H. K. WHITE & E. A. FOSTER.

Improvement in Reed-Organs.

No. 130,677. Patented Aug 20, 1872.

Fig. 1.

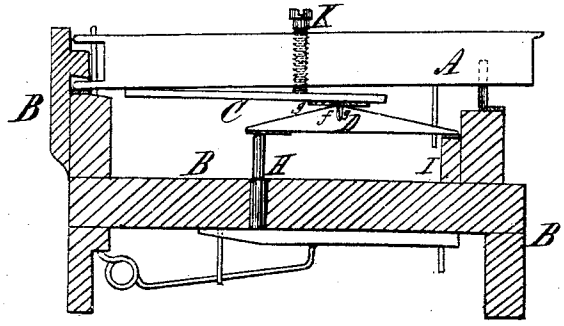


Fig. 2.

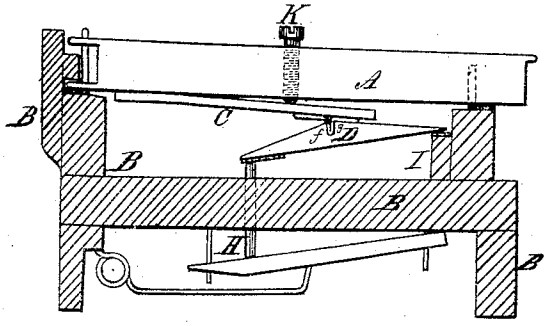
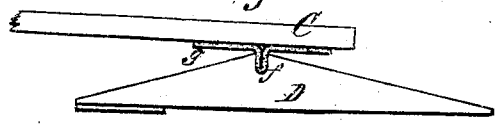


Fig. 3.



Witnesses:

K. N. Jones.

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UNITED STATES PATENT OFFICE.

HENRY K. WHITE AND EDWIN A. FOSTER, OF BRATTLEBOROUGH, VERMONT, ASSIGNORS TO JACOB ESTEY, LEVI K. FULLER, AND JULIUS J. ESTEY, OF SAME PLACE.

IMPROVEMENT IN REED-ORGANS.

Specification forming part of Letters Patent No. **130,677**, dated August 20, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that we, HENRY K. WHITE and EDWIN A. FOSTER, both of Brattleborough, in the county of Windham and State of Vermont, have invented certain new and useful Improvements in Reed-Organs and other like wind musical instruments, of which the following is a description:

Our invention has for its object the more perfect regulation of the opening of the valves and the adjustment of the keys thereto; and it consists in the employment of an auxiliary lever and regulating-screw in combination with the key, and a secondary lever; also, in the manner of constructing the hinge by which the secondary lever is connected with the auxiliary lever.

In the drawing, Fig. 1 is a vertical section of the key-board frame-work, showing the key, levers, and connections in elevation in the position assumed when at rest, with the valve which admits air to the reeds or pipes closed; Fig. 2, a similar view, showing the key depressed and the valve open; Fig. 3, an enlarged view, showing the form of hinge connecting the levers.

The operating parts are supported by the frame-work B B, of similar construction to that usually employed. The keys A are mounted in the ordinary position and retained by pins or guides. Each key A is provided with an auxiliary lever, C, which may consist (as shown in the drawing) of a strip of wood, metal, or other material, secured at one end to the inside of the key, and having sufficient elasticity to allow the adjustment of its other or free end by a screw, K, which passes through the key vertically, for the purpose of regulating the extent to which the valves E may be opened by the depression of the key A. The elasticity of the lever need not necessarily be relied upon to admit of this adjustment, as the lever C may be hinged or pivoted at one end, and the screw K, or equivalent device, may be secured to the opposite end and admit of the same effect. The auxiliary lever C acts upon the tracker-pin either directly or through the medium of the secondary lever D, which rests at one end against the stop I, as a fulcrum, and at the other upon the upper end of the tracker-pin H, and is hinged at any intermediate point to the auxiliary lever C.

In some cases it may be found desirable to hinge the lever D directly to the under side of the key A, and the lever C be dispensed with, in which case the adjusting-screw would act directly upon the lever D.

By the use of the secondary lever D the length of motion imparted to the tracker-pin by the depression of the key A may be increased, producing a greater opening of the valve.

One important advantage attained by the use of the adjustable auxiliary is, that the amount of air admitted to the reed may be regulated with precision by raising or lowering the auxiliary lever by adjusting the screw K, so as to increase or diminish the extent of the opening of the valve. The keys may also be regulated and adjusted to a common level by the screw K, without detaching any part, with great facility and accuracy, the screw being accessible upon the top of the key.

The lever D is connected with the the auxiliary lever C (or with the key A, if preferred,) by means of a hinge formed of leather, cloth, or other flexible material, as shown in Fig. 3. The key is provided with a transverse slot or kerf, *f*, of sufficient width to admit of a double thickness of material *g*, which is folded and inserted with glue or other cement, the loose ends being separated and glued or otherwise affixed to the part to which the lever is to be hinged, forming a facile and reliable connection.

Claims.

What we claim as our invention in wind musical instruments is—

1. The auxiliary lever C and secondary lever D in combination with the key A, with or without the adjusting-screw K, substantially as and for the purpose specified.

2. The hinged secondary lever D, arranged beneath the key A, as described, and adapted

to be adjusted by the screw K, substantially as and for the purpose set forth.

3. The hinge *f*, formed substantially as de-described.

4. The auxiliary lever C and secondary lever D in combination with the key A and adjustable screw K, or its equivalent, as and for the purpose set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

HENRY K. WHITE.
EDWIN A. FOSTER.

Witnesses:
C. H. R. SMITH,
H. B. LAWRENCE.