W. SCHULKE.

Pipe-Organ Valves.

No. 145,453. Patented Dec. 9, 1873.

Fig. 1.

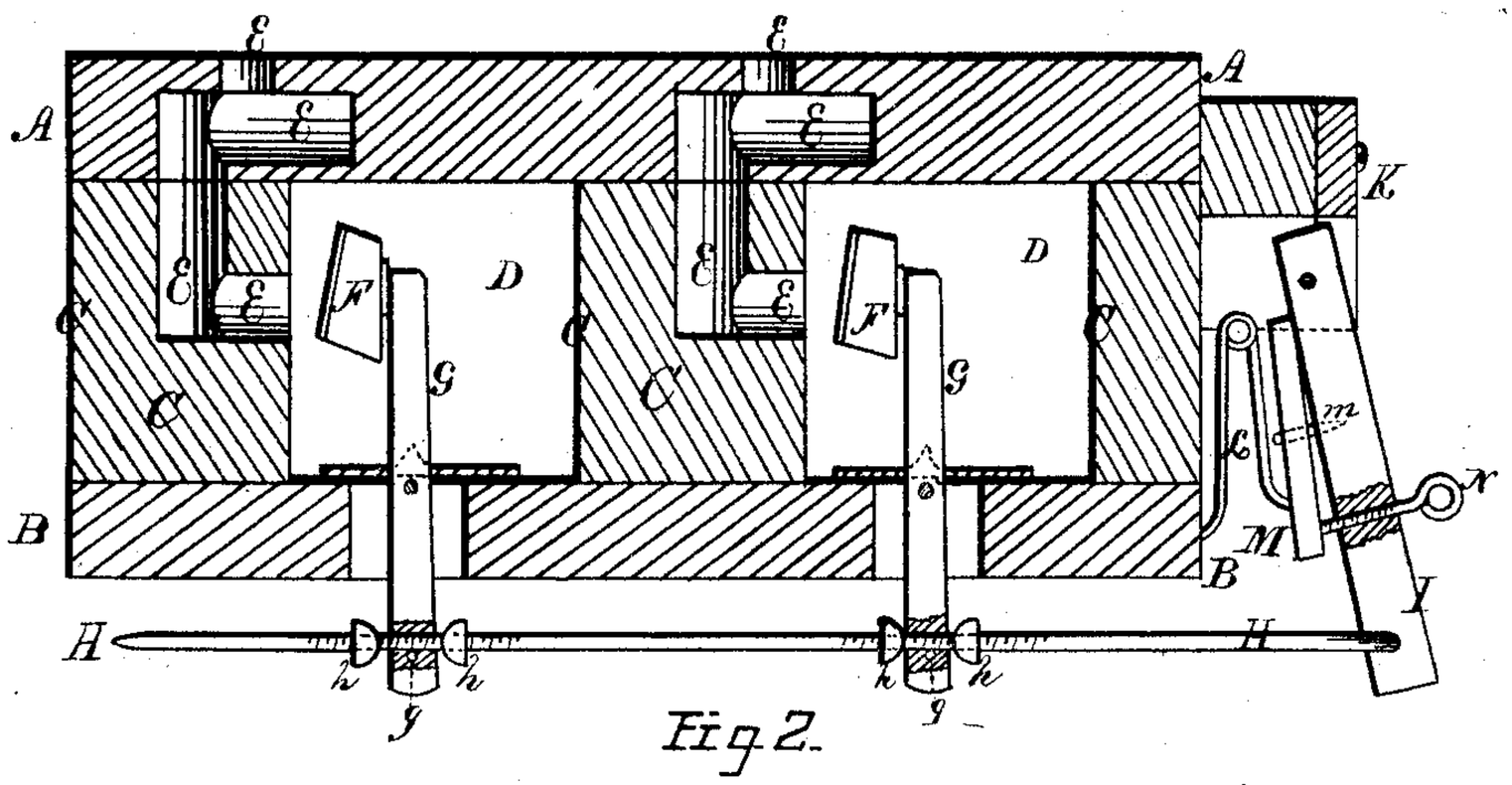
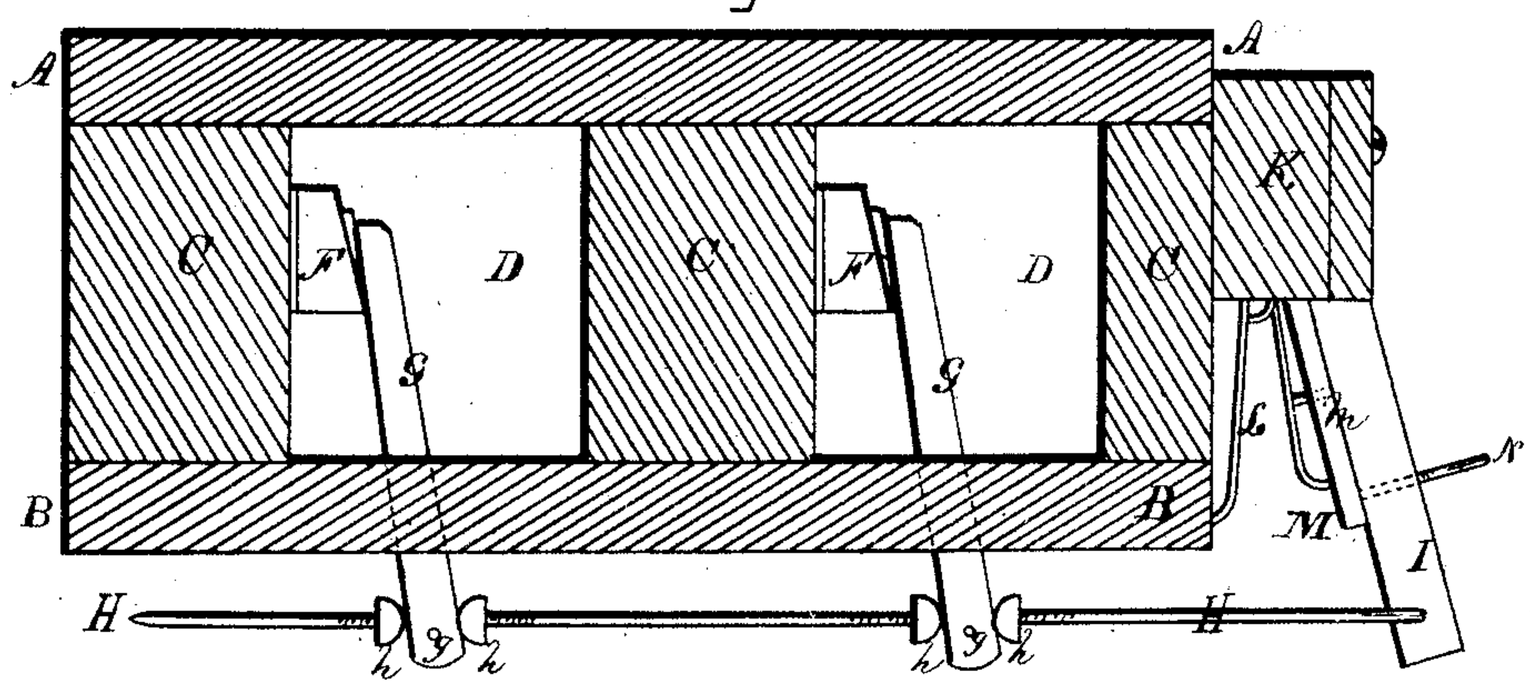


Fig 2.



WITNESSES.

Jas. E. Hutchinson

John R. Young

INVENTOR.

Wm. Schulke, by

Prindle and Lay his attys

UNITED STATES PATENT OFFICE.

WILLIAM SCHULKE, OF HAMILTON, OHIO.

IMPROVEMENT IN PIPE-ORGAN VALVES.

Specification forming part of Letters Patent No. **145,453**, dated December 9, 1873; application filed June 20, 1873.

To all whom it may concern:

Be it known that I, WILLIAM SCHULKE, of Hamilton, in the county of Butler and in the State of Ohio, have invented certain new and useful Improvements in Pipe-Organs; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a section of a wind-chest upon a line passing through the centers of the valves, and Fig. 2 is a like view of the same upon a line passing between said valves.

Letters of like name and kind refer to like parts in each of the figures.

The object of my invention is to increase the efficiency and ease of adjustment of pipe-organs; and it consists, principally, in the means employed for connecting together, operating, and relatively adjusting the pivoted levers of the valves, substantially as is hereinafter specified. It consists, further, in the means employed for closing the valves and for regulating the pressure of the operating-springs, substantially as is hereinafter shown.

In the annexed drawing, A represents the top, and B the bottom, of the wind-chest, divided, by means of suitable vertical partitions C, into a number of compartments, D. Within each partition C is provided a number of openings, E, which extend horizontally inward from one side to or near the center of said partition, from thence vertically upward to the vertical center of the top A, and within the same horizontally to the desired point, and thence upward, said openings being intended for the passage of air from the wind-chest to the organ-pipes. Fitted over the lower end of each opening E is a valve, F, that is secured to or upon one end of a lever, G, which lever projects downward through a suitable slot in the bottom B, and is pivoted to the latter at or near its upper side, all in the usual manner.

As thus arranged, it will be seen that, by pressing the lower end of the pivoted lever G horizontally toward the partition against which its valve bears, said valve will be moved away from the latter, so as to uncover the opening E, as seen in Fig. 1, while, by moving said pivoted levers in an opposite direction, said valve will be caused to close said opening once more, as shown in Fig. 2.

The pivoted levers of each series of valves are connected together by means of a threaded rod, H, which passes through the slotted end of each in a line with its plane of motion, and is provided upon each side of each pivoted lever with a nut, *h*, that bears against the same, and, in connection with the opposite nut, insures the relative positions of said parts.

It will be seen that by moving the nuts longitudinally upon the rod the positions of the valves with relation to each other can be easily and accurately adjusted, so as to cause each to have a firm and perfect bearing upon its seat or partition.

The rod is sustained in position within the slotted ends of the pivoted levers by means of a pin, *g*, that passes horizontally through the latter immediately below said rod. The inner faces of the nuts *h* are made semi-spherical so as to enable them to maintain their bearing without binding as the relative angles of the pivoted levers and rod change. One end of each rod H is connected to or with one end of a lever, I, the opposite end of which is pivoted within a suitable bearing, K, attached to one end of the wind-chest. A half "grasshopper" spring, L, placed between the wind-chest and lever, presses the free end of the latter outward and closes the valves.

In order that the tension of the spring L may be adjusted at will, a strip of wood, M, is placed between the end of the former and the inner face of the lever, and is secured in position by means of a stud, *m*, which projects from the face of said lever through a suitable slot in said strip. A set-screw, N, passing through the lever L, bears against the end of the strip M outside of the spring, so that by turning said screw inward said strip will be caused to assume the position shown in Fig. 1, and, by compressing said spring, increase its tension.

The improvements shown, while simple and inexpensive, materially increase the efficiency of an organ, and enable the necessary adjustments of the parts involved to be made with ease and dispatch.

Having thus fully set forth the nature and merits of my invention, what I claim as new is—

1. In combination with the pivoted valve-levers G, the threaded connecting-rod H and nuts *h*, substantially as and for the purpose specified.

2. In combination with the connecting-rod H and its valves, the lever I, the spring L, the strip M, and the set-screw N, substantially as and for the purpose shown.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of June, 1873.

WILLIAM SCHULKE.

Witnesses:

WM. ALTICK,

SUMNER T. SMITH.