

No. 745,492.

PATENTED DEC. 1, 1903.

C. H. HAGGERTY.
SHUTTER LATCH.

APPLICATION FILED FEB. 10, 1903.

NO MODEL.

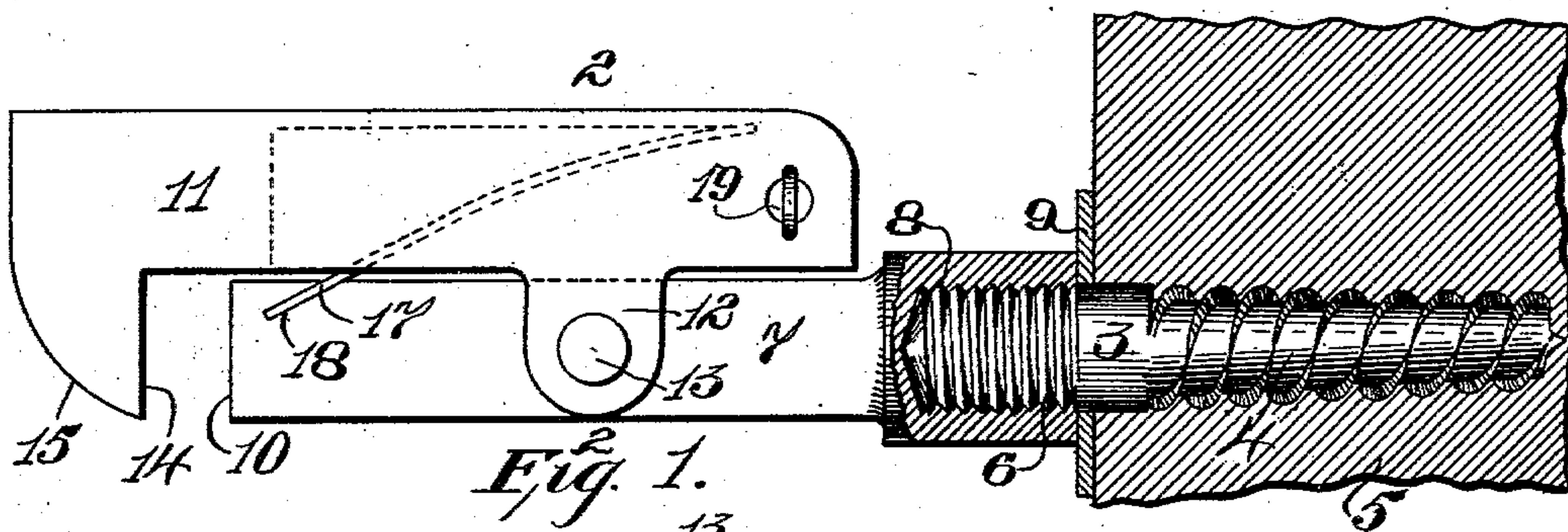


Fig. 1.

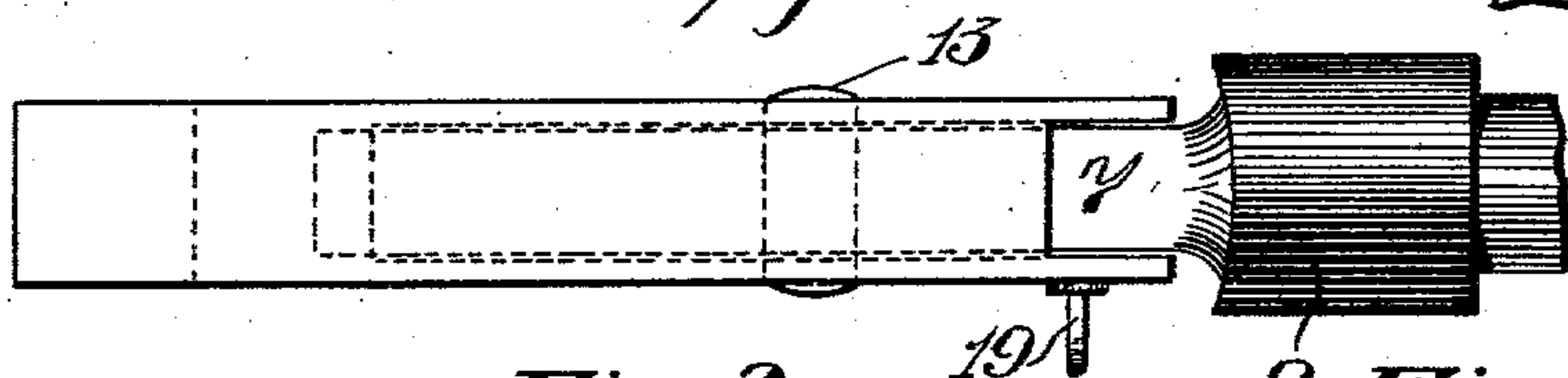


Fig. 2.

Fig. 3.

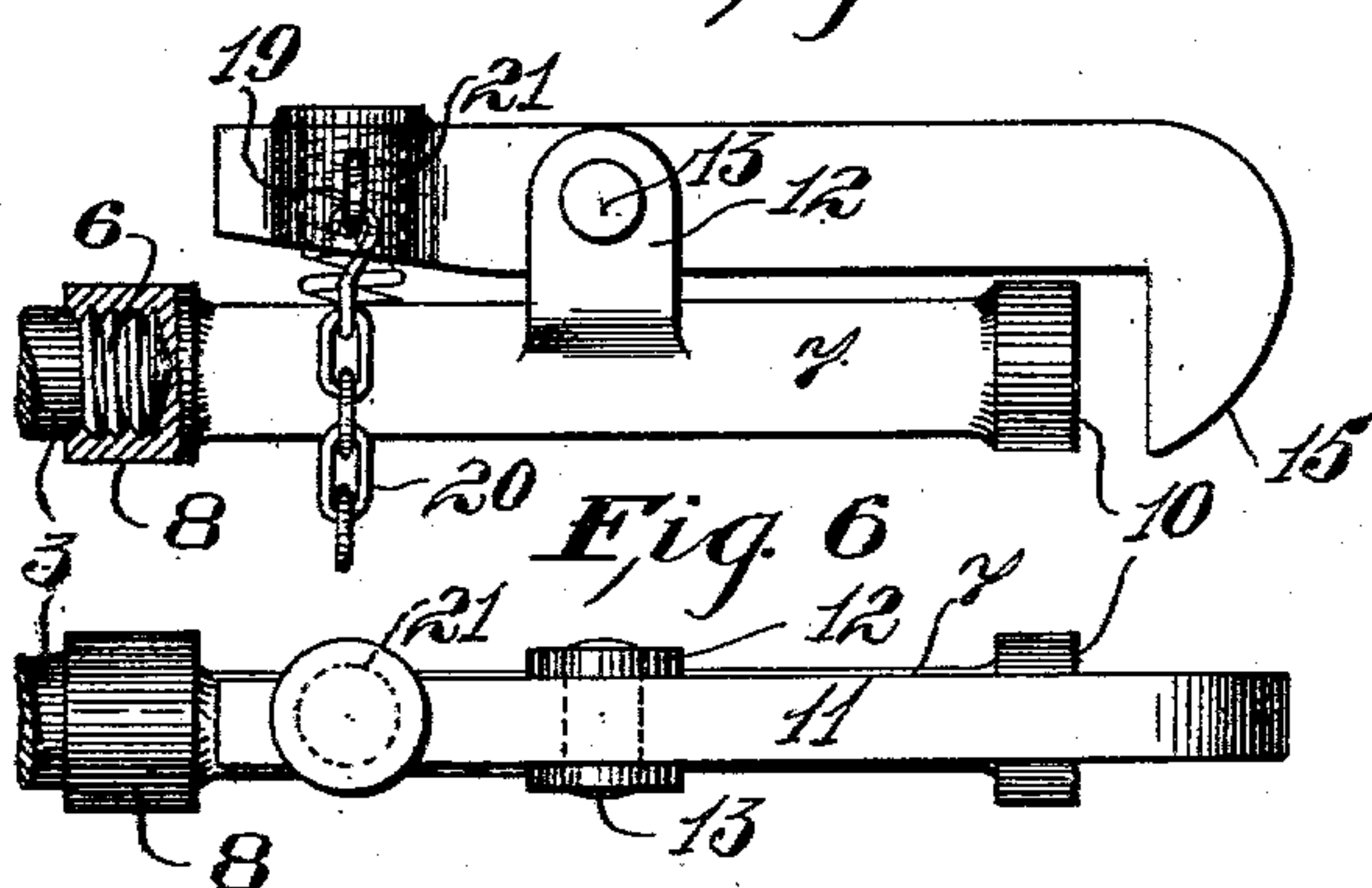


Fig. 6.

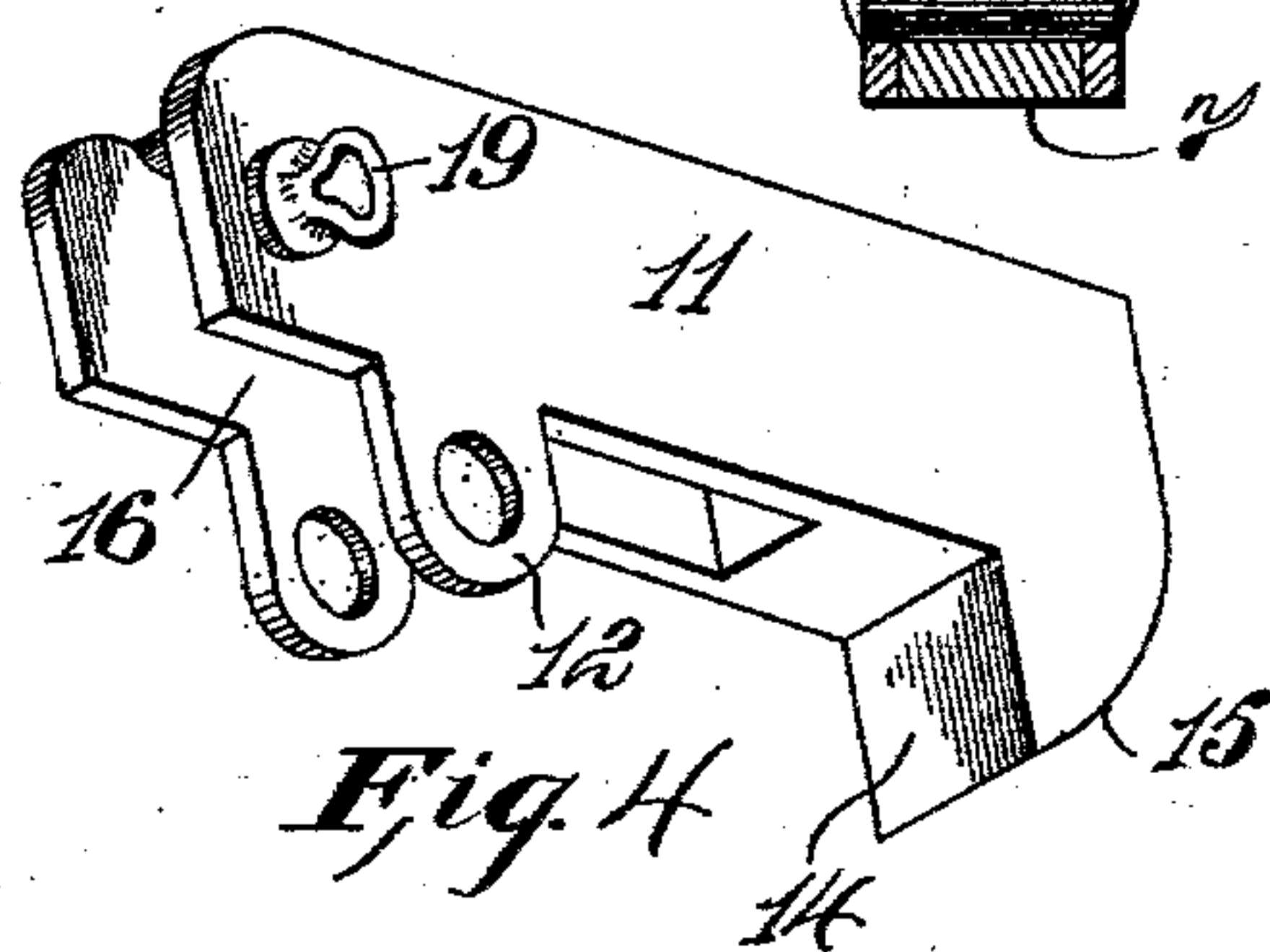


Fig. 4.

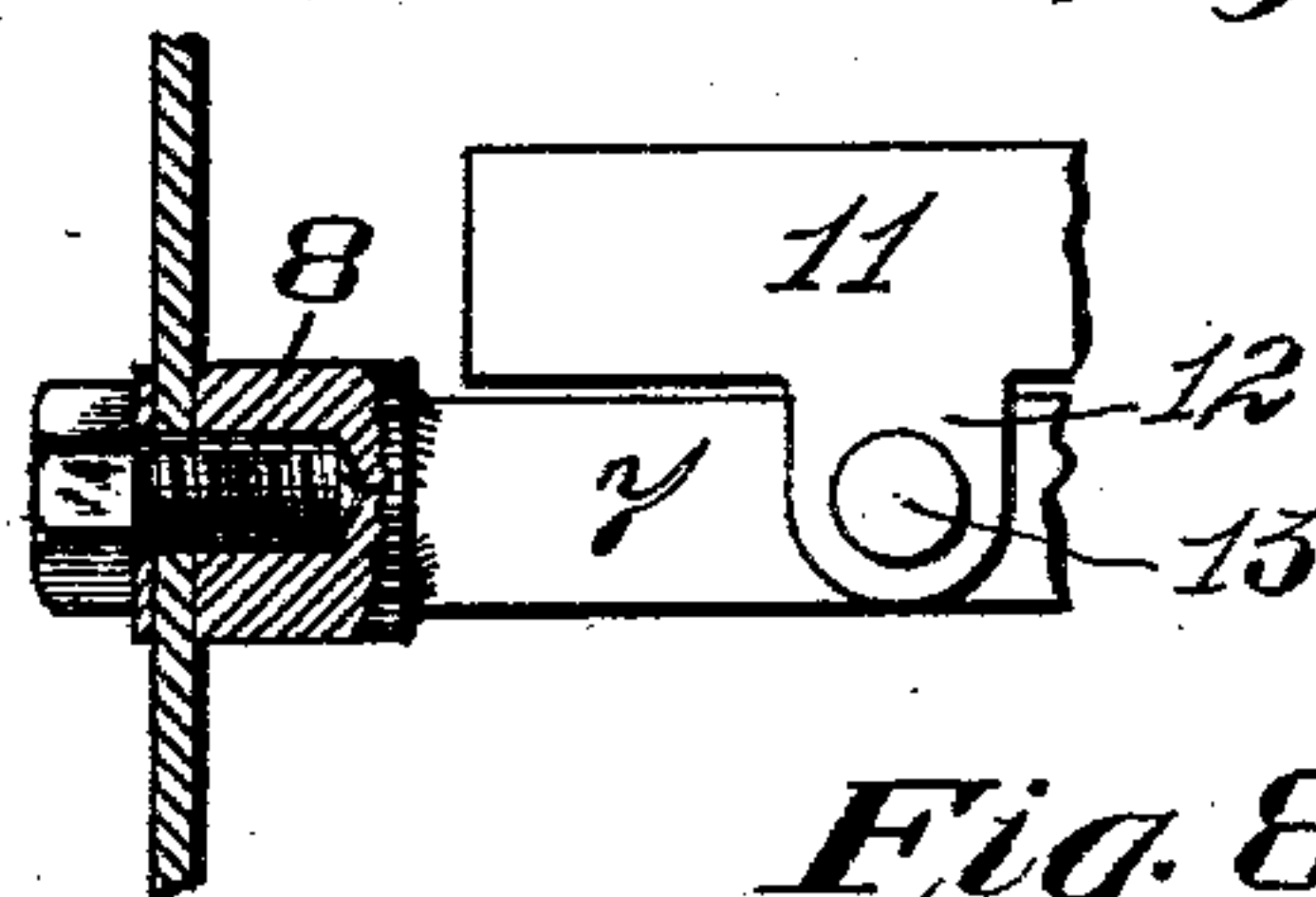


Fig. 8.

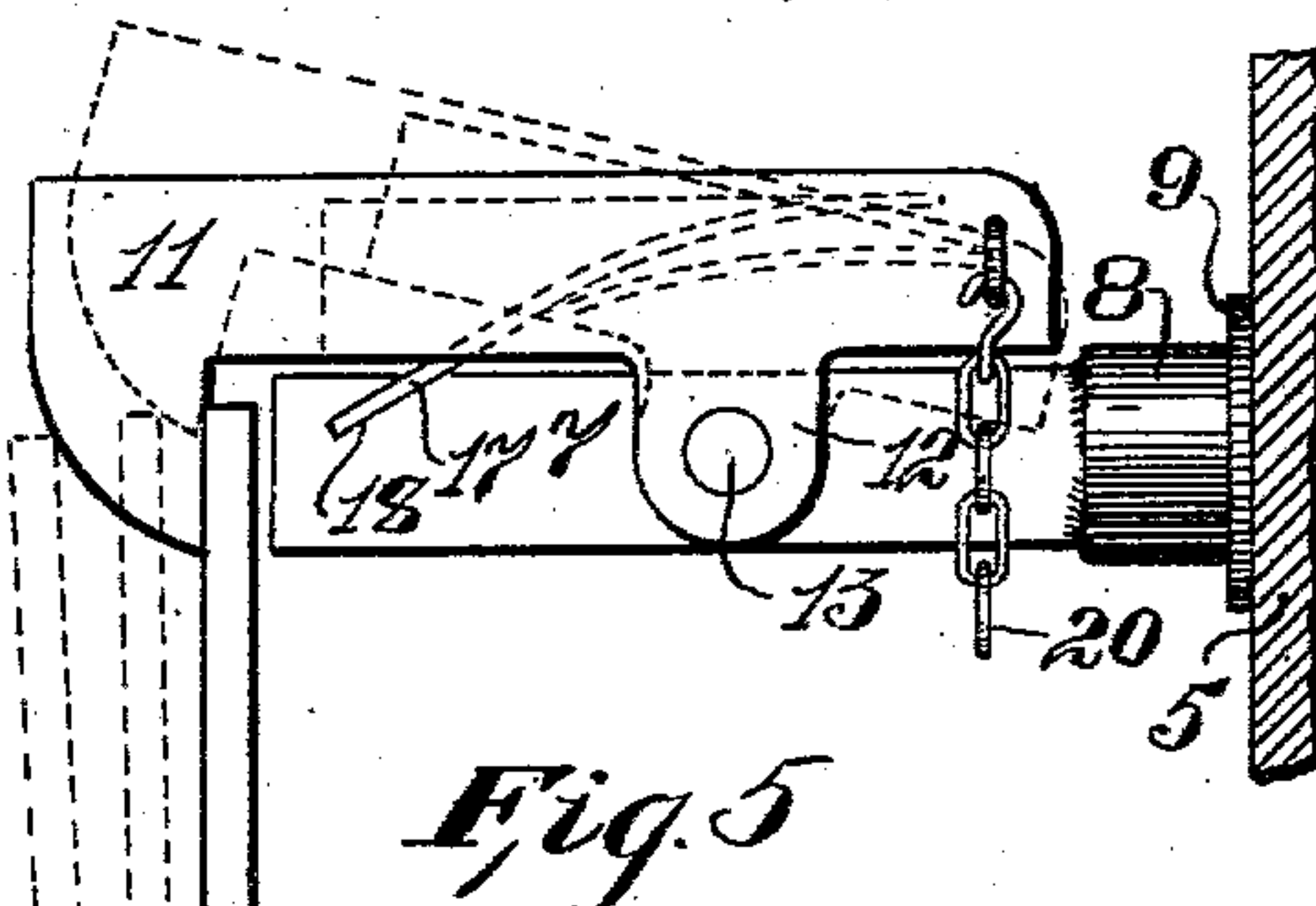


Fig. 5.

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UNITED STATES PATENT OFFICE.

CHARLES H. HAGGERTY, OF NEW YORK, N. Y.

SHUTTER-LATCH.

SPECIFICATION forming part of Letters Patent No. 745,492, dated December 1, 1903.

Application filed February 10, 1903. Serial No. 142,725. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. HAGGERTY, a citizen of the United States, residing in New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Shutter-Latches, of which the following is a specification.

My present invention pertains to releasable retaining devices, and relates more particularly to a device in the nature of a latch which automatically engages the structure to be retained thereby and is manually operable to release the said structure.

This invention consists in the improved construction of a retaining device in which a pivoted latch is normally maintained in its retaining position by spring means and is movable from said position during the placing of the structure to be retained in its retained position and by manually-operable means to release the retained structure.

This invention also consists in the improved construction of the supporting elements of the device and their combination with said latch.

Some of the objects of this invention are to provide a shutter-catch for holding shutters back against a wall when open and to prevent said shutters from being blown about by the wind, which will receive and retain the shutter automatically and be releasable from the window without leaning out.

I have shown my invention embodied in one form of shutter-catch in the accompanying drawings, in which like reference characters designate like parts throughout the several views.

Figure 1 is a plan of the preferred form of my device, showing the stock and supporting-wall in horizontal central section; Fig. 2, a side view; Fig. 3, a cross-section on line 2 2 of Fig. 1; Fig. 4, a detail in perspective of the latch; Fig. 5, a plan of my device shown in connection with a shutter, illustrating in full and dotted lines two positions of the latch; Fig. 6, a plan of a modified form; Fig. 7, a side view of same, and Fig. 8 a detail illustrating the application of my device to a shutter instead of a wall.

My improvements pertain more particularly to means for holding open the fireproof

iron shutters used on the exterior of buildings. These shutters it is the practice to hold open loosely by means of long hooks, which extend from the window-sills to the outer edges of the shutters at their lower portions. It is found in the case of very high office-buildings whose upper stories are frequently exposed to wind of high velocity that the banging of the shutters when held by such hooks is highly objectionable. Oftentimes the outer edge of a shutter vibrates under the wind-pressure some six or eight inches, and when a heavy shutter is so vibrated at very high speed the noise is unendurable to the occupants of the offices. Moreover, the hooks and fixtures are found in practice insufficient to hold the shutters so exposed, particularly since the hooks engage the shutters at their lower edges, thereby giving the wind a purchase upon the entire areas of the shutters to wrench the fastenings at the lower edges, so that it often happens that the hooks, although made of iron rods of a diameter of three-fourths of an inch, are bent double by the wind and the fastenings are otherwise damaged.

According to my improvements the fastening of the shutter is placed at a point remote from the shutter's bottom edge, preferably about midway of its height, as will be understood from Fig. 8, so that any purchase of the wind upon the shutter is avoided, while I contrive a stop in combination with a latch, so that by means of the stop and the latch the shutter is confined against noticeable vibration, and not only is the noise avoided, but no damage is done by the wind to either the shutter or its fastenings. In order to make it practicable to use a latch at the middle portion of an iron shutter, which usually has considerable breadth, I connect to the latch a releasable device, preferably in the form of a chain, which I extend to the inner or hinge edge of the shutter, where it may be reached by a person standing within the building.

Referring to the drawings, stud 3 is provided with a wood-screw 4, which is adapted to screw into the wall 5 or into a plug previously inserted in the wall in the usual manner. An expansion-stock may be in-

serted in a socket in the wall in place of the wood-screw 4, or any other suitable securing device may be applied to the stud 3. The outer end 6 of the stud 3 is adapted to project from the wall 5 and is preferably provided with a machine-thread.

A post 7, which is preferably made rectangular in cross-section, is provided with a socket 8 at one end, which socket 8 is threaded to fit the projecting portion 6 of the stud 3. A washer 9 may be placed on the projecting portion 6, bearing against the wall 5, so that the post 7 may be screwed tightly against it.

The outer end of the post 7 is preferably made with a flat surface 10 to serve as an anvil, against which the shutter may strike.

A latch 11 (see Fig. 4) is mounted alongside of the post 7 (see Fig. 1) and is provided with ears 12, which project from said latch, between the ends thereof, and embrace the post 7. The ears 12 are pivoted at 13 to the post 7. The outer end of the latch 11 is formed with a shoulder 14, which is adapted to normally be parallel to and opposite the face 10 of the post 7 and be carried out of alignment with the post 7 when the latch 11 is swung on the pivot 13. The outer end face 15 of the latch 11 and the shoulder portion 14 are inclined from the body of the latch 11 in a manner which will cause the latch 11 to be swung on its pivot 13 and the shoulder 14 carried out of alignment with the post 7 when said outer end face 15 is struck by a structure, such as a shutter moving toward the anvil-face 10 of the post, allowing said structure to move into contact with said anvil-face 10. The pivot 13 being located between the ends of the latch 11 divides the same into two arms, one, carrying the shoulder 14, being the forward arm, and the other, projecting backwardly therefrom, being the rear arm.

The latch 11 is hollowed out at 16 for some distance from the pivot 13 along the forward arm and throughout the length of the rear arm, forming walls from which the ears 12 project. The hollow 16 allows the rear arm of the latch 11 to be swung over the post 7 and a considerable movement given the same with compact structure.

One end of a flat spring 17 is secured in a saw cut or slit 18 in the forward part of the post 7 and is disposed in the hollow 16 in the latch 11, bearing against said latch at or near the extremity of the rear arm thereof and exerting a pressure thereon which tends to keep the latch 11 in that position where the shoulder 14 is in front of the anvil-face 10 of the post 7.

The spring 17 throws the latch into its retaining position when the structure or shutter strikes or nearly strikes the anvil.

An eye 19 is provided at or near the extremity of the rear arm of the latch 11, to which a chain or cord 20 is attached, leading along the wall 5 to a point easy of access from the window. A pull on the chain or cord 20 will tilt the pivoted latch 11 against

the pressure of spring 17 and carrying the shoulder 14 out of alignment with the post 7, releasing the structure or shutter.

In the modification shown in Figs. 6 and 7 I have made the ears 12 upon the post 7 and formed a socket 21 on the rear arm of the latch 11, in which socket 21 a spiral compressible spring is mounted bearing against the post 7.

In Fig. 8 I have shown the mode of attaching the post 7 to the shutter, in which case a keeper is secured to the wall 5, with which the latch 11 engages.

It is obvious that various changes may be made in the details of construction and mode of application of my present device without departing from the spirit of my invention.

Having thus described my invention, I claim—

1. The combination of a stock comprising an attachable base portion and a staff, of a hook-shaped latch having pivot-lugs midward of its ends, which lugs bestride said staff and are pivoted thereto between the ends of the latter, the nose of the latch normally hooking entirely over the tip of the staff to cooperate therewith in confining a shutter or the like, the rear of the latch being recessed to bestride the staff upon the rising of the hook to receive and release a shutter; and a spring occupying said recess to close said latch.

2. In combination, a stock comprising an attachable base portion having a screw-socket therein and a comparatively stocky staff having broad side faces at a considerable distance apart and its tip in front of the screw-socket and on the line of the axis thereof; a hook-shaped latch having a pair of pivot-lugs set wide apart and having broad bearing-faces resting upon the side faces of the staff and pivoted thereto between its ends on the line of the axis of the socket, the nose of the hook normally overlying the tip of the staff and when in its hooked position adapted to impart strain to the socket and its engaged screw on a line with the axis thereof, and the end of the latch opposite the hook end having a recess to bestride the staff upon the movement of the latch upon its pivot and to form a spring-housing; and a spring housed therein.

3. In combination, a stock comprising an attachable base portion and a staff, a hook-shaped latch having pivot-lugs midward of its ends, which bestride said staff and are pivoted thereto so that the adjacent faces of the staff and latch lie comparatively near each other, a recess in the back end of the latch to permit movement of the same upon its pivot; and means to normally hold the latch in its locking position.

Signed at Nos. 9 to 15 Murray street, New York, N. Y., this 7th day of February, 1903.

CHARLES H. HAGGERTY.

Witnesses:

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