. xxix., 1882.

Time signatures, by whom invented is not known, now began to appear.

Mode—Time—Prolation.

Mode regulated the proportion between the large and long, and the long and breve:

				Notation.
The Greater Mode	Perfect / Imperfect	made the Large = 3/2	Longs.	III O = 3 rests and circle. / III C = 3 small rests and semicircle.
The Lesser Mode	Perfect / Imperfect	made the Long = 3/2	Breves.	II O = 2 rests and circle. / II C = 2 small rests and semicircle.

Time regulated the proportion between the breve and semibreve:

			Notation.
Perfect Time / Imperfect Time	made the Breve = 3/2	Semibreves	O O3 ϛ3. / C O2 ϛ2.

Prolation regulated the proportion between the semibreve and minim:

			Notation.
The Greater Prolation / The Lesser Prolation	made the Semibreve = 3/2	Minims.	⊙ (· Φ3. / O (Φ.

The notation used for the above may be summed up as follows:

(1) Rests = relations between the large, long, and breve.

(2) Circle with or without figure 3, the point · = the sign of perfection.

(3) Circle or semicircle, with or without figure 2, the stroke | = the sign of imperfection.

(4) (|), (|, (|), (|,), ·), alla breve, alla capella = diminution of the value of the notes to half their value.

(5) (‖), (‖ = diminution of the value of the notes to a fourth their value

(6) ○, (= either perfect time or the greater pro lation when placed after a note, perfect by time signature but imperfect by position, the point sufficing to complete the beat This is the only way it differed from the point of augmentation

Some attribute to Walter Odington, a Benedictine monk, of Evesham, in Worcestershire, an Englishman (living 1280-1316), the naming of the notes, they are mentioned in a treatise written by him in 1220 There were probably two of this name

The first book printed in England with musical notes was the 'Polychronicon' of Ralph Higden, by John de Terrissa, Wynkyn de Worde, London, 1495, and the earliest collection, twenty English songs by Cornysh, Taverner, Cowper, Fairfax, and others, by Wynkyn de Worde, London, 1530 Both are in the British Museum Both contain a clef and open notes on a stave of five lines One of the earliest books containing engraved music, is to be seen in one of the cases in the British Museum The music is written on four lines, with time-signature, clefs, and round-shaped semibreves, minims, crotchets, quavers, and semiquavers Its title is 'Breve et facile maniera

d' essercitarsi ad agni scholaro, etc.,' by G. L. Conforti; printed at Rome, *c.* 1590.

The first book printed with round notes was 'Liber primus Missarum Carpentras,'* 1532; printed by Jean de Channay, Avignon. They do not again appear for 150 years.

The first printed notes were open. Square notes were gradually superseded in England by round ones, *c.* 1700.

* Eliazar Genet, born *c.* 1500, Chapel Master to the Bishop of Rome, *c.* 1518.

CHAPTER XII.

POLYPHONIC MUSIC.

ORGANUM, FABURDON, AND COUNTERPOINT.

Antiphony.

ANTIPHONY, or the alternate responsive singing of two choirs in unison or octaves, there can be little doubt eventually suggested the simultaneous singing of the two parts, the precursor of modern Harmony.

The first known definition of Harmony is that of St. Isidore of Seville in the seventh century: 'Modulatis vocis, et concordantia plurimorum sonorum, et coaptatis.'

Organum.

Organum was the name given to an added part sung a fourth or a fifth below a given melody, called the Canto firmo or vox principalis.

Descantus.

Descant or Discant signified the art of singing an improvised melody to a fixed song. Morley* speaks of it as 'a word usurped of the musitians

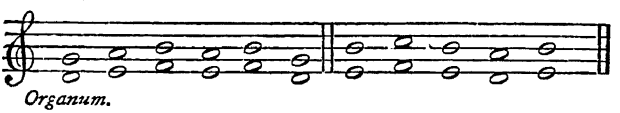
* Morley, 'Introduction,' p. 70.

in divers significations — that it is generally taken for singing a part extempore, on a playne-song; so that when a man talketh of a descanter, it must be one that can extempore sing a part upon a playne-song.' The singing of the added part.

Diaphony.

Diaphony—δίς, twice; φωνέω—I sound, was a term used to express the combination of the two parts—the Canto firmo and the Organum or added part, taken together.

Diaphony.



Organum was known at least as early as the ninth century; for Scotus Erigena, who died about 880, speaks of it in his treatise 'De Divina Natura.'*

Hucbald in the tenth century describes three kinds of symphony or harmony, in the fourth, fifth, and octave:

(1) Diatessaron symphonia = Fourth.
(2) Diapente symphonia = Fifth.
(3) Diapason symphonia = Octave.

He occasionally made use of seconds and thirds, but preferred the octave to other combinations.

* Grove's 'Dictionary of Music and Musicians,' ii. 608.

True organum comprised fourths and fifths only, though the unison and octave were used.

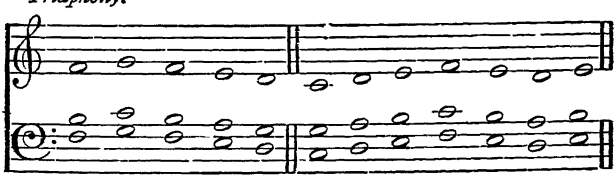
He introduced oblique motion on the principle that 'one voice may be permitted to move freely in any direction, so long as the other remains upon the same note'; an exact description of the modern 'pedal-point.'

Organum was of three kinds:

(1) Diaphony =in two parts.
(2) Triphonia or Triaphony =in three parts.
(3) Tetraphonia or Tetraphony=in four parts.

In Triphonia, the organum was doubled in the octave above, being both a fifth below and a fourth above, or a fourth below and a fifth above the Canto firmo; it was also known as Organum duplicatum, or triplum=treble.

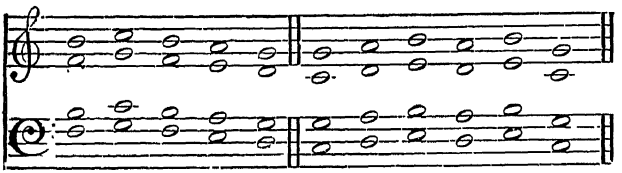
Triaphony.



In Tetraphony, both the Organum and the Canto firmo were doubled in the octave above, forming a series of fifths-fourths-fifths, or fourths-fifths-fourths.

Hucbald ruled that on whatever interval or

Tetraphony.



intervals the Organum began, such sequence should be rigidly adhered to throughout.

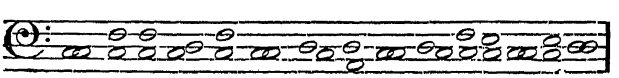
The above has by some historians been termed parallel-organum, distinguishing it from that kind which admitted major seconds and major and minor thirds for the purpose of making the fourths move more smoothly. Two thirds were not to appear in succession.

Guido objected to the sequence of five-four and four-five in Triphonia, caused by doubling the Organum in the octave above, and ruled that these two parts should both be sung below the Canto firmo, or by a new method, in which he contrived to keep the parts nearer together as they approached the end of the melody. This device he called

OCCURSUS,

the intervals employed being the unison, seconds, thirds, and fourths.

Occursus.



John Cotton, *c.* 1047-1083, introduced contrary motion for the first time between the Organum and Canto firmo.

De Coussemaker cites MS. treatises published subsequently to that of John Cotton, and before the end of the twelfth century; he gives the text, translation into French, and an analysis, from which it seems that during that period the

(1) Use of consecutive fifths had departed.

(2) Thirds and sixths were used as quasi-consonances occasionally.

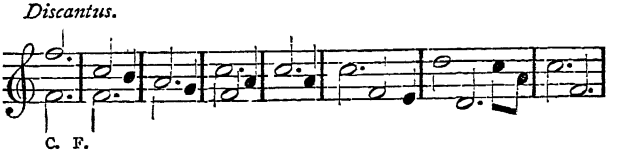
(3) Passing notes appeared.

(4) The minor third was used at the end of a melody.

(5) Contrary motion prevailed.

The following example of Discantus of the end of the eleventh or the beginning of the twelfth century is given on the authority of Dr. Riemann.* Every note in the Canto firmo has the value of a long of 3 beats—the real Cantus planus; and the Discantus adds to each a long of 2 beats, followed by a breve.

Discantus.



* 'Catechism of Musical History,' pp. 24, 25; Augener and Co.

A Bishop of St. David's wrote in the twelfth century: 'The Britons do not sing their tunes in unison, like the inhabitants of other countries, but in different parts.'*

Adam de Hale—a Trouvère, b. 1240—was the composer of the first comic opera, 'Robin Hood and Maid Marian.'†

Faburdon, Faux Bourdon, or False Bourdon.

Faburdon was in use at two different periods. In its earliest form it consisted in a single note, burden, or drone being held on throughout as a bass to the melody or Canto firmo. It probably preceded Diaphony, which was certainly an advance on this rugged attempt at harmony. About the fourteenth century the introduction of the previously forbidden intervals, the thirds and sixths, gave rise to the term False Bourdon also, though with a different meaning. Any slow psalm tune, written chiefly or entirely in the first order of Counterpoint, was called Faburdon.

An English MS. by a certain Chilston, preserved in the 'Manuscript of Waltham Holy Cross,'‡ probably of the fourteenth century, gives rules

* 'History of Music,' Nauman i., ed. by Ouseley.

† Hullah's 'History of Modern Music,' pp. 41, 42, gives transcript.

‡ Hawkins, 'H. of M.,' i., 256, Novello's ed.

and directions 'for the sight of descant . . . and of Faburdon.'

Hawkins gives an example, and, quoting Morley, adds after it: 'And though this be prikt a third above the plainsong, yet it was alwaies sung under the plainsong.'

Imitation and Inversion occur in a three-part song by one Busnois, who lived *c.* 1450, and died 1480.

Counterpoint.

The word Counterpoint in place of Descant first occurs in the writings of Jean de Muris, one of the greatest musical theorists of the fourteenth century, and of Gerson, Chancellor of Notre Dame, *c.* 1408. Counterpoint, Punctus, Contra-punctum, nota contra notam = really, point *with* point, note *with* note, was, strictly speaking, written Descant, and was also known as prick-song, owing to the harmony or parts forming it being written or pricked down, whereas in Descant it was the extemporaneous and spontaneous effort of the singer only.

England, as with all advances in the science and art of music, was to the fore in that of Counterpoint. John Tinctor, a Netherlander, born 1434 or 1435, who died *c.* 1520, wrote respecting Counterpoint: 'Of this new art, as I may call it, the fountain and source is said to have

been among the English, of whom Dunstable* was the chief.'

In the fifteenth century England, as the head of a school, preceded both the Netherlanders and Burgundians. During the wars of the Roses, music in England, like the other arts, suffered much, all progress for the time being at an end.

Counterpoint is of two kinds, Strict and Free. Strict Counterpoint dates from about the fourteenth to the end of the sixteenth century, when the Polyphonic styles died out, and the Monodic came in. The main idea on which the Polyphonic style was based, was the melodic relation of two real parts. The Monodic, on the other hand, is based on the harmonic relation of two successive chords. The arrangement and treatment of the parts in each was therefore very different; the one was lateral, the other vertical. Strict Counterpoint admitted the Diatonic genus only, and it is not until 1598† that the first instance of the Chromatic genus is found.

Counterpoint is simple or florid. Simple Counterpoint is when the Counterpoint and Canto firmo respectively comprise notes of the same length.

Florid Counterpoint is when the Counterpoint

* John of Dunstable, in Bedfordshire, a musician, mathematician, and astrologer, died 1453.

† 'Construe, my darling,' a canzonet by Giles Farnaby, 1591, ed. by W. B. Squire.

comprises longer and shorter notes than the Canto firmo.

At first Concords only were admitted; later, Discords, under certain restrictions.

Modern Counterpoint includes five species. The general laws of Strict Counterpoint are clearly and succinctly set forth by Mr. W. S. Rockstro in Grove's 'Dictionary of Music and Musicians,'* and those relating to the Free style also ably explained.† The two styles are not antagonistic, as the new progressions made use of in the Free style were unknown to the contrapuntists of the sixteenth century. It would occupy too much space to enter fully into the subject here, besides being outside the scope of this volume. The reader who desires a complete knowledge of the two styles of Counterpoint cannot do better than consult the articles referred to. For the practical study of Counterpoint any of the following excellent works will be found of much value :—

'Counterpoint: Strict and Free.' By Mr. Ebenezer Prout. (Augener and Co.) 5s.

'Counterpoint.' By Sir G. A. Macfarren. (Cambridge University Press.) 7s. 6d.

'Counterpoint.' By Dr. Bridge. (Novello and Co.) 2s.

* Vol. iii., 741-744. † Vol. iv., 742-744.

'Double Counterpoint.' By Mr. Ebenezer Prout. (Augener and Co.) 5s.

'Double Counterpoint.' By Dr. Bridge. (Novello and Co.) 2s.

Good works on Counterpoint have also been compiled by Cherubini, Richter, Ouseley, Davenport, Fux, and others.

SUMMARY.

Canto firmo = the Melody, or mis-called Plain-song, usually in the tenor.

Faburdon (1) = a drone, burden, or holding part in the bass.

Organum = an added part a fourth or fifth below the Canto firmo.

Diaphony = the name for the Organum and Canto firmo taken together.

Descant = the art of singing an improvised part or Organum.

Faburdon (2) = the addition of thirds and sixths to the Organum.

Counterpoint = melodies parallel with melodies, at first note with note written horizontally.

Harmony = combination of notes written vertically.

CHAPTER XIII.

MONODIC OR HARMONIC MUSIC.

MONODIC or Harmonic Music dates from the end of the sixteenth century. Previously the only apology for harmony was that arising from Organum, Faburdon, and Counterpoint, purely lateral combinations of a series of superimposed melodies, written from left to right, with regard only to the movement of the vocal parts at the prescribed intervals, without any idea of individual chords constructed vertically, which constitutes Modern Harmony.

The advancement of the Modern style was long stayed, owing to the rooted antipathy to the triton or interval of the augmented fourth with its three whole tones, which occurs in the old minor mode of A and in the major mode of C, between the F and B. The use of this interval being very rigidly prohibited, neither the major mode with its major seventh, nor the chord of the dominant seventh could be used; modulation therefore as now understood was impossible. The

earliest use of the major seventh, or sharpened leading note in the minor mode, partially, if not wholly, is found in a treatise written in 1531 upon Counterpoint, by Stephano Vannco, born 1493; it was translated into Latin by Vincenzo Rossetti of Verona, and published in Rome, 1533. In this work he also explains the principles and practice of Music, Solmization, Measurable Music, Notation, and Counterpoint.

The first to make use of the chord of the dominant seventh as a fundamental discord—without preparation—was a French composer, born *c.* 1475, one Jean Mouton, who died 1522. Its use, however, does not appear to have become at all general.

Giovanni Pierluigi, born 1514 at Palestrina in the Campagna of Rome, died 1594, has been called the 'Father of Church Music.' He was commissioned to organize the music of the Italian Church, which had at that time again sunk into a most deplorable state, the Masses being interspersed with secular songs and dances, blasphemously profane and indecent. The principle he adopted was harmonic effect in contrast to the harsh polyphony of the old Netherland, Holland, and Belgium schools, as represented by Josquin, 1450-1532. Although he solved the problem, he lacked any feeling of sympathy for that smoothness which should be felt from the use of consecutive chords owing to their mutual relation. His chords

follow one another by abrupt and disconnected leaps in a restless manner It is problematical whether we should discern wherein the interest and elevated beauties claimed for it lay if performed now His music is absolutely devoid of all expression He made several attempts to introduce new harmonic combinations in his compositions, introducing an uninterrupted flow of consonant chords, dominant sevenths *prepared,* with dissonant and passing notes charily interspersed He is accounted by Papists as the greatest, and one of the last composers of the Polyphonic School

Polyphonic music, and with it the so-called ecclesiastical mediæval music, received its death, blow at the end of the sixteenth and beginning of the seventeenth centuries, mainly owing to the general adoption of the chord of the dominant seventh unprepared

To Claude Monteverde, born at Cremona in the year 1568, we may look as the originator of the modern style of composition, a system of Harmony which has continued without interruption to the present day

In his third and fifth book of Madrigals, published in 1594 and 1599 respectively, are to be found and used with the greatest freedom, and without preparation

Chords of the Diminished Fifth

,, Diminished Triad

Chords of the Major, Dominant, and Diminished Seventh and inversions.
„ Major Ninth.
„ Suspended Sevenths and Ninths.
„ Perfect Cadences, *i.e.*, Tonic preceded by the Dominant.

The Sharp also is found at the signature.

The exact date when the major mode came in vogue has not been definitely determined; it was, however, used for certain by Monteverde, who died in 1643.

Dramatic music—the Cantata, Opera, and Oratorio proper—date from this period, to which also we owe the unsurpassable family of violins, whose makers, even in these days of enlightenment and ingenuity, have never been equalled, much less surpassed, in the richness and fulness of tone and beauty of workmanship.

It also produced musical giants such as the world had never before known. Archangel Corelli, the father of the violin; Henry Purcell, the father of English music; Alexander Scarlatti, the creator of modern opera; George Frederick Handel, the king of oratorio; John Sebastian Bach, the master of fugue, etc. All born in this wonderful age, the seventeenth century.

Chamber music must also be included in this remarkable era which produced such phenomenal advances, not only in every branch of music, vocal

and instrumental, but in literature, science, and art generally

The presence of the chord of the Dominant Seventh at once shows if a composition is of earlier or later date than the sixteenth century Its use was not general until the middle of the seventeenth century

Mediæval music received its death blow, and the old chest of viols practically disappeared, until Mr Dolmetsch quite recently resuscitated them

The square notes were gradually superseded in England by round notes at the end of the seventeenth century

Diatonic Scales

Our major and minor modes are included in the ten notes of the Diatonic Scale beginning on A = A B C D E F G a b c, these two modes are generally termed relatives

The minor mode of A = the relative minor of C major

The major mode of C = the relative major of A minor

A Tonic minor mode has the same keynote as the major mode

The minor mode is used in three different ways

(1) As written above = the Old Minor

(2) With the seventh raised a semitone = the Harmonic

(3) With the sixth and seventh raised a semitone in ascending only=the Arbitrary.

The major mode came into general use between the middle of the sixteenth and seventeenth centuries.

The chromatic scale comprises twelve semitones ascending by sharps, and twelve in descending by flats.

Intervals.

The smallest interval on the pianoforte and other keyed instruments is the semitone, which is the meter by and from which all other intervals are counted.

Intervals are simple when confined within the compass of an octave, or compound when exceeding the limits of an octave.

The simple intervals of which the compound are formed can easily be found by subtracting seven from the compound interval, thus:

9−7=2, and 9=the 2nd
10−7=3, and 10=the 3rd
11−7=4, and 11=the 4th
} Doubled in the octave.

Diatonic intervals consist of the notes only belonging to the scale.

Chromatic intervals consist of the notes not belonging to the scale.

Enharmonic intervals consist of the notes which are changed in name, but not—on keyed instruments, as the organ, pianoforte, etc.—in sound.

A Diatonic semitone consists of two different letters, as F—G♭.

A Chromatic semitone consists of the same letter altered, as F—F♯.

There are five kinds of intervals:

Perfect, which by inversion remain Perfect.
Major, ,, ,, become Minor.
Minor, ,, ,, ,, Major.
Augmented, ,, ,, Diminished.
Diminished, ,, ,, Augmented.

The unison is not an interval but for convenience.

Intervals are always counted upwards, and include those counted from and to.

Inversion signifies the reversal of the positions of the two notes forming the interval. The number of notes in any interval added to those of its inversion = 9 and the semitones = 12.

The octave in the major mode is made up as follows:

The first note, Tonic or keynote	=a major tone	9/8
The second note, or Super-tonic	=a minor tone	10
The third note, or Mediant	=a major semitone	9/16
The fourth note, or Sub-dominant	=a major tone	15/9/8
The fifth note, or Dominant	=a minor tone	10
The sixth note, or Sub-mediant	=a major tone	9/9/8
The seventh note, or Leading note	=a major semitone	16
The eighth note, or Octave		15

The Tonic, Fourth, Fifth, and Octave are Perfect, and remain so on inversion; they are so called because any alteration either by raising or lowering them converts them at once from concords to discords.

Concords, which are satisfactory in themselves, are either Perfect as above or imperfect = major and minor thirds and sixths.

Discords are not satisfactory in themselves and require to be resolved = the discord must be followed by a concord—they are either Diatonic or Chromatic.

Diatonic = major and minor seconds and sevenths.

Chromatic = all augmented and diminished intervals.

Chords.

A chord is, strictly speaking, the simultaneous combination of two or more notes. The common chord or triad consists of any note being taken for the bass with its third and fifth notes added above. So long as the bass note is not altered, the upper notes may change their positions without altering the chord. It is figured $\frac{5}{3}$ or $5 = \begin{matrix}\text{Fifth.}\\ \text{Third.}\\ \text{Bass.}\end{matrix}$

A chord is major or minor according as its third is, which determines the mode.

There are in each octave of the major mode

Three major chords, which occur on the Perfect intervals = 1.4.5.
Three minor „ on the Imperfect „ = 2.3.6.
One diminished triad, which occurs on the 7th or leading note.

Inversions of Chords.

A chord is inverted when the root is not in the bass part.

A chord as a rule admits of one less inversion than there are different notes in such chord. The first inversion of the common chord has the third in the bass, which may not be doubled. It may begin a piece, but never end one. It is figured $\frac{6}{3}$ or 6.

1st Inversions of major chords give a minor third + a perfect fourth, the major sixth from the bass.
„ minor chords give a major third + a perfect fourth, the minor sixth from the bass.

The second inversion of the common chord has the fifth in the bass; it may never begin nor end a piece of music. It is figured $\frac{6}{4}$.

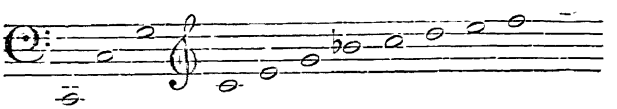
2nd inversions of
Major, Minor Chords give a Perfect fourth + a major third, a minor third.

The diagrams on pages 146-8 show at a glance the positions each note in the original chords occupies in their inversions:

Original Chord.	*Inversions.* *First.*	*Second.*
G=Fifth	Third	Bass
E=Third	Bass	Sixth
C=Bass	Sixth	Fourth

Fundamental Discords.

Fundamental discords are generated from a fundamental note, prime, or generator as under:



They require no preparation—being heard in a previous chord — like other discords, but need resolution. They are either Diatonic or Chromatic, and consist of a series of thirds superimposed on a major triad, and are as follows:

(1) Chord of the Dominant 7th, minor
(2) Chord of the Dominant 9th, major and minor
(3) Chord of the Dominant 11th, major and minor
(4) Chord of the Dominant 13th, major and minor

} on the Tonic, Supertonic and Dominant, from the fundamental notes of which they are respectively derived.

The major 9th on the Supertonic
The major 13th on the Tonic

} and on the Dominant are not used in the Minor mode.

(1) The Dominant 7th=Dominant major triad+a minor third.

(2) The Dominant 9th=Dominant 7th+a major or minor third.

(3) The Dominant 11th=Dominant 9th $\left.\begin{matrix}\text{major+a minor}\\ \text{minor+a major}\end{matrix}\right\}$ third

(4) The Dominant 13th=Dominant 11th+a major third.

SEVENTH.

Original Chord.	*Inversions.* *First.*	*Second.*	*Third.*	*Progressions.*
F =Seventh	Fifth	Third	Bass	=descends.
D =Fifth	Third	Bass	Sixth	=free.
B =Third	Bass	Sixth	Fourth	=ascends.
G =Bass	Sixth	Fourth	Second	

NINTH.

Original Chord.	*Inversions.* *First.*	*Second.*	*Third.*	*Fourth.*	*Progressions.*
A =Ninth	Seventh	Fifth	Third	Bass	descend
F =Seventh	Fifth	Third	Bass	Sixth	descend
D=Fifth	Third	Bass	Sixth	Fourth	ascends or descends a degree.
B=Third	Bass	Sixth	Fourth	Second	rises.
G=Bass	Not used.				

ELEVENTH.

Original Chord.	*Inversions* *First.*	*Second.*	*Third.*	*Fourth.*	*Fifth.*	
C =Eleventh	Ninth	Seventh	Fifth	Third	Bass	The 1st inversion is the same as the Chord of 7th on the Supertonic.
A =Ninth	Seventh	Fifth	Third	Bass	Sixth	The 2nd inversion is the same as the Chord of $\frac{6}{5}$ on the Subdominant.
F =Seventh	Fifth	Third	Bass	Sixth	Fourth	The 3rd inversion is the same as the Chord of $\frac{6}{4}$ on the Submediant.
D=Fifth]	Third	Bass	Sixth	Fourth	Second	The 4th inversion is the same as the Chord of $\frac{6}{4}$ on the Tonic.
B =Third G =Bass	} not used.					

↓

The root and first inversion of this chord is not used. The second inversion, therefore, is for convenience accounted here as the first inversion, the second = the third, and so on.

Cadences.

Every piece of music ends with a Close or Cadence, which establishes its tonality, of which there are several kinds:

(1) The Tonic preceded by a minor chord on the dominant or an inversion of it; very unusual.

(2) The Tonic preceded by a major chord on the mediant or third; used by Gounod.

(3) The Tonic preceded by a major chord on the subdominant or fourth; called Plagal.

(4) The Tonic preceded by a major chord on the dominant or fifth; called Perfect or Full.

The last is the most general. The Plagal is common in old Church music. The Perfect Cadence is always major, whether the mode be major or minor. This establishes the tonality, as it is called, to the key which it marks.

There are two other forms of the Cadence, usually termed half-closes or Cadences:

(1) The Imperfect or Half-Close=a common chord on the dominant, preceded by a common chord on the Tonic; and

(2) The Deceptive=a common chord on the dominant, followed by a common chord on the submediant; it is also called the interrupted Cadence, and is used as a device to temporarily delay the perfect Cadences.

Notes

The first portion of a movement, the first half of a double chant, of hymn tunes, etc, usually ends on the dominant

Passing notes—first used about the middle of the twelfth century—do not belong to the harmony, they are not essential, and consequently their progression is almost free

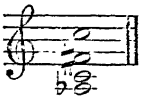
Bach used minor chords at the end of his preludes, but not of his fugues or chorales There was a prejudice against the use of the minor third at the close of a piece in the sixteenth and seventeenth centuries

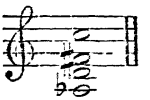
Handel and Mozart used both the minor and the major chords, they also omitted the third at the end of a piece

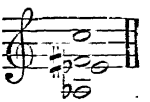
A melody, as a rule, should not proceed by an augmented nor diminished interval

The chord of the augmented sixth is taken on the minor sixth of the major mode and is formed by the chord of the dominant minor ninth on the supertonic with the dominant minor ninth—the minor sixth of the mode added A♭, D, F♯, C, E♭, also on the minor second of the minor mode when it comprises the minor ninth of the tonic, the third and seventh, and the root or minor ninth of the dominant D♭, G, B, F, A♭ [Macfarren]

The chord is written in three ways, and called

(1) The Italian Sixth 

(2) The French Sixth 

(3) The German Sixth 

Chord on minor sixth.

(1) Root and ninth of supertonic
(2) Ninth of supertonic
(3) Root ,,
} omitted.

This chord is also used in the minor mode.

Chord on minor second.

(1) Root and ninth of dominant
(2) Ninth of dominant
(3) Root ,,
} omitted.

Chromatic Concords.

Chromatic concords and their inversions contain chromatic notes, hence the term.

In the minor mode there are two:

(1) A major common chord on the minor second with its first inversion, called the 'Neapolitan sixth.'

(2) A major common chord on the supertonic with its first inversion.

In the major mode they are in addition:

(1) Common major chord on the minor second, and first inversion.

(2) Common major chord on the supertonic and first inversion.

(3) Common major chord on the minor sixth and first inversion.

(4) Common minor chord on the subdominant and two inversions.

(5) First inversion on the subdominant of a triad with a diminished fifth.

Suspensions.

Suspension, as the name implies, is the suspending or holding back the resolution of a chord or note usually by the fourth or ninth, whilst the rest of the chord, or part of it, moves on, and must take place on the accented portion of the bar. The only notes, whether singly or in combination, that may be suspended, are the third and eighth by the fourth and ninth, and the dissonant fifth of the third and seventh degrees of both major and minor modes.

A discord, whether suspended or not, must not be sounded simultaneously with the note upon which it is resolved, excepting only

(1) The ninth with the root in the bass.

(2) The ninth with the root in an upper part.

(3) The fourth with the third in an upper part or in the bass.

The suspended note is otherwise treated in every respect as it would be were it not suspended.

Any suspension, as with all other discords, may —prior to its resolution—rise.

Essential discords are those which belong to the Harmony, and are as follows:

(1) Chord of the dissonant fifth on the mediant of major and minor modes.

(2) Chord of the augmented fifth on the mediant of the minor key.

(3) Chord of the seventh—the second inversion is not available.

(4) Chord of the seventh, with augmented fifth on mediant of minor mode.

(5) Chord of the seventh, on mediant of major mode.

(6) Chord of the seventh on supertonic of minor mode.

(7) Chords of the ninth. Root always omitted in inversions; last inversion is unavailable.

NOTE.—The bass of a second inversion of a discord usually ascends or descends to the next note.

Consecutive perfect unisons, fourths, fifths, and octaves, should never occur. Excepting under very exceptional circumstances, the leading note —the third of the dominant—should ascend to the tonic or keynote by a semitone.

False Relation.

False relation occurs when a note appears in one part, and again in the next chord in another part altered, for instance, when a note appears as a natural in a tenor part in a chord, and as a flat or sharp in the treble, alto, or bass in the next chord. False relation does not occur when the third of the first chord is the root or fifth of the second chord.

Sequence.

A sequence is a series of repetitions of the same intervals or chords.

Movements.

The three kinds of movement or motion are:

(1) Similar, when the parts move in the same direction.

(2) Contrary, when the parts move in opposite directions.

(3) Oblique, when one or more parts are stationary whilst the others move.

Transposition.

The normal modes are:

C Major	with semitones between 3 and 4, 7 and 8	A Minor	with semitones between 2 and 3, 7 and 8

The presence of a sharp or flat at the signature

indicates a transposition of one of the above, the sharp or flat only being placed there to ensure the semitones falling in their proper places.

Every sharp added to the signature shows the mode has been transposed a fifth higher or a fourth lower, as under:

1 sharp = a fifth above C = G
2 sharps = ,, ,, G = D
3 sharps = ,, ,, D = A

and so on.

The sharp is always added to the fourth note of the key from which transposition has been made.

Every flat at the signature denotes the mode has been transposed a fourth higher or a fifth lower —thus

1 flat = a fourth above C = F
2 flats = ,, ,, F = B♭
3 flats = ,, ,, B♭ = E♭

The flat is always added to the seventh note of the key from which transposition has been made.

ADDENDA.

Thorough or figured bass first made its appearance in printed books *c.* 1600; the usual rules were:

(1) The absence of any figures signified the common chord was to be used.

(2) A 6 signified the chord of the sixth, sometimes written $\frac{6}{3}$.

(3) $\frac{6}{4}$ signified the chord of the six-four.

(4) Accidentals were placed by the side of the figure representing the intervals requiring them.

(5) Accidentals by themselves affected the third only.

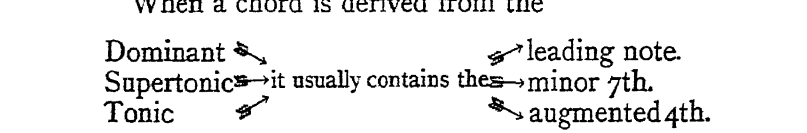
The tempo signs, Adagio, Andante, Allegro, were imported from Italy about this time.

Equal temperament was introduced at the end of the seventeenth century, about which period the distinction between the ♯ and ♮ was made, the sharp no longer being used to contradict the flat, nor the flat the sharp.

The root in any inversion of a dominant chord will be found by arranging the notes forming the chord into a regular series of thirds in order, until the chord of the dominant seventh is reached; the lowest or bass note of this is the root.

The three lowest thirds = a chord of the dominant seventh, the lowest note of which will be the root.

When a chord is derived from the



HARMONY.

ORIGINAL POSITION.	INVERSIONS OF CHORDS.					
0	1	2	3	4	5	6
B	6	4	2	7	5	3
3	B	6	4	2	7	5
5	3	B	6	4	2	7
5	6	6				
3	3	4				
7	5	3	B	6	4	2
	6	6	6			
	5	4	4			
	3	3	2			
9	7	5	3	B	6	4
	7	6	6	7		
	6	5	4	6		
	5	4	3	4		
	3	3	2	2		
11	9	7	5	3	B	6
	9	7	6	7	7	
	7	6	5	6	6	
	6	5	4	4	5	
	5	4	3	3	4	
	3	3	2	2	2	
13	11	9	7	5	3	B
	11	9	7	7	7	7
	9	7	6	6	6	6
	7	6	5	5	5	5
	6	5	4	4	4	4
	5	4	3	3	3	3
	3	3	2	2	2	2

The squares formed by each of the thick black lines on the right of 'B' joining the thin lines under 'B,' embrace respectively the Chords under 0—and their inversions, on reading from left to right, also the positions each of the intervals in the original chord occupies in the inversions. The small figures under the thin line represent the figured Bass of each chord or inversion.

NOTES.

CHAPTER I.

INTRODUCTION.

Page 5.—Everyone knows how much the world is indebted to the Church for its encouragement of painting, Michael Angelo, Raphael, among many, having been almost entirely employed in the decoration of churches; of architecture and sculpture it is unnecessary to say anything.

Page 6.—Antiphons 'cut off,' *see* Book of Common Prayer, 'Concerning the Services of the Church.'

Page 7.—Gregorian musical literature continues to grow apace, though the probabilities of the ancient Church modes finally ousting the modern Anglican chant are less than ever. We know how endeavours are made in some quarters to gild the pill of the Gregorian tones by tricking them out with ornate chromatic harmonies in spite of the incongruity, as well as the injurious effect on the voice by perpetually singing them in unison (*Musical Times*, xxvii., 672-3).

Page 18.—Terpander's scale is composed of a tetrachord E F G A, and a trichord b d e; the latter contains no semitone. It is to the avoiding of the use of the semitones of the diatonic scale that Scotch airs owe their peculiarly bright and mobile character.

In the older form of the air 'Cockle Shells' there is no second or sixth; 'Blythe and Merry,' a Gaelic air, has neither third nor sixth.

CHAPTER II.

Page 21.—The Hebrews, during their long sojourn amongst the Egyptians, must have become familiar with their music and musical system, and in the absence of any suggestion as to the possibility of their having any distinctive system or method of their own, it may be fairly assumed that the musical systems were more or less the same.

The Egyptians compared the seven degrees of their scale to the seven planets, including the sun and moon.

Page 22.—The Greeks maintained their rhythm by the stamping of the feet by the conductor. The first instance in England of the use of the baton for conducting was by Haydn.

Pythagoras' system was doubtless greatly influenced by the knowledge he gained of the Egyptian system of music and of the mathematical proportions of their intervals during his sojourn in that land.

CHAPTER III.

Page 26.—The proslambanomenos, or the added note, was never accounted or formed a part of a tetrachord.

CHAPTER V.

Page 42.—With the Greeks *Anti* as usually applied to music, is in the sense of 'accompanying,' and therefore, in that of the Latin *cum*, 'with,' and not of *pro* or *contra*. Instead of being responsive, like the chants in our cathedrals —which in Greek would be called Ameibomenai—Greek *Antiphons* were simultaneous sounds an octave apart, and therefore like our congregational singing, wherein the voices of men intermingle with those of women and children. The voices of the men, being naturally an octave lower than the others, make the *Antiphons*.

The English word 'Counter,' as compounded in Counterpart, and in music Counter-tenor and Counter-point, seems better to express the Greek *Anti* than the Latin *Contra* or our 'against.' Counter-point is simultaneous harmony, or note with note (Chappell, '*History of Music*,' i., 11).

Page 46.—Mr. W. S. Rockstro in his article on the 'Ambrosian Chant,' in Sir George Grove's '*Dictionary of Music and Musicians*,' now admits that the attribution of the four authentic modes to St. Ambrose has not been proved.

'The system of music adopted by St. Ambrose appears to have reference to the modes of the ancients, or rather those of Ptolemy, shown to have been precisely coincident with the seven species of Diapason, four of which he retained: the Dorian, D minor; the Phrygian, E minor; the Lydian, F minor; the Mixo-Lydian, G minor, which names he rejected, calling them protos, deuteros, tritos, tetrartos' (Hawkins, '*History of Music*,' i., 107).

The very learned Dr. Usher, upon the authority of two ancient manuscripts, asserts the 'Te Deum' to have been made by a Bishop of Triers, named Nicetius or Nicettus, and that not till about the year 500—527, which was almost a century after the death of both St. Ambrose and St. Augustine (L'Estrange's '*Alliance of Divine Offices*,' 79). The Benedictines, who published the works of St. Ambrose, judge him not to have been the author of it, and Dr. Cave, though at one time he was of a different judgment, and Bishop Stillingfleet concur in the opinion that the 'Te Deum' was not the composition of St. Ambrose or of him and St. Augustine jointly (Bingham's '*Antiquities of the Christian Church*,' book xiv., c. ii., § 9). The first mention of the 'Te Deum' occurs in the Rules of S. Benedict of Cæsarius of Arles (Walcott's '*Sacred Archæology*,' 573).

CHAPTER VI.

Page 49.—Trinity Sunday. The office of the Holy Trinity was composed by Alcuin of York in the reign of

Charles the Great; it was not observed at Rome during the episcopacy of Alexander III., 1159-1183, and was even in 1268 in England known as the Octave of the Pentecost. In some churches, the festival was kept on this Sunday, or on the Sunday next before Advent. In 1303 it was established by Bishop Benedict XI., 1303-1304, as it is now observed; or, according to others, by John XXII., Bishop of Rome, 1316-1334, or by Thomas A'Becket. Walcott's '*Sacred Archæology*,' 590. The general observance of the day as a separate festival in honour of the Blessed Trinity was first enjoined by a Synod of Arles, in A.D. 1260 (Blunt's '*Annotated Book of Common Prayer*').

Page 52.—If the neumes ever gave the intervals of ascent or descent exactly, then the knowledge of the necessary rules was indeed early lost. Hucbald already complains in the tenth century that the neumes were only an uncertain guide, and a mere help to the memory rather than a real notation. John Cotton says the virga, podatus and clives, indicate with no certainty intervals of ascent or descent.

Various scribes would naturally write the neumes they copied without regard to accuracy, rendering different readings inevitable. The attempts made at the present time to transcribe them are purely guess-work.

Page 53.—It is an erroneous assumption that St. Gregory the Great introduced a letter notation; the very Antiphonary attributed to him is written not in letters, but in neumes.

Page 54.—Notker knew nothing of the Greek names to the modes, only the numerical 1, 2, 3, 4, 5, 6, 7, 8.

Page 55.—For fuller accounts of the ancient service books the reader is referred to Maskell's '*Monumenta Ritualia*,' and to the article by the late Henry Bradshaw in '*The Chronicles of the Collegiate Church of All Saints, Derby*,' by J. C. Cox and W. H. St. John Hope. The Sarum Gradual has just been published in facsimile by the Plain Song and Mediæval Music Society, and the Bangor Antiphonary and Westminster Missal by the Henry Bradshaw Society.

Page 56.—The so-called Gregorian Antiphonary is said to be a copy of the one made by Adrian I., 790, for Charles the Great.

CHAPTER VII.

Page 59.—'All musical instruments are called organs—*organa*,' says St. Augustine, born 354, died 430; 'not only that great instrument into which the wind is pumped by bellows is called an organ, but also every instrument which is capable of producing a melody.'

Page 72.—Illustrations of organs of the following periods can be seen in the works mentioned below:

1st	century,	Stainer's '*Music of the Bible*,' fig. 65.
4th	„	Lacroix's '*Fine Arts of the Middle Ages*,' figs. 363, 393.
8th	„	Hopkins's '*English Mediæval Organ*,' fig. 12.
10th	„	Lacroix, fig. 394.
13th	„	Lacroix, fig. 382.
14th	„	Lacroix, fig. 395.
„	„	Sacristy, vol. iii., 149.
15th	„	Hopkins, fig. 27.
„	„	'Portatives,' Lacroix, figs. 376, 383, 396.
16th	„	Lacroix, fig. 377.
„	„	'Positive,' Stainer's '*Music of the Bible*,' fig. 62.

After the Restoration the usual place for the organ in our cathedrals, college chapels, and large parish churches was on the rood-screen. Previously the organ is found in various parts of the buildings, sometimes on the north and sometimes on the south side, as well as at the west end.

CHAPTER VIII.

Page 81.—The terms 'False Greek' and 'False Mediæval Modes' are here used synonymously for the eight octave scales meaninglessly termed 'Gregorian.'

Page 80.—Some assert that the designating the mediæval modes by the ancient Greek names dates from the tenth century, probably by Notker.

The difference in meaning is obvious, for Ptolemy, referring to the Greek modes, stated that the

Phrygian	mode	lay	one degree	higher	than the Dorian mode.
Lydian	,,	,,	,,	Phrygian	,,
Mixo-Lydian	,,	,,	,,	Lydian	,,

Being transposing scales, this is of course correct. The mediæval modes being non-transposing, the names had not the same meaning.

The alphabetical notation, Γ A B C D E F G, a b ♭ c d e f g α β ♭ χ A, is first mentioned by Odo, Abbot of Cluny, in the '*Dialogus de Musica*'; he died 942. It is formed by taking an octave each way from the mese a; below the lowest octave Γ, the Greek gamma, was placed, and above the highest octave the small Greek letters, α β ♭ χ A.

Page 91.—Regals were movable reed organs, Positives were supplied with flue-pipes.

Regals when single = one pair = one set of pipes.
when double = two pairs = two sets of pipes.

A pair of organs. The word 'pair' is here used in the same sense as we use it in such expressions as pair of tongs, of scissors, bellows, snuffers, virginals, etc. The number of pipes in the organ = a complete set.

A great pair of organs = a series of pipes sounding in unison with the tenor and bass voices.

A small pair of organs = a series of pipes sounding in unison with the treble voices.

Two pairs of organs = two sets of pipes, are mentioned as belonging to the Temple Church, London, in 1307.

Page 104.—A chronicle of the Monastery of Corbie of the

tenth century mentions the use of the lines to regulate the positions of the neumes, about 986

CHAPTER X

Page 105 —The finales, D, E, F, g, of Hucbald's system = all the finals of the eight mediæval octave scales

'In consideration of Guido's contributions to musical art, many of the Italian writers of the seventeenth century regarded him as the restorer, if not the inventor, of musical science At all events, few modern thinkers will be inclined to depreciate the great value of his services Those who look with scorn and contempt at all efforts to trace the origin of music to the period of mythical existence, and who believe in the tangible, will readily admit that the reality of musical art began with Guido Therefore, if this be conceded, the question of the more remote origin for Gregorian song must be abandoned as insoluble At all events, its present form is untraceable beyond Guido' (*Musical Times*, xxxi, 526)

Page 111 —Speaking of a table of neumes with translations recently published, a writer in the *Musical Times* said 'Should anyone attempt to elucidate an old MS by its aid he will find, as others have before, that he has ventured into an unknown sea whose depths up to the present time have not been fathomed' (vol xxi, 241)

Leger lines were unknown as late as the fifteenth century The clefs first appear as fixtures in the sixteenth century, when leger lines might occasionally be called into requisition

CHAPTER XI

Page 124.—Philippe de Vitry is accredited by some with having invented the systems of Prolation, and Johannes Tinctoris with the introduction of strokes added to the time value

to express respectively the greater or lesser mode according to the number used—three = the greater, two = the lesser.

In the 12th and 13th centuries the bar unit = the breve.
„ 15th century „ = the semibreve.
„ 19th „ „ = the crotchet.

RESTS.—The crotchet rest resembles the letter r with the hook to the right. The quaver, semiquaver, demi-semi-quaver and semi-demi-semiquaver rests have the hook turned to the left, an additional hook being appended to the upright for every stroke added to the tail of the note to whose value it corresponds, thus :

Crotchet = rest =
Quaver = „ =
Semi-quaver = „ =
Demi-semi-quaver = „ =
Semi-demi-semi-quaver = „ =

A.

INDEX RERUM.

INDEX NOMINUM.

C.

INDEX LOCORUM.

D.

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ERRATA.

Page 38. *For* 'sixteenth' *read* 'seventeenth.'
„ 45. *For* 'pater' *read* 'patri.'
„ 137. Line 8 from bottom, *for* 'triton' *read* 'tritone.'
„ 148. Delete 'root and' from last line but two.
„ 171 (*Index*). Semitone, *for* '18' *read* '19'; '103' should also have been added.