

E. E. FLORA.
ART OF JOINING METAL STRAP ENDS.
APPLICATION FILED APR. 6, 1911.

1,038,108.

Patented Sept. 10, 1912.

Fig. 1.

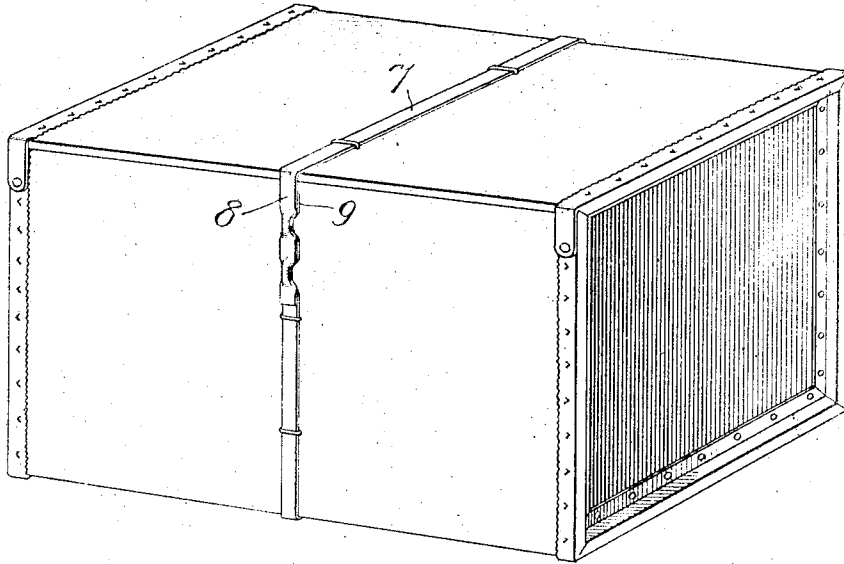


Fig. 2.

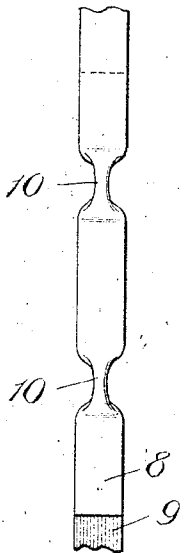


Fig. 3.

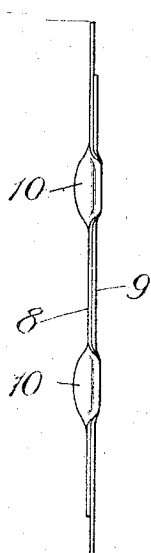


Fig. 4.

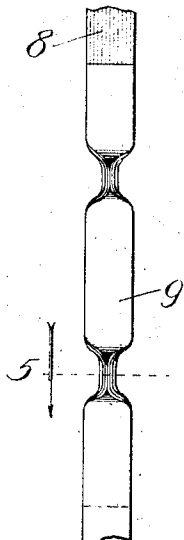


Fig. 6.

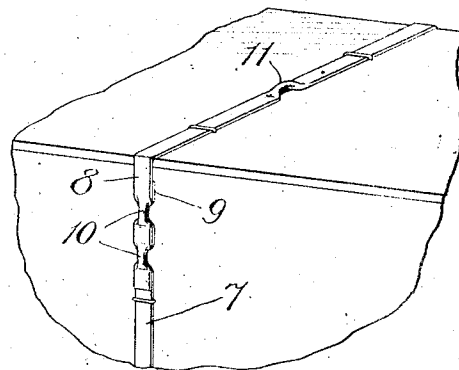
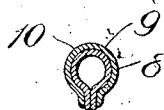


Fig. 5.



Witnesses:

Chas. H. Bull.

Inventor:

Ellsworth E. Flores.

By Dyrenforth, Rice, Critton & Miles.
Attys. #

UNITED STATES PATENT OFFICE.

ELLSWORTH E. FLORA, OF CHICAGO, ILLINOIS.

ART OF JOINING METAL-STRAP ENDS.

1,038,108.

Specification of Letters Patent. Patented Sept. 10, 1912.

Application filed April 6, 1911. Serial No. 619,333.

To all whom it may concern:

Be it known that I, ELLSWORTH E. FLORA, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in the Art of Joining Metal-Strap Ends, of which the following is a specification.

My object is to provide a novel, simple and effective way of securely joining the ends of metal straps and especially such straps when employed as binders for boxes, bales and other packages.

In the accompanying drawing—Figure 1 shows a box of the metal-bound type, provided centrally with a surrounding metal-strap joined at its ends in accordance with my invention; Figs. 2, 3 and 4, are enlarged fragmentary views showing, respectively, the outer side, edge and inner side of the joined strap-end sections; Fig. 5, an enlarged transverse section taken on line 5 in Fig. 4; and Fig. 6, is a fragmentary view illustrating how the strap may be additionally crimped to contract and tighten it around the box.

In joining together the ends of the metal-strap 7 when employed, for example, as a binder for a box, the end-sections 8, 9 of the strap are drawn together and one brought into overlapping contact with the other. The lapping end-sections are then grasped at a point between the ends of the overlap with a suitable tool, in the form of a pair of pliers of special construction, and squeezed thereby to press the opposite edges of the strap toward each other, causing

them to curl and meet, as indicated, to form substantially cylindrical interlocking crimps 10 in the sections. At the point where the straps are thus curled or crimped the outer section envelops the inner one, thereby joining them securely together. The natural effect of the crimping operation, as it is performed, is to kink and contract the strap lengthwise, thereby tightening it around the box. While one crimping operation will secure the strap-ends together, additional interlocking crimps will add to the security of the fastening.

It is desirable that the strap 7 shall tightly surround the box, and if after the ends have been joined, as described, the strap is not sufficiently tight, it may be additionally crimped along its length, as indicated at 11, to further contract it about the box or package. The crimping operation is so performed that the curled edges of the sections are on the under side, thus making it very difficult, if not impossible, to insert a tool and open the fastening, which thus forms a particularly secure sealing means for the box or package.

What I claim as new and desire to secure by Letters Patent is—

The improvement in the art of joining metal strips, which consists in overlapping the same and thereafter crimping them edgewise into infolding contact, thereby locking the parts against relative movement.

ELLSWORTH E. FLORA.

In presence of—

AMY C. FISCHER,
R. A. SCHAEFER.

It is hereby certified that in Letters Patent No. 1,038,108, granted September 10, 1912, upon the application of Ellsworth E. Flora, of Chicago, Illinois, for an improvement in "The Art of Joining Metal-Strap Ends," an error appears in the printed specification requiring correction as follows: Line 69, in the claim, for the word "infolding" read *enfolding*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 20th day of November, A. D., 1917.

[SEAL.]

R. F. WHITEHEAD,
Acting Commissioner of Patents.

Cl. 153—44.