

(No Model.)

H. W. SMITH.
REED ORGAN.

No. 248,224.

Patented Oct. 11, 1881.

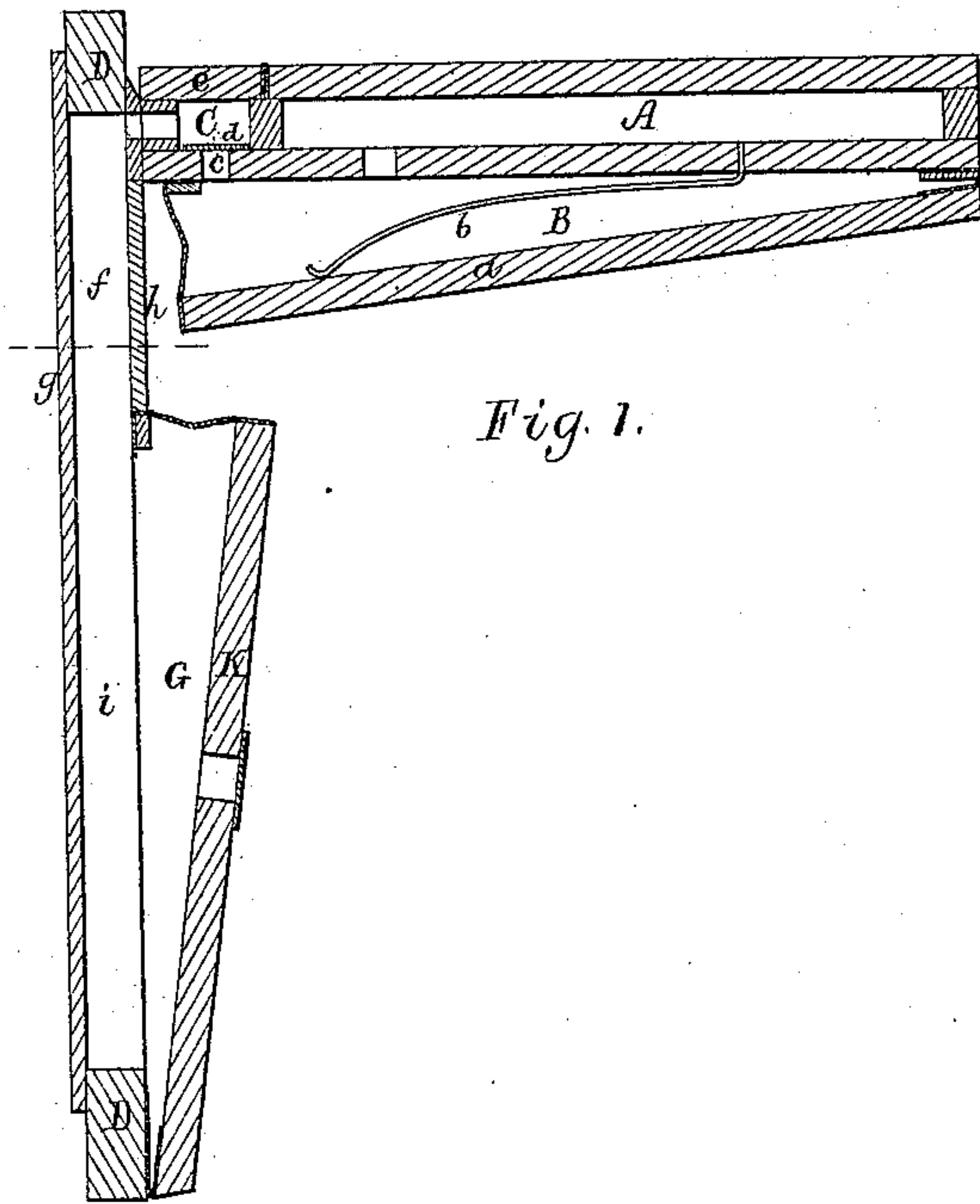


Fig. 1.

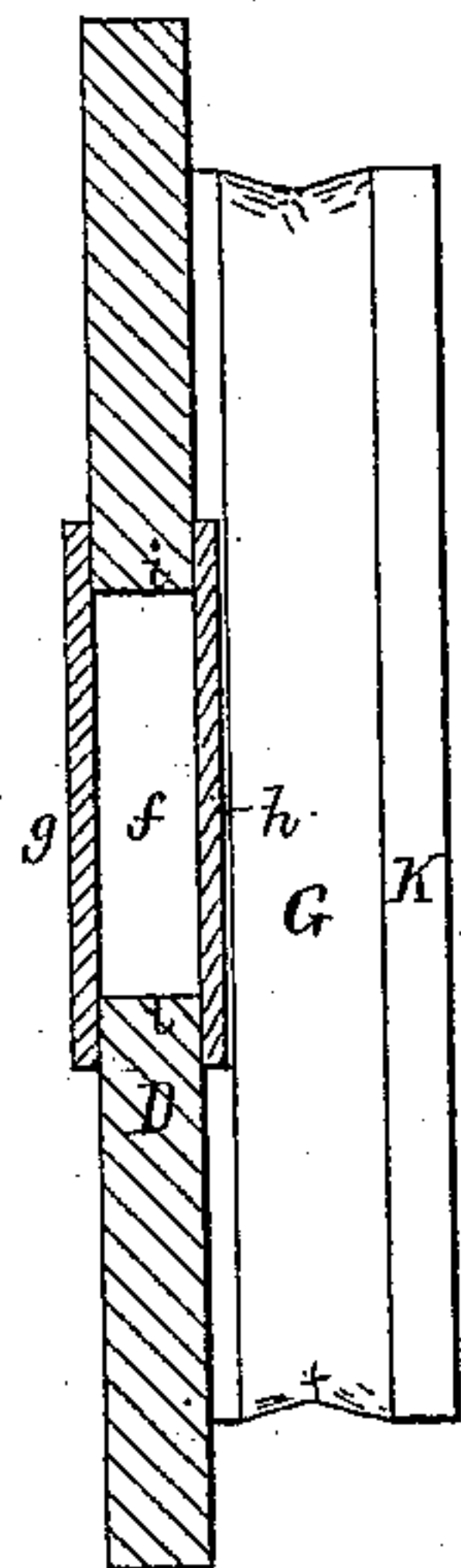


Fig. 2.

Witnesses

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UNITED STATES PATENT OFFICE.

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REED-ORGAN.

SPECIFICATION forming part of Letters Patent No. 248,224, dated October 11, 1881.

Application filed August 5, 1881. (No model.)

To all whom it may concern :

Be it known that I, HENRY W. SMITH, of West Newton, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Reed-Organs; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a transverse section of a reed-organ back and wind-chest provided with my invention. Fig. 2 is a horizontal section of the said back, the plane of section being between the two bellows, to be hereinafter described.

One object of my invention, whose nature is defined in the claims hereinafter made, is to utilize the back in constructing the exhaust-bellows and the passage leading therefrom to the valve-chest, all of which I accomplish in manner as hereinafter explained.

In the drawings, A represents the wind-chest, to which the reed-valves and their chambers are to be adapted in the usual manner. Directly underneath the said wind-chest is the receiving-bellows B, whose movable board *a* is provided, as usual, with an operative spring, *b*, to force it downward. Over the said bellows and in rear of the wind-chest, or between it and the instrument-back D, is a valve-chamber, C, having not only a passage, *c*, leading from it into the bellows, but a valve, *d*, to such passage and to open upward. This valve-chamber has a lid, *e*, to its top. Furthermore, within the back D is a vertical conduit or passage, *f*, leading down from and opening out of the valve-chamber, such passage being formed in part by an opening or slot, *i*, in the back, and by thin plates *g h* screwed or fastened to the back, and arranged with the slot or opening in manner as represented. In front

of the said back is the movable board K of the exhaust-bellows G, such board being hinged to the back and arranged therewith in manner as shown, in order for the said back to be utilized or made to constitute part of such bellows, which otherwise is formed in the usual way. On moving the board K away from the back D air will be drawn from the valve-chamber and extracted from the upper or receiving bellows, B, which, subsequently expanding, will operate in the usual manner to effect vibration of any of the reeds on the valve thereof being raised or opened by its key.

In practice, it has been found that by my invention not only is an instrument or reed-organ rendered cheaper of construction and of less size, comparatively speaking, but its tone is materially improved.

I claim—

1. In combination with the wind-chest A and the receiving-bellows B, arranged underneath it, and with the eduction-passage *f*, and the exhaust-bellows G, arranged with the instrument-back, as set forth, the valve-chamber C, disposed in rear of the wind-chest and provided with the air-passage *c*, valve *d*, and lid *e*, all being substantially as shown and specified.

2. The back D, having within it the passage *f*, opening out of the valve-chamber C and into the exhaust-bellows G, and formed by the slot or opening *i*, and the plates *g h*, arranged as shown, in combination with the movable board of the exhaust-bellows applied to such back D, substantially as set forth.

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Witnesses:

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