Feb. 6, 1962 W. H. RUSSELL 3,020,085

ADJUSTABLE TRAY FOR WHEELCHAIR

Filed June 10, 1960

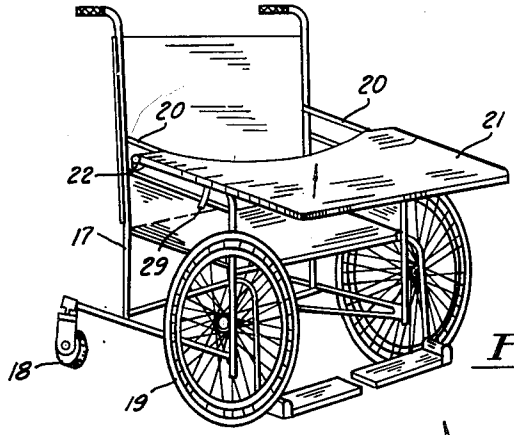


Fig. 1

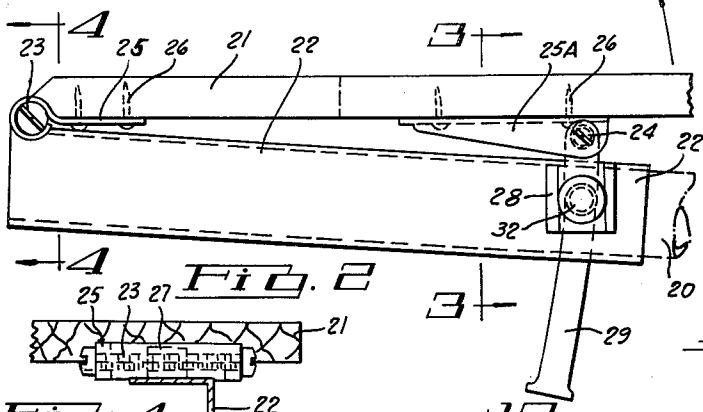


Fig. 2

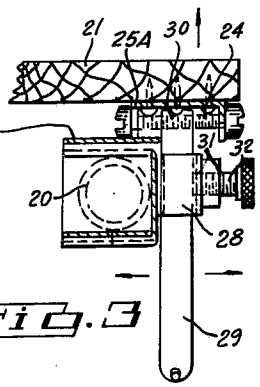


Fig. 3

Fig. 4

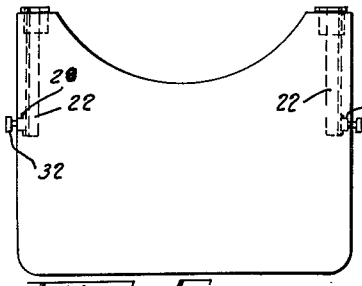


Fig. 5

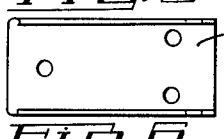


Fig. 6

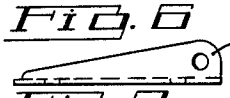


Fig. 7

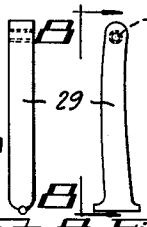


Fig. 8

Fig. 9

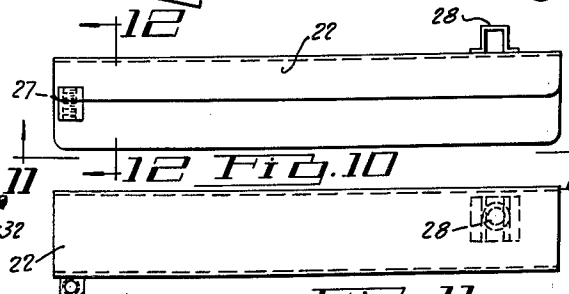


Fig. 10

Fig. 11

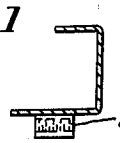


Fig. 12

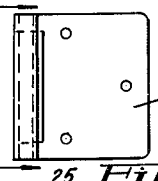


Fig. 13

Fig. 14

Fig. 15

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ADJUSTABLE TRAY FOR WHEELCHAIR

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1 Claim. (Cl. 297—153)

This invention relates to wheelchairs, and the like, and has particular reference to any adjustable tray for mounting on the arms of such a vehicle.

An object of the invention is to provide a device of the character indicated, which is constructed and arranged, so that it may be mounted on substantially any type of wheelchair, or the like, which has arm rests.

Another object of the invention is to provide a device of the character indicated, which is constructed and arranged for a quick mounting to, and detachment from, the arms of a wheelchair, or the like.

Another object of the invention is to provide a device of the character indicated, which has novel means for laterally adjusting the supporting elements of the device.

Another object of the invention is to provide a device of the character indicated, which is pivoted at one end, and adjustably supported intermediate its ends, so that it may be tilted into various degrees of elevation.

Another object of the invention is to generally improve devices of the character indicated, and to provide a device which is simple in construction, economical to manufacture, and efficient in operation.

The foregoing and other objects and advantages of the invention will become more apparent as the description proceeds, reference being made from time to time to the accompanying drawings, forming part of the within disclosure in which drawing:

FIG. 1 is a perspective view of a conventional wheelchair, on which is mounted a device embodying the invention.

FIG. 2 is an enlarged, fragmentary, side elevational view of the device embodying the invention.

FIG. 3 is a section taken substantially on the line 3—3 of FIG. 2.

FIG. 4 is a view taken substantially on the line 4—4 of FIG. 2.

FIG. 5 is a top plan view of the device embodying the invention removed from the wheelchair.

FIG. 6 is a bottom plan view of one of the brackets used in mounting the tray.

FIG. 7 is a side elevational view of the device shown in FIG. 6.

FIG. 8 is a front elevational view of the arm used in elevating the tray, and is taken on the line 8—8 of FIG. 9.

FIG. 9 is a side elevational view of the device shown in FIG. 8.

FIG. 10 is a bottom plan view of one of the side members used in attaching the tray to the wheelchair.

FIG. 11 is a view taken substantially on the line 11—11 of line 10.

FIG. 12 is a section taken substantially on the line 12—12 of FIG. 10.

FIG. 13 is a bottom plan view of one of the brackets used in pivoting the tray to the side members.

FIG. 14 is a side elevational view of the device shown in FIG. 13.

FIG. 15 is an end view taken substantially on the line 15—15 of FIG. 13.

Referring now more particularly to the drawings, it will be understood that in the embodiment herein disclosed, the reference character 17, indicates the frame of a conventional wheelchair having casters 18, wheels 19, and arm rests 20, all of which are conventional elements, and form no part of the invention, except as combined with the structure which I will now describe.

The invention resides in the provision of a tray 21, which is preferably made of wood or other suitable material. The tray 21, is secured to the side arms 20, by means of a pair of channel like members 22, which receive the side arms 20, as shown in FIGS. 2 and 3. The channel members 22, are arranged to engage the side arms 20, on the outside, top and bottom thereof, as shown in FIG. 3, and are laterally adjustable, as shown in FIGS. 3 and 4, by means of the threaded members 23 and 24, which threaded members are rotatable in brackets 25 and 25A, which are secured to the under side of the tray 21, by screws 26, or other suitable means. The rear end of each channel member 22 (FIG. 10), is provided with a threaded lug 27, which threadedly engages the threaded member 23 (FIG. 4), so that by the rotation of the threaded members 23, the channel members 22, may be moved inwardly and outwardly with respect to the side arms 20. This is one of the means which I employ to frictionally secure the tray to the side arms of the vehicle. Each angular member 22, has a tunnel-like element 28 (FIG. 10), secured to the outside thereof, through which is adapted to slide a curved arm 29. The upper end of each arm 29, is provided with a threaded bore 30, which is arranged to receive the threaded member 24, so that lateral adjustment may also be provided for the front or leading end of the members 22. Each tunnel member 28 (FIG. 3), is provided with a threaded opening 31, into which is threaded a set screw 32, so that the tray 21, may be locked in any degree of elevation on the arms 29.

From the foregoing description, it will be seen that I have disclosed an adjustable tray, which may be quickly secured to any conventional wheelchair and which may be tilted into various degrees of elevation.

It is believed that the operation of the device is obvious from the foregoing description.

Having described my invention, what I claim and desire to secure by Letters Patent is:

A tray for a wheelchair having side arms, comprising a panel received on said side arms, said panel having a pair of channel members pivotally secured at one end to its underside, and arranged for lateral adjustment, so that the said arms are received in said channels to prevent the vertical displacement of said channel members, the said channel members being provided with vertical tunnel members, there being curved arms pivoted to said panel and slidable in said tunnel members, said tunnel members having threaded apertures in the sides thereof for receiving set screws arranged to impinge on said arms to hold them in adjusted position, the pivot means for said curved arms being threaded rods which extend through apertured brackets secured to said panel and threaded openings in said arms.

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