Oct. 28, 1930. W. S. FERRIS 1,779,933

CHAIR

Filed June 16, 1928 2 Sheets-Sheet 1

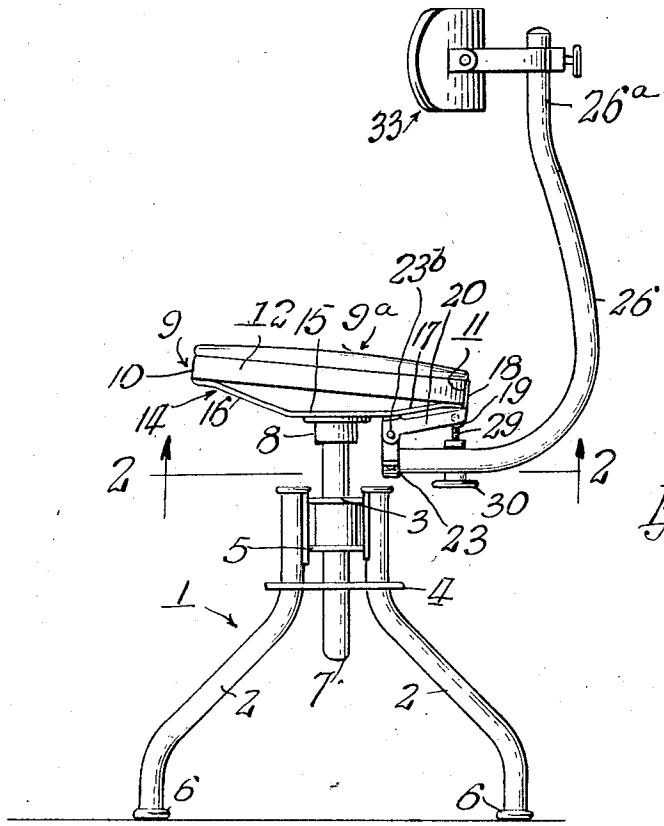


Fig. 1.

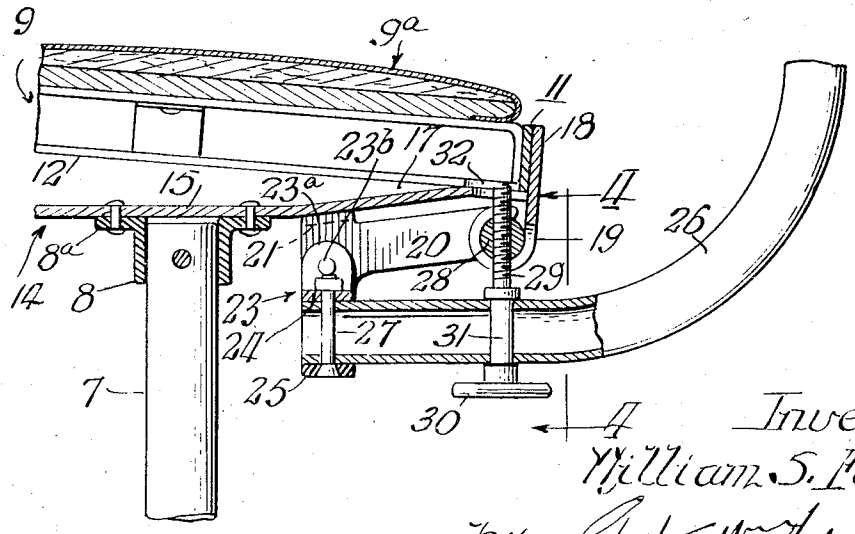


Fig. 3.

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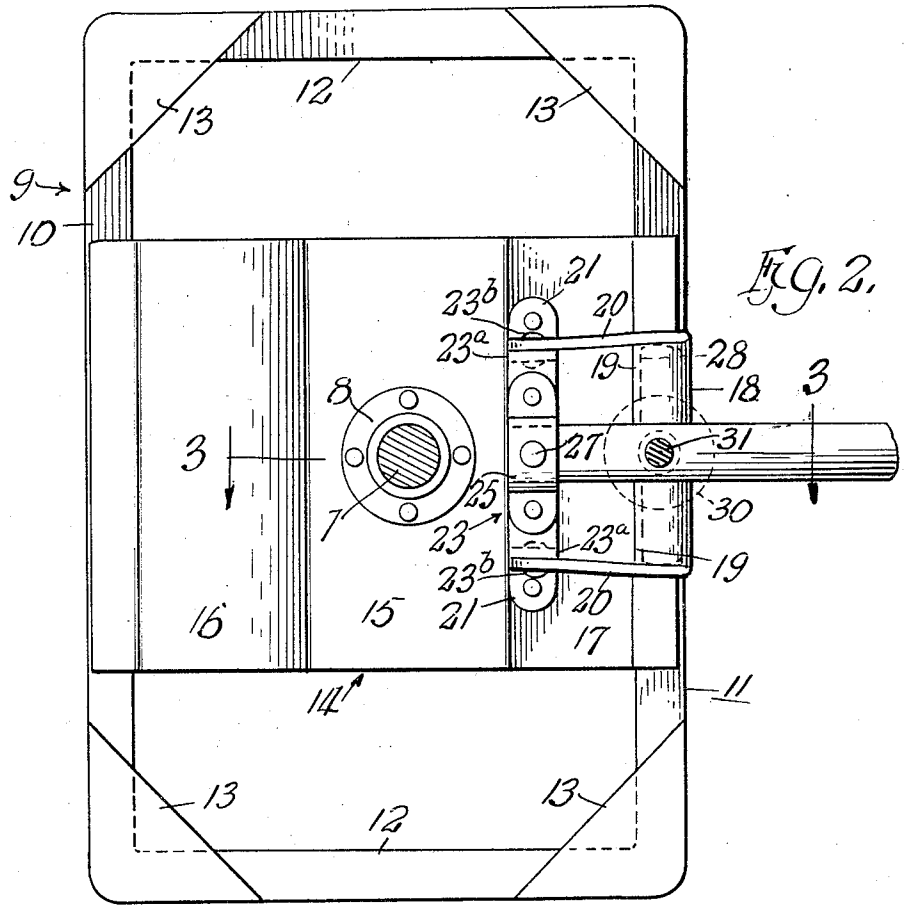


Fig. 2.

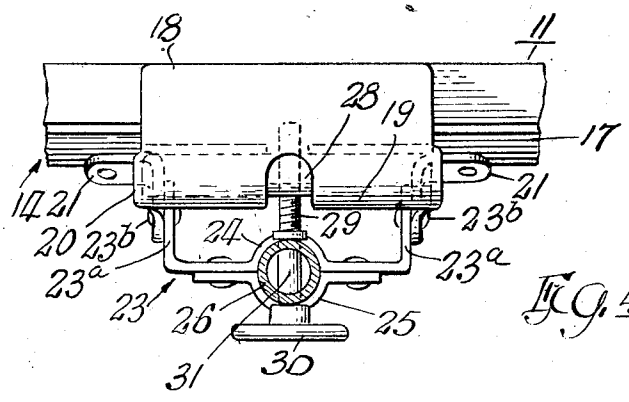


Fig. 4.

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Patented Oct. 28, 1930 1,779,933

UNITED STATES PATENT OFFICE

WILLIAM S. FERRIS, OF ELKHART, INDIANA

CHAIR

Application filed June 16, 1928. Serial No. 285,930.

This invention relates to improvements in chairs and it consists of the matters hereinafter described and more particularly pointed out in the appended claims.

The primary object of the invention is to provide in a chair having but a single back rest post, a novel connection for the post to the seat frame, whereby the post may be quickly adjusted to the desired angular position.

Another object of the invention is to provide such a connection as may be readily assembled and which comprises but substantially few parts which are strong and rigid and cannot readily get out of order.

These objects of the invention as well as others together with the many advantages thereof, will more fully appear as I proceed with my specification.

In the drawings:—

Fig. 1 is a view in side elevation of a chair embodying my invention.

Fig. 2 is a horizontal sectional view on an enlarged scale as taken on the line 2—2 of Fig. 1.

Fig. 3 is a longitudinal vertical sectional view through a part of the chair as taken on the line 3—3 of Fig. 2.

Fig. 4 is a transverse vertical detail sectional view as taken on the line 4—4 of Fig. 3.

As illustrated and described herein, the improved construction is embodied in that type of chair which has now become known as a "stenographer's correct posture" chair but as will be apparent, said construction may also be embodied in other types of chairs where the peculiar characteristics thereof makes it of advantage to do so.

Referring now in detail to that embodiment of the invention illustrated in the accompanying drawings, the chair which is made substantially all of metal includes a supporting base 1 comprising a plurality of tubular metallic legs 2—2 the top ends of which are held in closely grouped relation by top, bottom and intermediate spiders 3, 4 and 5 respectively, the bottom ends of said legs being bent outwardly to provide that spread necessary for stability. On the bottom ends of said legs are suitable casters or domes 6 upon which the chair may be easily moved about.

In the top end of said base and having suitable rotative bearing as well as vertical adjustment with reference to said spiders is a seat post 7. On the top end of said post is fixed a sleeve 8 having a radial flange 8^a at its top end for a purpose later to appear.

9 indicates as a whole the seat frame of the chair. Said frame which is rectangular in plan, is wider than it is deep and it consists of front and rear members 10 and 11 respectively and side members 12, all of angle bar stock with the vertical flange facing upwardly from the horizontal flange which faces inwardly. To rigidify the seat frame, I provide gusset plates 13—13 at the corners on the underside thereof.

Connecting the mid portions of said front and rear members of the seat frame, is a metallic plate 14 of a width less than that of said seat frame. Said plate includes a horizontally disposed mid portion 15 and front and rear portions 16 and 17 respectively, inclined upwardly in opposite directions and at slightly different angles and the free margins thereof engage against the underside of the horizontal flanges of the seat frame members 10 and 11 and are secured thereto as for instance by spot welding. The central part of said mid portion 15 of the seat frame plate engages upon and is fixed to the flange 8^a of the sleeve 8. By reason of the different angular inclinations of the plate parts 16 and 17 respectively, the seat frame is pitched or tilted downwardly toward the rear. Associated with the seat frame thus described is a seat cushion or member 9^a so fitting within the upright flanges of the seat frame members as to be removable therefrom when so desired.

Fixed centrally to and depending from the rear member of the seat frame is a plate 18 the bottom end of which is curved inwardly and cut away at its mid portion to provide two laterally spaced sleeves 19—19. The end portions of said plate beyond said sleeves are bent to form forwardly extending integral arms 20—20, portions of the front ends of which are bent over to provide ears 21—21

riveted to the underside of the plate portion 17.

Extending between and pivoted at its ends to the forward ends of said arms 20—20 as at 22—22 is a stirrup 23 having a central loop 24 with which is associated a strap 25 to receive the bottom or inner end of a tubular seat post 26; a bolt 27 passing through said loop, strap and post end to operatively secure the post end to the stirrup. Said stirrup also includes bent up end ears 23^a—23^a which are pivoted to the front ends of the arms 20—20 as at 23^b.

Journalled in the spaced sleeves 19 of the plate 18 is a shaft 28 through that portion of which between said sleeves is threaded the top end of a screw 29. On the bottom end of said screw is fixed a hand wheel 30 which has a part 31 of reduced diameter that passes through and has rotative bearing only in the post 26. The margin of the plate part 17 and the horizontal flange of the rear member 11 of the seat frame is cut away as at 32 to permit passage therethrough of the screw 29 as best shown in Fig. 3.

The back rest post is bent upwardly from its inner end to terminate in a straight top end portion 26^a to which a back rest 33 is adjustably secured in any suitable manner; but as said back rest forms no particular part of the present invention it will not be further described.

When it is desired to adjust the position of the back rest, the hand wheel 30 is turned in the proper direction to be threaded further into or withdrawn from the shaft 28 which turns in the sleeves 19—19 of the plate 18 to accommodate the swing of the post about the axis provided by the rivets 23^b. Thus turning the hand wheel 30 in one direction will swing the post 26 to move the back rest forwardly and turning the hand wheel in the other direction will swing the post to move the back rest rearwardly just as desired.

While in describing my invention, I have referred in detail to the form, arrangement and construction of the various parts thereof, the same is to be considered as illustrative only so that I do not wish to be limited thereto except as may be more specifically pointed out in the appended claims.

I claim as my invention:—

1. A chair embodying therein, a seat member, a back rest post, means providing a pivotal connection between said seat member and post, a shaft carried by said seat member and disposed parallel with said connection, means carried by the seat member and providing a bearing for said shaft, a threaded member operatively engaged with said shaft and a member turnable in said back rest post and operatively connected to said threaded member.

2. A chair embodying therein, a seat member, a back rest post, means providing a pivotal connection between said seat member and post, a shaft carried by said seat member and disposed parallel with said connection, means carried by the seat member and providing a bearing for said shaft, a member threaded through said shaft, and a hand wheel carried by said last mentioned member and rotatively mounted in said back rest post.

3. A chair embodying therein a seat member, a back rest post, means providing a pivotal connection between said seat member and post, a plate carried at the rear of said seat member and having parts formed to provide laterally spaced ears, a shaft journalled in said ears, a threaded member operatively engaged with said shaft and a member turnable in the seat post and operatively connected to said threaded member.

4. A chair embodying therein a seat member, a back rest post, means providing a pivotal connection between said seat member and post, a plate carried at the rear of said seat member and having parts formed to provide laterally spaced ears, a shaft journalled in said ears, a member threaded through said shaft and a hand wheel carried by said threaded member and rotative in said back rest post.

5. A chair embodying therein, a seat frame, a plate disposed between the front and rear parts of said frame, a member fixed to the rear portion of the frame, said member having parts formed to provide spaced bearing sleeves and forwardly extending arms which are fixed to said plate, a back rest post, means providing a pivotal connection for one end of said post with said arms, a shaft disposed in said sleeves and a hand wheel journalled in said post and including a stem threaded through said shaft.

6. In a chair, a plate like member having a body, the bottom portions of which are formed to provide laterally spaced sleeves, the end portions of said body being bent to form substantially parallel arms disposed at substantially a right angle to said body, parts of the extremities of which are bent to form attaching ears.

In testimony whereof, I have hereunto set my hand, this 12th day of June, 1928.

WILLIAM S. FERRIS.