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FOLDABLE STRETCHER HANDLE

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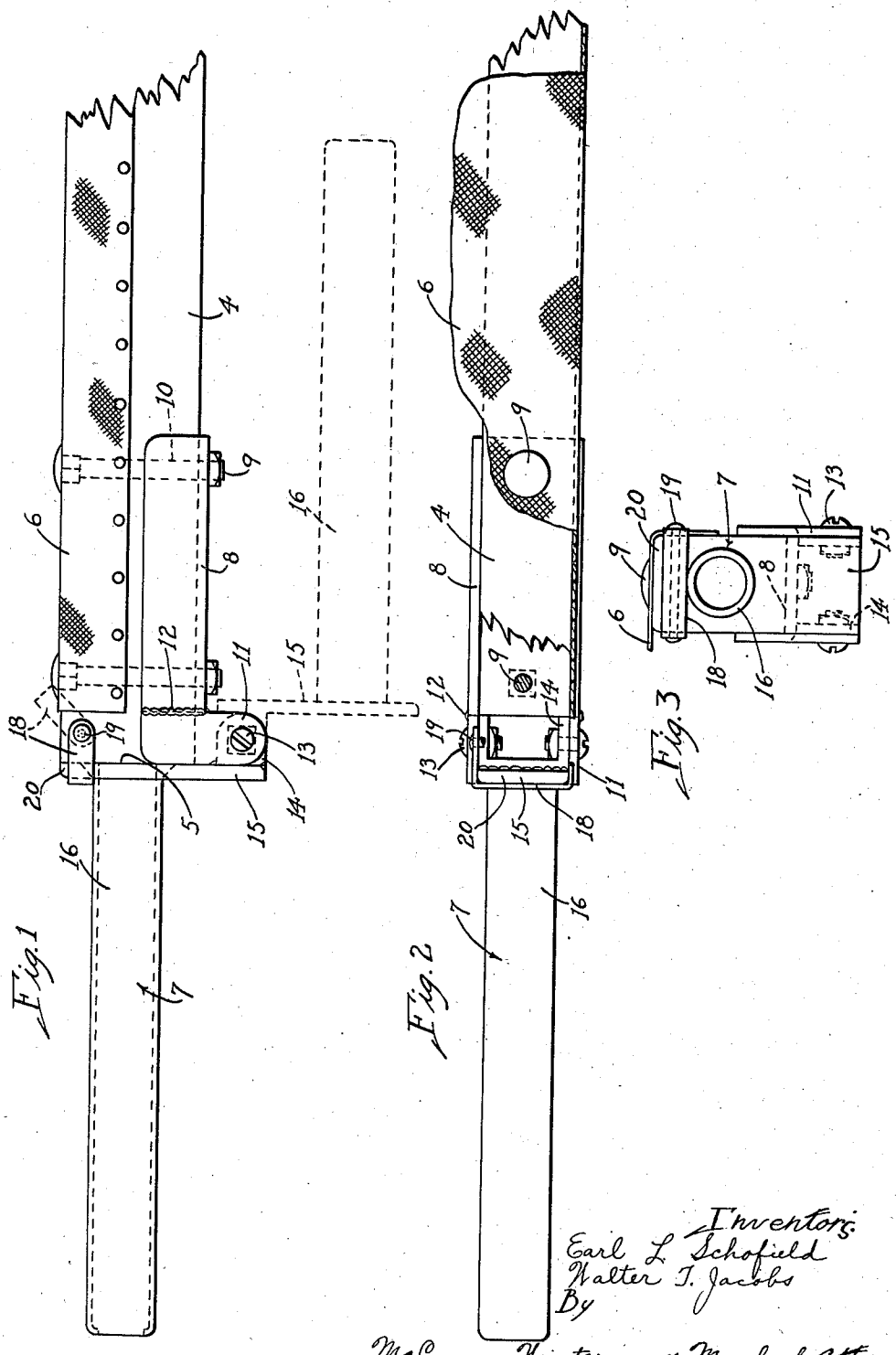


Fig. 1

Fig. 2

Fig. 3

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FOLDABLE STRETCHER HANDLE

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3 Claims. (Cl. 5—82)

This invention relates to stretchers especially designed and adapted for use in ambulances.

The ninety inch (90") length standard stretcher is too long to permit storage crosswise of the vehicle in a storage compartment under the floor of an ambulance. Storage in an out-of-the-way place is particularly important in the latest civilian defense type of ambulances, because it is desired to use these ambulances for the evacuation of uninjured children and aged people from densely populated areas under bombardment, such ambulances being usually equipped with folding seats to permit such use. It is, therefore, the principal object of our invention to provide a quickly and easily foldable and unfoldable handle construction for use on the ends of the wooden poles of an otherwise standard stretcher, so that standard length stretchers with the handles folded can be stored easily in the stretcher storage compartment of the ambulance.

A salient feature of the foldable handle of our invention is the pivoting of the handle in a plane below the plane of the stretcher so that the handle has a wide surface abutment with the end of the stretcher pole and will not, therefore, be wobbly, and another salient feature is the provision of a catch pivoted on the end of the pole to swing downwardly from a retracted inoperative position into engagement with the top portion of the handle so as to retain the handle releasably in the operative position.

The invention is illustrated in the accompanying drawing, in which—

Fig. 1 is a side view of the end portion of a stretcher showing the foldable handle of our invention and indicating in dotted lines the folded position of the handle;

Fig. 2 is a top view with the end portion of the stretcher pole broken away to better illustrate the construction, and

Fig. 3 is an end view.

The same reference numerals are applied to corresponding parts throughout the views.

The reference numeral 4 designates one of the two wooden poles of a standard length stretcher, the conventional handle end portions of which are cut off at 5, near the ends of the canvas sheet 6, to permit application of the foldable handles 7 of our invention. A channel-shaped sheet metal bracket 8 fits under each end of each pole 4 and is bolted in place by bolts 9 entered through vertical holes 10 in the poles. Downwardly projecting ears 11 are suitably welded on the end of each bracket 8, as indicated at 12, and have bolts 13 in the lower end portions thereof for pivotally securing the ears 14 provided on the lower end of a plate 15 which is welded or otherwise suitably secured onto the end of the tubular handle portion 16. The plate 15 in the unfolded position of the handle 7 has abutment with the flatly cut off end 5 of the pole 4, and that fact coupled with the fact that the handle is pivoted at 13, well below the plane of the stretcher, avoids any likelihood of the handle being wobbly. The handle 7 is substantially as rigid as the conventional integral handle portion on the end of the stretcher pole. Inasmuch as the overall length of the handle 7 is more than eight inches (8") and the handle folds to the dotted line position shown in Fig. 1, under and parallel to the pole 4, wholly within the length of the shortened pole, it should be evident that the diminished length of the stretcher is about seventy-four inches (74") overall, or less, and the stretcher can therefore be stored easily in a storage compartment extending crosswise of the ambulance, such compartments being usually provided below the floor and just behind the driver's cab and accessible by the opening of doors on opposite sides of the ambulance. This foldable handle can easily be applied to existing stretchers, and this is, of course, of great advantage in the present emergency in view of the fact that there are many thousands of these stretchers already assembled and ready for use or in use already in all parts of this country and elsewhere.

In order to be sure that the handle 7 when unfolded and ready for use will not drop down under its own weight or become displaced accidentally from the operative position and thus interfere with the handle of the stretcher as speedily as where the conventional non-folding handle is employed, we have provided a catch 18 of U-shaped form pivoted on the end of the pole 4 on a cross-pin 19 entered through a hole drilled crosswise in the end portion of the handle slightly below the top thereof, the pin being entered through holes in the ends of the two arms of the U-shaped catch and having its opposite ends headed to prevent removal thereof. The catch is swingable from a retracted position, indicated in dotted lines in Fig. 1, to the operative position shown in full lines, in which it receives the upper end portion 20 of the plate 15 which projects above the handle portion 16 to the extent shown. In that way the handle 7 is secured in its operative position and can nevertheless be released quickly and folded out of the way. The catch 18 in no way interferes with the grasping of the handle in lifting, carrying, and otherwise handling the

stretcher, and it has sufficient frictional contact with the plate 15 to eliminate any likelihood of its accidental displacement from the handle retaining position, especially in view of the fact that it tends to gravitate toward the handle, if the pivotal connection at 19 happens to be loose enough to permit free movement of the catch under its own weight.

It is believed the foregoing description conveys a good understanding of the objects and advantages of our invention. The appended claims have been drawn to cover all legitimate modifications and adaptations.

We claim:

1. In a stretcher comprising a pair of longitudinal load supporting poles, foldable handles for the ends of the poles each comprising a supporting bracket secured to the end of the pole, a handle member having a downwardly projecting end portion pivotally connected at its lower end to said bracket on a single horizontal axis in transverse relation to and spaced below the end of the pole, said handle member being adapted to be unfolded to operative position having end to end abutment with the pole above said pivot but being adapted to be folded to an inoperative position disposed below and substantially parallel to said pole, and a U-shaped catch pivotally mounted by the two arms thereof on the end of the pole on a horizontal axis extending transversely relative to said pole, said handle member having an upward projection on top of the pivoted end thereof engageable in said catch behind the cross-portion thereof when said catch is swung downwardly to handle retaining position.

2. In a stretcher comprising a pair of longitudinal load supporting poles, foldable handles for the ends of the poles each comprising a supporting bracket secured to the end of the pole, a plate adapted to extend vertically in abutment on one side thereof with the end of the pole and pivotally connected at its lower end with the bracket on a horizontal axis in transverse relation to and spaced below the end of the pole, a handle extending from the other side of said plate substantially at right angles thereto but spaced below the upper end of the plate, and a U-shaped catch pivotally mounted by the two arms thereof on the end of the pole on a horizontal axis extending transversely relative to said pole, said catch being arranged to swing down over the upper end portion of said plate so that the latter engages the inner side of the cross-portion of said catch.

3. In a foldable handle for a stretcher or the like the combination of a load supporting pole, a handle supporting bracket secured to the end of the pole, a handle adapted to be pivotally connected to the bracket and having a cross portion on the inner end thereof for abutment against the end of the pole when the handle is in its operative position, the cross portion on the end of the handle comprising a portion projecting downwardly with respect to the handle and pivoted on the lower portion of the bracket and also comprising a portion projecting upwardly with respect to said handle, and catch means for detachably securing said upwardly projecting portion in abutment with the end of the pole.

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