

P. WELIN.

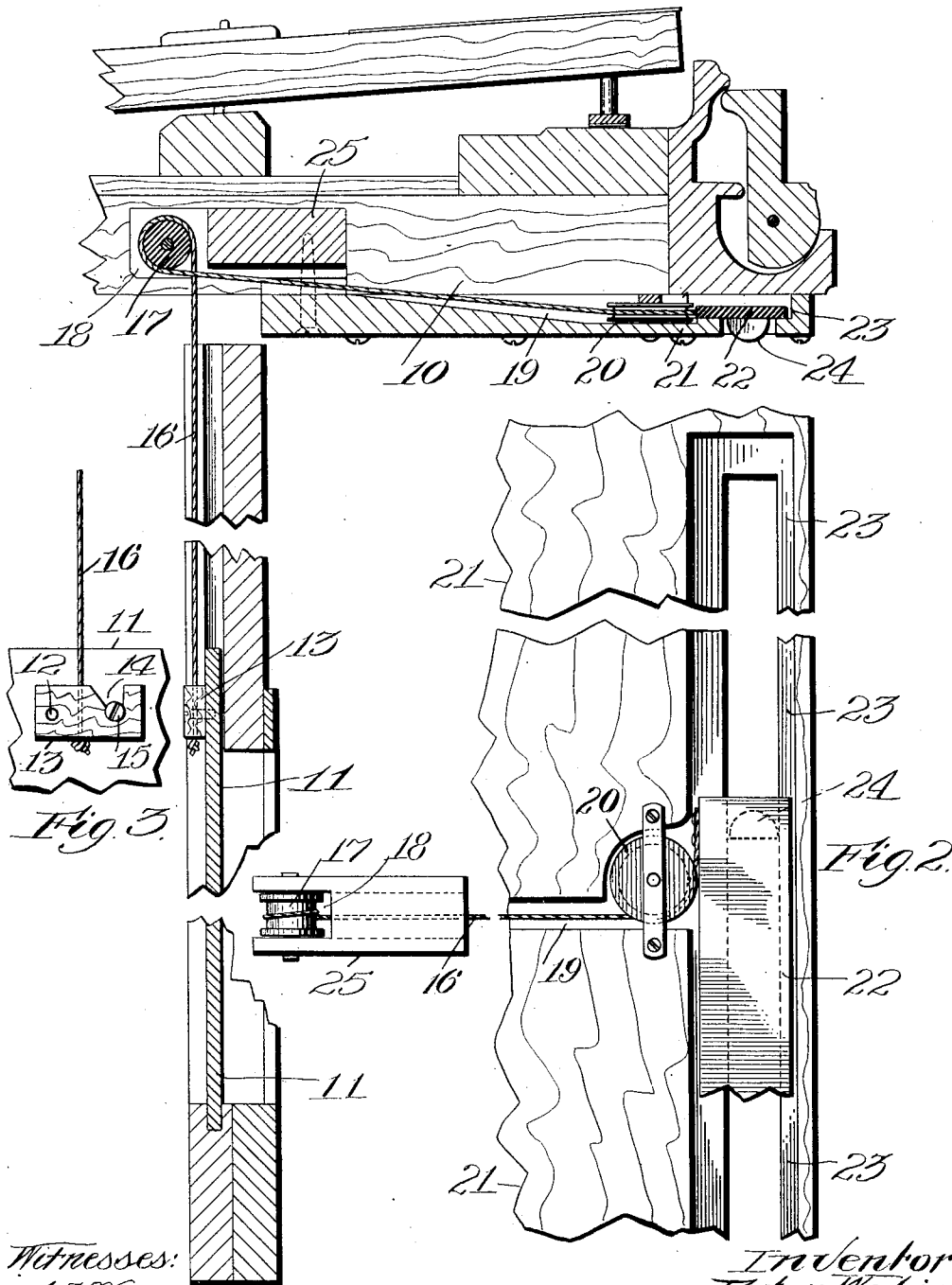
PANEL OPERATING DEVICE.

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1,085,650.

Patented Feb. 3, 1914.

Fig. 1.



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UNITED STATES PATENT OFFICE.

PETER WELIN, OF WORCESTER, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO KRELL AUTO-GRAND PIANO CO. OF AMERICA, OF CONNERSVILLE, INDIANA, A
CORPORATION OF INDIANA.

PANEL-OPERATING DEVICE.

1,085,650.

Specification of Letters Patent.

Patented Feb. 3, 1914.

Application filed September 5, 1908, Serial No. 451,804. Renewed June 21, 1911. Serial No. 634,525.

To all whom it may concern:

Be it known that I, PETER WELIN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Panel-Operating Device, of which the following is a specification.

This invention relates to a panel operating device for playing pianos and the like.

The principal object of the invention is to provide means adapted to be operated directly below the key bottom of the playing piano for raising a sliding panel so as to do away with the usual inconvenience of raising the sliding panel by stooping down below the key-bed to operate it, and to permit the operator to raise it when seated in the usual position at the front of the instrument, also to provide a very simple, convenient and readily detachable operating mechanism for this purpose.

Further objects and advantages of the invention will appear hereinafter.

Reference is to be had to the accompanying drawing, in which—

Figure 1 is a transverse sectional view of a portion of a piano player showing one way in which this invention may be applied thereto; Fig. 2 is a bottom of a portion of the overhanging part thereof; and Fig. 3 is an elevation of an attachment for the panel.

The invention is shown as applied to an instrument having an overhanging part constituting a part of the key-bed. Below is the usual panel 11 which slides vertically in ways. On this panel is located a pin 12 and on this pin is pivotally and removably mounted a block 13 having a notch 14 in which enters a screw or other headed fastening 15 fixed to the panel. Passing upwardly from the block and secured to it is a rope, cable, or other flexible connection 16. While there is tension upwardly on this flexible connection the block will be held securely in position, but if the connection is pulled down slack, the block can be swung on the pin downwardly away from the screw 15 and then be pulled out and removed. Thus the attachment is readily removable from the panel but is not of such a character as to be capable of being dislodged accidentally in use.

The connection 16 passes upwardly over

a pulley 17 which is located in a recess in the casing, and then passes down through a passage 19 around a pulley 20. This pulley is located on a vertical axis on the bottom of the key-bed and is concealed from view by a lower plate 21 thereof. The connection is then fixed to a slide 22 which moves in ways 23 on the bottom of the front of the key-bed, and in a path along the front edge thereof. This slide has a finger piece 24 by which it may be operated. This finger piece extends down through the bottom of the guides so as to be readily accessible from below. It will be seen therefore that the panel can be raised and lowered while the operator is seated in front of the instrument, simply by pushing the slide in one direction and allowing the weight of the panel to pull the same down or moving the slide in the other direction. The slide fits the ways tight enough to hold it in position. Thus it does away with the usual inconvenience of raising the panel. Moreover, the device is readily detached as has been explained above.

While I have shown and described a preferred embodiment of the invention, I am aware that many modifications may be made therein by any person skilled in the art without departing from the scope of the invention as expressed in the claims. Therefore I do not wish to be limited to all the details shown and described, but

What I do claim is:—

1. In a musical instrument, the combination with the key bed, of ways located horizontally under the front of the bottom thereof, a slide having a finger piece extending down below the bottom, a flexible connection fixed to said slide, a panel, and means for detachably connecting the end of the connection to the panel.

2. In a musical instrument, the combination with the key-bed, of ways located horizontally under the front of the bottom thereof, said slide having a finger piece extending down below the bottom, a pulley adjacent to said slide mounted to turn on a vertical axis, a second pulley at the rear of said slide located in a recess in the frame and mounted to turn on a horizontal axis, a flexible connection fixed to said slide passing over both of said pulleys and directly downward from the second pulley, and a

panel to which the downwardly extending end of the connection is removably attached.

3. In a musical instrument, the combination of a vertically sliding panel having a pin thereon, a block removably and pivotally mounted on said pin, a headed fastening on the panel engaging the outer side of said block, a flexible connection secured to said block and extending upwardly therefrom, and means located on the bottom of the front of the key-bed of the instrument for operating said connection.

4. In a musical instrument the combination of a sliding panel having a pin thereon, a block removably and pivotally mounted on the pin, a flexible connection extending from the block, means for holding said connection and means on the panel for holding the block in position on the pin.

5. The combination with a piano case having a key-bed rail, and a pedal opening, of a vertical guide on the inside of said case at each side of said pedal opening, a panel vertically slidable in said guides, a cord connected at one end with said panel and extending upwardly therefrom, and means mounted on the front of the key-bed rail adapted to actuate said cord and elevate the panel.

6. The combination with a piano case having a key-bed rail, and a pedal opening having a vertical guide on the inside of said case on each side of said panel opening, a panel vertically slidable in said guides, a pulley mounted on the inside of said case near the key bed rail and centrally over the panel, a cord connected with the panel and extending up over said pulley and means mounted in connection with the key bed rail for elevating the panel.

7. The combination with a piano case having a removable lower front frame plate with a pedal opening therein, and a key bed rail, of a panel slidable on the inner surface of said removable frame plate for closing said pedal opening, a cord fixedly secured at one end to said panel, and means mounted in connection with the key bed rail and independently of said frame plate which is adapted to engage the cord and actuate the same for elevating the panel.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses.

PETER WELIN.

Witnesses:

ALBERT E. FAY,

C. FORREST WESSON.