No. 694,097. Patented Feb. 25, 1902.

K. FREULER.

COLLAPSIBLE STRETCHER.

(Application filed Sept. 10, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

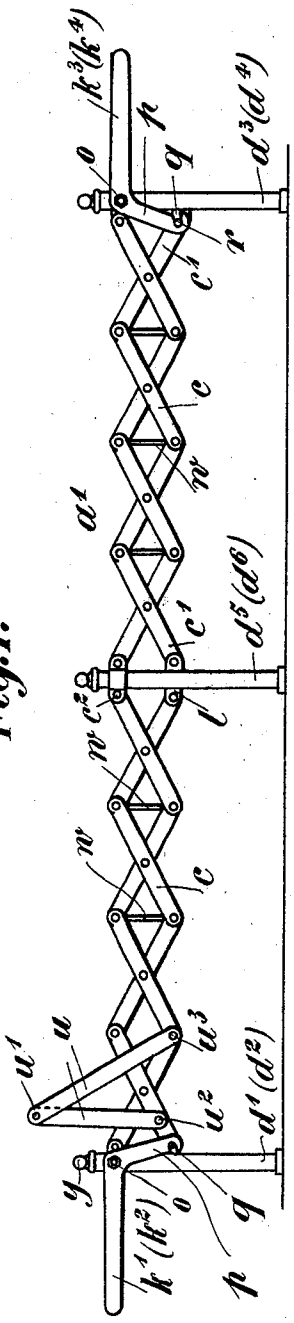


Fig. 3.

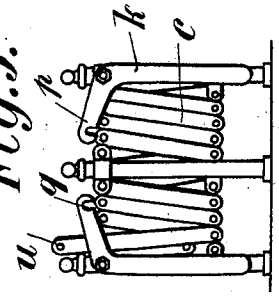
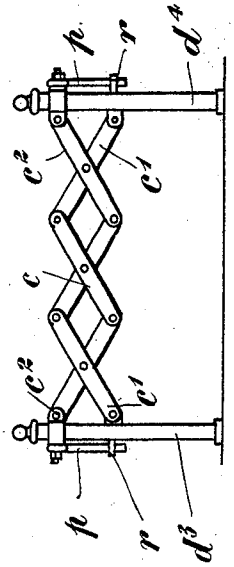


Fig. 2.



Witnesses:
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Stanley W. Braunall

Inventor:
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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(No Model.) 2 Sheets—Sheet 2.

Fig. 4.

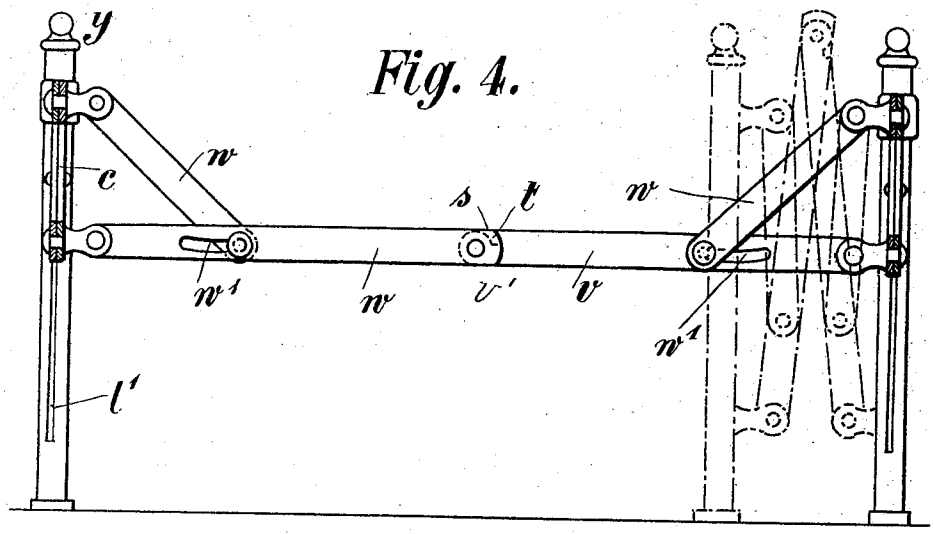

Fig. 5.

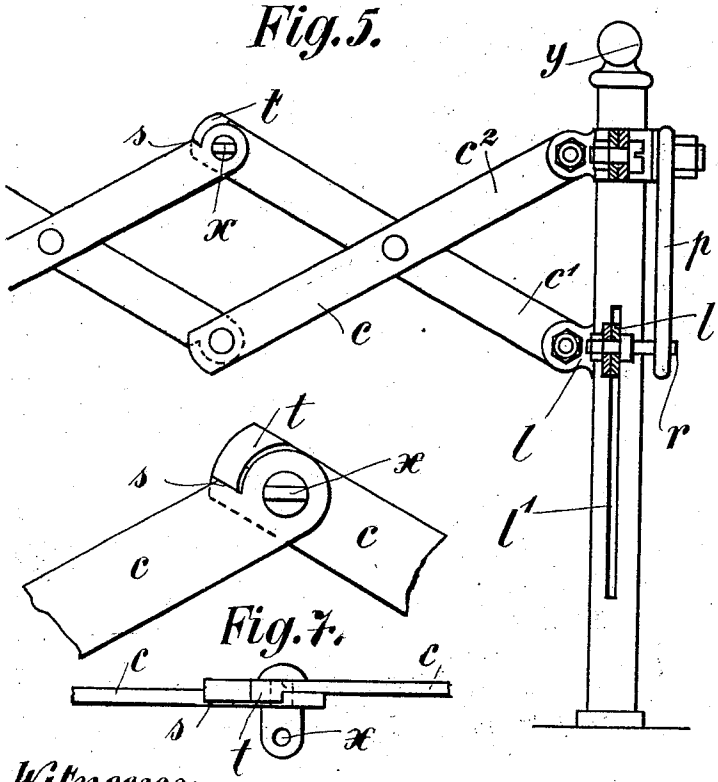

Fig. 6.

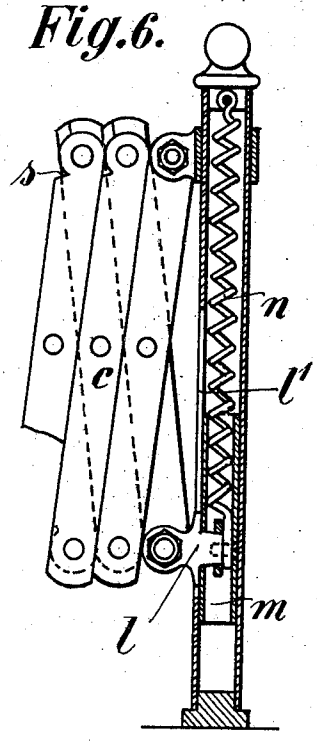

Fig. 7.

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UNITED STATES PATENT OFFICE.

KASPAR FREULER, OF ZURICH, SWITZERLAND.

COLLAPSIBLE STRETCHER.

SPECIFICATION forming part of Letters Patent No. 694,097, dated February 25, 1902.

Application filed September 10, 1901. Serial No. 74,940. (No model.)

To all whom it may concern:

Be it known that I, KASPAR FREULER, a citizen of the Republic of Switzerland, residing at Zurich, Switzerland, (whose post-office address is 120 Birmensdorferstrasse, Zurich aforesaid,) have invented new and useful Improvements in Collapsible Stretchers, of which the following is a specification.

In collapsible stretchers constructed on the lazy-tongs principle hitherto when collapsing such stretchers it has been necessary to remove or lay back some of the component parts—for instance, the headpiece, the stays, and the handles—which was a loss of time, and bolts had to be inserted in holes for locking the lazy-tongs in position, which manipulation has been found difficult, particularly in the dark.

The object of my invention is to provide means whereby the said defects are dispensed with and the stretcher can be extended or collapsed in one operation. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side view, and Fig. 2 an end view, of the stretcher extended. Fig. 3 is a side view showing the stretcher collapsed. Fig. 4 shows the cross-stay; Fig. 5, the corner-post and a portion of the lazy-tongs, partly in section; Fig. 6, the corner-post completely in section, and Fig. 7 a portion of the lazy-tongs separate.

Similar letters refer to similar parts throughout the several views.

My improved stretcher has in addition to the corner-posts d' d^4 also middle posts d^5 d^6. To these posts are pivoted the lazy-tongs c, the lower ends thereof c' being pivotally secured to the bracket l, secured to the tube m, adapted to slide and guided in the slot l' of the post, and the upper ends c^2 pivotally connected to a bracket stationary secured to the posts d' d^4. The tubes m are placed under the influence of springs n, which tend to draw the same upward.

To the posts d' d^4 are pivoted at o the angular handles k' k^4, the arm p of which has an open slot q engaging a stud r, secured to the ends of the lazy-tongs c of each side a' a^2, which serve to lock the extended lazy-tongs. One end of each two lazy-tongs links has a recess s and the other a projection t, which latter abuts against the former when the stretcher is extended, and thus limits the spread thereof, Figs. 5 and 7.

The headpiece consists of two pairs of links u, each of which is pivotally connected together at u' and pivotally secured at u^2 and u^3 to the lazy-tongs c, forming the sides of the stretcher.

The cross-stays consist each of two rails v, the inner ends of which are pivotally connected together at v' and the outer ends to the lazy-tongs links, and one of the former having a recess s and the other a projection t, which together form an abutment and prevent the stay collapsing downward. The said stay is prevented from collapsing upward when the lazy-tongs sides are drawn out by the cross-stays w, the upper ends of which are pivotally connected to the upper end of the lazy-tongs links forming the side of the stretcher and the lower ends engaging in slots w', formed in the rails v.

The stretcher-cloth (not shown) is hooked onto the upper ends of the lazy-tongs links by means of hooks and the eyes x and to the posts d' d^4 by rings secured to the stretcher-cloth and placed over the knobs y thereof.

When it is desired to collapse the stretcher, the handles are moved down and the lazy-tongs thereby unlocked, after which the sides, the ends, the stays, and the head-rest can be simultaneously brought together.

All the component parts being pivotally connected together in extending the stretcher, they move also outward simultaneously, the springs in the posts rendering the same automatic. The lazy-tongs links being at their connecting-points formed with abutment and the distances between the same short, the carrying power of the stretcher is greatly increased.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In collapsible stretchers formed of lazy-tongs secured to posts, the lower end of the links of the said lazy-tongs each pivotally connected to guides adapted to slide in the said posts and placed under the influence of a spring which tends to draw the said ends upward and thus extend the lazy-tongs, all combined substantially as and for the purpose set forth.

2. In collapsible stretchers formed of lazy-tongs secured to posts, the lazy-tongs ends having at their points of connection respectively a recess and a projection forming an abutment which limits the extension of the stretcher, all combined substantially as and for the purpose set forth.

3. In collapsible stretchers formed of lazy-tongs secured to posts, two-part cross-stays, the inner ends of which are pivotally connected together and one end having a recess and the other a projection forming an abutment and the outer ends of which are pivotally connected to the lower ends of the links and corner-stays the upper ends of which are pivotally connected to the upper ends of the said lazy-tongs and their lower ends engaging in slots in the said cross-stays, all combined substantially as and for the purpose set forth.

In witness whereof I have hereunto set my hand in presence of two witnesses.

KASPAR FREULER.

Witnesses:
F. LAUENER,
A. LIEBERKNECHT.