

R. A. GALLY.
MUSIC PLAYER VALVE.
APPLICATION FILED APR. 21, 1913.

1,153,056.

Patented Sept. 7, 1915.

Fig. 1.

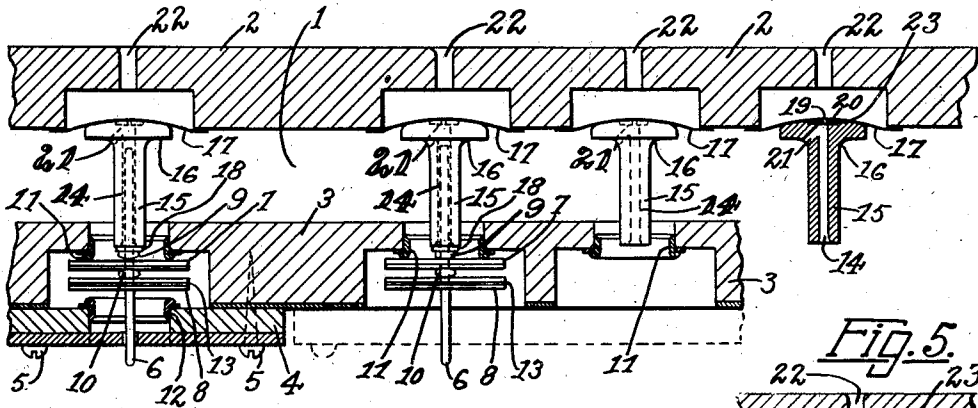


Fig. 2.

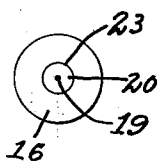


Fig. 3.

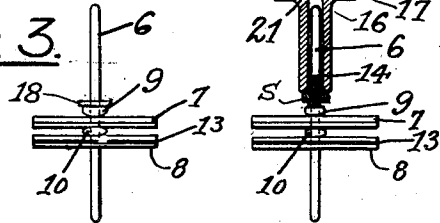


Fig. 5.

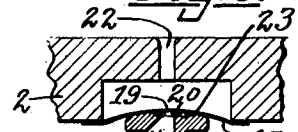
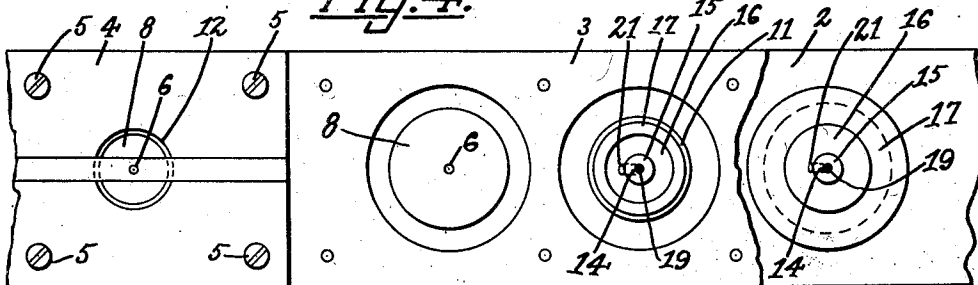


Fig. 4.



Witnesses:
Jacob A. Hollander
J. W. Macy

Inventor:
Robt. A. Gally

UNITED STATES PATENT OFFICE.

ROBERT A. GALLY, OF CINCINNATI, OHIO, ASSIGNOR TO THE BALDWIN COMPANY, OF CINCINNATI, OHIO.

MUSIC-PLAYER VALVE.

1,153,056.

Specification of Letters Patent.

Patented Sept. 7, 1915.

Application filed April 21, 1913. Serial No. 762,509.

To all whom it may concern:

Be it known that I, ROBERT A. GALLY, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Music-Player Valves, of which the following is a specification.

This invention provides a more accessible and easily cleaned valve and return vent than previous devices, and more ready adjustment of the valves to their seats and throw and to the pouch.

In my previous applications #730,635 and #749,812, are shown a valve rod loosely guided in a hole in the pneumatic follower and removable with its valves carried thereon, but in this present application improvements are made for easy access and regulation, and a special arrangement of return-vent is included. Claims are appropriately distributed in the three applications, no waiver of any rights being intended.

In the drawings Figure 1 is a view of a valve chest from its top, the rails of a chest partly cut away to show the valves, chambers and pneumatics; Fig. 2 a rear view of a pneumatic follower or button; Fig. 3 a view of a rod and valves as removed from the chest; Fig. 4 a front view of the same chest with portions removed to show interior parts; and Fig. 5 is a modified view of the removable valve rod with screw adjusters to regulate it to the extension of the pneumatic.

The valve chest 1 comprises a pneumatic bar or pouch rail 2, a valve rail 3, and a cap or caps 4, such caps being removably attached to the front face of the valve rail 3 by screws 5 or the like to allow removal when access is desired to the valves or vents now to be described. A valve-rod 6 carries suitable valves 7 and 8 mounted thereon, a collar 9 on said rod serving to hold the valves 7 and 8 in their position lengthwise of said rod 6, while a separator 10 or other suitable means holds the two valves at a proper spread to give the correct play between their seats 11 and 12. Such play may be finely regulated by paper chips 13 or other usual means. The rod 6 extends rearward of its collar 9 and is loosely guided in a hole 14 in the extension body or stem 15 of the button or follower 16. The collar 9 of rod 6 takes the thrust from stem 15 of follower 16 when actuated by the pneumatic

17, the latter being preferably of pouch form.

The stem 15 is preferably made long enough to extend forward into the port of the inner valve 7, allowing a long guidance for the rear part of rod 6 in the hole 14 of stem 15, thus insuring against accidental displacement of the rod from the hole, and making easy the inserting of the rod in the hole when the rod and its valves are replaced in the hole after removal for any purpose.

The removal of the rod 6 with the valves 7 and 8 complete thereon, is much easier than picking off the valves from such a rod that is attached to its pneumatic.

The exact freedom or excess safety motion of pneumatic 17 to allow the seating of valve 7 on inner seat 11, may be nicely adjusted by washers or chips 18 placed between the collar 9 and the stem 15, against which said collar 9 bears.

When the cap 4 is removed, the rod 6 and its valves 7 and 8, etc., may be readily removed at a unit, without separating the valves, etc., from the rod. Any dirt may then be cleared from the valves, the valves regulated on the rod, the regulation of collar 9 to the stem 15 changed, or view and access had to pouch 17, follower 16 and its stem 15, as also to the bleed or return-vent 19 in the disk 20 set on the rear of follower 16. This vent 19 is preferably in axial alinement with the hole 14 of stem 15, thus allowing sight and access to the vent through said hole 14 from the front of the action when valves are removed. An air hole 21 connects the air of the chest 1 to the vent 19, preferably on a straight line to the vent. This position of the vent 19 being opposite the centrally positioned duct 22 entering the rear of the pouch 17, also allows access to the vent through said duct 22 from the rear, and a clear sight through vent 19 and duct 22 and hole 14 of stem 15, either from the front of stem and action, or from the rear of the action and the duct.

While the vent 19 may be formed in the material of the follower itself, if such material is suitable, any substance, as wood, may be used for the follower and the vent made in a thin plate or disk 20 as of celluloid and set into a socket 23 in the rear of follower 16, and the leather of pouch 17 sealed over it. The central position of the vent in the follower permits a small central

gumming of the leather of the pouch 17 to the follower 16, thus having a free pouch.

Suitable modifications and adaptations of this invention may be made and still be subject to what I claim as my invention.

Claims—

1. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part having its outer end within said port, a hole lengthwise in said extension, and a valve-rod removably held in said hole, a collar fixed on said rod intermediate its length and at less distance from the end of the rod within said hole than the depth of said hole, said valve being mounted on said rod at the face of the collar away from said extension.

2. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension and a valve-rod removably held in said hole, a collar fixed on said rod intermediate its length and at less distance from the end of the rod within said hole than the depth of said hole, said valve being mounted on said rod at the face of the collar away from said extension.

3. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part having its outer end within said port, a hole lengthwise in said extension, and a valve-rod removably held in said hole, a collar fixed on said rod intermediate its length and at less distance from the end of the rod within said hole than the depth of said hole, said valve being mounted on said rod at the face of the collar away from said extension, and a removable washer on said rod between said collar and said valve.

4. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension and a valve-rod removably held in said hole, a collar fixed on said rod intermediate its length and at less distance from the end of the rod within said hole than the depth of said hole, said valve being mounted on said rod at the face of the collar away from said extension, and a removable washer on said rod between said collar and said valve.

5. A music-player valve-chest having a valve-port and a valve thereto, an actuating

pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part having its outer end within said port, a hole lengthwise in said extension, and a valve-rod removably held in said hole, said valve being mounted on said rod and removable therewith, and a return-vent at the rear of said hole and opening into the interior of said pneumatic.

6. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension, and a valve-rod removably held in said hole, said valve being mounted on said rod and removable therewith, and a return-vent at the rear of said hole and opening into the interior of said pneumatic.

7. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension, and a valve-rod removably held in said hole, and a return-vent at the rear of said hole and opening into the interior of said pneumatic.

8. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension, and a valve-rod removably held in said hole, and a return-vent at the rear of said hole and opening into the interior of said pneumatic, and an air hole from the outside of said pneumatic to said hole.

9. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension, and a valve-rod removably held in said hole, and a return-vent at the rear of said hole and opening into the interior of said pneumatic, and an air hole from the outside of said pneumatic to said vent.

10. A music-player valve-chest having a valve-port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and a valve at a distance therefrom, an extension from said moving part having its outer end within said port, a hole lengthwise in said extension, and a valve-rod removably held in said hole, said valve being mounted on said rod and removable therewith, and a return-vent at the rear of said hole and opening into the interior of said pneumatic, and a duct

at the rear of said pneumatic and opposite to said vent.

11. A music-player pneumatic having a follower therewith, said follower having a face thereof contiguous to said pneumatic, a socket in that face of the follower contiguous to said pneumatic, said pneumatic and follower attached together at their contiguous faces, and a disk set in said socket and having a return-vent therein, and air holes in said follower extending from said return-vent to another face of said follower.

12. A music-player pneumatic having a follower therewith, said follower having a face thereof contiguous to said pneumatic, a socket in that face of the follower contiguous to said pneumatic, and a disk set in said socket and having a return-vent therein, said pneumatic adhesively attached to said follower and overlapping said disk, and an air-hole in said follower extending from said return-vent to another face of said follower.

13. A music-player pneumatic having a moving member, a hole in said member, a return-vent in one end of said hole, and a rod in the other end of said hole and ex-

tended outwardly from the latter stated end of said hole and provided with a valve.

14. A music-player pneumatic having a moving member, a hole in the outer face of said moving member connected to the atmosphere, and a return-vent adjacent the inner face of said member and in line with the axis of said hole.

15. A music-player valve-chest having a valve port and a valve thereto, an actuating pneumatic having a moving part thereof opposite to said port and valve and at a distance therefrom, an extension from said moving part, a hole lengthwise in said extension and a valve-rod removably held in said hole, a collar fixed on said rod, said valve being mounted on said rod at the face of the collar away from said extension, and adjusting means intermediate said extension and said collar, said adjusting means adapted to adjust the valve and rod relatively to the pneumatic in direction of the axis of said rod.

ROBT. A. GALLY.

Witnesses:

LUCIEN WULSIN,
L. J. ZOELLER.