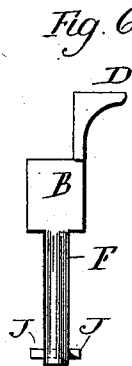
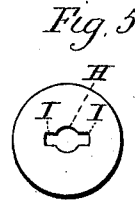
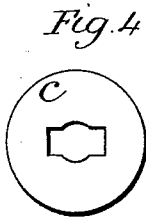
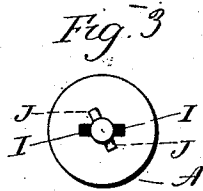
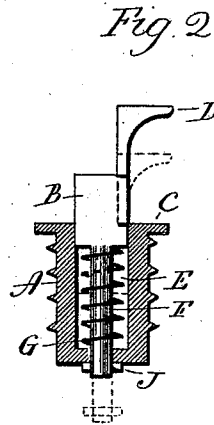
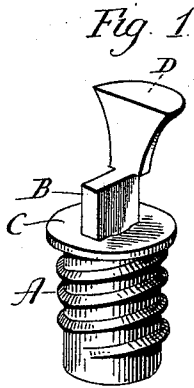


(No Model.)

A. A. PAGE.
SASH FASTENER.

No. 485,474.

Patented Nov. 1, 1892.



Witnesses.
J. H. Shumway
William S. Kelby

Albert A. Page
Inventor.
G. A. G. Gay
Carle Seymour

UNITED STATES PATENT OFFICE.

ALBERT A. PAGE, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE SARGENT & COMPANY, OF SAME PLACE.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 485,474, dated November 1, 1892.

Application filed July 11, 1892. Serial No. 439,582. (No model.)

To all whom it may concern:

Be it known that I, ALBERT A. PAGE, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Window-Springs; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view; Fig. 2, a longitudinal central section; Fig. 3, an inner end view; Fig. 4, a face end view of the case; Fig. 5, a rear end view of the case with the bolt removed; Fig. 6, a side view of the bolt detached.

This invention relates to an improvement in that class of springs for window-sashes which consist of a bolt adapted to be set into the frame and with a spring the tendency of which is to force the bolt outward and so that it may engage with notches in the edges of the sash, the bolt projecting on the face of the sash to form a thumb-piece by which the bolt may be pushed inward, and particularly to the spring of this class in which the case is of cylindrical shape, so as to be introduced into a round hole bored into the jamb of the window-frame.

In the more general construction of this class of springs the bolt is flat and the case is constructed with an opening through the outer end, through which the head of the bolt may freely slide, and the bolt is constructed with a tail which extends through a smaller hole at the inner end of the case, the spring being introduced into the case around the tail, and then a pin driven through a hole in the end of the tail outside the inner end of the case to interlock the bolt with the case, or the end of the tail of the bolt is riveted onto a washer, or enlarged so that it cannot return through the hole from which it projects.

The object of this invention is to simplify the engagement of the bolt with the case and whereby the pin or the riveting of the tail may be dispensed with; and the invention consists in the construction as hereinafter described, and particularly recited in the claim.

A represents the case, which, as here represented, is substantially cylindrical in shape and screw-threaded upon its outside. It is made from cast metal, so that the thread is formed in the process of casting and so that it may be screwed into a round hole formed in the jamb, as usual in this class of springs.

B represents the head of the bolt, which is of angular shape, as represented in Fig. 1, and normally projects through an opening in the face C of the case, the said opening in the case being of angular shape, corresponding to the angular shape of the head of the bolt. It is constructed with a projecting thumb-piece D, which will lie upon the surface of the sash and so as to serve as a means by which the bolt may be forced into the case. Within the case a spring-chamber E is formed, and the bolt is constructed with a tail F upon its inner end, which will extend through the rear end of the case, as seen in Fig. 2. Within the case a spiral spring G is arranged around the tail of the bolt, one end of the spring resting upon the bottom of the spring-chamber in the case and the other against the inner end of the bolt, the tendency of the spring being to force the bolt outward, as seen in Fig. 2, but so that the spring may yield to permit the bolt to be pressed inward, as seen in broken lines, Fig. 2. The case is constructed with a hole H through the bottom of the spring-chamber, corresponding in diameter substantially to the tail of the bolt, and that end of the case is constructed with one or more notches I, opening laterally from the hole H and in a plane substantially in the plane of the bolt B. The bolt is cast and the tail is constructed with one or more projections J, normally standing in the plane of the bolt, and which projections J correspond in number and position to the notches I through the bottom of the spring-chamber, and the distance of the projections J on the tail of the bolt from the inner end of the bolt is such that when the bolt is inserted into the case the tail will project through the hole H in the inner end of the spring-chamber and so that the projections J may pass through the notches I to a position upon the outside of the bottom of the case. As the spring is naturally some-

what larger in diameter than the thickness of the bolt, the opening through the face of the case for the introduction of the bolt is enlarged through its central portion, as seen in Fig. 4, so as to permit the spring to be introduced before the bolt, but yet so that the head of the bolt will take a bearing in the opening to prevent its rotation and permit its longitudinal movement. The spring is first introduced into the chamber. Then the bolt is set in place, the tail passing through the spring and its end extending through the hole H in the bottom of the case and the spring compressed until the projections J pass through the notches I to a position outside that end of the case. Then the tail of the bolt is twisted, so as to turn the projections J to a position out of the plane of the notches I, as seen in Fig. 3. The flat bolt is prevented from turning when the twist is produced, because of fitting in the corresponding opening in the face of the case. The projections I operate to interlock the bolt with the case, so as to secure the parts together, but yet leave the bolt free for operation in the usual manner. A single projection J on the tail of the bolt with a single notch I, opening from the hole H in the bottom of the spring-chamber, will be sufficient, although two opposite projections, as shown, are preferable, with corresponding notches I in the bottom of the spring-chamber. By this construction the usual drilling of the tail for the insertion of a pin or the riveting operation for the end of the tail to secure the bolt in place is avoided. The bolt is, as usual, made from malleable metal, ductile to some extent, and the projec-

tions J are cast thereon, consequently incurring substantially no expense in their production, and the operation of simply giving a twist to the tail after it has been introduced, so as to turn the projections J from the notches I, is so slight an operation as to be inconsiderable in the cost of manufacture.

I claim—

A window-spring consisting of a case A, having a spring-chamber therein, an angular opening through the face of the case, a bolt B, set through the face of the case and adapted to move longitudinally therein, the head of the bolt of angular shape, corresponding to the shape of the said opening in the case, and the bolt constructed with a tail F, extending through the spring-chamber and through a corresponding hole in the bottom of the spring-chamber, the hole in the spring-chamber constructed with one or more notches opening laterally therefrom and the tail constructed with projections J, corresponding to the said notches I, a spring within the spring-chamber, adapted to yieldingly hold the bolt in its thrown position, the tail of the bolt twisted, so that the said projections when the parts are assembled stand in a position out of the plane of the notches I in the case, all substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALBERT A. PAGE.

Witnesses:

J. F. GILLETTE,

C. O. BEEBE.