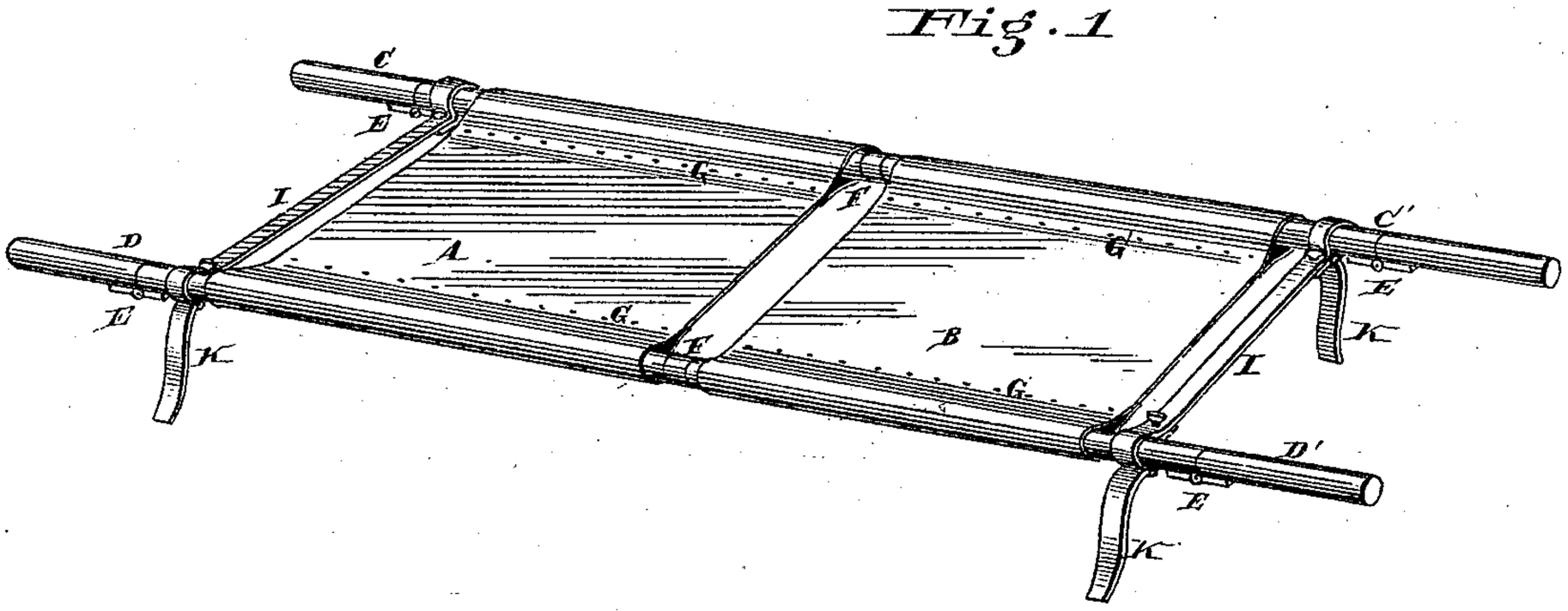
(No Model.)

W. H. JOHNSTONE.

STRETCHER.

No. 273,287. Patented Mar. 6, 1883.

Fig. 1



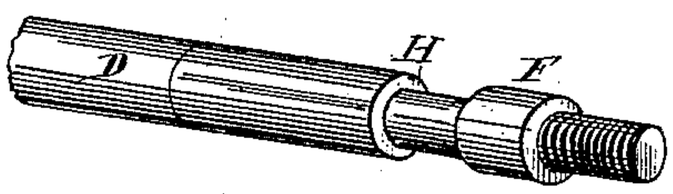


Fig. 2

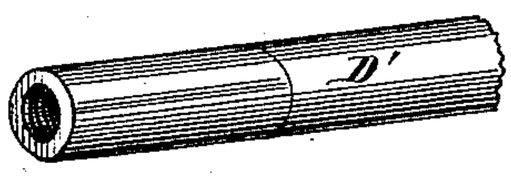


Fig. 3

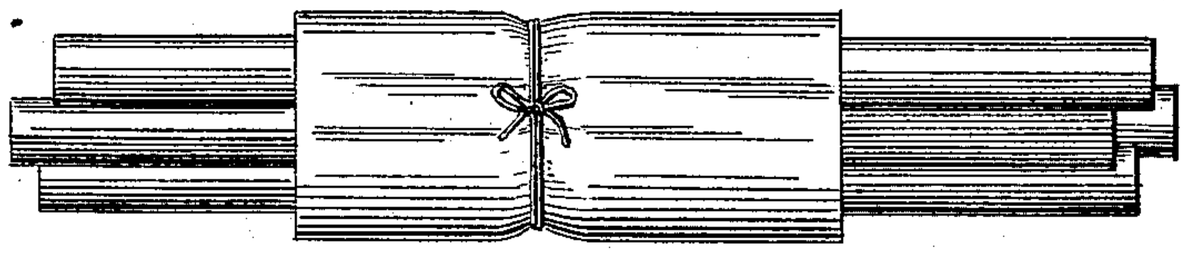


Fig. 4

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WILLIAM H. JOHNSTONE, OF PHILADELPHIA, PENNSYLVANIA.

STRETCHER.

SPECIFICATION forming part of Letters Patent No. 273,287, dated March 6, 1883.

Application filed March 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. JOHNSTONE, of Philadelphia, Pennsylvania, have invented certain new and useful Improvements in Stretchers for Carrying Wounded Persons, of which the following is a full and exact description, reference being had to the annexed drawings.

The nature of my invention will appear from the following specification and claims. It has for its object the production of a stretcher which can be folded or rolled up and packed in small space, and yet capable of being rapidly set up or put in condition for use.

In the drawings, Figure 1 is a perspective view of my stretcher ready for use; Figs. 2 and 3, enlarged detached views of the adjoining inner ends of two sections of a pole, showing the male and female screws for uniting them at F, Fig. 1. Fig. 4 shows my stretcher folded and rolled up for packing away.

A B are two sections or sheets of canvas, each having two tubular edges, G G, for passing the hickory poles C C′ and D D′ through. These poles have folding joints E E near the holding ends, so as to fold under, but to remain stiff when opened and in use; in other words, the joint only folds in one direction.

F are joints each formed of a male and female screw, the male being pivoted at H, (see Fig. 2,) so as to turn without requiring the turning of the whole section D or D′ of the pole, the coupling being constructed upon about the same principle as a hose-coupling. Any of the various couplings now in use for hose-couplings, or any other suitable coupling for holding the inner ends of the sections of the poles to each other, may be used.

G G are the side tubes, formed by lapping the edges of the canvas under and riveting or sewing them in that position.

I I are bars furnished with rings at their respective ends, whereby they may be slipped over the ends of the parallel bars C C′ and D D′, as shown, to hold the bars at a proper distance apart when the stretcher is in use. Beneath each of these rings a leg, K, may be attached by a hinge, so as to fold inwardly; but these legs may be dispensed with, if desired; or they may be attached directly to the bars, near the hand-holds, by hinges, or slipped over by means of rings at their upper ends. The legs are comparatively unimportant, because the stretcher is designed principally for railroad-cars, to be used in case of accident, and while they might be useful to set a patient down on the ground, still a couple of logs or beams, one under each end of the stretcher, would do as well, or two trunks or boxes in a baggage-car will answer the same purpose.

The manner of using my device is as follows: Suppose it to be rolled up in a car, in the condition shown in Fig. 4, and some person is struck by the engine and mangled or run over, the device is unrolled and the pieces of canvas are slid under the injured one, between the person and the ground, to about the relative distance apart which they are to occupy when the poles are inserted. Sections C and C′ are then slid into their respective canvas tubes, and the same with sections D D′. When the ends of the sections are close enough together the joints F F are made by means of the coupling. The bars I I are then slid over the ends of the bars or poles and the patient is transported to the train or nearest hospital or shelter. If the bruises or hurts are such that as little disturbance as possible is essential, the patient is finally, with the stretcher still beneath him, laid on the hospital-bed, and the bars C C′ D D′ are then removed, leaving the canvas sheets still beneath the injured one. Fresh sheets of canvas, then in readiness, can be substituted for those thus left, and if there are more hurt the operation above described can be repeated. The length of space covered by the canvas sheets A and B together is about six feet. Each bar C C′ and D D′ is about eight feet long. In a small room it might be awkward to remove these bars by their whole length at a time from the sheets, so as to leave the latter beneath the patient, so by uncoupling them in the middle at F F the section C can be drawn out at the foot of the bed and C′ from the contrary direction, and so with sections D D′.

If desired, when the bars are inserted into the tubular edges of the canvas sheets, the couplings F may be made first and each bar inserted or pushed through from one end.

In my claims I speak of the rods I I being detachably connected to the side bars. I mean by this capable of being instantly or readily detached. They may be made in the manner

of bar-manacles for prisoners, where a bar terminates on both sides in a clamp-ring which is locked around the wrists. In such case, instead of locks, a thumb-screw-ring clamp or catch-ring clamp could be used.

I wish to dispense with the use of separate tools to attach and detach the bars I I. Speed and dispatch in putting the structure together are the objects sought by my invention, as well as convenience in packing.

Eyes and buttons might be substituted for the side tubes to connect with the bars; but this would incline the bars to turn around in the hands of the carriers under great weight, and so loosen or strain the buttons, unless the rings of rods I I were made polygonal to fit corresponding polygonally-shaped bars. I prefer the tubes G G, as they are cheapest and avoid the last-named difficulty.

What I claim as new is—

1. A folding stretcher composed of two bars, each in two sections, C C′ and D D′, detachably coupled in the middle, substantially as shown, sustaining between them a soft or yielding fabric, in combination with the arms or rods I I, provided with readily-detachable connections with said bars, substantially as and for the purposes described.

2. A folding stretcher composed of two bars, each in two sections, C C′ and D D′, the sections being detachably coupled, as described, sustaining between them a soft or yielding fabric in two parts or sections, A B, in combination with the arms or rods I I, provided with readily-detachable connections with said bars, substantially as and for the purposes described.

3. A folding stretcher composed of two bars, C C′ and D D′, sustaining between them a soft or yielding fabric, in combination with the arms or rods I I, provided with readily-detachable connections with said bars, and hinged legs K K, substantially as and for the purposes described.

4. A folding stretcher composed of two bars, C C′ and D D′, sustaining between them a soft or yielding fabric provided with tubular edges G G, in combination with the arms or rods I I, provided with readily-detachable connections with said bars, substantially as and for the purposes described.

W. H. JOHNSTONE.

Witnesses:
GEORGE E. BUCKLEY,
WM. H. CARSON.