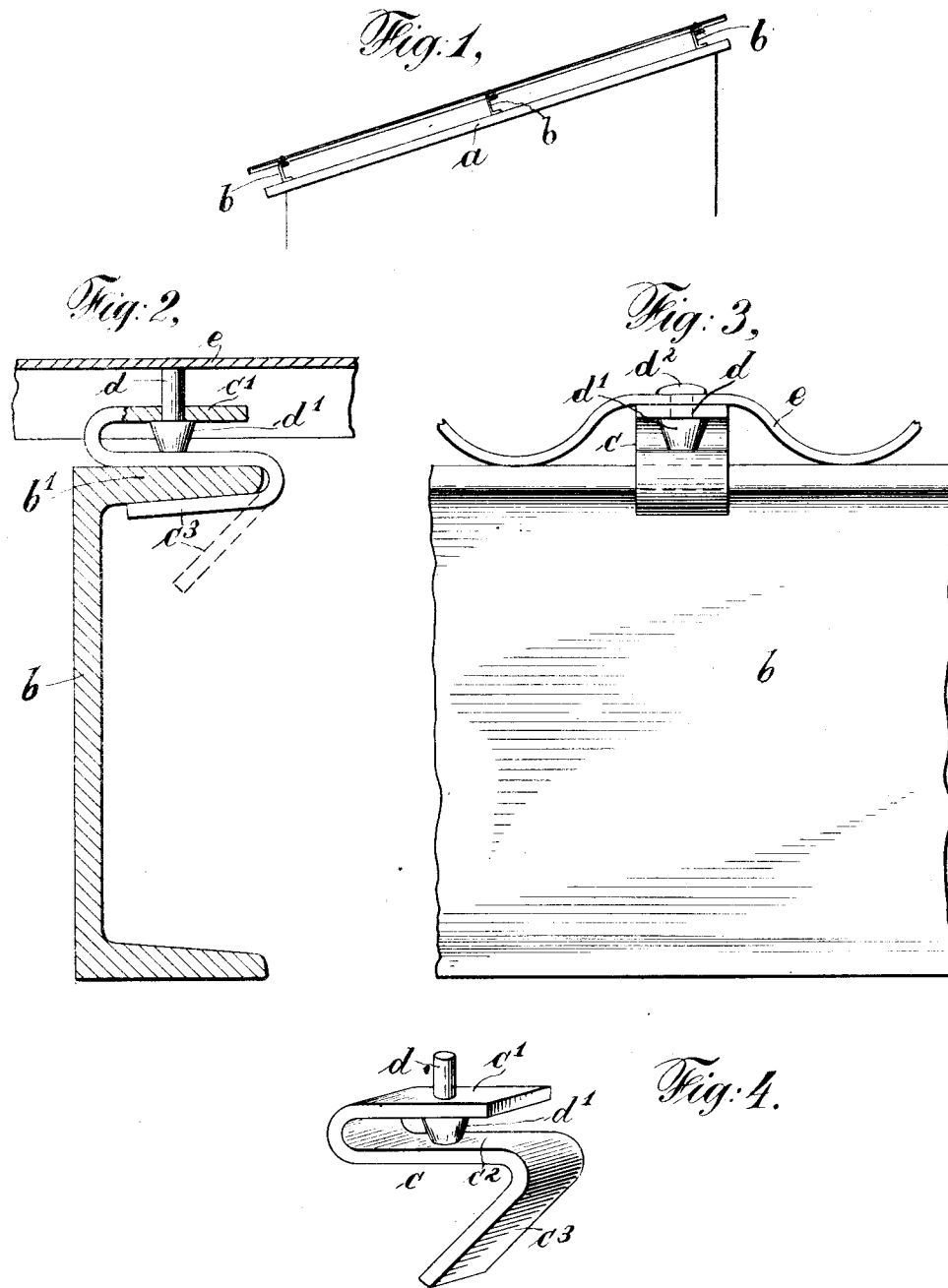


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CLIP FOR FASTENING ROOF SHEETS.
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CLIP FOR FASTENING ROOF-SHEETS.

1,062,355.

Specification of Letters Patent.

Patented May 20, 1913.

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To all whom it may concern:

Be it known that I, WILLIAM PFEIFER, a citizen of the United States of America, and a resident of Jersey City, county of Hudson, State of New Jersey, have invented certain new and useful Improvements in Clips for Fastening Roof-Sheets, of which the following is a specification.

This invention has reference to improvements in clips for fastening roof sheets.

It pertains particularly to improved clips used in roof constructions in which the roof sheet is fastened by means of rivets that pass through the clips. The rivets finally are forced through the roof sheet and flattened whereby the said sheet is permanently secured. In order to render it possible to flatten the rivet that passes through the clip the rivet head must be supported from below to offer sufficient resistance. This is accomplished by holding a dolly against the rivet head while the rivet is flattened. To effect that an employee is required to press the dolly against the rivet head from underneath the roof while another employee flattens the rivet. It is evident that this method is a source of loss in wages and time as practised with clips heretofore employed. It further happened quite often with this method that holes were made in the roof sheet in wrong locations which holes had to be closed by soldering or the damaged sheets had to be cut up for other use which resulted in a loss of material. Such clips were then hammered against the lower surface of the upper lateral portion of the purlin which permitted of slight vibrations of the finished roof.

The present invention has for its purpose to produce improved clips for fastening roof sheets or roof coverings by means of which the rivet is substantially supported when the roof sheet is applied and the rivet flattened. Accordingly the service of an employee pressing the dolly against the rivet head is entirely dispensed with. Furthermore holes in the roof sheet in a wrong location are avoided and a better flattening of the rivet is effected in a quicker and more reliable manner than in present constructions resulting thus in a more perfect roof which does not vibrate.

The invention is illustrated in the accompanying drawing in which:

Figure 1 represents in side elevation a portion of a roof. Fig. 2 illustrates in side

elevation an improved clip applied to a purlin with the roof sheeting resting on the rivet. Fig. 3 is a front elevation of Fig. 2 showing the roof sheet fastened and the rivet flattened; and Fig. 4 is a perspective view of the improved clip.

Similar characters of reference denote like parts in all the figures.

In the drawing in Fig. 1 *a* represents a principal rafter or roof truss which supports the purlins *b*. The clips are applied to the top horizontal portion of the purlins as shown in Figs. 2 and 3. The purlin *b* illustrated in Fig. 2 is of about natural size and strong enough for a roof to withstand storms. The clip *c* shown in Fig. 4 also is of about natural size and of the shape in which it is manufactured. The improved clip is made of a metal bar and consists of a horizontal top portion *c*¹, a parallel middle portion *c*² which is somewhat longer than the top portion, and a bottom portion *c*³ bent at an angle as shown. The top portion *c*¹ has a central opening through which passes a rivet *d* whose head *d*¹ is located between the middle and top portions of the clip and fits snugly between them. Thus the rivet forms a permanent part of the improved clip. The rivet head is of a substantial height which appears to facilitate the flattening of the rivet.

The clip is applied to the horizontal top portion *b*¹ of the purlin *b* with its lower portion *c*³ hanging down as shown in dotted lines in Fig. 2. When the required number of clips have been placed on the purlins the roof sheet *e* is placed thereon which is usually corrugated as shown in Fig. 3. It is easily understood from Fig. 2 that the rivet head is substantially supported from below by the clip portion *c*², the horizontal purlin portion *b*¹ and thereby by the entire purlin and the roof truss *a*. For the purpose of fastening the roof sheet and flattening the rivet one employee is sufficient who feels with his hammer along the top surface of the roof sheet until he finds the rivet. Now the roof sheet is hammered down whereby the rivet pierces the same. When the rivet is flattened it assumes the shape shown in Fig. 3 in which the flattened portion is designated by the reference character *d*². In the described manner all the rivets are hammered down without any support from below until the roof is finished. When the rivet has been flattened the slanting portion

c^3 of the clip is hammered against the lower surface of the horizontal portion b^1 of the purlin b , as shown in Fig. 2. It is easily seen from this figure that the one size clip may be used on purlins of various sizes and widths because it is immaterial whether the clip extends a little more or less over the top portion b^1 of the purlin b . For special roof constructions other sizes of clips may of course be manufactured.

I claim as my invention—

1. A clip for fastening roof sheets comprising a top portion having a central opening, a middle portion parallel to the top portion, an inwardly inclined bottom portion, and means permanently secured between the top and middle portions passing through the opening in said top portion and extending beyond the same for securing the roof sheet.

2. A flat metallic clip for fastening roof sheets comprising a top portion having a central opening, a slightly longer middle portion parallel to the top portion, an inwardly inclined bottom portion, and a rivet permanently secured with its head between the top and middle portions passing through the opening in said top portion and extending beyond the same for securing the roof sheet.

3. In roof constructions, in combination, a purlin, a flat metallic clip composed of a top portion having a central opening, an integral middle portion parallel to the top portion, an integral parallel bottom portion,

and a rivet permanently secured with its head between the top and middle portions passing through the opening in the top portion and extending beyond the same, said middle and bottom portions of the clip surrounding the top portion of the purlin.

4. In metallic roof constructions, in combination, roof trusses, purlins thereon, flat metallic clips composed each of a top portion with central opening, an integral middle portion parallel to the top portion, an integral parallel bottom portion, and a rivet permanently secured with its head between the top and middle portions passing through the opening in the top portion and extending beyond the same, said middle and bottom portions of each clip surrounding the top portions of a purlin, and a roof sheet pierced by the rivet.

5. In metallic roof constructions, in combination, flat metallic clips composed each of a top portion with central opening, an integral middle portion parallel to the top portion, an integral bottom portion, and a rivet permanently secured with its head between the top and middle portions passing through the opening in the top portion and extending beyond the same.

Signed at New York, N. Y., this 11th day of October 1912.

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