



St. Mary's Cathedral
Bells.

A HISTORICAL SURVEY.

By J. A. HAYDN.

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The title of this article will, no doubt, recall to many of my readers the several legends and fairy tales which have from time immemorial been associated with the bells of St. Mary's Cathedral. My object in writing, however, is not to repeat or add to, these legends, but to give some brief notes on the history of the Cathedral bells, so far as the actual facts can be gathered from authentic sources. Before dealing with the main subject before me, I venture to give the following few notes with regard to bells in general, in the hope that they may be of some interest:—

Bells are of great antiquity, and their association with religion dates from a remote age. It would appear that they were known in China and India long before they were used in the western nations. It is uncertain when they were first used in the Christian Churches, but the existence of St. Patrick's Bell (now in the National Museum, Dublin), shows their connection with Christianity at a very early period. The development in church architecture, and the building of towers or turrets, led to an increase in the size of bells until during the 11th and 12th centuries they were often of a very considerable size.

The first mention of bells in the English Churches was made by Bede towards the end of the 7th century, and they were very generally introduced by St. Dunstan in the 10th century, when foundries for their manufacture were established in England.

There are many customs of ancient origin which still prevail with regard to the sacred use of bells. Firstly, the ringing or tolling of the church bell, or bells, to call the worshippers together. Then, there is the well-known Angelus bell; the "Passing Bell," which was tolled when anyone in the parish was passing out of life. The custom still exists in some places, but the bell is now tolled after the death has taken place. The Sanctus Bell, used in the celebration of the Mass, was formerly hung

in a turret or tower outside the church, and was struck three times when the priest pronounced the Ter-Sonctus, so that all within hearing might participate in the act of adoration.

The most common secular use of bells is the striking of the hours of the day, and often, in addition, the quarter and half hours. The curfew bell introduced into England from Normandy by William the Conqueror, was rung in every parish at 8 o'clock in the evening as a signal for the extinguishing of all fires and lights. This law was relaxed by King Henry I., though the practice is still observed as the relic of an ancient custom—in some of the English churches.

The casting of the bells is a lengthy and complicated process, too involved and too technical to describe within the limits of an article such as this. Various metals have been tried from time to time, including copper, brass, and silver, but these metals have been found quite unsuitable for large bells. We have often heard such expressions as "silver-toned bells," " . . . like silver bells," etc., but, as a matter of fact, bells cast of silver would sound anything but "silver-toned." The metal used in the casting of bells consists of a mixture of copper and tin. The proportions vary slightly, but the usual ratio is about three parts copper to one part tin.

Bells when cast have to be tuned. The sound made by a bell consists, not of one note only, but of a whole series of notes, known as "harmonics," or upper-tones, viz., the octave above the fundamental note, the octave below, and (in a less pronounced degree) the 5th, 12th, etc., of the tonic. In a perfectly cast and tuned bell these harmonics are all in tune, one with another, constituting a chord particularly pleasing to the ear.

Several bells—from 3 or 4 to 8, 10, and sometimes 12—tuned to the notes of the scale, constitute a "Peal." The first peal in England consisted of 5 bells hung in King's College, Cambridge, in the year 1456. The heaviest swinging peal in England at the present time is at Exeter Cathedral, consisting of 12 bells, the tenor of which weighs 3 tons 12 cwt. In Ireland, the splendid peal of St. Patrick's Cathedral, Dublin—the princely gift of the late Earl of Iveagh—is the heaviest swinging peal; it originally consisted of 10 (tenor 2 tons 5 cwt.), which has since been increased by the addition of two bells.

The tuning of a peal of bells is a highly complicated and technical process. Firstly, it is essential that the upper-tones of each bell be in tune with their fundamental note, and secondly, that each bell be strictly in tune with each and all of the other bells constituting the peal.

The Carillons largely in vogue in Continental towns, consist of a large number of bells—often 40 to 50—comprising all the notes of the chromatic scale. These bells are not swung, but are struck by hammers operated from a joint keyboard or sometimes on the principle of the old-fashioned musical boxes. The carillons of Bruges and Antwerp are celebrated. In England there are elaborate carillons at Bradford, Boston Church, and Worcester Cathedral, while in our own country, the carillon of St. Colman's Cathedral, Queenstown, is quite on a par with the finest of the Continental carillons.

The development of scientific "change ringing" in the 17th century brought about a complete change in the manner of hanging bells, and also in the peals, the size of the bells diminishing, but the number of bells in the peal increasing. It was common to use the metal of the old peals where the new were substituted; hence not many of the old bells survive at the present day. Previously, the old large bells were either not swung at all in ringing, or were merely tilted out of the perpendicular until the side of the bell came in contact with the pendant clapper. As change-ringing developed, the peals were specially hung for the purpose. When about to be hung the bells are first swung up—or "raised" as it is called—and set mouth uppermost. With each stroke the bell makes a complete revolution, swinging round at each pull. The greater part of the requisite

impetus is supplied by the weight of the bell itself, the art of the ringer being to put just enough weight into his pull to counteract what the bell loses through friction and gravity. To become an accomplished ringer, having the bell under complete control, takes many months, or even years, of experience.

The scientific side of change-ringing is of great interest. As the number of bells in a peal increases, the number of changes possible to be rung increases enormously. For example, on three bells there are only six changes possible; on four bells, twenty-four changes; on five bells, one hundred and twenty changes; on seven bells, 5,040, while on twelve bells the number of changes possible amounts to no less than 479,001,600.

5,040 changes (or as near that number as the composition of the peal will permit) is said, in ringing phraseology, to constitute a "Peal." On an average weight peal of bells this takes about 3 hours 20 minutes to ring. In the case of twelve bells, calculating at the rate of two bell-strokes per second, it would take 7 years 217 days continuous ringing to accomplish all the possible changes.

In churches or cathedrals where there are teams of highly accomplished change-ringers, it is not uncommon to celebrate any great local or national event by the ringing of a peal (5,040 changes), and such peals are

usually recorded on a "Peal Board" in the belfry. For example in St. Patrick's Cathedral, Dublin, peals were rung on the death of Queen Victoria (5,021 changes), the death of the late Earl of Iveagh (5,057 changes), the death of the late Rt. Hon. R. R. Cherry (past President of the St. Patrick's Society of Change Ringers), and several other occasions. One of the longest peals on record was that rung at Loughborough (Leicestershire), on the 12th April, 1909, consisting of 18,027 changes, taking 12 hours 18 minutes to ring, without a halt, hitch, or falter. It is interesting to note that this remarkable peal was arranged (or "composed," as it was called) by Mr. Gabriel Lindoff, who, since the year 1897 has been conductor and instructor of the St. Patrick's Cathedral Society of Change Ringers.

Having made the foregoing remarks on bells in general, I now proceed to deal directly with the subject of this paper, namely—"The Bells of St. Mary's Cathedral."

The first authentic reference to the Cathedral bells dates from the time of the celebrated John Budston, or Budstone, to whose memory there is an interesting monument in the south transept of the Cathedral. Budston, an ancestor of the Arthur family, appears to have been a wealthy and prominent citizen of Limerick from about 1360 to 1401, and in the

latter year was Bailiff or Sheriff of the city. He was a liberal benefactor to the Cathedral, and added to the original structure the chapels dedicated to St. James and St. Mary Magdalen. A daughter of Budston's was married to Peter Arthur, and their son left the following record:—"John Budston, whose bells sound in the shrine of the Virgin, made a gift to the church of four brass bells." Now, as the belfry stage of the tower was only built about this period, it is almost certain that Budston's was the first "peal" of bells in the Cathedral. Firstly, there is no authentic reference whatsoever to any previous bells, and, secondly, there was no belfry in which to hang them. I might here remark that the tower did not form part of the original structure, the belfry stage having been added about the period referred to, and the top storey—including the turrets—at a still later date. It is most improbable that Budston's bells were actually cast of brass, as this metal never has been used in the casting of bells, as I have already mentioned in the former portion of this article.

No further mention is made of the bells in the Cathedral records until about the year 1670, when a peal of six bells was presented by William Yorke. There is not much information available regarding this benefactor, but he must have been a man of considerable means. He was an Alderman of the City of Limerick, and was three times Mayor. He

died in the year 1679, and was buried in the Cathedral. A memorial to his memory, erected by his son, may be observed on one of the pillars in the north side of the nave, whereon is the following inscription:—

This monument was erected by William Yorke to the memory of his deceased Father, Alderman William Yorke, who Lyes here interred, was thrice Mayor, gave above four hundred pounds for building the Exchange and freeley bestowed itt on this Corporation; contributed to the bells and chymes, which were cast and set up in his Maioraltyes; was charitable to the poor; constant to his friend; died in the true Christian taith the last year of his Maioralty, April 1, 1679. Aetatis sve 42, leaving William, Roger, and Jane by Anna, the daughter of Henry Hart, Esq.

There is no information available as to what became of Budston's bells, but it is more than likely that the metal of these bells was used in the casting of Yorke's peal.

Yorke's peal consisted of six bells, in the key of F, the tenor (or biggest bell) being about 18 cwt. They were cast by the then celebrated founders, the Perdue Brothers—William and Roger—whose headquarters were at Salisbury. Strangely enough, one of the brothers, died while

engaged in his work at Limerick, and was buried in the Cathedral. His burial place was marked by a slab upon which was engraved the following quaint epitaph:—

“Here a bell founder, honest and true,
Until the resurrection lies Perdue.”

Dineley, the historian, records having seen this epitaph when he visited the Cathedral in the year 1680, but, unfortunately, all trace of it has since disappeared.

The peal presented by Yorke was supplemented in the year 1703 by the addition of two bells, thus bringing the total peal up to 8 bells. All the six bells of Yorke's peal have since been either recast or replaced by new bells from time to time. The two bells erected in 1703, however, are still intact, precisely as they were when originally cast, save for some 230 years wear and tear, and for some crude attempts at tuning the bells some time in the past by hacking pieces out of their edges. I now proceed to give a brief note on each of the bells as they are at the present day, commencing with the treble (or first), and going down the scale to the tenor (8th).

Treble—Cast in 1703. The inscription on the bell is as follows:—

“Geo. Roche Preator Ray Fez Mavrice Is Mott Vic. T.C. E.C.
1703.”

2nd Bell—Cast in 1703. The inscription is as follows:—

“Geo. Roche Preator Ray Fez Mavrice is Mott Vic Fudit
Tobias Covey 1703.”

The singular contractions of the wording on these two bells for a long time gave some difficulty to interpret, but there is no doubt but they mean to convey that the bells were erected when George Roche was Mayor, and Raymond Fitzmaurice and Isaac Moth Sheriffs, “Vic” standing for Vicaril, or Vice Comites. Unfortunately I have not been able to obtain any particulars regarding the founder of these two bells—namely, Tobias Covey.

3rd Bell—Recast in the year 1923 by Messrs. Taylor and Co., Loughborough, at the expense of the late Sir Alec Shaw. This peal formed the old treble of Yorke’s original peal, and previous to recasting bore the following inscription:—

“Vivat Rex Et Floreat Grex Anno Domini 1673. W.P. : R.P.”

The initials W.P. and R.P. are those of William and Roger Perdue, the founders, to whom I have already referred. Unfortunately, when the bell was being recast, the original inscription was not reproduced. The bell now bears the following inscription:—

Cast 1673. Recast 1923, at the expense of Sir A. W. Shaw.
Taylor, Loughborough.”

4th Bell—This is an entirely new bell, cast by Messrs. Taylor & Co., Loughborough, in 1907, at the expense of Mr. Everard Hewson, of Castle-hewson, Co. Limerick, replacing a bell by Messrs. Murphy, Bell Founders, Dublin, which was defective. This is now, probably, the best bell in the tower. It bears the following inscription:—

“Te Laudamus. John Taylor & Co., Loughborough, 1907.”

5th Bell—Cast by T. Meares, of London, in 1829, with the following inscription:—

“T. Meares, of London. Fecit 1829.”

6th Bell—Also cast by T. Meares, of London, in 1829. The inscription is precisely the same as on the 5th bell.

7th Bell—Cast by Messrs. Murphy, of Dublin, replacing a defective bell cast by T. Meares, of London, in 1829. The following is the inscription on the bell:—

“ J. Murphy, Founder. Dublin, 1873.”

8th Bell (Tenor)—This is the tenor bell of Yorke's peal, and was originally cast in 1673 by the Perdues. It was recast in the year 1930 by Messrs. Taylor & Co., of Loughborough, through the munificence of Mr. Everard Hewson, who kindly defrayed all the expense involved. Some 3 cwt. of fresh metal was added in the recasting, thereby greatly increasing the sonority of the bell. The original inscription—which was preserved when the bell was recast—is as follows:—

“Guiliemus : Yorke : Armiger : Preator : 1673
Iohannes : Vesey : S : T : D : Episcopus
Iohannes : Smith : A , M : Decanus : Lymeric-
ences : 1673 .
Ex : Mutis : Liquide : Fate : Nide : Vocales :
Iam : Consonantes : Quid : Vetat :
Loquamur : W P : R P ”

In the recasting of the bell in 1930 the following inscription was added to the above:—

“Recast A.D. 1930 by order of W. E. G. Hewson. G. L. Swain, Dean.”

ADDENDUM.

During the years 1937/'38 very extensive renovations were carried out to the bell frames and bells.

The bell frames, and the oak beams supporting them, having become much decayed, and consequently in a dangerous condition, two massive steel girders were erected, spanning the tower, the ends of which are deeply embedded in the tower walls. These two girders now take the entire weight of the bells and bell frames, and render them safe for practically all time.

Three of the bells have been recast and remodelled, viz., the treble, second, and seventh. In addition, all the bells have been fitted with new gudgeons and bearings of the most up-to-date ball-bearing oil-retaining type, and the entire ring now takes a foremost place amongst Irish peals.

A modern chiming apparatus has also been installed which will enable the bells to be chimed when a team of ringers is not available.

The building portion of the work was carried out by the Thomond Building and Joinery Works, Limerick, whilst all the work to the bells and bell frames was executed by the eminent firm of bell founders—Messrs. John Taylor & Co., Loughborough.

SUMMARY OF THE BELLS.

Bell No.	Note	Weight Cwts.	
Treble	F	6 $\frac{1}{4}$	Originally cast 1703. Recast 1938.
2	E	6 $\frac{3}{4}$	Originally cast 1703. Recast 1938.
3	D	6 $\frac{1}{2}$	Originally cast 1673. Recast 1923.
4	C	8 $\frac{1}{4}$	Cast 1907.
5	Bb	10	Cast 1829.
6	A	11 $\frac{1}{4}$	Cast 1829.
7	G	16 $\frac{1}{2}$	Originally cast 1873. Recast 1938.
Tenor	F	23	Originally cast 1673. Recast 1930.