

No. 689,165.

Patented Dec. 17, 1901.

B. F. CHILDRESS.
MOSQUITO CANOPY.

(Application filed Mar. 21, 1901.)

2 Sheets—Sheet 1.

(No Model.)

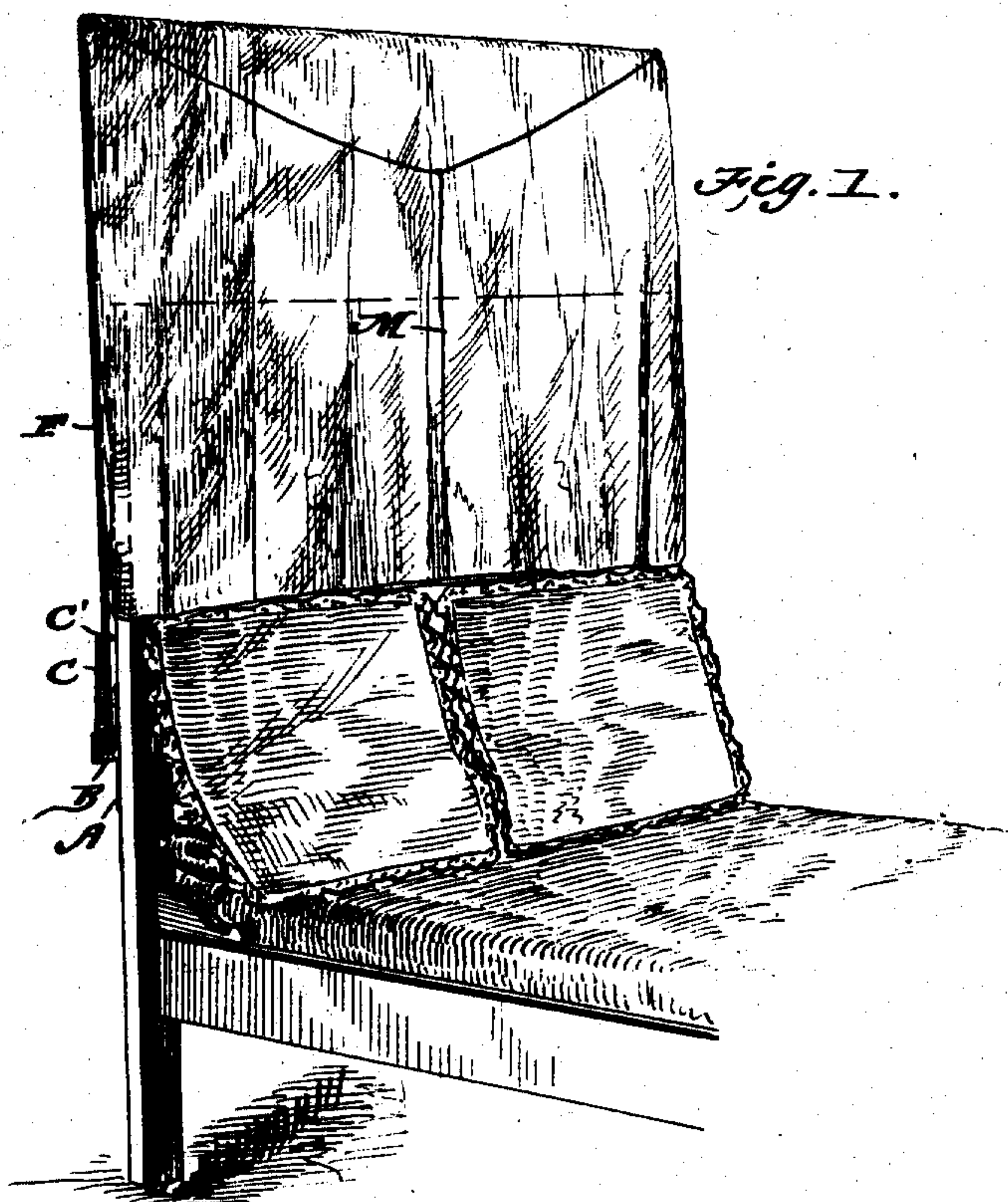


Fig. 1.

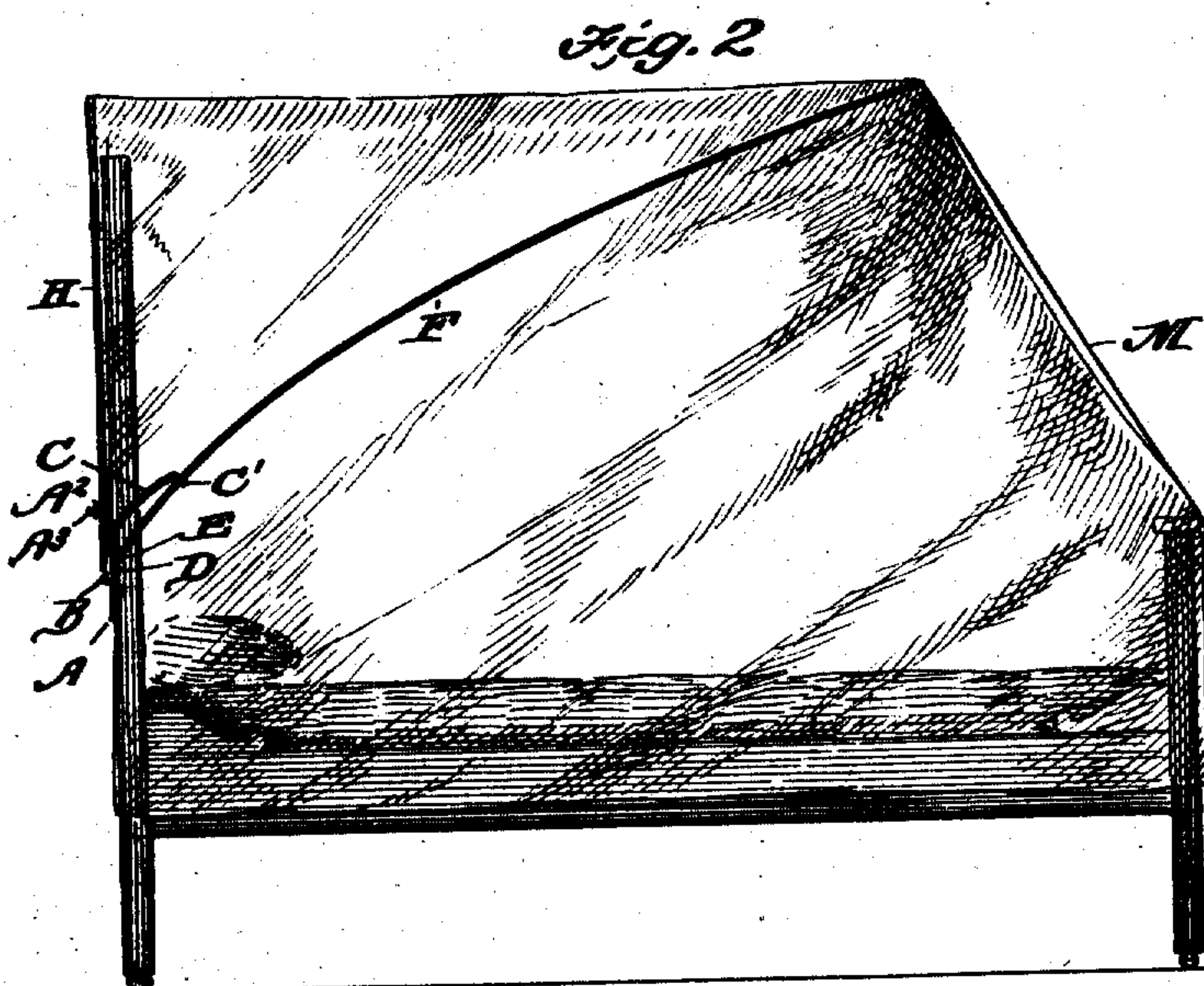


Fig. 2.

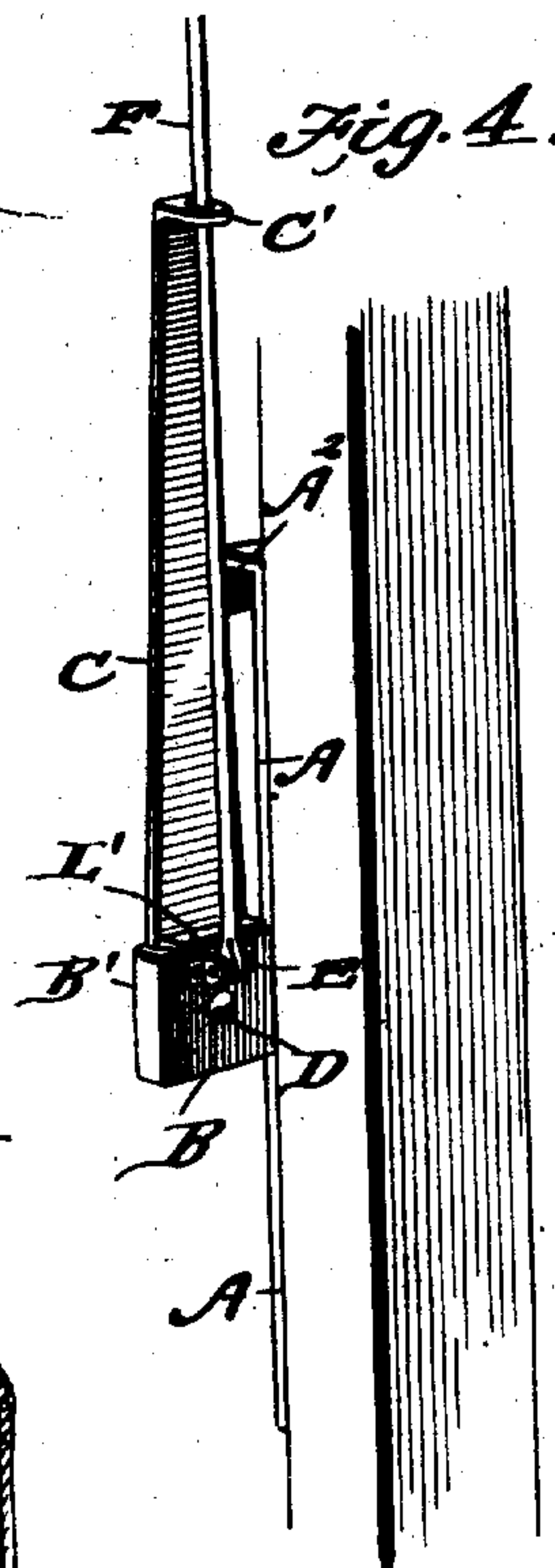


Fig. 4.

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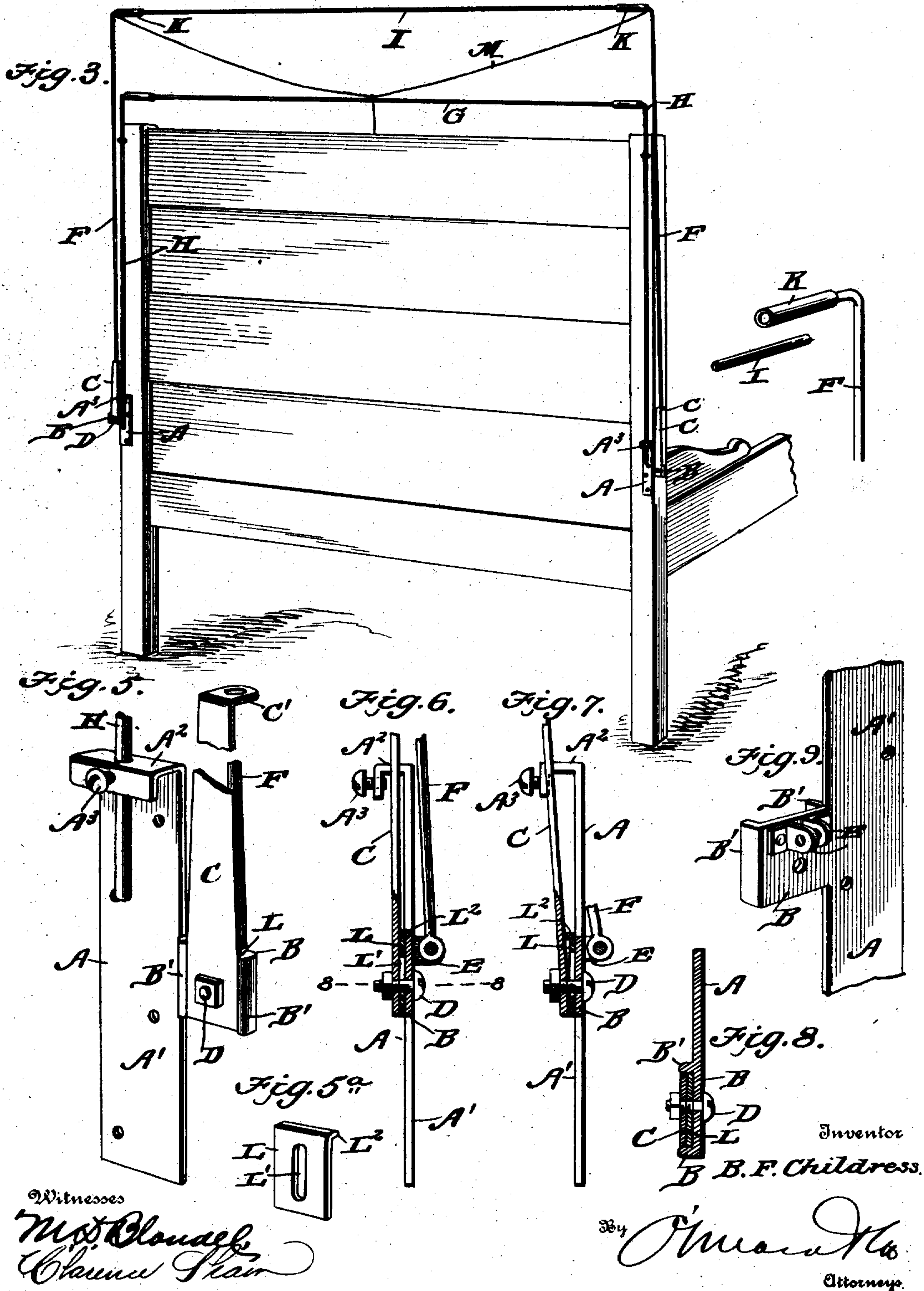
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2 Sheets—Sheet 2.



UNITED STATES PATENT OFFICE.

BENJAMIN F. CHILDRESS, OF BRISTOL, TENNESSEE.

MOSQUITO-CANOPY.

SPECIFICATION forming part of Letters Patent No. 689,165, dated December 17, 1901.

Application filed March 21, 1901. Serial No. 52,212. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CHILDRESS, a citizen of the United States, residing at Bristol, in the county of Sullivan and State of Tennessee, have invented a new and useful Mosquito-Canopy, of which the following is a specification.

This invention relates generally to mosquito nets or canopies, and more particularly to the supporting-frame for holding said canopy in its proper positions both while in and out of use.

The object of the invention is to provide an exceedingly cheap, simple, and efficient device which can be attached to any bedstead for the purpose of supporting the canopy-frame.

Another object is to provide a device in which a flat leaf-spring is employed, thereby dispensing with coil and wire springs heretofore employed, as it has been found that coil and wire springs soon lose their elasticity, and the efficiency of the device as a whole is thereby greatly impaired.

Another object of the invention is to provide for increasing the tension of the spring as necessity may require, as the springs of all devices heretofore constructed become weak after use.

With these various objects in view the invention consists, essentially, in providing a bracket or holder adapted to be secured to the posts of the headboard and to which the side members of the canopy-frame are pivoted and a flat spring attached also to the bracket, the holder having an eye or loop at its upper end, through which the side member of the supporting-frame passes, and in providing means for increasing the tension of the said flat spring; and it also includes a novel form of bracket or holder by means of which the rear stationary member of the canopy-frame can be adjustably attached to the back of the headboard.

The invention consists also in certain details of construction and novelties of combination, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings hereto attached and forming a part of this specification, Figure 1 is a perspective view showing my invention in use, the canopy being elevated and not in use. Fig. 2 is a side view showing the posi-

tion of the parts when the canopy is lowered for use. Fig. 3 is a detail perspective view showing the rear of the headboard and clearly illustrating the manner of attaching the canopy-frame and also the means for automatically elevating the movable part of said frame. Fig. 4 is a detail perspective view showing a portion of the headboard-post, having the holder or bracket attached to the rear face thereof and carrying the spring and the side member of the canopy-frame. Fig. 5 is a detail perspective view of the holder and bracket, taken from the rear. Fig. 5^a is a detail perspective view of the detachable wedge-plate. Fig. 6 is a detail sectional view of the holder, spring, and wedge-plate, showing the position of the parts when the spring is new and of its greatest elasticity. Fig. 7 is a similar sectional view showing the wedge-plate reversed in order to increase the tension upon the spring. Fig. 8 is a detail sectional view on the line 8 8 of Fig. 6. Fig. 9 is a front detail view of the holder or bracket.

In carrying out my invention I employ a pair of brackets or holders A, being adapted to be secured to the rear face of each headboard-post. The brackets or holders A may be made of cast or plate metal, as preferred, and inasmuch as the holders or brackets are alike a description of one will suffice for both.

Each bracket or holder comprises a flat metal plate A', the upper end of which is bent back upon itself, as shown at A², and perforated to receive the upright bar of the stationary portion of the canopy-frame, and said end also carries the set-screw A³ for the purpose of securing the upright bar in its adjusted position. The plate A' has a laterally-projecting extension B, which has vertical guide ribs or flanges B', between which is secured the lower end of a flat metal spring C, a bolt D serving to securely connect the lower end of the spring to the lateral extension B. The ribs B' are arranged upon the rear face of the extension, and pivoted lugs E are arranged upon the front face of the extension and between which the lower ends of the upright rods F are pivoted, said rods F constituting the side members of the movable portion of the canopy-supporting frame. The upper end of the plate C has an eye or loop C' produced therein and through which the bar F

passes, the end of the spring being turned down in order to permit the bar to slide freely through the eye or loop. The fixed portion of the canopy-frame comprises the horizontal bar G and the upright bars H, said upright bars being secured to the rear of the headboard, as before described, by passing the lower ends of said bars through the ends of the plates A' and securing them by means of the said set-screws A³. The movable portion of the canopy-frame comprises the side bars F and the horizontal bar I, and in practice I prefer to connect the side bars with the cross-bars by means of tubes K, so that all of the parts can be disconnected and packed into a small space for shipment.

A wedge-plate L is preferably arranged between the lower end of the spring C and the extension B, said plate being slotted longitudinally, as shown at L', and having a flange or rib L² produced upon its upper end. When the parts are first assembled and the spring C is new, the plate L is turned as shown in Figs. 5 and 6, in which the flange or rib overlaps and rests upon the upper edge of the extension B. When, however, the spring C has become impaired by constant use and it is desired to increase the tension of the said spring, it can be quickly and easily accomplished by removing the bolt D, reversing the plate L, so that its flange or rib will bear against the front face of the spring C, as most clearly indicated in Fig. 7, thereby forcing the spring somewhat rearwardly, and thereby tend to increase the tension of the said spring. If it should be desired to still further increase the tension upon this spring, it can be accomplished by loosening the bolt somewhat and forcing the flange L² closer to the point of attachment of the said spring, whereby a further inclination is given to the spring and its tension increased. In operation the parts are assembled as most clearly shown in Figs. 1, 3, 4, and 5. When not in use, the spring will hold the movable portion of the canopy in an upright position, as most clearly shown in Fig. 1. When it is desired to use the canopy, the cord M, which is connected to the opposite end of the movable portion of the canopy-frame, is drawn over the footboard of the bed and fastened in any suitable manner. This action draws the movable portion of the frame downwardly, as most clearly shown in Fig. 2, and the mosquito-canopy can be spread around the sides of the footboard of the bed. When the movable portion of the canopy-frame is drawn down, the side members F pull upon the spring C and bend them forwardly, the eyes or loops permitting the spring and rod to work upon each other freely. A constant tension, however, is maintained upon the side bars of the canopy-frame, thereby holding the cross-bar of the movable portion of the frame in the proper elevated position, and when the canopy is not to be used and it is desired to raise same out of the way the string M is disconnected and the spring C

will automatically return the movable portion of the frame to an upright position and will maintain it in such position until it is again drawn down for use.

In practice I have found a flat leaf-spring far more effective than a coil-spring and also more durable than a spring-rod. Furthermore, by means of the wedge-plate I am enabled to increase the tension of the said spring whenever it becomes necessary to do so.

It will thus be seen that I provide an exceedingly cheap, simple, and efficient construction of mosquito net or canopy capable of carrying out all of the objects mentioned in the fore part of this specification.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the kind described, the combination with the holders adapted to be attached to the back of the headboard, each holder having its upper end shaped to receive and secure the side rods of the fixed portion of the canopy-frame, said holders also having laterally-projecting extensions, of the flat metal springs attached to the rear faces of the said extensions, and the side bars of the movable frame pivotally attached to the front face of the said extensions, said side bars passing through eyes or loops arranged upon the upper ends of the flat metal springs, substantially as shown and described.

2. The combination with the holder having a lateral extension, of the side rod of the canopy-frame pivoted to the said extension, a flat metal spring secured to the said extension and having an eye or loop at its upper end through which the side bar or rod passes, and a wedge-plate arranged between the extension and the flat metal spring, substantially as shown and described.

3. In a device of the kind described, the combination with the holder having a lateral extension, of the side bar or rod pivoted to said extension, the flat metal spring attached to the said extension projecting upwardly and having an eye or loop arranged at its upper end through which the side rod or bar passes, and the reversible wedge-plate having a flange or rib upon its upper end arranged between the extension and spring, substantially as shown and described.

4. In a device of the kind described, the combination with a holder having a lateral extension, of the side bar or rod pivoted to the said extension, a flat metal spring attached to the said extension and having an eye or loop at its upper end through which the side bar or rod passes, and a slotted reversible wedge-plate having a flange or rib upon its upper end, all arranged and adapted to operate, substantially as and for the purpose described.

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