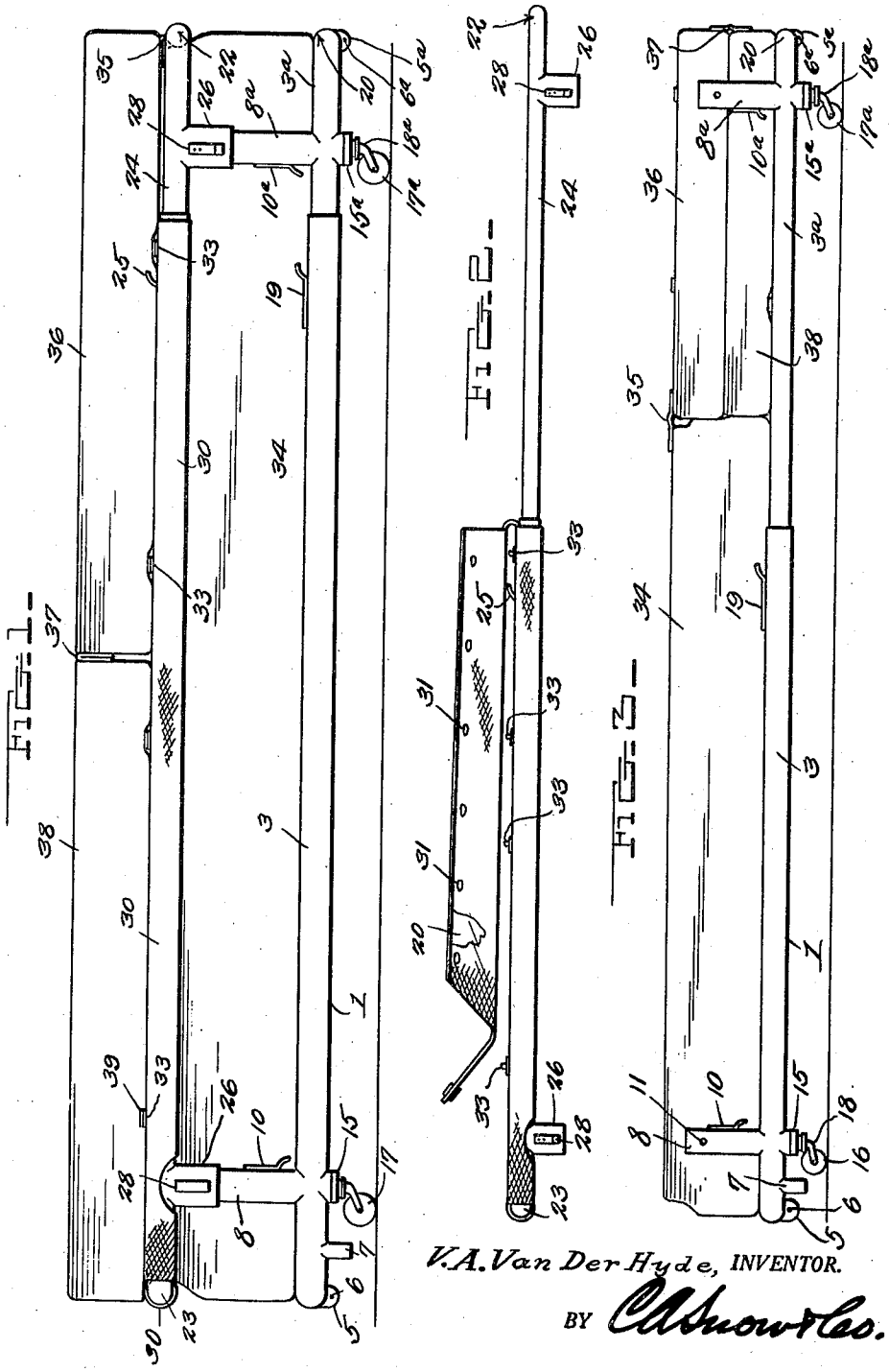
May 16, 1944. V. A. VAN DER HYDE 2,349,023

EMERGENCY AUTO STRETCHER COT

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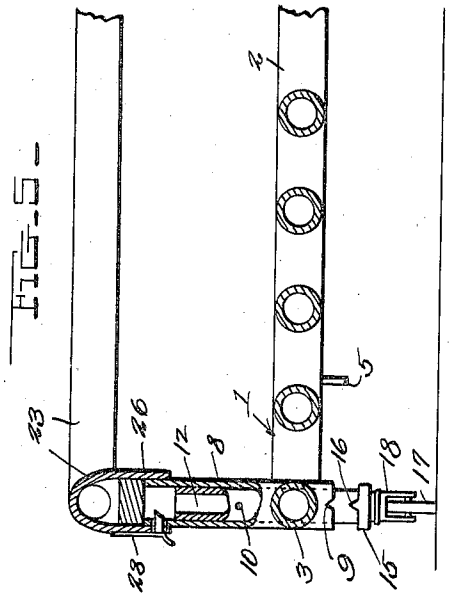
V. A. Van Der Hyde, INVENTOR.

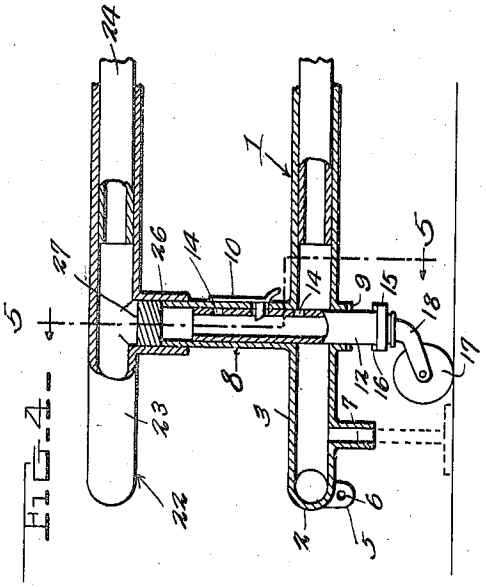
BY C. A. Snow & Co.

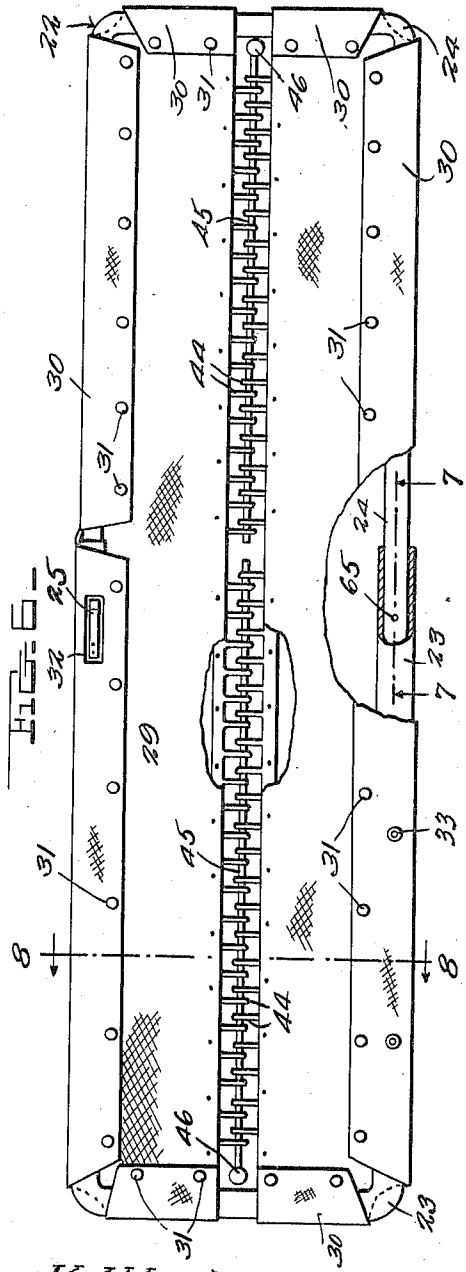
May 16, 1944. V. A. VAN DER HYDE 2,349,023

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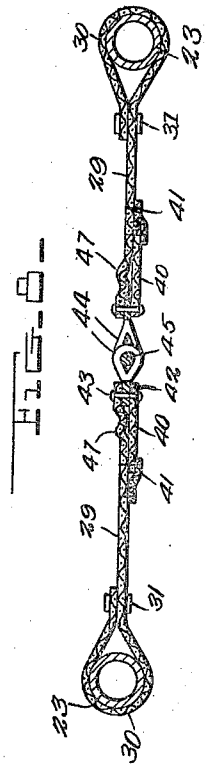
V. A. Van Der Hyde,
INVENTOR.

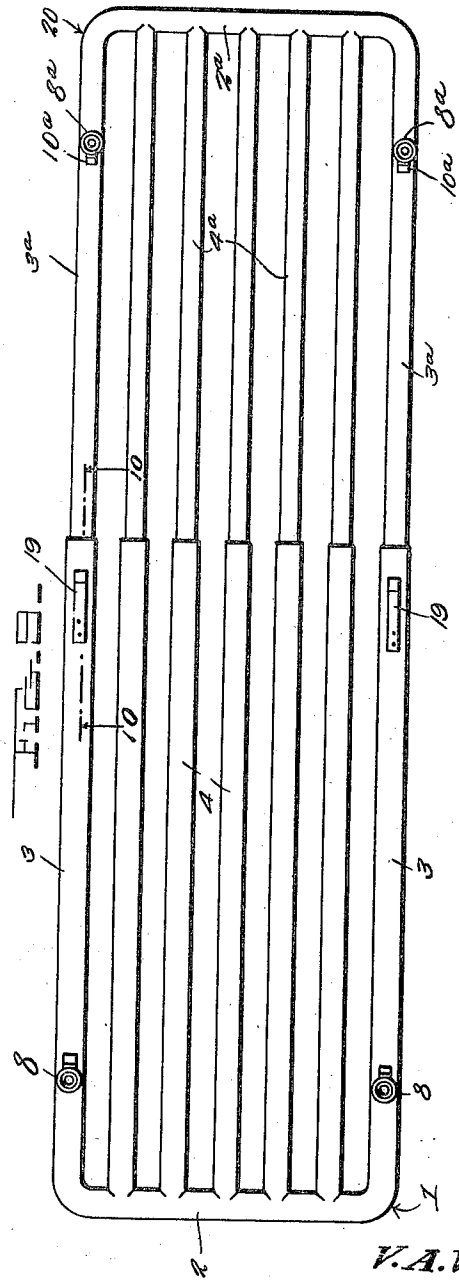
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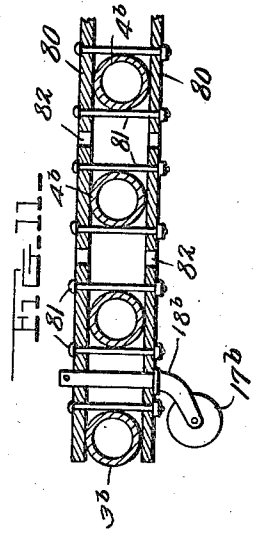
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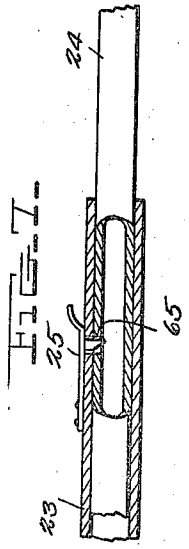
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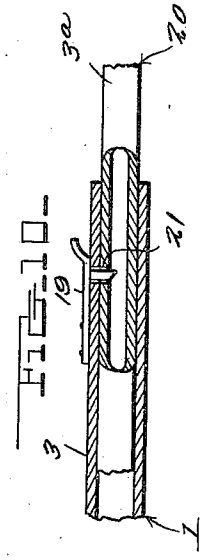
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BY C. A. Snow & Co.

Patented May 16, 1944 2,349,023

UNITED STATES PATENT OFFICE

2,349,023

EMERGENCY AUTO STRETCHER COT

Vincent A. Van Der Hyde, Eau Claire, Wis.

Application April 8, 1942, Serial No. 438,183

4 Claims. (Cl. 5—110)

This invention aims to provide a novel, combined emergency cot and stretcher, characterized by novel means whereby they may form an article capable of being stowed in small compass, the cot and the stretcher being separable from each other when occasion demands.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:

Fig. 1 shows, in side elevation, an emergency cot and stretcher constructed in accordance with the invention, the device being in shortened or telescoped condition;

Fig. 2 is a side elevation of the stretcher, a portion of the stretcher being turned back into an inoperative position;

Fig. 3 is a side elevation of the cot;

Fig. 4 is a longitudinal section taken vertically through the combined cot and stretcher, parts remaining in elevation;

Fig. 5 is a transverse section on the line 5—5 of Fig. 4;

Fig. 6 is a bottom plan of the strtetcher, parts being broken away;

Fig. 7 is a section on the line 7—7 of Fig. 6;

Fig. 8 is a transverse section on the line 8—8 of Fig. 6;

Fig. 9 is a top plan of the cot frame;

Fig. 10 is a section on the line 10—10 of Fig. 9;

Fig. 11 is a transverse section showing a modification in the cot frame.

The device depicted in the drawings comprises two cot frames. Each cot frame includes, as best shown in Fig. 9, a U-shaped member 1, preferably made of tubular stock, as are many other parts of the device. The U-shaped member 1 comprises an end rail 2 and outer arms 3, inner arms 4 being attached to the end rail 2, and being located in parallel relation to the outer arms 3. The end rail 2 of the member 1 is supplied with depending ears 5 (Figs. 1 and 4), having openings 6. Depending tubular sockets 7 are carried by the outer arms 3 and are located adjacent to the end rail 2.

Tubular posts 8 are interposed in the outer arms 3 and are arranged vertically, at right angles to the outer arms. The posts 8 are shown as integral with the outer arms 3, in the interest of simplicity, but a mechanic will understand, without a detailed showing in the drawings, that the posts may form part of an ordinary pipe cross or coupling. The posts 8 extend considerably above, and a short distance below, the outer arms 3, and are supplied in their lower ends with inverted V-shaped seats 9, most clearly disclosed in Fig. 5. Spring latches 10 are secured at their upper ends to the upper portions of the posts 8. Near their upper ends, as shown in Fig. 3, the posts 8 have side seats 11. Near their inner ends, the side arms 3 of the cot frame are provided with spring latches 19, constructed like the latches 10.

Standards 12 (Fig. 4) are vertically adjustable in the posts 8 and are supplied with vertically spaced openings 14 wherewith the latch 10 is adapted to cooperate. At its lower end, each standard 12 has a transverse flange 15, provided with upstanding, oppositely disposed ribs 16. Castor wheels 17 are provided, the stocks 18 of the wheels being held for rotary movement, about vertical axes, in the posts 8.

Generally, the lower ends of the posts 8 rest on the flanges 15, and strain is taken off the latches 10, the latches cooperating with the lowermost openings 14 of the standards. The ribs 16 on the flanges 15 of the standards 12 are received in the seats 9 that are formed in the lower ends of the posts 8, and when this relation exists, the lowermost opening 14 is so positioned that the latch 10 can cooperate with it. If, however, it is desired to raise the upper member 1 of the cot frame, the latches 10 may be engaged with the corresponding upper openings 14.

The cot frame comprises a U-shaped member 20, which is constructed practically like the cot frame member 1, corresponding parts being designated by numerals already used, with the suffix *a*. The sockets 7 of Fig. 1 are omitted, the side arms 3*a* having openings 21 (Fig. 10) which, cooperating with the latches 19 hold the cot frame at minimum length, as shown in Fig. 1, or at full length. The arms 3*a* and 4*a* of the frame 20 are of such diameter that they can slide longitudinally for adjustment in the corresponding parts 3 and 4 of the cot frame member 1.

A stretcher frame 22 (Fig. 6) is provided and comprises U-shaped members 23 and 24, the side arms of the member 24 being received for longitudinal sliding adjustment in the corresponding parts of the member 23. Latches 25 on the side arms of the frame 23 cooperate with openings 65 in the side arms of the frame member 24 to hold the stretcher frame at adjusted lengths, the latches functioning like the latches 19 of the cot frame.

Near their ends, the stretcher frame members

23 and 24 are supplied with depending sleeves 26, the upper ends of which are plugged, as shown at 27 in Fig. 4. The sleeves 26 receive the upper ends of the posts 8 of the cot frame, the plugs 27 generally forming abutments for the posts 8. The sleeves 26 carry spring latches 28, engaged in the side seats 11 of the posts 8 (Fig. 3), to hold the stretcher frame detachably assembled with the cot frame.

Flexible bed strips 29, made of canvas or the like, extend lengthwise of the cot frame, and have their inner edges spaced apart, as shown in Fig. 6. The outer edges of the bed strips 29 are formed into loops 30, receiving side arms 3 and 3a, and the end arms 2 and 2a of Fig. 9, the loops preferably being held closed by snap fasteners 31. The loops 30 of the bed strips 29 have openings 32 for the passage of the latches 19. At one side of the stretcher frame, the loops 30 are supplied with snap fasteners 33.

Resilient strips 40 (Fig. 8) extend longitudinally of the bed members 29 at the inner edges thereof. Reinforcing strips 41 are secured to the outer edge portions of the resilient strips 40 and to the bed members 29. Anchor ribbons 42, preferably made of metal, are held by securing elements 43 between the inner portions of the resilient strips 40 and the corresponding portions of the bed strips 29. The anchor ribbons 42 carry eyes 44, through which are run connecting rods 45 (Fig. 6) having handles 46 at their outer ends. Although the parts 45 are referred to as "rods" they may be pieces of special wire having some lateral resiliency, but strong enough so that they will not be pulled out of shape by the eyes 44, for example Bowden wires.

Referring to Fig. 8, it will be noted that a little slack is left in the bed members 29, adjacent to the inner edges thereof, as shown at 47. Since the members 40 are resilient, and owing to the provision of the slack shown at 47, weight suddenly superposed on the bed members 29 will not be effective to produce tearing or rupture of adjacent parts of the structure.

In Fig. 1, which shows the device in its telescoped or shortened condition, one end portion of each bed strip 29 has been set free and folded back, as in Fig. 2, and a cushion 34 overlies the folded bed strip, which is supported on the frame parts 4 and 4a. At one end, the cushion 34 is connected by a hinge strip 35 with the corresponding end of a pad 36, the inner end of the pad 36 being connected by a hinge strip 37 to a pad 38, the pads 36 and 38 being supported on the bed member 29 of the stretcher frame. The pads 36 and 38 and the cushion 34 have snap fasteners 39, which, cooperating with the snap fasteners 33 on the loops 30 of the bed members 29, hold the pads 36 and 38 in place.

In the modification shown in Fig. 11, strips 80 are held above and below the parts 3b and 4b by securing elements 81, and have openings 82 in which the parts 18b which carry the castor wheels 17b may be adjustably mounted.

What is claimed is:

1. An article capable of being stowed in small compass, and including a longitudinally-extensible cot frame, a longitudinally-extensible stretcher frame, interengaging telescopic elements on the frames and coacting to hold the stretcher frame removably in place above the cot frame and supported thereon, a cushion between the frames and supported by the cot frame, the interengaging elements cooperating with the cushion to restrain its sidewise movement, pads disposed in alinement above the stretcher frame and supported thereon, a hinge connecting the inner ends of the pads, a hinge connecting one end of one pad with the adjacent end of the cushion, the combined thickness of the pads approximating closely the thickness of the cushion a set of fasteners mounted on the pads, and a set of fasteners carried by the stretcher frame, the sets of fasteners being detachably interengaged to hold the pads anchored on the stretcher frame.

2. An article capable of being stowed in small compass, and including a longitudinally-extensible cot frame, a longitudinally-extensible stretcher frame, interengaging elements on the frames and coacting to hold the stretcher frame removably in place above the cot frame and supported thereby, a flexible stretcher body connected throughout a portion of its length to the side portions of the stretcher frame, the remaining portion of the body being free and being folded to lie above the first-specified portion of the body, means for attaching the said remaining portion of the body to the stretcher frame when that frame is extended, a cushion between the frames and supported by the cot frame, pads disposed in alinement above and resting upon the stretcher frame and above the folded portion of the stretcher body, a hinge connecting the inner ends of the pads, a hinge connecting one end of one pad with the adjacent end of the cushion, the combined thickness of the pads approximating closely the thickness of the cushion and detachably interengaged fasteners on the other of the pads and on said connected portion of the stretcher body and coacting to hold the said other pad down on the folded portion of the stretcher body and thereby to connect said other pad to the stretcher frame.

3. An article capable of being stowed in small compass, and including a cot frame comprising parts connected for longitudinal sliding extension and contraction, a stretcher frame comprising parts connected for longitudinal sliding extension and contraction, each of said parts of the stretcher frame being disposed above one of said parts of the cot frame, and interengaging elements on each of said parts of the stretcher frame and the cot-part therebelow and connecting the stretcher frame and the cot frame for extension and contraction as one piece, said interengaging elements supporting the stretcher frame removably above the cot frame.

4. An article capable of being stowed in small compass, and including a longitudinally-extensible cot frame, a longitudinally-extensible stretcher frame, interengaging elements on the frames and coacting to hold the stretcher frame removably in place above the cot frame and supported thereby, a stretcher body connected throughout a portion of its length to the side portions of the stretcher frame, the remaining portion of the body being free and being folded to lie above the first-specified portion of the body, means for attaching said remaining portion of the body to the stretcher frame when the frame is extended, a cushion between the frames and supported by the cot frame, pads disposed in alinement above the stretcher frame and resting on the folded portion of the stretcher body, to hold it in place, a hinge connecting the inner ends of the pads, and a hinge connecting one end of one pad to the adjacent end of the cushion.

VINCENT A. VAN DER HYDE.