2 Sheets--Sheet 1.

H. R. MOORE.

Reed-Organ Attachment.

No. 163,682. Patented May 25, 1875.

Fig. 1.

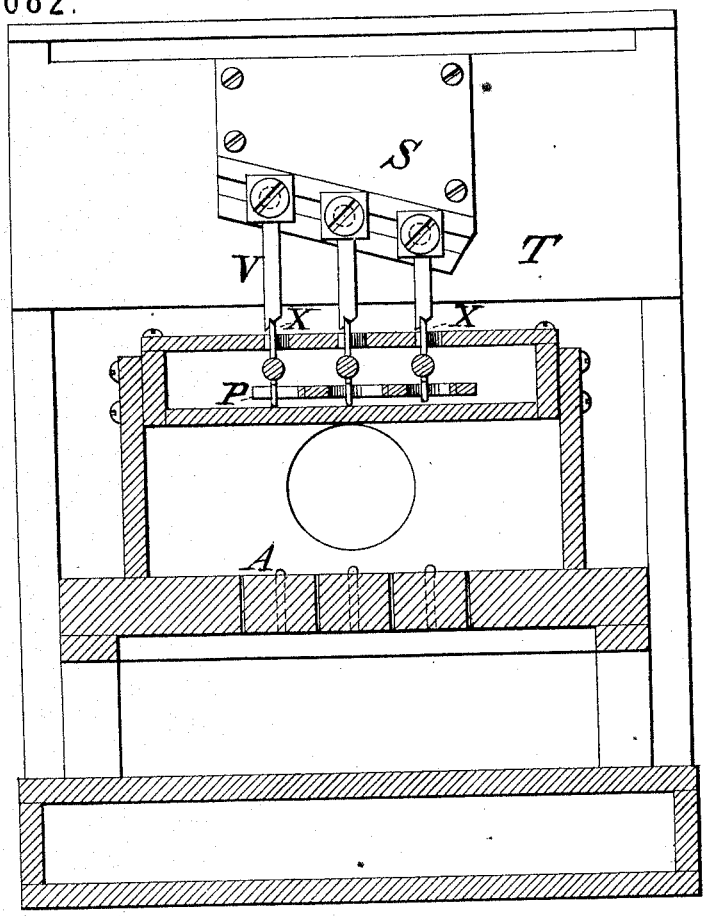
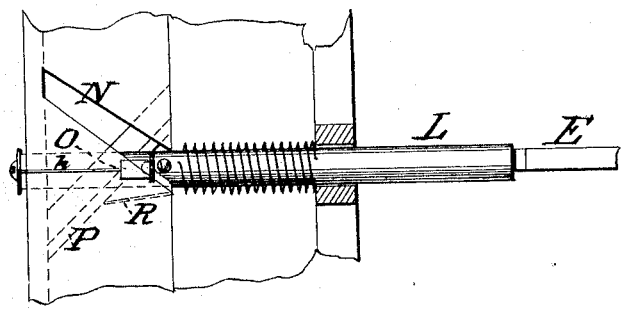


Fig. 2.



Witnesses:

C. C. Converse

W. W. Metcalf

Inventor:

Hartwell R. Moore

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2 Sheets-Sheet 2.

H. R. MOORE.

Reed-Organ Attachment.

No. 163,682. Patented May 25, 1875.

Fig. 3.

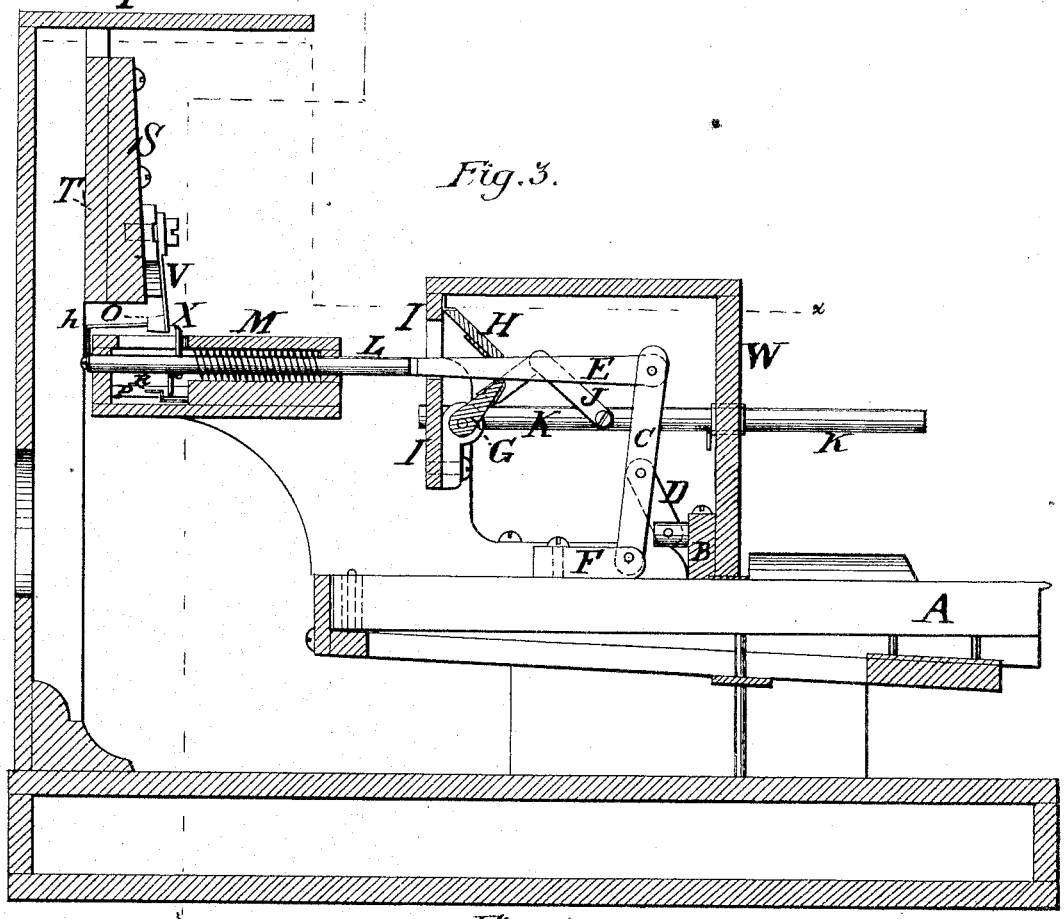
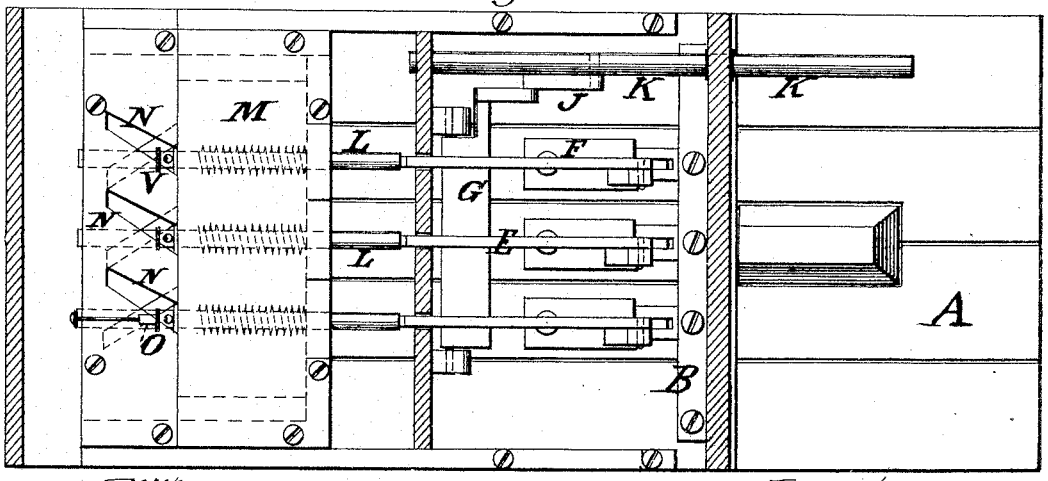


Fig. 4.



Witnesses:

C. C. Converse

A. M. Metcalf

Inventor:

Hartwell R. Moore

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

HARTWELL R. MOORE, OF ERIE, PENNSYLVANIA.

IMPROVEMENT IN REED-ORGAN ATTACHMENTS.

Specification forming part of Letters Patent No. **163,682**, dated May 25, 1875; application filed November 14, 1873.

To all whom it may concern:

Be it known that I, HARTWELL R. MOORE, of the city and county of Erie, and State of Pennsylvania, have invented a new and useful Attachment for Reed-Organs and other similarly-keyed instruments and actions, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical sectional front view on the line *y y*, Fig. 3. Fig. 2 is a view of one detail. Fig. 3 is a longitudinal sectional view. Fig. 4 is a plan view on the line *x x* of Fig. 3.

My invention consists in operating, with the key of an organ or other manual, a device which, when acted upon therewith, causes the steel vibrator with which it communicates to resound.

A represents an organ or other key. B shows a stationary lever-frame. C, D, and E indicate a series of levers connecting with the lever-frame B and the lever-blocks F, which are attached to the organ-key A. G, H, and K show a series of levers, which disconnect the levers C, D, and E from the rods L, G being a cam-lifter connected with the draw and push rod K by the lever I, and serving to disconnect the levers E from the rods L. The weighted flap or lever H, hinged above the levers E by its gravity, presses the said lever again into action with the rods L, when the cam G is withdrawn from beneath them. I is a stationary slotted bar, through which levers E pass. M shows the action box or frame. N shows the slots in the box M, in which the pickers X, which are attached to the rods L, play against the vibrators V. O shows dampers attached to rods L and acting on pickers X by rods *h*. P indicates a bar which guides the pickers X in their action upon the vibrators V. T shows the sounding-board. S shows the block to which the vibrators V are attached. R indicates a brass spring used to free the vibrator V from the picker X on its return to its original position. W indicates the name-board.

To operate my invention, draw out the lever-knob or draw and push rod K, which causes the levers C E D to act with the rods L, connecting them to the organ-keys A, pressure upon which causes the rods L to be pressed forward, so as to bring the pickers X along the slots N against the vibrators V, and cause them to sound. The pickers X then pass by the vibrators V and return to their original positions, being prevented from contact with the vibrators V by the springs R, which lie against the bars P. The rods L are provided with a surrounding coiled spring on each, which causes the picker X to press against the bar P, and to return to its original position. This action is disconnected from the organ-key by pushing in the rod K, which, in being thus pushed, raises the levers C, D, and E. That part of this action connecting with the vibrators V is motionless when the connecting-rod K is reversed, thereby rendering my device a great improvement on other devices for a similar purpose, they being so connected with the organ-key as to be under constant wear whenever this key is used.

The damper O, which is attached to the rod L, acting on the vibrator V as the key A is released from pressure, is also so perfect and timely in its action as to facilitate the most rapid use of the vibrator V.

Another great advantage in my invention is the position of the bar S, it being so placed as to bring the vibrators V perpendicularly in their relation to the action, thus allowing of their being attached to the back of an organ or upright-piano case, where their volume of tone may be greatly increased by the greater resonance of that part of this case than that of the part to which such mechanism is ordinarily affixed, and it also gives them freedom from the piano or organ mechanism to which they may be affixed; and, still further, such a position allows of the addition of a sounding-board, as is shown in my invention at the letter T. Thus far, in this line of invention, other devices, because of their position in the organ, which renders this tone weak and unsatisfactory, have failed to satisfy the artist or critic; but in my device these objections are obviated.

I claim—

1. The picker-action herein described, consisting essentially of the rod L, with its coiled spring and the picker X, in combination with the slot N, bar P, and spring R, substantially as specified.

2. In combination with the subject-matter of the preceding claim, (of claim 1,) the vibrators V and sounding-board T, substantially as described.

3. The stationary bar B, levers C D E, and block F of the key A, in combination with cam G, lever I, draw-rod K, and gravity-lever H, substantially as described.

4. In combination with the subject-matter of the preceding claim, (of claim 3,) the picker-action L M P R, substantially as and for the purpose set forth.

HARTWELL R. MOORE.

Witnesses:
C. C. CONVERSE,
F. W. METCALF.