

Aug. 4, 1925.

1,548,061

W. PFEIFER

CLIP FOR FASTENING ROOF SHEETS

Filed Nov. 16, 1923

Fig. 1.

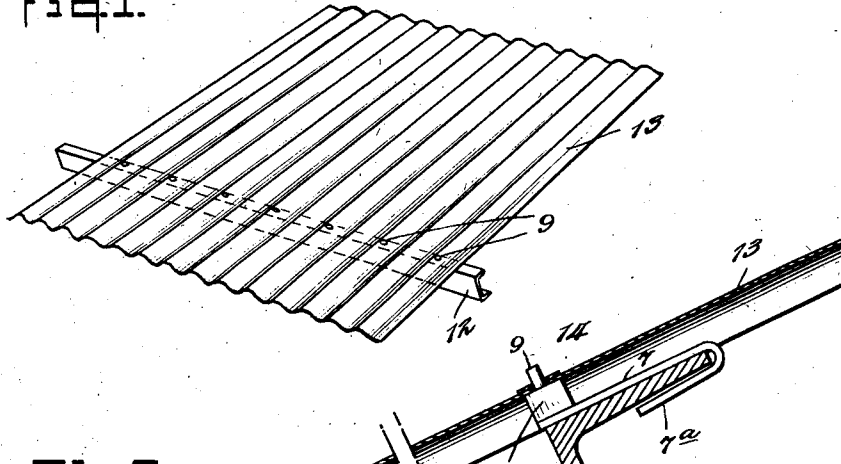


Fig. 2.

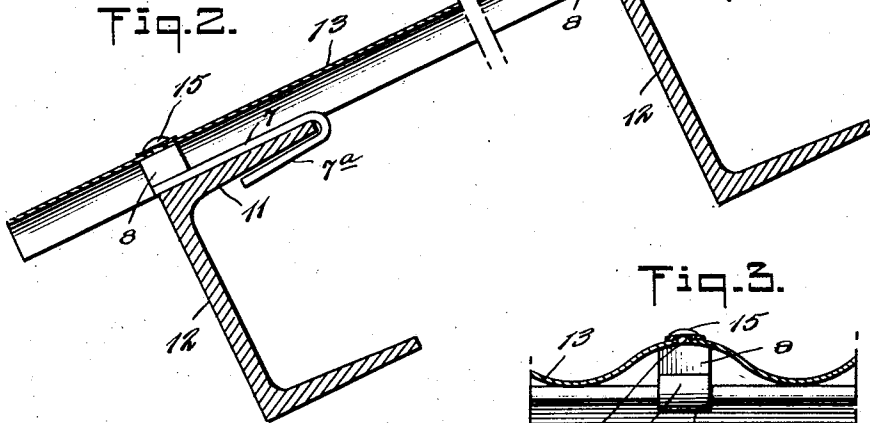


Fig. 3.

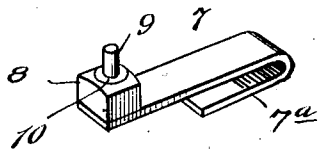
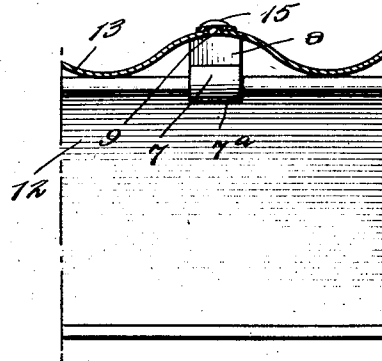


Fig. 4.

INVENTOR
William Pfeifer

BY *James J. Smith*
ATTORNEYS

Patented Aug. 4, 1925.

1,548,061

UNITED STATES PATENT OFFICE.

WILLIAM PFEIFER, OF JERSEY CITY, NEW JERSEY.

CLIP FOR FASTENING ROOF SHEETS.

Application filed November 16, 1923. Serial No. 675,054.

To all whom it may concern:

Be it known that WILLIAM PFEIFER, citizen of the United States, residing at Jersey City, county of Hudson, and State of New Jersey, has invented new and useful Improvements in Clips for Fastening Roof Sheets, of which the following is a specification.

The present invention relates generally to fastening devices, and is more particularly directed to improvements in clips for securing or fastening roofing sheets in position on their supporting framework.

In U. S. Letters Patent No. 1,062,355, issued to me May 20, 1913, I have shown and described a clip for fastening roofing sheets, which is adapted to engage the upper flange of the transversely disposed purlins, supported from the main roof rafters, which embodies a rivet adapted to be forced through the sheeting and upset, whereby the latter may be quickly and firmly secured in position.

In my aforesaid Letters Patent, I have pointed out the disadvantages residing in the methods followed in applying sheet roofing, especially metallic sheeting, prior to the invention disclosed therein, and have clearly set forth the advantages of my said invention in overcoming those disadvantages and expediting the work, as well as saving material, and producing better results than were previously obtainable.

The general object of the present invention is to provide a clip for fastening sheet roofing of the general character disclosed in my aforesaid Letters Patent, which embodies improvements thereover, whereby the application of the sheeting is further facilitated and rendered more economical and greater security and permanence in the locking of the sheeting in position on the supporting framework is obtained.

A further object of my present invention is to reduce the cost of manufacturing clips of the general type described in my aforesaid Letters Patent, and provide for the utilization of standardized stock material for forming the components thereof, so that my improved clip may be placed upon the market at a lower cost than has heretofore been possible in devices of the kind.

Other objects and advantages flowing from the practice of my invention will present themselves as I proceed with the description thereof, and I would have it clearly

understood that I reserve unto myself all rights to the full range of equivalents, both in structure and uses to which I am entitled under my invention in its broadest aspect.

For the purposes of the present disclosure, I have elected to show a preferred embodiment of my invention, but my invention may take other forms to meet special requirements, without departing from the spirit and scope thereof as defined by the appended claims.

In the drawings:

Fig. 1 is a view in perspective of a section of corrugated roof sheeting secured to a purlin, by the employment of my improved form of clip;

Fig. 2 is a view partly in section showing the cooperative relation of my improved clips with the purlins of the roof framework and the sheeting, the rivet of one of the clips being used upset;

Fig. 3 is a view showing a section of a purlin in elevation with my improved clip in functioning engagement therewith, and with a section of sheeting; and

Fig. 4 is a view in perspective of my improved form of clip.

Referring now to the drawings in detail, in which like characters of reference are employed to designate similar parts in the several views, 7 indicates the base member of my improved clip, for the production of which, I preferably employ strip metal of a standard stock size. The strip metal is cut in the requisite lengths for providing the base member 7 and the hook portion 7^a, which is formed by bending the material over on its self so that the said hook portion and the base member will have a spaced relation, to permit of locating the clip in position on the roof frame work members, as hereinafter described.

Mounted on the upper surface of the base member 7, at the end opposite to that from which the hook portion 7^a is formed, is a solid block 8 of material, which may be welded, or otherwise permanently connected to said base member, so as to become a substantially integral part thereof. This block 8 may be of any desired dimension suitable to the purpose for which it is designed, and may be formed from stock material, or in any other manner whereby economical production may be obtained.

The block 8 forms a solid support for the rivet 9, the head 10 of which is integrally

joined or united to the upper surface of said block, by welding, brazing, or any other method which will insure permanence of the joinder. This rivet is of the standard size and gauge usually employed in uniting roofing sheets, so that, from the description of my invention thus far given, it is evident that the production of my improved clip may be carried out at a minimum of cost, and that when the components thereof are assembled and united, as explained, a unitary structure is obtained which possesses great durability.

In the application of my invention to a roof structure it will be observed that the base member is adapted to rest upon the upper surface of the flange 11 of the purlin 12, so that the reversed or hooked portion 7^a will engage the underside of said flange, as clearly shown in Fig. 2. The sheeting 13 is then located in position and perforated by striking the surface thereof with a hammer, or other implement, at the point where the end of the rivet is in contact with the same. When the sheeting has been driven down over the rivet to its seat upon the block 8, a washer 14 may be located upon the rivet, after which the head of the rivet is upset, as shown at 15. Of course, it will be evident that the employment of the aforesaid washer 14 is not essential to the successful practicing of my invention, as the upsetting and spreading of the free end of the rivet 9 will provide sufficient surface for engagement with the sheeting to insure a permanent fastening.

From the description of the manner, in which my improved clip is employed, it will be evident that the block 8 provides a rigid support for the rivet, so that there is no possibility of the material, of which the clip is formed, yielding under the impact of the hammer blows which would be likely to result in an imperfect joint, and would permit the sheeting to vibrate to an extent, which would eventually impair the efficiency of the sheeting as a protecting covering.

In the production of my improved clip any ferrous or non-ferrous metal suitable to this purpose may be employed. If a ferrous metal is used, the period of usefulness of the clip may be increased by putting it through a galvanizing process which will

tend to prevent corrosion. Furthermore, in lieu of the rivet 9, a bolt may be fixed to the block or boss 8, the sheeting being firmly held in position thereon by means of a securing nut threaded onto said bolt. This latter form of structure will be especially useful in temporary work, or where it is desired to locate the sheeting preliminary to carrying out the final operations.

What is claimed is:

1. A clip for fastening roof sheets, comprising a base member formed of strip metal, one end of said base member being reversed to form a depending hook portion, and a solid upstanding block of material supported at the extremity of the other end of said base member and forming a part of the upper surface thereof, said solid block being adapted to carry a rivet.

2. A clip for fastening roof sheets comprising a base member having a reversed portion forming a dependent hook at one end thereof, a block of material supported from the other end of said base member and forming a part of the upper surface thereof, and an integral and upstanding projection carried by said block adapted to pass through the roof sheeting, whereby the later may be secured in functioning position.

3. A clip for fastening roof sheets and the like, comprising a base member having an integrally formed hook portion spaced from the underside thereof, an upstanding and integral solid member forming a part of the upper surface of said base member at one extremity thereof, and a rivet supported from said solid member.

4. The combination with the supporting frame-work of a roof construction, of means for rigidly securing metallic sheeting thereto, said means comprising a clip having a base adapted to be supported upon the upper flange of the purlins of said framework, and formed with a depending portion to engage the underside of said flange, an upstanding and integral boss provided on the upper surface at one extremity thereof said base and an upstanding projection on said boss adapted to pass through said sheeting, whereby said sheeting may be immovably clamped to said purlins.

WILLIAM PFEIFER.