No. 690,650. Patented Jan. 7, 1902.

C. H. HANSEN.

AWNING.

Application filed June 25, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

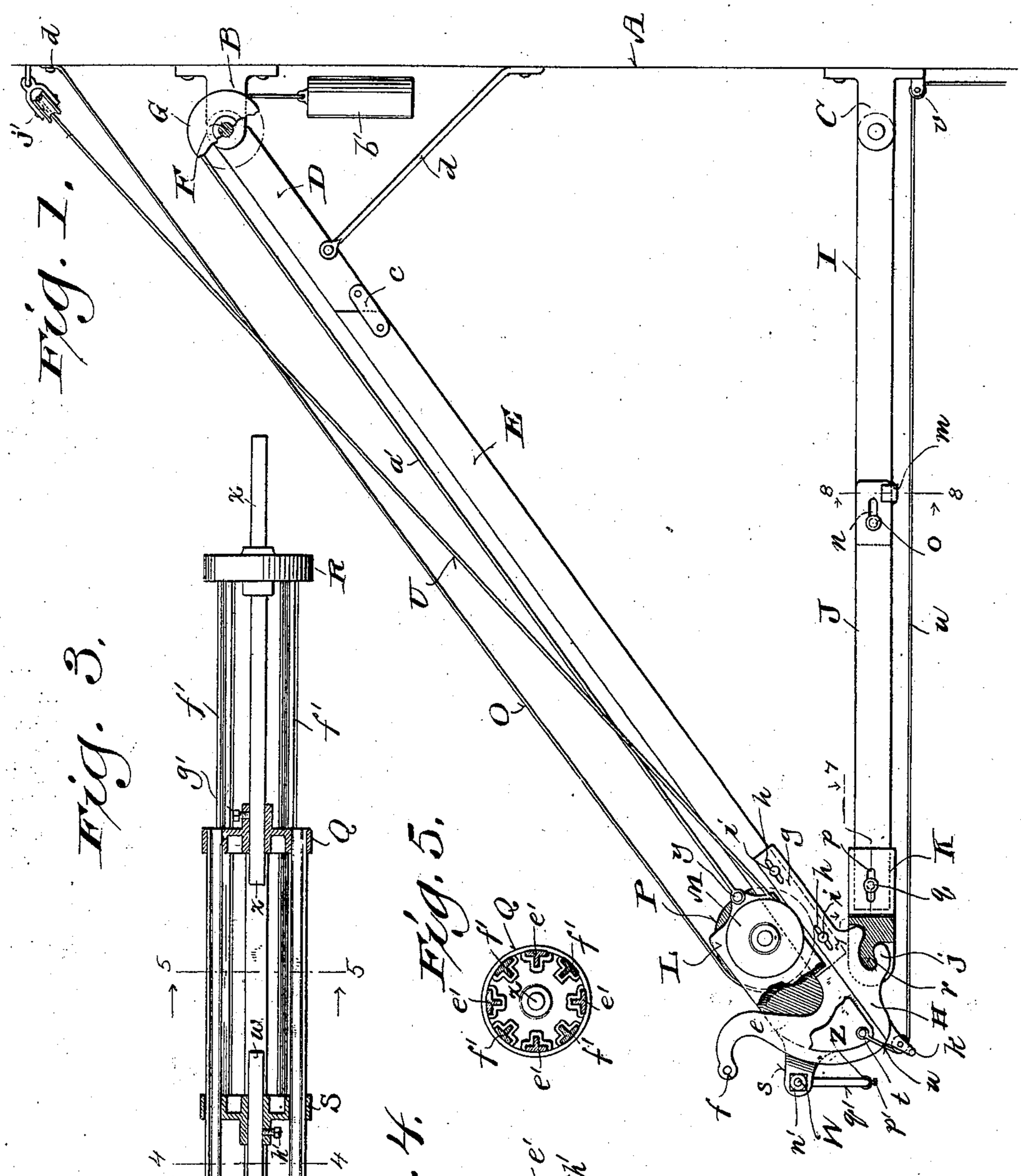

Fig. 3.

Fig. 5.

Fig. 4.

Witnesses:
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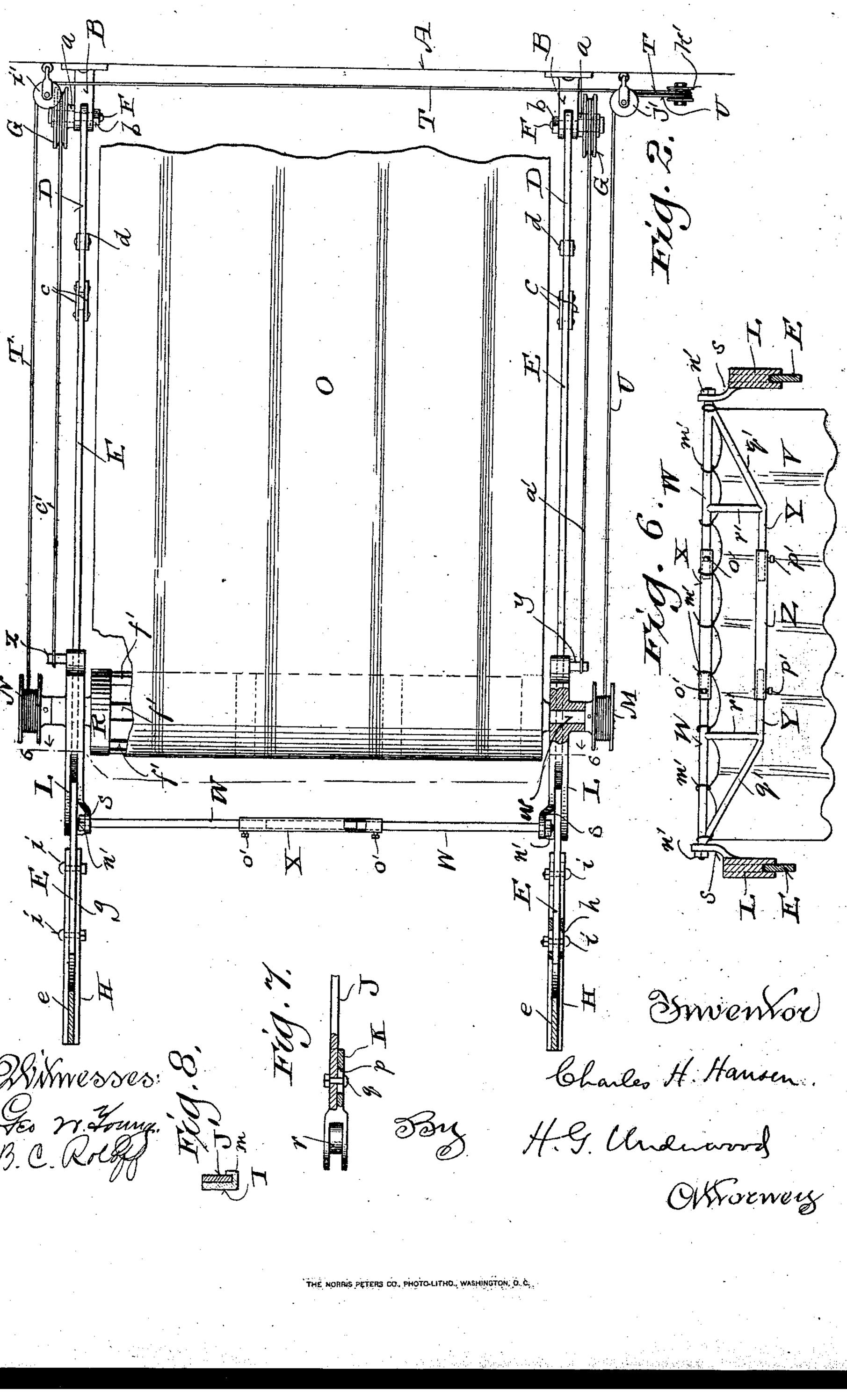

Fig. 2.

Fig. 6.

Fig. 8.

Fig. 7.

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UNITED STATES PATENT OFFICE.

CHARLES H. HANSEN, OF RACINE, WISCONSIN.

AWNING.

SPECIFICATION forming part of Letters Patent No. 690,650, dated January 7, 1902.

Application filed June 25, 1900. Serial No. 21,435. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HANSEN, a citizen of the United States, and a resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Awnings; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to movable awnings; and it consists in certain peculiarities of construction and combination of parts, as will be fully set forth hereinafter in connection with the accompanying drawings and subsequently claimed.

In the said drawings, Figure 1 is a view in side elevation of my improved device, parts being broken away or shown in section to better illustrate certain details of construction. Fig. 2 is a plan view of my said device with the awning partially rolled up and also with certain parts broken away or in section for like purposes. Fig. 3 is a longitudinal partly-sectional view of the awning-roller. Figs. 4 and 5 are transverse sectional views of said roller, taken, respectively, on the lines 4 4 and 5 5 of Fig. 3. Fig. 6 is a view in elevation of the front transverse part of the awning and its supporting-frame, showing the inner sides thereof, and partly in section on the line 6 6 of Fig. 2. Figs. 7 and 8 are detail sectional views taken, respectively, on the lines 7 7 and 8 8 of Fig. 1.

Referring to the drawings, A represents the outer wall of the building or structure to which my said device is attached, and B C represent upper and lower brackets projecting from said wall, one each of said brackets being shown in Fig. 1 and both of the upper brackets B B being shown in Fig. 2. Each bracket B is forked or bifurcated for the reception of the adjacent end of the upper part D of a jointed traveler-bar D E, which are pivotally connected to said brackets B B by means of transverse bolts F F, whose shanks pass through holes in the said forked ends of the said brackets. These bolts F are each provided with collars *a*, between which and the heads of the bolts the said bolts carry grooved pulleys G, loosely mounted thereon, the said pulleys being on the outer ends of the said bolts, beyond or outside of the lines of the said traveler-bars, and the inner ends of these bolts F are screw-threaded and provided with securing-nuts *b*, whereby the parts just described are kept in place. The meeting ends of the parts D E of the traveler-bars are beveled, as shown, and secured together by hinge-plates *c c*, and the said parts D D are further supported by braces *d d*, connected to said parts and to the said wall A.

H H represent brackets having swannecks *e e* of reduced thickness rising therefrom and formed with holes *f f* in their upper ends for a purpose to be hereinafter described. The lower portions of these brackets are formed with rearward extensions *g g*, having central longitudinal upper recesses for the reception of the adjacent ends of the lower parts E E of the traveler-bars D E D E, said extensions *g g* being formed with longitudinal slots *h h* therethrough, and set-bolts *i i* pass through these slots and through bolt-holes in the said parts E E, whereby the said brackets H H may be adjustably connected to the ends of the parts E E of the traveler-bars. Each bracket H, just forward of the described rearward extension *g*, has a downward projection *j*, formed with a curved recess therein, and one of the brackets H has a sheave-block *k* secured to its extreme forward lower end and carrying a pulley, all as best shown in Fig. 1.

I J K represent the three parts of one of the pair of support-bars, which are vertically in line with the described traveler-bars, the rear ends of the parts I being pivotally secured to the brackets C, while the forward ends of the said parts I are each provided with a hook *m*, which serves to support the adjacent end of the intermediate part J of the support-bar, the said part J being formed with a longitudinal slot *n* therethrough to enable said part to have movement on the shank of a set-screw *o*, fast to the part I, in folding the support-bar, as hereinafter described. The forward end of each part J is united to the rear end of each part K, the latter having a longitudinal slot *p* therein and there being a screw-bolt *q* passing therethrough and through a bolt-hole in the part J, so that after adjustment the parts J and K may be firmly held together by a nut on the end of said bolt *q*. The forward ends of the parts K are bifurcated, so as to embrace the opposed sides of the described projections *j* of the brackets

H, while between these extended sides of the forward end of each of the said parts K there is formed a curved tongue *r*, adapted to fit within the described curved recess in the adjacent projection *j*, whereby when the described parts are in the relative positions shown in Fig. 1 the traveler-bars are braced and held by the support-bars.

L L represent the travelers, which are recessed on their under sides, so as to straddle and move on the traveler-bars, and which are also similarly recessed at their front ends to similarly embrace the swannecks *e* of the brackets H, the said travelers having also upper forward-projecting brackets *s*, which have holes formed through their ends for the reception of the front transverse supporting-frame, as hereinafter described, and one of the travelers L has a laterally-projecting pin *t*, to which is fastened one end of a cord *u*, which then passes around the pulley in the sheave-block *k* on the adjacent bracket H, the said cord thence passing along below the plane of the support-bar on that side and around a pulley *v* below the bracket C and thence down along the wall A to any convenient fastening on the wall A. Each traveler L is formed with bearings for the arbors *w x* of the awning-roller, to the outer projecting ends of which arbors *w x* are secured spools or drums M N, and said travelers are further provided at their rear ends with pins *y z*. From the pin *y* a cord or chain *a'* extends back to and over the grooved pulley G on that side of the awning, and to the free rear end of this cord or chain there is attached a weight *b'*, while from the pin *z* on the other traveler a like cord or chain (marked *c'*) extends back on the other side of the awning to and around the other grooved pulley G and carries a like weight at its free end.

O represents the awning, consisting of a strip of suitable fabric of the proper width, the upper end of which is secured to the wall A of the building or other structure, as shown at *d'*, while the lower end of the awning is secured to the awning-roller. This latter part is best shown in Figs. 3, 4, and 5 and comprises in its preferred form two sections which telescopically engage with each other, so as to permit longitudinal adjustment according to the width of the particular awning to be used. Each section of the awning is composed of a number (preferably four) of bars of T-iron, held in place by suitable disks. In the drawings, P represents the outer disk of one section, and Q its inner disk, while R designates the outer disk, and S the inner disk, of the other section, the described arbors *w* and *x* extending in both directions from the axial centers of the outer disks P and R, respectively, and the T-bars *e' e' e' e'*, which unite the disks P and Q, pass through T-slots in the disk S, and similarly the T-bars *f' f' f' f'*, which unite the disks R and S, pass through T-slots in the disk Q, the hubs of the said inner disks Q and S receiving the inner ends of the described arbors *x* and *w* and being provided with set-screws *g'* and *h'* to secure the said hubs and arbors together after adjustment, as shown best in Fig. 3.

Secured to the wall A, above the plane of the top of the awning O, are three pulleys *i' j' k'*. A cord or chain T is secured at one end to the spool or drum N and extends back outside of the traveler-bar D E on that side and around pulley *i'*, and thence along the face of the wall A to and past pulley *j'* and around pulley *k'* and down. A similar cord or chain U is made fast at one end to the spool or drum M and extends back outside of the adjacent traveler-bar D E and around pulley *j'* and down over pulley *k'*, side by side with cord or chain T, the two cords or chains being preferably united from the point of their contact at pulley *k'* and hanging down to within convenient reach of an operator on the ground or sidewalk below the awning. When the awning O is down its full length, as shown in Fig. 1, the cords or chains T U are wound to their fullest extent upon the spools or drums N M, and the lower end of the awning O is wound only one turn around the roller. It will thus be seen that the operator draws down upon the ends of the two cords or chains. This will draw the travelers L L upward upon the traveler-bars D E D E, the cords or chains T U unwinding from their spools or drums and the awning O winding upon its roller as the travelers are drawn upward or inward, the ends of the cords or chains then being fastened in any suitable manner. The weight of the travelers and roller is just a little more than that of the described weights *b'*, and hence when it is desired to let down the awning this can be quickly and readily accomplished by gravity as soon as the cord or chain ends are released from their fastenings, as the travelers will slide down along the inclined traveler-bars, unwinding the awning from the roller and winding up the cords or chains on their spools or drums.

The front transverse part of the awning (shown at V in Fig. 6) is made separate from the main body O of the awning and is supported, as by rings *m' m' m'*, on the transverse divided rod W W and its connecting-tube X. The outer ends of the rods W W are adapted to be supported either by the described traveler-brackets *s s* when it is desired to have this part V of the awning follow the roller in its inward travel or by the upper ends of the swannecks *e* of the brackets H when it is preferred to have the front V of the awning remain stationary, as when its outer surface is utilized for a sign, for example. In either case the said ends of the parts W W of the divided rod are screw-threaded and secured by suitable nuts *n' n'*. The object of making the said parts W W X of the frame in three pieces is twofold—first, to adjust the width of the supporting-frame to the size or width of the awning employed in any given case, and, secondly, to enable this frame to be adjusted

to either the brackets *s s* or the swannecks *e e*, the latter being necessarily of greater distance apart than the former, as the brackets *s s* travel between the said swannecks. When the parts W W X are adjusted, they are held rigidly in such adjusted position by means of set-screws *o' o'*, and as a matter of preference the said parts W W X are further braced and strengthened by the rods Y Y and tube Z, within which the opposed ends of the rods Y Y telescope, similar set-screws *p' p'* being employed to hold the rods Y Y and tube Z in their adjusted position, together with proper brace-rods *q' q'* and *r' r'*, so that a very firm and sufficiently-extended supporting-frame is provided for the said front transverse part of the awning.

Whenever it is inexpedient—as by reason of some city ordinance to the contrary, for example—to permit the permanent projection of the awning-frame, my described jointed construction enables the entire frame to be very readily and quickly folded away from the sidewalk and against the wall A or front of the building. In order to accomplish this, (after the awning O has been rolled up close to the front wall of the building in the manner already described,) the part J of each support-bar is drawn forward away from the part I until the rear end wall of the slot *n* is in contact with the shank of the set-screw *o*, which action also frees the rear end of said part J from the hook *m* on the part I, which will enable each support-bar to be bent downward near the center, (the set-screws *o* serving as pivots,) and when this has been done the curved tongues *r* at the forward ends of the parts K of the support-bars can be readily removed from the curved recesses in the projections *j* of the brackets H. Then the support-bars can be folded or doubled up and placed against the front wall of the building, and similarly the lower parts E of the traveler-bars are now free to be folded against said front wall, the parts D and E of the said traveler-bars being separate and hinged together by the hinge-plates *c*, as already described.

My said invention hereinbefore described is in part an improvement on the device set forth in my prior application for patent for awnings filed November 15, 1899, under Serial No. 737,035, (Letters Patent No. 652,263, dated June 26, 1900.)

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

1. The combination with a supporting structure of a pair of suitably-supported traveler-bars extending therefrom; a pair of travelers movable on said bars; and a longitudinally-adjustable awning-roller journaled in said travelers, and consisting of two telescoping sections, each section comprising outer and inner disks and a series of bars held in place thereby, one set of said disks being provided with arbors, and the other set with hubs in which the arbors are adjustably supported.

2. The combination with a supporting structure of a pair of brackets projecting from said structure, and a pair of suitably-supported traveler-bars pivotally connected to said brackets; a pair of travelers movable on said bars; a transverse roller having arbors journaled in said travelers, and having spools or drums on the outer ends of said arbors; an awning secured at its inner end to said structure, and at its outer end to said roller; a pair of grooved pulleys loosely mounted on the pivots which connect the traveler-bars to the brackets; cords or chains secured to said travelers and extending back to and over said grooved pulleys, and provided with counter-balance-weights at their free ends; a series of pulleys secured to said supporting structure above the plane of the inner end of said awning; and operating cords or chains secured to said spools or drums and passing around said last-named pulleys for drawing said travelers upward, and thereby winding up said awning on said roller.

3. The combination with a supporting structure, of upper and lower brackets extending therefrom; a pair of inclined traveler-bars pivotally attached to said upper brackets; brackets secured to the lower ends of said traveler-bars, and provided with depending projections formed with recesses therein; a pair of folding support-bars pivotally attached to the lower brackets on said supporting structure, and the forward ends of said support-bars being formed with tongues for removable engagement with the recesses in the said depending projections; a pair of travelers movable on said traveler-bars; a transverse roller journaled in said travelers; and an awning, secured at its inner end to said structure, and at its outer end to said roller.

4. The combination with a supporting structure, of upper and lower brackets extending therefrom; a pair of inclined divided folding traveler-bars, pivotally attached to said upper brackets, and the divided parts of each traveler-bar being hinged together; brackets adjustably secured to the lower ends of said traveler-bars, and provided with depending projections formed with curved recesses therein; a pair of three-part folding support-bars pivotally attached to the lower brackets on said supporting structure, the forward end of the inner part of each support-bar being formed with a supporting-hook and a laterally-projecting set-screw, and the rear end of the intermediate part being formed with a longitudinal slot therein for permitting adjustable engagement with said set-screw and hook, the forward end of said intermediate part being adjustably united to the outer part of the said support-bar, and the said outer part being forked at its outer end and provided with a curved tongue for removable engagement with the curved recess in the depending projection of the adjacent adjustable bracket; a pair of travelers movable on said traveler-bars; a transverse roller journaled in said

travelers; and an awning, secured at its inner end to said structure, and at its outer end to said roller.

5. The combination with a supporting structure and a pair of suitably-supported traveler-bars extending therefrom, of travelers adapted to move back and forth upon said bars, said travelers having brackets projecting therefrom; a transverse roller having arbors journaled in said travelers, and spools or drums fast on the outer projecting ends of said arbors; a main awning, secured at one end to said supporting structure, and at the other end to said transverse roller; a series of pulleys attached to the supporting structure; cords or chains attached to said spools or drums, and passing around said pulleys; a front transverse supporting-frame secured to the said traveler-brackets, and a front transverse awning suspended from said front transverse supporting-frame, whereby, as the main awning is rolled upon the roller and carried upward by the travelers, the front transverse awning is simultaneously carried upward thereby.

6. The combination with a supporting structure and a pair of suitably-supported traveler-bars extending therefrom, of travelers adapted to move back and forth upon said bars, said travelers having brackets projecting therefrom; a longitudinally-adjustable transverse roller provided with arbors journaled in said travelers, and spools or drums fast on the outer projecting ends of said arbors; a main awning, secured at one end to said supporting structure, and at the other end to said transverse roller; a series of pulleys attached to the supporting structure; cords or chains attached to said spools or drums, and passing around said pulleys; a longitudinally-adjustable front transverse supporting-frame secured to the said traveler-brackets, and a front transverse awning suspended from said front transverse supporting-frame.

7. The combination with a supporting structure, and a pair of suitably-supported traveler-bars extending therefrom, of brackets secured to the lower ends of said traveler-bars and having perforations through their upper ends; travelers adapted to move back and forth upon said bars, said travelers having brackets projecting therefrom, inside of the vertical line of the traveler-bar brackets, and having like perforations through their upper ends; a longitudinally-adjustable transverse roller provided with arbors journaled in said travelers, and spools or drums fast on the outer projecting ends of said arbors; a main awning, secured at one end to said supporting structure, and at the other end to said transverse roller; a series of pulleys attached to the supporting structure; cords or chains attached to said spools or drums, and passing around said pulleys; a longitudinally-adjustable front transverse supporting-frame, having extensible rods adapted for engagement with the perforated upper ends of either pair of the hereinbefore-named brackets; and a front transverse awning suspended from said front transverse supporting-frame.

8. The combination with a supporting structure of suitably-supported traveler-bars extending therefrom; travelers movable on said bars; a longitudinally-adjustable awning-roller, comprising telescoping sections each provided with outer and inner disks, united by series of bars, the inner disk of each section having circumferentially-arranged perforations for the reception of the bars of the other section, and a central perforation and central hub in line therewith, and the outer disk of each section having an outwardly-projecting arbor journaled in one of said travelers, and an inwardly-projecting arbor passing through the central perforation and hub of the inner disk of the other section; and set-screws for securing the said hubs and inwardly-projecting arbors together, after adjustment.

In testimony that I claim the foregoing I have hereunto set my hand, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

CHARLES H. HANSEN.

Witnesses:
H. G. UNDERWOOD,
B. C. ROLOFF.