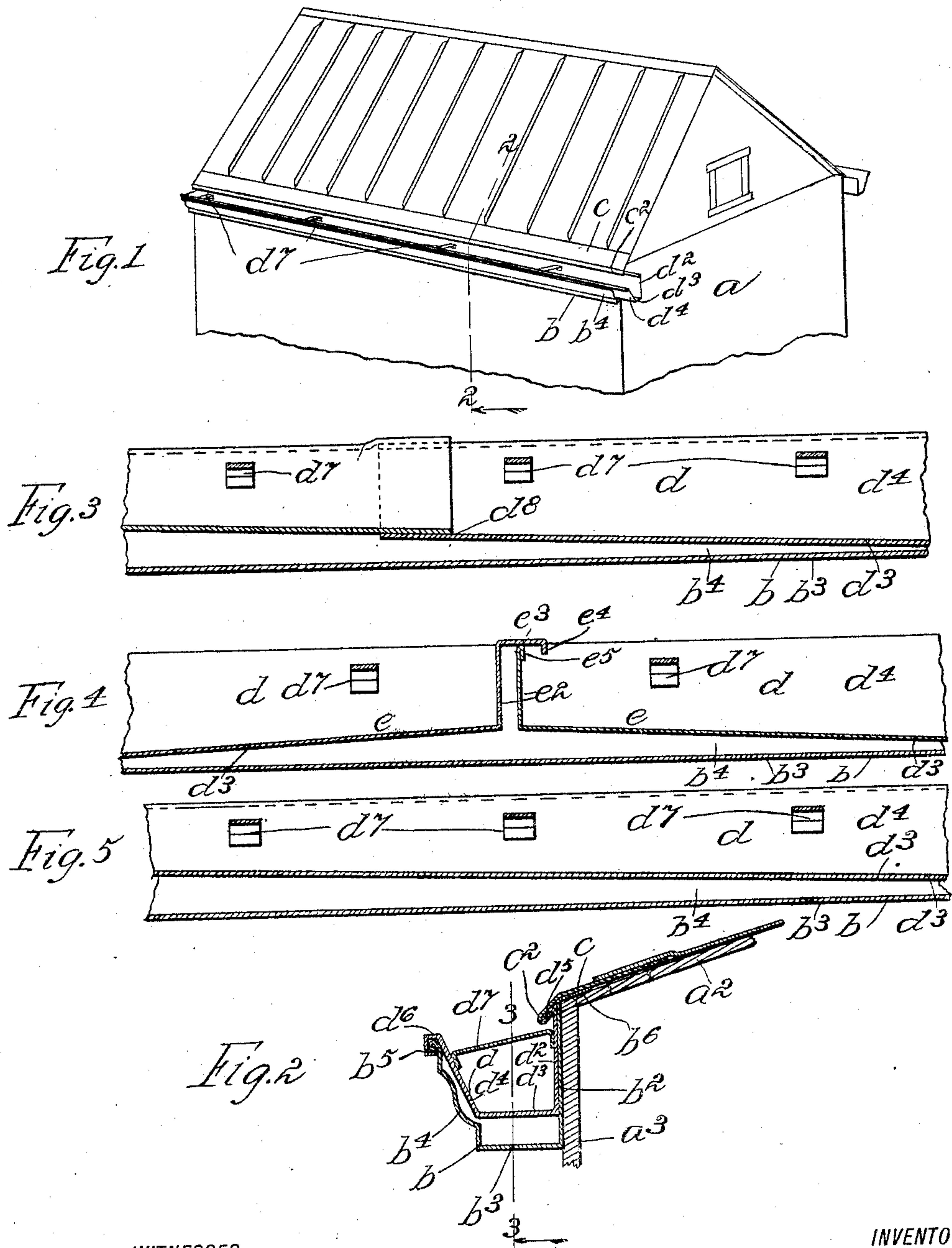


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EAVES GUTTER OR TROUGH.  
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929,684.

Patented Aug. 3, 1909.



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# UNITED STATES PATENT OFFICE.

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## EAVES GUTTER OR TROUGH.

No. 929,684.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed February 6, 1909. Serial No. 476,408.

*To all whom it may concern:*

Be it known that we, ROBERT P. MILLS and CHARLES A. TAYLOR, citizens of the United States, and residing at Mount Vernon, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Eaves Gutters or Troughs, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to what is known as eaves gutters or troughs; and the object thereof is to provide an improved device or devices of this class made of metal and supported in such a manner as to provide for the expansion and contraction of the gutter or trough when in use, and whereby the supports thereof are not broken or destroyed by such expansion and contraction and the trough or gutter otherwise injured.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of our improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a perspective view of a structure provided with our improved eaves trough or gutter, Fig. 2 a partial vertical section on the line 2—2 of Fig. 1, Fig. 3 a longitudinal section on the line 3—3 of Fig. 2, Fig. 4 a view similar to Fig. 3 but showing a modification; and;—Fig. 5 another view similar to Figs. 3 and 4 but showing still another modification.

In Fig. 1 of the accompanying drawing we have shown at *a* a building or structure provided with our improved eaves troughs or gutters, and in Fig. 2 a transverse section of one of the eaves and one of the troughs or gutters, and in the practice of our invention as shown in the drawing we secure to the eaves a molding *b* composed of sheet metal and comprising a back *b*<sup>2</sup>, bottom *b*<sup>3</sup> and front *b*<sup>4</sup> at the top of which is a longitudinal bead *b*<sup>5</sup> which forms one of the supports of the gutter or trough. The molding *b* is also substantially trough-shaped in cross section, and the back *b*<sup>2</sup> thereof is provided with a flange *b*<sup>6</sup> which rests on the roof *a*<sup>2</sup> of the structure *a*, and the back *b*<sup>2</sup> of the molding *b* rests on or presses against the wall *a*<sup>3</sup> of the structure *a*.

Secured longitudinally of the eaves and

on the roof portion thereof is a metal sheet *c* the lower or outer edge of which extends beyond the wall *a*<sup>3</sup> and is bent backwardly to form a U-shaped keeper *c*<sup>2</sup>. The trough *d* is composed of sheet metal and comprises a back *d*<sup>2</sup>, a bottom *d*<sup>3</sup> and a front *d*<sup>4</sup>, and the back *d*<sup>2</sup> of the trough is extended upwardly and formed into a downwardly directed flange *d*<sup>5</sup> which fits in the keeper *c*<sup>2</sup> and is movable longitudinally therein, while the front wall *d*<sup>4</sup> of the trough *d* is bent at the top to form a longitudinal U-shaped member *d*<sup>6</sup> which rests on the bead or support *b*<sup>5</sup> of the molding *b*.

The front and back walls of the trough *d* are preferably connected by transverse members *d*<sup>7</sup>, and as thus constructed it will be seen, that the trough *d* is free to move longitudinally in the support formed by the molding *b*, and this movement will provide for the expansion and contraction of said trough under changes in temperature and the supports thereof will not be broken or the trough injured in any way.

Our invention is not limited to the exact form, shape or construction of the molding *b* which forms the support for the trough, in the construction shown, and supports of other forms may be provided, all that is necessary being to provide a back support consisting of the keeper *c*<sup>2</sup> and flange *d*<sup>5</sup> of the trough movable in said keeper and the outer support *b*<sup>5</sup> consisting of a horizontal member on which the front edge portion of the trough *d* rests.

In Fig. 3 of the accompanying drawing the trough *d* is divided into separate parts as shown at *d*<sup>8</sup>, and the connection of the separate parts is a slip joint connection and the bottom of the trough has a continuous inclination as shown at *d*<sup>8</sup> while in Fig. 5 of the drawing the trough *d* is made continuous from one end of the structure to the other, and the inclination of the bottom thereof is continuous as indicated at *d*<sup>8</sup>.

In the construction shown in Fig. 4, the trough *d* is composed of separate parts the bottom of said parts being inclined at opposite directions as shown at *e*, and the adjacent ends of said parts are closed as shown at *e*<sup>2</sup> and the end *e*<sup>2</sup> of one part is provided with a horizontal member *e*<sup>3</sup> having a depending flange or hook portion *e*<sup>4</sup> which is adapted to engage the top edge *e*<sup>5</sup> of the end portion of the other part, and with this



construction the separate parts of the trough will be capable of longitudinal movement but cannot be separated.

Our improved eaves trough or gutter may be made of any preferred material; and various changes in and modifications of the construction described may be made, within the scope of the appended claims, without departing from the spirit of our invention or sacrificing its advantages.

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

1. An eave trough construction for buildings comprising a metal strip secured to the eaves of the building longitudinally thereof and projecting therefrom, the outer edge of said strip being bent downwardly and backwardly to form a longitudinal keeper which opens upwardly and backwardly, and an eave trough the back side of which is provided with a downwardly and forwardly directed flange adapted to be slid into and longitudinally movable in said keeper.

2. An eave trough construction for buildings comprising a metal strip secured to the eaves of the building longitudinally thereof and projecting therefrom, the outer edge of said strip being bent downwardly and backwardly to form a longitudinal keeper which opens upwardly and backwardly, and an eave trough the back side of which is provided with a downwardly and forwardly directed flange adapted to be slid into and longitudinally movable in said keeper, said eave trough consisting of a plurality of parts movably connected.

3. In an eave trough construction, a

molding secured to the wall of the building below the eaves and which is trough-shaped in cross section, a metal strip secured on the eave longitudinally thereof and projecting therefrom and the outer edge of which is bent downwardly and backwardly to form a longitudinal keeper which opens upwardly and backwardly, and an eave trough the front edge of which rests on and is movable on the front edge of said molding and the back top edge of which is provided with a flange which fits in and is movable in said keeper.

4. In an eave trough construction, a molding secured to the wall of the building below the eaves and which is trough-shaped in cross section, a metal strip secured on the eave longitudinally thereof and projecting therefrom and the outer edge of which is bent downwardly and backwardly to form a longitudinal keeper which opens upwardly and backwardly, and an eave trough the front edge of which rests on and is movable on the front edge of said molding and the back top edge of which is provided with a flange which fits in and is movable in said keeper, said trough being composed of a plurality of parts movably connected.

In testimony that we claim the foregoing as our invention we have signed our names in presence of the subscribing witnesses this 4th day of February 1909.

ROBERT P. MILLS.  
CHARLES A. TAYLOR.

Witnesses:

C. E. MULREANY,  
H. R. CANFIELD.