

C. F. L. GOFFRIE & J. H. SCHUCHT.

Piano and Organ Keys.

No. 137,544.

Patented April 8, 1873.

Fig. 1.

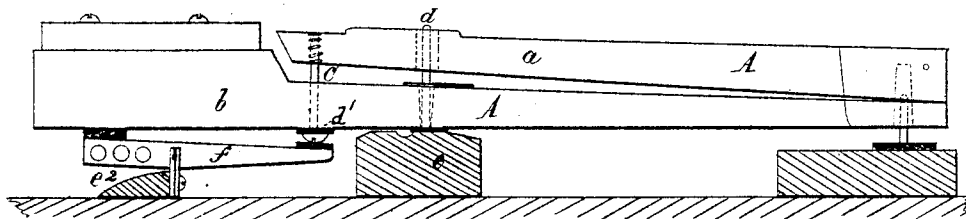


Fig. 2.

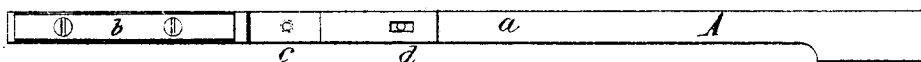


Fig. 3.

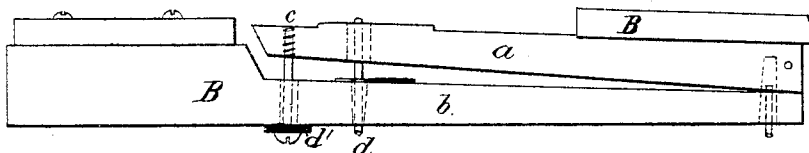


Fig. 4.

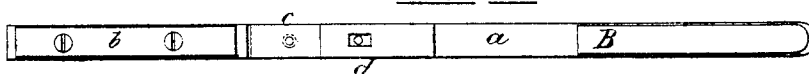
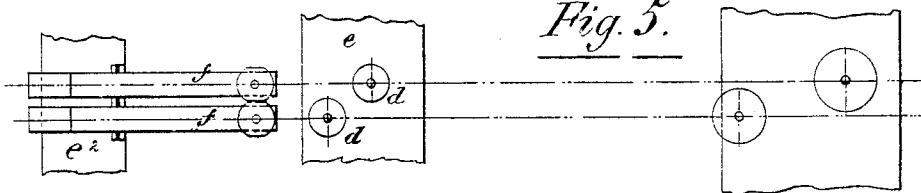


Fig. 5.



WITNESSES

Michael Cook
W. H. K. H.

Charles F. L. Goffrie and J. H. Schucht by their
attys. Osborn, Bone. INVENTOR

UNITED STATES PATENT OFFICE.

CHARLES F. L. GOFFRIE AND JOHN H. SCHUCHT, OF LONDON, ENGLAND.

IMPROVEMENT IN PIANO AND ORGAN KEYS.

Specification forming part of Letters Patent No. **137,544**, dated April 8, 1873; application filed December 17, 1872.

To all whom it may concern:

Be it known that we, CHARLES F. L. GOFFRIE and JOHN H. SCHUCHT, of London, Middlesex county, England, have invented, made, and applied to use certain Improvements in the Construction of the Keys of Piano-Fortes, Harmoniums, and Organs; and that the following is a full, clear, and correct description of the same, reference being had to the accompanying drawing making part of this specification and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation of a white key constructed in accordance with our improvement. Fig. 2 is a plan view of the same. Fig. 3 is a view of a black key constructed in accordance with our improvement. Fig. 4 is a plan view of the same. Fig. 5 is a plan view of the auxiliary levers and supports for the keys.

In the drawing like parts of the invention are pointed out by the same letters of reference.

The nature of the present invention consists in certain improvements, as more fully hereinafter set forth, in the construction of the keys of piano-fortes, harmoniums, and organs, the object of the invention being to construct the keys of piano-fortes, harmoniums, and organs in such a manner that passages of music in which the black and white keys are used alternately, or in combination, may be more easily executed by the performer, than where keys constructed in the ordinary manner are made use of.

The keys of piano-fortes, harmoniums, and organs at present in use are balanced so as to operate like an ordinary lever centered at or near the middle. The depth of the depression of the keys and the power requisite to depress them varies, according to the distance at which they are touched or attacked from the front to the fulcrum or point of balance. The present improvement obviates and remedies perfectly and effectively this disadvantage. We make, adjust, and arrange the keys of piano-fortes, harmoniums, and organs in such a manner that this difficulty is overcome.

To enable those skilled in the arts to make and use our invention, we will describe the same.

A shows a white key, and B a black key. These keys are made in two sections, *a* and *b*. The upper section *a* is attached at its forward end to the lower section *b*, and is free to move upon this point. The upper section *a* thus occupies a position above the lower section *b*, and has inserted in its rear end a screw, *c*, provided with a washer, *d'*. An opening, passing through both sections of which the key is composed, allows the same to be passed over a pin, *d*, inserted in a rail, *e*, resting on the key-bottom of the instrument. Upon a second rail, *e'*, are swiveled the auxiliary levers *f*, upon the forward ends of which the screws *c* impinge.

Such being the construction, the operation is as follows: If the performer press the finger upon the top section, the power will be transmitted to the lower section and depress the same, the key moving freely on the pin *d* upon which it is hung, while at the same time the screw *c* secured in the rear end of the upper section is depressed upon the front end of the auxiliary lever *f*, depressing the front portion of the same, causing the other end of the lever *f* to be elevated, and in turn raise the rear end of the key. Thus, in pressing upon the key at any point between the front of the key and the point at which it is balanced, the power required to depress the key is equal, or nearly so, and the extent of depression of the key is nearly the same.

Having now set forth our invention, what we claim as new is—

In combination with a key composed of the sections *a* and *b*, the screw *c* and auxiliary lever *f*, constructed and operated substantially as and for the purposes set forth.

CHARLES F. L. GOFFRIE.
JOHN H. SCHUCHT.

Witnesses to GOFFRIE:

A. SIDNEY DOANE,
WM. HASTINGS.

Witnesses to SCHUCHT:

JOHN HARRISON,
Notary Public, No. 7 Gracechurch St., London.
WITNEY M. HARRIS,
Of same place, his clerk.