J. S. BERRY.

WINDOW.

APPLICATION FILED DEC. 21, 1914.

1,155,200. Patented Sept. 28, 1915.

Fig. 1.

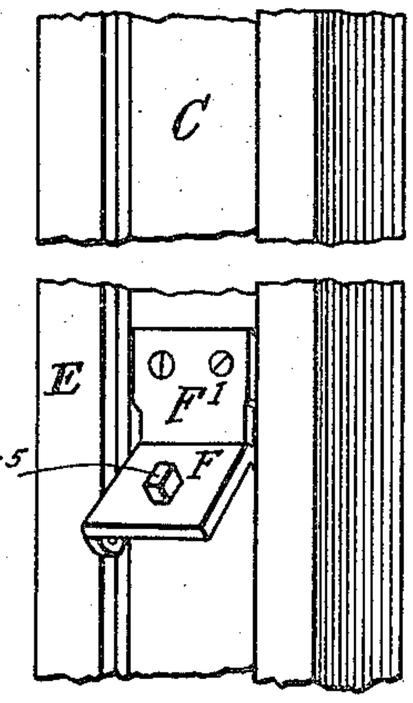



Fig. 2.

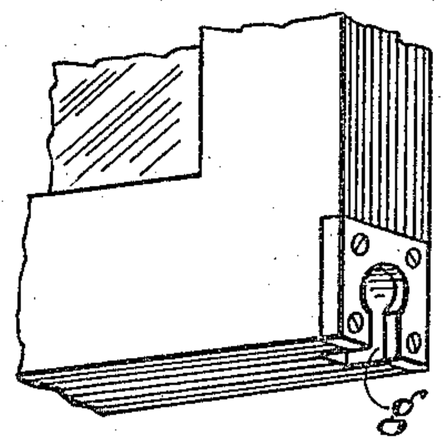



Fig. 3.

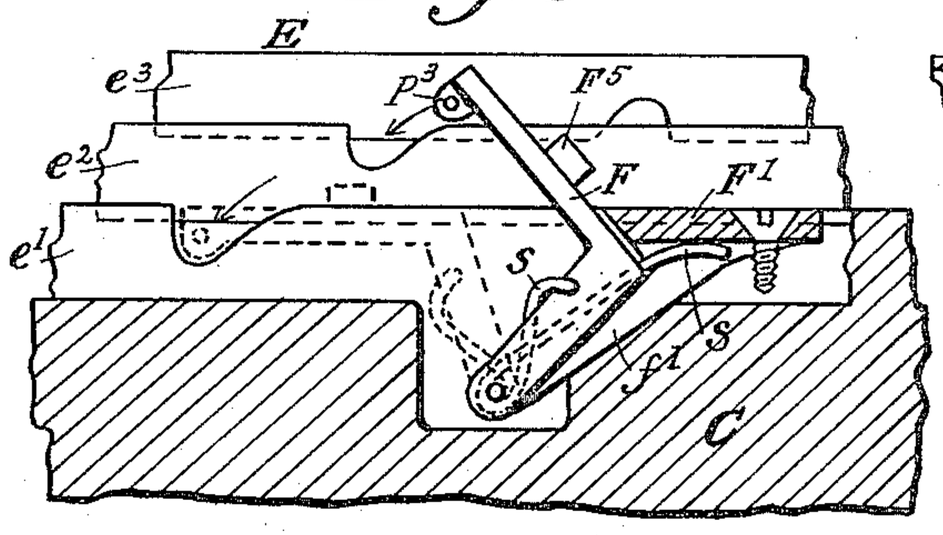



Fig. 4.

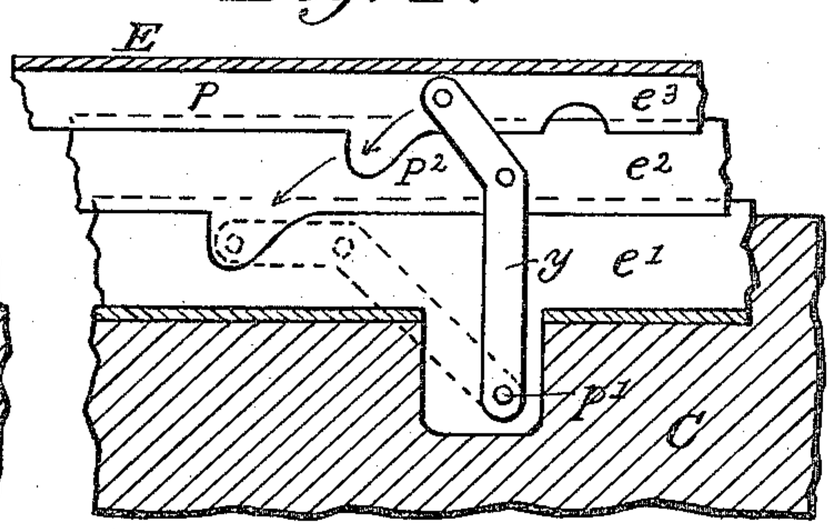



Fig. 5.

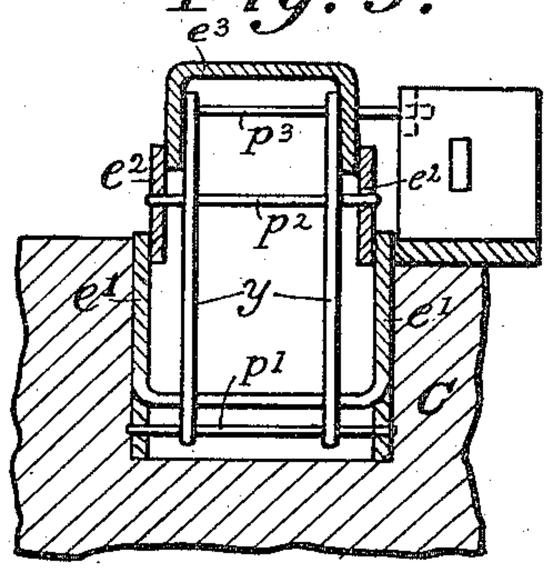
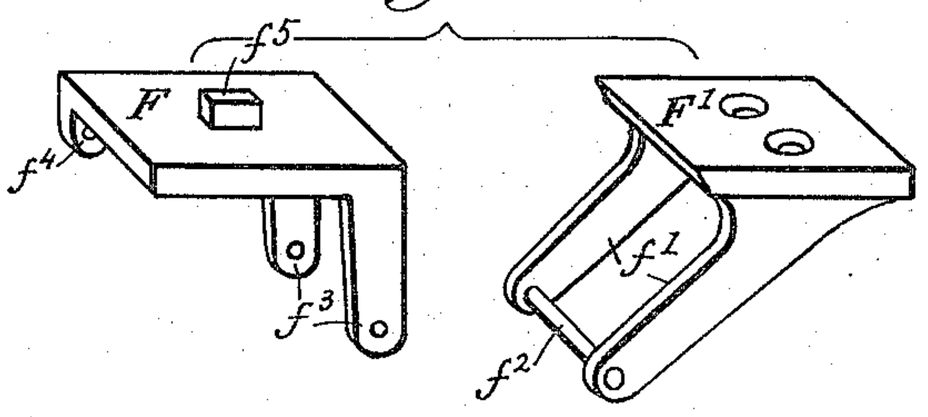



Fig. 6.

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# UNITED STATES PATENT OFFICE.

JOHN S. BERRY, OF PLAINFIELD, NEW JERSEY.

## WINDOW.

1,155,200. Specification of Letters Patent. Patented Sept. 28, 1915.

Original application filed December 6, 1913, Serial No. 805,066. Divided and this application filed December 21, 1914. Serial No. 878,390.

*To all whom it may concern:*

Be it known that I, JOHN S. BERRY, a citizen of the United States, residing at Plainfield, in the county of Union and State of New Jersey, have invented new and useful Improvements in Windows, of which the following is a specification.

My invention relates to window frames and sash construction where the sashes are intended to be tilted inward in order to conveniently reach both sides of the same for cleansing and repairs. To attain this end, it is necessary to remove the parting strip or guide between the sashes out of the way of the lower sash, as well as to provide means for the pivotal action of both sashes. The latter is provided for in my application, Serial No. 805066, while the former is covered by the present application, as a division of said application, and consists in a collapsible parting strip and means for collapsing the same automatically by the sash in its downward movement; and to provide a combined mechanism for accomplishing the collapsing of the parting strip and the pivoting and locking of the sash by the movement of the sash itself.

To these ends, my invention consists in the mechanism hereinafter described.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective elevation of part of a side wall of a window casing, showing a collapsible parting strip in normal position for use with the operating plate adjacent thereto in the sash guideway; Fig. 2, a perspective elevation of a portion of a window sash showing the corner socket for engaging the operating plate; Fig. 3, a side elevation of the operating plate, its supporting bracket and spring, shown in operating relation with the parts of the collapsible parting strip; Fig. 4, a corresponding side elevation in section of another portion of the parting strip showing one of the links in pivotal connection with the parts; Fig. 5, a cross section of the parting strip with one of the sets of connecting links; and Fig. 6, a detail perspective view showing the construction of the movable plate and its holding bracket—the parts being shown detached.

Referring now to the drawings—The inner strip or first "beading" of window construction is conveniently moved out of the way by hinges; but with the central guide or "parting strip", the conditions are different because this should remain in place until the inner (lower) sash is tilted inward, to guide the outer (upper) sash in its initial downward movement. The removal of the central parting strip out of the way at the proper time by the descending action of the upper sash itself, as an automatic function, is the object of the construction shown in the drawings to which reference is made by way of clearer definition.

C designates the side wall of the window-casing against, and between two of which, at opposite sides, the windows move vertically. In the face of the casing a longitudinal groove is sunk to receive the "parting strip" which in this instance is the collapsible parting strip E.

The collapsible parting strip E consists of three elements, namely, (1) a trough-shaped strip $e^1$ seated fixedly in the groove provided in the side wall of the window-casing for the parting strip; (2) within, and in sliding contact outwardly with the trough-strip $e^1$, two side strips $e^2$, $e^2$; and (3) above and between the latter, in sliding contact therewith, a trough-shaped strip $e^3$ in inverse relation to the trough-shaped strip $e^1$. Each of these elements is provided with a fixed cross pivot, $p^1$, $p^2$, $p^3$, respectively, in such relation as to be engaged by the same link $y$ which latter is preferably duplicated so as to engage in each case within and near the outer wall of each element.

The link $y$ is bent to a slight angle in its length, as shown in Fig. 4, in order to accommodate the desired relative motion of the parts in their telescopic collapsing movement one within the other. To the same end, suitable depressions or recesses as shown in Figs. 3 and 4, are formed in the edges of the side walls of the collapsing elements to accommodate the cross pivots of each in relation to the other as indicated by arrows in Fig. 3.

Duplicates of the link-and-pivot connections are provided at given intervals in the length of the parting strip whereby the relative opening and closing movements are rendered uniform throughout. The collapsing action of the parting strip is rendered automatic by the descending movement of the upper sash. To this end, a device consisting primarily of a plate, F, pivotally connected

to an outward prolongation of one of the pivots $p^3$ before described, near the bottom of the guideway of the upper sash, is provided.

The plate F is pivotally mounted upon a bracket consisting of a plate $F^1$ secured to and flush with the surface, in the guideway wall of the window casing, and having two inwardly projecting side arms $f^1$, $f^1$, at and between the extremities of which is affixed a cross pivot $f^2$, upon which the plate F is mounted by an arm or arms $f^3$. A coiled spring $s$, carried upon the pivot $f^2$ seats with one projecting arm upon the underside of the fixed plate F′, and at the other upon the one of the arms $f^3$ of the pivotally movable plate F, so as to hold the plate F normally outward in the path of the upper sash as an outwardly inclined extension of the plate $F^1$. A small side flap $f^4$ furnishes the means of engaging the pivot $p^3$ before mentioned.

The pivot-engaging arms $f^3$ are radially proportioned to the links $y$, so that the relative movement of the plate F coincides with that of said link. As the sash descends and rides upon the inclined plate F, the plate is pressed back to a vertical position against the force of the spring;—and by the said movement, the parting strip E is collapsed flush with the surface of the casing wall.

In order to furnish a pivot to the sash for its tilting action, I provide upon the face of the plate F, a stud $f^5$, and place upon the outer edge of the sash a corresponding socket plate $g$, as shown in Figs. 5 and 6. As the sash descends, the stud $f^4$ enters the narrow guide opening of the plate into the socket which is circular. The stud $f^4$ being longer than wide, and the guide opening being only wide enough to admit the stud when presenting itself lengthwise, the stud becomes a lock for the sash in all except vertical movements.

It will be seen that in the use of my invention, and with a suitable pivot for the front sash, the attendant has only to loosen the front beading, tilt the lower sash inward, draw down the upper sash and tilt it inward also,—the parting strip being automatically removed in the drawing down movement of the upper sash.

I claim as my invention and desire to obtain by Letters Patent of the United States:

1. A collapsible parting strip adapted to seat and be compressed in the normal groove therefor in the window casing, and adapted to be engaged and compressed by the downward, vertical movement of the sash.

2. The combination in a window, of a vertically moving sash, a collapsible parting strip, and means operated by a sash in its downward movement to collapse the strip in its containing groove.

3. A parting strip for windows embodying in combination a plurality of telescoping elements held in parallel relations by a plurality of corresponding arms each pivoted severally to the said elements, and with an actuating device adapted to be engaged by the sash in its descent to collapse said elements one within the other.

4. An actuating device for a collapsible parting strip consisting of a holding plate adapted to be secured to the guideway in the path of the sash, and a movable plate pivotally secured thereto and to the parting strip and normally projected outward into the path of the sash and adapted to actuate and collapse the parting strip.

5. An actuating device for a collapsible parting strip consisting of a holding plate adapted to be secured to the guideway in the path of the sash, and a movable plate pivotally secured thereto and to the parting strip and normally projected outward into the path of the sash and adapted to actuate and collapse the parting strip, and a spring normally holding the movable plate outward and by its connections also holding the parting strip outward as a guide to the sash.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN S. BERRY.

Witnesses:
M. J. Mathews,
Asa F. Randolph.