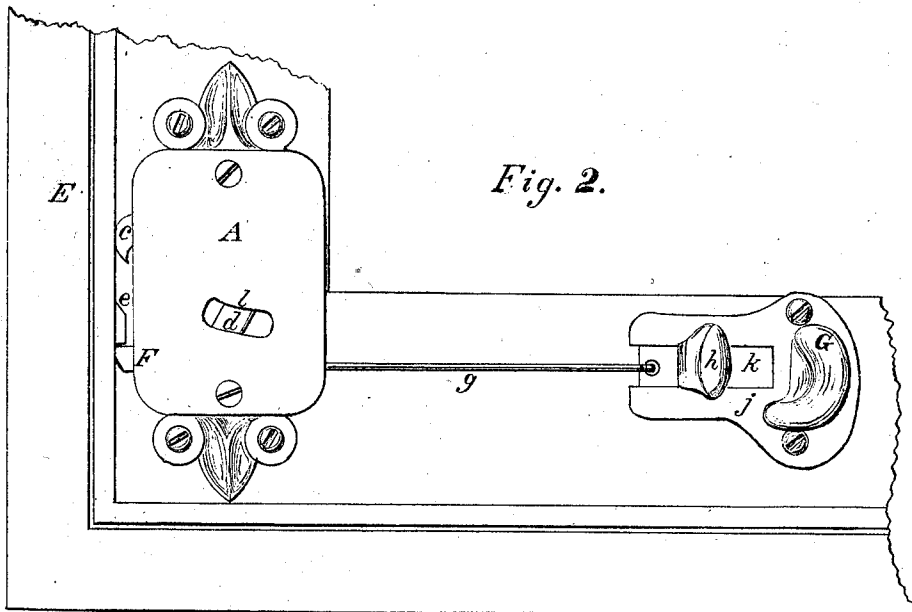
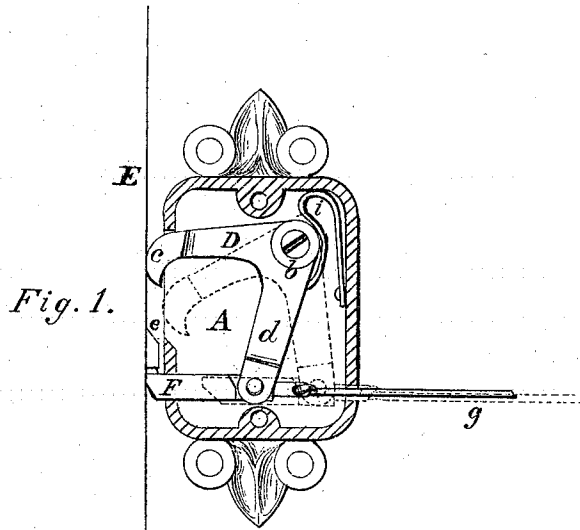


H. F. LAWRENCE.

Improvement in Sash-Holders.

No. 128,736.

Patented July 9, 1872.



Witnesses:

J. Fraser
Charles M. Higgins

Inventor:

Henry, F. Lawrence

UNITED STATES PATENT OFFICE.

HENRY F. LAWRENCE, OF NEW YORK, N. Y.

IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. 128,736, dated July 9, 1872.

SPECIFICATION.

Be it known that I, HENRY F. LAWRENCE, of the city, county, and State of New York, have invented a new and Improved Sash-Lock, of which the following is a specification:

It is the object of my invention to produce a lock which is adapted to the windows of railway cars and of dwellings, and which is simple, efficient, and capable of being unlocked and the windows raised by the use of a single hand; and it consists, essentially, of a case provided with a bell-crank or elbow-lever, one arm of which has a cam-shaped bearing-face, in combination with a sliding bolt, loosely pivoted thereto, and a spring thumb-piece for unlocking, having a lifting-knob or other suitable retracting device, whereby the lock may be unfastened and the sash raised with one hand only.

In the drawing, Figure 1 is an interior elevation of the lock. Fig. 2 represents the lock, thumb-piece, and lifting-knob as applied to a car-window.

As represented, A is the case, which may be of any suitable shape, having a removable front plate, A, Fig. 2. Pivoted at its angle by the screw *b* or its equivalent is the elbow-lever D, the horizontal arm of which has a cam-face, *c*, projected through an opening in the side of the case and bearing against the window-strip E. The other arm, *d*, hangs in a nearly vertical position, and attached to its lower extremity by a loose or pivot-joint is a horizontal locking-bolt, F, also projecting through the side of the casing. Connected with this arm of the lever, or with the locking-bolt, is a wire, *g*, extending to and connected with the thumb-piece *h*, which slides in the groove *k* of the plate *j*. G is a knob affixed to the plate *j*, which in turn is attached to the bottom rail of the sash at a point, preferably, equidistant from the sides. A spring, *i*, is arranged to bear against the elbow-lever in such a manner as to keep the cam-face *c* pressed against the window-strip E. The position of the part *c* is a little below a horizontal line through the axis *b*, and the distance of the

latter from the window-frame is less than from the axis of the face of the cam, the effect being, when in use, that the latter bears against the casing E with a force proportionate to the weight of the sash, holding the latter suspended between the point or cam *c* and the opposite side of the window-frame. This arrangement of the elbow-lever makes it impossible for the sash to fall until the elbow-lever is withdrawn; but the position of the lever is such that the cam offers no resistance to the raising of the sash, but slides freely upward. When the sash is to be lowered a slight pressure on the thumb-lever *h* overcomes the force of the spring *i* and releases the cam. When it is desired to dispense with the wire *g* the thumb-lever or a knob may be attached directly to the arm *d* of the lever and work through the slot of the face-plate. The office of the bolt F is to securely lock the window when it is closed, which it does by engaging with the stop *e*. At other points, when raising and lowering the sash, it does not come in contact with the casing. By the arrangement of the thumb-lever *k* and lifting-knob G the difficulty heretofore existing of requiring the use of both hands—one to adjust the lock, the other to raise the sash—in opening windows, especially those of railway cars, is entirely obviated, while other important advantages are secured, among which are the prevention of rattling and noise.

I claim as my invention—

The combination of the elbow-lever D provided with the cam-face *c*, and locking-bolt F pivoted to the arm *d*, and the spring *i*, operated either by the lifting-knob G and thumb-lever *h*, or by any knob or other suitable retracting device, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY F. LAWRENCE.

Witnesses:

J. FRASER,
CHARLES M. HIGGINS.