No. 655,874. Patented Aug. 14, 1900.

J. T. JOHNSON.

CANOPY SUPPORT.

(No Model.) (Application filed Mar. 16, 1900.)

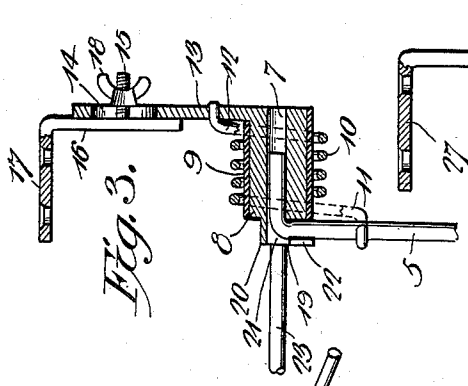


Fig. 3.

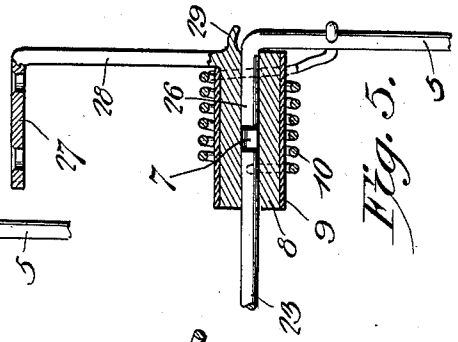


Fig. 5.

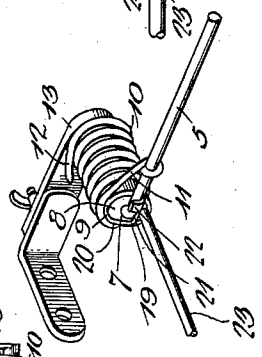


Fig. 2.

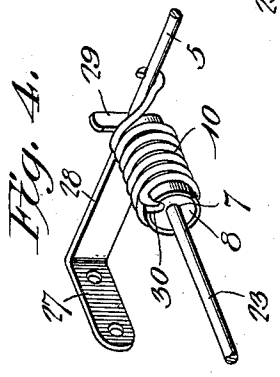


Fig. 4.

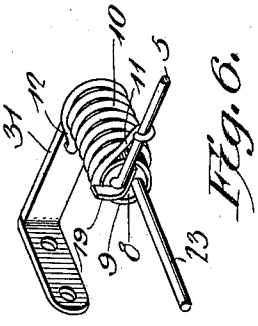


Fig. 6.

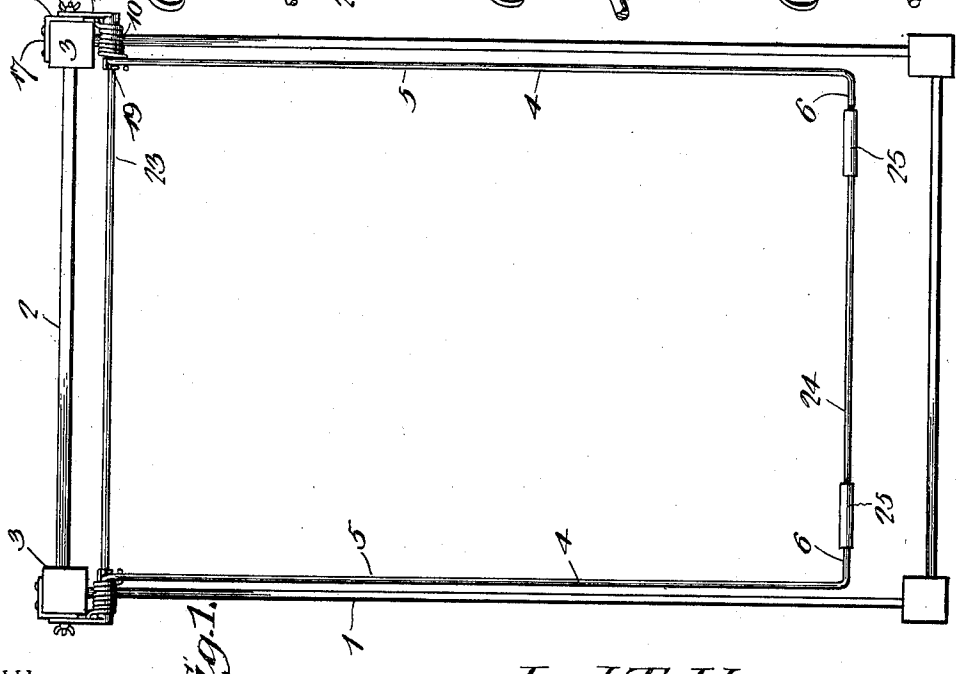


Fig. 1.

Witnesses

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UNITED STATES PATENT OFFICE.

JACOB T. JOHNSON, OF KNOXVILLE, TENNESSEE.

CANOPY-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 655,874, dated August 14, 1900.

Application filed March 16, 1900. Serial No. 8,915. (No model.)

To all whom it may concern:

Be it known that I, JACOB T. JOHNSON, a citizen of the United States, residing at Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Canopy-Support, of which the following is a specification.

This invention relates to canopy-supports; and the primary object of the same is to construct a cheap, neat, and durable device of this character which will when released at its outer extremity automatically assume a perpendicular position adjacent to or near the headboard of the bedstead to which it is applied and can also be easily drawn downwardly into a horizontal position over the bed and serve to positively and practically retain a canopy or net in proper position relatively to the bed beneath.

A further object of the invention is to so construct the canopy-support, in conjunction with springs and brackets for pivotally securing the same to the headboard of a bedstead, that the side rods or members will be practically straight when in use to hold the net or canopy in a desired position and prevent injury to the same and also to dispense with the use of a headboard extension.

In the drawings, Figure 1 represents a top plan view of the improved canopy-support shown in operative position over and applied to a bed. Fig. 2 is a detail perspective view of a portion of one of the side members and showing the adjustable bracket and coil and means for limiting the movement of the canopy-supporting arm, as well as the connections between the said arm and coil to automatically operate and raise the latter. Fig. 3 is a horizontal section of the parts of the device shown by Fig. 2. Fig. 4 is a perspective view showing a modified form of construction. Fig. 5 is a horizontal section of the device shown by Fig. 4. Fig. 6 is a perspective view similar to Figs. 2 and 4, showing a further modification.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a bed of any preferred form of construction, having a headboard 2, with corner-posts 3. Referring now more particularly to Figs. 1, 2, and 3, it will be seen that the canopy frame or support consists of two opposite members 4, which are similar in construction, and each comprises a canopy-supporting arm 5 of suitable length, having an inturned free angular end 6. The rear extremity of the said arm 5 is bent at a reverse angle or outwardly and rotatably disposed in a bore 7 of a combined cylindrical buffer and core 8, which is supplied with a rubber covering 9 and has a coiled spring 10 wound therearound, with one extremity extended forwardly, as at 11, and attached to the adjacent portion of the arm 5, and the opposite extremity, as at 12, projected rearwardly and fastened in a longitudinally-disposed bracket-plate 13, extending toward the rear away from and forming a part of the outer portion of the combined core and buffer. The bracket-plate 13 is longitudinally slotted, as at 14, to receive an outstanding screw-threaded stud 15, connected to or forming a part of the forwardly-extending arm 16 of an angle-plate 17, which is fastened to the bed-post 3, as clearly shown by Fig. 1. The screw-threaded stud 15 receives a suitable clamping-nut 18, and by this means the bracket arm or plate 13 may be adjusted longitudinally to bring the parts carried thereby nearer to or farther from the corner-post of the headboard. The inner extremity of the combined buffer and core 8 has a seat 19 thereon and forming a part thereof or suitably attached thereto and which comprises an upstanding or vertical stop or guard 20 in rear of the similar plane of the bore 7 or behind the latter and which is continuous with a lower horizontal guard 21, having a vertical or upstanding lip 22 at the inner portion of its front end. The rear part of the canopy-supporting arm 5 operates in the said seat, and the vertical guard or stop 20 prevents the same from moving rearwardly beyond a predetermined distance when it is released and the coiled spring 10 exerts its influence thereon. Likewise the horizontal guard 21 acts to limit the downward movement of the said canopy-supporting arm 5, and thereby provides means for uniformly adjusting the same, and the lip 22 obstructs inward movement of the said arm, and a close and positive relationship between the arm and its combined buffer and core is thereby always maintained and the bracket

is greatly relieved from strain or pulling tension that might be exerted in the absence of the limiting means specified.

To brace the combined buffers and cores on opposite sides and hold them in regular relation in accordance with the primary adjustment and disposition, a transversely-extending connecting-rod 23 is employed and fitted at its opposite ends in openings in each combined buffer and core, below the bores 7 thereof. This connecting-rod 23 also operates to equalize what strain may be brought to bear upon the opposite similar members of the improved canopy-frame adjacent the headboard, and in the operation of this form of the device it will be understood that the supporting-arms 5 will be drawn downwardly and carry the canopy or netting therewith and be held in horizontal position by suitable fastening means well known to the art, and to have the opposite arms work in unison and regularly the inwardly-extending angular extremities 6 are removably connected to a cross-rod 24 by means of suitable end sockets 25 on the latter. In applying this form of the device the angle-plates 17 are attached to the corner-posts of the headboard and the plates 13 then secured thereto and adjusted as may be required. Before the parts are positively located and adjusted the connecting-rod 23 will be united thereto in the manner heretofore explained, and it will be seen that the improved frame may be easily set up in operative position without the services of a skilled mechanic and also be capable of being reduced to compact form for storage or transportation in bulk. It will also be understood that the coiled spring 10 will be normally loose on the combined buffer and core and that the elastic or rubber covering of the latter will make the operation of the coils practically noiseless.

In Figs. 4 and 5 a modified construction of the improved device is shown, and in this instance the canopy-supporting arm 5 has its rear extremity bent inwardly, as at 26, for rotatable insertion in the outer end of the combined buffer and core 8 and in the bore 7 of the latter. The connecting-rod 23 in this instance has its opposite ends inserted in the said bore 7 in each combined buffer and core at points opposite to the location of the rear angular extremities of the supporting-arms 5 in the said bores, and thus avoid the formation of the lower openings in the combined cores and buffers to receive the ends of the connecting-rod, as included in the construction embodied by Figs. 1, 2, and 3. In this modified construction the bracket proper consists of an angle-plate 27, with which the combined buffer or core forms an integral part and is directly connected to the front extremity or portion of the forwardly-extending arm 28. The outer end of the buffer and core in this instance is also provided with an upstanding guard 29, with which the supporting-arm 5 contacts when in an elevated position, and thereby preventing the said arm from moving rearwardly beyond a certain point. The coiled spring 10 in this instance also surrounds the combined buffer and core 8, and the outer end thereof projects forwardly and engages the arm 5, and the inner terminal is held in a recess or seat 30, formed in the said combined buffer and core. The operation of this form of the device is similar to that heretofore set forth; but it will be seen that the angle-plate forming the bracket is not adjustable and the arm 5 moves on the outside, and in some uses this form will be preferable.

In Fig. 6 a further modification is shown, and the construction is in all respects similar to that shown by Figs. 2 and 3, with the exception that a bracket 31, similar to the bracket 28, (shown by Fig. 4,) is used, and the seat, comprising vertical and horizontal stops at the inner end of the combined buffer and core, is used without the lip 22. (Shown by Fig. 2.)

It is proposed to use copper-covered steel wire in the construction of the main portions of the improved canopy-frame, and one of the particular advantages of the present construction is that a headboard extension is unnecessary and the netting or canopy can be practically lowered or raised without injury thereto, and, moreover, marring of the headboard will be prevented by the interposition of the several guards or stops of the canopy-supporting arms, and, if desired, any well-known buffer devices may be applied at different points for assisting in rendering the operations of the several parts noiseless and in addition to such special construction as explained.

Changes in the form, proportions, size, and minor details may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described the invention, what is claimed as new is—

1. In a canopy-frame the combination of a bracket having a core, a canopy-supporting arm having a rear continuous angular extremity removably and rotatably mounted in the said core, a coiled spring surrounding the core and having one portion thereof connected to the arm to automatically elevate the latter, the said parts being duplicated on opposite sides of the frame, means for connecting the free extremities of the said arms, and a rod extending from one core to the other.

2. In a canopy-frame the combination of opposite duplicate parts each comprising a core having a bracket connected thereto and provided with a guard or stop at one extremity, a canopy-supporting arm having its rear extremities removably and rotatably mounted in the said core, and a coiled spring surrounding the core and connected to the arm to automatically elevate the latter.

3. In a canopy-frame, the combination of a support having a bracket attachment at each

side of the frame, a canopy-supporting arm having a rear extremity removably and rotatably mounted in each support, a connection between the opposite supports, and a resilient coil surrounding and having bearing on a portion of each support and connected to the adjacent arm, both arms being separably united at their outer free extremities.

4. A canopy-frame comprising opposite duplicate members separably connected at their free extremities and each comprising a cylindrical support with a bore therethrough and a bracket, a canopy-supporting arm having a rear angularly-bent extremity removably and rotatably mounted in the said support, and a coiled resilient device surrounding the said support and having one terminal attached to the arm to automatically raise the latter, the said support having a stop device for limiting the movement of the arm in both a vertical and horizontal plane and also in a lateral direction.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JACOB T. JOHNSON.

Witnesses:
M. PERRY HAHN,
HARRY H. HOLLANDER.