

H. J. RUSSELL.
 DUMPING BUCKET.
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914,753.

Patented Mar. 9, 1909.

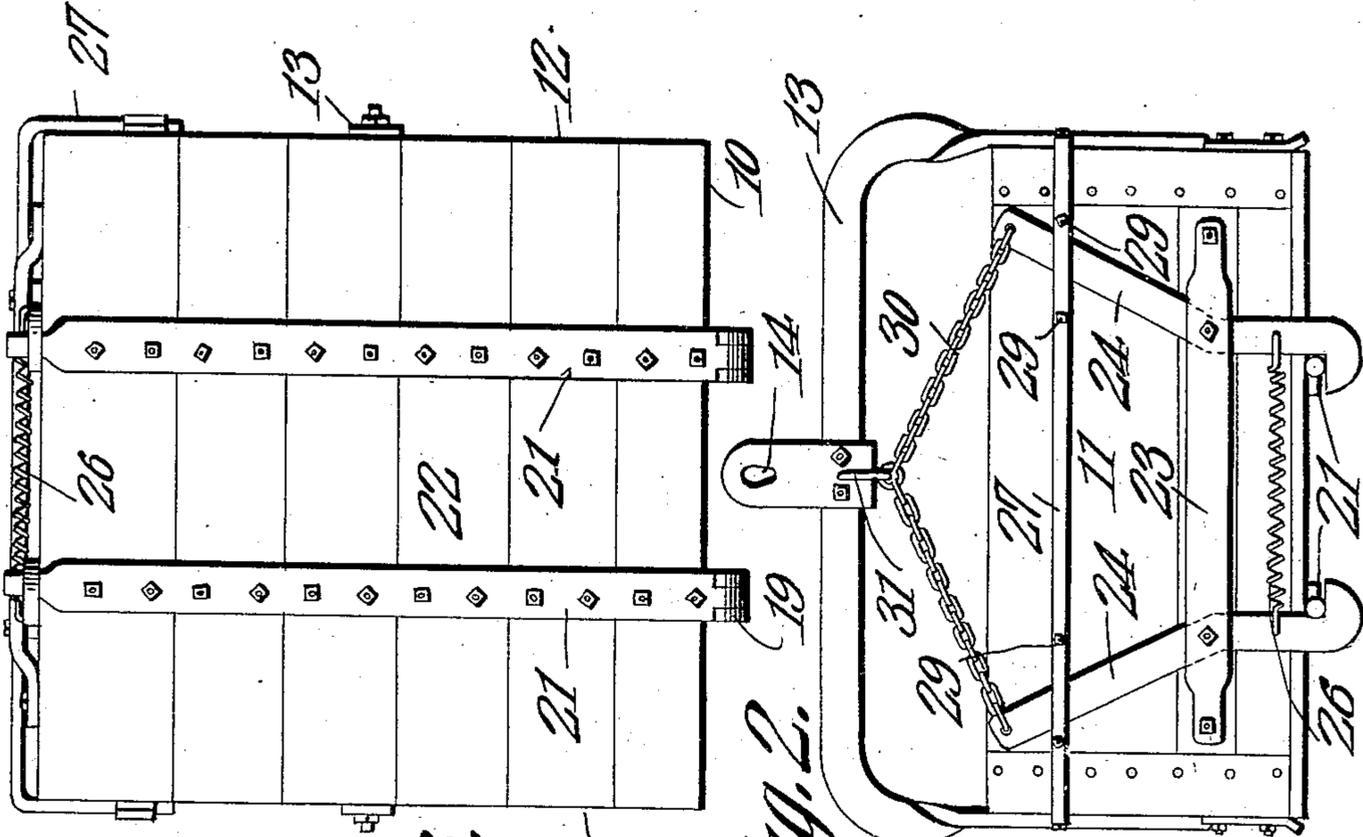


Fig. 2.

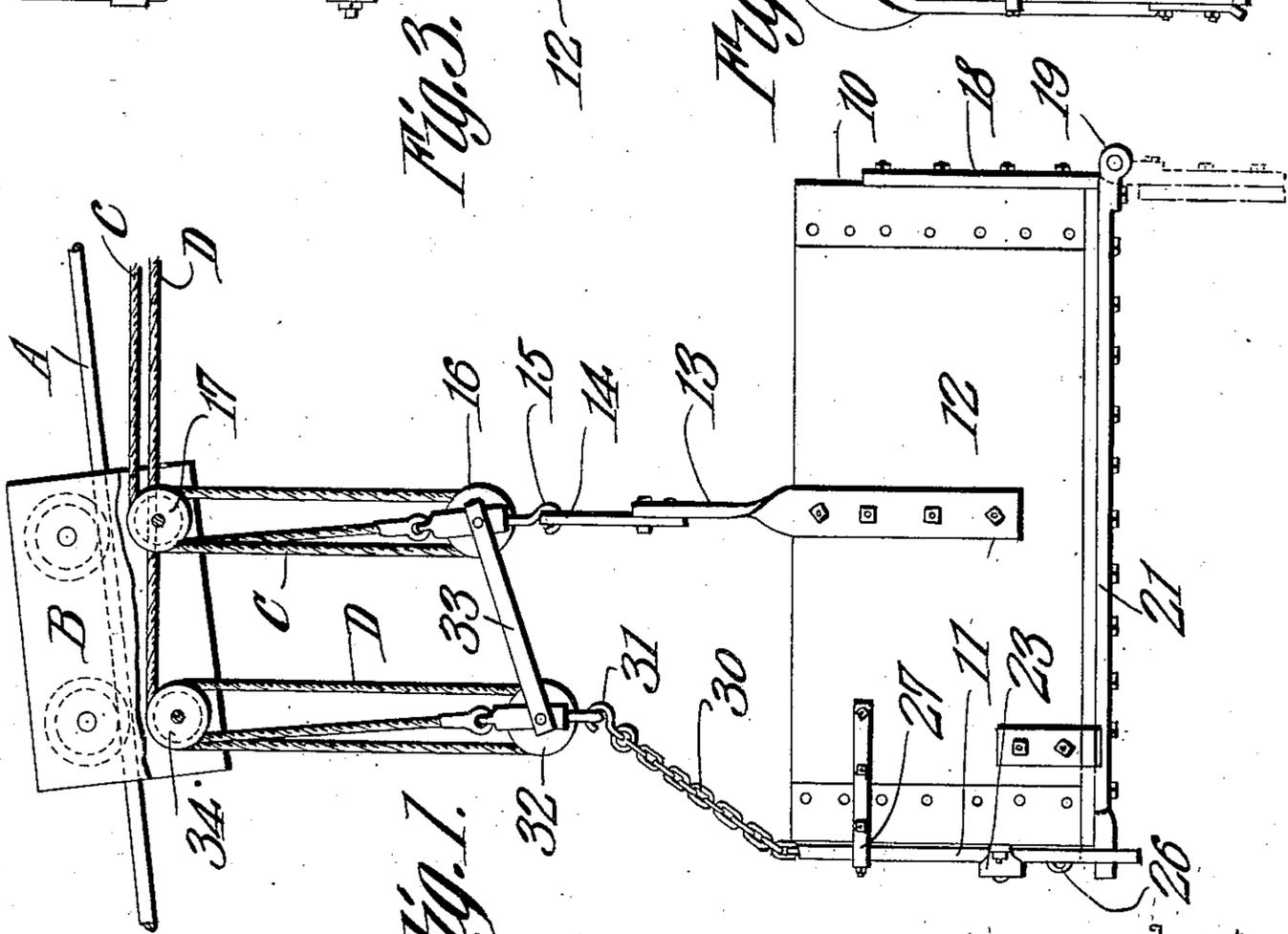


Fig. 1.

Witnesses
[Signature]
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 Attorneys

UNITED STATES PATENT OFFICE.

HERBERT J. RUSSELL, OF GLENS FALLS, NEW YORK.

DUMPING-BUCKET.

No. 914,753.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HERBERT J. RUSSELL, a citizen of the United States, residing at Glens Falls, in the county of Warren and State of New York, have invented a new and useful Dumping-Bucket, of which the following is a specification.

This invention relates to dumping buckets of that general class employed in conveying stone, earth, or other material between any two points.

The principal object of the invention is to provide a bucket of very simple construction which may be readily dumped in such manner as to effectually discharge its entire contents, the entire bottom of the bucket being arranged to swing clear of the vertical wall so as not to interfere with the discharge of the material.

A further object of the invention is to provide a simple and effective form of latching device for holding the bottom in closed position and to place the same under the control of the engineer or other operator so that the bucket may be readily dumped at the required point.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a side elevation, partly in section, of a dumping bucket constructed in accordance with the invention. Fig. 2 is a front elevation of the same. Fig. 3 is a bottom plan view of the bucket.

Similar characters of reference are employed to indicate corresponding parts throughout the several figures of the drawing.

The bucket forming the subject of the present invention may be used for conveying purposes generally, and in the present instance is designed to run on an inclined cable or rail A between a loading point and a point of deposit. The cable carries a wheeled frame or carriage B from which the bucket is suspended by a combined hoisting and haul-

ing cable C arranged in the manner more particularly set forth hereinafter.

The bucket is shown in the present instance rectangular in form having a rear wall 10 and a front wall 11, and a pair of parallel side walls 12, all of which may be formed of any suitable material. The central portions of the side walls 12 are connected by a fixed bail 13, at the center of which is an eye 14 that is hung from a hook 15 carried by a pulley 16. On the carriage B is a double block or sheave 17 over which the combined hoisting and hauling cable C passes, the cable running down under the pulley 16, thence up over the second sheave of the double block, and down to the eye of the pulley 16.

To the rear wall 10 of the bucket are secured two metal straps 18, at the lower ends of which are formed hinged knuckles 19 that project rearwardly or outwardly to a point beyond the rear wall of the bucket and pivoted to these knuckles are similar knuckles formed at the rear end of a pair of spaced metal bars 21 that extend under and form supports for the hinged bottom 22.

The hinges are located at a distance to the rear of the rear wall of the bucket so that the bottom when swung down to vertical position will be entirely clear of all of the walls of the bucket and will not in any manner interfere with the dumping of the load.

To the front wall 11 of the bucket is secured a metal strap 23 and to this strap is pivoted a pair of latch levers 24, the lower ends of which have bills for engagement with the rounded projecting ends of the bars 21, and the lower faces of the latch members are rounded or inclined so that when the bottom is swung up to closed position the bars may engage with and spread the latches against the stress of a helical tension spring 26 that extends between the lower portions of the two levers, as shown in Fig. 2.

The upper portions of the levers are guided by a strap 27 that is approximately U-shaped in form, its ends being bolted or otherwise secured to the opposite side walls 12, while the main bar of the strap is slightly spaced from the front wall 11 in order to permit the passage of the two latch levers. The front portion of the strap is held in place by a number of bolts 29 which serve also as stops for limiting movement of the latch levers in both directions.

The upper ends of the latch levers are con-

5 nected by a chain 30 from the central link of which extends a hook 31 that is suspended from a pulley 32 and this pulley and the pulley 16 are connected together by a pair of links 33 so arranged as to permit independent vertical movement of both pulleys.

10 Mounted on the carriage B is a double block 34 over which extends a latch cable D that passes under the sheave of the pulley 32, thence up over the second sheave of the block 34 and down to the eye of the pulley 32. The cable D is entirely independent of the combined hoisting and hauling cable and may be operated from a distance for the purpose of moving the latch cable to release position and allowing the bottom of the bucket to fall to vertical position.

15 The bucket is of very simple and economical construction and while shown as of rectangular form it may be made round, oval or of any other desired shape and of any capacity.

What is claimed is:—

25 1. In a dumping bucket, a suspension device therefor, a closure for the bucket, a latch

for said closure, a pulley, a link pivotally connecting the pulley to the suspension device, a connection between the pulley and the latch, and an operating cable passing over the pulley for raising and lowering the same to operate the latch. 30

2. In a dumping bucket, a hinged closure therefor, the hinge connection for said closure comprising spaced bars extending lengthwise across the closure and projecting from the ends thereof, one of the projecting ends being formed with hinge knuckles, straps secured to one of the walls of the bucket and formed with hinge knuckles connected to the aforesaid knuckles, and a latch engageable with the other projecting ends of the spaced bars. 35 40

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HERBERT J. RUSSELL.

Witnesses:

JNO. E. PARKER,
C. E. PREINKERT.