J. S. Brooks,

Hoisting Bucket.

No. 40,671. Patented Nov. 24, 1863.

Fig. 2.

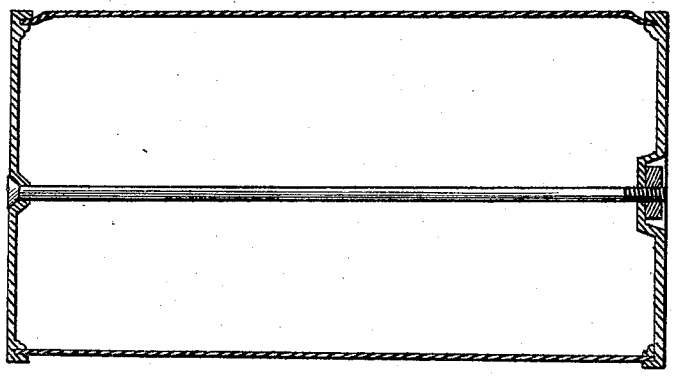
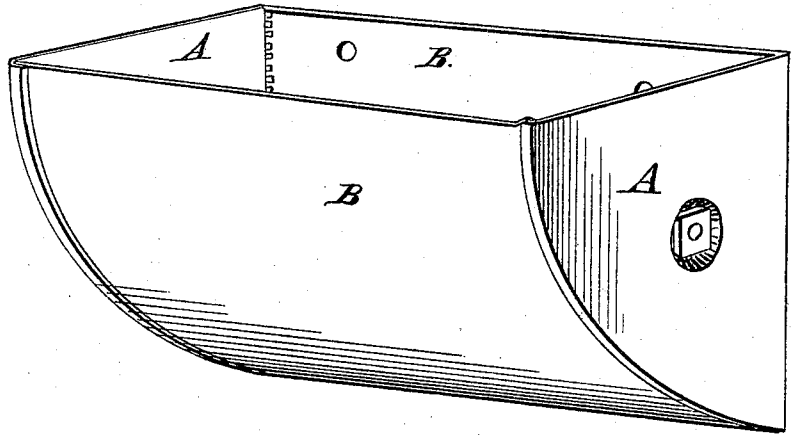


Fig. 1.



Witnesses:
Wm. B. Kibbe
A. W. Tyrrel.

Inventor.
John S. Brooks.

AM. PHOTO-LITHO. CO. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

JOHN S. BROOKS, OF ROCHESTER, NEW YORK.

IMPROVEMENT IN ELEVATOR-BUCKETS.

Specification forming part of Letters Patent No. **40,671**, dated November 24, 1863.

To all whom it may concern:

Be it known that I, JOHN S. BROOKS, of Rochester, in the county of Monroe and State of New York, have Invented a new and Improved Method of Constructing Elevator-Buckets; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Figure 1 is a perspective view. Fig. 2 is a sectional top view in a line through the rod by which the ends are attached.

Like letters designate similar parts in both the figures.

The nature of my invention consists mainly in providing elevaor-buckets, which have heretofore been made entirely of sheet metal with ends or heads of cast metal, iron being preferable, as cheapest, and attaching them to the back and front side by means of a rod running longitudinally through the center, and fastened by a nut and screw. The principal objects and advantages gained by this improvement are superior strength, durability, and cheapness. The ends or heads A A are provided with a flange or rim around the front and back edges, of sufficient depth to receive and hold the sheet-metal part, and also with a series of projecting points, which hold the same from inward pressure, the most of the strain on them, however, being outward or against the flange. The sheet-metal back and front B B can in this way of attaching to ends be constructed of a heavier quality of material than could be used if the ends were to be double-seamed to them in the usual manner, and may also be made from the cheapest qualities of sheet-iron, which would not turn on by the double-seaming or usual process. The iron known as "English" or common iron of about Nos. 18 to 20 would be about the proper thickness for the back and front, while No. 24 would be the heaviest that could be used in the ordinary manner. The ends can be made at any foundry for the same price per pound that the iron in the sheet would cost if constructed from sheet metal, thereby saving the labor and wastage entirely. About four times that number can be made with the same amount of work, while I claim that they will outwear double the number when made from the ordinary material.

There are a vast number of buckets used in elevators, which are built entirely to aid in the transshipment of grains at lake and sea ports, many single elevators using over one thousand buckets, and, from their constant use, last but a short time at best, and any improvement which will cheapen the cost of their construction, or increase their durability, would be of great value. In many cases it is believed the cast-iron ends, especially if malleableized would bear to be used over and over again with the addition of new sheet-metal parts, which would be the soonest worn out, while with the ordinary bucket heretofore used, if the wearing parts are destroyed, the whole is useless. The weight will be no objection if the ends are made heavy, as the buckets are attached to an endless belt, which holds an equal number descending and ascending at the same time, while the extra thickness would be much in favor of their durability.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of cast-metal ends or heads with sheet metal front and back in elevator-buckets, as and for the purposes shown and described.

JOHN S. BROOKS.

Witnesses:

WM. B. KIBBE,

A. W. TYRREL.