2 Sheets—Sheet 1

L. K. FULLER.

REED ORGAN.

No. 189,555. Patented April 17, 1877.

Fig. 1.

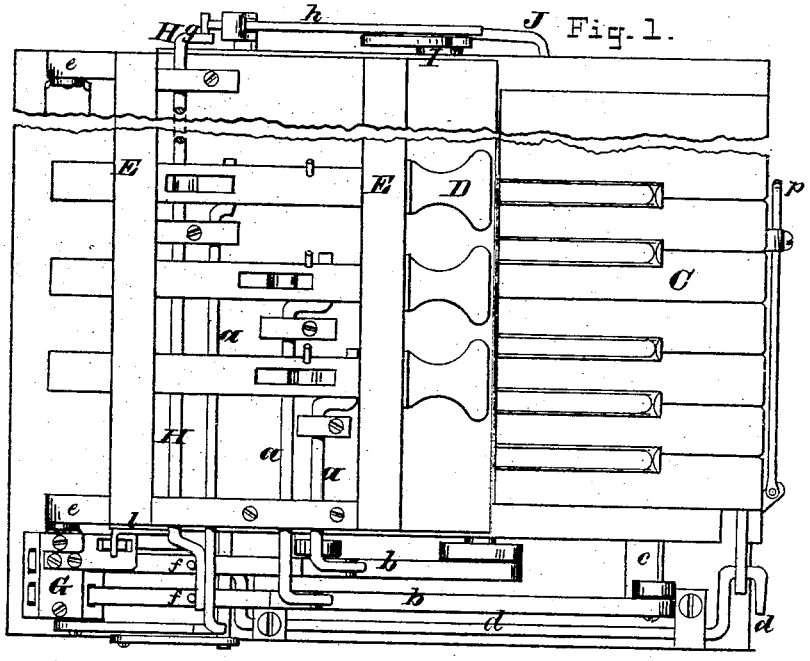
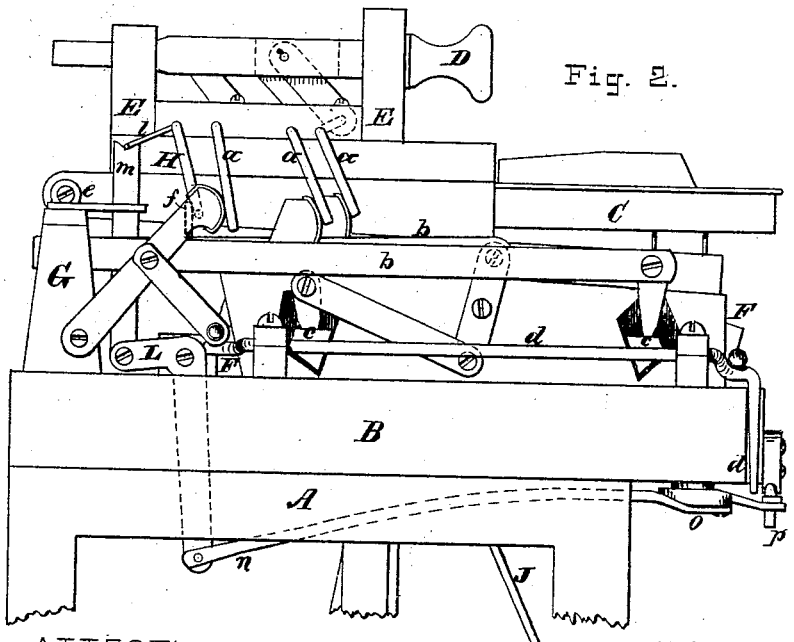


Fig. 2.



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Chas M. Wiggins.

INVENTOR:
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2 Sheets—Sheet 2.

L. K. FULLER.

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Fig. 3.

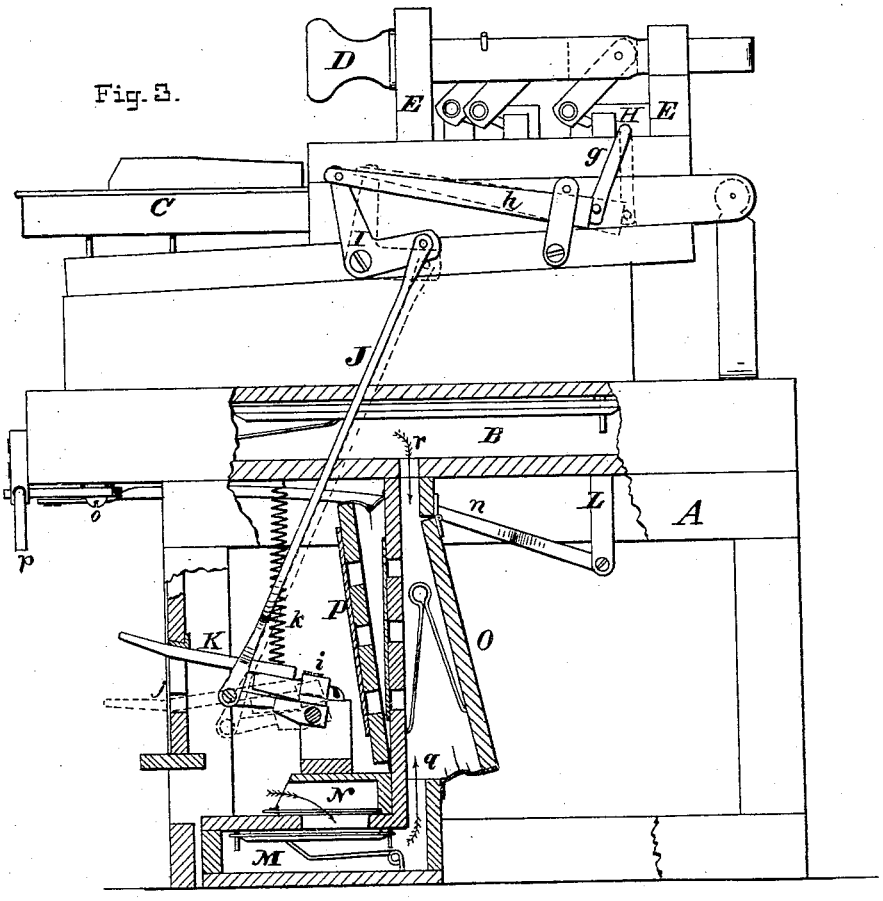
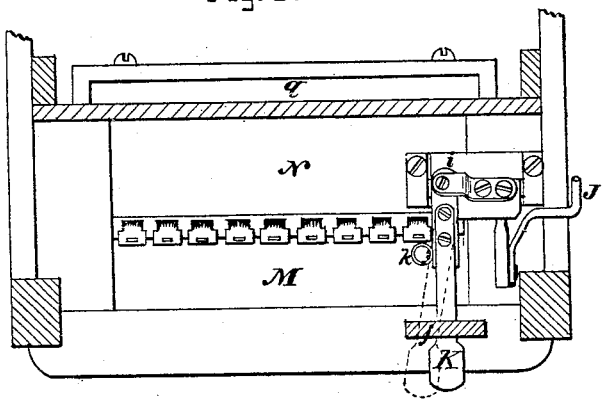


Fig. 4.



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UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. 189,555, dated April 17, 1877; application filed January 19, 1877.

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 Reed-Organs, of which the following is a specification:

This invention relates to organs provided with a pedal-bass most particularly, and consists in the particular arrangement of the pedal-reeds, their connection with the bellows, the construction of the bellows with two throats connecting it with the upper and lower sets of reeds, the construction and arrangement of mechanism whereby all the dampers of the organ may be thrown open with the foot or with the knee, and other combinations and arrangements, which will be fully hereinafter described.

In the drawings, Figure 1 is a plan of an organ-action embodying my improvements. Fig. 2 is a view of the left-hand end of the action, the stop mechanism not being fully shown. Fig. 3 is an elevation of the opposite end, the lower portion being in section. Fig. 4 is a horizontal sectional view, showing the pedal-reeds in plan.

Let A represent the lower portion of an organ case or frame; B, a wind-chest; C, keys; D D, stops, and E the stop-frame, bearing the various stops and stop-rods *a a*, which latter act through the slides *b b* to operate dampers *c c*. F F are swells, and *d* is the swell-rod for operating them by means of a knee-lever, in the usual manner.

The stop-frame is hinged at *e e* to suitable brackets, as shown. These brackets may be affixed to suitable standards G.

None of the above devices in themselves form any part of my present invention.

In the slides *b b* are fixed pins *f f*, or suitable projections of a similar nature, which are so arranged as to be engaged by the cranked end of a wire or rod, H, mounted on the stop-frame E. This rod is shown as extending through to the opposite end of the organ-action, and terminating in a crank, *g*, at that end. This crank is arranged to be engaged by a sliding bar or rod, *h*, the front end of which is linked to one arm of a bell-crank, I, or some equivalent device, the other end of which is linked to a rod, J, which reaches down and takes hold of a pedal, K, arranged to be actuated by the foot.

When the pedal K is pressed down by the foot the cranked end of the rod H is caused to move endwise all of the slides *b b*, and throw open all of the dampers in the organ. This action is clearly indicated by the dotted lines in Fig. 3.

Although this mechanism is only shown as acting upon two stops, it must be understood that it can be adapted without alteration to any desired number of stops, two being sufficient to illustrate the construction.

The stops may be arranged centrally in the stop-frame or at each end, as may be desired.

To enable the player to keep the pedal K down without the constant pressure of the foot I provide for some lateral play by pivoting the said pedal at *i*, and providing a notch in the guide-slot *j*, so that when the pedal is pressed down it may be pushed sidewise into said notch, as shown in dotted lines in Fig. 4, and be thus held down without the intervention of the player's foot.

A spring, *k*, or some equivalent device, may be arranged to lift the pedal, when freed, and move the various parts connected therewith back to their places.

The rod H is also provided with an arm or branch, *l*, (see Fig. 2,) under which takes an upright, *m*, the lower extremity of which is pivoted or hinged to an arm of a bell-crank, L, to the other arm of which is linked a rod, *n*, which connects, through another crank, *o*, and rod *p*, with a knee-lever, (not shown,) whereby the dampers may all be thrown open with the knee, if desired.

M is the wind chest or chamber belonging to the pedal-reeds N, which are mounted thereon. This chamber is arranged at the lower edge of bellows O, and connects therewith through the throat *q*, while the upper edge of the bellows connects through the throat *r* with the upper chamber B.

P P are the pumpers, which may be arranged and operated in the usual manner.

I have shown no pedals for operating the pedal-reeds, as they form no part of my present invention, and may be arranged in any manner desired.

I am aware that devices whereby the dampers and swells of a reed-organ may be thrown open simultaneously by the foot, through the medium of a pedal, have been used, and I make no broad claim thereto.

I claim—

1. In a reed-organ, the combination of the rod H, provided at one end with a crank-arm, arranged to simultaneously engage projections on the slides *b b*, and a branch, *l*, to engage the upright *m*, and at the other end with a crank, *g*, to engage a sliding bar, *h*, with the slides *b b*, the rod J, and the pedal K, when all are arranged to operate substantially as herein set forth.

2. The combination of the rod H, provided with the branch *l*, with the upright *m* unattached thereto, but arrranged to engage said branch, the cranks L *o*, rods *n p*, slides *b b*, and dampers *c c*, all arranged substantially as set forth.

3. The arrangement of the pedal-reeds N and chamber M at the lower edge of the bellows O, and in connection therewith by means of the throat *q*, substantially as and for the purposes set forth.

4. The bellows O of a reed-organ, provided with a throat, *r*, at its upper edge, and a throat, *q*, at its lower edge, arranged to take air from separate sets of reeds, substantially as herein shown.

5. The combination of a bellows arranged to take air through throats at its upper and lower edges, with an ordinary set or sets of reeds, arranged to communicate with the upper throat, and a lower or pedal set or sets of reeds, arranged to communicate with the lower throat, substantially as specified.

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

LEVI K. FULLER.

Witnesses:
W. H. CHILDS,
J. E. HALL.