Feb. 3, 1931. H. W. GRIFFITH 1,790,808

TABLE AND READING ATTACHMENT FOR WHEEL CHAIRS

Filed Jan. 28, 1928

Fig. 5

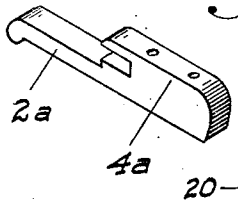


Fig. 1

Fig. 3

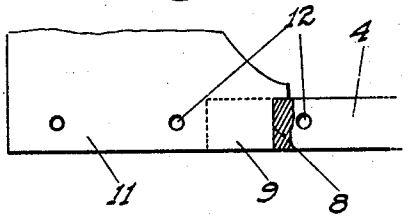


Fig. 2

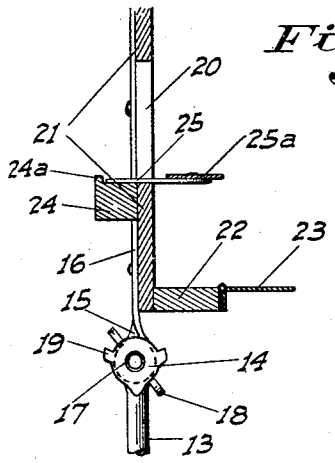
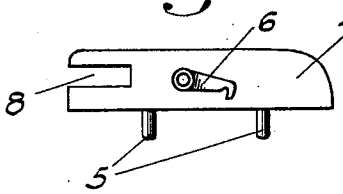


Fig. 4



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UNITED STATES PATENT OFFICE

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TABLE AND READING ATTACHMENT FOR WHEEL CHAIRS

Application filed January 28, 1928. Serial No. 250,107.

This invention relates to attachments for invalids' chairs, my principal object being to provide a table and reading rack which may be easily and detachably applied to a wheel chair so that the occupant may conveniently use the table or may read while comfortably seated in any position without having to use his arms to support the reading matter or sitting in a strained and uncomfortable position.

A further object of the invention is to provide means for supporting the table and rack from the chair in such a manner that these attachments may be readily removed when desired to remove the patient from the chair or vice versa, and the table when in position is so firmly supported as to enable the patient to lean forwardly so that all his weight is supported by the table if desired. The table is also supported at such a height that a deep cushion may be used in the chair, thus not only adding to the comfort of the occupant but permitting him to be easily rolled from a bed onto the chair and vice versa if desired, and when the attachment is temporarily removed.

Still another object of the invention is to provide means for independently supporting the table and rack so that either one may be used independently of the other, or both together as may be desired.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a fragmentary perspective view of a wheel chair showing my improved attachment applied thereto.

Fig. 2 is a fragmentary cross section of the reading rack unit.

Fig. 3 is a fragmentary top plan view of the table and one of its supporting members.

Fig. 4 is a side elevation of a chair-arm attachment for supporting the table and reading rack.

Fig. 5 is a perspective view of a one-piece chair-arm and table supporting block.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes the seat frame of a standard wheel chair, having horizontal side arms 2 above the seat and a back 3 which may be raised and lowered to different angular positions as usual.

The supporting elements for my attachments comprise a pair of horizontal blocks 4 which are attached to rest on and extend lengthwise of the arms 2 from the back forwardly a certain distance. Dowel pins 5 project downwardly from the blocks at longitudinally spaced intervals to detachably fit into the sockets drilled in the chair arms. Hooks 6 on the sides of the blocks detachably cooperate with catches 7 secured to the arms so as to prevent too ready removal of the blocks.

Deep slots 8 are cut into the blocks at their forward ends and intermediate the top and bottom surfaces thereof to slidably receive tongues 9 formed on the adjacent ends of the side frames 10 of a table member 11, the adjacent end of the table also projecting into the slots. The table member itself inwardly of the blocks projects slightly beyond the inner ends of the slots as shown in Fig. 3, so as to prevent lateral shifting of the table when in place. The table frame, ahead of the blocks, is supported on the arms 2.

The blocks and table are provided with a series of longitudinally spaced holes 12 arranged as transversely alined and equally spaced pairs to detachably receive the lower ends of posts 13. The upper ends of these posts are formed with flat bosses 14 to cooperate with similar bosses 15 formed on the lower ends of rigid straps 16. Bolts 17 extending through the cooperating pairs of bosses form pivots or hinges for the same, wing nuts 18 on the bolts being employed to enable the bosses to be frictionally clamped against each other in any position. The bosses 14 are provided with outwardly projecting lugs 19 to engage the straps and limit the relative rotative

movement of the bosses. The straps 16 depend from and are rigidly secured to the reading rack which comprises side rails 20 and a plurality of vertically spaced cross rails 21, from the lower one of which a rigid horizontal ledge 22 projects toward the back of the chair. Hinged onto this ledge to project outwardly therefrom or to be folded on to the same is an apron or flap 23, thus making a wider shelf possible when desired.

Projecting from the back of the lower rail and the one next above and secured thereto level with the tops of the rails are blocks 24. Pivoted on each block and normally projecting forwardly over the corresponding rail is a pair of flat links 25, the outer ends of which are pivoted on a shelf 25*a*. When the links project forwardly, the shelf is a sufficient distance in front of the rack-frame to form a substantial support for any desired reading matter. Upon moving either shelf laterally it folds back onto the links and block and rests out of the way of reading matter supported on a lower shelf. The block has an upstanding flange 24*a* along its back edge, to limit the folding movement of the shelf and prevent backward slipping of any reading matter supported by the shelf.

Horizontal elastic bands 26 extend between and are connected to the side rails 20 above the slides, and a similar diagonal band 27 traverses the distance between the opposite ends of the bands 26.

By reason of the numerous folding shelves a book or other reading matter may be disposed at any level convenient to the occupant of the chair, the elastic bands passing in front of the reading matter and preventing the same from falling or turning. On account of the pivoted mounting of the rack, it may be disposed at any reading angle to suit the personal taste and convenience of the user. The adjustment of the rack to various positions to and from the back of the chair enables the rack to be placed at different distances from the reader as may be most suitable for his eye sight.

The rack being removable independently of the table or vice versa enables either attachment to be used separately from the other, or both together as may be desired. The height of the table and the auxiliary arms formed by the blocks 4 relative to the level of the seat of the chair, enables a deep cushion 28 being placed in the seat. Therefore, when the back 3 is moved to a more sloping position (a movement which as usual causes the arms 2 to be lowered) said arms are brought to about a level with the top cushion enabling the patient to be easily rolled onto the chair from a bed. Since the attachments are supported from the arms of the chair, the rack and table are fully as wide as the frame of the chair itself, and the occupant is not therefore obstructed in his sidewise movements in the chair any more than he is when the attachments are removed.

The spaces between the rails of the rack form windows so that the view of the occupant of the chair is obstructed but little.

The chair arm and table and rack-supporting block may if desired be made as a one-piece non-detachable unit, as shown at 2*a* and 4*a* respectively in Fig. 5.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. An attachment for a chair having side arms, comprising horizontal blocks to rest on and be detachably supported only on the rear portions of the arms, a table to straddle the chair and rest on the arms ahead of the blocks, the forward ends of said blocks having longitudinal slots cut therein, and tongues provided with the table for detachable engagement with the slots and arranged to prevent transverse movement of the table.

2. An attachment for a chair having side arms, comprising horizontal blocks to rest on and be detachably supported only on the rear portions of the arms, a table to straddle the chair, and side frames depending from the table to rest on the arms ahead of the blocks, the rear portions of the table and frames being cut to form tongues detachably fitting into longitudinal slots cut in the forward ends of the blocks.

3. An attachment for a chair comprising a table adapted to be detachably supported on the chair, and rack-supporting posts projecting upwardly from the table and detachably fitting into any pair of opposed longitudinally spaced sockets provided in the table adjacent the side edges thereof.

4. An attachment for a chair having side arms, comprising horizontal blocks to rest on and be detachably secured to the arms, a table arranged for detachable connection with the forward ends of the blocks, and rack supporting elements projecting upwardly from the table and adapted to detachably fit any pair of opposed sockets provided along the blocks and alined portions of the table.

In testimony whereof I affix my signature.

HURWOOD W. GRIFFITH.