March 20, 1951 A. H. JACKSON 2,545,813

EXTENSIBLE HANDLE ASSEMBLY

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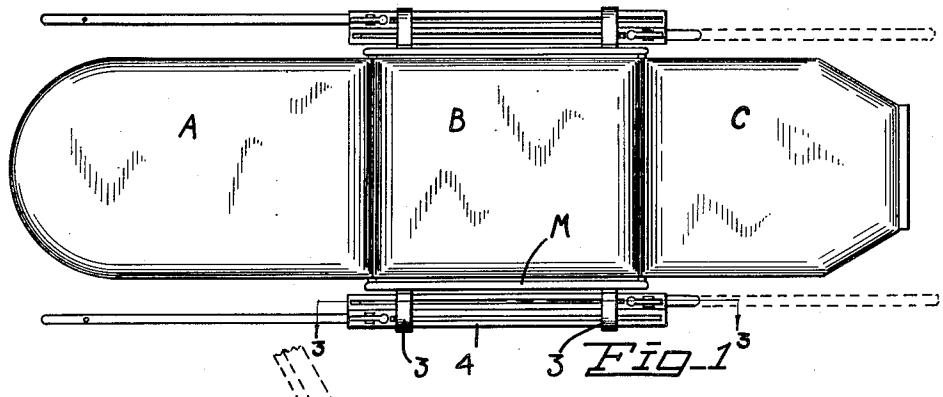

Fig. 1

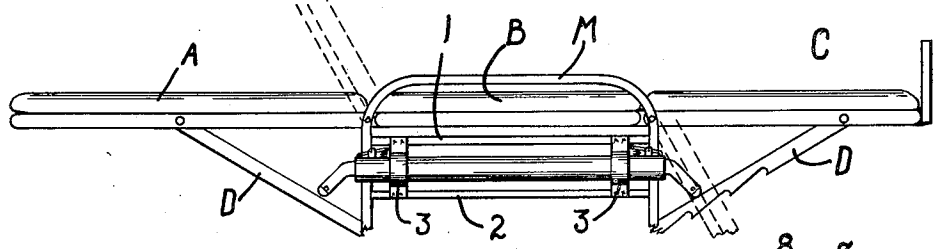

Fig. 2

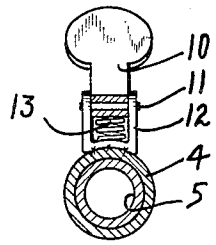

Fig. 4

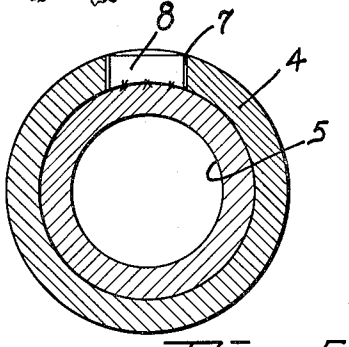

Fig. 5

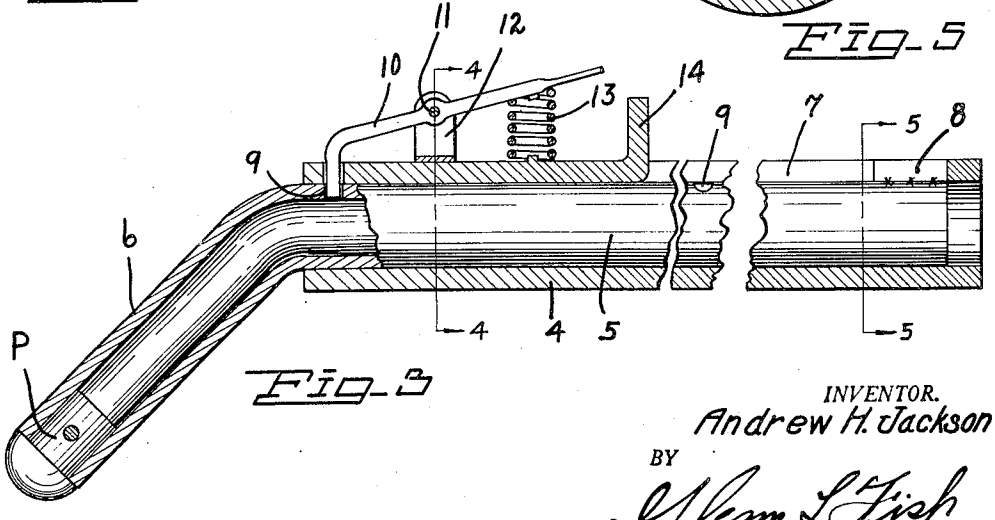

Fig. 3

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EXTENSIBLE HANDLE ASSEMBLY

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1 Claim. (Cl. 155—28)

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My present invention relates to improvements in the general class of surgical appliances or furniture, and more specifically to an improved extensible handle assembly for use as a component part in folding stretchers, sectional invalid chairs, tables, and other portable structures of this type.

The primary object of the invention is the provision of a permanent dual handle equipment for structures of this type, which equipment is compactly arranged to be out of the way when the chair or table is utilized as a stationary fixture, and which is readily accessible for quick and facile extension and use when the services of attendants are required for carrying or transporting patients, and others. The equipment includes a minimum number of standardized parts that may be manufactured at low cost of production and assembled with convenience and mounted upon an appliance or piece of furniture whereby the stationary fixture may quickly be converted into a portable fixture when required, and with equal facility the portable fixture may be restored to its stationary condition.

The invention consists in certain novel combinations and arrangements of parts in the extensible handle assembly as will hereinafter be described and more specifically set forth in my appended claim.

In the accompanying drawings I have illustrated one complete example of a physical embodiment of my invention wherein the parts are combined and arranged in accord with one mode I have devised for the practical application of the principles of my invention.

Figure 1 is a top plan view of a sectional, foldable invalid's chair equipped with the dual handle assembly of my invention with the parts in extended position, with two of the handle bars shown in dotted lines.

Figure 2 is a view in side elevation of the appliance of Fig. 1, showing by dotted lines one of the hinged sections in inclined position, and illustrating the handle assembly in retracted position.

Figure 3 is an enlarged detail longitudinal sectional view as at line 3—3 of Fig. 1 through one of the four handle units with parts broken away for convenience of illustration.

Figure 4 is a transverse sectional view at line 4—4 of Fig. 3.

Figure 5 is a transverse detail sectional view as at line 5—5 of Fig. 3, and drawn to an enlarged scale.

In order that the general arrangement and utility of parts may readily be understood I have

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shown a convertible invalid's chair, table, or bed, of the sectional hinged and foldable type including the head section A, the body section B, and the foot section C, with the intermediate section B supported upon a main frame M, and the two end sections provided with braces D.

In equipping the chair with the dual extensible handles I utilize at each of the opposite sides of the main frame a pair of horizontal vertically spaced rails 1 and 2 that form rigid parts of the main frame, and a dual handle assembly is rigidly mounted at each side of the frame by means of two spaced bands or brackets 3, 3, attached to the rails 1 and 2.

Thus the handle assembly includes two units mounted at each side of the chair, and each of the two units includes two telescoping handle bars that are extensible in opposite directions from the center of the main supporting frame to provide a pair of front handles and a pair of rear handles for use by attendants in carrying the extended chair.

The four units are of standardized construction and operation, and therefore a detailed description of one unit will suffice for the four units.

As best seen in Fig. 3 each unit includes a metallic and preferably cylindrical sleeve 4 mounted in the bands 3, 3 and approximately the length of the main frame M or the intermediate section B; and the two sleeves are arranged in parallelism at a suitable height at each side of the chair.

Within the sleeve is mounted a slidable or telescopic bar 5, here shown as tubular, that is fashioned at one end with a bent handle portion 6, and the open end of the handle is closed by a suitable plug as P.

To prevent rotary movement of the handle bar within the sleeve, and to guide the extension and retraction movements of the handle bar, a longitudinally extending guide slot 7 is provided in the sleeve, and a complementary lug 8 is welded or otherwise mounted on the slidable handle bar for traversing the slot.

For latching or locking the handle bar in extended and in retracted position a spring detent or latch is mounted on the sleeve for alternate co-action with spaced sockets 9, 9, fashioned as holes in the tubular handle bar.

The spring detent, which is manually released, includes a pivoted latch 10 mounted at 11 in a bracket 12 welded on the upper exterior surface of the sleeve, and a spring 13 is interposed between the latch or detent and the sleeve for normally closing the latch.

To guard the spring and the spring detent, and to afford a stop for the guide lug 8, a flanged abutment 14 is shown as integral with the slotted sleeve.

From this description taken in connection with the drawings it will be apparent that when the spring detent is released from its socket the handle bar may be pulled outwardly or extended through the sleeve until the spring pressed detent automatically snaps into a second socket, and the handle bar is thus in position for use. Each of the four handle bars is thus pulled into extended position, and the pairs of handles at the front and rear ends of the chair are available for use by two attendants.

With equal facility the extended handle bars may be released, pushed back into their housings or sleeves, and snapped into latched or locked position, thus removing obstructions from the vicinity of the two outer sections of the chair and affording ready access to attendants and others.

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

In an extensible handle, the combination with

a cylindrical housing having a longitudinally extending slot having an inner end wall, a spring-pressed detent mounted on the housing, and a flanged abutment on the housing forming a guard for the detent and a stop at the outer end of the slot, of a cylindrical handle bar slidable in the housing and having spaced sockets for said detent, and a guide lug rigid with the handle bar and slidable in the slot.

ANDREW H. JACKSON.

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The following references are of record in the file of this patent:

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