

No. 856,315.

PATENTED JUNE 11, 1907.

H. J. THOMSON.
PORTABLE STRETCHER, COUCH, HAMMOCK, OR CHAIR.

APPLICATION FILED AUG. 9, 1906.

2 SHEETS—SHEET 1.

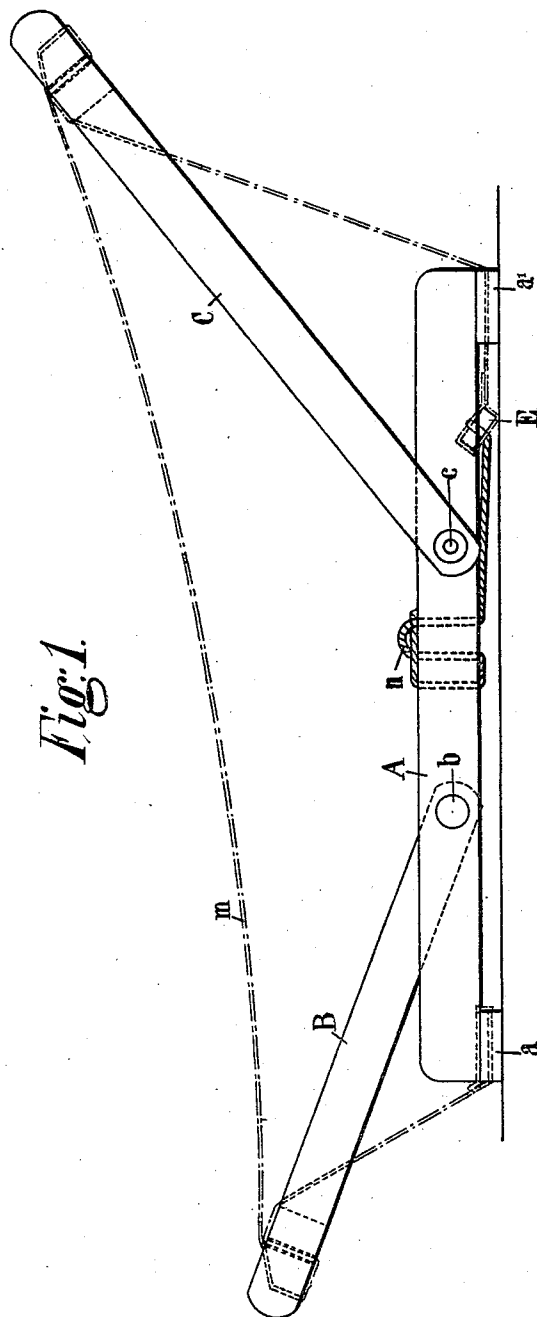


Fig. 1.

Witnesses

Walker F. H. Poole
E. D. Bartlett

Inventor

Hadley Jeffreys Thomson
Herbert Sefton Jones
Attorney.

No. 856,315.

PATENTED JUNE 11, 1907.

H. J. THOMSON.
PORTABLE STRETCHER, COUCH, HAMMOCK, OR CHAIR.

APPLICATION FILED AUG. 9, 1906.

2 SHEETS—SHEET 2.

Fig. 2.

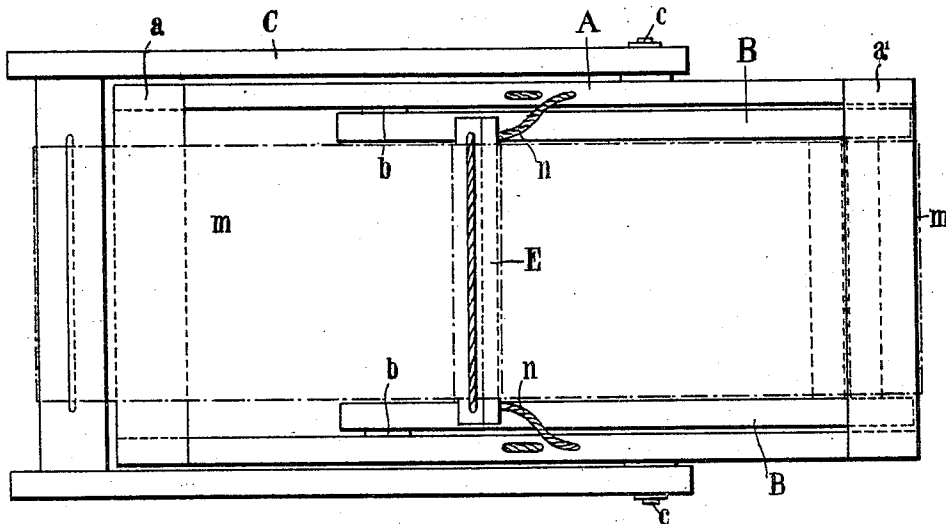
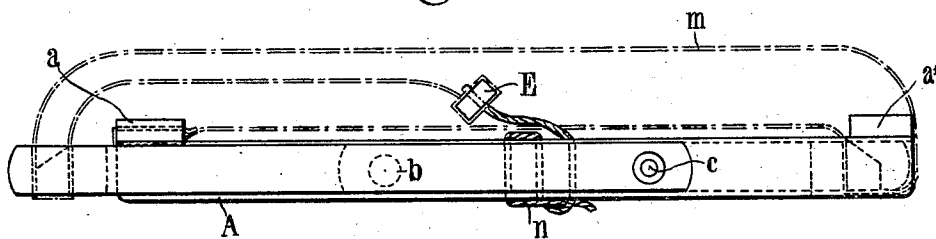


Fig. 3.



Witnesses.

E. D. Bartlett
Malcolm F. N. Good

Inventor

Hadley Jeffreys Thomson
per. *Herbert L. Thompson*
Attorney.

UNITED STATES PATENT OFFICE.

HEDLEY JEFFREYS THOMSON, OF LINCOLN, ENGLAND.

PORTABLE STRETCHER, COUCH, HAMMOCK, OR CHAIR.

No. 856,315.

Specification of Letters Patent.

Patented June 11, 1907.

Application filed August 9, 1906. Serial No. 329,850.

To all whom it may concern:

Be it known that I, HEDLEY JEFFREYS THOMSON, engineer, a subject of the King of Great Britain, residing at 15 West Parade, Lincoln, in the county of Lincoln, England, have invented a new and useful New or Improved Portable Stretcher, Couch, Hammock, or Chair, of which the following is a specification.

My invention relates to a new or improved portable or collapsible or folding stretcher, capable of being used either as a stretcher, litter, couch, bedstead, hammock, chair, or other reclining device, or even as a substitute for a table.

My improved apparatus is illustrated in the accompanying drawings in which

Figure 1 shows the device in side elevation erected ready for use. Fig. 2 shows the device in the folded position in plan view with the feet uppermost. Fig. 3 shows the same in side elevation with portions of the cloth raised to avoid confusion of lines in the drawing.

The supporting device for the hammock or couch is composed of three elements or frames A, B, C pivoted together. Of these elements, A is a rectangular frame preferably provided with feet *a a'* sufficient to raise it slightly above the surface of the ground when in the position of use (Fig. 1). To the base frame A the frame B and the frame C are pivoted at *b* and *c* respectively on each side of A.

E represents a loose spar to which the rope or cord *n* is attached as shown in the drawing, and which has firmly secured to it the end of the hammock cloth *m*. The rope *n* is arranged to pass through holes pierced in the side spars of A as shown in the drawing and the said rope terminates in loose ends which can be fastened in any convenient manner so as to admit of the ready adjustment of the loose spar E, through which the said rope *n* passes in the manner shown in Fig. 2. By this means I am enabled to adjust the position of E as may be required and to vary the effective length of the hammock cloth *m* accordingly. In place of a rope I may if desired use a strap or the like; or I may dispense with the spar E and attach the cloth direct to the base or to a rope or the like.

One arrangement of the hammock cloth *m* is shown in detail in Fig. 1, the portions visible when in place being indicated by dot-and-dash lines and the portions concealed by the

stretchers or side frames being indicated by dotted lines only. It will be seen that commencing from the adjustable spar E, the hammock cloth passes under the frame A between the feet *a'*. It then passes upward over a portion of the cross bar of the frame C, then downward through a slot in the said cross bar, then around the outer portion of said cross bar, and thence over the outer portion of the cross bar of the frame B, round and through which it passes in like manner, returning between the feet *a'* to the end of the frame A where it is firmly secured. The frames B and C can readily be adjusted in the required position to render the apparatus adapted to serve as a couch, a lounge, a hammock, a chair or a table. This can usually be done by simply moving one or both of the frames B and C to the desired position allowing the cloth to slip through the locking device; in case of need the rope *n* can be tightened or slackened, thus altering the total effective length of the cloth.

In order to fold up the device, the frame B is folded down within the frame A; the frame C is folded down in the same direction of rotation as B but so that it passes around and beneath the frame A. This folded position is illustrated in Fig. 2 with the feet uppermost, and the position of the cloth indicated by dot-and-dash lines. If needful the spar E is re-adjusted to facilitate the folding-up. I may place a catch or locking device between the frames A and C to hold the apparatus in the folded position.

The hammock cloth may suitably be of canvas or any other flexible material.

By the passing of the canvas through the slots or apertures in the end bars of the frames a sufficient frictional resistance is obtained to render the device stable and prevent it from falling out of the position to which it has been adjusted preliminary to use. The stability of the arrangement when in use is due to the combined action of the frictional grip on the cloth at the cross bars which in general increases with the load and the tension imposed upon the middle portion of the cloth by the superimposed weight. This tension tends to rotate each of the arms B and C inward toward one another, but the rotation is limited by the length of the portions of the cloth which at the moment lie between the cross bars and the ends of the base frame. Moreover there is a locking effect

produced under some conditions of load on, or tension in the canvas of the stretcher, due to one portion of the canvas being gripped between the cross bar and another portion of the canvas which presses down upon it. This last effect is rendered possible by the manner in which the canvas is led through the slit and then over the cross bar.

In some positions of adjustment of the whole, it will be found that carrying the cloth over a simple cross bar without a slot will produce sufficient frictional grip to insure stability, and this arrangement with the addition of a clamping device if necessary may be used if desired.

When there is no load on the cloth, simple rotation of the frames B and C on their pivots is generally sufficient to cause the cloth to slip at the locking devices so that adjustment preliminary to use is a simple matter. By such adjustment of one or both of the frames, one can so alter the length and tension of the middle portion of the canvas, that it can be made almost straight and low, and suitable therefore for use as a stretcher, litter, low seat or couch. Further, when so arranged it can be carried by the ends of the extended frames B and C or by attachments to them; or wheels may be fitted to the base, making it serviceable for ambulance work. Again a further adjustment may heighten the seat as a whole, and give the cloth more sag, making it akin to a hammock. Again, it may be quickly adjusted and one end placed high, so as to produce a good back support; in this position with the other end low it is comfortable for a reclining person, who may wish to read or write. In order to insure that the cloth cannot slip beyond a certain limit in any of these adjustments I may fix a stop such as *p* (Fig. 1) on the cloth.

If desirable a wood or other table top can be placed upon the whole, which thus becomes a substitute for table legs or tressles. Or a mattress can be placed upon the cloth and the apparatus used as bedstead. Further additions or attachments can of course be made in the way of awnings, book-rests, umbrella holders, head rests or cushions and the like.

What I claim is:—

1. In a folding support applicable for a hammock, couch, lounge, chair, table or the like, the combination of a base frame, a pair of folding frames pivoted to said base frame, an attaching member arranged beneath said base frame adapted to hold one end of a hammock cloth, a hammock cloth longer than said frame attached to it at one end and at the other end to said attaching member and adapted to pass from one end of said base frame over the ends of said pivoted frames and around the other end of said base frame to said attaching member and to lock said pivoted frames in the set position

when a weight rests upon said cloth on the portion between the ends of said pivoted frames, substantially as described.

2. In a folding support applicable for a hammock, couch, lounge, chair, table or the like, the combination of a base frame, a pair of frames pivoted respectively on each side of said base frame and adapted to fold respectively outside and within said base frame, an attaching member arranged beneath said base frame adapted to hold one end of a hammock cloth, a hammock cloth adapted to pass from one end of said frame over the ends of said pivoted frames and around the other end of said base frame to said attaching member and to lock said pivoted frames in the set position when a weight rests upon said cloth on the portion between the ends of said pivoted frames, substantially as described.

3. In a folding support applicable for a hammock, couch, lounge, chair, table or the like, the combination of a base frame, a pair of folding frames pivoted respectively on each side of said base frame and adapted respectively to fold outside and within said frame, locking slots arranged in the cross-bars of said pivoted frames, an attaching member arranged beneath said base frame adapted to hold one end of a hammock cloth, a hammock cloth longer than the base frame attached at one end to said base frame and at the other end to said attaching member and adapted to pass from the end of said base frame through the locking slots in the cross-bars of said pivoted frames and around the other end of said base frame to said attaching member and to lock said pivoted frame in the set position when a weight rests upon said cloth on the portion between the ends of said pivoted frames, substantially as described.

4. In a folding support applicable for a hammock, couch, lounge, chair, table or the like, the combination of a base frame, a pair of folding frames pivoted to said base frame, a spar arranged beneath said base frame adjustably fastened by means of cords to the sides of said base frame, a flexible hammock cloth longer than the base frame attached at one end to said frame and at the other to said spar and adapted to pass from one end of said base frame over the ends of said pivoted frames and around the other end of said base frame to said spar and to lock said pivoted frames in the set position when a weight rests upon said cloth on the portion between the ends of said pivoted frames, substantially as described.

5. In a folding support applicable for a hammock, couch, lounge, chair, table or the like, the combination of a base frame, a pair of folding frames, pivoted respectively on each side of said base frame and adapted respectively to fold outside and within said

frame, locking slots arranged in the cross-
bars of said pivoted frames, a spar arranged
beneath said base frame adjustably fastened
by means of cords to the sides of said base
5 frame, a flexible hammock cloth longer than
the base frame attached at one end to said
base frame and at the other to said spar, and
adapted to pass from the end of said base
frame through the locking slots in the cross-
10 bars of said pivoted frames and around the
other end of said base frame to said spar and

to lock said pivoted frames in the set posi-
tion when a weight rests upon said cloth on
the portion between the ends of said pivoted
frames, substantially as described.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

HEDLEY JEFFREYS THOMSON.

Witnesses:

CHARLES F. HALL,
W. H. NIXON.