L. K. FULLER

Organ-Cases.

No. 150,018. Patented April 21, 1874.

Fig. 1.

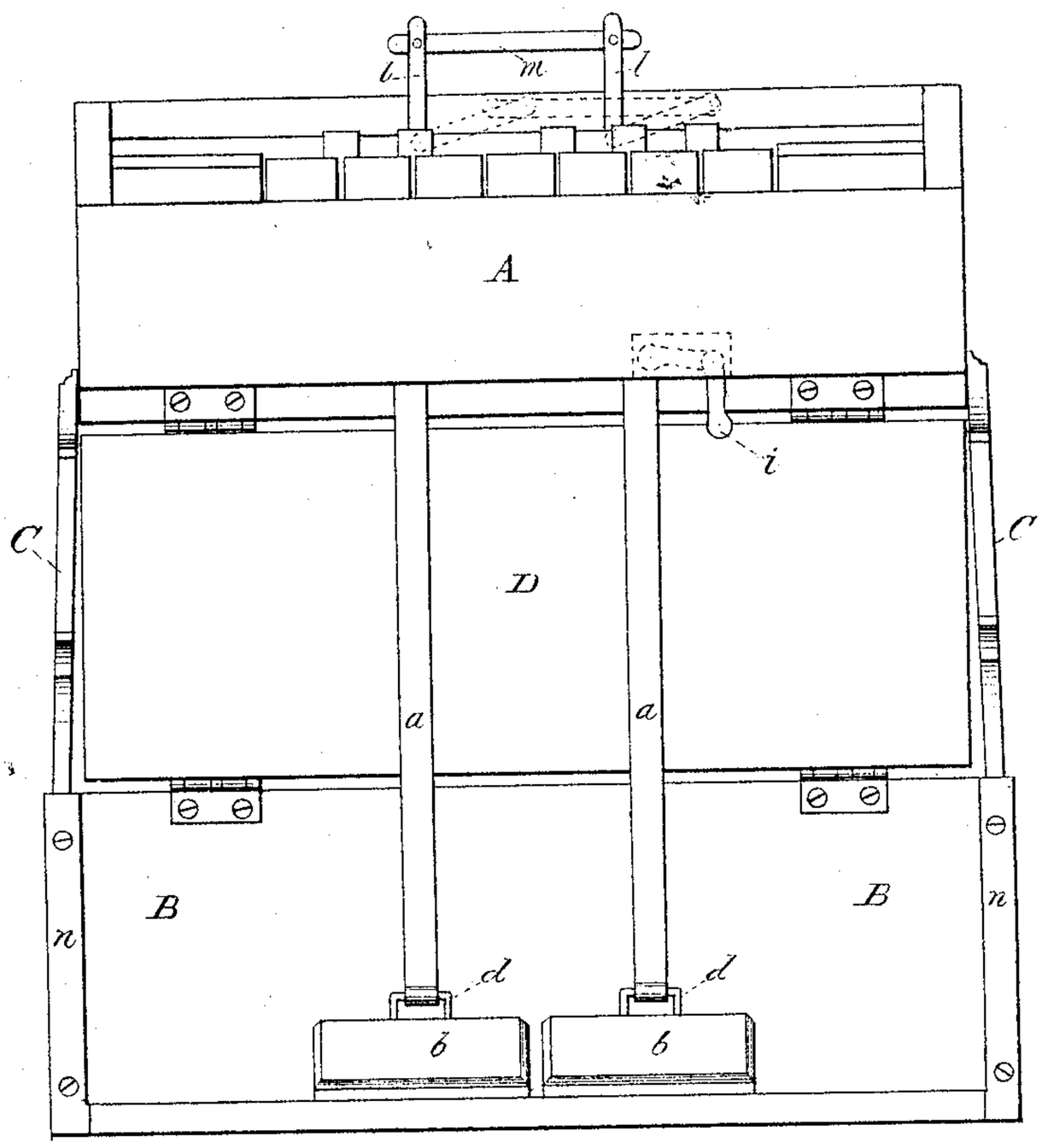


Fig. 2.

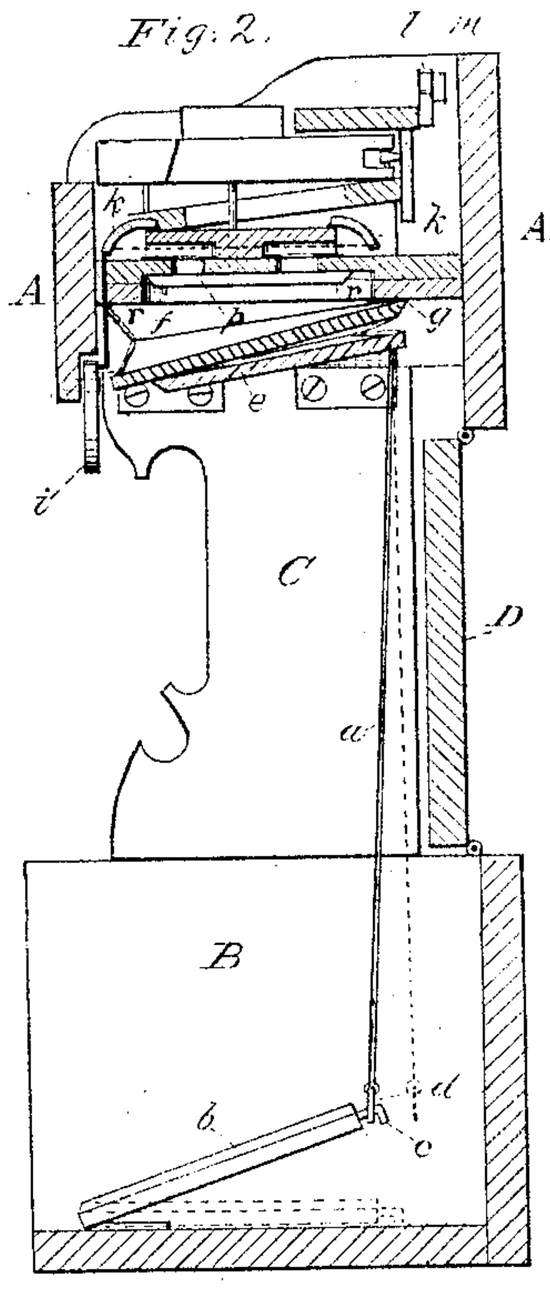
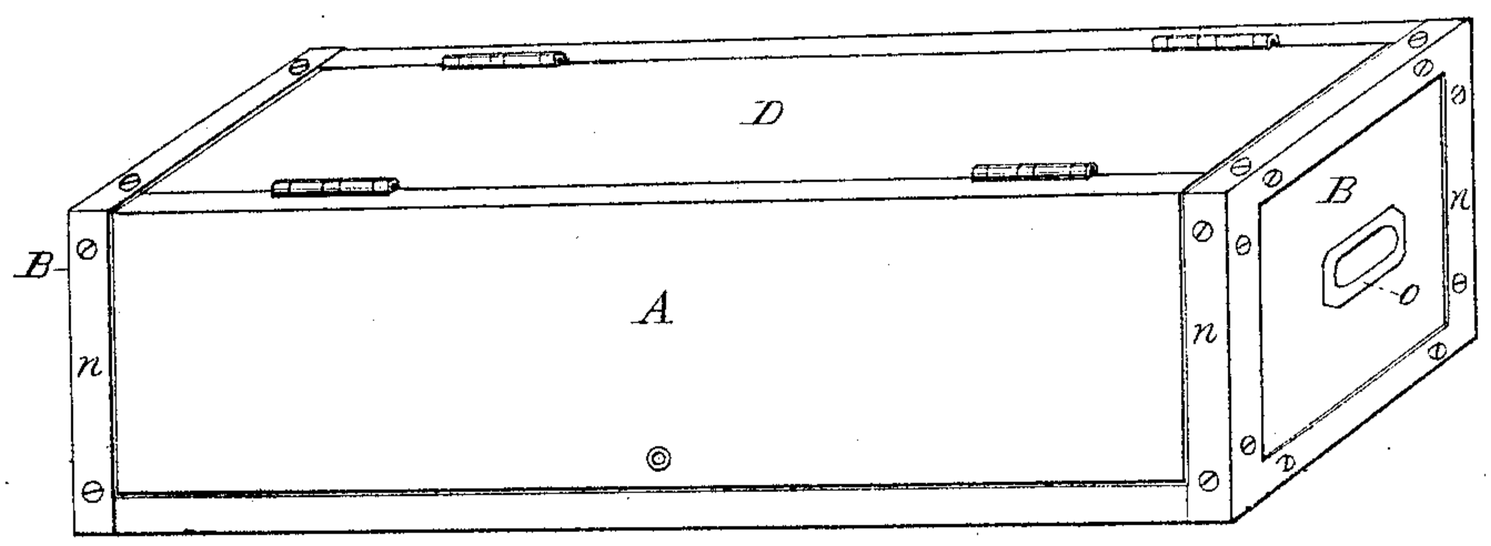


Fig. 3.



Witnesses.

Charles M. Higgins.

Arthur B. Fraser.

Inventor.

Levi K. Fuller

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UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN ORGAN-CASES.

Specification forming part of Letters Patent No. **150,018**, dated April 21, 1874; application filed January 28, 1874.

CASE 2.

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 new and useful Improvements in Reed-Organs, of which the following is a specification:

This invention relates to portable or folding organs, or those having cases so constructed that they may be folded into a compact and portable form when desired; and it consists in the combination, with the folding case, of a suction or exhaust bellows, arranged and constructed as hereafter described, in the arrangement of the pedals with relation to the case, and in the mode of connection with the straps from the bellows; also, in a folding knee-swell and music-stand, and in metallic clamps and handles applied to the ends of the lower portion of the case, the whole being constructed and arranged as hereinafter set forth.

Figure 1 of the accompanying drawings is a front elevation of a folding organ provided with my improvements. Fig. 2 is a vertical section of the same, and Fig. 3 is a perspective view of the same when folded.

As shown in the drawings, B is a partially open chest or box, forming the base of the case. To the back of this chest is hinged the back section or leaf D, to the top of which is again hinged the upper compartment or chest A, containing the key-board, reeds, bellows, and other operative parts. At the ends of the chest A are hinged the brackets C C, which rest on the ends of the lower section B, as shown in Figs. 1 and 2, to support the upper section when the instrument is unfolded or in an operative position.

To fold the case, the leaves C C are folded against the under side of the bellows, and the upper section A is folded down against the back portion or leaf D, and these parts then folded into the lower chest B, when the case appears as shown in Fig. 3.

I will now describe the improvements applicable to organs of this class, and forming the subject of this application. The pedals *b b* are placed within the lower section B, and are hinged to the bottom of the same, as shown in Figs. 1 and 2. To their inner ends are secured hooks *c c*, Fig. 2, which engage with a link, *d*, attached to the straps *a a*, that connect the pedals with the bellows *e*.

This connection allows the straps to be disconnected from the pedals when desired, which is necessary in folding the case, the strap being then detached and the pedals pressed down upon the bottom of the chest B, as represented by the dotted lines in Fig. 2.

In the lower portion of the upper chest A is arranged the bellows. This consists of a main or receiving bellows, *f*, hinged directly to the base of the foundation-board at *g*, and immediately under the valves *p*, which open into it. To the bottom and at the front of this bellows is hinged two smaller exhausting-bellows, *e*, which are respectively connected with the pedals *b b* by means of the straps *a a*. The normal position of the bellows is as shown in Fig. 2, the receiver *f* being kept distended by a spring, while the exhausters *e e* are kept collapsed in the same manner.

When the pedals are operated the exhausters are alternately distended, thus exhausting the air from the receiver *f*, into which the air passing through the reeds is received. The external pressure thus brought upon the receiver *f* tends to collapse it, while the spring, on the contrary, tends to distend it, the result being that a uniform degree of rarefaction is maintained in the receiver and the wind-chests in communication with it, and a uniform degree of sound is thus produced. This form of bellows is peculiarly adapted to the folding case, owing to its compactness and simplicity, and it also folds up when the case is folded.

The knee-swell consists of a lever, *i*, pivoted to the inside of the front board of the upper chest A, in a recess, as shown in Fig. 2, and in dotted lines in Fig. 1. This lever is connected, in any of the well-known methods, with the swells *k k*, Fig. 2, so that in moving the lever to one side the swells *k k* are raised and the swell produced. The lever *i* when in an operative position depends vertically from the front of the upper chest, as shown by the full lines in Figs. 1 and 2; but in folding the

case the lever is turned into its recess, where it rests in a horizontal position, as represented by the dotted lines in Fig. 1, in which position it does not interfere with the folding of the case, and is removed from liability to injuries resulting from the operation of folding or unfolding.

I also provide the instrument with a folding music-stand, which consists of two or more bars or rods, *l l*, pivoted at their lower ends to the key-board at suitable points, and above, or at or near their opposite ends, to a horizontal bar or bars, *m*. This stand or rack is placed in an upright position when required for use, as represented by the full lines in Fig. 1; but when the case is to be folded the bars *l l* are pressed sidewise, when they assume a recumbent and contracted position, as represented by the full lines in Fig. 2, and dotted lines in Fig. 1, and offer no impediment to the folding of the case.

The lower chest, as it forms the exterior of the case when folded, is exposed to concussions and injury in its carriage from place to place, and requires additional strength and rigidity. This I effect by casing each end of this chest with metallic bands *n n*, which greatly strengthen the same, and effectually resist any concussions to which it is likely to be exposed. The ends of the case are also provided with handles *o o*, Fig. 3, of any suitable kind, by which the instrument, when folded, may be conveniently carried from place to place.

I claim as my invention—

1. In combination with the folding case, bellows *f e*, and straps *a a*, the pedals *b b*, arranged within the lower section B, substantially as shown and described.

2. In combination with the pedals *b b* and straps *a a*, the hooks *c c*, as and for the purpose set forth.

3. In combination with the folding case A B C D, pedals *b b*, and straps *a a*, the bellows *f e*, attached directly to the base of the foundation-board *r*, and immediately below the valves *p p*, all arranged to operate substantially as shown and described.

4. In combination with a folding case, as described, the metallic bands *n n*, on the ends of the lower section B, substantially as and for the purpose set forth.

5. The knee-swell, *i*, connected with the organ-case, so that the same may be folded into a recess within the case, all constructed, combined, and arranged substantially as described.

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

LEVI K. FULLER.

Witnesses:

ARTHUR C. FRASER,

CHARLES M. HIGGINS.