C. R. INGHAM.

WEATHER STRIP.

APPLICATION FILED FEB. 24, 1910.

960,331. Patented June 7, 1910.

Fig. 1.

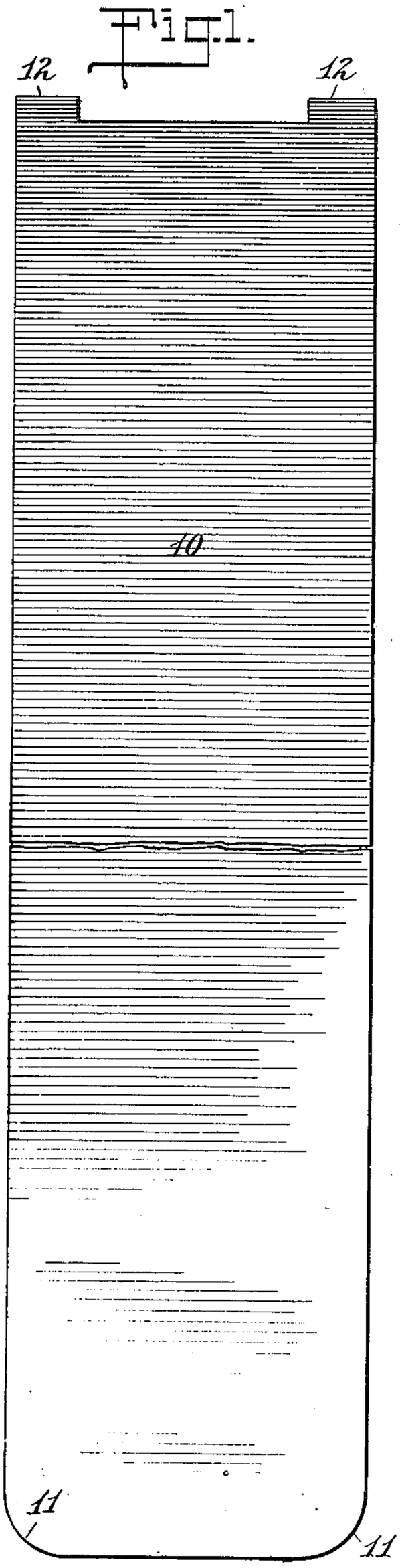


Fig. 2.

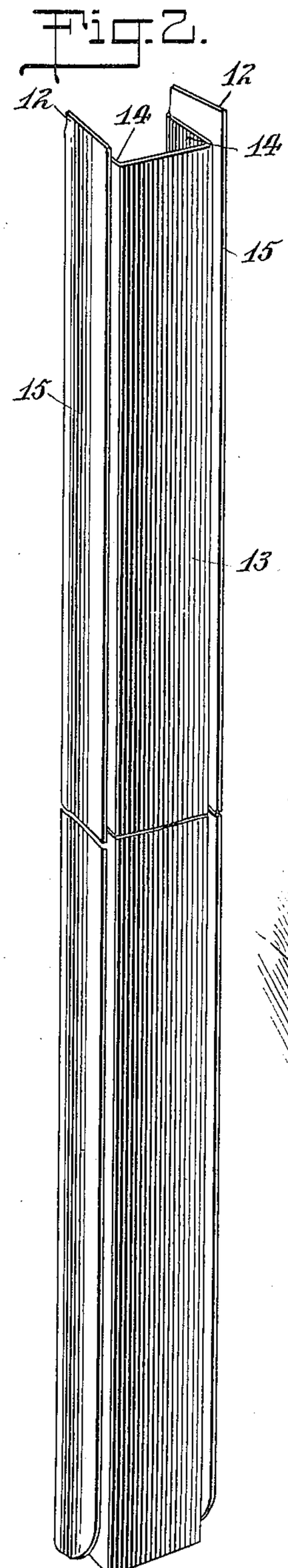


Fig. 3.

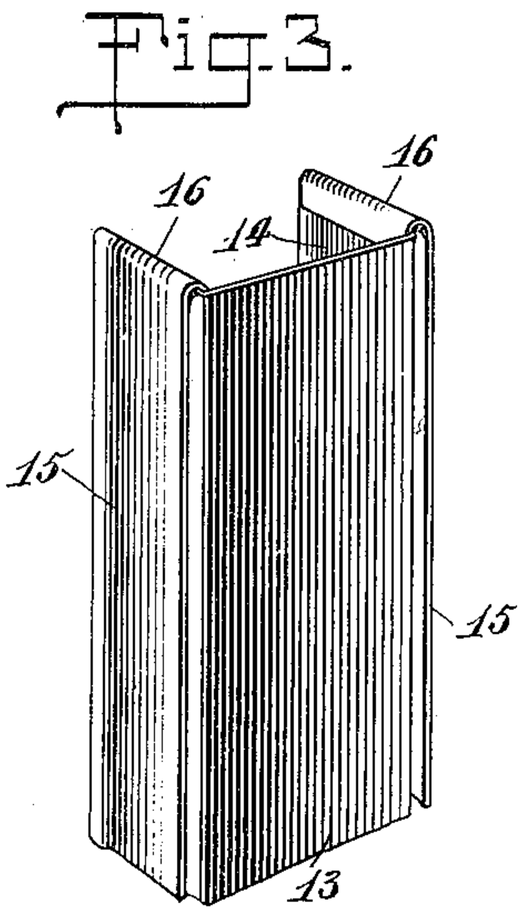


Fig. 4.

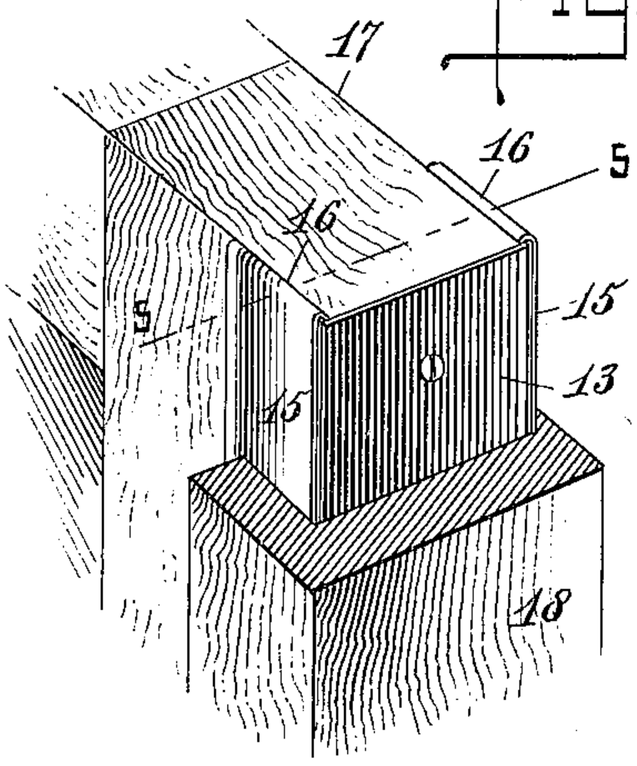


Fig. 5.

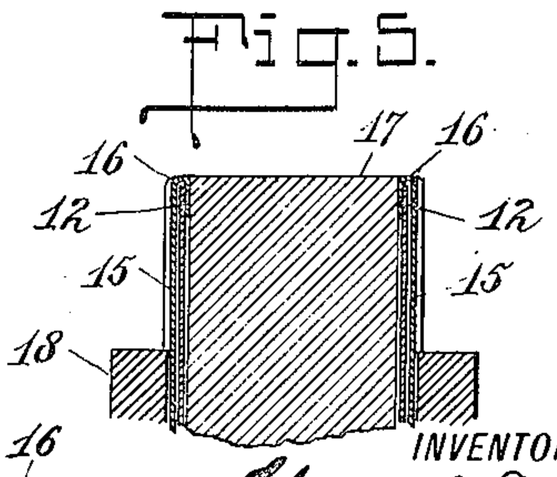
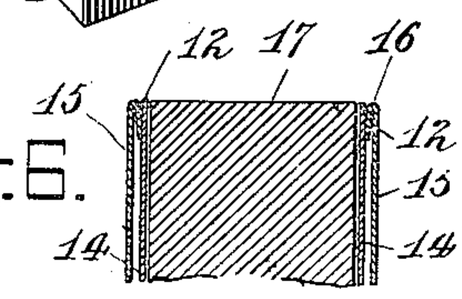


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHARLES R. INGHAM, OF MAHWAH, NEW JERSEY, ASSIGNOR TO METAL PLATED CAR & LUMBER COMPANY, OF MAHWAH, NEW JERSEY, A CORPORATION OF NEW JERSEY.

WEATHER-STRIP.

960,331. Specification of Letters Patent. Patented June 7, 1910.

Application filed February 24, 1910. Serial No. 545,562.

To all whom it may concern:

Be it known that I, CHARLES R. INGHAM, a citizen of the United States, and a resident of Mahwah, in the county of Bergen and State of New Jersey, have made and invented certain new and useful Improvements in Weather-Strips, of which the following is a specification.

My invention relates to an improvement in weather strips for window sashes, such as are made wholly of metal, and more particularly to an improvement upon the strip shown in Letters Patent granted to J. E. Scott, July 21, 1903, and numbered 734,436, all the rights to and under which patent are now owned and controlled by the assignee of my present invention, the Metal Plated Car & Lumber Company.

In the manufacture of many thousands of weather strips constructed and applied as described in the above Letters Patent, I have learned that it is open to several objections, to wit, the upper end of the strip being open, dust, dirt, cinders, or other foreign material finds its way into the upper open end of the strip and lodges between the spring metal slide strips and the side walls, thereby destroying to a large extent the resiliency of the wings or side springs, in many instances causing the sash to bind in the frame, and in some instances causing the destruction of the wings. Furthermore, I have found in the use of these strips that the raw or unprotected upper edges of the strip will, at times, in the upward movement of the sash catch in the wooden frame, and thereby be bent, distorted, or injured, and at other times wholly destroyed.

The object of my invention is to avoid these difficulties and objections by closing the upper ends of the strips against the ingress of dirt or foreign material, and at the same time to provide a strip with a rounded or curved upper end, whereby to insure the same against catching into the woodwork of the frame in which the sash slides, and with these and other ends in view, the invention consists in certain novel features of construction and combinations of parts as will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view of a blank from which I form my improved weather strip. Fig. 2 is a perspective view of the blank partly folded. Fig. 3 is a view of the upper portion of the strip having the extreme upper ends bent or folded over in accordance with my present invention. Fig. 4 shows the strip applied to a portion of a window sash. Fig. 5 is a sectional view taken on the line 5—5 of Fig. 4. Fig. 6 is a view of a modified form of the upper end of the strip, showing the extension on the wing folded in between the wing and side wall of the strip.

Referring to the drawings, 10 represents the blank from which I construct my improved strip, made of any desired metal, preferably thin sheet spring brass, the blank having rounded lower corners 11—11, and the two upwardly projecting extensions 12—12 on its upper corners, these extensions 12—12 being of such height as to afford sufficient metal to bend them over and upon the inner sides of the wings or spring slides as hereinafter described, the width of said extensions 12 being the same as that of said wings. This blank is then formed, shaped or folded as illustrated in Fig. 2, that is provided with the rear plate 13, side plates 14, and the wings or spring slide plates 15. When folded into this shape, it will be noticed that the lower end of the strip will be opened, that is, an open space will be left between the lower end of the springs 15 and side plates 14 to afford an escape for any dust or dirt which might find its way in between said wings and plates. At the upper end of the strip, however, the projections 12 form an extension of the wings 15, which extensions, as illustrated in Fig. 3, are bent over and downwardly upon the inner sides or faces of the walls 14, forming tight covers 16 to prevent the ingress of any dust, dirt, or foreign matter between said wings 15 and walls 14. Furthermore, these bent over portions 16 lie against the sash 17, to which the weather strip is attached, and are thereby hidden from view, the upper end of the strip presenting a smooth and rounded surface to the frame 18, with no danger of the strip digging or catching therein.

As will be noticed in Fig. 6, instead of bending the extensions 12 over and upon the inner sides or surfaces of the walls 14, said extensions 12 may be bent or turned in-

wardly against the outer side or surface of said walls, but as such does not form such a tight lock or seal against the ingress of dirt, I prefer to bend and fold the projecting ends as first above mentioned.

As well understood, the strip may be in other ways modified, and if so, the folded upper ends may be accordingly modified, the gist of my present invention lying in the fact that the strip is provided with a side wall, and a spring wing, the metal of the strip being bent from one member over on to the other in order to close the top of the strip, whereby to prevent the ingress of dirt or foreign matter, and also to protect the raw edge of the metal from catching into the window frame.

Having fully described my invention, what I claim is—

1. A weather strip comprising a side wall and a spring wing substantially parallel thereto, the metal at the upper end of the strip being folded over, whereby to close the space between said wing and wall.

2. A weather strip made of sheet metal and comprising a side wall and a spring wing substantially parallel thereto, said wing being provided with an extended end bent over against the metal of the wall, whereby to close the space between said wing and wall.

3. A weather strip comprising side walls having spring wings formed integral therewith, the metal of which said wings are formed being extended upwardly and bent over and upon the inner faces of said walls.

Signed at New York, borough of Manhattan, in the county of New York, and State of New York, this 21st day of February, A. D. 1910.

CHARLES R. INGHAM.

Witnesses:

A. V. WALSH,

W. R. EDSON.