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CHAIR WITH A COLLAPSIBLE FOOTREST

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Fig. 1

Fig. 2

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My invention relates to certain new and useful improvements in a chair with a collapsible foot rest and has as an object the provision of a simple, inexpensive and efficient chair with a collapsible foot rest and one which is capable of being readily arranged in position for use and capable of being compactly collapsed when not in use.

Another object of the invention is the provision of a chair with a foot rest of the character hereinafter described, which upon simple operation requiring the minimum degree of effort can be extended or collapsed by the occupant of the chair.

Another object of the invention is to provide a simple and effortless assembly with no visible means of operation whereby the occupant of the chair may, without materially changing his position, raise or lower the foot rest as desired.

Other objects will appear hereinafter.

The invention consists in the novel combination and arrangement of parts to be hereinafter described and claimed.

The invention will be best understood by reference to the accompanying drawings showing the preferred form of construction, and in which:

Fig. 1 is a perspective view of the invention showing the same in collapsed position;

Fig. 2 is a sectional detail view of the invention taken substantially on line 3—3 of Fig. 2, showing the chair with the foot rest in collapsed position;

Fig. 4 is a view similar to Fig. 3 showing the mechanism in one position of its operation;

Fig. 5 is a view similar to Fig. 3 showing the invention with the foot rest in extended position.

The several objects of this invention are accomplished by the preferred form of construction shown in the accompanying drawings. In this connection a chair is indicated at 10. This chair may be of any desired design or configuration and will best serve the purpose. Such chair comprises a hollow frame having a back rest 11, a seat portion 12, and a foot rest 13. Attached to each side of the back rest 11 are arm rests 14 and 14'. The arm 14 is fixed to a rotatable rod 15 and as such is adapted to be pivoted at its point of connection in a substantially upward direction for the purposes hereinafter described. Downward movement of the arm 14 beyond a certain point is prohibited by a stop 15' carried by the chair structure.

The collapsible foot rest 13 is attached to the seat portion 12 of the chair 10 by a pair of inverted U-shaped hinges 16. These hinges are set in recesses 17 in the peripheral edge of the foot rest 13. Connected to the foot rest 13 and the front wall 22 of the chair 10, is a spring 16' adapted to urge the foot rest 13 in an extended position.

Pivoted connected as at 18 to the underside of the foot rest 13 is a U-shaped supporting bar 19 having its end portions 20 extending through slots 21 in the chair front 22.

The understructure of the chair 10 comprises a horizontal mounting bar 23 having a recess 24 cut in its upper edge. At the center of this recess 24 and extending diagonally upwardly and rearwardly therefrom is a notched-out portion 25. Hingedly secured in this notched-out portion 25 is a V-shaped receiving bracket 26, into which the bar 19 is adapted to slide when the foot rest 13 is in an extended position. Attached to the horizontal mounting bar 23 is a center supporting bar 27 extending rearwardly to its point of attachment to a second supporting bar 28.

Cut in the upper edge 30 and in the middle of the center supporting bar 27 is a notch 29, into which the U-shaped bar 19 is adapted to be retained when the foot rest 13 is in collapsed position. It is upon this upper edge 30 that the annular bar 19 rides in its movement outwardly, when the foot rest 13 is extended. Pivoted located, as at 32, to the side of the center supporting bar 27 and beneath the notch 29, is a triangular shaped release trigger 31, which when operated will move the bar 19 out of the notch 29. This release trigger 31 is connected at one end by any suitable means, such as the cord arrangement 33 shown for illustrative purposes herein, through a pulley 34, to the V-shaped receiving bracket 26; and at the opposite end through a pulley 35, carried by a supporting bar 36, and attached to a connecting member 35' carried by the rod 15.

The operation of the chair with its foot rest mechanism is as follows, starting with the foot rest in its collapsed position:

The occupant of the chair who wishes to extend the foot rest 13, will raise the arm 14, which in turn will rotate the rod 15, pulling the cord 33 taut. The pull on the cord 33 will pivot the trigger 32 upwardly which will move the bar 19 out of the retaining notch 29, and the foot rest 13 under action of the spring 16' will be forced upwardly, pivoting on its hinges 16. The bar 19 will ride on the edge 30 of the center supporting bar 27 through the slots 21 in the chair front 22 and be guided into the V-shaped receiving bracket 26, which is also pivoted downwardly by the pull on the cord 33, as viewed in Figs. 4 and 5. Upon engagement of the bar 19 the receiving bracket 26 will pivot on its hinge to an upright position as shown in Fig. 5, and the bar 19 will from the pull of gravity fall into the center supporting bar 27 with which it will become held from movement, with the foot rest 13 in its extended position. The complete action may be followed by reference to Figs. 3 through 5.

To collapse the foot rest 13, the occupant snaps the arm 14 upwardly, thus pulling the cord 33 and through the pulleys 34 and 35 this motion is transferred to the V-shaped receiving bracket 26, causing it to pivot backwardly. Upon the pivoting of the receiving bracket 26, the bar 19 is raised slightly so as to be on the same level as the top edge 30 of the center supporting bar 27. The occupant then returns the arm 14 to its original position, and with slight downward pressure of his legs.
forces the foot rest 13 down, the bar 19 moving backward until it falls into the notch 39 where it is retained in collapsed position.

While I have illustrated and described the preferred form of construction for carrying my invention into effect, this is capable of variation and modification without departing from the spirit of the invention. I, therefore, do not wish to be limited to the precise details of construction set forth, but desire to avail myself of such variations and modifications as come within the scope of the appended claims.

Having thus described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A chair of the class described comprising a seat reclining portion and an integral substantially vertical portion, said seat reclining portion having a hollow base portion a foot rest having one edge hinged to the seat reclining portion, said foot rest having a substantial U-shaped support bar pivotally connected to the underside thereof and having its bight portion moveable in a substantially horizontal plane through said hollow base, means carried by said seat portion within said hollow base for supporting the bight portion of said U-shaped bar in its horizontal movement through said base, latching means within said base for engagement with said bight portion of said bar for latching said bar and said foot rest in an operative or inoperative position with respect to said seat reclining portion, arm rests on said back rest portion, one of said arm rests pivotally carried by said back rest portion and having actuating means for releasing said U-shaped bar and foot rest for movement to an operative or inoperative position, and means for urging said foot rest upon actuation of said trigger by said actuating means into an operative position with respect to said seat reclining portion.

2. A chair of the class described comprising a seat reclining portion and an substantially vertical back rest portion, said seat portion having a hollow base, a foot rest having one edge hinged to said seat portion, a center bar carried by said chair within said base for latching said foot rest in an inoperative position with respect to said seat portion, a center bar carried by said chair for retaining said foot rest in an operative position with respect to said seat portion, means pivotally carried by said chair for releasing said foot rest in an inoperative position with respect to said seat portion, said means including a substantially U-shaped supporting bar having a bight portion moveable over said center bar within said hollow base and operatively connected to said trigger, and means for urging said foot rest for movement to an operative position, means carried by said center bar for retaining said foot rest in an operative position, means carried by said center bar for releasing said foot rest in an inoperative position with respect to said seat portion, said means including a trigger carried by said center bar and operatively connected to said trigger, means including a trigger carried by said center bar and operatively connected to said trigger, means for urging said foot rest for movement to an operative position, means for retaining said foot rest in an operative position, said last mentioned means including a substantially U-shaped supporting bar pivotally connected to the underside thereof and having its bight portion moveable in a substantially horizontal plane through said hollow base, a longitudinally extending center bar carried by said chair within said hollow base and over which the bight portion of said U-shaped bar is moveable, latching means within said base portion and engaging with said bight portion of said U-shaped bar for latching said bar and foot rest in an inoperative position with respect to said seat portion, means for releasing said U-shaped bar and foot rest in an inoperative position with respect to said trigger, said means comprising a spring attached to the underside of said foot rest and said seat portion adjacent its hinged connection.

3. A chair of the class described comprising a seat reclining portion and an integral substantially vertical back rest portion, said seat portion having a hollow base, a foot rest having one edge hinged to said seat portion, a center bar carried by said chair within said hollow base and extending longitudinally of said seat portion, mechanism carried by said center bar within said hollow base for latching said foot rest in an inoperative position with respect to said seat portion, means for urging said foot rest for movement to an operative position, means carried by said chair for retaining said foot rest in an inoperative position, said center bar carried by said chair within said base for latching said foot rest in an inoperative position with respect to said seat portion, means pivotally carried by said chair and operatively connected to said trigger, said means comprising a spring attached to the underside of said foot rest and said seat portion adjacent its hinged connection.
portion, one of said arm rests pivotally carried by said back rest portion and having actuating connection to said trigger for releasing said U-shaped bar and foot rest from its latched inoperative position, said pivotal arm rest having connection through said actuating connection with said first mentioned latching means for releasing said U-shaped bar and foot rest for movement from a operative position to an inoperative position with respect to said seat portion, and means for urging said foot rest upon actuation of said trigger by said arm into an operative position.

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