

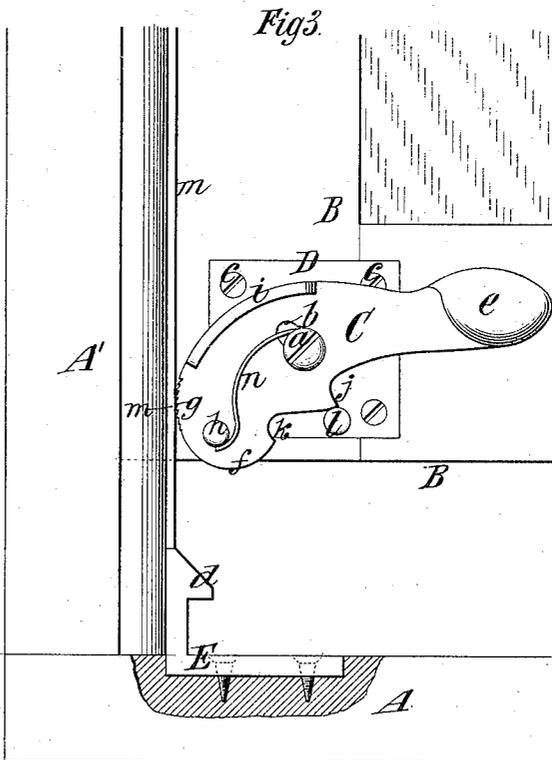
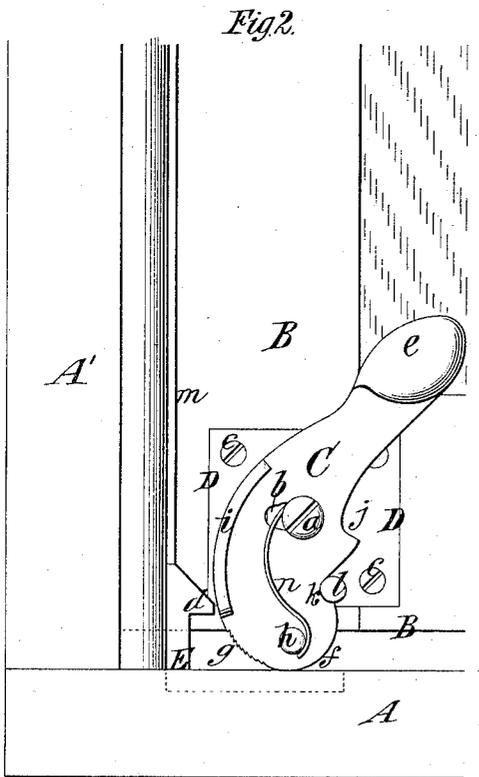
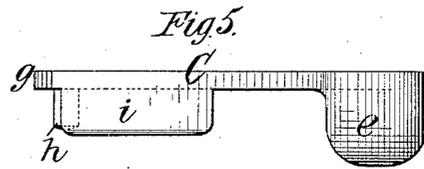
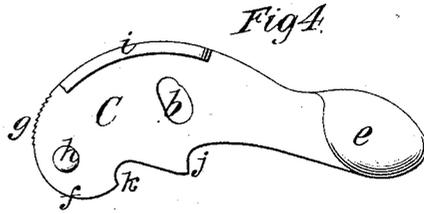
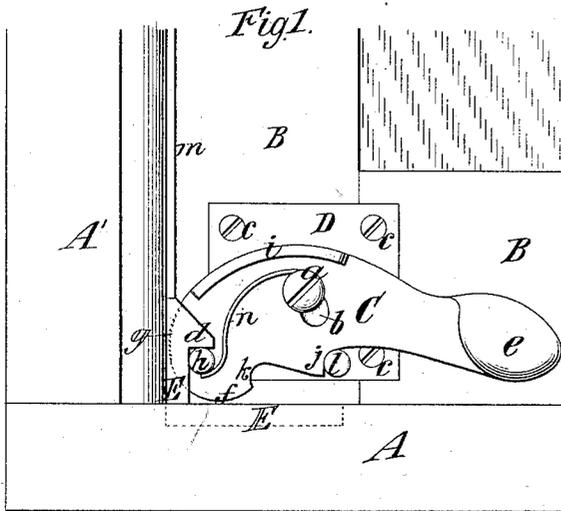
(No Model.)

G. L. ELLIOTT.

COMBINED SASH FASTENER AND SASH LIFT.

No. 313,580.

Patented Mar. 10, 1885.



Witnesses;

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UNITED STATES PATENT OFFICE.

GEORGE L. ELLIOTT, OF NEW YORK, N. Y.

COMBINED SASH-FASTENER AND SASH-LIFT.

SPECIFICATION forming part of Letters Patent No. 313,580, dated March 10, 1885.

Application filed December 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. ELLIOTT, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Car-Window Appliances, of which the following is a specification.

An important object of my invention is to provide a device which is simple in construction and capable of being readily secured to the inner side of the sash of a car-window, near the bottom or lower edge thereof, and which will serve the purpose of a starter or starting-lever, whereby the sash may be started, even if stuck so as to require a greater force than could be obtained by the ordinary handles or finger-pieces; a handle whereby the sash may be raised when once started; a catch or latch for holding the sash at any desired point in its lift and preventing its falling, and a lock for fastening the sash securely and preventing its being raised from the outside of the car.

Although my device in its most approved form has all the functions above enumerated, it may be constructed so as to serve only as a starting-lever and handle for raising the sash when once started, or as a starting-lever and lock and a handle, or as a starting-lever and handle and a catch or latch for holding the sash open.

The invention will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents one corner portion of the frame and sash of a car-window showing my appliance attached thereto and adjusted to serve as a lock for holding the window down and preventing the opening thereof from the outside. Fig. 2 is a similar view, illustrating the function of the appliance or device as a starter or starting-lever for raising the sash. Fig. 3 is a view similar to Figs. 1 and 2, save that it is partly in section, and illustrating the function of the appliance or device as a catch for holding the sash raised; and Figs. 4 and 5 are respectively a face view and a plan of the starting lever or device detached from other parts.

Similar letters of reference designate corresponding parts in all the figures.

A designates a portion of the sill, and A' a portion of the upright stile of the window-

frame, and B designates the corner portion of the sash.

My improved device consists, principally, in a lever, C, which is made of cast metal. This is to be secured to or mounted on a base-plate, D, by a pivot or pivot screw or pin, *a*, which is loosely inserted through a slot or elongated hole, *b*, in the lever and fixed in the plate D. The plate D is to be secured to the inner side of the sash B by screws *c* or other means, and may be sunk or recessed into the sash so that its outer face will be flush with the inner side or face of the sash, or applied directly to the plane face of the sash. The hole or slot *b* in the lever C is preferably widest at the bottom, for a purpose hereinafter described.

At the corner of the frame A A' is secured a plate, E, having a laterally-projecting shoulder or lug, *d*, which serves as a keeper to the lever when used as a lock, as hereinafter described. A portion of the sill A is shown in section in Fig. 3, to illustrate the keeper-plate clearly.

I have only shown one corner of the sash and frame, and one lever C applied thereto; but it will be understood that a similar lever C and plate E are secured to the opposite corner of the sash and frame. The description here given of the operation of one lever applies equally to both. The lever C has at its inner end a finger-piece or projection, *e*, and at the opposite end is a curved or cam-like head or portion, *f*, above which the edge of the lever is serrated or roughened, as shown at *g*. The lever C also has a pin or projection, *h*, on the face and a flange, *i*, at the top, which projects forward of the face, as shown in Fig. 5. At the lower edge of the lever C are shoulders or notches *j k*, and on the plate D is a forwardly-projecting pin or stud, *l*, against which said shoulders or notches bear, as shown in Figs. 1 and 2. When the sash is locked down, the pin or projection *h* engages with the lug *d* on the keeper-plate E, and the shoulder *j* on the lever C is in engagement with the stud or pin *l* on the plate D. Any attempt to raise the window-sash from the outside presses the pin *h* upward against the lug *d* on the keeper-plate E, and therefore has a tendency to swing the lever on its pivot or center *a*; but, inasmuch as the shoulder *j* on the le-

ver is in engagement with the pin or stud *l* on the plate *D*, the swinging of the lever by any force applied directly to the sash is prevented, and the sash is thus securely locked.

5 When it is desired to raise the sash, the finger-piece *e* of the lever is taken hold of, and the lever is raised thereby. The first movement of the lever lifts the shoulder *j* clear of the pin *l*, and the further raising of the finger-piece brings the cam-like head *f* of the lever to act on the plate *E*, and thereby exerts a powerful lever-like action to raise the window, power being thereby gained at the expense of distance. The lever *C* may be thus turned by the hand applied to its finger-piece until the shoulder *k* comes against the pin *l*, as shown in Fig. 2, and thereafter the levers serve simply as handles whereby the sash may be raised.

20 As before stated, the slot *b* is widest at the bottom, and this fact enables the shoulder *j* to be lifted clear of the pin *l* without any swinging movement of the lever on its pivot, and permits the slight outward movement of the lever which is necessary. The inner end of the lever *C* is the heavier, and when the sash is raised to the desired height and released the weight at the inner end of the lever causes it to drop and assume the position shown in Fig. 3.

30 Along the upright stile *A'* of the frame is placed a strip, *m*, of leather, india-rubber, or any other suitable material, and when by gravity the lever *C* assumes the position shown in Fig. 3 the serrated face *g* engages with the leather or other strip *m* and clamps the sash tightly in the frame, thereby preventing any downward movement thereof.

40 The inner end of the lever *C* is intended to act by gravity quickly enough to throw out the clamping-face *g* of the lever into engagement with the clamping-strip *m*; but, in case the weight of the lever be not sufficient, the clamping action of the lever may be quickened by applying a spring, *n*, thereto. This spring may be fixed at one end in the head of the screw or pivot *a*, and its other end act on the stud or pin *h* to throw the clamping-face *g* of the lever against the clamping-strip *m*.

50 When it is desired to lower the sash, it may be done by pressing slightly downward and inward on the flanges *i* of the two levers.

Although the lever *C* is pivoted directly to the plate *D*, it may be considered to be pivoted to the sash, as that plate is immovably secured to the sash, and the nose or head *f* of the lever may be regarded as operating on

the sill *A* to start the sash upward, although the plate *E* is employed to prevent abrasion and to support the lug or stop *d*.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a window sash and frame, of a lever pivoted to the sash near its lower edge, having a finger-piece or handle at the inner end, and a cam-like head which by raising the finger-piece or handle is caused to act upon the sill to start the sash, substantially as herein described.

2. The combination, with a window-sash and a frame provided with a strip, *m*, of a starting-lever pivoted to the sash near its lower edge, having a finger-piece or handle at the inner end, and a cam-like head for acting upon the sill to start the window, and having above the cam-like head a clamping-surface for engaging with the strip *m* to hold the sash up, substantially as herein described.

3. The combination, with the starting-lever *C*, provided with the locking pin or projection *h*, adapted to engage with a lug or stop upon a window-frame, and having a shoulder, *j*, of the plate *D*, with which the lever is connected by a slot and pivot, and which is provided with the pin or projection *l*, substantially as herein described.

4. The combination, with the starting-lever *C*, provided with the locking pin or projection *h*, adapted to engage with a lug or stop upon a window-frame, and having shoulders *k j*, of the plate *D*, with which the lever is connected by a slot and pivot, and having the pin or projection *l* for the engagement of said shoulders, substantially as herein described.

5. The combination, with the lever *C*, constructed to operate as a starting-lever and lock, and the plate *D*, with which said lever is connected by a slot and pin, of the wearing-plate *E* and its lug or stop *d*, substantially as herein described.

6. The combination, with a window-sash and a frame provided with the strip *m*, of the lever *C*, pivoted to the sash near its lower edge, and adapted to bear against the sill of the frame to operate as a starting-lever to start the sash open and a clamp for holding the sash open, and the spring *n* for throwing said lever into clamping engagement with the said strip *m*, substantially as herein described.

GEO. L. ELLIOTT.

Witnesses:

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