

H. TELLERS.

PIPE ORGAN.

APPLICATION FILED JUNE 25, 1908.

911,918.

Patented Feb. 9, 1909.

2 SHEETS—SHEET 1.

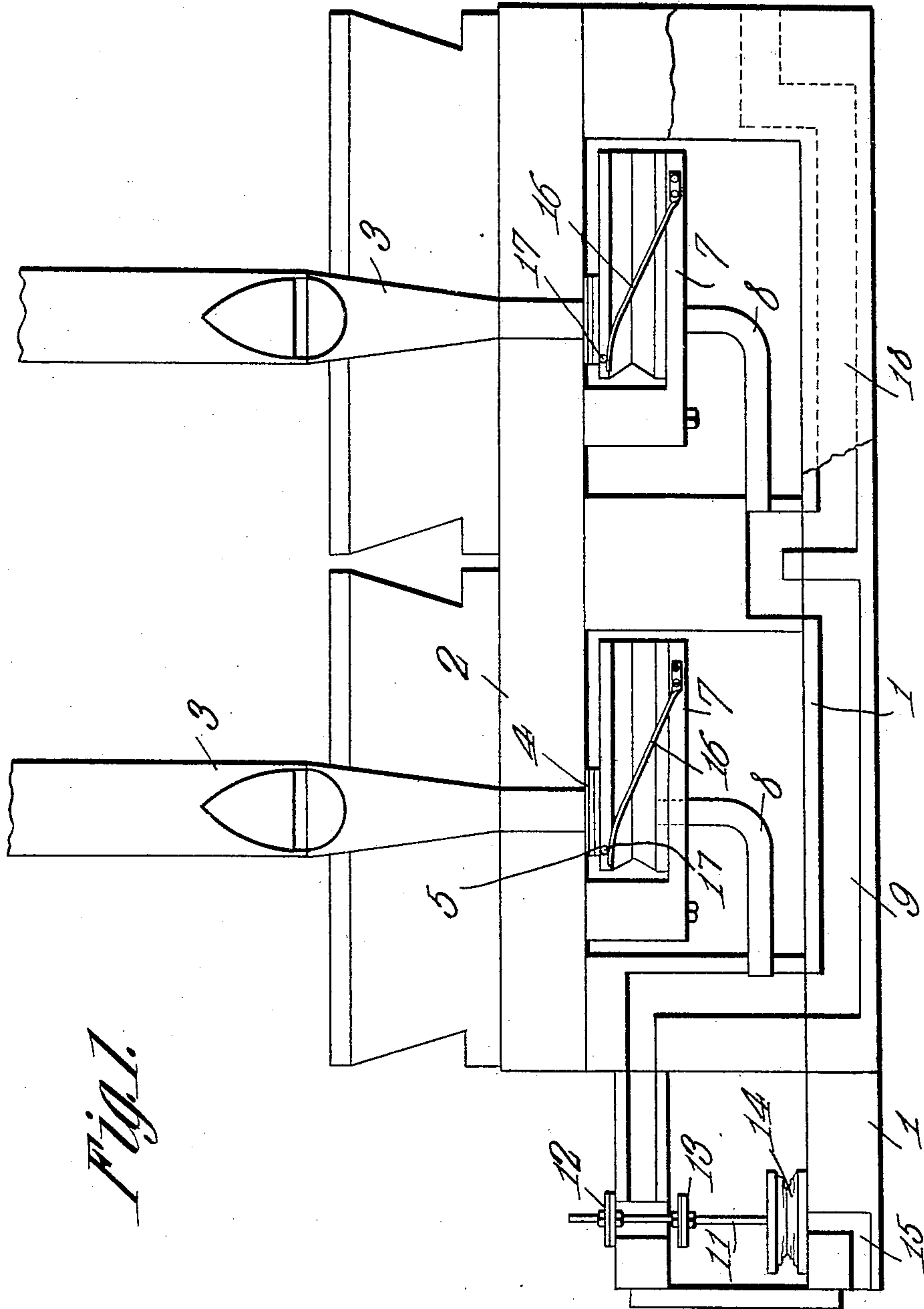


Fig. 1.

Witnesses

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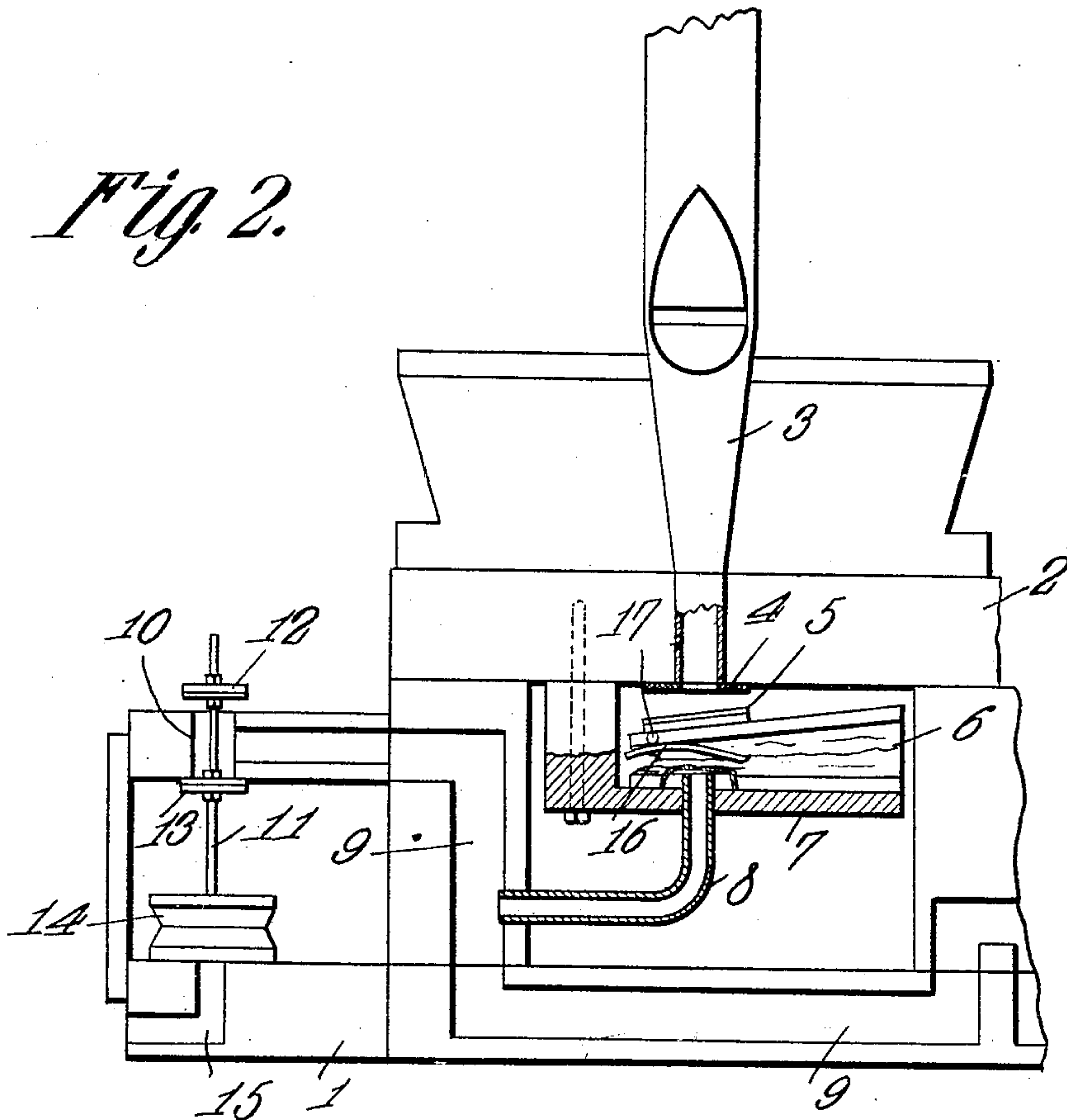
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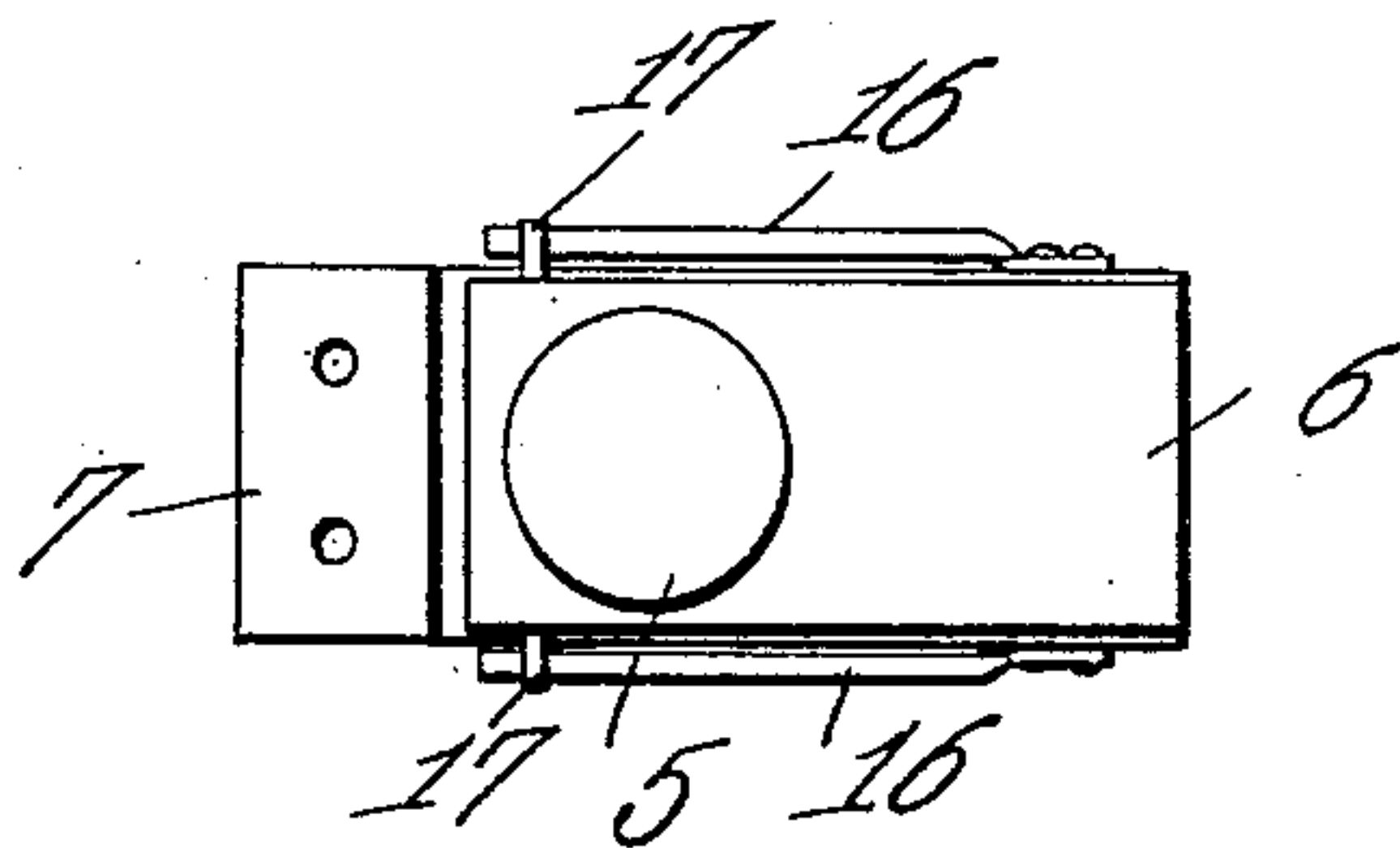
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2 SHEETS—SHEET 2.

*Fig. 2.*



*Fig. 3.*



Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY TELLERS, OF ERIE, PENNSYLVANIA.

## PIPE-ORGAN.

No. 911,918.

Specification of Letters Patent.

Patented Feb. 9, 1909.

Application filed June 25, 1903. Serial No. 440,414.

*To all whom it may concern:*

Be it known that I, HENRY TELLERS, a citizen of the United States, residing at Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Pipe-Organ, of which the following is a specification.

This invention relates to pipe organs and more particularly to improvements in the sound controlling means.

The object of the invention is to provide separate pneumatic means for each of the large pipes of an organ whereby the admission of air to the pipe from the wind chest is under full control of the performer.

A further object is to provide means whereby the necessary grooving or channeling may be reduced to the minimum.

A further object is to provide a valve of novel construction for each pipe, said valve being pneumatically operated in a simple and efficient manner.

With these and other objects in view the invention consists of certain novel features of construction and combinations of parts which will be hereinafter more fully described and pointed out in the claim.

In the accompanying drawings is shown the preferred form of the invention.

In said drawings: Figure 1 is a section through the wind chest of an organ and showing two of the pipes provided with valve mechanism embodying the present improvements, said valves being shown in elevation. Fig. 2 is a similar view of a portion of the wind chest and showing the valve open as when a pipe is being sounded. Fig. 3 is a plan view of one of the valves.

Referring to the figures by characters of reference, 1 designates a wind chest of the usual or any preferred construction and having a pipe board 2 thereon in which the pipes 3 of the organ are set, said pipes opening downward through the pipe board and into the wind chest. A valve seat preferably in the form of a ring 4 surrounds the inlet end of each pipe 3 and is designed to be contacted by a valve disk 5 carried by the upper face of a bellows 6 supported within the wind chest upon a bracket 7. A pipe 8 extends through each bracket 7 and opens into the bellows 6 thereon, said pipe extending through the wind chest and opening into one of the grooves or channels 9 such as ordinarily formed by registering channel portions for the purpose of conveying air.

This channel 9 opens into an air passage 10 in which a valve rod 11 is mounted to reciprocate. This rod has spaced valves 12 and 13 thereon designed to be alternately seated upon the ends of the passage 10 so as to establish communication between the channel 9 and either the exterior atmosphere or the interior of the wind chest. The valve stem 11 is preferably actuated by means of a bellows 14 receiving air through a channel 15, the admission of the air to the bellows being controlled by a key in any preferred manner. Each of the bellows 6 has a lifting spring 16 bearing upwardly upon studs 17 extending laterally from the top portion of the bellows, said spring being secured to the bracket 7 and one spring being arranged at each side of each bellows.

It is of course to be understood that the wind chest 1 is designed to hold air under pressure and when the bellows 14 is collapsed as shown in Fig. 1 the top valve 12 is closed and air under pressure is free to pass from the wind chest through the passage 10 and channel 9 to the pipe 8 communicating with the channel. The pressure of air within the bellows 6 is thus equal to the air pressure within the wind chest in which the bellows is mounted and therefore the spring 16 will be sufficient to extend the bellows 6 and bring the valve 8 in contact with its seat 4. Pipe 3 will thus be held closed as indicated in Fig. 1. When, however, air is directed into the bellows 14 so as to distend it the valves 13 and 12 are shifted. Valve 13 closes communication between the wind chest and the channel 9 while valve 12 opens communication between the channel and the external atmosphere. The air contained within the bellows being thus relieved of pressure will escape through the pipes 8 and channel 9 and be exhausted through the outer end of passage 10. The pressure of the surrounding air within the wind chest will thus cause the bellows 6 to collapse against the stress of spring 16 and a portion of the air within the chest will pass outward through the pipes 3 and sound them. The pipes can be promptly closed simply by again shifting the valves 12 and 13 so that air under pressure will be free to rush from the wind chest into channel 9 and pipes 8 so as to distend the bellows 6 and promptly close the pipes.

It is course to be understood that the channels 9 are formed between grooved or chan-



neled boards as ordinarily, the boards being held together by means of screws or other fastening devices. In the drawings the channels have been shown with their face boards removed although a portion of one of these boards has been shown at 18 in Fig. 1.

In this construction it is possible to supply the wind promptly to the pipes and grooving and channeling is reduced to the minimum. This is due to the fact that the tubes or pipes 8 extend from the channeled boards adjacent the bottom of the wind chest directly to the valve bellows. For the purpose of re-adjusting the parts the channeled boards can be taken off by removing the screws or other fastening devices provided for them and the tubes or pipes 8 can then be lifted from between them.

What is claimed is:  
In an organ the combination with a pipe

and a wind chest opening thereinto, of a bracket supported within the chest, a bellows upon said bracket, a valve carried by the bellows and mounted on one face thereof, means for holding the bellows normally distended to hold the valve upon its seat to close communication with the pipe, an air channel, a pipe connection between said channel and the bellows, said connection being exposed within the wind chest and extending through the bracket and valve mechanism for controlling the movement of air within the channel and the pipe connection between the channel and bellows.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HENRY TELLERS.

Witnesses:

W. A. COMMERHOF,  
WM. RAPP.