W. S. DAVIDSON.

CANOPY FRAME HAVING DOORS.

APPLICATION FILED MAR. 2, 1908.

941,765. Patented Nov. 30, 1909.

Fig. 1.

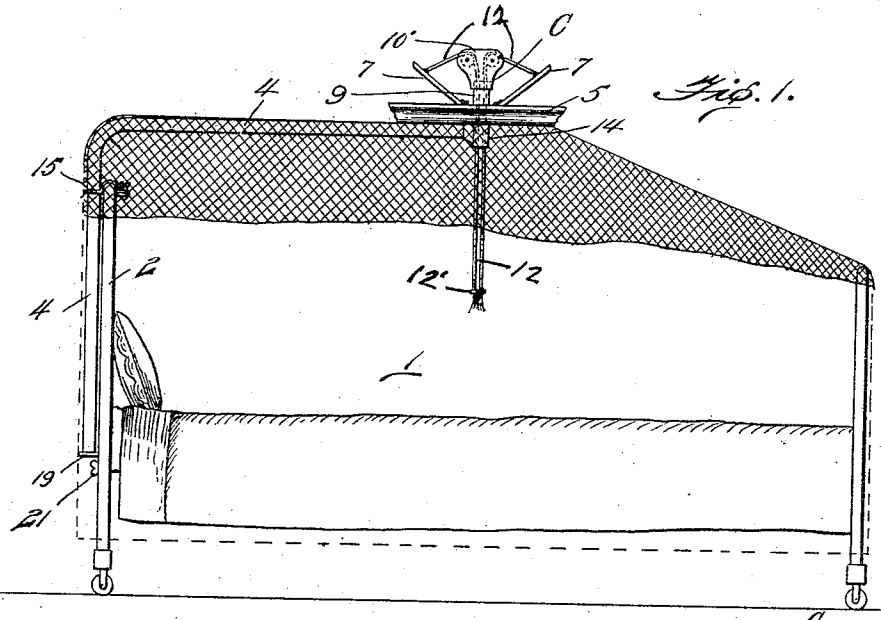


Fig. 2.

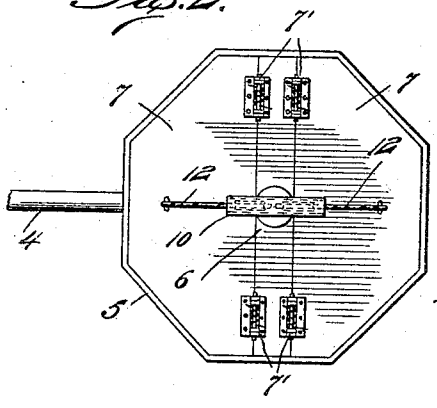


Fig. 3.

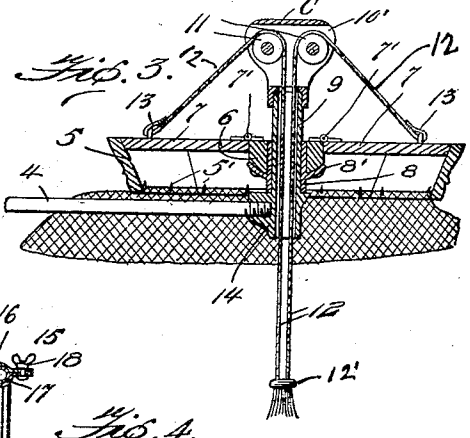


Fig. 4.

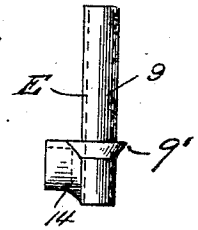


Fig. 5.

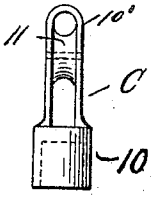


Fig. 7.

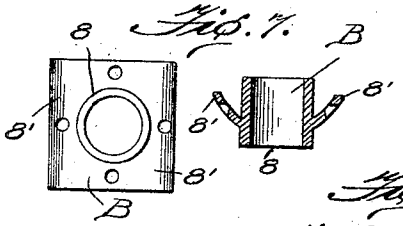
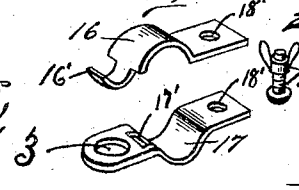
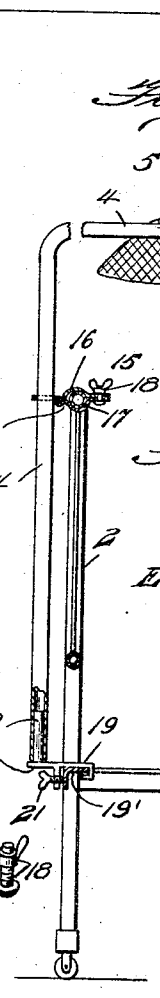


Fig. 6.





WITNESSES:

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CANOPY-FRAME HAVING DOORS.

941,765. Specification of Letters Patent. Patented Nov. 30, 1909.

Application filed March 2, 1908. Serial No. 418,754.

To all whom it may concern:

Be it known that I, WILLIAM S. DAVIDSON, a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented a new and useful Canopy-Frame Having Doors, of which the following is a specification.

My invention relates to improvements in canopy frames, having doors operated from beneath the canopy and used to furnish a convenient place through which mosquitos and flies may be excluded from beneath the canopy, the doors being automatically closed by spring hinges, and the objects of my improvements are first to provide a means by which the mosquitos and flies and other similar insects can be easily excluded from under the canopy without having to disturb the canopy, and second, to furnish a means by which the canopy can be easily hung in position for use, and also a frame that is ornamental. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation showing the bedstead with the canopy frame attached and doors 7 partly open. Fig. 2 is a top view of the canopy frame, with doors 7 closed, also showing spring hinges 7′, by which the doors 7 are fastened to cross section 6, and are automatically closed by the said hinges. Fig. 3 shows a sectional view of the whole canopy frame in position for use. Figs. 4, 5, 6, and 7 are details of the several parts.

Similar characters refer to similar parts throughout the several views.

Hereinafter, I will call the frame that holds the doors 5; the section that the doors are hinged to, 6. I will call the tube that supports the frame, 4. The collar bracket, shown in detail by Fig. 6, I will call, when referring to all parts of it, D. The tenon screw bracket that holds the bottom end of 4, by means of a socket in the lower end of 4, I will call, when referring to all parts of it, A. I will call the piece that fits over the top end of 4, a flanged socket tube, and when referring to all parts of this, I will call it E. The reason that I call this a flanged socket tube is that the main part of it 9, is a tube that allows the cords 12 that operate the doors to pass through it, 9′ is a flange that furnishes a seat for the flanged base B to rest on and thereby hold the door frame 5 in position, 14 is a socket that fits over and holds the top end of tube 4. I will call B a flanged collar bearing, because it is a collar that fits around 9, and also furnishes a bearing for the frame 5 to rest on, and 8′ are flanges that afford means for fastening it to the cross section 6.

C is a socket pulley case, and I call it such because the lower end of it 10 is a socket that fits over the top end of the tube 9, and the top end of C is a case that holds the pulleys 11. When referring to all parts of a socket pulley case, I will call it C.

By attaching A to the lower side of the bed with the tenon 20 in a vertical position, and placing the curved end 16′ of the collar bracket in the slot 17′ and placing it around the top round of the bed, and then bringing the ends together by means of the screw 18, we can clamp it on to the bed, and thereby furnish means for holding 4 in a vertical position. The collar 3 is large enough to allow 4 to swing around free so the top end of 4 can be swung around either over or to the side of the bed. We will then place 4 in this collar 3 and allow it to extend down and the lower end fit over the tenon 20 to bracket A. We will then place E on the top end of 4, by screwing the end of 4 in the socket 14, and allowing the tubular part of E to stand in a vertical position, thereby furnishing means for holding the door frame 5. B is fastened to the cross section 6 of the door frame, and the collar part of B extends up through 6, and is large enough to fit down closely over 9 and rest on the flange 9′, so I place the frame by means of B over E and allow it to rest on flange 9′. I then place C on top of the tube 9, by allowing the socket 10 to fit over the top end of tube 9. The socket 10 is large enough so that C is free to swing around and adjust itself to any position to correspond with the doors 7, which is not the case with any other canopy frame having doors. I then run the cords 12 up through E and over the pulleys 11 and bring the ends down and connect them to the doors 7 at 13. The other ends of cords 12 will extend down below the frame and canopy and be connected by means of a tassel 12′. The canopy will be hung on hooks 5′ which are placed around on the inside of the door frame. This door frame can be made of any nice ornamental wood and the doors 7 must be made of some light material and covered over with a cloth or

mosquito netting. The hinges 7′ which fasten the doors 7 to the cross section 6 have springs to them so they will always automatically close the doors 7 when the cords 12 are free. To operate these doors 7, pull down on tassel 12′ and the cords 12 will roll over the rollers 11 and allow the loose ends of the doors 7 to open, thereby furnishing a place from which the mosquitos and such insects may be excluded.

I am aware of the fact, that prior to my invention canopy frames having doors, have been invented, therefore I do not claim this as a broad invention. But I notice in the only one of these inventions where the frame has doors to it, that the doors are operated by means of levers which are fastened to the bottom edges of the doors, and whenever these levers are pulled down to open the doors they strike on the rod that I call 4, which prevents the free opening of the doors, these levers will strike the rod 4 in most any position except one, and that is where they stand parallel with the rod 4. But you will notice that C being free to revolve around on top of E, it will assume any position that the frame 5 and doors 7 do, thereby allowing the doors 7 to be opened in any position that they may assume.

Another advantage of my invention, over any other that is known to me, is that the doors 7 can be opened at right angles to the top of the frame 5, and when the cords 12 are free the spring hinges 7′ will automatically close the doors, while if these doors were opened with a lever fastened below them, sometimes one of the doors will fall back over the other door when they are free.

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

1. The combination in a canopy frame having doors with means for operating them from beneath the canopy, a flanged socket tube, having a socket adapted to fit over the end of a tube, a flange suitable for furnishing a seat for a bearing, a tube affording means to allow cords to freely pass through the tube and over pulleys, substantially as described.

2. The combination in a canopy frame having doors with means for operating them from beneath the canopy, the doors being automatically closed by spring hinges, a flanged socket tube, having a socket adapted to fit over and hold the end of a tube, a flange suitable for furnishing a seat for a bearing, a tube affording means to allow cords to freely pass through the tube, a socket pulley case, the socket being adapted to freely fit over and around tube 9, the pulley case containing pulleys, the said pulleys being so located that the cords passing over them will pass down through the tube to beneath the canopy frame, substantially as described.

3. The combination in a canopy frame having doors with means for operating them from beneath the canopy, and spring hinges adapted to automatically close the doors, a socket pulley case containing a socket adapted to fit over the end of a tube, the pulley case containing pulleys, the pulley case having closed sides and top with opened edges, thereby allowing cords to pass over the pulleys, the sides of the case answering as guides to prevent the cords from getting off of the pulleys, and the said pulleys so located that the cord passing over them will freely pass down through the tube to beneath the canopy frame, substantially as described.

4. The combination in a canopy frame having doors with means for operating them from beneath the canopy, the doors being automatically closed by spring hinges, and opened by cords having one end fastened to the free ends of the doors, the said cords passing over pulleys down through a tube and being conveniently reached from beneath the canopy frame, substantially as described.

5. The combination in a canopy frame having doors with means for operating them from beneath the canopy, spring hinges which automatically close the doors, a flanged collar bearing B fastened to the cross section of a canopy frame and furnishing means for seating the frame on a support adapted to hold the frame in position to be used, substantially as described.

6. The combination in a canopy frame having doors with springs to automatically close the doors, means for operating the doors from beneath the canopy, the frame being supported by an arched rod or tube; the said arched rod or tube being pivoted to a bed frame at its lower end thereby allowing the canopy frame to be swung to either side of the bed, and thereby affording means by which the canopy may be adjusted to the frame substantially as described.

I hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM S. DAVIDSON.

Witnesses:
Miss C. A. Brown,
Thomas Barr.