

No. 842,976.

PATENTED FEB. 5, 1907.

L. M. RICH.
ADJUSTABLE STOOL BACK REST.
APPLICATION FILED NOV. 24, 1905.

Fig. 1.

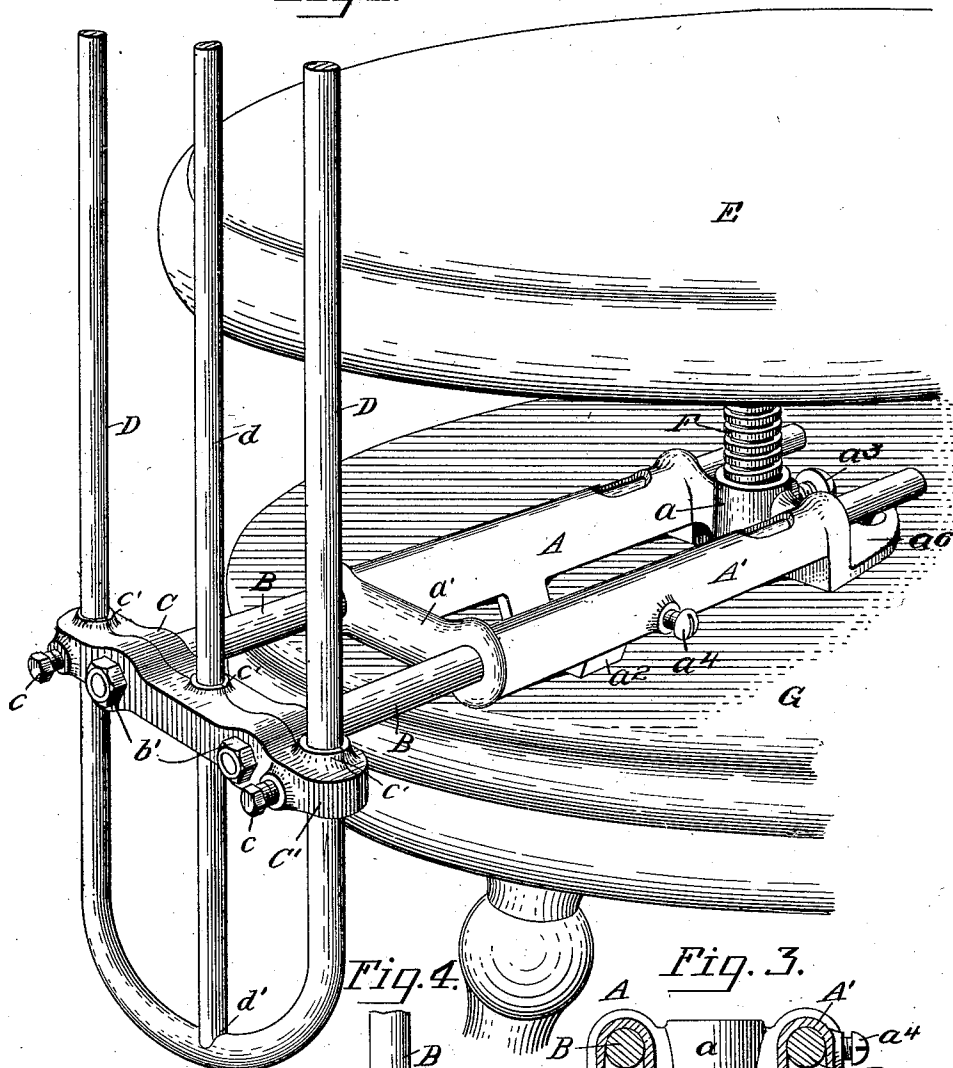


Fig. 4.

Fig. 3.

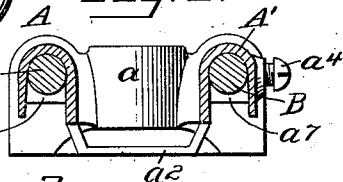
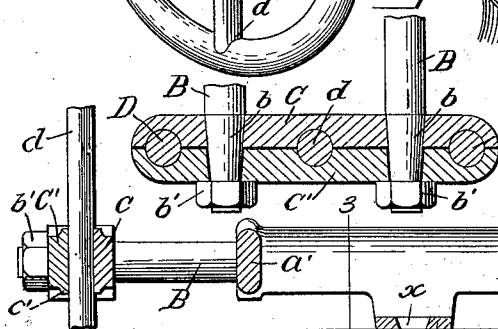


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

LESTER M. RICH, OF CINCINNATI, OHIO.

ADJUSTABLE STOOL BACK-REST.

No. 842,976.

Specification of Letters Patent.

Patented Feb. 5, 1907.

Application filed November 24, 1905. Serial No. 288,905.

To all whom it may concern:

Be it known that I, LESTER M. RICH, a citizen of the United States of America, and a resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Adjustable Stool Back-Rests, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of a piano-stool provided with my improved back-rest support; Fig. 2, a vertical longitudinal sectional view of the support detached; Fig. 3, a transverse section on the line 3 3 of Fig. 2, and Fig. 4 a horizontal section through the clamp which engages the rods of the back-frame.

The object of this invention is to provide a simple and durable back-rest attachment which may be readily attached to and detached from a piano-stool of the ordinary construction, which may be readily adjusted to suit the size of the user, and which will be ornamental in appearance, as more fully hereinafter set forth.

To the accomplishment of this object and such others as may hereinafter appear the invention consists of the parts and combination of parts hereinafter fully described, and particularly pointed out in the appended claims, reference being had to the accompanying drawings, forming a part of this specification, in which the same reference characters designate like parts throughout the several views.

Referring to the drawings annexed by reference characters, A and A' designate the side bars of the supporting-frame, which are connected at their outer ends by a cross-bar a' and at their rear ends by a cross connection which is cast in the form of a vertical ring or cylinder a, through which the screw F of the piano-stool freely works. Intermediate their ends the bars A A' are connected by another cross-bar a², which is bowed downward sufficiently to raise the side bars and outer cross-bar a' from the face of the subseat G. This supporting-frame is fastened to this subseat by suitable screws which are passed through the bar a² at x and through ears or flanges a⁶. The parts of this frame are preferably cast in one piece, thus forming a rigid frame which may be made at slight expense.

The bars A A' are channel-shaped for the sake of lightness, the open side of the channels being turned downward. Through the

ring a' is tapped a screw a³, by means of which the supporting-screw F of the stool may be locked against turning, if desired.

The pair of parallel rods B extend through the tubular side bars A A' and project inward upon opposite sides of the stool-screw. These rods are adapted to slide inwardly and outwardly and may be locked in their adjusted position by means of a set-screw a⁴, which is tapped through the side wall of the bar A'.

Attached to the outer ends of the bars B is a clamp, which consists of the two companion bars C C'. The inner one of these clamp-bars C is attached rigidly to the bars in any suitable manner, preferably by being driven on the slightly-tapered ends of said bars. The outer bar C' is provided with holes through which the projecting ends of the rods B extend, these projecting ends being threaded and provided with nuts b' for clamping the member C' to the stationary member of the clamp.

The back-frame consists of the two outer rods D and an intermediate rod d, these rods being of resilient material and carrying at their upper ends the usual back-engaging piece, which latter is not shown in the drawings. The three bars are clamped between the members of the clamp C C' and are vertically adjustable therebetween, the two members of the clamp being provided with corresponding semicircular grooves adapted to receive the rods. The back-frame is held in its adjusted position by means of the clamping action of the two clamp-bars; but this clamping action may be supplemented by set-screws c tapped through the outer or movable member of the clamp and adapted to engage the outer rods D. The lower ends of the two outer rods D are connected by an integral bent portion, and the middle rod d is notched at d', its lower end, to engage over the upper face of the bent portion, whereby the middle rod is held rigidly in position without extraneous fastening devices. The rounded connection between the two main rods of this back-frame serves to prevent articles of clothing of the user of the stool engaging the depending end of the back-frame, as is obvious.

In the construction above described it will be observed that I provide an exceedingly simple, durable, and inexpensive attachment which is adapted for attachment to practically all the piano-stools now on the market.

It will be observed also that by supporting the back-rest upon two or more horizontal rods the danger of deranging the adjustment by a twisting or torsional action is avoided.

5 This is an important advantage in that even should the set-screw a^4 be not tightened up on the rod there will be no danger of the rest swinging down, and, in fact, even a slight binding by the set-screw will suffice to hold
10 the back-rest in position, whereas if but a single supporting-rod were used a considerable degree of binding would be necessary to hold the back-rest in an upright position when subjected to the usual strains that a
15 device of this sort would necessarily encounter.

The use of a pair of supporting-rods arranged upon opposite sides of the screw not only provides for a substantial and rigid support for the back-rest, but also provides for a
20 widerange of adjustment, in that by that arrangement of the rods they may be adjusted back and forth without interference with the stool-screw. A further advantage lies in the
25 use of a rigid tubular frame braced at its opposite ends and so located that it will be practically invisible to the ordinary observer. It will be observed, further, that the stool-seat E may be rotated without affecting
30 the position or adjustment of the back-rest, thereby preventing the back-rest from being swung around and thrown against the piano in the act of adjusting the seat. Should it be desired to lock the seat E in its adjusted
35 position, as it sometimes is in order to preserve a desirable adjustment or to prevent children injuring or detaching the seat by turning it, this may be done by means of the set-screw a^3 .

40 It will be apparent to those skilled in the art that various mechanical embodiments of the invention are possible, and I therefore do not wish to be limited to the exact arrangement and construction shown.

45 It will be observed that besides affording a support for the lock-screw a^3 the vertical cylinder a serves the additional function of properly locating or centering the frame on the subseat, so that this frame shall always
50 be radially arranged the proper distance from the edge of the subseat and so that the sliding rods B shall always lie in their proper positions at either side of the seat-screw. I will be observed also that a feature of importance lies in forming this seat-screw-engaging ring as an integral part of the inner
55 cross-bar of the frame, which cross-bar, like the cross-bar a^2 , is provided with means for fastening it down to the subseat. Another
60 feature of the device lies in dropping the cross-bar connections of the frame below the plane of the two parallel bars A and A', so that when the device is fastened down on the subseat the bars will lie above and out of
65 contact therewith, thereby enabling the seat

to be readily kept clean, avoiding the accumulation of dirt and dust around and within the frame.

What I claim, and desire to secure by Letters Patent, is—

1. In a device of the character described, the combination of a rigid frame composed of parallel channeled side bars each having a longitudinal passage through it, and cross
70 connections between these bars, these connections being adapted for attachment to the upper side of a pedestal-top, a pair of parallel rods extending through the longitudinal pas-
75 sages in the side bars, means for locking these bars in their adjusted position, a clamp carried on the ends of these bars beyond the stool-seat, and a back-supporting frame ad-
80 justably mounted in said clamp.

2. In combination, a rigid frame adapted for rigid attachment to the top of the sub-
85 seat of a stool and provided at its inner end with a rigid integral sleeve which is adapted to closely embrace the stool-screw, a set-screw carried by said sleeve to lock the same to the stool-screw, a pair of parallel rods slid-
90 ably mounted in said frame, and means for adjustably supporting a back-frame on the outer ends of said rods.

3. In combination, a rigid frame composed of parallel bars having longitudinal passages
95 through them and cross connections, these connections being adapted for attachment to the top of the pedestal or subseat, a pair of parallel rods extending through the longitudinal passages in said side bars so as to lie
100 upon opposite sides of the stool-screw, means carried by one of the side bars for locking the parallel bars in their adjusted position, and a back-supporting frame attached to the outer
105 ends of said parallel bars.

4. In combination, a frame adapted for attachment to the pedestal of the stool, a pair of parallel rods adjustably supported in said
110 frame, a clamp on the outer ends of said rods consisting of an inner bar rigidly connecting said rods and provided with holes through which the ends of said rods extend and an outer companion bar through which the projecting ends of the rods extend, the adjacent
115 faces of said companion clamp-bars being notched, nuts on the projecting threaded ends of the parallel rods, and vertical back-frame rods clamped between said bars and adapted to be vertically adjusted therebe-
120 tween.

5. In combination, a clamp for supporting the back-frame and means for supporting
125 said clamp, said back-frame consisting of a pair of outer rods having an integral curved connection at their lower end and an intermediate rod extending through the clamp and notched at its lower extremity to engage over the upper side of the curved connection.

6. In combination, a rigid frame adapted for rigid attachment to the upper surface of
130

the subseat of a stool and carrying at its inner end a sleeve which closely embraces the stool-screw, means carried by this sleeve for temporarily locking the stool-screw against rotation, means slidable in said frame for supporting a stool-back, and a stool-back adjustably supported on said means, for the purpose set forth.

7. In combination, a frame adapted for rigid attachment to the upper surface of the subseat of a stool, means carried by said frame for closely engaging the seat-screw and for locking the seat-screw against rotation at will, means slidable in said frame for supporting a stool-back, and a stool-back adjustably supported on said means.

8. In combination, a frame adapted for rigid attachment to the upper surface of the subseat of a stool and having formed integral with it at its inner end a ring adapted to closely engage the seat-screw, a pair of rods adapted to project beyond the edge of the subseat and to slide in said frame one at either side of the seat-screw, and a stool-back supported on the projecting ends of said rods.

9. In combination, a frame consisting of side bars and cross connections, these connections being adapted for rigid attachment to the subseat of the stool, one of these cross

connections being located at the inner end of the frame and being provided with an integral ring adapted for close engagement with the seat-screw, slidable rods mounted in said frame, and projecting beyond the edge of the subseat, and a stool-back supported on the projecting ends of said rods.

10. In a device of the class described, a frame adapted for rigid attachment to the subseat of a stool and consisting of parallel side bars and integral cross-bar connections, the cross-bar connections being adapted to rest upon the upper surface of the subseat and being provided with holes for the passage of fastening-screws, these bearing-faces being on a plane below the parallel bars, so that when the frame is attached to the subseat the parallel bars will be supported above and out of contact therewith, parallel rods slidably mounted in said parallel bars, and a stool-back supported on the projecting ends of said parallel rods, for the purpose herein set forth.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 22d day of November, 1905.

LESTER M. RICH.

Witnesses:

MATHA E. ROONEY,
J. H. CORBLY.