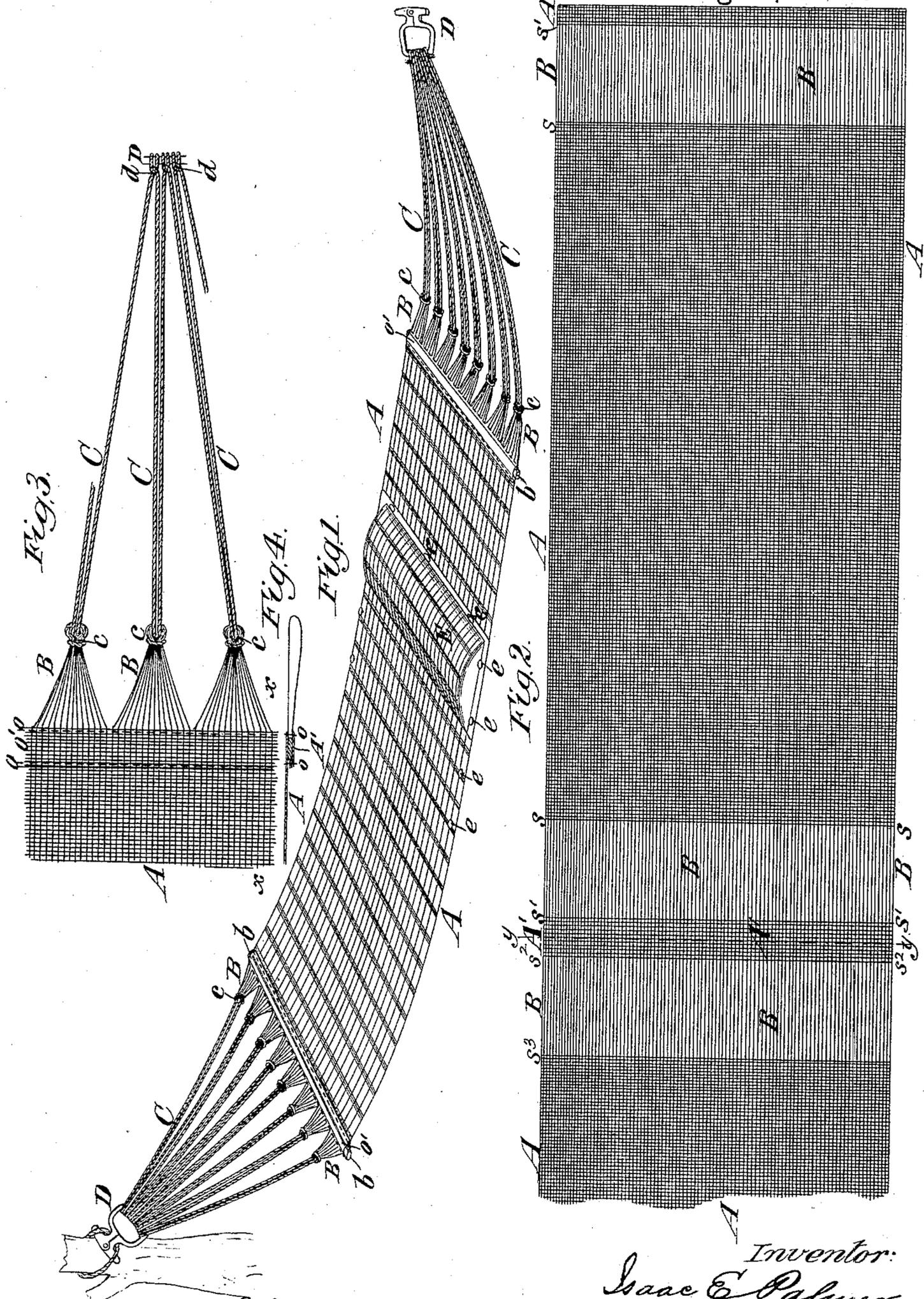


(No Model.)

I. E. PALMER.
HAMMOCK.

No. 387,367.

Patented Aug. 7, 1888.



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UNITED STATES PATENT OFFICE.

ISAAC E. PALMER, OF MIDDLETOWN, CONNECTICUT.

HAMMOCK.

SPECIFICATION forming part of Letters Patent No. 387,367, dated August 7, 1888.

Application filed September 27, 1887. Serial No. 250,854. (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
5 useful Improvement in Hammocks, which improvement is also applicable to bed-bottoms, of which the following is a specification.

My invention relates to hammocks which are made of woven fabric, and in which the sus-
10 pension-loops projecting from the ends of the hammock are formed of unwoven portions of the threads which enter into the weaving of the fabric.

My invention consists in a hammock or bed-
15 bottom composed of a body of woven fabric, a strip unconnected to the body by weaving, but secured to the body across its end by sewing or the like, and warp-threads extending in the form of suspension-loops between the strip and
20 body.

The invention also consists in the combination, with a hammock, of a back or seat support, similar to a pillow, extending across the hammock about midway between the head and
25 foot, and secured thereto.

In the accompanying drawings, Figure 1 is a perspective view of a hammock embodying my invention. Fig. 2 is a plan of a portion of the fabric from which the hammocks are formed.
30 Fig. 3 is a plan, upon a larger scale, of a portion of one end of the hammock, illustrating the knotting of the suspension-cords in the suspension-loops; and Fig. 4 is an edge view or section upon the plane of the dotted line $x x$,
35 Fig. 3, showing how the strip at the end of the body portion of the hammock is folded back and secured across the end of such portion.

Similar letters of reference designate corresponding parts in all the figures.

A designates the body of a hammock, which is of a woven fabric, and B designates the suspension-loops, which are at each end of the body, and which are formed in this example of the
45 invention by unwoven portions of the warps which enter into the weaving of the body A.

I have in Fig. 2 illustrated a portion of a continuous fabric from which hammocks are to be formed. In making this fabric, weaving
50 is proceeded with in the usual way to form a body portion, A, of sufficient length for a ham-

mock, and then from the point s to a point, s' , the weft-thread is omitted, thus leaving a considerable space, across which extend the warp-
55 threads B, which are afterward to form the loops. Weaving is then proceeded with in the usual way, and from the point s' to the point s^2 , thereby forming a strip, A', and then for a distance, from s^2 to s^3 , the weft is again
60 omitted, leaving another space, across which extend the warp-threads B, and from the point s^3 weaving is proceeded with in the usual way to form the body portion A for a second hammock.

It will be observed that, owing to the omis-
65 sion of the weft between the points s and s' , the strip A' is unconnected by weaving with the hammock-body and is solely connected therewith by the unwoven portions of the
70 warp-threads B, which extend all of equal length between the body A and the strip A', and which enter into the weaving of both the body and the strip.

In making hammocks from a continuous fabric woven as above described I cut the
75 fabric transversely through the strip A', as indicated by the dotted line $y y$ in Fig. 2, thus providing beyond each end of the body portion A a strip portion, A', which is joined to the body portion by unwoven portions of the
80 warp, which are of uniform length. I then fold the strip portion A' over parallel with the edge of the body portion, as shown in Fig. 4, and secure the two together by one or more lines of cross-stitching. As shown in Fig. 3,
85 and also in Fig. 1, two lines of stitching, o , are employed, forming between them a pocket, o' , which may receive a spreader, b , as shown in Fig. 1, and the unwoven portions of the warps form suspension-loops B.
90

The suspension-cords C are severally attached to groups of suspension-loops, B, and are knotted in such loops, as indicated at the points c , or are otherwise secured thereto in
95 such a manner as to prevent any rendering of the loops or cords one on another, and therefore prevent any chafing or wear which might result from such rendering. The suspension-cords C serve to connect the suspension-loops B with the suspension-rings or de-
100 vices D; and in the present example of my invention the several cords or cord portions C

are formed of one continuous cord, which is rove back and forth between the loops B and the suspension device D, and is, as here shown, knotted at the devices D, as indicated at *d*, as well as at the point *e*, where it is knotted to the suspension-loops.

I also provide a back or seat support, E, which extends across the hammock at about the middle of its length and may be secured thereto by buttons *e* or other suitable means. This cushion or seat support E may be adjustable lengthwise of the hammock, and may be secured thereto in different positions between its ends. Its use enables a person to sit nearly upright in the hammock, if desired, with ease, and it may be adjusted so as to conduce to the comfort of a person in the hammock, or may be removed entirely therefrom.

In my Letters Patent No. 271,510, dated January 30, 1883, I have shown a hammock in which a part of the warps are drawn up in long suspension-loops in the process of weaving, and in which a strip, which is woven beyond the point of drawing up the loops, is folded back upon and secured across the end of the hammock-body. This strip is contiguous to the body and forms a direct continuation thereof beyond the point of drawing up the warps to form the suspension-loops. The length of the warps between the body and strip is then unequal, some having sufficient length to form suspension-loops and others having no appreciable length. In making my present hammock no drawing up of the warps is necessary, as they all have unwoven portions of equal length between the body A and the strip A'. In my Letters Patent No. 272,311, dated February 13, 1883, I have shown and described a hammock in which the suspension-loops are formed by unwoven portions of the weft-threads in a binder which is made entirely separate from the hammock and is afterward secured by sewing or otherwise to the end portion of the woven body. My present hammock differs from that described in this patent, inasmuch as the suspension-loops B are formed by integral portions of the warps which enter into the body A and the strip A', which is unconnected with the body, by weaving. Such suspension-loops are not formed in a binder which is produced separately from the hammock and subsequently secured to the body

by sewing, which forms the sole connection of the body with the binder. In both my aforesaid patents the suspension-cords are looped into or passed through the groups of suspension-loops, but are not firmly knotted in the suspension-loops, so as to prevent rendering and consequent chafing. According to my present invention, these suspension-cords, whether they be formed separately from each other or formed in one long cord, are firmly knotted or secured in the groups of suspension-loops B, so as to absolutely prevent the rendering or chafing of the cords on the loops.

I do not claim as included in my present invention anything shown or described in my aforesaid patents.

The location of the cushion or seat support E at a considerable distance from the ends or at or near the middle portion of the hammock, and its adjustable feature by which it may be located at pleasure at different distances from the middle of the hammock, are of no slight importance, as they overcome that tendency which the body of the occupant has to slip down out of an upright or semi-upright position for reading and other purposes and render it capable of adjusting the occupants to different degrees of inclination.

I do not herein claim the improvement in the method of making hammocks which is pursued in making the hammock shown and described; but such improvement in the method forms the subject-matter of my application, Serial No. 256,294, filed November 28, 1887.

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

1. A hammock or bed bottom having a body, A, of woven fabric, a strip, A', unconnected to the body by weaving, but secured across the end of the body by sewing or the like, and warp-threads extending in the form of suspension-loops between the strip and body, substantially as specified.

2. The combination, with a hammock, of a back or seat support, as E, extending across the hammock about midway between its head and foot and secured thereto, substantially as herein described.

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Witnesses:

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