

No. 857,601.

PATENTED JUNE 25, 1907.

H. COOPER.
GUTTER AND VALLEY TROUGH FOR ROOFS.
APPLICATION FILED FEB. 20, 1907.

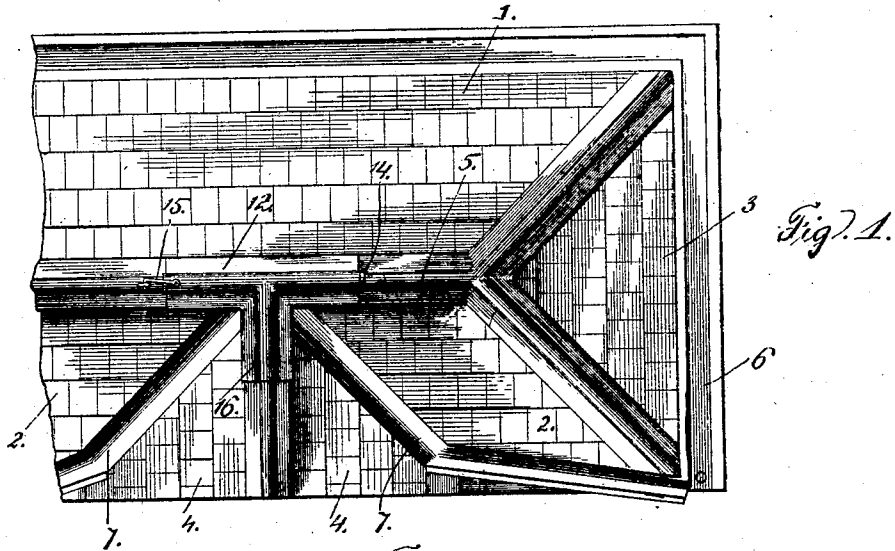
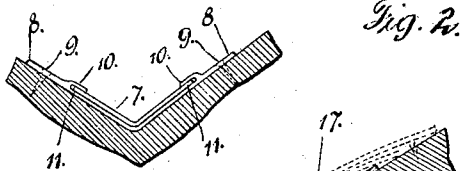
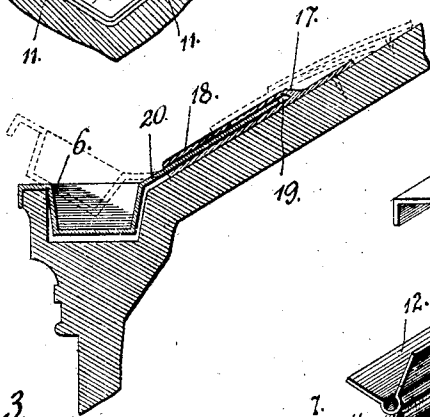
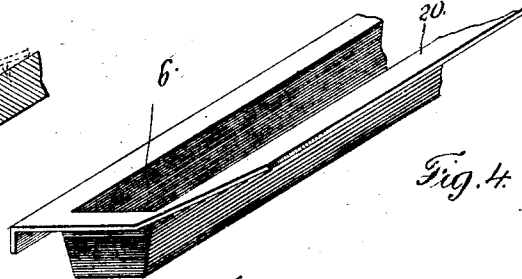


Fig. 3.

Fig. 4.

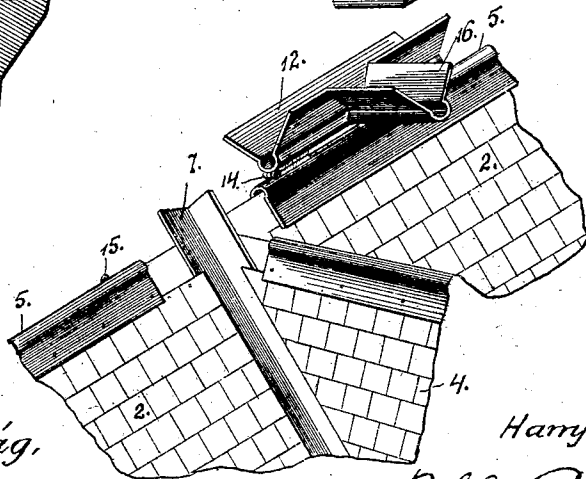


Fig. 5.

WITNESSES:
A.H. Rabsag,

A.H. Butler

INVENTOR
Harry Cooper,

By H.C. Everett & Co.
Attorneys

UNITED STATES PATENT OFFICE.

HARRY COOPER, OF ROSCOE, PENNSYLVANIA.

GUTTER AND VALLEY-TROUGH FOR ROOFS.

No. 857,601.

Specification of Letters Patent.

Patented June 25, 1907.

Application filed February 20, 1907. Serial No. 358,446.

To all whom it may concern:

Be it known that I, HARRY COOPER, a subject of the King of Roumania, residing at Roscoe, in the county of Washington and State of Pennsylvania, have invented certain new and useful Improvements in Gutters and Valley-Troughs for Roofs, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to gutters and valley troughs for roofs, and the invention has for its object to provide a roof with detachable gutters and valley troughs that can be easily and quickly removed, when worn or injured, without necessitating the removal of shingles, slate, tin or similar covering of a roof.

My invention aims to facilitate the repair of gutters or valley troughs of a roof, it having been heretofore necessary to remove the roofing bordering on the gutters or valley troughs before said gutters or valley troughs could be removed or repaired. To this end, I have devised novel holders or guides for gutters and valley trough, the holders or guides being arranged whereby it will not be necessary to disturb the roofing when it is desired to remove the gutters or valley trough from the holders or guides.

The detail construction entering into my invention will be hereinafter more fully described and then specifically pointed out in the appended claims, and referring to the drawing forming part of this specification, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a plan of a portion of a roof constructed in accordance with my invention, Fig. 2 is a cross sectional view of a portion of a roof illustrating a valley trough detachably mounted thereon, Fig. 3 is a detail sectional view of a portion of a roof illustrating a gutter detachably carried thereby, Fig. 4 is a perspective view of a portion of a gutter, and Fig. 5 is a perspective view of a portion of a roof illustrating the manner in which the valley troughs are locked in position upon the roof.

In the accompanying drawing, 1 and 2 indicate the slanting sides of a roof, 3 the slanting end, and 4 the gable, said roof being covered with shingles, slate or similar material, protected at the apex and angular

edges of the roof by metallic inverted V-shaped shields 5. The edges of the roof are provided with a metallic channel shaped gutter 6, while valley troughs 7 are placed between the angular sides of the gable 4 and the slanting side 2 of the roof.

My invention resides in means for detachably holding gutters and valley troughs upon the roof, said means consisting of providing the sides of the gable 4 and the adjacent edges of the slanting side 2 of the roof with a guide or holder 8, said guide or holder being suitably secured to the roof, as at 9. The guide or holder conforms to the angle formed between the gable 4 and the slanting side 2 and is provided with longitudinally disposed flanges 10 to receive the edges 11 of the valley troughs 7. After the guides or holders have been positioned upon the roof, from the eaves thereof to the apex or upper edge of said roof, the valley troughs are mounted in said guides or holders and in order that the same can be removed, a section 12 of the shield 5 is hinged, as at 14, and normally held in a closed position by a hook and eyelet 15. A suitable mechanical equivalent for the hook and eyelet can be readily used in connection with the hinged section 12 of said shield. As a result of this construction, the hinged section 12 of the shield is preferably made substantially T-shaped, having a portion 16 adapted to lie over the upper edges of the gable 4 and forming a water shed to deflect rain into the valley troughs 7. When it is desired to remove the valley troughs the hinged T-shaped section of the shield is raised and one valley trough at a time removed from the guides and holders 8.

In connection with the gutters 6, I use a holder 17 having a flange 18, providing a longitudinally disposed groove 19 for the angular edge 20 of said gutter. As the gutters 6 are generally made of tin or similar resilient material, they can be easily bent and positioned within the holder 17. (See Fig. 3.)

It will be observed that the guides and holders are secured under the edges of the covering of the roof and become a fixture. When it is desired to repair a valley trough or gutter it is not necessary to disturb the covering of the roof, as the valley trough and gutters can be easily and quickly removed.

It is thought from the foregoing descrip-

tion taken in connection with the drawing that the construction of my improved detachable gutters and valley troughs will be understood, especially by those skilled in the art of roof construction.

I desire it to be understood that such changes in the size, proportion and minor details of construction as are permissible by the appended claims, may be resorted to without departing from the spirit and scope of the invention.

What I claim and desire to secure by Letters Patent, is:—

1. In combination with a roof having a shielded main and hip ridges, and valley troughs, of guides and holders secured to said roof beneath the covering thereof, and adapted to detachably hold said valley troughs, a T-shaped section of said shield hinged to the main ridge of said roof to permit of the removal of said valley trough and

means to hold said section in a closed position, substantially as described.

2. The combination with valley troughs of a roof, of guides and holders mounted beneath the covering of said roof and adapted to detachably hold said valley troughs, and means hinged to the main ridge of said roof for shielding the upper ends of the valley troughs.

3. In combination with a roof having a shield on the main ridge thereof, a section of said shield being hinged, of a valley trough secured to the roof and having its upper end received under the hinged section of said shield, substantially as described.

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

HARRY COOPER.

Witnesses:

ROBERT PARKINS,
KITTEE BREVARD.