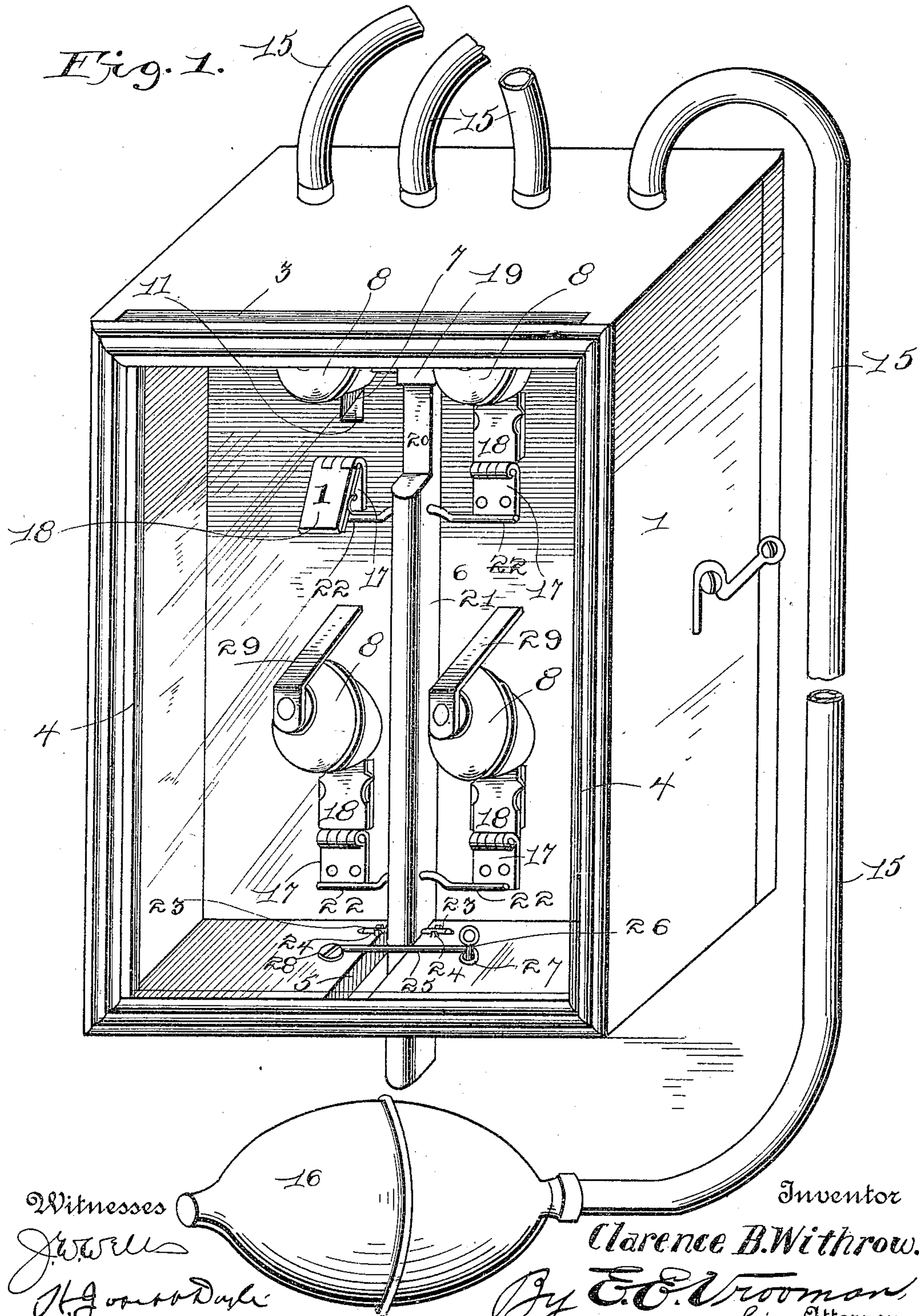


C. B. WITHROW.
PNEUMATIC ANNUNCIATOR AND INDICATOR.
APPLICATION FILED JUNE 25, 1909.

961,055.

Patented June 7, 1910.

2 SHEETS—SHEET 1.



C. B. WITHROW.
PNEUMATIC ANNUNCIATOR AND INDICATOR.
APPLICATION FILED JUNE 25, 1909.

961,055.

Patented June 7, 1910.

2 SHEETS—SHEET 2.

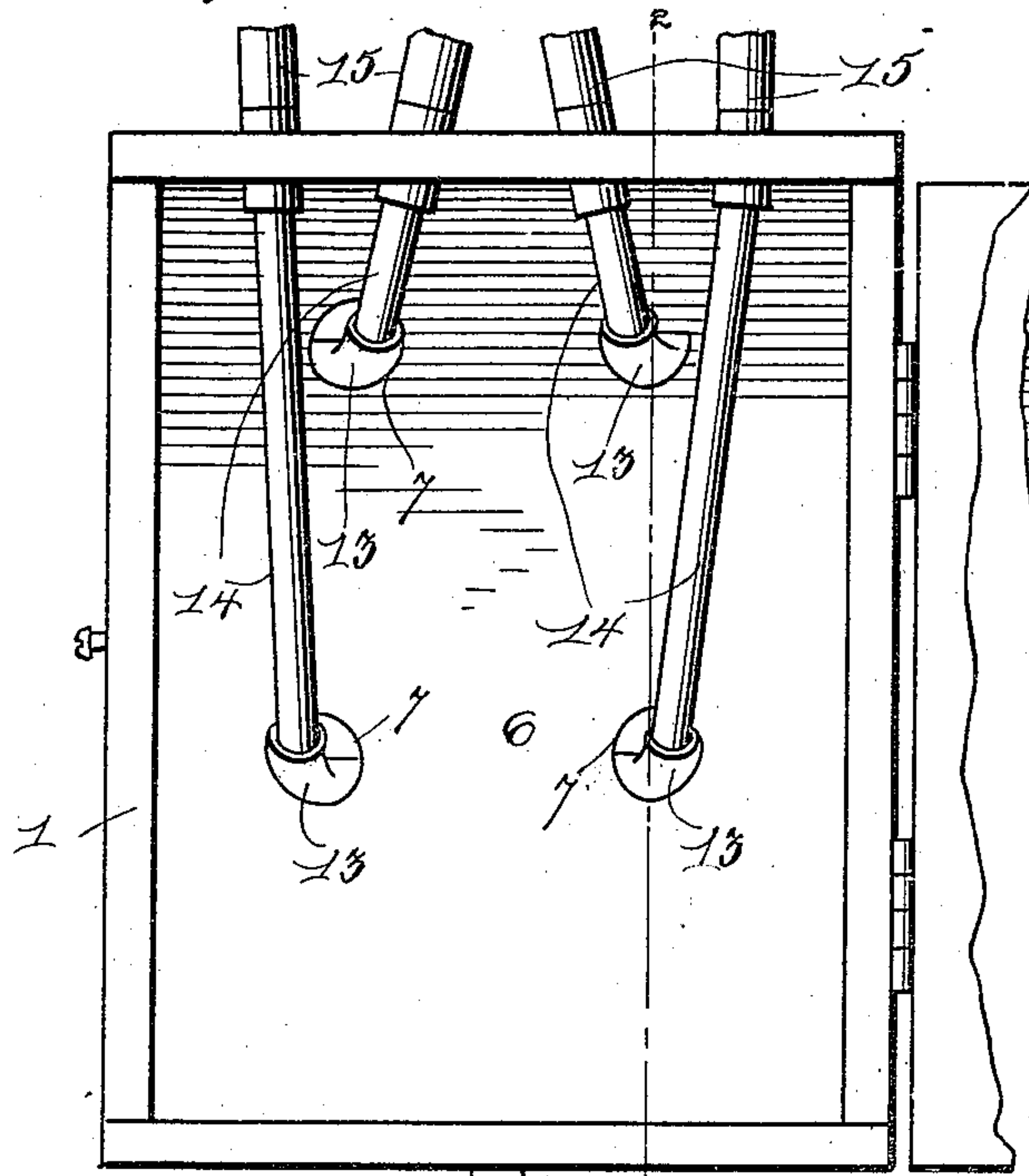


Fig. 4.

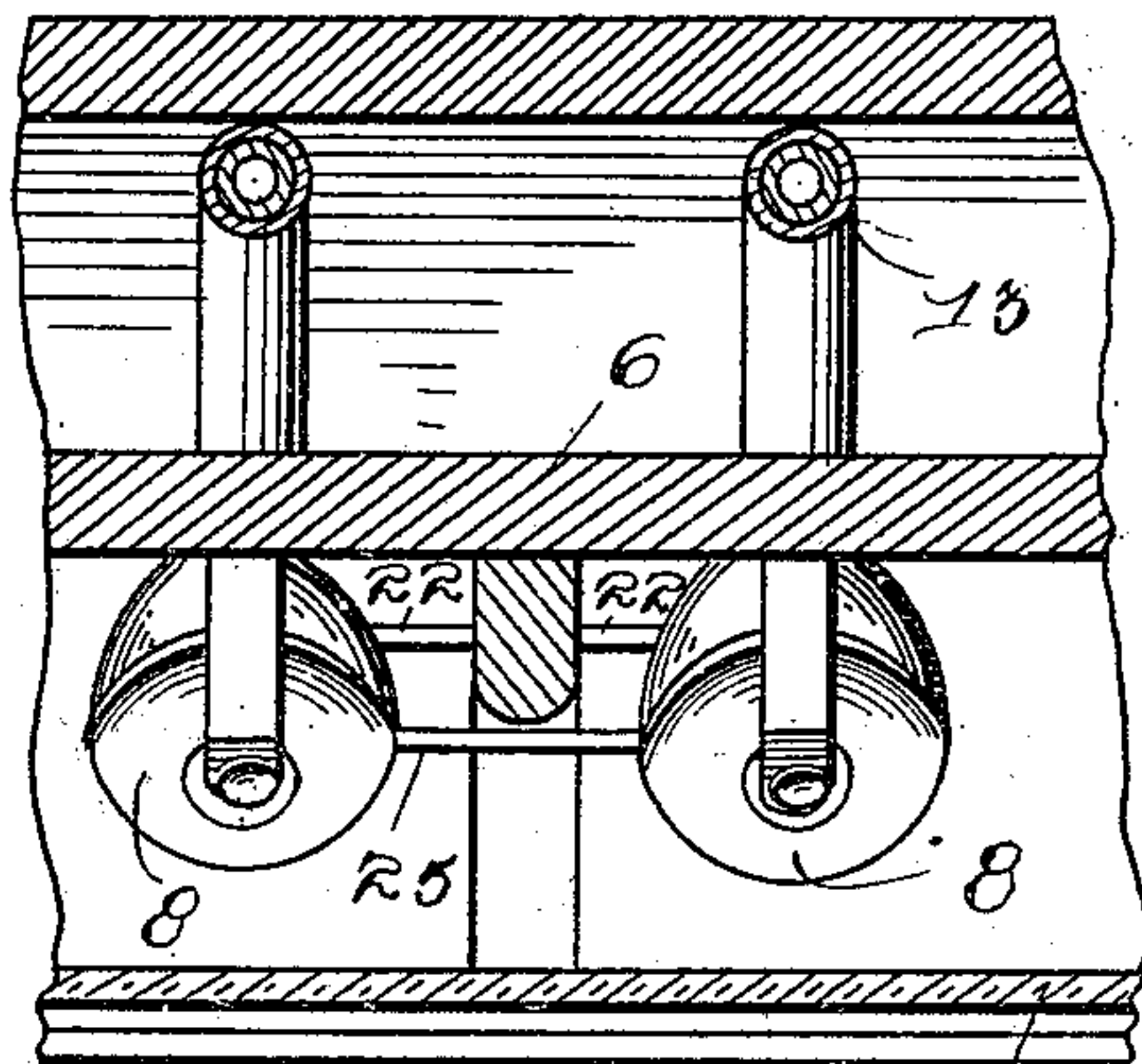


Fig. 3.

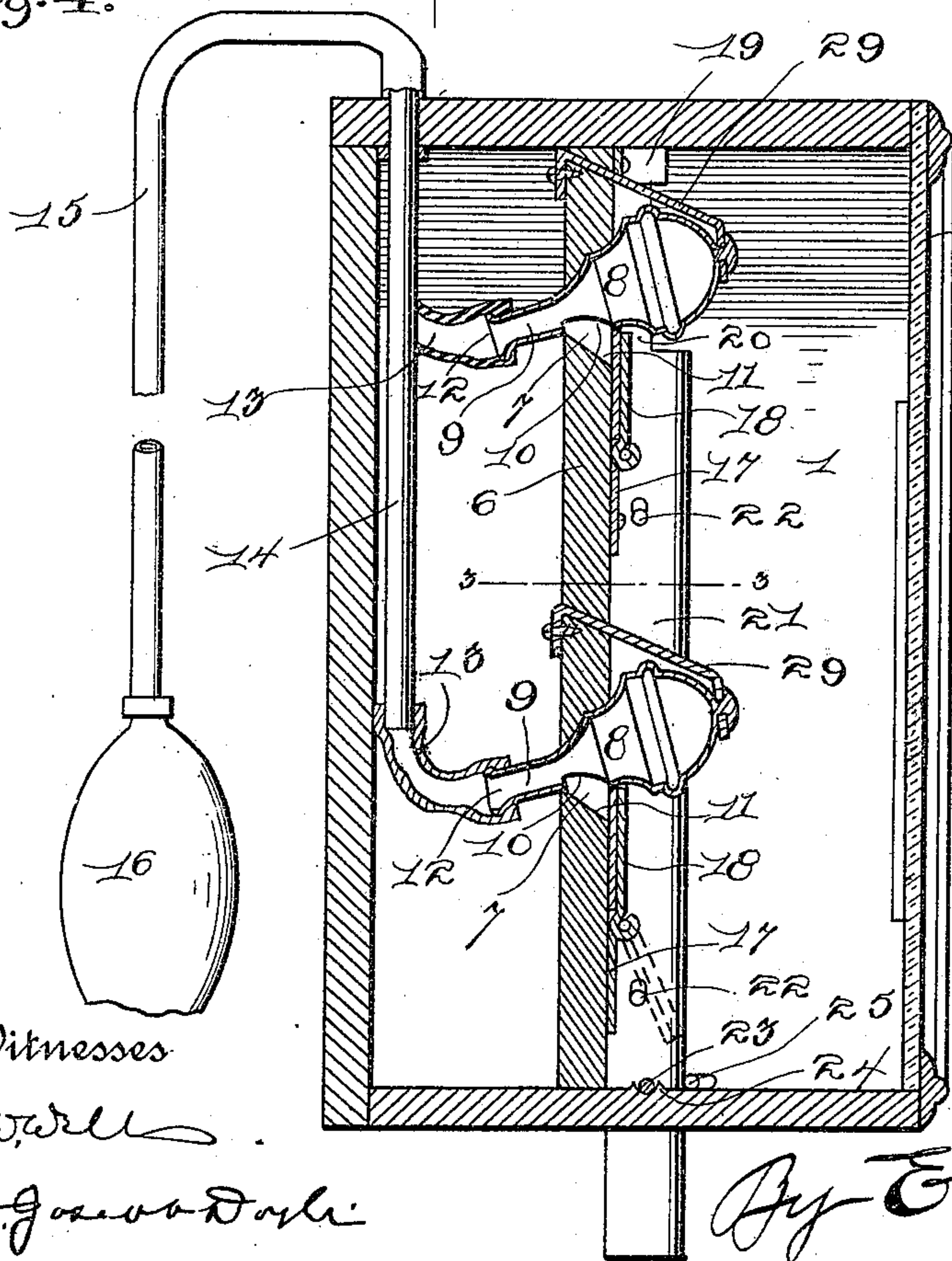


Fig. 2.

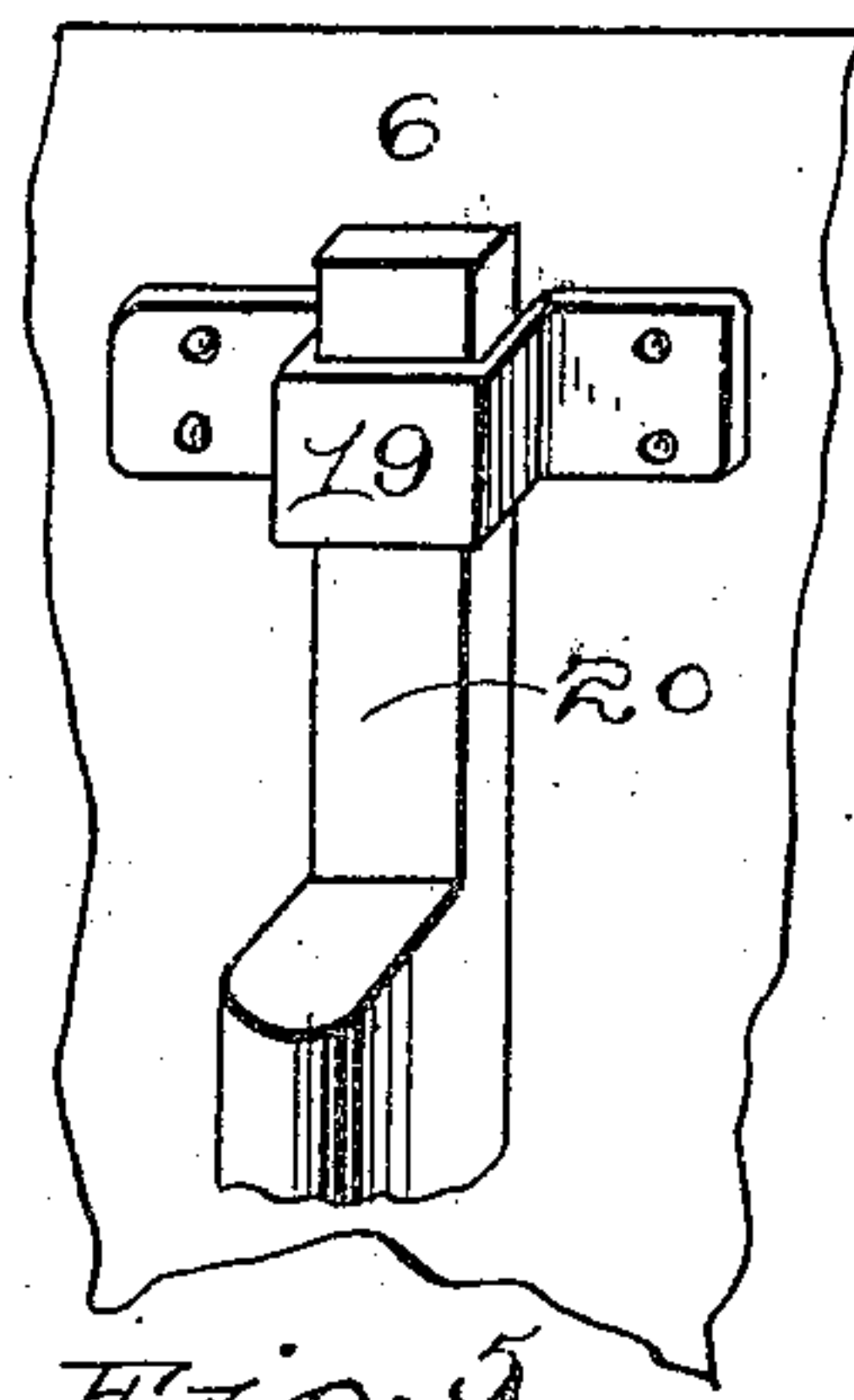


Fig. 5.

Witnesses
J. J. Wells
H. J. G. van Dore

Inventor
Clarence B. Withrow.

By *E. E. Vrooman*,
his Attorney.

UNITED STATES PATENT OFFICE.

CLARENCE B. WITHROW, OF DENVER, COLORADO.

PNEUMATIC ANNUNCIATOR AND INDICATOR.

961,055.

Specification of Letters Patent.

Patented June 7, 1910.

Application filed June 25, 1909. Serial No. 504,294.

To all whom it may concern:

Be it known that I, CLARENCE B. WITHROW, a citizen of the United States of America, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Pneumatic Annunciators and Indicators, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to pneumatic annunciators, and the principal object of the same is to provide a device of the character described in which whistles are used to sound a signal, the exhaust from the whistles actuating an indicator to designate where the call or signal came from.

In carrying out the objects of the invention generally stated above, it will, of course, be understood that the essential features of the same are susceptible of changes in details and structural arrangements, one preferred and practical embodiment of the same being shown in the accompanying drawings, wherein—

Figure 1 is a perspective view of the improved annunciator. Fig. 2 is a vertical sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a detail transverse sectional view taken on the line 3—3, Fig. 2. Fig. 4 is an end view of the annunciator, the door therefor being shown in an open position. Fig. 5 is a detail perspective view of the upper end of a setting rod for the drop plates of the annunciator.

Referring to said drawings by numerals, 1 designates the body of the annunciator, the front of which is open for inspection through the use of a glass plate 2. Said plate 2 is removably mounted in the open front of the annunciator through a slot 3 formed in the top of the body, and is retained in position across said open front by means of the side guides 4. The bottom of the body at its front portion is provided with a slot 5, and adjacent the inner end of said slot, the interior of the body is divided by means of a vertical partition plate 6 which forms the annunciator board or wall. The partition plate 6 is provided with a plurality of openings 7 which are regularly spaced apart, and through each opening 7 a whistle 8 projects, the enlarged head of the whistles being arranged on the front side of said partition plate and their contracted neck 9 project beyond the rear side of the

plate, the arrangement being such that the discharge or exhaust outlet 10 of the whistles will discharge onto the inclined bottom 11 of the openings. The outer ends of the necks of the whistles are flared as indicated at 12 so as to have an air-tight engagement with one end of a flexible elbow or coupling 13 the other end of which connects with a tube 14 projecting through the top of the body. Said tubes 14 also project a slight distance above the top and have a connection with an air tube 15 the distant end of which is equipped with a bulb or other air-forcing device 16.

A hinge leaf 17 is rigidly fastened to the partition plate 6 below each opening 7 formed therein, said leaf having hinged to its upper end a drop plate 18 the inner face of which is provided with a numeral, letter, or other symbol. As is shown in Fig. 2, the drop plates 18 are of such a length that when in a raised position, their upper end will project across the bottom of the openings 7 so as to be in the path of movement of the air expelled through the outlet 10 of the whistles and thereby thrown to a lowered position and display the numeral on their rear face, as is shown in Fig. 1.

The partition plate 6 at the center of its upper portion of its front face carries a guiding loop 19 which surrounds the upper reduced end 20 of a vertically disposed setting rod or bar 21 the lower end of which projects through and beyond the slot 3 formed in the bottom of the body. Said rod or bar has arms 22 projecting from opposite sides and which extend across the hinge plates or leaves 17, so that when the drop plates are thrown to their lowered position, they will fall across said arms. As will be obvious, the rod or bar 21 is slidable, and its lower portion is provided with outstanding laterally projecting pins or lugs 23 which engage with spaced apart upstanding lugs 24 carried by the bottom of the body to limit the downward movement of said rod or bar. A rod or latch 25 extends across the said slot 3 in front of the rod or bar 21, one end of said latch carrying a pin 26 which engages with an opening 27 formed in the bottom of the body. The other end of said latch connects with a pivot bolt 28, by means of which the latch may be removed from in front of the bar 21 when it is desired or necessary to re-

The whistles are held to their openings 7

by means of angle plates 29 projecting from the front of the division plate 6 and which connect with the heads of said whistles.

The present invention is equally adapted
5 for signaling from rooms to a central office, or for elevator service, or in fact for use in any connection where it is necessary to signal from a distant point to a central point, and while in the accompanying drawings
10 the air forcing means has been shown as a compressible hand bulb, it will of course be understood that other types of air-forcing devices may be employed, the principal object in view being to provide means for
15 sounding a whistle or other pneumatic signal and utilize the exhaust therefrom to display a visible signal.

It will be understood from the foregoing that when a bulb is actuated, one of the
20 whistles will be sounded, and the exhaust therefrom will cause a plate to drop. After the character on the plate has been seen, the said plate may be restored to its original position by an upward movement of the setting bar 21.
25

What I claim as my invention is:—

1. A device of the character described, comprising an annunciator board having a number of transverse openings, a number of
30 pneumatically operated whistles mounted in said openings, each of said whistles having a lateral opening in its rear portion, and forming with the opening in the board an air discharge passageway to the front of the
35 partition, annunciator drop plates, each hinged at its lower end to the front of the

board beneath a whistle, and having its upper swinging end normally closing said air discharge passage way and means for sending a current of air to each whistle and simultaneously sounding it, and causing the drop plate to drop beneath the whistle. 40

2. In a device of the character described, an annunciator board having a number of transverse openings, a number of pneumatically operated whistles mounted in said
45 openings, each of said whistles filling a portion of each opening, and having a lateral air discharge opening communicating with an air discharge passage adjacent to and
50 formed by said whistle and the opening in the board, a number of drop indicator plates, each hinged at its lower end to the board beneath a whistle, and having its upper free end normally closing the air discharge opening adjacent to the whistle, means for sending
55 a current of air to each whistle and simultaneously sounding it and causing the drop plate to drop, a vertically slidable rod mounted adjacent to the board, and having
60 lateral arms located below said drop plates and extending across the plates and movable to directly swing said plates backward to closed position over the air discharge openings beneath the whistle. 65

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

CLARENCE B. WITHROW.

Witnesses:

EDW. G. SHAFFER,

CHARLES H. VINTON.