L. K. FULLER.

Reed-Organ Action.

No. 199,429. Patented Jan. 22, 1878.

Fig. 1.

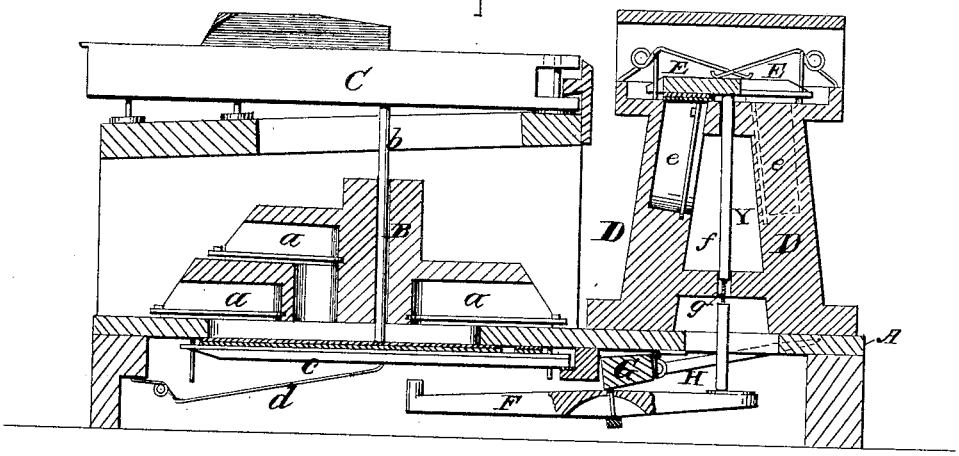


Fig. 2.

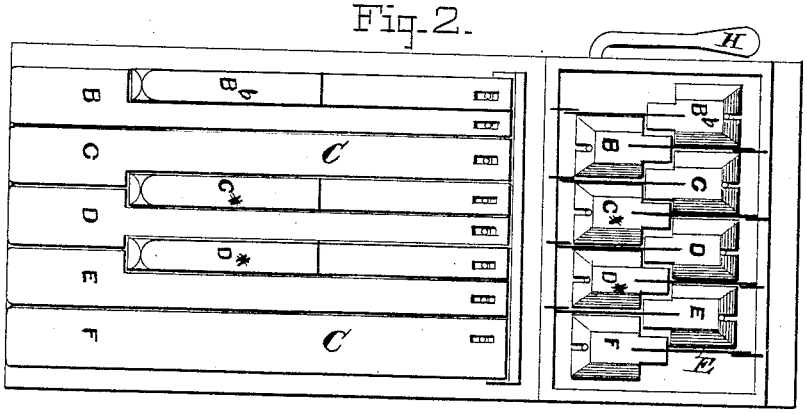
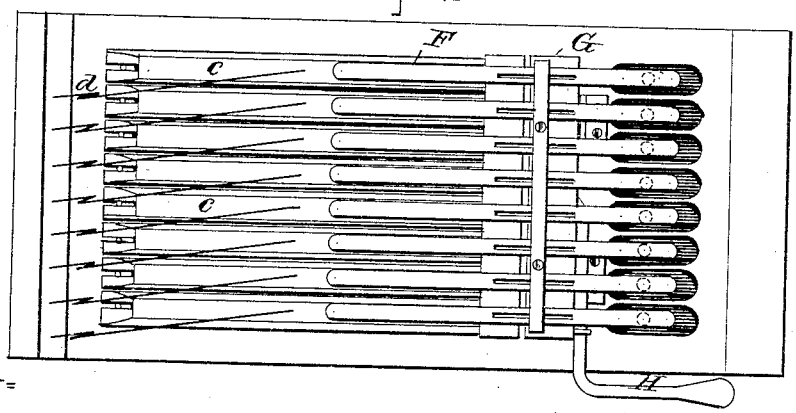


Fig. 3.



ATTEST=

Arthur C. Fraser,

Thomas J. Kirgham

INVENTOR=

Levi K. Fuller

Per Burke & Fraser

Attys.

UNITED STATES PATENT OFFICE.

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

IMPROVEMENT IN REED-ORGAN ACTIONS.

Specification forming part of Letters Patent No. **199,429**, dated January 22, 1878; application filed October 26, 1877.

To all whom it may concern:

Be it known that I, LEVI K. FULLER, of the town of Brattleborough, in the county of Windham and State of Vermont, have invented certain Improvements in the Actions of Reed-Organs, of which the following is a specification:

This invention relates to the arrangement of a set or sets of reeds in a peculiar upright position, in connection with a principal or ordinary set or sets of reeds, in such a manner that the former may be sounded simultaneously with the latter when desired, or remain in their normal condition, entirely cut off from communication with the keys of the instrument.

In the drawings, Figure 1 is a vertical section through the action of a reed-organ arranged to illustrate my invention. Fig. 2 is a plan of the same, and Fig. 3 is a bottom view of the same.

Let A represent the reed-board; B, the socket-board; C, the keys; *a a*, the reed-cells; *b*, the tracker-pins; *c*, the valves; and *d* the valve-springs, all arranged substantially as in an ordinary reed-organ.

D D are the socket-boards of an additional or supplementary set or sets of reeds. These are provided with reed-cells *e e*, and are mounted upon the board A in an upright position, so as to form side walls of an inclosed space, Y.

The cells are arranged in alternate order in the two socket-boards D D, (not opposite,) and the reeds are arranged in the cells in such a manner that, were the twelve notes of the chromatic scale to be numbered consecutively, the reeds corresponding to the odd-numbered notes would be in one socket-board and the even numbered in the other. The order of this arrangement is illustrated in Fig. 2. The cells *e e* open into the space or chamber Y, and the reeds in the same are placed next the opening, as shown.

The mouths of the cells *e e* are covered by valves E E, provided with interlapping butts, to which are rigidly secured tracker-pins *f*, which are ranged approximately in line, and play in bearings in the inclosure Y. The valves E are provided with springs and guide-pins, but, unlike the ordinary valves, they lift vertically, being securely fastened to their pins.

The tracker-pins *f* are provided with a delicate longitudinal adjustment, consisting of a tenon-screw, *g*, or its equivalent, made from a bit of screw-threaded wire, inserted between the two parts of the pin. The pin being attached to the valve, the advantage of this adjustment is obvious.

The lower ends of the tracker-pins *f* rest upon the rear extremities of levers F F, pivoted to a rocker-bar, G, hinged to the under side of the reed-board, or to some other part. The forward extremities of the levers are furnished with projections to engage the valves *c c* of the reeds operated upon by the keys, when the said levers are thrown up by means of the stop-lever H or its equivalent.

The operation is as follows: When the stop-lever H is quiescent in its normal position, as in Fig. 1, the levers F do not engage the valves *c*, and the reeds in the cells *e e* are not sounded by manipulating the keys C; but when the lever H is pressed down by means of a stop or other mechanism the levers F are brought into contact with valves *c*, and pressure on the keys C gives voice through the tracker-pins *b* and *f* and the levers F to the ordinary and the additional sets of reeds simultaneously.

I claim—

1. The combination of the valves E E with the tracker-pins *f f*, attached rigidly to their narrowed ends, as shown, when the said narrowed ends are arranged in the manner shown, so that the pins may be aligned, as set forth.

2. The combination of the lever F, hinged rocker-bar G, stop-lever H, valve *c*, and tracker-pin *f*, all arranged substantially as and for the purposes set forth.

3. The combination of the socket-boards D D, arranged to form walls of an inclosed chamber, Y, the cells *e e*, arranged in alternate order in same, and opening into the chamber Y, the valves E E, and the adjustable tracker-pins *f f* attached rigidly thereto, all substantially as and for the purposes set forth.

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

LEVI K. FULLER.

Witnesses:
J. E. HALL,
L. W. HAWLEY.