

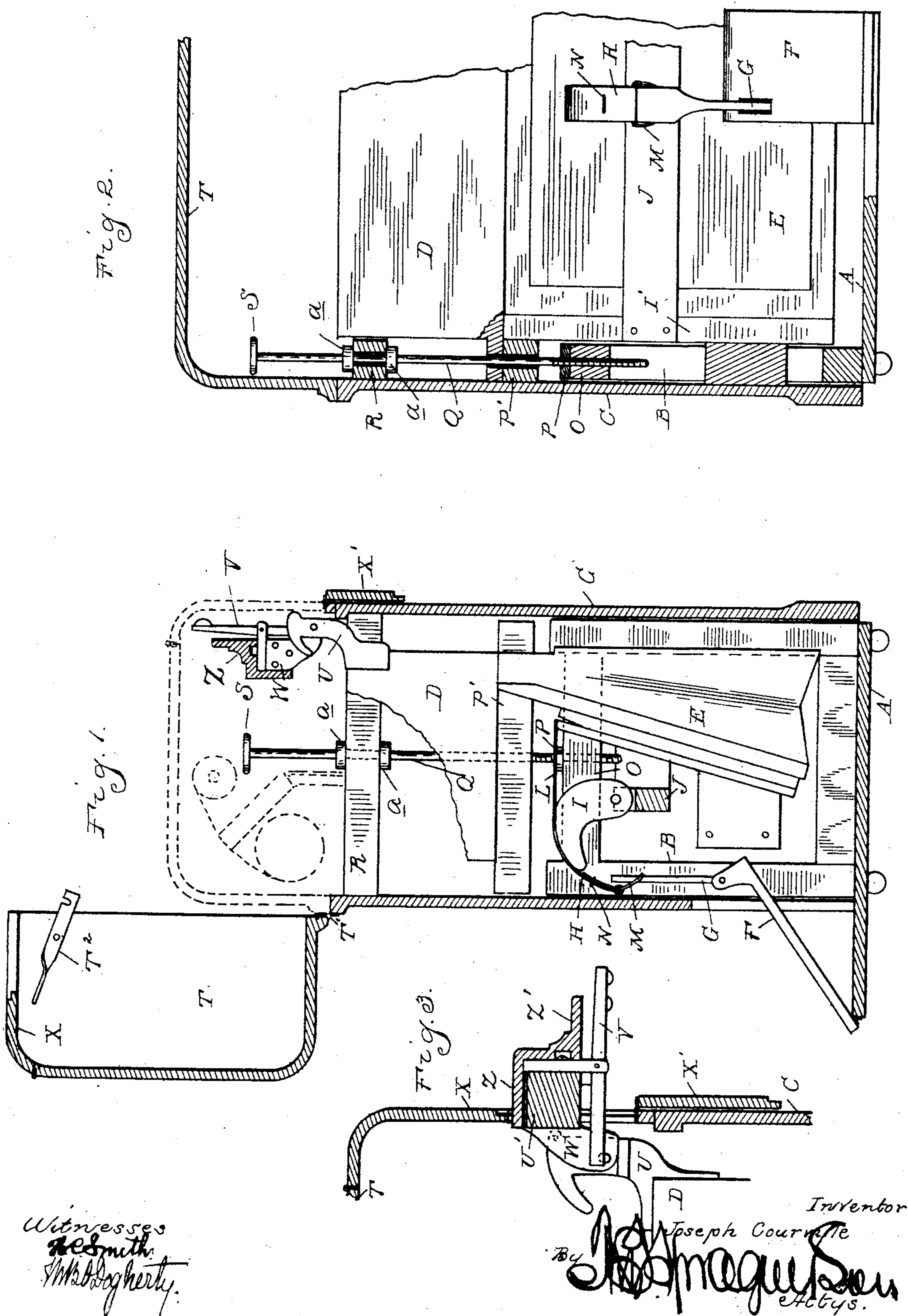
No. 695,862.

Patented Mar. 18, 1902.

**J. COURVILLE.
PIANO PLAYER.**

(Application filed May 13, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

JOSEPH COURVILLE, OF DETROIT, MICHIGAN, ASSIGNOR TO FARRAND & VOTEY ORGAN COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF MICHIGAN.

PIANO-PLAYER.

SPECIFICATION forming part of Letters Patent No. 695,862, dated March 18, 1902.

Application filed May 13, 1901. Serial No. 60,055. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH COURVILLE, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Piano-Players, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to an improvement in piano-players; and it consists, first, in the construction of the device for vertically adjusting the operating-levers in relation to the keys of the piano upon which the device is to be used; second, in the construction of the case combined with such adjusting devices, and, further, in the construction, arrangement, and combination of the various parts, as more fully hereinafter described.

20 In the drawings, Figure 1 is a vertical central section through a piano-player, showing the top of the case open and the playing-fingers turned up. Fig. 2 is a section at right angles to Fig. 1. Fig. 3 is a section similar to Fig. 1, illustrating only the upper part of the case and showing the playing-fingers turned out as in playing position.

A is the base, having the end standards B, which form vertical guides for the case C outside of these standards and guided vertically thereon. To the case and preferably slightly above the middle is secured the action D. This action is of any desired construction comprising the necessary pneumatics for operating the playing-fingers, and as its detail construction has nothing to do with my present invention I will not illustrate it other than in diagram, as shown. To this action and secured to the lower part thereof are 40 suitable bellows E, preferably as shown in such constructions, there being a pair of these bellows, one adapted to be operated by each pedal F in the well-known manner. The pedals F are pivoted to the base A and have 45 pivoted to the inner end the rod G, to which is connected a flexible strap H, which strap in turn is connected to a segment I, pivoted to a cross-bar J, which is secured to the depending bars I', which support the bellows, 50 and at their upper ends are secured to the

case and are vertically movable therewith. The strap H after being connected to the segment I has the connecting portion L, which is connected to the movable part of the bellows. The strap II is adjustable in length 55 by any suitable means. I have shown the strap as looped about a link M, which engages with the rod G and is secured by a fastening device—such, for instance, as the safety-pin N. By simply lengthening or 60 shortening the loop of the strap II it is evident that the length of that strap may be adjusted.

O is a cross-bar connecting the standards B, and on this cross-bar is secured the nut P, 65 through which the adjusting-rod Q extends, having a screw-threaded adjustment with the nut and passing through an aperture in the bar O. This adjusting-rod Q passes through apertures in the cross-bar P', secured to the 70 case, and through a cross-bar R, also secured to the case near the upper part thereof, being provided with collars *a* above and below the cross-bar R. This adjusting-rod Q extends above the cross-bar R into the upper 75 part of the case, where it is provided with an actuating means, such as the hand-wheel S. It will be understood, of course, that there is a similar adjusting-bar at each end of the machine. It is also obvious that by turning 80 the hand-wheel S the case, with the action, will be raised or lowered upon the base, so that the necessary vertical adjustment for different heights of pianos can be obtained. The angle at which the pedals extend in relation 85 to the bellows can always be adjusted properly by adjusting the length of the strap H, as with this construction the bellows moves up and down with the action.

In order to get at the hand-wheels S, which 90 are inside the case, I make the upper part of the case in the shape of a cover T, preferably hinged at T', so that it may be turned back, as shown in Fig. 1. This opening of the case at the top is only necessary to adjust the ac- 95 tion in relation to the piano upon which it is to be used, and after it is once adjusted ordinarily the cover or top T may be left closed, being locked down by means of the hooks T² at each end of the machine.

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In the type of machine which is shown
herein the case is provided at opposite ends
with brackets U, to which is hinged a ful-
crum-bar U', upon the under side of which
5 are pivoted the playing-fingers V. This ful-
crum-bar at its ends has the brackets W piv-
oted to the brackets U, so that when the de-
vice is not in use the fulcrum-bar, with the
playing-fingers, may be turned inside the case,
10 as shown in Fig. 1, the case being provided
with the doors X and X' to permit of thus
turning in or out the playing-fingers. In this
type of machine heretofore when the playing-
fingers were turned outside the machine in
15 their playing position the fulcrum-bar and the
fingers themselves, which are ordinarily made
of light-colored wood, would be exposed and
would give an unfinished and crude appear-
ance to the whole machine. This is partic-
20 ularly so, as these machines are nearly always
made of or finished like dark-colored woods,
such as mahogany or ebony. With the case
in which the door X is used it closes the case
down almost to the upper edge of the fulcrum-
25 bar, and in order to give the device a com-
plete appearance I apply to the fulcrum-bar
a cap Z, which covers the fulcrum-bar and
extends out over the playing-fingers, with the
flange Z' either covering them entirely or
30 nearly and being finished the same as the
rest of the case. When the playing-fingers
are extended out in position for operation, the
device has a finished appearance without the
necessity of building out any extension of the
35 case itself. Thus I am enabled to use a ma-
chine in which the playing-fingers move in and
out of the machine, and yet both the opera-
tive and inoperative positions of the machine
have a finished appearance. This is quite
40 necessary, as these machines are nearly
always used in parlors or in public halls,
where the crude appearance of the unfinished

fulcrum-bar and fingers will be a decided det-
riment to the looks of the machine.

What I claim as my invention is—

1. The combination of a base, a case mounted
thereon on vertical guides, an adjusting de-
vice for raising and lowering the case on the
base located within the case and extending
up near the top and a movable top for the
case adapted when open to expose the adjust-
ing devices, and when closed to inclose the
same. 50

2. The combination of a base, a case mounted
thereon on vertical guides, screw-shafts jour-
naled in the bearing inside the case and hav-
ing a screw-threaded engagement with the
base, hand wheels or levers at the top of the
shafts, and a movable cover for the case in-
closing said adjusting-wheels in its closed po-
sition but exposing them in its open position. 60

3. The combination of a case, an action in-
closed within the case, playing-fingers, a ful-
crum-bar to which the playing-fingers are
pivoted, movable to carry the fingers within
or without the case, and a finished cap for
the projecting portion secured to and remov-
able with the fulcrum-bar. 65

4. The combination of a case, an action in-
closed within the case, playing-fingers, a ful-
crum-bar to which the playing-fingers are piv-
oted, movable to carry the fingers within or
without the case, a cover for the aperture
through which the fingers move in and out,
and a finished cap movable with the fulcrum-
bar covering the fulcrum-bar and fingers, sub-
stantially as described. 75

In testimony whereof I affix my signature
in presence of two witnesses.

JOSEPH COURVILLE.

Witnesses:

L. J. WHITEMORE,
H. C. SMITH.