Oct. 26, 1926. 1,604,671

F. L. YOUNG

LIGHTING MEANS FOR AUTOMATIC PIANOS AND THE LIKE

Filed June 15, 1923

Fig. 1.

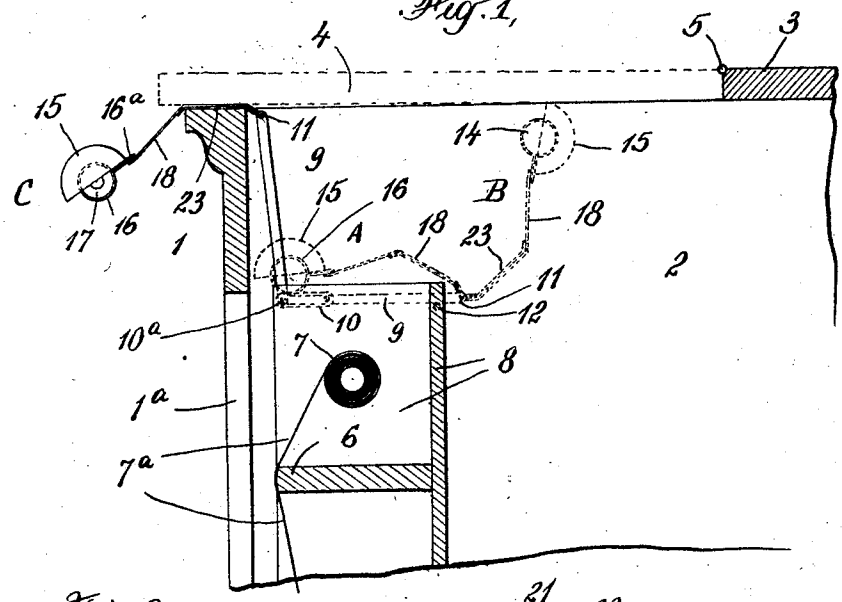


Fig. 2

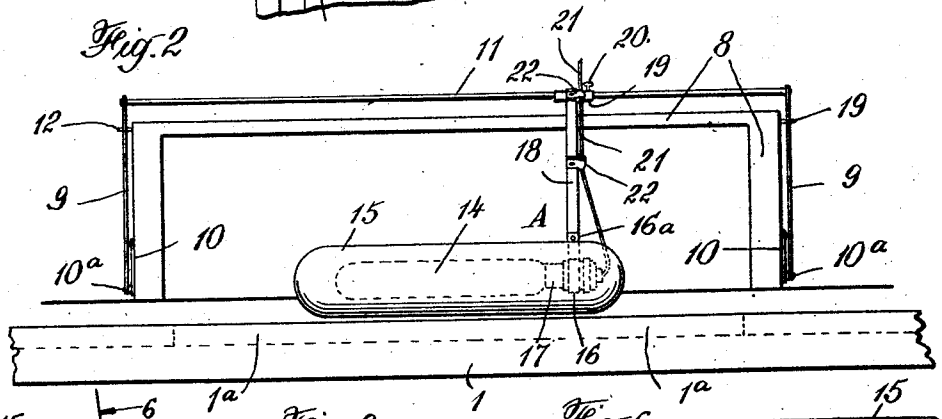


Fig. 3,

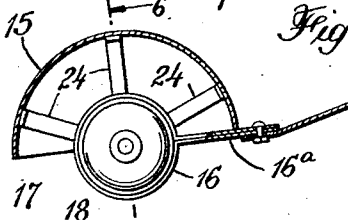


Fig. 6,

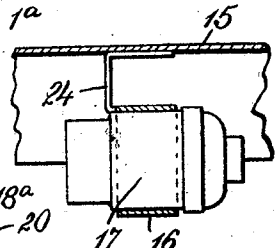


Fig. 4,

Fig. 5.

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Patented Oct. 26, 1926. 1,604,671

UNITED STATES PATENT OFFICE.

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LIGHTING MEANS FOR AUTOMATIC PIANOS AND THE LIKE.

Application filed June 15, 1923. Serial No. 645,571.

My present invention relates to improved lighting means for use in connection with automatic pianos, organs, and the like, said lighting means in its preferred form shown in the drawings being adjustable either into a position within the piano casing for illuminating the perforated music-sheet, or into an exterior position intended primarily to illuminate printed sheet music on the music rack of the instrument as when playing it by hand.

In said drawings, Fig. 1 is a fore and aft cross-sectional view, partly in elevation, of the upper front portion of an upright player piano embodying my lighting means in its preferred form; Fig. 2 is a plan view of the device as shown in Fig. 1 with the lamp means adjustable into its interior position within the piano casing; Fig. 3 is an enlarged fragmentary detail view of part of Fig. 1; Fig. 4 is a still larger fragmentary detail view of part of Fig. 3 as seen from the line 4—4 in said Fig. 3 looking in the direction of the arrows; Fig. 5 is a section, partly in elevation, on the line 5—5 in Fig. 4 looking in the direction of the arrows; and Fig. 6 is the same on the line 6—6 in Fig. 3 looking in the direction of the arrows.

Describing now my invention by reference to the specific devices of the drawings, 1 is the front panel of an upright player piano; 2 is one end of the piano casing; 3 is the stationary portion of the top of said casing; and 4 is the hinged lid portion of said top, said lid being indicated by the dotted lines with the hinge of said lid designated 5. 1^a is the usual rectangular opening through said front board or panel 1 (adapted to be closed by the usual sliding doors, not shown), back of which opening is located a box 8 containing and supporting the tracker bar 6 and the usual means (not shown) for operatively supporting the perforated music-roll 7 relatively to the tracker bar, all in the usual manner, with the perforated music-sheet 7^a moving down over said tracker bar during the automatic playing of the instrument.

So far, the foregoing is or may be only the usual upright player piano construction, and I will now describe my lighting means as applied thereto.

9—9 are a pair of metal arms or links swinging vertically about the pins 10^a—10^a forming part of the pieces 10 secured stationarily to the ends of the box 8 at the upper front corners thereof, as shown in Figs. 1 and 2. The free ends of said swinging arms 9—9 are connected by the metal rod 11. Pins 12—12 project from the ends of the box 8 to engage and prevent the arms 9 from dropping below their substantially horizontal position shown in Fig. 1.

The incandescent lamp 14 and reflector 15 are pivotally supported on the rod 11 and at the same time are laterally slidable and adjustable on said rod by means as follows: 16 is a cylindrical metal band snugly surrounding the lamp socket 17 and having a radial, outward extension-piece 16^a.

To said piece 16^a is rigidly secured one end of an inverted V-shaped metal strip 18 whose other end is bent around and secured on itself to form a cylindrical sleeve 18^a (compare Figs. 3, 4 and 5), which loosely surrounds another sleeve 19 slidable on the rod 11 and adapted to be held stationarily in any desired position of adjustment on said rod by means of a set screw 20 threaded through the wall of said sleeve 19.

The wall of the first named sleeve 18^a is cut through to form a slot 18^b extending circumferentially partly around same. 19^a is a pin projecting radially outward from the sleeve 19 and located between the sides of the said slot 18^b, whereby first the lamp-supporting arm 18 can be swung by the sleeve 19 between the positions marked A and B in Fig. 1, and will be upheld in either of said positions by the pin 19^a (Fig. 5) engaging the respective ends of the slot 18^b; and secondly, said sleeve 18^a cannot work laterally or endwise on the sleeve 19 out of the relative position thereon shown in Fig. 4.

The flexible cord 21 (Fig. 2) for delivering the current to the lamp 14 extends along the arm 18 through supporting eyes 22—22 riveted to said arm.

23 (Fig. 3) is a strip of felt extending along the underside of the right hand portion of the arm 18 and is held in place by the same rivets that secure the eye members 22 to the arm 18.

The reflector 15 (Figs. 3 and 6) is supported by arms 24 extending radially from the sleeve 16.

In its A position (Figs. 1 and 2) the lamp is located inside the piano casing above the box 8 and illuminates the perforated music-sheet 7^a because the box has no top board or

cover. In said A position, the arms 9—9 rest on the pins 12—12 and the arm 18 is supported by the engagement of one end of the slot 18[b] (Fig. 5) with the pin 19[a] that projects from the sleeve 19, which latter in turn is secured to the rod 11 (Figs. 3 and 4) by the set screw 20.

On the other hand, to illuminate sheet music on the music rack resting against the front panel 1 of the piano, it is merely necessary to raise the lid 4 (Fig. 1), swing the arm 18 about the sleeve 19 (Fig. 5) from its A position in Fig. 1 to its B position, and then to lift the whole device so that the arms 9—9 swing upwardly about the pins 10[a] whereby the lamp is carried over the top of the panel 1 into position C (Fig. 1) outside of the piano, in which position the felt 23 on the underside of the arm 18 rests on the top of the panel 1 without marring the instrument, whereupon the lid 4 can be lowered into the dotted position shown in Fig. 1.

Thus, I have provided a device for adjustably supporting an incandescent lamp in connection with a player piano which will illuminate sheet music on the music rack when playing the instrument by hand, or will illuminate the music-roll for playing the instrument automatically.

Of course, changes can be made in the actual embodiment illustrative of my improvements as shown and described herein, which changes will nevertheless still be within the scope and spirit of my invention and within the scope and spirit of the annexed claims and as such are intended to be covered thereby.

What I claim is:

1. In an upright keyboard instrument playable by hand as well as automatically from a perforated music-roll the combination of means behind the front panel of said instrument above the key-bed for operatively supporting the perforated music-roll so that said roll can be seen from the front of the instrument through an opening in said front panel; a lamp-supporting arm adapted to be extended horizontally over the top of said front panel supporting a lamp exteriorly of the instrument to illuminate sheet music for hand-playing supported at said panel; and means for supporting said arm from the interior of the instrument operable to retract and lower said arm into a horizontal position substantially the same as the above except that the lamp is now located within the instrument operatively over the music-roll.

2. In an upright keyboard instrument playable by hand as well as automatically from a perforated music-roll, the combination of means behind the front panel of said instrument above the key-bed for operatively supporting the perforated music-roll so that said roll can be seen from the front of the instrument through an opening in said front panel; a lamp-supporting arm adapted to be extended horizontally over the top of said front panel supporting a lamp exteriorly of the instrument to illuminate sheet music for hand-playing supported at said panel; a link pivotally connecting the rear end of said arm to a fixed support located near the back of said panel; and stop means preventing said link and arm from dropping below a position within the instrument wherein the arm is located in a horizontal position substantially the same as the above except that the lamp is now operatively located over the music-roll.

Signed at New York in the county of New York and State of New York this 13th day of June A. D. 1923.

FRANCIS L. YOUNG.