CHARLES PAGE.

Improvement in Window Stop Attachment.

No. 124,008. Patented Feb. 27, 1872.

FIG. 3

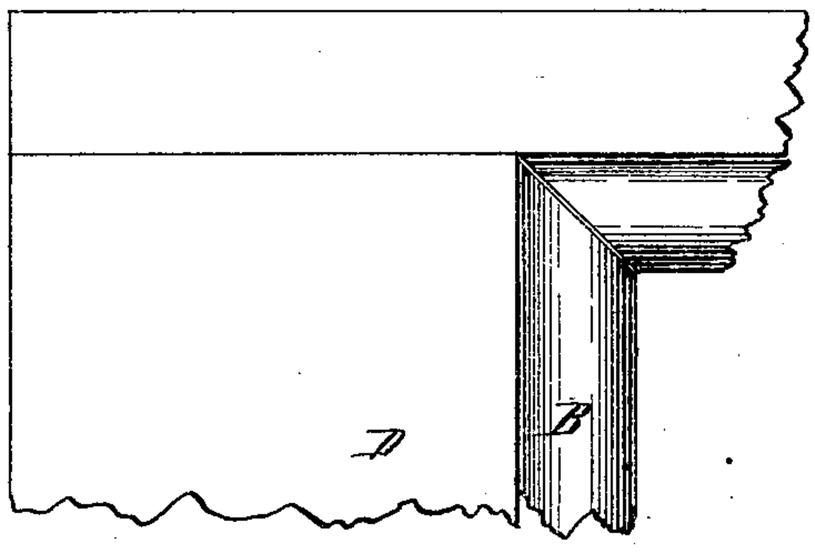
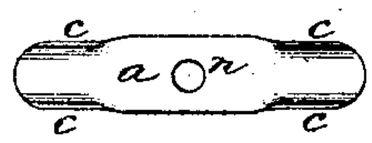
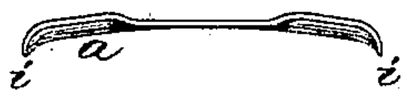


FIG. 1





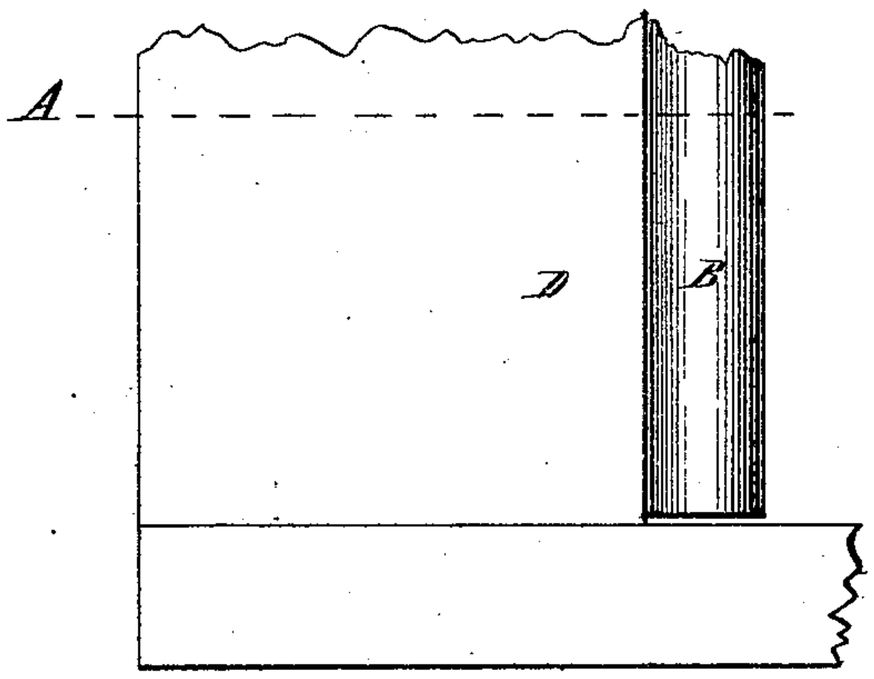


FIG. 2

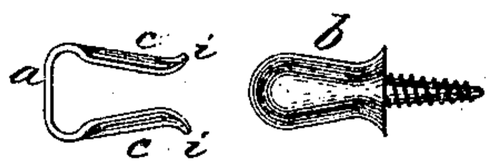


FIG. 5

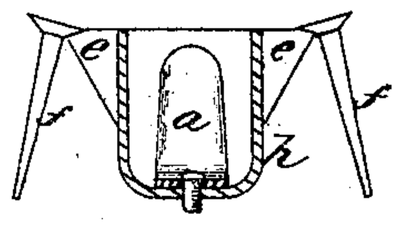


FIG. 4

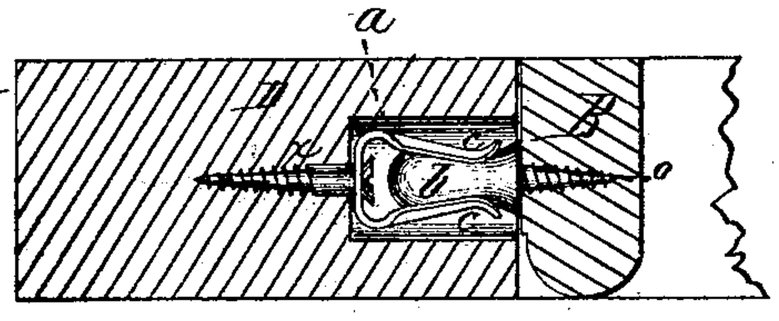
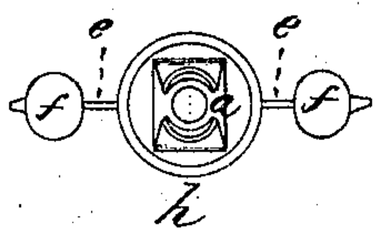


FIG. 6



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124,008

UNITED STATES PATENT OFFICE.

CHARLES PAGE, OF MERIDEN, CONNECTICUT.

IMPROVEMENT IN WINDOW-STOP ATTACHMENTS.

Specification forming part of Letters Patent No. 124,008, dated February 27, 1872.

To all whom it may concern:

Be it known that I, CHARLES PAGE, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Automatic Adjustable Window-Stop Attachment; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification and to the letters of reference marked thereon, in which—

Figure 1 is a plan and side view of the retaining-spring as it appears when first struck up and before being bent. Fig. 2 is a side view of the spring when bent, and also the knob, which is secured to the stop and enters the spring. Fig. 3 is a side elevation of a window-casing and stop, illustrating the mode of securing the latter to the casing. Fig. 4 is a horizontal section of the casing and stop at the point where the attachment is secured. Fig. 5 is a plan view of a thimble, to be used, if desirable, with the spring, to facilitate its attachment to the casing; and Fig. 6 is a vertical section of the same through the center.

My invention relates to a device to be used to attach the stop of a window to its casing, in such manner as that the stop, when attached and in place, shall adjust itself automatically to the sash, as well in wet or damp weather as in dry, and yet permit the sash to be raised or dropped freely and easily; and my invention consists of a spring, having its ends bent, at a point each side or each way from the middle, in such manner that the ends approach near to each other, and these ends or arms are so formed that the edges of each arm are turned in toward the opposite arm. The middle of the spring is perforated for the insertion of a screw, and a hole is made in the window-casing of sufficient size to admit the spring, which is secured to the bottom of the hole or recess by a screw inserted through the hole in the spring and into the casing. A conical-shaped knob, having its outer and larger end somewhat rounded, is screwed into the stop upon the side next the casing and immediately opposite the spring, so that, when the stop is put in place and pressed in toward the casing, the large ends of the knobs force the ends of the springs open and pass in between them, the ends of the springs closing together again around the smaller part of the knobs, and holding said knobs firmly in their grasp and securing the stops firmly in place.

That others skilled in the art may be able to make and use my invention, I will proceed to describe the same.

In the drawing, *a* represents the spring, which may be of any suitable elastic metal, steel being quite suitable for the purpose; and they may be punched from the sheet and struck into the proper form by a die, so that the edges, near each end, shall be turned in, as at *c* in Fig. 1, and with the ends turned out slightly, as at *i* in same figure, giving the spring a somewhat concave form near the ends. A hole, *n*, is made in the middle of the spring, and the spring is bent, at a point each side of said hole, into the form shown in Fig. 2. A knob, *b*, is made of a somewhat conical form, with its outer end largest and somewhat rounded, and a screw-point upon the other end; and the knob *b* and spring *a* are so formed and fitted to each other that when the large and rounded end of the knob is inserted between the ends of the spring said ends are forced apart; and as the knob is passed in, into the position shown in Fig. 4, the ends of the spring close together again, and grasp somewhat firmly the smaller part of the knob, holding it securely therein.

In Fig. 4, D represents the window-casing, and B represents the stop; and I adopt the following as, perhaps, the best method of securing the attachment to both: The sash being in place in the casing, the stop B is put in its desired place against the sash, and a hole is made with a brad-awl at *o* entirely through the stop and slightly into the casing D. The stop is then removed, and a hole or recess, *s*, is made in the casing by boring with a bit, the worm of the bit entering the puncture made in the casing by the brad-awl. This hole or recess *s* may be five-eighths of an inch in diameter, as a convenient size, and should be of such depth as to receive entirely the whole length of the spring, as shown in Fig. 4; and the spring is secured in the recess *s* in a position with the bent arms *c* at right angles to the length of the stop by means of the screw *x*, inserted through the hole in the spring, and driven into the casing. The knob *b* is then secured to the inner face of the stop B by turning the screw-point into the hole made by the brad-awl. This secures the spring and the knob in place in a po-

sition exactly opposite each other; and when the stop is mitered at the top—there being two, three, or more of these attachments in the whole length of the window—the upper end of the stop may be first inserted in place, and the lower end of the stop then pressed up to the casing. The knobs will then all enter the springs, and the stop will be held firmly in place; and if the sash should swell from wet or dampness, the stop will yield to the pressure of the sash against it; and when the sash shrinks again to its original size, the stop will regain its original position, following up the shrinkage of the sash by the action of the springs upon the knobs. If there should be any tendency of the spring to turn in securing it in place in the recess *s*, creating difficulty in placing the arms of the spring in a horizontal position, a thimble or cup, *h*, might be used, having the webs *e* cast upon the outside, one opposite the other, and the spring *a* be riveted to the bottom of the thimble, inside, with its arms at right angles to the webs, and the thimble may then be driven into the recess *s*, the webs *e* running parallel with and penetrating the grain of the wood. The outer corners of the webs could be slightly notched or recessed to receive the head of a nail, and the whole could then be secured in place in the recess by the nails *f*, driven into the casing flush with its face; or two smaller webs might be made on each side, with the nail driven between them.

By the use of this spring and knob as a stop-fastening, it will be seen that the stop will always automatically adjust itself to the swelling and shrinkage of the sash, keeping both sashes always close together, and preventing the ingress of the cold and wind in winter and the dust in summer, and yet permitting the sash to be raised or dropped freely and easily; and if it is desired to remove the sash for washing, painting, or for any other purpose, it may be easily and quickly done, even by a child, by simply drawing the stop away from the casing at the lower end, and without any possibility of marring or injuring the casing or stop.

It may be remarked that the springs should be secured in the recess sufficiently deep that the neck or smallest part of the knob may not quite reach the point where the springs grasp the knob, by which arrangement there will always be a tendency of the springs to draw the knob into the recess, and the stop will then always be pressed tightly against the casing.

In practice, it might be found more convenient to screw the springs to the stop, and to screw the knobs to the bottom of the recesses. This might be easily done by using a small end-wrench to turn the knobs into the bottom of the recesses, or by slotting the outer end of the knob and using a common screw-driver.

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

An automatic adjustable window-stop attachment, consisting of the spring *a* and knob *b*, constructed and operating substantially as described.

CHARLES PAGE.

Witnesses:

GEORGE A. FAY,

R. H. CURTIS.