J. SWANSON.

CASEMENT WINDOW ADJUSTER.

APPLICATION FILED JUNE 27, 1913.

1,171,555.

Patented Feb. 15, 1916.

Fig. 1

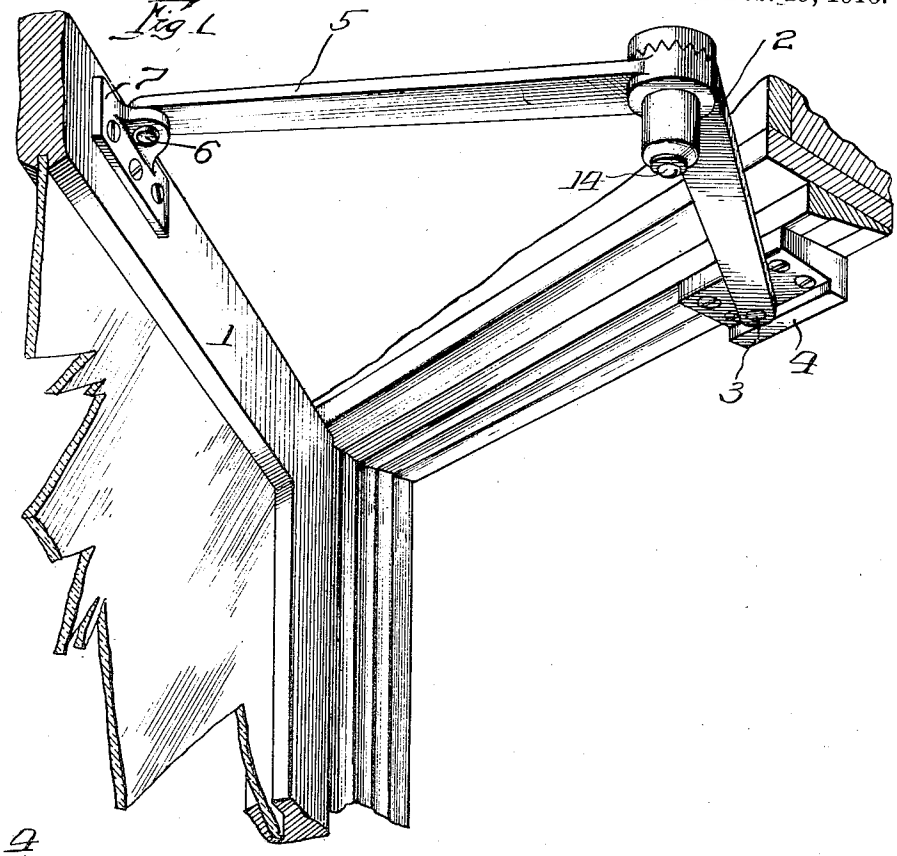


Fig. 2

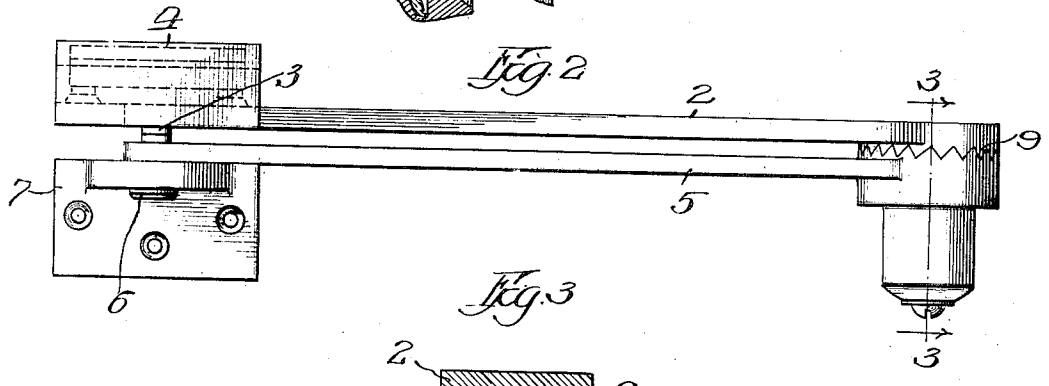
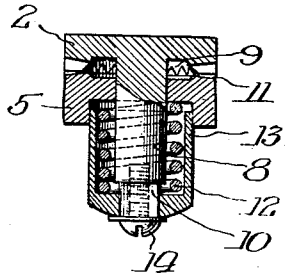


Fig. 3



Witnesses:
Geo. C. Dorsey
Alfred H. Moore.

Inventor:
James Swanson.
By Baxter & Folk
Attys.

UNITED STATES PATENT OFFICE.

JAMES SWANSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO ORR & LOCKETT HARDWARE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

CASEMENT-WINDOW ADJUSTER.

1,171,555. Specification of Letters Patent. Patented Feb. 15, 1916.

Application filed June 27, 1913. Serial No. 776,030.

To all whom it may concern:

Be it known that I, JAMES SWANSON, a subject of the King of Great Britain, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Casement-Window Adjusters, of which the following is a full, clear, concise, and exact description.

The object of my invention is to improve the means for controlling and adjusting casement windows. Heretofore, adjusters and locks of various kinds have been employed for this purpose, but perfect control of this class of windows has not heretofore been obtained, more particularly with reference to permitting the sash to be swung open and closed, from time to time, to a greater or less extent. It is especially desirable to provide for holding the sash whether wide open or closed, or in any intermediate position, firmly and without the necessity of special manipulation of the lock of the adjuster.

My invention permits the ready opening and closing of a casement window, aids in bracing the same to prevent rattling by the wind, whether open or closed; and, at the same time, firmly holds the sash in any position to which it may be swung upon its hinges, whether wide open, tightly closed or in any intermediate position, without any occasion for special manipulation; these advantages being realized while permitting the adjustment of the window, to any position desired, by exerting only moderate force to swing or adjust the sash to any desired degree within the limits of its swing on its hinges.

Briefly stated, my invention comprises two arms with means for attaching their outer ends, to the window frame or casing and the sash of the casement window, respectively, the arms being pivoted together at their inner ends and there provided with an automatic, adjustable clamping mechanism adapted to resist any ordinary wind pressure, no matter what the position of the window may be; the pivotal clamp of the adjuster at the same time being adapted to yield little by little as the window is turned on its hinges.

My invention will be more readily understood by reference to the accompanying drawings, in which—

Figure 1 is a fragmentary, perspective view of an inwardly opening casement window with my improved adjuster attached; Fig. 2 is a side elevation of my casement window adjuster in its folded or closed position; and Fig. 3 is a detailed, vertical, sectional view, on the line 3—3 of Fig. 2, of the pivotal clamping mechanism.

Like parts are indicated by similar letters of reference throughout the different views.

As shown in Fig. 1, the casement window 1 is mounted to swing inwardly. The arm 2 is pivoted at 3 to the stop block 4, which is secured to the window casing as shown. In like manner the companion arm 5 is pivoted at 6 to the pivot plate 7 which is secured to the sash of the casement window as indicated. The arm 2 is provided with the stud 8 placed centrally of the circle of teeth 9. This stud is provided with a square shouldered portion 10 at its lower end which is tapped out to receive a screw. The companion arm is provided with a circle of teeth 11 symmetrical to and adapted to intermesh with the corresponding circle of teeth on the inner end of the arm 2 when placed in position, as shown, upon the stud. The coiled spring 12 is confined about the stud and within the cup 13, the cup being held in position upon the stud by the screw 14 and having a bearing upon the square portion 10 of the stud. It will be seen that the spring, yielding when the position of the arms is changed by rotation thereof, permits the intermeshing teeth of the two arms to pass over one another. It will be seen that the arm or member 5 is provided with an opening which receives the stud 8 of the arm or member 2, thus forming a free pivotal connection between the two members. The knuckle-joint thus formed between the members will be maintained in the position to which it may be at any time adjusted, by reason of the resistance afforded by the intermeshing teeth, the pressure between the teeth being regulated by the coiled spring seated in the socket provided in the member 5 and protected and held in place by the cap or housing; the force of the spring being ad-

justed, in each case, to correspond with the work or resistance required. It will thus be understood that the size and angles of the teeth and the tension and adjustment of the spring must be adapted to the weight and size of the window and the conditions under which a particular window is to be employed.

What I claim is:

1. In a device of the character described, the combination of an arm having an annular toothed flange at one end and a pivot pin projecting from said arm and located concentrically of said toothed flange, said parts being formed integrally; a second arm having an annular toothed flange and an opening concentric therewith for receiving said pin, said toothed flanges intermeshing with each other; a coiled spring surrounding said pin; a tubular cap mounted on said pin and constituting a housing for said spring; and means secured upon the outer end of said pin and overlapping the end of said cap for holding said parts in assembled relation, whereby said housing and pivot pin turn with said first arm.

2. In a device of the character described, the combination of an arm having an annular toothed flange at one end and a pivot pin projecting from said arm and located concentrically of said toothed flange, said parts being formed integrally, said pin having a non-circular outer end; a second arm having an annular toothed flange and an opening concentric therewith for receiving said pin, said toothed flanges intermeshing with each other, said second arm being provided upon its opposite face with a socket concentric with the said opening; a coiled spring received within said socket and surrounding said pin; a tubular cap seated in said socket and constituting a housing for said spring, said cap at its outer end fitting closely the outer end of said stud; and a screw threaded in the outer end of said pin for holding said cap in place, whereby said pivot pin, housing and screw constitute a unitary part of said second arm and turn with it.

In witness whereof I hereunto subscribe my name this twenty-third day of June, A. D., 1913.

JAMES SWANSON.

Witnesses:
GEORGE P. BARTON,
ALFRED H. MOORE.