

E. G. WELCH.

LAP JOINT FOR ROOFING OR SIDING SHEETS OR THE LIKE.

APPLICATION FILED MAR. 18, 1908.

917,213.

Patented Apr. 6, 1909.

Fig. 1.

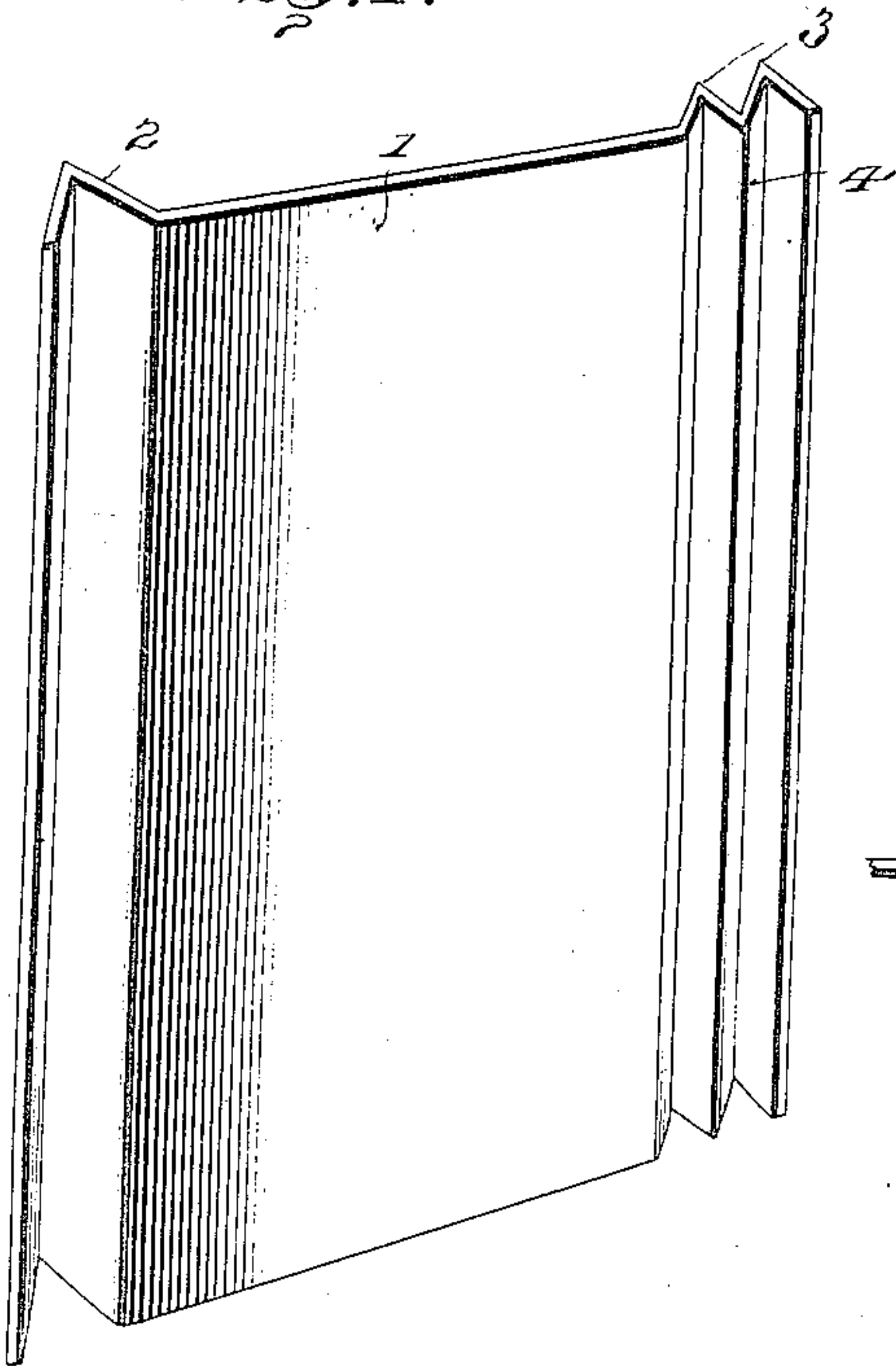


Fig. 2.

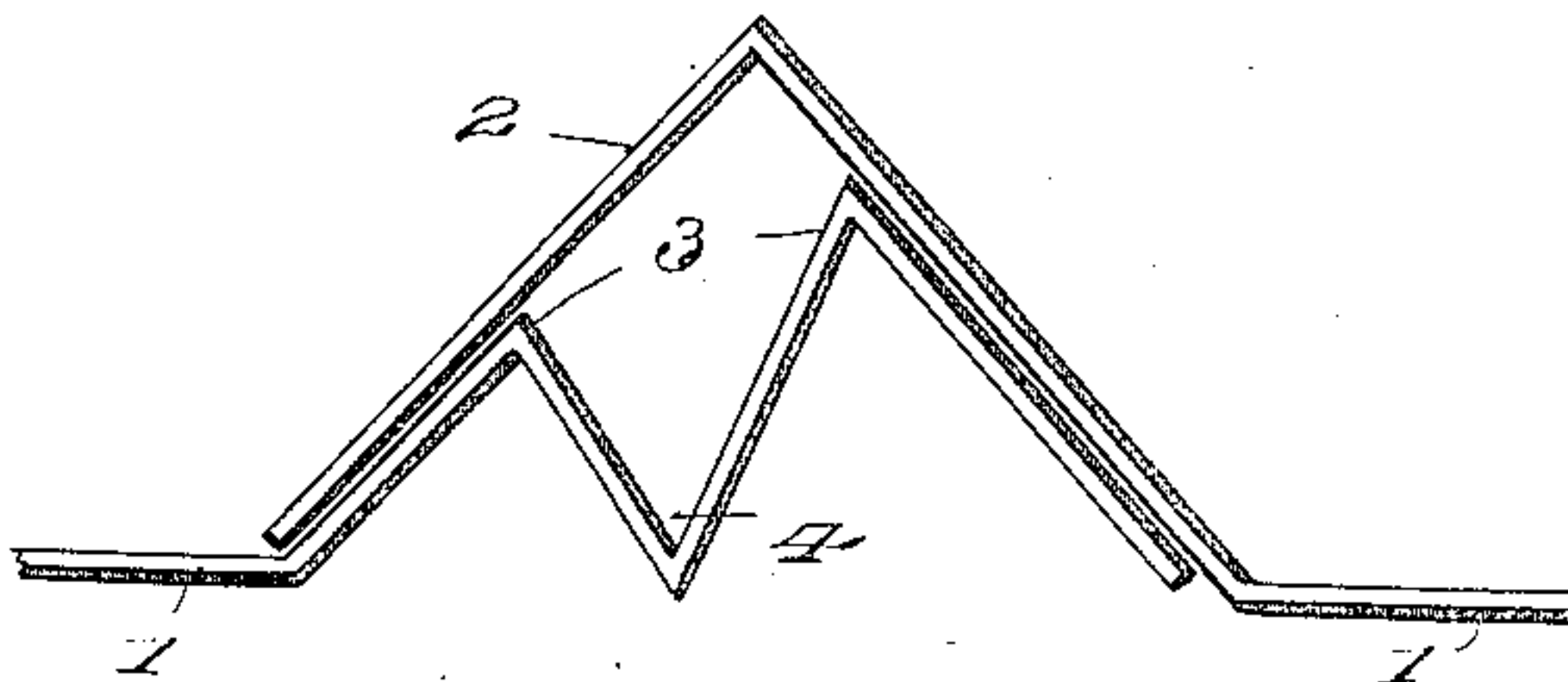


Fig. 3.

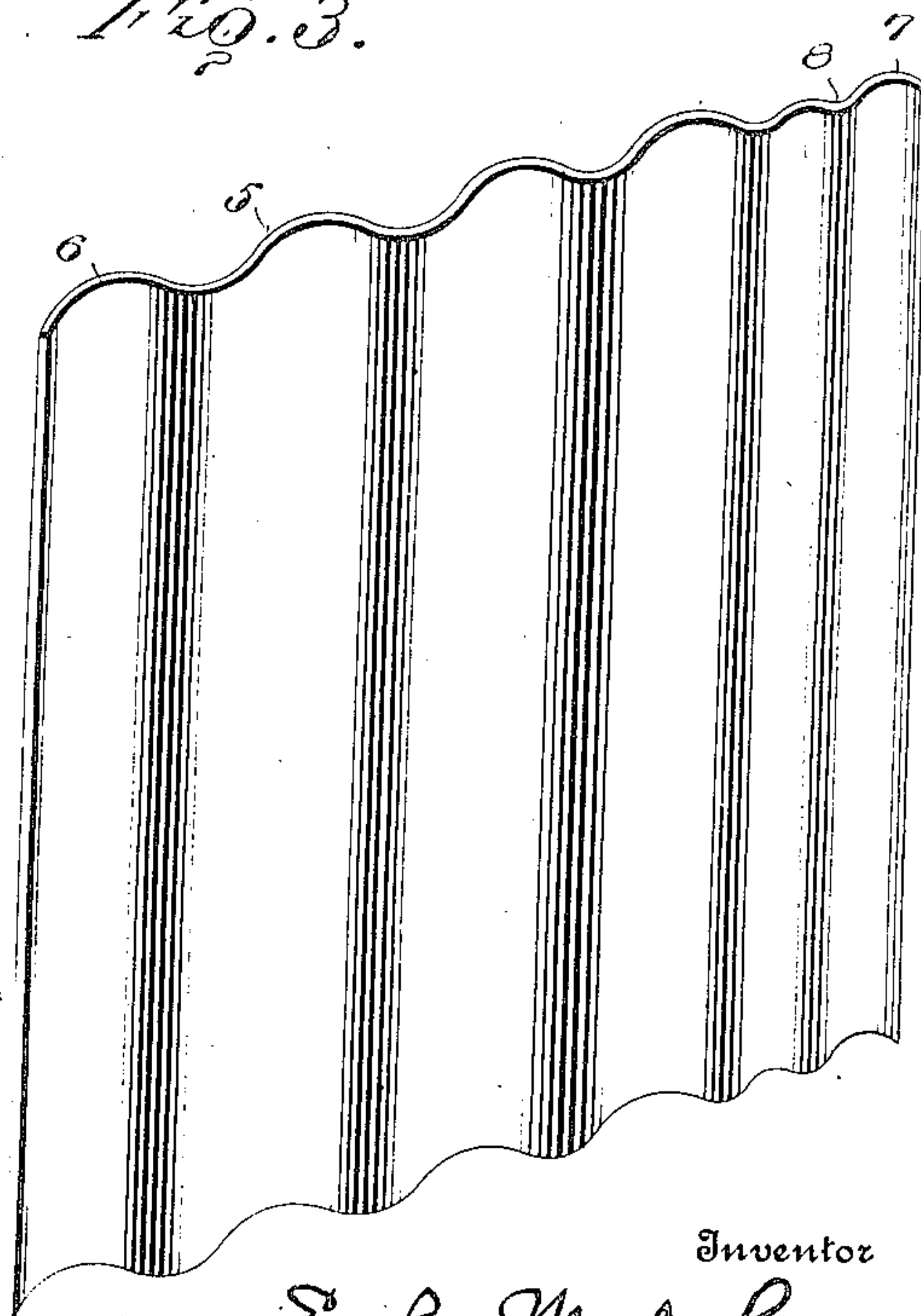
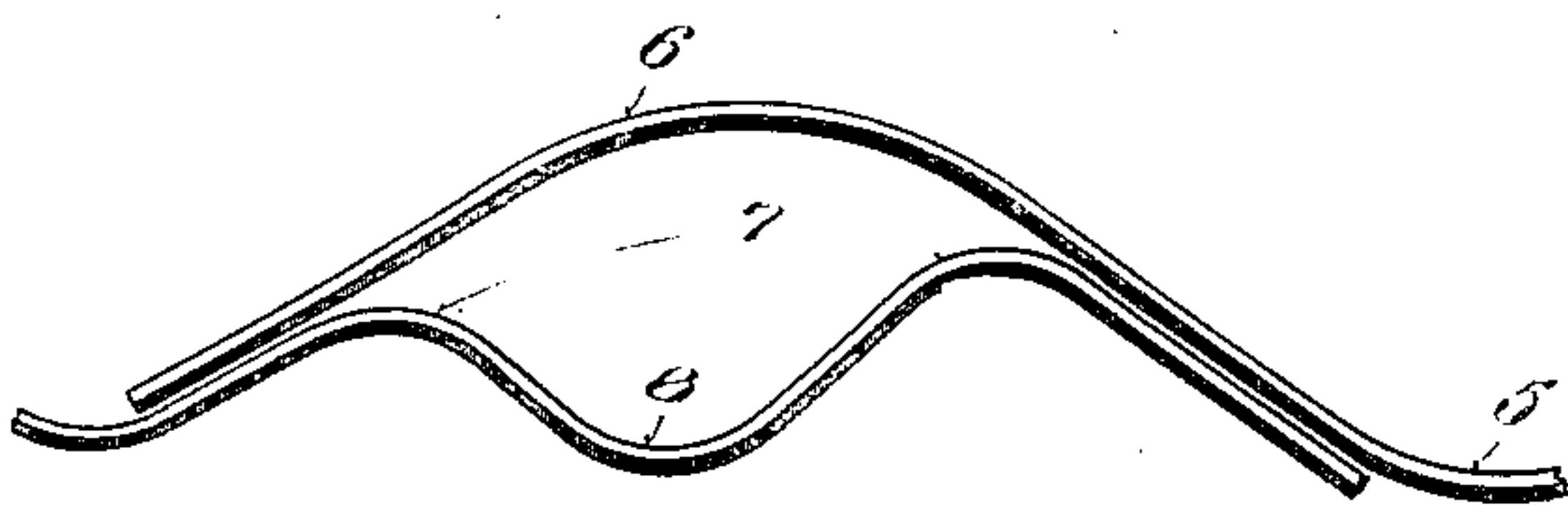


Fig. 4.



Witnesses

for *Witness*
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UNITED STATES PATENT OFFICE.

ELLSWORTH G. WELCH, OF NANKIN, OHIO.

LAP-JOINT FOR ROOFING OR SIDING SHEETS OR THE LIKE.

No. 917,213.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed March 18, 1908. Serial No. 431,321.

To all whom it may concern:

Be it known that I, ELLSWORTH G. WELCH, a citizen of the United States, residing at Nankin, Ashland county, Ohio, have invented certain new and useful Improvements in Lap-Joints for Roofing or Siding Sheets or the Like; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in roofing or siding plates, sheets or squares, and relates more particularly to improvements in lap joints for such sheets and the like; and the objects and nature of the invention will be readily understood by those skilled in the art in the light of the following explanation of the accompanying drawings illustrating an advantageous embodiment from among other formations within the spirit and scope of my invention.

An object of the invention is to provide an exceedingly simple and efficient improved lap joint for metal roofing, covering or siding sheets or squares, wherein the edges of the sheets are formed to overlap, and one of the overlapping edges is formed with a gutter to carry off moisture present between the overlapping edges by reason of condensation, capillary or siphonic action.

The invention consists in certain novel features in construction, formation or arrangements as more fully and particularly set forth and described hereinafter.

Referring to the accompanying drawings:—Figure 1, is a perspective view of a metal sheet or square formed in accordance with my invention, the edges thereof being constructed to form in connection with similar sheets, V-crimp lap joints. Fig. 2, is an end view enlarged, of a V-crimp lap joint in accordance with my invention. Fig. 3, is a perspective view of a corrugated sheet or square formed in accordance with my invention. Fig. 4, is an end view enlarged of the lap joint formed by the overlapping edges of sheets such as shown by Fig. 3.

Metal sheets or squares, whether V-crimp or corrugated, and whether used for roofing, siding or other covering, are secured to the backing, framework or sheathing by any suitable means and in any suitable manner, as is well understood by those skilled in the art. The sheets are secured with their adjacent edges overlapping to form the lap joints

between the sheets, and to catch and carry off water which might otherwise collect between the overlapped edges and pass to the under surfaces of the sheets, I form the under or inner edge with a longitudinal gutter or channel intermediate the width and height of the lap joint.

In Figs. 1 and 2, each flat sheet 1, is formed longitudinally along one edge with an outward V-crimp 2, having outwardly converging side faces meeting at the crown or apex of the crimp. Along its opposite parallel edge each sheet is formed with a corresponding crimp 3, having outwardly converging side or transverse faces, but with the crown or apex of the crimp depressed inwardly to form a V-gutter or channel 4, about midway the width of the crimp and joining the outer edges of the outwardly converging side faces of the crimp. Hence when the edges of adjacent sheets overlap, the crimped or raised edges 2, will receive, fit over and practically inclose the channeled raised or crimped edges 3, and the gutters 4, within the lap joints thus formed will catch and carry off water drawn up by capillary, siphonic or other action under the outer edges of crimps 2, and between the engaging side faces of crimps 2 and 3, thus preventing such water passing under the inner free edges of crimps 3, to the inner surfaces of the sheets.

In Figs. 3 and 4, I show the same invention applied to corrugated sheets or squares 5, wherein each sheet along one edge has the raised or curved outer longitudinal crimp or raised edge 6, and along the opposite edge has the corresponding longitudinal raised portion or crimp 7, having its crown longitudinally depressed to form the gutter or channel 8.

Usually the inner and outer overlapping edges or portions of the sheets engage along both sides of each trough or gutter; and the outer side wall of each gutter is usually elevated or higher than the inner side wall thereof so that in the event of a gutter being flooded, the surplus or excess water can overflow over the lower or short wall of the gutter back onto the outer surface of the roofing, rather than over the outer edge of the gutter to the under surface of the roof.

What I claim as new and desire to secure by Letters Patent of the United States is:—

1. A lap joint for roofing or siding sheets comprising sheets adapted to overlap along their meeting edges, said edges being corre-

spondingly and longitudinally crimped or bulged outwardly to form the diverging side walls, the inner bulged edge being longitudinally depressed to form a gutter, said inner edge being depressed to a greater extent down the inner diverging wall of the bulge than down the outer diverging wall thereof, whereby said gutter is formed throughout its length with an elevated side wall, said gutter and its elevated wall extending throughout the length of said edge and parallel therewith.

2. A lap joint for roofing or siding sheets comprising sheets adapted to overlap along their meeting edges, said edges being longitudinally crimped or bulged outwardly to form

the diverging side walls, the inner bulged edge being longitudinally depressed to form a gutter extending a greater distance down the inner diverging wall of the bulge than down the outer diverging wall thereof, the diverging side walls of the outer edge being adapted to fit down on and engage the corresponding diverging side walls of the inner edge along the inner and outer sides of the gutter, substantially as described.

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

ELLSWORTH G. WELCH.

Witnesses:

WILLIAM T. DEVOR,
T. M. HARKNESS.