(No Model.)

C. V. GROSS.

SHEET METAL CEILING.

No. 497,718. Patented May 16, 1893.

Fig. I.

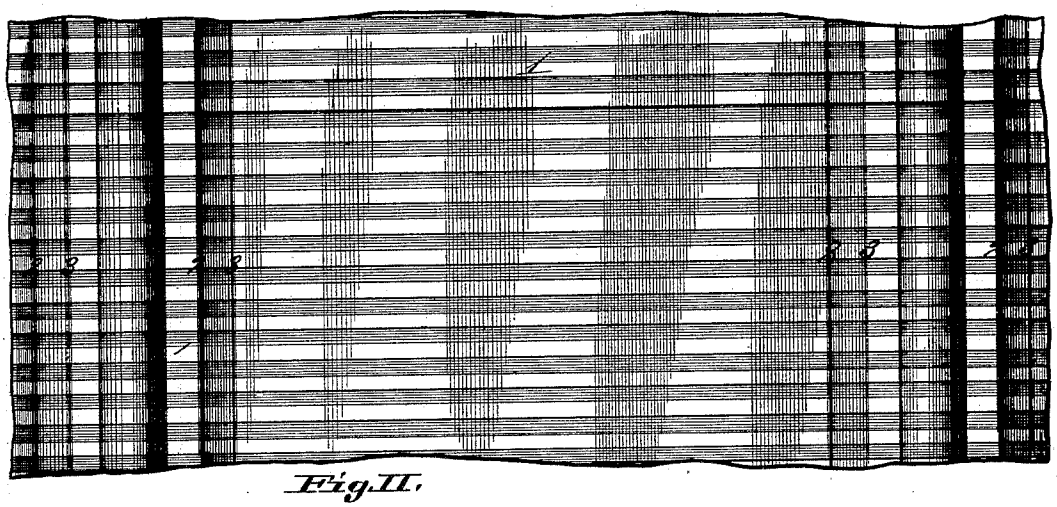

Fig. II.

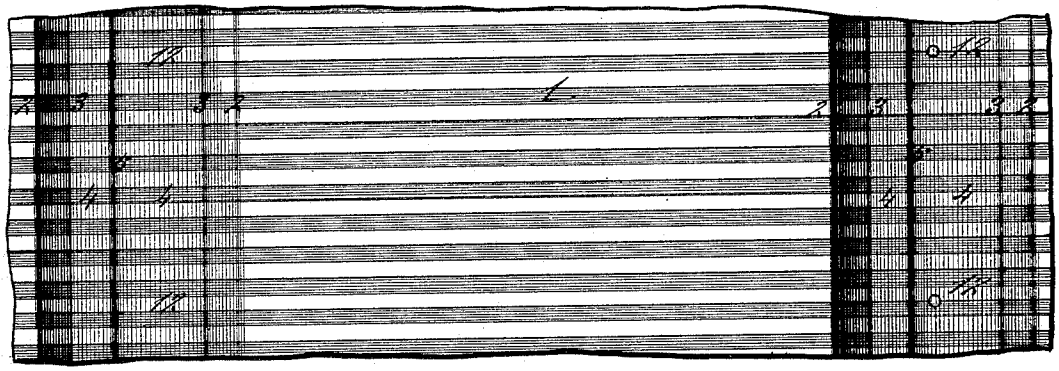

Fig. III.

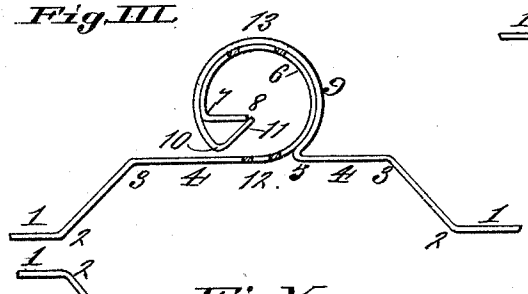

Fig. IV.

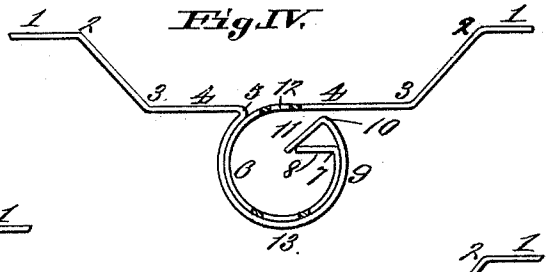

Fig. V.

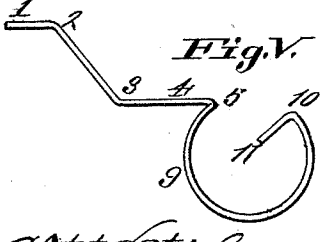

Fig. VI.

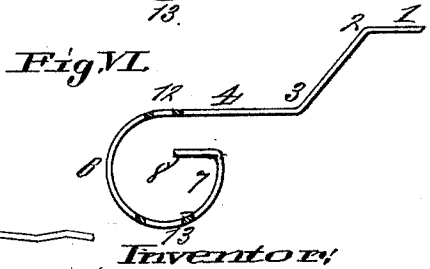

Fig. VII.

Attest:
E. Knight
Albert M. Eberode

Inventor:
Charles V. Gross
By Knight Bros.
Attys

UNITED STATES PATENT OFFICE.

CHARLES V. GROSS, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO CLARENCE E. CURBY, OF SAME PLACE.

SHEET-METAL CEILING.

SPECIFICATION forming part of Letters Patent No. 497,718, dated May 16, 1893.

Application filed December 19, 1892. Serial No. 455,563. (No model.)

To all whom it may concern:

Be it known that I, CHARLES V. GROSS, of the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Sheet-Metal Ceilings, Roofings, Sidings, or Cornices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates particularly to the construction of lock-joints connecting the sheets of metal in sheet metal ceilings, roofing, siding and cornices; and my invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is a view showing the facing side of a sheet of metal, with my lock-joint formed therein. Fig. II is a view showing the back of the same sheet. Fig. III is an end elevation of the lock-joint, showing the position of the sheets and joint where used in roofing and siding, the portions of the inner bead, opposite the fastening openings, being broken away, and the sides of the openings shown in section. Fig. IV is an end elevation of the lock-joint, in which the position is reversed from that in Fig. III, being position in ceilings or cornices, the portions of the inner bead, opposite the fastening openings, being broken away, and the sides of the openings shown in section. Figs. V. and VI are end elevations of the two parts of the lock-joint on adjoining sheets, the portions of the inner bead shown in Fig. VI (opposite the fastening openings) being broken away, and the sides of the openings shown in section. Fig. VII is a detail view of a section of the corrugated or wavy sheet of metal, of which I have shown my ceiling, roofing, &c., constructed.

Referring to the drawings, 1 represents one of the sheets of metal of which my ceiling, &c., is composed, which sheets may or may not be formed with bends 3 and 4. I have shown the bends as they are now generally used in order that the sheets will conform to the usual securing strips, against which the flat surface 4, between the bends 3, rests.

I now come to the description of the parts wherein my invention lies, the parts so far mentioned to be of any desired or approved form, my invention relating, so far as this application is concerned, to the lock-joint by which the sheets of metal are joined.

The side of one sheet of metal 1 is curved back over the sheet forming a bead 6, and the edge is bent, at an angle at 7, leaving an inwardly projecting flange 8. The side of the adjoining sheet is bent back at 5 at an angle to the sheet and is then curved or rounded to form a bead 9 that conforms to the contour of the bead 6 of the first mentioned sheet, and a bend at 10 is made at a short distance beyond the bend 7 of the adjoining sheet, so that the projecting flange 11 stands at an angle to the projecting flange 8 and bears against the edge of said flange 8 preventing the sheets from coming apart or from passing beyond a plane line when in position so that a level surface is always formed when the sheets are put into position. To put the sheets together the smaller curved bead 6 of the lock-joint is inserted at its end into the larger curved bead 9 and the bead 6 is drawn within the other until the positions of the two adjoining sheets are relative, when the sheets will be securely interlocked and cannot without destroying the lock-joint, be taken apart, except by withdrawing the one bead from the other in the opposite manner from which they were drawn together.

To secure the sheets of metal to the ceiling or other position, I make openings 12 within the lock-joint, through which screws, nails, or other suitable fastenings may pass to secure the said sheets. To give access for inserting the screw or fastening I provide an enlarged opening 13, in the face of the curved bead 6, through which opening 13 a screw-driver or other tool may be inserted, said openings 13, being covered by the outside bead 9 when the adjoining sheet is connected.

I claim as my invention—

1. The combination in a metallic ceiling, of the sheets 1, beads 6 and 9, fitting one within the other, and flanges on the edge of each sheet adapted to engage one with the

other, substantially as and for the purpose set forth.

2. The combination in a metallic ceiling of the sheets 1, beads 6 and 9, being adapted to fit one within the other, flanges within the beads adapted to engage, and openings through the inner beads through which openings fastenings may be inserted to secure the sheets 1, substantially as and for the purpose set forth.

CHARLES V. GROSS.

In presence of—
E. S. KNIGHT,
ALBERT M. EBERSOLE.