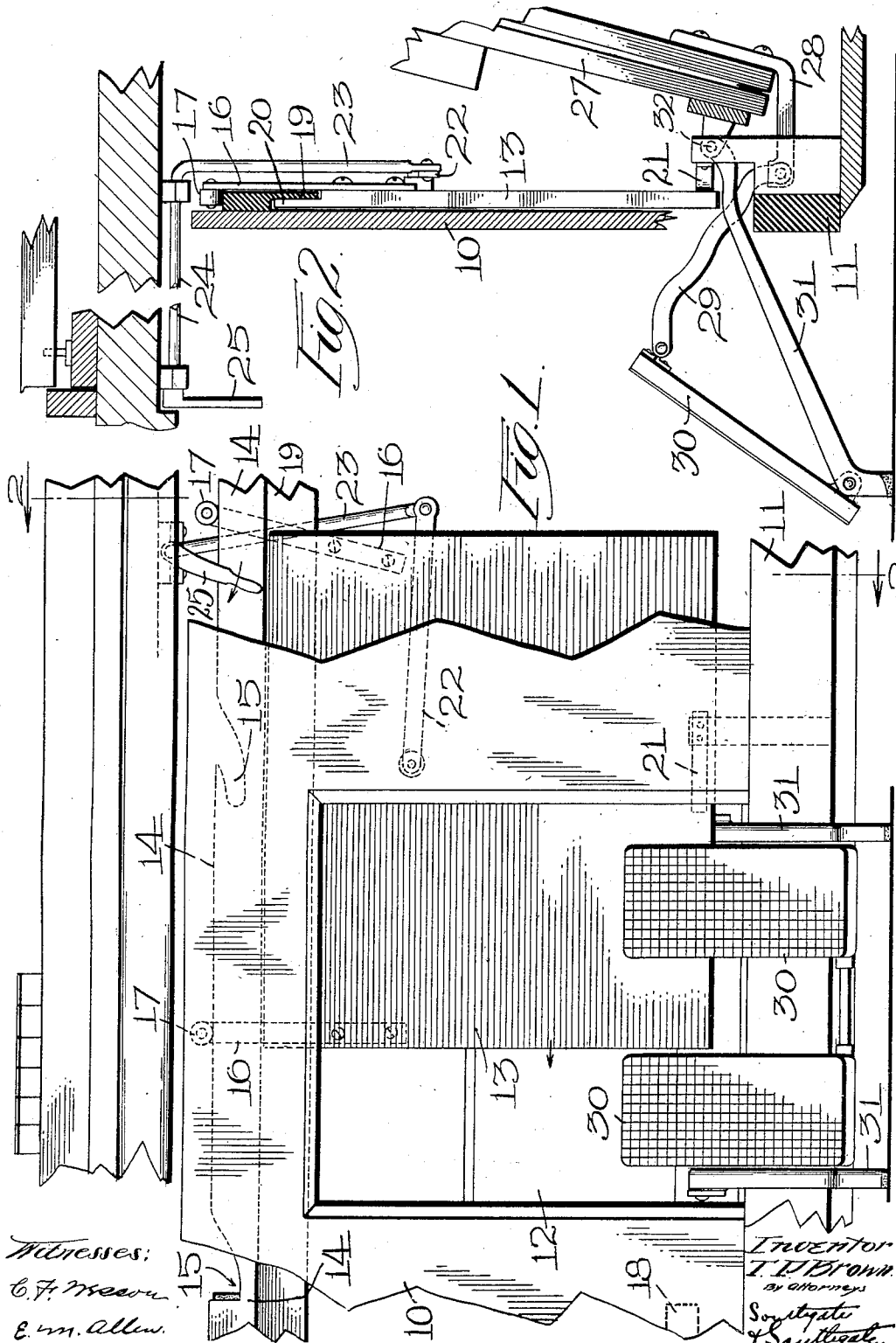


T. P. BROWN.
SLIDING PANEL FOR MUSICAL INSTRUMENTS.
APPLICATION FILED OCT. 22, 1910.

1,006,461.

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UNITED STATES PATENT OFFICE.

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SLIDING PANEL FOR MUSICAL INSTRUMENTS.

1,006,461.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed October 22, 1910. Serial No. 588,464.

To all whom it may concern:

Be it known that I, THEODORE P. BROWN, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Sliding Panel for Musical Instruments, of which the following is a specification.

This invention relates to a panel construction for player pianos and the like.

The principal objects of the invention are to provide a construction in which the opening through which the pedals are folded into the case can be closed during playing so that the interior cannot be seen as is the case with many instruments now on the market, and also to provide for securing this result without having to cut through the bottom rail or panel of the instrument.

The invention also involves improvements in details of construction as will hereinafter appear.

Reference is to be had to the accompanying drawings in which—

Figure 1 is a front view of the lower portion of a musical instrument showing one form of this invention applied thereto; and Fig. 2 is a sectional view on the line 2—2 of Fig. 1.

The invention is shown as applied to a case having a front 10 and provided with a bottom rail 11 below it, above which is an opening 12. This opening is designed to be closed by a sliding panel 13. For the purpose of supporting the panel and controlling its motion the front is provided on the inside above the panel with a guide rail 14 having a horizontal guiding surface at the top and provided with depressions 15 therein. The panel 13 is provided with upwardly extending arms or hangers 16 having rolls 17 thereon adapted to run on the top of the guide rail 14 and to enter the depressions 15 when the panel comes against a fixed stop 18 on the inner side of the front 10. It will be seen therefore that at this time the panel will be lowered so that it will practically entirely close the opening 12, but that when it has started back it will rise and leave a space at the bottom. The guide rail 14 is provided with a downwardly extending guiding flange 19 at the rear, and the top of the panel is also provided with a flange 20 on the front. These

parts serve to guide the panel at the top and keep it up against the front in all positions, and yet when the panel is lowered its front is uniform. At the bottom a spring 21 is used to yieldingly hold the panel up against the front.

A link 22, arm 23, shaft 24, and operating handle 25 are shown for operating the panel. The shaft extends out under the overhanging part of the case.

The bellows 27 are shown as of ordinary construction each having a projection 28 from the movable leaf to which is connected a link 29. This link is connected with one of the treadles 30 which is mounted on an arm 31, pivoted on a stationary pivot 32 within the case. When the panel is drawn back to fully open position, the pedals can be swung out or in as desired and after they are swung out the panel can be moved back to a position in which its left end is substantially flush with the corresponding side of the opening 12. In this position the rolls 17 have not entered the depressions 15, and consequently there is a space between the bottom of the panel and the bottom rail for the links 29. If, however, the panel is brought too far over so as to allow the rolls to enter the depressions the panel will drop down only far enough to rest on the arms 31 and can not be dropped low enough to interfere with the operation of the links 29. However, when the panels are folded into the casing the panel of course can be moved over to the stop 18 and will entirely close the opening 12. In this way it will be seen that although the panel conceals all the interior of the instrument behind the opening 12 during playing, yet the bottom rail does not have to be cut out and no awkward or inconvenient form of arms and links has to be adopted in order to get around the bottom rail.

While I have illustrated and described a preferred embodiment of the invention, I am aware that many modifications can 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 of construction herein shown and described, but

What I do claim is:—

1. In a musical instrument of the class de-

scribed, the combination of a casing having an opening therein, a panel mounted for substantially horizontal movement for closing said opening, pedal arms movable to a position in which they extend through the bottom of said opening, and means whereby when the panel is in one position it will drop into a position to entirely close the opening, and whereby when it is drawn back from said position it will be raised from the bottom of said opening to clear said arms.

2. In a musical instrument of the class described, the combination of a casing having an opening therein for pedals, pedals having arms and links adapted to extend through the bottom of said opening, a substantially horizontally movable panel for closing said opening, a stop for the panel located beyond the edge of the opening, and means whereby when the panel is against the stop it will drop into a position to entirely close the opening, and whereby when it is drawn back from said stop it will be raised from the bottom of said opening to admit the arms and links.

3. In a musical instrument of the class described, the combination of a casing having a bottom rail and an opening above the bottom rail, and pedal arms movable to a position in which they extend through the bottom of said opening with a substantially horizontally movable panel for closing said opening, and means whereby when the panel is in one position in which it extends across the opening its lower edge will come substantially into contact with the bottom rail and whereby when the panel is in another position in which it also extends across the opening, its lower edge will be raised above the bottom rail to clear said arms.

4. In a musical instrument of the class described, the combination of a casing having an opening therein, pedals having arms and links adapted to extend through the bottom of said opening, a stop located at a distance beyond the edge of said opening for engaging the edge of the door and stopping it with said edge materially beyond the edge of the opening, a guide rail on the inside of the casing above the opening having a horizontal top surface provided with depressions therein, a horizontally movable panel behind the opening for closing the same having supporting means resting on said top surface and adapted to enter said depressions when the panel is closed against said stop, said depressions being so located that when the panel is moved back from the stop it will rise on the rail to clear said arms before it starts to open the opening.

5. In a musical instrument of the class described, the combination of a casing having an opening for pedals having operating arms and links adapted to extend through the bottom of said openings, a stop located in-

side of the casing beyond the edge of said opening, a panel slidable behind the opening and adapted to engage said stop, a guide rail above the opening inside of the casing having a horizontal top surface with depressions therein, arms on the panel extending up and adapted to slide on said surface and to enter said depressions when the panel is closed against said stop, whereby when the panel is moved back away from the stop its lower edge will be raised above the bottom of said opening to clear said arms and links.

6. In a musical instrument of the class described, the combination of a casing having an opening therein for pedals, a panel mounted for substantially horizontal movement for closing said opening, a stop for the panel located beyond the edge of the opening, means whereby when the panel is against the stop it will drop into a position to entirely close the opening, and whereby when it is drawn back from said stop it will be raised to provide a space in the opening under it, and pedals pivoted inside the casing and having arms adapted to extend through said space under the panel when the pedals are swung outside the casing.

7. In a musical instrument of the class described, the combination of a casing having a bottom rail, an opening above the bottom rail, bellows inside the casing, arms pivotally connected with said bellows and adapted to swing down through the opening and out over the bottom rail, a panel mounted for substantially horizontal movement for closing said opening, and means whereby when said panel is moved to a position in which it just closes the opening longitudinally its bottom will be raised from its normal closed position above said arms.

8. In a musical instrument of the class described, the combination of a casing having a bottom rail, an opening above the bottom rail, a bellows inside the casing, an arm pivotally connected with said bellows and adapted to swing down through the opening and out over the bottom rail, a substantially horizontally movable panel for closing said opening, and means whereby when said panel is moved to a position in which it just closes the opening its bottom will be raised above said arms, and whereby when it is moved into another position it will drop down to entirely close the opening.

9. In a musical instrument of the class described, the combination of a casing having a bottom rail, an opening above the bottom rail, bellows inside the casing, arms pivotally connected with said bellows and adapted to swing down through the opening and out over the bottom rail, a panel mounted for substantially horizontal movement for closing said opening, and means whereby when said panel is moved horizontally to a position in which it just closes the

opening longitudinally its bottom will be
raised above said arms, said arms consist-
ing of two sets, one set for supporting pedals
when they are swung out and the other for
5 operating the bellows, said supporting arms
being in position to receive the panel and
support it.

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

THEODORE P. BROWN.

Witnesses:

C. FORREST WESSON,
MARY E. REGAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
