Aug. 16, 1932. T. J. FLANAGAN 1,871,680

STRETCHER

Filed May 1, 1931

Fig.1.

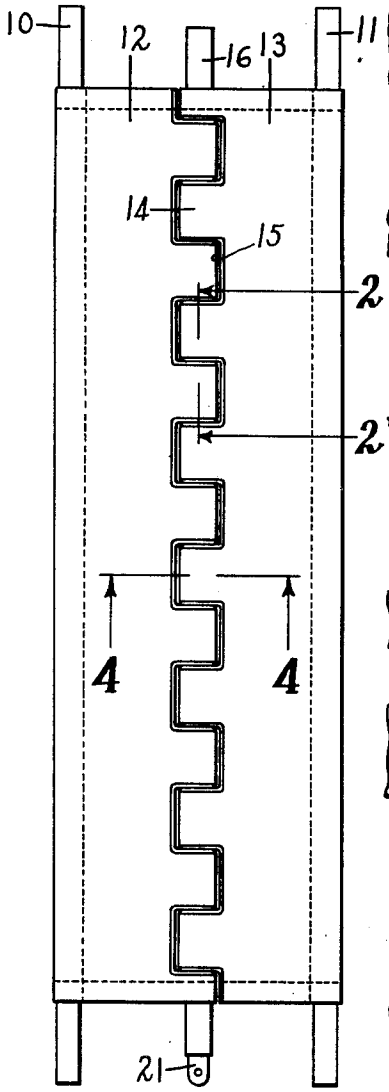


Fig.2.

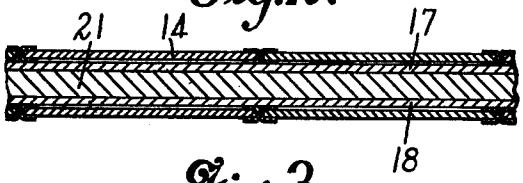


Fig.3.



Fig.4.

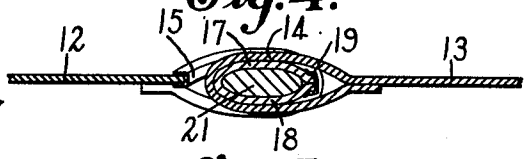


Fig.5.

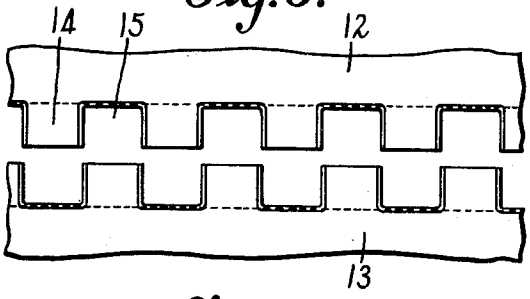
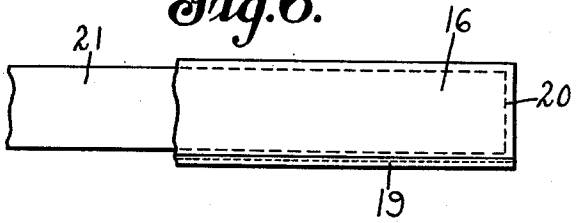


Fig.6.



Inventor

Thomas J Flanagan

By Rockwell & Barthelow

Attorney

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UNITED STATES PATENT OFFICE

THOMAS J. FLANAGAN, OF NEW HAVEN, CONNECTICUT

STRETCHER

Application filed May 1, 1931. Serial No. 534,395.

This invention relates to stretchers and more particularly to a stretcher made in two parts which are so secured together that no discomfort will be offered to a patient lying upon the stretcher and at the same time the parts may be disconnected for removal from beneath the patient with the slightest inconvenience to the latter.

According to the usual construction, stretchers are made in one piece so that when, for example, a patient is carried to his bed, it is necessary to lay the stretcher and patient down and lift the patient from the stretcher to the bed. It has also been proposed to make a stretcher in two detachable parts which may be secured together when the stretcher is in use, but such devices have not come into general use due to certain disadvantages thereof, such as for instance, the fact that the means used to secure the two parts of the stretcher together is of such a nature and such a size that considerable discomfort would be experienced by the patient when supported by the stretcher.

One object of my invention is to provide a stretcher made of two detachable parts and secured together by a substantially flat strip of material so that no appreciable rib or protruding portion will be formed at the joint between the sections such as would offer discomfort to the patient.

Another object of my invention is to provide a stretcher comprising two detachable sections which may be securely and easily fastened together when the stretcher is in use, and at the same time be easily detached so that they may be removed from beneath the patient, and so constructed that the joint between the sections is substantially flat and calculated to offer no discomfort to the patient lying thereon.

A still further object of my invention is to provide a stretcher comprising two sections having loops or knuckles designed to be placed in registry and secured together by a hollow strap of flexible fabric or similar material, the strap being stiffened for insertion into the loops of the stretcher parts by means of a stiff strip of material which may be removed when the patient is placed upon the stretcher.

To these and other ends, the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the drawing:

Fig. 1 is a top plan view of a stretcher embodying my improvements;

Fig. 2 is a sectional view on line 2—2 of Fig. 1;

Fig. 3 is a view similar to Fig. 2 after the stiffening strip has been removed;

Fig. 4 is a sectional view on line 4—4 of Fig. 1;

Fig. 5 is a fragmentary view showing the construction of the two sections of the device adjacent their meeting edges, and

Fig. 6 is a view of the hollow strap and stiffener used therewith.

To illustrate a preferred embodiment of my invention I have shown in Fig. 1 a stretcher comprising poles or handles 10 and 11 to which are secured the stretcher sections 12 and 13. It will be understood that these sections will usually be made of canvas or like material and that their outer edges will be turned about the poles in the usual manner.

Adjacent the inner ends the sections are each provided with projecting loops 14 which are spaced apart upon each section a distance substantially equal to the width of the loops so as to leave recesses 15 for the reception of the loops of the other section. It will be observed that the loops on one section are staggered with respect to the loops on the other so that the edges of the sections will properly nest together with the loops of one entering the recesses of the other so as to bring the loops into alignment for the reception of a fastening means to secure the two sections together.

As shown in Figs. 2, 3 and 4, I propose to thread through the registering loops a hollow tape or strap 16. This strap will preferably be substantially flat and will comprise upper and lower runs or plies 17 and 18, which will preferably be stitched together at one edge as at 19 so as to form a hollow or tubular strap open only at the ends. If de-

sired, one end of the strap may be closed at 20, thus leaving the strap open at one end only.

This strap or tape is preferably made of a material such as duck or canvas similar to the material of which the stretcher sections are made. When made of such material the strap will lie substantially flat so as not to effect an undue or excessive thickness of material where the two stretcher sections are joined together, and also will bind within the loops 14 with a strong frictional engagement effectively preventing separation of the sections.

Such a strap or tape of this character will alone suffice to hold sections of the stretcher together. Some inconvenience might be experienced, however, in threading such a strap through the registering loops due to its lack of stiffness. It is for this reason that the strap is hollow or tubular in form and I propose to insert therein a stiffening member such as a long narrow and very thin strip formed of wood or some rigid material. This stiffening strip is shown at 21 in Figs. 2 and 4, these figures of the drawing being somewhat enlarged for purposes of illustration.

The operation of my device is as follows. The two parts of the stretcher are arranged, as shown in Fig. 1 with the loops 14 in registration and with the loops of one section entering the recesses of the other. The stiffening strip 21 is inserted within the hollow strap or tape 16 and the tape is then threaded through the registering loops. The stretcher is now ready for use. After a patient is placed upon the stretcher, the stiffening strip 21 is withdrawn from the securing strap or tape 16 and, when the stretcher is raised, it will be found that due to the weight of the patient and the friction between the securing strip 16 and the loops through which it is threaded, the stretcher parts will be securely held together against accidental detachment, by the securing member 16 alone.

The stretcher with the patient thereon may be placed upon a bed or operating table and the securing strip 16 withdrawn from the loops. The stretcher will thus be divided into its two sections and each section may be readily removed from beneath the patient without any discomfort to the latter.

While I have shown and described a preferred embodiment of my invention, it will be understood that it is not to be limited to all of the details shown, but is capable of modification and variation within the spirit of the invention and within the scope of the appended claims.

What I claim is:

1. A stretcher comprising two similar fabric sections each of which is provided with loops upon its inner edge, the loops of one section being designed to be placed in registering alignment with the loops of the other section, means to hold said sections together comprising a hollow fabric strap threaded through said loops, and a stiffening member designed to be inserted within said strap to impart stiffness to the latter during the threading operation.

2. A stretcher comprising two similar fabric sections each of which is provided with loops upon its inner edge, the loops of one section being designed to be placed in registering alignment with the loops of the other section, and means insertable through said registering loops comprising a hollow flat strap of fabric, and a rigid stiffening strip within said strap, and said strap being open at one end whereby the stiffening strip may be removed to leave the hollow strap threaded through the loops.

In witness whereof, I have hereunto set my hand this 29th day of April, 1931.

THOMAS J. FLANAGAN.