

July 10, 1934.

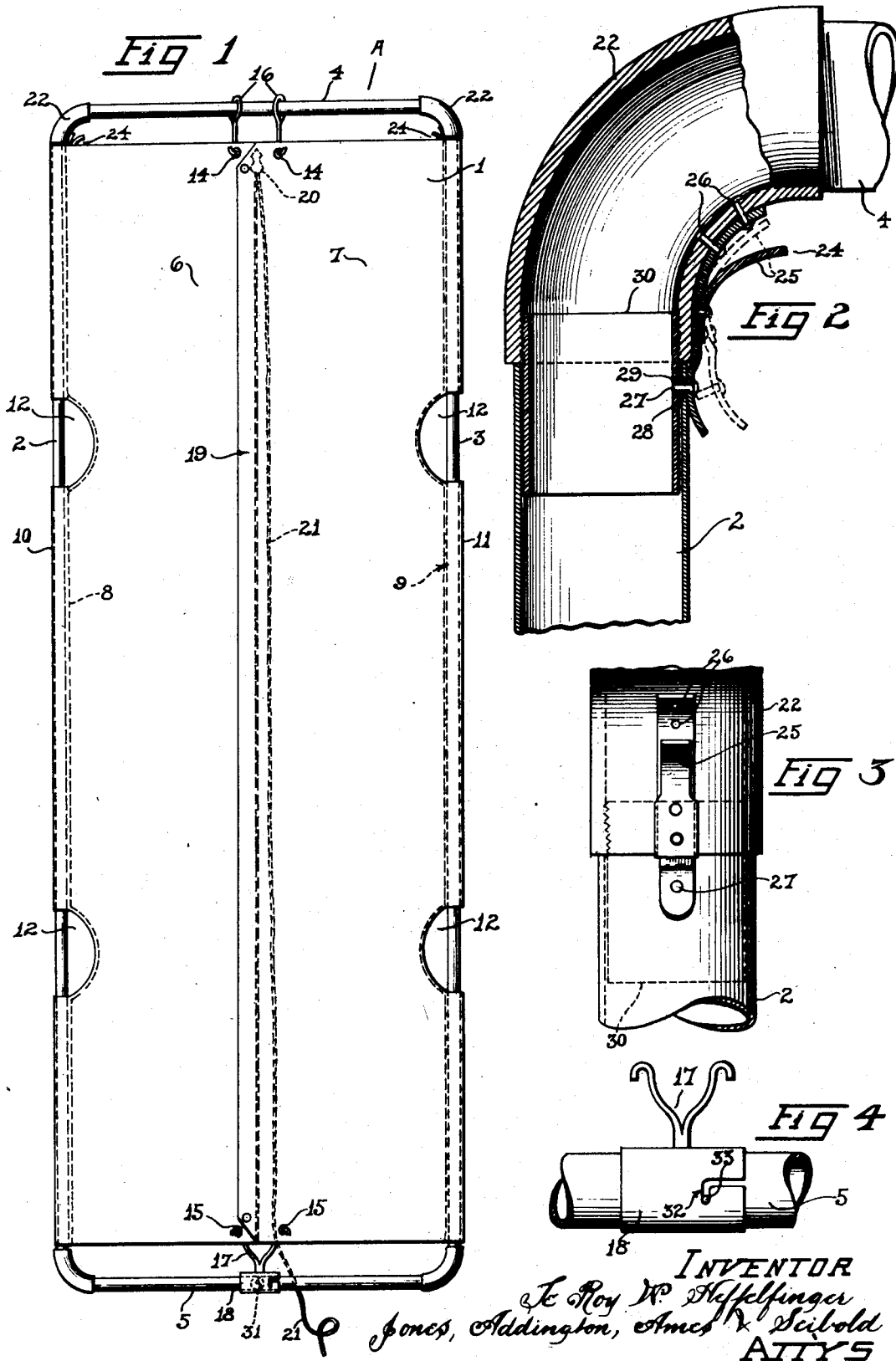
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1,965,644

CARRIER OR STRETCHER

Filed April 13, 1932

2 Sheets-Sheet 1



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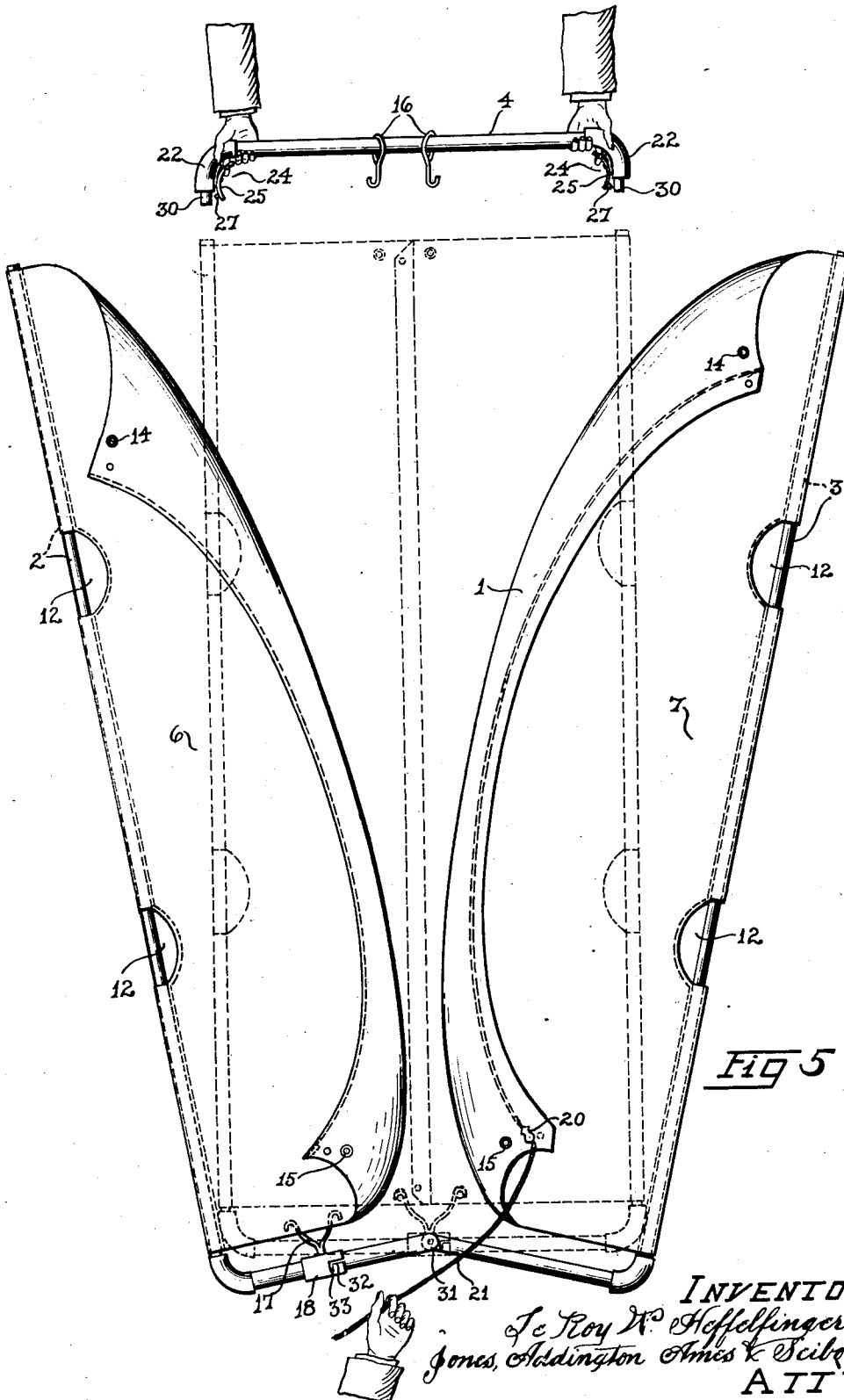
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UNITED STATES PATENT OFFICE

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CARRIER OR STRETCHER

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3 Claims. (Cl. 5—82)

This invention relates to carriers or stretchers for use in transporting patients from place to place, as in hospitals or the like.

It is common practice to employ wheelers comprising a table mounted upon a movable base, for transporting patients in hospitals, or elsewhere, say from the operating rooms to the wards or private rooms. I find that considerable difficulty is experienced in lifting each patient from the wheelers after being returned from the operating rooms, particularly after an operation or where the patient is somewhat large. It is essential to the safety and comfort of these patients that they be handled carefully and not be dropped.

An object of the invention is to provide, therefore, an improved form of carrier or stretcher for the wheeler upon which the patients are placed and transported about and by means of which they are removed from the wheeler and placed say upon the bed without being lifted from the carrier or stretcher.

A further object of the invention is to provide a carrier or stretcher of the type described, which, after being placed upon the bed, will not require the patient to be lifted, but which may be removed from under the patient without disturbing or injuring him.

A specific object of the invention is to provide a carrier or stretcher comprising a collapsible frame and a support or covering carried thereby, both being capable of being opened and removed from the patient without lifting the patient therefrom.

A still further object of the invention is to provide a carrier or stretcher of the type described having a collapsible frame and a support or covering carried thereby, the latter being opened substantially along a medial line and spread to permit its removal from under the patient, and the frame thereafter collapsed, if so desired, so that it may be withdrawn lengthwise and not from over the patient.

A still further object of the invention is to provide a carrier or stretcher of this type, which is simple and inexpensive, and which is provided with a support or covering easily removable from the frame and replaced each time it is used, or when it becomes soiled.

Other objects and advantages of the invention will appear from the following detailed description, when taken in connection with the accompanying drawings, which form a part hereof.

Figure 1 is an elevational view of a carrier or stretcher embodying my invention;

Fig. 2 is an enlarged detail sectional view of the

latching means employed to detachably lock one of the end frame members to the frame;

Fig. 3 is a side view of this latching mechanism;

Fig. 4 is an enlarged detail view of the means employed to lock the hinged connection of the opposite end frame member; and

Fig. 5 is a view illustrating the manner in which the carrier or stretcher is opened to permit its removal from under the patient after the patient has been placed say upon the bed.

The device disclosed comprises a frame member A having side members 2 and 3 and end members 4 and 5. A support or covering 1 separable into two parts 6 and 7, substantially along a medial line, is carried by frame A. Covering 1 is placed upon frame A in any suitable way. Specifically, the outer longitudinal edges of parts 6 and 7 are looped and stitched at 8 and 9 to provide hems 10 and 11, through which side frame members 2 and 3 are passed. Cut-away portions 12 may be provided in parts 6 and 7 to provide convenient hand grips. Parts 6 and 7 are provided with openings 14 and 15 at their upper and lower ends, respectively, adjacent the line of separation, to receive upper hook members 16 slidable along end frame member 4 and a lower hook member 17 carried by a locking sleeve 18, to be later described.

A separable fastener indicated broadly at 19 having a slider 20 is provided to hold parts 6 and 7 together along their line of separation. The type of fastener that may be used is well known in the art, and consequently, I do not deem it necessary to describe it in detail. It is sufficient to say that by movement of slider 20 along the line of separation, say by pulling cord 21, which may be of a length substantially equal to or greater than that of the frame, both parts 6 and 7 will open, as illustrated in Fig. 5. Hooks 16 may be disconnected from openings 14 at the upper end, while hook member 17 may be disconnected from openings 15 at the lower end to allow parts 6 and 7 to be moved sidewise; that is to say, to be moved in their respective directions toward side frame members 2 and 3.

Upper frame member 4 may have, if so desired, elbow connections 22 at each end, these elbow connections 22 each having a latching mechanism 24 for detachably connecting this end frame member 4 to the side frame members 2 and 3.

By specifically referring to Figs. 2 and 3, it will be noted that each latching mechanism 24 may have a finger grip 25 preferably made of spring material and pivoted at 26. A latch bolt 27 is carried by the free end of member 25, and,

in a locking position, rests in apertures 28 and 29 provided in the upper end of side members 2 and 3 and a tubular extension 30 threaded into each elbow connection, as clearly illustrated in Fig. 2. Gripping the upper frame member 4 at or adjacent elbow connections 22 so that at least one of the fingers of the hand will engage grips 25, as illustrated in Fig. 5, will cause withdrawal of latch bolts 27 from apertures 28 and 29, as shown in dotted lines in Fig. 2, and release this upper end frame member 4 from the side frame members 2 and 3.

Lower end frame member 5 may be provided with a hinged connection illustrated broadly at 31, this hinged connection being provided intermediate the ends of this end frame member 5 so that the same may be collapsed inwardly after the upper end frame member 4 is removed and the side frame members 2 and 3 are opened outwardly, as illustrated in Fig. 5.

To prevent accidental collapsing of the component parts of this end frame member 5 at this hinged connection 31, a locking sleeve 18 carrying hook member 17 is provided and is suitably locked in position by say a bayonet slot lock designated 32. A pin 33 carried by this end frame member 5 allows the bayonet slot to slide thereover and further permits rotation of the locking sleeve 18 until pin 31 is in the slot in the position shown in Fig. 4. This position of locking sleeve 18 will bring hook member 17 in proper position to engage in openings 15 as illustrated in Fig. 1.

Assuming now that the carrier or stretcher has a patient thereon and is placed upon say a bed, the cord 21 is pulled at one end of frame A, as illustrated in Fig. 5, to draw slider 20 downwardly until it reaches this end whereby parts 6 and 7 may be separated. Hooks 16 may then be disconnected from openings 14 and hook member 17 may then be disconnected from openings 15. Parts 6 and 7 may then be pulled sidewise from under the patient without requiring the patient to be lifted. Covering 5 may be a smooth, thin piece of material, say canvas, which will not disturb the patient when its parts 6 and 7 are pulled from under the patient.

In certain cases it may be desirable not to lift frame A from over the patient when removing it from the bed. In these cases after the parts 6 and 7 are separated and pulled sidewise from under the patient, one of the attendants releases the latch mechanisms 24, as illustrated in Fig. 5, to detach end frame member 4. Locking sleeve 18 may then be moved to the left, as illustrated in this Fig. 5, and the side members 2 and 3 are

thereafter opened outwardly at hinged connection 31 so that the frame may be withdrawn lengthwise of the patient.

It will be understood that the invention is not limited to separating parts 6 and 7 along a medial line, as it is obvious that other forms of separation may accomplish substantially the same result. The general construction of the device described allows quick removal of covering 1 so that in cases where new coverings are required for each patient, the former covering may be quickly removed and a new covering substituted.

Without further elaboration, the foregoing will so fully explain the gist of my invention that others may, by applying current knowledge, readily adopt the same for use under varying conditions of service, without eliminating certain features which may properly be said to constitute the essential items of novelty involved, which items are intended to be defined and secured to me by the following claims.

I claim:

1. A device of the class described comprising a frame having side members and two end members, one of said end members being removable, the other of said end members having a hinged connection intermediate its ends to allow said side members to open outwardly, and a cover attached to said side members separable substantially longitudinally of said frame into at least two parts.

2. A device of the class described comprising a frame having side members and two end members, one of said end members being removable, the other of said end members having a hinged connection intermediate its ends to allow said side members to open outwardly, and a cover attached to said frame members separable substantially longitudinally of said frame into at least two parts and being removable from said frame members.

3. A device of the class described comprising a frame having side members and two end members, a covering attached to said side members and separable longitudinally of said frame into more than one part to allow said parts to spread in the direction of said side frame members, means for removably connecting one of said end frame members to said side frame members, and a hinged connection intermediate the ends of said opposite end frame member to allow said side members to open outwardly after said removable end frame member is detached from said side frame members.

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