

No. 843,042

PATENTED FEB. 5, 1907.

F. SHEPPY.
SOUND BOX FOR TALKING MACHINES.

APPLICATION FILED DEC. 11, 1905.

Fig. 1.

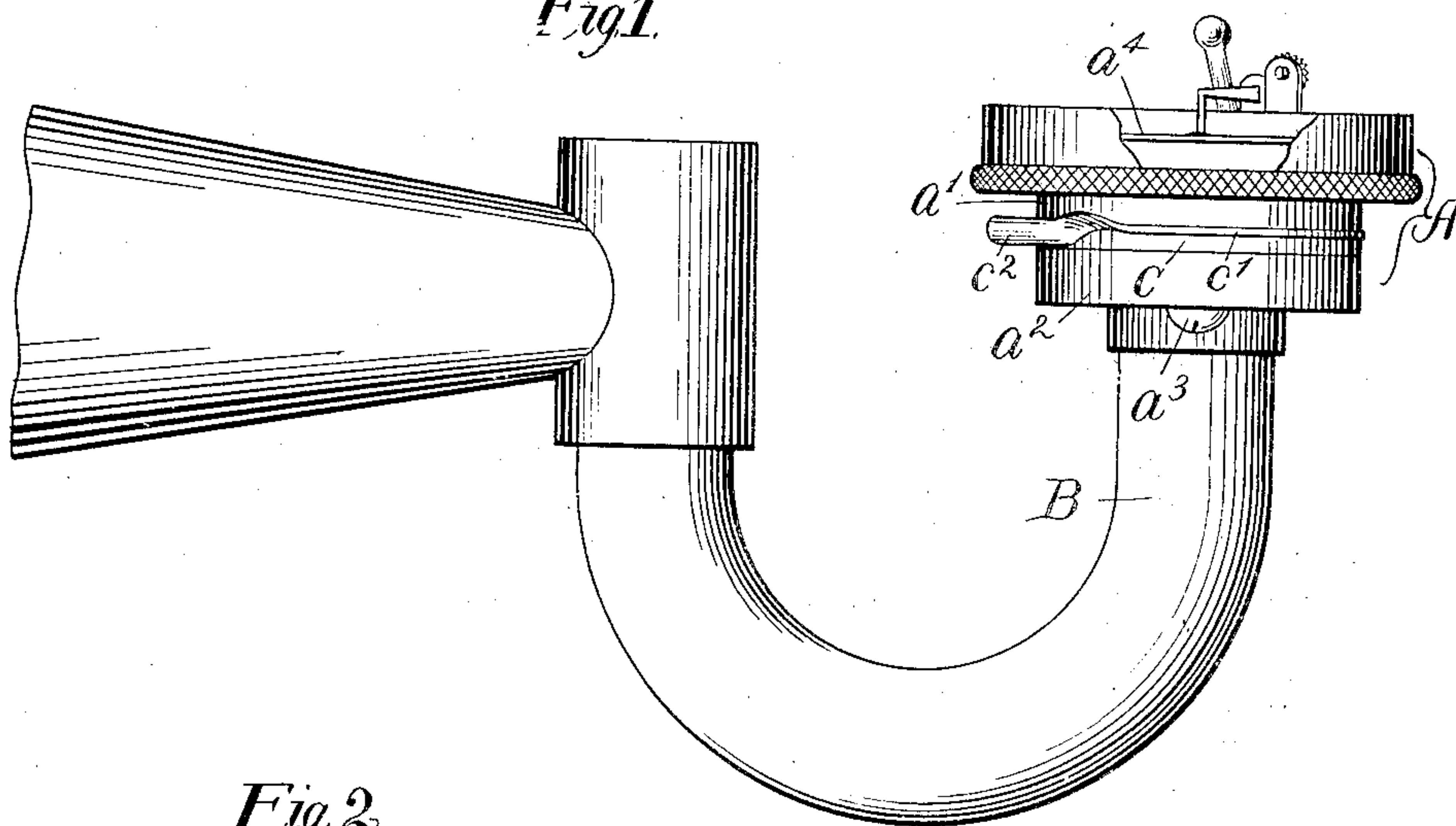


Fig. 2.

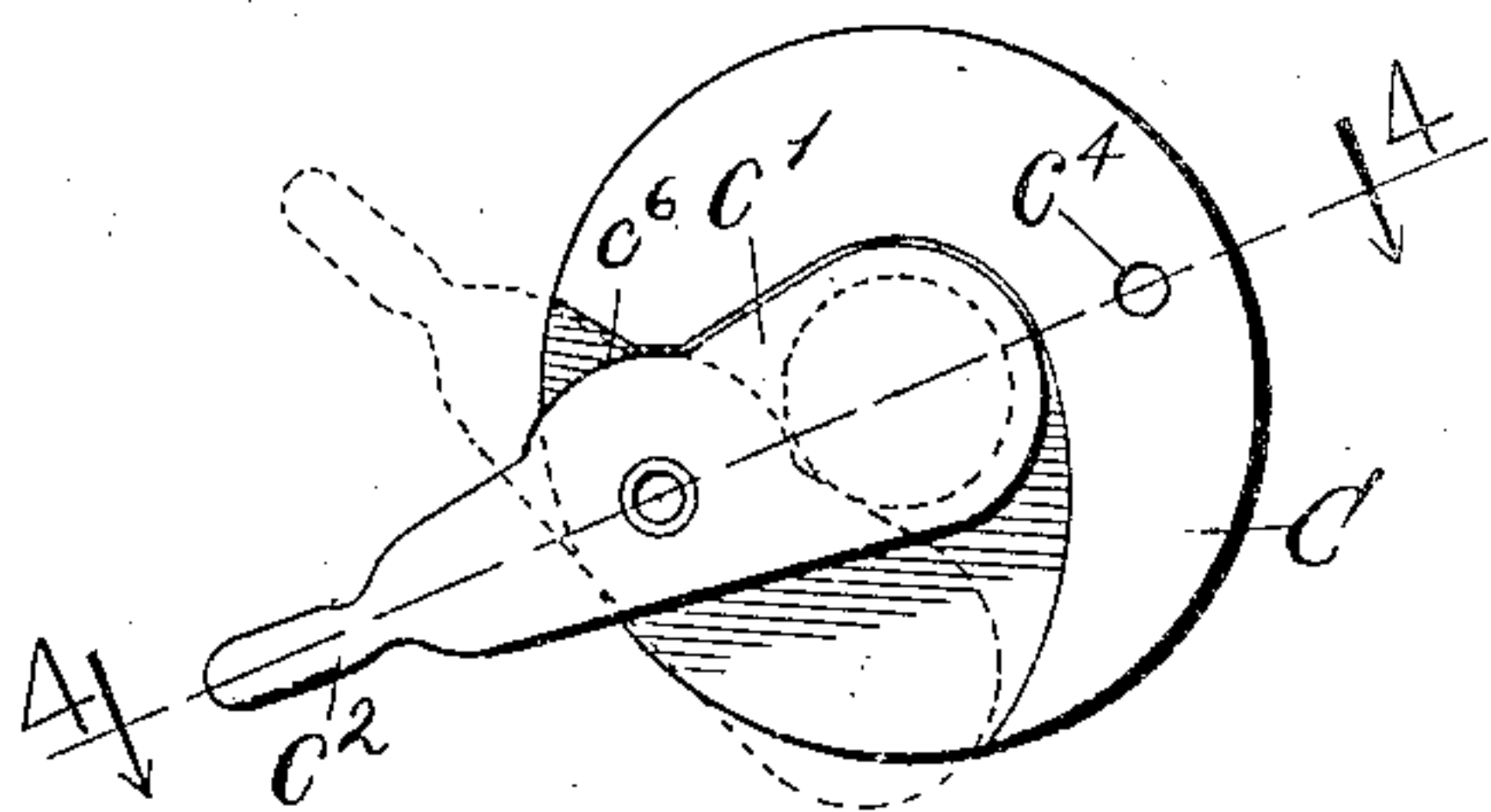


Fig. 3.

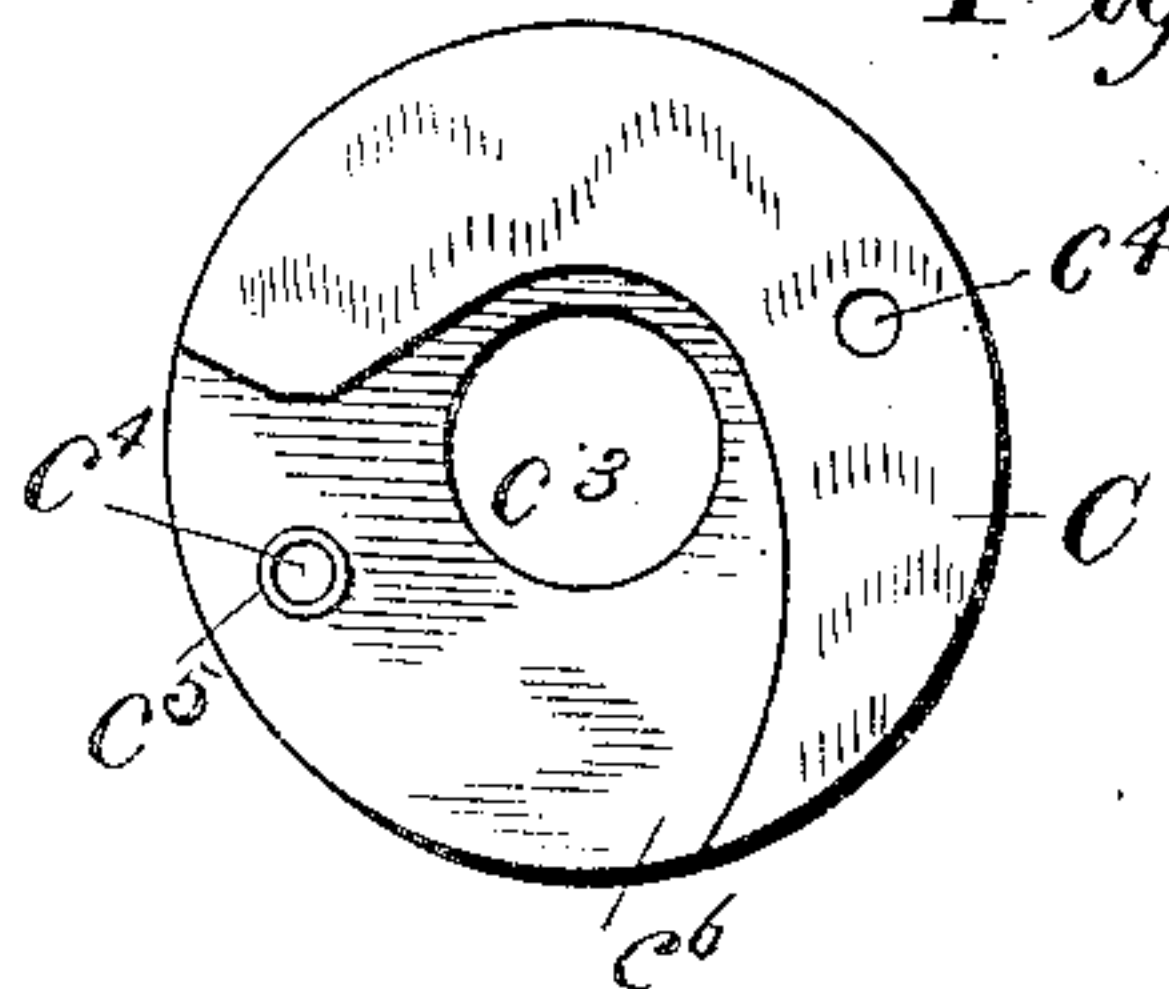
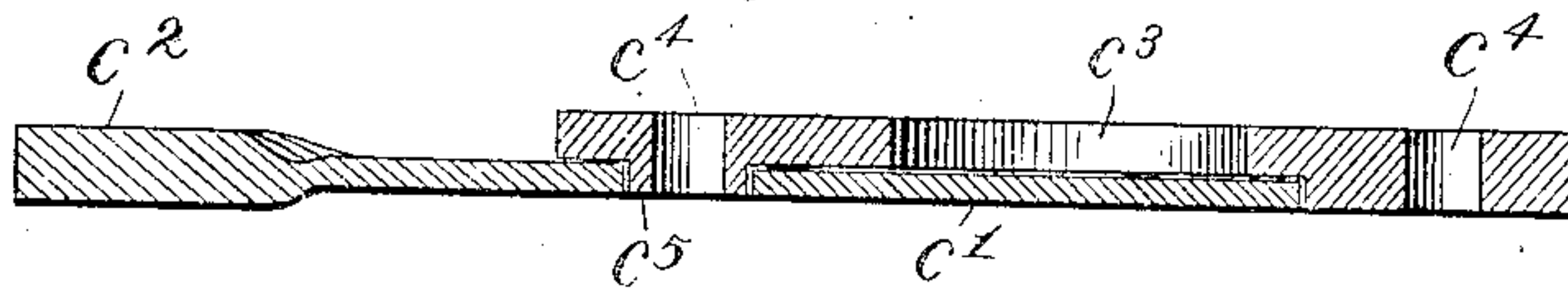


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SOUND-BOX FOR TALKING-MACHINES.

No. 843,042.

Specification of Letters Patent.

Patented Jan. 5, 1907.

Application filed December 11, 1905. Serial No. 291,188.

To all whom it may concern:

Be it known that I, FREDERICK SHEPPY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sound-Boxes for Talking-Machines, of which the following is a specification.

My invention relates to means for controlling the volume of sound produced in the sound-box of a talking-machine, thus giving variety in expression and modifying the tones.

The sounds produced by talking-machines are in many instances too loud for small rooms, causing echoes which mar the distinctness of utterance, and efforts have been made to avoid this difficulty by placing sound-muffling devices in the necks of the horns, which form features of such machines. It has been found that while such devices muffle the tones produced in the sound-box, they also impair the musical quality of the tones, giving them a harsh or metallic character, probably due to the fact that the metallic walls of the horn become in a measure sound-boards against which the sound-waves are projected by the checking or interruption caused by the muffling devices used. In my invention I have avoided this difficulty by modifying the sound-box itself, so that the waves are formed before passing to the neck of the horn.

In the accompanying drawings I have illustrated a preferred adaptation of my invention in the following views:

Figure 1 is a view in elevation of a sound-box, the attached gooseneck, and a portion of the horn, of a well-known form of sound-reproducing machine. Fig. 2 is a plan view of my improved sound-modifying attachment for sound-boxes. Fig. 3 is a plan view of a portion of the device shown in Fig. 2, and Fig. 4 is an enlarged section on the line 4-4 of Fig. 2.

Referring to the details of the drawings, A represents generally the sound-box of a talking-machine, and B the gooseneck, to which the sound-box is secured in any approved manner. In its general form and construction the sound-box is of a well-known type and need not be particularly described, except as to those parts which are modified to provide for my attachment. The box is made of the section in which the diaphragm a^1 is secured and of two concentric rings a^1 , a^2 ,

the inner sides of which form the sound-chamber, which receives the tones directly from the diaphragm. These rings are secured together by screws a^3 , and between them is placed a plate C, which is clamped closely by the opposing faces of the rings. In the center of the plate is formed an opening c^3 , and on opposite sides of the central opening are screw-holes c^4 , through which the screws a^3 pass. In one of the holes c^4 a collar c^5 is secured, which forms a tubular bearing for the pivotally-mounted shutter c^1 . This shutter is mounted in the countersunk portion c^6 of the plate C, so that the outer face of the shutter may be flush with the corresponding face of the plate. The inner end of the shutter is adapted to cover the opening c^3 when the shutter is in the position shown in full lines in Fig. 2 and to entirely uncover same when in the position shown by dotted lines in said figure. Between these two extreme positions the shutter may be moved to cover or uncover any portion of the area of said opening. The shutter is formed with a projecting neck, as c^2 , at its outer end, which is adapted to be grasped by the fingers of the person operating the machine. The opposed faces of the plate C and the ring a^1 hold the shutter in close frictional engagement with the face of the plate C, so that no matter what adjustment of the shutter is made friction alone will be sufficient to hold it in position until moved by hand.

By placing the shutter in close proximity to the diaphragm and within the walls of the sound-box it will be apparent that the sound-waves are affected almost at their inception, and it is to this condition that the great utility of my invention is due.

Having thus described my invention, what I claim is—

1. In a phonographic sound-box comprising a diaphragm and a sound-chamber, a plate secured in said box and extending across said chamber, said plate having an opening therein for the passage of sound-waves, a shutter pivotally mounted on said plate, and adapted to be adjusted edgewise to control the opening in said plate, and having a grasping portion extending beyond said sound-box.

2. In a phonographic sound-box comprising a diaphragm and a sound-chamber, a plate secured in said box and extending across said chamber adjacent to the diaphragm, said plate having an opening there-

in for the passage of sound-waves, and a recessed portion in one of its faces, a shutter pivotally mounted in the recess of said plate and adapted to be adjusted edgewise to control the opening in said plate, and having an extension projecting from the sides of said sound-box.

3. In a phonographic sound-box comprising a diaphragm and a sound-chamber, a plate secured in said sound-box and having an opening therein for the passage of sound-waves, a shutter pivoted on said plate at the upper side of said sound-box and adapted to be moved edgewise to control the opening in said plate, said shutter having a grasping portion extending beyond the upper side of said sound-box.

4. In a phonographic sound-box comprising a diaphragm and a sound-chamber, a plate secured to said sound-box and extending transversely of said chamber, said plate having a sound passage-way therein and a recessed portion, a shutter pivoted on said

recessed portion of plate and adapted to be moved edgewise to control the opening in said plate, said shutter having a grasping portion projecting beyond the sound-box, and said plate adapted to limit the pivotal movements of said shutter.

5. In a phonographic sound-box comprising a diaphragm, a sound-chamber and a sound passage-way, a shutter adjustably pivoted in said sound-box at a point eccentric to said passage-way, said shutter adapted to control the sound passage-way and to be held in its adjusted positions by frictional engagement with portions of the sound-box, means for adjusting said shutter and means for limiting the pivotal movements of the shutter.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK SHEPPY.

Witnesses:

F. BENJAMIN,
DENNIS K. LINDHOUT.