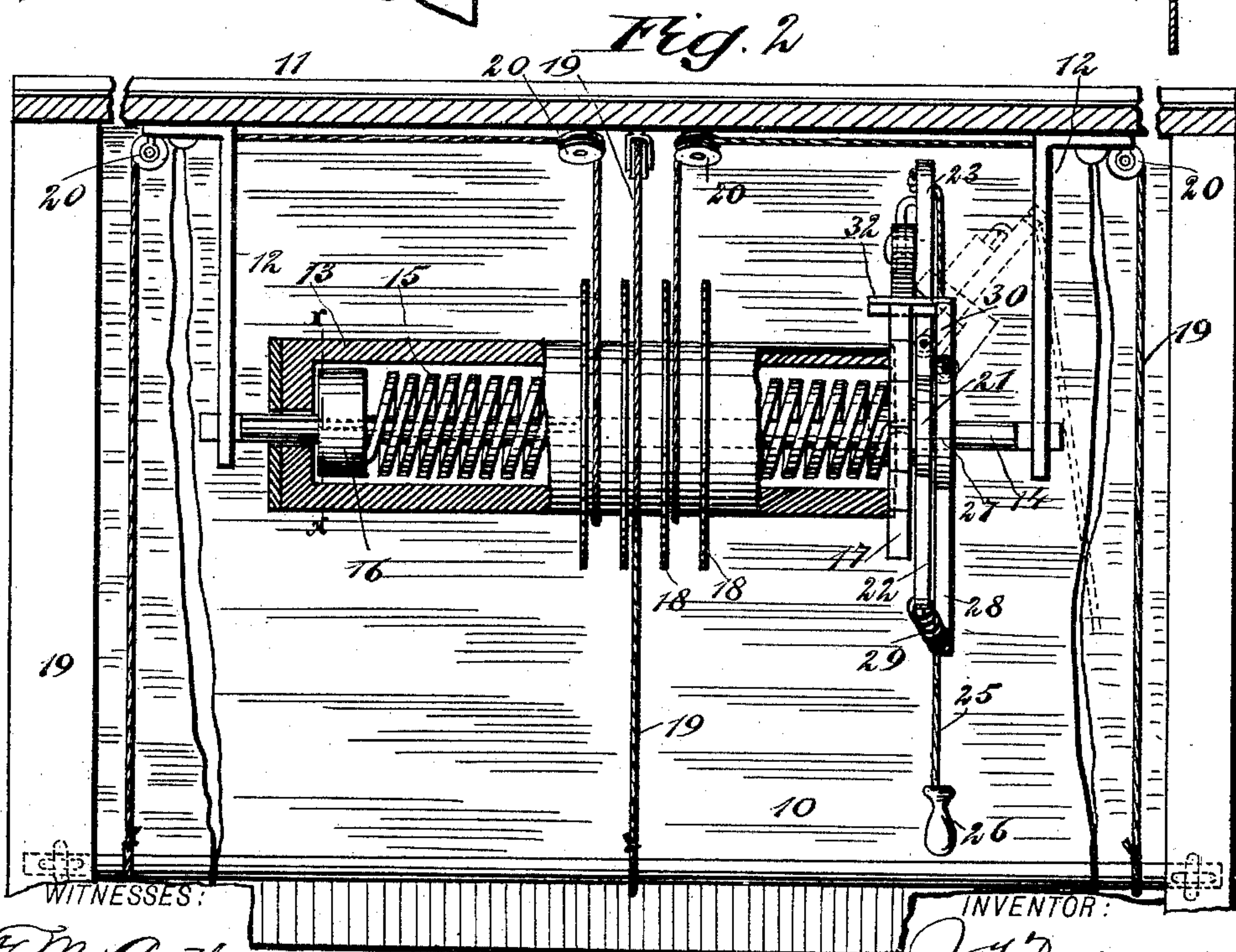
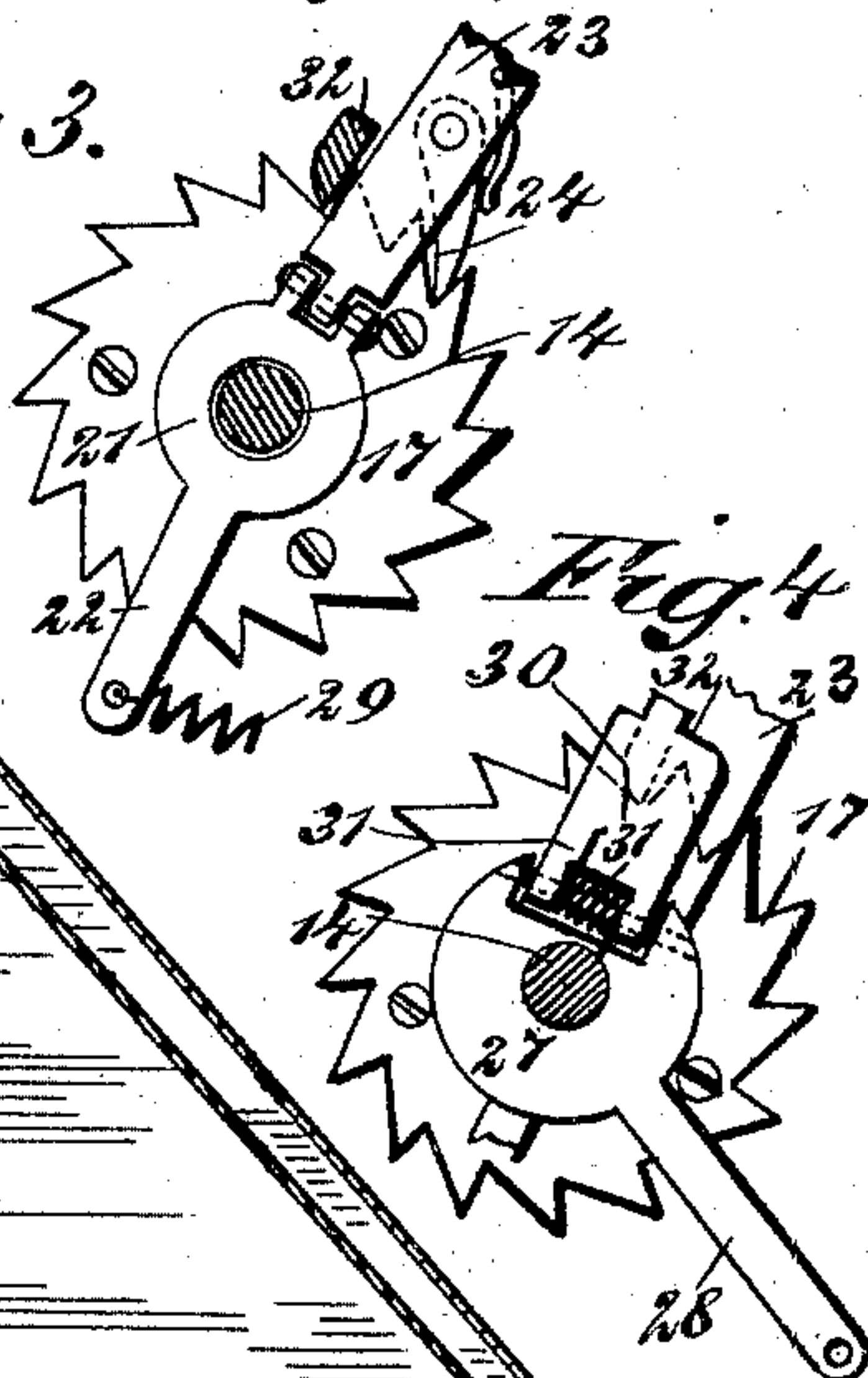


J. T. BAKER.  
AWNING WORKER.

No. 476,119. *Fig. 1.*

Patented May 31, 1892.



WITNESSES:

INVENTOR:

F. McArdle.  
C. Sedgwick

 J. T. Baker  
BY Munn & Co

ATTORNEYS



# UNITED STATES PATENT OFFICE.

JOHN T. BAKER, OF CHICAGO, ILLINOIS.

## AWNING-WORKER.

SPECIFICATION forming part of Letters Patent No. 476,119, dated May 31, 1892.

Application filed July 14, 1891. Serial No. 399,502. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN T. BAKER, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Awning-Worker, of which the following is a full, clear, and exact description.

My invention relates to improvements in awning-workers; and the object of my invention is to produce a simple apparatus by means of which the largest awnings may be quickly and easily adjusted.

To this end my invention consists in an awning-worker constructed substantially as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a broken cross-section of the awning and its support and shows an end view of the awning-worker. Fig. 2 is a broken rear elevation, partly in section, of the awning and awning-worker. Fig. 3 is a broken detail view, partly in section, of the ratchet mechanism for operating the spring-roller. Fig. 4 is a broken elevation of the same, but with the ratchet-hub covered by the outside hub and locking-pawl; and Fig. 5 is a cross-section on the line  $x x$  in Fig. 2, showing the manner in which the spring-pulley is keyed to the spring-shaft.

The awning 10 may be of any approved construction, and it is supported above the entrance 11 to a building, which entrance may represent either a door or window. Suspended within the entrance and at the upper part of the same are hangers 12, which support the spring-roller 13, the latter being mounted loosely on a shaft 14, which is held rigidly in the hangers 12. Within the roller 13 is a spiral spring 15, one end of which is secured to the pulley 16, which pulley is held within the roller and is keyed to the shaft 14, as shown in Fig. 5, and the opposite end of the spring 15 is secured to a ratchet-wheel 17, which is attached to one end of the roller. The ratchet-wheel 17 is held to turn loosely on the shaft 14 and is operated by a pawl-and-lever mechanism, which will be described below.

The roller 13 has centrally thereon a series of thin collars 18, which separate the awning-

ropes 19 and prevent them from getting tangled. These awning-ropes 19 are secured to the roller 13 and extend over suitable anti-friction guide-pulleys 20 to connect with the center and end portions of the front awning-bar. It will thus be seen that when the roller is turned in one direction the ropes will be wound thereon and the awning raised, and when turned in the opposite direction the ropes are slackened and the awning is allowed to drop.

Mounted loosely on the shaft 14, adjacent to the ratchet-wheel 17, is a hub 21, which has an arm 22, rigidly secured thereto and extending downwardly from one side of it, and extending diagonally forward from the opposite side of the hub is a lever 23, which is hinged to the hub, so that it may swing in a plane parallel with the shaft 14. This lever 23 carries a spring-pressed pawl 24, which is adapted to engage the teeth of the ratchet-wheel, and the free end of the lever is curved forward and carries a rope 25, which extends downward to a point within easy reach of the ground and terminates in a handle 26.

Just outside the hub 21 and keyed to the shaft 14, so as to be held rigidly in place, is another hub 27, which has a downwardly and forwardly ranging arm 28, which connects with the arm 22 of the hub 21 by a spiral spring 29.

It will be seen that when the lever 23 is pulled downward by the rope 25 it will turn the ratchet-wheel with it and will lengthen the spring 29, and when the rope 25 is released the spring 29 will return the lever 23 to its normal position.

On the upper side of the hub 27 is a leaf 30, which is hinged in a recess of the hub, so as to swing parallel with the shaft 14, and this leaf is pressed into a vertical position by a spring 31 and carries at its upper end a pawl 32, which engages the teeth of the ratchet-wheel. The function of this pawl 32 is to hold the ratchet-wheel from turning back after the pawl 24 has been depressed and while the lever 23 is returning to its normal position.

The operation of the device is as follows: The spring in the roller is adjusted so that it will nearly balance the awning, but with the advantage a little in favor of the spring. When the awning is dropped, it will of its



own weight extend into nearly its lower normal position, and in dropping it winds up the spring 15 until its tension counterbalances the weight of the awning, and to carry it farther down the operator pulls downward a few times on the rope 25, releasing the rope at each pull, so that the spring 29 may return it, and this movement of the rope and the lever 23 turns the ratchet-wheel 17, which is on the roller, and allows the awning to drop to its lowest position and thereby winds up the spring still further. When the awning is to be raised, the operator pulls laterally on the rope 25, thus releasing the pawl 24 from the ratchet-wheel, and as the lever 23 is immediately behind the leaf 30 it will also release the pawl 32 and the action of the spring 15 will quickly wind up the roller and the ropes thereon, thus raising the awning, and as soon as the awning is raised the operator relaxes the strain on the rope 25 and the spring 31 returns the leaf 30, lever 23, and pawls 24 and 32 to their normal position, thus locking the ratchet-wheel and rollers and holding the awning tightly closed.

I do not confine myself to the particular construction and location of the various parts of the device. For instance, the spring-roller might be suspended in any suitable hangers which could be attached to the most convenient support.

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

1. In an awning-worker, the combination, with an awning, a spring-roller, and ropes secured to the roller and to the awning-frame, of a loosely-mounted lever, mechanism between the lever and roller for operating the latter from the former, and a locking device for the roller adapted to be released by said lever, substantially as described.

2. In an awning-worker, the combination, with a spring-roller, of a loosely-mounted and laterally-swinging lever, mechanism between

the lever and roller for operating the latter from the former, and a locking device for the roller adapted to be engaged by the said lever to release the roller, substantially as herein shown and described.

3. In an awning-worker, the combination, with a shaft and a spring-roller loosely mounted on the shaft and provided with a ratchet-wheel, of a loosely-mounted lever provided with a pawl engaging the ratchet-wheel and a locking-pawl engaging the ratchet-wheel and adapted to be operated by the said lever, substantially as described.

4. In an awning-worker, the combination, with a spring-roller and a ratchet-wheel secured thereto and connected with the roller-spring, of a lever pivoted adjacent to the ratchet-wheel and adapted to swing laterally, a pawl on the lever engaging the ratchet-wheel, a spring-pressed locking-pawl adjacent to the said lever and engaging the ratchet-wheel, and means, as a handled rope, for working the lever, substantially as described.

5. In an awning-worker, the combination, with a stationary shaft, a roller mounted loosely on the shaft, a spring in the roller and connected at one end to the said shaft, and a ratchet-wheel at one end of the roller and connected with the spring, of a hub mounted loosely on the shaft and provided on one edge with a projecting arm and on the opposite edge with a projecting lever, which is hinged to the hub, a pawl carried by the lever to engage the ratchet-wheel, a hub secured to the shaft adjacent to the lever-hub, said hub having on one edge a projecting arm, which is connected by a spring with the arm of the lever-hub, a spring-pressed locking-pawl to engage the ratchet-wheel, and means, as a handled rope, for working the lever, substantially as described.

JOHN T. BAKER.

Witnesses:

JOSEPH O'NEILL,

JOHN A. MCDOWELL.