

A. DAYTON.
 REED-ORGAN BELLOWS.

No. 174,207.

Patented Feb. 29, 1876.

Fig. 1.

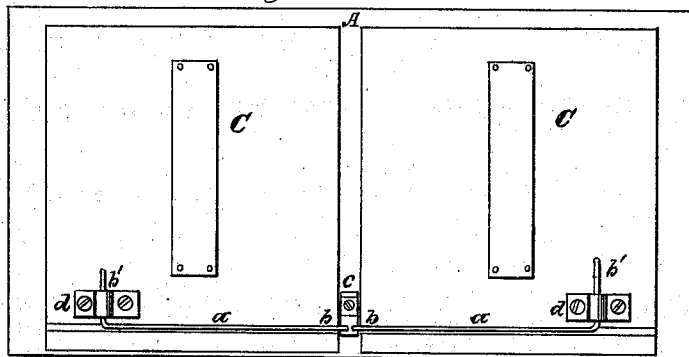


Fig. 2.

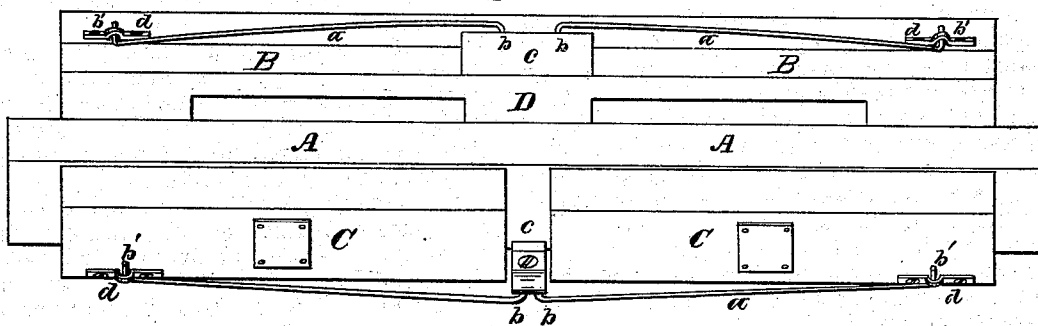
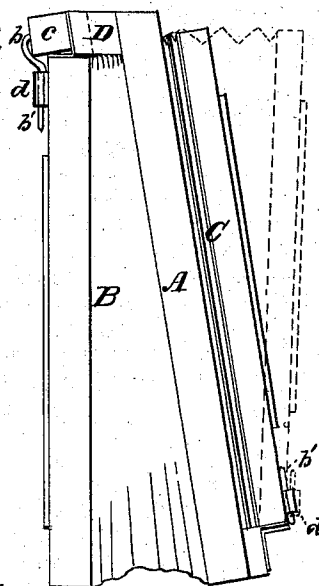


Fig. 3.



ATTEST:-

Chas. M. Higgins.

INVENTOR:-

Arvid Dayton
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Attys.

UNITED STATES PATENT OFFICE.

ARVID DAYTON, OF WOLCOTTVILLE, CONNECTICUT.

IMPROVEMENT IN REED-ORGAN BELLOWS.

Specification forming part of Letters Patent No. **174,207**, dated February 29, 1876; application filed October 29, 1875.

To all whom it may concern :

Be it known that I, ARVID DAYTON, of Wolcottville, in the county of Litchfield and State of Connecticut, have invented certain Improvements in Bellows for Reed-Organs, of which the following is a specification :

This invention relates to the springs for collapsing the pumpers and expanding the exhauster of the bellows as ordinarily constructed for reed-organs; and it consists in the application of torsion-rods or wires of spring metal to the same, in such a manner that any force tending to expand the pumpers (as by the action of the foot on the pedal in the usual manner) or to collapse the exhauster will twist the said rods, as clearly shown. It also consists in the novel construction and arrangement of the parts, as will be hereinafter described.

In the drawings, Figure 1 is a front view, on a small scale, showing the application of my device to the pumpers of an organ-bellows. Fig. 2 is a plan of an organ-bellows supplied with my improved form of spring. Fig. 3 is an end view of the same.

A represents the fixed partition between the exhauster B and the pumpers C C. The former is hinged to the mortised strip D, which communicates with the wind-chest of the organ. The latter are hinged at the bottom, and are operated by pedals in the usual manner. The normal position of the exhauster is that of expansion, and the normal position of the pumpers is that of collapse, as illustrated in Fig. 3, when the instrument is in repose. They are retained in this position by the tension of springs.

All the parts of the bellows above described are common to many instruments, and therefore form no part of my present invention.

The parts constituting my invention I will now describe.

To hold the exhauster in its normal expanded position, I provide rods *a a*, of spring metal, with their ends *b b b' b'* bent nearly at right angles to the main stem, and at a proper angle with each other. One end, *b*, of each

rod is inserted in a block, *c*, secured to the partition A, and the other end, *b'*, slipped into a suitable bearing, *d*, secured to the back of the exhauster. When the ends of the rods are secured in this manner the elastic tendency to recoil retains the exhauster in its expanded condition.

The construction of the spring-rods for the pumpers C C is precisely the same as that for the exhauster, and I have used the same letters of reference for both; but the latter must be so arranged as to retain the pumpers in a collapsed normal condition.

The advantages of this spring over the old kind, inclosed within the bellows, are obvious. My spring is cheap and simple. It is outside of the bellows, and easily reached for repair or removal. If at any time it should be necessary to release the bellows from the action of the springs, this is readily done by slipping the ends *b' b'* from their bearings. The elasticity of the rods readily permits this, and also their replacement.

I do not claim torsion-rods broadly as my invention, and I am aware that they have been used as springs for valves of reed-organs, as shown in the patent of J. T. Packard, of July 26, 1870; but

What I do claim is—

1. The combination of the spring torsion-rods *a a*, constructed and attached substantially as shown, with the bellows of a reed instrument, when the said rods are situated outside of the bellows, and one end of each is made readily releasable, as shown and specified.

2. The combination of the spring-rods *a a*, having bent ends *b b b' b'*, with the bearings *d d*, and the bellows of a reed instrument, the whole being constructed and arranged substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

ARVID DAYTON.

Witnesses :

ISAAC W. BROOKS,
O. L. HOPSON.