

(No Model.)

W. F. BOSWELL.
ELEVATOR CUP.

No. 529,698.

Patented Nov. 27, 1894.

Fig. 1.

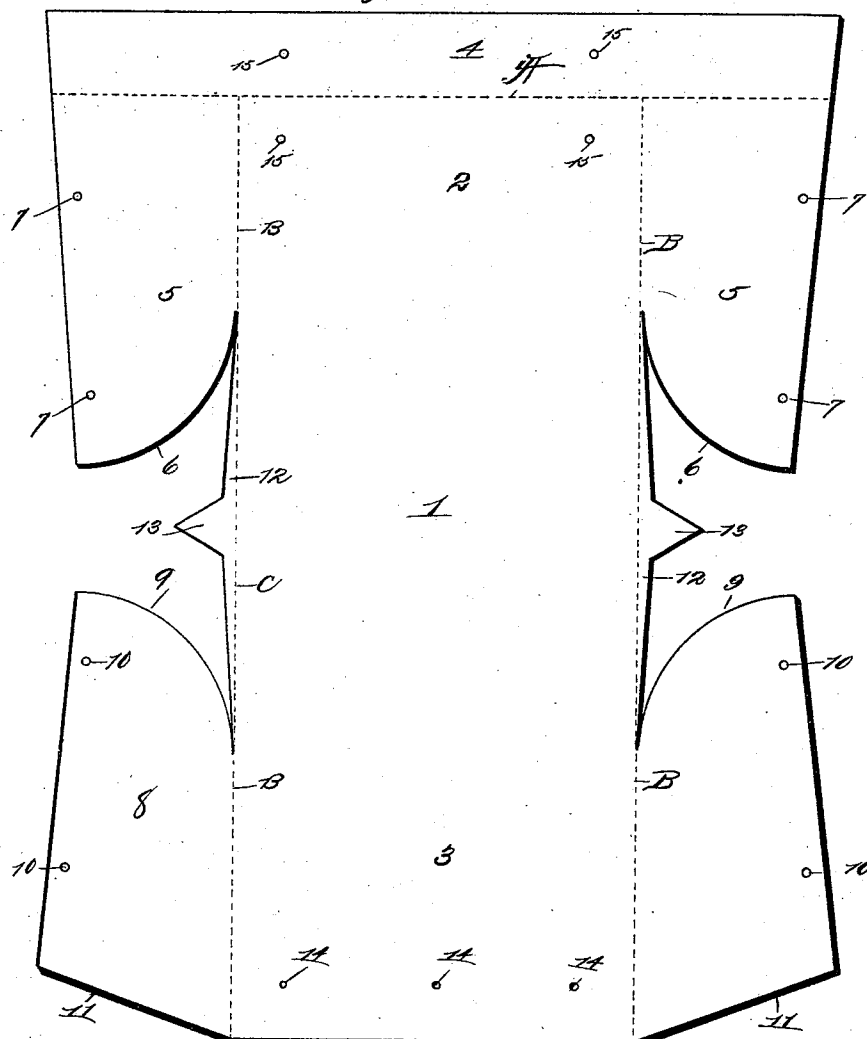
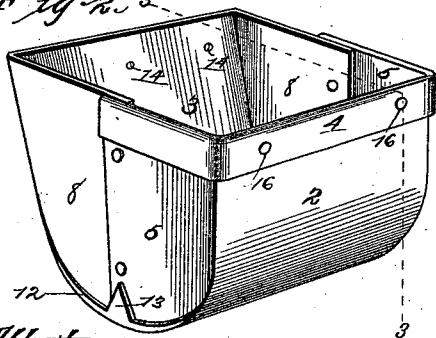
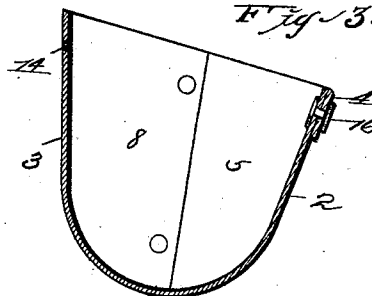


Fig. 2.



Attest:
M. P. Smith,
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Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM F. BOSWELL, OF JOPLIN, MISSOURI.

ELEVATOR-CUP.

SPECIFICATION forming part of Letters Patent No. 529,688, dated November 27, 1894.

Application filed July 30, 1894. Serial No. 518,960. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. BOSWELL, of the city of Joplin, Jasper county, State of Missouri, have invented certain new and useful Improvements in Elevator-Cups, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an elevator cup, and has for its object the forming of an elevator cup from a single piece of sheet metal and constructing said cup with an integral reinforcing and wearing strip.

A further object of my invention is to construct an elevator cup that possesses superior advantages in point of simplicity, durability and general efficiency.

Referring to the drawings: Figure 1 is a plan view of the blank from which my improved elevator cup is formed. Fig. 2 is a view in perspective of my improved elevator cup, the same having been bent and riveted together as required for practical use. Fig. 3 is a longitudinal sectional view on the line 3-3 of Fig. 2.

In the construction of the device as shown, the numeral 1 designates a sheet metal blank from which the cup is formed, the same being substantially rectangular in form, the portion 2 constituting the front side of the cup and the portion 3 the rear side thereof. The portion 4 of the front side of the cup blank 2 is adapted to be bent directly backward in order to form the reinforcing and wearing strip. The front side has formed integral therewith the side wings 5, the same being constructed with the segmental lower edges 6 and also with the mating rivet holes or apertures 7.

The rear side 3 of the blank 1 is provided with the integral wings 8, which are provided with the segmental lower edges 9 and the mating rivet holes or apertures 10. These wings 8 are also constructed with the inclined upper edges 11. The edges of the blank 1 connecting the segmental base edges 6 and 9 incline toward the center, thereby forming the portions 12, and at the meeting points of these inclined edges are formed the triangular strengthening portions 13, the same being approximately in the longitudinal center of the blank 1.

A plurality of rivet holes or apertures 14 are formed near the upper edge of the rear portion 3 and mating rivet holes or apertures 15 are formed near the upper edge of the front side 2 and in the center of the portion 4 that forms the reinforcing and wearing strip. A blank so formed has the portion 4 bent immediately backward until it contacts with the face of the front side 2 and is there securely riveted by means of suitable rivets 16 passing through the rivet holes 15. The point where this first bend is made is indicated by the dotted line A (Fig. 1). The wings 5 and 8 that form the sides of the cup are now bent at a point indicated by the dotted lines B into a plane at right angles to the main body of the blank 1. This operation being performed, the blank is bent into an approximate semi-circle, or until the rivet holes 7 and 10 co-incide. Said wings are now securely riveted together and the portions 12 and 13 bent at right angles to the main body portion, or until they contact with the sides formed by the wings 5 and 8. The lines on which these portions 12 and 13 are bent are indicated by the letter C (Fig. 1). Thus the cup is formed with a reinforcing and wearing strip extending around its entire front edge, or that edge upon which all of the strain and wear takes place.

It has been found that elevator cups formed without a wearing or reinforcing strip will become bent and worn so as to render the same inefficient, or practically so. It has also been found that where cups are provided with an extra strip on their forward upper edges, sand, gravel and the products of mines that are being raised in the elevator cups will deposit itself, or wedge in between the strip and the front of the cup, thereby greatly widening the upper front edge of said cup, which greatly impedes the travel of the cup through the material which it is raising. By my improved construction of cup, these annoyances and difficulties are entirely overcome, there being but the solid rounded edge to contact with and pass through the grain, mineral, &c., that is being raised. By bending up the portions 12 and 13 on the outside of the wings 5 and 8, the bottom of the cup is made very secure and any possibility of leak-

age entirely precluded. Thus it will be seen how I have formed a simple, durable and inexpensive elevator cup, one that is especially strong and efficient at its upper forward edge.

5 What I claim is—

An elevator cup, constructed of a single piece of sheet metal comprising the body 1, sides formed by wings 5 and 8, triangular portions 13 on the sides of the body portion 1
10 overlapping the side-wings 5 and 8, and an

end strip 4 formed integral with the body 1 and wings 5, and said strip 4 doubled back and riveted to the body portion, substantially as shown and described.

In testimony whereof I affix my signature in 15 presence of two witnesses.

WILLIAM F. BOSWELL.

Witnesses:

J. E. LOVE,

JNO. C. HIGDON.