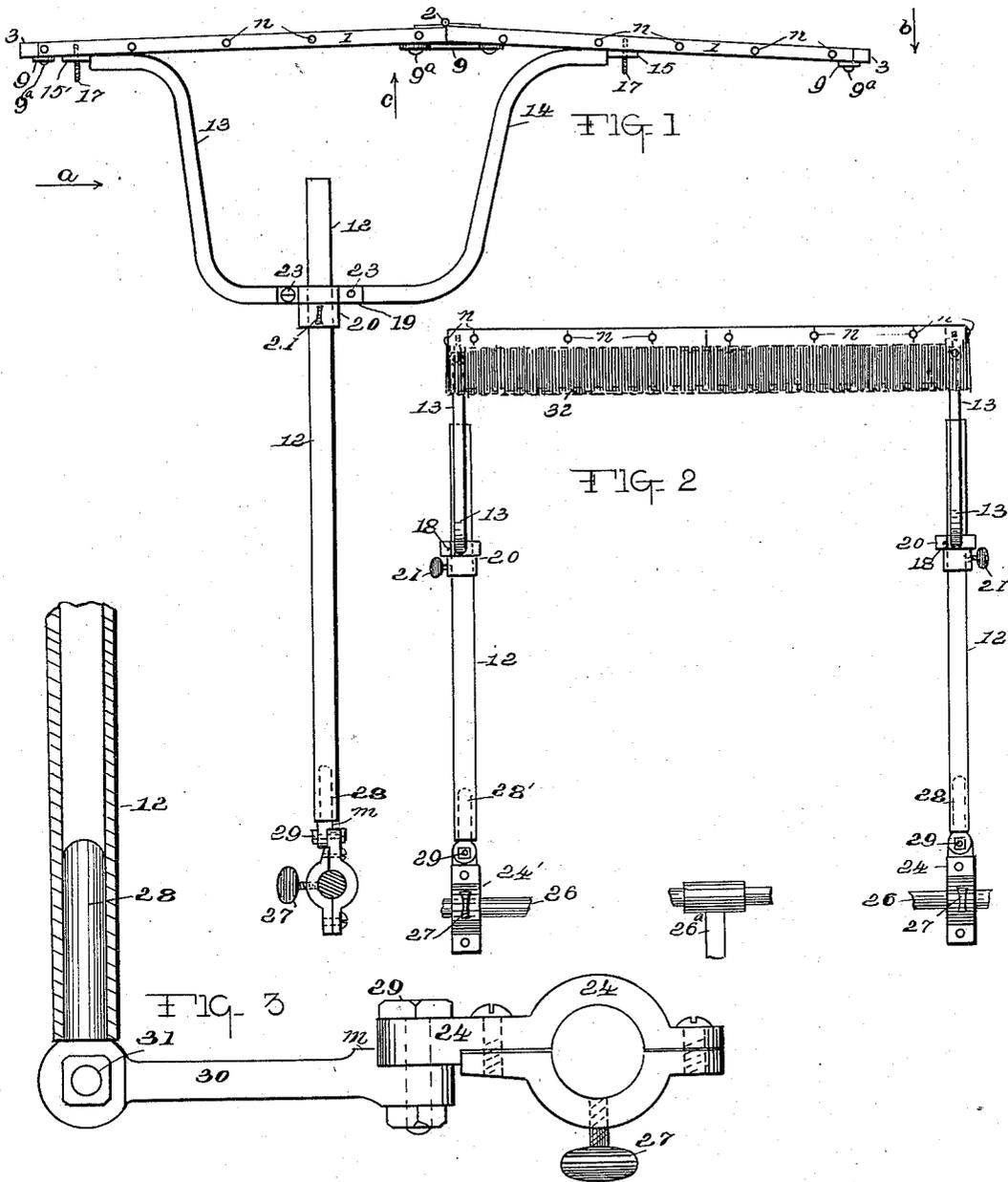


C. STURLL. BICYCLE CANOPY.

No. 578,783.

Patented Mar. 16, 1897.



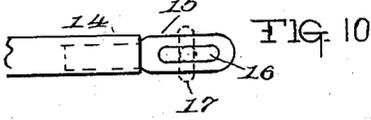
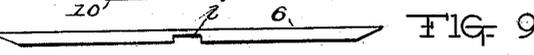
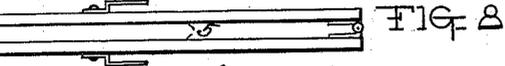
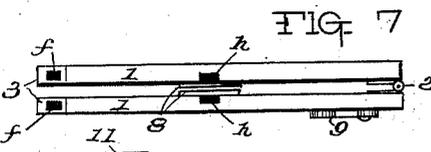
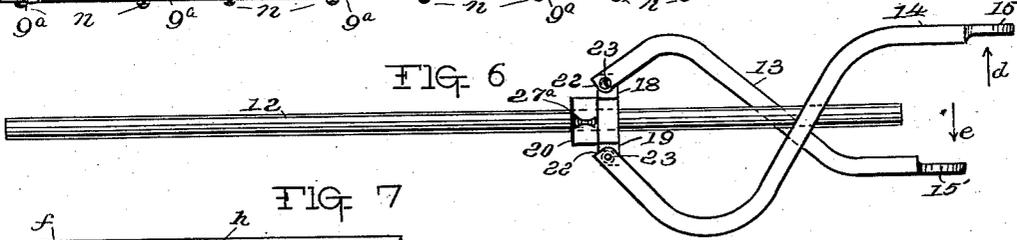
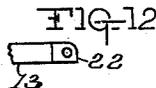
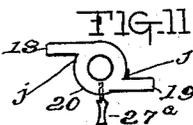
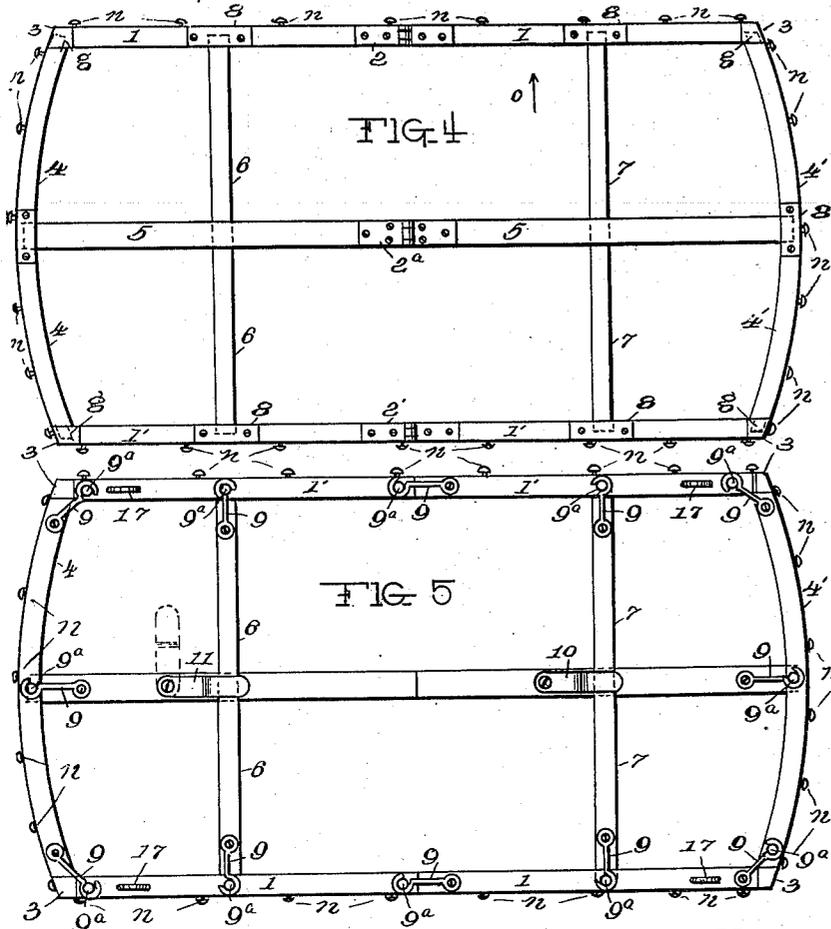
WITNESSES:
H. D. Whitney
L. R. Hoyt

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 BY *Geo. D. Phillips*
 HIS ATTORNEY.

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UNITED STATES PATENT OFFICE.

CHARLES STURLL, OF BRIDGEPORT, CONNECTICUT.

BICYCLE-CANOPY.

SPECIFICATION forming part of Letters Patent No. 578,783, dated March 16, 1897.

Application filed March 11, 1895. Serial No. 541,245. (No model.)

To all whom it may concern:

Be it known that I, CHARLES STURLL, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented a certain new and useful Improved Bicycle-Canopy, of which the following is a specification.

My invention relates to bicycle-canopies; and it consists in the novel construction and combination of parts hereinafter fully described and claimed.

To enable others to understand my invention, reference is had to the accompanying drawings, in which—

Figure 1 represents a side elevation of the skeleton canopy-frame and one of the supporting-uprights therefor attached to a section of the handle-bar; and Fig. 2 is a front elevation, looking in the direction of arrow *a*, Fig. 1, of the canopy or top having the covering thereon, supporting-uprights therefor attached to broken sections of the handle-bar, also broken section of the bicycle-head supporting said handle-bar. Fig. 3 is an enlarged detail view of one of the clamps intended to be attached to the handle-bar and a sectional broken view of one of the uprights mounted upon a support attached to said clamp. Fig. 4 is a detached upper plan view of the canopy-frame, looking in the direction of arrow *b* of Fig. 1. Fig. 5 is a detached bottom plan view of the canopy-frame, looking in the direction of arrow *c* of Fig. 1. Fig. 6 is a detail view of one of the uprights, showing the supporting-braces folded for transportation. Figs. 7, 8, and 9 represent sections of the dissected canopy prepared for transportation. Fig. 10 is a broken detail view of the upper end of one of the canopy-braces, looking in the direction of arrows *d* or *e* of Fig. 6. Fig. 11 is a detail upper plan view of the adjustable slide which is intended to be mounted on the uprights, to which slide the lower end of the canopy-braces are pivotally attached. Fig. 12 is a broken detail view of the lower end of one of the supporting-braces intended to be attached to the movable slide of the uprights.

The construction and operation are as follows:

1 1', Figs. 4 and 5, are the side pieces of the

canopy-frame. These side pieces are, for convenience in transportation, made in two (2) parts, which are permanently connected together by the hinges 2 2'. The ends of these side pieces are provided with metal tips 3, having recesses *f* (see also Fig. 7) therein to receive the tenons *g* of the end pieces 4 4'. The central brace 5 has the hinge 2^a in its central portion, so that it may be folded for the purpose hereinafter to be more fully described. The short transverse braces 6 and 7, as well as the central brace 5, have their ends beveled, as shown at Figs. 7 and 8, to fit corresponding taper recesses in the side and end pieces 1 and 4 of the frame, as shown at *h*, Fig. 7, while their weight is supported on the metal plates 8, attached to such pieces. Beveling the ends of these braces and providing beveled recesses therefor in the side and end pieces of the canopy-frame, as above described, will enable the said frame to be more easily and firmly held together and with less pressure than if such ends were simply provided with the ordinary straight tenon. Besides, such a joint can be more readily dis-

connected. When the frame is assembled, it is held firmly together by means of the several hooks 9 and locking-pins 9^a, arranged, as shown at Fig. 5, on the ends of the several parts composing the frame. When these hooks engage their respective locking-pins, they will draw the several tenons, especially the beveled ones, more firmly into their recesses. The transverse braces 6 and 7 are each provided with a central channel cut (see *i*, Fig. 9) to embrace the central brace 5, and thus keep them in line with their end bearings. Laterally-swiveling clamps 10 and 11 are pivoted to the central brace 5, so as to give a firm bracing support to the cross-pieces of the frame.

The column or supporting-upright 12, carrying the arms or braces 13 and 14, being the exact duplicate of a similar construction connected with the opposite side of the frame will for convenience be designated by the same figure of reference. These arms or braces 13 and 14 are preferably made of light tubing having the supporting-pieces 15 15' driven in their upper or free ends. The elon-

gated slot 16 (see also Fig. 10) is formed therein to attach them to the side pieces 11' of the frame. For this purpose the wire ring-screws 17, Fig. 5, are used, so that when placed longitudinally with such side pieces, as shown, they will pass through the slotted ends 15 of the arms, when they are given a quarter-turn (see dotted position, Fig. 10) to secure the free ends of such arms or braces to the frame.

The lower ends of the arms or braces 13 and 14 are pivotally attached to the wings 18 and 19 of the slides 20, Figs. 1, 2, 6, and 11. Said wings extend laterally outward in opposite directions and lie in different longitudinal planes, (see Fig. 11,) so that when the slides are lowered they will pass by the tubes and project beyond the opposite sides, (see Fig. 6,) and thus take up but little room. These slides are movable on the uprights 12, so as to adjust the height of the canopy to suit the rider, the thumb-screws 21 securing such slides in position. When the braces are opened, as shown at Fig. 1, the ends 22 will abut against the shouldered portion *j*, Figs. 6 and 11, so as to relieve the strain on the pivotal screws 23, the upper corners of the ends 22 being rounded, as shown, to permit folding of such arms or braces, as shown at Fig. 6.

The clamps 24 and 24' embrace the handle-bar 26 on each side of the head 26^a and near the handles, and are secured thereto by the thumb-screws 27. The canopy-supporting columns or uprights 12 are made of light tubing and are detachably supported on the cylindrical studs 28, attached by bolts 29 to the upper end of the before-mentioned clamps. A shoulder *m* is provided on the base of said stud, which will overlap and rest on the upper end of said handle-bar clamps, and thus make a more rigid connection.

To avoid the necessity of making the canopies to suit the different lengths of handle-bars, or to spring or bend the uprights 12 to accommodate different bars, I prefer to use the extension 30, Fig. 3, one for each clamp, in which case the studs 28 are removed from the handle-bar clamps and attached to the free ends of such extensions by an extra bolt 31. These extensions can be placed on the front or rear of the handle-bar and rotated about until the lower end of the canopy-uprights are in a perpendicular line with their upper attachment.

As will be seen by reference to Fig. 3, the clamps 24 and 24' each consists of two semi-circular sections connected together and one of said sections formed with a head having an aperture therein to receive the pivot by which the extension 30 is connected therewith.

The studs *n* on the outer edge of the canopy-frame serve to attach the cloth canopy to as well as the fringe 32. (Seen at Fig. 2.)

The advantage gained in providing two (2) columns or uprights for supporting the canopy and mounting them upon the extremity of the

handle-bar is manifestly greater than if one be employed or the attachment was made with any other part of the machine, as the rider's view ahead is clear and unobstructed. The canopy turns with the handle-bar, so that when the rider stands by his machine he can bring the canopy around to cover him as completely as when mounted. Again, when the arms are tired, as frequently is the case from long riding, they may be rested by changing positions and grasping the uprights at any desired point, and the machine may be governed by this means equally as well. The upper free ends of the uprights may be utilized for hanging the cap or small parcels on, so that the rider is under a continued shade to enjoy the cool breeze.

When the canopy is not needed, it can be dissected or taken apart and folded up, as shown at Figs. 6, 7, 8, and 9, and bundled together and placed in a canvas bag or other like receptacle and hung on the studs 28 in front of the rider, which studs are permanent fixtures on the handle-bar. For this purpose loops would be provided on such receptacle, or loops could be provided on the cloth covering of the canopy-frame and the dissected members rolled therein and strapped together. When the canopy is needed, it is but the work of a few moments to put it together and place it in position.

I do not wish to be confined to the exact means employed for attaching the uprights to the handle-bar, nor do I wish to be confined to the exact means for connecting the several members of the canopy-frame together, as these may be varied to suit the manufacturer.

The gist of my invention consists in making the canopy-frame of detachable parts capable of being readily put together when needed as a canopy and supported from the handle-bar, so as to move in a horizontal plane therewith, and when not required as a canopy to be readily dissected or taken apart and transported on the bicycle.

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

1. The combination with the clamps adapted to be secured to the handle-bar of a bicycle, and each consisting of two connected semicircular sections one of which is formed with an apertured head, the horizontally-swinging extension pivotally connected therewith, provided with a vertical stud at its outer end, and the vertical removable tube in the lower end of which said stud fits, of the vertically-movable slides on said tube, the curved arms pivotally connected therewith, and the collapsible canopy removably secured to the upper end of said arms, substantially as described.

2. The combination with the clamps adapted to be secured to the handle-bar of a bicycle, and the removable tubes connected therewith, of the vertically-movable slides on said

tubes, provided with oppositely-extending lateral wings in different longitudinal planes, the arms pivotally connected therewith, and the removable and collapsible canopy connected with the upper ends of said arms, substantially as described.

Signed at Bridgeport, in the county of Fair-

field and State of Connecticut, this 19th day of February, A. D. 1895.

CHARLES STURLL.

Witnesses:

SAMUEL THORPE,
DAVID M. LACKIE.