K. ROTH.

LOCK SEAM FOR SHEET METAL ROOFING.

APPLICATION FILED APR. 6, 1909.

968,887. Patented Aug. 30, 1910.

Fig. 1.

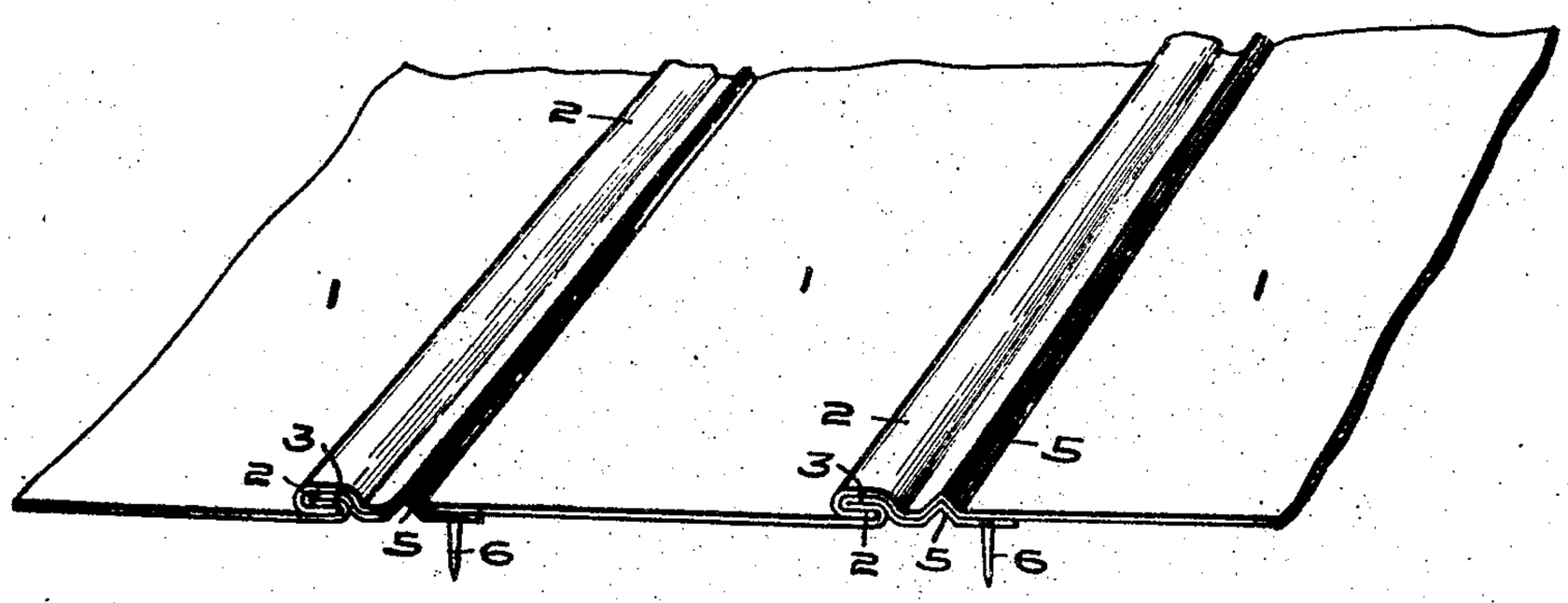
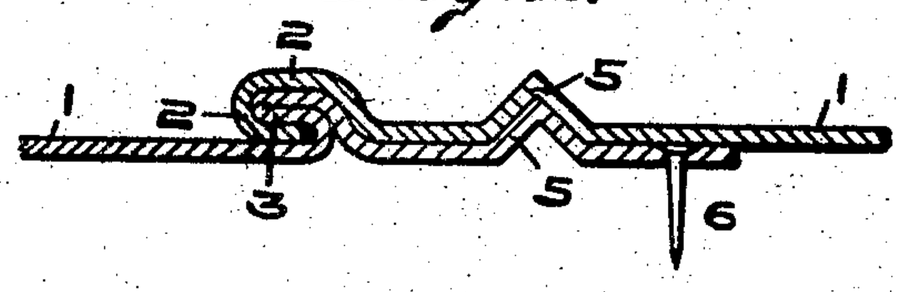


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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LOCK-SEAM FOR SHEET-METAL ROOFING.

968,887. Specification of Letters Patent. Patented Aug. 30, 1910.

Application filed April 6, 1909. Serial No. 488,239.

To all whom it may concern:

Be it known that I, KARL ROTH, a citizen of the United States, residing at Terre Haute, in the county of Vigo and State of Indiana, have invented certain new and useful Improvements in Lock-Seams for Sheet-Metal Roofing, of which the following is a specification.

This invention relates to certain means for securing together the various sheets of metal for roofing purposes, and the object of the invention consists in the provision of certain means, in addition to the usual lock seams on the joining edges of sheet metal roofing, which interlock when the sheets are placed into position to form a barrier against the admission of water.

I accomplish the object of my invention by certain means illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a plurality of fragmentary sheets of metal for roofing purposes, showing the invention in operation. Fig. 2 is an enlarged detail view in cross section through one of the joints formed between the meeting edges of two sheets of roofing material.

In the drawings, 1 represents the body of the sheet metal. One side of each of the metal sheets is bent in the usual manner to form the hooks 2. These hooks instead of engaging similar hooks on the adjacent sheets to form the seams, which is old and well known, engage the hooks 3 which lie within and are bent or crimped out of the body of the sheet. The hooks 2 and 3 are formed longitudinally of the sheets 1 and when interlocked form the locking seam between the metal sheets.

The chief feature of the invention is to provide additional means whereby the possibility of leakage is reduced. This means consists in providing each sheet with the upwardly projecting shoulder 5, preferably formed similarly to an inverted V, which lies some distance away but parallel with the hooks 2 and 3. The particular advantage in forming the shoulder 5 a distance away from the hook 3 is that the surface material remaining between said shoulder and hook enables the sheet to bend and thus allows the groove formed by the shoulder 5 in the upper sheet to be sprung into registration with the shoulder on the lower plate, when the sheets are assembled. This bending of the sheets is ofttimes necessary for the reason that the shoulders are frequently out of alinement or, in other words, vary in distance from the edges of the sheets. This variation in the formation of the shoulders rises in not accurately feeding the sheets into the crimping machines.

It will be seen that by means of the shoulders 5, I not only provide an additional barrier against the admission of water, but interlocking between the plates is secured in a manner to prevent possible lateral movement of the sheets to disengage the hooks 2 and 3, in case the nails were to pull through the sheets or the hooks improperly press together.

6 represents the nails for securing the sheets of metal to the structure. It will be noted that the nails are driven into position before the succeeding metal sheet is laid into place so that the nails are protected from the weather.

Having thus fully described my said invention, what I desire to secure by Letters Patent, is—

The combination with a sheet metal roofing-plate having a U-shaped hook crimped and bent remote from its edge out of the body of the sheet and having an upwardly bent inverted V-shaped shoulder between the hook and adjacent edge of the sheet remote from both hook and edge, and a second sheet having an under edge-hook to engage the hook of said first sheet, said second sheet being thence bent to conform with and to closely fit the contour of said first sheet from the hook to the adjacent edge of the latter.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this 24th day of March, A. D. one thousand nine hundred and nine.

KARL ROTH. [L. S.]

Witnesses:
F. W. WOERNER,
L. B. WOERNER.