No. 708,723. Patented Sept. 9, 1902.

J. W. MATHIS.

SHEET METAL SEAM OR JOINT.

(Application filed Apr. 28, 1902.)

(No Model.)

Fig. 1.

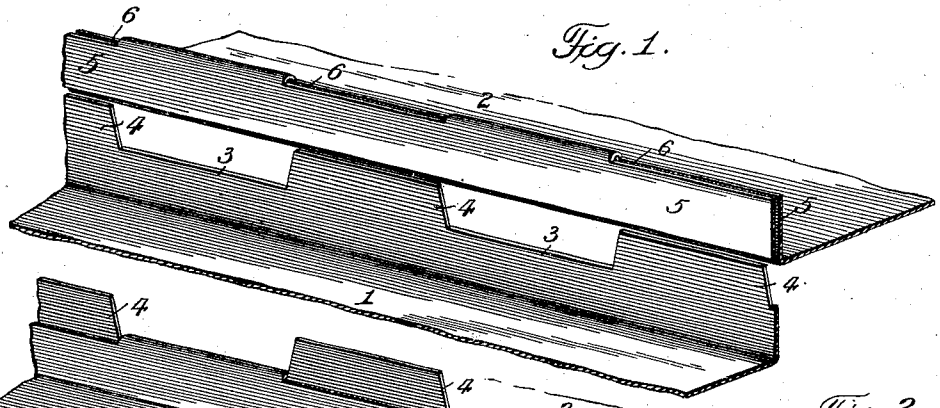


Fig. 2.

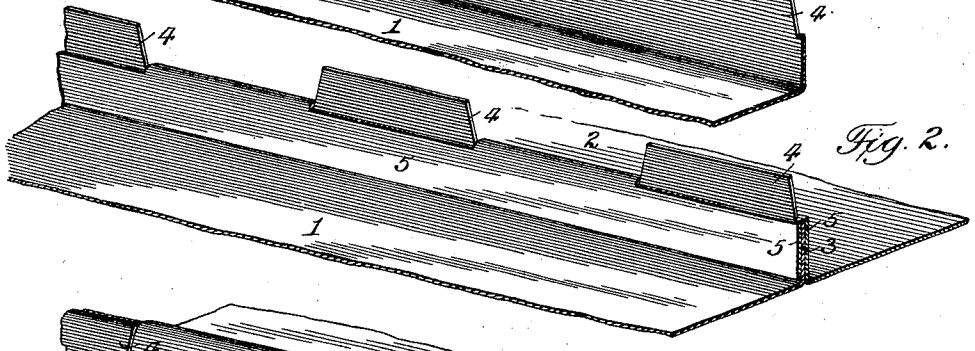
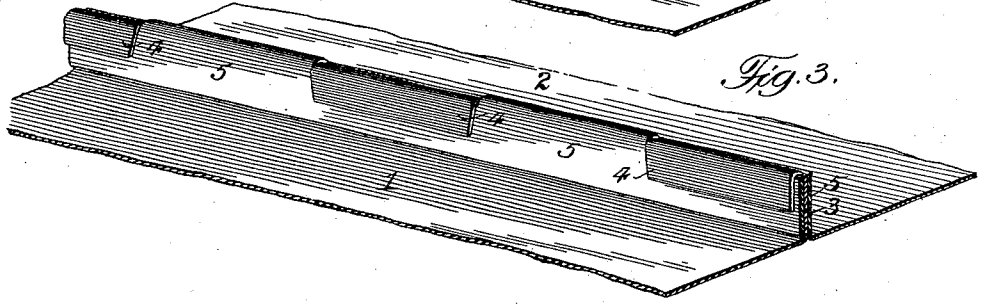


Fig. 3.



Attest:
John Enders Jr.
Henry A. Nott

Inventor:
Julien W. Mathis.
by Robert Burns
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JULIEN W. MATHIS, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO AUGUST MATHIS, OF CHICAGO, ILLINOIS.

SHEET-METAL SEAM OR JOINT.

SPECIFICATION forming part of Letters Patent No. 708,723, dated September 9, 1902.

Application filed April 28, 1902. Serial No. 104,953. (No model.)

To all whom it may concern:

Be it known that I, JULIEN W. MATHIS, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sheet-Metal Seams or Joints, of which the following is a specification.

The present invention relates to folded seams or joints employed to secure the ends of sheets of metal together in the formation of ventilating-conduits and other sheet-metal manufactures; and the object of the present improvement is to provide a simple and efficient seam or joint in which the parts are securely locked together to prevent subsequent disengagement without the use of rivets or other separate fastening means, all as will hereinafter more fully appear, and be more particularly pointed out in the claims.

In the accompanying drawings, illustrative of the present invention, Figure 1 is a sectional perspective view illustrating the present invention, the parts being shown detached; Fig. 2, a similar view showing the parts assembled ready to be locked together; Fig. 3, a similar view showing the parts locked together as a standing seam.

Similar numerals of reference indicate like parts in the several views.

Referring to the drawings, 1 and 2 represent the adjacent ends of two sheets of metal to be secured together to form the desired article.

3 is a flange formed by a right-angle bend or fold in the end of one of the aforesaid sheets, and which flange in the present invention is provided with a series of tongues or extensions 4, that are spaced apart in the manner shown and with any required intervening distance between each pair of such tongues or extensions. 5 is an open fold formed in the adjacent end of the other or companion sheet or section of metal 2, and which is formed by an angular bend or flange of the metal, which in turn is bent or folded upon itself to form a narrow cavity or chamber adapted to receive and contain the main portion of the flange 3 of the other sheet or section 1. Such open fold in the present invention is formed at its crown portion with oblong orifices 6, corresponding in size and spacing with the tongues or extensions 4 of the section 1, so as to permit of the passage of such tongues or extensions in the joining or assemblage of the parts. With the two metal sheets or sections assembled together, as shown, the tongues or extensions 4 are bent down along the side of the fold 5 to securely lock the parts against disengagement. When so desired, the seam or joint thus formed constitutes a standing seam at either the upper or under surface or outer or inner side of the article of manufacture in which the present invention is applied, and when so formed is adapted to afford increased longitudinal stiffness at the points of application of the said seam or joint.

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

1. A sheet-metal seam or joint comprising in combination, a sheet end formed with a flange folded upon itself to form an open loop and provided with an orifice or oblong orifices through the metal of such loop, and a companion sheet end formed with a flange having an extension or extensions which are adapted to pass through the aforesaid orifices and be bent upon themselves to constitute a locking means for the seam or joint, the flanges aforesaid having an arrangement at right angles to the surface of the sheets to constitute a standing seam and afford longitudinal stiffness to the article, substantially as set forth.

2. A sheet-metal seam or joint comprising in combination, a sheet end formed with a flange folded upon itself to form an open loop and provided with an orifice or oblong orifices extending through the crown portion of such loop, and a companion sheet end formed with a flange having an extension or extensions at its free end which are adaped to pass through the aforesaid orifices and be bent upon themselves to constitute a locking means for the seam or joint, the flanges aforesaid having an arrangement at right angles to the surface of the sheets to constitute a standing seam and afford longitudinal stiffness to the article, substantially as set forth.

Signed at Chicago, Illinois, this 24th day of April, 1902.

JULIEN W. MATHIS.

Witnesses:
AUGUST MATHIS,
ROBERT BURNS.