May 22, 1951 J. J. GRADLE ET AL 2,553,652

HORIZONTALLY ADJUSTABLE CARRIAGE FOR CHAIRS

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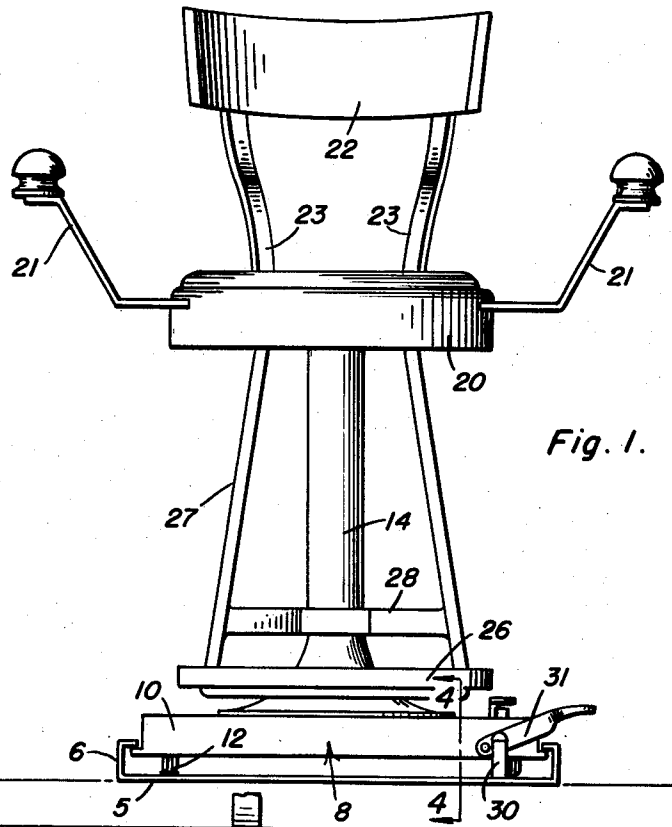


Fig. 1.

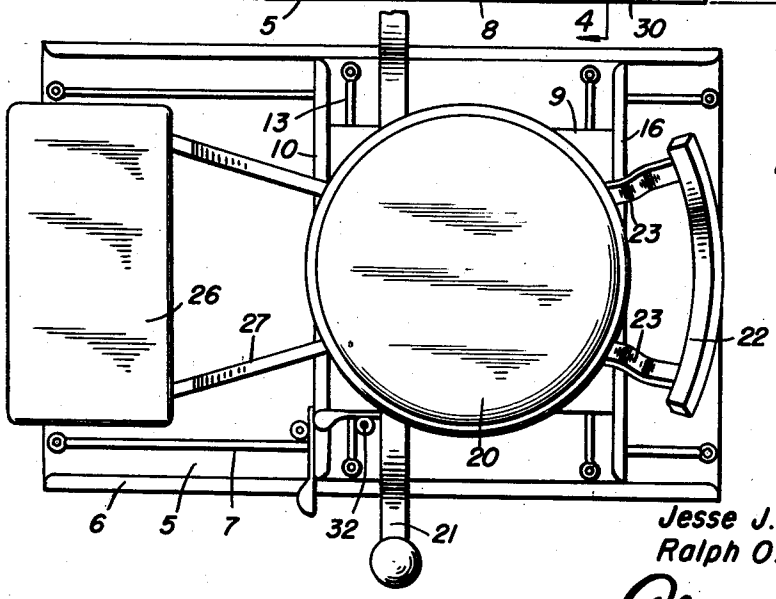


Fig. 3.

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Fig. 5.

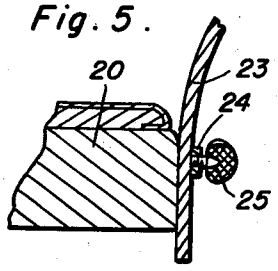
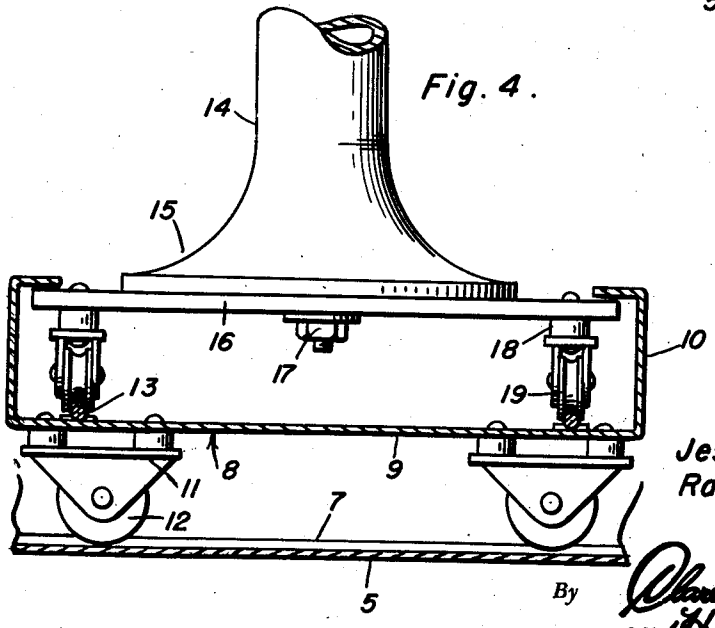


Fig. 2.

Fig. 4.



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HORIZONTALLY ADJUSTABLE CARRIAGE FOR CHAIRS

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8 Claims. (Cl. 155—122)

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The present invention relates to new and useful improvements in chairs and more particularly to a chair designed for use by physicians in taking X-ray pictures of a patient and embodying means whereby the chair may be adjusted horizontally in a longitudinal or transverse direction to properly position the patient with respect to the X-ray machine.

More specifically, this invention embodies the provision of a chair having a pedestal base on which the seat of the chair is swivelly mounted and providing upper and lower carriages for the chair arranged to travel on tracks disposed at right angles to each other, whereby to provide for the horizontal adjustment of the chair.

A further object of the invention is to provide means for locking the chair in either its longitudinal or transversely adjusted position.

A still further object is to provide a device of this character of simple and practical construction, which is efficient and reliable in use, easy to manipulate, relatively inexpensive to manufacture, and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view;

Figure 2 is a side elevational view;

Figure 3 is a top plan view;

Figure 4 is an enlarged sectional view taken on a line 4—4 of Figure 1; and

Figure 5 is an enlarged vertical sectional view of the adjustable post for the back rest.

Referring now to the drawings in detail wherein for the purpose of illustration, we have disclosed a preferred embodiment of the invention, the numeral 5 designates a sub-base preferably constructed of sheet metal and having its side edges formed with upstanding channeled flanges 6. A pair of metal bars 7 are secured to the upper surface of the sub-base 5 in parallel relation and adjacent to each of the flanges 6 to provide a pair of tracks.

A lower carriage designated generally at 8 includes a platform 9 positioned above the sub-base 5 and between the flanges 6 of the latter, the platform 9 also having upwardly extending channel flanges 10 at its front and rear edges. To the underside of the platform 9 and adjacent each corner thereof, is secured a wheel mounting 8 in which grooved wheels 12 are journaled for traveling along the tracks 7.

A pair of rods 13 are also secured to the upper surface of the platform 9 to provide tracks, said last named tracks being positioned transversely of the platform 9 adjacent the flanges 10.

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A chair pedestal is shown at 14 which includes a base 15 secured on an upper carriage 16 by a bolt and nut 17. Wheel mountings 18 are also secured to the underside of the carriage 16 and have grooved wheels 19 journaled therein for traveling on the tracks 13.

A horizontally rotatable or swivel seat 20 is mounted on the upper end of the pedestal 14 and to each side of which is suitably secured an upstanding handle 21 to facilitate rotation of the seat on the pedestal.

A back rest 22 is supported at the back of the seat 20 by means of posts 23 having their lower ends vertically slidable in guides 24 secured to the seat and secured in vertically adjusted position by set screws 25.

A foot rest 26 is supported in front of the seat 20 by arms 27 and braces 28 extending from the lower portion of the arms to the pedestal 14, the rear ends of the braces being provided with a ring 29 for rotation on the pedestal during the swivel adjustment of the seat 20.

A spring projected stop or brake 30 is carried by a foot treadle or lever 31 pivoted to one side of the lower carriage 9 and is normally projected downwardly into contact with the sub-base 5 to hold the lower carriage in a stationary position, the stop or brake 30 being released by an upward movement of the lever 31. A similar stop or brake 32 is carried by the upper carriage 16 for engaging the lower carriage 8, the brake 32 also being provided with a releasing lever 33.

In the operation of the device, by releasing the brake 30 the lower carriage 8 is free to move forwardly or backwardly on the sub-base 5 into a desired longitudinally adjusted position, and by releasing the upper brake 32 the upper carriage 16 may be moved in a transverse direction to thus properly position the seat with respect to an X-ray machine.

In view of the foregoing description taken in conjunction with the accompanying drawings it is believed that a clear understanding of the device will be quite apparent to those skilled in this art. A more detailed description is accordingly deemed unnecessary.

It is to be understood, however, that even though there is herein shown and described a preferred embodiment of the invention the same is susceptible to certain changes fully comprehended by the spirit of the invention as herein described and the scope of the appended claims.

Having thus described the invention, what is claimed as new is:

1. A chair of the class described comprising a stationary base having a pair of parallel tracks on its upper surface, a lower carriage traveling on the tracks and including a platform, parallel tracks on the upper surface of the platform of the lower carriage at right angles to the first

named tracks, and an upper carriage traveling on said last named tracks, said upper carriage supporting a chair thereon.

2. A chair of the class described comprising a stationary base having parallel tracks, a lower carriage mounted to travel on said tracks, said carriage also having tracks at right angles to the first tracks, and a pedestal base mounted to travel on the tracks of the lower carriage, said pedestal base supporting a seat.

3. A chair of the class described comprising a sub-base, upper and lower carriages, said lower carriage mounted to travel on the sub-base and said upper carriage mounted to travel on the lower carriage at right angles to each other, a pedestal fixed to the upper carriage, and a seat fixed to the pedestal.

4. A chair of the class described comprising a stationary sub-base, tracks thereon, a lower carriage including wheels mounted to travel on said tracks, tracks on the lower carriage at right angles to the first named tracks, an upper carriage including wheels mounted to travel on said last named tracks, and a chair pedestal fixed to said upper carriage.

5. A chair of the class described comprising a stationary sub-base, tracks thereon, a lower carriage including wheels mounted to travel on said tracks, tracks on the lower carriage at right angles to the first named tracks, an upper carriage including wheels mounted to travel on said last named tracks, means holding each carriage against movement, and a chair pedestal fixed to said upper carriage.

6. A chair of the class described comprising a stationary sub-base, tracks thereon, a lower carriage including wheels mounted to travel on said tracks, tracks on the lower carriage at right angles to the first named tracks, an upper carriage including wheels mounted to travel on said last named tracks, spring projected stops holding each carriage against movement, and a chair pedestal fixed to said upper carriage.

7. A chair of the class described comprising a stationary sub-base, tracks thereon, a lower carriage including wheels mounted to travel on said tracks, tracks on the lower carriage at right angles to the first named tracks, an upper carriage including wheels mounted to travel on said last named tracks, said sub-base having upstanding channeled flanges at opposite edges overlying the adjacent edges of the lower carriage and said lower carriage having upstanding channeled flanges overlying the adjacent edges of the upper carriage, and a chair pedestal fixed to said upper carriage.

8. A chair of the class described comprising a pedestal having a relatively stationary seat structure fixed to its upper end, and means for adjusting the pedestal forwardly and rearwardly as well as from side to side and comprising a stationary sub-base, lower tracks on the sub-base, a lower carriage traveling on the lower tracks, upper tracks on the lower carriage at right angles to the lower tracks, and an upper carriage secured to the lower end of the pedestal and traveling on the upper tracks.

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