

1,023,303.

C. H. DISHMAN.
EXCAVATING SCRAPER.
APPLICATION FILED AUG. 9, 1910.

Patented Apr. 16, 1912.
2 SHEETS-SHEET 1.

Fig. 1.

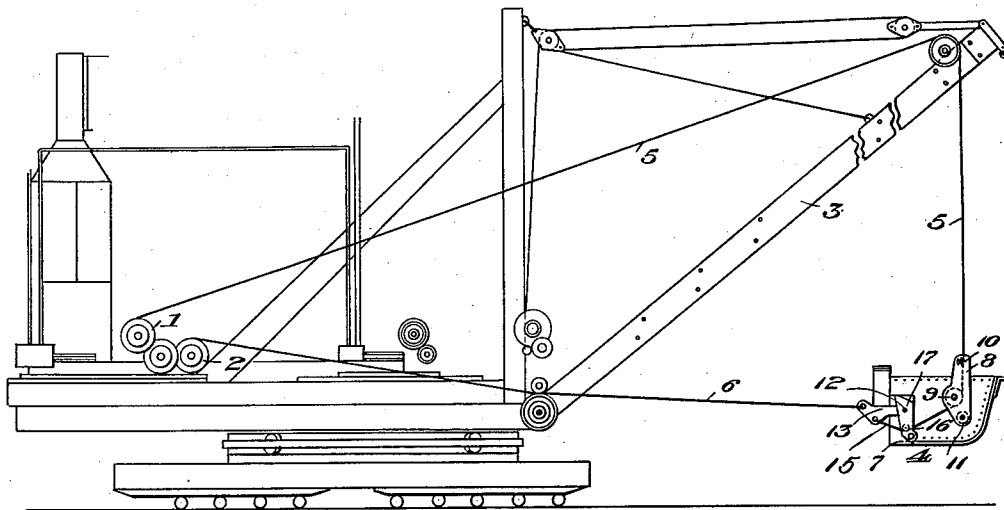
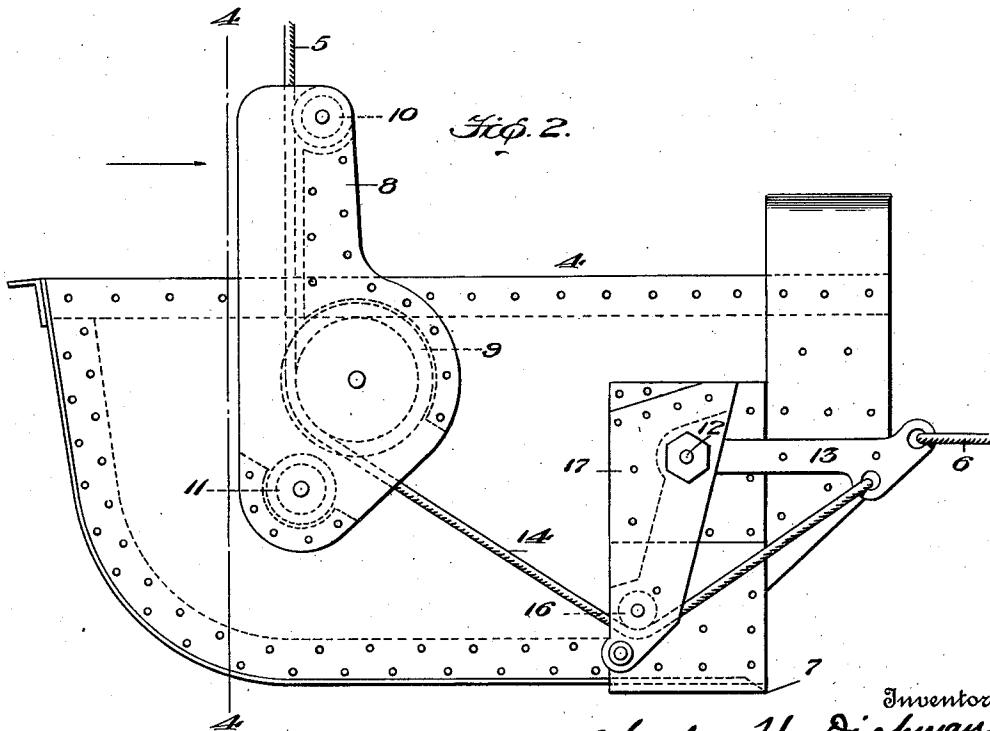


Fig. 2.



Witnesses

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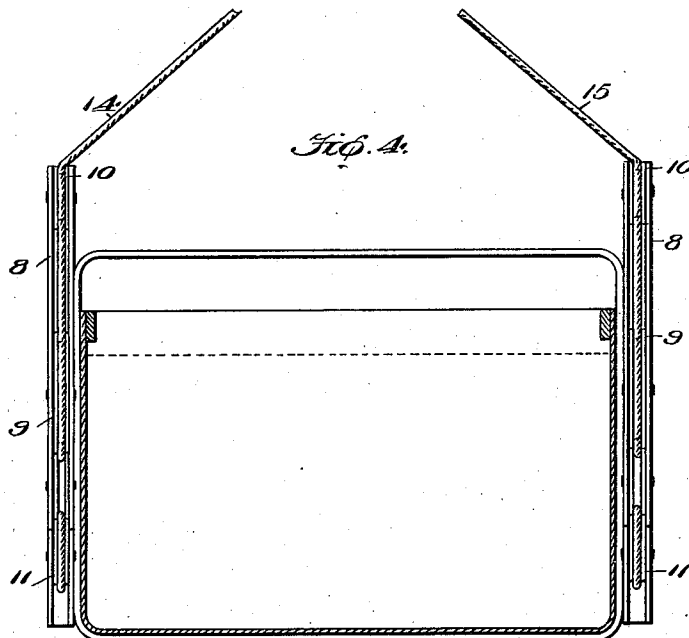
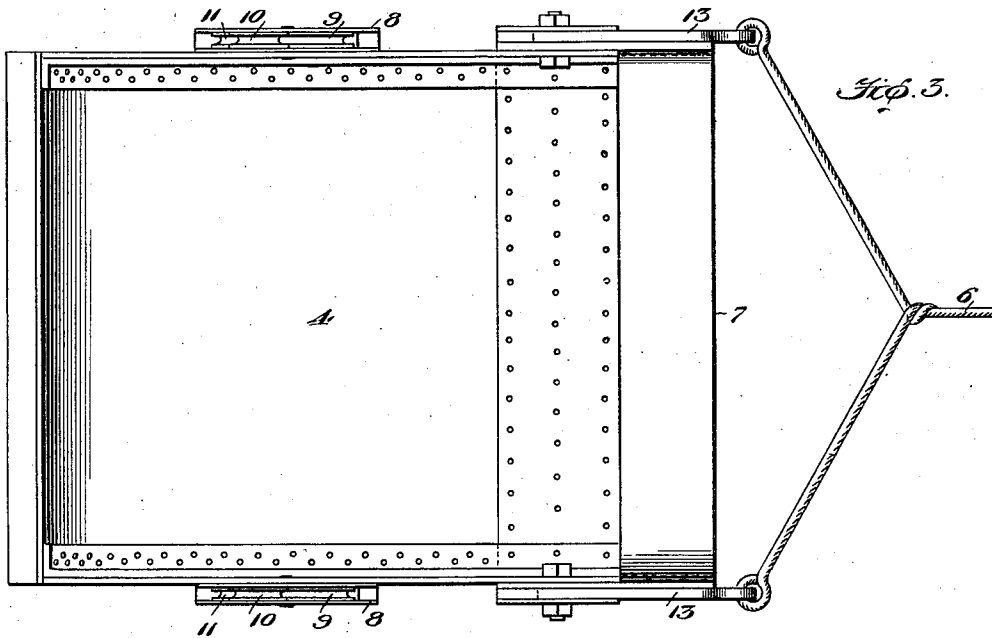
By *Frank C. Gore*
his Attorney

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Witnesses

[Signature]
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Inventor
Charles H. Dishman

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UNITED STATES PATENT OFFICE.

CHARLES H. DISHMAN, OF HENDERSON, KENTUCKY.

EXCAVATING-SCRAPER.

1,023,303.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed August 9, 1910. Serial No. 576,330.

To all whom it may concern:

Be it known that I, CHARLES H. DISHMAN, a citizen of the United States, residing at Henderson, county of Henderson, and State of Kentucky, have invented certain new and useful Improvements in Excavating-Scrapers, of which the following is a specification.

This invention relates to excavating scrapers.

The present invention relates to those excavating scrapers employing a derrick suspended bucket or scoop, such as are particularly used in railroad work, and it has for its object the provision of a scraper constructed and operated in a novel manner which may be readily manipulated by a new arrangement of cables, so that it can be hoisted or lowered, moved from the excavation pit to the spoil, and readily dumped.

The object of the invention is accomplished by the provision of certain novel attachments on the excavating scoop or bucket, combined with cables operated from the winding drums in a manner which will be fully set forth hereinafter.

In the accompanying drawings:—Figure 1 is a side elevation showing the invention in use on an approved form of steam derrick; Fig. 2, an enlarged side elevation of the scoop or bucket reversed from the position shown in Fig. 1; Fig. 3, a plan view thereof; and Fig. 4, a vertical section on the line 4—4 of Fig. 2.

Referring first to Fig. 1, the winding drums 1 and 2 are those of any approved form used on the steam derrick shown, the latter having the usual jib 3.

My invention relates solely to the excavating scraper or bucket 4 and its attachments, together with the cables 5 and 6 which wind on the drums 1 and 2, respectively.

The scoop or excavating bucket 4 is provided with the usual open top and is open at one end and it has the usual knife or points 7. Carried by opposite sides of the scoop or bucket 4 are upright plates 8, each of which has a sheave 9 and idlers 10 and

11. Pivoted at 12 to opposite sides of the excavating scoop or bucket are the arms 13 which are adapted to swing to a more or less horizontal and to a more or less vertical position. These arms are connected to the cable 6 so that they move in unison, and they are also connected to the cable 5 by the branches 14 and 15 which pass around idlers 16 disposed near the bottom of the excavator scoop, and thence between the sheaves 9 and idlers 11 and finally they run against the idlers 10. On the sides of the scoop or bucket 4 are abutment plates 17, against which the arms 13 strike when they are in their lowered and more or less vertical position.

In the operation of the excavator the derrick and the jib are manipulated in the usual manner. When the knife 7 is taking into the excavation pit, the drum 2 is in action and the cable 6 is drawn taut, being in the position shown in Fig. 1, the drum 1 being slightly let out to compensate for the travel of the scoop or shovel. When the scoop or shovel is loaded, both of the drums 1 and 2 draw upon the cables 5 and 6 and make them taut, but the swinging arms 13 are then against the abutments 17, giving a truss-like effect in connection with tension on both cables and when the scraper is swung from the pit to the spoil bank, it will be kept horizontal, the suspending cable 5 carrying the greater part of the load and the tension on both the cables causing the knife or cutting edge to be held up so that the dirt cannot fall out. When it is desired to dump the scoop, the cable 6 is paid out and the scoop then turns to an upright position on account of the release of the tension of the cable 6 on the swinging arms 13.

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

In an excavating scraper, the combination with an excavating scoop, of swinging arms carried on one end part thereof, a sheave on the scoop, a suspending cable which runs over said sheave and thence angularly to its suspending stretch and is connected to the arms aforesaid and adapted to pull them

in one direction, and a free pulling cable
directly connected to the arms and adapted
to pull them in the opposite direction, said
arms being adapted for movement only by
5 the combined paying out of one cable and
the tension of the other cable to effect sus-
pending or tilting of the scoop.

In testimony whereof, I hereunto affix my
signature in presence of two witnesses.

CHARLES H. DISHMAN.

Witnesses:

CHARLES H. ROBERTS,
F. C. GORE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."