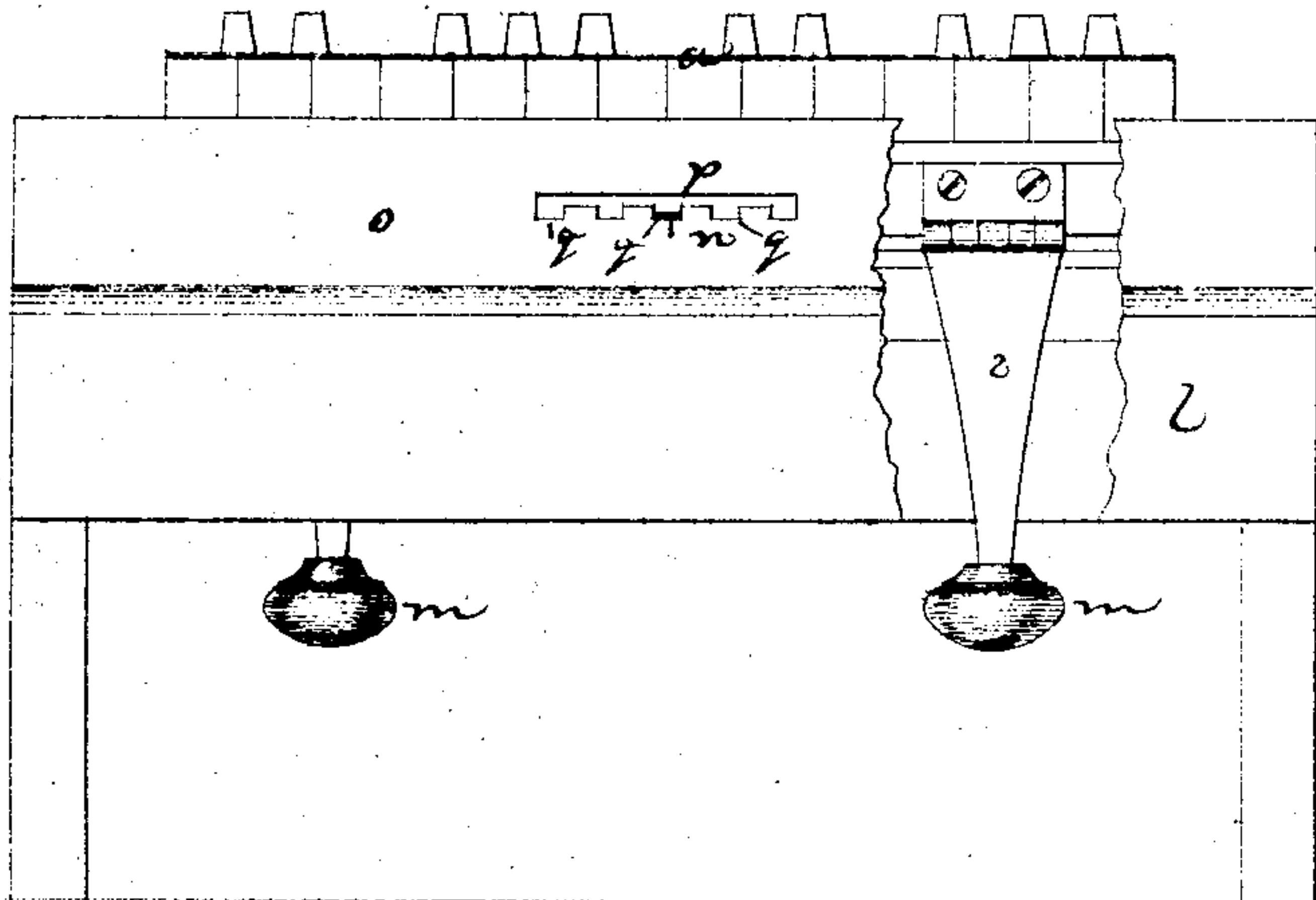


*E. Hamlin.*  
*Imp't in Keyed Musical Instruments.*

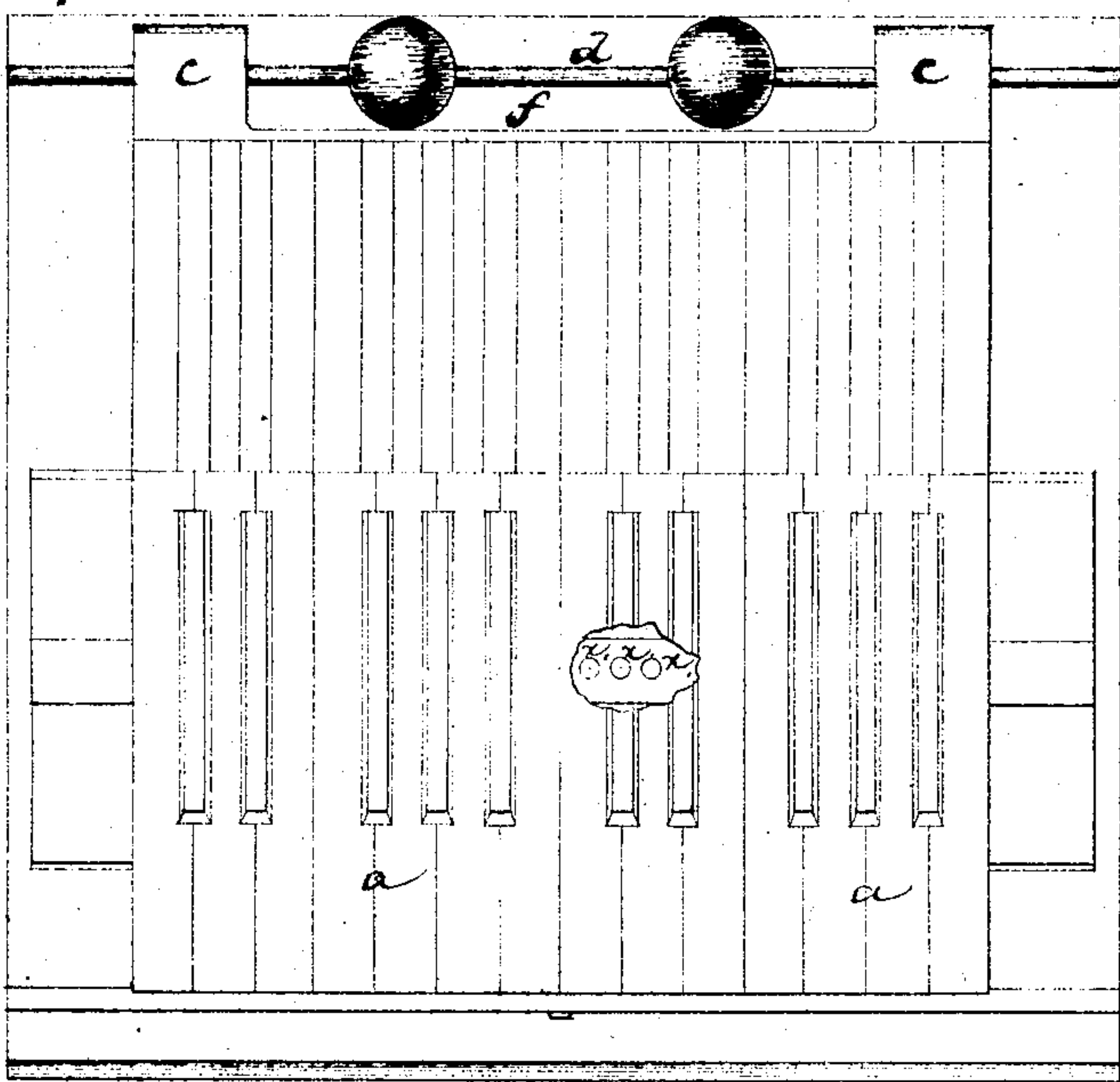
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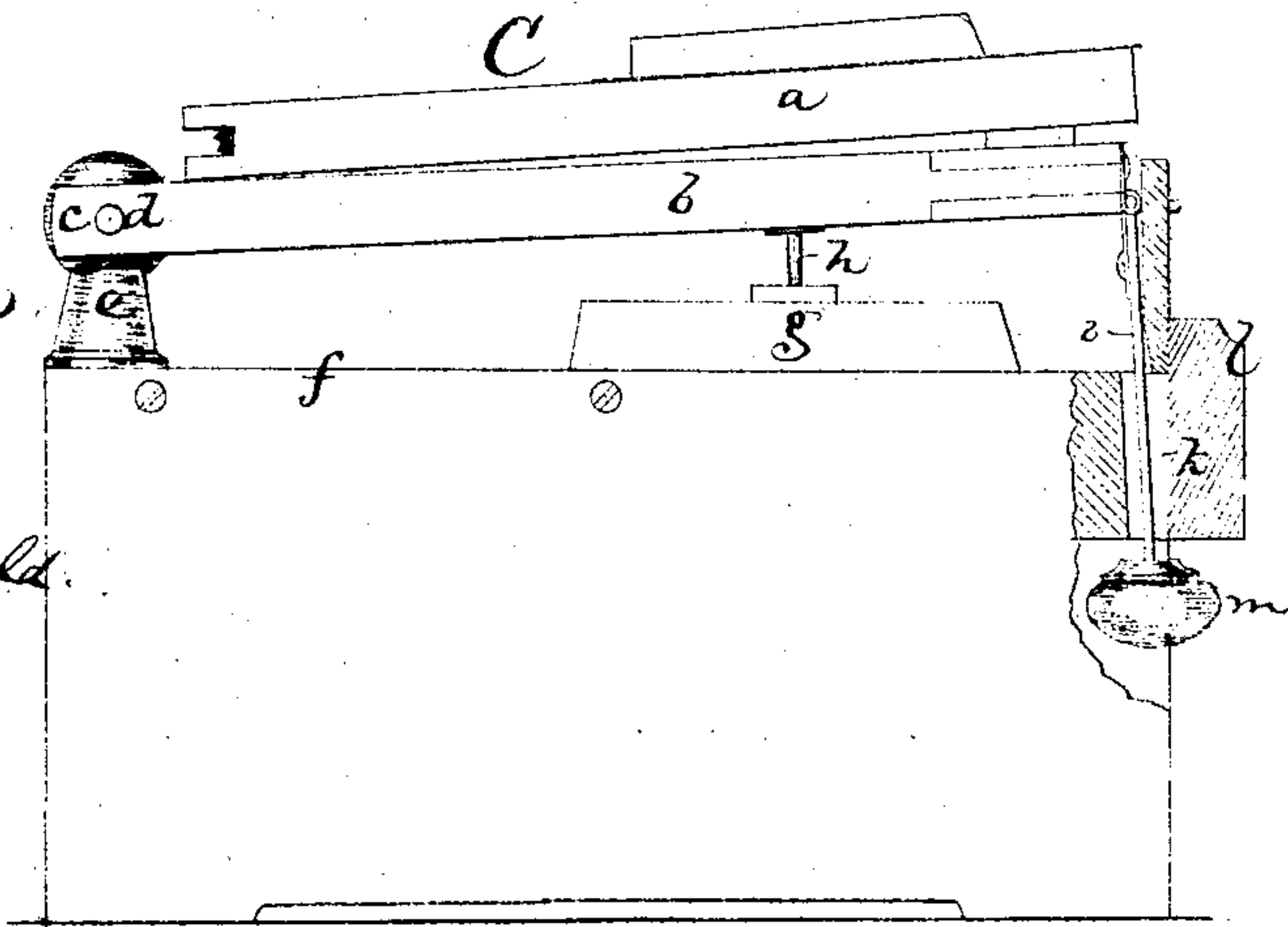
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*E. Hamlin.*  
*by his Atty.*

*Crosby & Gould.*

*Witnesses*  
*S. B. Kiddle.*  
*W. H. Kiddle.*

# UNITED STATES PATENT OFFICE.

EMMONS HAMLIN, OF WINCHESTER, ASSIGNOR TO MASON & HAMLIN ORGAN COMPANY, OF BOSTON, MASSACHUSETTS.

## IMPROVEMENT IN KEYED MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. 116,834, dated July 11, 1871.

*To all whom it may concern:*

Be it known that I, EMMONS HAMLIN, of Winchester, in the county of Middlesex and State of Massachusetts, have invented an Improvement in Keyed Musical Instruments; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention, sufficient to enable those skilled in the art to practice it.

United States Letters Patent No. 107,342, dated September 13, 1870, were granted to W. G. Day for an improvement in transposing mechanism for organs, &c., said Day's invention consisting in constructing and arranging the key-board of an organ or other similar instrument by means of certain mechanical contrivances, so that a player may play any music at a higher or lower pitch upon the same keys by lateral movement of the key-board.

My invention relates to an improvement upon such mechanism, or to the details of construction or organization for rendering such invention more practical and less objectionable.

In my invention I hinge the key-board or key-board frame, at its rear side, upon a rod supported upon suitable pillars, and so that said frame may be freely slid endwise upon said rod, and toward the front of the key-board I support the frame upon a bed-piece or rail, a suitable stop-pin or stop-pins projecting from the bottom of the frame, entering holes in the rail and steadying the key-board and holding the frame in position, while at the front of the frame are hinged lifters, the depending shanks of which extend down through the case at the rear of the front board, and so that knobs or handles upon their ends are accessible through the opening at the front of the instrument and do not project in front of the case. By raising the lifters the front of the key-board is elevated so as to free the stop-pins from their holes, and when thus free the key-board frame may be freely slid in a lateral direction in such manner as to bring the keys into connection with reeds, or strings, or pipes more or less contiguous to those in connection with which they were before moving, according to the number of holes provided for entrance of the stop-pin. It is in this detail of construction that my invention primarily consists, or in a laterally-sliding key-board or key-board frame hinged and

sliding at its rear upon a rod, supported by suitable posts on top of the wind-chest, and having at its front depending lifters, by raising which a stop-pin, projecting down from the key-board frame, is lifted from any one of a series of locking-holes, so that the keys of the key-board may, by lateral movement of the lifters, be transposed. The drawing represents a key-board mounted and arranged in accordance with my invention. A shows a front elevation, B a plan, and C an end elevation of the key-board and adjacent parts.

*a* denotes the key-board, arranged upon and with respect to a key-board frame, *b*, in the usual manner. This frame has projecting from its rear side tail-pieces *c*, through which passes the horizontal hinge-rod *d*, passing through and supported by posts *e* extending up from the frame *f* of the wind-chest, the key-board turning up freely and sliding freely on this rod. *g* denotes the rail or bed-piece, upon which the key-board rests and is supported toward its front. A pin, *h*, extends down from the under side of the key-board frame into either one of a series of holes, *x*, in the rail *g*, according to the position of the key-board, and at the front of the key-board are hinged the lifters *i*, which pass down through slots or openings *k* at the rear of the front board *l*, a suitable handle or knob, *m*, being fixed to the bottom of each lifter. By reaching under the board *l* the player can grasp the handles *m* and lift the key-board on the rod *d*, and as soon as the pin *h* rises out of the hole *x* under it he can slide the key-board and keys in either direction, the holes *x* being so arranged that, whenever the key-board is let down and the stop-pin enters either of the holes, the keys are in correct position relatively to the reeds and the key-board is locked from lateral movement. To indicate the position of the key-board a finger, *n*, may be attached to and project from the front of the key-board and extend through the name-board *o*, said board being provided with a slot, *p*, and a series of indicating-notches, *q*, the notches and finger having such relation to the stop-pin and its holes that when the pin drops into any hole the finger drops into a notch. The position of this finger in any notch indicates the position of the keys, and the notches may be provided with suitable letters, characters, or numbers, to designate the position of the keys when the finger is in any particular notch. The arrangement of the key-board and its locking



and laterally-moving mechanism is not only convenient and reliable, but it offers no obstruction to the packing of the instrument, and does not require unsightly projections from the sides of the case. The key-board is very easily manipulated as regards its change of position or the transposition of its keys, and the change is made by the same manipulations or as a part or continuation of the same manipulation that raises and unlocks the key-board.

In packing or moving the instrument buttons or chocks may be slid in between the knobs and the bottom of the wind-chest or the front board to lock the key-board down and prevent its rise and accidental lateral movement.

I claim—

1. In combination with the key-board, tipping and sliding on the rod *d*, the lifters *i* depending from the front of the key-board through slots or openings at the rear of the front board *l*, substantially as shown and described.

2. In combination with the lifting and sliding key-board, the stop-pin *h* and the stop-holes *x*, the construction being substantially as described.

Executed February 3, 1871.

EMMONS HAMLIN.

Witnesses:

W. O. TROWBRIDGE,  
C. E. HOLMAN.