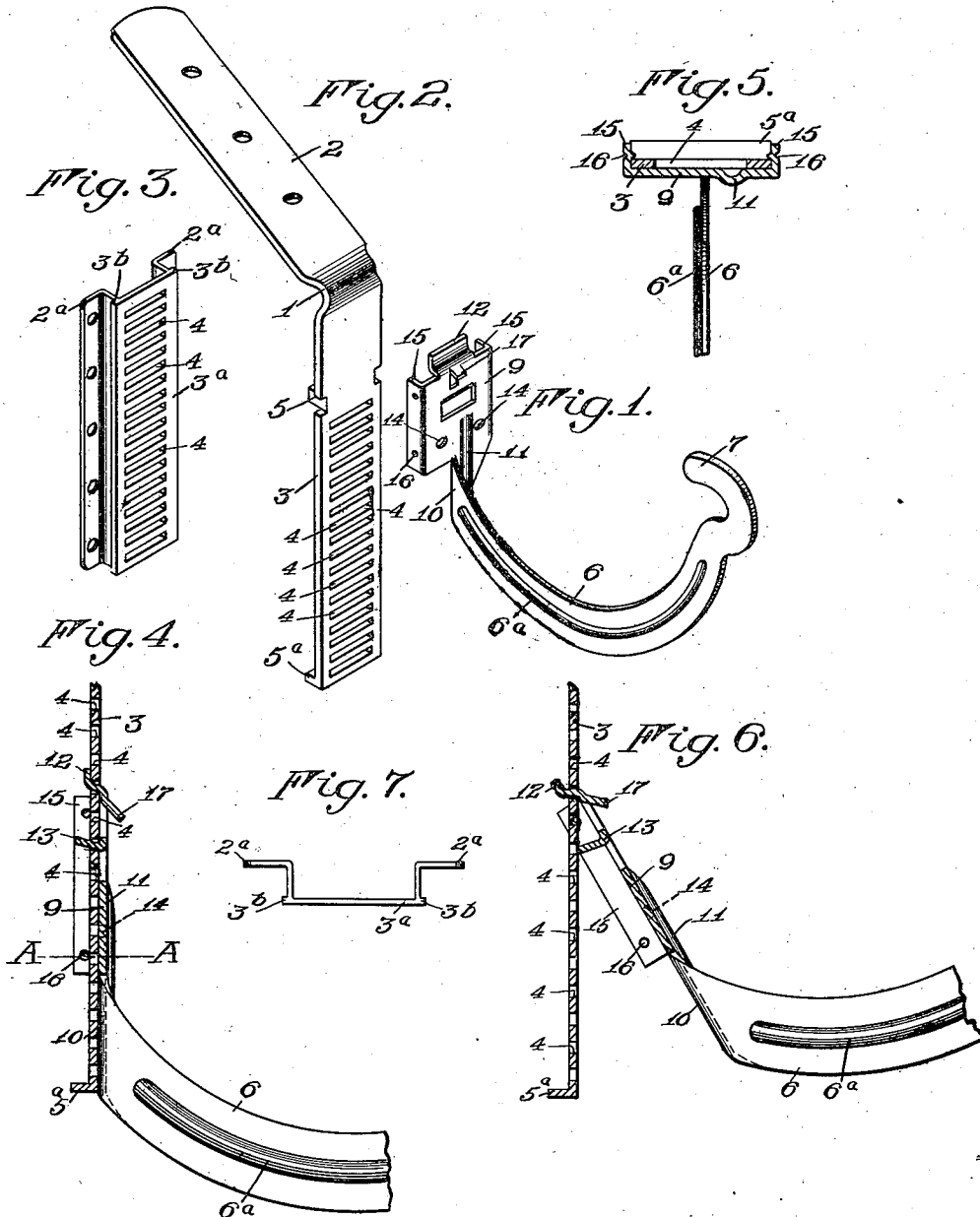


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BRACKET AND SUPPORT THEREFOR.
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Patented Feb. 13, 1912.



Witnesses

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BRACKET AND SUPPORT THEREFOR.

1,017,174.

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To all whom it may concern:

Be it known that we, VALENTINE SANDER and PETER W. SEILER, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Brackets and Supports Therefor; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerals marked thereon.

The present invention relates to brackets and supports therefor and it has for an object to provide a strong and durable construction which may be inexpensively made from sheet material or flat stock and is especially adapted for hanging or supporting eaves troughs.

To these and other ends the invention consists in certain improvements and combinations of parts all as will be hereinafter more fully described, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 is a perspective view of the bracket shaped or formed to support an eaves trough; Fig. 2 is a perspective view of a hanger support which may be suspended from the roof to abut the wall of the building; Fig. 3 is a perspective view of a bracket support which may be attached directly to the outer wall of a building; Fig. 4 is a detail vertical section of the bracket and the support shown in Fig. 2; Fig. 5 is a detail horizontal section on line *a-a*, Fig. 4; Fig. 6 is a detail vertical section showing the manner of applying the bracket to its support, and Fig. 7 is a top view of the bracket support shown in Fig. 3.

The bracket, which will be hereinafter described, may be combined with a bracket support made from a single piece of flat stock, such as a sheet metal strip of uniform width, notched at 1 on opposite sides to form a weakened or reduced portion which permits the strip to be flexed or bent between its ends to provide an attaching portion 2 at an angle to a supporting portion 3. The latter may be provided with a plurality of seats 4 preferably formed by the walls of a plurality of slots or openings arranged one above the other in the strip to receive a portion of the bracket. Rests 5 and 5^a may be bent rearwardly from the supporting portion at opposite ends of the series of seats to co-

operate with a vertical wall of a building and hold the hanger support away from the wall so that the hanger may be connected to said support. The bracket may also be combined with a bracket support, such as shown in Figs. 3 and 7, in which the supporting portion 3^a is carried by two L-shaped attaching members 2^a extending throughout the length of the supporting member from the rear surface of the latter to provide flanges 3^b for engagement by the bracket in a manner to be described. The bracket which is also preferably made from flat stock or sheet metal comprises a supporting arm 6 corrugated longitudinally at 6^a, if desirable, and having the flat faces lying in the direction of the strain thereon, in this instance, vertically arranged, the arm being curved transversely in the direction of an edge thereof and having an overhanging hook 7 at the outer free end and to engage with the outer edge of a trough. At the inner end of the supporting arm 6 there is provided an attaching plate 9 having its flat faces lying in planes transverse to the flat faces of the supporting arm and preferably vertically, said plate being connected to the arm by a horizontal bend 10 located substantially midway of the edges of the plate. The latter may be provided with a vertical corrugation 11 which extends on opposite sides of the upper edge of the supporting arm and prevents bending of the plate due to strain on the supporting arm.

The connection of the bracket with the support is preferably established by a rearwardly and upwardly extending lip 12 formed on the upper edge of the attaching plate permitting the plate to rest or bear against the front face of the bracket support below the projection 12. In use the latter is first introduced into one of the slots 4, by relatively positioning the parts shown in Fig. 6, and then moving the lower edge of the bracket toward its support. A tongue or lip 13 turned slightly upward, projects from the rear face of the plate 9 and is adapted to be passed through another slot in the bracket support so as to assist the lip 12 in supporting the bracket. In the event that the portion 3 of the bracket lies close to a wall nails may be driven into the wall through perforations 14 in the plate 9, said perforations being so arranged relatively to the lip or projection 12 that they always aline with one of the slots.

The lateral displacement of the bracket arm may be prevented by providing rearwardly extending flanges 15 at opposite sides of the plate 9 to cooperate with opposite sides of a bracket support. These flanges may also serve as spring latches and to this end are provided with inwardly extending projections 16 which cooperate with the opposite sides of the bracket support, the upper projections serving to retain the bracket when the latter is arranged near the lower end of the support.

The inner edge of a trough may be secured by a flexible tongue 17 struck up from the metal stock and adapted to be bent into engagement with the trough to secure the latter, and this tongue being normally inclined downwardly permits the inner edge of the trough to slide downwardly thereon and then to spring beneath the same.

When employed for hanging eaves troughs a number of these devices is provided, the bracket supports being first secured to the building either in the form shown in Fig. 2 or the form shown in Fig. 3, or both. The brackets are then placed in position to secure the proper slant to the trough but are not nailed, if such be desirable, until their positions are definitely determined. The spring latches serve to hold the brackets during the adjustment of the trough and also prevent lateral displacement of the brackets after the latter have been permanently secured.

A bracket and its support constructed in accordance with this invention are inexpensive to manufacture as they may be made from sheet metal by a very few operations. Various adjustments are provided for and the bracket is securely held against accidental displacement from its support. The surface of the trough engaged by the supporting arm is very small and as a consequence moisture cannot collect between the supporting arm and the trough and cause oxidization of the latter.

We claim as our invention:

1. An eaves trough hanger comprising a curved supporting arm made from flat stock, provided with a trough engaging device at its outer end and having the flat faces of the stock lying vertically, an integral attaching plate at the inner end of the arm projecting upwardly from the latter and formed of flat stock with its side faces vertically arranged and transverse to the planes of the flat faces of the supporting arm the bend between the arm and the attaching plate being in the plane of the latter so as to contact with the part to which the attaching plate is secured; and a trough securing de-

vice on the attaching plate above the inner end of the supporting arm.

2. A bracket made from a single piece of flat stock and comprising a supporting arm having the flat faces of the stock vertically arranged and an attaching plate having the flat faces of the stock vertically arranged and lying transverse to the planes of the flat faces of the supporting arm, the latter being connected to the attaching plate by a horizontal bend, and the attaching plate being provided with a corrugation extending above and below the upper side of the bend and in proximity to the latter.

3. The combination with a bracket support comprising a supporting portion having a horizontal seat thereon, of a bracket having a portion arranged to engage the seat, and coacting with the seat to prevent movement of the bracket lengthwise of the support, and a spring latch arranged on the side of the bracket to cooperate with the edges of the supporting portion to maintain the bracket portion on the seat.

4. The combination with a bracket support having an opening therein, of a bracket having a rearwardly and upwardly extending projection adapted to be passed through the opening, and flanges arranged to cooperate with opposite sides of the bracket support.

5. The combination with a bracket support having an opening therein, of a bracket embodying a supporting arm and an attaching plate, the latter having a rearwardly and upwardly extending projection adapted to be passed through the opening and also a pair of rearwardly extending flanges to cooperate with the sides of the bracket support.

6. The combination with a bracket support having a seat thereon, of a bracket made from a single piece of flat stock and embodying a curved supporting arm having the flat faces of the stock vertically arranged and an attaching plate having the flat faces of the stock vertically arranged and lying transverse of the planes of the flat faces of the supporting arm, the latter being connected to the attaching plate by a horizontal bend, and the attaching plate being provided with a portion cooperating with the seat on the bracket support and also being provided with rearwardly extending flanges cooperating with opposite sides of the supporting bracket.

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