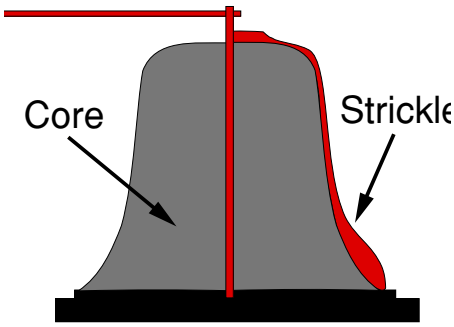
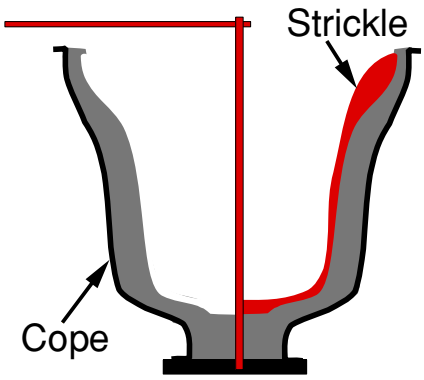
Making bells

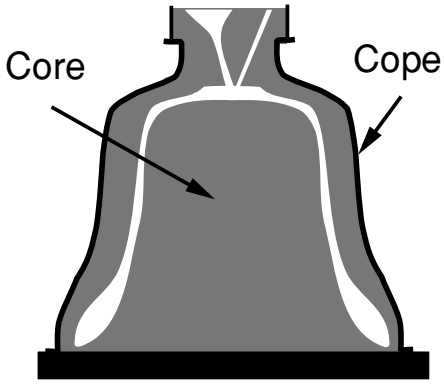
English church bells are cast in custom moulds made for each bell. The core is built around bricks and formed with a mixture of loam, horse hair and straw. The shape is formed using a 'strickle' with the bell's profile, and it is made circular by rotating the strickle around the centre. The outer mould is formed in a similar way insisde a metal 'cope'. When they are dry the two parts are fitted together to create a bell shaped space for the metal.



Forming the inside shape for the bell

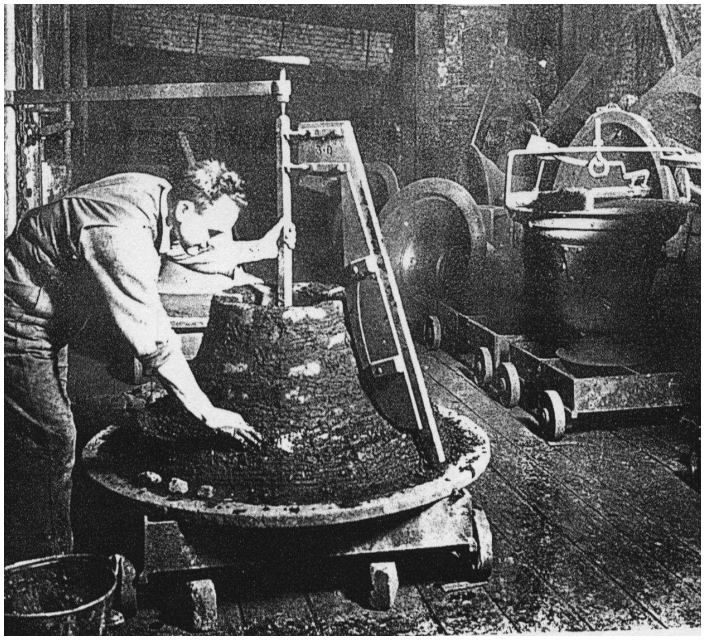


Forming the outside shape for the bell



Completed mould with space for bell metal

Bell metal is a type of bronze, 77% copper and 23% tin. It is melted in a furnace and poured into the mould at around 870°C, taking care to keep out any dross, and to achieve a uniform pour.



Building up the core [1]

Pouring metal into the mould

After cooling for several days the moulds are broken off, and the bells are cleaned up and tuned.

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