

C. W. HOLTZER.

ELECTRICAL ANNUNCIATORS FOR SPEAKING TUBES.

No. 178,641.

Patented June 13, 1876.

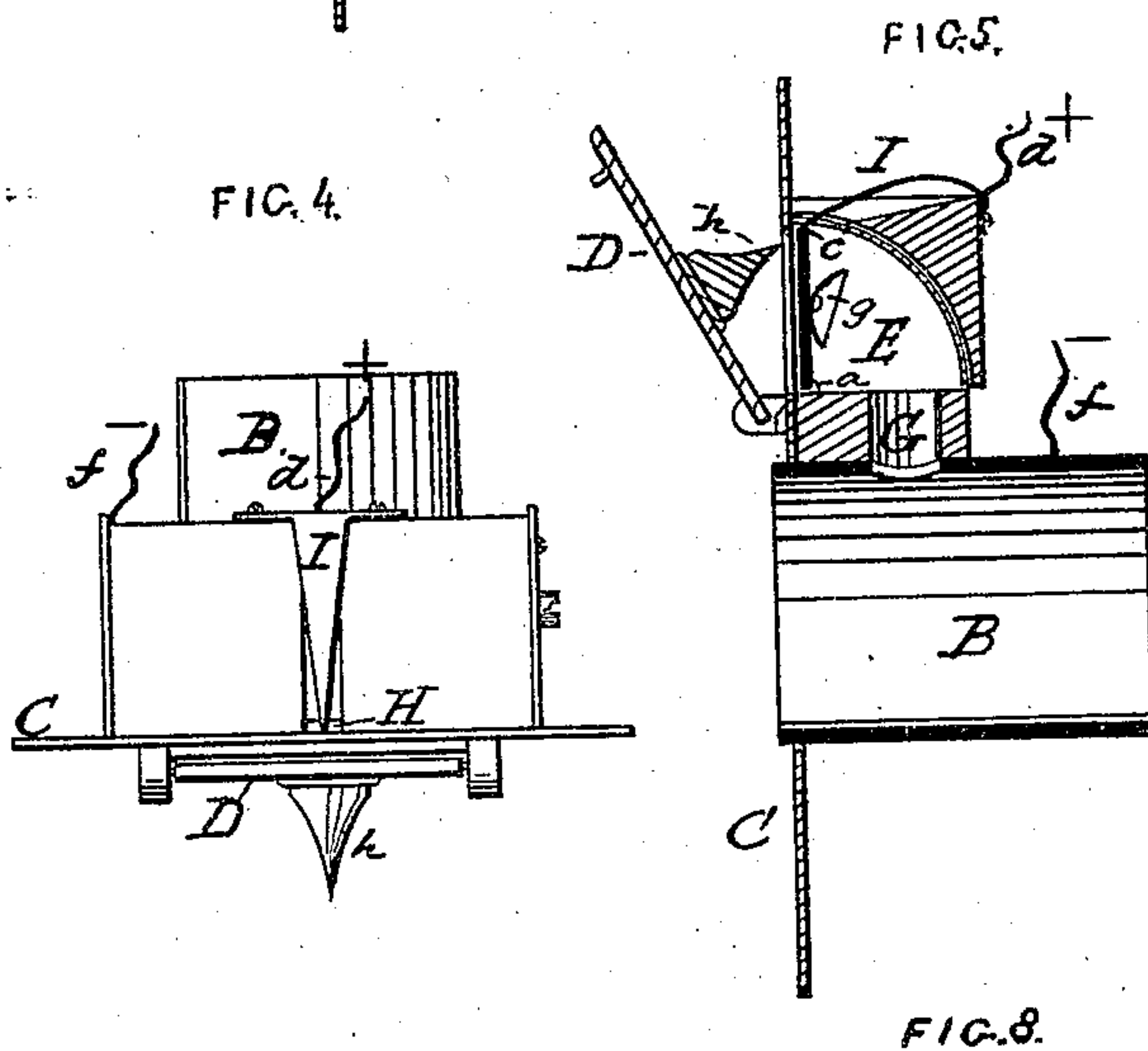
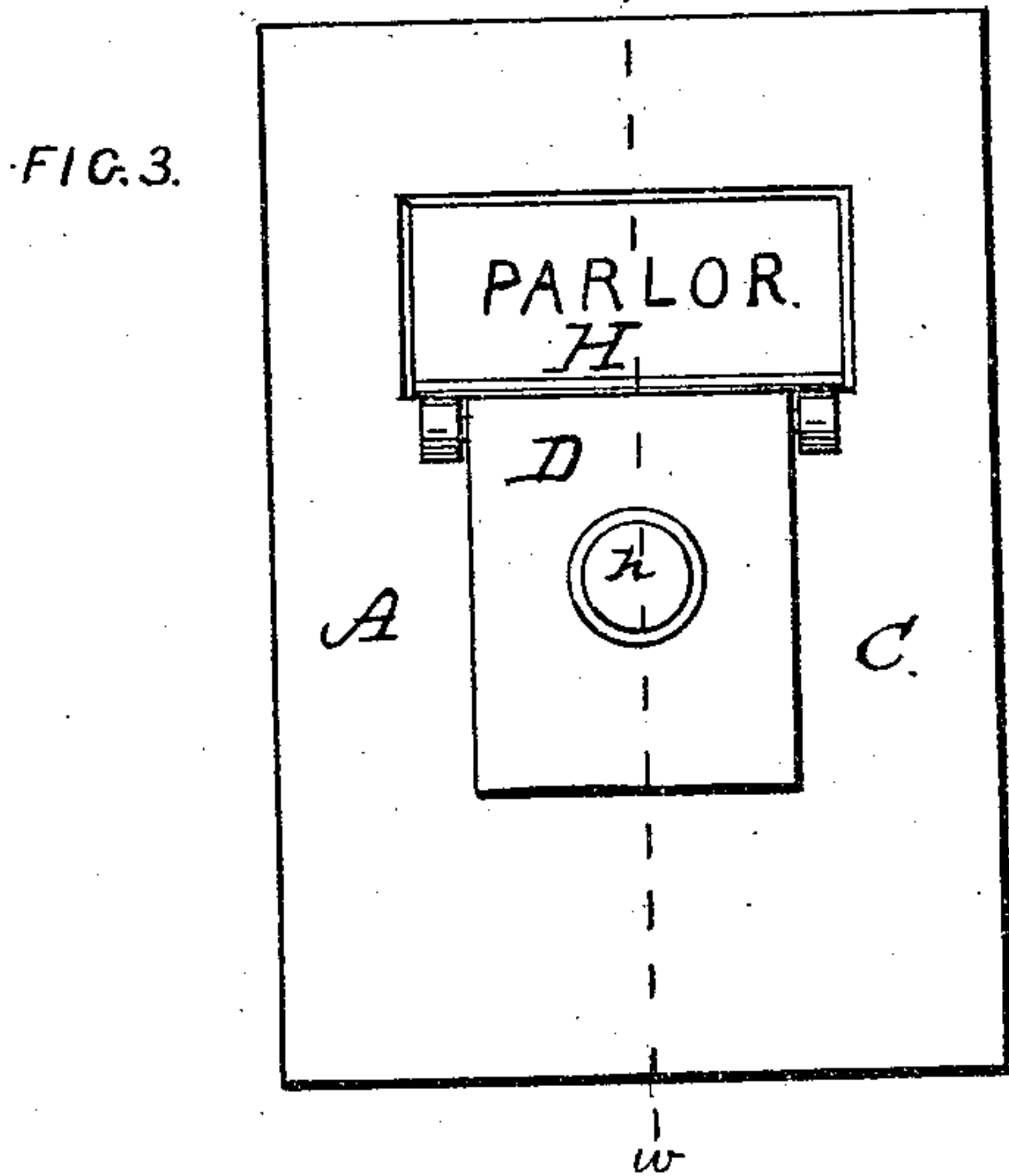
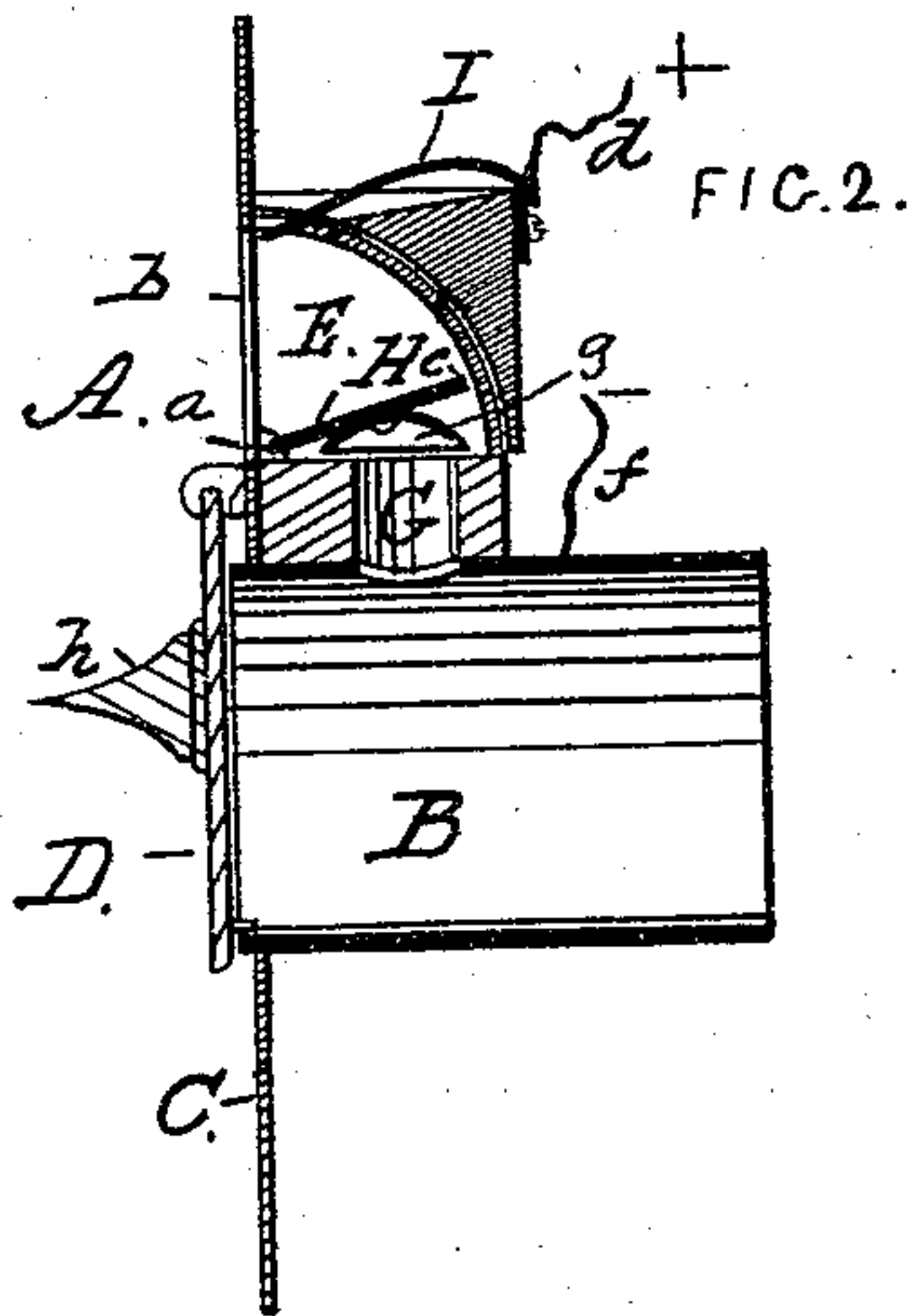
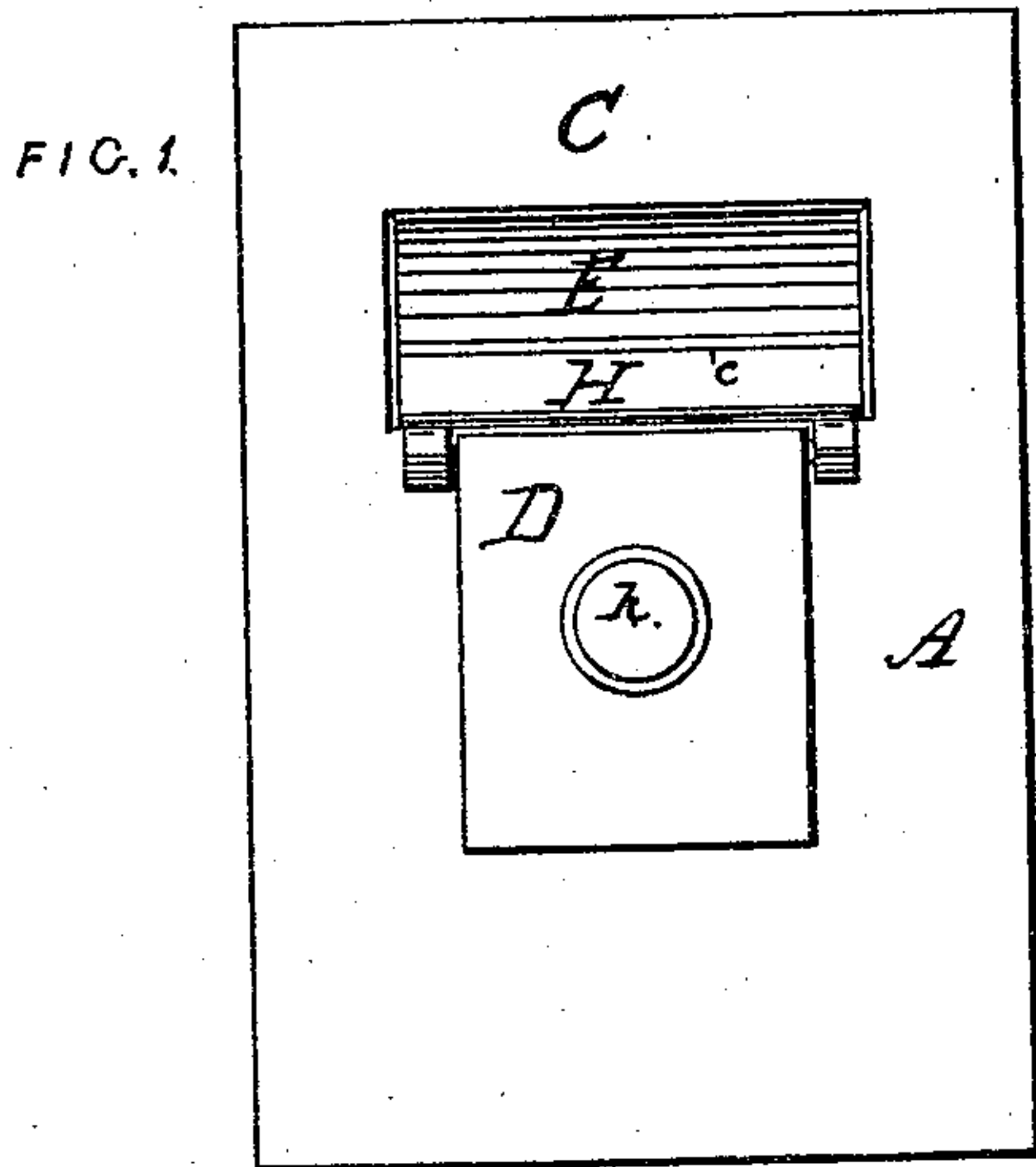
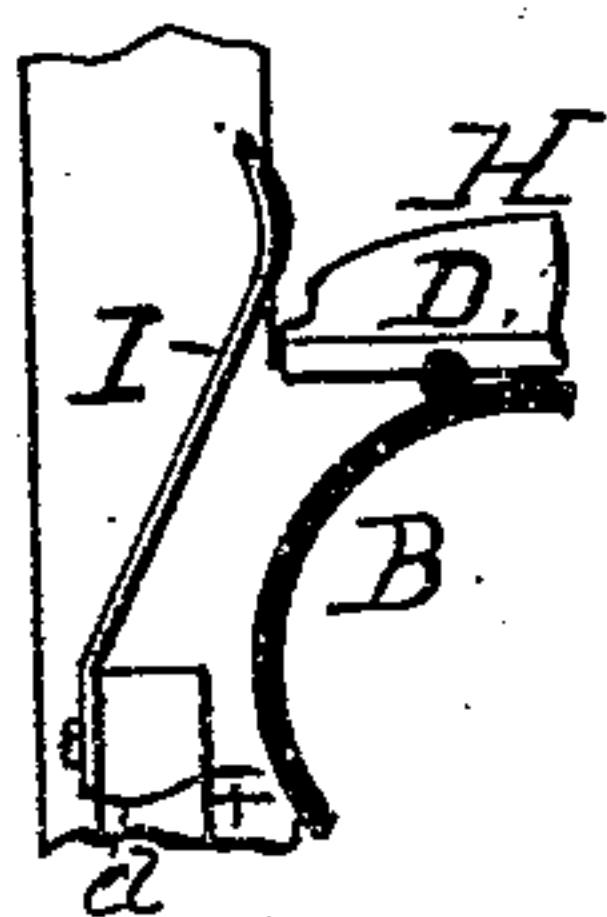


FIG. 9.



WITNESSES.

Geo. H. Carly
for Mitchell

FIG. 6.

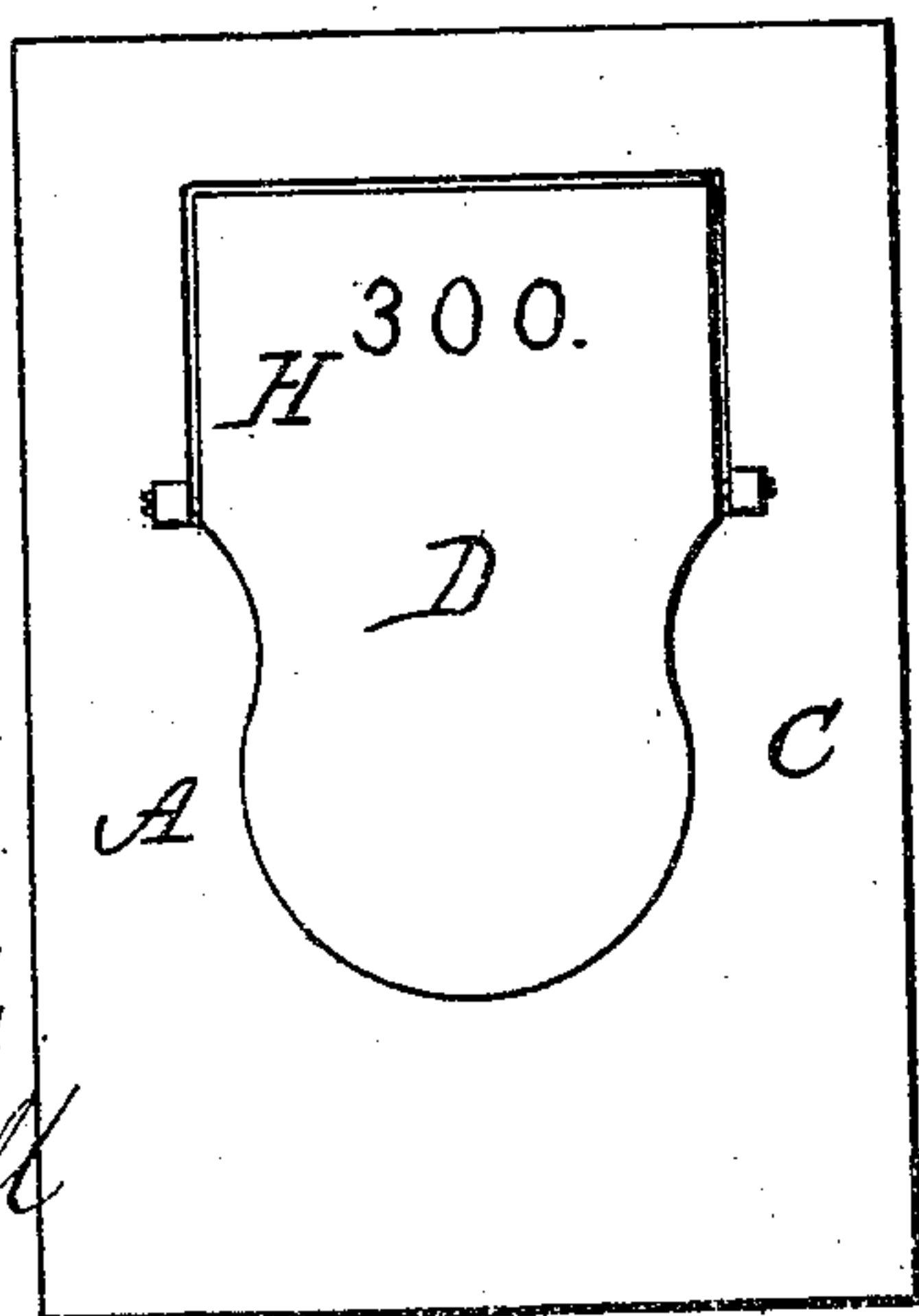
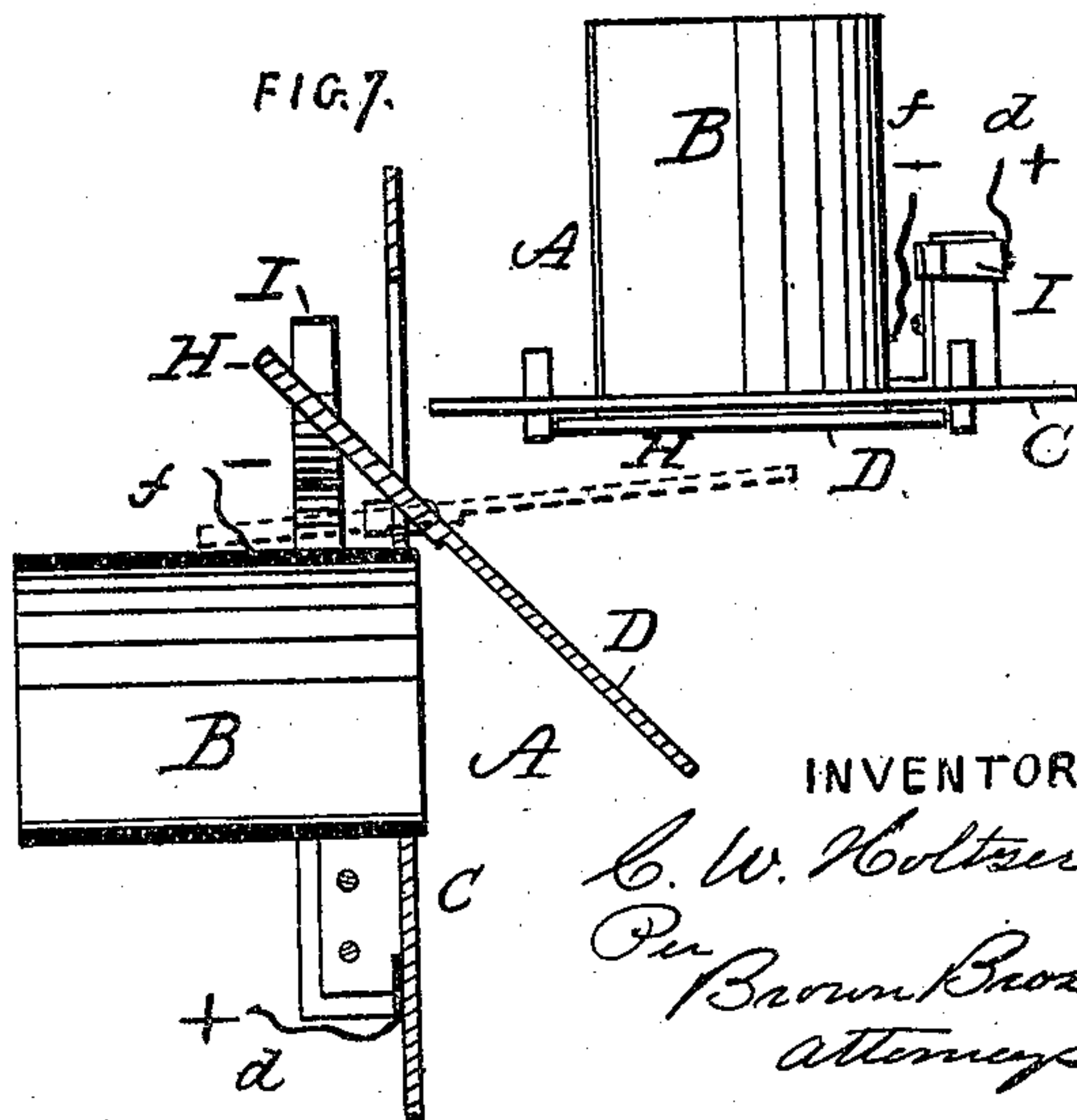


FIG. 7.



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IMPROVEMENT IN ELECTRICAL ANNUNCIATORS FOR SPEAKING-TUBES.

Specification forming part of Letters Patent No. 178,641, dated June 13, 1876; application filed
March 24, 1876.

To all whom it may concern:

Be it known that I, CHARLES W. HOLTZER, of Brookline, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Speaking-Tube Annunciators, of which the following is a specification:

This invention relates to certain improvements in electrical annunciators or speaking-tubes; and consists of a novel combination of parts, which will be fully hereinafter described, and specifically pointed out in the claims, a preliminary description being therefore deemed unnecessary.

In the accompanying plate of drawings my improvements in speaking-tube annunciators are illustrated—

Figures 1 and 3 being face views, which show the two positions of the indicating-plate, the one when there is no call from the room to which its speaking-tube runs, and the other when there is a call from such room. Fig. 2 is a section along line *vv*, Fig. 3, with the plate which covers the speaking-tube down. Fig. 4 is a plan view of Fig. 1. Fig. 5 is a sectional view, showing the plate lifted. Figs. 6, 7, 8, and 9 are severally views illustrating a modification in the arrangement of the indicating-plate, whereby it is made to serve also as a cover to the end of the speaking-tube at which the indicating-plate is located.

In the drawings, A represents the terminus of a speaking-tube, B, where the signal is to be given from the person in the room to which such tube runs by blowing through the tube. This terminus A is in a plate or block, C, and this plate has a lid, D, hinged in position to cover the mouth of the speaking-tube, and to be swung therefrom to open said mouth for speaking or blowing through it. In the terminus-block C of the speaking-tube and above the tube a chamber, E, is made, which is in communication, by a passage, G, with the speaking-tube, and is open at the front of the plate or block C. In this chamber E there is a plate, H, which is hinged at one edge, *a*, to the bottom or floor of said chamber, and is in position to lie over the passage G, which leads from such chamber to the speaking-tube, and to be swung up from such position into

the opening *b*, at the front part of chamber E.

This plate is the indicating-plate, and it is preferable to mark it in accordance with the title, or name, or number of the room to which its connecting speaking-tube leads—as for instance, “parlor,” as shown.

I, a spring-finger. This spring-finger is situated in the upper part of chamber E, and is in position for the plate H when it is swung up to the opening at front of said chamber to rest in contact with its free end *c*. (See Fig. 5 more particularly.) This spring-finger I is fixed to and suitably insulated from the terminus block or plate C, and a wire, *d*, connects with one pole of the battery, and a wire, *f*, leads to the other pole of the battery, connecting with the said terminus-block.

Through these two electric wires *d* *f*, when the plate is in contact with the spring-finger I, as above described, obviously the electrical circuit is closed, and thus, provided any of the usual alarm-signals are connected with said electrical circuit, the sounding of the alarm will be secured.

The upper wall of the chamber E is curved correspondingly with the arc described by the swing of the indicating-plate, and the rear side *g* of the indicating-plate is cup-shaped, so as to economize and direct the blowing through the tube the more perfectly upon the object—namely the plate H—which is to be operated by blowing through the tube.

The closing-lid D of the speaking-tube, when against it, is held by a spring-catch, and its projection *h*, when it is lifted from the speaking-tube, abuts against the plate H; and thus, should it be up, as in Fig. 3, throws it down and breaks its contact with the spring-finger, breaking the circuit, and stopping the alarm.

In the arrangement shown by Figs. 6, 7, 8, and 9, the lid to the speaking-tube is adapted to make the electrical connection with the spring-finger I, when it is operated upon by blowing through the tube, and such lid is also adapted as the indicating-plate, it being marked or numbered correspondingly to the room with which it connects—as for instance, 300; and it indicates, as does the plate in the arrangement shown in Figs. 1 to 5, inclusive,

by its change in position from blowing through the tube, that there is a call from the room to which the tube runs.

For convenience in blowing through the speaking-tube, a movable mouth-piece may be suspended by a cord in immediate proximity to the opening of such tube for being inserted and withdrawn at pleasure.

The spring-finger I, as it is shown in Figs. 6, 7, 8, and 9, has its contact with the indicating-plate H in such way that when the alarm is sounded, as described, if the indicating-plate be raised to-speak through the tube, the electric connection is then broken, and thus the alarm stopped.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an electrical annunciator, the terminus-plate C having an opening, *b*, the speaking-tube B having an opening, G, and a chamber, E, communicating with each other, in combi-

nation with an indicator-plate, H, hinged in the chamber E, and over the opening G, and with a spring-finger, I, all substantially as and for the object specified.

2. In an electrical annunciator, the combination of a speaking-tube, B, a hinged indicating-plate, H, a spring-finger, I, and a closing-lid, D, hung in relation to the tube, and having means for throwing back the hinged indicating-plate to break the contact between it and the said finger, after the hinged plate is thrown up by blowing through the tube, to cause an electrical connection with an alarm, substantially as described.

3. The indicating-plate H, arranged in a chamber, E, arc-shaped, as described, to correspond with the arc described by the swing of the plate, for the purpose specified.

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Witnesses:

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