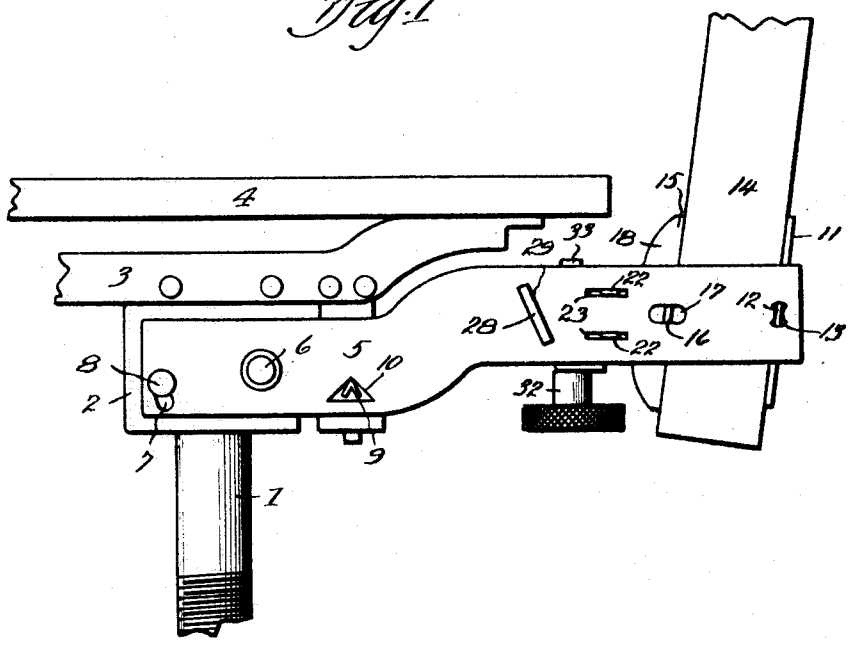
Dec. 18, 1928. 1,696,153

E. D. BUMP

CHAIR

Filed Aug. 16, 1924 2 Sheets-Sheet 1

Fig. 1



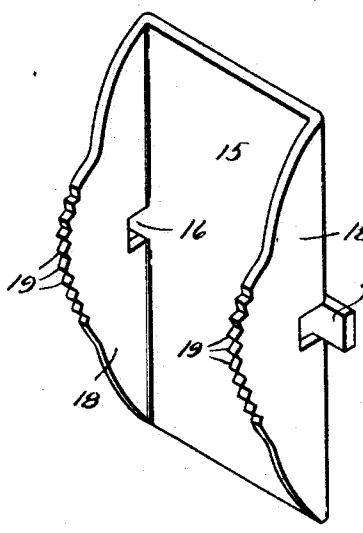


Fig. 4

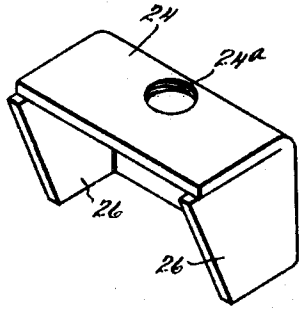


Fig. 5

Inventor
Edward D. Bump,
By Hull, Brock & West,
Attys.

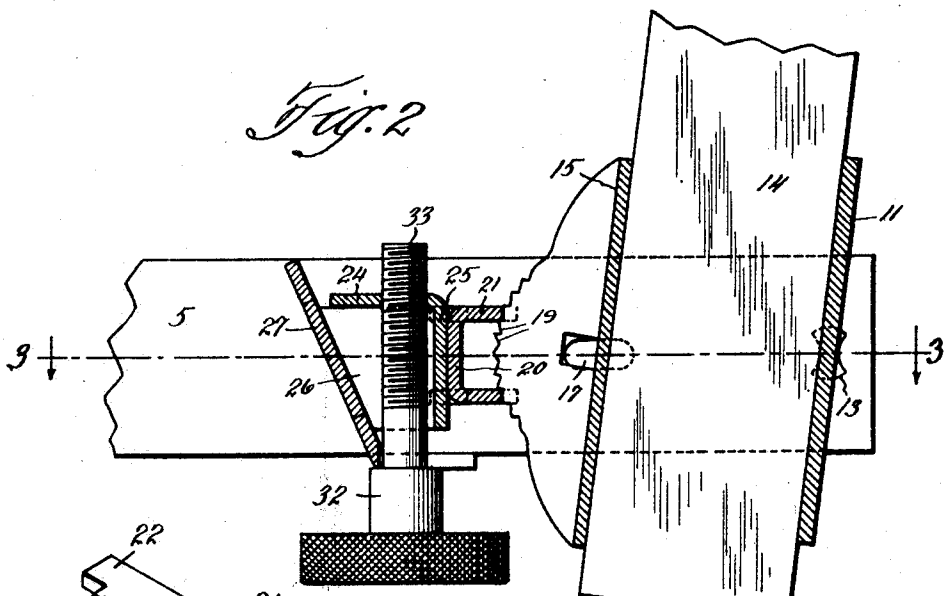
Dec. 18, 1928. 1,696,153

E. D. BUMP

CHAIR

Filed Aug. 16, 1924 2 Sheets-Sheet 2

Fig. 2



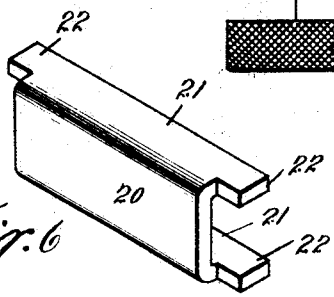
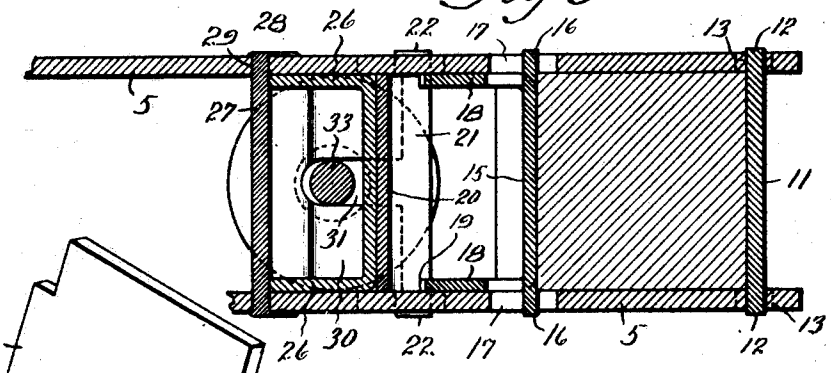


Fig. 6

Fig. 3



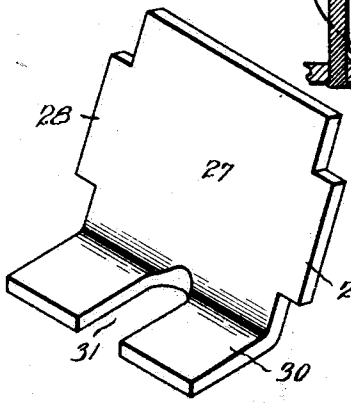


Fig. 7

Inventor
Edward D. Bump,
By Hull, Brock & Hurt,
Attys.

Patented Dec. 18, 1928. 1,696,153

UNITED STATES PATENT OFFICE.

EDWARD D. BUMP, OF LAKEWOOD, OHIO, ASSIGNOR TO THE BETTCHER STAMPING & MANUFACTURING COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

CHAIR.

Application filed August 16, 1924. Serial No. 732,444.

This invention relates to chairs of the type used by typewriter operators, wherein the back standard is adjustably connected with and supported by arms extending rearwardly from beneath the seat.

In the class of chairs referred to, it has been customary to employ two adjustments for the purpose of varying the inclination of the back post or standard as well as for varying the vertical position of such standard; and one of the customary means for providing for such vertical adjustment is by slotting the lower end of the standard and passing a bolt through the slot, the said bolt serving to secure the standard in any vertical position to which it may be adjusted.

It is the general purpose and object of my invention to provide chairs of this type with means whereby the back post or standard may be adjusted, both angularly and vertically, and may be secured in such adjusted position by a single operation. A further object of the invention is to enable the vertical adjustment to be obtained without the necessity for slotting the post or standard.

Other objects and advantages of the invention will appear hereinafter and the novel features will be particularly pointed out in the claims.

Referring to the drawing, Fig. 1 represents a side elevation of a part of a chair of the type referred to having my invention applied thereto; Fig. 2 is a longitudinal sectional view taken between the rear portions of the supporting arms, with the bottom of the post or standard in elevation, and showing the manner of securing the latter in place; Fig. 3 is a detail in section corresponding to the line 3—3 of Fig. 2; Fig. 4 a detail in perspective of the front locking and clamping member; Fig. 5 a similar view of the vertically movable lock-operating member; Fig. 6 a similar view of the cooperating locking member which engages the front locking plate; and Fig. 7 a similar view of the inclined plate with which the lock-operating member cooperates.

Describing the various parts by reference characters, 1 denotes the seat supporting post and 2 a yoke on top of the post to the sides of which the brackets 3 are secured, the said brackets supporting the seat 4.

5 denotes the rearwardly-extending back-supporting arms, which may be themselves supported in any convenient manner, as by means of pivot pins 6 securing the same to opposite sides of the yoke 2, the up-and-down movements of the arms being limited by a slot 7 at the front of each arm and a pin 8 extending through each slot and anchored in the adjacent side of the yoke 2. Rearwardly of the pivots 6, the arms are intended to be yieldingly supported on knife-edge bearings 9 each supported by a spring (not shown), each bearing projecting into a V-shaped notch 10 in an arm 5.

The details of the manner of mounting the arms 5 form no part of the invention intended to be covered hereby; but indicate the best form in which I have contemplated mounting the arms 5, the details being shown and described at length in the patent issued to Clifford H. Peters and myself on July 15, 1924, No. 1,501,181.

Extending between the rear ends of the arms 5 is a rear abutment member 11, the same being a plate with central lugs 12 mounted in slots 13 in said arms, the opposite side walls of each slots being convex and the top and bottom of each slot being concave to permit the rocking of the lugs 12. The plate 11 is adapted to engage and bear against the back of the back-supporting post or standard 14. Cooperating with the plate 11 is a front abutment member, the same being a plate 15 having center lugs 16 projecting from the side edges thereof, the lugs being slidably and rotatably mounted in elongated slots 17 in the arms 5. The plate 15 is adapted to engage and bear against the front of the standard 14 and is provided at each lateral edge with a forwardly projecting flange 18, each flange having a convex central portion provided with serrations 19, which serrations are adapted to be engaged by a locking member which holds the plate 15 in any angular position to which it may be adjusted, as well as the plate 11.

The locking member referred to is channel-shaped, the web being indicated at 20 and the flanges at 21. This locking member is arranged between the arms 5 and is provided with lugs 22 which are mounted in elongated slots 23 in said arms, whereby the locking member may be moved rearwardly toward the serrations 19 by means of the operating member, which will now be described.

The member which operates the locking member 20, 21 is shown in detail in Fig. 5 and comprises a horizontal top 24 and a vertical rear wall 25 which is adapted to engage the web 20. Projecting forwardly from the rear wall 25 and downwardly from the top 24 are the side walls 26 each having its front edge downwardly and rearwardly beveled, to engage the correspondingly beveled or inclined plate 27 which is mounted between the arms 5, being supported therein by lugs 28 extending through anchoring slots 29 in said arms. At the bottom, the plate 27 is provided with a rearwardly extending flange 30 which is provided with a central slot 31. The lower wall of the flange 30, adjacent the slot 31, is adapted to engage the head 32 of a screw bolt 33, the upper end of which is threaded into an aperture 24^a in the top of the plate on the flange 24.

With the parts constructed and arranged as described, the post or standard 14 will be supported by and between the plates 11 and 15 and the interposed portions of the arms 5 by the thrust of the plate 15 toward the plate 11, such thrust being imparted by setting up the screw bolt 33 thereby to force the operating member 24—26 rearwardly, which in turn forces the locking member 20—21 rearwardly against the serrated flanges of the plate 15 and thrusts the said plate toward the plate 11.

When it is desired to change either the angular or the vertical position of the post or standard 14 or both, it is necessary only to slack off the screw bolt 33, which will force the operating member upwardly and forwardly, releasing the locking member from the serrations 19 and enabling the standard to be moved vertically and the plates 11 and 15 to be rocked, if desired, to any angular position. After such operation, the post or standard 14 will be locked in its adjusted position by merely setting up the bolt 33.

By the means shown and described herein, a simple and effective structure is provided for mounting, vertically adjusting, rocking or rotating the back standard of a chair of the general type referred to, and locking the standard in such adjusted position. The parts which are employed for securing such locking and adjustment can be cheaply and conveniently made of pressed or stamped and punched sheet metal; the post or standard may be locked in the position in which it is placed after both a vertical and rotary adjustment by the operation of a single member—the screw bolt 33—and without the necessity for slotting the post or standard.

Having thus described my invention, what I claim is:

1. In a chair, the combination, with opposite rearwardly-disposed arms, of a back post interposed between and vertically adjustable with respect to said arms, and means for securing the said post in adjusted position between said arms, the said means comprising a member adapted to engage the rear of said post and mounted to rock between said arms, a cooperating member pivotally supported by and between the said arms and adapted to engage the front of said post, and means for forcing one of the said members toward and from the other, thereby to secure the said post in adjusted position.

2. In a chair, the combination, with opposite rearwardly-disposed arms, of a back post interposed between and vertically adjustable with respect to said arms, and means for securing the said post in adjusted position between said arms, the said means comprising a member adapted to engage the rear of said post, a cooperating member pivotally supported by and between the said arms and adapted to engage the front of said post, and means for moving the second member along its pivotal support toward and from the first member, thereby to secure the said post in adjusted position.

3. In a chair, the combination, with opposite rearwardly-disposed arms, of a back post interposed between and vertically adjustable with respect to said arms, and means for securing the said post in adjusted position between said arms, the said means comprising a member adapted to engage the rear of said post and pivotally mounted in said arms, a cooperating member adapted to engage the front of the post and also pivotally mounted in said arms, one of the said members being movable on its pivotal support toward and from the other, and means for so moving such movable member thereby to lock and unlock the said post between the said arms and the said members.

4. In a chair, the combination, with opposite rearwardly-disposed arms, of a back post interposed between and vertically adjustable with respect to said arms, and means for securing the said post in adjusted position between said arms, the said means comprising a member pivotally supported by and between said arms adapted to engage one portion of said post, a cooperating member adapted to engage the opposite portion of the post and pivotally supported by and between said arms, one of the said members being movable toward and from the other, and means for so moving such member thereby to lock and unlock the said post between the said arms and the said members.

5. In a chair, the combination, with opposite rearwardly-disposed arms, of a back post interposed between and vertically adjustable with respect to said arms, and means for securing the said post in adjusted position between said arms, the said means comprising a member adapted to engage a

portion of said post and pivoted to and between said arms, a second member independent of the first member and adapted to engage the opposite portion of the post and having a fore-and-aft sliding pivotal connection with said arms, and means for forcing the second member toward and from the first member thereby to lock and unlock the said post between the said arms and the said members.

6. In a chair, the combination, with opposite rearwardly-disposed arms, of a back post interposed between and vertically adjustable with respect to said arms, and means for securing the said post in adjusted position between said arms, the said means comprising a member adapted to engage the back of said post and pivoted between said arms, a second member independent of the first member and adapted to engage the front of the post and having a fore-and-aft-sliding pivotal connection with said arms, and means for forcing the second member toward and from the first member thereby to lock and unlock the said post between the said arms and the said members.

7. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post interposed between and vertically adjustable with respect to said arms, a rear plate pivotally connected to said arms and engaging the rear of the post, a front plate pivotally and slidably mounted within said arms and adapted to engage the front of the post, and means mounted between the said arms for moving the second plate toward the first plate, thereby to clamp the post or standard in its vertically and angularly adjusted positions with respect to said arms.

8. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post interposed between the said arms, a rear engaging member for the post pivoted between said arms, a front-engaging member for the post also pivoted between said arms and movable toward and from the first-mentioned member, a combined locking and operating device interposed between said arms, and means for moving the said device into engagement with the second member thereby to force it toward the first member.

9. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post interposed between the said arms, a rear engaging member for the post between said arms, a front-engaging member for the post pivoted between said arms and movable toward and from the first-mentioned member, a combined locking and operating device interposed between said arms, and means for moving the said device into engagement with the second member thereby to force it toward the first member.

10. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post interposed between said arms, a rear-engaging member for the said post pivoted between said arms, a front-engaging member for the post also pivoted between the arms and movable toward and from the first-mentioned member, the second member having a projection provided with serrations extending forwardly therefrom, a locking member slidably mounted between the said arms and adapted to engage the said serrations, an operating member for the locking member, an inclined support for the operating member interposed between the arms and adapted to be engaged by the operating member, and a bolt threaded into the operating member.

11. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post interposed between said arms, a rear-engaging member for the said post between said arms, a front-engaging member for the post pivoted between the arms and movable toward and from the first-mentioned member, a locking member slidably mounted between the said arms and adapted to engage the second member, an operating member for the locking member, an inclined support for the operating member carried by the arms and adapted to be engaged by the operating member, and means for moving the said operating member along said support.

12. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post vertically adjustable between the said arms, a rear engaging member between the said arms and about which said post is adapted to swing, a plate adapted to engage the front of the post and having pivots slidably mounted in said arms and provided with forwardly projecting flanges each provided with serrations, a U-shaped locking member having flanges adapted to engage said serrations and also slidably mounted in said arms, a downwardly and rearwardly inclined plate secured between said arms and having a slotted flange at the bottom thereof, an operating member for the locking member having inclined side flanges adapted to engage the inclined plate and having a portion adapted to engage the locking member, and a bolt extending through the said slot and threaded into the operating member.

13. In a chair, the combination, with opposite rearwardly-disposed arms, of a back-supporting post vertically adjustable between the said arms, a rear engaging member between the said arms, a plate adapted to engage the front of the post and having pivots slidably mounted in said arms and provided with a projection having serrations, a locking member adapted to engage

said projection and also slidably mounted in said arms, a downwardly and rearwardly inclined plate secured between said arms and having a slotted flange at the bottom thereof, an operating member for the locking member having an inclined portion adapted to engage the inclined plate and having a portion adapted to engage the locking member, and a bolt extending through the said slot and threaded into the operating member.

In testimony whereof, I hereunto affix my signature.

EDWARD D. BUMP.