(No Model.)

H. W. AVERY.

ELEVATOR BUCKET.

No. 415,236. Patented Nov. 19, 1889.

Fig 1.

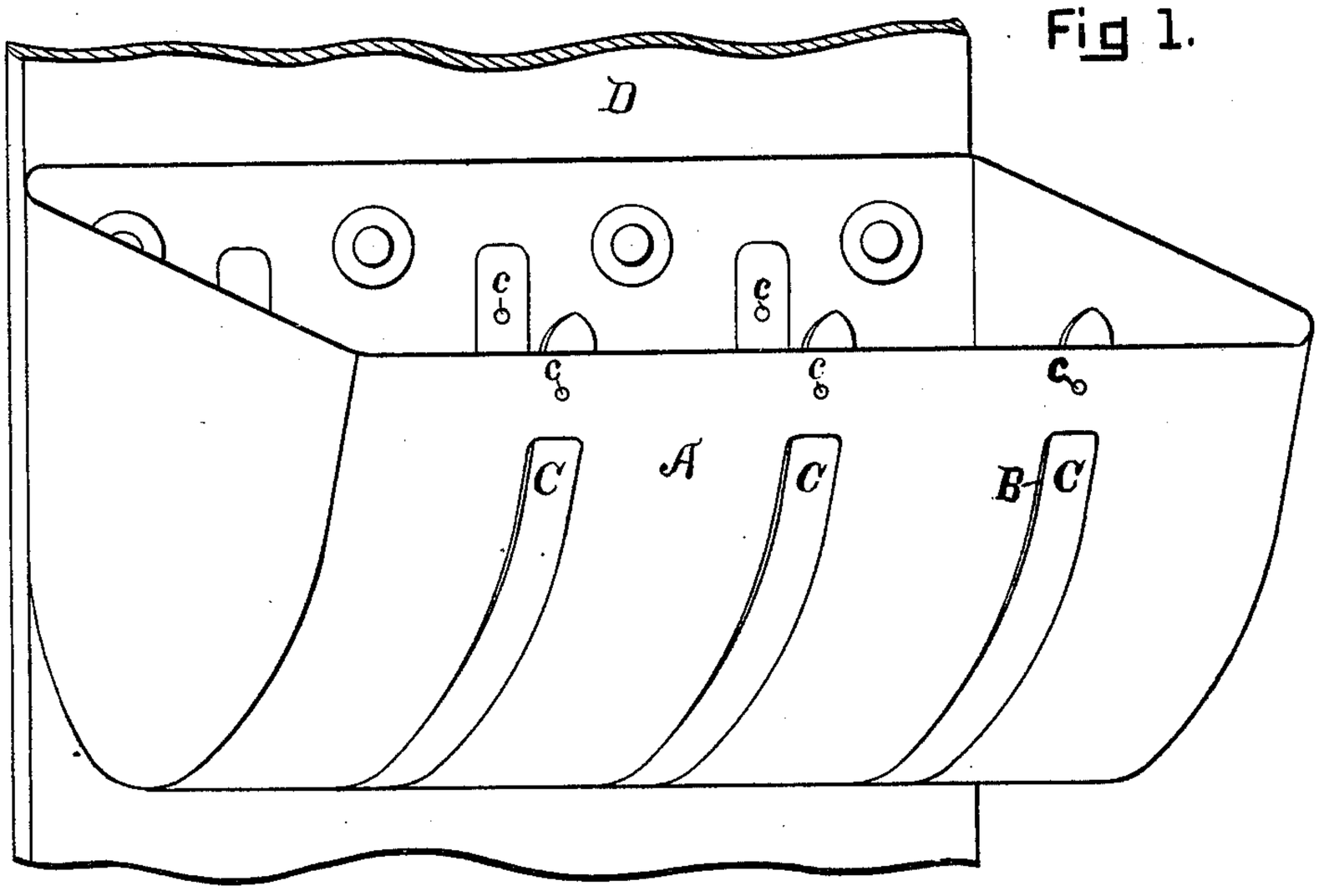
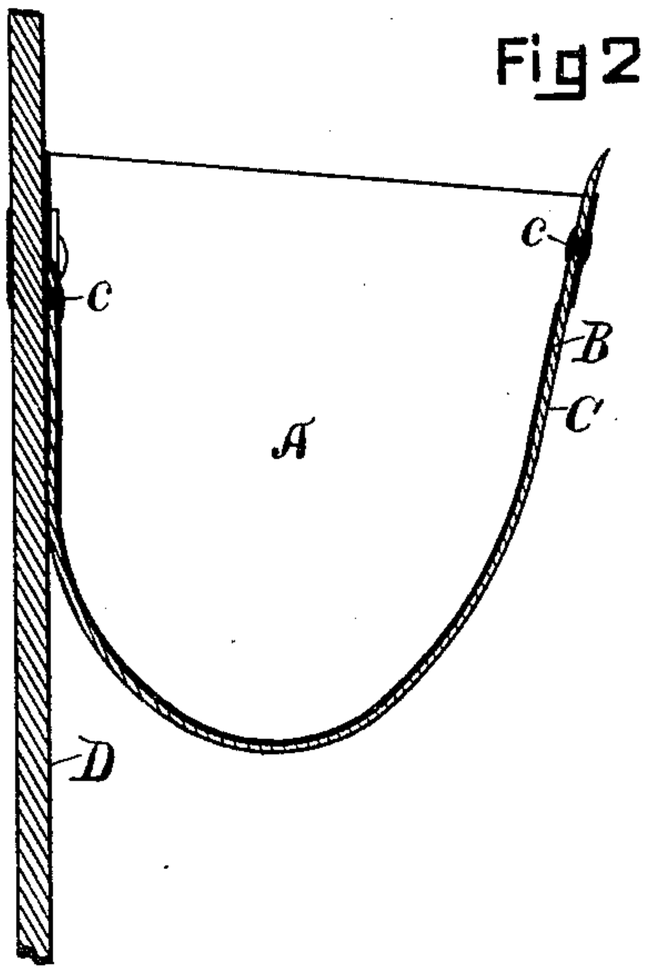


Fig 2.



WITNESSES.

Frank. H. Miller.

W. J. Bainbridge

INVENTOR.

Henry W. Avery

By Watson & Thurston

his attorneys

UNITED STATES PATENT OFFICE.

HENRY W. AVERY, OF CLEVELAND, OHIO.

ELEVATOR-BUCKET.

SPECIFICATION forming part of Letters Patent No. 415,236, dated November 19, 1889.

Application filed April 22, 1889. Serial No. 308,078. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. AVERY, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Elevator-Buckets, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

My invention relates to elevator-buckets which are made of sheet metal.

It consists, primarily, of an elevator-bucket having transverse grooves formed by bending the metal substantially as shown, said grooves beginning at a point just below the top front edge. If the grooves are formed by bending the metal inward, they may extend through a part of the back to near the top edge thereof. If they are bent outward, they should not extend into the back at all, because thereby the back of the bucket would be prevented from resting properly against the belt to which it is attached.

The invention also consists in the combination, with said bucket, of straps which are secured within said grooves, and which pass through the front wall of the bucket at points where said grooves begin, and extend above the top edge thereof, where they are pointed to form teeth or spurs.

In the drawings, Figure 1 is a perspective view of an elevator-bucket embodying in the best form all the different parts of the invention, and Fig. 2 is a transverse sectional view through the bucket at a point where one of the grooves is formed.

Referring to the parts by letter, A represents the bucket, which may be of any suitable shape, and is preferably what is known as a "seamless bucket"—that is, one formed between suitable dies from a single piece of sheet metal.

B B represent grooves formed by bending the metal, which grooves begin near the front top edge and run transversely partly around the bucket. These grooves strengthen the bucket and permit the use of thinner material than could be employed to obtain a bucket of the same strength without them. By not extending the grooves to the top of the front edge the capacity of the bucket for gathering in the material through which it passes is not affected by their presence. In the form shown these grooves are formed by pressing the metal inward, and they extend up through the back of the bucket to near the top edge thereof. By this construction the back of the bucket lies flat against the belt D, to which it is properly secured, and the top edge of the bucket fits closely against said belt, whereby the flour or other material which is being elevated is prevented from getting between said bucket and belt. If the grooves were formed by pressing the metal outward, it would be necessary to obtain these results to have the grooves end before they passed into the back. This would, however, render the bucket less strong than it would be when constructed as shown in the drawings, and therefore it is much the best construction to form the grooves by bending the metal inward.

As an additional feature of invention the straps C are combined with this bucket in the manner shown—that is to say, the straps lie in the grooves B and extend through the wall of the bucket at the point near the front top edge where said grooves begin, and extend upward above said top edge in contact with the wall. These straps are secured to the bucket by rivets *c c*, and they are pointed upon their upper ends, thereby forming spurs or teeth. These spurs are of great advantage when the buckets are used to raise tan-bark or clay or any other tightly-packed substance, and they serve their purpose best when bent slightly forward.

I am aware that elevator-buckets have been corrugated for the purpose of strengthening them, and I am also aware that spurs or teeth have been applied to the front edge of an elevator-bucket, and I do not intend, therefore, to claim these features broadly as my invention; but

What I do claim is—

1. A sheet-metal elevator-bucket having grooves formed by bending the metal, said grooves beginning just below the top front edge and extending transversely partly around said bucket, substantially as and for the purpose specified.

2. A sheet-metal elevator-bucket having inwardly-extending grooves which begin near

the top front edge thereof and extend transversely around said bucket and end below the top back edge thereof, substantially as and for the purpose specified.

3. A sheet-metal elevator-bucket having grooves formed by bending the metal, said grooves beginning near the top front edge and extending transversely partly around said bucket, combined with straps which are secured within said grooves, and which pass through the front wall of the bucket at the points where said grooves begin and extend above the top front edge, the extended ends of said straps being pointed, substantially as and for the purpose specified.

HENRY W. AVERY.

Witnesses:
DOUGLAS PERKINS,
E. L. THURSTON.