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VERTICALLY SWINGING FOOTREST STRUCTURE

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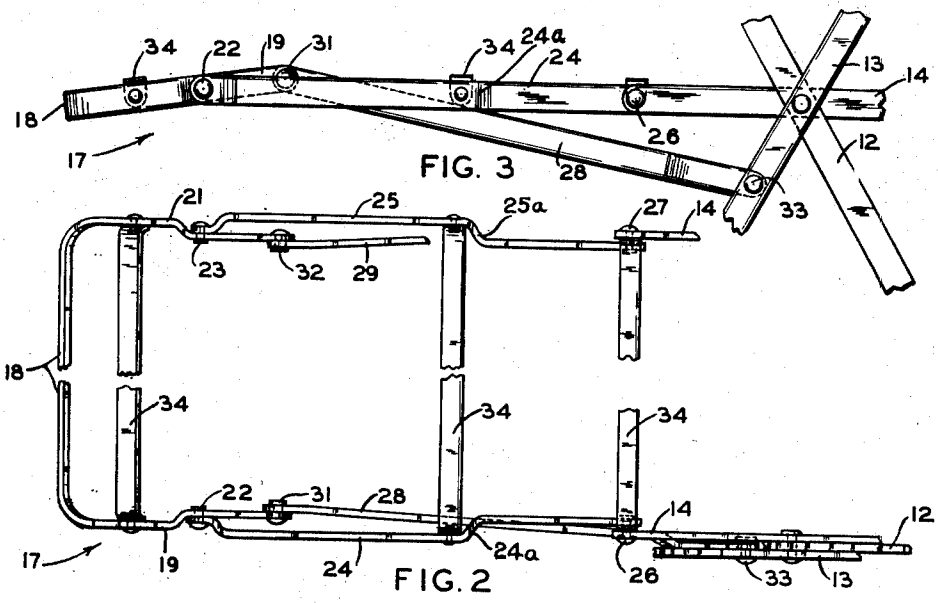


FIG. 3

FIG. 2

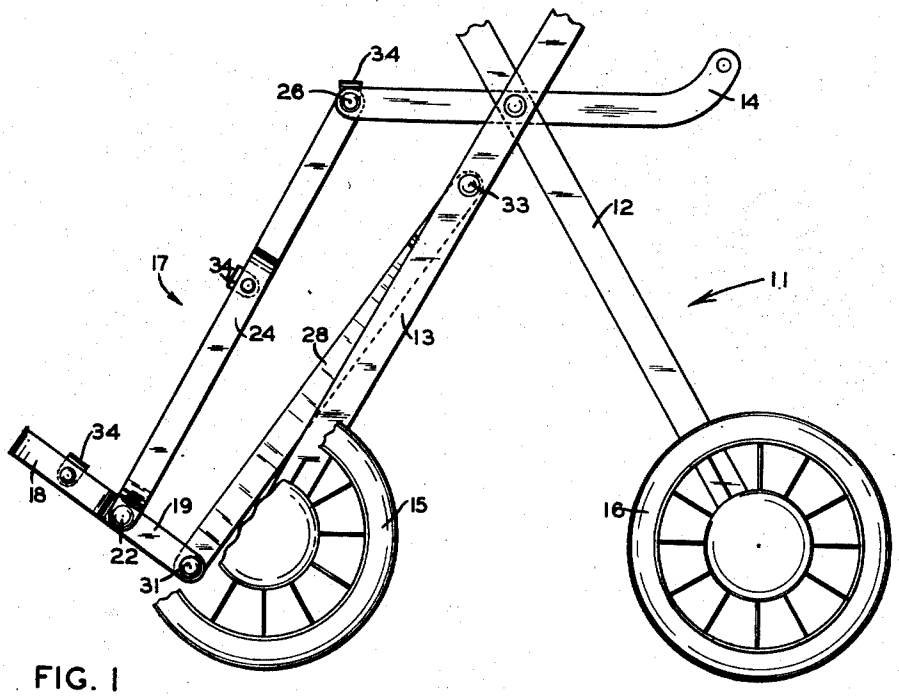


FIG. 1

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VERTICALLY SWINGING FOOTREST STRUCTURE

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2 Claims. (Cl. 155—171)

1

The footrest of the instant invention comprises two links which are pivotally connected to the front ends of two seat supports, each of said links being pivotally attached, substantially at a midpoint thereof, to one arm of a U-shaped bow member forming a footrest proper. The ends of the bow arms are pivotally connected to the ends of two other links and the other ends of these last mentioned links are, in turn, pivotally connected to the substructure of the seat at points below the seat supports. All of these elements are arranged so that when the footrest is in its normal position, the links attached to the seat supports make angles therewith greater than 90°, the same being substantially normal to the arms of the U-shaped member. When the footrest is lifted to an elevated position, the seat supports and the links attached thereto are substantially in the same horizontal plane. The arms of the U-shaped bow make a slight angle with the links, and, to occupy this position, they carry their points of pivotal connections with the substructure links above the plane of the seat supports and seat support links. In this manner the arms of the U-shaped footrest and the substructure links thereof form a dead-center locking mechanism for holding the footrest in its elevated position.

In the drawings,

Fig. 1 is a side view of an adjustable footrest which embodies the instant invention and shows the same, in its lowered position, attached to the undercarriage of a baby stroller; and

Figs. 2 and 3 are pan and side views, respectively, of the adjustable footrest illustrated in Fig. 1 showing the elements thereof in the position which they assume when the footrest is moved to an elevated position.

For the purposes of description, only, the footrest is shown (Fig. 1) attached to an undercarriage 11 of a baby stroller which includes two scissor bars 12 and 13, a seat support 14 and two wheels 15 and 16. These specific elements of the undercarriage are for one side only and are duplicated by other identical elements (not shown) for the other side of the carriage.

The footrest of the instant invention, which is attached to this undercarriage, is generally designated by the reference numeral 17 (Fig. 1) and includes a U-shaped footrest member 18 (Fig. 2). To the arms 19 and 21, respectively, of the member 18 there are pivotally connected by pins 22 and 23 two seat support links 24 and 25. These links have one of their ends pivotally connected to the seat supports 14 by pins 26 and 27.

2

The arms 19 and 21 also have connected to their respective ends two substructure links 28 and 29. These latter elements are pivotally connected to the arms of the member 18 by pins 31 and 32 and to a seat substructure (in this case the scissor bars 13) by pins such as 33 for the link 28. As shown in Fig. 2, the links 24 and 25 have offsets 24a and 25a respectively, formed therein so as to cross the links 28 and 29 respectively, when seen in plan view as in Fig. 2. Cross supports 34 complete the footrest structure.

When the footrest is in its lowered or normal position, the elements thereof assume the positions illustrated in Fig. 1, and, when elevated as they are shown in Figs. 2 and 3. When the footrest 17 is elevated it will be noted (Fig. 3) that the pins 31 and 32 which connect the links 28 and 29 to the arms 19 and 21 of the member 18 are carried above a plane which includes the seat support links 24 and 25 and the seat supports 14. The upward movement of the links 28 and 29 is arrested by the engagement of these links with the offsets 24a and 25a respectively, as shown in Fig. 3, whereby said offsets provide stops to arrest the movement of said links just after the pin 31 has passed its dead-center position in line with the pivots 22 and 33. Thus, the rest member 18 is locked in its elevated position by virtue of the fact that the pins 31 and 32 have been carried beyond their dead-center position.

Various changes may be made in the details of construction, within the scope of the appended claims, without departing from the spirit of this invention. Parts of the invention may be used without the whole and improvements may be added while retaining some or all of the advantages of the invention.

What is claimed is:

1. In a body supporting assemblage having a seat member and a substructure supporting the seat member, an adjustable footrest structure comprising a footrest member, a first link pivotally connected at one end to the seat member and pivotally connected at its other end to the footrest member intermediate the ends thereof, a second link pivotally connected to the substructure below the seat member and pivotally connected to the footrest member adjacent the inner end of the footrest member, said first link being movable about the seat member from an inclined position to a substantially horizontal position and carrying the footrest member to an elevated position and the second link forming with the footrest member at their point of pivotal connection a dead-center locking mechanism

with the point of pivotal connection moving to a position just past its dead-center position above the pivotal connection of the first link with the footrest member and a stop on one of the links positioned to arrest said second link just past its dead-center position.

2. In a body supporting assemblage including a seat member and a substructure supporting the seat member, an adjustable footrest structure comprising a footrest member, a first pair of links pivotally connected to the seat member and to the footrest member intermediate the ends of the footrest member, a second pair of links pivotally connected to the substructure below the seat member and pivotally connected to the footrest member adjacent the inner end thereof, said first pair of links being declined from the seat member to support the footrest member in its pivotal connection with the second pair of links and being movable to a substantially horizontal position and carrying the footrest member to an elevated position and the second pair of links having its pivotal connection with the footrest

member movable to a position just past its dead-center position just above the pivotal connection of the first pair of links with the footrest member to form a dead-center locking mechanism and stop means on one of the links limiting the upward movement of said second pair of links and arresting the links just past their dead-center positions.

References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
301,901	Krier	July 15, 1884
579,499	Shapira	Mar. 23, 1897
603,712	Stransky	May 10, 1898
792,207	Francis	June 13, 1905
1,437,060	Koken	Nov. 28, 1922
1,675,547	Grimmich	July 3, 1928
2,370,890	Thomas	Mar. 6, 1945

FOREIGN PATENTS

Number	Country	Date
205,484	Switzerland	Sept. 1, 1939