No. 822,701. PATENTED JUNE 5, 1906.

J. W. SUTTON.

BENCH FOR USE IN PLAYING MUSICAL INSTRUMENTS.

APPLICATION FILED NOV. 15, 1905.

Fig: 1.

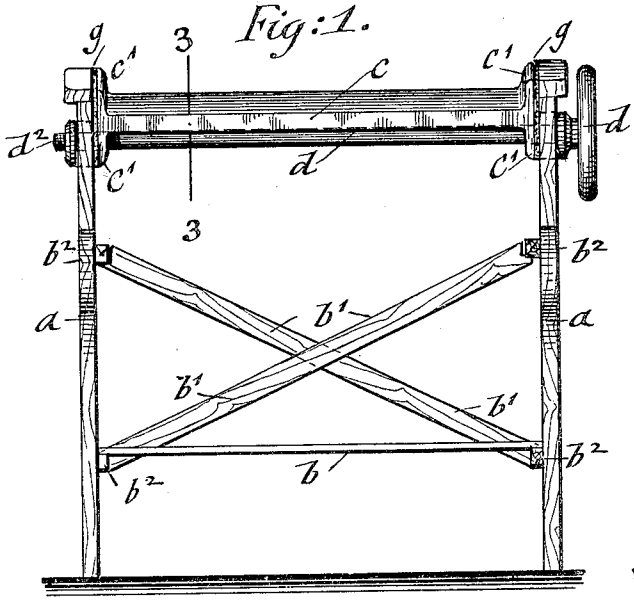


Fig: 2.

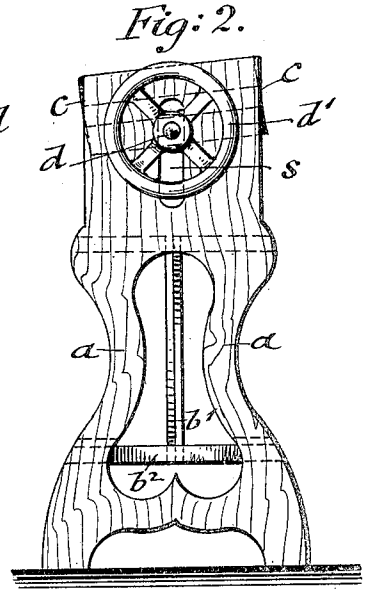


Fig: 3.

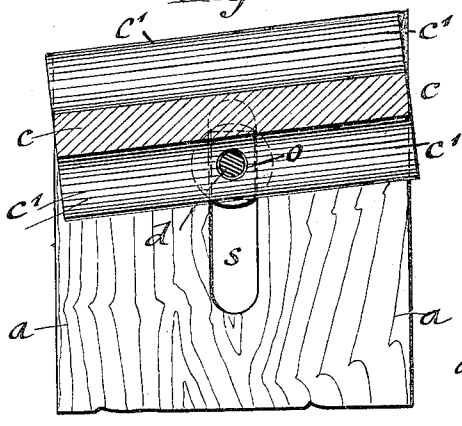


Fig: 4.

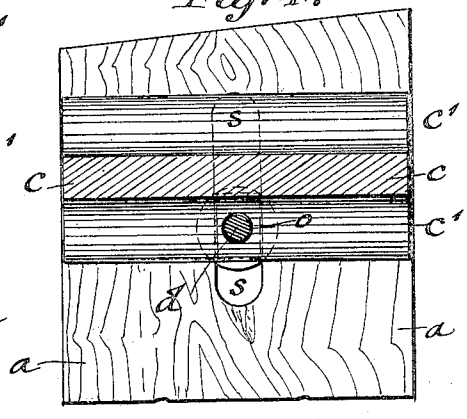


Fig: 7.

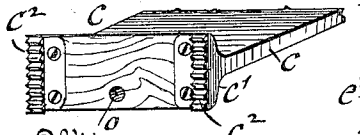


Fig: 5.

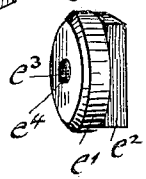


Fig: 6.

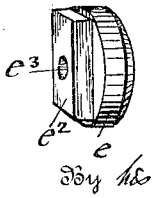
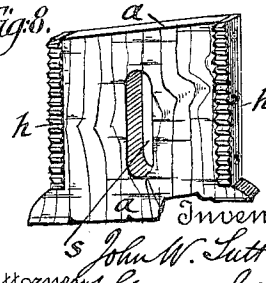


Fig: 8.



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UNITED STATES PATENT OFFICE.

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BENCH FOR USE IN PLAYING MUSICAL INSTRUMENTS.

No. 822,701. Specification of Letters Patent. Patented June 5, 1906.

Application filed November 15, 1905. Serial No. 287,476.

To all whom it may concern:

Be it known that I, JOHN W. SUTTON, a citizen of the United States, residing in New York, in the borough of Brooklyn and State of New York, have invented certain new and useful Improvements in Benches for Use in Playing Musical Instruments, of which the following is a specification.

This invention relates to improvements in benches for use in playing mechanical musical instruments—such as automatic pianos, so-called "piano-players," organs, and similar musical instruments—the bench being so constructed that the seat can be adjusted readily to any desired height and inclination, according to the different heights of the players; and for this purpose the invention consists of a bench provided with upright side walls having slots in their upper parts, means for transversely connecting said side walls, a seat, a transverse screw-spindle, bearings for said screw-spindle guided in the slots of the side walls, one of said bearings forming a clamping-nut for said screw-spindle and means for rigidly locking the side walls and seat together in any desired position between the side walls.

The invention consists, further, of certain additional details of construction and combinations of parts which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 represents a front elevation of my improved bench. Fig. 2 is a side elevation of the same. Figs. 3 and 4 are vertical transverse sections on line 3 3, Fig. 1, drawn on a larger scale. Figs. 5 and 6 are detail perspective views of the supporting-bearings for the screw-spindle by which the side walls and seat are clamped together, and Figs. 7 and 8 are details of a modified construction of the clamping device between side walls and seat.

Similar letters of reference indicate corresponding parts in the different figures of the drawings.

Referring to the drawings, *a a* represent the side walls of my improved bench for use in playing musical instruments. The side walls are connected at their lower parts by transverse and diagonal braces *b* and *b'*, which are detachably connected with cleats b^2, which are attached to the inner face of the side walls. The detachable connection is obtained by separating the upper cleats b^2 of the side walls for a distance of one-eight of an inch, more or less, from the upper ends of the diagonal braces *b'*, said braces being held in the position shown by means to be hereinafter described. In place of the transverse and diagonal braces *b b'* and cleats b^2 any other means by which the side walls are detachably connected may be used. The upper parts of the side walls *a a* are provided with vertical center slots *s*, in which are guided two journal-bearings *e e'*, each journal-bearing being provided with a rectangular portion e^2 and with a central bore e^3 for the passage of a screw-spindle *d*, which is provided at one end with a hand-wheel *d'* and at the other end with a screw-thread d^2. The bore of the journal-bearing *e* adjacent to the hand-wheel *d'* is made perfectly smooth, so as to permit the passage of the screw-spindle *d*, while the bore of the opposite journal-bearing *e'* is provided with an interior screw-thread e^4, so as to permit the threaded end d^2 of the screw-spindle *d* to screw readily into the same. The inner rectangular portions of the journal-bearings *e* and *e'* are guided in the center slots *s* of the side walls, according to the height to which the screw-spindle *d* and the seat *c* is to be adjusted. The seat *c* is provided with enlarged or T-shaped ends formed of upper and lower flanges *c'*, of which the lower flanges are each provided with a central opening *o* for the passage of the screw-spindle *d*, so that the seat *c* can be moved on the screw-spindle as a pivot into inclined or horizontal position between the side walls *a a* and vertically up or down in the slots *s*, according to the height to which the player desires to adjust the seat. The faces of the enlarged ends *c'* of the seat are covered with friction-plates *g*, of india-rubber or other elastic material, which are attached thereto either by cement, dovetail connecting-joints, or any other suitable means.

After the seat is placed at the proper height and inclination between the side plates the screw-spindle *d* is turned by its hand-wheel so that the threaded end of the spindle screws into the screw-nut in the bearing *e'* and draws the side walls *a a* toward each other and into frictional contact with the elastic face-plates *g* of the enlarged ends of the seat until a positive clamping action between the parts is obtained, whereby the seat is firmly supported between the side walls of the bench. When the seat is to be adjusted into another position, the clamping action of the screw-spindle and its screw-nut has first to be re-

leased by turning the screw-spindle in a direction opposite to that required for the clamping action, so that the side walls recede slightly from the enlarged rubber-faced ends of the seat and permit the higher or lower horizontal or inclined adjustment of the seat, as desired. The seat is then again clamped between the side walls by screwing the screw-spindle into the screw-nut of its bearing and clamping the rubber-faced ends c' and side walls together until a firm locking connection is obtained.

Instead of the frictional clamping action a positively interlocking action is obtained between the side walls a and seat c by arranging on the front and rear edges of each side wall serrated plates h, which are attached thereto by screws h'. The front and rear corners of the seat c are provided with angular toothed plates c^2, as shown in Fig. 7. When the parts are clamped together, the projecting teeth on the corners of the seat enter the serrations of the plates h and produce the rigid locking of the seat in position.

The advantages of my improved bench for use in playing musical instruments are that the seat can be quickly adjusted higher or lower at any suitable inclination desired by the player and then rigidly locked in position for use. Another advantage is that the seat can be packed and shipped in knockdown condition and quickly and readily assembled for use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A bench for use in playing musical instruments, comprising upright side walls, detachable braces extending between said side walls, a seat, and means to clamp together said seat and said side walls and to thereby maintain said braces firmly in position.

2. A bench for use in playing musical instruments, comprising upright side walls provided with vertical slots, means detachably connecting said side walls, a seat provided at its ends with lateral openings, journal-bearings having squared portions guided in said slots of the side walls, and a clamping-spindle passing through said openings in the seat and through said journal-bearings, said spindle having threaded engagement with one of the latter.

3. In a bench for use in playing musical instruments, the combination, with upright side walls, and means detachably connecting said side walls at their lower portions, of a seat extending between said walls and provided with enlarged end portions, there being lateral openings in said end portions below the main part of the seat, journal-bearings guided vertically in said side walls, and a clamping-spindle engaging said bearings and extending through said openings in the enlarged ends of the seat.

4. A bench for use in playing musical instruments, consisting of upright side walls having serrated plates at their front and rear edges, means for connecting them at their lower ends, a seat provided with enlarged ends and toothed corner-plates, a screw-spindle passing through the enlarged ends of the seat, journal-bearings in said side walls for said screw-spindle, means for vertically adjusting the same, and means for locking the side walls and seat together.

5. A bench for use in playing musical instruments, consisting of upright side walls, means for transversely connecting the side walls at their lower ends, said side walls being provided with vertical center slots in their upper parts, journal-bearings guided in the slots of the side walls, a transverse screw-spindle passing through said journal-bearings, a seat provided with enlarged ends that are pivoted to said screw-spindle, toothed plates applied to the corners of the seat, serrated plates attached to the side walls, and means for clamping the screw-spindle, toothed corner-plates and serrated plates firmly together.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

JOHN W. SUTTON.

Witnesses:

PAUL GOEPEL,

H. J. SUHRBIER.