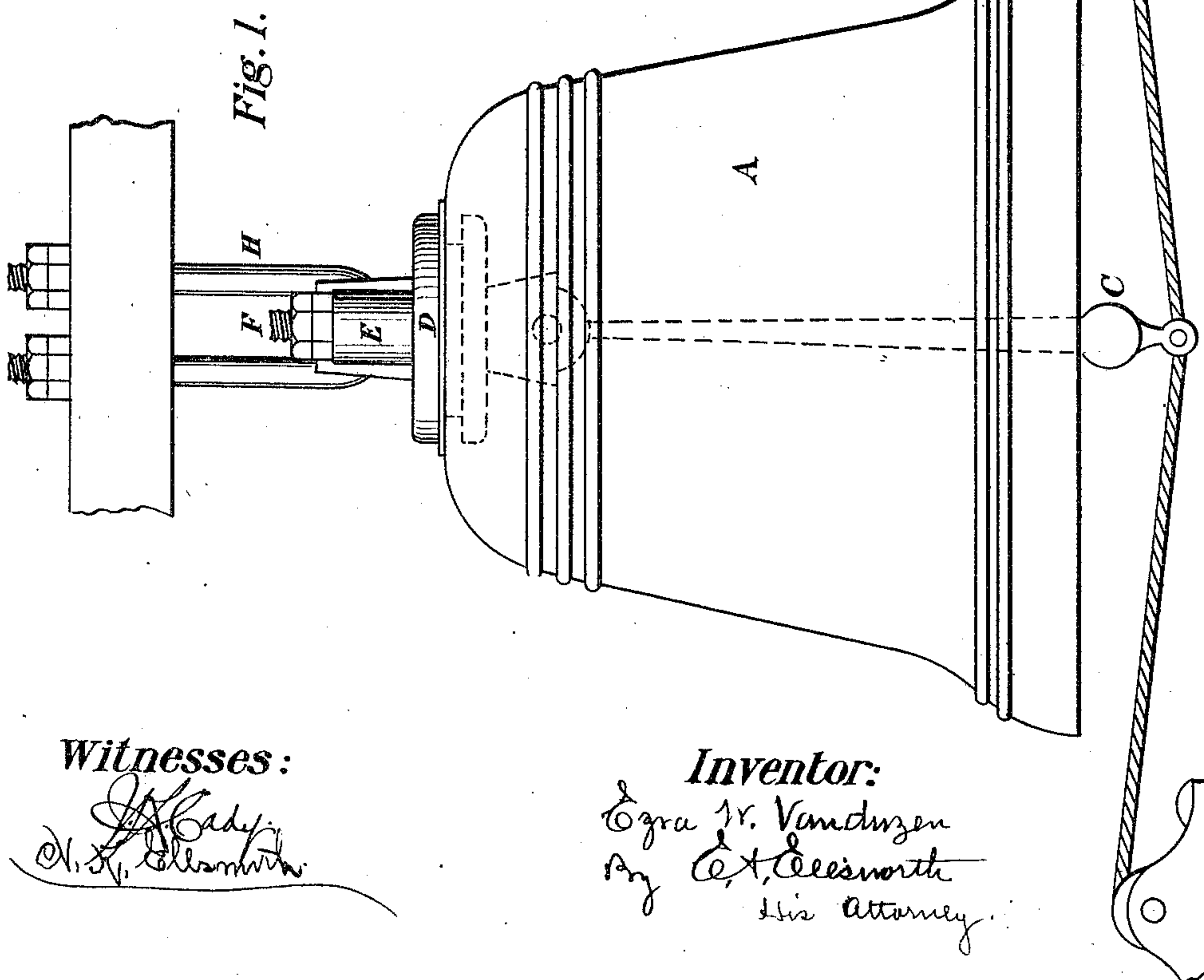
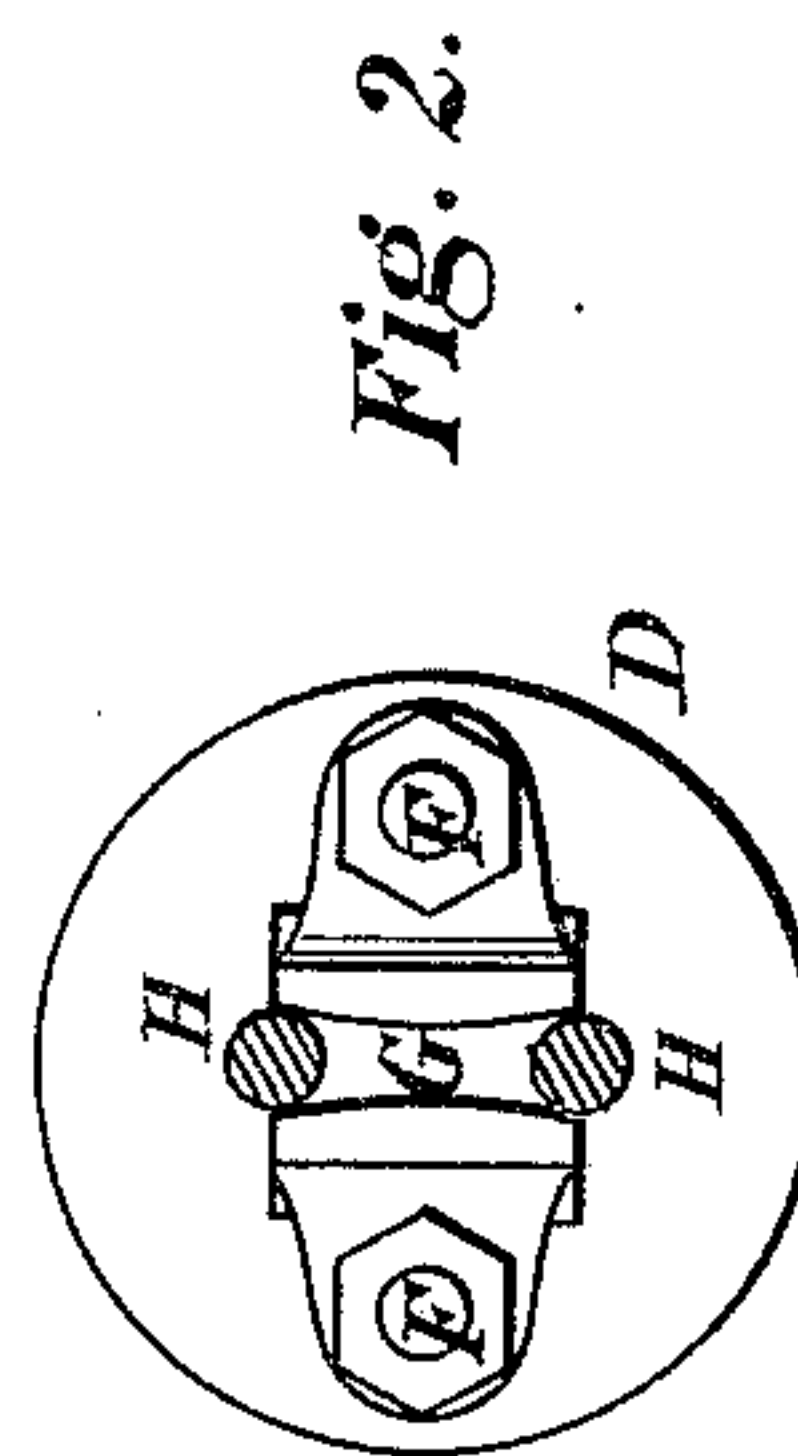
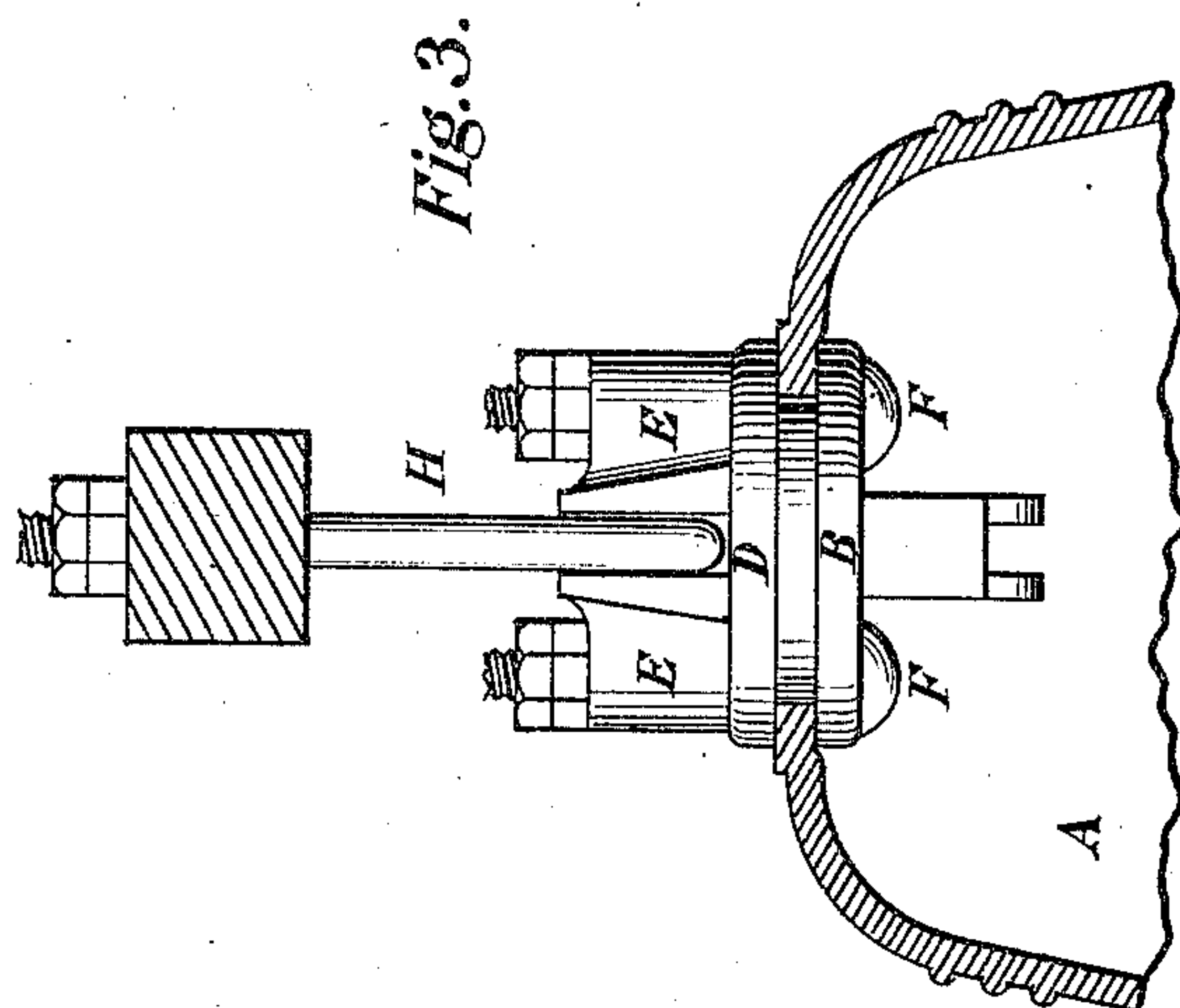


(No Model.)

E. W. VANDUZEN.
Hanging Bells.

No. 229,569.

Patented July 6, 1880.



Witnesses:

J. H. Adams
W. H. C. Adams

Inventor:

Ezra W. Vanduzen
By C. H. Ceesworth
His Attorney.

UNITED STATES PATENT OFFICE.

EZRA W. VANDUZEN, OF NEWPORT, KENTUCKY.

HANGING BELLS.

SPECIFICATION forming part of Letters Patent No. 229,569, dated July 6, 1880.

Application filed April 12, 1880. (No model.)

To all whom it may concern:

Be it known that I, EZRA W. VANDUZEN, a citizen of the United States, residing at Newport, in the county of Campbell and State of Kentucky, have invented certain new and useful Improvements in Hanging Bells, (Case F;) and I do hereby declare the following to be a full, clear, concise, and exact description of the same, sufficient to enable others skilled in the art to which my invention appertains to make and use it, reference being had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is an elevation of a bell hung in accordance with my invention. Fig. 2 is a top-plan view of the suspending plate and a cross-section of the stirrup-bolt, and Fig. 3 a side view of the suspending and crown plates, with the bell shown in section.

Similar letters of reference in the drawings indicate the same parts.

My invention relates to the method of hanging light bells, more particularly alarm-bells, from two hundred to seven hundred pounds weight, such as are usually employed for fire-alarms; and it has for its object to simplify and reduce the cost of hanging the bells and to prevent the jarring of the bell-supports when the bell is struck and during its vibrations.

In furtherance of this object the invention consists in the construction of a suspending-plate fastened to the top of the bell, combined with a stirrup-bolt secured to a beam, whereby the bell is suspended to swing freely when struck by the clapper, and without having its vibrations interrupted or resisted by the suspending devices.

In the drawings, A represents the bell, having an opening in the top to receive the boss of a crown-plate, B, to which the clapper C is pivoted.

D is the suspending-plate, placed over the opening in the top of the bell and bolted to the crown-plate, so as to clamp the bell between them.

The suspending-plate is cast with two standards, E E, upon its upper surface, through

which two bolts, F F, are passed to secure it to the crown-plate.

The proximate faces of the standards are united by a round or circular bar, G, over the center of the plate, and under this bar the loop of the stirrup-bolt H is passed. The upper ends of the stirrup-bolt are then inserted in a timber or beam, and held in place by nuts above the beam, as shown in Fig. 1.

By this method of hanging the bell it is permitted to swing when struck by the clapper, the cross-bar G turning freely in the stirrup-bolt for the purpose. Therefore the swinging movements and the vibrations of the bell are not communicated to the beam to jar and strain it, nor are the vibrations of the bell interrupted.

Instead of pivoting the clapper to the under side of the crown-plate, the latter may be recessed or slotted to receive the end of the clapper and provided with bearings for the clapper-pivot in line with the edge of the opening in the top of the bell, as shown and described in another application which I have made for Letters Patent of the United States.

The power for striking the bell is necessarily applied to the lower end of the clapper, preferably by means of ropes which pass over pulleys, as shown in the drawings, Fig. 1.

Having thus described my invention, what I claim is—

1. The suspending-plate D, cast with the bolt-standards E E, united by the round or circular cross-bar G, in combination with the crown-plate B and the open-top bell, substantially as described, for the purpose specified.

2. The combination of the suspending-plate D E G, the stirrup-bolt H, and the crown-plate B with the open-top bell, substantially as described, for the purpose specified.

In testimony of which invention I have hereunto set my hand this 30th day of March, A. D. 1880:

EZRA W. VANDUZEN.

Witnesses:

H. K. ELLSWORTH,
E. A. ELLSWORTH.