THE BIRTHPLACE OF BELLS

BY F. M. HOLMES,
Author of "The Gold Ship," etc.

"Ring out, wild bells, to the wild sky,
The flying cloud, the frosty light!
The year is dying in the night;
Ring out, wild bells, and let him die!"
TENNYSON.

ANCIENT TRADEMARK.

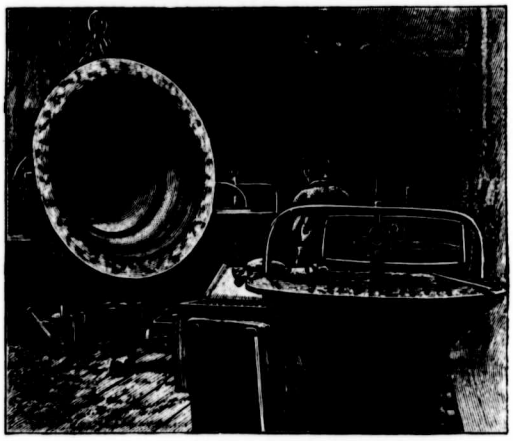
THE music of the bells is so sweet, and has mingled with human life for so many centuries, that it is not surprising the dulcet tones and tender associations have inspired many a song and many a poet.

The very thrill and melody of the New Year's bells seem to throb through Tennyson's well-known lyric; and it is interesting to know that, according to his biography, it was penned in a cottage in Epping Forest, within sound of the bells of Waltham Abbey, whose chimes suggested the beautiful lines to him.

So also that eccentric genius, Edgar Allan Poe, was inspired by the music of the bells. In one of the finest of his poems—almost unique for its curious yet perfectly rhythmical versification—he depicts the joyous tinkle of the merry sledge-bells, the happiness of the mellow wedding-bells, the shriek of the alarm-bells, and the solemn tolling of the iron-throated death-bell. And there is Father Prout's "Bells of Shandon"—the fine poem on the famous peal which every one who goes to Cork makes a point of hearing.

Bells are of such old manufacture that we should not be surprised to find some ancient foundry still flourishing, but dating back for some hundreds of years. Such indeed is the case. The Whitechapel foundry of Messrs. Mears & Stainbank was established as far back as 1570, that is, eighteen years before the defeat of the great Spanish Armada; even then the originators of this firm were casting bells in Whitechapel, and their successors have continued to do so ever since. In the entrance yard to their works stands a large bell, the work of the Whitechapel foundry, bearing date 1594, and the name Robertus Mot, who originated the works.

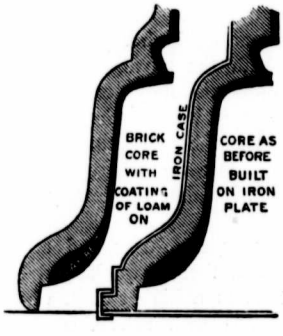
From that time to the present some of the most noted bells in England have been born there. "Great Peter," of York, with its monster weight of 10¾ tons; "Great Tom," of Lincoln, half the size, but still enormous; "Dunstan," of Canterbury, with its 3½ tons, and the mammoth "Big Ben," of Westminster, eclipsing them all with its burden of over 13½ tons;—all these and many more—including the great bell of Montreal, weighing 11 tons 11 cwt., and the clock-bell of St.


LINING A CAST-IRON BELL MOULD WITH LOAM.

Paul's (1709), weighing 5 tons—first saw the light at the ancient Whitechapel foundry.

And now how are the bells made? The principle is very simple, but like many simple principles the application is difficult. In fact, bell-founding requires very great skill and care; it might almost be called an art rather than an industry. Most persons perhaps are aware that bell-metal is composed of about three parts of copper to one of tin; but slight variations in the proportions are doubtless made to obtain the best tone, and the best qualities of the metals must be used. Moreover, all the preliminaries must be carried out with great exactitude to obtain the beautiful swelling shape and handsome proportions and suitable thickness of the bell, upon which, as well as upon the materials, the tone depends.

These proportions having been decided upon, according to the knowledge, skill, and experience of the founders, the next step is to prepare the moulds. These are, roughly speaking, two in number—the core, which forms the hollow and the inner side of the bell; and the cope, which fits over it like a larger pot over a smaller one. A space is left between the two, into which the molten bell-metal is poured.



TWO SECTIONS, SHOWING CORE.

The core is often first built up with bricks and soft clay, or loam, plaistered over them; the clay is then moulded to shape by an instrument called a *crook*. The crook is like the leg of a gigantic pair of compasses, one leg of which is fixed in the centre of the core, the other leg is shaped to the required swelling