

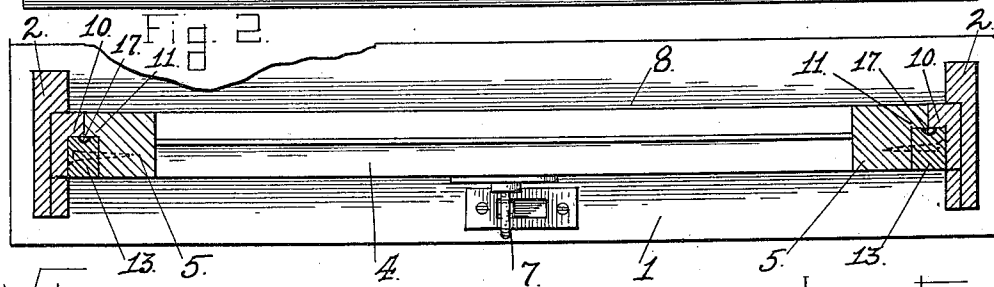
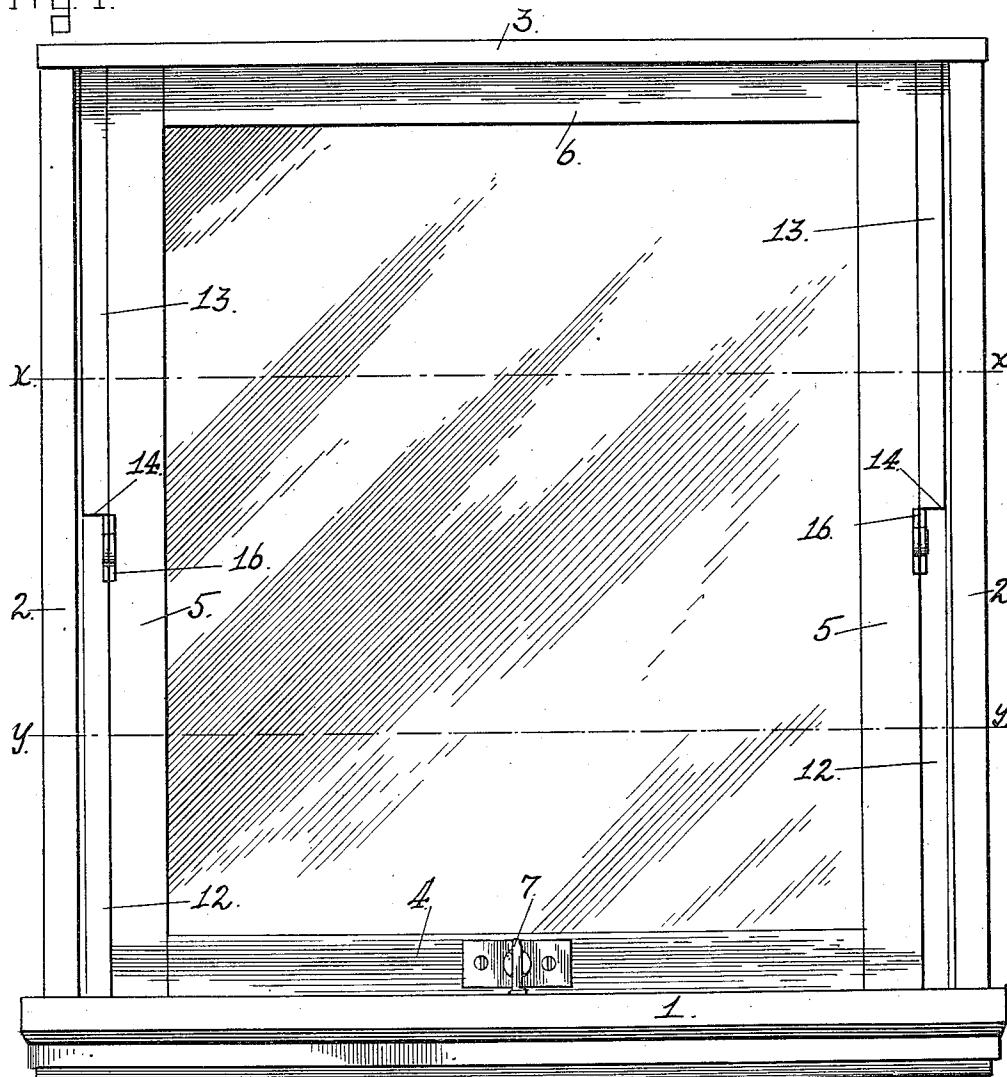
A. C. SOULE.
 REVERSIBLE WINDOW.
 APPLICATION FILED MAR. 8, 1911.

1,045,625.

Patented Nov. 26, 1912.

3 SHEETS-SHEET 1.

Fig 1.



Witnesses

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 S. Constance

Inventor

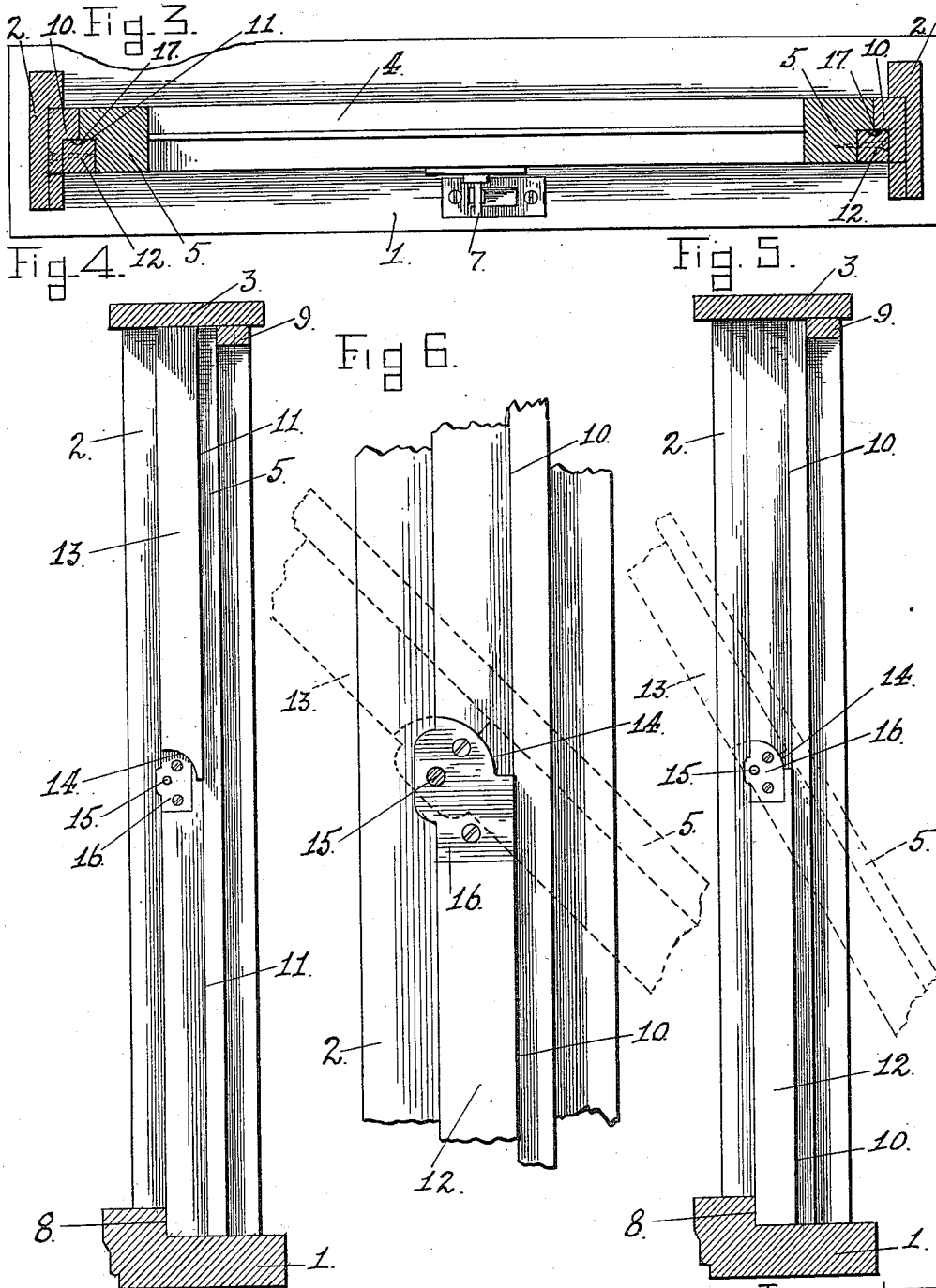
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3 SHEETS—SHEET 2.



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3 SHEETS—SHEET 3.

Fig. 7.

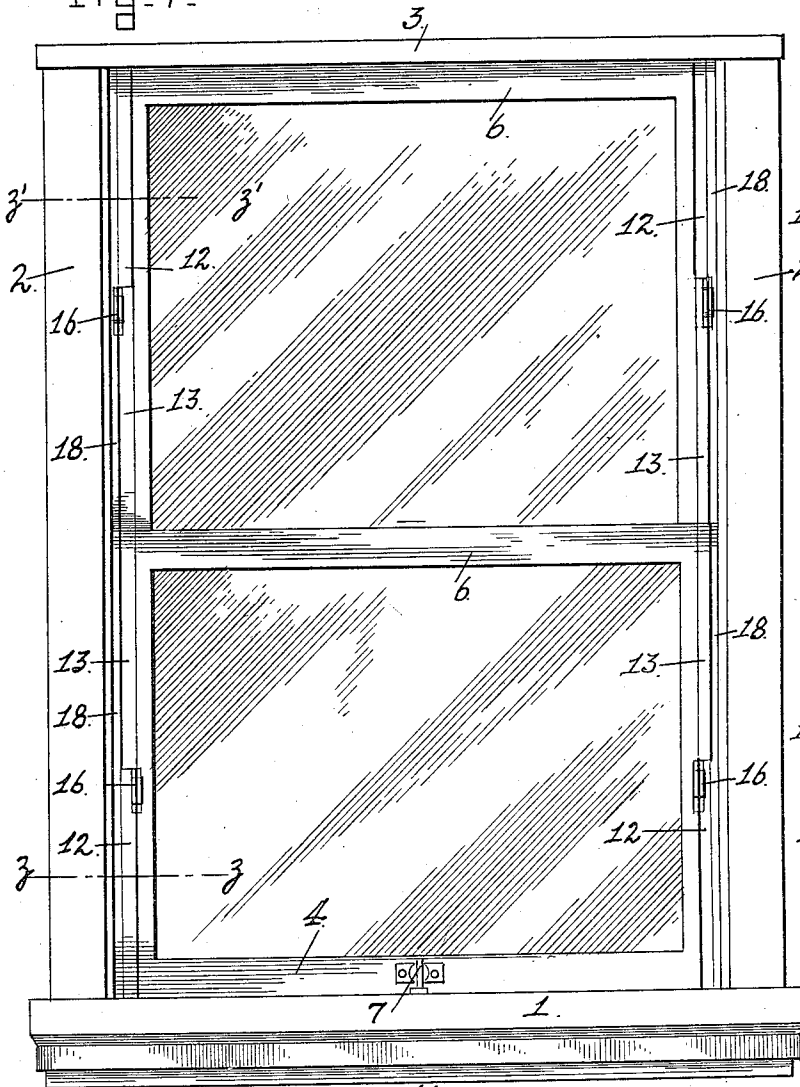
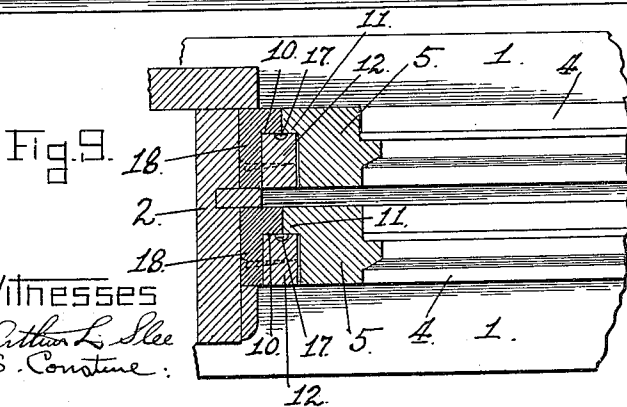
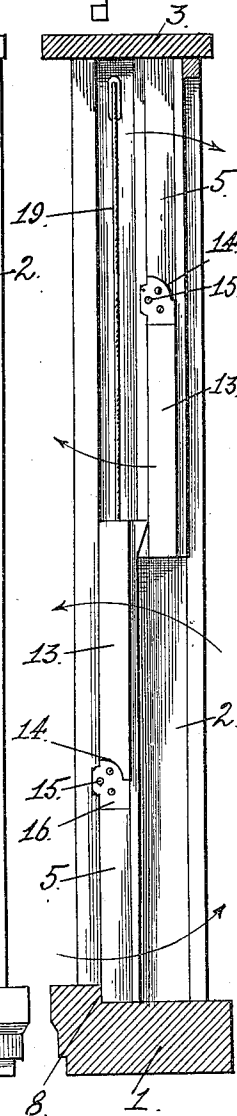


Fig. 8.



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UNITED STATES PATENT OFFICE.

ARTHUR C. SOULE, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR TO SOULE REVERSIBLE WINDOW CO., OF SAN FRANCISCO, CALIFORNIA, A CORPORATION OF CALIFORNIA.

REVERSIBLE WINDOW.

1,045,625.

Specification of Letters Patent.

Patented Nov. 26, 1912.

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To all whom it may concern:

Be it known that I, ARTHUR C. SOULE, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented certain new and useful Improvements in Reversible Windows, of which the following is a specification.

My invention relates to the class of reversible-windows, and it consists in the novel construction and arrangement of parts which I shall hereinafter fully describe, and which have for their object the provision of a simple, economical, easily manipulated, weather-proof reversible sash.

Referring to the accompanying drawings—Figure 1 is a front elevation from the inside of a single reversible sash embodying my improvements. Fig. 2 is a section on the line $x-x$ of Fig. 1. Fig. 3 is a section on the line $y-y$ of Fig. 1. Fig. 4 is a vertical section of the window-casing, showing the sash in elevation from one edge of the same. Fig. 5 is a vertical section of the window-casing, the sash being shown only in dotted lines, in order to see the inner surface of the vertical or stile member of the window-casing. Fig. 6 is a fragmentary view, enlarged, of Fig. 5, the sash, shown in dotted lines, being turned to a greater extent than in Fig. 5. Fig. 7 is a front elevation showing a double reversible sliding sash in which my improvements are embodied. Fig. 8 is a vertical section of the double sash of Fig. 7. Fig. 9 is a fragmentary section, the lower sash being on the line $z-z$ of Fig. 7, and the upper sash on the line $z'-z'$ of Fig. 7, the two sections being brought together in the same plane.

Referring, first, to Figs. 1 to 6, inclusive, 1 is the sill of the window casing, 2 are its vertical members or stiles and 3 its head-piece. 4 is the lower rail of the sash, 5 are its vertical members or stiles, and 6 is its upper rail. 7 is the fastening on the lower sash-rail. On the sill 1, as seen in Figs. 4 and 5, is a shoulder 8 against which the lower rail of the sash, in closing, finds a seat. On the head piece 3 is a shoulder 9 against which the upper rail of the sash seats in closing. Each of the casing stiles 2 is formed or provided with a shoulder 10 extending its full length, as seen in Fig. 5. Each of the sash stiles 5 is formed or pro-

vided with a shoulder 11 extending its full length, as seen in Fig. 4.

To the lower portion of each casing stile 2, against and overlapping the shoulder 10 is secured, as shown in Figs. 3, 5 and 6, the lower section 12 of the stop strip. To the upper portion of each sash stile 5, against and overlapping the shoulder 11, is secured, as shown in Figs. 2 and 4, the upper section 13 of the stop strip. These sections 12 and 13 are alined, as seen in Fig. 1, and they meet and interfit in the arc of a circle 14, which in its best form is an inwardly rising one, that is, one which curves upward toward the inside, as seen in Figs. 4, 5 and 6. This interfitting arc or joint has for its center the pivot pin 15 which connects the two wearing plates 16, one of said plates being secured to the lower section 12 of the stop strip and the other to the face of the sash stile.

The outer face of the stop strip sections 12 and 13 is grooved as shown in Figs. 2 and 3 to form a continuous vertical channel 17 against the shoulders 10 and 11.

It will now be seen that when the sash is closed, the joints are formed by the lower sash rail seating against the shoulder 8 of the sill 1; by the upper sash rail seating against the shoulder 9 of the head piece 3; by the lower portions of the shoulders 11 of the sash stiles 5 seating against the lower sections 12 of the stop strips; and by the upper sections 13 of the stop strips seating against the upper portions of the shoulders 10 of the casing stiles 2.

The joint between the stop strip sections 12 and 13 is not exposed to the outside, and being on an arc curved upwardly to the inside, presents a perfect weather joint, against any water which may reach it; moreover, the vertical channels 17 in the stop strip sections provide for carrying off down to the outer or sloping face of the sill any water which may get into the joints from the outside.

As the sash opens on its pivotal connections 15, as seen by the dotted lines in Figs. 5 and 6, the parts heretofore described leave their seats against one another, the sash sections of the stop strips turning about their curved line of separation with the casing sections of said strips; and this movement may be continued to reverse the sash. Any

suitable means may be provided to hold the sash in any position desired.

As thus far described, I have shown my invention as applied to a non-sliding sash, but, as shown in Figs. 7, 8 and 9, it may also be applied to a sliding sash, as, for example, to that type of reversible sashes, now well known, in which the sash is pivotally connected to counterbalanced slides which play in the grooves of the window casing. In such a case, my invention is applicable by merely fitting up the counterbalanced slides in the same way as I have heretofore described, with regard to the stiles of the window casing. To sufficiently illustrate this I now refer to Figs. 7, 8 and 9, in which the parts in general are indicated by the same numerals heretofore employed. In these figures two sashes, an upper and lower sash, are shown. Each sash is pivoted to its slides 18, which are counterbalanced as seen in Fig. 8, by the rope 19, and which move up and down in grooves in the window casing stiles. When the sashes and slides are locked together they move in unison as an ordinary window, and when the sashes are released from the slides, said sashes may be turned on their pivotal connections, as is usual in this type of reversible sash. In adapting my improvements to this double sash, the only change is one of relative position, in that, while the lower sash is fitted to its slides with its sectional stop strips arranged in precisely the relative positions heretofore described, the stop strip sections of the upper sash are reversed, that is to say, the stop strip sections of the slides are the upper ones and those of the sash are the lower ones, in order that the two sashes may reverse in opposite directions to avoid interference, as shown by the arrows in Fig. 8.

In referring in the claim to vertical mem-

bers of the window casing, I am to be understood as meaning and including not only the stiles proper of said casing, but also the counterbalanced slides, such as 18, which may be fitted thereto, which slides, as far as the sash is concerned, are parts of said window casing.

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

In a reversible window, the combination of the vertical members of the casing and of the sash, each provided with a continuous longitudinal shoulder; a lower section of a stop strip secured to the casing member against and overlapping one portion of its shoulder to form a seat for the corresponding portion of the shoulder of the sash member; an upper section of a stop strip alined with the lower section and secured to the sash member against and overlapping the remaining portion of the shoulder of said sash member to form a seat for the remaining portion of the shoulder of the casing member; and pivotal connections between the casing and sash members, the adjacent ends of the stop strip sections interfitting on an inwardly rising arc having said pivotal connections for a center, and said sections having their outer faces longitudinally grooved, the groove of the movable stop strip being adapted to register with the groove of the frame stop strip when the sash is closed.

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

ARTHUR C. SOULE.

Witnesses:

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