

A. H. NORDYKE & D. W. MARMON.

Grain Elevating-Cups.

No. 152,859.

Patented July 7, 1874.

Fig. 1.

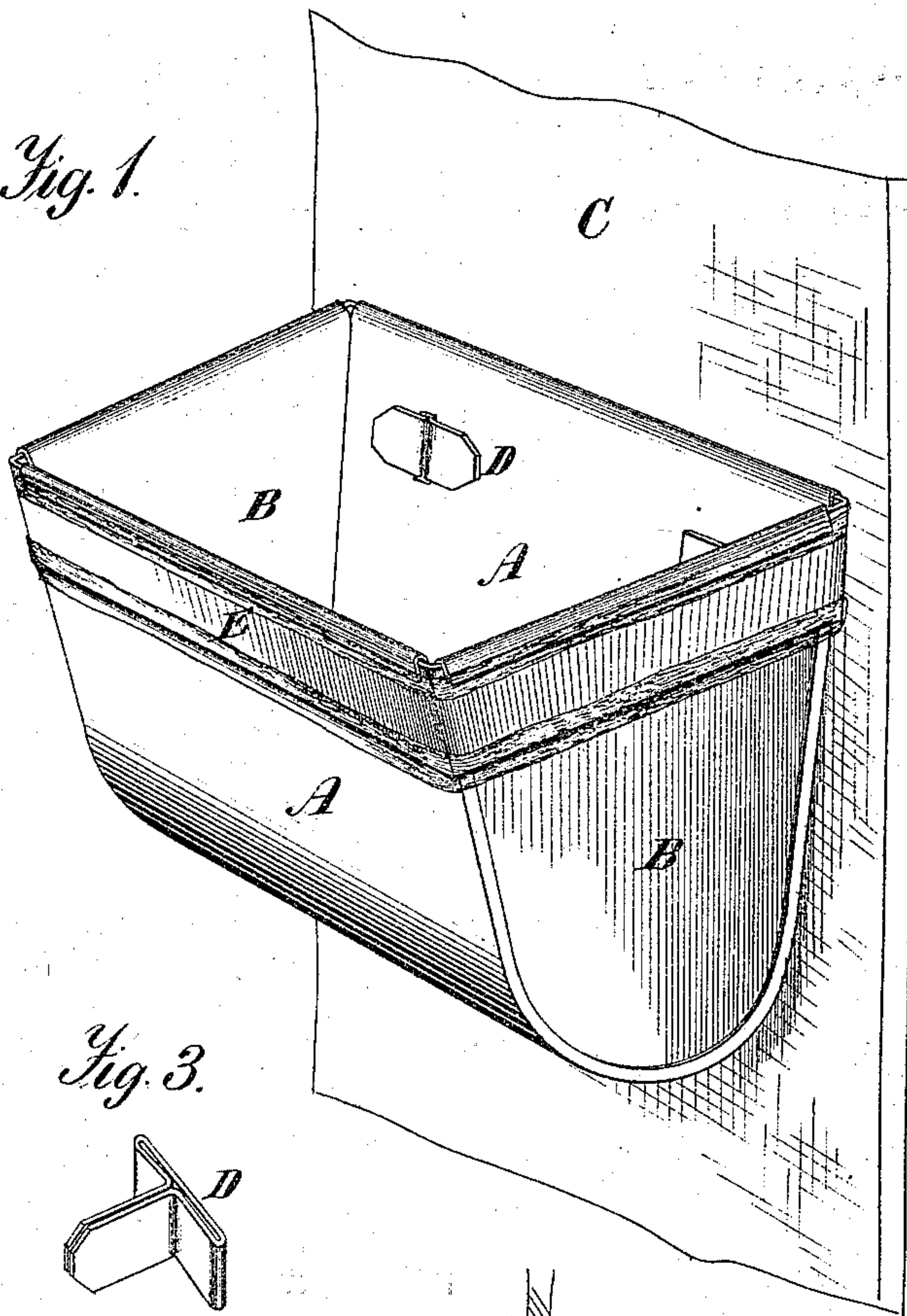


Fig. 3.

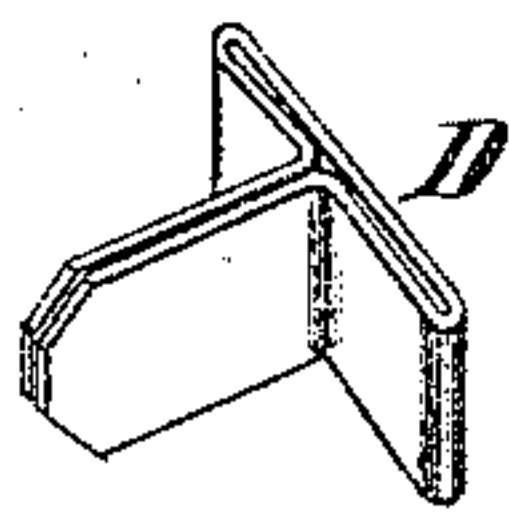
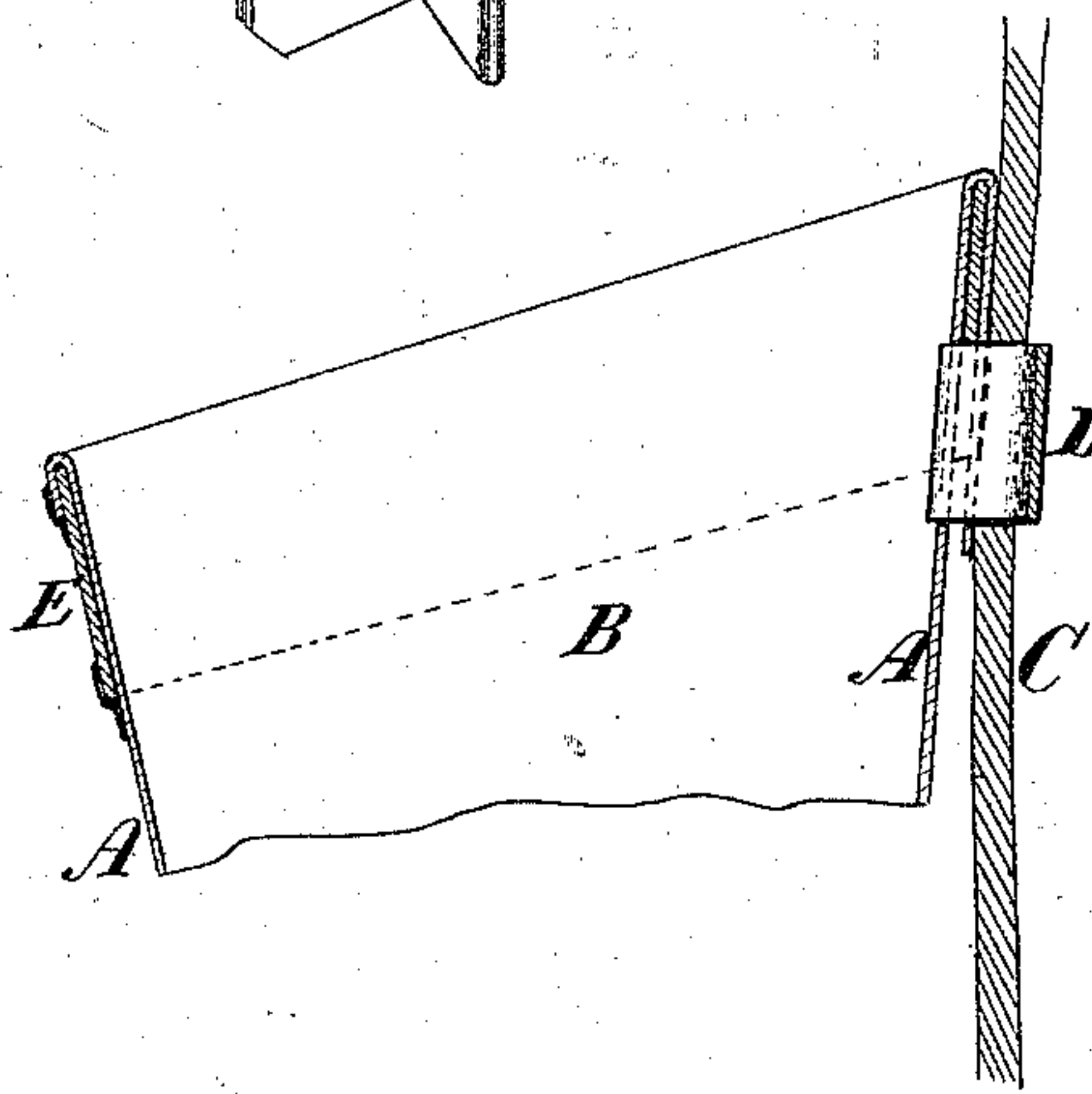


Fig. 2.



Witnesses.
A. Ruppert.
A. J. Cils.

A. H. Nordyke
D. W. Marmon
Inventors.
D. P. Holloway & Co
Attys

UNITED STATES PATENT OFFICE.

ADDISON H. NORDYKE AND DANIEL W. MARMON, OF RICHMOND, INDIANA.

IMPROVEMENT IN GRAIN-ELEVATING CUPS.

Specification forming part of Letters Patent No. **152,859**, dated July 7, 1874; application filed August 8, 1873.

To all whom it may concern:

Be it known that we, ADDISON H. NORDYKE and DANIEL W. MARMON, of Richmond, in the county of Wayne and State of Indiana, have invented new and useful Improvements in Grain-Elevators; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making part of this specification, in which—

Figure 1 is a perspective view of one cup and a section of the belt. Fig. 2 is a section of the same through one of the fasteners, and Fig. 3 is a perspective view of the fastener.

The same letters are employed in all the figures for the indication of identical parts.

This improvement relates to such grain-elevators as are in common use for raising grain in mills, &c., consisting of metal cups fastened to a belt running on pulleys; and consists in the mode of strengthening the cups.

The form preferred for the cup is clearly shown in the drawings, the front, bottom, and sides being formed of a single strip of tin bent to the form shown, and having the ends fastened by soldering them. The front part of the cup is lower than the back portion, the ends sloping, as shown, on their upper edges. These pieces are, respectively, marked A and B B. Around the upper edge of the cup a strip of galvanized iron, E, is attached, by soldering it to the outer faces of the cup, and then turning down the edges of the plates A and B B over the strip, and again covering the entire surface with solder. The cups, when thus formed, are perforated by two vertical slots, corresponding slots being cut lengthwise in the belt C, and the cup is attached to the belt by means of a fastener, D, passed through the belt first, and then through the cup, when the points are bent down outwardly, and secured by hammering them down flatly, at the points, against the cup. These fasteners are formed as shown in Fig. 3, being cut from sheets of copper, and bent into the form shown. The head, fitting against the belt, opposes little or no resistance to the passage of the belt over the pulleys. Should it become necessary to remove the cups, it may be done readily by straightening the points of the fasteners, when the cup may be

readily taken off and another put on in its place, and the points again turned down to secure it.

We are aware that wires and also strips of metal have been attached to the edges of such cups to strengthen them, the tin being turned down over the wire or strip and soldered. In such cases, however, when the tin became worn through, it would bend inward, leaving a space between itself and the wire or band. Our invention is distinguished from this in this, that we use two metal surfaces capable of being united by solder, such as tin and zinc, and cause a thin film of solder to cover the entire contiguous surfaces, forming a union with both, and cementing them perfectly, so that when one has worn through, a uniform surface remains, the adhesion of the unbroken parts retaining both in position. We do not, then, claim the cup formed with a strengthening-band, but only the combination of a cup with a band of galvanized iron or other equivalent metal capable of being attached by solder to tin over the entire surface, and so attached.

We are also aware that small fasteners of thin sheet metal, similar in form to those shown, have been in common use for attaching sheets of paper to one another. We do not, therefore, claim such a fastener, broadly. Heretofore cups have been attached to belts for elevators by screws or rivets.

The advantage claimed for this fastener in the new combination is, that the longitudinal slots do not weaken the belt, while the form of the fastener admits of the convenient attachment and removal of the cups.

What we claim as our invention, and desire to secure by Letters Patent, is—

As an improvement in grain-elevators, a cup composed of tin, with strips of galvanized iron, E, or equivalent solderable metals, united substantially in the manner set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

ADDISON H. NORDYKE.
DANIEL W. MARMON.

Witnesses:

WM. W. AUSTIN,
D. W. TAYLOR.