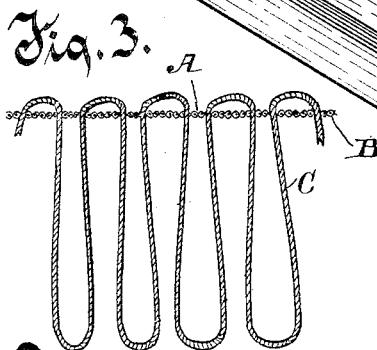
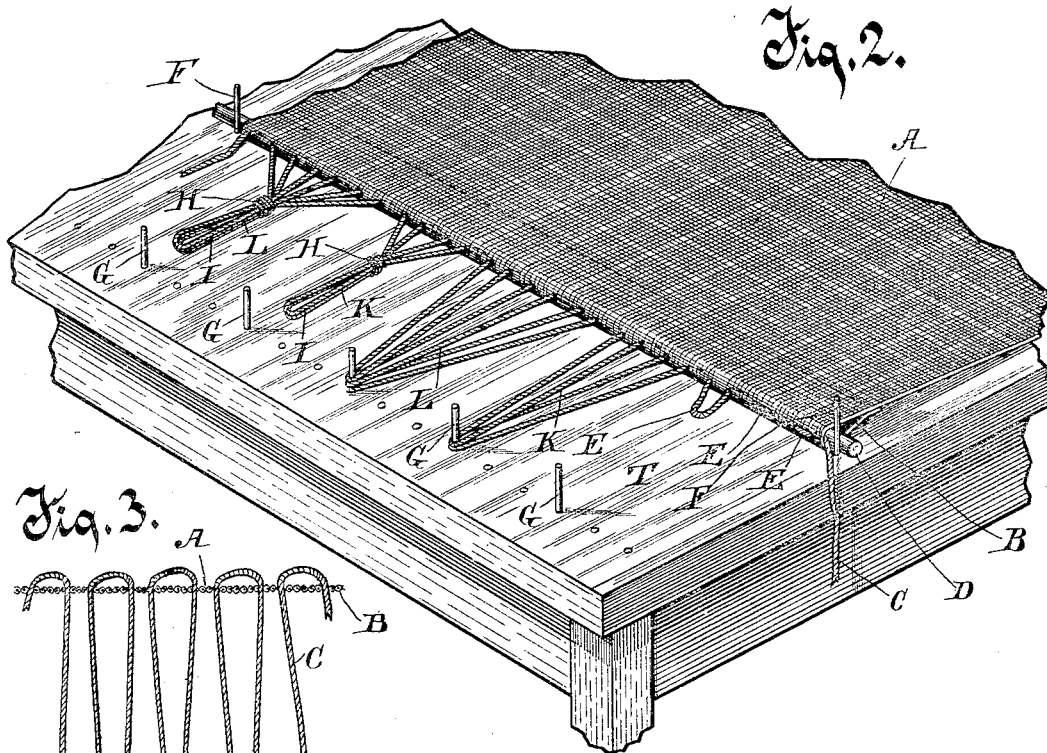
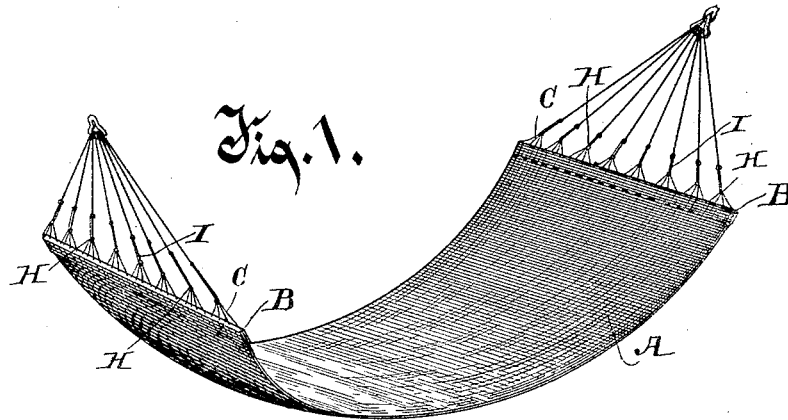


(No Model.)

C. KNOERNSCHILD.  
HAMMOCK.

No. 459,043.

Patented Sept. 8, 1891.



Witnesses.

*W. Keener,*  
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# UNITED STATES PATENT OFFICE.

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## HAMMOCK.

SPECIFICATION forming part of Letters Patent No. 459,043, dated September 8, 1891.

Application filed October 20, 1890. Serial No. 368,668. (No specimens.)

*To all whom it may concern:*

Be it known that I, CHARLES KNOERN-  
SCHILD, of Milwaukee, in the county of Mil-  
waukee and State of Wisconsin, have in-  
5 vented a new and useful Improvement in  
Hammocks, of which the following is a de-  
scription, reference being had to the accom-  
panying drawings, which are a part of this  
specification.

10 My invention relates to improvements in  
hammocks having a body formed of woven  
fabric and supported by cords secured to the  
ends of the woven fabric.

In the drawings, Figure 1 is a perspective  
15 view of my complete device, in which the  
hammock is represented in the position in  
which it is used, the hammock being spread  
at the ends by rigid rods or poles thrust  
through the hem of the woven fabric. These  
20 rods or poles through the ends of the fabric  
may or may not be used, as desired. Fig. 2  
is a fragment of the fabric of a hammock  
lying on the top of a table and with which  
the supporting-cord is shown in different and  
25 successive conditions in which it exists in the  
process of securing it to the hammock and  
tying several strands of it together for use.  
Fig. 3 is a transverse section of the fabric of  
the hammock with the supporting-cord in-  
30 serted through it, showing its relation to the  
fabric.

The body of the hammock is formed of a  
piece of woven fabric A, which is finished at  
both ends by turning the ends over upon it-  
self and stitching them down, forming a loop  
35 or hem B.

In making hammocks of the general form  
of the one shown in the drawings the body  
formed of the woven fabric A is constructed  
40 on a loom and requires the attention and care  
of a skilled operative to manufacture it.  
When removed from the loom and cut into  
pieces of proper length for hammocks, the  
hems B are made by stitching the ends down  
upon the main part of the fabric on a sewing-  
45 machine, and thereafter the supporting-cord  
C is inserted, looped, and tied by girls or boys  
or other unskilled cheap labor. For this pur-  
pose a rod D is inserted temporarily in the  
50 hem of the fabric in which the supporting-  
cord is to be inserted, as shown in Fig. 2.

The cord C is then run into the fabric by  
threading it on a needle and running the nee-  
dle with the cord thereon through the fabric  
at the center line or bend of the hem in a 55  
running stitch—that is, by passing under sev-  
eral threads of the warp, then over a few  
threads of the warp, and again under several  
threads of the warp, and so continuing across  
the entire fabric. This process puts the cord 60  
into the fabric and leaves it in the condition  
shown at E. Thereupon the end of the ham-  
mock is placed flat on a table T, with the rod  
D placed behind and against the pegs F F,  
inserted in the table, and other pegs G G be- 65  
ing inserted in holes therefor in the table at  
proper distances apart and at a desired dis-  
tance in front of the end of the hammock.  
The loops E E on the outside of the fabric  
commencing at one side of the hammock are 70  
pulled forward until they are long enough to  
and are passed over a peg G in groups of two  
or three loops, as preferred. These loops  
forming a single group are subsequently re-  
moved from the pegs one by one and tied me- 75  
dially in a knot H, whereby the loops are se-  
cured together in groups permanently, each  
group outside of the knot forming a single  
compound loop I, adapted for supporting the  
hammock. The loops as first lengthened or 80  
drawn out from the fabric are shown in groups  
of two and three loops at K and L, respectively.  
The free ends of the cord C are made fast to  
the fabric by tying or knotting them thereto  
or by knotting them into the outer groups of 85  
loops.

Heretofore a supporting-cord has been se-  
cured to a hammock by interweaving it with  
the warp-threads and drawing the cord out at  
intervals into loops; but this construction is 90  
objectionable, because it is difficult and ex-  
pensive to weave this extra cord into the  
fabric during the process of weaving and  
more difficult to draw the cord out into loops,  
and the completed device is not satisfactory, 95  
because the supporting-cord, being run under  
and over each alternate thread of the warp,  
supports the hammock by strain on only one-  
half of the threads of the warp, thus pucker-  
ing the fabric and producing a comparatively 100  
weak construction.

In another form of hammock heretofore

made the supporting-cord was introduced into the fabric by drawing it doubled or in a looped form through the fabric between the threads of the warp, the result of which when the hammock is used is to pull the threads of the warp apart where the supporting - cord passes doubled between them, thus weakening and disfiguring the hammock.

It will be seen that in my improved device the method of securing a supporting-cord in the end of the body of a hammock constructed of woven fabric is very simple and easy to be accomplished, and that the work may be done by boys or girls or other unskilled persons. It will also be understood that the construction forms a strong and enduring hammock, and that as only a single strand of the cord is passed through the fabric between any two strands of the warp there is no great tendency to pull the strands of the warp apart when the hammock is suspended on the supporting-cords, as there would be if the double or looped cord were

merely pulled through the fabric between the same two strands of the warp thereof. 25

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

As an article of manufacture, a hammock comprising a body part formed of woven fabric having hems at and across its two ends, supporting-cords, one at each end, inserted in the fabric alternately over and under several strands of the warp of the fabric, but so as to have a greater number of strands above the cord, the exterior loops of which cord are lengthened and knotted together in groups in single compound loops, the free ends of the cords being secured substantially as described. 30 35

In testimony whereof I affix my signature in presence of two witnesses. 40

CHARLES KNOERNSCHILD.

Witnesses:

C. T. BENEDICT,  
ANNA V. FAUST.