

# THE BELL NEWS

## AND RINGERS' RECORD:

A JOURNAL OF THE RINGING EXERCISE; AND COMPENDIUM OF INFORMATION FOR THE CLERGY & CHURCHWARDENS.

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[ONE PENNY.]

### ON A RING OF BELLS IN PERFECT TUNE.

BY THE REV. C. D. P. DAVIES.

It has been shown that the intervals between the successive notes composing the perfect major scale are of three different values, namely:  $\frac{9}{8}$ ,  $\frac{10}{9}$ , and  $\frac{11}{10}$ . Of these, the first two differ but slightly from each other. To determine the amount of this difference we proceed by the same method as when we discovered the intervals between the notes of the scale, that is, we divide the greater by the less, thus:  $\frac{9}{8} \div \frac{10}{9} = \frac{81}{80}$ . Hence the interval between them amounts to  $\frac{1}{80}$ . This is called the *comma*. Two notes which differ by a comma can be readily distinguished by an acute ear—one producing 81 vibrations while the other produces 80. Notwithstanding, however, the fact that this interval may be clearly perceived, should it happen that a note occurring in a scale is out of tune to the extent of a comma, this, although of course a fault, is not so great an one as to render the scale altogether intolerable. The full bearing of this will shortly be rendered apparent.

We now turn to another division of the subject. In treating of scales we have hitherto only spoken of the major scale, in which the ratios of the notes of the component triads are 4 : 5 : 6. If, however, we institute a triad, in which the ratios of the component notes are 10 : 12 : 15, or 4 :  $\frac{22}{3}$  : 6, we shall obtain a combination, which, though certainly not so perfectly harmonious as our former triads, is still anything but harsh. This is called a *minor triad*. Let us make three triads as before, giving them each the ratios 10 : 12 : 15. We then have:

$$\begin{aligned} C : E : G &:: 10 : 12 : 15 \times \frac{1}{10} = 1 : \frac{6}{5} : \frac{3}{2} \\ G : B : D &:: 10 : 12 : 15 \times \frac{3}{10} = \frac{3}{2} : 2 : \frac{9}{4} \\ F : A : C &:: 10 : 12 : 15 \times \frac{2}{15} = \frac{4}{3} : \frac{4}{3} : 2 \end{aligned}$$

Arranging these reduced ratios according to their numerical value, it will be found that they all fall between 1 and 2, except  $\frac{9}{8}$  representing D: accordingly we halve this, that is, take its lower octave  $\frac{9}{16}$ , which causes them all to come thus:—

$$C, D, E, F, G, A, B, C \\ 1, \frac{9}{16}, \frac{6}{8}, \frac{4}{8}, \frac{3}{4}, \frac{2}{3}, \frac{3}{4}, 2$$

These fractions represent the true relations of the notes composing the usual *descending minor scale*. In the *ascending minor scale*, as ordinarily played, one or more of the triads taken is most commonly a major one; but as the descending scale is the only one with which we have to deal, it will be unnecessary to speak of the other. Concerning the minor scale Ganot says: "In the descending scale they all (i.e. the tonic, dominant, and sub-dominant), bear minor triads;" and Mr. Ellis says: "If all the chords are minor, and the scale begins on the first of the tonic chord, the result is the minor descending scale."

Having now arrived at the relations of the notes composing the perfect major, and the perfect descending minor scales, so far as these are comprised within the compass of an octave, let us next go beyond this limit, that is, let us suppose we have a ring of more than eight bells.

We proceed at once to consider the case of a ring of twelve. Of course, the fractions representing the heavy eight will still be the same as in the case of a ring of eight, the extra bells, whether two in number so as to form a ring of ten, or four, so as to form one of twelve, being simply added on above the octave of the key-note, and constituting part of a new scale exactly an octave higher than the previous one. Of the four light bells, the treble will be the double or octave of the eight in twelve, the second will be the double of the ninth, the third of the tenth, and the fourth of the eleventh, that is, the relations of their vibrations will be as follows:—

	12	11	10	9	8	7	6	5	4	3	2	1
Major Twelve ...	1	$\frac{11}{12}$	$\frac{5}{6}$	$\frac{4}{5}$	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{1}{2}$	$\frac{3}{5}$	$\frac{2}{3}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$
Minor Twelve ...	1	$\frac{11}{12}$	$\frac{5}{6}$	$\frac{4}{5}$	$\frac{3}{4}$	$\frac{2}{3}$	$\frac{1}{2}$	$\frac{3}{5}$	$\frac{2}{3}$	$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{4}$

These fractions, then, represent the ratios of the numbers of the vibrations of the notes forming a perfect major and minor ring of twelve respectively. The major scale being on the whole the most perfectly harmonious, and being that to which the ear is most instinctively inclined, as more expressive of feelings of joy than the other, it naturally follows, that the number of major rings of bells is vastly in excess of that of minor; indeed, so few

and far between are the latter, that I am unable to recall to mind a single tower in which there is provision made for a ring of bells in the minor scale only.

But in many towers where there is a ring of ten or twelve in the ordinary major scale, one or more bells have been added of such qualities that, by combining them with certain others of the original number, fresh rings are obtained in other keys in the major or minor scales. Taking for an example of this a ring of twelve in the major scale and in perfect tune, let us add bells of such qualities, and so many, as will be found of practical use. With only *three* additional bells we shall obtain no less than eleven fresh rings of six and upward. These three will be as follows:—one, which for convenience we will call *x*, above the treble of the twelve, with the value  $\frac{13}{12}$ ; one, called *y*, between the treble and second, with the value  $\frac{11}{10}$ ; and one called *z*, between the sixth and seventh, with the value  $\frac{11}{10}$ .

In order to show more clearly the effect of these additions, the different rings resulting therefrom have been arranged in the table here given:—

Name of Bell.	Ratio.	Rings obtained.					
		Major.				Minor.	
		12	10	8	6	12	8
<i>x</i>	$\frac{13}{12}$	—	$\frac{5}{4}$	—	$\frac{5}{4}$	3	2
1	1	3	—	2	—	* $\frac{11}{10}$	—
<i>y</i>	$\frac{11}{10}$	—	2	—	—	—	—
2	$\frac{8}{5}$	—	—	—	—	—	—
3	$\frac{15}{8}$	—	2	—	—	—	—
4	$\frac{15}{4}$	—	—	—	—	—	—
5	$\frac{15}{2}$	—	—	—	—	—	—
6	$\frac{15}{1}$	—	—	—	—	—	—
<i>z</i>	$\frac{11}{10}$	—	—	—	—	—	—
7	$\frac{11}{5}$	—	—	—	—	—	—
8	$\frac{11}{2}$	—	—	—	—	—	—
9	$\frac{11}{1}$	—	—	—	—	—	—
10	$\frac{11}{1}$	—	—	—	—	—	—
11	$\frac{11}{1}$	—	—	—	—	—	—
12	1	—	—	—	—	—	—
Multiplr. ....	—	1	$\frac{13}{12}$	$\frac{11}{10}$	$\frac{11}{10}$	$\frac{11}{10}$	$\frac{11}{10}$
Comma .....	—	—	S	F	—	S	S

Explanation: In the above table the first column, headed "Name of Bell," explains itself; the three additional bells are *x*, *y*, *z*; No. 1 is the treble of twelve, and so on to 12, which is the tenor of the same. Under the heading "Ratio" is given the relation of the number of vibrations of all the bells to that of the tenor, whose number of vibrations is represented by unity. Then follows a synopsis of the different rings obtainable by a suitable choice of more or fewer of the whole number of bells at our disposal. These rings are in two divisions, viz., those in the major scale and those in the minor. Of the former there are four, and of the latter two; but at the same time it must be borne in mind, that the whole number of rings is in excess of these; for every ring of twelve contains one of ten, of eight, and of six; every one of ten contains one of eight and of six, and so forth. The numbers at the top of the column, and under the headings "Major" and "Minor," shew of how many each ring consists. Under these follow, in order, the ratios that each note bears to that which serves for the tenor of the ring, which last, except in one instance, and that the minor twelve (of which presently), is represented by unity. In the lowest horizontal row but one is given a series of fractions. These are the "Multipliers", by which the original ratios, given in the column headed "Ratio", have to be multiplied, so as to cause the tenor of the ring under which they are placed to be represented by unity. For example take the major ring of ten. The tenor of this is the ninth of the twelve. This was represented by  $\frac{9}{12}$ , which, multiplied by  $\frac{4}{3}$ , gives 1; and  $\frac{3}{4} \times \frac{4}{3}$  gives 1, and so forth. The ratios to which an asterisk (\*) is prefixed indi-

cate that the bells which they represent are not in perfect tune—in fact, that they are wrong to the extent of a comma or  $\frac{1}{12}$ . As an example of this we may take the tenor of the minor twelve, represented by  $\frac{1}{12}$  instead of the theoretically correct value 1. By this is meant, that this bell, for every 80 vibrations that it should yield, does yield 81; that is, it is slightly sharp, which fact is indicated by the letter S placed beneath, in the lowest horizontal row of all, under the designation of "Comma." Where, as in this case, an S is given, it will be found, that, if all the "comma bells" in the ring are multiplied by  $\frac{1}{12}$ , they will be reduced to their proper value; and where an F, meaning "flat," is given, the same will happen if they are multiplied by  $\frac{1}{12}$ .

Before quitting this portion of the subject there are a few observations which it may be well to make.

On examination, all those bells that are out of tune will be found to be so exactly to the extent of a comma, neither more nor less. Next, it should be borne in mind that everything must give way to the original and fundamental ring, which in our table is a major ring of twelve bells. These should be in absolute tune with each other, and if subsequent additions are made to them, so as to gain more rings, or rings of a greater number of bells, the original bells should on no account be altered; there must be no attempt at a compromise—no one bell of the original ring should be made ever so slightly out of tune in order to bring it into somewhat of conformity with the new ones. From this it will be clearly apparent that to augment a ring of six to eight, or of eight to ten, in any other manner than by addition of trebles, is to proceed upon an unscientific plan. We may add to our original ring, but we must never destroy or alter any of its constituent parts, when these are once in perfect tune.

On comparing the advantages to be gained by the addition of each of the bells  $x, y, z$ , to our original twelve, it will at once be seen that the one from which least is gained is  $y$ . It only enters into the composition of one single ring of eight; and, as in this it forms the second, its removal will not even deprive us of the lower six. The only consideration that led me to introduce it was, that in some towers where there is a thirteenth bell, it has been introduced in this place, making an additional light ring of eight.

It follows therefore, that if an addition is to be made to a ring of twelve, it should be first of all  $z$ ; this observation holding equally good for ten bells; then, if another bell be desirable, let  $x$  be inserted. The heavy ring of ten at Exeter Cathedral possesses the bell  $z$ . Happening to have heard that a minor ring of eight was obtainable in that tower, I wrote to enquire by what means this was accomplished, and my best thanks are due to the organist for his kindness in furnishing me with full particulars of this, the heaviest ring in the kingdom.

The following exhibits in a tabular form the total number of rings obtainable with our fifteen bells:—

	12	10	8	6	
Major ...	1	2	3	4	10
Minor ...	1	1	2	2	6
	2	3	5	6	16

[To be continued.]

## THE MONTH.

### QUARTERLY MEETING OF THE SOUTH LINCOLNSHIRE CHANGE RINGERS' ASSOCIATION.

On Saturday, July 2nd, the quarterly meeting was held at Long Sutton, when a 720 of Oxford Treble Bob Minor was rung by members of the Spalding and Bourne companies at St. Mary's Church, several five bell peals were also rang at St. Nicholas. The dinner was held at the "Woolpack" Inn, the Rev. S. R. Henderson presided, supported by Rev. R. E. Roy, Rev. R. G. Ash, and Rev. J. M. Coates. Members from the following places were present, Long Sutton, Tydd, Moulton, Spalding, Bourne, Boston, and Skirbeck. It was decided to appoint two skilled members in each district to push the interests of the society and to get new members, also collect subscriptions.

### MEETING OF RINGERS AT WALTON-LE-DALE.

On Saturday July 18th, a gathering of Ringers took place at Walton-le-Dale, Lancashire, the following places being represented: Accrington, Padiham, Walley, Darwen, Church, Clitheroe, Leyland, Blackrod, Lytham, Goosnargh, Penwortham, Higher-Walton, Preston, Chorley, Manchester, etc. Ringing commenced on the bells of St. Leonard's Church at 2 o'clock, by a mixed company, and was kept up by the various bands until 10 o'clock. The methods rung were Plain Bob, Grandsire, and Oxford and Kent Treble Bob. Tea was provided at the Red Lion Hotel, when upwards of 50 sat down. The usual meeting was afterwards held, presided over by Mr. Robert Bibby (Organist of St. Leonard's Church). The minutes of the last meeting, held at Padiham on the 23rd April last were read and confirmed, and it was resolved to hold the next meeting at Goosnargh, near Preston, on Saturday, the 8th October next. Mr. James

Horrocks of Church, near Accrington, was re-elected secretary, and votes of thanks were accorded to the vicar and churchwardens, for the use of the bells and the belfry (the latter having been thoroughly renovated at much expense for the occasion). Thanks having been given to the secretary and to the chairman this pleasant meeting terminated.

### THE SAFFRON WALDEN SOCIETY.

On Monday, June 27th, the 25th Anniversary took place in accordance with the will of the late Thomas Turner, of this town. Several ringers from Cambridge and Sawbridgeworth were present. Some excellent Treble Bob ringing took place during the day, with the tenors parted and together. Touches of Grandsire Triples and Double Norwich Court Major were rung. The usual "Memorial Sermon" was preached in the evening at evensong to the home ringers by the Rev. J. J. Daniels, in the absence of Canon Jelf, the Vicar.

### EXTRACTS FROM CONTEMPORARIES.

"REDENHALL BELL FOUNDRY.—Upon visiting the Redenhall Bell Foundry, Harleston, during the past week," says the *Norfolk and Suffolk Journal*, "we were fortunate to hear and see three small bells, which specially attracted our attention, and were informed that they were for the Church of Westmeston, in Sussex. They are intended to replace the three bells previously existing, two of which were cracked, and all of the most inferior description, both in casting and design. In order to produce three bells of the required power, and uniform in quality, it was found necessary to add considerably to the weight of the treble and second, leaving the tenor as near the old weight as possible. A comparison of the weights of new and old, in this instance, will serve to show the difficulties which founders often have to face when asked to recast old bells:

	THE NEW BELLS.			THE OLD BELLS.		
	cwt.	qrs.	lbs.	cwt.	qrs.	lbs.
Treble ...	4	0	8	3	0	3
Second ...	5	1	13	4	3	23
Tenor ...	6	3	25	6	3	0

The metal of one of the old bells was, moreover, of so inferior a description, that it was necessary to purify it before it could be allowed to enter into the composition of the new ones. The bells were also designed anew; and have come out of the casting pit, not only clean and sound as castings, but in perfect tune, and pure and bright in quality of tone. The note of the tenor is C, and though they have at present been chimed only in the closed workshop, in which they have been fitted with stocks and wheels, their music can be distinctly heard all over the town, and beyond it. Those who listen with critical ears are unanimous in their admiration of the bright purity of tone, and accuracy of intonation, which the new bells display. The enterprising firm who have produced these bells are to be congratulated on the highly successful manner in which they have reduced to practice their scientific theories in the art of bell-founding. That the principles on which Messrs. Moore, Holmes and Mackenzie work are true, is proved by the present successful result, and the care and patience with which their work generally is carried out, is beyond all praise. The new bells bear the following inscriptions, cast in plain capitals:—

On the Treble—'Gloria in excelsis Deo.'

„ Second—'In terra Pax.'

„ Tenor—'Hominibus bonæ-voluntatis.'

On the waist of each bell, following the above, were the names of the present rector and churchwardens, with the original date of casting, and re-cast, 1881, with the shield and monogram of the present founders. They are fitted with cast-iron stocks of the pattern designed by this firm; and the bells having mushroom heads, with a projection which enters the stock, in place of the ordinary cannons, one stout and powerful bolt serves to keep crown-staple, bell, and stock, firmly together. Removable wrought-iron gudgeons are inserted and keyed into the stock ends, the bearing being much longer than usual. As the bells are only to be used for chiming, they are provided with ordinary clappers, and not with the ingenious clapper patented by the firm, which has been so successfully applied at Weybridge, Blofield, Southwold, Tunstead, and the great tenor bell at the University Church, Cambridge, etc., etc."

The following is from the *Ironmonger*, of July 9th, 1881:—

"A LESSON IN BELLFOUNDING.—A special jury, with Mr. Baron Huddleston, has this week arrived at a verdict which mulcts Sir Edmund Beckett in heavy damages, and should teach that gentleman a much-needed lesson in moderation and respect for the opinions and feelings of others. Sir Edmund Beckett, although by profession a lawyer, has acquired a certain amount of information on various subjects wholly unconnected with the law, and is in the habit of promulgating his views and opinions in the most pronounced and didactic manner. He has 'taken up' architecture, building, church furnishing, ironworking, bellfounding, and a host of other matters from time to time, and has published works in which he has summarily overhauled all established rules and practices with dicta of his own calculated to set in order the trembling world at his feet. It may be inferred that Sir Edmund Beckett thinks there is only one gentleman living who is an all-round Admirable Crichton—whose knowledge of architecture is superior to that of the late Sir Gilbert Scott or Mr. Street; who rises superior to all the common devices of church and house builders; who knows more of constructive ironwork than the entire

institute of Civil Engineers; and who (prior to Tuesday last) entertained the opinion that his acquaintance with bellfounding was so all-embracing as to justify him in using any kind of language respecting those whose ideas did not happen to be coincident with his own. It is upon the bell question, however, that Sir Edmund has at length come to grief. He had arrived at the conclusion that 'Big Ben,' the great bell hung in the Clock Tower of the Houses of Parliament, was not what it ought to be, and he expressed that opinion in language which the Queen's Bench has now declared to be libellous. The bell was cast by Messrs. Mears & Stainbank. Sir Edmund Beckett wrote a letter on October 31, 1878, in which he said that 'Big Ben' was a disgrace to its founders; a letter on November 20, 1878, in which the expression 'oldest and worst of the foundries in England' occurred; and a letter in January, 1879, in which he repeated his charge against Mr. Mears (then deceased), but disavowed any intention of referring to the plaintiff. After a long hearing, much evidence, and elaborate arguments, the jury found that the letter of November 20, 1878, was libellous, and exceeded fair comment upon a matter of public interest, and awarded the plaintiff, Mr. Stainbank, £200 damages. As to the justice and equity of this verdict we think there can be no two opinions. Sir Edmund Beckett may be an accomplished gentleman and a clever specialist, yet he cannot be permitted to express his opinions—which are merely his own views in any case, and taken at their utmost value—in such a manner as to seriously damage the reputations of firms or persons with whom he is not in accord. When Sir Edmund Beckett published his erroneous statements relative to Sheffield cutlery he indulged in broad generalisations outside the scope of the law of libel, and he never retracted his assertions, although they were most effectually disproved in the columns of this journal. He was equally wrong on that occasion, and his criticisms were quite as likely to do harm to a large and important industry. Bearing this in mind, we must confess to a certain amount of satisfaction at a verdict which will, we trust, convince the honourable baronet that he would do well to exercise some care, and have his facts well in hand, prior to launching his too ponderous thunderbolts against all and sundry. Sir Edmund Beckett no doubt 'means well,' as the phrase goes; in future he will probably bear in mind that he is a lawyer as well as an amateur architect—and bellfounder."

The following is from the *Jeweller and Metal Worker* of July 15th:—  
 "BIG BEN" has brought Sir Edmund Beckett to grief. He had arrived the conclusion that the great bell hung in the clock tower of the Houses of Parliament was not what it ought to be, and he expressed that opinion in language which the Queen's Bench has now declared to be libellous. The bell was cast by Messrs. Mears & Stainbank. Sir Edmund Beckett wrote a letter on October 31st, 1878, in which he said that "Big Ben" was a disgrace to its founders; a letter on November 20th, 1878, in which the expression "the oldest and worst of the foundries in England" occurred; and a letter in January, 1879, in which he repeated his charge against Mr. Mears (then deceased), but disavowed any intention of referring to the plaintiff. After a long hearing, much evidence, and elaborate arguments, on the 5th inst. the jury found that the letter of November 20th, 1878, was libellous, and exceeded fair comment upon a matter of public interest, and awarded the plaintiff, Mr. Stainbank, £200 damages. The case has ended in a very proper verdict, and we are at a loss to understand how a gentleman of the undoubted abilities of Sir Edmund should so disregard the fitness of things as to put himself before the public as the sole arbiter of the respective merits of the bell foundries. If the general public, being ignorant in the matter, are willing to accept his words as the faultless decrees of a Jove, surely he does not expect the "oldest" or the youngest bell-founders will tremble at his nod or wink, and admit that after a special training and many years of experience they know nothing of their business, and that Sir Edmund Beckett is the sole fount of wisdom in that as in so many other matters.

#### UNVEILING THE MONUMENT TO THE MEMORY OF THE LATE MR. WILLIAM HARRISON.

The monument which has been erected by public subscription in Mottram Churchyard, in memory of the late Mr. William Harrison, was unveiled on Saturday, July 2nd, with great ceremony. The proposal was first suggested at a district meeting of the Oldham and Ashton Society of Change Ringers; but it was warmly taken up by Mr. Harrison's friends, many of whom were members, like him, of the Manchester Unity of Odd Fellows. The Right Rev. Bishop Kelly, Archdeacon of Macclesfield, had kindly acceded to the request of the committee to preach on the occasion, and the vicar not only placed the church at their disposal, but led the choral service. Several neighbouring clergymen were present and took part. The church was quite filled. After the order of evening prayer had been gone through, the Bishop, in the course of an address referred at length to the prominent position Mr. Harrison had attained in the ranks of Odd Fellowship; and alluding to his position as a ringer the Bishop said: We remember him also as a member of that body who in this parish are accustomed week after week to summon worshippers to God's holy house. I know that the art of bell ringing is better understood in our own country than in most others—perhaps I might venture to say is understood in this country more than in any other. The

associations which are connected with the sound of bells were such that those ringing them ought never to forget that on them especially ought to be inscribed "Holiness unto the Lord." He besought his hearers to let their lives correspond with the work they are called upon to do, and to make sweet music in the ears of God as well as in the ears of their fellow-men by lives of holiness, spirituality, and devotion to God.

#### THE CEREMONY.

Upon the conclusion of the service, the party proceeded to the monument, round which a great concourse had assembled. Amongst those who took their stand upon the platform was the Right Rev. Bishop Kelly, Revs. J. R. C. Miller and Wm. Rees, Messrs. Ralph, Boyle, Luke Broadbent, J. Lawton, J. Pye, T. J. Wild, W. Taylor and Jasper W. Snowdon, Esq., of Leeds, who had consented to perform the unveiling ceremony.

Mr. James Lawton moved a vote of thanks to Bishop Kelly for his able address, and to the Rev. J. R. C. Miller for allowing them the use of the church that afternoon.

Mr. Robert Shaw seconded.

The Rev. J. R. C. Miller, in responding, said he was highly pleased to be present that afternoon, and to have been the means of obtaining the services of Bishop Kelly.

Jasper W. Snowdon, Esq. was then called upon to unveil the monument. He said it was now some 16 months since many of them stood around the spot and saw the remains of their departed brother placed in the ground. They were now gathered together for a much more pleasant duty, namely, to dedicate to his memory some slight monument which should keep alive his worth in time to come. Not only would it do this, but it would also manifest the esteem in which Mr. Harrison was held, a respect which of course arose from his pre-eminence amongst them, and his possession of qualities which they must grant were of a very high order. When people looked upon that monument and saw that it was dedicated to one who was celebrated for his connection with the art and science of bell ringing, they would have but little knowledge of the arduous undertaking it was to learn this science. There were two things in which a man might excel in ringing, or he might be connected with ringing in a more theoretic manner as a composer of peals. A man to be a composer required to be of a mathematical turn of mind, and to have a great amount of perseverance in this art. Mr. Harrison not only united the qualities of an ardent practical performer with the perseverance of a mathematical investigator of science, but he also kept those two hobbies, so much before him that he had been able to leave behind him a record of peals which he had both composed and rang. A peal, he might say, consisted of 5,000 changes, a work which would occupy about three hours, and which was, therefore, a very fair piece of work. There were, however, many reasons against such a task being accomplished, and although many were attempted, failure was repeatedly the result. From 11 years of age up to about 1874 Mr. Harrison rang 85 such peals, and as he rang at between 20 and 30 different churches in the country he must therefore have considerably advanced the art of change-ringing. Not only did he ring peals on such bells as they had in Mottram, but also rang on seven, eight, nine, ten, eleven, and twelve bells, and this would give them some idea of the extent which Mr. Harrison took in the practical part of bell ringing. For his own part, coming as he did almost a generation of ringers after Mr. Harrison, he hardly understood the very great amount of practical ringing Mr. Harrison had accomplished before he became more intimately acquainted with the details of his ringing career. Having thus described Mr. Harrison's work in the art of practical ringing, a work which he believed at one time brought the ringing of Lancashire to a point which he was sorry to say was far above what it was now, he might say that Mr. Harrison had composed peals in many methods which never had been attempted before, and his name would long be remembered in connection with such results. It was for these reasons therefore that they dedicated that monument that afternoon to his memory. Mr. Harrison was one who would always be looked upon as an example not only as a ringer, but also for his everyday life. The project had met with every success, and he believed it was owing to the indefatigable exertions of the committee, and especially that of Mr. Holden, who had brought the thing to such an admirable close. The speaker closed by expressing his sense of the honour they had done him in asking him to unveil the monument, spoke of the ready assistance which Mr. Harrison was always willing to give to others, and then unveiled the monument.

[The site of the monument is on the west side of the churchyard, and the memorial is of a plain but substantial character. It is of ordinary stone; the pedestal which is about six feet high itself standing upon several solid blocks, which taper until the centre of the monument is reached, and the fine slabs contain sculpturing of a very artistic character. The eastern slab is the most important, as it contains the following inscription:—

In memory of  
W. M. HARRISON,  
of Mottram,  
Who died June 22nd, 1880,  
Aged 75 years.

This monument was erected by his numerous friends and brother ringers as a token of his genius and skill in the science and art of change-ringing, A. D. 1880. The slabs to the north and south contain representations of peals of bells, and that to the west a globe, with a man's hand resting upon it. The whole, which is surrounded by an artistic iron rail, has a very neat appearance.]

All communications respecting advertisements must be addressed to Mr. A. F. Phelps, 12a, Paternoster Row, London, E.C.

Everything for insertion in this Journal, to be in future addressed "The Editor of THE BELL NEWS, Walthamstow, London."

G. F. COLERIDGE.—Thanks; we had previously been communicated with on the same subject, but cannot find room this month.

## The Bell News.

AUGUST, 1881.

In one of the principal thoroughfares in the east portion of the metropolis is situate, as many of our readers are aware, the well-known establishment of Messrs. MEARS & STAINBANK, Bellfounders. The premises by no means present an imposing appearance from the street front, but the foundry at the rear covers, as we are informed, an immense area. Here, we suppose, was cast the ring of twelve for St. Peter's, Norwich; the historical Bow Bells, ten in number; the ten for St. Michael's, Coventry, said by some to the best ten in existence; and the ring of ten for Rotherham, and many others. To this list must also be added Big Ben of Westminster, which ponderous mass has now attained to such an unenviable notoriety. The firm to which we are alluding dates from the year 1570, and though within that time several gentlemen have been proprietors or part proprietors in the business, it has preserved its continuity in unbroken order to the present day.

Let us change the venue. In one or other of the Committee-rooms attached to both Houses of Parliament, may frequently be seen, during the session, the form of the learned gentleman who has recently appeared as defendant in an action brought against him by the proprietor of the Whitechapel bell-foundry, above alluded to. Sir EDMUND BECKETT (formerly known as Mr. DENISON), has been, since the retirement of the late Mr. HOPE-SCOTT, the recognised leader of the Parliamentary Bar, and when clothed in the forensic habiliments peculiar to Her Majesty's counsel learned in the law, he is anything but an insignificant personage in this particular arena. Whether it is a Railway Bill, a Gas Bill, or a town's Improvement Act he is advocating or opposing; having an altercation with Sir MORDAUNT WELLS, sustaining his own view of an argument with Mr. VENABLES, or objecting to questions asked by Mr. RODWELL or any other of his legal brethren, the learned baronet, though he may be dogmatical, is, nevertheless quite at home. Trained in equity, and not, as he himself naively says—being acquainted "with the dodges of common law pleadings," he enjoys a lucrative practice in that profession of which he is so distinguished an ornament.

But the Q.C.—adopting the style of description frequently used by the readers of this journal, has found time to dabble in a variety of subjects embracing a very wide area. Archaeology, hardware and cutlery, architecture (domestic and ecclesiastical), clocks, watches, and bells—in fact, we know not how many subjects to which he has devoted himself. But while riding his numerous hobbies he has, unfortunately for him, made a slip. Insinuating, in a marked manner, that the bell-foundry we have alluded to was "the oldest and worst," the sole representative of that firm—Mr. STAINBANK—has sought, and successfully too, to vindicate the status of his establishment in a court of law, the result of which action has been that after seven day's hearing before Mr. Baron HUDDLESTON and a special jury, a verdict has been found for the plaintiff, with 200*l.* damages.

To say that we agree in the main with this finding, is only to utter bare facts; and no doubt the Exercise generally will be of opinion that it will act as a wholesome check upon those persons who by some means or other become the arbiters of

all matters relating to bellfounding. What are the qualifications possessed by the learned baronet in regard to bells? In what school has his experience been gained? He has written a book, certainly. Can he ring a bell, or is he able, when twelve bells are in full swing, to say what method is being performed—Stedman or Grandsire? Is he competent—like some we could name—to note down, when outside the steeple, the course-ends of a peal in progress, or point out the moment when a change-course occurs? We fancy not. And yet, while admitting he knows little or nothing concerning minor thirds or dominants—knowledge most essential for a critic to possess—he does not hesitate to sit in judgment upon the productions of an eminent firm—whose bells enjoy a prestige second to none—and indulge in language which has been held libellous.

In commenting upon this case, it is due to ourselves to state that our intentions are not to exalt the old foundry over any other. While we conscientiously believe that among the firms we have enumerated they are able to hold their own, we may add that they do not possess the monopoly of casting good bells. Though it has been asserted to the contrary, the Loughborough foundry has sent out some good bells—Worcester Cathedral, for instance, in our opinion a better ring than St. Paul's; Messrs. WARNER also; while the proprietors of the new foundry at Redenhall, Norfolk, Messrs. MOORE, HOLMES, AND MACKENZIE, appear to have been most successful in the application of scientific principles to bell-founding.

"THE 5TH AND 6TH BEHIND THE 9TH."—It would hardly be imagined in these days when ringing literature is so prolifuge, that this phrase should be the object of any misunderstanding. Yet so it is; for in connection with a peal of Caters which has recently been performed by a company within the radius of the metropolis, a neighbouring society, envious we are sorry to say of such powers being displayed outside their own parish, has had the temerity to hazard a statement that 5040 triples were rung on the occasion with 5-6 lying behind throughout. We are personally acquainted with most of the band by whom the peal in question was rung, and know from experience that their abilities are fully equal to such a performance as they have published, while at the same time their reputation for truthful execution is well known. Such unseemly carping as this to which we allude is sometimes exhibited, but when it comes to our knowledge it will be met by merited reproof in these columns, especially in such cases as the one under consideration, where the company who are attacked are worthy, from the perseverance they display in practice of the science, of the honours due to them for their spirited exertions.

THE ROYAL HAND-BELL RINGERS.—These talented performers have just returned from their round of engagements in Germany; and during their sojourn at Ems, Mr. D. S. Miller received the honour of a command by His Majesty Oscar, King of Sweden and Norway, to give a concert in the saloon occupied by the King and suite at the Hotel of "The Four Towers." His Majesty expressed in unmeasured terms the delight he had received from the tones and manipulation of the Bells, and was pleased to suggest to the ringers a visit to Sweden, assuring them of his personal patronage. Besides the King there were in attendance several other members of the Royal Family and suite. After their performance, Mr. Miller was favoured with the following royal message: "His Majesty the King of Sweden and Norway, was particularly pleased with the manner in which the English Bell Player, Mr. Duncan S. Miller, who was commanded to play with his company before his Majesty at Ems, conducted his performance."

THE ROYAL HOLDFAST TEMPERANCE HAND BELL RINGERS had the honour of performing before their Royal Highnesses the Duke and Duchess of Connaught and a fashionable company at Mackenzie Park, Slough, on July 2nd. Their Royal Highnesses took the greatest interest in the performance. This makes the sixth occasion on which the Royal Holdfasts have thus been honoured.

## The Ringers' Record.

\* \* We beg our correspondents to address all communications for insertion in this Journal as follows:—The Editor of THE BELL NEWS, Walthamstow, London. This will add greatly to our convenience.

### THE PROVINCES.

#### THE YORKSHIRE ASSOCIATION.

**PUDSEY (Yorks).**—On Sunday, July 24th, eight members of the above Association rang at St. Lawrence Church, a muffled peal of Kent Treble Bob Major, 5088 changes, in 3 hrs. 5 mins., as a last tribute of respect to the memory of the late Mr. Benjamin Bean, who had been a ringer in the Pudsey company about 38 years, and died July 12th, aged 59 years, after a very short illness. His loss will be very much felt. J. Ross (Pudsey), 1; W. Sugden (Pudsey), 2; H. Oddy (Tong) 3; W. Bolland (Tong), 4; J. A. Ross (Pudsey), 5; B. A. Dodson (Birstal), 6; G. Bolland (Tong), 7; J. Haley (Tong), 8. Composed by G. Newson. Conducted by J. Ross. Tenor 16 cwt.

**HURSTPIERPPOINT (Sussex).**—On Saturday, July 23rd, eight members of the Waterloo Society of London, rung at the Church of the Holy Trinity, Holt's Original One Part Peal of Grandsire Triples, 5040 changes, in 2 hrs. and 50 mins. \* E. Hilder, 1; G. Shade (conductor), 2; T. Taylor, 3; \* J. Searle, 4; T. Dale, 5; \* H. Boast, 6; H. Shade, 7; J. Jay, 8. [Those marked thus \* their first Peal]. This is the first time this peal was rung on these bells, and no peal of any kind had been performed here for upwards of 35 years. Tenor 14 cwt.

### DATE TOUCHES.

#### THE YORKSHIRE ASSOCIATION.

**RIPON.**—On Saturday, July 2nd, the following members of the Yorkshire Association rang at Sharow Church, Ripon, a Date Touch of Kent Treble Bob Major in 1 hr. 9 mins. A. Moulson (Bolton), 1; J. Broadley (Bolton), 2; R. Tuke, Esq. (Ilkley), 3; T. Clarke (Ripon), 4; B. T. Copley (Bolton), 5; W. Pick (Ripon), 6; J. Cheetham (Bradford), 7; J. B. Jennings (Bolton), 8. The Touch was arranged by J. Hardcastle. Conducted by J. B. Jennings. Tenor 13 cwt.

**HUNTSHAM (Devon).**—On Monday, July 4th, a date touch of 1881 Stedman Triples was rung in 1 hr. 4 mins. by the following members of the Guild of Devonshire Ringers. H. Tucker (Huntsham), 1; H. Payne (Huntsham), 2; J. E. Acland-Troyte, Esq. (Huntsham), 3; C. A. W. Troyte, Esq. (Huntsham), 4; W. Heard (Huntsham), 5; J. Chave (Huntsham), 6; G. F. Coleridge, Esq. (Cadbury), 7; J. Davey (Huntsham), Tenor. Conducted by G. F. Coleridge, Esq. Tenor 13 cwt. With a single exception in each case all the above are College Youths and belong either to the Army or Auxiliary Forces.

**VOULEGREAVE (Derbyshire).**—On Saturday, July 9th, the Derby Society visited this place, and attempted a Date Touch of 1881 Grandsire Triples; but after ringing about 1810 changes, in 1 hr. 15 mins. the seventh rope broke. G. Neal, 1; R. Bosworth, 2; G. Lee, 3; J. Newbold, 4; R. Redgate, 5; H. C. Woodward, 6; J. Howe (conductor), 7; G. Slack, 8. Tenor 26 cwt. 1 qr. in E.

### MISCELLANEOUS.

(Comprising performances under 5000 changes.)

#### THE ESSEX ASSOCIATION.

**ROMFORD (Essex).**—On Saturday, July 23rd, at St. Edward's, six members rang a 720 of Bob Minor, with the bells half-muffled, in 32 mins. having 18 bobs and 2 singles, 5th twice right and once wrong. G. Garnett, 1; R. Sewell, 2; B. Keeble, 3; G. Roughton, 4; J. W. Aldridge, 5; A. J. Perkins (conductor), 6. This peal was rung to the memory of D. Mc Intosh, Esq., Lord of the Manor of Romford, Havering and Hornchurch, who was interred at Havering on Saturday afternoon.

#### THE KENT COUNTY ASSOCIATION.

**ALDINGTON (Kent).**—On Friday Evening, June 24th, 1881, the 69th birthday of Mr. E. Hyder, and the 50th year of his being a ringer at St. Martin's Church, six members of the Aldington branch, with E. Ruck, of the Mersham branch of the above Association, met in honour of the occasion and rang a 720 of Bob Minor in 27 mins. C. Slingsby, 1; Thomas Post, 2; E. Ruck, 3; E. Hyder, 4; W. Hyder (conductor), 5; P. Hodgkin, 6; with 10 singles and 4 bobs. Also another 720 in the same method in 28 mins., with 18 bobs and 2 singles. C. Slingsby, 1; Thomas Post, 2; Edward Ruck, 3; Frederick Slingsby, 4; William Hyder (conductor), 5; Philip Hodgkin, 6. Tenor 14 cwt. in G.

**BARNSELY (Yorkshire).**—On Sunday, June 26th, nine members of the Wakefield Society, with J. Hollis, of Wrenthorpe, and C. Crawford, of Doncaster, visited Barnsley (the occasion being a demonstration in aid of Becket's Hospital) and rang at Saint Mary's Church several courses of

Kent Treble Bob Major. Also 672 Grandsire Triples. J. P. Healey (conductor), 1; W. Firth, 2; W. Scott, 3; J. Hollis, 4; T. Moorhouse, 5; T. Ormond, 6; C. Crawford, 7; J. Styles, 8. Tenor 15 cwt.

**BRIGHTON.**—On Sunday, July 24th, at St. Nicholas' Church, for morning and evening service, the following members of the Waterloo Society, of London, rang various touches of Grandsire Triples: E. Hilder, J. G. Shade, T. Taylor, J. Searle, T. G. Deal, H. Boast, H. Shade, J. Jaye. Conducted by Mr. H. Shade.

**CODDENHAM (Suffolk).**—On Wednesday, July 13th, six members of the Norwich Diocesan Association of Change Ringers rang on the back six bells in St. Mary's Tower, a 720 of Grandsire Minor, containing 38 bobs and 22 singles, in 30 mins. F. Lea, 1; H. English, 2; E. Wells (conductor), 3; G. Lummis, 4; J. Oford, 5; W. Pearson, Esq., 6. Tenor 16½ cwt. in F sharp.

**CAVENDISH (Suffolk).**—On Monday, July 11th, the following mixed band rang on the bells of Cavendish Church a 720 of Kent Treble Bob. Thomas Watson (Brantree), 1; Samuel Slater, (Glemsford), 2; Harry Thompson (Cavendish), 3; Oliver Garwood (Glemsford), 4; Frederick Wells (Glemsford), 5; George Maxim (Cavendish), 6. Samuel Slater conductor. Tenor, 12 cwt.

**DARESBURY (Cheshire).**—On Sunday, July 17th, the Daresbury Society rang for morning service 720 of Woodbine Treble Bob, in 27 mins. P. Johnson (conductor). Also, on Sunday, July 24th, for morning service, 360 Bob Minor, and 120 Oxford Treble Bob, in 19 mins. T. Houghton, sen., conductor. For evening service 360 Kent Treble Bob, in 13 mins. T. Houghton, sen., 1; P. Johnson, 2; T. Ellison, 3; P. Hamblett (conductor), 4; J. Ellison, 5; T. Houghton, jun., 6. Tenor 12 cwt. in G.

**DERBY.**—On Friday, July 15th, at St. Werburgh's, the Derby Society rang a quarter-peal of Grandsire Triples, 1260 changes, in 44 mins. G. Neal, 1; R. Bosworth, 2; A. Taberer, 3; J. Newbold, 4; R. Redgate, 5; H. C. Woodward, 6; J. Howe (conductor), 7; G. Slack, 8. Tenor 17 cwt. in E.

**GLEMSFORD (Suffolk).**—On Saturday, June 25th, five of the Glemsford Society of Change Ringers, with Mr. Thomas Watson, of Brantree, Essex, rung on the bells of Glemsford Church, a 720 of Oxford Treble Bob. T. Watson, 1; C. Adams, 2; F. Wells, 3; O. Garwood, 4; E. W. Davens, 5; S. Slater (conductor), 6. Tenor 16 cwt.

**HAVERSOCK HILL (Middlesex).**—On Sunday Evening, July 24th, at St. Martin's, for divine service, a 720 of Bob Minor, 42 singles, in 25 mins. T. Titchener, 1; W. A. Tyler, 2; J. Nixon, 3; J. Leach, 4; J. Hannington (conductor), 5; T. Monks, 6. Tenor 12½ cwt.

**HORNCHURCH (Essex).**—On Sunday, July 17th, after service at St. Andrew's, a 720 of Bob Minor, with 16 bobs and 2 singles, in 31 mins. \* A. J. Perkins (conductor), 1; \* A. Porter, 2; \* A. Pye, 3; S. Rush, 4; G. Dear, 5; I. Dear, 6. Tenor 20 cwt. in E flat. [\* Members of the Essex Association.]

**LONG MELFORD (Suffolk).**—On Sunday, June 26th, for evening service, was rung a short touch of Bob Major, by the following of the Melford company, and Mr. Thomas Watson, of Brantree, Essex. Thomas Watson, 1; John Ambrose, 2; F. R. Steed, 3; John Driver, 4; Oliver Garwood, 5; H. R. Steed, 6; John Slater, 7; Samuel Slater, 8. Tenor, 16 cwt.

**NORWICH.**—On Thursday Evening, July 7th, a muffled peal was rung on the bells of St. Giles' by eight of St. Peter Mancroft Ringers, as a last tribute of respect to the late Mr. Stephen Nobbs (of Loddon), who had been for many years a member of the Society of Ringers of St. Peter Mancroft. We hear that in consequence of the critical state of the tower, which is now under repair, this performance could not take place at St. Peter's Mancroft. The bells are necessarily silent, and there is little hope of their being rung before the early part of next year.

**RIPON.**—On Sunday afternoon, July 17th, the Cathedral Society rung for the afternoon service peal, the following 720 of Kent Treble Bob Minor in 27 mins. having twenty bobs and five singles, in five parts, revised by T. Clark from the late Mr. B. Thackrah's work, page 46, rung with the tenor behind and 2nd bell left out in the peal of eight bells. The third's and fourth's places are made at back stroke at every part end, same as Oxford Treble Bob. W. Pick (conductor), 1; Jno. Strodder, jun., 3; T. Clark, 4; Jno. Strodder, sen., 5; F. Strodder, 6; H. Rumbold, 7; T. Shepherd, 8. Tenor 21 cwt. in E.

142356 Bob.	316245
134256 Bob.	132654
123645	312645
162345 Bob.	136254
Single	Single
136245 Bob.	136524

Four times repeated.

**ROTHERHAM.**—On Sunday, July 17th, the Bradford Society of Change Ringers visited Rotherham, where they rang various touches of Kent Treble Bob Royal for morning, afternoon and evening service. Owing to the high temperature of the weather the heavy bells did not go so easy as is their wont; but nevertheless, the Bradford company enjoyed themselves very much, and were delighted with the tone and sweetness of Rotherham bells. These celebrated ring of bells were cast by Messrs. Mears and Stainbank, of the Old Foundry, Whitechapel, London.

SPALDING (Lincolnshire).—On Sunday, June 26th, at S. S. Mary and Nicholas, 720 of Bob Minor, 18 bobs and 2 singles. A. Walker, 1; J. W. Creasey, 2; J. S. Wright, 3; R. Mackman, 4; R. Creasey, 5; J. R. Jerram, (conductor), 6. Also, on Tuesday, June 28th, 720 of Bob Minor, 8 bobs and 6 singles. J. Woodward, 1; J. W. Creasey, 2; J. S. Wright, 3; J. R. Jerram, 4; G. L. Richardson, 5; R. Mackman (conductor), 6. Also, on Sunday, July 3rd, 720 of London Single, and 780 of Bob Minor, in all 1500, in 1 hr. A. Walker, 1; J. W. Creasey, 2; R. Creasey, 3; J. S. Wright, 4; J. R. Jerram, 5; R. Mackman (conductor), 6. Also, on Tuesday, July 5th, 720 of London Single. T. Measures, 1; T. Blackburn, 2; J. R. Jerram, 3; R. Mackman, 4; J. S. Wright, 5; G. L. Richardson (conductor), 6. Also, on Wednesday, July 13th, 720 of Bob Minor. T. Measures, 1; G. L. Richardson, 2; R. Creasey, 3; J. R. Jerram, 4; R. Mackman, 5; J. S. Wright (conductor), 6. Also 720 of London Single, with the bells half muffled, as a last mark of respect to the late Mrs. T. F. Johnson. J. S. Wright, 3; R. Creasey (conductor), 6. Also, on Tuesday, July 19th, 720 of Oxford Treble Bob, 9 bobs. J. Woodward, 1; \* J. S. Wright, 2; G. L. Richardson, 3; T. Blackburn, 4; J. R. Jerram, 5; \* R. Mackman (conductor), 6. [Those marked thus \* their first 720 in this method]. Tenor 18 cwt.

SPALDING (Lincolnshire).—On Thursday, July 7th, at St. Paul's, Fulney, on the back six, 720 of Bob Minor, with 42 singles, in 27 mins. A. Walker, 1; J. W. Creasey, 2; R. Creasey, 3; T. Blackburn, 4; Rev. R. G. Ash (vicar) 5; J. R. Jerram, 6. Also, on Monday, July 11th, 720 of Bob Minor, with 9 bobs and 6 singles, in 26 mins. A. Hayes, 1; J. W. Creasey, 2; J. S. Wright, 3; — Wyche, Esq. (Clowland), 4; J. R. Jerram, 5; R. Creasey, 6. Also, on Saturday July 16th, 720 of Bob Minor, with 14 bobs, and 2 singles, in 28 mins. A. Walker, 1; A. Hayes, 2 (his first 720 on an inside bell); J. S. Wright, 3; E. Quinton, 4; J. R. Jerram, 5; R. Creasey, 6. Also, on Saturday, July 23rd, 360 of Oxford Treble Bob, in 13 mins. A. Hayes, 1 (his first 720 in this method); A. Walker, 2 (his first essay on an inside bell); J. S. Wright, 3; J. R. Jerram, 4; J. W. Creasey, 5; R. Creasey (conductor), 6.

SPALDING.—On Wednesday, July 21st, at St. Paul's a 360 of Oxford Treble Bob, was rung by \* A. Hayes, 1; \* A. Walker, 2; J. S. Wright, 3; J. R. Jerram, 4; J. W. Creasey, 5; R. Creasey (conductor), 6. [Marked thus \* first touch ever rang in that method.] Tenor 15 cwt.

STANSTEAD (Suffolk).—On Saturday, July 23rd, six of the Glemsford Society of Change-Ringers rang on the bells of Stanstead Church, a 720 of Oxford Treble Bob. Samuel Slater, 1; Charles Adams, 2; Frederick Wells, 3; Oliver Garwood, 4; E. W. Downs, 5; John Slater, conductor. Tenor 11 cwt.

STRETTON (Cheshire).—On Sunday, June 26th, the Daresbury Society visited St. Matthew's Church, Stretton, and rang for afternoon service, 720 of Oxford Treble Bob, in 25 mins. T. Houghton, sen., 1; P. Johnson, 2; T. Ellison, 3; P. Hamblett, 4; J. Ellison, 5; T. Houghton, jun. (conductor), 6. Tenor 9 cwt. in A.

☞ In consequence of some of our correspondents not sending to us direct, as requested, several letters have not come to hand in time.

CONTINENTAL EXPERIENCES.—Mr. Miller, the conductor of the Royal Hand-bell Ringers, sends us the following interesting letter:—

DEAR SIR,—During my visit to Ems a few days ago, I went to see the Russian Church, and at its rear found six bells which were presented to the congregation. They are from a foundry in Moscow, their contour or "lines" being very graceful, though the castings are rough and unfinished. The six bells are in the open air, but protected by a boarding over them; they are bolted rigidly to a cross-beam, supported by two uprights about 8 feet from the ground. The largest bell is 35½ inches, in diameter, note G; the next 29 inches, in A; the next 22 inches, in Ef; the next 18½ inches, in G (a very bad octave to the largest); the next 15 inches, in A; and the smallest 11½ inches, in C. They are hung in this order C A Ef G (largest) A, G; the clappers are rough, and hung from the crown staple with leathern thongs, permitting them to strike on any point of the bell. Strings are attached to the clappers of the first three and to the last three, so that one man standing on a platform can strike the two groups of three bells each with each hand. The effect is by no means musical, but has a kind of barbaric clang not unpleasing. What, however, struck me most was the want of proportion in each bell. We hear so much of the splendid harmonic effects produced by Continental bells versus those of English make, that you will be surprised at the following analysis: when the G bell (largest) is struck on the waist it gives out Ef below! The A gives D above; the Ef gives C lower; the G gives Ef lower; the A gives G lower; and the C gives A lower; thus entirely reversing the accepted standard of excellence for a bell to produce in its waist an harmonic note above the normal tone of its lip or sound bow. My colleagues and myself were much interested in these rude specimens of bell founding, and may from time to time send you a few notices of campanological curiosities which crop up in our continental and other experiences.

## IMPORTANT LAW CASE.

### STAINBANK v. BECKETT.

(Sittings at Nisi Prius, at Westminster, in the Lords' Justices' Court, before MR. BARON HUDDLESTON and a Special Jury.)

#### FIRST DAY (June 27th.)

This was an action for libel brought by the plaintiff, who is the principal of the eminent and well known firm of bell-founders, of Whitechapel, against the defendant, Sir Edmund Beckett, Q.C.

The alleged libel had reference, as will be seen by the evidence, to the founding of the bell known as "Big Ben," and also to some letters written by the defendant which appeared in the *Times* in the year 1878, while the proposed new peal for St. Paul's Cathedral was in progress.

Mr. Charles Russell, Q.C., M.P., Mr. W. G. Harrison, Q.C., and Mr. Hilbery appeared for the plaintiff; Sir J. Holker, Q.C., M.P., and Mr. Jeune for the defendant, the latter of whom appeared in court in forensic costume.

Of the libels alleged it will be sufficient to particularize the two following. In *The Times* of the 31st of October, 1878, the defendant wrote:—

"Though I do not profess to write about dominants and minor thirds, or to guess how a Belgian bell-founder would probably begin to re-tune this peal, I have no hesitation in saying that no modern Belgian bells which have come over here and been heard in public are superior or equal to the best English ones, though they are superior to such as used to be made by the English firm which had a practical monopoly of the business until about 20 years ago. . . . Of course, I agree with Mr. Haweis about the present condition of Big Ben of Westminster, which is a disgrace to the nation, as it was to its founders, and as their York bell was still more, and as the clock bells of St. Paul's were to their predecessors, and Tom of Oxford to its maker, which is the worst of all the great ones."

Again, in a letter to *The Times* of the 20th of November, 1878, the defendant wrote:—

"Bells without number, which, moreover were never cast for it with a properly adapted crown, have been ringing for years and centuries with bolts through their crowns to hold in the clappers when the bells have been turned in the stock, before I introduce the now common practice (except, I believe, at the oldest and worst of the foundries in England) of having the clapper-bolt independent of the bell."

The plaintiff alleged that the publication of these statements had seriously damaged him in his business. The defendant admitted having published the letters from which the extracts complained of were taken, but denied they were published of the plaintiff in his trade or business, the plaintiff not having been at the time of the founding of the bell a member of the firm who founded it—viz., Messrs. Charles and George Mears. He further contends that the words complained of, in so far as they referred to the firm of C. and G. Mears and to the casting of the said bell, were fair comments upon a matter of public interest and were true in substance and fact.

MR. RUSSELL, in opening the plaintiff's case, regretted that he had to appear against so distinguished a member of his own profession. The defendant had among other things, interested himself in the construction of clocks and bells, and principally the clock and bell of Westminster. An action had been brought by the late Mr. Mears against the defendant more than 20 years ago, as the jury would hear, and now, when the person then libelled was dead and gone, the defamatory statements were repeated and reiterated without regard for charity or common generosity. Mr. Stainbank joined the firm of Mears in 1861, in whose name the Whitechapel foundry had been carried on since 1782; it was, in fact, started in 1570, and was the oldest in the kingdom. A firm of that character had a continued identity. When a peal of bells was ordered they went out with the name of Mears upon them. If at any subsequent time they wanted repairs they were sent to Mears' foundry, which was now the plaintiff's. The learned counsel, after relating the history of the first Big Ben, which was condemned, said that a contract was made with the firm of Mears for "Big Ben." The defendant designed it, and it was to be made to the approval of the defendant and the Rev. W. Taylor. The bell was cast on the 18th of April, 1858. It had an indent in its surface, which by order of the Government officials was filed up. Soon after it developed a crack upon the side of the "soundbow" opposite to that struck by the hammer, at the point where, as witness would explain, the two currents of vibration attained their greatest force. The hammer used, with which the firm had nothing to do, was one of 7 cwt., and it was the opinion of some experts that the too great weight of the hammer was the cause of the crack. However, the 7 cwt. hammer was removed, and one of 4 cwt. substituted, and the latter has been in use for more than 20 years. On the discovery of the crack the defendant was attacked in the newspapers, and defended himself through the same medium. The strictures then passed by the defendant upon the founders of the bell led to the bringing of an action of libel against him by the Messrs. Mears. The defendant justified, but afterwards withdrew his plea of justification, and the case was withdrawn from the jury upon the terms of the defendant retracting all charges made by him against Mr. Mears and paying all

costs incurred. An inquiry was instituted into the state of the bell, and, as a result, the hammer was reduced in weight, and the bell was swung round so that the crack should not be opposite the hammer. Years went by, and in 1878 a new controversy arose. In a letter to *The Times*, in 1878, the phrase, "the oldest and worst foundry in England" undoubtedly referred to the plaintiff's foundry, as he believed would be admitted by the defendant himself in the witness-box.

Mr. John Mears was the first witness called. He had been manager under his brother, but had not had anything to do with the foundry for many years. He described the casting of Big Ben. The proportions of the metals were according to contract—viz., 22 of copper to 7 of tin. It was then run into ingots and submitted to the defendant. The melting was done in three furnaces by a wood fire, and the molten metal was then run into one reservoir. The metal used had been the best obtainable, and the defendant had said that it was a freer toned bell than the old one.

Cross-examined by Sir John Holker.—The witness said that he never heard of any holes being stopped up. If there were any they would have been noticed when the bell was being hung up.

Mr. James Howard, M. P. said he had read all the correspondence. To his mind the statements of defendant referred to the plaintiff's firm.

## SECOND DAY.

On the assembling of the Court it was intimated that the plaintiff would tender evidence of the construction of Big Ben, of the nature of the cracks and cavities which have been found upon examination of its surface, and of the causes of these defects. Sir J. Holker, on behalf of the defendant, objected to the relevance of this evidence in consideration of the issues appearing upon the pleadings. A protracted discussion ensued, but at length, Sir John Holker said that he would not press his objection.

Mr. Edward Thomas Loseby, clock and watch maker, of Leicester, was then called. He had seen Big Ben before the cracks were discovered, and closely examined it afterwards. He took casts of the holes or cavities upon the surface, which he now produced. The cracks were discovered by covering the bell with acid; when the bell was struck a stream of air bubbles showed themselves along the line of the cracks. There were three cracks of 6in., 7½in., and 18in. in length respectively. They would not have been noticed but by wetting the bell. The hammer formerly struck exactly opposite the 7½in. crack. Bells are never of uniform thickness all round; there is a variance of 1-20in. at least, and in comparison of that variance these small holes or cavities are of no importance.

Cross-examined by Mr. Jeune.—The witness admitted that he had a controversy with the defendant in 1851. The defendant was chairman of the horological jury at the Exhibition of 1851, very much to the regret of the exhibitors in that section. He gave satisfaction to nobody.

## THIRD DAY.

Mr. John Imray, consulting engineer and founder, was the first witness called, and was examined as to the composition of the bell metal, and as to the porosity and want of homogeneity described by Dr. Percy in his report. He said the proportion of 22 of copper to 7 of tin would make a hard brittle bell-metal, and in the course of "setting" the tin, being the lighter metal, would be found in greater quantity upon the upper surfaces, especially upon the upper surface of the sound below. He examined the bell in 1859, and again in April, 1881. As far as he could see the cracks were unchanged since 1859. He considered the casting an excellent one.

Cross-examined by Mr. Jeune.—It was physically impossible that the metal in this case should have been otherwise than porous, unless the metal cracked.

Mr. Jabez James stated that he was a civil and mechanical engineer, and was the contractor for raising Big Ben to the tower where it is now hung. He saw the bell when it was cast, and considered it an excellent casting, considering its size; but, at the time, he considered the proportions of copper and tin were dangerous, and told the defendant so.

Henry Hart, foreman to Mr. James, considered the casting a good one. He was told to bronze the bell with nitric acid.

Several witnesses were then called, who testified to the excellence of bells cast to their orders at the plaintiff's foundry, among them the Rev. E. F. Robinson (a skilled ringer), Rev. Prebendary Stephenson, Canon Hawkins, and the Rev. Knatchbull-Huggessen.

Mr. Matthew A. Wood, examined by Mr. Russell, said that he had rung at St. Paul's, Bow, St. Michael's, and All Hallows', London, and also at Yarmouth, St. Gabriel's, Pimlico, St. Peter's, Norwich, and St. Stephen's, Rochester Row, and had assisted at the opening of many peals of bells, many of them coming from the Whitechapel Foundry. He had also rung on Warner's bells, Taylor's bells, etc., and decidedly gave Mear's the preference, big or little. In cross examination the witness said he thought the words "oldest and worst" were intended to apply to the Whitechapel Foundry. He had no doubt that Mear's was the best foundry, and not the worst. He thought many of the others were "not in it" at all. They might make one good bell, but casting a peal was another matter. It was very difficult for some of them to cast a peal.

Mr. Jeune: They are much the best? Yes.

Of Warner's and Taylor's, which is the better of the two?—Warner's.

Messrs. Taylor's are the worst?—I did not say that. You asked me with respect to the better of the two.

Mr. James Dwight, also a member of the College Youths, gave similar evidence to the last witness.

Mr. Wm. Reed, solicitor, of North Shields, and president of the Durham Association of Change Ringers, examined by Mr. Russell, said he had examined a great many peals of bells throughout the country. Several in the north were supplied or augmented from the Whitechapel Foundry, and they had given the greatest satisfaction. In his opinion the bells coming from that firm had a distinctness of tone which no other bells possessed.

## FOURTH DAY.

Mr. Goslin was the first witness examined. He was manager to Messrs. Warner, the founders of the first Big Ben. He described the process of casting in some detail. During the setting the rising of the tin can be prevented by measures, but the witness would rather not say what those measures were. He thought that the present Big Ben had not been properly cooled. He would have taken away the sand from the "cope" of the mould at an earlier stage.

Mr. Stainbank, the plaintiff, on being called said, he joined the firm in 1861, but his name did not appear in the style of the firm till 1865. He had in his possession a continuous history of his firm since 1570. He frequently got letters addressed to him as "Mears and Co.," "Messrs. C. and G. Mears," and was often personally addressed as Mr. Mears. The proportion of tin to copper in Big Ben was higher than he would have wished, but it was fixed by the contract. Cross-examined by Sir J. Holker: He was especially aggrieved at these libels, because they were reiterators of statements made twenty years ago, and they were injurious to himself and the foundry of which he was the owner.

## FIFTH DAY.

On the assembling of the Court, Sir J. Holker addressed the jury on behalf of the defendant, and briefly sketched the history of Warner's bell and the arrangements made for the founding of the present bell. The old action of libel, "Mears v. Beckett," was then referred to. It was not the case that his client had waited till Mr. Mears was no more before renewing the attack. He would ask them to find that there was no proof of damage to the plaintiff.

Dr. Percy said he had, at the request of the Government, made several reports upon Big Ben. He had no practical experience, but expected that there was great difficulty in obtaining homogeneity, especially in a large casting, where some of the metal cools before the rest. Cross-examined: It was a common thing to fill up small holes on the surface of castings—that might be seen in the paws of the lions of the Nelson column.

Mr. Taylor, a bell founder, of Loughborough, stated that he had cast bells of 6½ tons without any difficulty, and was now preparing to cast one of 14 tons for St. Paul's. It was quite possible to cast a homogeneous bell. Porosity was very prejudicial to tone. Cross-examined: He knew that the Manchester bell of 6½ tons was cracked. That was due to the weight of the hammer, which was 4 cwt. There was no fault in the casting. It was possible to conceal holes, unless they were suspected and scratched for.

Sir Edmund Beckett, the defendant, was then examined by Mr. Jeune. He said that he had great experience in bells, and was consulted about the first Big Ben, and, with Mr. Taylor, was appointed to approve the present Big Ben when cast. Without their approval there was, according to the contract, to be no payment to the founder. Many experiments had been made by him and at the School of Mines to discover the best proportion of tin to copper. Portions of Tom of Lincoln and other old bells were analyzed, and, finally, the proportion of 7 to 22 was fixed upon as likely to give sufficient softness to prevent cracking and sufficient hardness to ensure a sonorous tone. In the old bells there was more of tin in proportion. He was not present at the casting of Big Ben.

## SIXTH DAY.

Examination of defendant continued. When he saw the bell in November, 1859, the holes were visible. There were about 40 of them, and the largest had been filled with zinc. He should have rejected the bell if he had seen the holes. He examined the bell at the foundry and at Westminster, and was satisfied with it, and especially with its tone. If he had known what was disclosed in Dr. Percy's report he would not have withdrawn his pleas of justification in the former action. He did so under advice, not understanding the dodges of common-law pleadings.

Mr. Ford, the defendant's solicitor, deposed that on Sir Edmund's behalf he had offered to publish in any way the plaintiff might desire his disavowal of any intentional reference in these letters to the plaintiff; but in cross-examination the witness said that he had offered only a disavowal, not an apology.

Mr. Jeune, in the absence of Sir John Holker, summed up the defendant's case. After going over the evidence the learned gentleman said that the libels were reduced to two, viz., "that Big Ben was a disgrace to its founders," and the expression "the oldest and worst of the foundries in England." And in concluding said there was no reason why the plaintiff had by this action sought to vindicate a character which Sir Edmund Beckett had never assailed.

Mr. Russell then replied on behalf of the plaintiff.

## SEVENTH DAY.

Mr. Russell having concluded his address, Mr. Baron Huddleston summed up with great care. The Jury found that one letter was libellous, and applied to the Plaintiff; but that the other two letters, although libellous, did not apply to the Plaintiff, and that the Plaintiff was entitled to £200 damages. Judgment was entered for the Plaintiff accordingly.

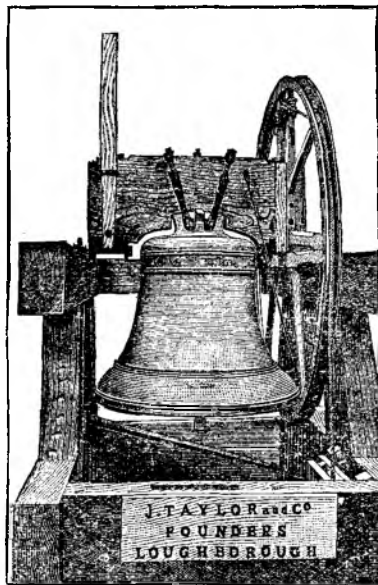
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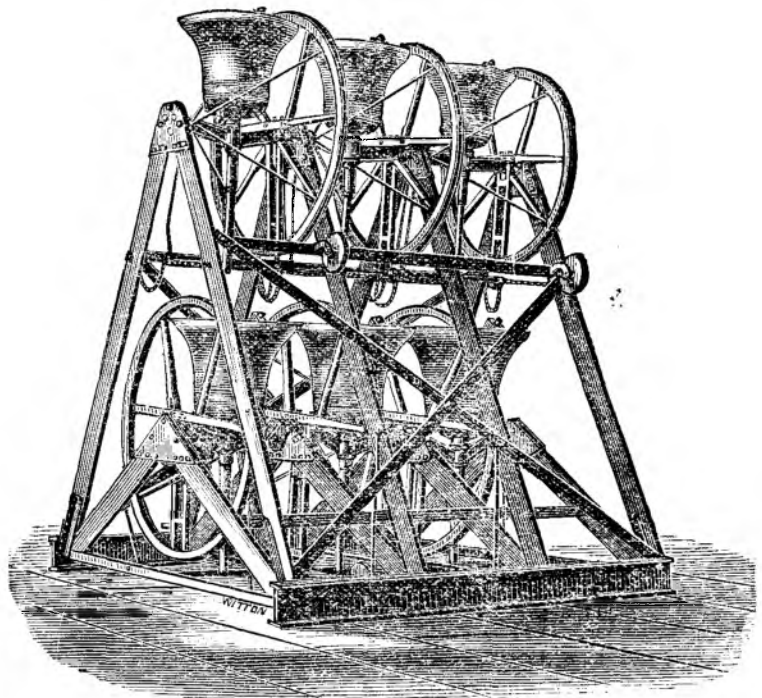
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