

H. A. DUC, Jr.
Elevator-Buckets.

No. 148,429.

Patented March 10, 1874.

Fig. 1.

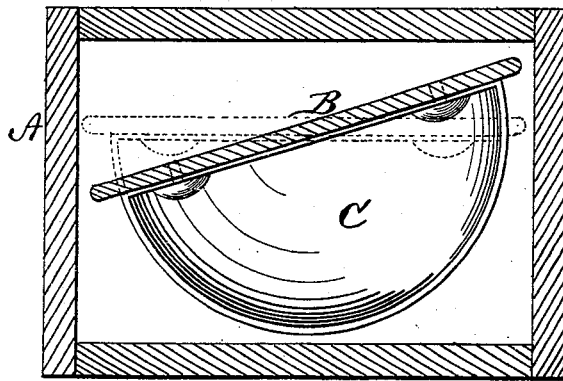


Fig. 2.

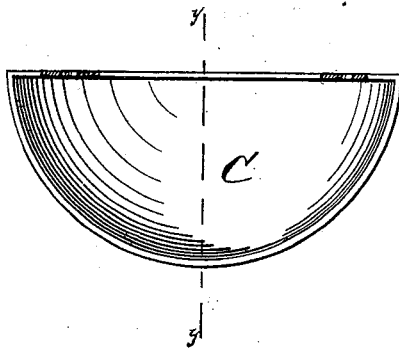
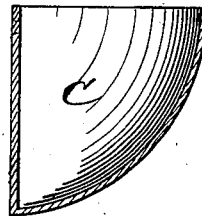


Fig. 3.



WITNESSES.

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HENRY A. DUC, JR., OF CHARLESTON, SOUTH CAROLINA.

IMPROVEMENT IN ELEVATOR-BUCKETS.

Specification forming part of Letters Patent No. **148,429**, dated March 10, 1874; application filed January 17, 1874.

To all whom it may concern:

Be it known that I, H. A. DUC, Jr., of Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Elevator-Buckets; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction of an elevator-bucket, spherical at the front, as and for the purposes herein-after more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing; in which—

Figure 1 is a view, showing the relative positions of the side and front of bucket to the sides of the trough when the belt is twisted. Fig. 2 is a top view of the bucket, and Fig. 3 is a transverse section of the same.

A is the trough of an elevator. B is the belt, and C the bucket. The front of the bucket C is made spherical in form, somewhat in shape like the quarter of an egg. By making the bucket in this form it can be made of a lighter gage of sheet or cast metal to be equal in strength to that of a thicker gage made in other shapes. The cubic contents of spherical-shaped vessels is greater in proportion to the amount of material used than other shapes; therefore, buckets made in this form will hold more, weigh less, and be stronger

than those generally used, and consequently the belt will be relieved from unnecessary weight. The front of the bucket being spherical, it has no projecting corners to catch in the trough through which it passes, as the front of the bucket does not get any nearer to the trough when the belt twists while in motion, in consequence of its shape, the buckets being attached to the belt in such a manner that the belt would pass through the axis of the spherical-shaped figure, of which the bucket is a section; therefore, when the belt wobbles or twists the section of the figure, the bucket is only turned on its axis, which does not throw the periphery out of the path of rotation, and, of course, it cannot catch on the sides of the trough. Again, when the bucket dips, should it not get full, the load will be shifted toward the center of the belt by the shape of the sides of the bucket, and bring the center of gravity to the lowest point, and keep the bucket in its proper position, which throws the weight on the center of the belt, and causes it to run smoothly.

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

An elevator-bucket having its front made spherical, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY A. DUC, JR.

Witnesses:

W. J. VERREE,
L. F. HAM.