

(No Model.)

H. SELIGMAN.  
MECHANICAL TELEPHONE.

No. 326,458.

Patented Sept. 15, 1885.

Fig. 1.

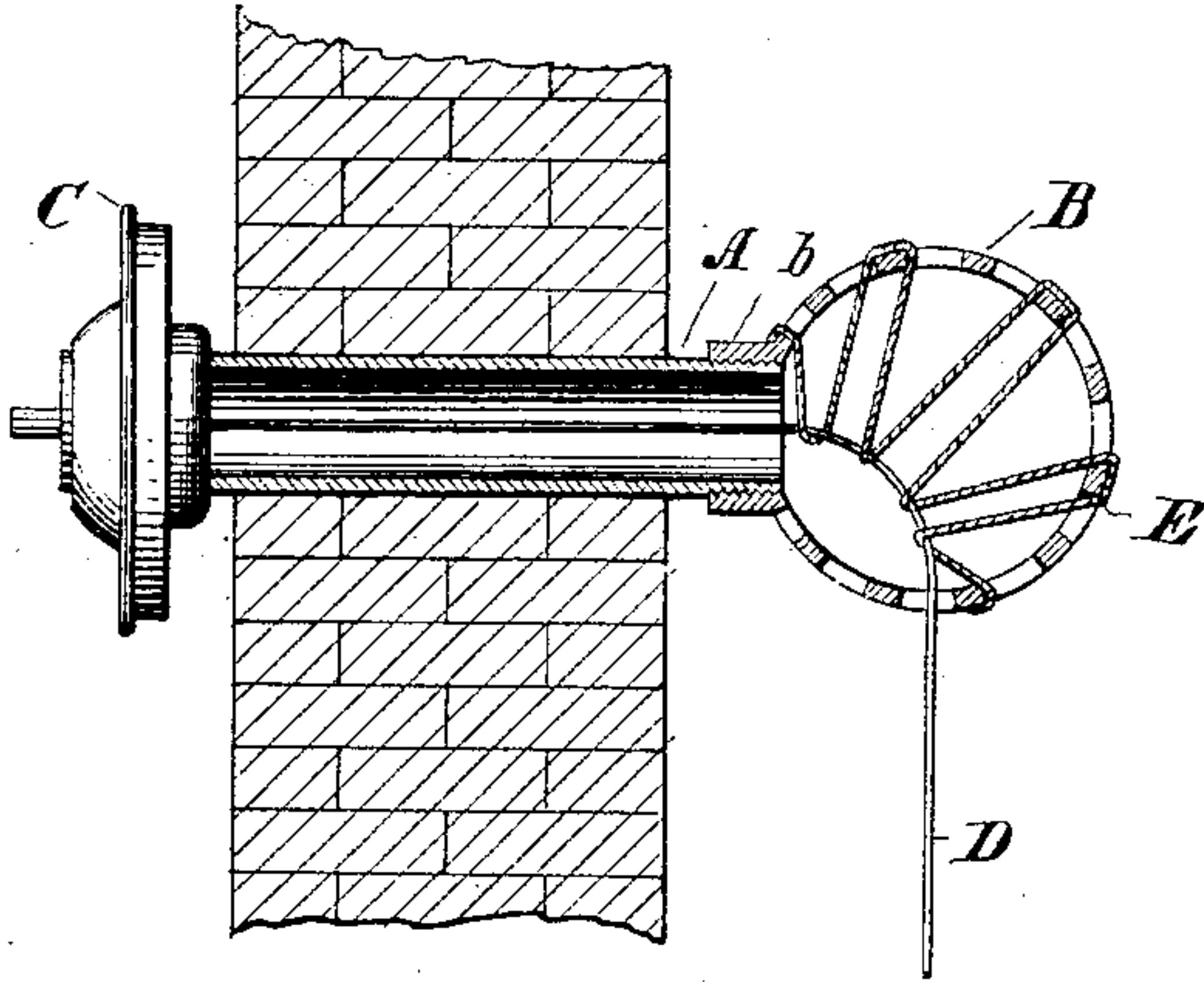


Fig. 2.

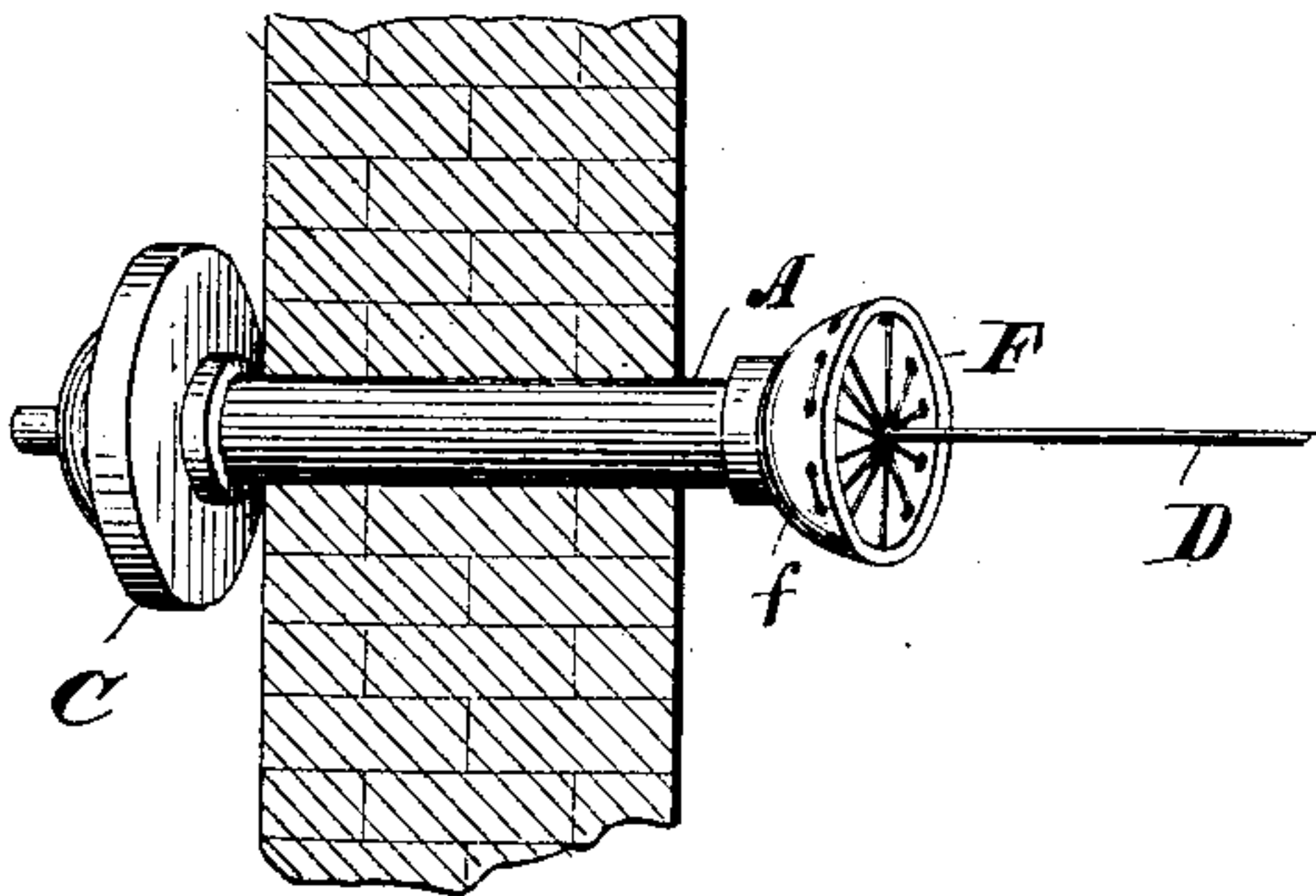
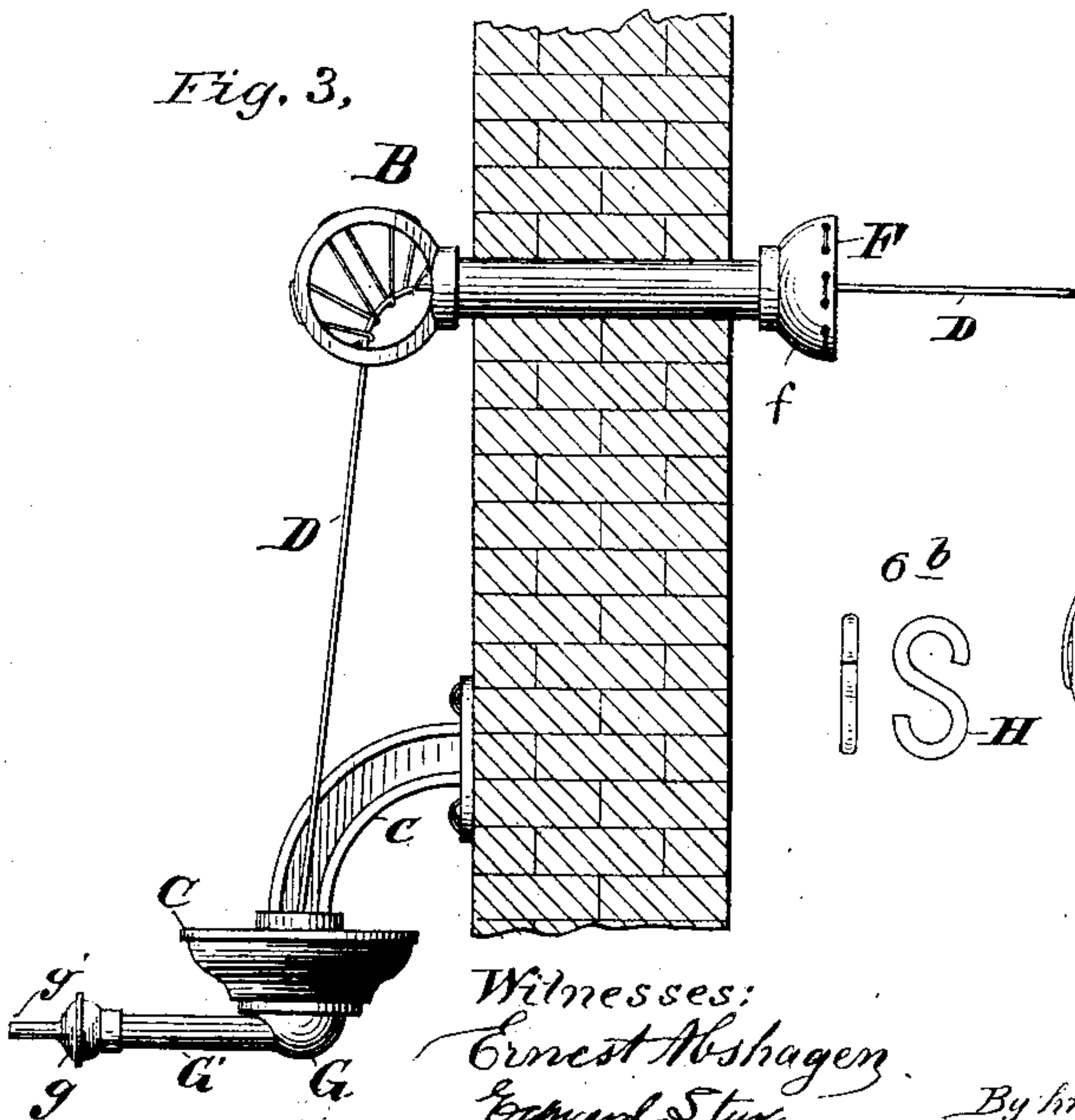


Fig. 3.



Witnesses:  
Ernest Ashagen  
Edmund Stur

Figs. 4.

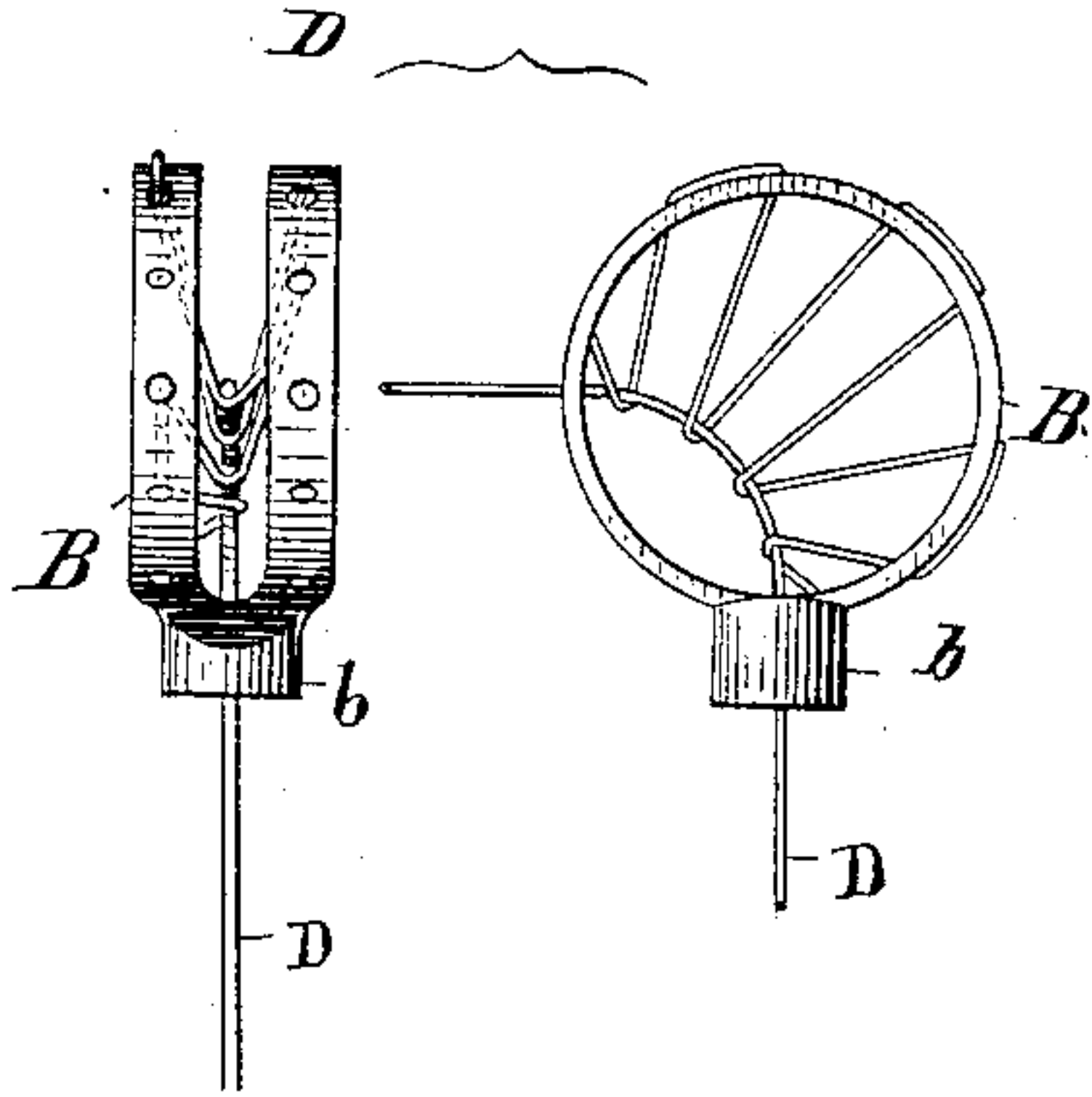


Fig. 5.

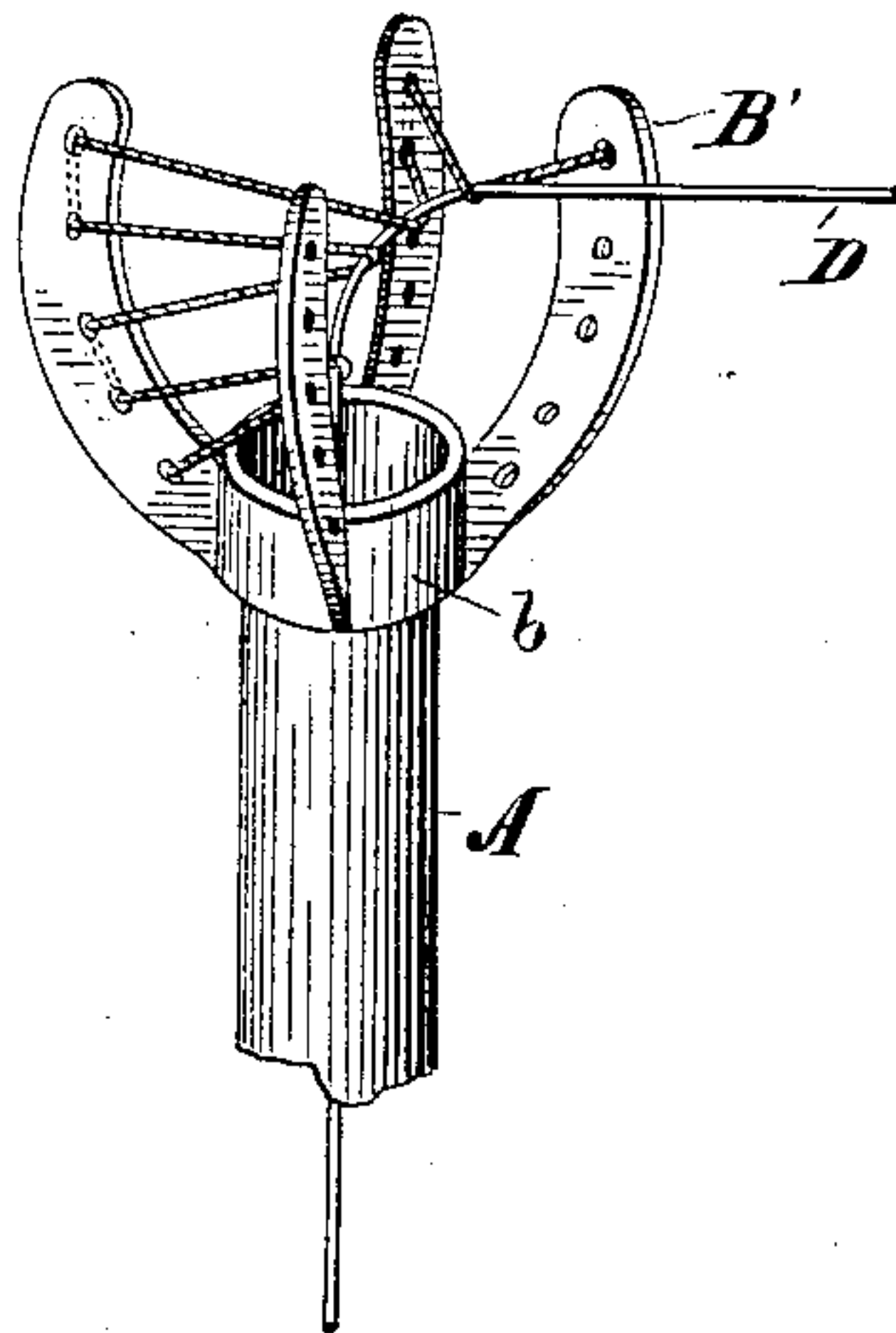
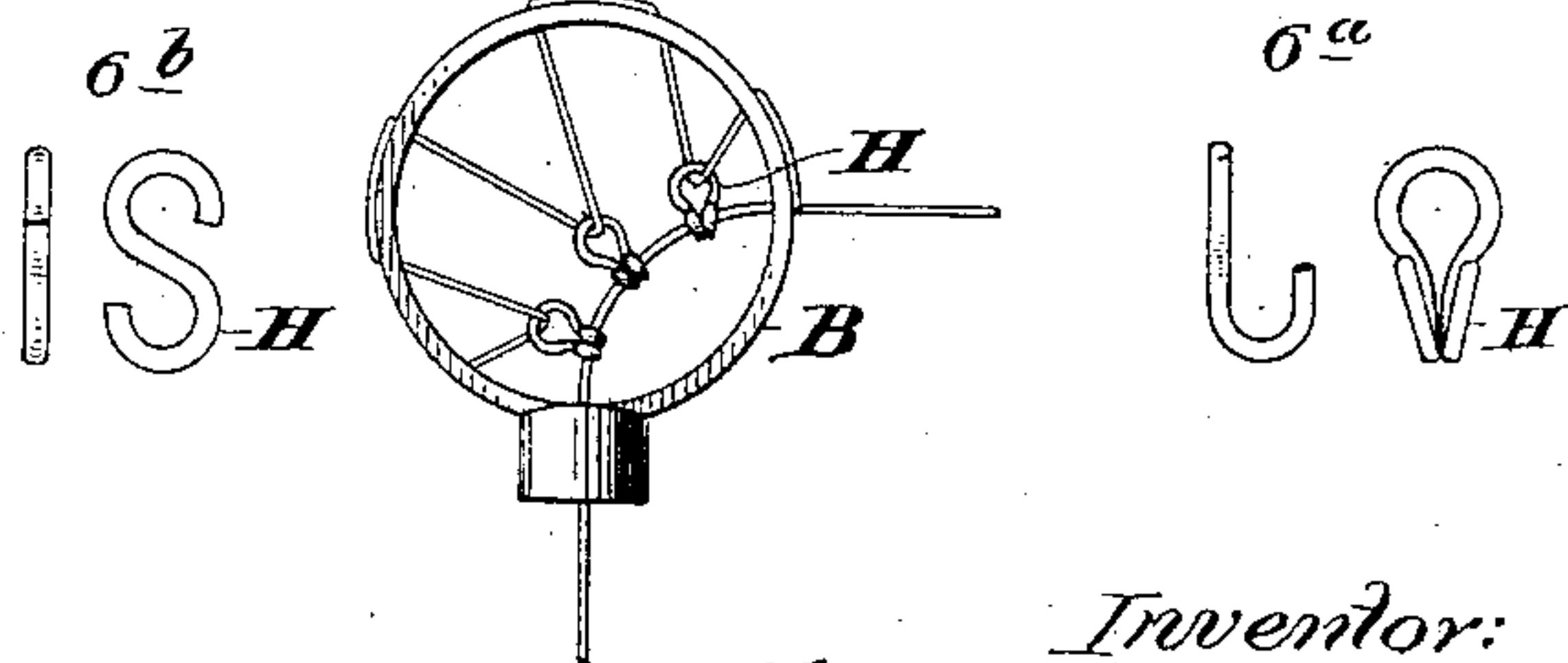


Fig. 6.



Inventor:

Henry Seligman

By his Attorneys:

Knight Bros.



# UNITED STATES PATENT OFFICE.

HENRY SELIGMAN, OF IRVINGTON, NEW YORK.

## MECHANICAL TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 326,458, dated September 15, 1885.

Application filed August 21, 1884 (No model.)

*To all whom it may concern:*

Be it known that I, HENRY SELIGMAN, a citizen of the United States, and residing at Irvington, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Mechanical Telephones, of which the following is a specification.

My improvements in the present instance relate to means for holding the line-wire of a telephone perfectly taut under all circumstances, and, especially, to means for guiding and holding the wire when turning an angle, to a guide or conduit for the wire extending through the wall or partition of a building, and also to a centering device for the wire as it leaves the conduit, the several parts forming a complete and simple system for meeting every emergency and condition arising in the construction of line-wires for mechanical or acoustic telephones.

To these ends my invention consists, primarily, of a tube or pipe extending through and secured to the wall or partition of a building, the said tube or pipe being adapted to form a conduit for the wire, and also provided at one or both ends with a screw thread, on which may be turned and secured an angle-hanger or a centering device for the wire, as the case may demand.

My invention also consists of an improved ring-shaped or circular angle-hanger for attachment to the tube, which angle-hanger is provided with openings through which is strung a cord, through the loops of which is drawn the wire. By virtue of this arrangement I am enabled to turn an angle of ninety degrees (more or less) without materially affecting the molecular action in the wire.

My invention also consists in the centering device hereinbefore referred to. It is formed, preferably, of a cup-shaped piece of metal, and is provided near its circumference with a series of holes through which is strung an equalizing-cord similar to that already described in connection with the angle-turner. This device is adapted to support the wire as it leaves the tube and to retain it in proper position. This centering device is also provided with a screw-thread adapted to be turned on and secured to the terminus of the tube. These three parts—namely, the angle-hanger, the tube or

conduit, and the centering device—constitute a simple and effective means for producing the results sought for, which is the provision in a single instrument of a device for leading a taut wire through a building and in centering it or turning it in any desired direction. Another important feature in this combination is the office performed by the tube in retaining the angle-hanger and centering device against the great strain or pull often put upon them. As the tube passes through and is secured to the wall, it is adapted to sustain a considerable amount of strain.

Referring to the accompanying drawings, Figure 1 represents a sectional elevation of the conduit and an angle-hanger, showing a telephone attached to one end of the tube. Fig. 2 is a perspective view of similar parts, showing a centering device substituted for an angle-hanger. Fig. 3 represents the angle-hanger, conduit, and centering device combined, and also one manner of employing a telephone in this connection. Fig. 4 shows end and side views of a modified form of the angle-hanger. Fig. 5 is another modification of the angle-hanger. Fig. 6 represents an enlarged view of the ring-shaped angle-hanger, showing the metallic suspending-hooks employed in connection with the sliding cord for the purpose of insulating the wire. Figs. 6<sup>a</sup> and 6<sup>b</sup> are detail views.

A represents a pipe or tube (an ordinary gas-pipe answers the purpose very well) provided at the ends with a screw-thread, as shown in Fig. 1. This pipe or tube is set into and extends through the wall or partition of a building. The ring-shaped or circular angle-hanger B is provided with a stud, *b*, in which there is an interior screw-threaded portion, as shown in Fig. 1. This is screwed on the exterior thread on the end of the pipe A. This arrangement affords an economical and substantial means for securing the angle-hanger to the wall and centering it. As there is always a very considerable amount of pulling and straining on the wire by reason of its being held taut, it is necessary to provide a very strong fastening device for securing the angle-hanger. It has been found by repeated experiments that the device shown and described is admirably adapted to fill this purpose. A telephone transmitter or receiver, C, such as



shown and described by me in former applications, is shown in Fig. 1 as attached to the inner end of the pipe A. The line-wire D passes from the telephone C through the pipe A, and is received as it leaves the pipe by the loops of the cord E. This cord extends through the openings of the ring-shaped hanger B, and is suitably secured at the proper places. By reason of this sliding cord the line-wire may be automatically adjusted, as any tendency to draw in either direction will merely result in the slipping of the wire through the loops of the cord.

In Fig. 2 I have shown a centering device, F, for the line-wire. It preferably consists of a cup or shell, *f*, which is perforated near its margin, and a single cord which is looped first over the line-wire and then through the successive perforations in said cup until said line-wire is confined by the radiating loops, as represented in Fig. 2. This device is employed where it is desired to lead the wire directly from or into a building. It performs the office, also, of keeping the wire centrally within the tube.

In Fig. 3 both the angle-hanger and the centering device are shown—one at each end of the tube. Here the line-wire is led downward to the telephone-instrument C, the turn in the wire being effected by means of the circular angle-hanger B. A bracket, *c*, may be employed to support the telephone. Arranged opposite the outer surface of the diaphragm of the telephone is a chamber, G, having an extension or tube, G'. At the further end of this tube is a mouth or ear piece, *g*, provided with a cap having a reed or whistle, *g'*, for calling or signaling. The nature and use of this means of signaling are described and claimed in another application of mine of even date herewith, the chamber and tube G G' being shown and described in my former application, Serial No. 124,807, filed March 19, 1884.

Fig. 4 shows a modification of the circular angle-turner, in this case being divided in half, but joined together at the base, where the stud is placed. Fig. 5 is another modification, which is convenient in special cases. In this form the stud *b* becomes the binding-ring of the radiating arms B'.

Fig. 6 represents my metallic suspending-hooks H, set in the loops of the cord in which rests the line-wire. By means of these hooks I obviate any bad effects of the cord coming in contact with the wire, and they form what may properly be called "insulators." Figs.

6<sup>a</sup> and 6<sup>b</sup> are different forms of this hook, though the former is the preferred shape.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. In an acoustic or mechanical telephone, a pipe or tube adapted for use as a conduit for the line-wire, in combination with an angle-hanger attached to said pipe, as and for the purpose set forth.

2. In an acoustic or mechanical telephone, the combination of the pipe or tube adapted to form a conduit for the line-wire, and provided with a screw-threaded portion at the end, and the angle-hanger screwed onto the said pipe in such a manner that it may be centered relatively to the wall, as set forth.

3. In an acoustic or mechanical telephone, the combination of the pipe or conduit for the wire, and the centering device F, screwed thereto, as and for the purpose set forth.

4. In an acoustic or mechanical telephone, the combination of the pipe forming a conduit for the wire, the angle-hanger attached to one end of the pipe, and the centering device at the other end, as shown and described.

5. In an acoustic or mechanical telephone, the combination of the conduit for the wire, and the angle-hanger attached to said conduit, consisting of radial arms, substantially as described, and a cord looped between said arms for retaining the wire, as set forth.

6. In an acoustic or mechanical telephone, the combination of the conduit having at one end an angle-hanger provided with an equalizing-cord, and the centering device at the other end, substantially as shown and described.

7. In a mechanical or acoustic telephone, the combination of the conduit A, the angle-hanger, the line-wire D, and the telephone-instrument C, as shown and described.

8. In an acoustic or mechanical telephone, the combination of the conduit A, the line-wire D, the angle-hanger, the cord E, and the hooks H, as set forth.

9. The combination of the telephone C, the angle-hanger, the conduit A, the centering device F, and the line-wire, as set forth.

10. A centering device for line-wires, consisting of a perforated shell, and a cord looped alternately over said line-wire and through the perforations of the shell, as set forth.

HENRY SELIGMAN.

Witnesses:

H. S. KNIGHT,  
VICTOR A. LEWIS.