

No. 671,800.

Patented Apr. 9, 1901.

N. JENSEN.  
POLYPHONE ATTACHMENT.  
(Application filed Sept. 14, 1900.)

(No Model.)

Fig. 1.

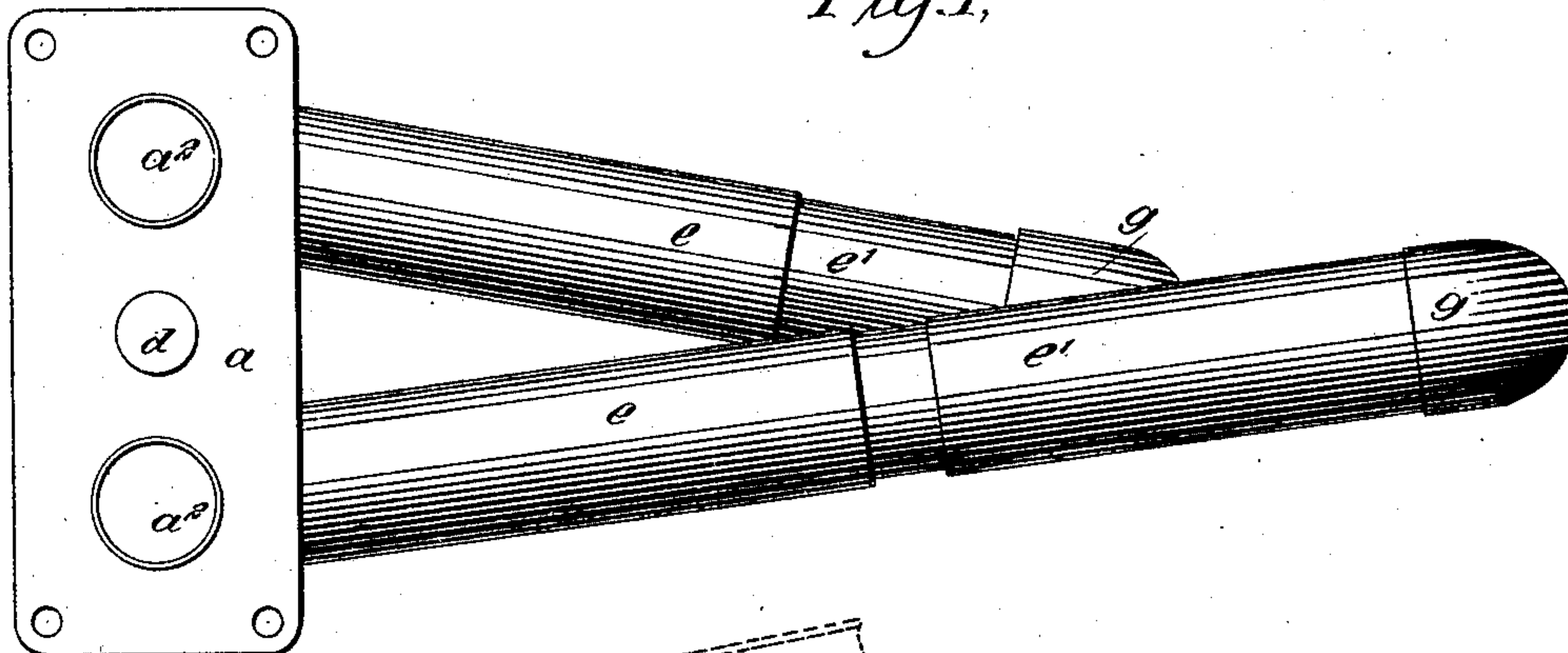


Fig. 2.

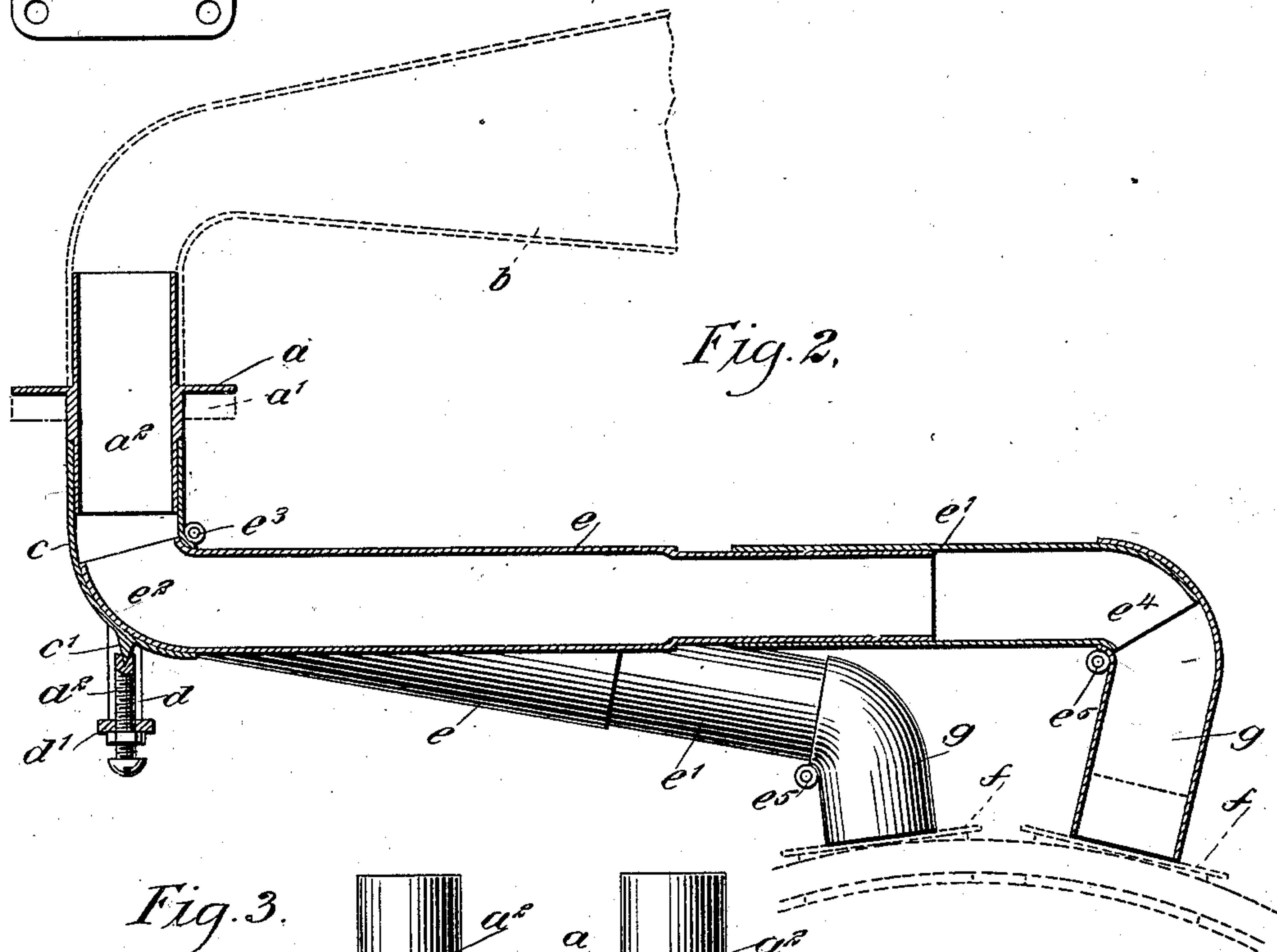
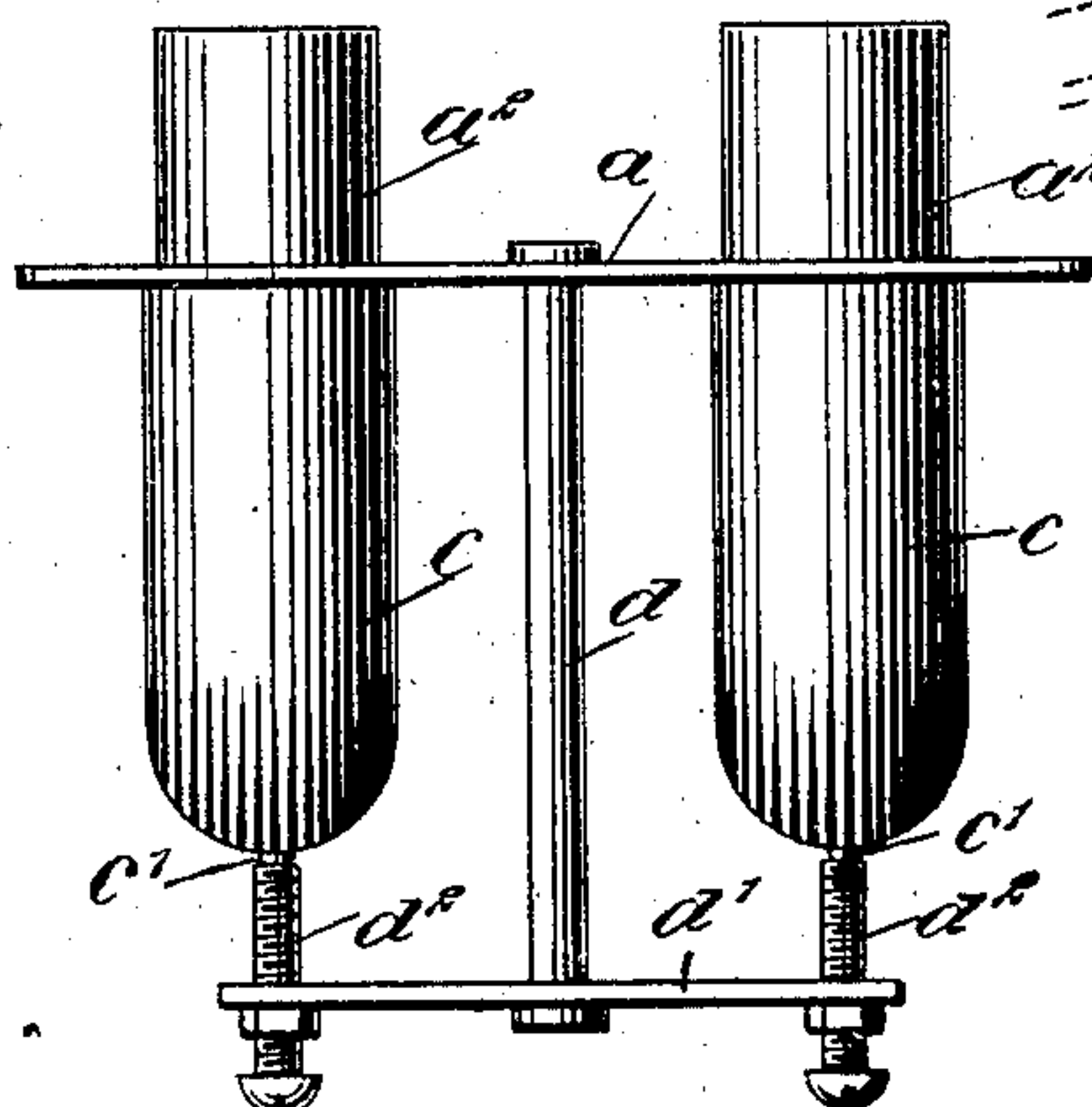


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## POLYPHONE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 671,800, dated April 9, 1901.

Application filed September 14, 1900. Serial No. 30,006. (No model.)

*To all whom it may concern:*

Be it known that I, NEWMAN JENSEN, a citizen of the United States, and a resident of Eureka, in the county of Humboldt and State of California, have invented a new and Improved Polyphone Attachment, of which the following is a full, clear, and exact description.

This invention relates to certain improvements in means for conveying the sound-waves from the reproducers of polyphone and other sound-reproducing apparatus to the horns, to which end the invention consists in certain peculiar features of construction and arrangements of parts, which will be fully described hereinafter and defined in the claims.

This specification is the disclosure of one form of the invention, while the claims define the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a plan view of the invention. Fig. 2 is a sectional elevation indicating the position of the invention with respect to the adjacent device, and Fig. 3 is a rear elevation of the invention.

A main or body portion in the form of a plate  $a$  is provided, which is adapted to be fastened to any suitable stationary support, (indicated by the dotted lines  $a'$  in Fig. 2.) This plate  $a$  has two tubes  $a^2$  passing there-through. These tubes are here shown as integral with the plate  $a$ , and this is a preferred construction. It is obvious, however, that the tubes  $a^2$  could be made separate from the plate  $a$  and fastened thereto. The tubes  $a^2$  carry the horns at their upper ends, as indicated by the dotted lines  $b$  in Fig. 2. The lower end of each tube  $a^2$  has an elbow-tube  $c$  fitted loosely thereon, so as to be capable of turning around the tube. These elbows  $c$  are supported by a rod  $d$ , suspended from the plate  $a$ , which rod carries at its lower end a cross-piece  $d'$ , the ends of which receive screws  $d^2$ , standing vertically and having their upper ends formed with recesses, in which are pivotally fitted projections  $c'$  on the elbows  $c$ . The screws  $d^2$  and the projections  $c'$  of each elbow-tube  $c$  are arranged coinci-

dent with the longitudinal axis of the corresponding tube  $a^2$ , so as to sustain the elbow-tubes  $c$ , permitting them to turn freely around such axis. To each elbow-tube  $c$  is connected a telescopic tube comprising sections  $e$  and  $e'$ , the section  $e$  being adjacent to the elbow  $c$  and having an elbow-like end  $e^2$  thereon, which fits into the elbow  $c$  and is joined thereto by a pivot  $e^3$ , thus enabling the telescopic tube  $e e'$  to swing on the elbow  $c$ , it being understood that the end  $e^2$  and the elbow  $c$  are projected past each other, so that the telescopic tube may swing freely around the hinge  $e^3$  without breaking the contiguity of the sound-conduit formed by the parts  $c$  and  $e$ .

The reproducers of the polyphone (indicated by the dotted lines  $f$  in Fig. 2) are respectively connected with elbow-tubes  $g$ , the upper or elbowed ends thereof respectively receiving the elbowed ends  $e^4$  of the sections  $e'$  of the telescopic tubes, the parts  $g$  and  $e'$  being joined to each other by hinges or pivots  $e^5$ , similar to the pivots  $e^3$ , hereinbefore referred to. This connection between the parts  $e'$  and  $g$  is similar to that between the parts  $e$  and  $c$ , it being understood that the positions of the pivots  $e^5$  and  $e^3$  are reversed, or, in other words, the elbows  $c$  project up from the telescopic tube and the elbows  $g$  project down therefrom.

By this construction a continuous and unbroken sound-conduit is formed from the reproducers to the horns, and, further, the reproducers are permitted to move freely over the record, the various parts  $c$ ,  $e$ ,  $e'$ , and  $g$  permitting this free movement of the reproducers without interfering with the contiguity of the sound-conduit formed by the said parts. The parts  $e$ ,  $e'$ , and  $g$  may swing with the elbows  $c$  around the axes of the screws  $d^2$ . The sections  $e'$  of the telescopic tubes and the elbows  $g$  may have turning movement around the axes of the sections  $e$  of the telescopic tubes, and, lastly, the elbows  $g$  may move on the ends  $e^4$  of the sections  $e'$  and the telescopic tubes, with the elbows  $g$ , may swing independently on the elbows  $c$ .

Having thus described my invention, I claim as new and desire to secure by Letters Patent—



1. An attachment for polyphone or other sound-reproducing apparatus, comprising a telescopic tube, and an elbow-tube at each end of the telescopic tube, the elbow-tubes being hingedly mounted on the telescopic tube and the telescopic tube having elbowed portions respectively working with the elbow-tubes.

2. An attachment for polyphones or other sound-reproducing apparatus, comprising two tubes having elbowed portions fitting loosely the one within the other, such tubes being hingedly or pivotally connected to permit their adjustment, for the purpose specified.

3. An attachment for polyphones or other sound-reproducing apparatus, comprising a stationary tube, an elbow-tube arranged to turn around the same, a supporting device for the elbow-tube, such device comprising a pivot-bearing coincident with the axis of the turning of the elbow-tube, and an additional tube having connection with the elbow-tube.

4. An attachment for polyphone or other sound-reproducing apparatus, having an elbow-tube mounted to turn, a supporting device for the elbow-tube, comprising a pivot coincident with the axis of the turning of the

elbow-tube, and an additional tube in communication with the elbow-tube.

5. An attachment for polyphone or other sound-reproducing apparatus, comprising a stationary tube adapted to have connection with a member from which the sound is emitted to the atmosphere, an elbow-tube arranged to turn around the stationary tube, a supporting device for the elbow-tube, such supporting device comprising a pivot-bearing coincident with the axis of the turning of the elbow-tube, a telescopic tube, one end of which has an elbow working with the said elbow-tube and hingedly connected thereto, and a second elbow-tube hingedly connected with the other end of the telescopic tube, said end of the telescopic tube having an elbow working with the second elbow-tube.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

NEWMAN JENSEN.

Witnesses:

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M. W. HEURIE.