

B. F. WHITE.
WINDOW PIVOT.
APPLICATION FILED OCT. 31, 1911.

1,055,110.

Patented Mar. 4, 1913.

Fig. 4.

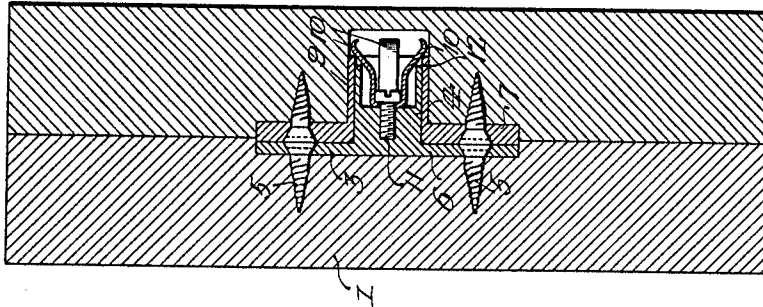


Fig. 3.

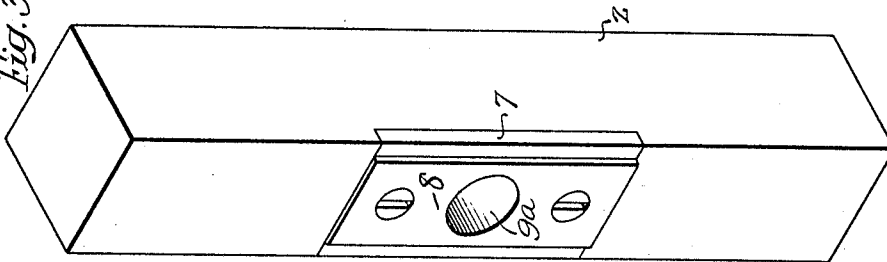


Fig. 2.

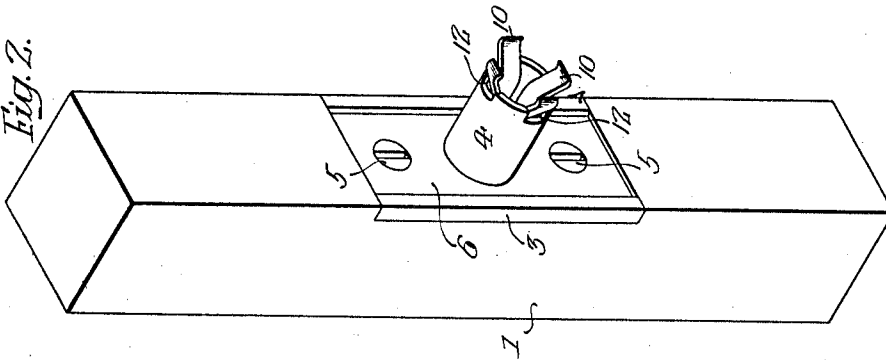
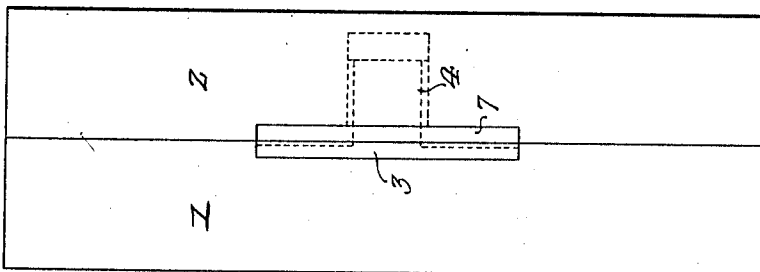


Fig. 1.



Witnesses—
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UNITED STATES PATENT OFFICE.

BENJAMIN F. WHITE, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO INTERNATIONAL WINDOW MANUFACTURING COMPANY, OF DOVER, DELAWARE, A CORPORATION OF DELAWARE.

WINDOW-PIVOT.

1,055,110.

Specification of Letters Patent.

Patented Mar. 4, 1913.

Application filed October 31, 1911. Serial No. 657,827.

To all whom it may concern: -

Be it known that I, BENJAMIN F. WHITE, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Window-Pivots, of which the following is a specification.

One object of my invention is to provide a novel form of pivotal connection between a sash body and the shoes or slides used in connection therewith, which while permitting the said body to swing into a plane at an angle to the plane of the slides, will at the same time, permit of the convenient application of the slides to, or their removal from, the sash body.

I further desire to provide a form of pivotal connection for use between the slides and the body of the window sash, which shall be simple, substantial and inexpensive in construction, and which shall permit of the free swinging of the sash body relatively to the slides.

Another object of my invention is to provide novel means for use in connection with the pivots between the window sash body and its slides, for drawing these parts together, and when said parts are lying in the same plane, tending to prevent their displacement from said plane.

These objects and other advantageous ends I secure as hereinafter set forth, reference being had to the accompanying drawings, in which:—

Figure 1, is a side elevation of portions of a window sash body and one of its slides illustrating the application of my invention thereto; Figs. 2 and 3 are perspective views of portions of a window sash body and its slides, showing these parts as equipped with my invention; Fig. 4, is a longitudinal vertical section, further illustrating the invention.

In the above drawings, 1 and 2 represent respectively portions of the body of a window sash and of one of the slides or shoes therefor, and in this particular instance I have shown the part as recessed for the reception of a plate 3 having a pivot structure 4 formed integral with it. Said plate is held by screws 5 to the sash body and is made with a comparatively shallow, longitudinally extending depression 6 of generally rectangular section, designed for the reception of a correspondingly formed pro-

jection forming part of a second plate 7 55 mounted in a recess of the slide or shoe 2. This latter plate is made with a hollow, cylindrical and integral sleeve 9, projecting at right angles to its plane and mounted in a suitable hollow of the slide so as to form a bearing for the pivot structure 4 of the plate 3. Said pivot structure, as best shown in Fig. 4, is recessed at its outer end for the reception of a spring made in the form of a plurality of outwardly extending resilient fingers 10, held in the recess of the pivot structure by a screw 11. The outer ends of these spring fingers project beyond the lines of the outside surface of the pivot structure 4 and the outer end of said structure is 70 formed with recesses or notches for the reception of said fingers. The ends of these latter are made convex or are rounded as shown in Figs. 2 and 4 to facilitate their entrance into the interior of the sleeve 9 75 through the opening 9^a in the plate 7.

In assembling the slides of the window sash on the body thereof, each of the pivot structures 4 is entered in the bearing provided by the sleeve 9 of one of the slides; the spring fingers 10 being forced inwardly in entering the sleeve 9 and after passing through the same springing out to their normal positions; it being noted that said sleeve is made of such a length that it is possible for the spring fingers to assume the positions shown in Fig. 4. As a result, they are at all times in position to oppose a separation of the slide from the sash body, since the movement apart of these members must first of all cause an inward movement of the spring fingers which at all times tend to press outwardly. By reason of this spring action the slides tend to remain in the plane of the sash body or vice versa, since the projections 8 thereof lie within the depression 6 of the sash body, and in order that these parts should swing on the pivots at an angle to each other, it would first be necessary for said projection to move out of this depression against the action of the spring fingers. 100

When the sash body has been swung to a position at an angle to the plane of the slides, the action of the spring causes more or less friction between these parts so that they tend to remain in any position in which they are placed, as well as in their normal positions, shown in Fig. 4. 105

It is, of course immaterial as to whether the plate 3 with its pivot structure 4 is mounted on the sash body and the plate 7 with its sleeve is mounted on the slide or vice versa, since in any case the construction of the various parts is identical. I preferably mount these members, however, as above noted.

I claim:

10 1. The combination of a sash body; a slide therefor; a pivot structure mounted on one of said members and having a cavity at one end; a bearing for said structure on the other member; with a spring of strip material mounted in the cavity of said first structure and operative on the bearing to draw said parts together.

15 2. The combination of a sash body; a slide therefor; one of said parts having a depression and the other part having a projection normally fitting said depression; a

pivot on one of said parts; a bearing on the other part; a series of resilient fingers carried by the pivot and projecting beyond the lines of the outside surface thereof in position to retain the projection in the depression. 25

3. The combination of a sash body; a slide therefor; a plate mounted on one of said parts and having a pivot; a second 30 plate having a bearing for said pivot; with a series of spring fingers carried by the pivot and operative on one end of the bearing to hold the pivot in the same.

In testimony whereof, I have signed my 35 name to this specification, in the presence of two subscribing witnesses.

BENJAMIN F. WHITE.

Witnesses:

WILLIAM E. BRADLEY,
WM. A. BARR.

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