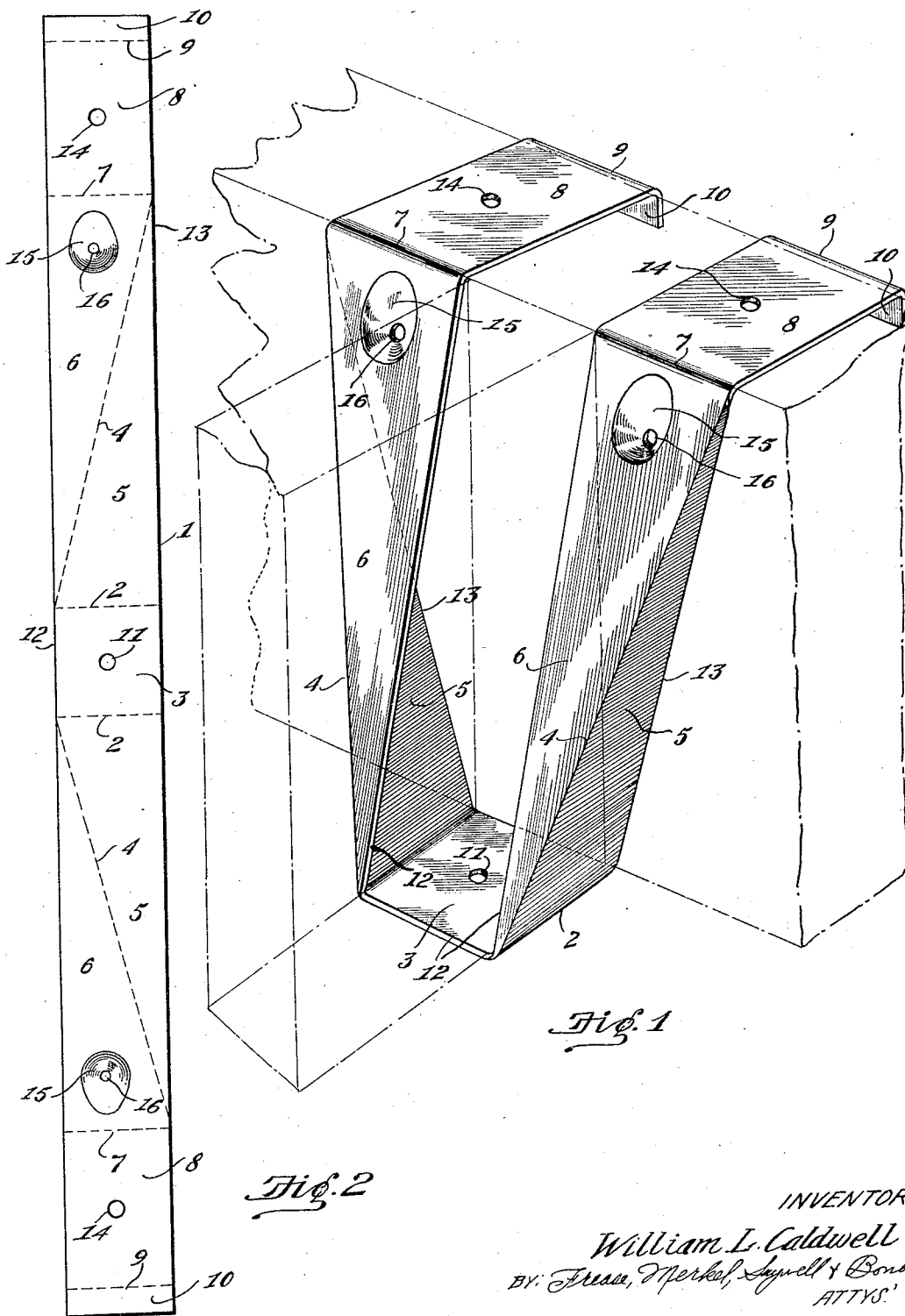


W. L. CALDWELL.
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APPLICATION FILED APR. 3, 1920.

Patented Feb. 14, 1922.

2 SHEETS—SHEET 1.

1,406,723.



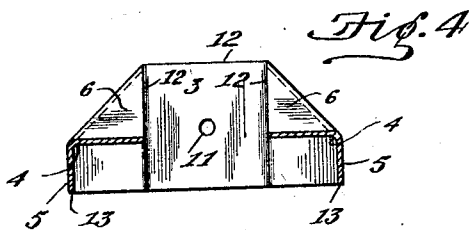
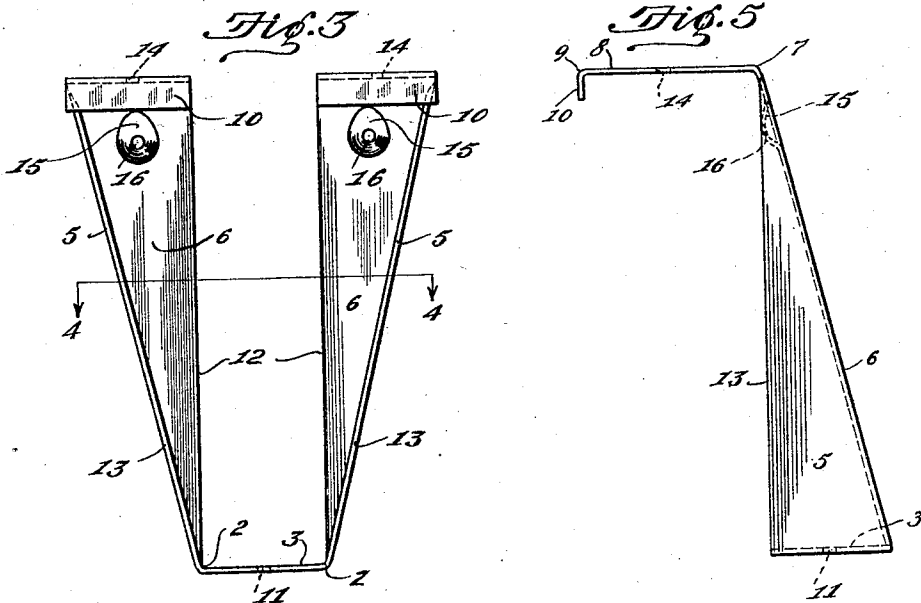
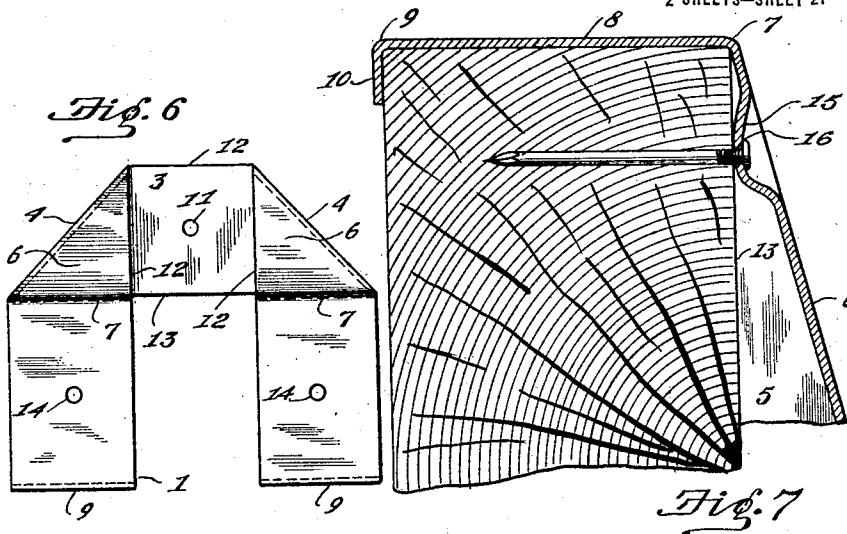
INVENTOR
William L. Caldwell
BY: *Freese, Merkel, Synwell & Bond*
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UNITED STATES PATENT OFFICE.

WILLIAM L. CALDWELL, OF CANTON, OHIO, ASSIGNOR, BY MESNE ASSIGNMENTS, TO
UNITED ALLOY STEEL CORPORATION, OF CANTON, OHIO, A CORPORATION OF NEW
YORK.

JOIST HANGER.

1,406,723.

Specification of Letters Patent. Patented Feb. 14, 1922.

Application filed April 3, 1920. Serial No. 370,947.

To all whom it may concern:

Be it known that I, WILLIAM L. CALDWELL, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Joist Hangers, of which the following is a specification.

The invention relates to joist hangers made of a single strip of sheet metal and the object of the improvement is to form a hanger from a straight strip or blank, with beam hooks extending normally across the beam, without straining or stretching the metal in the formation of the hanger.

The improvement is illustrated in the accompanying drawings forming part hereof in which—

Figure 1 is a perspective view of a hanger embodying the invention, fragmentary portions of a beam and a joist being shown in dotted lines;

Fig. 2, a plan view of the straight strip of sheet metal from which the hanger is formed, the dotted lines indicating the lines of bending;

Fig. 3, a front elevation of the hanger;

Fig. 4, a section on the line 4—4, Fig. 3;

Fig. 5, a side elevation of the hanger;

Fig. 6, a plan view thereof; and

Fig. 7, a sectional view on an enlarged scale of the upper portion of one of the uprights and the beam hook, showing the means of attaching the hanger to a beam.

Similar numerals refer to similar parts throughout the drawings.

The hanger is made from a single straight strip 1 of sheet metal as shown in Fig. 2, and the same is cut to the desired length and width, and is bent upon the dotted lines as shown; first upward upon the lines 2 to form the joist seat 3, thence inward upon the lines 4 to form triangular flanges 5 and 6, thence rearward upon the lines 7 to form the beam plates 8, and thence downward upon the lines 9 to form the beam hooks 10.

The lines 2 extend at right angles across the strip equi-distant from the middle thereof, and the portion 3 between said lines forms a rectangular seat for the joist; this seat being of substantially the same width as the thickness of the joist, and may have a central aperture 11 through which a nail or other fastening means may be driven into the bottom of the joist.

The lines 4 extend obliquely along and across the strip in opposite directions, intersecting the lines 2 at the edge 12 of the strip forming the forward edge of the joist seat, and intersecting the lines 7 which are parallel with the lines 2, at the opposite edge 13 of the strip; thus forming the like triangular flanges 5 and 6 comprising the upright members of the hanger when the same is bent along the several lines as described.

The bends are made to bring the inner free edges 12 of the upright flanges 6 into parallel position alongside the joist, and the free edges 13 of the upright flanges 5 against the face of the beam; in which relation of the parts the rearward bend upon the lines 7 extends the beam plates 8 across the top of the beam at right angles to the face thereof, and the downward bends along the lines 9 form the hooks 10 engaging the farther side of the beam.

Central apertures 14 may be provided in the beam plates through which nails or like securing means may be driven into the top of the beam; or depressions 15 may be provided in the upper ends of the triangular flanges 6, in which depressions the apertures 16 may be provided through which nails or the like may be driven into the side of the beam.

The hanger thus formed presents a neat and finished appearance with the free edges of its upright flanges respectively abutting the sides of the joists and the beam; and the load is carried by the angle strips formed by the upright triangles 5 and 6 without any torsional strains at any point, and with the load evenly distributed throughout all portions of the upright members.

I claim:

A sheet metal hanger for carrying a joist from a beam or the like, made of a straight strip bent upward along two parallel lines to form a rectangular seat for the joist, the two upwardly bent portions being then each bent inwardly upon a line diagonal of the respective portion, thence rearwardly and then downwardly, thereby forming triangular flanges having edges for abutting the joist and the beam, respectively, and rectangular beam plates and hooks.

WILLIAM L. CALDWELL.