

(No Model.)

2 Sheets—Sheet 1.

R. E. BELL
TRANSPOSING KEYBOARD.

No. 481,778.

Patented Aug. 30, 1892.

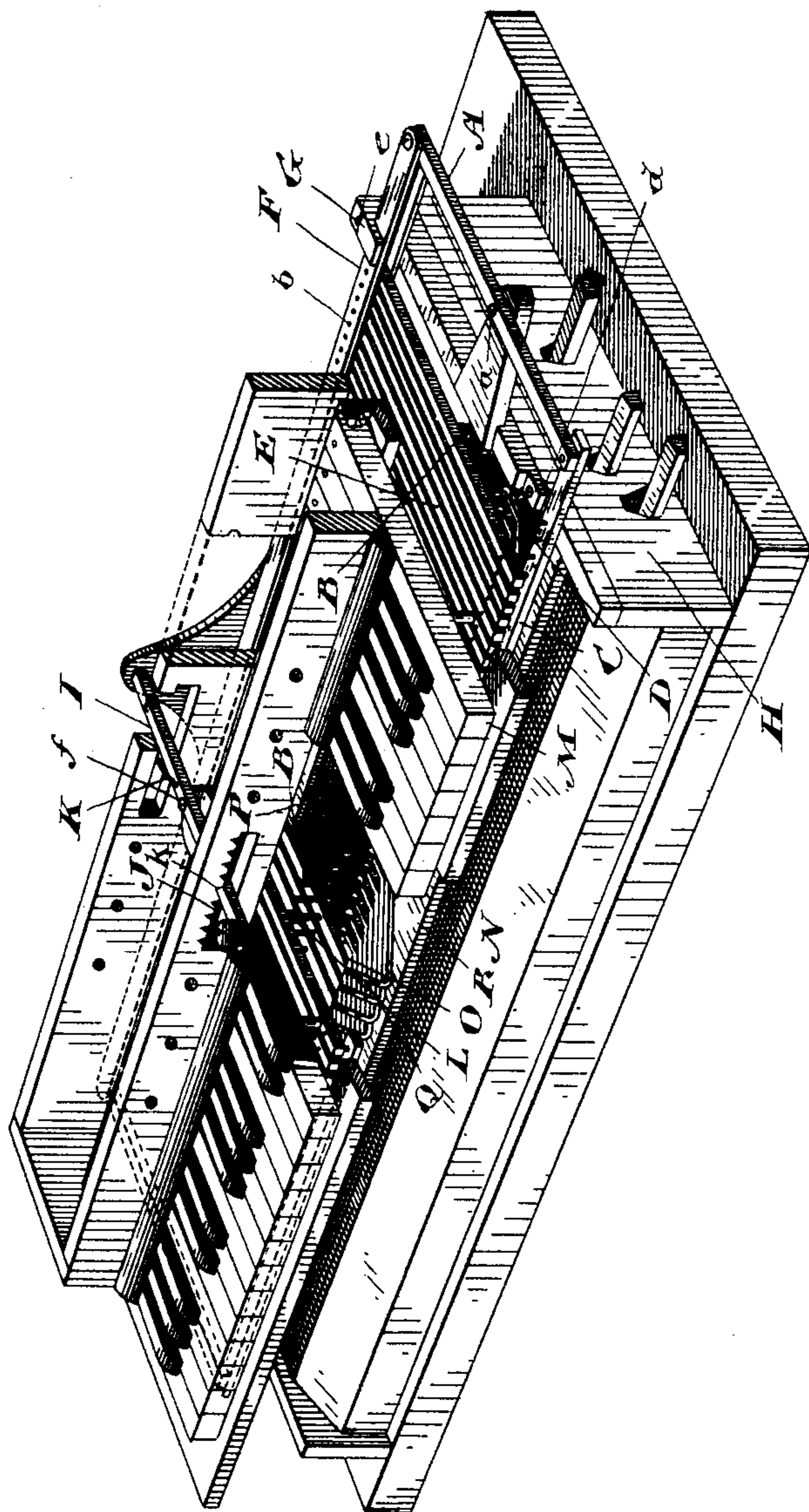


Fig. 1.

Witnesses

J. Edw. Maybee

W. G. McMullan

Inventor

Robert E. Bell

by Donald C. Reidoutt & Co.

Attys

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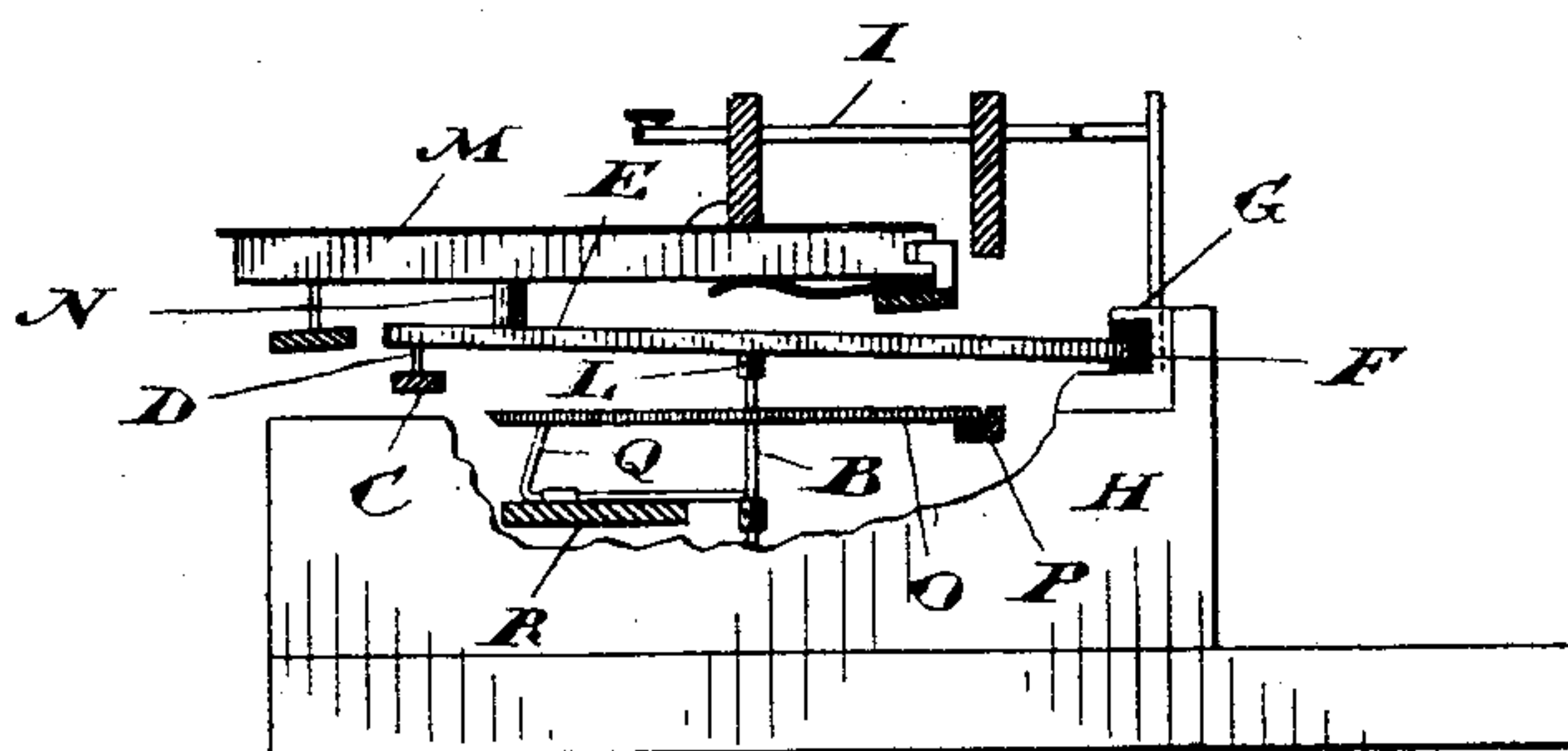


Fig. 3

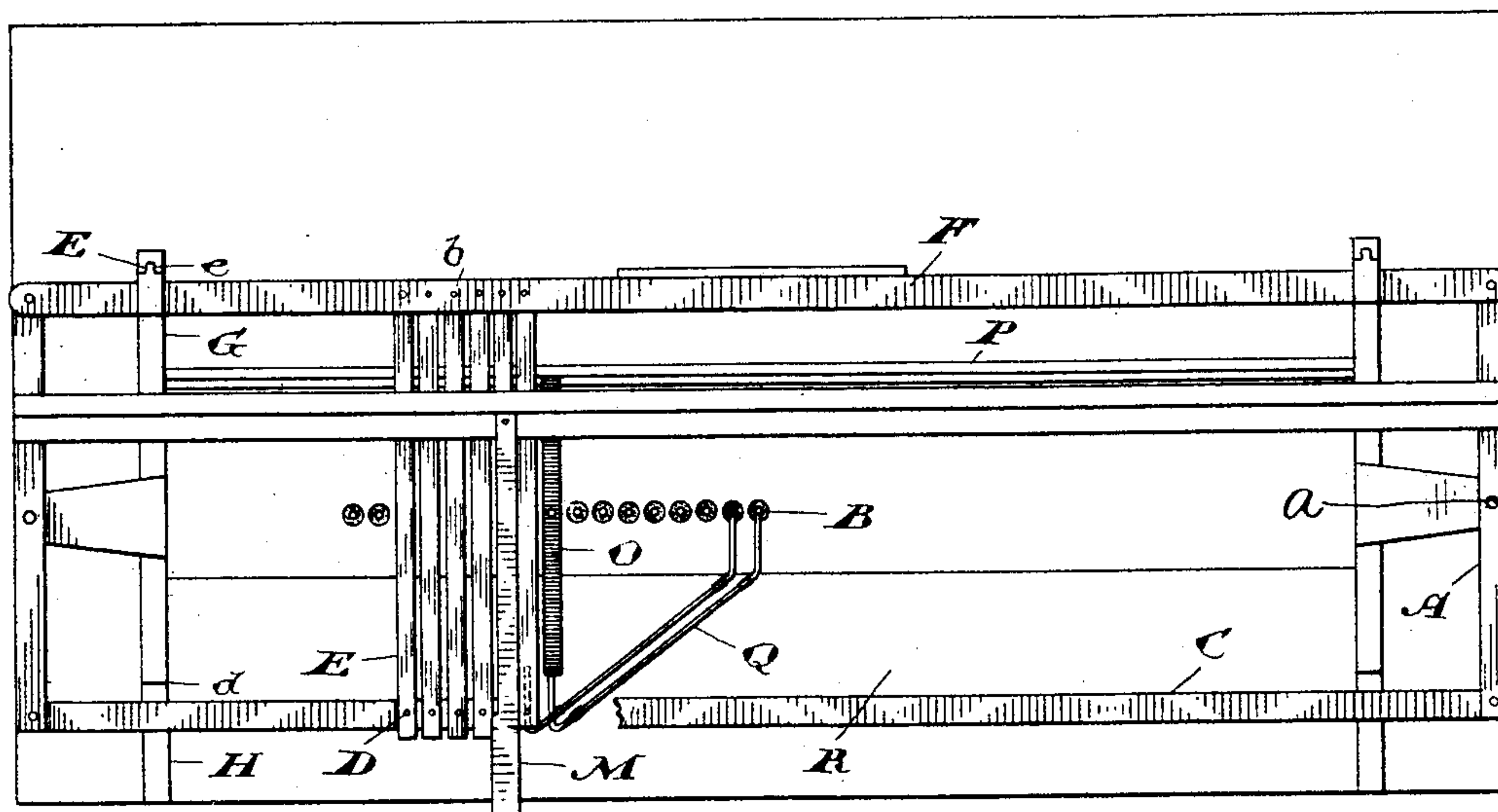


Fig. 2

Witnesses

J. Edw. Mayhew

H. G. McMillan

Inventor

Robert E. Bell
by Donald C. Ridout & Co
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UNITED STATES PATENT OFFICE.

ROBERT E. BELL, OF TORONTO, CANADA, ASSIGNOR TO ANNIE DIXON, OF
SAME PLACE.

TRANSPOSING-KEYBOARD.

SPECIFICATION forming part of Letters Patent No. 481,778, dated August 30, 1892.

Application filed June 13, 1891. Renewed May 14, 1892. Serial No. 432,969. (No model.)

To all whom it may concern:

Be it known that I, ROBERT EMANUEL BELL, organ-builder, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented a certain new and useful Improvement in Key Instruments, of which the following is a specification.

The object of the invention is to design simple mechanism by which the music produced by a key instrument may be transposed from a higher to a lower key, or vice versa, without the exercise of any skill upon the part of the performer, and in the peculiar construction, arrangement, and combinations of parts, hereinafter more particularly described, and then definitely claimed.

In the accompanying drawings, Figure 1 is a perspective view of a portion of the organ-action connected with my invention, parts being broken away to expose its construction. Fig. 2 is a skeleton plan. Fig. 3 is a skeleton end view.

A is a coupling-rod, pivoted at *a*, located on a center line drawn through the sticker-pins B. To one end of the coupling-rod A, I pivot a bar C, from which bar the pins D project, which pins are employed for the purpose of steadying the levers E, a lever E being loosely fitted onto each of the pins D. The opposite end of each of the levers E is pivoted at *b* to the bar F, the end of which bar is connected to the coupling-rod A.

A plate G is hinged or pivoted to the frame H at *d*, the other end of the plate G being notched or recessed to receive the bar F. The outer end of the said plate G has a tongue *e*, formed on it to fit into a groove made in the frame H, as indicated. It will be observed that the pivot *a* of the coupling-rod A is on a projection extending from the hinged or pivoted plate G.

I may mention here that the bars C and F extend across the action and that a coupling-rod is located at the opposite end of the keyboard, similar to the coupling-rod A. A lever I is connected at one end to the bar F, as indicated. This lever is pivoted at *f*, and extends through a notched slot J in the frame of the organ.

K is a spring located, as indicated, for the purpose of holding the back end of the lever

I down, and as this lever is connected to the bar F the said bar and its connections are likewise held down, so that the button L on each of the levers E is held in contact with its respective sticker-pin B.

In order to transpose the music from a higher to a lower key, or vice versa, the lever I is pressed down, so as to clear it from the notch *k* in the slot J, in which it may at the time be fitted. The pressing down of the front end of the lever I will of course elevate the rear end of the said lever, and as this latter end is connected to the bar F the said bar will be slightly elevated, thus raising the back end of the levers E and depressing their front end sufficiently to clear them of the buttons on the key M, so that the said levers may be moved from one side to the other without interfering with or injuring the said buttons N. It therefore follows that it is merely necessary to press down the lever I clear of its slot *k* and move the said lever from one slot to the next in order to transpose the music half a tone higher or lower, as may be desired.

In order that the proper octave note will always be played no matter at what key the music may at the time be set, I arrange under the levers E a series of levers O, which are fitted onto their respective sticker-pins B, the back end of each lever O being pivoted on the support P, while its other end rests upon its octave coupler-wire Q. When the octave-carriage R is thrown up, the octave-levers O are brought in contact with their respective buttons L, which operate the sticker-pins B. Consequently when the key is pressed down to play a particular note its octave is played by the octave-lever O, passing down its coupler-wire Q. It will thus be seen that by providing the levers E and O, arranged as described, the music can be transposed with ease and accuracy without any special skill on the part of the performer.

Although my invention is specially designed to be used for the purpose of transposing the music of an organ, it will be seen that it can be easily adapted for a piano or other similar musical instrument.

I am aware that it has been proposed to pivot the keyboard so that the transposing-

levers may be shifted without detriment, and make no claim to this, as I consider my arrangement as essentially superior, inasmuch as in my invention the keyboard is not pivoted, and hence always occupies the same relative position with respect to the other parts of the instrument. In some kinds of key instruments it would be very inconvenient to swing the keyboard on a pivot, and hence the great advantage which my improvement has over an arrangement where the intermediate levers have a tilting motion in addition to the lateral one.

What I claim as my invention is—

15 1. In a key instrument, a series of levers arranged between the keyboard and sounding mechanism of the instrument, in combination with mechanism by which the said levers may be first tilted and then adjusted so as to bring
20 a higher or lower toned note in connection with the key in which the piece is written, substantially as and for the purpose specified.

2. In an organ, a series of levers arranged between the sticker-pins and keyboard and

connected to a flexible frame pivoted on the center line of the sticker-pins and supported on a tilting frame, in combination with mechanism arranged to first tilt the levers clear of the buttons on the keys and then adjust them so as to bring a higher or lower toned note in connection with the key in which the piece is written, substantially as and for the purpose specified.

3. In an organ, a series of levers arranged between the sticker-pins and keyboard and connected to a flexible frame, in combination with a series of levers, one resting on each coupler-wire and arranged in connection with the adjusting-levers so that the octave will remain correct notwithstanding the adjustment of the said levers, substantially as and for the purpose specified.

Toronto, June 3, 1891.

ROBT. E. BELL.

In presence of—

J. EDW. MAYBEE,
F. A. WOODWARD.