

No. 669,148.

Patented Mar. 5, 1901.

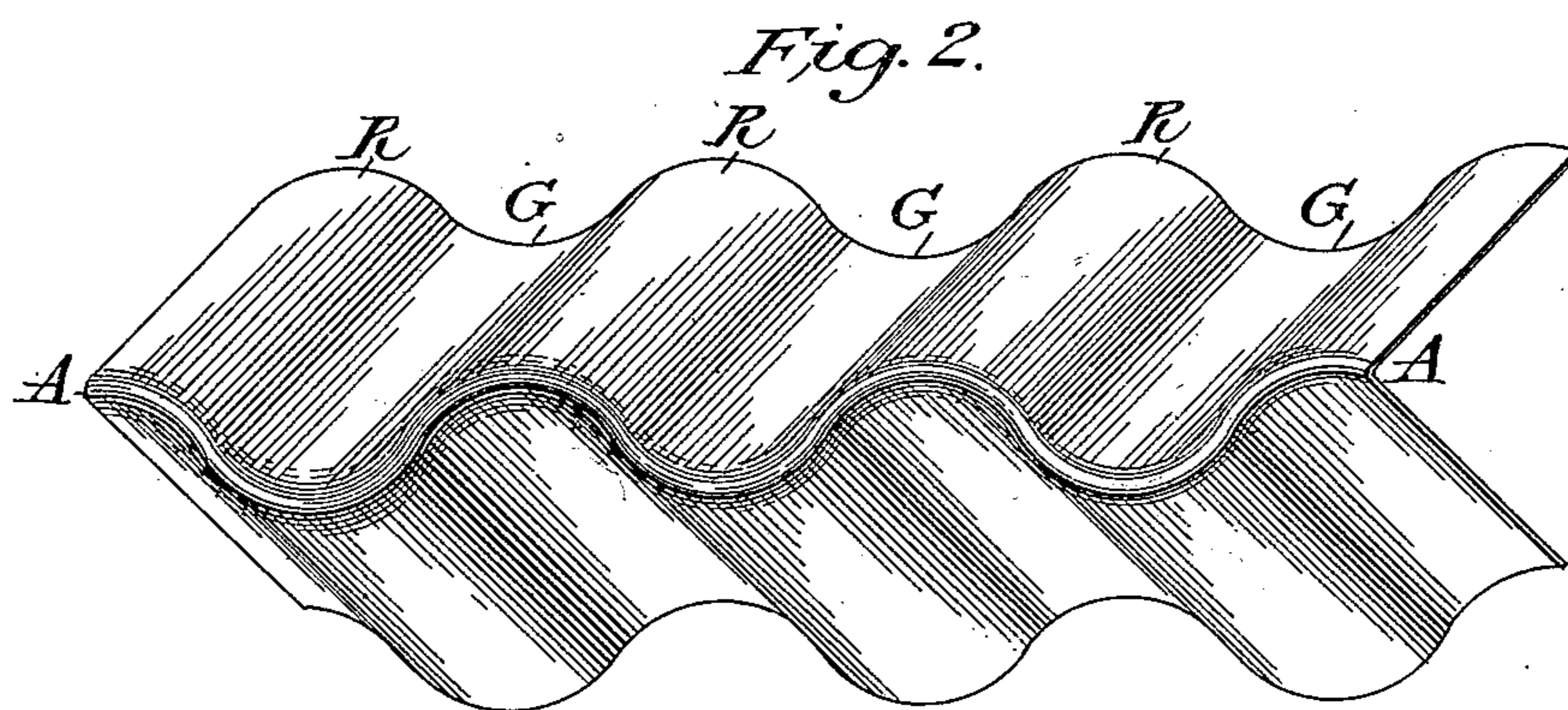
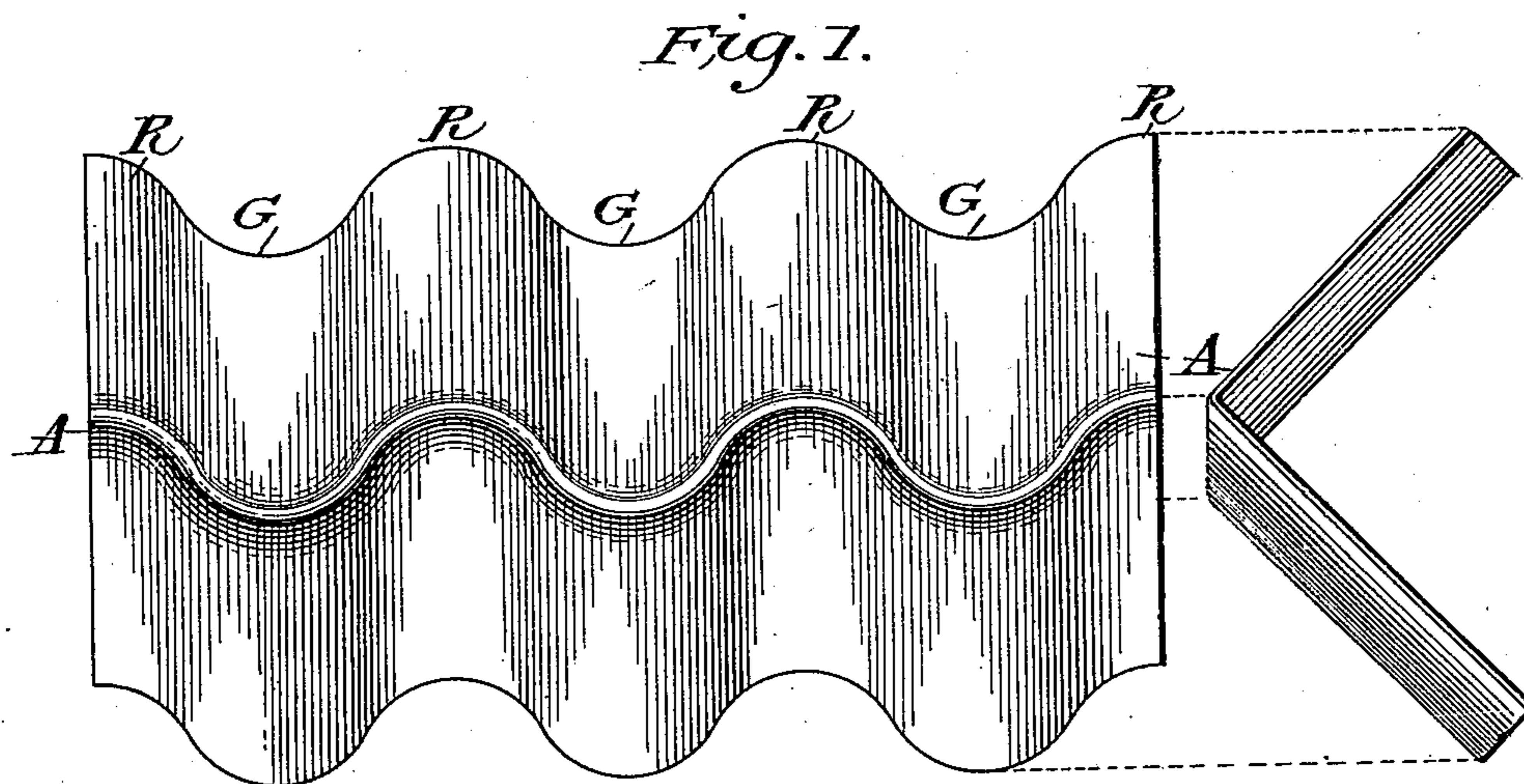
F. SMITH.

CORRUGATED METAL SHEET AT THE ANGLES OF ROOFS, &c.

(Application filed May 11, 1900.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

William Wood.

Walter Ernest Green

Inventor:

Francis Smith

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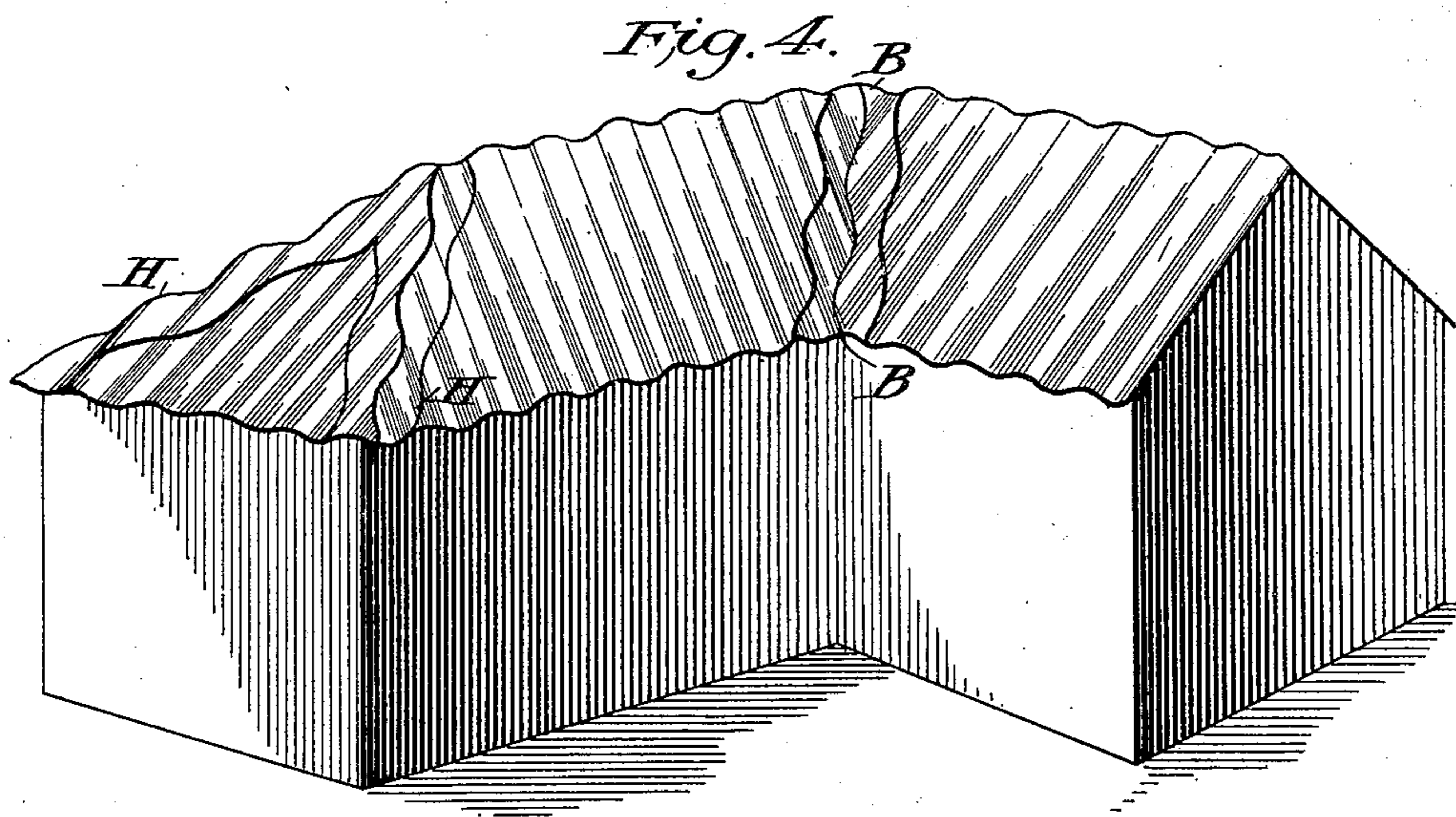
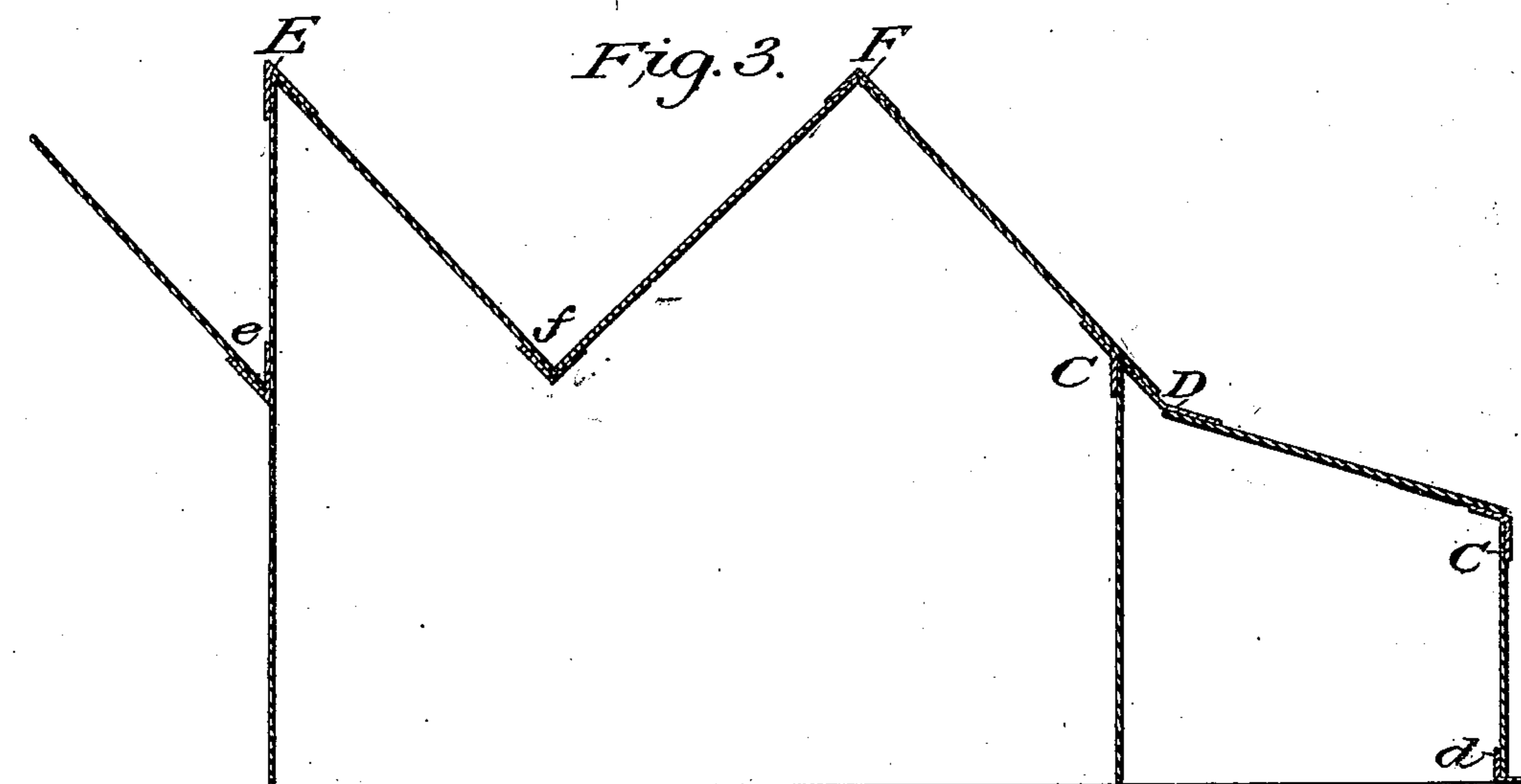
F. SMITH.

CORRUGATED METAL SHEET AT THE ANGLES OF ROOFS, &c.

(Application filed May 11, 1900.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:

William Hood
Walter Ernest Green

Inventor:

Francis Smith

UNITED STATES PATENT OFFICE.

FRANCIS SMITH, OF WOLLASTON, STOURBRIDGE, COUNTY OF WORCESTER,
ENGLAND.

CORRUGATED METAL SHEET AT THE ANGLES OF ROOFS, &c.

SPECIFICATION forming part of Letters Patent No. 669,148, dated March 5, 1901.

Application filed May 11, 1900. Serial No. 16,364. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS SMITH, a subject of the Queen of Great Britain, residing at Cobden street, Wollaston, Stourbridge, in the county of Worcester, England, have invented certain Improved Means for Connecting Corrugated Metal Sheets at the Angles of Roofs and other Structures, of which the following is a specification.

10 This invention has for its objects the joining, covering, or underlaying of corrugated metal sheets where they meet and form an angle or angles.

15 My invention consists in improvements in the formation of corrugated angles and ridge-caps, as and for the purposes herein specified.

Reference may be had to the drawings forming part of this specification.

20 Figure I is a plan or top view of the improved angle with the corrugations running from the edges at right angles. Fig. II is a plan or top view with the corrugations running at an oblique angle with the edges of the sheet. Fig. III is a diagram showing various positions in which the improved angle
25 may be used, as ridge-caps at E and F, valley-gutters or flashings at e and f, eave-junctions, as at C, D, and c', and as an extension from footings or foundations, as at d. Fig. IV is a perspective view of a hip or mitered roof, illustrating how the angle in Fig. II may be used as a cap for the projecting angles, as at H H, or as a valley-gutter in the junction of the two wings, as at B B.

35 In constructing my improved angle or ridge-cap I take a sheet of metal and subject it to pressure between suitable dies, forming plates

or rolls, thereby bending it longitudinally at or near its center, so as to cause its edges to approach till the desired angle is attained, 40 and by the same process and at the same time corrugating the sides of the said angle from its edges up to its apex A, so as to conform to the corrugations of the sheets which it is intended to join. I dispose the corrugations 45 on each side in such manner that the ridges or convex portions R on reaching the apexial line A meet with and change into or resolve into the grooves or concave portions G of its opposite side. This system of corrugating the 50 angle avoids lengthening the sheet or the necessity of auxiliary crimps and reduces to a minimum the strain at the apex A when bending. The apexial line A resolves itself into compound curves of serpentine formation. 55

Having described my invention, I claim as new and desire to secure by Letters Patent—

1. An angle or ridge-cap consisting of a sheet of metal, having sides diverging from an abrupt or well-defined apexial line A of serpentine formation, and having the whole of its surfaces corrugated. 60

2. The sheet-metal angle or ridge-cap corrugated so that the ridges or convex portions R, on either side on reaching the apex A, meet 65 with and change into the grooves or concave portions G of the opposite sides without auxiliary crimps: substantially as and for the purposes herein set forth and described.

Signed this 28th day of April, 1900.

FRANCIS SMITH.

Witnesses:

C. HERBERT HOLLIS,
W. M. ROBINS.