

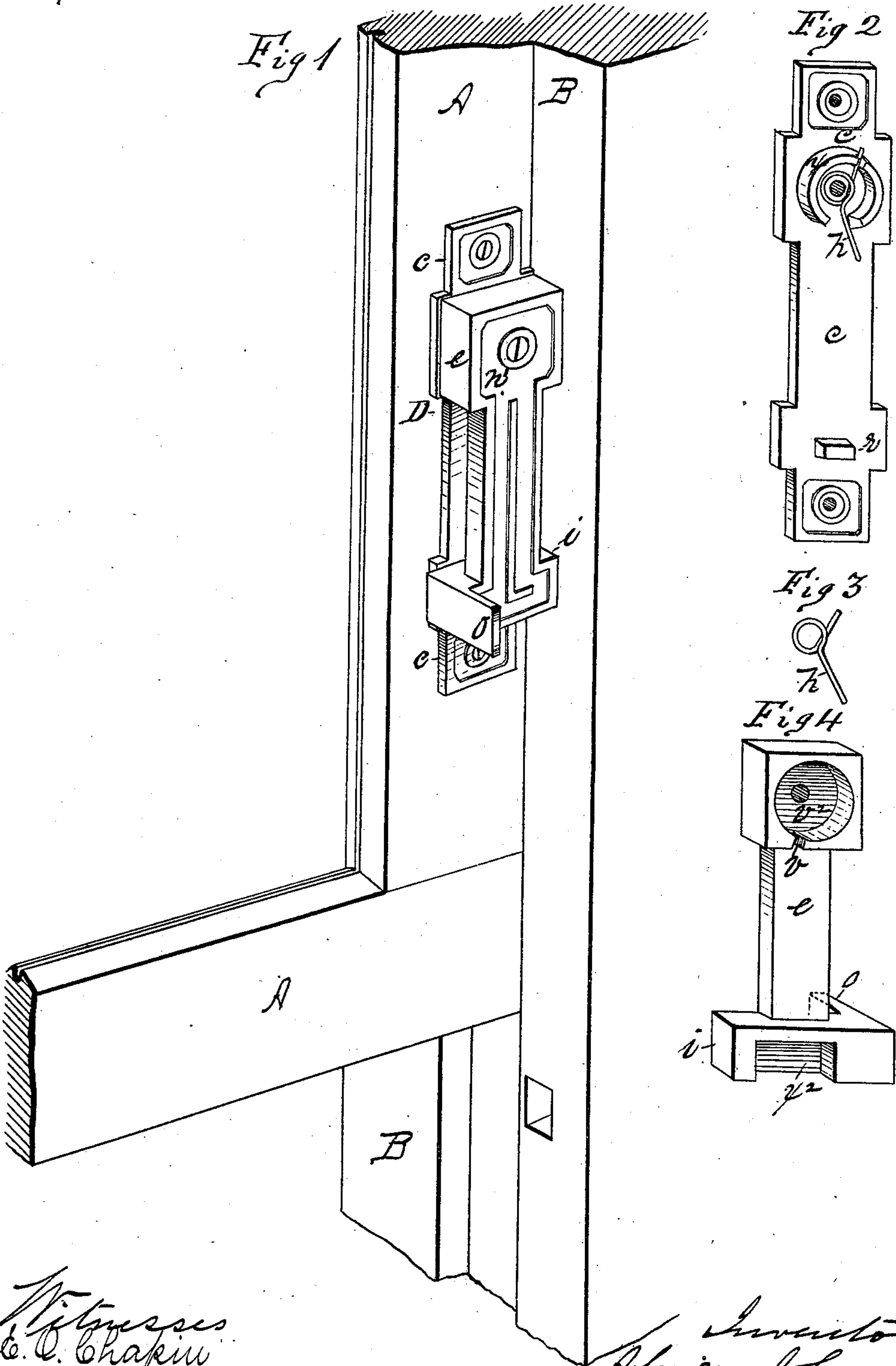
(No Model.)

A. JOHNSON.

SASH FASTENER.

No. 256,144.

Patented Apr. 11, 1882.



Witnesses
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UNITED STATES PATENT OFFICE.

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SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 256,144, dated April 11, 1882.

Application filed September 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, ALONZO JOHNSON, a citizen of the United States, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Window-Stops, of which the following is a specification.

This invention relates to the details of the construction of an improved window-stop adapted to be secured upon the face of one of the sash-stiles, and to be engaged with the window-casing by having an arm thereon enter stop-cavities formed in said casing, the object being to provide more especially a convenient, strong, and positive stop for use upon the window-sashes of railway-cars, which consists of few pieces, and whose manner of manipulation cannot be easily misunderstood.

In the drawings forming part of this specification, Figure 1 represents a section of a window sash and frame having secured upon said sash a window-stop constructed according to my invention. Fig. 2 is a view of the base-plate and spring of said window-stop. Fig. 3 is the spring, and Fig. 4 is the vibratory latch.

In the drawings, B is the window-casing. A is the sash-stile. D is the sash-stop. *c* is the base-plate of the stop D. *h* is a spring. *r* is a stud on plate *c*. *x* is a broken ring projecting from the face of plate *c*. *e* is a vibratory latch having a circular socket, *v*², therein. *o* is a thumb-piece on latch *e*, and *i* is a short arm thereon. *x*² is a rectangular socket in latch *e*.

My improved window-stop consists of four pieces only, including the pivot-screw, which also secures the parts together. Said pieces consist of a base-plate, *c*, so formed as to adapt it to be cast of any suitable metal in complete form, as shown. Said base-plate is provided with a screw-hole at each end, through which screws are inserted to secure it to the face of the sash-stile A. A third screw-hole, within the ring *x*, is tapped to receive the pivot-screw *n*'. The ring *x* on plate *c* is notched in its upper side to receive the short arm of spring *h* and in its lower side to allow the long arm of said spring to project down through it and to have a certain degree of vibratory motion.

A stud, *r*, is fixed on the face of plate *c*, near

its lower end. The spring *h* is a single coil of spring-wire having a long and a short arm, and is placed in ring *x* on plate *c*, as shown in Fig. 2.

When the parts of the stop are all in operative position, as in Fig. 1, spring *h* encircles screw *n*'; but as its coil is of greater diameter than that of said screw the spring is free to allow the long arm thereof and said coil to have the proper motions when said arm is vibrated.

The latch *e* is provided with a socket, *v*², to receive the ring *x* on plate *c*, and a rectangular socket, *x*², at its lower end, into which stud *r* projects, and has a thumb-piece, *o*, on one side of its lower end and a stop-arm, *i*, on the opposite side thereof. Said latch *e*, like the plate *c*, is adapted to be cast in complete form, as shown. A notch, *v*, is left in the lower side of the socket *v*², through which the long arm of spring *h* projects when latch *e* is secured upon plate *c*, as in Fig. 1.

It will be seen that the assembling of the parts of this stop consists simply in placing spring *h* within ring *x*, laying latch *e* upon plate *c*, and inserting screw *n*'.

The stop D is applied to the window, as shown in Fig. 1, the side of the window-casing B being provided with a series of stop-cavities for the reception of the stop-arm *i* on latch *e*, and its operation is as follows: Supposing the sash to be down, pressing against the thumb-piece *o* to swing latch *e* away from the casing B will cause arm *i* to be drawn out of the stop-cavity in said casing and allow the sash to be raised. Latch *e* may now be released, and spring *h* will swing its lower end toward the casing, causing the end of arm *i* to bear and slide against it, and when it reaches a cavity higher up said arm will be forced into it by said spring and cause the sash to be stopped and held at that point. In vibrating latch *e* to draw arm *i* out of one of said stop-cavities the extent of the motion of its lower end is governed by stud *r*, which enters the cavity *x*² in said latch.

It will be seen that the vibratory movements of the lower long arm of spring *h* are so slight when the stop-latch *e* is operated that its durability will be very great.

If desired to provide for drawing arm *i* from the stop-cavities in casing B by an upward pressure, which shall first withdraw said arm and then raise the sash, a thumb-piece may
 5 be cast on the left side of the upper end of latch *e*, opposite the pivot-screw *n'*, to provide for that mode of operation.

The form of the arm *i* on latch *e*, and the necessary corresponding form of the stop-cavities in the side of the casing B, insures a perfectly positive locking down of the sash when
 10 said arm is entered in the lowest of said cavities, for no upward pressure upon the sash from

outside can cause the latch to swing away from the casing.

What I claim as my invention is—

The within-described improved window-stop, consisting of the base-plate *c*, having the broken ring *x* thereon, the latch *e*, having the circular notched socket *v*² and the arm *i* thereon, and
 20 the spring *h*, all combined substantially as set forth.

ALONZO JOHNSON.

Witnesses:

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