

S. J. CROCKETT.
Reed-Organs.

No. 139,874.

Patented June 17, 1873.

Fig. 1.

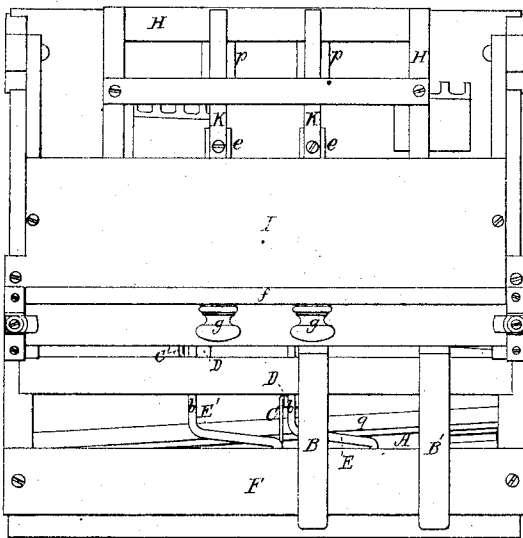


Fig. 6.

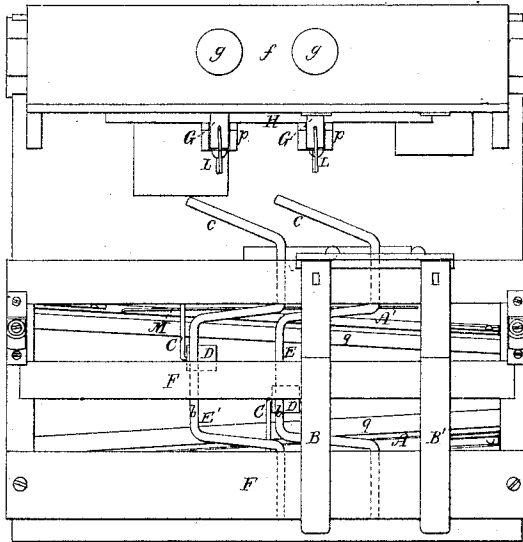


Fig. 2.

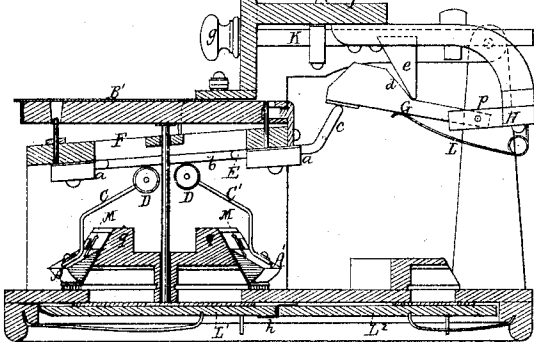


Fig. 7.

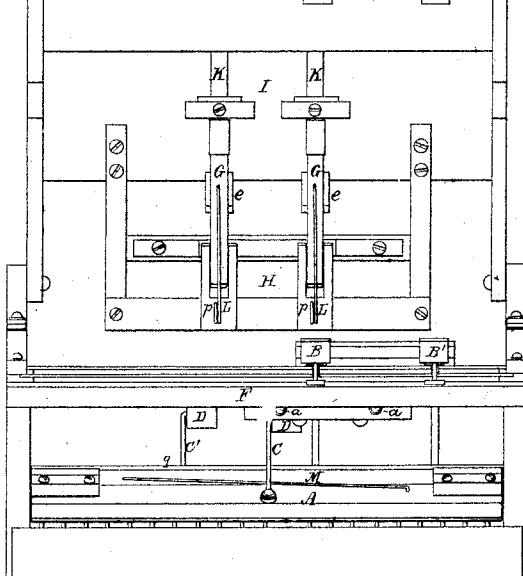


Fig. 3.

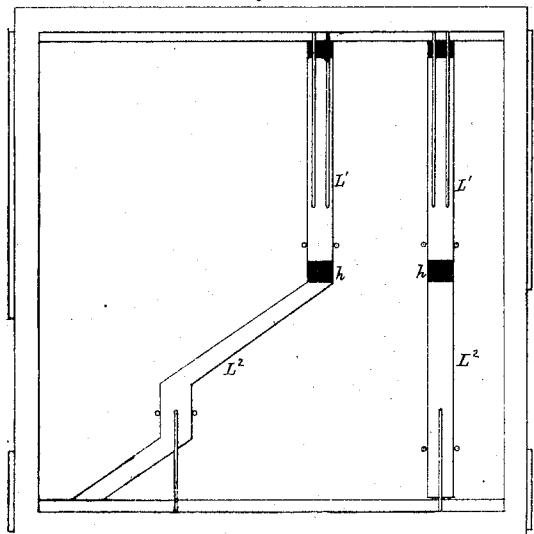


Fig. 4.

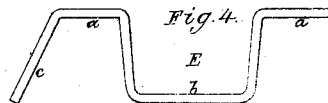
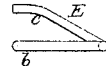


Fig. 5.



Witnesses.

S. W. Piper.

L. N. Keller.

S. J. Crockett.

by his attorney

R. H. May

UNITED STATES PATENT OFFICE.

SAMUEL J. CROCKETT, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. **139,874**, dated June 17, 1873; application filed March 29, 1873.

To all whom it may concern:

Be it known that I, SAMUEL J. CROCKETT, of Boston, of the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Reed-Organs; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view, and Fig. 2 a transverse section, of part of a reed-organ with my invention. Fig. 3 is an under-side view of the same. Fig. 4 is a top view of, and Fig. 5 an end view of, one of the bent levers, to be hereinafter explained. Fig. 6 is a top view, and Fig. 7 a front elevation, of the parts with the cap-board in a vertical position.

My invention involves a reed-swell or reed-induction valve-operating mechanism; also, a main and an auxiliary reed-valve, pivoted at their outer ends, and connected or hinged together at their free or inner ends, so as to be simultaneously operated by one key.

In the drawings, A A' denote the two swell or induction valves of two series of reed-chambers, arranged in the usual manner beneath a series of keys, two of which are shown at B B'. From each of the said swell-valves a bent arm, C or C', extends and supports at its upper part a wooden cylinder, D, cushioned or covered on its upper surface with cloth. A cranked shaft or bent lever, E or E', formed of wire bent in manner as shown in Figs. 4 and 5, is pivoted at its portions *a a* to the under side of the key-board or frame F, and arranged therewith in manner as shown. To each of the arms C C' there is such a lever, the wrist *b* of which rests directly on the cushioned cylinder of such arm. The free arm *c* of the lever extends underneath and against the front part of another lever or radial arm, G, pivoted to a frame, H, projecting down from the cap-board I, which usually is hinged to the organ-frame, so as to be capable of being turned from a horizontal up into a vertical position. The radial arm G carries an inclined plane, *d*, against which another such plane, or a cam, *e*, fixed to a slide-rod, K, is arranged, as shown. A spring, L, applied or fixed to the hinge-piece *p* of the arm G, and having its free end resting against the arm, as shown, operates to press the arm upward. There is to each swell or induction valve A or A', and the

part *q* to which it is hinged, a torsion-spring, M, to effect the downward movement or closing of the swell or induction valve. Each slide-rod K is extended through the name-board *f*, and is provided at its front end with a knob, *g*.

A performer, on taking hold of the knob and drawing the slide-rod toward him, will move the cam *e* against the inclined plane *d*, and thereby cause the radial arm G to be forced downward. As a consequence, the cranked wire or lever E will be moved so as to depress the arm C, and cause it to raise the swell or induction valve, so as to admit air to the reed-chambers. On pushing back the slide-rod the swell or induction valve will be closed.

Each of the main reed-valves L¹ is represented as having its free end hinged to the free end of an additional reed-valve, L², arranged as shown, the connection of the two valves being effected by a strip, *h*, of linen lapped on and glued to each. The additional reed or valve, pivoted at its other end, may stand either in line with the main reed-valve or obliquely thereto, as shown in Fig. 3. From this it will be seen that both valves may be operated or opened simultaneously by one key, or that to the main valve.

The mechanism for operating the swell or valve of the inducts of the series of reed-chambers is exceedingly convenient and effective, as it brings the knobs directly in front of the performer, and, in fact, can be raised with the cap, so as to enable a person to readily obtain access to the back valve and reeds or reed-chambers.

I claim, therefore—

1. The arm C or C', the bent lever E or E', the radial arm G, the inclined plane *d*, the cam *e*, and the slide-rod K for depressing each of the valves A or A', combined and arranged as explained, the radial arm being provided with a spring for moving it upward.

2. The slide-rod K, the inclined plane *d*, and the radial arm G, applied to the cap so as to be movable therewith, as described, in combination with the lever E and the arm C, arranged together, and applied to the key-frame and the valve A, as set forth.

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Witnesses:

R. H. EDDY,
J. R. SNOW.