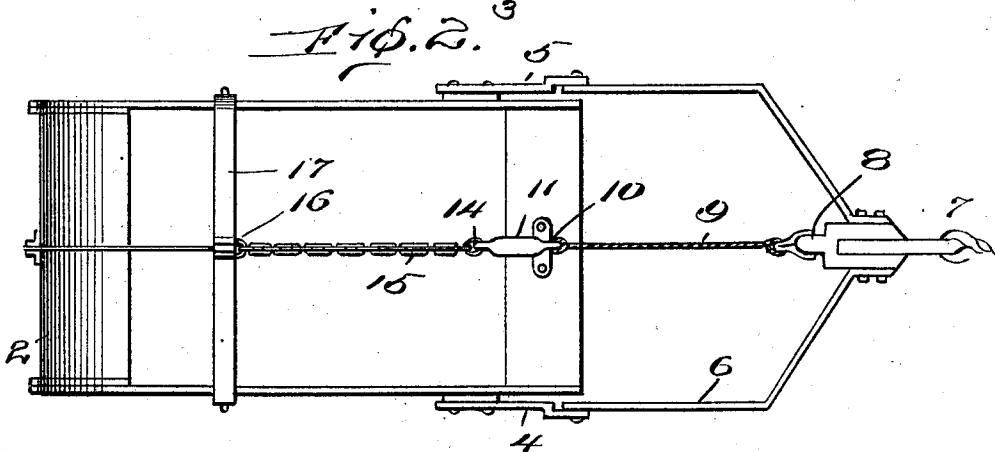
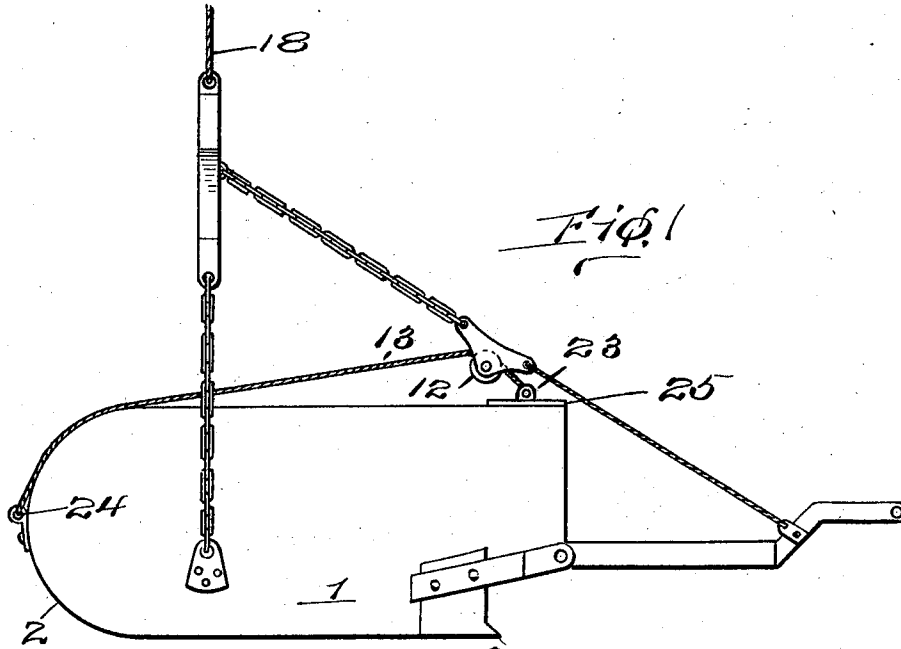


J. C. CRENSHAW.
EXCAVATING BUCKET.
APPLICATION FILED FEB. 16, 1911.

1,000,325.

Patented Aug. 8, 1911.

2 SHEETS—SHEET 1.



Witnesses

J. M. Rowley Jr.
N. Meem.

By

John C. Crenshaw
Beall & Fenwick,

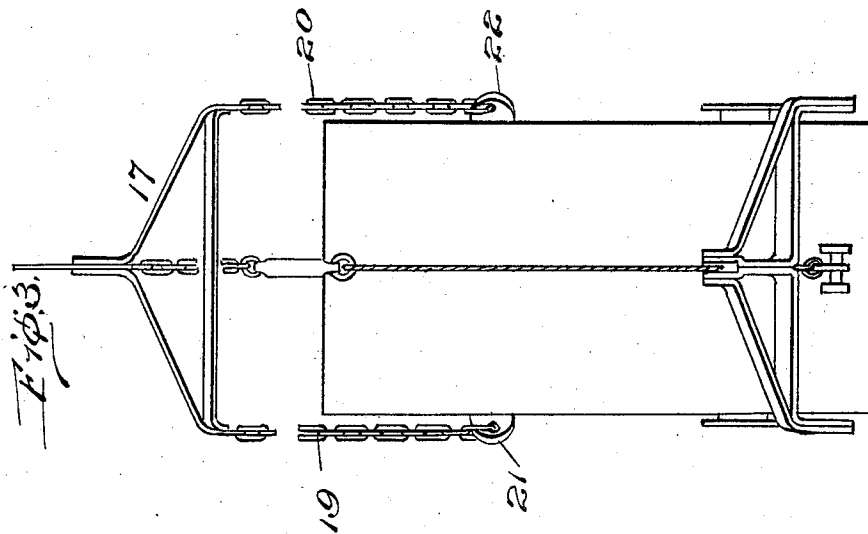
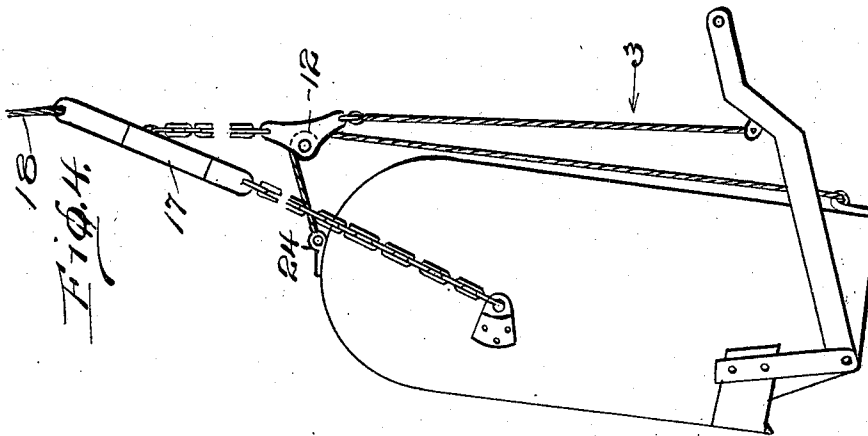
Attorneys

J. C. CRENSHAW.
EXCAVATING BUCKET.
APPLICATION FILED FEB. 16, 1911.

1,000,325.

Patented Aug. 8, 1911.

2 SHEETS—SHEET 2.



Witnesses

J. M. Fowler Jr.
N. Meem

By

John C. Crenshaw,
Beall & Thomsick.

Attorneys

UNITED STATES PATENT OFFICE.

JOHN CRITZ CRENSHAW, OF RIVERTON, ALABAMA.

EXCAVATING-BUCKET.

1,000,325.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed February 16, 1911. Serial No. 608,966.

To all whom it may concern:

Be it known that I, JOHN C. CRENSHAW, a citizen of the United States, residing at Riverton, in the county of Colbert and State of Alabama, have invented certain new and useful Improvements in Excavating-Buckets, of which the following is a specification.

This invention relates to improvements in excavating buckets, and particularly to improved dumping means therefor, and has for an object the provision of a complete, simple structure which may be quickly and easily operated for moving the bucket horizontally or for dumping the same.

A further object of the invention is the arrangement of a cable and a sheave arranged to operate thereon, in combination with the draft and lifting devices associated with the bucket, the association of the draft and lifting devices and cable and sheave being such that upon the releasing of the draft device and the upward strain upon the lifting device, the sheave will travel from one end of the cable to the other as the bucket turns under the action of gravity from a horizontal position to a vertical position.

With these and other objects in view the invention comprises certain novel constructions, combinations, and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings: Figure 1 is a side view of one embodiment of the invention. Fig. 2 is a top plan view of the structure shown in Fig. 1. Fig. 3 is a front view of the structure shown in Fig. 1, disclosed in a dumped position. Fig. 4 is a side view of the structure shown in Fig. 3.

In constructing a device embodying the invention a bucket or scoop is provided arranged with a cutting knife or front edge and a closed back, the front and top being open. This bucket is designed to be dragged along substantially horizontally for filling by a suitable draft appliance connected to the front part of the bucket. A lifting device or structure is provided for lifting the bucket vertically, the same being pivoted to the sides of the bucket back of the center of gravity, so that when there is an upward strain on the bucket and nothing to prevent the bucket from turning over the same will automatically turn by gravity so that the front end will point downward. In order to prevent the bucket from turning over means are provided for connecting the lift-

ing device and draft device associated with a sheave and cable, the sheave being connected with means connecting the lifting device and draft device, while the cable is connected with the front and rear of the bucket. This structure causes the draft device to hold the bucket in a horizontal position even if the bucket is being transported through the air, provided the draft device is held somewhat under tension, but immediately that the draft device is released the front end of the bucket will turn so as to point downward, and consequently automatically dump the contents.

In order that the invention may be more clearly understood an embodiment of the same is shown in the accompanying drawings, in which—

1 indicates a bucket formed with side members, and 2 represents the rear end. The side members and end member are preferably formed from sheet metal so as to provide a strong structure designed to hold any desired material usually handled in excavating. Rigidly secured to the front end of the bottom, and also to the front end of the sides, is a knife member 3. Connected with the knife member 3 are brackets or arms 4 and 5 to which are pivotally secured a front draft member or yoke 6. The yoke 6 has connected therewith a cable 7 of any desired kind which may be operated by any desired means (not shown) for moving bucket 1 horizontally, and for preventing the bucket from dumping.

A suitable bracket 8 is bolted or riveted as preferred to the front part of the yoke 6, to which is secured a balancing cable 9. Cable 9 is also secured at 10 to a sheave housing 11 which has its wheel or pulley 12 mounted so as to accommodate cable 13. Sheave 11 is also connected at point 14 to a balancing chain 15 connected at 16 with a lifting yoke 17. The lifting yoke 17 has connected therewith a lifting cable 18 which is operated by any desired means for lifting and moving the bucket 1 to any desired point previous to dumping. The yoke 17 is provided with chains 19 and 20 which carry ears 21 and 22 at their lower ends. The ears 21 and 22 are riveted or otherwise rigidly secured to the sides of bucket 1 at a point rear of the center of gravity of the bucket, and preferably below the central longitudinal line drawn through the bucket. By locating the ears 21 and 22 as set forth the

bucket 1 will automatically dump by gravity when not held in a horizontal or other position.

Cable 13 is connected with bracket 23 at one end, and with bracket 24 at the opposite end. Bracket 23 is rigidly secured to a cross supporting bar 25 which in turn is rigidly secured by rivets or otherwise to the front end of the sides of bucket 1, and bracket 24 is rigidly secured to the rear end 2 of the bucket. Brackets 23 and 24 are both arranged centrally between the sides of the bucket so that cable 13 will extend longitudinally over the top of the bucket. Preferably cable 13 is made longer than would be necessary to extend from bracket 23 to bracket 24, so as to allow a certain loose motion and freer action of the sheave housing 11, and especially for accommodating the pulley 12 of the sheave, as shown in Fig. 4, for limiting the swinging movement of the bucket so that the bucket will point substantially downward when in a complete dumped position.

What I claim is:

1. In a device of the character described, a bucket, a draft mechanism, a lifting mechanism connected with the bucket back of the center of gravity, a balancing cable connected to the bucket and extending from the front to the rear thereof, and a plurality of means for connecting said cable with said draft mechanism for causing said draft mechanism to control the dumping of the bucket.

2. In a device of the character described, a bucket, a draft member, a lifting member, means for connecting said draft member and said lifting member, a cable connected to said bucket at the top thereof, and extending from the front to the rear of the bucket and centrally thereof, and a sheave structure connecting said cable and the means which connect the draft member and lifting member, said sheave structure being arranged to travel along said cable when said draft member has been released from tension for permitting the bucket to dump.

3. In a device of the character described, a bucket, a cable positioned on top of said bucket and connected to each end of said bucket, lifting means connected with said bucket, and draft means connected with said bucket and with said cable for controlling the longitudinal movement of the bucket and the dumping of the bucket.

4. In a device of the character described, a bucket, a cable arranged with one end se-

cured at the back of the bucket and the opposite end secured at the front of the bucket, a lifting member pivotally connected with said bucket at the rear of the center of gravity of the bucket, a draft member, a cable structure connecting said draft member and said lifting member, and a sheave connected with said cable structure arranged so that the pulley thereon will ride on the cable connected with said bucket, whereby power is transmitted from said draft member to said cable, for holding the bucket horizontal when the draft member is under tension, and permitting the bucket to move to a dumped position under the action of gravity when the draft member is released.

5. In a device of the character described, a bucket, a cable stretched across the top of the bucket and secured to the bucket at each end thereof, a sheave arranged so that the pulley thereon will engage said cable and support one end of the bucket when the same is not in a dumped position, a lifting member pivotally connected with said bucket at the rear of the center of gravity of the bucket, a draft appliance connected at the front of the bucket, and means connecting said draft appliance and said sheave whereby said sheave is held near the front of the bucket when the draft appliance is under tension, said sheave being adapted to travel along said cable to the rear of the bucket when said draft appliance is released and the weight of the bucket rests entirely on the lifting member, whereby the bucket will turn to a dumped position.

6. In a device of the character described, an excavating bucket, a cable arranged to extend across the top and center of the bucket and secured to the bucket at each end thereof, a sheave with its pulley engaging said cable, sheave controlling means, a lifting member pivotally connected with said bucket to the rear of the center of gravity, and a draft appliance pivotally connected with said bucket and connected with said sheave controlling means for holding the sheave near the front of the bucket when the bucket is in a horizontal position, and permitting the sheave to travel to the rear of the bucket when the bucket moves to a dumped position.

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

JOHN CRITZ CRENSHAW.

Witnesses:

W. M. BUCHANAN,
THOMAS F. NARE.