(No Model.)

G. W. GOFF.

BELL.

No. 419,767. Patented Jan. 21, 1890.

Fig. 1

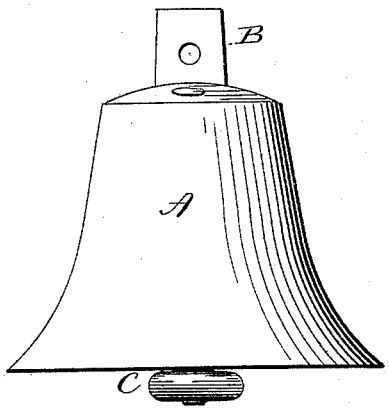


Fig. 2

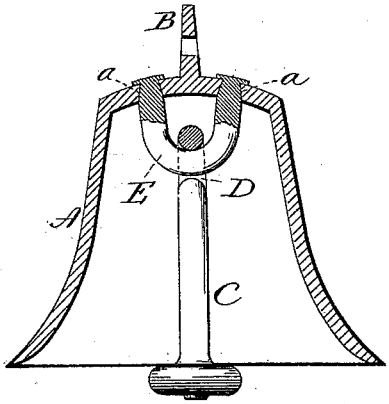
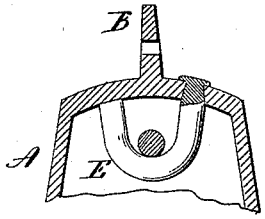


Fig. 3

Fig. 4



Witnesses.
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UNITED STATES PATENT OFFICE.

GEORGE W. GOFF, OF EAST HAMPTON, CONNECTICUT.

BELL.

SPECIFICATION forming part of Letters Patent No. 419,767, dated January 21, 1890.

Application filed September 9, 1889. Serial No. 323,401. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. GOFF, of East Hampton, in the county of Middlesex and State of Connecticut, have invented a new Improvement in Bells; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of the bell complete; Fig. 2, a transverse central section cutting in the plane of the loop; Fig. 3, the loop detached; Fig. 4, a modification.

This invention relates to an improvement in that class of open-mouth bells which are provided with a shank by which they may be attached or hung. These bells are usually applied where in ringing they are subject to sudden shaking movements, as in house-bells, and also in bells used for horse-cars and for other street purposes. If the loop by which the hammer is suspended in the bell be made integral therewith, it is necessary to hook the hammer onto the loop, and the difficulty of securing the hammer when so hooked is very great, and the hammers are frequently lost, the bell thereby being rendered substantially useless. In some cases the loop has been made from wire with a shank and set in the mold, so that in casting the bell the loop became united to the bell and substantially an integral part of it. In United States Patent No. 373,654, granted to me November 22, 1887, to obviate this difficulty to some extent the bell is constructed with the hammer-loop and the shank made separate from the bell and riveted thereto. The hammer-loop being in the usual position in the bell, its end passes through the center of the bell and directly under the loop; consequently the loop must span the opening through which the shank passes, and because of so doing the shank must be attached after the loop. This is an expensive construction.

The object of my present invention is to produce a secure support for the tongue, and at the same time make the shank as an integral part of the bell; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

A represents the bell, which is of usual form, and is constructed with the usual shank B, by which the bell is hung. Through the closed end of the bell, on each side of the shank B, is a hole *a*.

C is the tongue, which is constructed with the usual eye D, by which it is suspended. The tongue is hung from a loop E, which is of U shape, made from wire. The legs of the loop correspond to the holes *a* in the closed end of the bell, and so that the ends of the said legs may pass through the said holes. The eye of the tongue is set onto the loop and the legs of the loop through the holes *a* in the closed end of the bell from the inside outward, and the ends of the legs upset, so as to securely rivet the loop to the closed end of the bell, as seen in Fig. 2. The tongue is thus securely attached to the bell, so that its accidental detachment is impossible.

A good result is attained by making one leg of the U-shaped loop shorter than the other and employing but a single hole through the body of the bell to secure the loop, as represented in Fig. 4; but in this case there is the same U-shaped loop and it is secured in substantially the same manner, and I wish by the term "U-shaped loop" to be understood as including such modification.

The advantage of this construction over the usual casting of the hammer-loop and the shank integral with the bell, or substantially so, is that it enables the attachment of the hammer to the bell by constructing the hammer with an eye in the end of its shank instead of a hook, and the advantage of this construction over that of my previous patent is that the peculiar construction herein described enables me to cast the shank as an integral part of the bell.

From the foregoing it will be understood that I do not claim, broadly, making the ham-

mer-loop separate from the bell and uniting it thereto after the bell is cast, as such, I am aware, is not new.

I claim—

The herein-described improvement in open-mouth bells, consisting of the bell constructed with a shank B on its closed end and with holes *a* each side said shank, a tongue constructed with an eye D, combined with a U-shaped loop upon which said tongue is hung, the legs of the loop extending through the holes in the closed end of the bell and upset, substantially as described.

GEORGE W. GOFF.

Witnesses:
LUCIUS H. GOFF,
IRVIN H. ABELL.