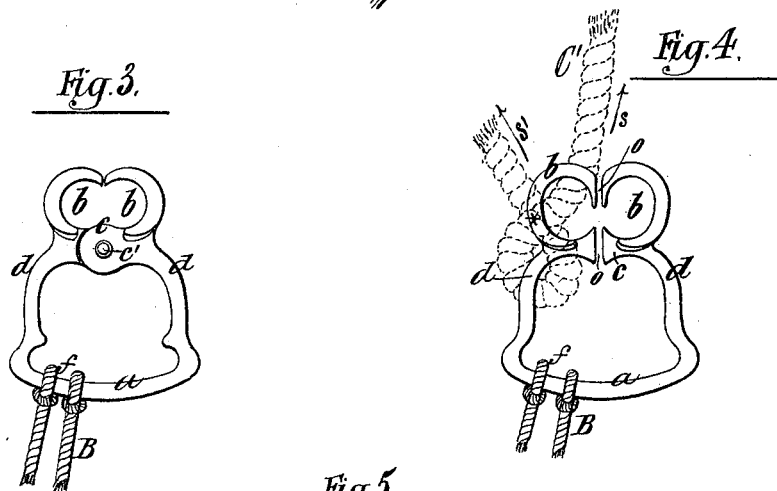
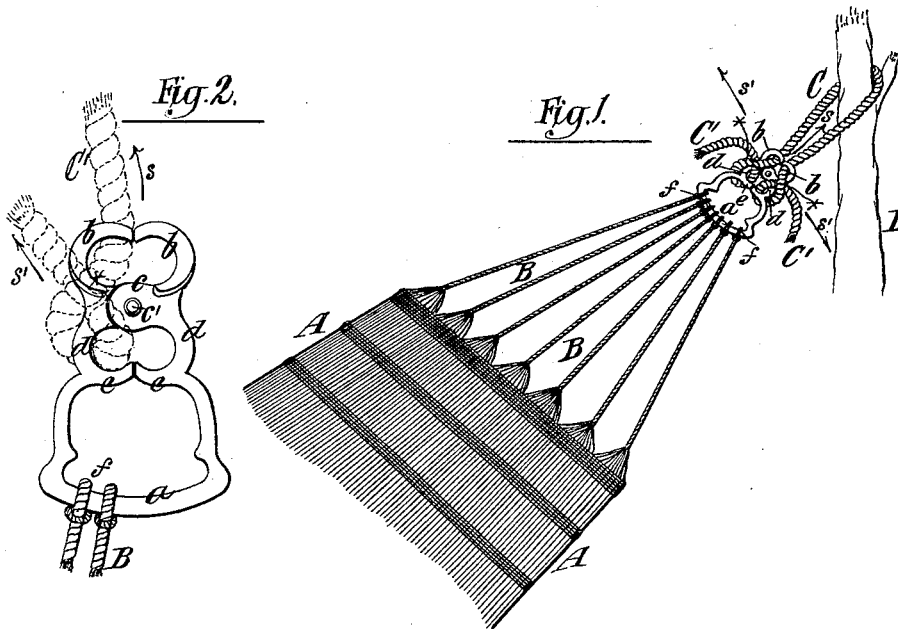


(No Model.)

I. E. PALMER.  
SUSPENSION DEVICE FOR HAMMOCKS.

No. 344,495.

Patented June 29, 1886.



Witnesses:-

*O. Sundgren*  
*Matthew Pollock*

Inventor:-

*Isaac E. Palmer*  
*by his Attorneys*  
*Crown & Hall*

# UNITED STATES PATENT OFFICE.

ISAAC E. PALMER, OF MIDDLETOWN, CONNECTICUT.

## SUSPENSION DEVICE FOR HAMMOCKS.

SPECIFICATION forming part of Letters Patent No. 344,495, dated June 29, 1886.

Application filed February 19, 1884. Serial No. 121,248. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC E. PALMER, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Suspension Devices for Hammocks, of which the following is a specification.

Ordinarily hammocks such as are composed of open-work netted or woven fabric are provided at the end with a number of suspension-cords which converge toward their outer ends and are connected with a ring or analogous device, to which a suspension-rope is tied or secured.

The important object of my invention is to provide a single suspension device, to one end of which the suspension-cords at the one end of the hammock may be secured, and to the other end of which may be adjustably secured the two end portions of a suspension-rope which is looped or passed around a tree or post or other suitable support, the two end portions of the suspension-rope being so held that there will be no possibility of their slipping when they are under tension, while provision is afforded for their ready adjustment when they are relieved of tension, in order to lengthen or shorten the suspension-rope.

In the accompanying drawings, Figure 1 is a perspective view of the end portion of a hammock hung by my improved device. Fig. 2 is a plan of the device upon a larger scale. Fig. 3 is a similar view of a device of slightly-modified form, also embodying the invention; and Figs. 4 and 5 are similar views of other devices embodying the essential features of my invention. In Figs. 2 and 4 I have shown in dotted outline one end portion of a rope adjustably secured to the device, and similar letters of reference designate corresponding parts in all the figures.

A designates the end portion of a hammock, and B designates the converging suspension-cords extending from the end thereof.

C designates a suspension-rope, and D designates a tree, which, in this instance, is made to serve as a hammock-support, and around which the suspension-rope C is passed or looped.

The several suspension-cords B are connected with one end portion of my improved sus-

pension device, and to the other end portion thereof the two end portions C' C' of the suspension-rope C are adjustably secured.

The construction of the suspension device is best shown in Fig. 2. At one end thereof is a bail or stirrup like portion, *a*, to which the suspension-cords B are looped, and at the other end is a double eye, or, more properly speaking, a pair of eyes, *b b*, which are not separate, but are extended into each other. The pair of eyes *b b* are formed by the end portion of the device, in connection with a cross-portion, *c*, and in rear of or behind such cross-portion are necks *d*, which are formed by the two side portions of the device. In rear of said necks *d* are horns or projections *e*, which extend inward and form guards to prevent the rope C from slipping back on the necks *d*. As here represented, the cross-portion *c* is formed by two lugs or ears, which lap one over the other and are secured by a rivet, *e'*. The upper end portion of the device is also divided, and before the rivet *e'* is inserted the device may be sprung apart to enable the loops *f* of the suspension-cords B to be slipped over either side portion of the device and downward onto the stirrup or bail like portion *a*. After the suspension-cords B are all in place, the device is closed and the rivet *e'* is inserted to hold its sides rigidly together. The device may be made of malleable iron or composition to enable it to be thus bent.

The method of securing the end portion C' of the suspension-rope C in the device is illustrated by dotted lines in Fig. 2, showing one end portion, and is also shown in Fig. 1. The rope C is looped or passed around the tree or other support D, and each end portion C' is then passed through one of the eyes *b*, from the under side of the device, and is then passed around the neck *d*, through the device below the cross-portion *c*, and then under the portion \* of rope between the eye *b* and the neck *d* and between the portion \* and said neck, the free end of the rope projecting outward, as shown. Any pull upon the rope in the direction of the arrows, such as it would receive by reason of weight in the hammock, will simply cause the portion \* to bite on the portion of rope between it and the neck *d*, and will hold the latter portion so securely as to absolutely prevent

any slip in the rope; but when there is no tension on the rope it may be shortened by pulling on the free end in the direction of the arrow S', or it may be lengthened by pushing back on such free end and easing up on the rope, which is passed around the neck *d*. Whatever may be the length of the suspension-rope C, as soon as weight is placed in the hammock the portions \* of rope will be drawn tight and bind the portions beneath them, and hence will not slip.

From the above description it will be clearly seen that each end portion of the suspension-rope C is separately and securely tied in the device, and although the rope cannot slip when in use, the ends may, either of them, be adjusted, as described, to raise the hammock or take up slack in the rope.

The device represented in Fig. 3 is in all respects like that before described, except that the guards *e* are omitted, the sides of the stirrup or bail like portion *a* forming the necks *d*.

The device shown in Fig. 4 is constructed with the bail like or stirrup portion *a*, the pair of eyes *b b*, the cross portion *c*, and the necks *d d*, and differs from that shown in Fig. 3 only in its two side portions being permanently and slightly separated, so as to form an opening, *o*, to admit of the loops *f* of the suspension-cords B being introduced into the device and slipped down upon the stirrup or bail like portion *a*.

The device shown in Fig. 5 is constructed with the bail-like or stirrup portion *a*, the pair of eyes *b b*, the cross portion *c*, and the necks *d d*, as in Fig. 3; but, unlike that device, it is not divided, and the suspension-cords B must be attached by passing their ends through the device and then passing them through their loops *f*.

The device shown in Fig. 4 should be made somewhat stronger than the others herein described, in order that it shall not be spread apart in use.

In my United States Patent No. 272,311,

dated February 13, 1883, I have shown a hammock having a suspension device which comprises a bail-like portion or stirrup with a T-shaped head. This device is divided so that it can be spread slightly to enable the suspension-cords to be placed on the bail-like portion or stirrup, and the suspension-rope, whereby the hammock is hung, is attached by placing a bight of the rope over the T-shaped head. This method of attaching the suspension-rope to the device afforded no provision for raising and lowering the hammock, and the object of my present invention is to provide for suspending the hammock by a suspension-rope which is passed round a tree or post, and the two end portions of which are adjustably secured to the suspension device, each by a separate slip-connection, so that by shifting either or both end portions lengthwise in the device the hammock may be raised and lowered. My present invention also provides for more readily putting up or hanging the hammock and for taking the same down.

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

1. The suspension device for a hammock herein described, having at one end a stirrup or bail like portion, *a*, for the attachment of the suspension-cords, and at the other end a pair of eyes, *b b*, and two necks, *d d*, with which the end portions of a suspension-rope may be connected, substantially as set forth.

2. A suspension device for a hammock, having at one end a stirrup or bail like portion, *a*, for the attachment of suspension-cords, and at the other end a pair of eyes, *b b*, and necks *d d*, with which the end portions of a rope may be connected, the said device being divided between the eyes and necks, which are on opposite sides, to enable the suspension-cords to be slipped upon the stirrup or bail like portion *a*, substantially as described.

ISAAC E. PALMER.

Witnesses:

C. HALL,

FREDK. HAYNES.