

No. 840,303.

PATENTED JAN. 1, 1907.

F. V. CROFUT.
PNEUMATICALLY OPERATED MUSICAL INSTRUMENT.
APPLICATION FILED JULY 23, 1906.

Fig. 1.

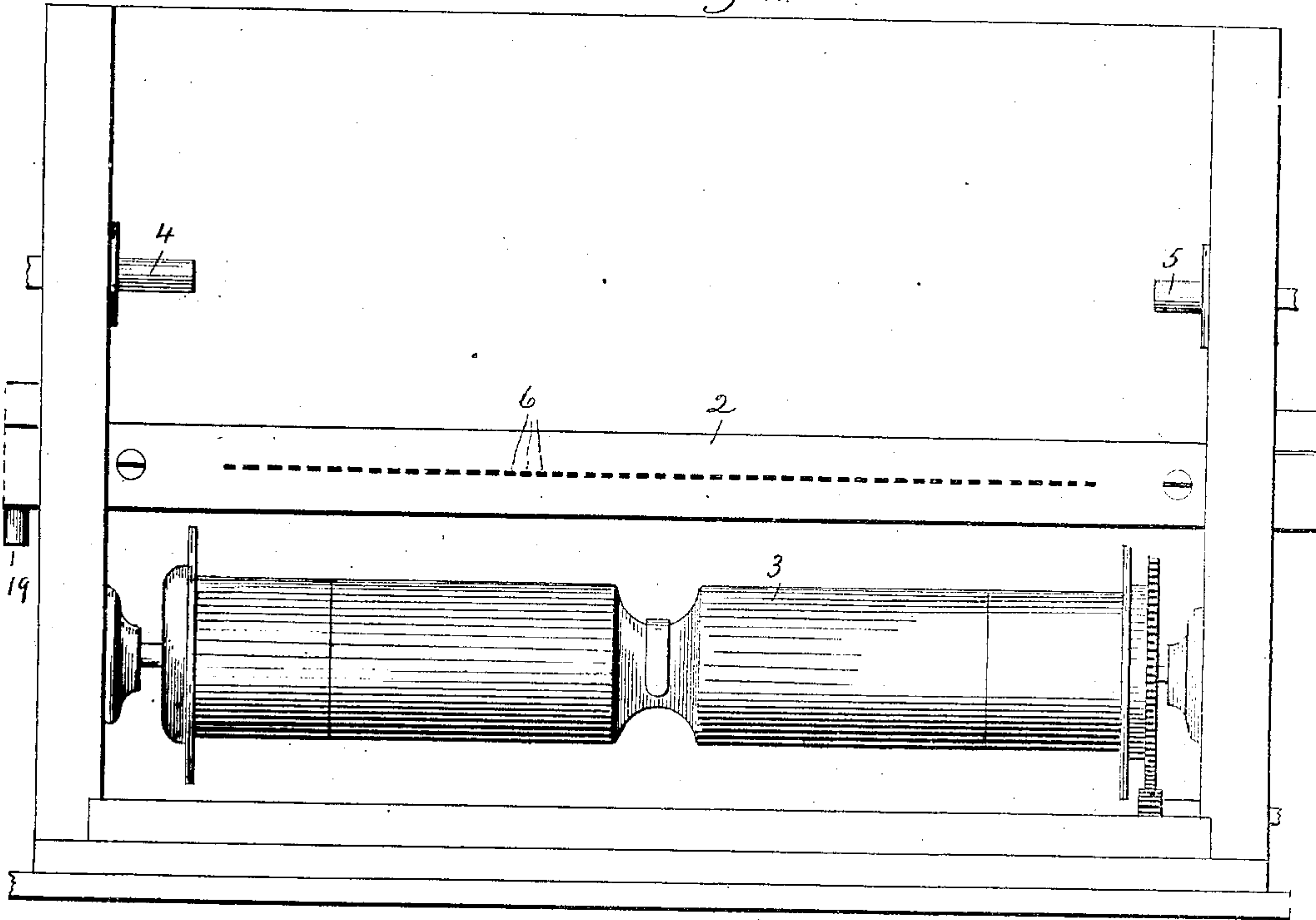


Fig. 2.

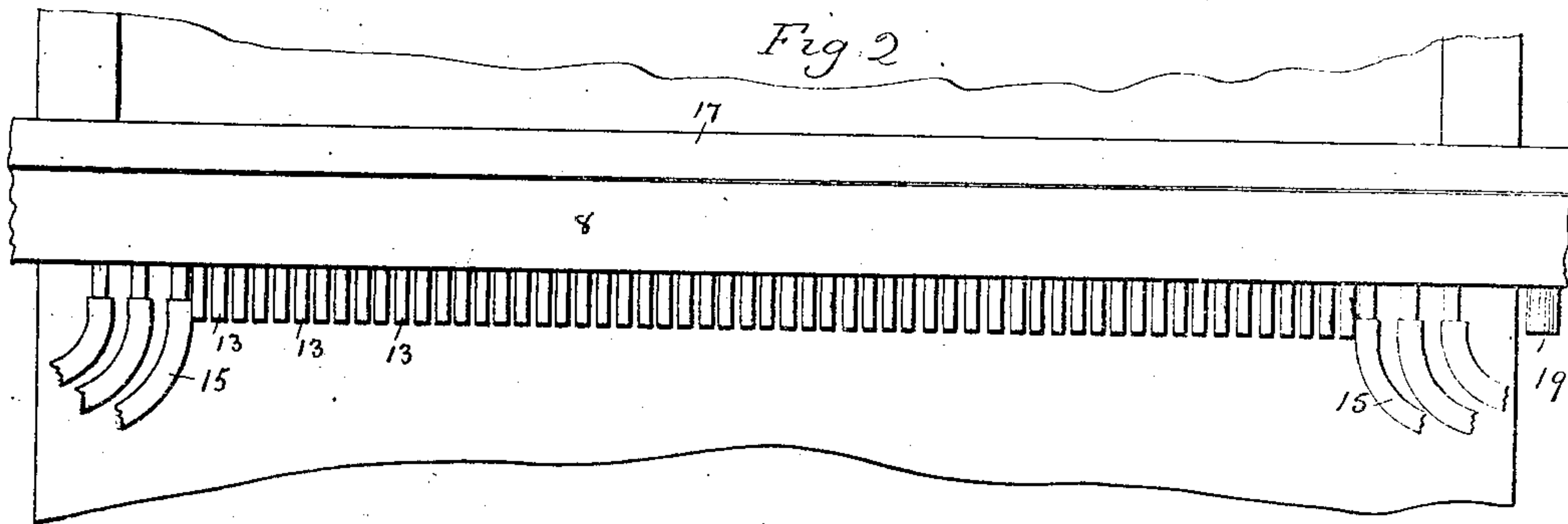
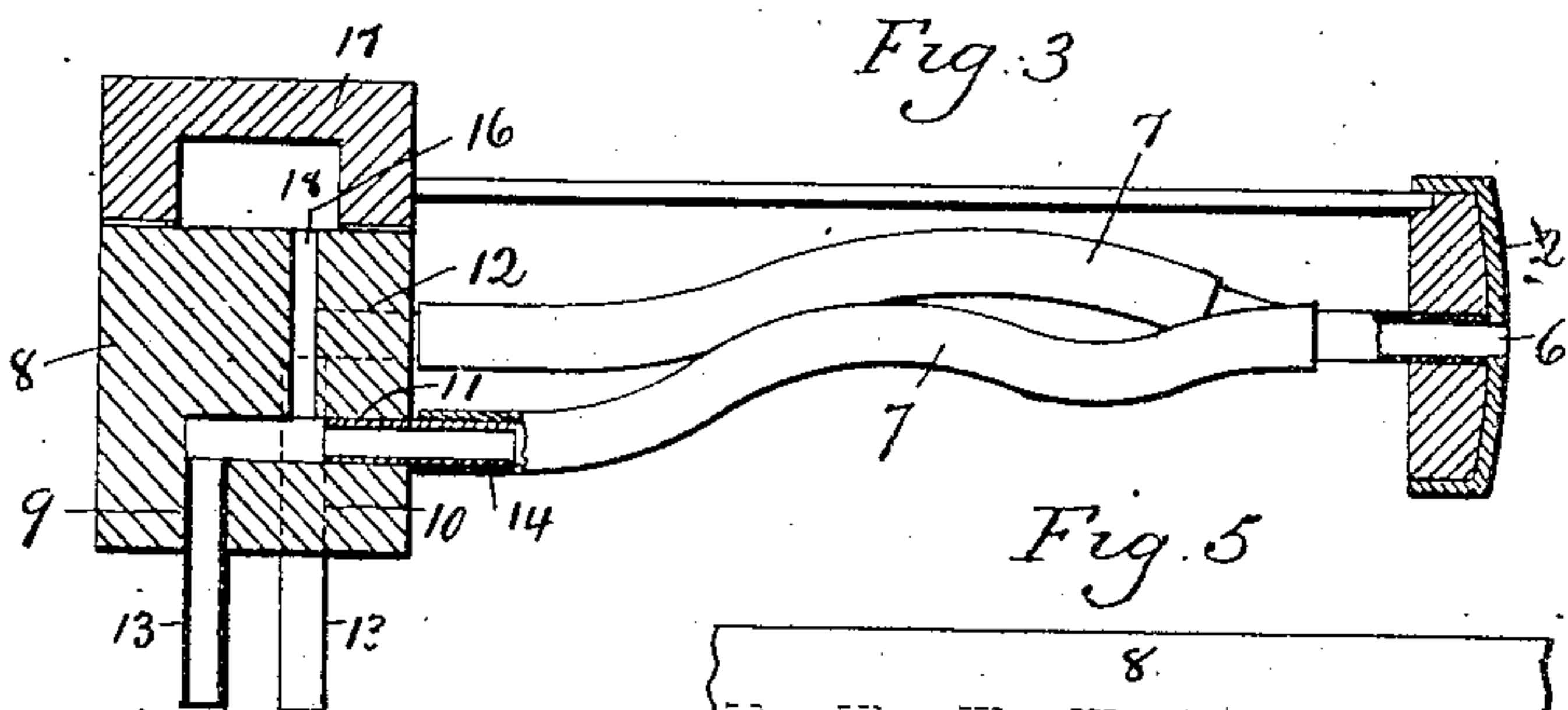
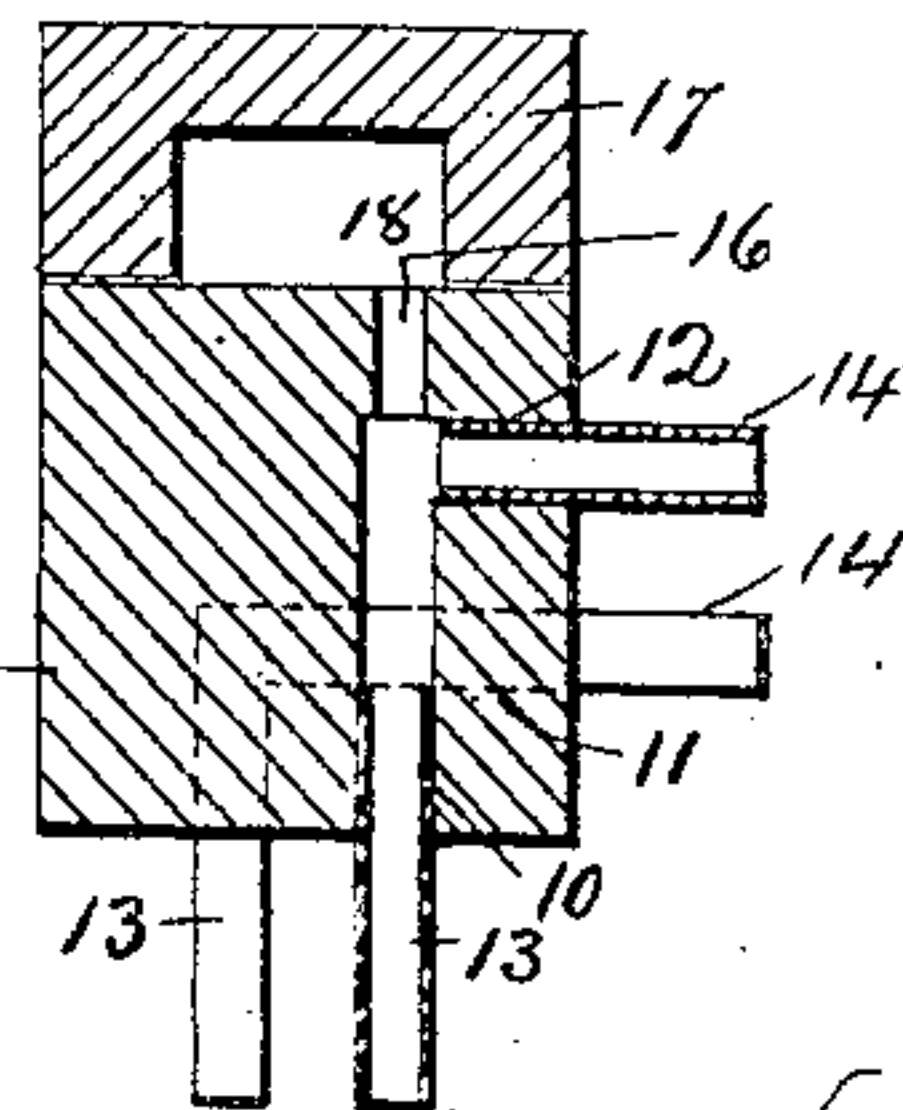


Fig. 3.



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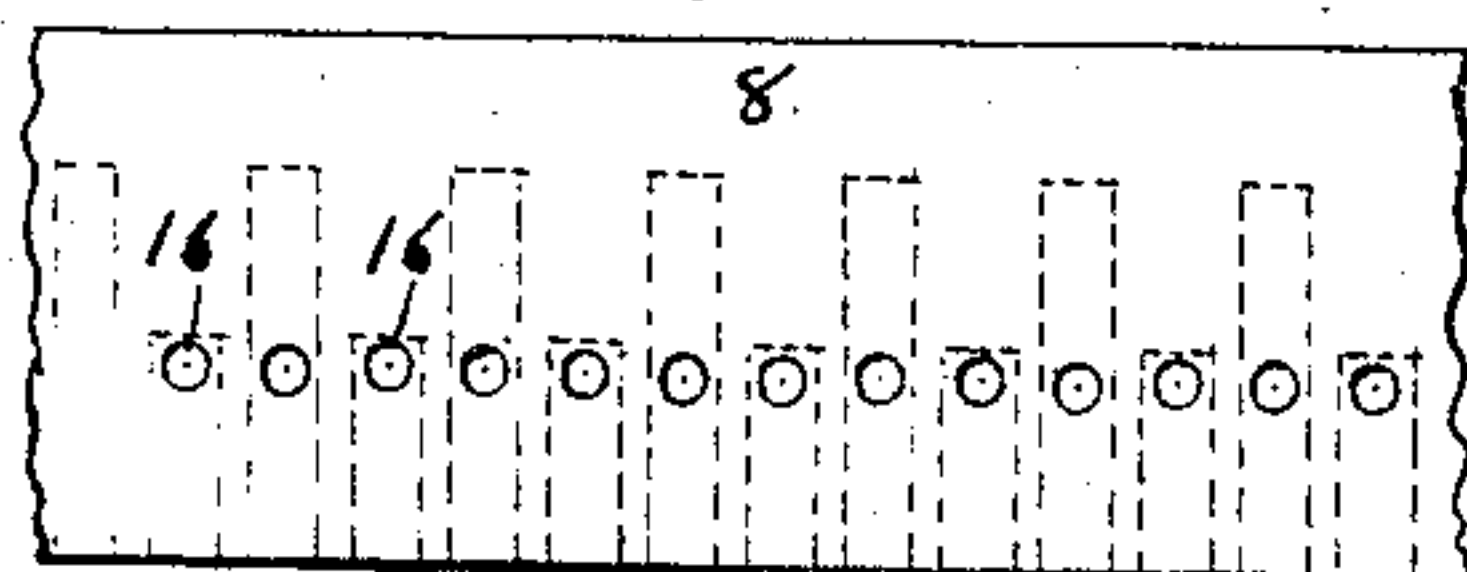
Fig. 4.



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Fig. 5.



UNITED STATES PATENT OFFICE.

FRANK V. CROFUT, OF DERBY, CONNECTICUT, ASSIGNOR TO THE STERLING CO., OF DERBY, CONNECTICUT, A CORPORATION.

PNEUMATICALLY-OPERATED MUSICAL INSTRUMENT.

No. 840,303.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed July 23, 1906. Serial No. 327,291.

To all whom it may concern:

Be it known that I, FRANK V. CROFUT, a citizen of the United States, residing at Derby, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Pneumatically - Operated Musical Instruments; and I do hereby declare the following, when taken in connection with the accompanying drawings and the characters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a front view of a portion of a conductor for a pneumatically-operated instrument embodying my invention; Fig. 2, a rear view of the central portion thereof, showing my vent-rail applied thereto; Fig. 3, a transverse sectional view showing the relative position of the tracker and vent-rail, the section being taken through one of the passages 9-11; Fig. 4, a similar sectional view of the vent-rail, taken through one of the passages 10-12; Fig. 5, a top or plan view of a portion of the vent-rail with the cap removed.

This invention relates to an improvement in pneumatically-operated instruments, and is particularly applicable to pneumatic devices adapted to be arranged within the case of a piano for operating the keys thereof. In devices of this character it is essential that a vent of some character be provided in the tubes leading from the tracker to the primary pneumatics in order to obtain sufficiently quick reaction to sound the same key in rapid succession, if that be desirable. These vents have been arranged in various positions and being the first vents between the tracker and the primary pneumatics are most liable to become clogged. These vents are readily cleared providing an access can be had to them; and the object of this invention is to arrange the vents that they may be readily accessible, so that they can be cleared when occasion may require; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

In illustrating my invention I show only so much of the conductor as is necessary to a clear understanding of my invention, the

term "conductor" being one employed to include the tracker, winding-roll, and means for supporting the perforated roll, the tracker 2 being located longitudinally between the winding-roll 3 and the bearings 4 and 5 for the perforated roll, which is not shown, these parts being all of usual construction. In the tracker 2 are the usual holes 6 to register with the perforations in the music-roll, and these perforations are connected with rubber tubes 7, which lead to the primary pneumatics, (not shown;) but instead of having a continuous tube to the primary pneumatics I place a vent-rail 8 at the back of the conductor and in line with the tracker, and in this vent-rail are a series of vertical passages 9 and 10 intersecting horizontal passages 11 and 12. Into these various passages nipples 13 and 14 are inserted, the nipples 14 being connected with the tracker-nipples by the tubes 7, while the nipples 13 are connected with tubes 15, which lead to the primary pneumatics. For economy of space the passages through the vent-rail are staggered or, in other words, arranged in double rows. Extending down through the vent-rail are a series of holes 16, which enter the horizontal passages into the vent-rail, while above the vent-rail and secured thereto is a cap 17, formed with a chamber 18, which chamber communicates, through a pipe 19, with one of the chambers of the instrument in which the exhaust is maintained, so that a constant pressure is applied to the pipes 15 for the purpose of exhausting the primary pneumatics, assisting to return them to an operative condition after a note has been struck. This vent-rail being located at the rear of the conductor is readily accessible, and should one of the vent-holes 16 become stopped it is only necessary to remove the cap 17, when access to the hole may be had and the obstruction readily removed.

I claim—

In a pneumatically-operated instrument, the combination with a tracker, of a vent-rail secured in rear of said tracker but separated therefrom and having passages through it corresponding to the holes in said tracker, connections from the tracker to the passages

in said vent-rail, vertically-arranged holes in
said vent-rail and intersecting said passages,
a cap secured to the top of said vent-rail and
having a recess forming a chamber above
5 said holes and above said passages, and
means for exhausting the air from said cham-
ber, substantially as described.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

FRANK V. CROFUT.

Witnesses:

ROBERT B. MAY,
J. L. MAILLARD.