

G. Woods
Organ Action.

N^o 49,483.

Patented Aug. 15, 1865.

Fig 1.

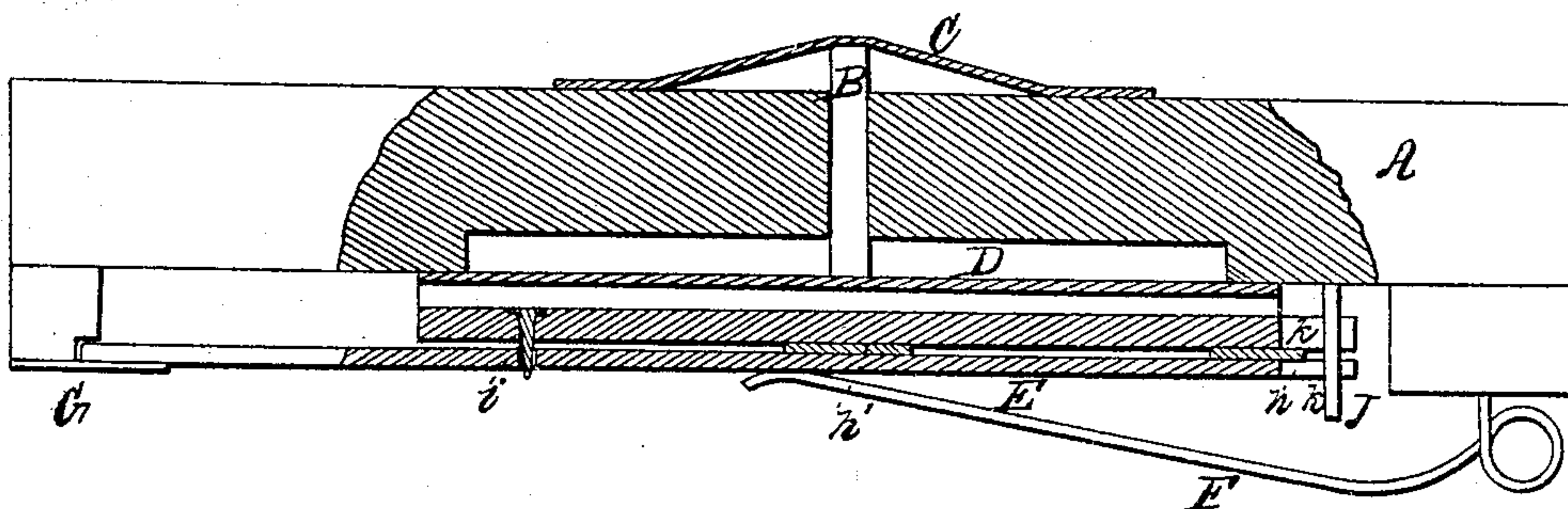
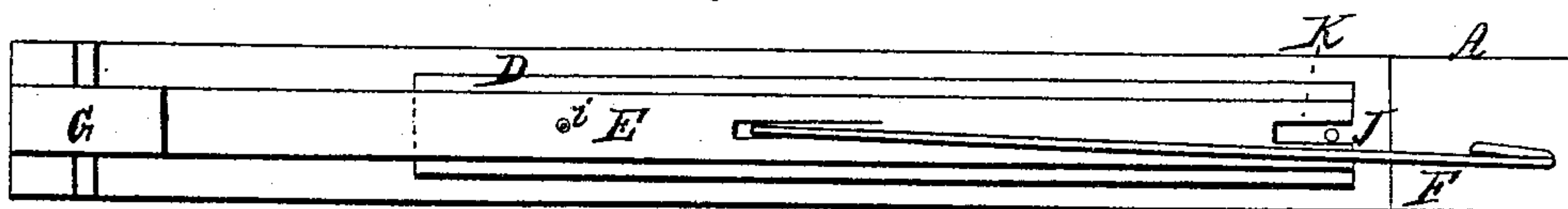


Fig 2.



Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE WOODS, OF CAMBRIDGE, ASSIGNOR TO MASON & HAMLIN, OF
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IMPROVEMENT IN MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. 49,483, dated August 15, 1865.

To all whom it may concern:

Be it known that I, GEORGE WOODS, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Musical Instruments; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view, partly in section, of a portion of a reed-board of a cabinet-organ, with a valve applied thereto made according to my invention. Fig. 2 is an under side plan view of the same.

Similar letters of reference indicate like parts.

The object of this invention is to improve the valves of cabinet-organs and other musical instruments.

It consists in so constructing the valve that the face thereof shall be free to adjust itself to the valve-seat.

It also consists in a peculiar mode of connecting the face of the valve to its stock or shank, whereby it can be removed therefrom and replaced merely by laying off the spring which holds it against its seat.

A designates a portion of the reed-board of a cabinet-organ.

D is a valve, which is held up or against its seat by the force of a spring, F, and is pushed away to open the valve-passage by means of a push-pin, which is operated, as usual, by one of the keys of the instrument. None of the keys or reeds of the instrument are shown in the drawings, and the place of the air or valve passage which is governed by the valve is indicated by the recess made in the lower side of the reed-board. The push-pin is kept constantly against the face of the valve by an elastic strap, C, or other suitable device. The face of the valve is clothed with cloth and leather or other suitable material.

E is a piece of wood, hinged to a rail at G and extending behind or beneath the valve and parallel with the valve-seat, as seen in the

drawings. This piece E carries the valve in the manner shown in the drawings, their place of contact being about the center of the length of the valve, where, beneath the push-pin, a piece of cloth or leather, h, is interposed between them. The spring F, which closes the valve, rests against the back of the hinged piece E, its free end being received in a groove to keep it from lateral displacement. The valve is held up to its seat by the action of the spring through the medium of the hinged piece E, and it is kept from displacement laterally and longitudinally by means of two pins, i and J, the former of which is sharp, and, rising from the face of the piece E to the left of the line in which the push-pin acts, penetrates the adjacent side of the valve and prevents it from slipping or moving on the surface of the said hinged piece. The other pin is fixed in and descends from the reed-board on the right-hand side of the push-pin, and passes through longitudinal slots k made in the right-hand end of the valve and of the hinged piece which carries the valve. A piece of cloth or leather may be interposed between the valve and its carrier, near the slots K.

It will be observed that in this mode of constructing and applying the valve its face is always free to conform to the surface of the reed-board—that is, to its valve-seat—the fulcrum or point of support of the valve being the cushion h beneath the push-pin, one effect of which construction is to make the valve close and open with greater uniformity than where the valve itself is hinged, the movement of its whole face to and from the reed-board, with this construction, approximating to a movement in parallel lines.

The valve can be readily detached from the instrument without other labor than simply to lay aside the spring and to lift the valve off from the carrier E; or, if the valve is on the upper side of the reed-board, after laying aside the spring, the hinged piece E is raised sufficiently to let the pin i clear the valve, when the latter is removed without hinderance.

I claim as new and desire to secure by Letters Patent—

1. In cabinet-organs and other wind instruments, making the valve adjustable by supporting it or holding it to its valve-seat, or to the surface of the reed-board, by means of a hinged carrier extending the length of the valve and parallel, or nearly parallel, therewith, substantially as described.

2. Securing the valve against the face of the carrier-piece E, so as to prevent lateral displacement, by means of a pin, i, substantially as described.

3. So constructing and applying the valves

in cabinet-organs and other wind instruments, when they are supported by an outer piece, as here shown, that they can be removed by simply laying aside the spring which holds them up to their seats and lifting the outer pieces, E, or lifting the valve from such pieces, substantially as described.

GEORGE WOODS.

Witnesses:

AUGUSTUS RUSS,
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