

J. A. WESER.

MUSIC RACK FOR MUSICAL INSTRUMENT CASES.

No. 484,481.

Patented Oct. 18, 1892.

FIG. 1.

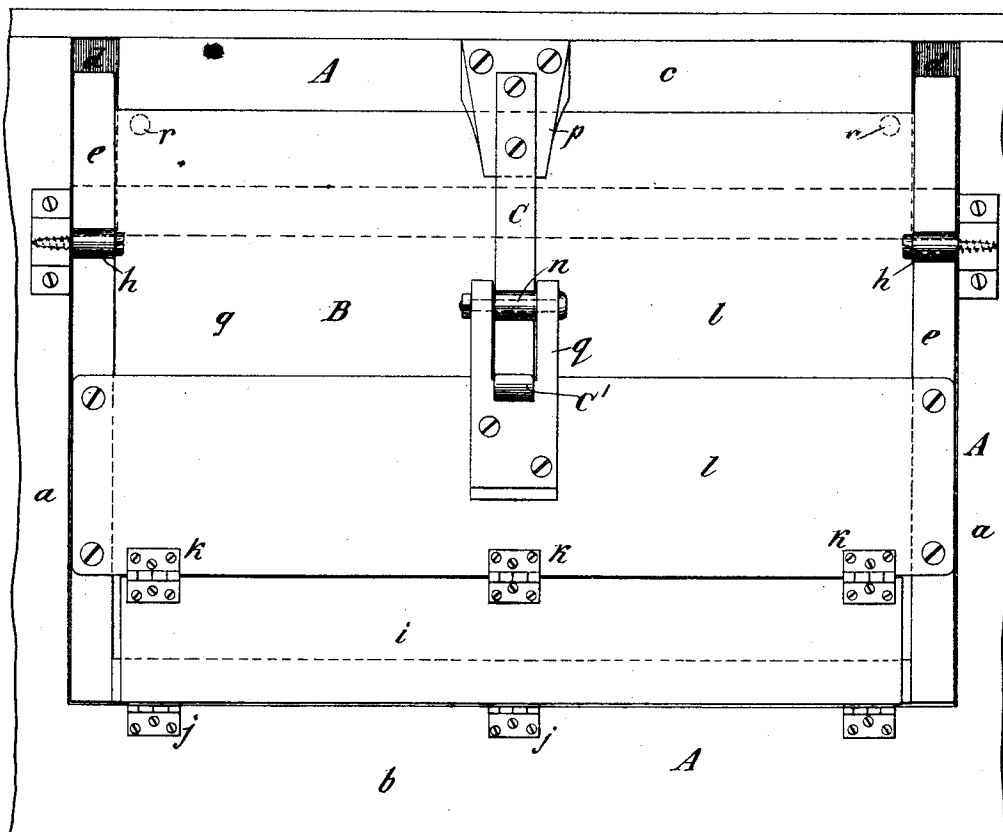
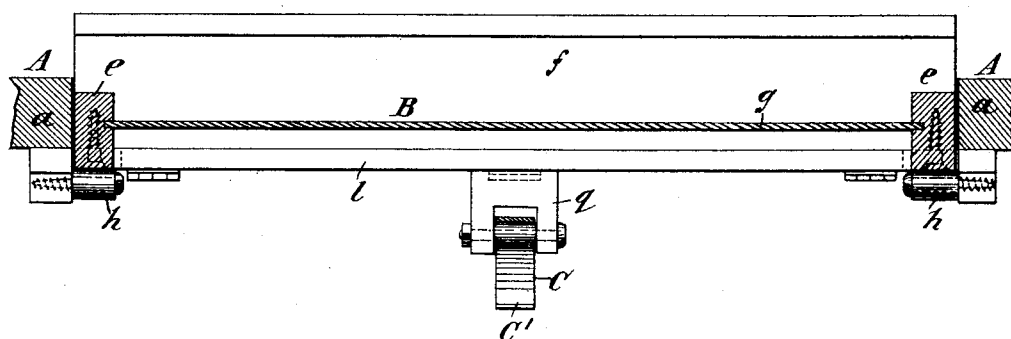


FIG. 2.



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FIG. 3.

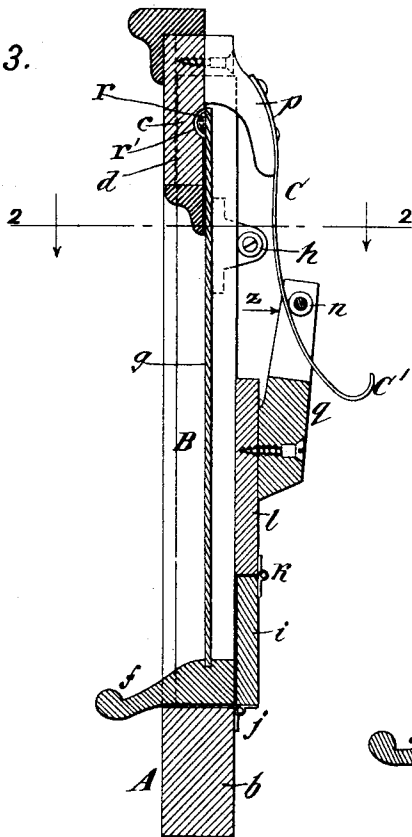


FIG. 4.

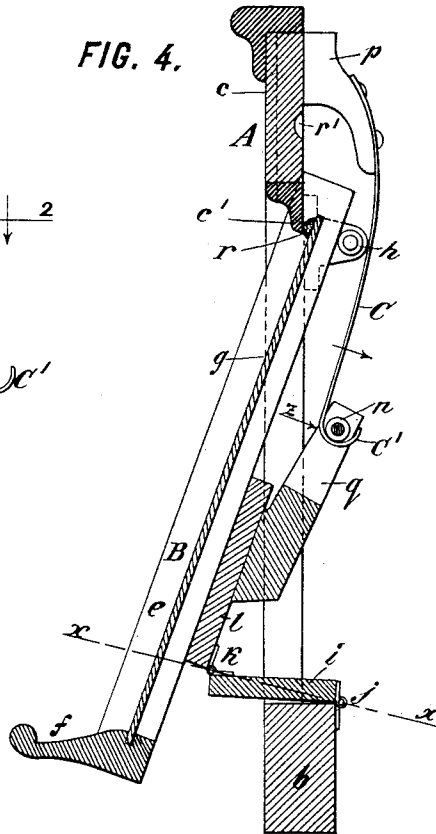
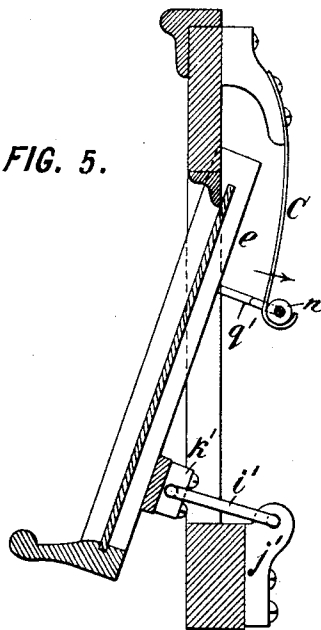


FIG. 5.



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UNITED STATES PATENT OFFICE.

JOHN A. WESER, OF NEW YORK, N. Y.

MUSIC-RACK FOR MUSICAL-INSTRUMENT CASES.

SPECIFICATION forming part of Letters Patent No. 484,481, dated October 18, 1892.

Application filed May 3, 1892. Serial No. 431,678. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WESER, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Music-Racks for Musical-Instrument Cases, (Case B,) of which the following is a specification.

This invention relates to music racks, desks, or leaves of that type wherein the desk both swings out and slides down to bring it to the position for use.

My present invention constitutes, in part, an improvement upon the construction of the sliding music-desk claimed in my application for patent filed July 23, 1891, Serial No. 400,412, (patented May 24, 1892, No. 475,369.)

Figure 1 of the accompanying drawings is a rear elevation of my improved music-rack and of the surrounding portion of the front of the case. Fig. 2 is a horizontal section thereof in the plane of the line 2 2 in Fig. 3. Fig. 3 is a vertical transverse mid-section showing the desk closed. Fig. 4 is a similar view showing the desk open. Fig. 5 is a similar section showing a modified construction.

Let A designate in general the front part of the case of a musical instrument—as, for example, an upright pianoforte or parlor organ—and B the music rack, desk, or leaf thereof.

The case A is made, as usual, with an opening, which is closed by the desk B when the latter is in its normal position or out of use, as shown in Fig. 3. When the desk is in use, it is swung forward at the bottom and brought down to the position shown in Fig. 4. It is consequently both a swinging and a sliding desk, since to admit of its descending movement its upper end is arranged to slide in the case at the upper side of the opening.

The case A is formed, as usual, with side bars *a a* at opposite sides of the music-desk opening, with a cross-bar *b* beneath the opening, and with a cross-bar *c*, extending across the front of the case at the top of the opening. This upper bar is formed at its rear side with two vertical grooves *d d*, extending upward from the sides of the opening. The rack or desk B is constructed with a frame consisting of side bars *e e* and a bottom bar *f*, the latter being extended forward sufficiently to

form a rest for the music. Within this frame is held the board or plate *g* of the music-desk. When the desk is closed, as shown in Fig. 3, this board occupies a plane inside of the inner face of the upper bar *c*, and in this position the upper ends of the side bars *e e* of the desk lie in the grooves *d d* in the back of the top bar. As the desk is swung out at its lower side and drawn down its upper end descends, the ends of its bars *e e* sliding down in the grooves *d d* to the lower part thereof, but is stopped before the bars are drawn out of the grooves, so that no gap is left between their upper ends and the frame of the case at the opening. The desk is guided in its movement at its upper portion by means of two rollers *h h*, (preferably felt-covered,) arranged at opposite sides and just back of the lower edge of the front bar *c*. These rollers bear against the rear side of the bars *e e* and form a rolling fulcrum on which the bars may slide and rock.

As thus far described the construction is the same as that of the music-desk claimed in my aforesaid application for patent. This construction is preferred by me for use with my present invention; but so far as my present invention is concerned the construction of the side bars *e* to slide in grooves *d* is not essential. Any other suitable guide may also be substituted for the rollers *h h*.

The lower end of the music-desk may be supported and guided in its movement in various ways, preferably by interposing a crank arm or link between it and the lower bar of the case. In the construction shown this crank arm or link consists of a strip of wood or other material *i*, extending, preferably, the entire width, or nearly so, of the desk, as shown in Fig. 1, and fastened by hinges *j j* to the lower bar *b* of the case and by hinges *k k* to the lower edge of a back bar or strap *l*, attached to the back of the desk. By this construction the desk is firmly supported at its lower side from end to end.

To hold the desk firmly in place, in either its open or closed position, I provide a spring-arm C, preferably a leaf-spring, arranged to exert a rearward pressure against the desk at a point between its guiding-rollers *h* and link *i*. The spring exerts its pressure against a bar *n* or other suitable cross-piece or abut-

ment adapted to receive the thrust of the spring, preferably a felt-covered roller mounted upon the rear side of the desk. This bar or roller is mounted, preferably, in a forked support or bracket g , fastened to the back board or strip l of the desk, as shown. The leaf-spring C is attached rigidly to a block p and projects down far enough to engage the roller n in the lowest position of the desk, the lower end of the spring being curved upwardly, as shown at C' , to form a hook adapted to engage the roller and limit its downward movement, and thereby constitute a stop for checking the downward movement of the desk. By means of this stop the movement of the desk is arrested before the guiding strip or board i is brought into abutment with the bar b , so that all strain of the hinges $j k$ which might result from the desk being checked by this abutment is avoided. The spring is arranged to exert a continual pressure upon the roller n in either position thereof in the direction of the arrows $z z$, thereby drawing the desk back rearward and preventing the finished front faces of the board g and side bars $e e$ from coming in contact with and rubbing against the rear surfaces of the upper cross-bar c of the case, as would otherwise occur, and which would be liable to mar the finish of the front of the desk. The rearward tension of the spring thus preserves these faces from being injured. The spring also serves to hold the desk in position, whether open or closed. In the closed position (shown in Fig. 3) its rearward pressure keeps the upper part of the desk against the rollers h and the lower part against the strip i , while as the desk is pulled out and drawn down its downward movement carries the link or strip i down nearly to a horizontal position, so that the tension of the spring tending to throw the desk backward is resisted by this strip, since the tension is communicated through it in endwise direction; or, more exactly, the strip i constitutes a link the axial line of which is drawn through its hinge-pivots, as shown at $x x$ in Fig. 4, and by the downward movement of the desk this axial line is carried down so far as to be approximately parallel with the direction z of the rearward thrust of the spring, so that this thrust has no tendency to close the desk, since an upward thrust is first required to institute the closing movement thereof. The downward movement of the desk might be sufficient to bring the axial line $x x$ beyond parallelism with the direction z of the spring-thrust, or it might be not quite sufficient to bring this line into parallelism with the direction of the thrust, provided in the latter case the weight of the desk, plus the friction were sufficient to add to the resistance and prevent the spring from spontaneously lifting and closing the desk. The strip i thus constitutes, essentially, a link and might be substituted by various other constructions of links—as, for example, by a wire link, as shown at i' in Fig. 5, pivoted at

one end in a block j' , attached to the lower bar of the case, and at the other end in a block k' , attached to the back of the desk. In this figure the roller n is mounted on a wire q , forming a bridge between the opposite side bars e of the desk. As a further provision against the scratching or marring of the finish of the front side of the desk, and also to hold the desk more firmly in position when open, I provide the desk at its upper front side with a yielding cushion r , projecting slightly from the front face of the board g , and in such position that when the desk is fully open this cushion shall wedge itself tightly against the lower margin c' of the upper front bar c of the case, so that by this wedging the desk is, as it were, jammed fast, so that while in use it is immovable, and to close it a considerable upward thrust is necessary to disengage the frictional cushion r from the upper margin of the opening. The cushion r may conveniently be made of a rubber-headed tack. By preference I employ two such cushions in the positions shown in dotted lines in Fig. 1, where they serve to hold the desk firmly at opposite sides. The back of the top rail c is provided with a recess r' in position to receive each cushion when the desk is in the closed position.

I claim as my invention the following defined novel features or improvements, substantially as hereinbefore specified:

1. The combination, with a musical-instrument case having a front opening, of a music-desk adapted to close said opening, mounted to swing out and slide down and having at its upper part a sliding connection with the case, a link pivoted to the case and to the lower part of the desk for guiding the bottom thereof in its swinging movements, and a spring exerting a tension rearward against the desk in a direction approximately parallel with the position of the link when the desk is fully open, whereby when the desk is partly closed the tension will be effective to close it.

2. The combination, with a musical-instrument case having a front opening, of a music-desk adapted to close said opening, mounted to swing out and slide down and having at its upper part a sliding connection with the case and at its lower part means for guiding it in its swinging movement, a bar n , connected to the rear of the desk, and a leaf-spring C , mounted on the case and exerting a rearward pressure against said bar.

3. The combination, with a musical-instrument case having a front opening, of a music-desk adapted to close said opening, mounted to swing out and slide down and having at its upper part a sliding connection with the case, a link pivoted to the case and to the lower part of the desk for guiding the bottom thereof in its swinging movements, and a spring exerting a tension rearward against the desk, and a stop applied to said spring for limiting the downward movement of the desk.

4. The combination, with a musical-instrument

ment case having a front opening, of a music-
desk adapted to close said opening, mounted
to swing out and slide down and having at its
upper part a sliding connection with the case
5 and at its lower part means for guiding it in
its swinging movement, a bar *n*, connected to
the rear of the desk, and a leaf-spring *C*,
mounted on the case and exerting a rearward
pressure against said bar and said spring
10 formed with a hooked end *C'*, adapted to en-
gage said bar and form a stop to limit the
downward movement of the desk.

5. The combination, with a musical-instru-
ment case having a front opening, of a music-
desk adapted to close said opening, mounted
to swing out through said opening and slide
15 down and having at its upper part a sliding
connection with the case, whereby when open
its upper part remains in said opening, and at
its lower part means for guiding it in its swing-
ing movement, and a cushion *r*, applied to the
20 front of the upper part of the desk and adapt-
ed when the latter is fully open to wedge it-

self against the rear of the case at the upper
margin of the opening.

6. The combination, with a musical-instru- 25
ment case having a front opening, of a music-
desk adapted to close said opening, mounted
to swing out and slide down and having at its
upper part a sliding connection with the case, a 30
link pivoted to the case and to the lower part
of the desk for guiding the bottom thereof in
its swinging movements, consisting of a strip
i, extending longitudinally of the desk, con-
nected by hinges *j j* to the lower margin of 35
the opening and by hinges *k k* to the desk,
and a spring arranged to exert a rearward
tension against the desk.

In witness whereof I have hereunto signed
my name in the presence of two subscribing 40
witnesses.

JOHN A. WESER.

Witnesses:

WINFIELD S. WESER,
FRANCIS H. PEAT.