

(No Model.)

J. SOCCI.

DEVICE FOR UNLOADING VESSELS, CARS, &c.

No. 482,565.

Patented Sept. 13, 1892.

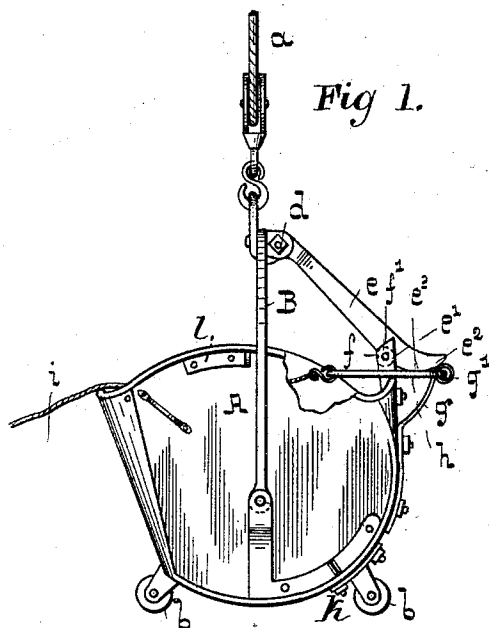


Fig 1.

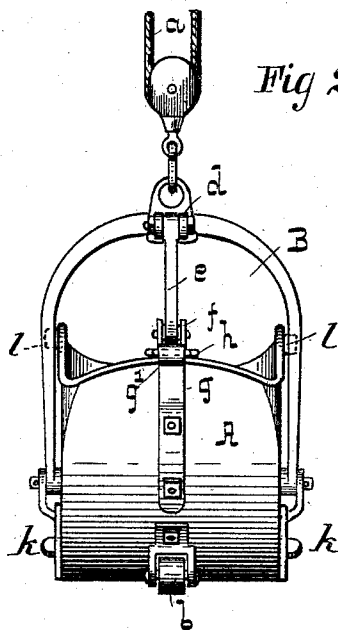


Fig 2.

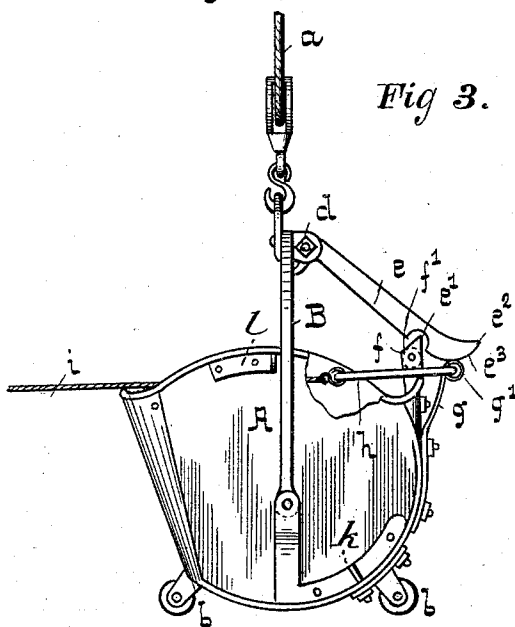


Fig 3.

-WITNESSES-

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UNITED STATES PATENT OFFICE.

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DEVICE FOR UNLOADING VESSELS, CARS, &c.

SPECIFICATION forming part of Letters Patent No. 482,565, dated September 13, 1892.

Application filed January 23, 1892. Serial No. 419,070. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SOCCI, of the city of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Devices for Unloading Vessels, Cars, or other Receptacles, of which the following is a specification, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention relates more particularly to a means of tripping or detaching the bucket from the parts holding it in a vertical position, whereby it may tilt and dump its contents.

In the drawings, Figure 1 is a side elevation of a bucket embodying my invention when held in the vertical position. Fig. 2 is an end view looking at the right of Fig. 1. Fig. 3 is a view similar to Fig. 1, but representing the holding devices released, so as to permit the tilting of the bucket so as to dump its contents.

Similar letters of reference indicate similar parts in the respective figures.

A is the bucket, and B the bail or central support to which the rope *a* is secured. The bucket A is pivoted to the bail B below its center of gravity in the usual way, so as to cause the bucket to overturn when released. The bucket is provided with rollers *b* to allow it to be moved along when not suspended on a supporting-surface.

To lugs *d*, projecting from the bail B, is pivotally connected a latch *e*, having a semicircular notch *e'* and an outer upturned point *e''*. Between the point *e''* and the outer limit of the notch *e'* is a curved surface *e'''*. Extending up from the outer side of the bucket is a fork *f*, in which is journaled a roller *f'*, and from the same side of the bucket projects upwardly a plate-spring *g*, bolted to the bucket, as shown. The outer or free end of the spring is rolled over, forming an outer cylindrical surface *g'* and a cylindrical opening, through which latter passes an ordinary link *h*, which straddles the fork *f* and rests upon the edge of the bucket. To the opposite end of the link *h* a line *i* is attached for effecting the release of the bucket.

The operation is as follows: The rope *a* being that by means of which the bucket is raised and lowered, let it be supposed the invention is applied to the discharge of a cargo—such as phosphates or the like—from a vessel to a scow, wharf, or other place of deposit. The bucket having been filled in the hold of the vessel is raised, the notch *e'* of the latch *e* engaging the roller *f'* and the curved surface *e'''* resting upon the cylindrical surface *g'* at the upper end of the spring *g*. In this condition of things the bucket A is held against tilting or overturning; but the place for depositing its contents having been reached the line *i* is pulled from the deck of the ship or otherwise, and the cylindrical surface *g'* being moved inward acts upon the curved surface *e'''* of the latch so as to raise the latch from the roller *f'*, thus permitting the bucket to tilt and dump its contents. The dumping action of the bucket is limited by the stops *k*, and any movement of the bucket in a direction the opposite of that it is to take in dumping is prevented by the stops *l*, which would effect this result in the event of any temporary failure of the latch to lock the bucket.

I claim—

A bucket and a bail pivoted thereto and a latch pivoted to the bail, having a notch *e'* and a curved surface *e'''*, combined with a roller attached to the bucket for engagement with said notch, and a plate-spring, also secured to the bucket, adapted to be pulled toward the same and having a cylindrical surface to act upon the curved surface of the latch to lift said latch and release the bucket and allow it to tilt, substantially as set forth.

In testimony whereof I have hereunto set my hand and seal.

JOSEPH ^{his} X SOCCI. [L. S.]
mark

Witnesses:

JNO. T. MADDOX,
DANL. FISHER.