H. HOLLAND.

WINDOW CATCH.

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1,097,228. **Patented May 19, 1914.**

Fig. 1.

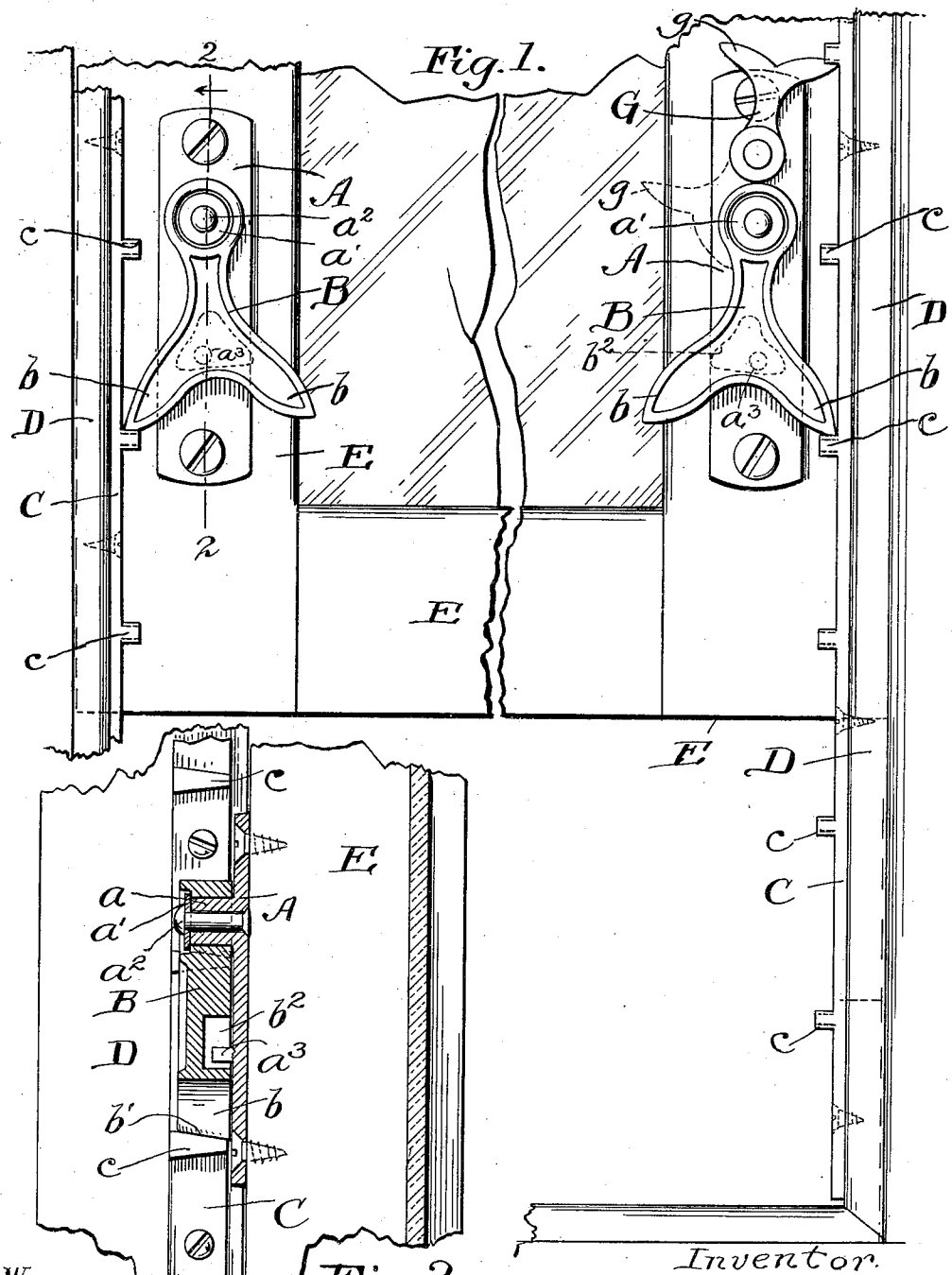


Fig. 2.

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WINDOW-CATCH.

1,097,228. Specification of Letters Patent. Patented May 19, 1914.

Application filed November 13, 1911. Serial No. 660,110.

To all whom it may concern:

Be it known that I, HENRY HOLLAND, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Window-Catches, of which the following is a full, clear, and exact description.

The object of this invention is to provide a simple and durable window catch, especially suitable for car windows, which is adapted for use interchangeably at the right or left side of the window, and which serves not only to hold the sash up, but also as a convenient means for lifting said sash; and, also, in the preferred construction, as a means for preventing the raised sash from rattling.

The invention is shown in the accompanying drawings and hereinafter described and definitely pointed out in the claims.

In the drawing, Figure 1 is a front elevation of the invention as applied to a window and its sash when the latter is raised. Fig. 2 is a vertical sectional view in the plane indicated by line 2—2 on Fig. 1.

Referring to the parts by letters, A represents a plate adapted to be secured to the sash and preferably to one of the side frame members near the bottom of the sash.

B represents the lifter-latch which is pivoted at its upper end to the front side of the plate A. In the specific construction shown the plate A has a forwardly extended cylindrical boss a, on which the lifter latch is freely hung; and it is held on this boss by a washer a' and a rivet a^2.

The lifter-latch B has at its lower end two similarly shaped diverging arms b, b, which curve outward from the central line of said lifter-latch and project beyond the two sides of the plate A. This lifter-latch is symmetrical on both sides of a vertical plane, passing through its axis when the latch hangs freely. The lower edge of each of these arms is beveled on both its upper and lower sides to a blunt edge, as at b', which edge is for engagement with the ribs c on the rack bar C. This rack bar C is to be secured to the inside stop D of the window frame adjacent to the sash E. The plate A is to be secured to the sash adjacent to this bar C, and in such position that the adjacent arm b will, as the latch hangs down under the influence of gravity only, drag against the face of said bar; whereby the lower edge b' of said arm will, when it passes the ribs c, swing outward over them so as to be in a position to engage the rib next below it when the sash is allowed to settle downward. Generally there will be a rack bar C and a coöperating plate A, and lifter-latch B on each side of the window, as shown. But, because of the described construction of both of these parts, they are capable of use interchangeably on either side of said sash. In the back side of the lifter-latch is a recess b^2 into which a pin a^3 projects from the front side of the plate A,—these parts being provided for the purpose of limiting the swinging movement of the latch on either side of the position in which it would normally hang under the influence of gravity.

When one wishes to raise a sash equipped with a pair of these catch mechanisms, he puts his fingers under the ends of the inner arms b of the lifter latches and pushes upward. The first effect will be to swing the latches inward until such movement is stopped by the engagement of the pin a^3 with the end of the recess b^2. When this engagement has taken place further upward pressure upon these said latch arms will cause the sash to be raised. When the sash has been raised far enough it is allowed to settle back and the lifter-latches allowed to swing freely, whereupon the two outer arms b of the two lifter-latches B will engage the top surface of ribs c on the two rack bars,—and thereby the sash will be held up.

In order to prevent the sash from rattling when up, the top surfaces of the ribs c are inclined downwardly and rearwardly, and the edges of the two arms b are similarly inclined as shown in Fig. 2, whereby the action of these inclines upon each other will cause the sash to move rearward into engagement with the rear part of the window frame member, and thus prevent the sash from rattling. In order that the rack bar C may be used interchangeably on either side of the sash, and have in either position this capacity for contributing to the prevention of rattling, the ribs c are wider in front than behind; that is to say, their upper surfaces incline downward from front to rear, while their lower surfaces incline upward from front to rear. To transfer one of these bars from one side to the other of the window the bar has to be turned up side down, so that what were the lower surfaces of said ribs will become the upper surfaces,

and will incline downward from front to rear.

In some cases it may be desirable to lock the sash down. In order to provide means for doing this, a locking lever G may be pivoted to the front side of the plate A. It may have two diverging arms *g*, at its upper end, which are adapted to engage a rack bar C at the right or left side thereof, as the case may be. When this locking lever is not in use it will hang, as shown by dotted lines in Fig. 1, against the side of the lifter latch, and will, by its weight, coöperate in holding the arm of the lifter latch in engagement with the rack bar. It may serve this purpose whichever side of the sash the device may be secured to. When this lever G is to be used to prevent the sash from being raised, it is swung over past the center above its pivot, so that it will fall by gravity, and its adjacent arm will come in contact with the rack bar. If one now attempts to raise the sash, this arm, by engaging with the rib next above it, will prevent any considerable upward movement of the sash.

Having described my invention, I claim:

1. An interchangeable right and left window catch comprising in combination a plate adapted to be secured to the front of a window sash, and a lifter-latch pivoted thereto at a point about midway between the side edges of said plate, and hanging freely from its pivotal support, the lower end of said latch being formed with two similarly diverging curved arms, which terminate in blunt edges,—the plate being of such width that when the latch is loosely hanging down, its two arms will project substantially equal distances beyond the side edges of said plate, and means for limiting the lateral swinging movement of said lifter-latch.

2. An interchangeable right or left window catch comprising, in combination, a plate and a lifter-latch pivoted thereto and hanging freely from its pivotal support,—the lower end of said latch being formed with two similar diverging arms which terminate in blunt edges which are inclined downward from front to rear, and a rack bar adapted to be secured to the window casing and having ribs whose top surfaces incline downward toward the sash.

3. An interchangeable right or left window catch comprising, in combination, a plate having a forwardly projecting cylindrical boss, and a lifter-latch loosely hung on said boss and having at its lower end two similar diverging arms which terminate in blunt edges and having a recess in its rear side, a stud projecting forward from said plate into said recess, and means for holding the lifter latch on said cylindrical boss.

4. An interchangeable right or left window catch and lock, comprising, in combination, a plate, a lifter latch pivoted thereto and hanging freely from its pivotal support, the lower end of said latch being formed with two similar diverging arms which terminate in blunt edges, a rack bar adapted to be secured to the window casing and having a plurality of projecting ribs, and a locking lever pivotally supported by said plate and adapted to swing freely on its pivotal support into engagement with the adjacent rack bar or against the side of the lifter latch as desired.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

HENRY HOLLAND.

Witnesses:
H. R. SULLIVAN,
E. L. THURSTON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."