

H. E. TOWER.
MECHANICAL MUSICAL INSTRUMENT.
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1,400,921.

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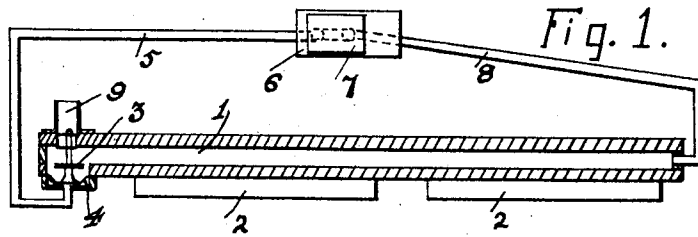


Fig. 1.

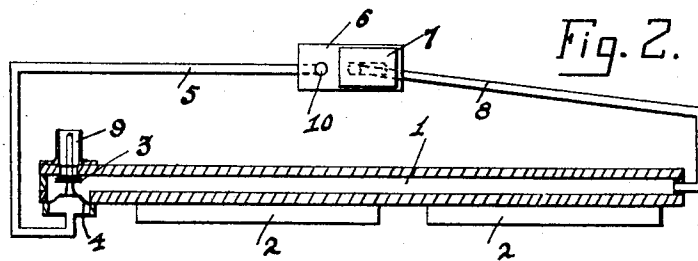


Fig. 2.

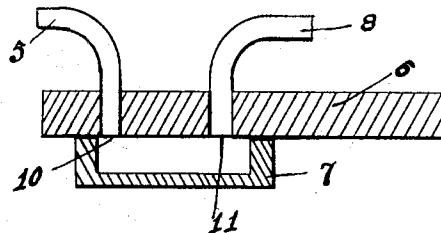


Fig. 3.

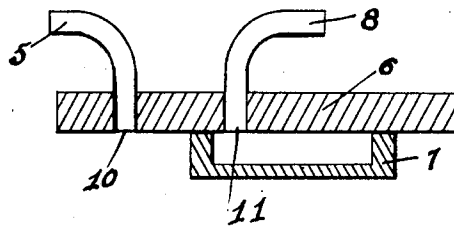


Fig. 4.

WITNESSES:

Chas. H. Lissner
Dorothy E. Gally.

INVENTOR:

Herschel E. Tower.

UNITED STATES PATENT OFFICE.

HERSCHEL E. TOWER, OF CINCINNATI, OHIO, ASSIGNOR TO THE BALDWIN COMPANY,
OF CINCINNATI, OHIO.

MECHANICAL MUSICAL INSTRUMENT.

1,400,921.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HERSCHEL E. TOWER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Mechanical Musical Instruments, of which the following is a specification.

The use of a vent or bleed for the return of a valve in mechanical musical instruments is old and well known in the art, but it is also well known that such vents or bleeds have always caused more or less trouble from being stopped up with dust and lint, whereas the present invention performs the same function as the vent and has the advantage that it cannot become clogged and there is no leak when the valve is on, as is the case with the regular vent.

Figure 1, is a view of a windchest with a cut-off valve to cut-off the air from playing pneumatics on rewinding. Fig. 2, is a view of the same with the cut-off valve thrown on in a rewinding position. Fig. 3 is a detail of the slide switch with a D valve set to cause the vented condition of the cut-off valve, Fig. 4 is the same as Fig. 3 with D valve set to cause the cut-off valve to act and cut-off the suction from the player action.

A windchest 1 having feeders 2 for causing suction to operate a pneumatic action has a cut-off valve 3 operated by a pouch 4 having a socket underneath for an air chamber.

The socket under pouch 4 is connected by a tube 5 to a switch block 6 through a D valve 7 to a tube 8 and then to the constant air in windchest 1.

When the switch valve 7 is set for forward playing as shown in Figs. 1 and 3 the socket under the pouch is connected directly through to the air in the windchest 1 so that the tension is the same on both sides of the pouch thereby allowing the valve 3 to remain open and have suction through the pipe 9 from the pneumatic action. When ready for rewinding the switch valve 7 is set as

shown in Figs. 2 and 4 allowing the port 10 to be opened to the atmosphere which causes the pouch 4 to rise and with the aid of valve 3 close off the suction from pipe 9 and the pneumatic action. The valve 7 moves only far enough to allow port 10 to open and yet keep port 11 closed so that there is no leakage from the windchest.

By this arrangement it can be seen that instead of the small vent which always must be smaller than the port opening I have a positive vent the same size as the port opening for playing, while for rewinding, the pouch 4 has the full power to lift the valve 3 caused by the atmosphere through port 10 as there is no vent to leak.

What I claim as my invention is:

1. In a mechanical musical instrument; a pouch actuated valve; a socket under said pouch; a suction chamber; air connections from said socket to said suction chamber, and mechanical means for connecting said socket to the atmosphere and disconnecting said socket from said suction chamber.

2. In a mechanical musical instrument; a pouch actuated valve; a socket under said pouch; a suction chamber; a switch block; air connections from said socket through said switch block to said suction chamber, and mechanical means for connecting said socket to the atmosphere and disconnecting said socket from said suction chamber.

3. In a mechanical musical instrument; a pouch actuated valve; a socket under said pouch; a suction chamber, a switch and D valve; air connections from said socket through said D valve to said suction chamber, and mechanical means for connecting said socket to the atmosphere and disconnecting said socket from said suction chamber.

HERSCHEL E. TOWER.

Witnesses:

PAUL J. HENGGE,
NORMA R. HARRIS.