

No. 646,838.

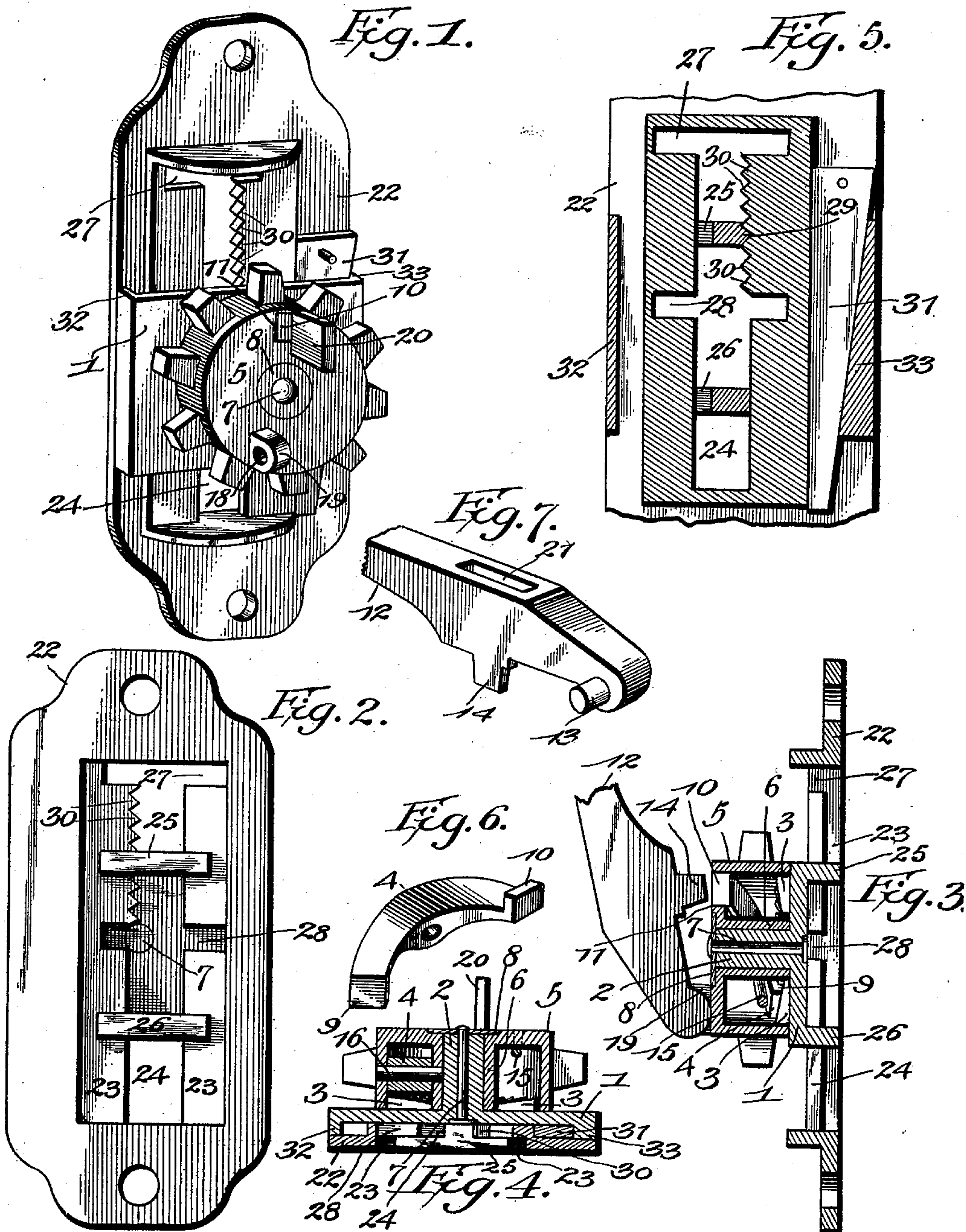
Patented Apr. 3, 1900.

W. JOHNSON.

AWNING OPERATING MECHANISM.

(Application filed Mar. 29, 1899.)

(No Model.)



Witnesses

A. Roy Appleman  
H. J. Riley

By *Thip* Attorneys,

W. Johnson, Inventor.

Cashnow & Co.



# UNITED STATES PATENT OFFICE.

WALFRED JOHNSON, OF MILWAUKEE, WISCONSIN.

## AWNING-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 646,838, dated April 3, 1900.

Application filed March 29, 1899. Serial No. 710,999. (No model.)

*To all whom it may concern:*

Be it known that I, WALFRED JOHNSON, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Awning-Operating Mechanism, of which the following is a specification.

The invention relates to improvements in awning-operating mechanism.

10 The object of the present invention is to improve the construction of awning-operating mechanism and to provide a simple, inexpensive, and efficient device adapted to be readily adjusted to maintain the sprocket-chain of  
15 an awning taut and capable of convenient operation to raise and lower an awning and of locking the same in either position to prevent accidents from occurring through ignorance or by meddlesome persons.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

25 In the drawings, Figure 1 is a perspective view of a device constructed in accordance with this invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a longitudinal sectional view. Fig. 4 is a transverse sectional  
30 view. Fig. 5 is a sectional view on line 5 5 of Fig. 3. Fig. 6 is a detail perspective view of the spring-actuated pawl. Fig. 7 is a detail view of the engaging end of the lever.

35 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a vertically-adjustable bracket provided with a spindle or stub-shaft 2 and having an annular series of ratchet-teeth 3,  
40 adapted to be engaged by a pawl 4 of a sprocket-wheel 5, and the said teeth, which are tapered, as shown, have both of their side faces shouldered in order to lock the sprocket-pinion against movement in either direction.

45 The sprocket-pinion, which is designed to be connected with the sprocket-chain of an awning, is hollow and is provided with a hub 6, consisting of a sleeve spaced from the periphery or rim of the wheel, upon which the sprocket-teeth are formed. The stub-shaft or spindle  
50 is bored longitudinally to receive a rivet 7 or other suitable fastening device, having a

washer 8 at its outer end to engage the outer face of the pinion and provided at its inner end with a suitable head for engaging the  
55 back of the bracket. By this construction the sprocket-pinion is securely mounted on the bracket.

The pawl 4, which is curved, is arranged in the annular space between the hub of the  
60 wheel and the periphery thereof, and it is provided at its terminals with oppositely-disposed projecting portions 9 and 10. The projecting portion 9 forms a tooth and is adapted to engage the ratchet-teeth of the bracket,  
65 whereby the pinion is locked against movement in either direction. The other projecting portion 10 extends outward into an opening 11 of the pinion, and its outer end is flush with the outer face of said pinion. The pawl  
70 is disengaged from the ratchet-teeth of the bracket by means of a lever 12, provided at one end with a laterally-extending pivot 13 and having a lug 14 between its ends to engage and depress the pawl and lift the inner  
75 end of the same from the ratchet-teeth, so that the pinion may be rotated to raise and lower an awning. The inner end of the pawl is held in engagement with the teeth of the bracket by means of a spring 15, interposed between  
80 the pinion and the pawl, which is pivoted between its ends by a pin 16 or other suitable fastening device passing through registering perforations of the pawl and the rim and hub of the pinion. The laterally-disposed pivot  
85 of the lever engages detachably a perforation 18 of a lug 19, arranged at one side of the pinion, and the latter is provided at its opposite side with a lug 20, located adjacent to the opening 11 and adapted to engage a slot or  
90 opening 21 of the lever 12. The lever 12, which forms a handle for rotating the pinion, is interlocked with the same by placing the pivot 13 in the perforation of the lug 19. The lever is then forced inward toward the pinion  
95 to bring the lug 20 in the slot or opening 21 and to cause the projection or lug to depress the outer end of the pawl to free the pinion, and the latter may then be rotated to raise and lower an awning. As soon as the outer  
100 end of the pawl is relieved of the pressure of the lever the spring will throw its inner end into engagement with the ratchet-teeth, whereby the awning will be locked against move-



ment in either direction. After the lever is removed from the pinion the latter will remain locked, and the awning cannot be raised or lowered and injured through ignorance or by  
5 meddlesome persons.

In order to enable the sprocket-chain of an awning-gearing to be tightened, the bracket or plate 1 is adjustably mounted on a frame or plate 22, provided at its ends with perfora-  
10 tions for the reception of suitable fastening devices for mounting it in position and having a longitudinally-offset slotted portion forming ways 23, arranged at opposite sides of the slot 24 and receiving substantially T-shaped  
15 lugs 25 and 26 of the bracket. The frame is provided at the top and at an intermediate point with transverse branches or openings 27 and 28, adapted to permit the lugs of the bracket to be introduced into and removed  
20 from the longitudinal ways of the frame. The lug 25 has its central or neck portion oppositely beveled to form a tooth 29, which is adapted to engage a series of teeth 30, formed in the edge of the frame or plate, at the upper  
25 portion of the slot at one side thereof. The tooth of the bracket is locked in engagement with the teeth of the frame by means of a wedge 31, interposed between the raised or offset portion of the frame and one of a pair of  
30 longitudinal side flanges 32 and 33, arranged at the edges of the bracket. The side flange 33 extends inward on the inner face of the bracket and is substantially wedge-shaped to conform to the configuration of the adjust-  
35 able wedge 31 and cooperate with the same in locking the bracket at the desired adjustment.

The invention has the following advantages: The device, which is simple and comparatively inexpensive in construction, is  
40 strong and durable and adapted to lock an awning against movement in either direction, so that it cannot be accidentally operated and injured through ignorance or by meddlesome persons. The bearing-bracket, which  
45 carries the pinion, is also capable of being readily adjusted to regulate the tension of the sprocket-chain of an awning.

Changes in the form, proportion, size, and the minor details of construction within the  
50 scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What is claimed is—

55 1. A device of the class described comprising a bracket having ratchet-teeth, a hollow pinion mounted on the bracket and provided with an opening, a spring-actuated pawl mounted within the pinion, normally engaging the ratchet-teeth of the bracket and lo-  
60 cated at the said opening in position to be depressed to release the pinion, and a lever interlocked with the pinion and having a rigid lug arranged to extend through the  
65 opening and adapted to engage the pawl, substantially as described.

2. A device of the class described compris-

ing a bracket, a hollow pinion mounted on the bracket and provided with an opening, a curved spring-actuated pawl pivoted between  
70 its ends on the pinion and having its inner end engaging the bracket, the outer end of the pawl being arranged in the opening of the pinion, and a lever interlocked with the  
75 pinion and having a rigid lug or projection to extend into the said opening for depressing the pawl, substantially as described.

3. A device of the class described comprising a bracket or support, a pinion mounted thereon and provided at opposite sides with  
80 lugs and having an opening adjacent to one of the lugs, a pawl mounted within the pinion and engaging the bracket, and a lever fulcrumed on one of the lugs and having a slot to receive the other lug and provided  
85 with a projection arranged to extend into the said opening to depress the pawl, substantially as described.

4. A device of the class described comprising a bracket, a pinion provided with an open-  
90 ing, a pawl mounted on the pinion and arranged within the same and adapted to engage the bracket, a lug carried by the pinion, and a lever detachably fulcrumed on the lug and having a rigid projection adapted to ex-  
95 tend through the opening of the pinion and engage the pawl, substantially as described.

5. A device of the class described comprising a frame, a bracket adjustably mounted on the frame, means for securing the bracket  
100 at the desired adjustment, a pinion mounted on the bracket, and means for operating the pinion and for locking the same against rotation, substantially as described.

6. A device of the class described comprising a frame having a longitudinal slot and provided with transverse openings, a bracket  
105 provided with T-shaped lugs adapted to pass through the transverse openings and engaging the frame at opposite sides of the longi-  
110 tudinal slot, one of the lugs forming a tooth for engaging one side of the frame, a wedge interposed between the bracket and the frame for holding the tooth in engagement with the latter, and a pinion mounted on the  
115 bracket, substantially as described.

7. A device of the class described comprising a frame having a slot and provided at one side with teeth, a bracket arranged to slide  
120 on the frame and having a tooth operating in the slot to engage the said teeth, said bracket having a wedge-shaped flange or portion, lugs carried by the bracket and extending through the slot of the frame and engaging the inner face thereof, and an adjustable  
125 wedge interposed between the wedge-shaped flange or portion, and the frame, and holding the tooth of the bracket in engagement with the teeth of the frame, substantially as described.

8. A device of the class described comprising a frame having a raised portion and provided with a slot, a bracket having a tooth  
130 operating in the slot to engage the frame,



said bracket being provided at opposite sides of the raised portion of the frame with flanges, lugs extending from the bracket through the slot of the frame and engaging the inner face  
5 of the latter, a wedge interposed between one of the flanges and the said raised portion, and a pinion carried by the bracket, substantially as described.

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

WALFRED JOHNSON.

Witnesses:

ANTON LINDNER,  
WILLIAM E. JOHNSON.