

No. 785,571.

PATENTED MAR. 21, 1905.

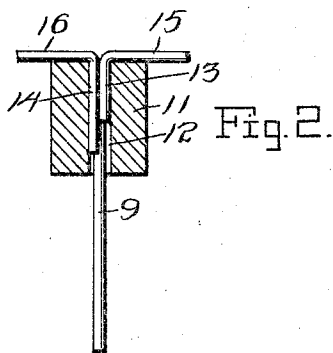
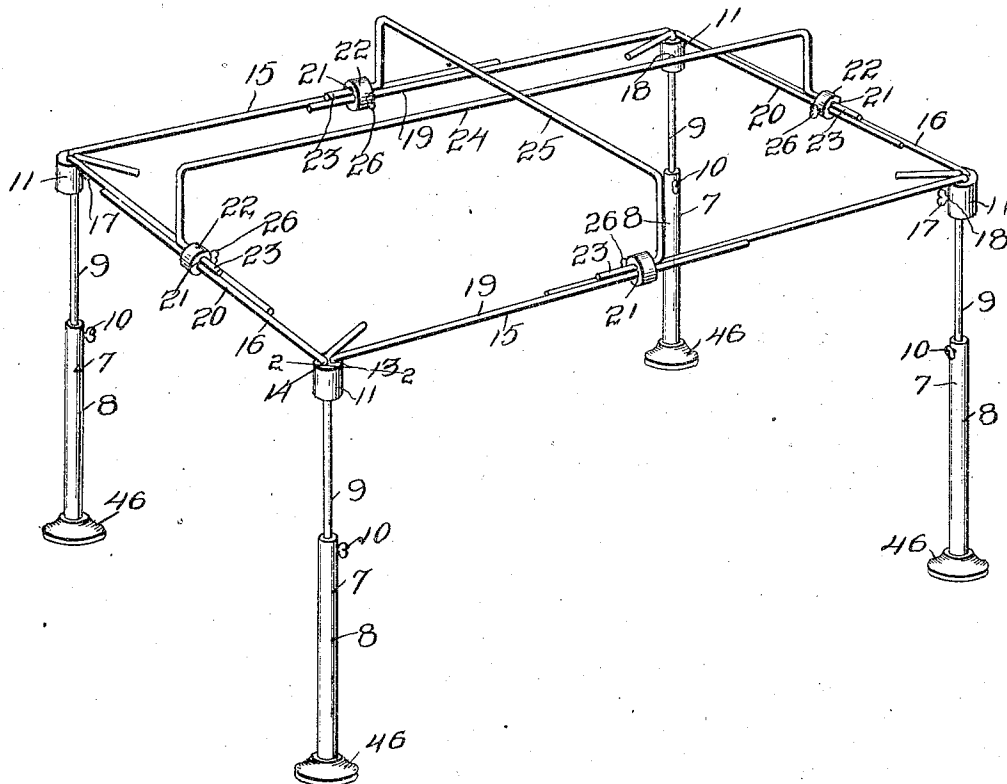
H. RAINES & B. F. GOOCH.

CANOPY SUPPORT.

APPLICATION FILED MAY 6, 1904.

3 SHEETS—SHEET 1.

Fig. I.



Witnesses
C. H. Reichenbach.
W. C. Keyes.

Inventors
H. Raines and
B. F. Gooch.
Charles H. Chandler
Attorneys

No. 785,571.

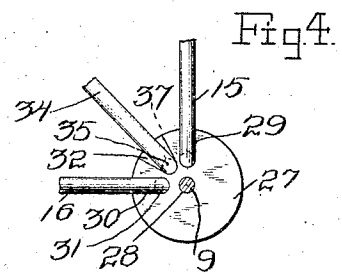
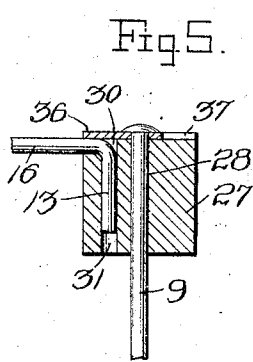
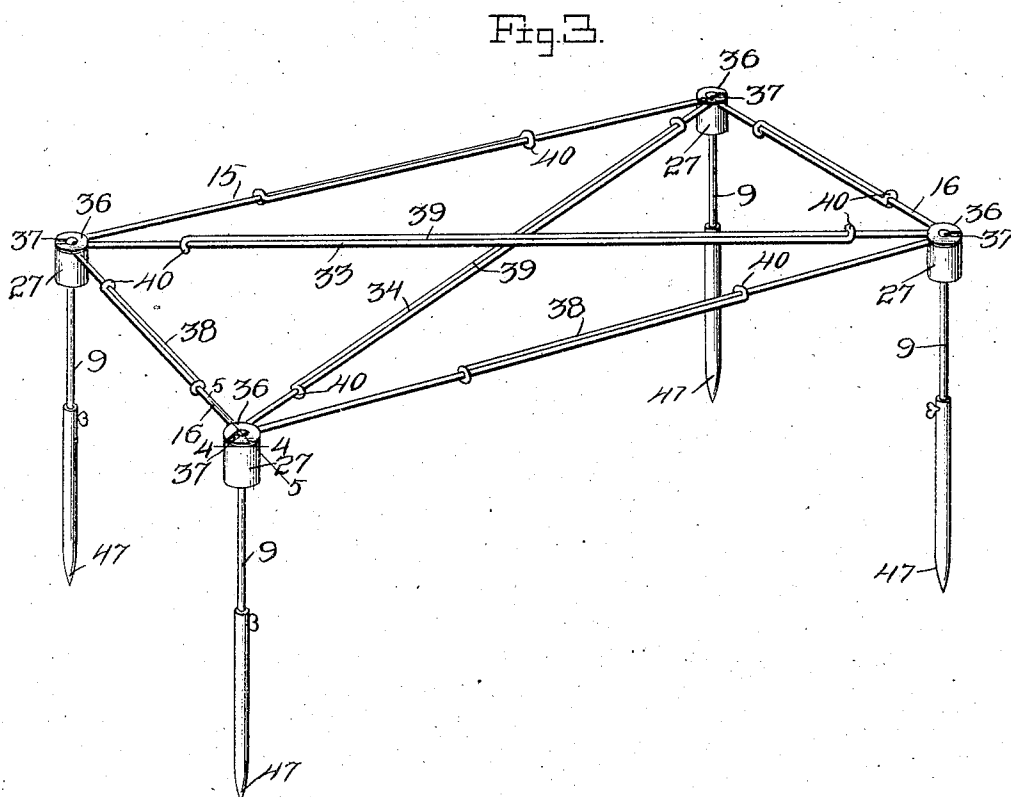
PATENTED MAR. 21, 1905.

H. RAINES & B. F. GOOCH.

CANOPY SUPPORT.

APPLICATION FILED MAY 6, 1904.

3 SHEETS—SHEET 2.



Witnesses
E. K. Reichenbach.
W. C. Key et al.

Inventors
H. Raines and
B. F. Gooch.
Charles J. Gooch
 Attorneys

No. 785,571.

PATENTED MAR. 21, 1905.

H. RAINES & B. F. GOOCH.

CANOPY SUPPORT.

APPLICATION FILED MAY 6, 1904.

3 SHEETS—SHEET 3.

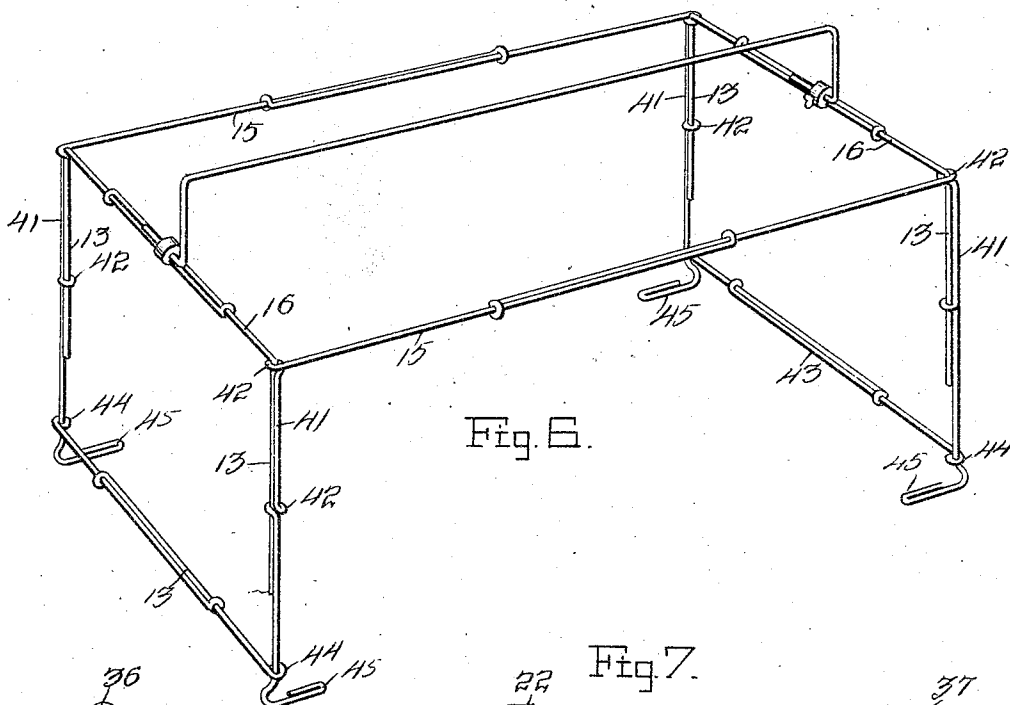


Fig. 6.

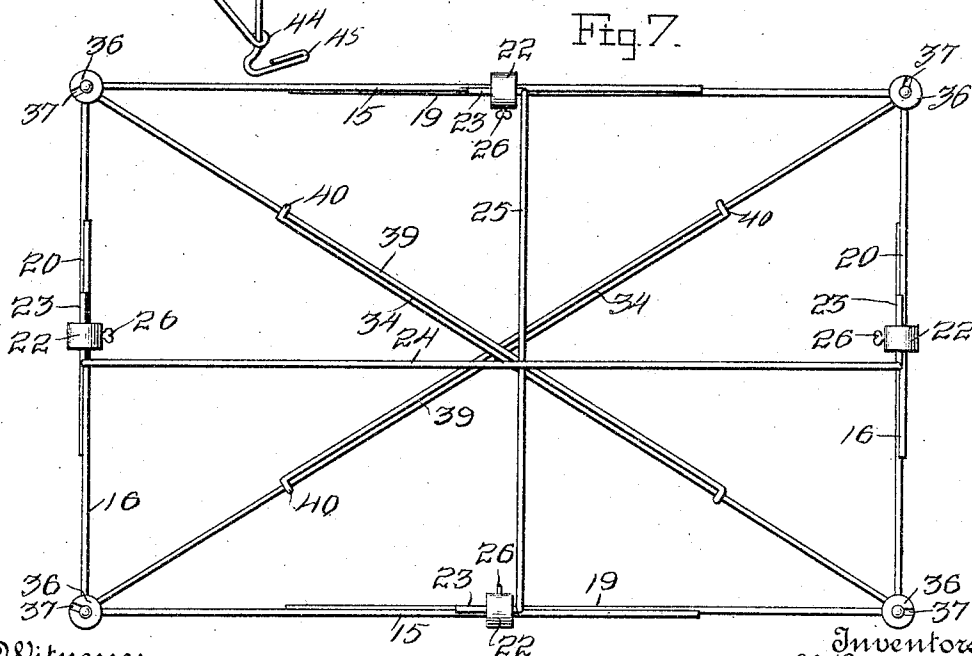


Fig. 7.

Witnesses
C. H. Reichenbach.
W. C. Hayes.

Inventors
H. Raines and
B. F. Gooch.
By *Charles Chanale*
Attorneys

UNITED STATES PATENT OFFICE.

HENRY RAINES AND BENJAMIN F. GOOCH, OF MASON, TEXAS.

CANOPY-SUPPORT.

SPECIFICATION forming part of Letters Patent No. 785,571, dated March 21, 1905.

Application filed May 6, 1904. Serial No. 206,680.

To all whom it may concern:

Be it known that we, HENRY RAINES and BENJAMIN F. GOOCH, citizens of the United States, residing at Mason, in the county of Mason, State of Texas, have invented certain new and useful Improvements in Canopy-Supports; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to canopy-supports for use in supporting insect-nets over beds, tables, &c., and has for its object to provide a support which will be simple and cheap of manufacture, which may be adjusted to different sizes, and which may be taken apart and packed in small space when not in use.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of the support. Fig. 2 is a section on line 2 2 of Fig. 1. Fig. 3 is a perspective view of a modified form of the invention. Fig. 4 is a section on line 4 4 of Fig. 3. Fig. 5 is a section on line 5 5 of Fig. 3. Fig. 6 is a perspective view of a second modified form of the invention. Fig. 7 is a top plan view of a form of the invention which combines two of the other forms.

Referring now to the drawings, and more particularly to Figs. 1 and 2 thereof, there is shown a canopy-support comprising extensible uprights 7, which are arranged at the corners of a rectangle, each support comprising a hollow lower portion 8, having a rod 9 slidably engaged therein and provided with a set-screw 10, by means of which the rod may be held projected at different distances from the upper end of the portion 7. Engaged with the upper ends of the rods 9 are clamps 11, having triangular longitudinal openings 12 therethrough, in one angle of which the rod 9 is disposed, the remaining angles being occupied by the downwardly-turned ends 13 and 14 of extensible side and end rods 15 and 16, which connect the several clamps, the ends 13 and 14 and the rods 9 being held in the position just described by set-screws 17, which

are engaged with threaded passage 18, communicating with the openings 12, and which impinge against the rods 9, forcing the latter between the downwardly-turned ends 13 and 14. The telescoping side and end rods 15 and 16 each consist of supplemental rods 19 and 20, the inner ends of which extend beyond each other and are engaged in triangular openings 21 in clamping-collars 22, and with these triangular openings are also engaged the laterally-turned ends 23 of upwardly-extending yokes 24 and 25, which support the central portion of the mosquito-net disposed upon the support. The collars 22 are provided with set-screws 26, which are disposed to impinge against the laterally-turned ends 23 and force them between the rods 19 and 20 to clamp the ends and the two rods against movement with respect to each other. It will thus be seen that the canopy is extensible both laterally and longitudinally, it being understood that the supporting-yokes 24 and 25 are extensible, as shown, and that the uprights 7 are adjustable vertically to raise and lower the entire supporting-frame-work. It will also be seen that the several portions of the support may be disconnected for packing.

Figs. 3, 4, and 5 illustrate a modified form of the invention in which the rods 9 are provided with cylindrical heads 27, which have central longitudinal passages 28 with which the upper ends of the rods are engaged, the rods projecting slightly above the upper faces of the heads and the heads being rigidly secured to the rods in any suitable manner. In the upper faces of each of the heads are a pair of slots 29 and 30, which extend at right angles to each other and which have longitudinal passages 31 extending downwardly into the head at their inner ends. Between the slots 29 and 30 is a third slot 32, which also communicates with a passage 31 at its inner end, and it will be seen that the three slots communicate at their outer ends with the periphery of the head. In this form of the invention the downwardly-turned ends 13 of the end rod 16 are engaged in the passages 31 at the ends of the slots 29, the portions of the rods just inwardly of the angular ends lying

in these slots, and the side rods 15 are similarly disposed in the slots 30 and the passages 31 at their ends. In this way the rectangular framework is formed. Diagonal cross-braces 33 and 34 are provided which are arranged for longitudinal extension or contraction, as shown, and these braces are provided with downwardly-turned ends 35 and are engaged with the slots 32 in the diagonally opposite heads 27, as shown. To prevent disengagement of the rods and braces from the heads 27, each of the heads is provided with a plate 36, which is centrally pivoted upon the upper end of the rod 9, which extends above the head, and these plates are provided with radial notches 37, which may be brought into registration with the slots 29, 30, and 32 to permit of engagement of the ends of the rods and braces therewith and may then be moved out of registration with the slots to hold the rods and braces in position, as mentioned above. In this form of the invention the rods 15 and 16 and the braces 33 and 34 each include supplemental rods 38 and 39, the inner ends of which are overlapped and are bent laterally around each other in the form of eyes 40, so that longitudinal adjustment of the rods and braces is possible.

In Fig. 6 of the drawings there is shown still another modification in which the supporting-uprights are formed by turning the ends of the extensible side rods 15 downwardly, as shown at 41, and these portions 41 are provided with laterally-extending alining convolutions 42, with which are engaged the downwardly-turned ends 13 of the ends rods 16, which are thus adjustable vertically, there being sufficient friction between the convolutions 42 and the ends 13 to prevent downward movement of the rod 16 under the weight of the mosquito-netting. The lower ends of the portions 41 are connected by brace-rods 43, which have their ends bent into the form of eyes 44, which encircle the portions 41 and permit of pivotal movement thereof with respect to the rods 43. In this construction the support may be collapsed when desired by pressing the diagonally opposite corners thereof toward each other, there being sufficient pivotal movement between the parts to permit of this operation.

As shown in the different views, the supporting-rods 7 may be provided at their lower ends with hooks 45 for engagement with the rails of a bed, with bases 46, which may rest upon the floor, or with points 47 for engagement with the ground when the support is used out of doors.

In practice modifications of the specific construction shown may be made and any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A canopy-support comprising corner-uprights having heads upon their upper ends, said heads having slots in their upper faces opening at one end through their peripheries and also having longitudinal passages communicating with the inner ends of the slots, side and end pieces having downwardly-turned ends disposed in the longitudinal passages and lying with their portions adjacent to the ends in the slots, plates pivoted to the upper faces of the heads, said side and end pieces comprising two overlapping rods, a clamping-collar having a triangular passage therethrough with which the overlapping portions of the rods are engaged, said collar having a threaded opening communicating with one of the angles of its passage, rods disposed with their ends in the triangular passages and thumb-screws engaged in the threaded openings and arranged for operation to bear against the ends of the last-named rods to force said rods between the overlapping ends of the side and end rods and to force the latter against the ends of the passages to prevent movement of the several parts with respect to each other.

2. A canopy-support comprising corner-uprights, extensible side and end pieces removably connected at their ends to the upper ends of the uprights, each of said side and end pieces comprising two rods overlapping at their inner ends, a clamping-collar having a triangular passage therethrough with which the overlapping ends are engaged, said collar having a threaded opening communicating with one of the angles of the passage, canopy-supporting yokes disposed with their ends in the triangular passages of the collars, and thumb-screws engaged with the threaded openings of the collars and arranged for operation to bear against the ends of the yokes to force said ends between the overlapping ends of the rods and to force the latter into the angles of the passages and against the sides thereof to prevent movement of the several parts with respect to each other.

3. A canopy-support comprising corner-uprights having heads upon their upper ends, said heads having slots in their upper faces communicating at one end with their peripheries and having also longitudinal passages communicating with the inner ends of the slots, side and end pieces having downwardly-turned ends disposed with said ends in the longitudinal passages and lying with their portions adjacent to said ends in the slots, and plates pivoted to the upper faces of the heads and having notches therein, said plates being movable to bring their notches into and out of registration with the slots.

4. A canopy-support comprising corner-uprights, side pieces secured at their ends to the uprights, end pieces connected at their ends with the uprights and each including two rods

overlapping at their inner ends, a collar having a triangular passage therein with which the overlapping ends of the rods are engaged, other rods engaged in the triangular passages,
5 each of said collars having a threaded perforation therein communicating with their outer faces and with an angle of its passage, and a set-screw engaged in each of the threaded perforations, said screws being arranged for operation to bear against the last-named rods and
10

to force the latter between the overlapping rods to clamp the latter in the angles of the passages.

In testimony whereof we affix our signatures in presence of two witnesses.

HENRY RAINES.
BEN. F. GOOCH.

Witnesses:

ROBT. J. BAZE,
S. B. KINDRICK.