THE

MUSICAL NOTATION

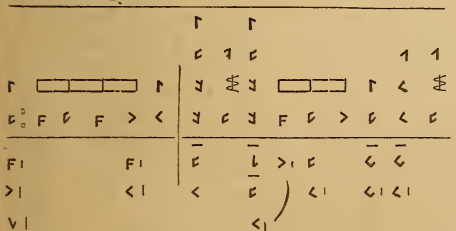
OF THE

ANCIENT BRITONS.

John Thomas.

A CONSIDERABLE amount of interest and curiosity was raised about the middle of the last century by the discovery of a manuscript containing a system of musical notation supposed to be peculiar to the ancient Britons. Since that time, it has been submitted to several eminent men, including Dr. BURNEY, Dr. OWEN PUGHE, EDWARD JONES (*Bardd y Brenin*), and lastly JOHN PARRY (*Bardd Alaw*), who has written an interesting account of the document, in his introduction to the *Welsh Harper;* which I shall quote here, as it will afford a good idea of the result of the investigations of the distinguished men already named:—

"The most ancient specimen of Welsh musical notation now extant, is in the library of the Welsh School, which was established in 1714.[1] The whole of this specimen was published in the *Archaiology of Wales*, a most valuable work, in three volumes, printed by the patriotic OWEN JONES (*Myvyr*), at an expense of £2,000.[2] The notation occupies about seventy pages of the third volume, of which the following *fac-simile* will give an idea [*Vide the Musical World, No.* 31, *vol.* III.]:—



[1] Since the above was written, the contents of the library of the Welsh School have been presented to the British Museum, where they form a most valuable addition, and are easy of access by all *literati*.

[2] Mr. THOMAS GEE deserves well of his countrymen for having undertaken the re-publication of so important and extensive a work, as the copies of the original edition have become most rare.

The characters used are those of the ancient Bardic Alphabet; and it is very evident that *chords* were *struck*, for three and four letters are placed perpendicularly one above another. The history of the above runs thus: This M.S. purports to have been transcribed by Robert ab Huw, of Bodwigan, in Anglesey, in the reign of Charles I., from a M.S. of William Penllyn, a celebrated minstrel of the preceding century. And it is stated in a note, that the M.S. comprises 'The music of Britain, as settled by a congress or meeting of chief musicians, by order of Gruffydd ab Cynan, prince of North Wales, about A.D. 1040, with some of the most ancient pieces of the Britons, supposed to be handed down to us by the ancient bards.' Accompanying the manuscript are transcripts from another old writing, in the possession of Sir Watkin Williams Wynn, Bart., entitled, *The Repository of String Music within the three principalities of Wales*, having, apparently, reference to the twelfth century. It contains an explanation of several of the terms used in Welsh music, which are extremely complex. There are, besides, extracts from other old manuscripts of a similar nature, and relating, it would appear, to the same period. Such is the claim to antiquity which the document under notice bears on the face of it; and, if it may safely be granted, the evidence it supplies must be considered of singular value with reference to the subject before us. And it may be mentioned, as an additional proof of its authenticity, as a record of Welsh music, that the notation is essentially different from any other now known. Dr. Burney describes this notation as one 'by letters of the alphabet, somewhat resembling the tablature of the lute, but without lines, except a single one to separate the treble from the bass.' Since Dr. Burney's time, the whole of this specimen was submitted, by the erudite Dr. William Owen Pughe, to Bartholomon, the celebrated violinist. Bartholomon succeeded in deciphering most, if not all, of it: adopting, as the basis of his experiment, the notation of the ancient Spanish lute, as in use during the sixteenth century, which agrees with what Dr. Burney says of the conformity of the Welsh notation, with the tablature of that instrument. It is extremely probable that the clue afforded by Bartholomon might have led to most successful

results; but, unfortunately, only one of the tunes, as described by him, has been preserved, and that was inserted in the first volume of *Welsh Melodies*, published in 1809. This was, by a fortunate accident, transcribed by Dr. Pughe, or no instance of Bartholomon's success might now have remained; for, at his death, in 1808, his manuscripts were dispersed, if not destroyed. This one [1] comprises notations illustrative of the twenty-four canons of music, together with twenty-nine ancient tunes, and a catalogue of more than one hundred and fifty others, which may supply some idea of the musical treasures formerly possessed by the *Cymry*.

The deciphering of these would certainly tend, in some degree, to make us acquainted with the general proficiency anciently attained by the Welsh in the art of music."

I shall now proceed to make a few comments upon one of the statements made in the above quotation, which is as follows:—"And it may be mentioned, as an additional proof of its authenticity, as a record of Welsh music, that the notation is essentially different from any now known." It is well known, amongst those learned in such matters, in the present day, that from the time of the Greeks, the notes of the scale have been expressed by the letters of the alphabet; and that up to the time of St. Ambrose, in the fourth century, the only change that had taken place, was the substitution of the Roman for the Greek alphabet. The following scheme represents the ecclesiastical modes or tones, in the time of St. Ambrose—

d	e	f	g
c	d	e	f
b	c	d	e
a	**b**	c	d
G	a	**b**	c
F	G	a	**h**
E	F	G	a
D	E	F	G

These modes continued in vogue up to the days of St. Gregory the Great; and I shall now quote from Sir John Hawkins' *History of Music*, to show what improvements were made at that time:—

"The several improvements of music hereinbefore enumerated, regarded chiefly the theory of the science; those that followed were for the most part confined to practice. Among the latter, none have a greater title to our attention than those made about the end of the sixth century by St. Gregory the Great, the first pope of that name: a man not more remarkable for his virtues than for his learning and profound skill in the science of music.

[1] *i. e.*, The Welsh M.S.

The first improvement of music made by this father consisted in the invention of that kind of notation by the Roman letters, which is used at this day. It is true that before his time the use of the Greek characters had been rejected; and as the enharmonic and chromatic genera, with all the various species of the latter, had given way to the diatonic genus, the first fifteen letters of the Roman alphabet had even before the time of Boetius (A.D. 476) been found sufficient to denote all the several sounds in the perfect system; and accordingly, we find in his treatise, *De Musica*, all the sounds from Proslambanomenos to Netehyperboleon, characterised by the Roman letters, from A to P inclusive. But Gregory, reflecting that the sounds after Lychanos Meson were but a repetition of those before it, and that every septenary in progression was precisely the same, reduced the number of letters to seven, which were A, B, C, D, E, F, G; but, to distinguish the second septenary from the first, the second was denoted by the small, and not the capital, Roman letters; and when it became necessary to extend the system farther, the small letters were doubled, thus:—

aa, bb, cc, dd, ee, ff, gg."

On comparing St. Gregory's system of notation with the Welsh manuscript in question, it will be perceived how very closely they resemble each other:—

ST. GREGORY'S NOTATION.

A, B, C, D, E, F, G, a, b, c, d, e, f, g.
aa, bb, cc, dd, ee, ff, gg.

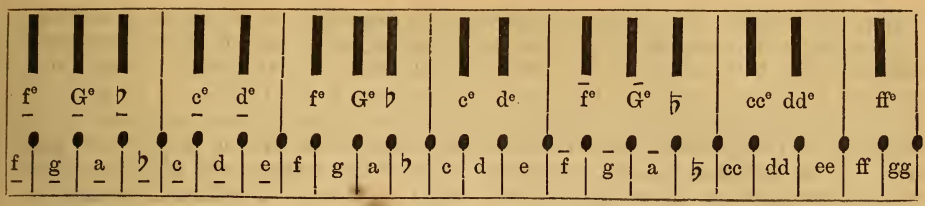
NOTATION IN THE WELSH MANUSCRIPT.

cc, dd, ee, ff, gı aı bı cı dı eı fı
g a b c d e f g· a· b· c· d· e· f·

However, I had the good fortune to find a little book at Florence, last winter, containing a scale resembling the notation in the Welsh manuscript still more closely, inasmuch as it has some of the very same marks to distinguish the different octaves. The title of the work is—"*Musurgia sen praxis musical. Illius primo quae Instrumentis agitur certaratio ab Ottomaro Luscinio Argentino duobus Libris absoluta. Argentorati opud Ionnem Schottum, anno Christi*, 1536." [1] The following is a *facsimile* of the specimen alluded to, as applied to the keys of the organ (which instrument was invented about the middle of the seventh century), with additional marks for the flats and sharps, in keeping with the rest of the notation:—

[1] Ottomaro Luscinio was a Benedictine Monk, and a native of Strasburg. He was a man of considerable learning, and an elegant writer.

The above work is in two parts: the first containing a description of the Musical Instruments in his time, and the other the rudiments of the science. To these are added two commentaries, containing the precepts of polyphonous music.



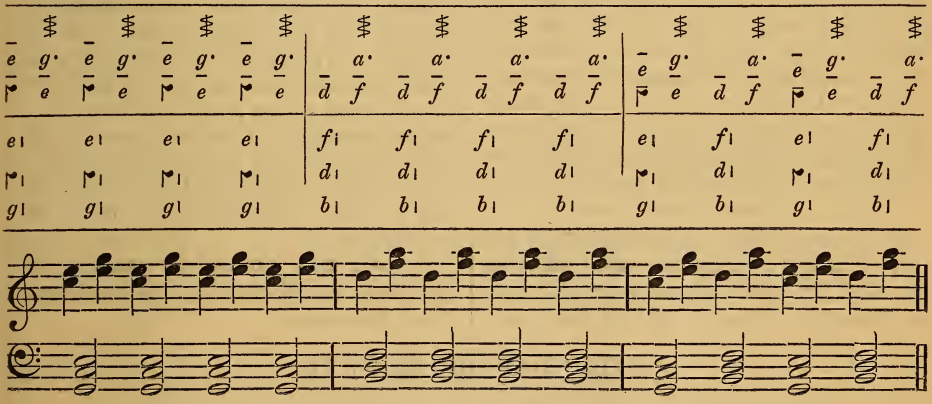
Dr. Burney, Bartholomon, and Sir John Hawkins, were under the impression that the Welsh system of notation was taken from the tablature of the Spanish lute, the *viol du braccia*, and the *viol da gamba;* whereas it is much more reasonable to suppose that the letters of the notation were merely placed on the finger-board of those instruments, so as to render it easier to read compositions written in that notation. However that may be, the idea enabled Dr. Burney and Bartholomon to decipher a very small portion of that part of the Welsh manuscript which happened to be in the key of C. It may be as well to introduce Dr. Burney's specimens, with some remarks of his 'own, which precede them:—

"Many of the bases, or accompaniments to the melodies begin with the chord of C inverted:

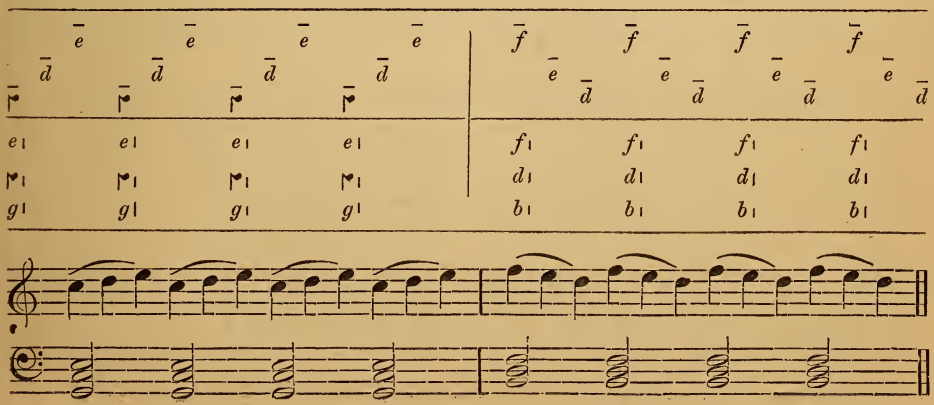
e
c These chords and melodies are lessons for
g

young practitioners on the harp; and are said to be the exercises and trial-pieces which were required to be performed by the candidates for musical degrees, and for the silver harp. Among the first twenty-four lessons of this kind, some few are easy to decipher, as No. XI. and XVII., which I shall give here as specimens of this notation, explained in modern musical characters:"—

No. XI. COR VINVAEN.—1011011.1011011.



No. XVII.



The only mistake Dr. Burney appears to have made in deciphering the above specimens has been to write the treble notes an octave too high; as the octave they are written in, according to the notation, is the one immediately above the bass notes. It is true that it is the custom to write guitar music an octave higher than its real diapason, even at the present day; and this may have been Dr. Burney's reason for doing so; but in that case, he should have transposed both bass and treble together. Further on he continues thus:—

"The counterpoint, however artless it may seem, is too modern for such remote antiquity as is given to it. The false 5th from B to F, in the first example, has not been long allowed in harmony; and the prepared 7th, from B to A, in the second example, is a crudity that has been very lately tolerated."

The only way to account for the chords being in an inverted position, is by a conviction I have long felt—that the greater part, if not all, of the music contained in the Welsh manuscript, is written, not for the harp, as supposed by Dr. Burney, and others, but for the *crwth*—an instrument which, according to Venantius Fortunatus, bishop of Poictier, was, in A.D. 609, considered the national instrument of Britain, as is shown by the following couplet of his:—

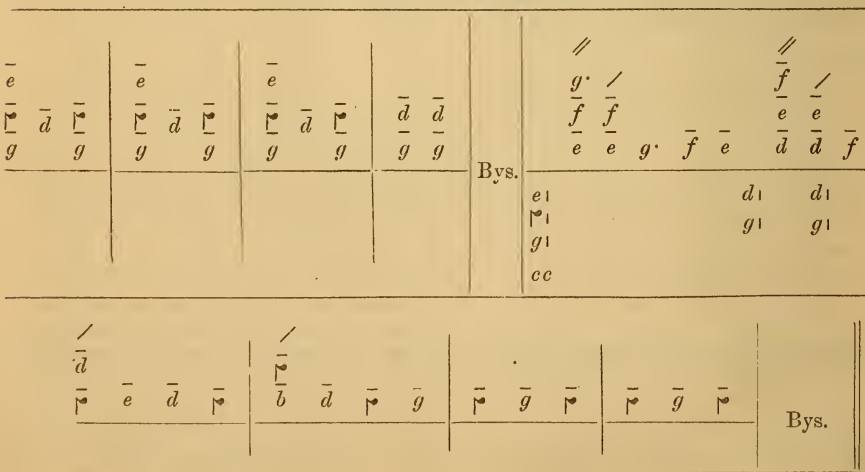
"Romanus lyrâ, plaudit tibi barbarus harpâ
Graecus Achilliacâ—*Crotta Britanna* canit."

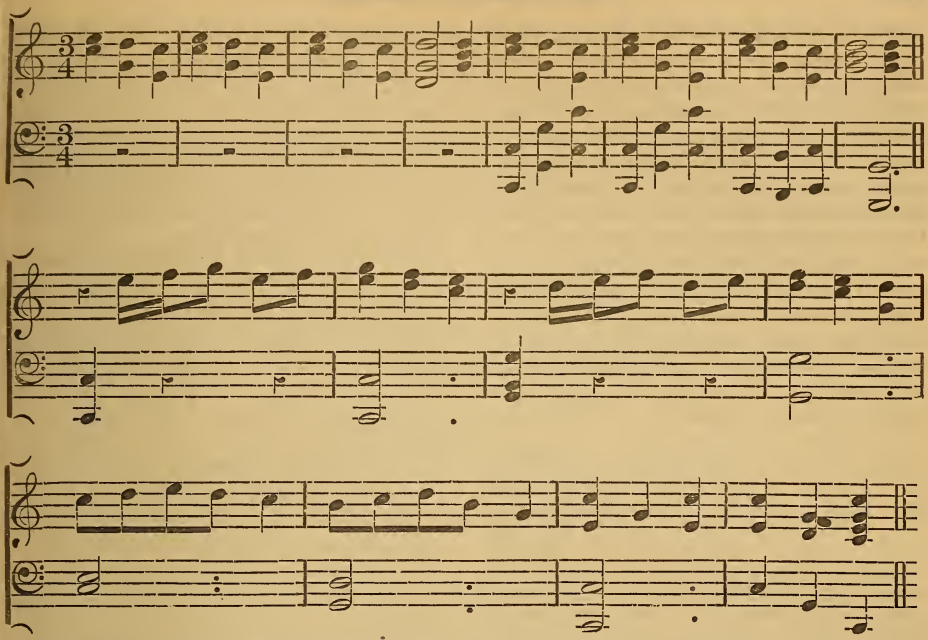
If this music had been intended for the harp, it is but reasonable to conclude that the chief fundamental notes would have been added to the chords in the bass; more especially as the finger that would have played them on that instrument would have been at liberty. A still more convincing proof remains to be given:—the names of the different marks used in the notation, which are to be found in page 1114 of this volume, and which are translated as follows:—The Thumb Choke (*Tagiad y Vawd*), Short Shake (*Y Plethiad Byr*), Shake of the Four Fingers (*Plethiad y Pedwarbys*), Shake of the Little Finger (*Plethiad y Bys Bach*), Double Scrape (*Craviad Dwbyl*), Single Scrape (*Craviad Sengyl*), Half Scrape (*Hanner Craviad*), Throw of the Finger (*Tavliad y Bys*), Double Shake (*Plethiad Dwbyl*) Shake of the Bee (*Plethiad y Wenynen*), Trill of the Thumb (*Crychu y Vawd*), Slide of the Finger (*Ysgwyd y Bys*), Double Choke (*Tagiad Dwbyl*), Forked Choke (*Tagiad Forchawg*), Back of the Nail (*Cevyn Ewin*), Jerk (*Ysbonc*), Great Shake (*Plethiad mawr*).

It would be quite impossible for any one acquainted with the harp to apply any of the above terms, either to the manner of playing upon that instrument, or to any music ever written for it. On the other hand, I am decidedly of opinion that they directly refer to the *crwth*. Further on, I purpose enlarging upon this subject, by giving a description of the *crwth*, in order to prove more clearly the intimate connection of that instrument with the Welsh manuscript.

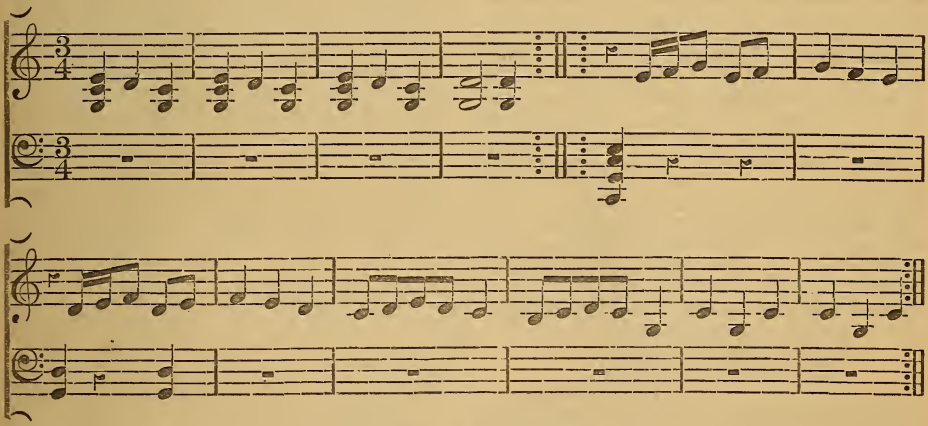
I shall now proceed to examine the specimen deciphered by Bartholomon, which follows:—

CAINC DAVYDD BROFWYD.





Bartholomon has so embellished upon the original in his deciphering of the above, that I feel it my duty to insert a literal transcription of my own, in order to be able to demonstrate more clearly that it was written for the *crwth*, and not for the harp, as the added basses in the above would lead one to infer.



I have now to allude to the specimen of the ancient notation introduced by John Parry (*Bardd Alaw*), in his account of the document, and to express my regret that so thorough a patriot, and generally so reliable an authority, should not have investigated the matter a little more closely before giving it to the world; for I have carefully gone through the old manuscript, and cannot find a single passage in any way resembling his specimen. The only way to account for so much inaccuracy is, by supposing that he commissioned another to make the transcription for him; as there is not a single portion written in the Ancient Bardic Alphabet, as asserted by him. The same amount of incorrectness is displayed in the statement that "the notation occupies about *seventy pages* of the third volume of the *Myvyrian Archaiology of Wales;* whereas, it occupies nearly *two hundred pages*, from page 440 to 624.

As before stated, the above specimens are all in the key of C; but it is not to be

supposed, on that account, that the whole of the manuscript is written in the same key. This has evidently been the great obstacle standing in the way of the deciphering of the whole of it; for there are no marks, either at the beginning, or elsewhere, to denote the keys. Indeed, it is believed that up to the time of Guido D'Arezzo, by whom the scale and the stave, with its cleffs, were invented, none existed; and as such great improvements formed an era in the history of music, I shall here quote, from Sir John Hawkins, an account of Guido and his improvements, as a means of throwing light upon the subject under discussion:—

"It has been related that the method of notation among the Greeks was by the letters of the alphabet; as also that the Latins in their stead made use of the Roman capital letters, A, B, C, D, E, F, G, and so on to P, as is mentioned by Boetius, in his fourth book; and that afterwards Gregory rejected all but the first seven, which he made to serve for the whole scale, distinguishing the grave series by the capitals, and the acute by the small letters. Their manner of singing was from A to B, a tone; from B to C, a semitone; from C to D, a tone; from D to E, a tone; from E to F, a semitone; from F to G, a tone; so that, to speak of the diapason only, the seven capital letters served to express, ascending and descending, either gradually or by leaps, the seven notes. But so difficult was it, according to this method, to know and to hit precisely the place of the two semitones, that before the pupils were able to acquire a knowledge of the *Canto Fermo*, ten years were usually consumed. Guido studied with great diligence to remove this obstruction; and the current account of the invention is, that being at Vespers, and singing the hymn to St. John, *Ut queant laxis*, it by chance came into his head to apply, as being of easy pronunciation, certain syllables of that hymn to as many sounds in a regular succession, and thereby he removed those difficulties that had so long retarded the improvements of practical music."

UT queant laxis REsonare fibris
MIra gestorum FAmuli tuorum
SOLve polluti LAbii reatum.
Sancte Joannes.

We must suppose that the converting the tetrachords into hexachords had been the subject of frequent contemplation with Guido, and that a method of discriminating the tones and semitones was the one thing wanting to complete his invention. During the performance of the hymn, he remarked the iteration of the words, and the frequent returns of *Ut, re, mi fa, sol, la.* He observed likewise a dissimilarity between the closeness of the syllable *mi*, and the broad open sound of *fa*, which he thought could not fail to impress upon the mind a lasting idea of their congruity, and immediately conceived a thought of applying the six syllables to his new formed hexachord.

Struck by the discovery, he retired to his study; and having perfected his system, began to introduce it into practice. The persons to whom he communicated it were the brethren of his own monastery, from whom it met with but a cold reception, which, in the epistle to his friend above-mentioned, he ascribes, undoubtedly, to its true cause, envy. However, his interest with the abbot, and his employment in the chapel, gave him an opportunity of trying the efficacy of his method on the boys who were training up for the choral service, and it exceeded the most sanguine expectation.

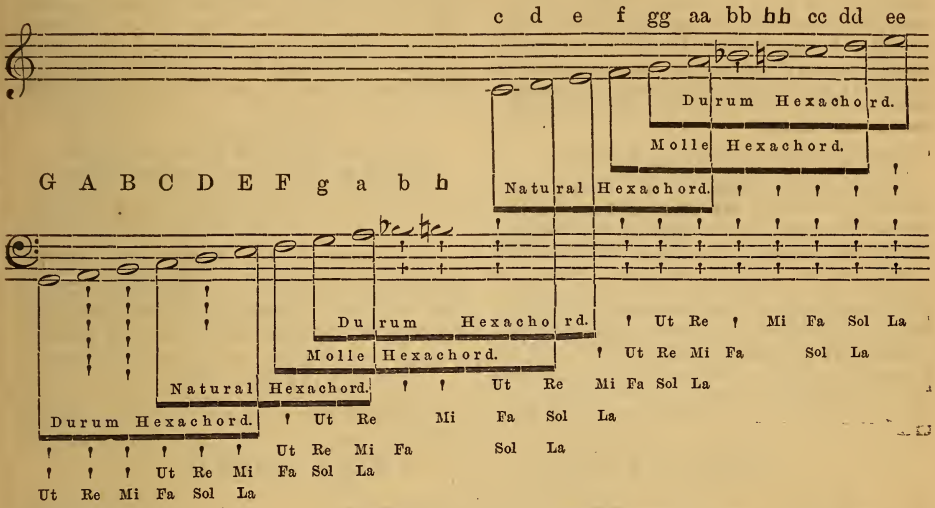
The fame of Guido's invention soon spread abroad, and his method of instruction was adopted by the clergy of other countries. We are told by Kircher, that Hermannus, bishop of Hamburg, and Elvericus, bishop of Osnaburg, made use of it; and by the authors of the *Histoire Litteraire de la France*, that it was received in that country, and taught in all the monasteries in the kingdom. It is certain that the reputation of his great skill in music had excited in the pope a desire to see and converse with him; of which, and of his going to Rome for that purpose, and the reception he met with from the pontiff, himself has given a circumstantial account of in the epistle before cited.[1]

The particulars of this relation are very curious; and as we have his own authority, there is no room to doubt the truth of it. It seems that John xx., or, as some writers compute, the nineteenth pope of that name, having heard of the fame of Guido's school, and conceiving a desire to see him, sent three messengers to invite him to Rome. Upon their arrival, it was resolved by the brethren of the monastery, that he should go thither, attended by Grimaldo, the abbot, and Peter, the chief of the canons of the church of Arezzo. Arriving at Rome, he was presented to the holy father, and by him received with great kindness. The pope had several conversations with him, in all which he interrogated him as to his knowledge in music; and upon sight of an antiphonary which Guido had brought with him, marked with the syllables agreeable to his new invention, the pope looked on it as a kind of prodigy, and ruminating on the doctrines delivered by Guido, would not stir from his seat till he had learned perfectly to sing off a verse: upon which he declared that he could not have believed the efficacy of the method, if he had not been convinced by the experiment he had himself made of it. The pope would have detained him at Rome, but labouring under a bodily disorder, and fearing an injury to his health from the air of the place, and the heat of the summer, which was then approaching, Guido left that city upon a promise to re-visit it, and explain to his holiness the principles of his new system."

The following scheme will show the

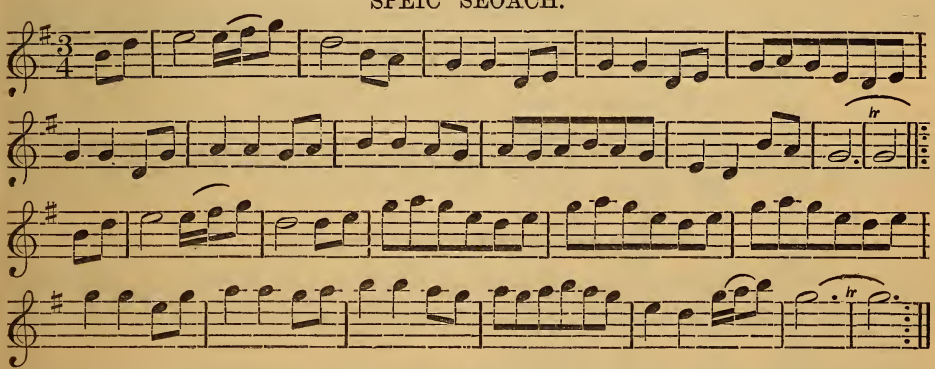
[1] The *Micrologus*, his chief work on Music, supposed to have been written at the Monastery of Pomposo, near Farrara, on his return from Rome, and in the thirty-fourth year of his age. There is a small volume of MSS. in the British Museum, which contains fifteen of the twenty chapters of Guido's *Micrologus;* a short tract, *De Constitutionibus in Musica*, which seems to belong to that in which the famous passage occurs that was so severe on the singers of his time, and which has since been often quoted with pleasure, as applicable to their successors:—*Temporibus nostris super omnes homines Fatui sunt Cantores.*

reformed scale of Guido, the situation of the notes on the lines and spaces, and the relation which the hexachords bear each to the others:—



Having now arrived at a period almost coeval with the supposed date of the ancient Welsh manuscript, and having endeavoured, by collateral evidence, to throw light upon the origin of the system of notation contained in it, and thereby proving its antiquity, by showing that it was the very notation in use for hundreds of years previous to that time, we will now compare it with the scale as improved by Guido, so as to enable us to decipher the manuscript with greater facility. But first of all, I wish to call attention to a peculiarity in Guido's scale: namely, the absence of the leading-note. My object in doing this is to point out that the national music of Ireland possesses, to a great extent, this peculiarity to the present day, and which, indeed, is one of its chief characteristics, as will be seen by the following tune, taken from *Walker's Irish Bards*, and supposed to be very ancient:—

SPEIC SEOACH.



This peculiarity does not exist in Welsh music, as each scale has its leading-note; a fact, which, in a musical point of view, constitutes the superiority of the national music of Wales over that of any other country.

Dr. Crotch, in the first volume of his *Specimens of various Styles of Music*, referred to in his course of lectures, writes as follows:—

"British and Welsh national music may be considered as one, since the original British music was, with the inhabitants, driven into Wales. It must be owned, that the regular measure and diatonic scale of the Welsh music is more congenial to the English taste in general, and appears at first more natural to experienced

musicians than those of the Irish and Scotch. Welsh music not only solicits an accompaniment; but being chiefly composed for the harp, is usually found with one; and, indeed, in harp tunes, there are often solo passages for the bass, as well as for the treble. It often resembles the scientific music of the seventeenth and eighteenth centuries; and there is, I believe, no probability that this degree of refinement was an introduction of later times."

Farther on, he continues thus:—

"The military music of the Welsh seems superior to that of any other nation. In the German marches, the models of the English, most of the passages are noisy, interspersed with others that are trifling, and even vulgar. In those of France also there is much noise, together with chromatic and other scientific passages. The Scotch Highland marches, called Ports [see Macdonald's *Highland Airs*] are wild warbles, which might (and, indeed, upon many occasions did, in a remarkable degree) inspire courage, but which could not answer the purpose of regulating the step. But in the Welsh marches, "The March of the Men of Harlech," "The March of the Men of Glamorgan," and also a tune called "Come to Battle," there is not too much noise, nor is there vulgarity or misplaced science. They have a sufficiency of rhythm without its injuring the dignified character of the whole; which, to use the words of the poet, is—

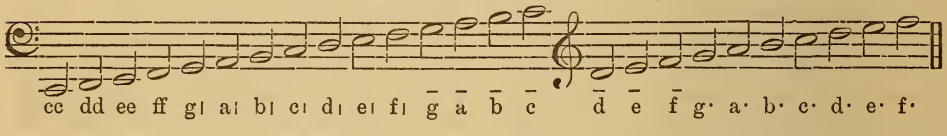
* * * 'Such as rais'd
To heighth of noblest temper heroes old
Arming to battle; and, instead of rage,
Deliberate valour breath'd.'

Par. Lost, book I. *line* 551."

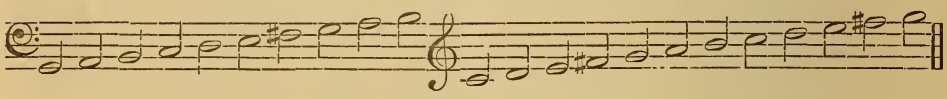
To return to the Welsh manuscript. There are five keys in Welsh music:—The low key of C (*is-gywair*), the sharp key of G (*cras-gywair*), the flat key of F (*lleddv-gywair*), the mixed or minor key (*bragod-gywair*), and the key with a minor third (*go-gywair*):—

THE FIVE KEYS IN WELSH MUSIC.

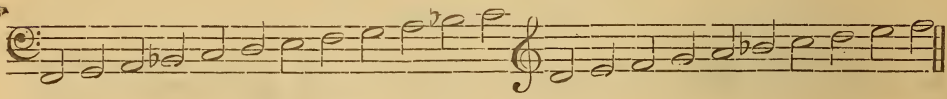
The low key of C (Is-gywair).



The sharp key of G (Cras-gywair).

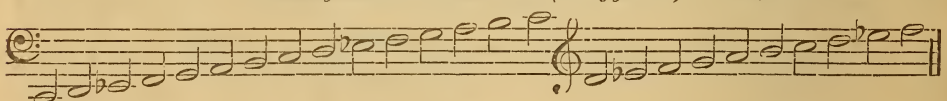


The flat key of F (Lleddv-gywair).



The mixed or minor key (Bragod-gywair)

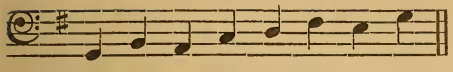
The key with a minor third (Go-gywair).



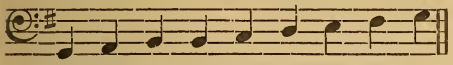
Guido's three major keys are the same as those of the Welsh, and distinguished by similar terms:—The sharp key of G (*durum*), the flat key of F (*molle*), and the key of C (*natural*).

It was supposed that the latter of the five keys (*go-gywair*) was peculiar to Welsh music, until Dr. Crotch pointed out that several of the Norwegian airs (included in his *Specimens*) are in the same key. In page 1076 of this volume will be found several other scales which do not appear to have come into general use, but which are worthy of attention on account of their peculiarities; therefore, I shall introduce them in modern notation:—

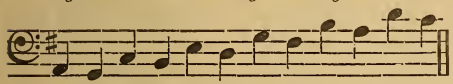
Cywair Ithel.



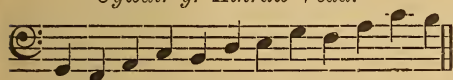
Cywair Gwyddelig dyeithr.



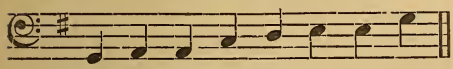
Cywair Chwith—Cywair dyeithr.



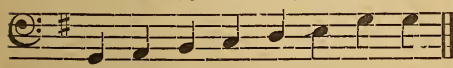
Cywair yr Athraw Vedd.



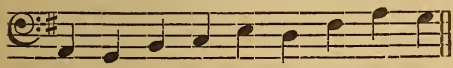
Cras-gywair.



Lleddv-gywair Gwyddyl.



Cywair yn Nghywair Edward.



In order to show the individuality of each, they have been written, in the page above alluded to, with the letters of the regular diatonic scale on one side, and the letters which constitute the difference of the other scale on the opposite side. My chief object in noticing them is to call special attention to the *lines* that connect the letters in the different parts of the scale. It will be observed that there are six of those lines, and that they are attached, on the left side, to the letters *g* | *b* | *d* | *f* | $\bar{a}$ and $\bar{c}$, thus:—

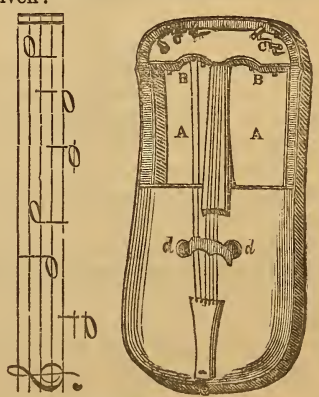
$\bar{d}$
$\bar{c}$—
$\bar{b}$
$\bar{a}$—
$\bar{g}$
f |—
e |
d |—
c |
b |—
a |
g |—

This being the case in each instance, I am strongly impressed with the conviction that the lines represent the strings of the *crwth*, and that the letters give a clue to the manner of tuning that instrument. I am aware that another method of tuning the *crwth* has been recorded; but it is so unlike the manner of tuning any of the instruments of that kind, and apparently so unpractical, that the matter has hitherto been involved in the greatest uncertainty.

Sir John Hawkins, in his *History of Music*, has written of the *crwth* as follows:—

"The instrument here spoken of is of the fidicinal kind, somewhat resembling a violin, twenty-two inches in length, and an inch and a half in thickness. It has six strings, supported by a bridge, and is played on with a bow. The bridge differs from that of a violin in that it is flat, and not convex, on the top; a circumstance from which it is to be inferred that the strings are to be struck at the same time, so as to afford a succession of concords. The bridge is not placed at right angles with the sides of the instrument, but in an oblique direction; and, which is farther to be remarked, one of the feet of the bridge goes through one of the sound-holes, which are circular, and rests on the inside of the back; the other foot, which is proportionably shorter, resting on the belly before the other sound-hole.

Of the strings, the four first are conducted from the bridge down the finger-board, as those of a violin; but the fifth and sixth, which are about an inch longer than the others, leave the small end of the neck about an inch to the right. The whole six are wound up either by wooden pegs in the form of the letter T, or by iron pins, which are turned with a wrest like those of a harp or spinnet. The figure, together with the tuning of this singular instrument, is here given:—



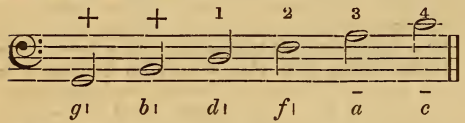
A A The apertures for the hand.
B B The strings conducted under the end board.
c c The pegs.
d d The sound-holes.

Of the tuning, it is to be remarked, that the sixth and fifth strings are the unison and octave of G, the fourth and third the same of C, and the second and first the same of D; so that the second pair of strings are a fourth, and the third a fifth to the first."

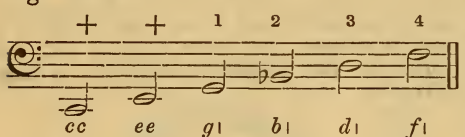
At page 1071 of this volume will be found the following :—

"The second finger of the *crythor* governs three keys: *viz.*, the low key of C (*is-gywair*) the sharp key of G (*cras-gywair*), and the flat key of F (*lleddv-gywair*). The first finger governs the mixed or minor key (*bragod-gywair*), and the key with a minor third (*go-gywair*). And these are the five chief keys."[1]

In tuning the *crwth* according to the lines, as well as the letters by which they are connected in the scales in page 1076, I find the result to correspond with the above in every respect. For example: suppose the *crwth* to be tuned in the key of G (*cras-gywair*), the six strings would be as follows:—



The instrument being in the key of G, it is with the *second* finger that the F sharp would be made; therefore, it is clearly *that* finger which governs the key. For the other two keys which are said to be governed by the second finger, it is necessary that the *crwth* should be tuned in what is called the low key of C (*is-gywair*), which has that letter for its lowest note, and consequently the whole six strings tuned a fifth lower, but in the same order, which would be in the following manner:—



Here, again, the second finger governs the key of C and F by making the B either natural or flat. Returning once more to the tuning of the instrument in the key of G (*cras-gywair*), as above, we find that the first finger governs the mixed or minor key (*bragod-gywair*), by making E flat on the D string, which would be the key of C minor; and also the key with a minor third (*go-gywair*), which, with the exception of E flat, is the same as C major. It is evident that the mixed or minor key (*bragod-gywair*) admits of being used as the relative minor of the three major keys, C, F, and G; which would be A, D, and E minor. The same might be said of the key with a minor third (*go-gywair*) with the mere alteration of that interval.

In applying the above theory to the chords of accompaniment of the twenty-four measures, to which Dr. Burney so strongly objected, on account of their inverted positions, as being at variance with the antiquity attributed to the manuscript, the cause appears fully accounted for; as it is evident that their inverted positions were adopted, in the first place, for the greater convenience of their being played, as much as possible, on the open strings of the *crwth;* and in the second, because the notes of that instrument did not descend lower than G, when tuned in the key of G (*cras-gywair*), in which key, as stated on the last leaf of the manuscript, are written the chords of accompaniment of the twenty-four measures, to which I now purpose devoting my attention.

The portion of the manuscript that has excited the greatest amount of curiosity, and has been most written about, is that of the twenty-four measures of instrumental music; to be found at pages 1073 and 1076, represented by two different kinds of marks; and also at 1089, in the ordinary notation, in which the whole of the manuscript is written. At page 1072, will be found an account of the same in the Welsh language, of which the following is a translation:—

"These are the twenty-four measures of instrumental music, all conformable to the laws of metre, as they were settled in a congress, by many professors skilful in that science, Welsh and Irish, in the reign of Gruffydd ab Cynan, and written in books, by command, at the time, and copied from thence the eleventh day of May, in the year one thousand," &c.

Another account of the same will be found at page 1205, taken from an ancient document in the possession of Sir Watkin Williams Wynn, translated as follows:—

"This book is called the *Preservation of Instrumental Music;* that is to say, the harp and *crwth*, within the three provinces of Wales, formed of the science of music, through the knowledge and invention of a doctor of music, assisted by four chief professors of the harp and *crwth*, and the good-will and ability of each being consonant to one another towards forming a song, to preserve it in memory, to perform, and to explain it with correctness. The names

[1] Edward Jones (*Bardd y Brenin*) in a note upon the above, remarks:—"This hint might help a zealous investigator of antiquity to unravel the mystery, and might lead to the finding out of the ancient notes of the *crwth;* but, unfortunately, I have been deprived of mine by a fire, as well as other irreparable losses of manuscripts (A.D. 1794)."

of the four chief musicians were *Allon y Cenau* (Allon ab Cynan), *Rhydderch Voel* (Rhydderch the Bald), *Matholwch Wyddel* (Matholwch the Irishman), and *Olav Gerddawr* (Olav the Minstrel). The audience were *Henri Gyvenrhydd* (Henry Redback), and *Carsi Delynior* (Carsi the Harper), and many others assisting by their advice and scientific knowledge; and by the counsel of those learned men, the skill of the doctor of music, and the four professors of the art, and by the unanimous agreement of all, were made the twenty-four measures; and to give stability to those, the twenty four strains (Deivr), or variations, were formed. They were made for three reasons: the first, for composing a piece; the second, for knowing the merits of it; and the third, for the preserving it in memory, as their names follow further on in the Hibernian language. And Mwrchan Wyddel (of Ireland) was chief Lord in Ireland at that time; by whom they were confirmed in a place called *Glyn Achlach*, with all his power and offices; and he further decreed that every person should support them.[1]

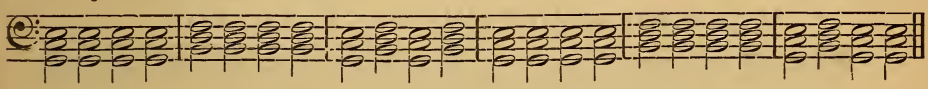
And, indeed, if there be any one who thoroughly understands, and can properly classify the twenty-four measures, it would be no more strange in him to be able to detect an error in a musical composition, than for a good reader to discover that a letter had been omitted in a syllable, or a word in a phrase."

k +

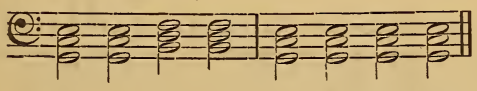
The marks at page 1073—i, i—as well as those in page 1076—1, 0—in my opinion, merely signify the *tonic* and *dominant;* and the whole twenty-four measures are constructed with them—one measnre differing from another according to the number of times that the above chords are repeated in succession, as will be seen by the following sketch:—

THE TWENTY-FOUR MEASURES OF INSTRUMENTAL MUSIC, WITH THEIR CHORDS OF ACCOMPANIMENT.

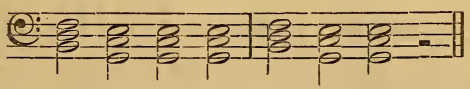
k + k+k+ k + k+k
1. *Mac y Mwn Hir.*—11110000101011110000101l.—iiii iiii iiii iiii iiii iiii.



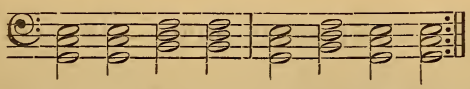
k + k
2. *Mac y Mwn Byr.*—11001111.—ii ii iiii.



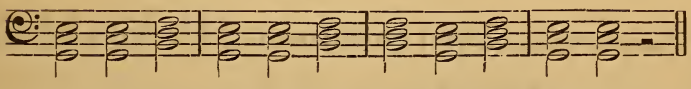
+k + k
3. *Mac y Delgi.*—0111011.—i iiii ii.



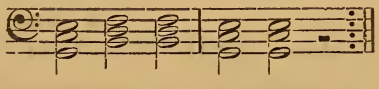
k +k+k k +k+k
4. *Corfiniwr.*—11001011.11001011.—iiiiiiii. iiiiiiii.



k +k + k+k
5. *Corsgolef.*—11011001011.—iiiiiiiiiii.

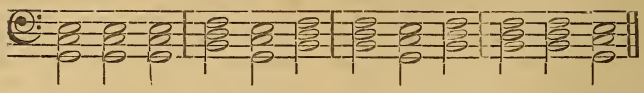


k+ k k+ k
6. *Rhiniart.*—10011.10011.—iiiii.iiiii.

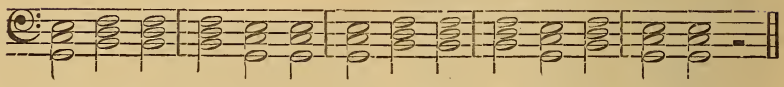


[1] Gruffydd ab Cynan and Cadwgan ab Bleddyn retreated to Ireland in 1096; Hugh, Earl of Chester, and Owen ab Edwyn, having taken possession of their lands, and of the Isle of Anglesey.—Jones' *Welsh Bards.*

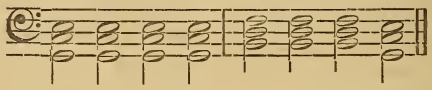
k +k+ k+ k
7. *Coraldan.*—111010010001.—i i i i i i i i i i i i.



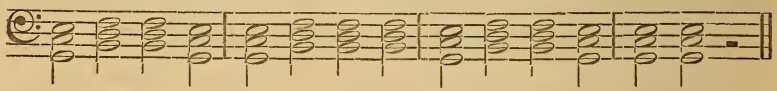
k+ k + k+k
8. *Tresi Heli.*—10001110001011.—i i i i i i i i i i i i i i.



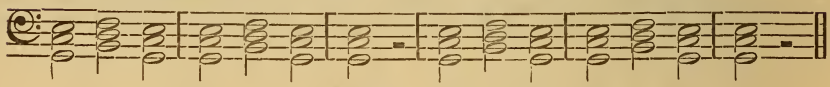
k + k
9. *Wnsach.*—11110001.—i i i i i i i i.



k+ k + k+ k
10. *Cor dia Tutlach.*—10011000100111.—i i i i i i i i i i i i i i.

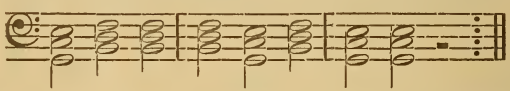


k+k +k k+k +k
11. *Corvinvaen.*—1011011.1011011.—i i i i i i i . i i i i i i i.

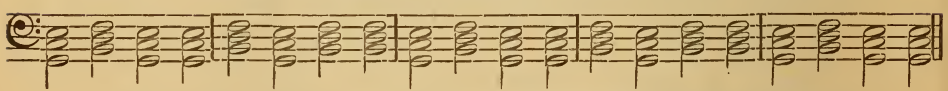


k+ k+k +k
12. *Corwrog.*—1001011011.—i i i i i i i i i i.

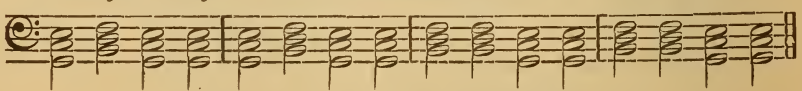
k+ k+k k+ k+k
13. *Carsi.*—10001011.10001011.—i i i i i i i i . i i i i i i i i.



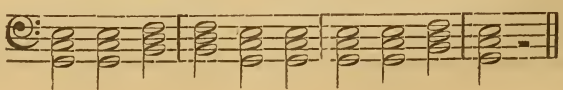
k+k +k+ k+k +k+ k+k
14. *Brath yr Ysgol.*—10110100101101001011.—i i i i i i i i i i i i i i i i i i i i.



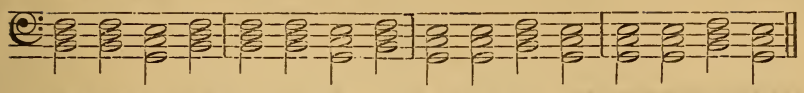
k+k k+k + k + k
15. *Flamgwr Gwrgan.*—1011.101100110011.—i i i i . i i i i i i i i i i i.



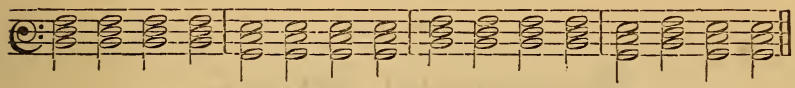
k + k +k
16. *Calchan.*—1100111101.—i i i i i i i i i i.



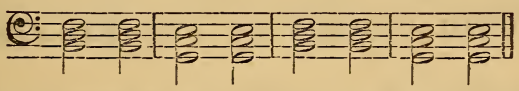
+ k+ + k+ k +k k +k
17. *Bryt Odidog.*—0010.0010.1101.1101.—iiii . iiii . iiii . iiii.



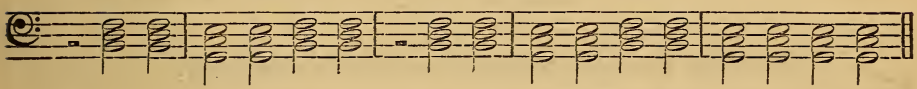
+ k + k+k
18. *Trwsgyl Mawr.*—0000111100001011.—iiiiiiiiiiiiiiii.



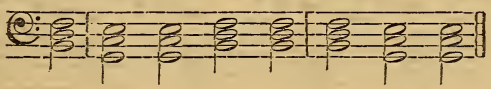
+ k + k
19. *Tutyr Bach.*—00110011.—iiiiiiii.



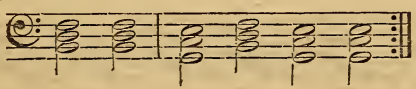
+ k + + k + k
20. *Mac y Mynvaen.*—00)1100:0011001111.—ii) iiii : iiiiiiiiii.



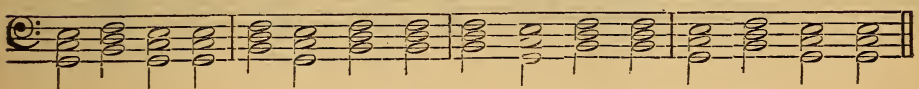
+k + k
21.—*Toddyv..*—01100011.—iiiiiiii.



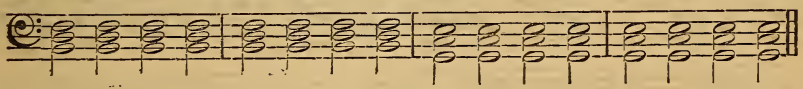
+ k+k + k+k
22. *Hatyr Bach.*—001011.001011.—iiiiii . iiiiii.



k+k +k+ k+ k+k
23. *Alban Hyvaidd.*—1011010001001011.—iiiiiiiiiiiiiiii.



+ k
24. *Alvarch.*—0000.0000.1111.1111.—iiii . iiii . iiii . iiii.



To give an idea of the importance that was attached to the knowledge of the twenty-four measures, I give the following translation from the original Welsh in the last page of the manuscript, upon the subject:—

"No master of music can do without knowing these measures; and whoever is sufficiently acquainted with them, will never fail to answer for himself in his profession. And thus ends the class called the hand, the foot, and ear knowledge of instrumental music."

I shall here insert the twenty-four measures of instrumental music, with their chords of accompaniment (*clymau cydgerdd*), and twenty-four strains, or variations (*a phedair cainc ar ugain*), applicable to each measure, as deciphered by myself.

THE

TWENTY-FOUR MEASURES

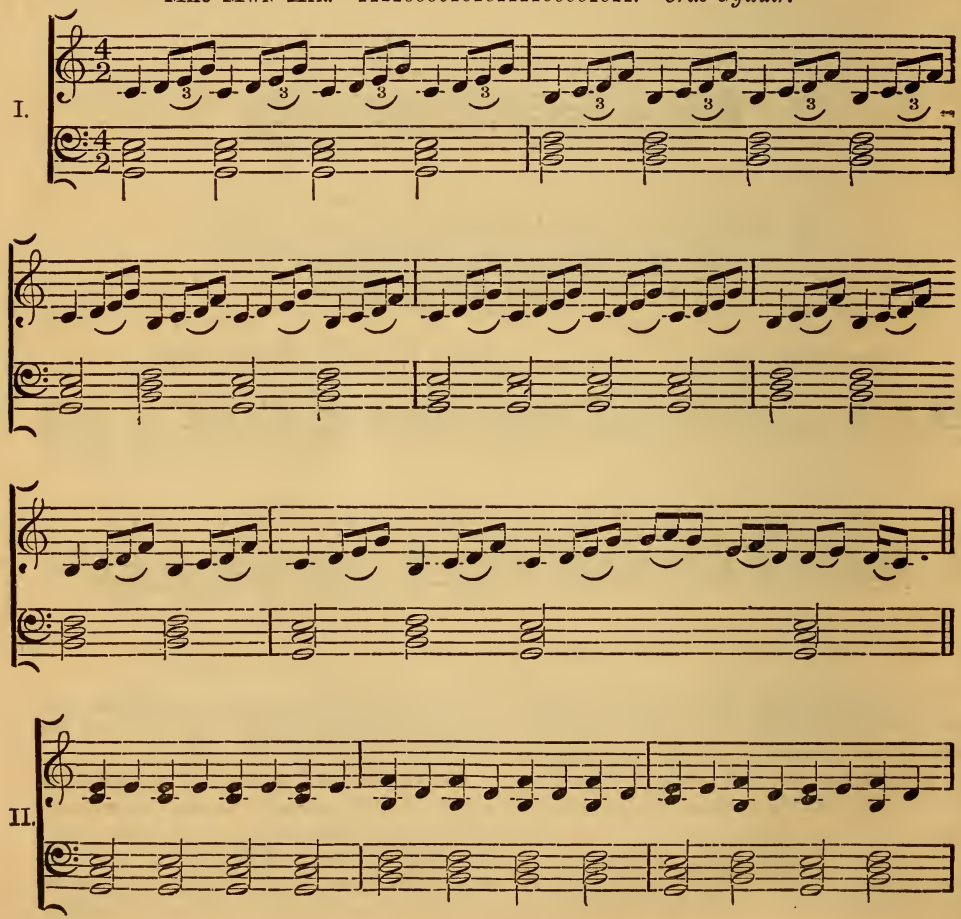
OF

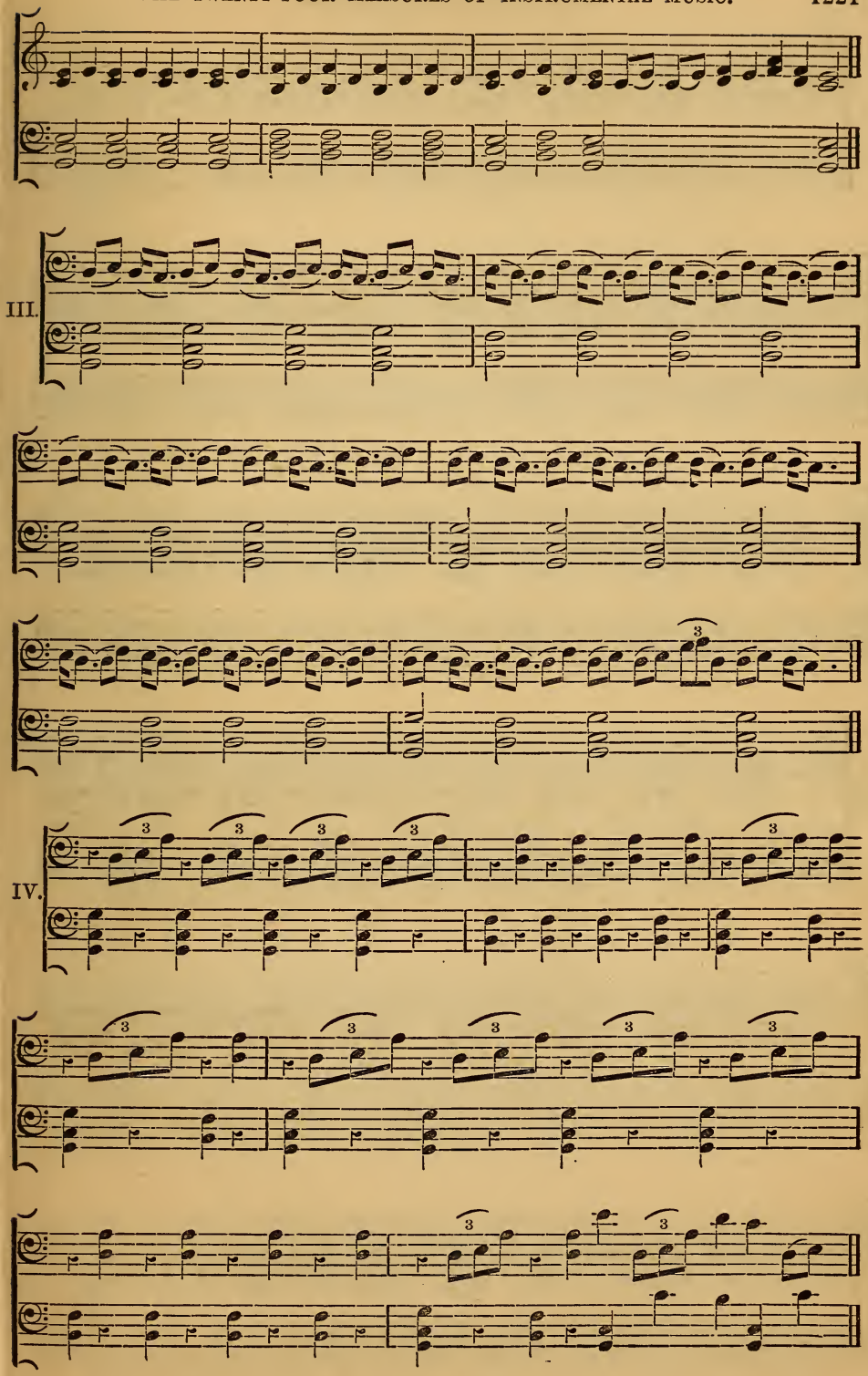
Instrumental Music,

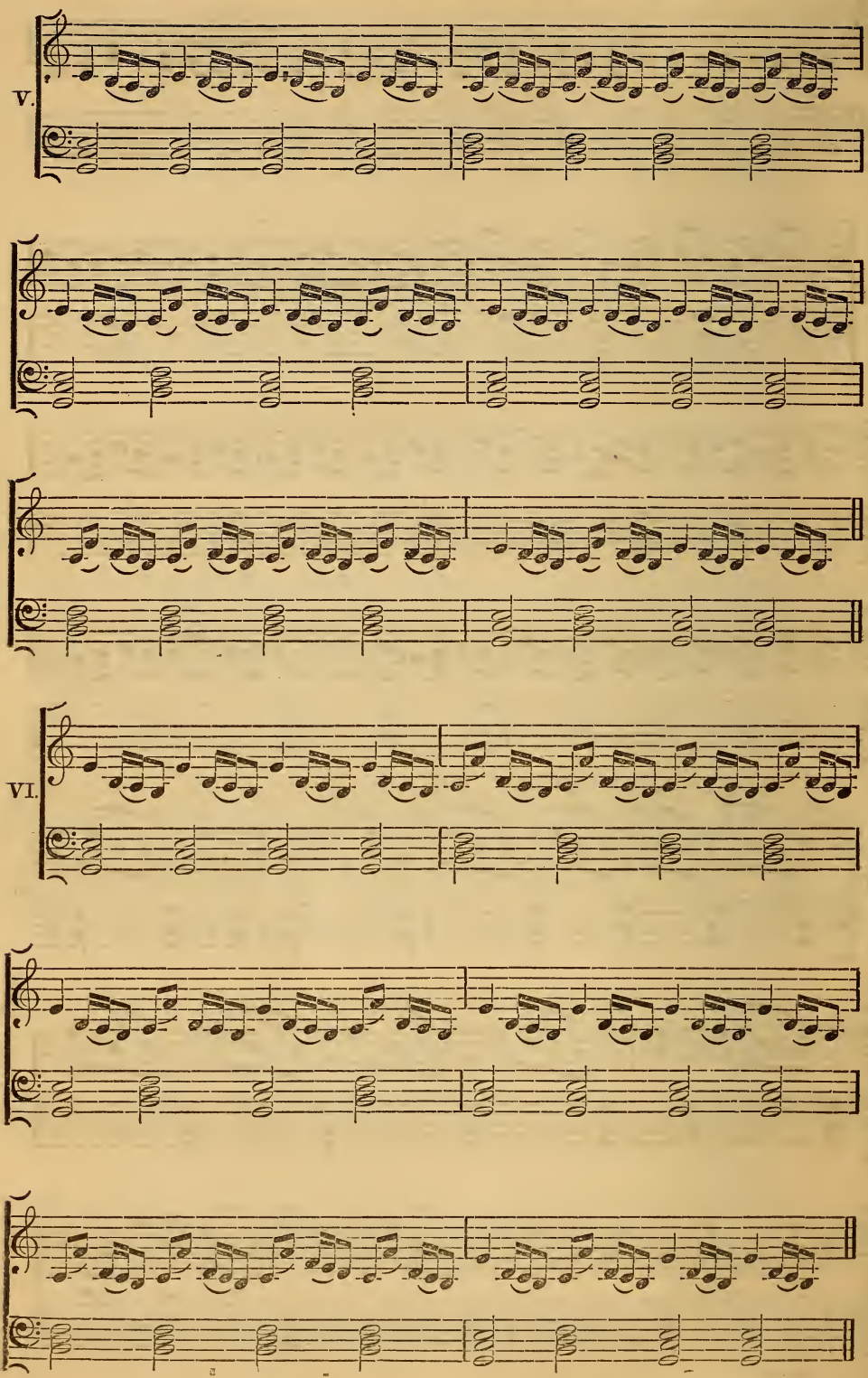
WITH THEIR CHORDS OF ACCOMPANIMENT,

AND TWENTY-FOUR STRAINS, OR VARIATIONS, APPLICABLE TO EACH MEASURE.

Mac Mwn Hir.—111100001010111100001011.—*Cras Gywair.*




III.
IV.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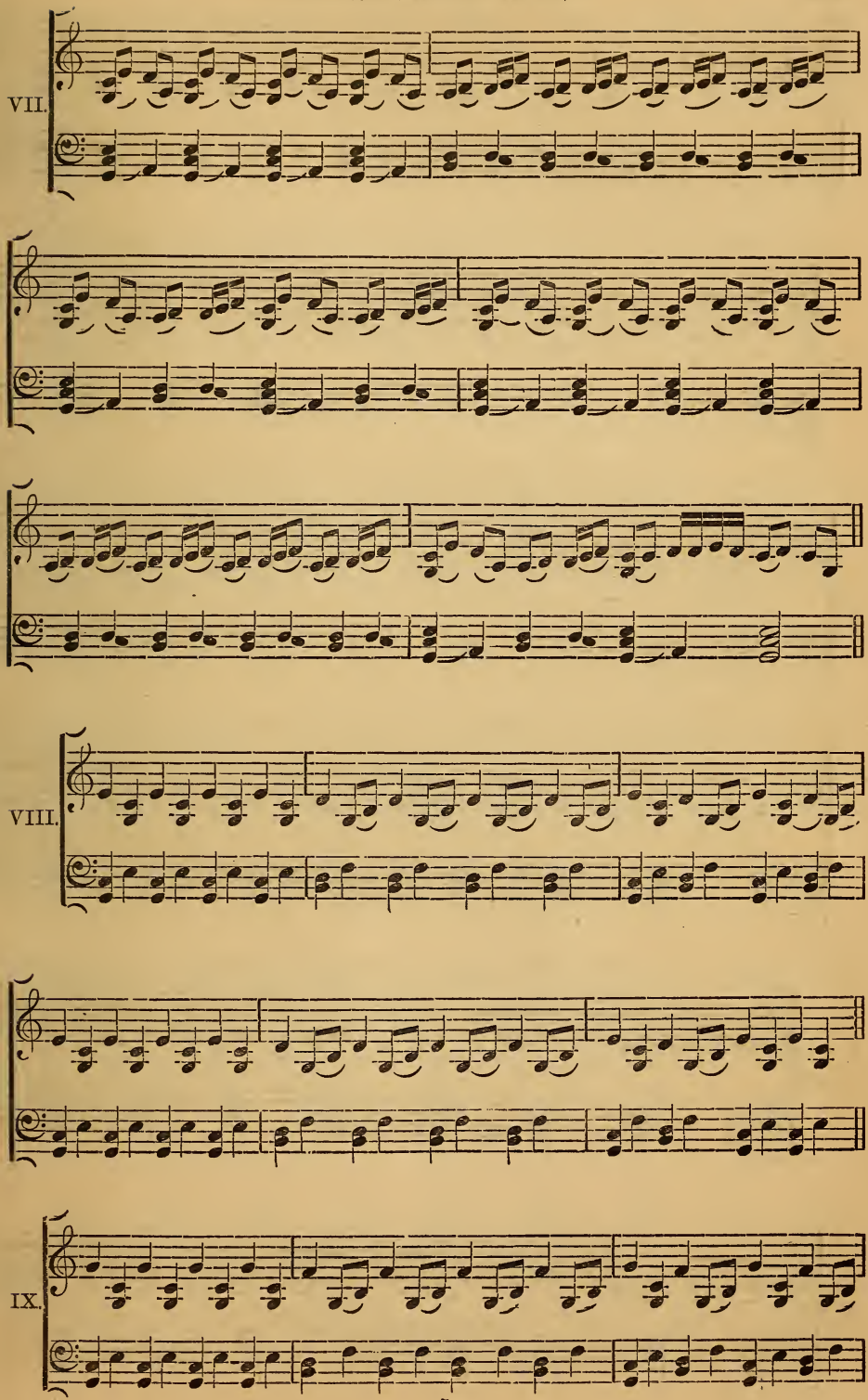
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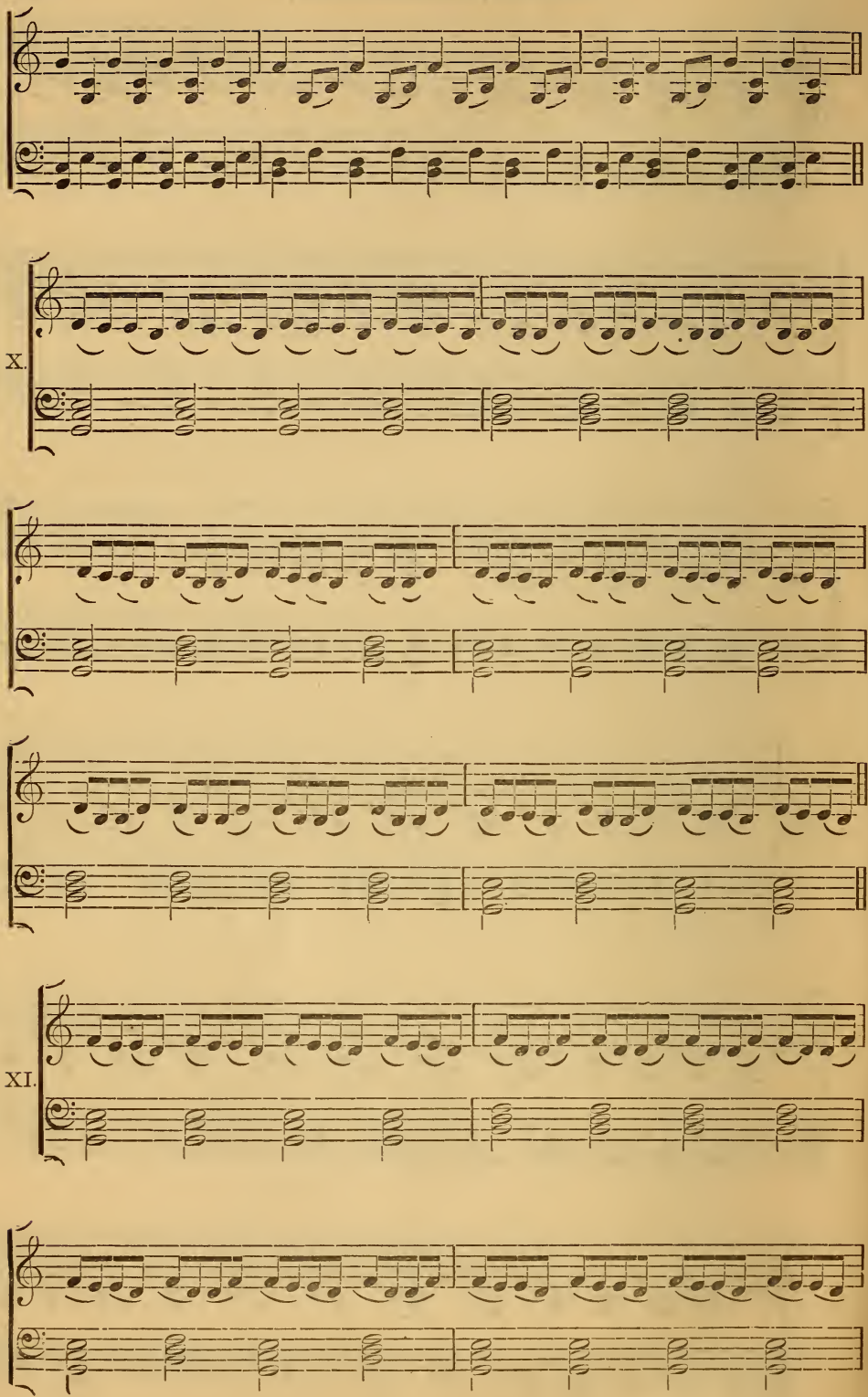
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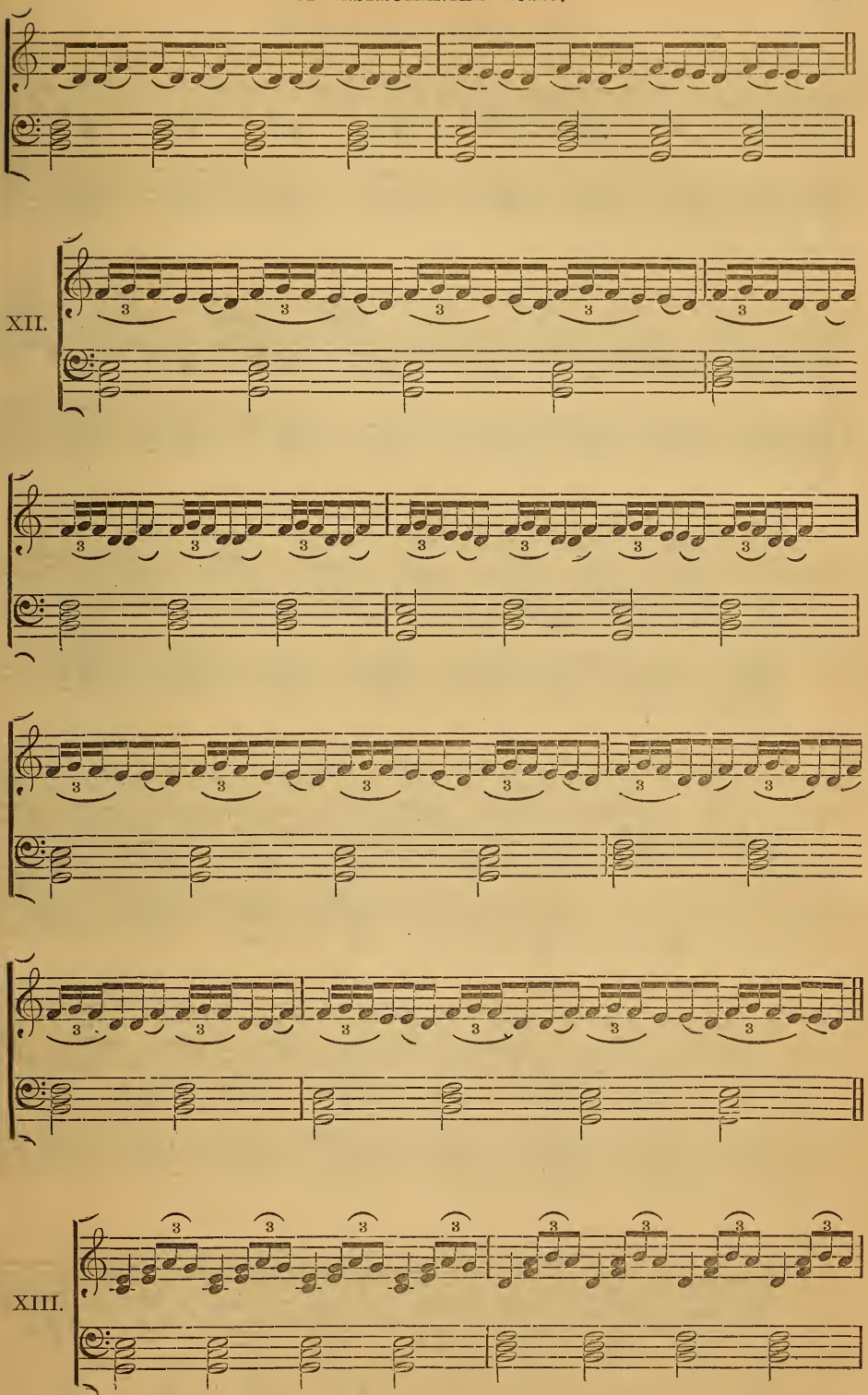
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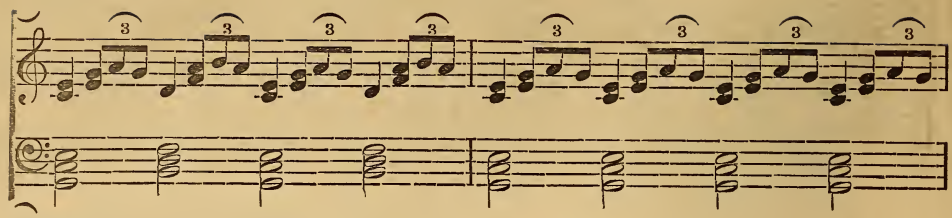

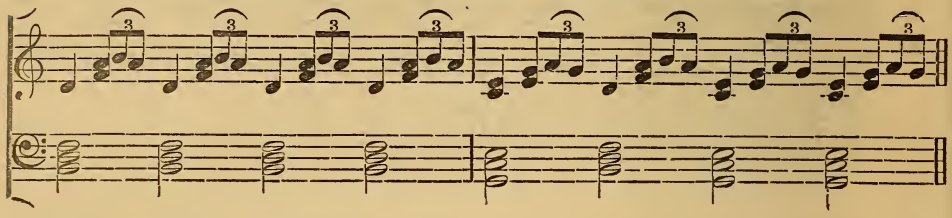

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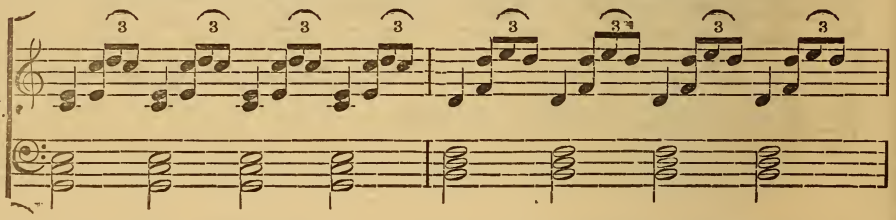

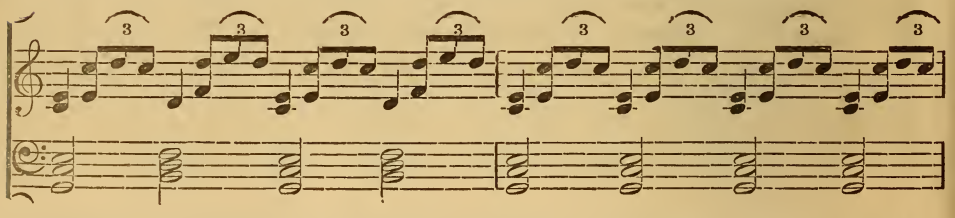

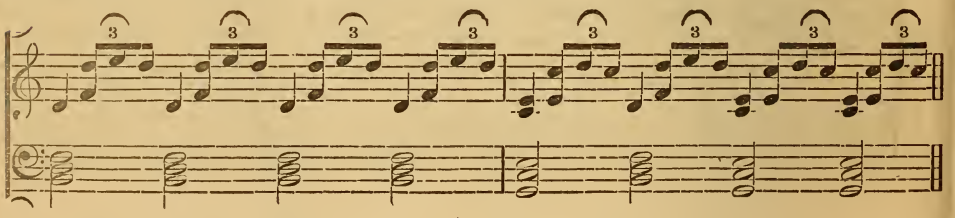

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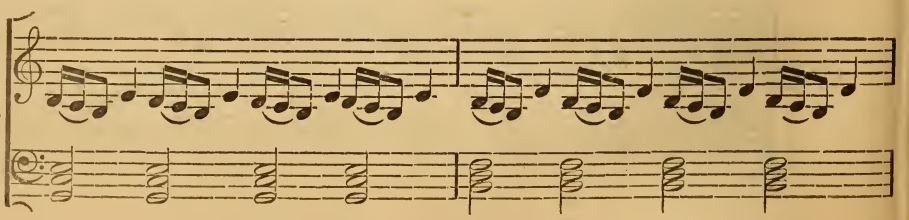

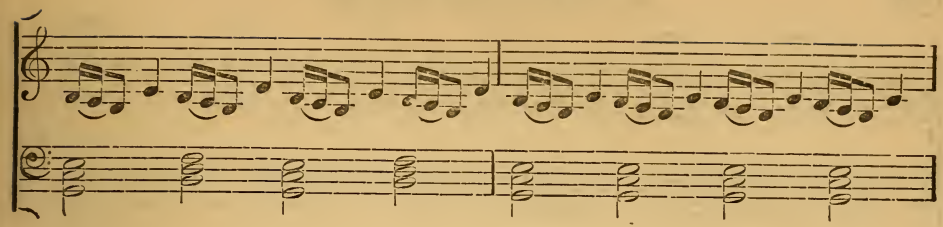

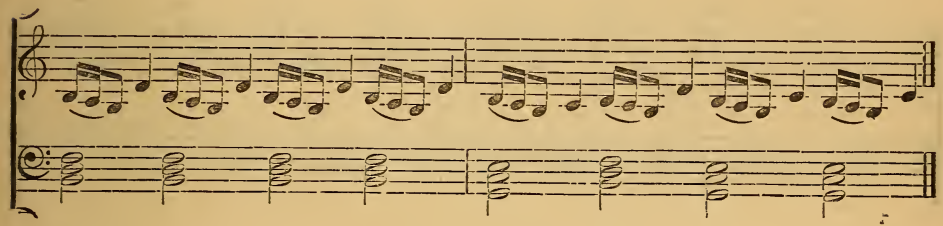

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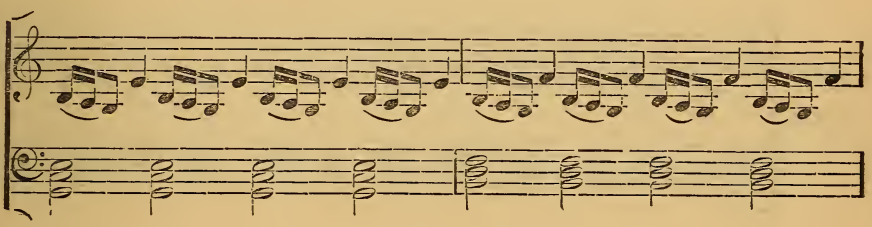

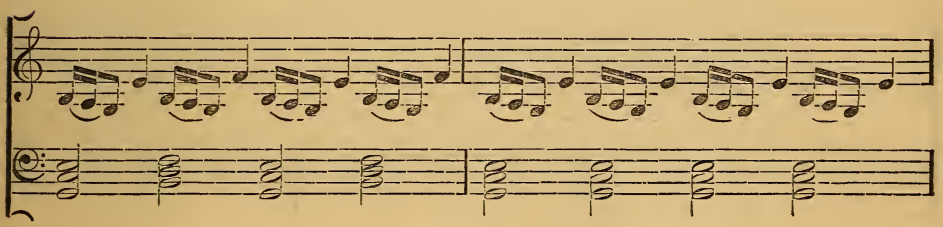

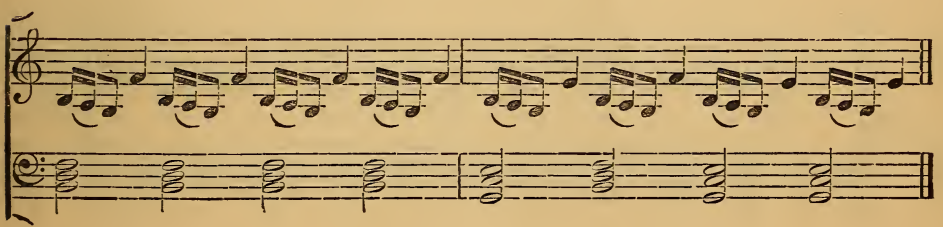

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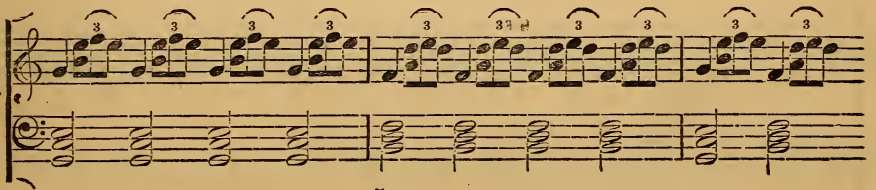

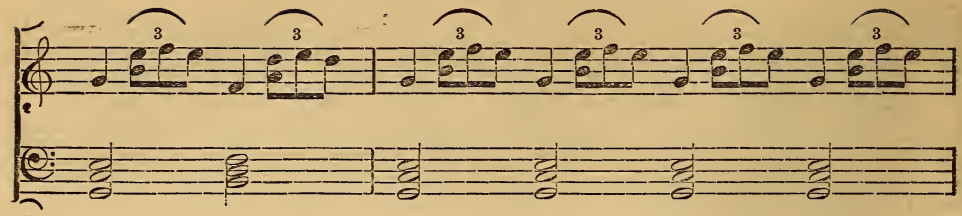

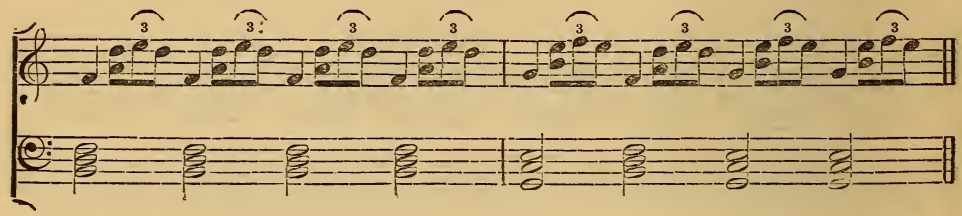

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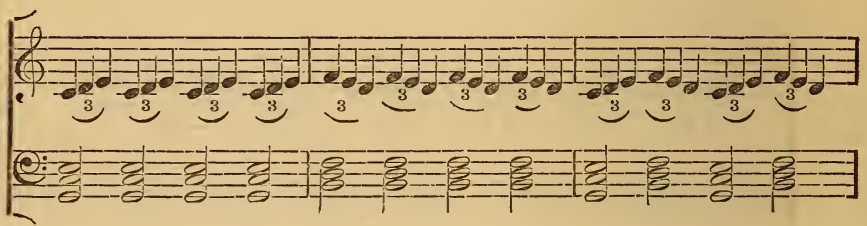

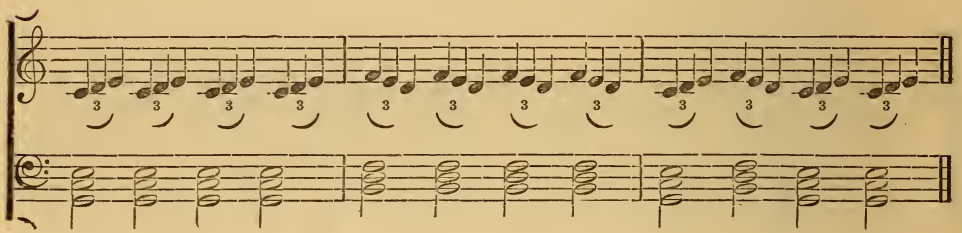

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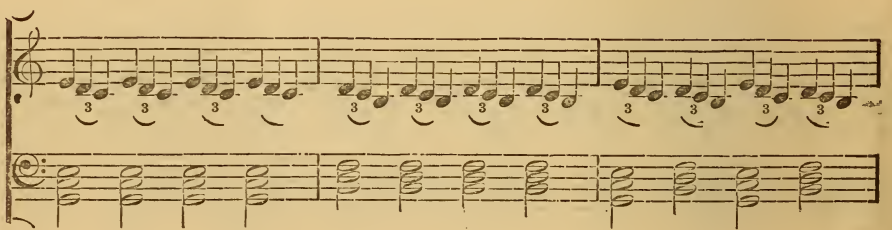

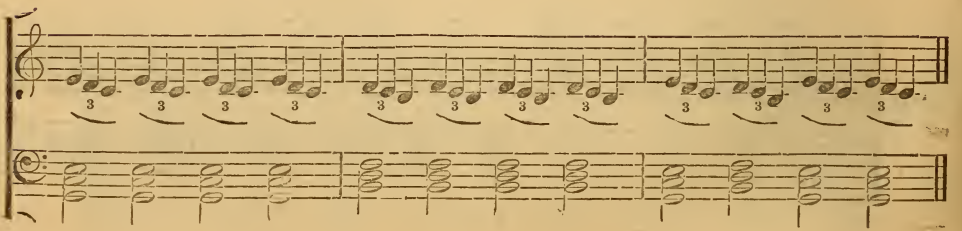

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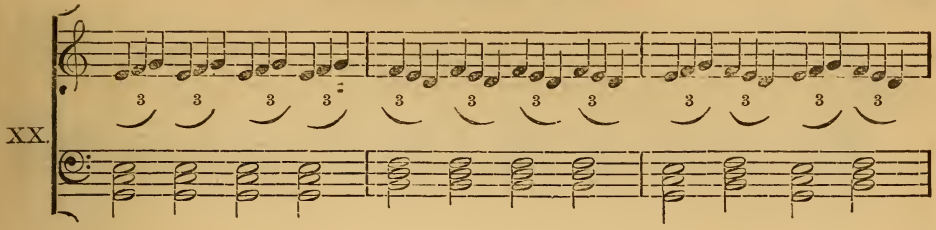

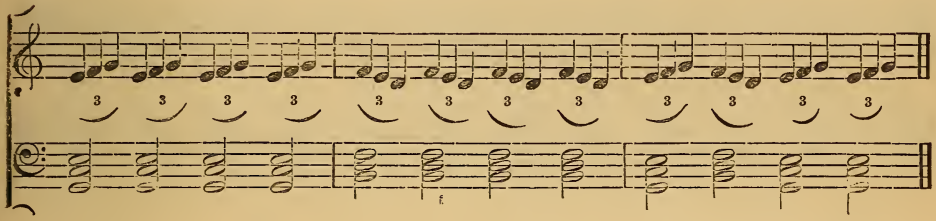

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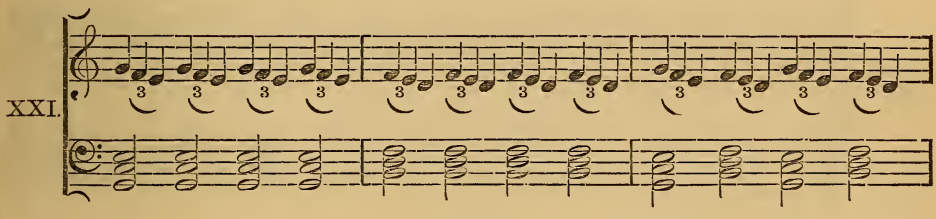

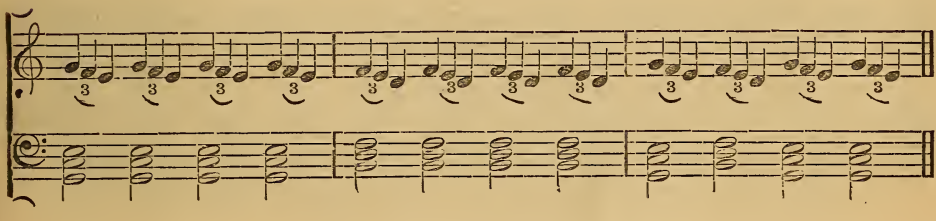

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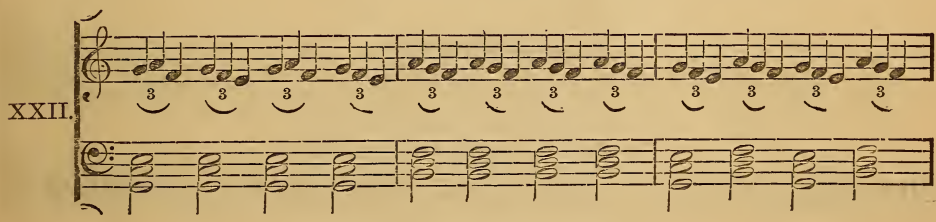

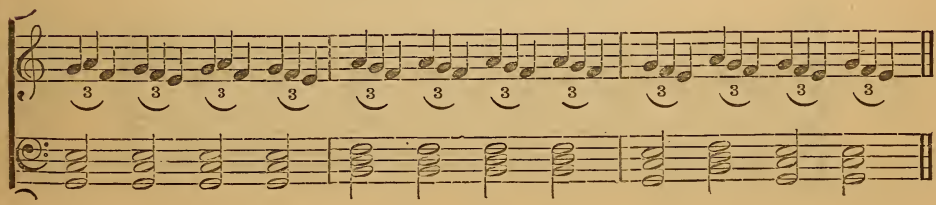

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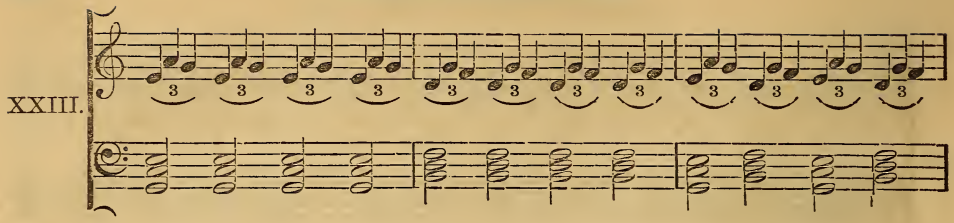

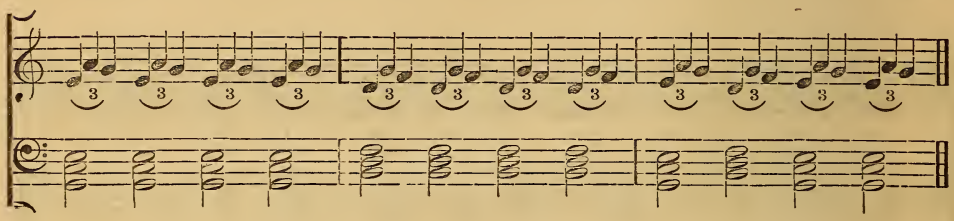

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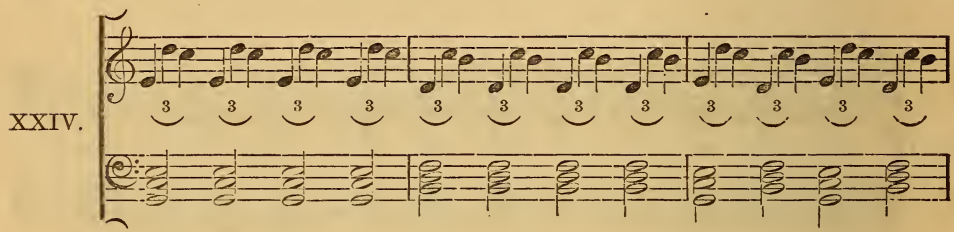
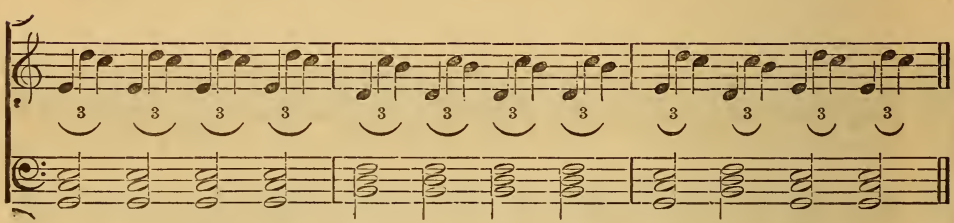


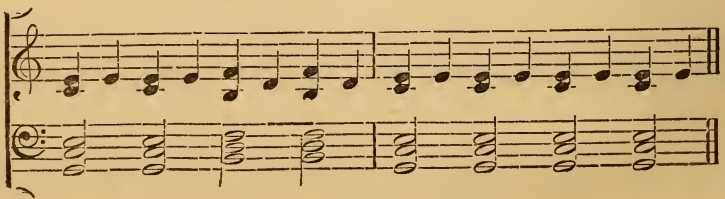


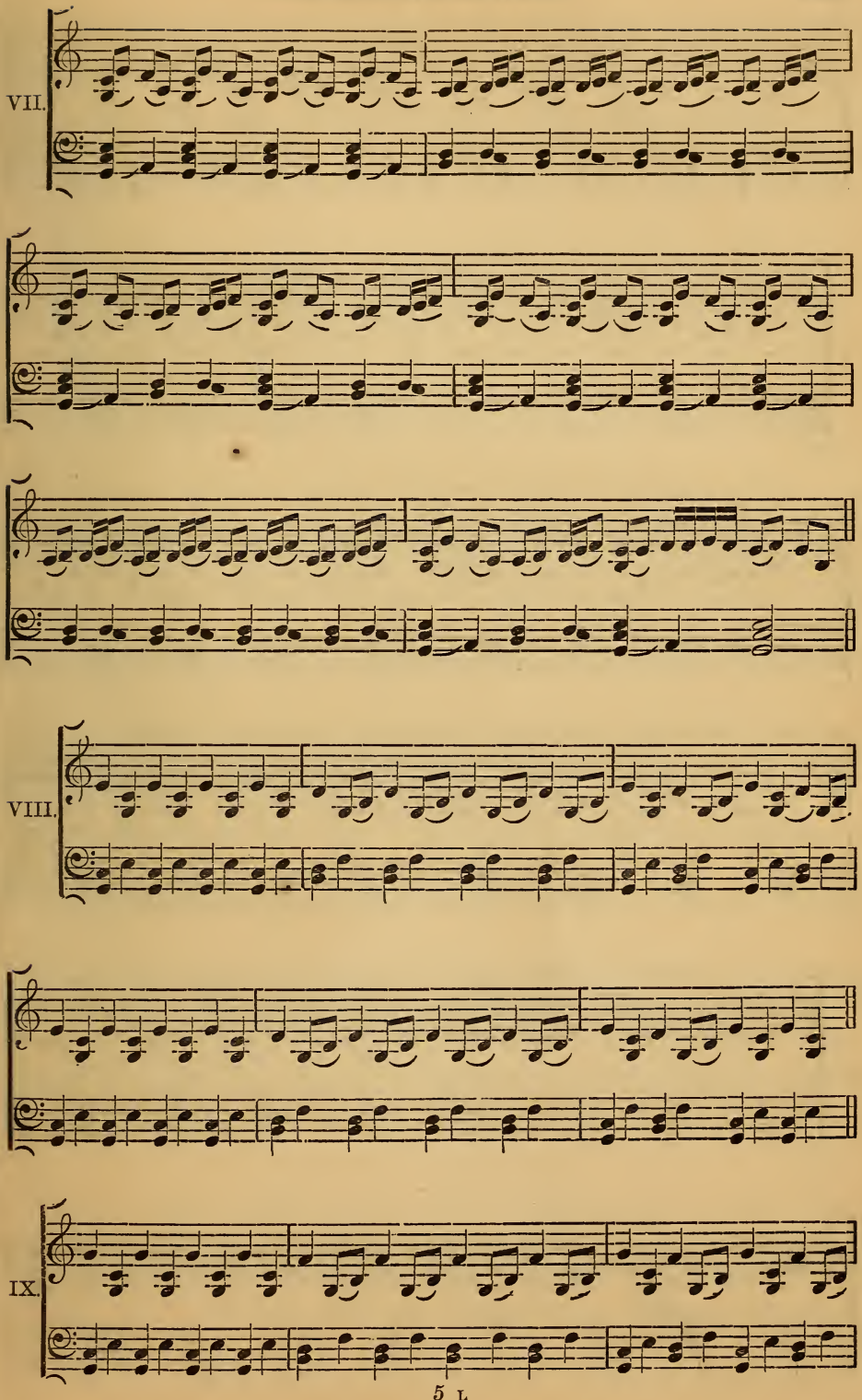
End of the Chords of Accompaniment on the Measure Mac Mwn Hir.

THE FOLLOWING ARE THE REMAINING

THREE-AND-TWENTY MEASURES WRITTEN TO ONE STRAIN.

2. *Mac y Mwn Byr.*—11001111.

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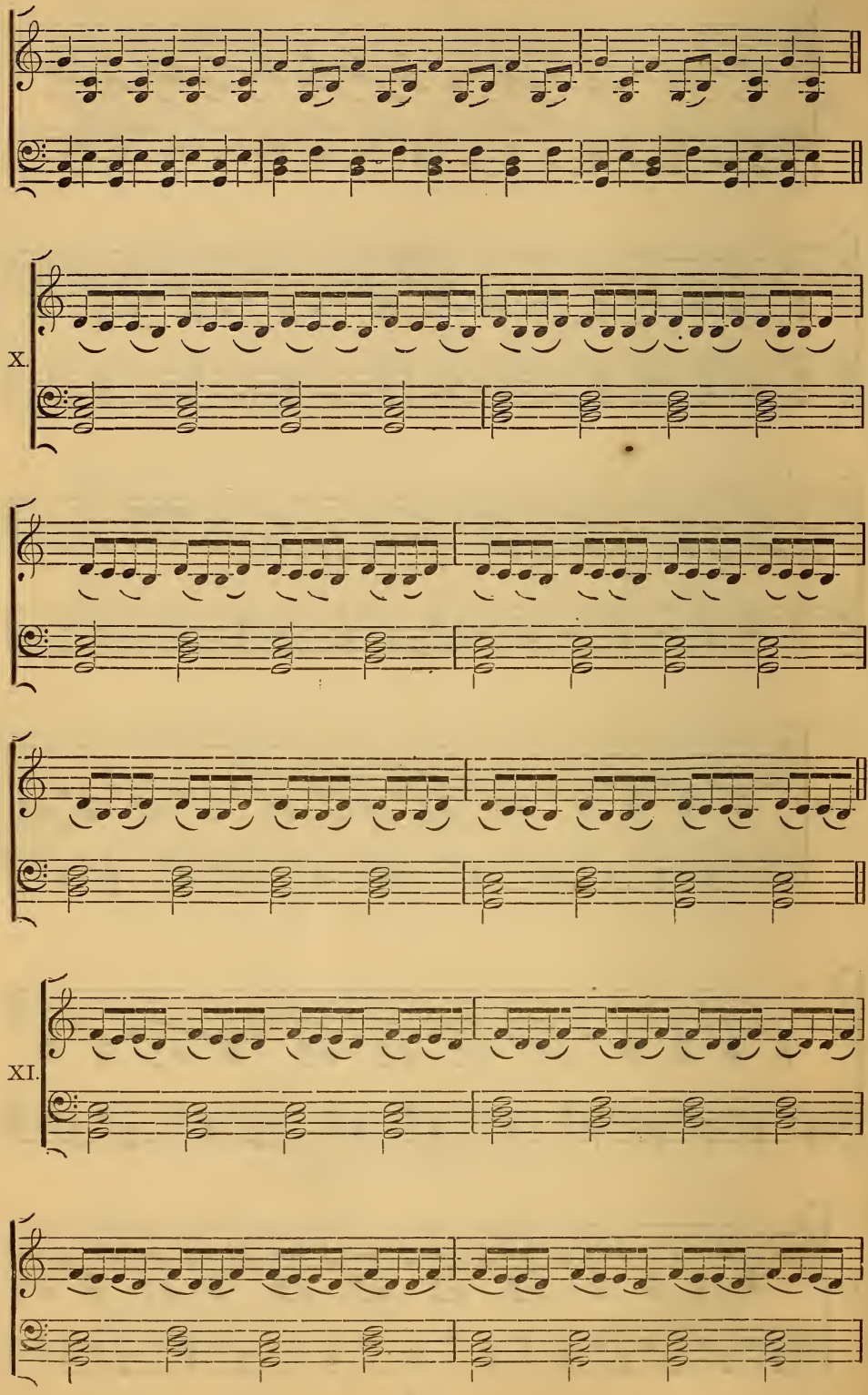
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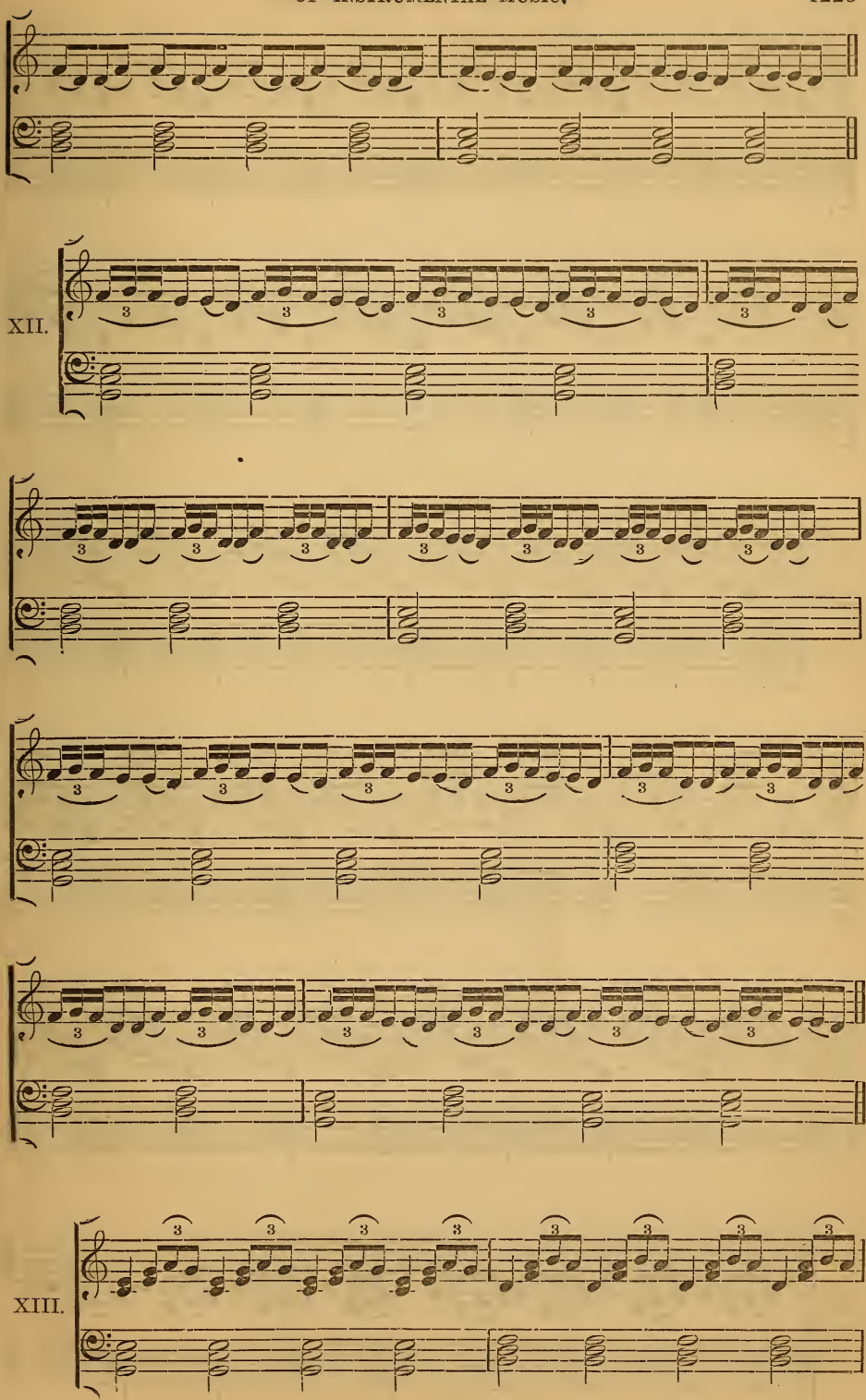
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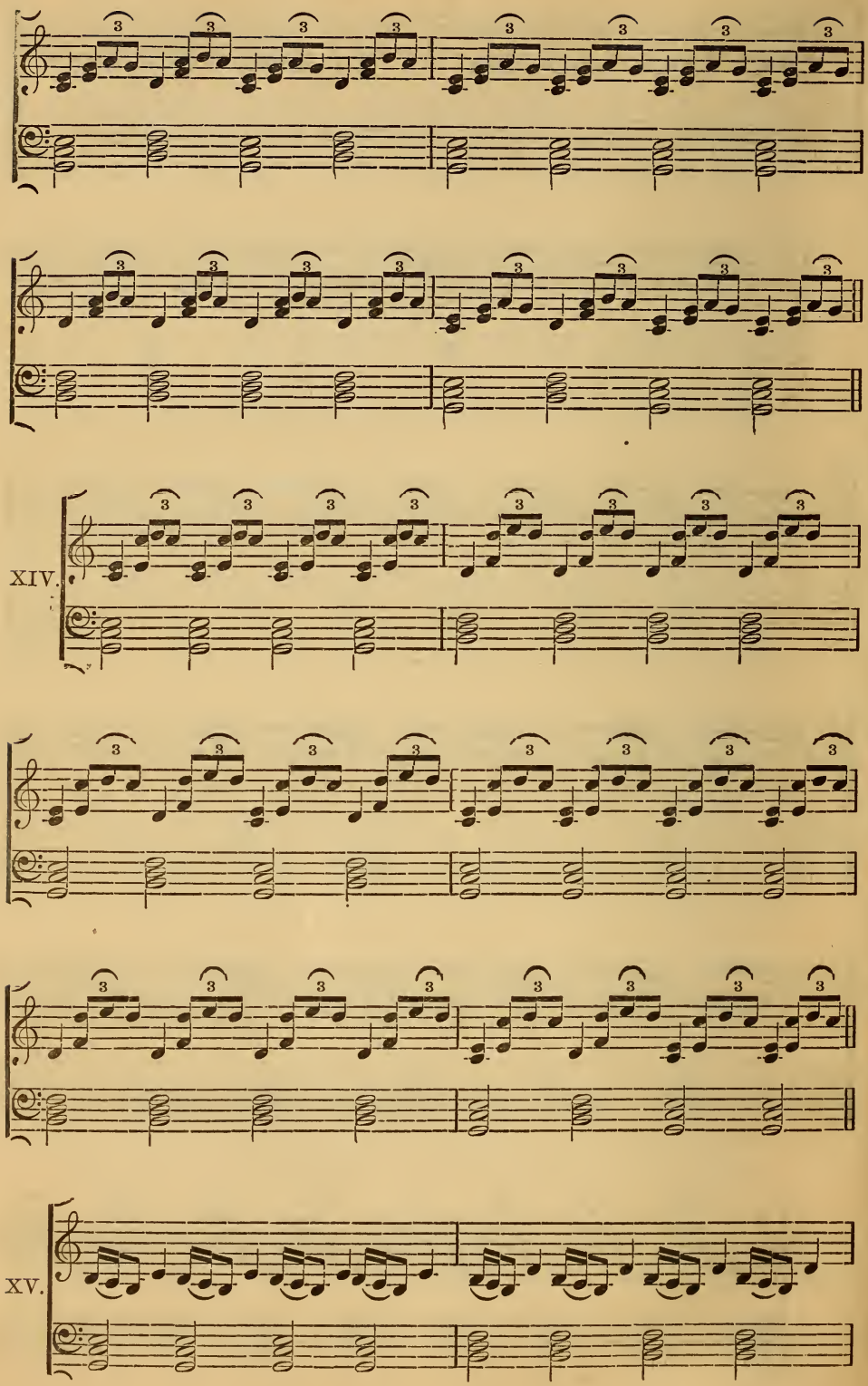
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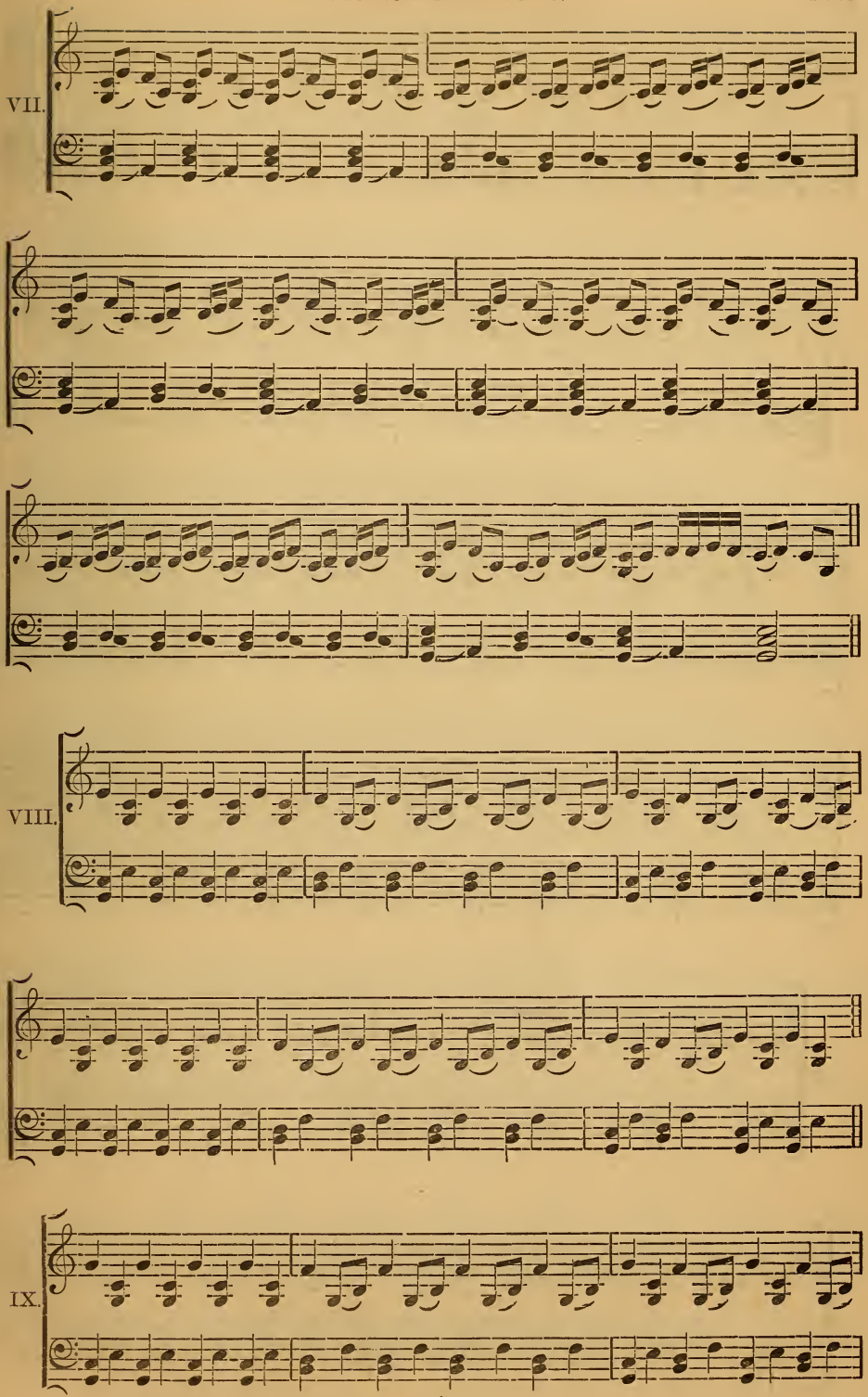
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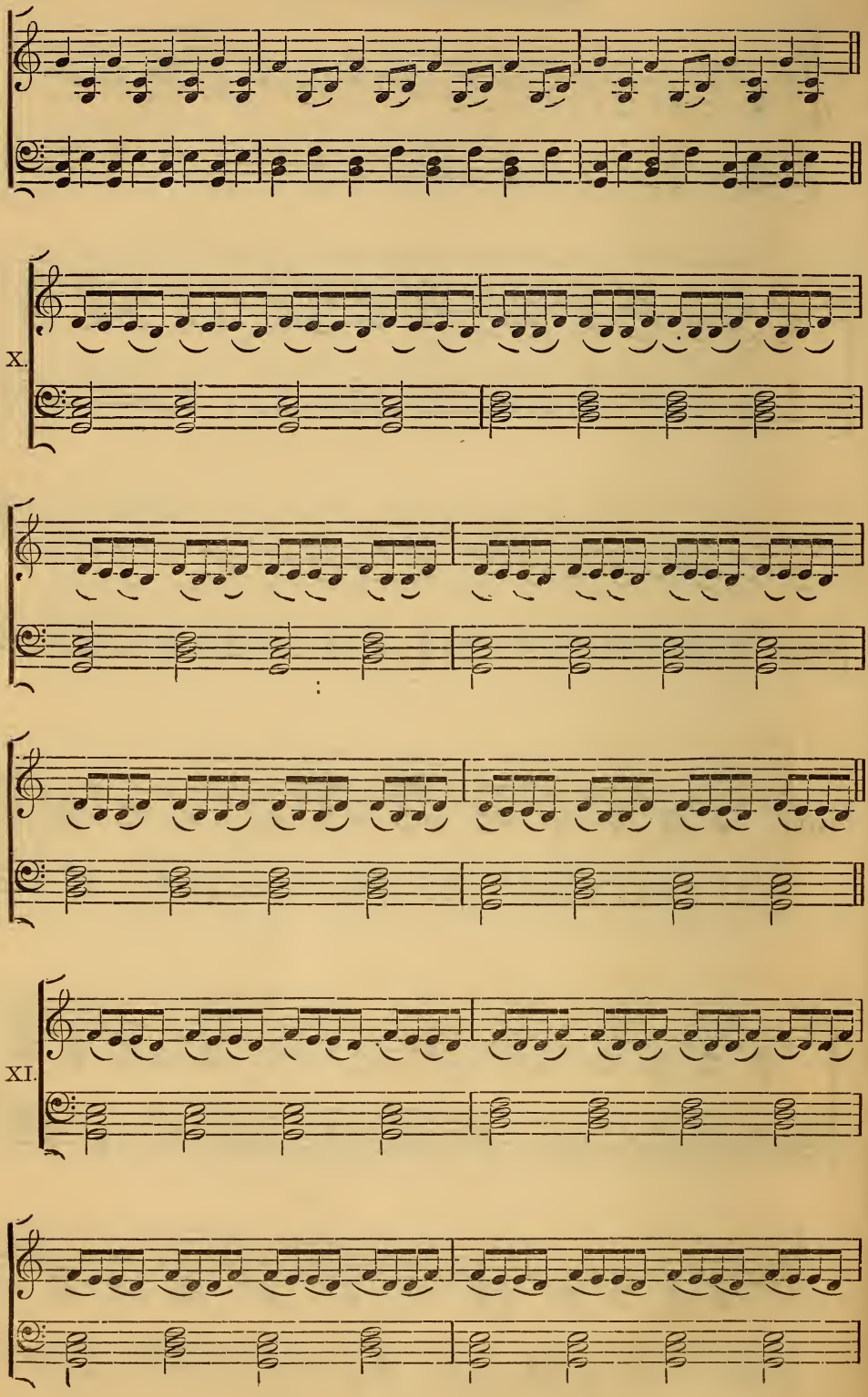
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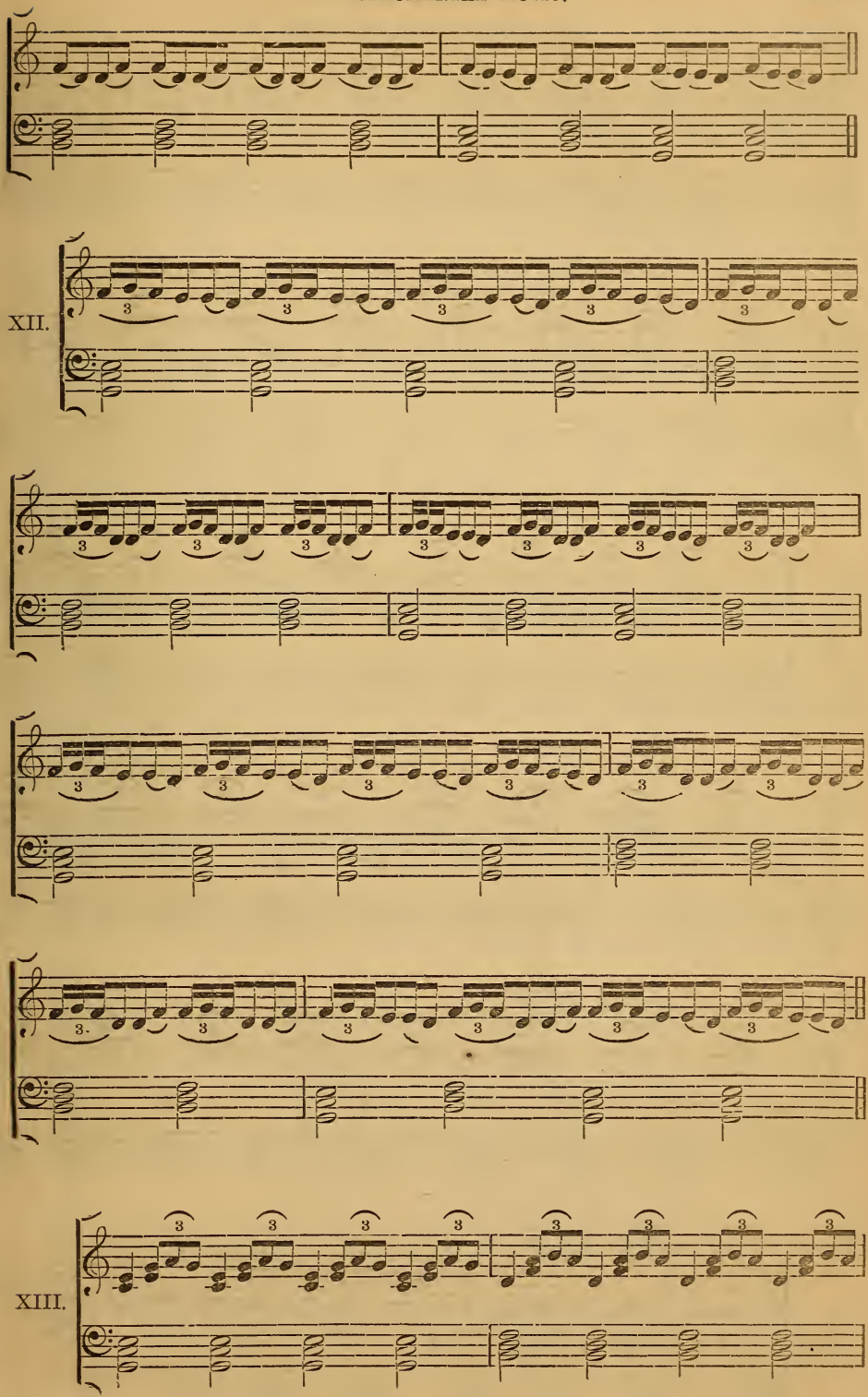
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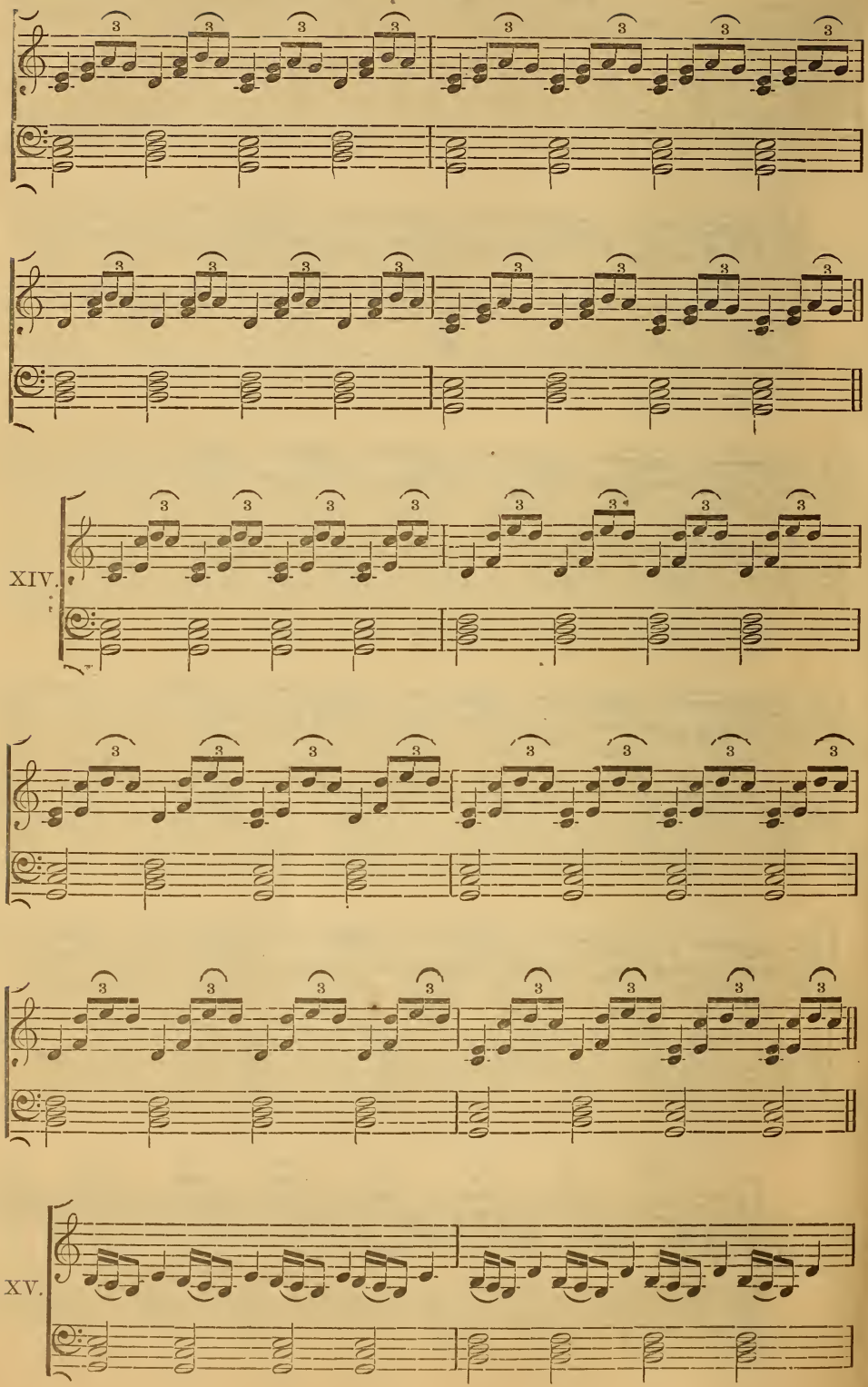
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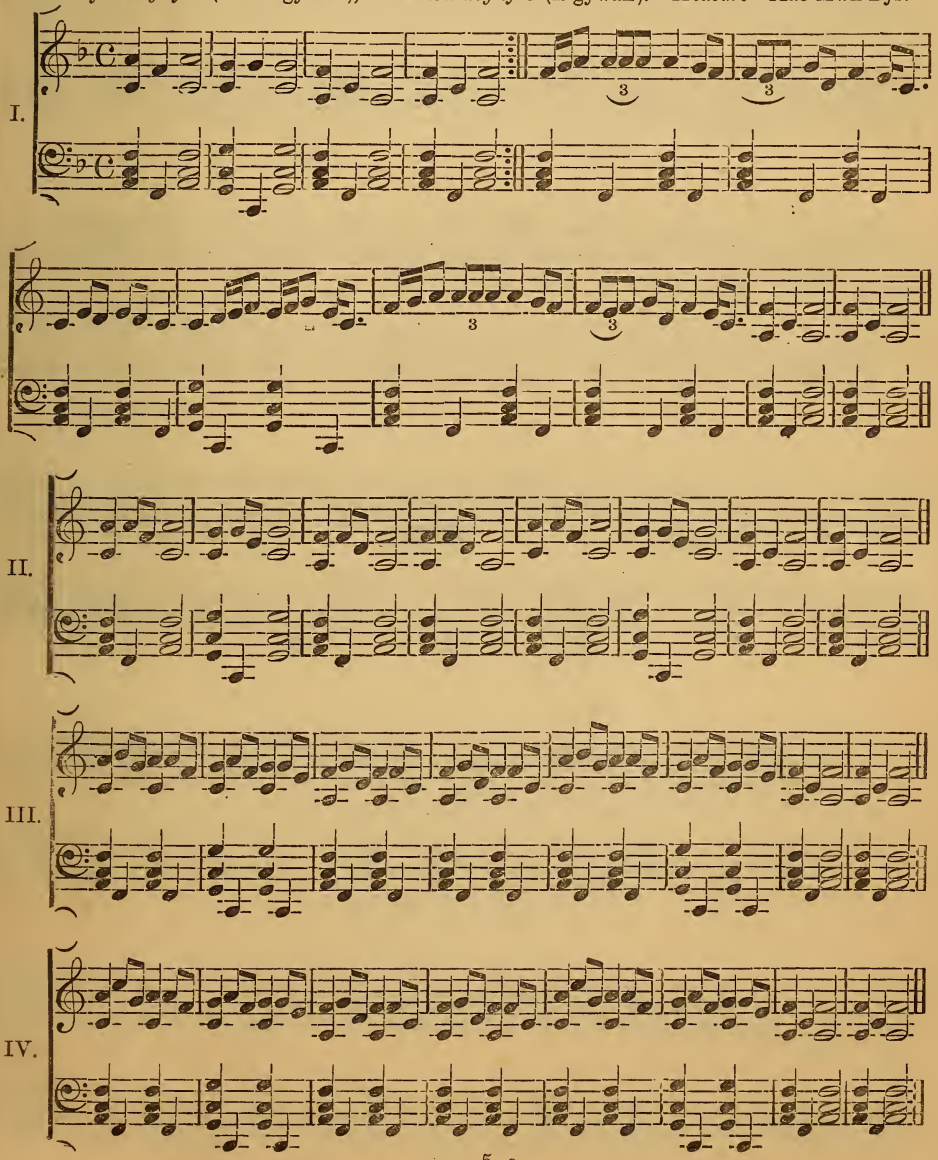
XV.

tion entitled, *Gosteg yr Halen* (The Prelude to the Salt); and at the end (page 1122) the following interesting account concerning it:—"Here ends *Gosteg yr Halen*, which used to be performed before the Knights of King Arthur when the Salter was placed upon the Table." Now, as one part of the manuscript must be considered as authentic as another, the above composition takes us as far back as the middle of the sixth century—the time when king Arthur flourished—and the composition is written in one of the twenty-four measures—*Mac Mwn Byr*—as may be seen in the copy which I have deciphered, and which I here insert:—

GOSTEG YR HALEN (The Prelude to the Salt),

Which used to be performed before the Knights of King Arthur, when the Salter was placed upon the Table.

In the flat key of F (lleddv-gywair), *on the low key of C* (is-gywair). *Measure*—Mac Mwn Byr.



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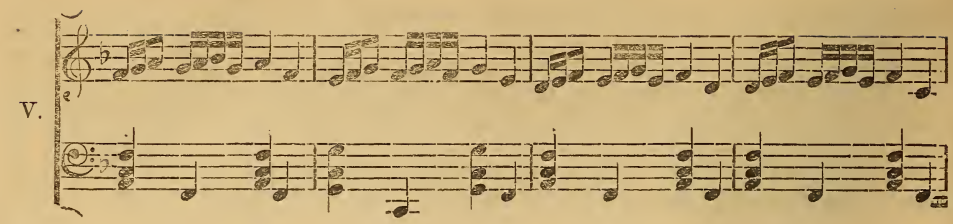

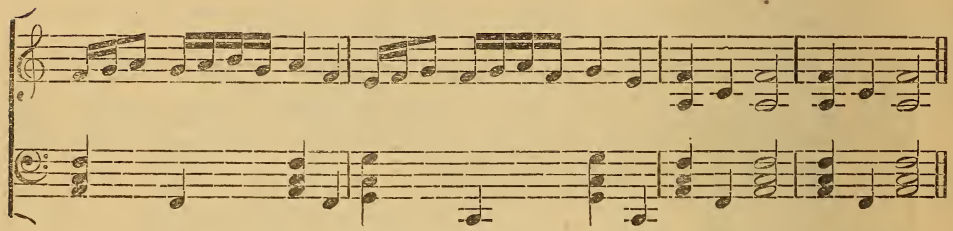

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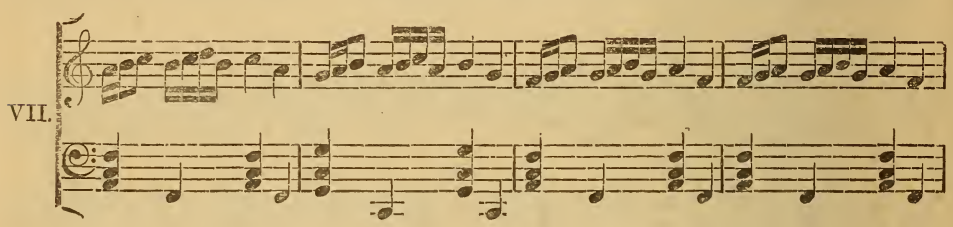

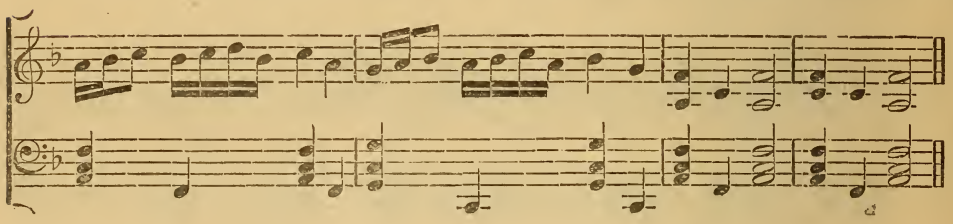

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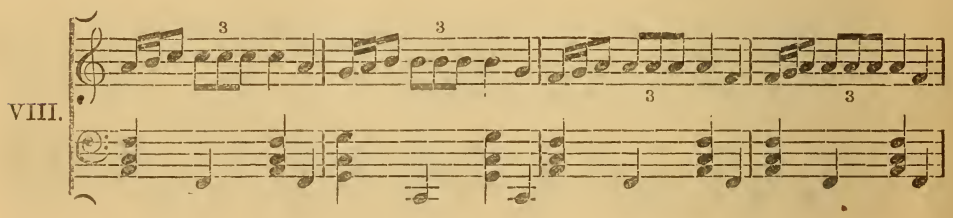

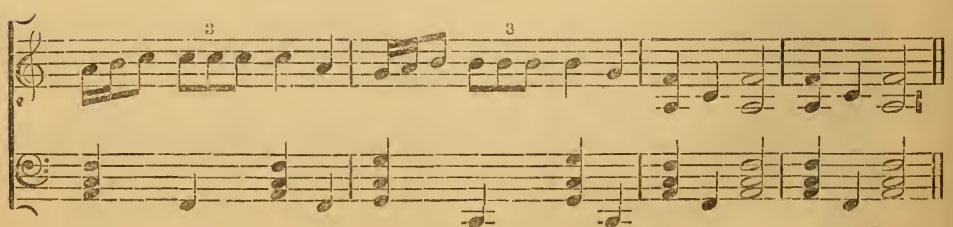

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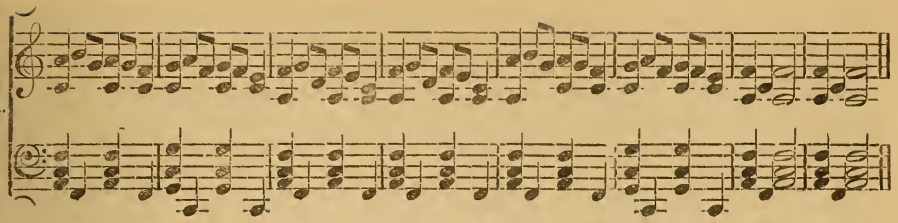

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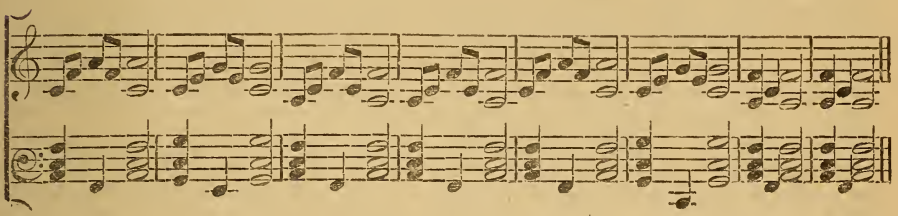

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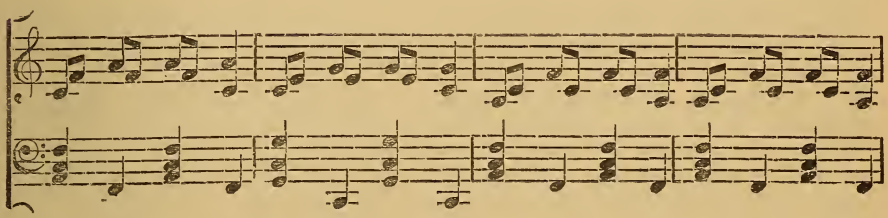

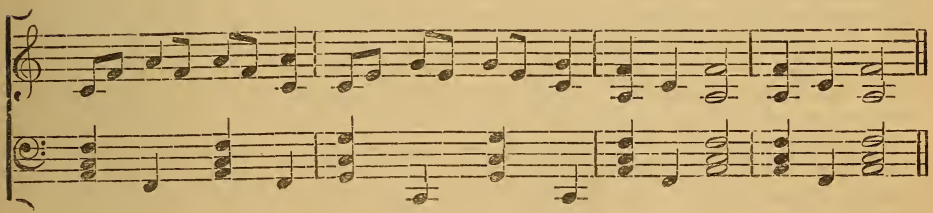

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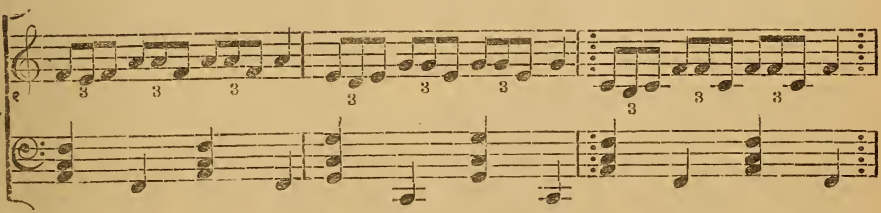
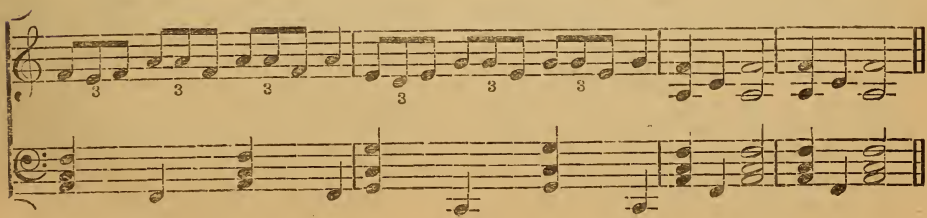




It was a prerogative peculiar to the ancient kings of Britain to preside at an *Eisteddvod*, or Congress of the Bards. The following curious circumstance, which happened about the middle of the seventh century, is mentioned by Dr. John David Rhŷs, as well as by John Rhyddderch:—"King Cadwaladr sat in an *Eisteddvod*, assembled for the purpose of regulating the bards, taking into consideration their productions and performance, and giving new laws to music and poetry. A bard, who played on the harp in the presence of this illustrious assembly in a key called *is-gywair, ar y bragod dannau*, which displeased them much, and was censured for the inharmonious effect he produced, because that was of the sound of *Pibau Morvydd* (i.e., "*Caniad Pibau Morvydd sydd ar y bragod-gywair*" = the Song of Morvydd's Pipes is in the minor key)—it was then ordered, under great penalties, whenever he came before persons skilful in the art, to adopt that of *Mwynen Gwynedd*, the pleasing melody of North Wales, which the royal associates first gave out, and preferred. They even decreed, that none could sing with true harmony but with *Mwynen Gwynedd*, because that was in a key which consisted of notes that formed perfect concords, and the other was of a mixed nature."

It is also asserted that even the keys used in Welsh music were brought over from Ireland at the same time as the twenty-four measures. As before stated, there are five keys in Welsh music; and one of them is the *bragod-gywair* (the mixed or minor key) mentioned above, as the key in which *Pibau Morvydd* (Morvydd's Pipes) is written; therefore, it is hoped that the insertion of the above historical note will be considered a conclusive reply to such a statement.

One fact appears to have been entirely lost sight of, which is the following:—That the Congress held by Gruffydd ab Cynan, consisted of Welsh as well as Irish professors of music; therefore, as the twenty-four measures of music existed in Wales long before the Congress alluded to, as shown by the manuscript in question, the only thing the Irish can lay claim to is, that some of their musicians were present at that congress, and assisted "by the unanimous agreement of all," in reforming the twenty-four measures, and in "writing them into books at the time." The chief object of the construction of the musical measures appears to have been for the guidance of performers on the harp and *crwth*, when they played together, which was evidently frequently the case; for the *crwth* is mentioned as a bass accompaniment to the harp, as appears from the music written for it, and from its compass, which, when tuned in the low key of C (*is-gywair*) was as low as the violoncello of the present day.

I find that this subject has already been written upon, about the middle of the last century, by Lewis Morris (who appears to have been the possessor of the ancient Welsh manuscript in question, in those days), in a publication entitled, *Ancient British Music;* and as it is most interesting, I shall leave him to speak for himself:—

"There were some regulations made in the keys of music, in king Cadwaladr's time, which might be about the year 700; and Dr. John David Rhys names some keys and tunes. [1]

We read of no remarkable alterations in our music, or instruments, after this till about A.D. 1100, when Gruffydd ab Cynan, Prince of North Wales (as Caradoc tells us[2]) reformed the disorders of the Welsh minstreis, by a statute made for that purpose. Dr. Powel, in his notes on Caradoc, informs us what this reformation was:—it prescribed their behaviour, rewards, and punishments. But the Dr. says further, that the music, for the *most part*, in Wales, in his time (not the instruments), either came over from Ireland, with the said prince and his Irish musicians, or was composed by them afterwards.

Mr. Wynne, the late editor of Caradoc's history, hath mixed all the *notes* with the *text* through the whole book, as well as in this place; and mistaking the sense of this passage in Dr. Powel, by not distinguishing between instrumental music and musical instruments (*i.e.*, between a minuet and a fiddle), hath misled all his readers ever since, in saying that the harp and *crowd* (as he calls it) came from Ireland. Our Druids, upon the Roman Conquest, having retired to Ireland and the Isle of Man (places that the Roman sword could not then reach) it is said the theory of the British music moved along with them, and settled in Ireland particularly, which, no doubt, was the seat of philosophy and politeness for many ages, till wars and dissentions buried almost all in oblivion.

As to Dr. Powel's note on Caradoc, beforementioned, where he argues from the Irish names of the tunes in our ancient books of music, that *most part* of our British music was had from the Irish:—if so, it was but paying what was borrowed before. But it seems the Dr. had no great knowledge in that art, or had not seen many books of music. A good antiquarian may be a bad musician. It seems to turn out quite otherwise to what he says; for most of the terms of art, names of tunes, keys,

[1] Dr. J. D. Rhys' *Grammar*, *p.* 303.
[2] Carad. *Chron. in Vit.—Gruffydd ab Cynan.*

&c., in our old British books (of which I have seen many) are either British, or derivable from the Greek, as a great part of the language by its analogy seems to be,[1] or else are so very obscure, that neither the British nor Irish can account for them; and these, for ought we know, may be the antiquated terms of the Druids.[2]

The enumeration of two particular keys being Irish, described in our old books of British music, as *Y Cywair Gwyddelig Dyeithr*, and *Y Lleddv Gywair Gwyddyl; i.e.*, the strange Irish key, and the flat Irish key, plainly show all the other keys (flat and sharp) are British; and some pieces of music attributed to the Irish, or that bear Irish names, which are but few, as *Y Gaingc Ddu o'r Werddon; i.e.*, the black tune from Ireland, &c., demonstrate the same.

But what clears all up, in regard to the above passage, is the following account I find in an old manuscript of British music. After several examples of the measures of music in composition, after the manner of the Britons, says he:—

'*Llyma'r pedwar mesur ar hugain cerdd dant, yn ol rheol fesur oll, fal y cyfansoddwyd mewn Eisteddfod,*' &c., *i.e.*, these are the twenty-four measures of instrumental music, all according to the rule of measure, as they were composed in a congress before many doctors of the science, of Britons, curious in that art, and others of Irish, in the time of Gruffydd ap Cynan, and were wrote in books by order of both parties: *viz.*, the British and the Irish, principal and royal, of that time, and copied from thence,[3] &c.

Hence, it appears that Prince Gruffydd ap Cynan only brought some of the chief Irish musicians with him, who joined with the Britons in regulating the art of composition; and, whether the Irish had kept their music in greater perfection than the North Wales men, or not, this prince, having been born and bred in the city of Dublin, and thereby having imbibed a natural affection for the Irish music, *he*, at least, thought so, which occasioned the above mentioned congress.

It is to be supposed that the wars and distractions in Britain (which are never friends of learning) drove what little knowledge was left here into the mountains of Wales, as the most safe retirements; and there remains to this day, among those simple well-meaning Britons, for all that the Romans, Picts, Scots, Saxons, Danes, and Normans, could do. The peculiar air of their music, the method of singing, plainly shows it, even at this distance of time."

With regard to the source from which the Welsh first derived their notation, as contained in the ancient manuscript, I am strongly of opinion that it was brought over from Italy at a very early period; and I think I shall be supported in this opinion by the following interesting quotation from Sir John Hawkins' "*History of Music*:"—

"The history of the conversion of the Saxon inhabitants of this island to Christianity in the year 585, is related by all our historians, particularly by Bede, whose account of it, as exhibiting a very natural representatien of the simplicity of manners which then prevailed, is here inserted:—'It is reported that merchants arriving at Rome, when on a certain day many things were to be sold in the market place, abundance of people resorted thither to buy; and 'Gregory himself with the rest, where, among other things, boys were set to sale for slaves, their bodies white, their countenance beautiful, and their hair very fine. Having viewed them, he asked, as is said, from what country or nation they were brought; and was told from the island of Britain, whose inhabitants were of such a presence. He again enquired whether those islanders were Christians, or still involved in the errors of paganism; and was informed that they were pagans. Then fetching deep sighs from the bottom of his heart, 'Alas! what a pity,' said he, 'that the author of darkness is possessed of men of such fair countenances, and that being remarkable for such graceful aspects, their minds should be void of inward grace.' He therefore again asked what was the name of that nation; and was answered that they were called Angles. 'Right,' said he, 'for they have an angelic face; and it becomes such to be co-heirs with the angels in heaven.' 'What is the name,' proceeded he, 'of the province from which they are brought?' It was replied that the natives of that province were called *Deiri*. 'Truly Deiri,' said he, 'withdrawn from wrath, and called to the mercy of Christ. How is the king of that province called?' They told him his name was *Ælla;* and he, alluding to the name, said, 'Hallelujah, the praise of God the Creator must be sung in those parts.' Then repairing to the bishop of the Roman and apostolical see (for he was not himself then made Pope), he entreated him to send some minister of the word into Britain, to the nation of the English, by whom it might be converted to Christ.[1]

The sight of these children, and the knowledge which Gregory thereby acquired of this country and its inhabitants, were the motives for sending Augustine, the monk, hither; with whom, as we are expressly told by Johannes Diaconus, who wrote the life of St. Gregory, *singers* were also sent (Augustine then going to Britain), and afterwards dispersed through the west, who thoroughly instructed the barbarians in the Roman institution. The same author proceeds to relate that after the death of these men the modulation of the western churches became very corrupt, and continued so till Pope Vitalianus the First, who introduced the organ into the choral service, sent John, a famous Roman singer, together with Theodore, afterwards archbishop of Canterbury, by the way of France into Britain, who corrected the abuses that had crept into the church service of this, as it should seem, favourite people."

It is more than probable, therefore, that the system of notation in the Welsh manuscript was brought over here by the

[1] See Pezron's "*Antiq. of Nations*," and Lhwyd's "*Archæologia Britannica.*"

[2] *Abaris* (which our critics pronounce *Ap Rhys)* was a noted British Druid, in the time of Pythagorus, and is mentioned by Roman authors.

[3] A literal translation.

[1] Bed. "*Hist. Ecclesiast.*," lib. II. cap. i.

singers whom Gregory sent to Britain with Augustine. This would account for the great similarity between the notation and Gregory's own, with all his improvements, to which I have called attention earlier in this article. Further evidence in favor of the above supposition is afforded by the frequent recurrence in the manuscript of a purely Italian word—*bis*—which signifies, in that language, to repeat; and whenever a phrase is to be repeated, this word is used; therefore, it is highly probable that it was adopted by the Welsh at the same time as the notation itself.

Dante and Galileo both assert that Italy derived the harp from Ireland; thereby showing that there was frequent intercourse between Italy and the west. It is true that, if this was the case, it appears strange that no specimen of the harp with *two rows* of strings (which was the one in use in Italy at the time mentioned) should have been handed down to the present time in Ireland, instead of the primitive, wire-strung, single-stringed instrument, which is the only one we are acquainted with in connection with that country. However, in Galileo's "*Dissertation on Ancient and Modern Music*," printed in Florence in 1581, we have his own words for it; and the following is a translation from the original, in the library of Jesus' College, Oxford, as given in Bunting's "*Ancient Music of Ireland.*"

"Among the stringed instruments now in use in Italy, the first is the harp, which is only an ancient *cithera*, so far altered in form by the artificers of those days as to adapt it to the additional number and the tension of the strings, containing, from the lowest to the highest note, more than three octaves. This *most ancient instrument* was brought to us from *Ireland* (as Dante says[1]) where they are excellently made, and in great numbers; the inhabitants of that island having practiced on it for *many and many ages:* nay, they even place it in the arms of the kingdom, and paint it on their public buildings, and stamp it on their coin, giving as the reason their being descended from the royal prophet David. The harps which these people use are considerably larger than ours, and have generally the strings of brass, and a few of steel for the highest notes, as in the *clavichord.* The musicians who perform on it keep the nails of their fingers long, forming them with care in the shape of the quills which strike the strings of the spinnet. The number of the strings is fifty-four, fifty-six, and even sixty; though we do not find that among the Jews, those of the prophets, cithera, or psaltery, exceeded ten. I had a few months since (by the civility of an *Irish* gentleman) an opportunity of seing one of their harps; and after having minutely examined the arrangement of its strings, I found it was the same which, with double the number, was introduced into Italy a few years ago, though some people here (against every shadow of reason) pretend *they* have invented it, and endeavour to make the ignorant believe that none but themselves know how to tune and play on it. And they value this art so highly, that they ungratefully refuse to teach anyone.

But to return to the tuning of the harp. I will, to assist those who wish for information on the subject, give the following instructions:—I begin by saying, that the compass of the fifty-eight strings which are stretched on it, comprehend four octaves and one tone, not major and minor, as some have imagined; but, as I have said before, in the manner of keyed instruments. To proceed: the lowest string, both for B natural and B flat, is double C in the bass; and the highest is D in alt. Wishing now to tune for B flat, the sixteen lowest strings on the left hand are to be distributed according to the common *diatonic scale*, and the *fourteen opposite to them* on the right hand side (leaving aside, however, the unisons D and A) are to be of the *chromatic* scale, conformable in its nature to the said *diatonic.* The fifteen ascending strings that follow these are to be tuned to the *diatonic* scale, according to the manner of the sixteen lowest notes on the left side; and thirteen that follow next above the first sixteen perform the office of the lowest ones on the right side.[1]

When it is desired to play on B natural, the flat B's of each diatonic are to be taken away and put in both the chromatics in the places of B naturals, and these are to be put in the places of the diatonic, both on the left and right side.

This method was recommended by the inventor for the convenience and facility which it gives to the fingers of both hands, particularly in performing diminutions and extensions. We find among the above mentioned strings, five times C, 5 D, 4 E, 4 F, 4 G, 4 A, 4 B flat, 4 B natural, four unisons of D, and four of A, four diesis of C, four diesis of F, four diesis of G, and four flats of E, which make in all fifty-eight strings. There are besides wanting for the perfections of the various harmonies, the four diesis of D, the four flats of A, for which, in those airs that require them, we make use of their unisons among the chromatic strings, which unisons greatly increase the facility of the diminutions, as clearly appears in practice, a facility that is chiefly produced by the distribution already explained."

"The harp is so like the *epigonium* and *simicon*, that we may reasonably assert that it is one of them. Nor do I think that those who affirm that the strings were stretched in the same manner and proportion on them as on it were far wrong. Now, these instruments were not introduced till after people had begun to play *in concert*, and this method of placing the strings is more ancient. If any doubt should arise in your mind whether the harp may be tuned like the lute, or like keyed instruments, the recollection of what I have said upon that subject, will, undoubtedly, remove it. I will

[1] Dante lived about A.D. 1300.

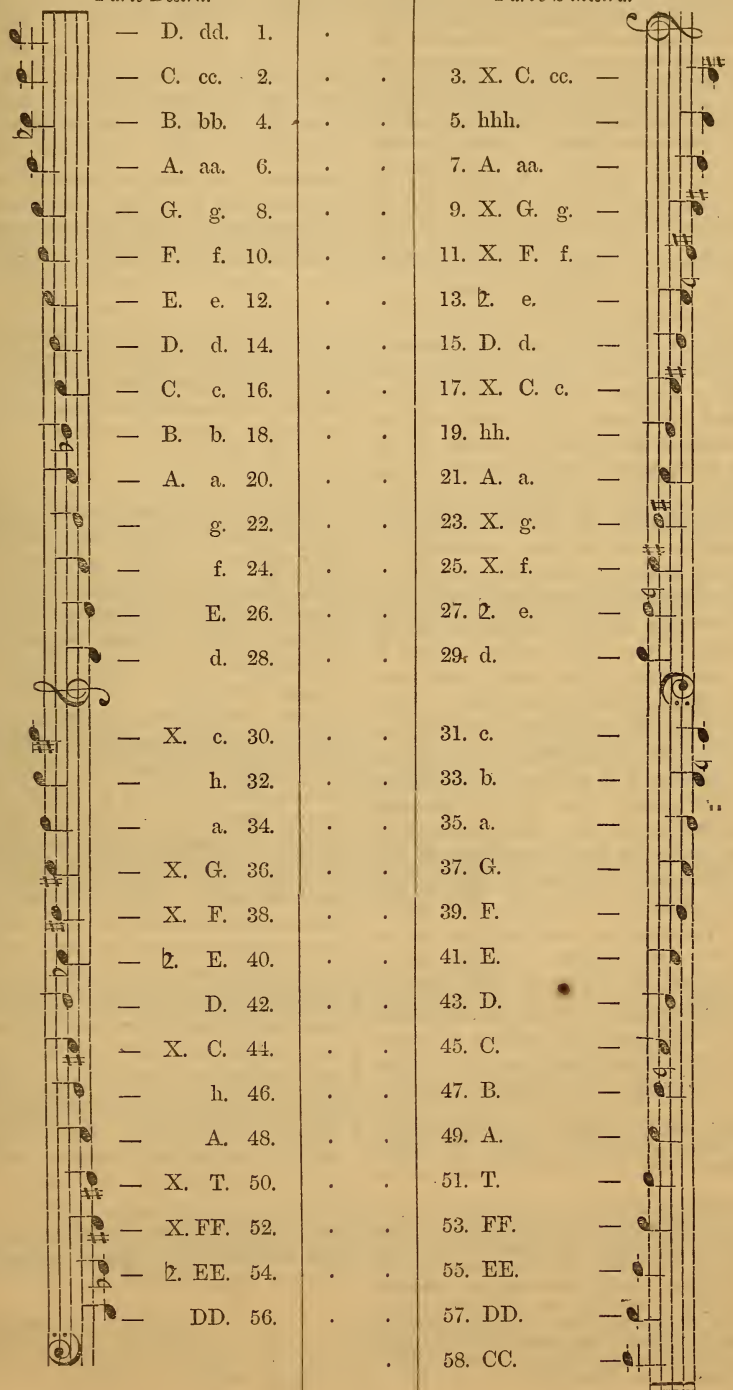
[1] See the diagram on the next page.

DIAGRAM OF GALILEO'S SCALE OF THE HARP,

With two rows of strings, as used in Italy in his time.

TEMPERAMENTO DELL' ARPA.

Acuto.



Parte Destra.		*Parte Sinistra.*
— D. dd. 1.	.	
— C. cc. 2.	. .	3. X. C. cc. —
— B. bb. 4.	. .	5. hhh. —
— A. aa. 6.	. .	7. A. aa. —
— G. g. 8.	. .	9. X. G. g. —
— F. f. 10.	. .	11. X. F. f. —
— E. e. 12.	. .	13. ♭. e. —
— D. d. 14.	. .	15. D. d. —
— C. c. 16.	. .	17. X. C. c. —
— B. b. 18.	. .	19. hh. —
— A. a. 20.	. .	21. A. a. —
— g. 22.	. .	23. X. g. —
— f. 24.	. .	25. X. f. —
— E. 26.	. .	27. ♭. e. —
— d. 28.	. .	29. d. —
— X. c. 30.	. .	31. c. —
— h. 32.	. .	33. b. —
— a. 34.	. .	35. a. —
— X. G. 36.	. .	37. G. —
— X. F. 38.	. .	39. F. —
— ♭. E. 40.	. .	41. E. —
— D. 42.	. .	43. D. —
— X. C. 44.	. .	45. C. —
— h. 46.	. .	47. B. —
— A. 48.	. .	49. A. —
— X. T. 50.	. .	51. T. —
— X. FF. 52.	. .	53. FF. —
— ♭. EE. 54.	. .	55. EE. —
— DD. 56.	. .	57. DD. —
	.	58. CC. —

Grave.

not pass over in silence the fault some have attempted to find with the lute, when, without any reason, they say that a keyed instrument is more perfect (in its harmonies) than any other kind, and consequently than the lute. How far this is from the truth may be clearly understood from what has been said in relation to the tuning of the intervals to the invention and origin of modern instruments. I say that *from the harp*, considering its resemblance in name, in form, and in numbers, disposition, and materials of its strings (though the professors of that instrument in Italy *say* that *they* have invented it), the *harpsichord* probably had its rise, an instrument from which were formed almost all the other keyed instruments.[1]

According to Galileo's scale of the harp with two rows of strings, it was played with the *right* hand in the treble, and the *left* hand in the bass; as the diatonic row of strings in the treble is on the *right* side down to the centre of the instrument, and continued from that point on the *left* side in the bass, the notes of the scale on the opposite side being the accidentals.

The invention of the Welsh triple harp, with three rows of strings, naturally followed; for, as music advanced, the inconvenience of being circumscribed within the limited compass of the diatonic scale on either side of the instrument (as seen in Guido's diagram of the harp, with two rows of strings) would soon be felt; therefore, the diatonic scale was extended on each side to the full extent of the harp, with a centre row of accidentals, accessible from either side. The ample resources thus attained by the invention of the triple harp, as being so far in advance of any other instrument hitherto known, gave a powerful impetus to the progress of music in the Principality, and may go far to account for the superior beauty, in an artistic point of view, of the national music of Wales over that of any other country.[2] However, the science of music having so rapidly advanced within the last century, rendered it absolutely necessary that still further improvements should be made in the harp, in order to admit of modern music being played upon it. The difficulty of playing upon the inner row of strings of the triple harp in rapid passages, gave rise to the invention of the pedal harp, which was an immense improvement, in a musical sense, upon any former invention, as it admits of the most rapid modulation into every key, and enables the performer to execute passages and combinations that would not have been dreamt of previously. Another remarkable advantage has been attained by this invention: namely, the reduction in the number of strings to one row, which not only enables the performer to keep the instrument in better tune, but to use a thicker string, and thus attain a quality of tone, which, for mellowness and richness, may be compared with that of any other instrument in existence.

Having explained, to the full extent of my power, the nature of the contents of the ancient Welsh manuscript, I now conclude, with the insertion of a transcription of another of the tunes contained in it (page 1115)—*Gosteg Davydd Athraw*—on account of its great singularity and evident antiquity. It is composed in one of the twenty-four measures—*Corfiniwr;* and I may as well state that these measures do not appear anywhere in the music of Wales after the date to which the manuscript alludes (A.D. 1100)—a circumstance which I consider most fortunate; for, although most ingeniously contrived, and well adapted to the purpose for which they were intended, at that early period, nevertheless, had such rules remained in force, they would have had the effect of rendering our national music intensely monotonous and uninteresting, and would have thoroughly destroyed all freedom of imagination in musical composition. Instead of which, the national music of Wales is remarkable for its beauty of melody, richness of harmony, and regularity of construction, as well as for its variety of expression, such as pastoral simplicity, touching plaintiveness, and warlike boldness—the latter being, perhaps, its most characteristic feature.

JOHN THOMAS

(PENCERDD GWALIA).

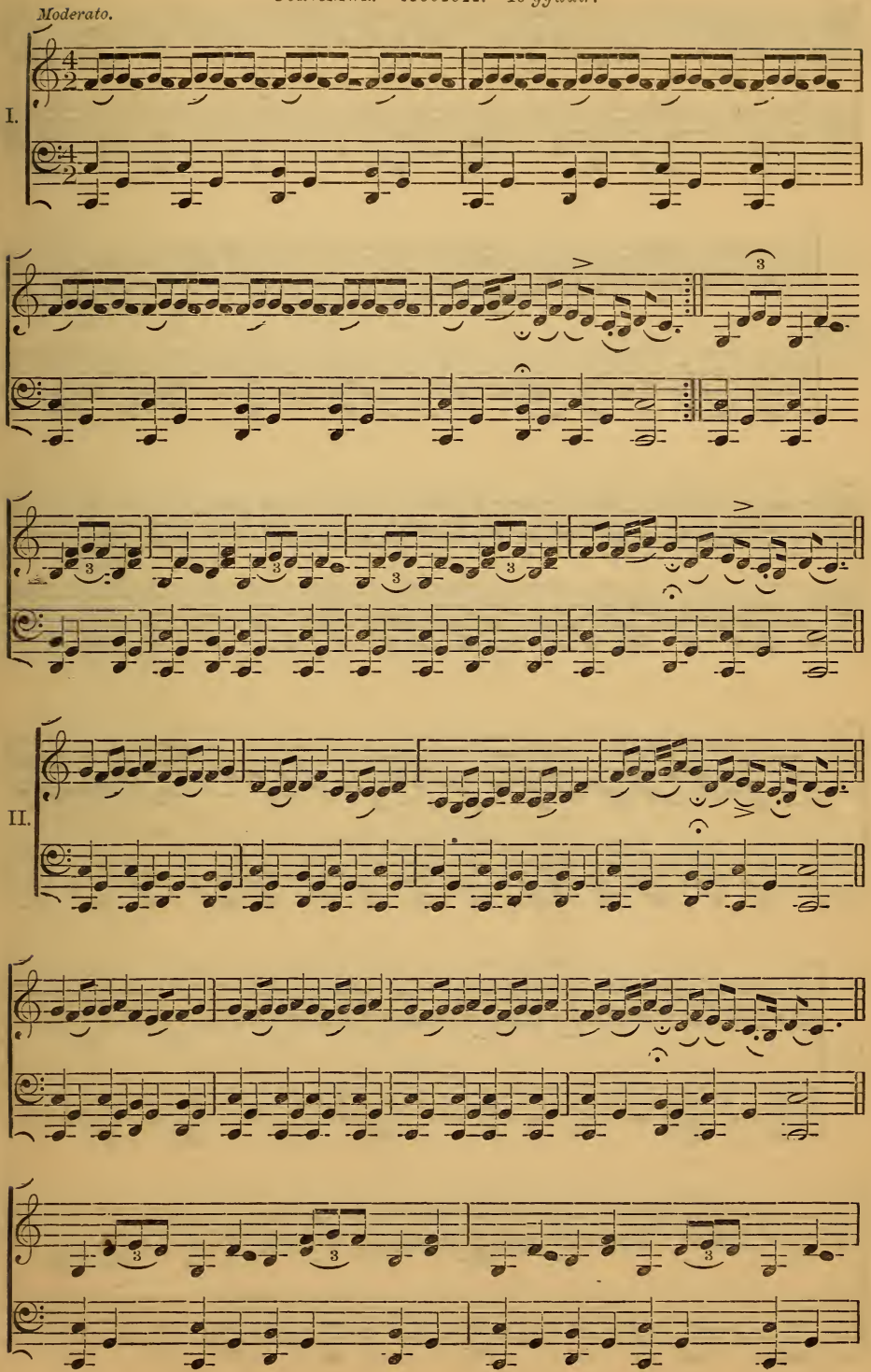
London, 1869.

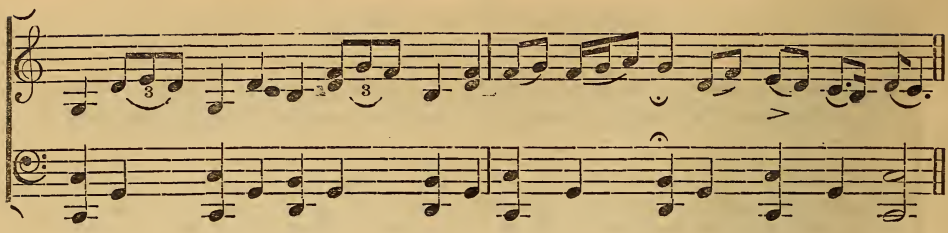
[1] *Vincentio Galileo* (Galilei) was a noble Florentine, and father of the great Galileo, and a proficient in music, being an excellent performer on the lute.

[2] British history mentions one, *Blegywryt*, a king of Britain, about one hundred and ninety-nine years before Christ, who was a great master of instrumental music, and upon that account called the *God of Harmony*. *Amianus Marcellinus*, who flourished about three hundred and eighty years after Christ, tells us that the tribe of Britons, called *bards*, sung in well-made compositions to the *lyra* (commonly translated a *harp*) the heroic acts of their great men.—*Anc. Brit. Mus.*

GOSTEG DAVYDD ATHRAW.

CORVINIWR.—11001011.—*Is-gywair.*





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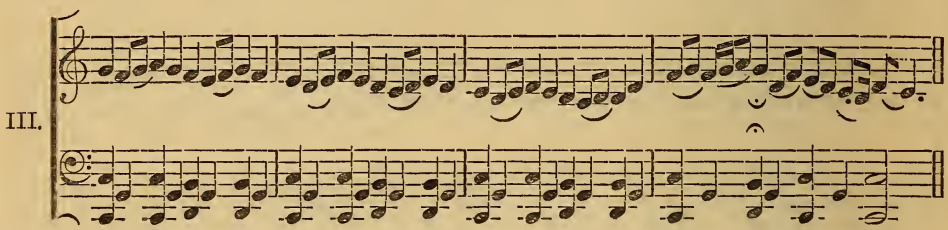

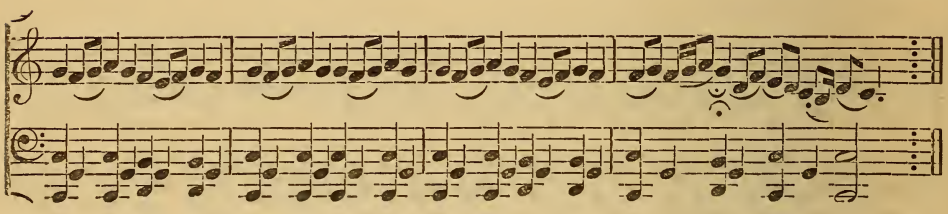

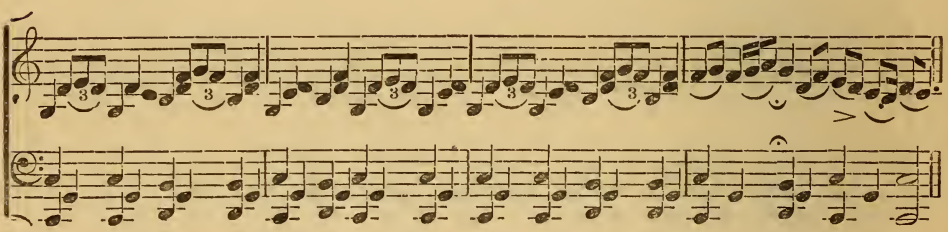

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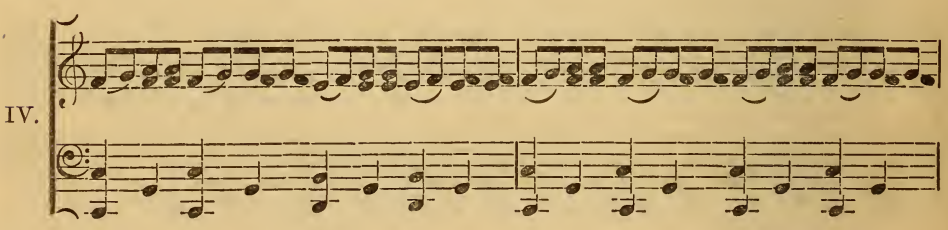

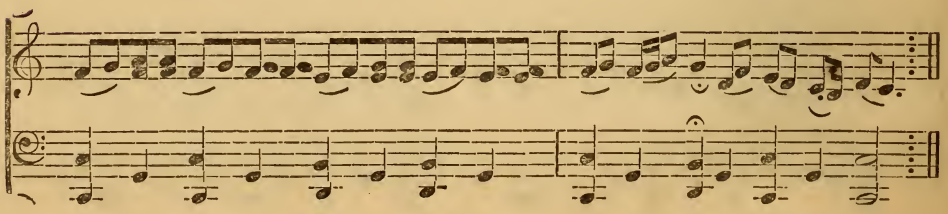

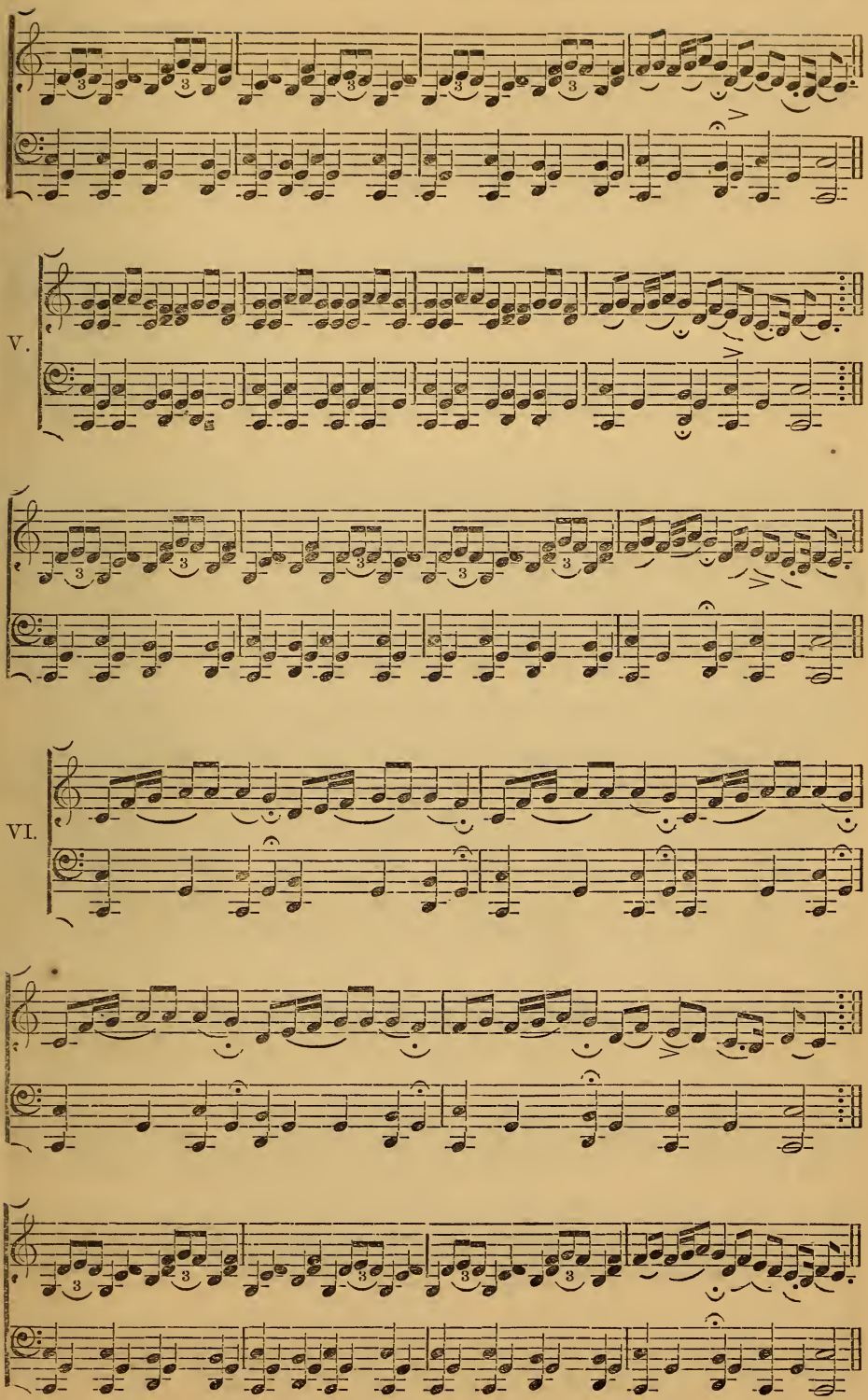
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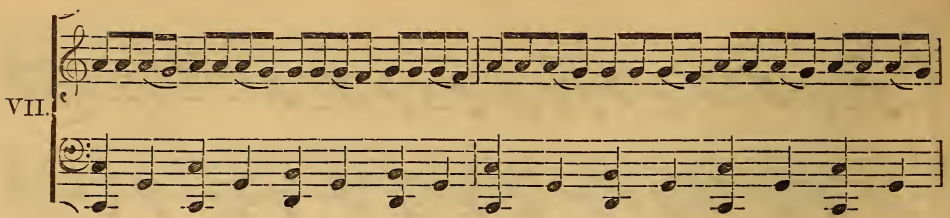

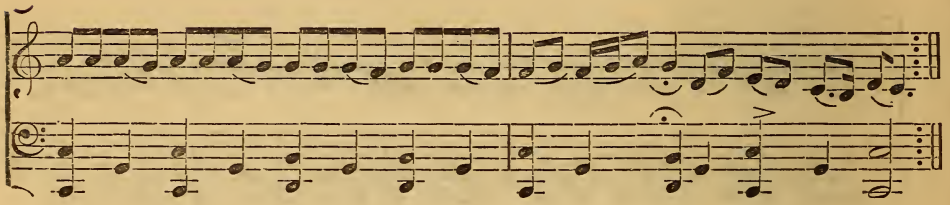

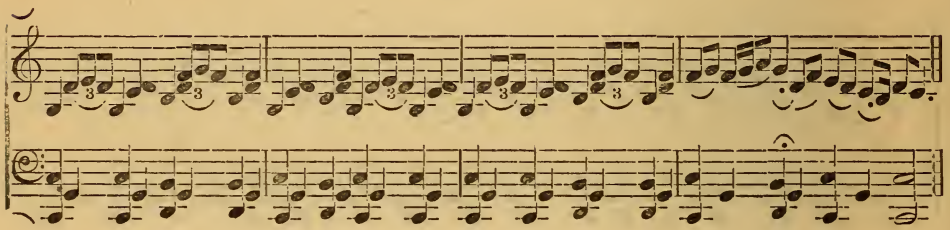

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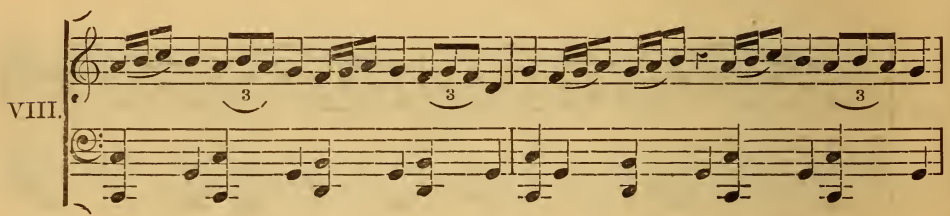

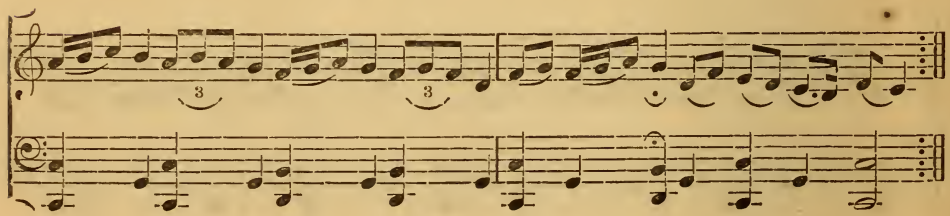

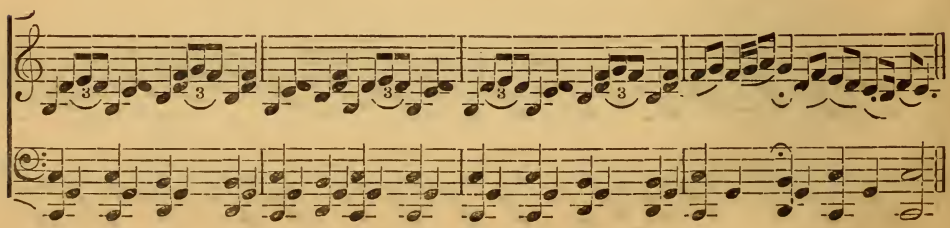

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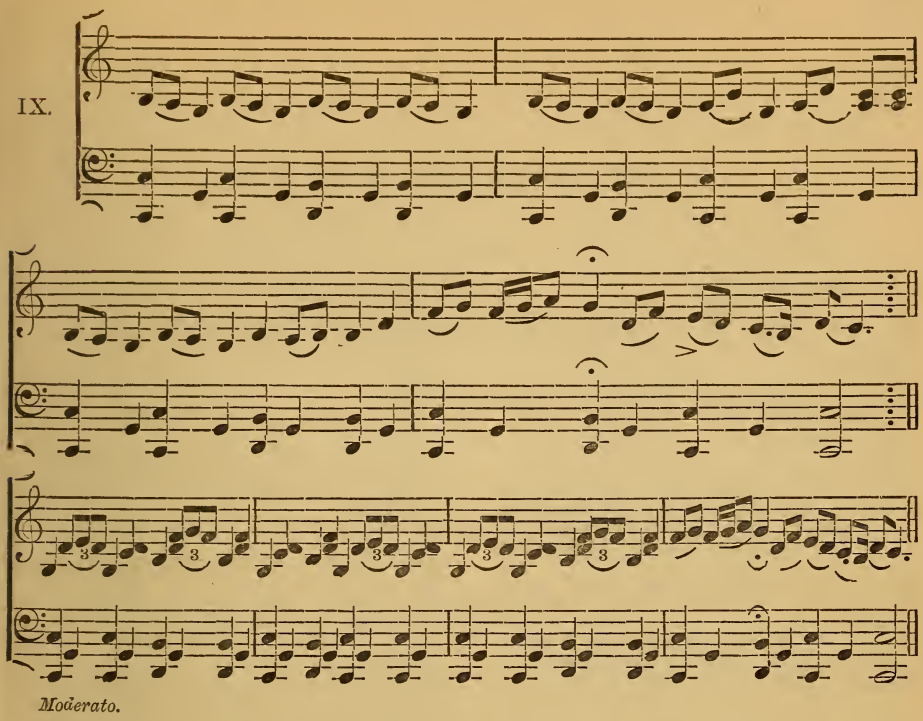

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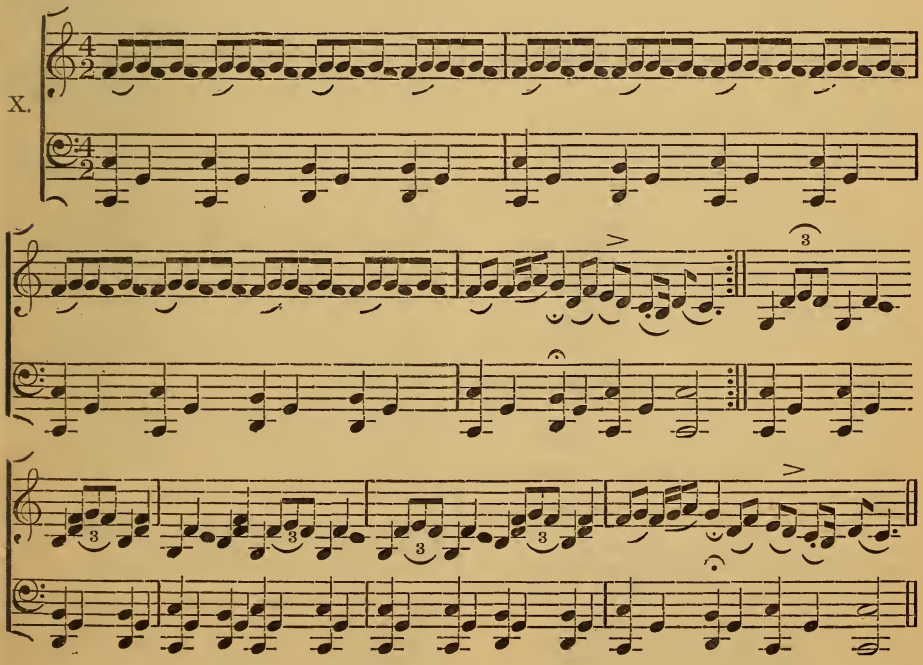

ERRATA.

For Bartholomon, read Barthelemon.

PAGE 1208.—"*Musurgia seu praxes musicæ. Ilius primo quæ Instrumentis agitur certa ratio, ab Ottomaro Luscinio Argentino duobus Libris absoluta. Argentorati apud Ioannem Schottum, Anno Christi*, 1536."

PAGE 1209.—Viol *da* Braccia.