

L. K. FULLER.
 REED-ORGAN BELLOWS.

No. 174,223.

Patented Feb. 29, 1876.

Fig. 1.

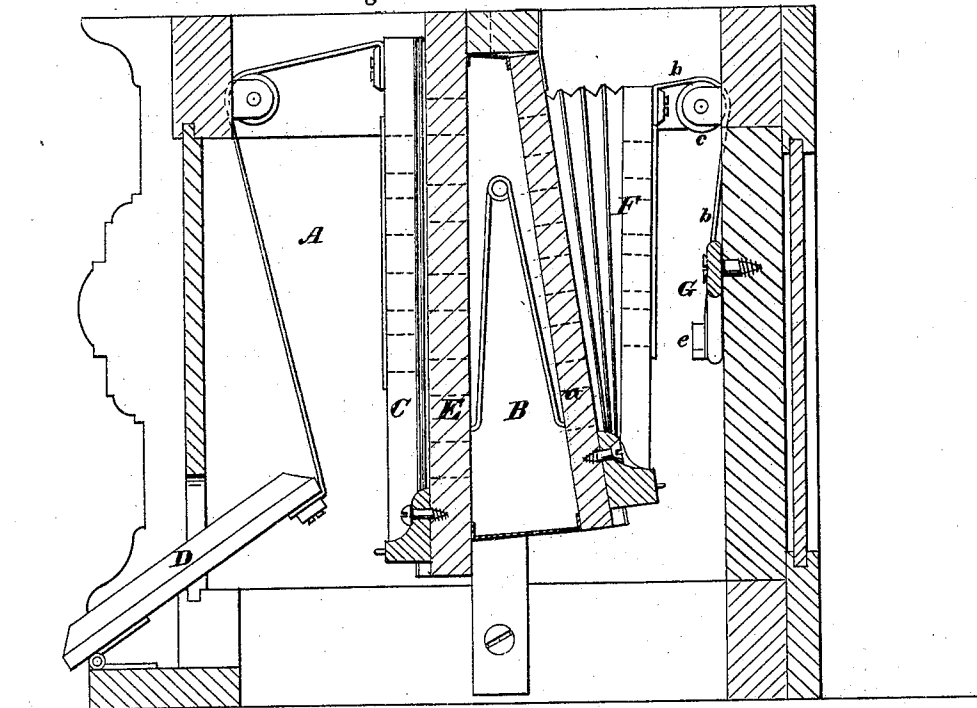
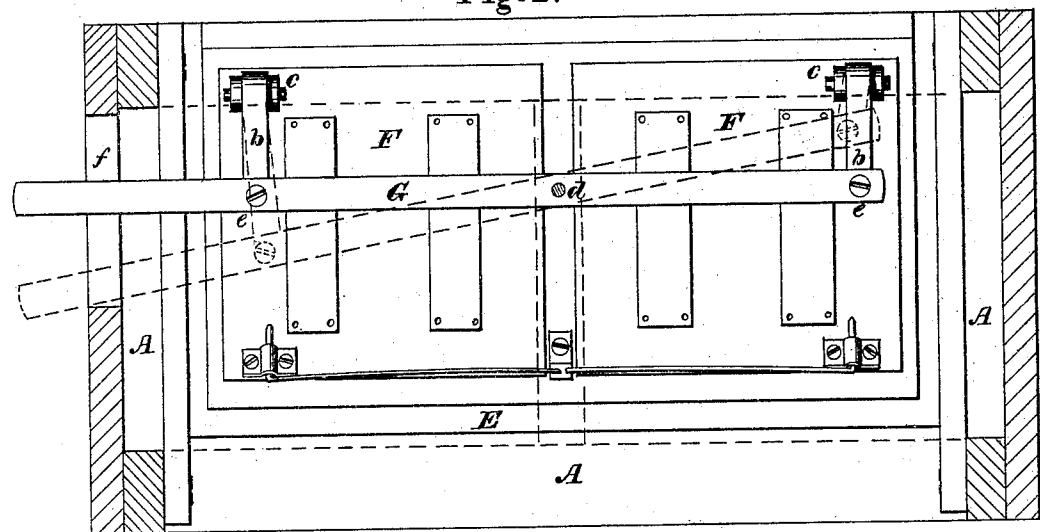


Fig. 2.



ATTEST:-

Chas. M. Higgins.

INVENTOR:-

Levi K. Fuller
 Per *Burke & Fraser*
Atty.

UNITED STATES PATENT OFFICE

LEVI K. FULLER, OF BRATTLEBOROUGH, VERMONT, ASSIGNOR TO J. ESTEY
& CO., OF SAME PLACE.

IMPROVEMENT IN REED-ORGAN BELLOWS.

Specification forming part of Letters Patent No. **174,223**, dated February 29, 1876; application filed
October 29, 1875.

To all whom it may concern:

Be it known that I, LEVI K. FULLER, of Brattleborough, in the county of Windham and State of Vermont, have invented certain Improvements in Bellows of Reed-Organs, of which the following is a specification, and have assigned the same to the firm of J. ESTEY & Co., of the same place:

This invention relates to that class of organs in which the bellows is operated by the foot of the player; and it consists, principally, in the combination with an ordinary bellows of auxiliary or supplementary pumpers, connected with the receiver and arranged to be operated by a person other than the player. It also consists in the special construction and arrangement of the parts, as will be hereinafter described.

In the drawings, Figure 1 is a transverse mid-section of the lower portion of an organ provided with my improvement. Fig. 2 is a rear elevation of the same on a smaller scale, the back of the organ being removed to show the operative mechanism.

Let A represent an ordinary organ-case; B, a receiver; C, the pumpers; D, the blow-pedals or treadles, and E a perforated partition, all arranged and constructed in the usual manner. On the back board *a* of the receiver B are mounted one or more auxiliary pumpers or bellows, F F, constructed similar to C. In the particular construction here shown, these pumpers are hinged at their lower edges to the back board of the receiver, and have actuating-straps *b b* attached to their upper edges. These pass over guide-rollers or sheaves *c c* journaled in suitable bearings attached to the frame of the organ-case, and thence down to a lever, G, to which they are attached at the points *e e*, on opposite sides of the fulcrum, as shown in Fig. 2. The lever G oscillates on a fulcrum-pin, *d*, affixed in the frame of the case, and one end projects through and plays in a suitable slot, *f*, in the end of the case. Suitable springs tend to keep the pumpers F F collapsed, and an up and-down motion of the lever G expands them alternately. Communication between the pumpers F F and the receiver B is maintained by suitable openings and valves in the back board *a* of the latter, as indicated by dotted lines in Fig. 1. It will be observed that, by my method of constructing and operating the pumpers F F, it is im-

material whether the receiver B is in a collapsed or expanded condition. In both conditions the pumpers work equally well.

The objects of this combination and the benefits arising therefrom are two fold. If the music being played requires, to produce the proper volume of sound, a very rapid movement of the blow-pedals, the labor of operating them becomes excessive, and, added to the manipulation of the keys simultaneously, may be too great for the strength of the player. In such cases, the auxiliary pumpers may be operated by another person, and the player relieved. In the case of a child without strength and skill enough to manipulate both bellows and keys, or an infirm person deprived of the use of the legs, the auxiliary pumpers may be operated by another person, and serve the purpose without the assistance of the blow-pedals at all. It is not absolutely necessary that the auxiliary bellows be operated by the hand; a pedal might be connected with the lever G, so that it could be operated by the foot. When foot-pedals are used, this form of bellows becomes very useful in giving the player full control over the bellows-power.

Having thus described my invention, I make no claim to the ordinary bellows composed of the receiver B and pumpers C; but

What I do claim is—

1. In combination with an ordinary pedal-bellows of a reed-organ, one or more auxiliary pumpers, connected with the receiver and arranged to be operated with a lever, substantially as specified.

2. The combination of the receiver B, pumpers C, pedals D, and auxiliary pumpers F F, the latter arranged to be operated by hand and independently of the pumpers C, substantially as specified.

3. The combination of the receiver B, auxiliary pumpers F F, hinged to the back of same, as shown, straps *b b*, rollers *c c*, and pivoted lever G, all constructed and arranged to operate substantially as shown.

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

LEVI K. FULLER.

Witnesses:

J. E. HALL,

W. WM. H. CHILDS.