

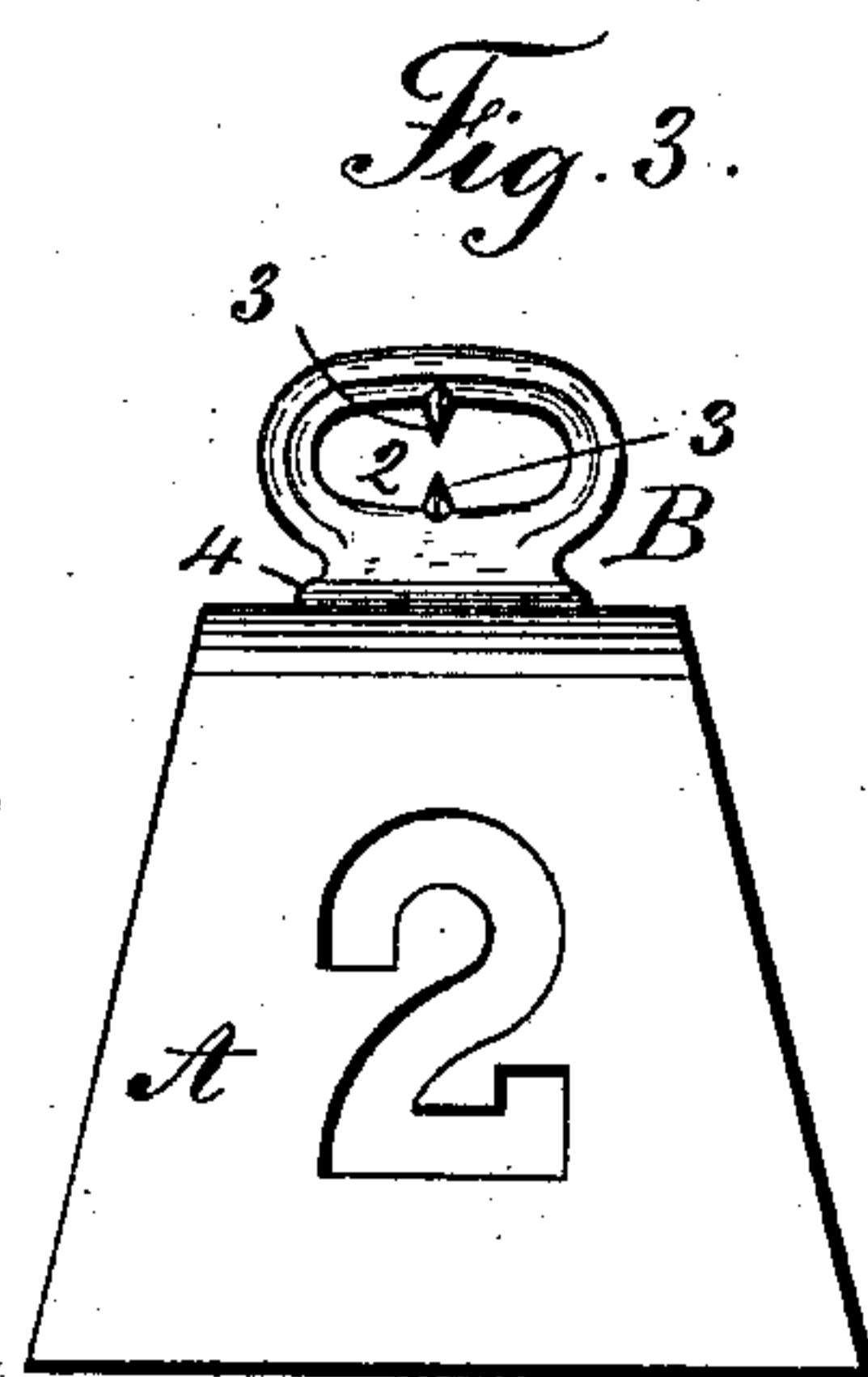
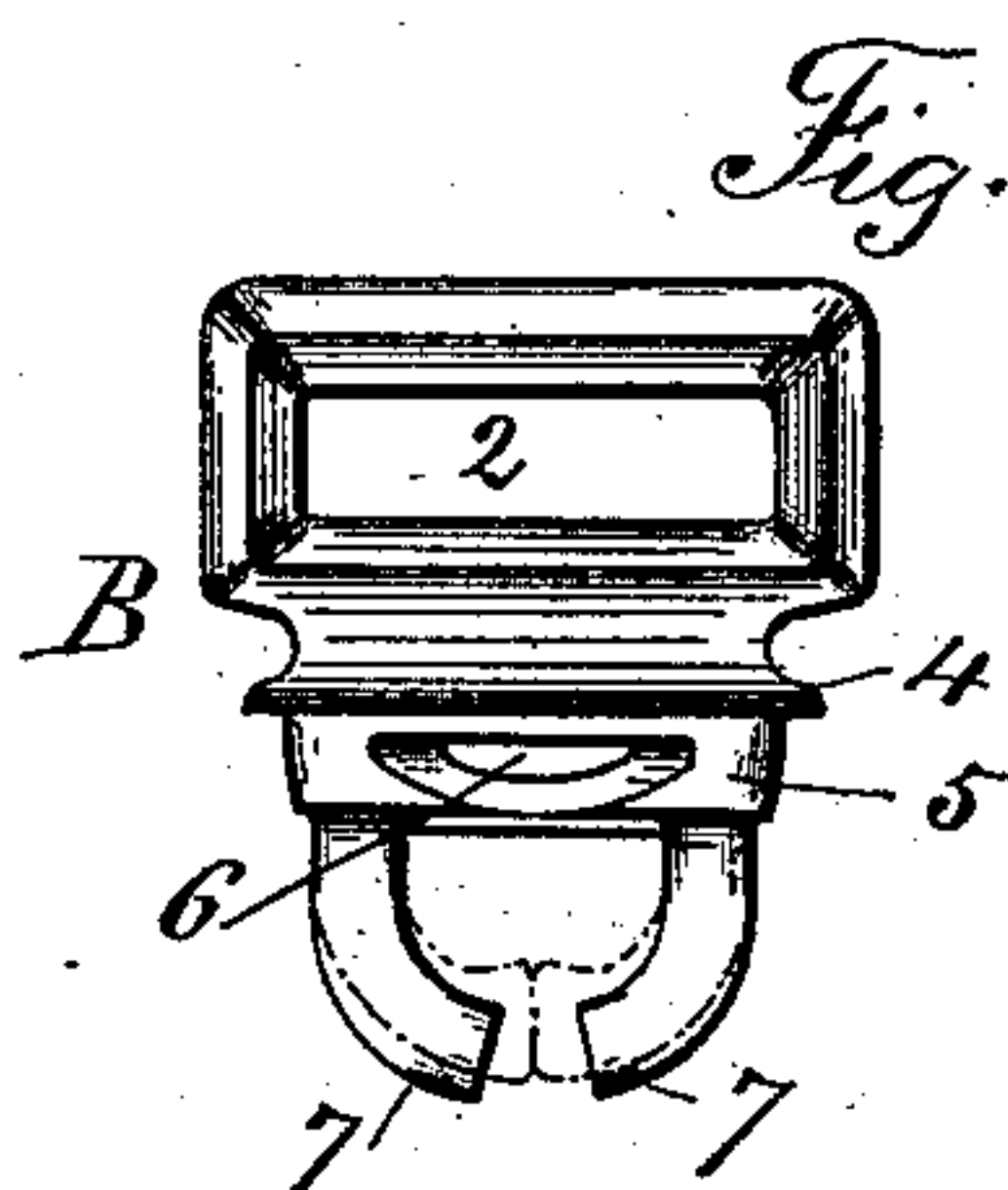
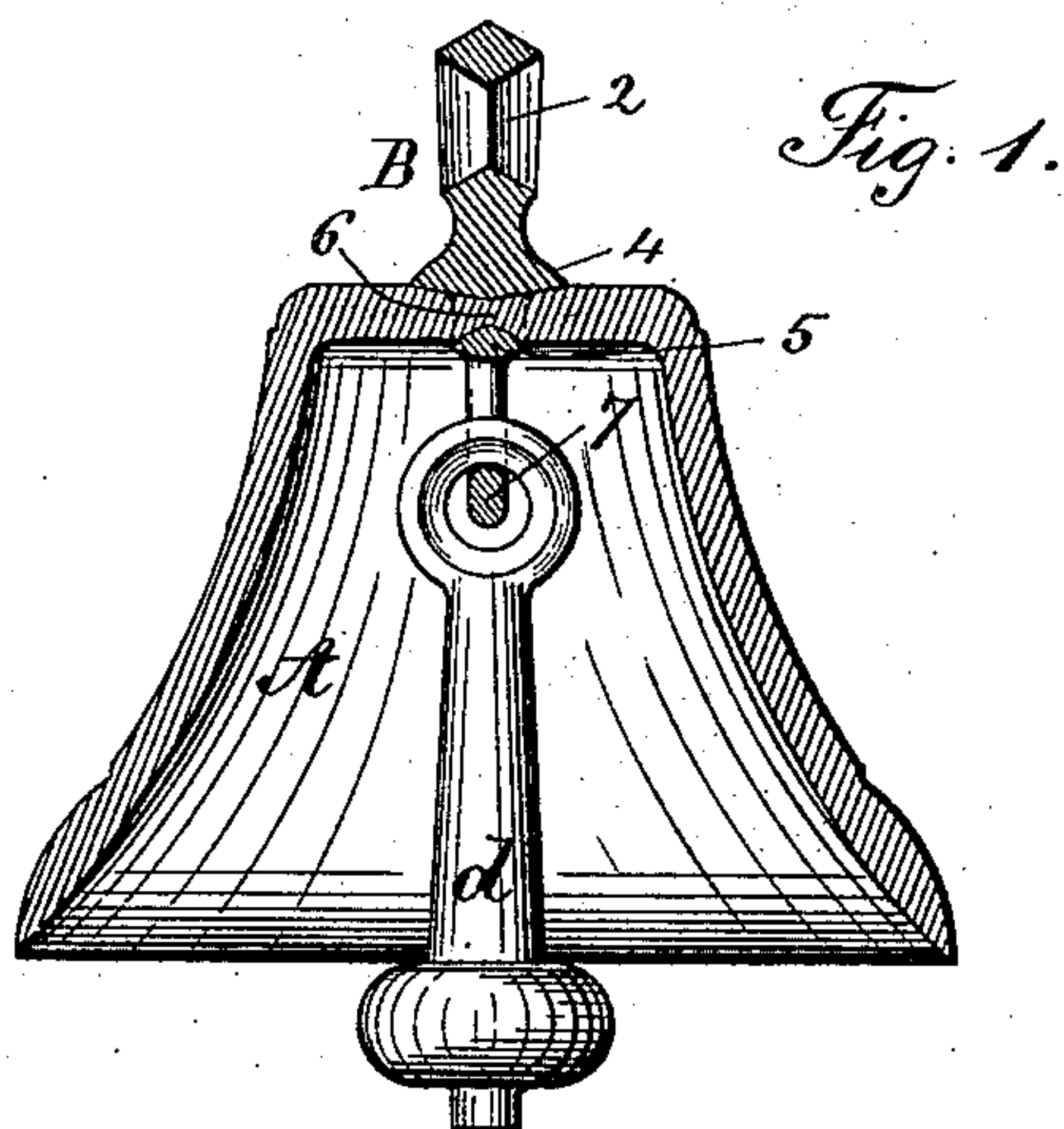
(No Model.)

E. L. BRAINARD.

BELL.

No. 299,724.

Patented June 3, 1884.



Witnesses:  
J. Staib  
Chas H. Smith

Inventor  
Ellison L. Brainard  
per Lemuel W. Perrell  
att'y

# UNITED STATES PATENT OFFICE.

ELLISON L. BRAINARD, OF EAST HAMPTON, CONNECTICUT, ASSIGNOR TO  
THE BARTON BELL COMPANY, OF SAME PLACE.

## BELL.

SPECIFICATION forming part of Letters Patent No. 299,724, dated June 3, 1884.

Application filed December 27, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ELLISON L. BRAINARD, of East Hampton, in the State of Connecticut, have invented an Improvement in Bells for  
5 Animals, of which the following is a specification.

This invention is specially applicable to sheep, car, and cow bells that are of a cheap character; but the same may be availed of in  
10 the manufacture of sleigh and other bells. The loop at the crown of the bell has usually been cast in one piece with the other portions of the bell; but the same is liable to imperfections, as the bell-metal chills and does not  
15 run freely into the loop portion, and it is difficult to mold the loop in the sand. In some instances wire loops have been employed; but they are liable to become loose and separate from the bell. My invention is made for over-  
20 coming these difficulties, lessening the expense of production, and rendering the bell more perfect.

In the drawings, Figure 1 is a section of a car-bell complete. Fig. 2 shows the loop separately, and Fig. 3 is an elevation of a sheep  
25 or car bell.

The bell A is of any desired size or shape. The car-bells are usually circular, and the sheep and cow bells pyramidal. The loop B  
30 is made separate from the bell. It is usually of malleable cast-iron, and the surface is, by preference, tinned. The loop portion 2 is adapted to receive the strap, and for sheep-bells especially there are to be one or more  
35 teeth, 3, on the inner surfaces of the loop portion 2, so that the loop may be flattened by a blow from a hammer after the strap has been passed through the loop, so that the teeth penetrate the strap and hold the same firmly.  
40 There is a flange, 4, that comes at the top surface of the bell; and a body, 5, around which the bell-metal is cast, and this body is mortised, grooved, or recessed at 6, so that the bell-metal runs thereinto to insure a firm con-  
45 nection. The horns 7 extend down into the bell, and they are open, so that the eye of the clapper can be passed in between them, after which the horns are closed, and the eye hangs on either one of the horns, as the place where  
50 they come together is widest, to prevent the

clapper hanging between the horns and wearing them off so as to fall out. The pattern of the bell is usually of metal, and it is provided with a slot for the reception of the body portion 5 of the loop-piece B. The loop-piece is  
55 placed in the pattern, and the same is molded in the sand, the sand surrounding and holding the upper part of the loop-piece. The outer flask is lifted off, and with it the loop is drawn out from the slot in the pattern. The  
60 horns draw up out of the sand core without injury to the same, because it is within the pattern. The pattern is then lifted off the core upon the lower flask, and when the flasks are put together the horns 7 pass down again into  
65 the opening previously made by them in the sand, and when the bell is cast it is perfect and finished, the sand not being injured by the withdrawal or reinsertion of the horns 7, and the bell-metal running around and into  
70 the mortised or grooved body 5 insures a perfect connection between the loop and the bell, besides which there is a union between the tinned surface of the loop and the cast bell-metal. It is preferable to employ the mortise  
75 or opening through the body 5, so that the bell-metal will run through the same and hold the loop-piece in the most firm manner.

The bell may be turned, polished, or finished after it is removed from the sand; but usually  
80 it will simply be cleaned from the sand, and is ready for the reception of the clapper as aforesaid.

One horn, a loop, an eye, or an open eye may be used in place of the two horns for the clapper, the loop-piece being otherwise unchanged.  
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I claim as my invention—

1. A malleable-metal loop-piece for a bell, having a mortise for the strap, a body portion for the metal of the bell to be cast around, and  
90 an open horn or projection for the reception of the clapper, substantially as set forth.

2. The malleable-metal loop-piece for a bell, having a mortise for the reception of the strap, points for penetrating and holding such strap,  
95 a body portion around which the metal of the bell is to be cast, and horns or projections for the reception of the clapper, substantially as set forth.

3. In a bell having a clapper suspended from  
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a malleable loop or hook within the bell, the two horns with wide ends adapted to be closed together after receiving the eye of the clapper, whereby the clapper will be made to hang upon  
5 either horn, instead of between them, substantially as set forth.

4. In combination with the bell and clapper, a loop-piece having a flange that comes at the top surface of the bell, a mortise for the strap,  
10 a suspending device for the clapper, and a body portion around which the bell-metal flows in casting, substantially as set forth.

5. The combination, with the bell and clap-

per, of a loop-piece having a mortise for the suspending device, and an eye for the clapper, 15 and a body portion that is perforated or recessed for the metal of the bell to pass into in casting, so that such loop-piece is held from moving in either direction, substantially as specified.

Signed by me this 5th day of December, A.  
D. 1883. 20

E. L. BRAINARD.

Witnesses:

C. D. BARTON,  
N. NEWTON HILL.