H. Woodbury,

Organ Swell,

No. 33,322, Patented Sept. 17, 1861.

Fig. 1.

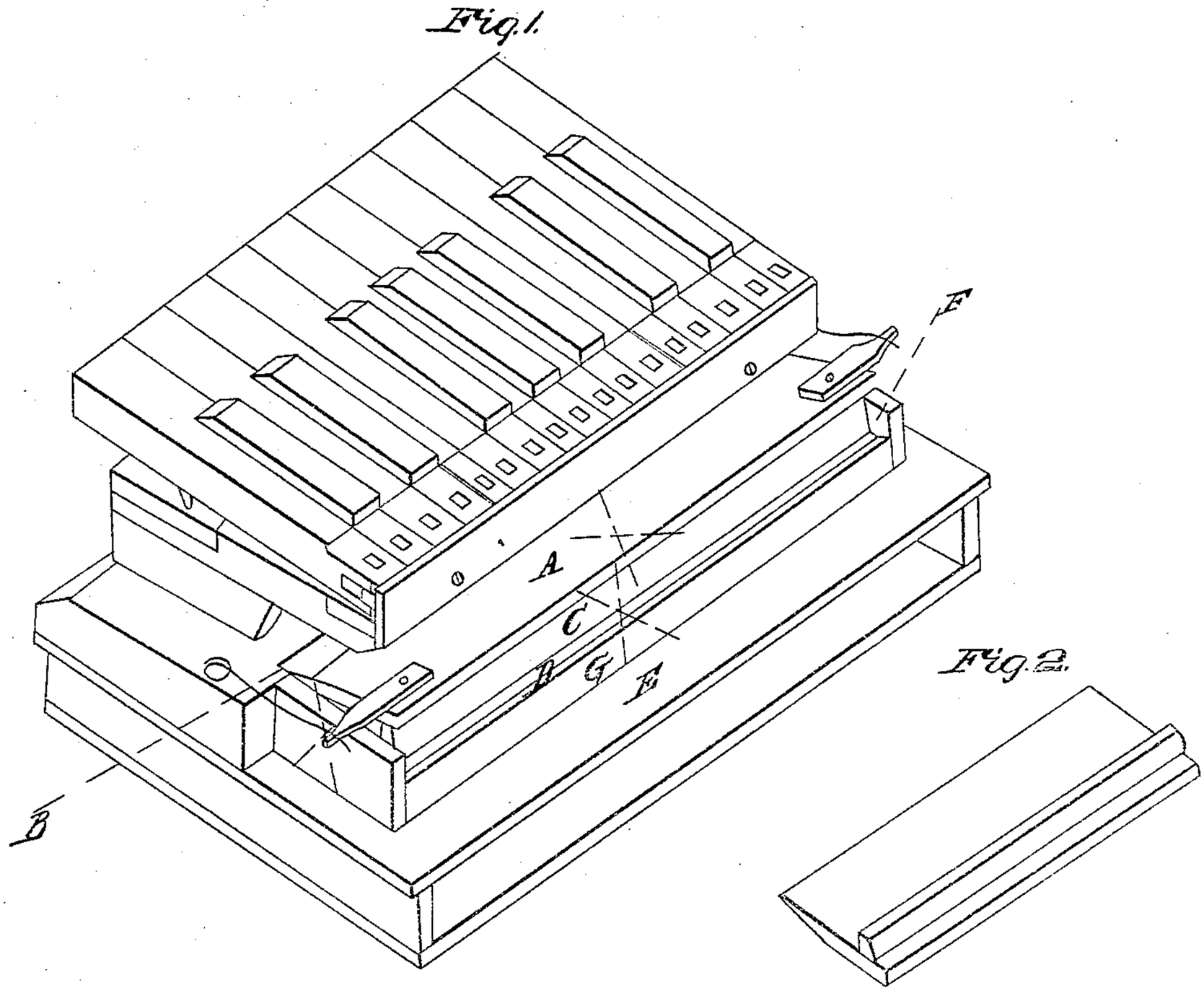

Fig. 2.

Witnesses:

Chas. E. Bacon
Thos. F. Thornton

Inventor:

Hiram Woodbury

UNITED STATES PATENT OFFICE.

HIRAM WOODBURY, OF BUFFALO, NEW YORK, ASSIGNOR TO G. A. PRINCE AND THOS. STEPHENSON, OF SAME PLACE.

IMPROVEMENT IN SWELLS FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **33,322**, dated September 17, 1861.

To all whom it may concern:

Be it known that I, HIRAM WOODBURY, of Buffalo, county of Erie, and State of New York, have invented a new and useful Improved Swell for Reed Musical Instruments; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

The nature of my invention consists in forming the valve of the air-chamber constituting the "swell" so that a projection of it may shut by the valve-seat on the front strip of the air-chamber, substantially as shown in the drawings, for the purpose of qualifying and graduating the tone of reed musical instruments. With this projection, lip, or strip the harsh and grating sound so common to ordinary reed-instruments is subdued into a mellow round organ-like tone. The waves of air set in motion by the vibration of the reeds are brought in contact with the projection on the valve, and are thereby deprived of their acuteness, and are much modified before reaching the ear. Also, in addition to qualifying the tone, the relative position of this projection with the front strip of the air-chamber is such that the quantity of air admitted to the chamber by operating the valve is made more gradual, and the same quality of tone is preserved whether the swell be open or shut.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my swell in the box form, as shown in the drawings by the marks X X X, and attach the lid or valve A in the usual manner with a strip of cloth B. At or near the edge of the lid or valve (that part which is opened for the admission of air) I attach by fastening on an extra piece C, or leave by cutting away superfluous wood, a part which is thicker than the main piece of the lid. This part or projection C shuts by the seat upon which the edge of the valve rests (valve-seat) D. When the valve is moved for expression by the usual means, the projection attached to it being moved with it, and in line, or nearly so, with the front strip of the air-chamber, graduates the entrance of air more perfectly than without it, and at the same time qualifies the tone.

Figure 1 is a perspective view of a melodeon-action, (minus the bellows,) being in part the tube-board, key-board, reed valves, pins, and springs. E, is the tube-board; X X X, the swell; A, the lid or valve; B, the cloth hinge; C, the projection, lip, or strip; G, the front strip of the air-chamber; D, the valve-seat, and F the air-chamber. Fig. 2 is a view of a swell valve with the projection attached.

What I claim to be my invention, and desire to secure by Letters Patent, is—

Forming the valve of the air-chamber constituting the swell so that a projection of it may shut by the valve-seat on the front strip of the air-chamber, substantially as shown by these papers, for the purpose of qualifying and graduating the tone of reed musical instruments.

HIRAM WOODBURY. [L. S.]

Witnesses:

CHAS. E. BACON,

THOS. F. THORNTON.