C. A. BLOHM & C. H. CHAMBERLIN.

WEATHER STRIP.

APPLICATION FILED FEB. 15, 1909.

934,709. Patented Sept. 21, 1909.

Fig. 3.

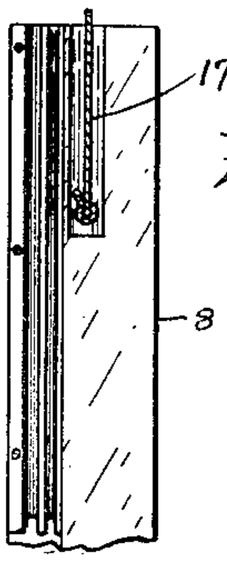


Fig. 2.

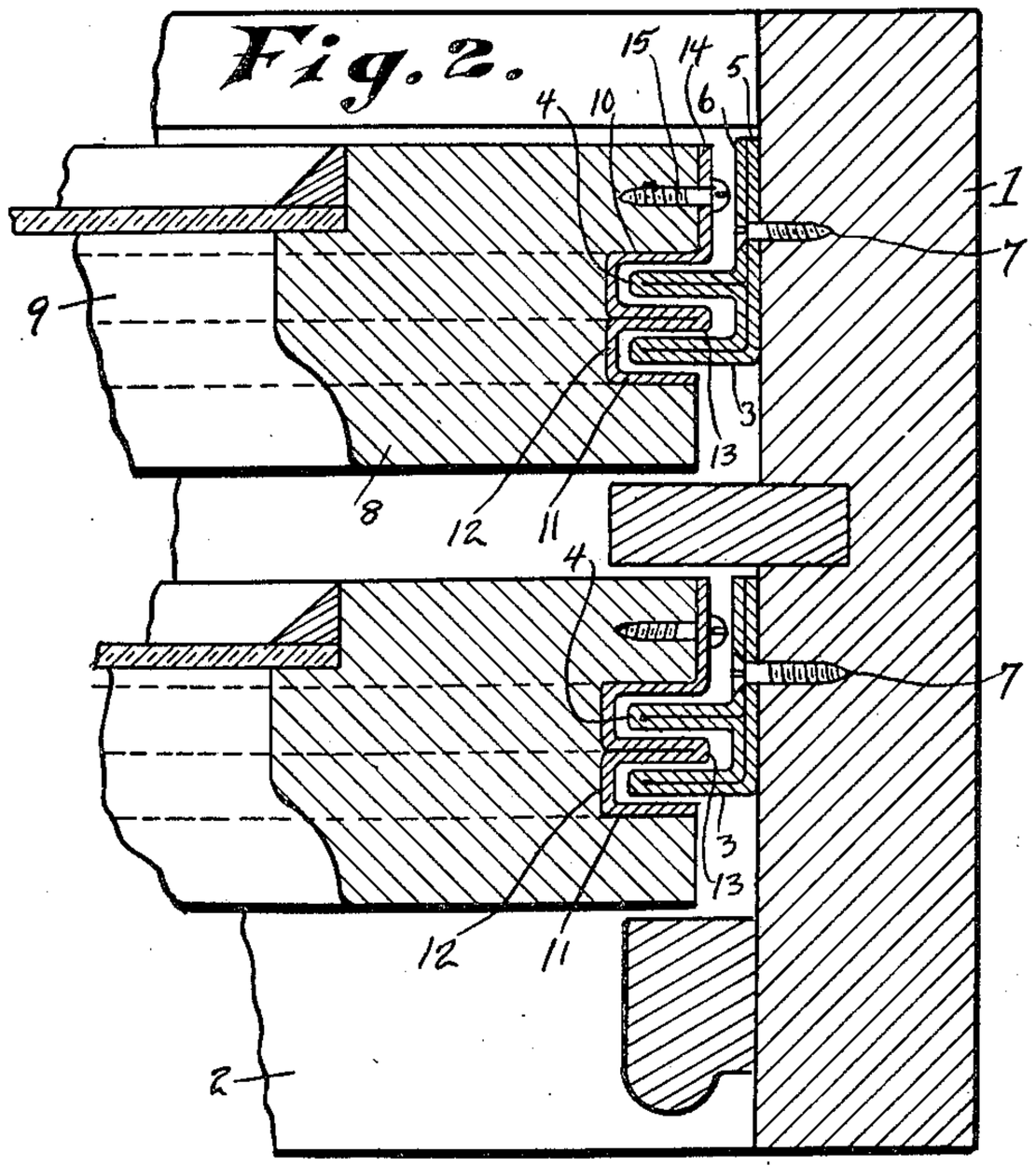
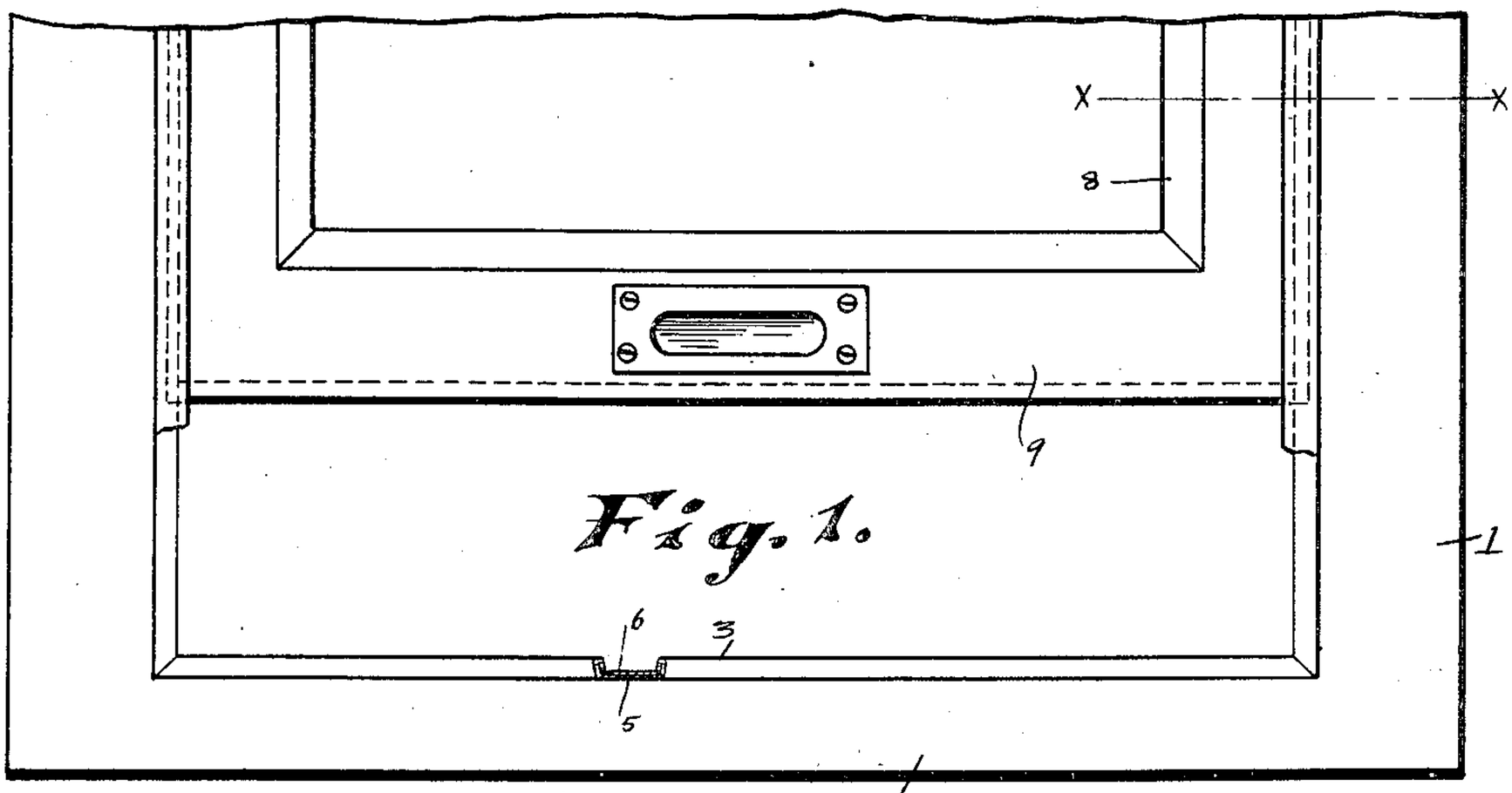


Fig. 1.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES A. BLOHM AND CLARENCE H. CHAMBERLIN, OF MILWAUKEE, WISCONSIN, ASSIGNORS TO FEDERAL METAL WEATHER STRIP COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

WEATHER-STRIP.

934,709. Specification of Letters Patent. Patented Sept. 21, 1909.

Application filed February 15, 1909. Serial No. 477,858.

To all whom it may concern:

Be it known that we, CHARLES A. BLOHM and CLARENCE H. CHAMBERLIN, citizens of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Weather-Strips, of which the following is a specification.

Our invention relates to improvements in weather strips for windows, and pertains especially to that class of devices in which a grooved window sash is provided with one or more metallic members adapted to interact with and slidingly engage counterpart members on the window frame or casing.

The object of this invention is to overcome the difficulty heretofore experienced in securing such strips to the window sash and casing respectively, in such a manner that they will not catch or bind upon each other, nor upon the securing devices, the latter serving, in our improved construction, to reduce the friction of the window sash when moved along the window frame.

In the following description, reference is had to the accompanying drawings, in which,—

Figure 1 is a front view of the lower portion of a window frame and sash with our invention applied thereto. Fig. 2 is a detail horizontal sectional view drawn on line *x*—*x* of Fig. 1. Fig. 3 is an edge view of a portion of one of the side rails of a sash.

Like parts are identified by the same reference characters throughout the several views.

The casing 1 of the window, at the sides and along the sill 2 is provided with a metallic member, which, in the construction illustrated, in Fig. 2, comprises a strip of comparatively thin metal folded along longitudinal lines to form a set of ribs 3 and 4 and laterally projecting base members 5 and 6, which extend in the same direction from the ribs and are lapped upon each other substantially as shown. Securing screws or nails 7 are passed through the laterally extending margins of the strip into the window casing, the heads of these screws being preferably countersunk in the outer member 6 and having flat outer surfaces.

Each window sash is provided with a groove in its side and bottom members 8 and 9 respectively, and this groove is lined with a metallic member comprising a strip of metal bent or folded along longitudinal lines to form walls 10 and 11 for the sides of the groove and a base wall 12 having an outwardly projecting rib 13 which subdivides the groove into two channels adapted to loosely receive the ribs 3 and 4 respectively. One margin of this strip constitutes the outer edge of the side wall 11. The strip along the outer margin 14 is extended laterally to the edge of the sash and secured to the sash at the side of the groove, preferably by round headed nails or screws 15, the heads of which form bearings adapted to travel along the outer surface of the member 6. This construction not only avoids the necessity of applying nails or screws in the narrow spaces between the ribs, but the laterally projecting members form smooth metallic opposing bearing surfaces which will not permit the sash to bind especially where the round headed screws or nails are employed to serve as spacing and antifriction devices. It is not material to our invention whether the lateral extensions are outward or inward extensions, that is, whether they project toward the exterior or interior of the building.

In Fig. 3 it will be observed that where a sash cord groove 17 is employed, the packing strip groove connects with it along one side the two grooves, constituting a single wide groove of sufficient width to receive the packing strip and the sash cord 18.

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

1. The combination with a window casing, and a sash having a groove in its side and bottom margins, of a strip of metal folded longitudinally to form overlapping portions in the plane of the window casing and secured thereto, said strip having its folded margin bent outwardly to form a projecting rib engaging in the sash groove, and said strip having one of its sides additonally folded outwardly to form a second rib substantially parallel to the first mentioned rib, and between it and the overlapped edge margins, together with another strip of metal forming a lining for the sash groove and folded to provide rib receiving channels, substantially as described.

2. The combination with a window cas-

ing and a sash having a groove in its side and bottom margins, of a folded strip of metal having its edge margins substantially coincident with each other and having two outwardly extending folds forming ribs, one of which is located at the side of the strip opposite the edge margin and the other of which is parallel thereto and occupies an intermediate position between the first mentioned strip and said edge margins, flat headed screws countersunk in the overlapping portions of said strip and securing said portions of the strip to the window casing between the ribs and the edge margins, together with another strip of metal forming a lining for the sash groove and folded to provide rib receiving channels, said strip having a single laterally extending flange on the side of the groove opposing the secured margins of the strip connected with the casing, said flange being secured to the sash by round headed screws projecting from the surface of the flange and forming bearing points adapted to travel along the secured portion of the first mentioned strip, substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

CHARLES A. BLOHM.
CLARENCE H. CHAMBERLIN.

Witnesses:
LEVERETT C. WHEELER,
O. R. ERWIN.