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VICE-PRESIDENT,
IN THE CHAIR.

CHIMES.

BY W. W. STARMER, F.R.A.M.

ON two previous occasions I have had the pleasure of addressing the Members of this Association on the subject of bells, and I have ventured to choose for consideration this evening another aspect of the same subject in which there is a great deal to be done by musicians, and which is of much interest to them.

This subject of Chimes is one which should claim the attention of all who are interested in music; and yet it has been so much neglected, that at the present time very little information is available and none in any collective form.

My object in this, as in my previous lectures, is to place before musicians the musical capabilities of bells, and, if possible, to arouse interest and induce study, so that when advice is required in such matters the musician shall be the adviser instead of the maker of the machinery, who generally knows all about his work, but not necessarily much about music. In nearly every instance those who have written on such matters have invariably placed the mechanical before the musical considerations, and even Lord Grimthorpe, who did such admirable work in connection with clocks and bells, fell into this error.

Another object in selecting such a subject as Chimes, is to place on record information I have had the privilege of collecting, and which in my opinion is worthy of a prominent place in the history of quarter-chimes and chime tunes. In many instances this information has been obtained with much difficulty, although one would have thought that a few lines in reply on a postcard would not be a too exacting request to make to those who have the desired information in their possession.

My original intention was to deal with continental chimes as well as with those of our own country, and this would have completed the third and last section of my researches in connection with bells, but I found the ground to be covered so extensive that the time at my disposal this evening will only allow of English chimes being dealt with, and even then much of the information must be considerably curtailed.

To begin with, the origin of the word "chime" is somewhat obscure, but is undoubtedly connected with the Latin "cymbalum"—old German "zimbel"—"a small bell struck by a hammer." This is interesting in view of the fact that anything in the shape of an elaborate musical setting for chimes is most effectively played on bells of comparatively small size, with the occasional use of the larger ones.

The definitions of the word are:—

(1.) A set of bells in a tower.

(2.) A series of musical sounds, or tune, played mechanically or otherwise on such a set of bells.

There is very little information as to when chimes were first used, the only records being found in ancient church accounts and such documents in which mention is occasionally made of repairs to the chiming apparatus. These show that they were common in the middle of the 15th and in general use during the 16th century.

There seems to be no doubt that chimes in the first instance were played by hand. The different hours of the day were originally announced in the same way. Many years B.C. a mechanism was used in connection with the clepsydra, by which a weight was released at the hour and struck a bell. This is the earliest record of what may be called a "striking clock," although it was very many centuries afterwards that a working part was invented to play quarter-chimes, and later on, chime tunes, as we are accustomed to hear them.

Mechanical figures for striking the quarters and hours on bells were in use some time before the introduction of clock dials, and seem to have been very popular. Before 1298 there was a clock at St. Paul's Cathedral with such figures. Decker calls them "Paul's Jacks." He also says: "The time of St. Paul's goes truer by five notes than the chimes of St. Sepulchre's Church." The word "jack" seems to be derived from the word "jaccomarchiadus," *i.e.*, "a man in a suit of armour." These old figures were always represented as being clothed in a suit of mail.

The earliest mention of chimes known to me, other than that previously mentioned, is in 1432, when "Richard Roper was paid 20*d.* for mending the chymes in Norwich Cathedral." John Baret, in his will dated 1463, left money to repair the chimes of the parish church of Bury (Suffolk).

In England at this date there is no doubt that chimes were played on a small number of bells, but on the Continent a large number were used for this purpose. Dunkirk had a carillon of extensive compass in 1437, and Alost in 1487.

Chime mechanism was invented soon after the advent of weight clocks. When these weight clocks were first made, many kinds of mechanism were introduced to indicate the flight of time, such as performing figures, crowing cocks, &c. Peter Lightfoot, that clever Abbot of Glastonbury, was one of the earliest, if not the earliest maker of such clocks (1335). Soon after this they were made on the Continent.

In all probability quarters were first indicated by a "jack" on a single bell, and later by two "jacks" on two bells, the notes of which were a 2nd, 3rd, 4th or 5th apart. Such quarters would now be known as ding-dong or ting-tang quarters, and from their introduction to the present time have been more extensively used than any others in this country.

It might here be noted that quarter-chimes and chime tunes in England consist of melody only, whereas on the Continent the bells are used a great deal in combination, being frequently heard in chords of three, four, or more notes. Many of these sounds are redundant, as in most cases bells cannot be heard to better advantage than when they are played in two or three parts.

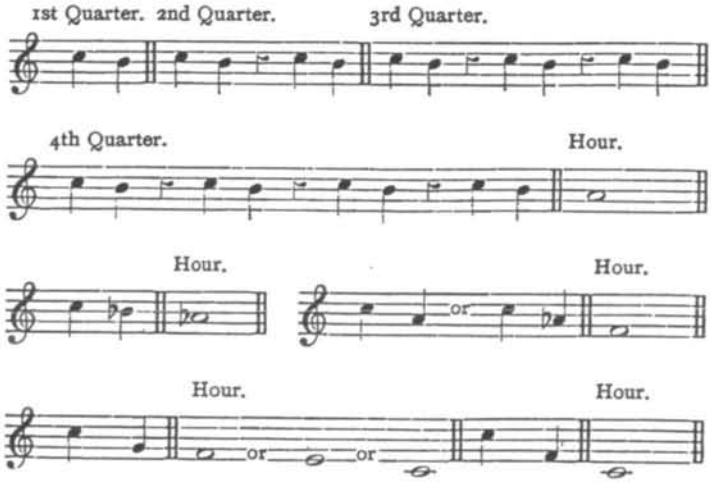
Now that the art of bell-tuning has been mastered and brought to such a state of perfection by Messrs. Taylor, of Loughborough, there is not the slightest reason why our clock chimes should not play harmonized settings of well-known tunes as on the Continent. Of course there are at present few carillons of sufficient compass to permit of this, but such deficiency can be easily remedied at a comparatively small cost, as bells for carillon use are cheaper than those cast for ringing purposes—particularly the smaller bells. A satisfactory set of bells for chime purposes of one and a-half octaves' compass, chromatic (twenty notes), tenor weighing about 6 cwt., would cost about £350 at the present market price of metal. Small bells in which the hum notes are perfectly in tune with the strike notes and nominals, have the same effect as bells of very much larger size and greater weight tuned according to the common method: in fact, the *tinkling noise* of an ordinary small bell becomes a sonorous musical note when this finer method of tuning is employed. The limited compass of peals of bells for ringing purposes, and their thickness proportions, render them unsuitable for chord playing, as there is very little harmonic variety possible, and the notes are so close together that their partial tones interfere with each other in a most unpleasant manner. In any case the music to be played on bells in combination at

all times requires very careful arrangement, and special knowledge of the peculiar characteristics of bells and their tones.

Probably the hour was first struck, then the half-hour was indicated, and later the quarters were chimed. The latter system obtains in this country, but on the Continent a further sub-division is frequently made midway between each quarter, so that the chimes play eight times during the hour. This of course makes a very much greater demand on the chime barrel and mechanism, as will readily be appreciated when I tell you that at the present time at Malines the chime mechanism plays 48,000 notes every twenty-four hours.

Ding-Dong or Ting-Tang Quarters.

These are the most ancient of all quarter-chimes, and are played on two bells which are at the interval of a major or minor 2nd, major or minor 3rd, perfect 4th or perfect 5th, thus :—



In every instance the two bells are played once for the first quarter, twice for the second, three times for the third, and four times for the fourth.

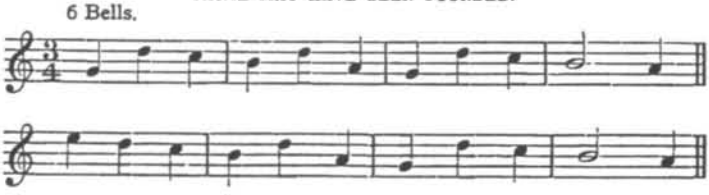
They are not of much musical interest, but possess the merit of being much less expensive than any other chimes on more notes. About thirty-eight per cent. of the chiming clocks made during the past thirty years play these quarters.

Whittington Chimes.

In its oldest form there is no doubt that this chime was on six bells. The earliest reference to the Whittington tune or chime is in Shirley's "Constant Maid," Act II., Scene ii., where the following is to be found: "Six bells in every steeple, And let them all go to the city tune 'Turn again, Whittington'" (1640). Whittington, by the way, was Lord Mayor of London in 1354.

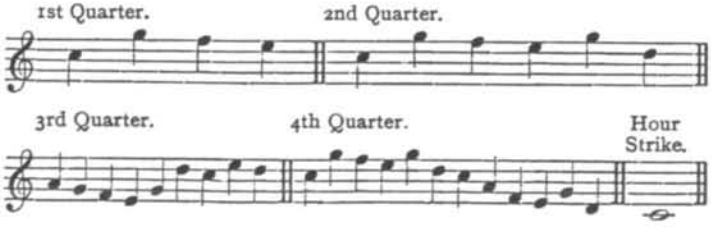
The tune is also found in D'Urfey's (1653-1723) "Wit and Mirth, or Pills to Purge Melancholy." It consists of two phrases, which particularly lend themselves for use as quarter-chimes :—

The old tune "Turn again Whittington," on which the ancient chime may have been founded.



It is with Bow Church that the Whittington tradition is connected, and if the chime was played in the ordinary way by the clock mechanism it must have been in existence before the Great Fire in 1666, as the old six-bell tune has not been played by the clock since that date.

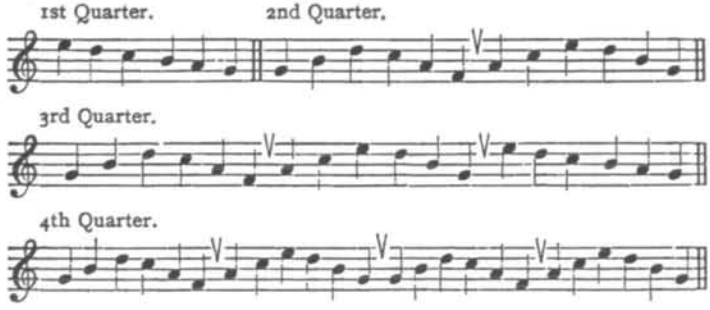
In 1905 Sir Charles Villiers Stanford wrote a new set of quarter chimes for the ring of twelve bells now in the tower, based on the ancient six-bell tune. These are excellent, and bring into use eleven out of the twelve bells; but the fact that they require a diatonic sequence of twelve notes will only permit of their being used in a few churches. Here are these chimes :—



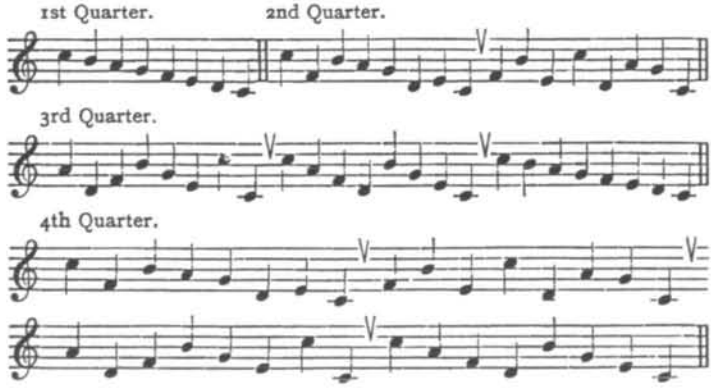
Whittington chimes, *commonly* so called, are to be found almost exclusively on domestic clocks, and vary considerably as to the notes played and the number of bells employed.

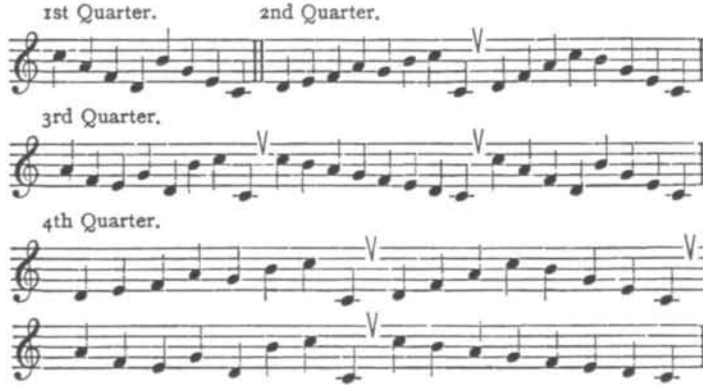
They are merely ringers' changes on a specified number of bells. I will quote four different forms of these from a large number which have come under my notice :—

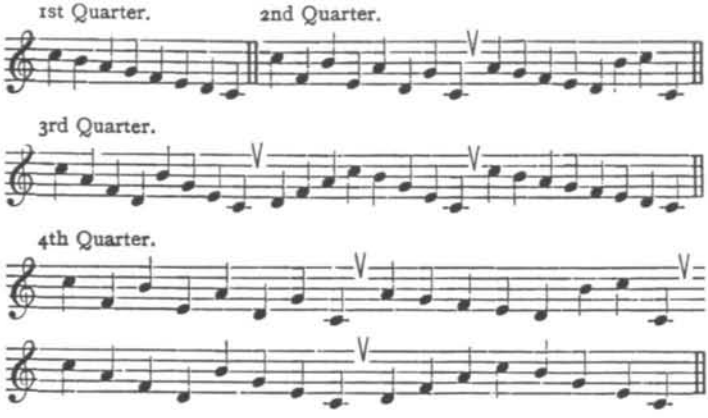
7 bells.



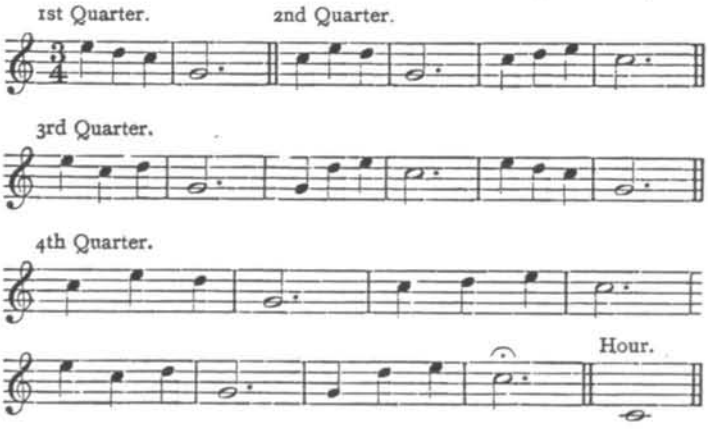
8 bells.







CAMBRIDGE QUARTERS
(MORE COMMONLY CALLED WESTMINSTER QUARTERS).

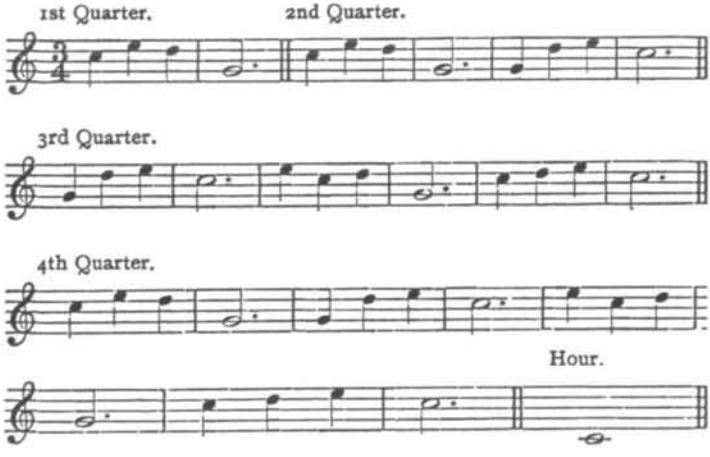


First erected in St. Mary's Church (the Great), Cambridge, 1793-1794. In their proper form (they require a peal of ten bells) the hour bell should be the octave of the third of the quarter-chimes. They are frequently played on six- or eight-bell peals; but musically these are very unsatisfactory, as in both instances the hour bell—Nos. 6 and 8 respectively—leaves an incomplete effect on the ear, particularly in the latter case.

In a recent letter to me, Sir Walter Parratt has expressed himself thus anent Cambridge Quarters on six and eight

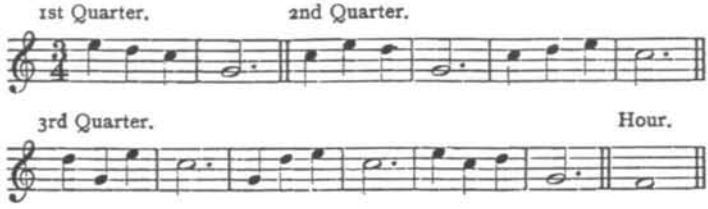
bells: "You will do all musical people a service by pointing out the unsuitability of the Cambridge Quarters for eight bells. I have suffered many things this summer. When the hour is the tenor of a peal of six this leaves one with the uncomfortable 6-4 feeling; when the hour is the tenor of a peal of eight it is cacophonous." With this I most cordially agree.

It is curious that these melodious chimes were in use at Cambridge for over half a century before they attracted any attention. They were first copied at the Royal Exchange, London, in 1845. The groups of four notes were not changed, but the sequence was altered, and the arrangement was certainly no improvement on the original:—



In 1859-1860 the Cambridge Chimes were copied for the quarter chimes at the Houses of Parliament, since which time they have become popular, so much so that out of the whole of the chiming clocks erected in churches and other public buildings, by the three largest firms in the kingdom during the past thirty years, over sixty per cent. have been made with Cambridge Quarters. This wholesale reproduction, more often than not in a mutilated form, is much to be regretted. Only the other day a musical friend of mine wrote to me that no less than seven public clocks within hearing distance of his residence played these quarter chimes, and, as far back as 1895, Sir John Stainer, writing with respect to the Tennyson Chimes at Freshwater, expressed himself thus:—"You will be doing a kindness in turning out the Westminster Chimes, of which everybody is heartily sick."

Another arrangement of these quarters was made by the late Lord Grimthorpe for Doncaster parish church—these are known as Doncaster Quarters:—



The alteration made was for purely mechanical reasons, which to him were at all times paramount. In his work on "Clocks, Watches, and Bells," in speaking of certain arrangements available for ding-dong quarters, he says that "there should be a longish interval of time between the quarters and the hour, *which saves the ear from being offended* with the want of the proper musical interval."

The history of the Cambridge Quarters is certainly most interesting, and for all the facts relating to this we are entirely dependent on the testimony of Mr. Amps, of Cambridge, who related the particulars in his correspondence on the subject with the late Dr. Raven in 1861. Here it is, in Dr. Raven's own words:—

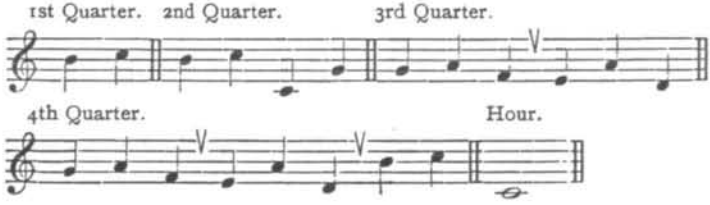
"The history of these beautiful chimes, the melody of which has been copied over and over again, is well worth preserving. I am indebted for it to Mr. Amps, the organist of King's College. About the time of these improvements Dr. Jowett was Regius Professor of Laws, and Dr. Randall Regius Professor of Music, and Crotch and Pratt, then mere lads, were his pupils. Jowett was an expert mechanician and took the warmest interest in the new clock the University had decided to put up. He appears to have been consulted by the authorities and to have taken Crotch into his counsels. The latter may be credited with having taken a portion of the phrase from the fifth bar of Handel's 'I know that my Redeemer liveth,' and by a system of variations, not unworthy of Fabian Stedman, expanding it into this musical chime. It was said by Pratt, that when the chimes were first heard they were thought so strange that they were nick-named 'Jowett's Hornpipe.' Very few, except those who had known Crotch, were aware that he had anything to do with their composition."

On domestic clocks, Cambridge Chimes on eight bells are frequently met with. They are merely ringers' changes, and often are exactly the same as those which do duty for

Whittington Chimes on eight bells as already mentioned. One clockmaker I know of, on being told that these eight-bell changes were not the proper Cambridge Quarter Chimes, replied that he had made a mistake and that they ought to have been called Oxford Chimes!

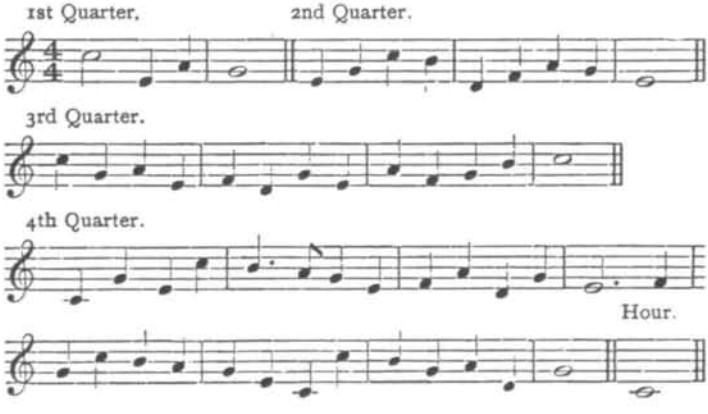
Magdalen Chimes, Oxford.

First erected in 1713. These chimes are quite unique, and fascinating to many on account of their indefinite rhythmic progression. Considering their beauty, it is extraordinary that they are not more frequently heard. As far as I have been able to ascertain they have only been copied at Speldhurst, Kent:—



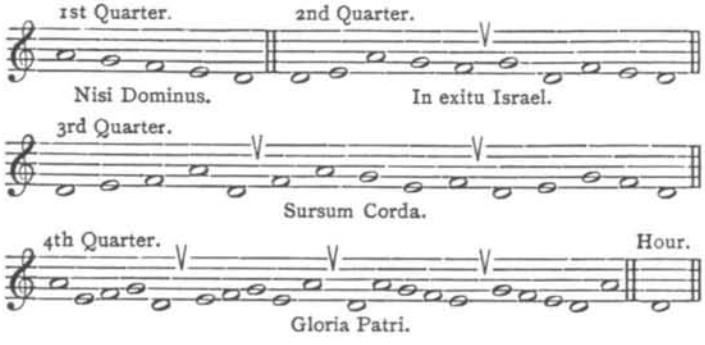
Guildford Chimes (Holy Trinity Church).

Composed by George Wilkins, organist of St. Nicholas's Church, Guildford. He was a pupil of Hopkins, and wrote a number of services, anthems, and some excellent hymn tunes. The chimes were originally set up in Holy Trinity Church in 1843. First copied at Chard, and for a time called Chard Chimes, they have also recently been put up at Bournville, Irthlingborough, Macclesfield and Northleach. For an eight-bell quarter chime, in my opinion they are the best yet written:—

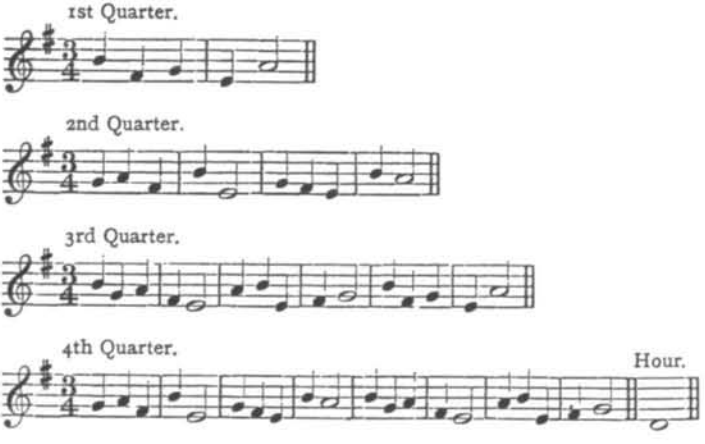


Norwich Cathedral Chimes.

Here is a ring of five bells in a minor key, which is most unusual. The present chimes were composed by the Rev. E. S. Medley, Precentor of the Cathedral (1874-1877), who was awarded the prize offered by Dean Gouldburn for the best set of chimes to suit the five bells. They were set going on the new clock in 1876. They are most effective, and, in this particular style, as good as it is possible to write on the five available notes:—



Tennyson or Carfax Chimes.

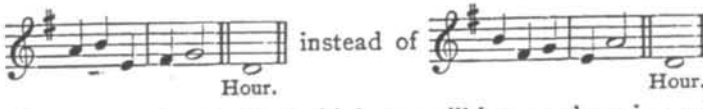


The following account is quoted from the *Oxford Times* of July 23, 1898:—

"Sir John Stainer has kindly given us some interesting details with regard to the new chimes to be used for the clock.

Some years ago the Rev. Dr. Merriman, Vicar of Freshwater, wrote to Sir John to the effect that a new clock was about to be erected in his parish church, and he wished for a new set of chimes for six bells, in order that he might avoid adopting the hackneyed Westminster Chimes. Sir John Stainer promptly wrote a set of chimes, and sent them to his friend at Freshwater on the stipulation that they were to be put in without comment, and kept going for a year or two to see if the parishioners liked them. 'The people are attached to them, and would not part with them for worlds,' was the verdict some years later, and when Sir John Stainer was asked by Mr. Jackson to write a set for six bells for Carfax tower, he replied that he could not improve on the set he had written for Dr. Merriman, and which had, moreover, satisfactorily undergone the test of use. Thus it comes about that the chimes to be used at Carfax are the same as those which have given so much pleasure to the Freshwater folks. In consequence of the connection between Freshwater and Lord Tennyson, Dr. Merriman had named the chimes after the great poet, but now that they have been brought to Oxford, and as they were composed by the Oxford Professor of music, Sir John Stainer wishes them to be known in future as the 'Carfax Chimes.'"

Whoever was responsible for this account was evidently not aware of the true facts respecting these chimes. Sir John Stainer did not write one note of them. Messrs. Smith & Sons, of Derby, submitted several sets of five-bell chimes to him for approval, to be erected at Freshwater, Isle of Wight, for his friend Dr. Merriman, the rector there. He chose the set just quoted as Tennyson, or Carfax Chimes, but suggested that the hour chime should end on G, using the second group of the third quarter, but altering none of the notes. Here are his own words with reference to this: "I think the five-bell chimes (No. 3 of the sets you sent me) will be charming if you can make them end on G instead of A at the close of the hour chime, thus:—



Hour. Hour.

If you can arrange this, I think you will have a charming set of chimes and, as far as I know, unique."

This alteration was made, and in his next letter he writes thus: "I like the chimes as you now send them very much. I am sending a copy of them by this post to Dr. Merriman." (5th August, 1895.)

I cannot say whether the other particulars contained in the account are accurate, but I know of nothing to the

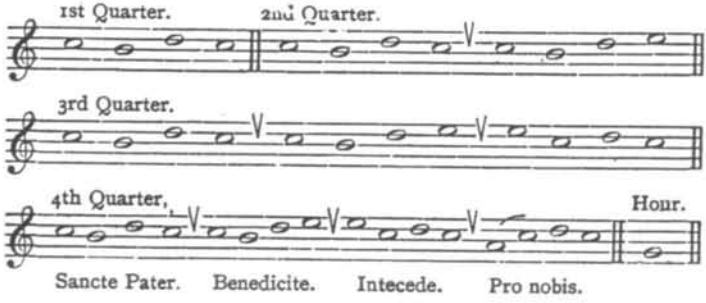
contrary, and I am glad to have had the opportunity of correcting such a flagrant error, especially in connection with such an honoured name as the late Sir John Stainer's.

Up to the present these chimes have been erected at Uppingham, and Maralin (Ireland).

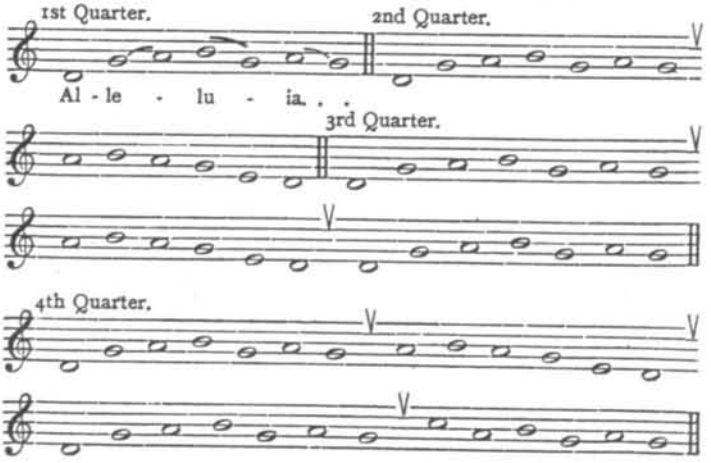
It will be noticed that the tenor bell is used for the hour and not at all in the quarters, also that the alteration suggested by Sir John is merely a transposition of one section of the chime.

Abbey Chimes, Fort Augustus, N.B.

Bells and clock by Messrs. Gillett, of Croydon. Chimes erected in 1880 and arranged from the Short Responsory in Eastertide, used at Lauds and Vespers in the Monastic Rite:—



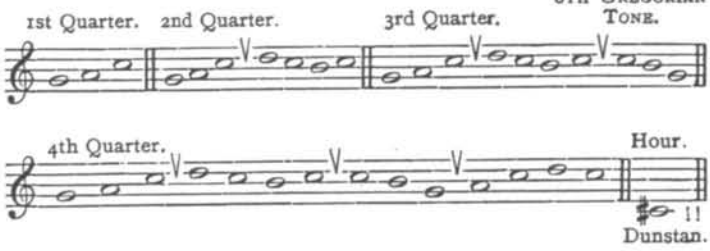
Chimes at R. C. Church, Cambridge.



The bells are by Messrs. Taylor, of Loughborough, 1896, and the chime mechanism by Messrs. Smith, of Derby. The quarter chimes were arranged by the Rev. Canon Scott, D.D., from "Alleluia," sung on Holy Saturday, and have been copied at the Redemptionist Church, Dundalk.

Canterbury Cathedral Chimes.

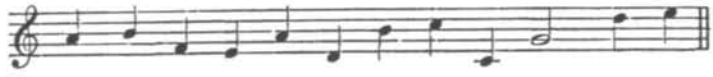
Formerly there were only ting-tang quarters, but in 1897 quarter chimes on five bells were put in. They were arranged by the Rev. Fredk. J. O. Helmore, Precentor of the Cathedral [to commemorate the thirteenth centenary of the Cathedral, landing of St. Augustine, etc.] on the notes of the eighth Gregorian tone—a particularly appropriate melody, as St. Augustine was made first Archbishop of Canterbury by Pope Gregory I.



Beverley Minster Chimes.

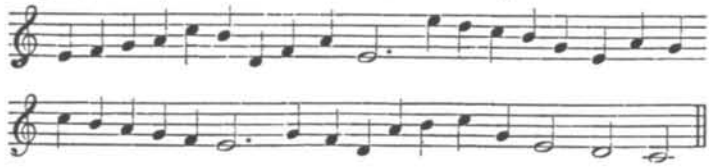
A very fine peal of ten bells by Messrs. Taylor, of Loughborough, 1901. Clock and chiming machinery by Messrs. Smith, of Derby, 1902. The quarter chimes were arranged by the Rev. Canon Nolloth in such a way that the different length and ending of each strain should make it easy to tell what quarter it denotes, that the full compass and range of the whole ten bells would be brought out, and that anything like a tune is avoided:—

1st Quarter (suggested by the 4th Quarter Chime at Magdalen College, Oxford).

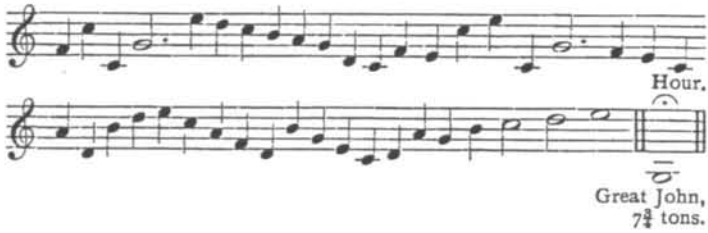


2nd Quarter (founded upon the 3rd Quarter Chime at All Saints', Derby).

3rd Quarter (Motive from the "Laudes Domini").



4th Quarter ("Echo de Malines." A reminiscence of the Hour Carillon of the Cathedral of St. Rembauld).



Chime Mechanism.

The ancient chime machinery is very simple, and consists of a weight-driven barrel, sometimes as large as three feet in diameter, generally made of wood, into which pins are fixed on exactly the same principle as in the barrel of a musical box. A primitive substitute for the chime barrel was the trunk of a tree into which spikes were driven.

The pins in the chime barrel pulled down levers which lifted the hammers with which they were connected by wires, and released them so that in their descent they fell upon and struck the bell from the outside.

In passing, I might mention that in mechanical chimes the hammers always strike the bell from the outside.

Of course in such a machine the barrel had to do *all* the work. It was satisfactory so long as the requirement was merely the playing of a regular succession of notes of equal value at a moderate speed—a simple hymn tune or the like. But as there are very few melodies of real interest which come within these limits, particularly as regards secular tunes, more elaborate airs consisting of unequal notes, mixed long and short note-values, groups of short notes in quick succession, etc., were set on the chime barrel. Such demands had the effect of obliterating everything in the shape of correct time in the rendering of the music, because the chime barrel with the same motive power had to play perhaps four notes in the same time as one which preceded the group of four and two which followed, *e.g.*, "Rule, Britannia."

As you can well understand, these unequal demands made the speed of the barrel very irregular, with the result that one bar was played at a quicker or slower time than another. This made the musical effects of many chimes very unsatisfactory, and, in not a few instances, quite grotesque. The fault was in trying to make the mechanism do what it was incapable of, and for a time, no doubt, this tended to mar the popularity chimes had gained.

In its way the old mechanism was quite satisfactory, and being simple in construction it was very easily kept in order by the village clockmaker, who was generally the blacksmith of the place.

About forty years ago improvements in chime mechanism were made by Messrs. Lund & Blockley. The general principle was good, but certain parts of the machine were too weak to bear the strain of the very heavy driving weight used.

Other improvements were made by Messrs. Gillett, of Croydon, who erected their first carillon machine at Boston Parish Church in 1868. The particular advantage of their machine is that it divides up the mechanical operations. A separate movement is fitted to raise the hammer-levers into action immediately after they have fallen and struck the bells. When raised into position they are prevented from falling by a spring trigger which can be released by the slightest touch. The only work the chime barrel has to do is to release the triggers, so that the demand on the barrel is reduced to a minimum.

In order to facilitate the playing of repeated notes, each bell requires two, and in some instances, three hammers.

The chime barrel is "pricked" in the usual manner, but the pegs are *screwed* in.

During the past forty years many of these carillon machines have been erected in this and other countries by the well-known Croydon firm which is now Messrs. Gillett & Johnston.

The most recent invention in carillon machinery has been made by Messrs. Smith & Sons, of Derby. It differs from Messrs. Gillett's machine principally in the subdivision of the driving power.

Each hammer—or set of hammers—has its own special mechanism driven by a separate weight instead of the motive power required being derived from one source, as is the case with other machines. Consequently the weights are so adjusted that the driving power is at all times more than adequate for the proper working of the hammers, individually and collectively. I mean that, however great the demand is, it never makes the smallest difference in the efficient working of all the parts, thus securing perfect time in the playing of the tunes.

This is a decided advance, and with such a mechanism almost anything can be played, although it is undesirable to set very quick tunes on the chime barrel. The reasons for this are obvious when the difficulties to be overcome are considered: the bells are very often in most awkward positions, some are near and some far away from the chiming machine, the hammers vary much in weight, the connections between the machine and the hammers are of different lengths, etc.,—all these are by no means easy to overcome when the chimes must sound notes correctly to the fractional part of a second.

Chime Tunes.

As with quarter chimes, it is absolutely impossible to fix any approximate date when chime tunes were first introduced. They must of course have been posterior to the date when bells were re-cast, and tuned according to the notes of the major scale. There are also very few tunes that can be played on less than six bells, so that this condition would bring us to the 15th century.

The earliest mention of any tune played upon chimes is in the Will of John Baret (1463), who, in addition to leaving money to repair the chimes of the Parish Church of Bury (Suffolk), expressed a wish that they should play Requiem Eternam at stated times to his memory.

The chimes previously mentioned by Decker as being in existence at St. Paul's before 1298, were without doubt quarter chimes.

In the 16th century many historic references to chimes are preserved in Church Accounts and other documents, the wording and spelling of which are often very quaint.

1544/5. Item. Payd to Wyllam Butt ffor makyng off the barell off the chyme iis. ivd. ffor tymber off the same barell xiid. [Sherborne (Dorset)].

1584. Melton Mowbray. 5 catches for ye chime.

1586. Pd. to Robert Claye for makinge the barrell for the chyme vs. iiijd.

Pd. for greace for the chyme a pynte iijd. [Loughborough.]

1600. From Wellingborough Church Accounts:—

"Also we appoynte for the newe chymes in the church (and other charges about the church) so that the same be sett in notes after the best manner of a tune, discreetly to be considered upon and amended from the foolish tune now in use—£4 in regard to the same chymes going at the end of foure hours and especially in the night season is by the grace of God, a severall warning for the vyllage to have better regard to the fyres for to avoid casualties, and a tyme to prevent disorderly persons at due tymes to avoyd unlawful gaming, stealing and disorders in the night, and a tyme for to know when apprentices shall aryse and goe to their rest

indifferently betweene them and their maisters, and other good considerations wh. we think is for the common benefit of the parishe of Wendlingburghe—and other payments for the repayre and about the church we appoynte the same four pounds."

1602. Market Harborough :—

John Lea of Lutterworth, clockmaker, bound himself, in consideration of 6s. 8d. paid to him yearly, to keep the chimes "in as good, sweet, solemn and perfect tune of musick as ever the same was at the sight and judgment of a skilful man of musick to be chosen by the townsmen of Harborough."

Another very interesting record, earlier than those last quoted, is to be found in Abbot Parker's Register, in which there is a copy of an agreement between the Abbot of Gloucester Abbey and Thomas Loveday, dated 1527, in which the latter "hath covenaunted and Bargaynd with the Abbot to repayre the Chyme gonge uppon eight belles and upon two ympnes, that is to say Christe Redemptor Omnium and Chorus norae Jerusalem, well, tuynable, and wokemanly by the Fest of All Saynts next ensuinge for which the said Abbot promyseth to pay the seid Thomas Loveday four mares sterlinge at the fynisshement of his seid repayre."

In 1553 an indenture between the King's four "missioners" and the Bishop of Worcester and Gloucester, shows that "the seid Commission have redelyvered unto the Dean and Chapter one Great Bell whereon the Clock strykithe, and eight other bells whereupon the Chyme goithe."

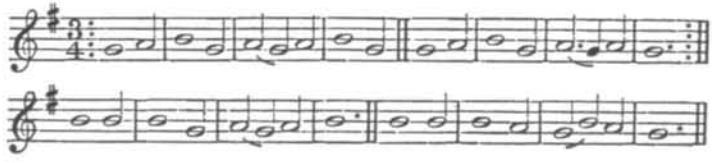
Chime tunes gradually increased in popularity, until in the 18th century, every church of importance possessed a clock with quarter chimes and chime tunes. Some of these old tunes are most interesting. I have made a collection of them, and from a large number will select a few representative ones which I think worthy of your notice.

I intend to publish this collection when I have satisfied myself that all the sources from which they can be obtained have been exhausted.

Very little can be done on three, four or five bells. Tunes, however, are played even on such a limited number of notes.

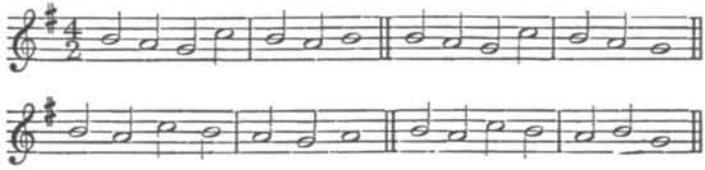
At North Coates (Lincs.) this tune was written for the three bells there by the Rev. T. R. Matthews, the Rector :—

"THROUGH THE DAY THY LOVE HAS SPARED US."

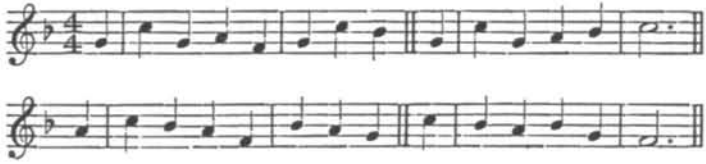


For the four bells at Tinwell (Rutland) this one by W. S. Haddon (1883) :—

"To Thy temple I repair."



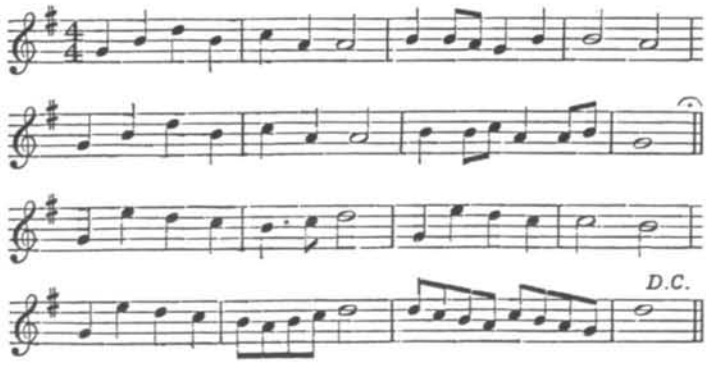
On five bells, at Hallaton, nr. Uppingham, Leicestershire, this tune has been played by the chimes for a very long time :—



The following lines to it are written up in the belfry :—

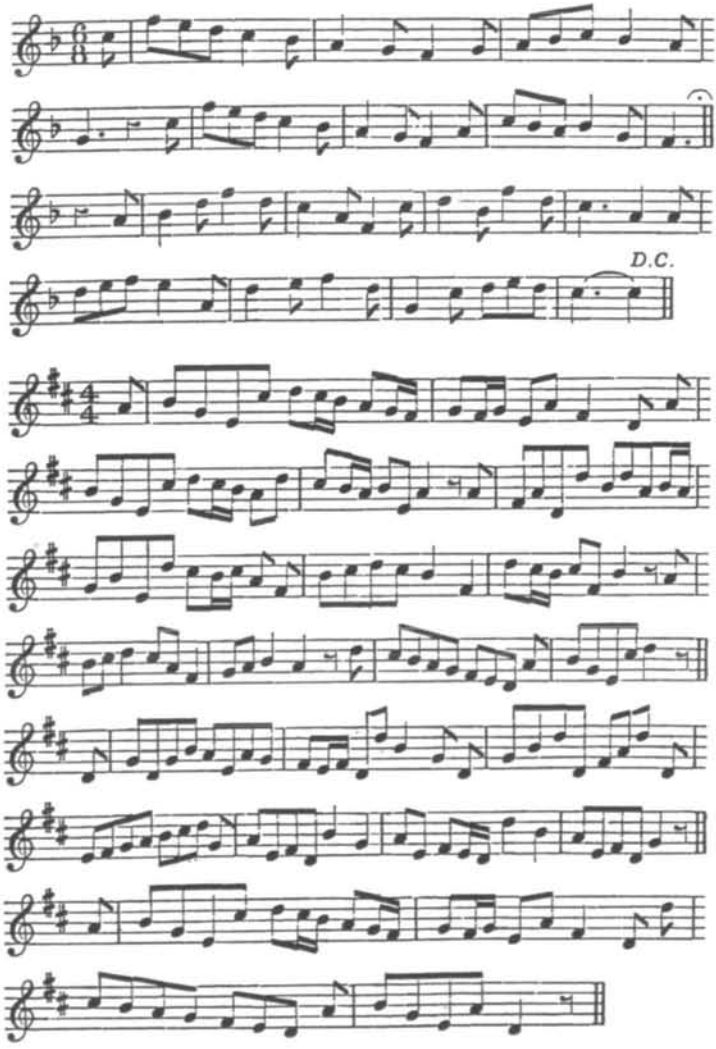
"Old Dunmore 's dead, that good old man,
We him no more shall see ;
He made the chimes to play themselves
At six, nine, twelve and three."

In many places the clockmaker's name was handed down to posterity through the medium of a chime tune such as the above. Here is another on six bells which was played by the chimes at Wellingborough for centuries :—

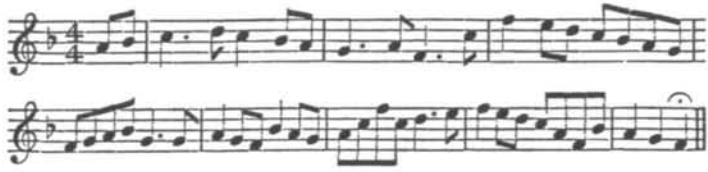


The tune was always known as "Old Johnny Walker made these chimes," but in the Accounts it was called "Henrietta." It is an excellent old tune, and made such an impression on me when I was at school, that although a quarter of a century has elapsed since I last heard it, I was able to put it down from memory for the purposes of this lecture.

On eight bells I cannot find better tunes than the two Wesley wrote for the chimes at Holsworthy :—

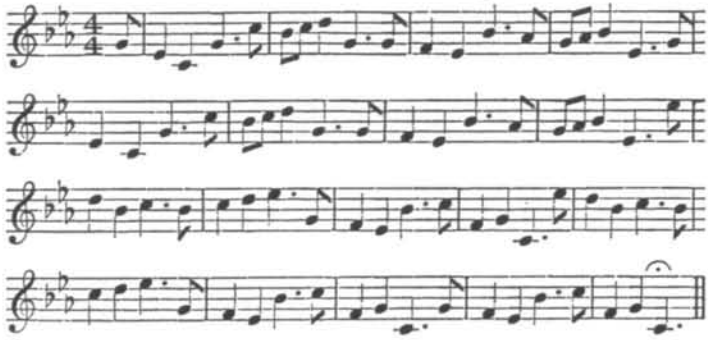


and the one composed by W. H. Vipond Barry for St. Bartholomew's, Dublin :—

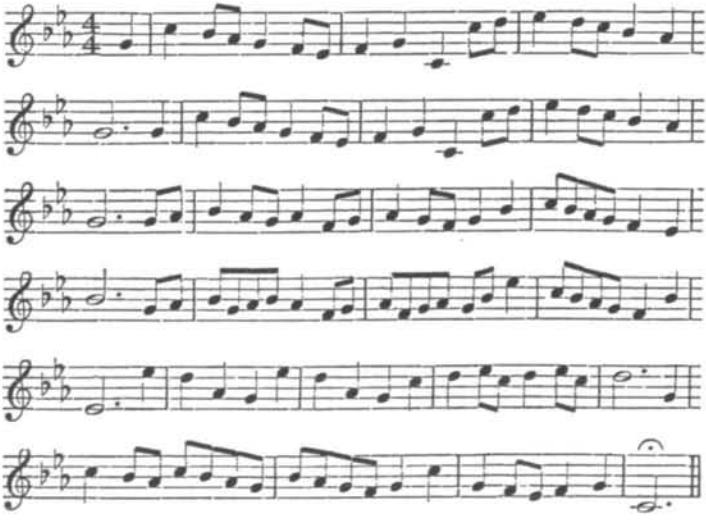


and for a further extension of compass. these two tunes played by the Cathedral chimes at Gloucester :—

STEPHEN JEFFRIES (1662-1712).

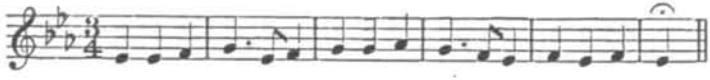


DR. W. HAYES (1708-1777).

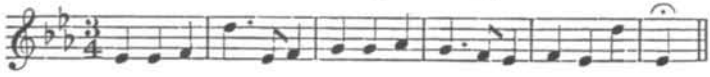


In selecting tunes for chimes, many repeated notes—long successions of quick notes—or very long note values should be avoided. No tune should ever be attempted on a smaller number of bells than it properly requires. The mutilation of well-known melodies is nothing short of sacrilege, and I cannot understand how people can listen the whole of their lives to these distorted tunes. Perhaps the National Anthem has been burlesqued more than any other well-known tune. Words fail to describe such caricatures as the following:—

IWERNE MINSTER, DORSET.



WHITTLESEA (ST. MARY).



In conclusion, I must tender my grateful thanks to many well-known clockmakers (but particularly to Messrs. Gillett & Johnstone, of Croydon, and Messrs. Smith & Sons, of Derby) for kindly placing every information in their possession at my disposal; also to the many correspondents who have supplied me with or verified other information.

DISCUSSION.

THE CHAIRMAN.—Our first duty is to return sincere thanks to Mr. Starmer for a very interesting evening. I confess I do not know very much about chimes; probably you are in the same condition, but we can certainly thank him for something to think about, and for a great deal of very useful information. With reference to chimes, however, I think the motto "À chacun son goût" would be specially applicable. For my part I am not particularly enamoured of chimes. I find them sometimes like sermons—a little too long; for instance, those of Beverley Minster. But you will have observed in listening to those chimes and chime-tunes how splendidly the laws of melody are exhibited. When the melody hops and skips about in an extraordinary manner, as in the Whittington chimes, that is the least satisfactory conformation; but when they take one step at a time, that is much more satisfactory. These tunes dislocate

my mind very much when they jump about. I should be very sorry to live under a chime that played always in the minor key. Life has plenty of dulness without having it constantly impressed on you by a neighbouring hammer clanging on a piece of metal. The most satisfactory tunes are those which are in the major key, not in the modes. I prefer that of the Madeleine, because though it has semitones curiously used it always ends on the leading-note, and then the low bell strikes the hour on the key-note at the end. I have had some experience of chimes, not always of the happiest character. I have stayed in a hotel near a cathedral where I think they played eight times in the hour, and I could not sleep once in the hour. We have had several specimens of the barbarism that is sometimes perpetrated. I had an experience last July. I went down to Gomshall, in Surrey, and on a glorious Sunday morning I took a walk to a church at Peaslake, about four miles away. As I got near there was a terrific noise with the bells. I could not make out what was the matter. I arrived at the church before the chimes had ceased, and the noise was so awful that it quite spoilt my enjoyment of the service and the sermon. When the service was over I resolved to investigate the matter. I found that one of the ringers was absent, and that the man who was left had tied two bell-ropes together so that he might work them both at once! I do hope Mr. Starmer will publish his notes. They will do some good, and may induce churchwardens and pastors who have to provide chimes to be kind enough to try and obtain chimes that shall at least have some sort of plan in the melody and some proper reason for being heard. Of course the version of "God save the King" which has been mentioned is quite absurd; but any tune mutilated is an abomination. It struck me that one or two of the tunes were rather like folk-songs; certainly the second one of Wesley's is very like "In good King Charles's golden days" in some part of it. Then the Wellingborough tune struck me as very like a folk-song, and a very charming one.

Dr. SOUTHGATE.—I had, many years ago, a little experience of chime-tunes. I was asked by a gentleman who had presented a clock, an organ and various things to a church, if I would give him some tunes to put on a chiming-machine. He told me what tunes he liked. When I learned what bells were available, it was clear that some of the tunes were impossible but some could be utilized. These were passed on to the manufactory. When the chimes came to be played, I found the tunes had been distorted in a terrible fashion. I was particularly angry, because my name appeared in the papers as being responsible for the tunes. I pointed out the changes to the makers, and they said the music should be

altered. I had an interview with the person who had to do with the chiming-machine, and it was promised that the tunes should be set right. I was told they were so set out by the foreman, "a very intelligent man and an excellent musician." Time went by, and the chimes were not altered. I do not know whether they are altered to this day. I only mention this in corroboration of what Mr. Starmer has said with regard to the mutilation of tunes.

Mr. CASSON.—Has Mr. Starmer any experience of the mechanism supplied by Mr. Lewis, I think, at Beckenham? It is pneumatic. I had myself devised an apparatus for chimes, but gave it up when I heard of this invention. I happened to be stationed in a town where hymn-tunes were tinkled on the bells, and I soon got tired of them. For instance, when you hear the tune "Hursley" played over ten times with a weakness in the leading-note, it becomes rather monotonous. Looking at matters from a mechanical point of view, weight-driving seems to me a very barbarous device, though it has the claims of antiquity.

Mr. STARMER.—I know that Mr. Lewis has applied pneumatics to bells, so that they can be played from an ordinary keyboard, and very successfully too. I am not aware that anything further has been done with his invention. Of course the atmospheric conditions of a church tower are not at all favourable to the successful working of pneumatic mechanism. I thank you for your patience in listening to a subject in which I am very keenly interested. I sincerely hope that everyone present will send me any information on the subject they may come across, however insignificant. I should like to put my request in this way: No work exists in the English language which gives detailed and comprehensive information respecting chimes, chime machinery and chime tunes, and I am anxious to put into the hands of those interested in the subject the most reliable information in a work I am writing on "Bells, carillons and chimes," so that it can be used as a book of reference. To get at the facts placed before you this evening I have had to write about 10,000 letters, and I daresay I shall have to write as many more before I have obtained all the information I desire.

(A vote of thanks to Mr. Starmer was then passed.)