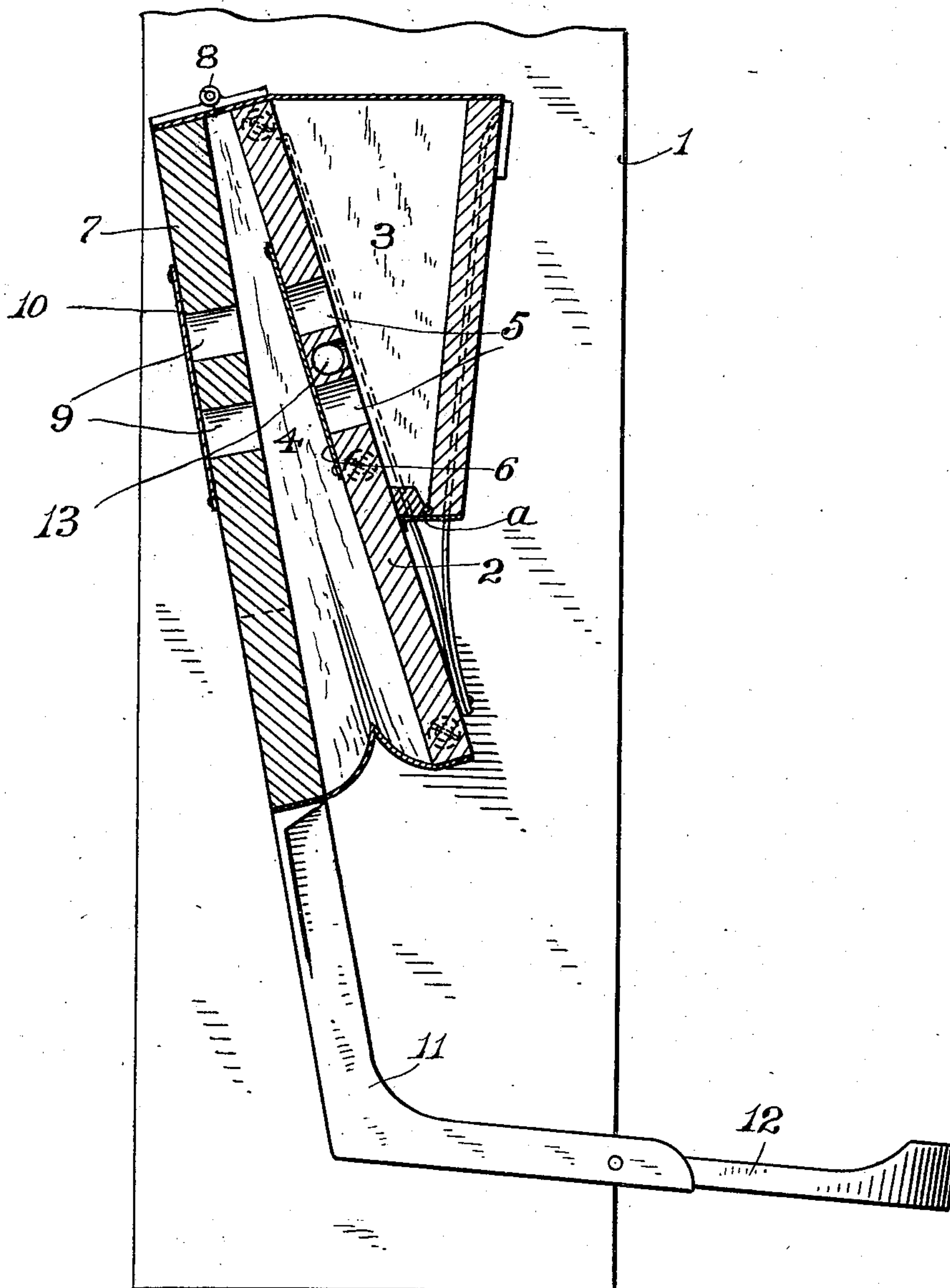


No. 725,677.

PATENTED APR. 21, 1903.

W. F. COOPER.
BELLOWS FOR MUSICAL AND PNEUMATIC DEVICES.
APPLICATION FILED APR. 28, 1902.

NO MODEL.



WITNESSES:

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WILLIAM F. COOPER, OF MERIDEN, CONNECTICUT.

BELLOWS FOR MUSICAL AND PNEUMATIC DEVICES.

SPECIFICATION forming part of Letters Patent No. 725,677, dated April 21, 1903.

Application filed April 28, 1902. Serial No. 105,038. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. COOPER, a citizen of the United States, residing at Meriden, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Bellows for Musical and Pneumatic Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to bellows for musical and pneumatic devices, but more particularly refers to the primary means, such as the pedal attachment, whereby the feeding and receiving bellows are properly supplied with air.

The object of my invention is to enable the operator to properly supply the feeding and receiving bellows by an easy simple movement of the foot in substantially a horizontal plane and with the leverage in his favor, so that both bellows are quick to respond to any movement of the foot which the operator may make.

The accompanying drawing, which forms a part of this application, is a broken sectional elevation illustrating my improvement.

My present improvement has nothing to do with any part of a musical instrument or a pneumatic device except the feeding and receiving bellows and the pedal attachment, and therefore I have not illustrated any parts other than these.

Although I do not desire to make any special claim to any particular construction and arrangement of feeding and receiving bellows, I will describe the parts which I have illustrated briefly, but without going into details.

1 is any suitable casing, as of an automatic piano-player, and 2 is what is termed the "foundation-board," which is secured to said casing. 3 is the receiving-bellows, which is hinged at *a* to the outer face of said board, and 4 is the feeding-bellows, which is supported on the opposite face of said board, so that it will be clear that this foundation-board is the inner wall which is common to both bellows. 5 represents openings in said board by which communication is established between the two bellows, and 6 is an ordinary

flexible valve which closes these openings inside the feeding-bellows, so that it will be clear that air can pass from the receiving to the feeding bellows, but not vice versa.

The backboard 7 of the feeding-bellows is commonly called the "feeder-board," and in the present instance it is hinged at its upper end at 8 to the top of the foundation-board. 9 represents openings through this feeder-board by which communication is had between the outside air and the feeding-bellows, and 10 is a valve which closes these openings on the outside of the board, so that it will be clear that air may pass from the bellows 4 into the outside air, but not vice versa.

11 is an angle-lever secured in any suitable manner to the bottom of the feeder-board, and 12 is a foot-rest which extends horizontally from said lever, this lever and foot-rest constituting the pedal attachment rigid with the feeder-board.

It will be observed that the fulcrum of the pedal is at the extreme upper end of the feeder-board, and therefore the leverage will be in favor of the operator, and both bellows will be quick to respond when the pedal is swung to and fro.

The receiver is of course in communication in any suitable and ordinary manner with the musical instrument or other device, and I have shown an opening 13, which extends through the foundation-board, the inner end of which opening leads into the receiving-bellows 3, while the outer end of said opening communicates with that part of a musical instrument or other device which utilizes the supply or exhaust of air.

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

1. In a bellows for musical and pneumatic devices, the feeder-board hinged at its upper end to a stationary element and having rigidly secured to its lower end a pedal, whereby the feeder-board may be operated by a horizontal swinging of the pedal from a remote pivotal point, substantially as set forth.

2. A bellows for musical and pneumatic devices, provided with a receiving and a feeding bellows constructed and arranged as described and having the backboard of the feeding-bellows hinged at the top to the top of

the foundation-board, and a pedal rigidly secured and depending from the backboard, said pedal terminating in a horizontally-disposed portion, whereby said backboard may
5 be operated by the horizontal swinging movement of the pedal, substantially as set forth.

3. In a bellows for musical and pneumatic devices, the combination of the foundation and feeder boards hinged together at their
10 upper ends and provided with openings closed by suitable valves, the flexible sides secured to said boards whereby feeder-bellows are provided, the receiver-bellows supported on said foundation-board opposite the feeder-
15 bellows, said foundation-board forming the inner wall common to both bellows, and the pedal rigidly secured and depending from the feeder-board and terminating in a horizontally-disposed portion, whereby the feeder-
20 bellows may be operated by a horizontal swinging movement of the pedal, substantially as set forth.

4. In a bellows for musical and pneumatic

devices, the combination of the foundation-board secured to the casing of the attachment, the receiver-bellows and feeder-bellows
25 supported on opposite sides of said board, the latter forming the inner wall for both bellows, the feeder-board which forms the outer wall of the feeder-bellows hinged at the top
30 to the foundation-board, said boards having openings closed by valves whereby communication is had through the foundation-board between the two bellows and through the
35 feeder-board with the outside air, and the pedal rigidly secured to the feeder-board whereby said pedal and feeder-board may be swung from the pivotal point of said board, substantially as set forth.

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

WILLIAM F. COOPER.

Witnesses:

CORNELIUS J. DANAHER,
THOMAS HINCHY.