A. P. ASHWORTH.

CANOPY ATTACHMENT FOR HAMMOCKS OR THE LIKE.

APPLICATION FILED JUNE 5, 1912.

1,094,412.

Patented Apr. 28, 1914.

3 SHEETS—SHEET 1.

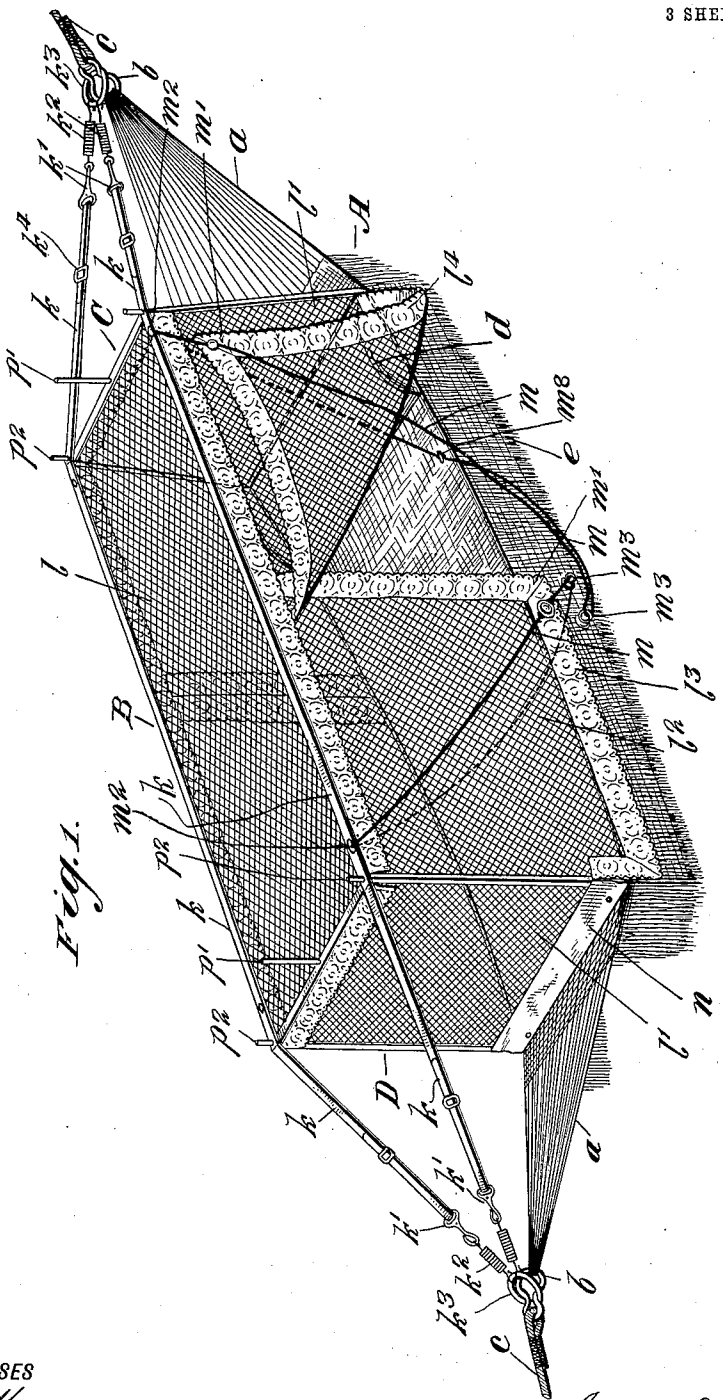


Fig. 1.

WITNESSES

J. J. Wallace

William F. Martinez

INVENTOR

Albert P. Ashworth,

BY

Fraser Clark & Myles

ATTORNEY

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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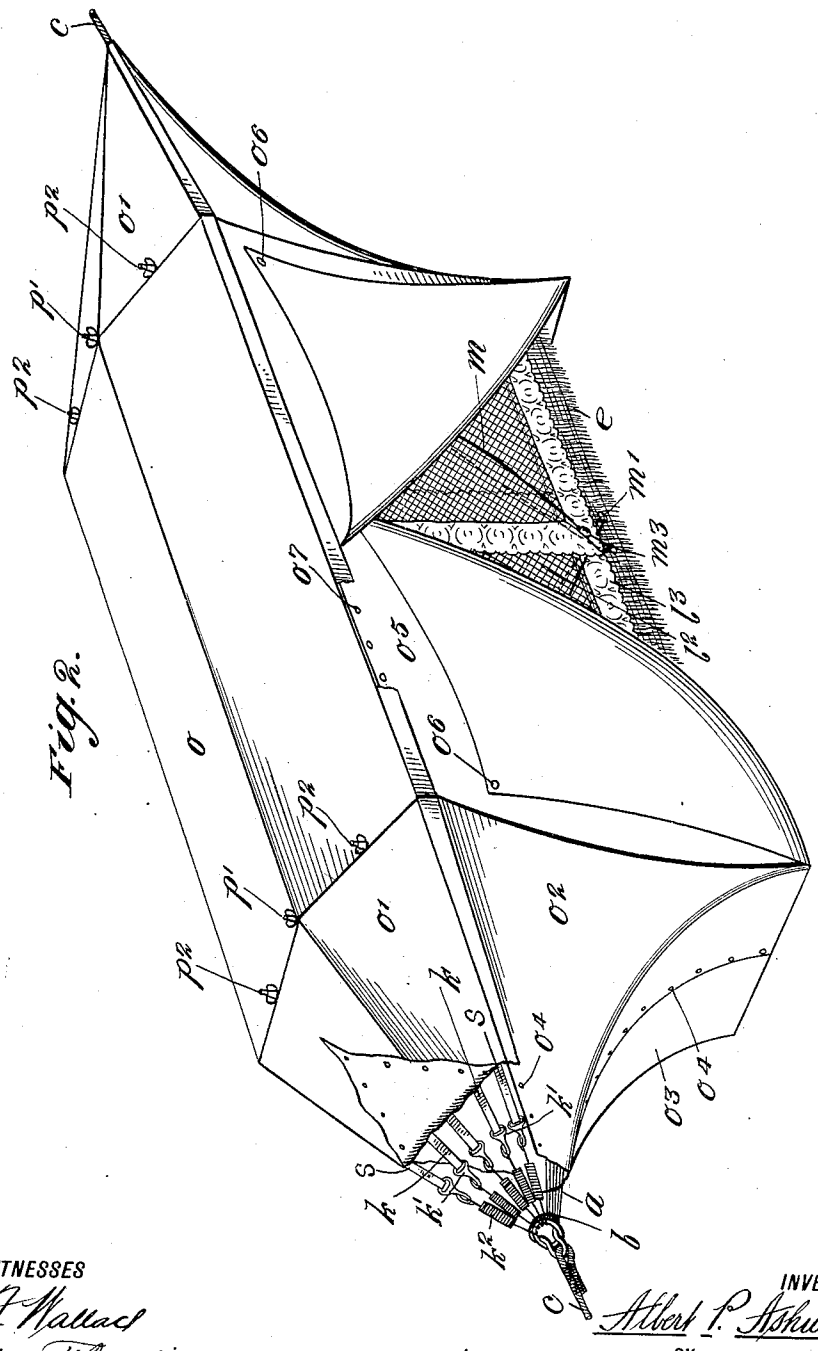


Fig. 2.

WITNESSES

J. J. Wallace

William F. Martine

INVENTOR

Albert P. Ashworth

BY

Fraser Turk & Hughes

ATTORNEY

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

A. P. ASHWORTH.

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3 SHEETS—SHEET 3.

Fig. 3.

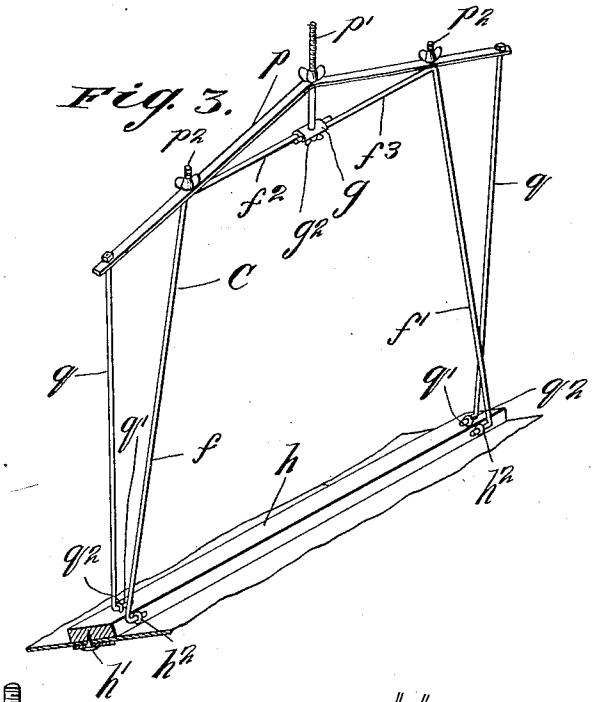
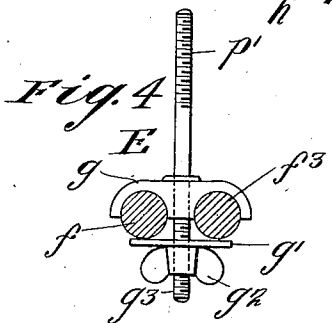


Fig. 4



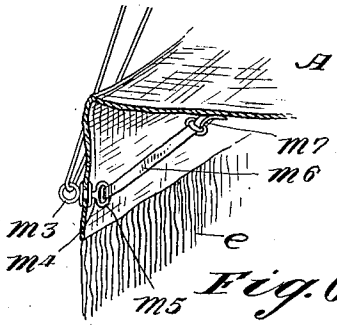


Fig. 6.

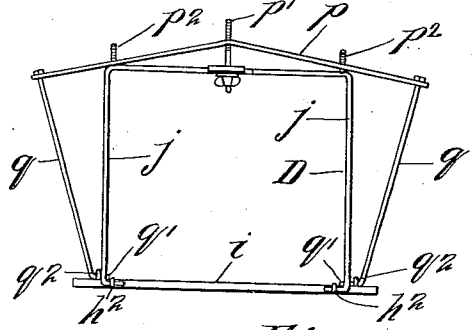


Fig. 5.

WITNESSES

J. F. Wallace

William F. Martinez

INVENTOR

Albert P. Ashworth

BY

Fraser, Turner & Wheeler

ATTORNEY

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ALBERT P. ASHWORTH, OF WEST BROOKVILLE, NEW YORK.

CANOPY ATTACHMENT FOR HAMMOCKS OR THE LIKE.

1,094,412. Specification of Letters Patent. **Patented Apr. 28, 1914.**

Application filed June 5, 1912. Serial No. 701,755.

To all whom it may concern:

Be it known that I, ALBERT P. ASHWORTH, a citizen of the United States, residing in West Brookville, in the county of Sullivan and State of New York, have invented certain new and useful Improvements in Canopy Attachments for Hammocks or the like, of which the following is a specification.

This invention relates to certain improvements in canopy attachments for hammocks and aims to provide certain improvements therein.

The principal purpose of the present invention is to provide a hammock which is suitable for use out of doors for sleeping purposes in all conditions of weather, and by which the user is protected from mosquitos or other insects by a canopy or inclosure which is open for the free circulation of air; means are also provided for forming a roof over the hammock either with or without a netting canopy, and if desired for completely inclosing the hammock so that the user is protected on all sides from the wind and rain.

Preferably the invention takes the form of a separable attachment which is capable of being applied to or removed from a hammock of ordinary construction, which attachment is capable of being knocked down or folded into compact shape for shipping and storing purposes. Preferably the construction is such that the netting canopy may be used alone, or may be used in connection with the canvas roof or in connection with sides and end members, so that a complete inclosure is thus provided. The invention also includes a number of features of improvement which will be hereinafter more fully described.

In the drawings which illustrate one form of the invention,—Figure 1 is a perspective view of a hammock of ordinary construction provided with a removable netting canopy adapted to completely inclose the occupant. Fig. 2 is a similar view of the same hammock showing the roof, end and side members in place. Fig. 3 is a perspective view of the head frame for supporting the several canopies. Fig. 4 is a detailed view of a part of Fig. 3. Fig. 5 is a side elevation of the foot or bottom frame of the attachment. Fig. 6 is a detail of a fastening attachment.

Referring to the drawings, let A indicate a hammock to which the device provided by the invention is to be attached, such hammock being shown as of the usual form having supporting cords a which are fastened to the usual ring b, the whole being hung by means of ropes c c to any suitable points of support. The hammock may have the usual pillow or head rest d and valance e as shown.

The invention includes a complete canopy or inclosure B which is formed of netting having preferably a top portion, end portions and side portions. Means are provided for holding the canopy securely in position over the hammock so that there is no danger of its accidental displacement by the wind or other cause. Preferably the netting canopy B is detachably fitted upon two end frames C and D which are shown in detail in Figs. 3 and 5 respectively. Referring first to Fig. 3, it will be seen that the head frame C is formed of two metal bars f f', each of which is bent horizontally at its top to form horizontal members f^2 f^3. The head frame C might be formed in one piece but it is preferred to form it in sections in order that it may be folded and stored more compactly. In order to join the two sections I preferably provide a clamp E (Fig. 4) which preferably comprises a yoke g formed with concave recesses adapted to receive the ends of the horizontal portions f^2 f^3, while below the bars is arranged a plate g' adapted to be pressed upwardly against the bars by a thumb nut g^2 screwing upon a threaded stem or bolt g^3. By releasing the thumb nut g^3 the parts can easily be taken apart and stored. The frame C may be attached to the fabric of the hammock in any suitable way as for instance that shown in Fig. 3 in which a wooden slat h is provided which may be fastened to the hammock as by tacks h' and passing through the fabric of the latter. The slat h is provided with some means for engaging the bars f f' such as the screw eyes h^2 h^2, in which case the lower ends of the bars f f' are provided with hooked portions adapted to pass within the screw eyes h^2.

The construction of the foot frame D which is illustrated in Fig. 5 is similar to that of the head frame C except that instead of the frame being sloped inwardly so that its top is smaller than its bottom, the frame D is substantially rectangular in

form. This difference in construction is due to the desirability of forming the head frame wider at its bottom than the foot frame, the hammock being usually separated to wider dimensions at the head than at the foot. The foot frame D is fastened to the hammock preferably by a slat i fixed to the hammock in a manner similar to the slat h and being provided with screw eyes h^2 to receive the ends of the two sections j j forming the frame D. These sections are connected together at their top horizontal portions preferably in the same manner as those of the frame C.

Referring again to Fig. 1, it will be observed that the head and foot frames are held in position by means of tapes or bands k k which pass through links k' k', the latter being connected to springs k^2 which are adapted to hook over a ring k^3 which passes around the ring b of the hammock. Such hooks may directly engage the ring b if desired. Preferably the tapes k are provided with buckles or equivalent devices k^4 by means of which they may be shortened. The same construction is provided at the foot of the hammock. By these means the head and foot frames are held against falling toward each other while their movements in opposite directions are prevented by the canopy itself, it being unnecessary to provide any rigid connections between the frames. Preferably the tapes k are continued along the edges of the canopy on each side of the top of the latter so that the strain is taken up by the tapes instead of the frailer fabric of the canopy. The canopy itself may be formed of mosquito netting, bobbinet, or other suitable fabric and as before stated preferably comprises a roof or top portion l, end portions l' and side portions l^2. The various portions of the hammock may be united together along their edges by sewing or in other suitable manner, tapes being preferably provided to reinforce the seams. Each of the sides is preferably formed in two sections l^3 and l^4 in order that a free means of access may be given to the user. Preferably one of the sides, such as l^4, will overlap the other in order to render the closure more complete, particularly when the wind is strong.

I prefer to provide means whereby the corners of the side portions l^3 l^4 may be drawn upwardly either from the inside or the outside of the hammock. Such means are shown as cords m m which are preferably endless, being fastened to the lower corners m' m' of the side portions l^3 l^4 and then passing through eyelets m^2 m^2 in tapes k. The cords may then pass down the inside of the side portions and thence to outside eyes m^3 m^3 which are shown in detail in Fig. 6. From this figure it will be seen that each of the eyes m^3 is provided with a shank m^4 which passes through the valance of the hammock and on the inner side of the latter is formed with a similar eye m^5 which is connected by a flexible and preferably elastic strip m^6 to the body of the hammock at m^7. The purpose of this construction is to hold the valance and hence the flaps so that the latter do not separate or blow inwardly in windy weather. A suitable catch m^8 may be provided on the upper side of the bottom of the hammock which is adapted to engage the cords m so that the latter may be held in place, thus retaining the flaps in their upward or folded positions.

The foot of the canopy may be provided on its inner and outer sides with a canvas strip n so as to protect the latter against injury by the foot of the user.

As thus described the invention is admirably adapted for the protection of the user from insects, but my complete invention provides a hammock which not only has this protection but which is adapted for protection against wind and weather so that a hammock is provided which is suitable for any use to which a hammock may be put. To this end I provide the hammock with a complete inclosure of canvas or other waterproof material. This inclosure, while adapted to entirely envelop the hammock on all sides except its bottom, is preferably made in sections so that parts thereof can be utilized while the remainder are omitted.

Referring to Fig. 2, it will be seen that the canvas inclosure comprises a roof portion o which is of a length approximating the bed of the hammock, such roof portion preferably having extensions o' o' which are shown as triangular in shape and extending from the ends of the roof to the rings b of the hammock. Beneath the extensions o' o' are preferably provided triangular pieces o^2 o^3 which are intended to complete the inclosure of the end of the hammock. The portions o^2 o^3 are preferably fastened to each other and to the extensions o' by means of ordinary snap fasteners so that they can be easily separated. On each side of the roof and preferably of the same length as the latter are arranged the sides o^5 which are formed in two sections capable of being folded back into the position shown in Fig. 2, and fastened in position by snap catches o^6. The sides are separably secured to the roof o by similar catches.

It is very desirable that the roof of the hammock should be of greater extension than the roof of the net canopy for the reason that greater protection against rain is thereby insured when the side portions are omitted. The frames C and D are adapted to support the canvas roof and sides, but to secure the greater extension desirable I provide bars p p which are adapted to fit upon the frames C and D. Preferably each bar p

is bent to form inclined sides and at its apex is provided with a hole which is adapted to fit over a rod p' which is extended upwardly from the clamp E and preferably forms a continuation of the threaded rod g^3. At the upper corners of the frames C and D are secured smaller threaded rods p^2 p^2 which also pass through the bar p and assist in holding the latter in place. Suitable thumb screws are provided at each of the rods p' p^2 clamping the parts together. I prefer also to provide braces q q for the ends of the bars p, such braces being bolted at their upper ends to the bar and at their lower ends being provided with hook portions q' fitting in eyes q^2 on the slats h and i. The roof o may be provided with tapes s if desired.

In the use of my invention the netting canopy may be ordinarily retained in place, and if it is desired to shield the occupant from the sun the canvas roof portion o may be adjusted in position. This will be usually sufficient to protect the user from dew at night, or if it is desired to partially inclose the hammock, one or both of the side pieces o^5 may be adjusted in place. The extensions o' o^2 o^3 may be used during very rainy weather when it is desired to completely inclose the hammock. The canvas inclosure may be used without the netting canopy if desired.

While I have described in detail a certain form of the invention, it will be understood that I do not wish to be limited thereto, since various changes can be made therein without departing from the invention.

What I claim is:—

1. An attachment for hammocks, comprising a frame having means thereon adapted to support a canopy, and means thereon adapted to support a roof, said means being adapted to support said roof out of contact with said canopy with a space between said canopy and roof.

2. An attachment for hammocks, comprising a frame, a canopy, a roof, and side coverings, said frame having means thereon adapted to support said roof and side coverings out of contact with said canopy.

3. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock, and a cross-piece connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece.

4. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock, and a cross-piece connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece, said first cross-piece having threaded projections adapted to pass through openings in said second coss-piece.

5. An attachment for hammocks comprising a frame having upright pieces at through openings in said second cross-piece. connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece, and means upon said projections for holding said second cross-piece in place.

6. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock and a cross-piece connecting the upper ends of said upright pieces, and a second cross-piece arched upwardly at its middle and having a base of greater width than said first cross-piece, and adapted to rest on the ends of said uprights above said first cross-piece and projecting at each end beyond said upright pieces.

7. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock, and a cross-piece connecting the upper ends of said upright pieces, a canopy adapted to be supported upon said cross-piece, a second cross-piece arched upwardly at its middle and adapted to rest on the ends of said uprights above said first cross-piece, and a roof adapted to rest on said second cross-piece out of contact with said canopy.

8. An attachment for hammocks comprising a frame having upright pieces at each side of the hammock, and a cross-piece connecting the upper ends of said upright pieces, a canopy adapted to be supported upon said cross-piece and hang down alongside said uprights a second cross-piece arched upwardly at its middle of greater width than said first cross-piece, and adapted to rest on the ends of said uprights above said first cross-piece, and a roof adapted to rest on said second cross-piece out of contact with said canopy, and side coverings adapted to hang down from said roof out of contact with the sides of said canopy.

9. An attachment for hammocks, comprising a canopy-support and a canopy having sides adapted to hang down beside the hammock, said sides being formed in two parts adapted to overlap vertically, and means for raising and lowering the free ends of said side parts of the canopy, comprising cords attached to the free ends of said canopy-side-parts, passing around the inside and outside of said parts and through eyes diagonally opposite the ends to which they are attached, whereby said free ends may be lifted diagonally at their free ends by pulling upon said cords upon either the inside or outside of said canopy.

10. An attachment for hammocks, comprising a canopy-support and a canopy having sides adapted to hang down beside the

hammock, said sides being formed in two parts adapted to overlap vertically, and means for raising and lowering the free ends of said side parts of the canopy, comprising cords attached to the free ends of said canopy-side-parts, passing around the inside and outside of said parts and through eyes diagonally opposite the ends to which they are attached, whereby said free ends may be lifted diagonally at their free ends by pulling upon said cords upon either the inside or outside of said canopy, said cords at their lower ends passing through an eye attached to the hammock to prevent flying-up of the free ends of the side parts of said canopy.

11. An attachment for hammocks, comprising a canopy-support and a canopy having sides adapted to hang down beside the hammock, said sides being formed in two parts adapted to overlap vertically, and means for raising and lowering the free ends of said side parts of the canopy, comprising cords attached to the free ends of said canopy-side-parts and passing around the inside and outside of said parts, whereby said free ends may be lifted by pulling upon said cords upon either the inside or outside of said canopy, said hammock having an eye attached to the valance thereof, and means for preveting flying-up of said valance, said cords at their lower ends passing through said eye to prevent flying-up of the free ends of the side parts of said canopy.

12. In an attachment for hammocks, a canopy having sides divided into sections, flexible members for adjusting said sections, eyelets arranged on the valance of the hammock, and flexible members connecting said eyelets with the bottom of the hammock.

13. An attachment for hammocks comprising end frames, and means for detachably securing said end frames to the bed of the hammock, said means comprising a slat extending across the bed of the hammock, and hook and eye portions carried by said bar and frames adapted for separable connection.

14. An attachment for hammocks, comprising a pair of end frames, a netting canopy mounted upon said end frames and extending over the top and sides of the hammock, and a canvas roof mounted upon said end frames above and out of contact with said canopy, and means for detachably securing said roof to said end frames.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

ALBERT P. ASHWORTH.

Witnesses:
GEO. VAN KEUREN,
DANNIE G. ASHWORTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."