

(No Model.)

2 Sheets—Sheet 1.

L. W. NORCROSS.

WRIST GUIDE AND FOOT GUARD FOR PIANOS.

No. 582,673.

Patented May 18, 1897.

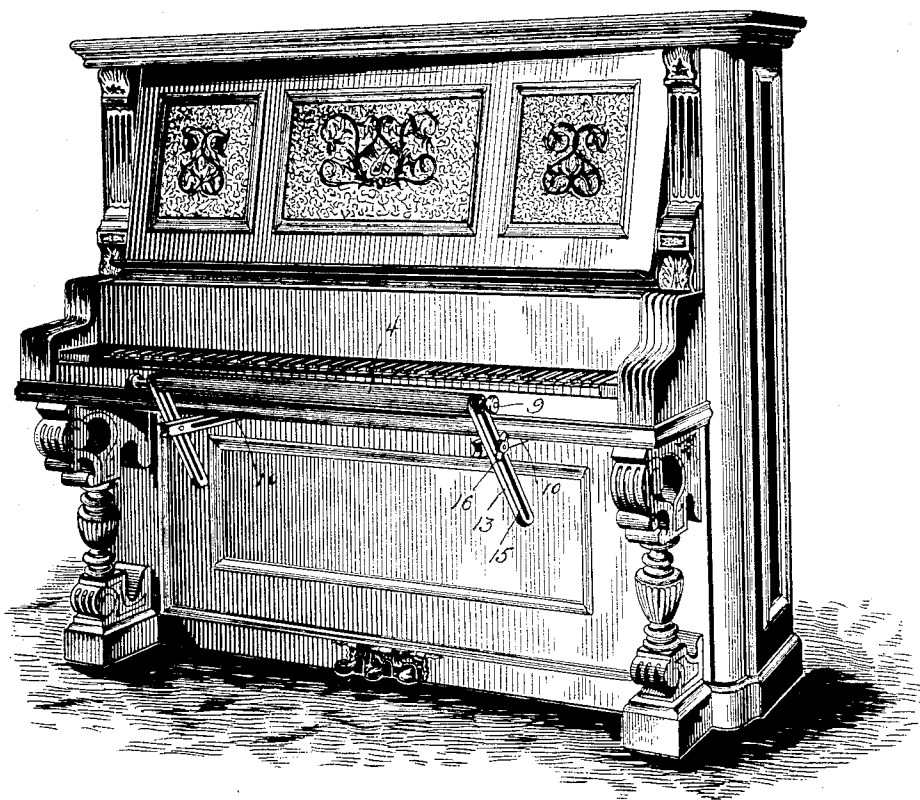


Fig. 1.

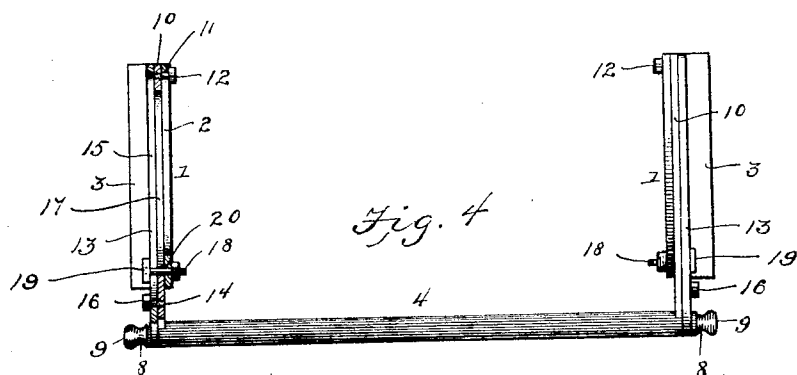


Fig. 4

Inventor

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Witnesses

E. H. Monroe
J. E. [Signature]

By *n w* Attorneys,

C. A. Snow & Co.

(No Model.)

2 Sheets—Sheet 2.

L. W. NORCROSS.

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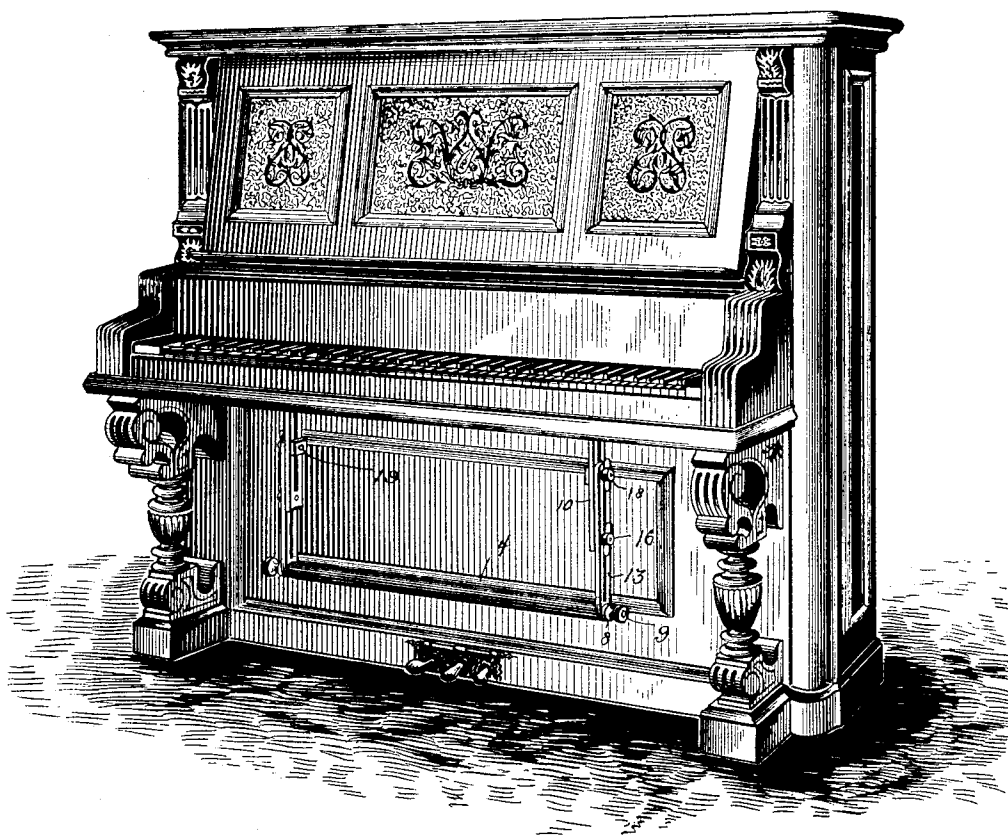


Fig. 2.

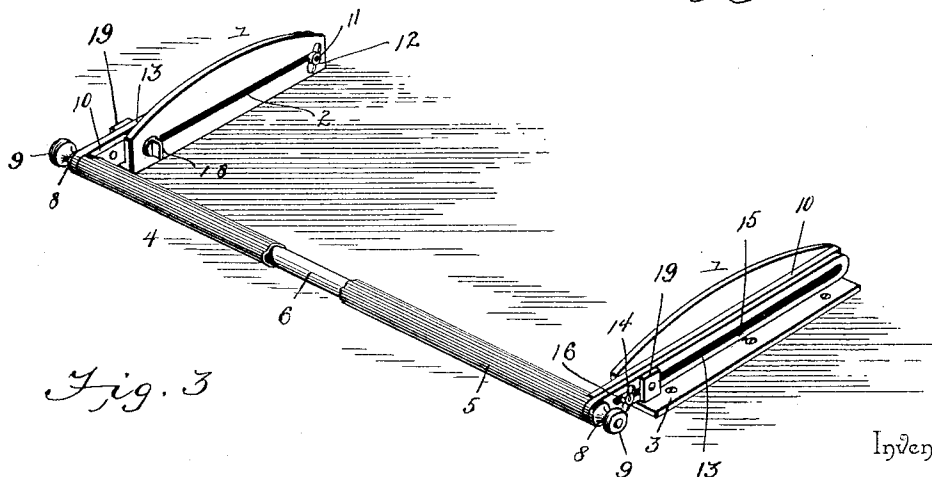


Fig. 3

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UNITED STATES PATENT OFFICE.

LEVI WATSON NORCROSS, OF PARIS, TEXAS.

WRIST-GUIDE AND FOOT-GUARD FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 582,673, dated May 18, 1897.

Application filed September 1, 1896. Serial No. 604,568. (No model.)

To all whom it may concern:

Be it known that I, LEVI WATSON NORCROSS, a citizen of the United States, residing at Paris, in the county of Lamar and State of Texas, have invented a new and useful Wrist-Guide and Foot-Guard for Pianos, of which the following is a specification.

My invention relates to a piano attachment consisting of an adjustable wrist-pin and foot-guard adapted to serve as a means for securing the proper position of the wrist and forearm in practice and also adapted to protect the front panel of the instrument and serve, with children, as a foot-rest.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a device constructed in accordance with my invention applied in the operative position to a piano, the same being shown arranged as a wrist-guard. Fig. 2 is a similar view showing the same applied as a foot-guard. Fig. 3 is an inverted perspective view of the attachment. Fig. 4 is an inverted plan view, partly in section.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

The attachment embodying my invention consists of parallel side brackets 1, provided with horizontal slots 2, said brackets being adapted to be secured, by means of base-plates 3, to the under side of the keyboard of a piano, and sectional extensible side arms slidably connected to the brackets for swinging movement in vertical planes and connected at their outer extremities by a cross-bar 4. The cross-bar is preferably constructed of an exterior metallic tube 5, having a core 6, of wood or equivalent material, and it is preferably secured to the outer extremities of the arms by means of screws or bolts 8, provided with ornamental heads 9.

Each arm consists of a plurality of sections connected for relative sliding movement, the inner or pivotal section 10 having a terminal pivot or stud 11, which extends through the slot 2 in the contiguous bracket and is engaged at its extremity by a thumb-nut 12 to

prevent accidental displacement, and the outer or bar-carrying section 13 being mounted to slide upon the inner or pivotal section by means of a stud or pivot 14, which extends laterally through a longitudinal slot 15 in said outer or bar-carrying section and is engaged, to prevent accidental displacement, by a thumb-nut 16, said stud and thumb-nut serving as a locking device to secure the sections at the desired relative extension. The inner or pivotal section or member of the arm is also provided with a longitudinal slot 17, through which and the aligned slot in the outer or bar-carrying arm is adapted to extend a clamping-bolt 18, having a thumb-head and engaged at its extremities by a nut 19, which is held from independent rotation by bearing at one edge against the base 3 when the parts are in the positions illustrated in Fig. 4. This clamping-bolt is adapted to extend through a perforation 20 in the front end of the bracket and also through the aligned slots in the sections or members of the contiguous arm to secure the device in its folded or inoperative position, and it is obvious that the arms may be extended to arrange the cross-bar in the desired position—for instance, in advance of the front edge of the keyboard—and that the parts may be locked at the desired adjustment by tightening the clamping-bolts 18 and the locking devices comprising the studs 14 and thumb-nuts 16. The outer extremities of the inner or pivotal sections 10 are preferably concaved, as shown, to receive the inner or rear side of the cross-bar.

By removing the clamping-bolts and extending the inner sections of the arms (after loosening the thumb-nuts 12 and 16) the outer sections may be turned at an angle to the inner sections to arrange the cross-bar contiguous to the plane of the keys to serve as a wrist-guide, as shown in Fig. 1, and the inner section of the arm, after having been adjusted forwardly to the proper point, should be secured in position by inserting the clamping-bolt through the opening 20 and the slot in said inner section, with its nut 19, in contact with the outer surface of the inner section. The tightening of the various clamping and locking devices will secure the parts in operative position.

When it is desired to use the device as a foot-guard to protect the front panel of the piano, the clamping-bolt should be disengaged from the bracket and arm sections and the arms swung vertically downward to occupy a depending position below the keyboard, as shown in Fig. 2, after which the clamping-bolts may again be engaged with the slots of the sections and the parts adjusted and secured in the desired positions. It will be understood that the inner ends of the inner sections may be adjusted either forwardly or rearwardly to the desired distance from the front panel of the instrument, and said arms may be arranged at the desired inclination, and also that the sections may be extended to arrange the cross-bar at any desired distance from the floor.

From the above description it will be seen that the parts of the apparatus embodying my invention are capable of a plurality of relative positions, whereby the device is adapted to perform the several functions named, and, furthermore, that the construction is simple, thus adapting the device to be manufactured at a small cost.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. A device of the class named having a horizontal bar provided with sectional arms having relatively-slidable members, one member of each arm being adapted to be pivotally mounted beneath and contiguous to a keyboard, and locking devices for securing the arms in the desired position and the members thereof at the desired extension, substantially as specified.

2. A device of the class named having a horizontal bar provided with side arms, brackets adapted to be secured to the under side of a

keyboard and having longitudinal slots, pivots carried by said arms engaging the slots in the brackets, and means for securing the arms in the desired position, substantially as specified.

3. A device of the class named having a horizontal bar provided with sectional arms of which the inner sections are mounted to slide upon brackets arranged beneath a keyboard, the front sections being mounted for pivotal movement upon the inner sections, and means for securing said parts at the desired adjustment, substantially as specified.

4. A device of the class described having a horizontal bar provided with sectional slotted arms comprising inner and outer members, longitudinal slotted brackets upon which the inner members are mounted for pivotal and sliding movement, and locking devices for securing said parts in the desired relative positions, substantially as specified.

5. A device of the class described having a horizontal bar provided with sectional arms having longitudinal slotted members, brackets adapted to be secured to the under side of a keyboard and provided with longitudinal slots, studs or pivots on the extremities of the inner members of the arms mounted for sliding movement in the slots of the brackets and provided with locking-nuts, locking devices engaging said sections at intermediate points to secure them at the desired relative extension, and clamping devices consisting of bolts adapted to engage openings in the brackets and the aligned slots in the sections, to secure one or both sections in a horizontal position, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LEVI WATSON NORCROSS.

Witnesses:

JNO. W. SCOTT,
A. F. SHARP.