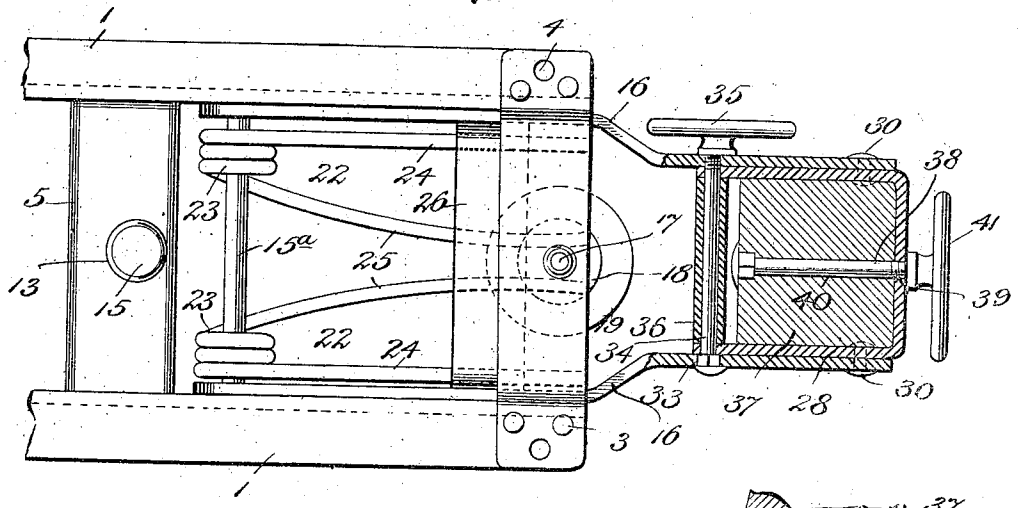
C. J. TRAVERS.

ADJUSTMENT FOR THE BACKS OF TYPE WRITER CHAIRS.

APPLICATION FILED OCT. 11, 1917.

1,263,162. Patented Apr. 16, 1918.

Fig. 1.



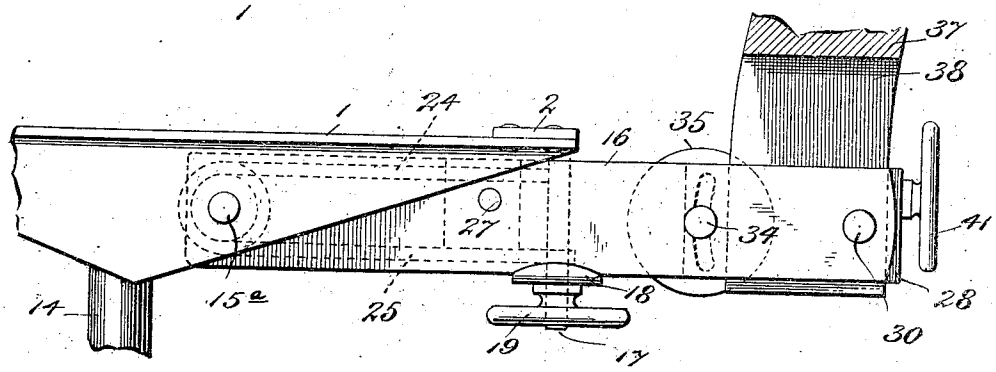


Fig. 2.

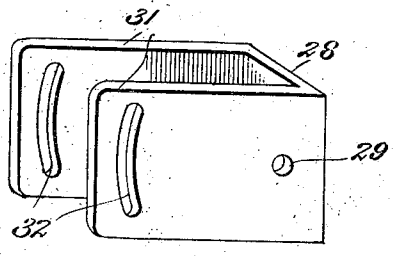


Fig. 3.

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ADJUSTMENT FOR THE BACKS OF TYPE-WRITER CHAIRS.

1,263,162. Specification of Letters Patent. Patented Apr. 16, 1918.

Original application filed September 4, 1917, Serial No. 189,517. Divided and this application filed October 11, 1917. Serial No. 195,876.

To all whom it may concern:

Be it known that I, CHARLES J. TRAVERS, a citizen of the United States, residing at Port Washington, in the county of Ozaukee, State of Wisconsin, have invented a new and useful Adjustment for the Backs of Type-Writer Chairs, of which the following is a specification.

This invention particularly relates to improvements in chairs intended for the use of type-writer operators and others wherein the back-standard is adjustably connected with and supported by rearwardly disposed back-supporting-arms.

Generally, in this class of chairs, it has been customary to provide for the raising and lowering of the back-pad by connecting the latter upon the back-standard in some adjustable manner, various styles of devices being used for this purpose; also, to pivot the lower end of the back-standard upon or between the supporting-arms by means of a clamping-bolt and wheel, such devices being employed to afford a pivotal adjustment for the back-standard.

The objects of the present invention are to provide a simple means for connecting the lower end of the back-standard to the supporting-arms, such means being of such construction as will provide for both a pivotal and vertical adjustment of the back-standard, so that the back-pad may be rigidly attached to the back-standard and yet to all intents and purposes, be adjustable both vertically and pivotally.

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

Referring to the drawing—

Figure 1 is a top plan view of an adjustment for type-writer and other chairs (the front portions of the spider-arms being broken away to conserve space), a back-standard being shown connected thereto in accordance with my invention, the back-standard being shown in transverse section, as are also the rear ends of the standard-supporting arms and the supporting yoke;

Fig. 2 is a side elevation of the same, the back-standard being broken away at its upper portion and its lower portion shown in vertical section; and

Fig. 3 is a detail in perspective of the tilting yoke employed to adjustably connect the lower end of the back-standard to the standard-supporting arms.

Similar numerals of reference indicate similar parts in all the figures of the drawing.

In practising my invention, it will be understood that it may be used in connection with any chair adjustment wherein are employed a pair of rearwardly disposed back-standard supporting-arms, and, therefore, that the invention is not limited in its application to the chair-adjustment herein illustrated and described, the novel features of the latter forming the subject-matter of a companion application filed September 4th, 1917, Serial Number 189,517, of which this is a divisional application.

In the present construction of chair-adjustment, 1 designates the opposite spider-arms, preferably formed of angle-iron, as is usual, and relatively positioned so that their upper horizontal flanges extend outward. These arms are connected at their rear ends by a transverse brace 2, the ends of which overlap the arms and are riveted in position, as at 3. The ends of the arms are provided with apertures 4, for the reception of screws, by means of which the seat (not shown) may be secured in position.

At about their middles, the arms may be connected by a bridge 5, the ends of the bridge being connected to the vertical flanges of the arms in any desired manner.

The bridge 5, is provided with an opening 13, at its longitudinal center, and receives the upper end of the usual supporting-post or adjusting-standard 14, the upper end of the latter being usually upset, as at 15, to make a permanent connection between the bridge and the post.

Having its opposite ends located in suitable apertures formed in the vertical flanges of the two spider-arms and immediately in rear of the bridge 5, is a transverse pintle 15^a, the ends of the latter being headed or upset. Upon this pintle are hung the front transversely apertured ends of a pair of back-standard supporting arms 16, the latter being formed of sheet-metal stock of uniform width. The arms 16 are positioned between the two spider-arms and extend rearwardly beyond the same a suitable distance and converge as shown.

The brace 2 is formed with a central aperture, through and from which depends a

vertical tension-bolt 17, the same near its lower end carrying an apertured spring-supporting washer 18, and below the same a hand-wheel 19 the latter threaded on the bolt.

A cross-brace 26, formed of sheet metal, and having down-turned ends is interposed between the arms 16, and serves to connect the same, the cross-brace being located immediately in advance of the brace 2 or at any other convenient point tending to lend stability and rigidity. The down-turned ends of the brace 26 may be connected to the arms 16 by rivets 27, or any other convenient means.

Coiled about the pintle 15ª, as at 23, at opposite sides of the center of said pintle, are two springs 22. Each of these springs is formed with upper and lower rearwardly disposed terminals, respectively designated as 24 and 25. The upper terminals 24 engage under the brace 26 connecting the two standard-supporting arms 16, and the lower terminals 25 rest upon the washer 18. It will be obvious that the tendency of the terminals of the springs is to spread, so that the lower terminals being supported by the washer 18, the upper terminals will exert a lifting tendency to the arms 16, and the latter will therefore yieldingly resist the weight of the occupant of the seat as it is exerted against the back, all as will hereinafter appear. It will be obvious that this resistance may be regulated by a proper manipulation of the hand-wheel 19, through which the washer 18 may be raised and lowered on the tension-bolt.

Between the rear ends of the arms 16, is located an angular or U-shaped sheet-metal yoke 28, the forwardly projecting side-walls 31, of which, are pivotally connected near their rear ends to the said arms by means of rivets 30, oppositely located and passed through apertures 29, formed in the side-walls of the yoke and through corresponding apertures formed in the arms. By this arrangement, the yoke is capable of tilting or assuming inclined positions in respect to said arms 16. Near their front ends, the walls 31 of the yoke are provided with opposite similar companion slots 32, the same being concentric with the apertures 29 and hence the rivets 30, and the arms 16 are provided with opposite transverse perforations 33, coincident with said slots. Through these slots and perforations is passed a clamping-bolt 34, at one end of which is located a hand-wheel 35. I prefer to mount upon the bolt 34 and interpose between the walls 31 of the yoke at this point, a spacing-sleeve 36, against the ends of which the walls 31 of the yoke may be clamped by the action of the bolt and its hand-wheel. It will be apparent that the hand-wheel being sufficiently loosened upon the bolt, the yoke may be tilted to any position within the limits of its slots 32, and by retightening the wheel the yoke will be clamped between the arms 16 and the ends of the spacing-sleeve and thus firmly held.

Within the yoke 28, is mounted the lower end of the back-standard 37, and these two elements may be connected in any suitable manner—either rigidly or adjustably, as desired. As, however, I prefer that the back-standard be made vertically adjustable in the yoke, whereby an adjustable connection between the back-pad and said standard may be omitted and the back-pad raised and lowered by a raising and lowering of the standard, in this instance I provide for connecting said back-standard adjustably within the yoke. By so doing, I not only am enabled to attach the back-pad (not shown) permanently and rigidly to the standard, thus forming a more rigid structure, but I save the cost of the usual separate adjustable connection. Moreover, I avoid projecting parts at this point that are apt to catch on the clothing of the occupant of the chair, and finally, I make a much better appearing chair.

To this end I provide the lower end of the back-standard 37, with a vertical slot 38, the same being disposed lengthwise the yoke 28 and arms 16 of the chair-adjustment. Through this slot and a suitable aperture 39, formed in the rear wall of the yoke, is passed a clamping bolt 40. The head of the bolt bears upon the front face of the standard at each side of the slot 38, and upon the rear end of the bolt, beyond the rear wall of the yoke, is threaded a hand-wheel 41.

By this or similar equivalent arrangement it will be apparent the standard 37 may be raised and lowered, and with it, the back-pad carried thereby, so that the latter may be positioned to suit the ease and comfort of the occupant. At the same time, such ease and comfort may be further contributed to by tilting the standard and its yoke whereby the pad is inclined to the desired degree.

Having described my invention, what I claim, is:

1. In a chair-adjustment, the combination with opposite rearwardly disposed standard-supporting arms, of a U-shaped yoke pivoted between the arms and provided near its free end with curved slots concentric with its pivots, a clamping-bolt passed through the arms and the curved slots, a clamping hand-wheel threaded on the bolt, and a back-supporting standard mounted in the yoke.

2. In a chair-adjustment, the combination with opposite rearwardly disposed standard-supporting arms, of a U-shaped yoke pivoted near one end between the same and hav-

ing the opposite sides near their free ends provided with slots curved and concentric with said pivots, a clamping-bolt passed through the slots and the arms, a spacing-sleeve carried by the bolt and interposed between the sides of the yoke, a clamping hand-wheel threaded on one end of the yoke, and a back-standard carried by the yoke.

3. In a chair-adjustment, the combination with rearwardly disposed standard-supporting arms, of a U-shaped yoke tiltably and adjustably mounted between the same, and a back-standard vertically adjustable in said yoke.

4. In a chair-adjustment, the combination with opposite rearwardly disposed standard-supporting arms, of a U-shaped yoke tiltably and adjustably mounted between the same, a back-standard provided at its lower end with a longitudinal slot, a clamping-bolt passed through the latter and the yoke, and a clamping hand-wheel threaded on one end of the bolt.

5. In a chair-adjustment, the combination with opposite rearwardly disposed standard-supporting arms, of a U-shaped yoke pivoted near its rear end between the same and having its opposite sides near their free ends provided with companion curved slots concentric with said pivots, a clamping-bolt passed through said slots and through corresponding apertures formed in the arms, a back-standard longitudinally slotted from front to rear mounted in said yoke and adapted to be vertically raised and lowered therein, a clamping-bolt passed through the longitudinal slot of the standard and through a corresponding aperture formed in the rear wall of the yoke, and a clamping hand-wheel mounted on the rear threaded end of said bolt.

6. In a chair-adjustment, the combination with opposite rearwardly disposed spring supported standard-supporting arms, of a standard receiving device pivoted between the arms, and a back-supporting standard vertically adjustable in the said receiving device.

7. In a chair-adjustment, the combination with a rearwardly disposed standard-support, of a standard receiving device pivoted thereto, and a back-standard mounted for vertical adjustment in said receiving device.

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Witnesses:
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H. W. BOLENS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."