G. H. PIRSON.

ANGLE-BRACE.

APPLICATION FILED DEC. 23, 1913.

1,141,210. Patented June 1, 1915.

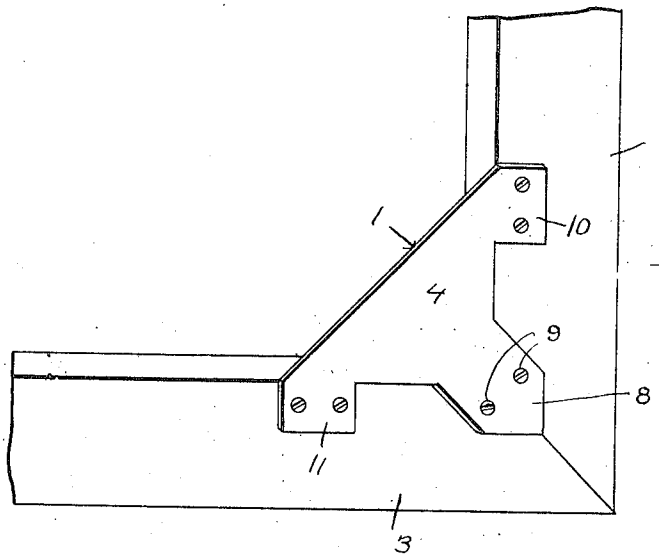



Fig. 1.

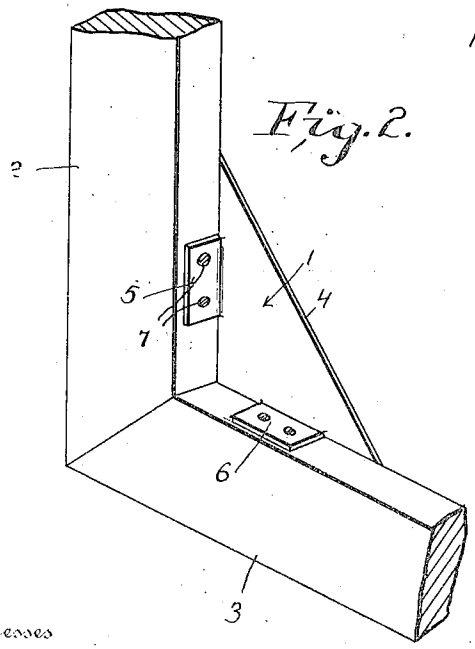



Fig. 2.

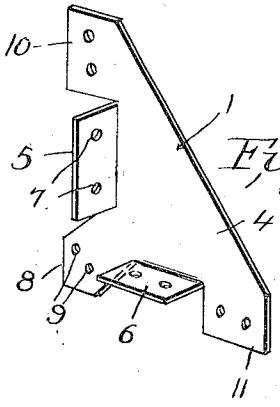



Fig. 3.

Witnesses

R. M. Jones

Inventor,

G. H. Pirson.

By A. H. Andrews & Son

Attorney

# UNITED STATES PATENT OFFICE.

GEORGE H. PIRSON, OF BUFFALO, NEW YORK.

## ANGLE-BRACE.

1,141,210. Specification of Letters Patent. Patented June 1, 1915.

Application filed December 23, 1913. Serial No. 808,357.

*To all whom it may concern:*

Be it known that I, GEORGE H. PIRSON, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Angle-Braces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in angle braces of that type designed particularly for bracing window screen frames or door screen frames or like structure whereby the life of the window or door screen is materially increased and sagging is prevented.

An important object of the invention is to provide an angle brace such as above described that is adapted to be secured at several points at the corners of a window or door screen frame or like structure whereby the frame is materially strengthened and not liable to derangement owing to the manner in which the brace is secured at several points adjacent the joint of the frame.

Another object of importance is to provide an angle brace such as above described which may be stamped out of a single blank of cheap metal, is reliable and efficient in its purpose, cheap to manufacture and therefore more commercially desirable than braces heretofore.

The above and additional objects are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification and then more particularly pointed out in the claim which is appended hereto and forms a part of this application.

With reference to the drawings, wherein I have illustrated the preferred embodiment of my invention as it is reduced to practice, and throughout the several views of which, similar reference numerals designate corresponding parts: Figure 1 is a side elevation illustrating the device attached to the joint of a window screen. Fig. 2 is a perspective view illustrating the device attached to the joint of a frame, and Fig. 3 is a detail perspective view of the angle bracket removed from the frame.

Referring to the drawings forming a part of this specification and in which like numerals are employed to designate corresponding parts, the numeral 1 designates as an entirety the angle brace of my improved construction that is adapted to be secured to the bars 2 and 3 of a window or door screen frame at the joint of the bars thereof. The angle brace 1 consists of a single blank of suitable metallic material having an angular body portion 4. Formed along the shorter edges of the body portion 4 are a pair of integral securing side and bottom flanges 5 and 6 respectively. These securing flanges 5 and 6 are bent at right angles to the body portion 4 and are each provided with spaced apertures 7 through which suitable fastening means may be inserted to secure the device to the window or door screen frame. The securing flange 5 is formed centrally of the straight side of the body portion 4 and is disposed at right angles to the securing flange 6 which is disposed centrally of the ends of the bottom edge of the body portion 4. The securing flanges 5 and 6 are adapted for engagement with the inner edges of the side bar 2 of the window or door screen and the bottom bar 3 of the frame as will be clearly seen with reference to Fig. 2 in the drawings. The securing flanges 5 and 6 after having been disposed as above described are secured by suitable fastening means to the side and bottom bars 2 and 3 of the window or door screen frame.

Formed integral with the body portion 4 at the lower angular corner thereof is an outwardly and downwardly extending securing tongue 8. This tongue 8 is disposed between the securing flanges 5 and 6 and extends at right angles thereto. A pair of spaced apertures 9 are formed in the securing tongue 8 and are adapted to receive fastening means whereby the tongue is secured to the angular edges of the side bar 2 and bottom bar 3 of the window or door screen frame, as will be clearly seen with reference to Fig. 1 in the drawings. It will be apparent that the apertures 9 in the securing tongue 8 in being spaced provide for the securing of the angular edges of the side bar 2 and bottom bar 3 thus strengthening and reinforcing the frame to a great extent.

A securing tongue 10 is formed integral with the body portion 4 adjacent the upper end of the body portion, extends outwardly at right angles to the securing flange 5, and is adapted for engagement with the face of

the side bar 2. This securing tongue 10 is apertured as is the other securing tongue so as to provide for the securing of it to the side bar 2.

A securing tongue 11 is formed integral with the body portion 4 adjacent one end of the bottom edge thereof at right angles to the securing flange 6 which is disposed between the tongues 11 and 8 as will be clearly seen with reference to Fig. 3 in the drawings. This securing tongue 11 is apertured as are the other securing tongues and adapted for engagement with the face of the lower bar or bottom bar 3 as will be clearly seen with reference to Fig. 1 in the drawings.

In practice, the bars 2 and 3 are assembled, after which the bracket is applied by placing the flanges 5 and 6 against the inner sides and the tongues 9, 10 and 11 against the outer sides of the bars. The flanges 5 and 6 are then secured to the inner sides of the bars 2 and 3, causing the bars to be brought into and held in right angular relation, after which the tongues 8, 10 and 11 are secured to the outer sides of the bars. The flanges 5 and 6 insure the bars 2 and 3 being brought into proper relative position, and prevent strain from being thrown on the fastenings passing through the flanges and the tongues. The flanges also add strength and rigidity to the body 4. A portion of the body 4 extends from the tongue 10 to the tongue 11 at a point inwardly beyond the flanges and tongue 8. This portion of the body forms a truss which is secured to the bars 2 and 3 by the tongues 10 and 11.

It will be apparent that the arrangement of the securing tongues such as above described provide for the securing of the brace to the screen frame in a reliable manner so that sagging, warping or derangement of the frame is eliminated owing to the reinforcing action of the angle brace such as above described.

In reduction to practice, I have found that the form of my invention, illustrated in the drawings and referred to in the above description, as the preferred embodiment is the most efficient and practical; yet realizing that the conditions concurrent with the adoption of my device will necessarily vary, I desire to emphasize the fact that various minor changes in details of construction, proportion and arrangement of parts may be resorted to, when required, without sacrificing any of the advantages of my invention, as defined in the appended claim.

Having thus described my invention, what is claimed is:—

An angle brace comprising a metallic body of right angled triangular outline, bottom and side attaching flanges struck up from the body and extending in the same direction from one face thereof, said flanges being spaced inwardly from and arranged in parallel relation to the bottom and vertical side edges of the body, respectively, tongues formed by striking the flanges up from the body, said tongues being located in the plane of the body and outwardly beyond the flanges, and a strut located between two of said tongues and inwardly beyond the flanges, said strut being formed by a portion of the body.

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE H. PIRSON.

Witnesses:
H. F. Pirson,
Mae R. Martin.