May 3, 1932. M. E. ADCOCK 1,857,008

METALLIC STRETCHER

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Fig. 1.

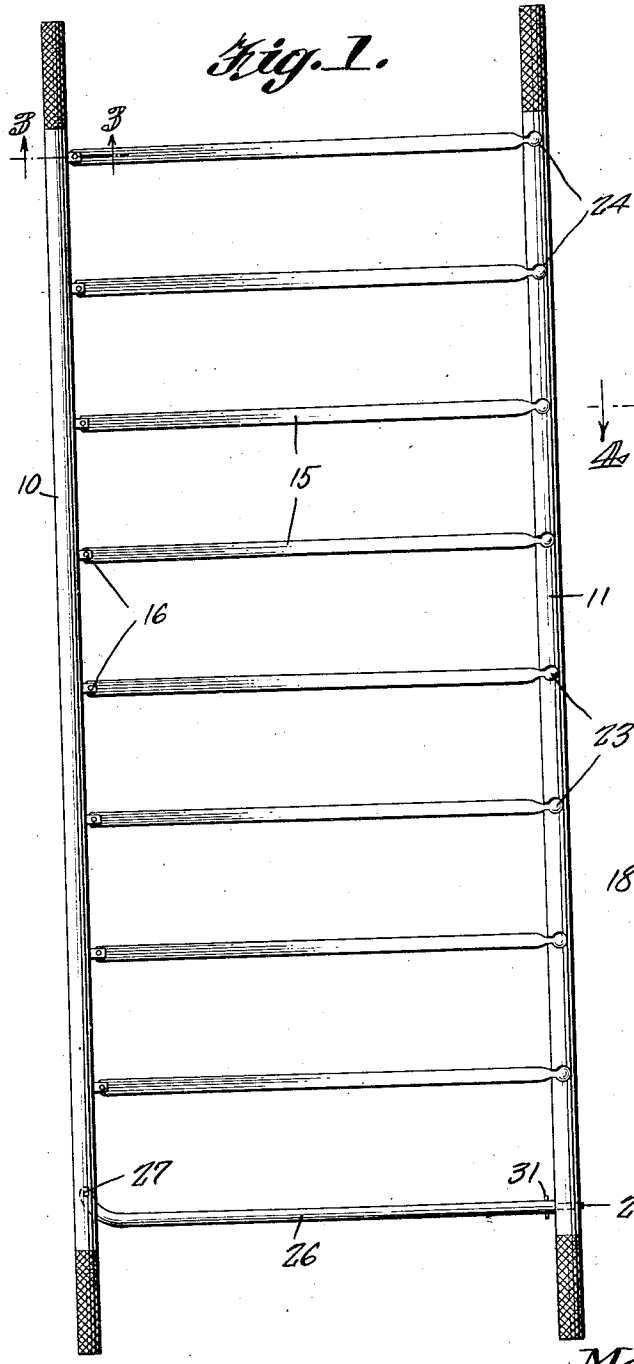



Fig. 3.

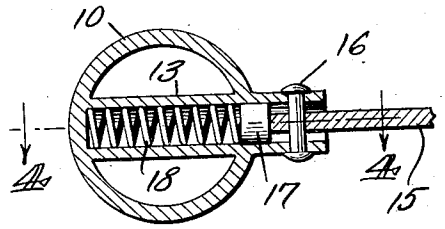
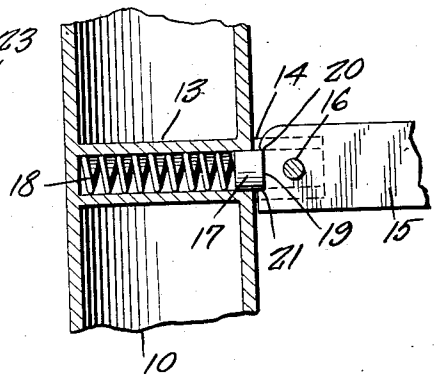



Fig. 4.




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Fig. 2.

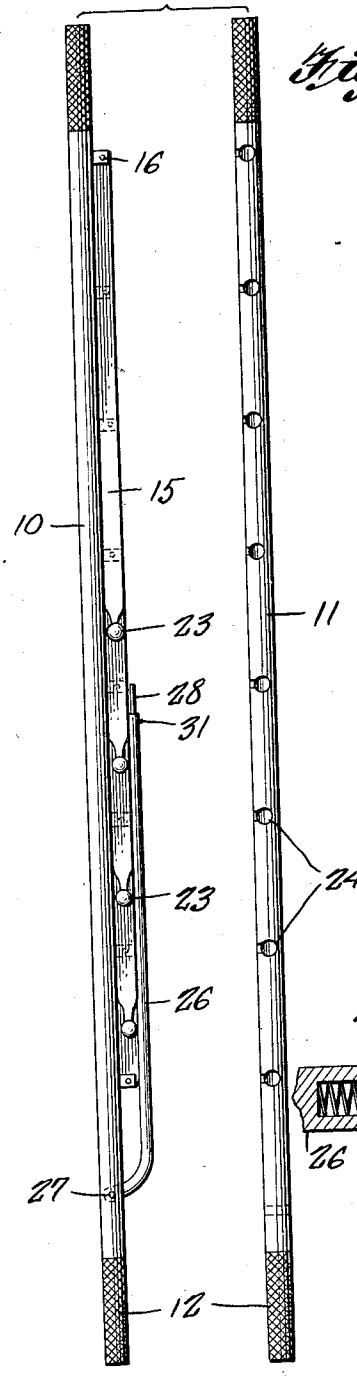



Fig. 5.

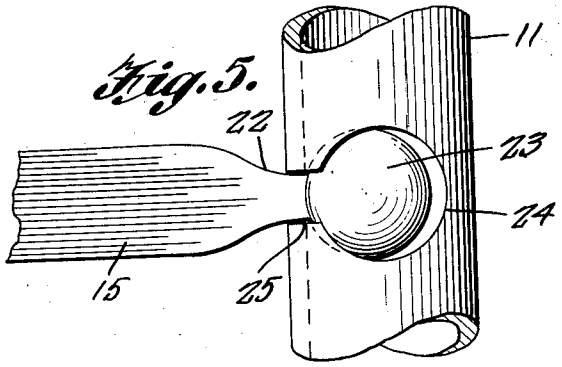



Fig. 6.

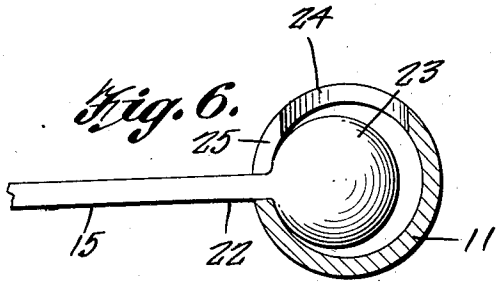
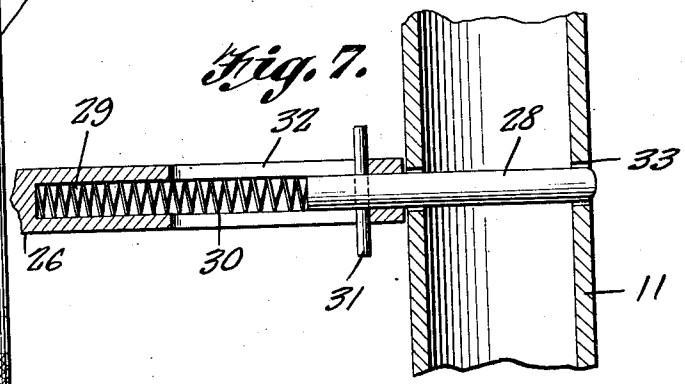



Fig. 7.




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Patented May 3, 1932

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# UNITED STATES PATENT OFFICE

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## METALLIC STRETCHER

Application filed March 2, 1931. Serial No. 519,662.

This invention relates to certain new and useful improvements in stretchers or carriers for injured, maimed persons or bodies and which embodies among other characteristics means for the reposing of the body upon the stretcher without requiring the necessity of raising the body or placing the hands underneath or around the body to cause unnecessary contact with or pain to the patient.

Another of the objects of the invention consists of detachably positioned body engaging portions.

An additional object of the invention contemplates the provision and arrangement of handle portions to which the body engaging portions are connected.

More specifically stated the hand engaging portions are provided with a locking mechanism therebetween to prevent accidental displacement of the body engaging portions.

With the above and other objects in view, the invention further consists of the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:

Figure 1 is a top plan view of the present invention.

Figure 2 is a view similar to Figure 1 showing body engaging members and locking mechanism disposed in collapsed or knocked down position.

Figure 3 is a detail sectional view taken on line 3—3 of Figure 1 through one of the hinge connections for the body engaging members.

Figure 4 is a sectional view taken on line 4—4 of Figure 3.

Figure 5 is an enlarged fragmentary top plan view of the immediate detachably connected portions of the body engaging members and handle portions.

Figure 6 is a view similar to Figure 5 taken at right angles thereto and illustrative of the particular disposition of the detachable ends of the body engaging portions within the handle members.

Figure 7 is an enlarged fragmentary longitudinal sectional view taken through a portion of the locking mechanism and one of the handle members.

Referring to the drawings in detail wherein like characters of reference denote corresponding parts, the reference characters 10 and 11 indicate the side bars or rails of a form of stretcher to be employed for field or emergency use, both in the army and by municipal hospitals. The bars or rails are preferably of tubular formation and are serrated at the ends thereof to provide convenient handholds or grips 12.

Sleeve members 13, arranged at intervals in right-angularly disposed relation upon one side of the rail 10, project outwardly therefrom and are split to provide bifurcations 14 for purposes to be better understood in the following description of the invention. Body engaging members 15 of elongated strip like formation are swingably supported upon pins 16 passed through the walls of the sleeve members 13 at right angles to the bifurcations or slots 14. A plunger member 17, located within the bore of each of the sleeves 13, is yieldably induced toward the pivotally associated ends of the body engaging members 15 through the employment of compression springs 18. The aforesaid ends of the body engaging members 15 are provided with pockets 19 to accommodate the plunger members 17 and in view of the fact that it is desirous to shift or otherwise swing the body engaging members 15 in one direction only upon the pivot pins 16, I have provided round and square shoulders 20 and 21 respectively upon opposite sides of the pocket 19 which permit and restrict movement of said body engaging members in the manner contemplated. The

other ends of the body engaging members 15 are reduced to provide necks 22 between the body portions thereof and enlargements or heads 23 of spherical formation. The rail 10 is provided with a multiplicity of openings 24 upon the upper side thereof and at spaced intervals thereon to accommodate the enlargements or heads 23. The rail 10 is furthermore provided with slots 25 upon its inner side in confronting relation to that of the connections of the sleeves 13 with the rail 10 and in communication with the openings 24 whereby the necks or reduced portions 22 may be accommodated in the manner suggested in Figure 6 of the drawings. The particular cross sectional shape of the rail 11 and heads or enlargements 23 will permit misalignment thereof to such an extent as to preclude possibility of the body engaging members 15 from becoming accidentally displaced from the rail 11.

From the foregoing it will be noted that a slight degree of independent shifting motion is allowed each of the rails incident to the particular connections of the body engaging members 15 therewith. Such movement would be decidedly detrimental inasmuch as a person being conveyed on the litter or stretcher having fractures would suffer untold pain.

In order to prevent occurrences, such as mentioned in the foregoing, I provide a locking bar 26 having pivotal connection, as at 27, with the rail 10. A plunger member 28, telescopically accommodated within a pocket portion 29 provided within the opposite end of the locking bar 26, is yieldably retained in the position suggested in Figure 7 of the drawings through the employment of a compression spring 30. A cross pin 31, carried by the plunger 29 and projecting at its ends outwardly through aligned slots 32 in diametrically opposite sides of the locking rod 26 in communication with the pocket 29, provide finger engaging portions for operating said plunger whereby the rod 26 may be readily associated or connected at will. The foregoing is accomplished through the employment of aligned openings 33 located in diametrically opposite sides of the rail 11.

The foregoing form of stretcher will prove useful and often necessary in raising and carrying human bodies without placing the hands underneath or around same, which causes unnecessary pain to the patient. It would also obviate the necessity of the use of the hands underneath dead or mutilated bodies in carrying them or placing them on morgue tables.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having described the invention, what is claimed is:

1. A stretcher comprising a pair of tubular side rails, one of which is provided with socket openings, cross bars pivoted to the other side rail and having globular heads adapted to engage in said socket openings.

2. A stretcher comprising a pair of tubular side rails, one having socket openings, spring pressed pivot members slidably mounted in the other rail and cross bars pivoted upon said members and having globular heads adapted to engage in the socket openings.

In testimony whereof I affix my signature.

MARVIN E. ADCOCK.