

(No Model.)

W. E. CLINE.
SASH FASTENER.

No. 513,882.

Patented Jan. 30, 1894.

Fig. 1

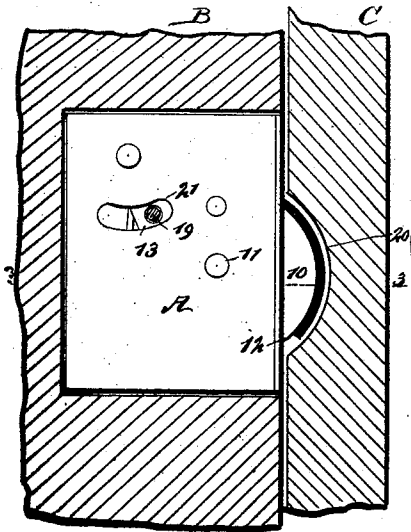


Fig. 6

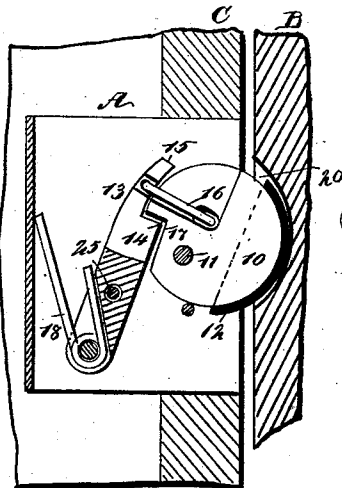


Fig. 2

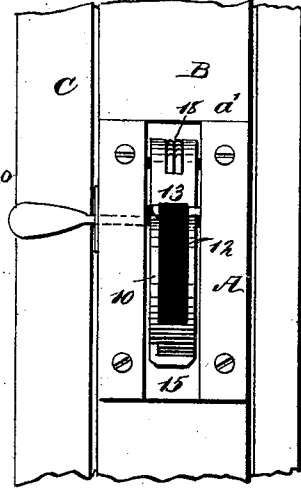


Fig. 10

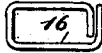


Fig. 3

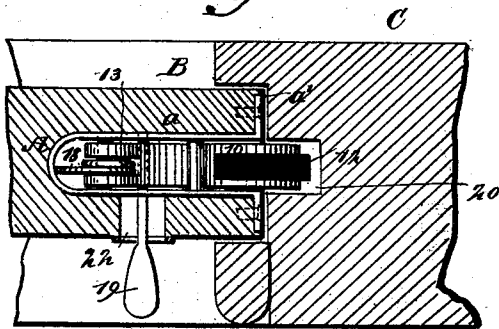


Fig. 4

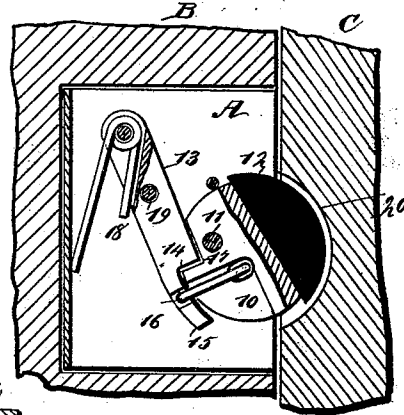


Fig. 5

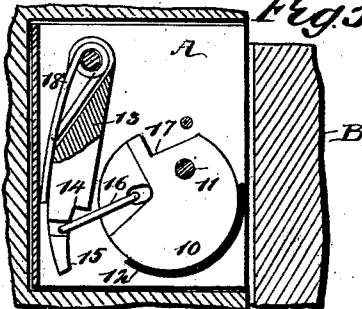


Fig. 7

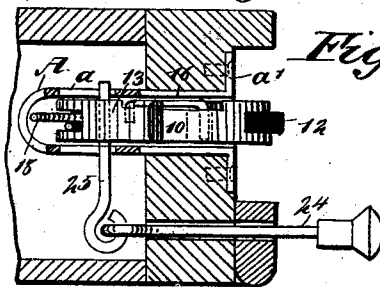
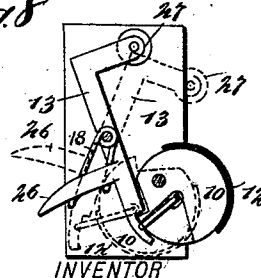


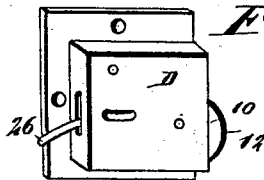
Fig. 8



WITNESSES:

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Fig. 9



W. E. Cline
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UNITED STATES PATENT OFFICE.

WELLMAN ELIAS CLINE, OF DOYLESTOWN, OHIO.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 513,882, dated January 30, 1894.

Application filed April 29, 1893. Serial No. 472,367. (No model.)

To all whom it may concern:

Be it known that I, WELLMAN ELIAS CLINE, of Doylestown, in the county of Wayne and State of Ohio, have invented a new and Improved Window Stop and Lock, of which the following is a full, clear, and exact description.

My invention relates to an improved window stop and lock, and it has for its object to provide a simple device capable of application to a window frame for engagement with the sash, or of attachment to the window sash for engagement with the frame. In either event the sash may be readily raised or lowered from a locked position, for example, by a slight manipulation of the device, and after such release is obtained the window sash may be raised, if it is a lower sash, without further manipulation of the device, but the sash can not be lowered unless the device is disengaged from it.

The device is exceedingly economic in its construction and is capable of being readily applied to a window frame or sash, or to any object adapted to move in slide-ways, and when applied will not weaken the object to which the application is made, to any appreciable extent.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

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

Figure 1 is a vertical section through a portion of the window sash and frame, illustrating the device applied to the sash and in locking engagement with the frame, the device appearing in side elevation. Fig. 2 is a front elevation of the device applied to a window sash. Fig. 3 is a horizontal section taken practically on the line 3—3 of Fig. 1. Fig. 4 is a vertical section taken through the device, illustrating the interior mechanism thereof and the locking wheel in locking position. Fig. 5 is essentially a similar section to that illustrated in Fig. 4, the locking wheel, however, being out of engagement with the window frame. Fig. 6 is a vertical section through

the device illustrating its application to a window frame, the locking wheel being in a keeper located in the window sash. Fig. 7 is a horizontal section through the window frame and the device as applied in Fig. 6. Fig. 8 is a detail sectional view of a form of the device adapted especially for application to large or heavy windows. Fig. 9 is a perspective view of a form of casing adapted to be used when the device is to be located upon the side of the object; and Fig. 10 is a detail view of the link connection between the locking wheel and the actuating lever of the wheel.

In carrying out the invention the body of the device consists of a casing A, of any approved construction. Ordinarily, however, the casing, as is shown in Fig. 3, comprises a plate which is bent upon itself to form a body section *a*, comprising parallel side walls connected at their rear edges, and flanges *a'*, located at an angle to the front of the side walls, as the front portion of the casing and ordinarily its top and bottom portions are open.

A locking wheel 10, is eccentrically pivoted within the casing, the pivot point being designated as 11, and this wheel is so located that when turned in one direction it will extend out through the front open portion of the casing. The wheel is usually constructed of metal, and in its outer peripheral surface a groove or channel is formed, in which an elastic material 12, such as rubber, is introduced. The block of rubber 12, while conforming to the shape of that portion of the wheel that it fills, is larger than the space it occupies, so that the rubber block extends beyond the peripheral surface of the wheel. This elastic surface is adapted to be brought into engagement with the object against which the stop is to be made.

At the rear of the wheel a lever 13, is journaled at one of its ends, and the lever at its opposite or free end is reduced in width to form a shoulder 14 and a head 15; the head of the lever is connected with the locking wheel 10 by means of a link 16, the link being passed ordinarily through an aperture in the head of the lever, and through an aperture eccentrically made in the wheel either above or below its pivot point. The shoulder 14 of the lever is normally held within a re-

cess 17, produced in the rear peripheral portion of the wheel, and is so held by means of a spring 18, which has bearing against the lever at or near its pivot point and bearing against the casing or any other fixed support. The wheel is carried inward in such manner that its outer peripheral surface will be contained within the casing, by means of a hand lever 19, which is connected with the operating lever 13; and the hand lever 19, may be of any suitable or approved construction, and its shape may be changed to suit the requirements of the space in which the device is to be located, or the location of the article to which the attachment may be made.

In Figs. 1, 2, 3 and 4 I have illustrated the device as applied to a window sash B, and in this instance a pocket 20, is made in the sash-way of the window-frame C, the pocket being so located that the locking wheel will be immediately opposite the pocket when the sash is in its lowest position. I desire it to be understood that the sash B illustrated is the lower sash of the frame. The hand lever 19, when such an application of the device is made, may be carried out through an opening 21 in the casing and an opening 22 in the window sash beyond one of its sides, as shown in Fig. 3. Now, for example, by pressing downward and rearward upon the hand lever 19, the operating lever 13, will be carried to the rear position shown in Fig. 5 from the locking position illustrated in Fig. 4, and the locking wheel by reason of its connection with the lever will be rocked upon its fulcrum 11 to such an extent that when the operating lever is at the limit of its rearward throw the outer or binding surface of the wheel will be carried completely within the casing, as shown in Fig. 5, and when the parts are in this position the window sash may be elevated until the wheel will have passed the pocket 20. At that time the hand lever may be released and the wheel may be permitted to engage with the window frame, it being forced to that engagement by the spring-pressed operating lever. When the locking wheel engages with the wall of the sash way and the sash is released, the sash will be effectually prevented from dropping downward, since the wheel cannot turn in an upwardly direction; but without touching the hand lever the sash may be further raised, as the wheel will in that event be rocked downward and the sash will therefore be permitted to travel upward. It will thus be observed that the manipulation of this device is exceedingly simple, and it is further evident that it may be applied to an upper as well as to a lower sash.

In Figs. 6 and 7, I have illustrated the application of the device to a window frame, and in this event the device is located in a suitable recess made in the sash groove of the frame, as particularly shown in Fig. 7. When such an application is made however, the device is placed in position practically the

reverse of the position it occupies when it is attached to a sash; that is to say, instead of the head of the operating lever being the lower portion of it it will constitute the top of the lever, since it is necessary that the wheel should work in a reverse direction to that in which it operates when carried by the sash; otherwise the construction is the same, and the pocket 20 instead of being made in the window frame is produced in the sash, as illustrated in Fig. 6.

In order that the casing may be made as narrow as possible so as not to weaken the article into which it is mortised, a triangular recess is made in both faces of the wheel where the link 16, is located, the aperture in the wheel through which the link passes being at the angle of the recess.

When the device is located in the window frame the wheel is carried out of engagement with the sash when it is desired to raise the sash or to lower it, by means of a push lever 24, which may be passed through a suitable opening in the window frame, and is engaged with a pin 25, which pin extends through the opening 21 in the device casing to an engagement with the operating lever.

In the form of the device shown in Fig. 8 I have illustrated the hand lever for operating the lever 13 as extending out beyond the rear of the casing, and as attached to an edge portion of said operating lever 13, the hand lever in this instance being designated as 26. A further change is made in this form of the device, which consists in pivoting the lever near its center and giving the upper portion of the lever an angular shape, one member being adapted to extend out through the opening in the casing above the locking wheel, and this end of the lever is provided with a friction pulley 27. The lever 13 is held in engagement with the wheel 10 by a spring 18 the same as in the other figures. This form of the device, as has heretofore been stated, is especially adapted for connection with heavy or very large windows; and the friction pulley, it will be observed as shown in dotted lines, will be brought to an engagement with the window sash, if the device is located in the frame, the moment that the locking wheel is carried out of engagement with the sash. Therefore, the friction pulley 27, by engagement with the sash, will cause the sash to meet with some slight resistance in its downward movement, and the rapidity of that movement will be in a measure checked.

In Fig. 9 I have illustrated a peculiar form of casing designated as D, said casing being especially adapted for use when the recess or mortise is made in the side surface of the object to which the device is to be applied. In this casing also a hand latch or lever is shown as extending through the back portion of it.

It will be understood that the stop and lock above described may be applied to any object capable of being raised or lowered, or may be used in connection with the same.

It will be understood that wherever the pockets occur they may be protected by wear plates.

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

1. A window lock and stop, the same consisting of a casing, a locking wheel eccentrically pivoted in the casing, a portion of its periphery being adapted to extend beyond the face of the casing, a spring-controlled operating lever pivoted within the casing, a link carried by the lever and eccentrically connected with the wheel, and means, substantially as shown and described, for rocking the lever upon its fulcrum, as and for the purpose specified.

2. In a window lock and stop, the combination, with a casing, and a locking wheel eccentrically pivoted therein, a portion of the periphery of the wheel being adapted to extend without the casing, said outer portion of the wheel being provided with a yielding surface, of a spring-controlled lever located within the casing, a link connection between the lever and the locking wheel, the said wheel and lever being formed with a stop connection, and a means, substantially as shown and described, for rocking the lever upon its fulcrum, as and for the purpose set forth.

3. In a window lock and stop, the combination, with a casing, of a wheel eccentrically pivoted therein, a portion of its periphery being adapted to normally extend without the casing, an opening eccentrically located in the wheel, a spring-controlled lever fulcrumed within the casing, a link connecting the casing with the apertured portion of the locking wheel, a shoulder formed upon the lever and adapted to lock the wheel in an outer position, entering a recess in the inner portion of the wheel, and a hand latch or lever connected with the interior or wheel lever, the said hand lever being located outside of the casing, as and for the purpose set forth.

4. A window stop and lock, the same consisting of a casing, a locking wheel eccentrically pivoted within the casing, a portion of its periphery normally projecting beyond the casing, a spring-controlled operating lever having link connection with the locking wheel and provided with an arm extending over the periphery of the wheel, said arm of the lever having a friction roller journaled therein, and a thumb latch or lever connected with the wheel lever, as and for the purpose set forth.

WELLMAN ELIAS CLINE.

Witnesses:

F. W. BAYSINGER,
J. B. MEECH.