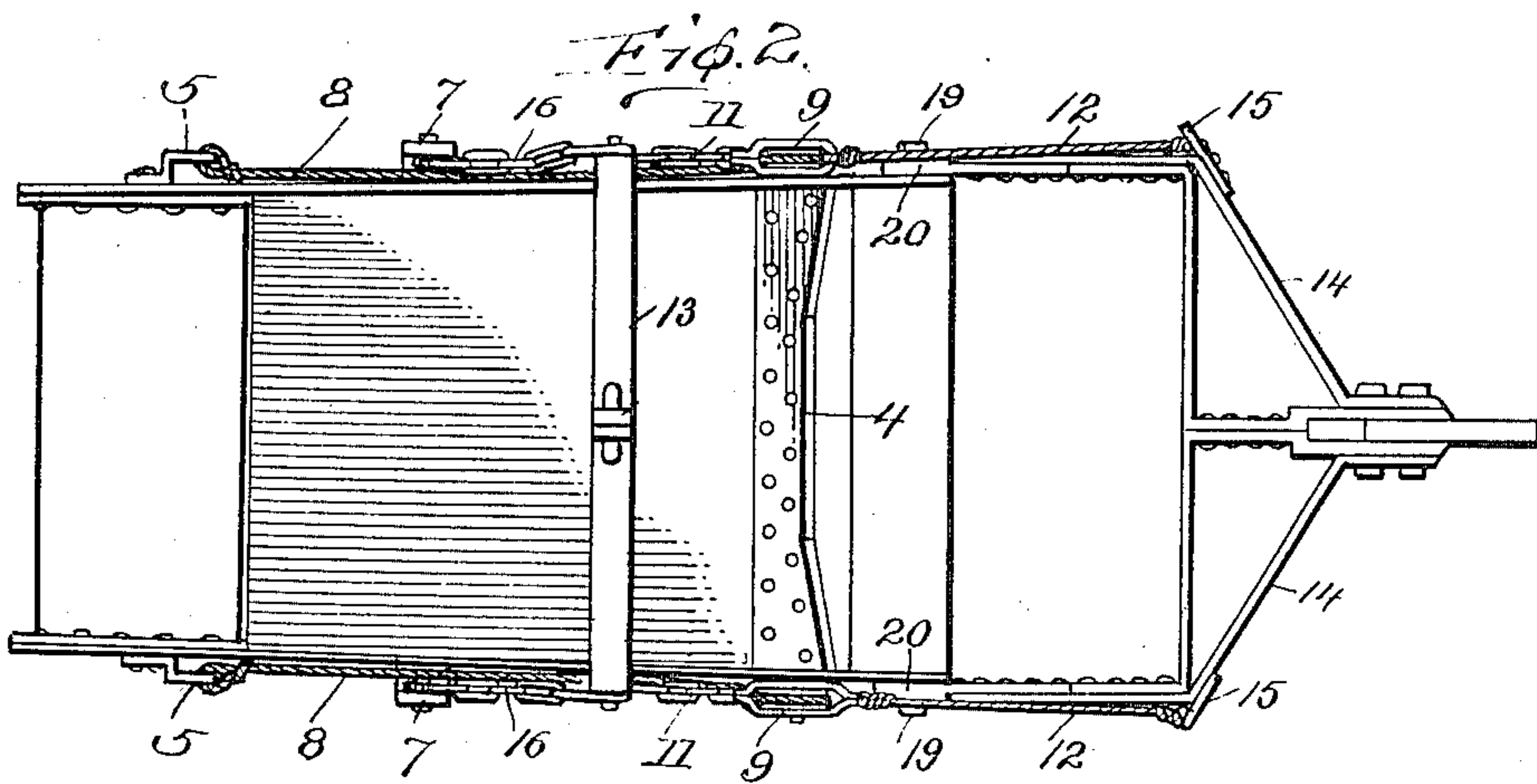
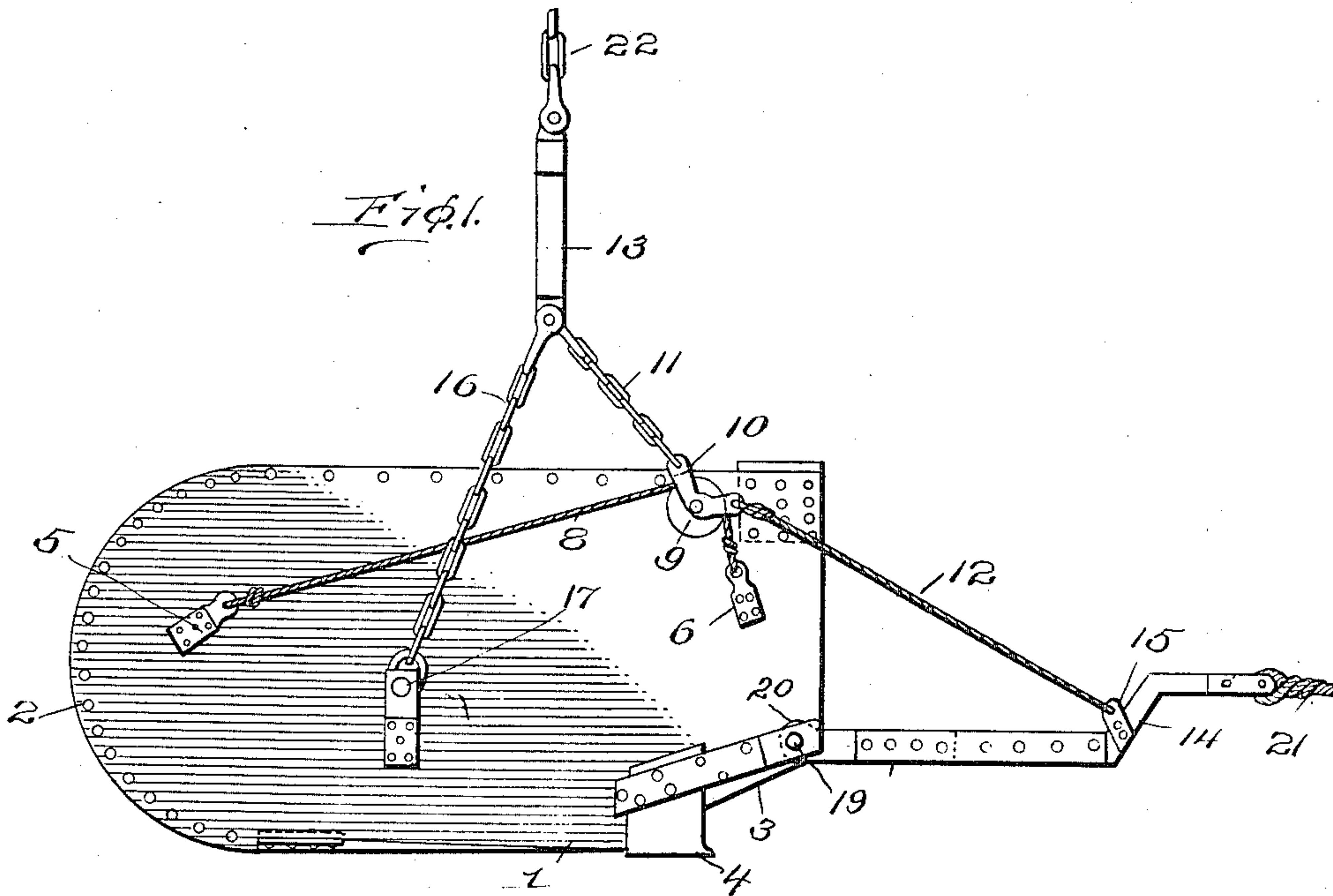


J. C. CRENSHAW.
EXCAVATING BUCKET.
APPLICATION FILED OCT. 29, 1909.

966,313.

Patented Aug. 2, 1910.

2 SHEETS—SHEET 1.



Witnesses
J. M. Fowler Jr.
A. H. Kitchen

By

Inventor
John C. Crenshaw
Beall & Thumick
his

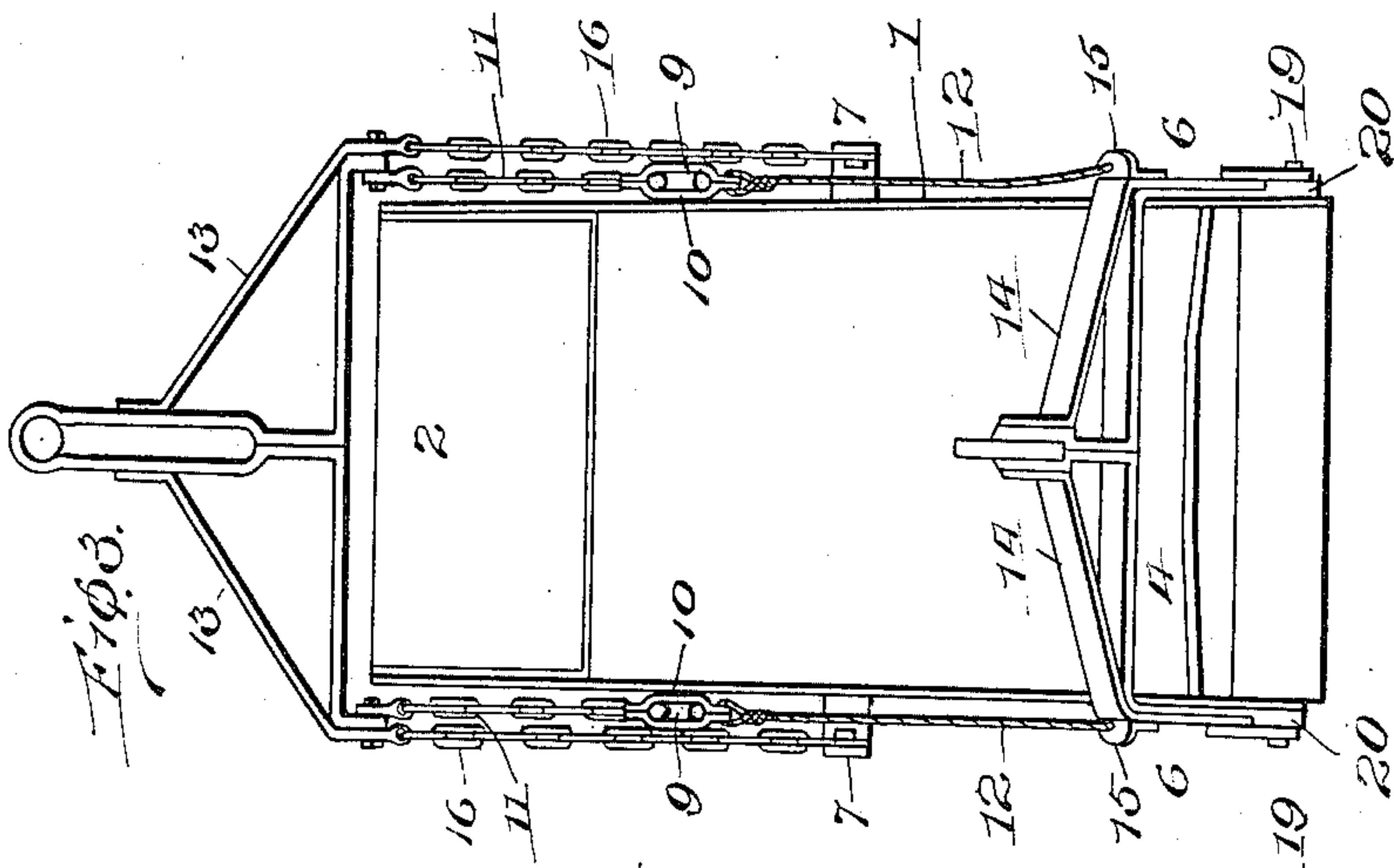
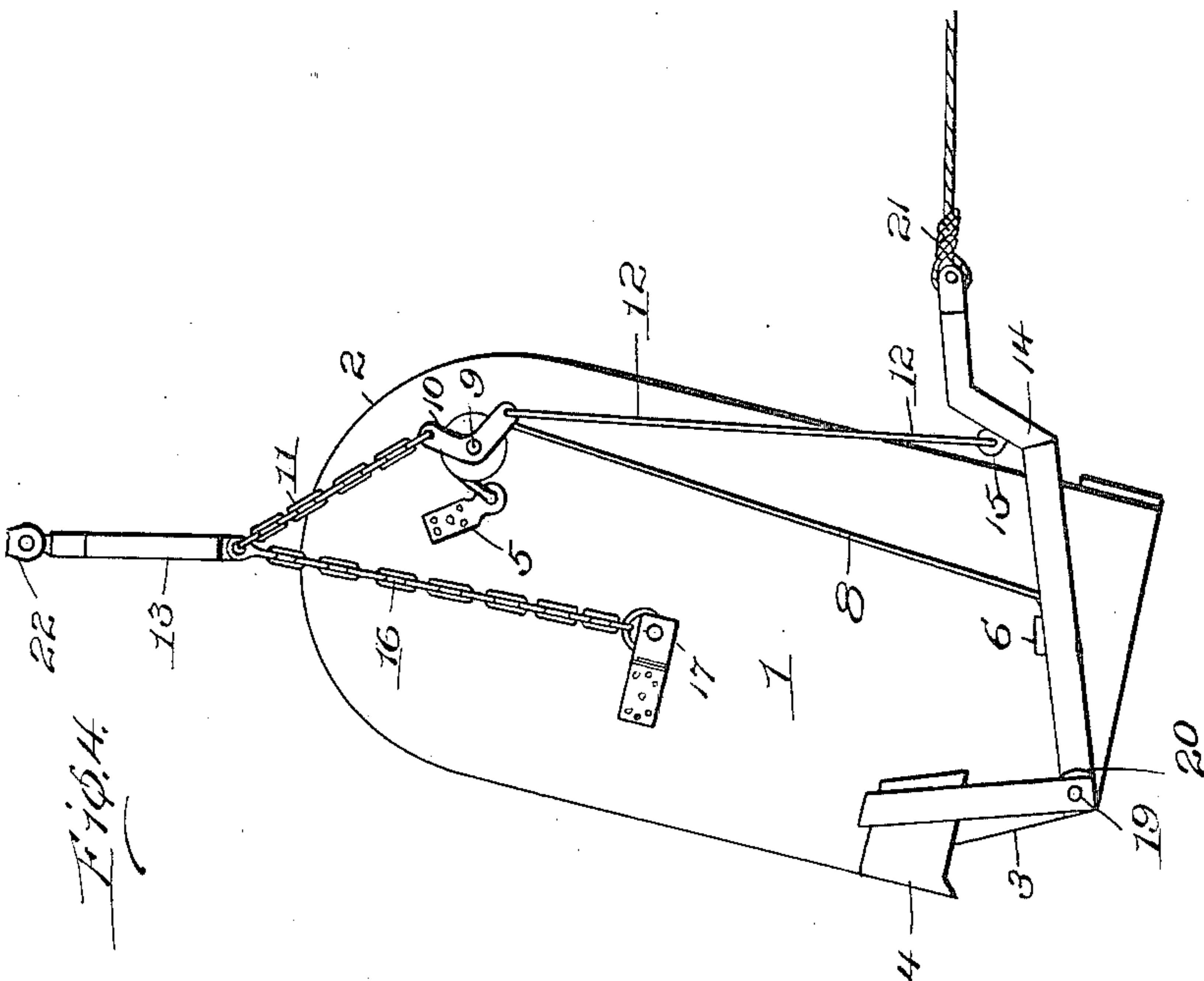
Attorneys

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Inventor

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J. M. Fowler Jr.
W. L. Kitchen

John C. Crenshaw
By Beall & Fenwick
his Attorneys

UNITED STATES PATENT OFFICE.

JOHN CRITY CRENSHAW, OF AUGUSTA, GEORGIA.

EXCAVATING-BUCKET.

966,313.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed October 29, 1909. Serial No. 525,320.

To all whom it may concern:

Be it known that I, JOHN CRITY CRENSHAW, a citizen of the United States, residing at Augusta, in the county of Richmond and State of Georgia, 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 a bucket of the variety set forth in my co-pending application, filed the 19th day of June, 1909, Serial Number 503,210, and has for an object the arrangement of simplified means for correctly dumping the bucket whenever desired.

Another object in view is the arrangement in an excavating bucket, of a lifting bail provided with a plurality of means for connecting the same to a bucket, said means including a pulley on each side of the bucket, and a supporting cable connected to the bucket engaging the pulley, which permits the bucket to be held in a substantially horizontal position when the draft cable is slackened.

Another object in view is the arrangement in an excavating bucket of a draft bail and lifting bail, together with a supporting cable designed to engage means which connect the lifting bail with the draft bail, whereby the bucket is held in a substantially horizontal position when the draft bail is taut, and permitted to dump when the draft bail is slackened.

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 elevation of an 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 bucket shown in a dumped position. Fig. 4 is a side elevation of the structure shown in Fig. 3.

Among the principal objects aimed to be accomplished in constructing a bucket embodying the invention is the provision of simple means which will not readily get out of order, but will effectually operate for dumping the bucket at the desired time, and which will prevent such dumping until the

desired time. In constructing a bucket of this character a housing or bucket is provided to which are secured brackets on each side connected by a cable which is slightly longer than a direct line between the brackets. Also positioned on each of the sides is what might be termed a lifting bracket or ear to each of which is secured a chain that extends upward and is secured to a lifting bail. To the lifting bail is secured a second pair of chains which extend downward and have connected therewith at their lower ends pulleys which engage the respective cables, on each side of the bucket. Extending from the pulleys are cables which are connected with a draft bail so that when the draft bail is held against movement by the draft cable the pulleys are also held against movement, and the lifting bail may lift the bucket and move the same as may be desired. When the bucket has reached any selected point and it is desired to dump the bucket the draft cable is released and the weight of the material in the bucket permitted to overbalance the bucket for dumping the same. As the bucket is overbalanced the pulleys will move along the cables upon which they are mounted, and take a position near the rear of the bucket for assisting in supporting the bucket while the same is pointing downward, the draft bail also moving to a position opposite the top of the bucket so that the material being dumped can freely pass out the front.

In order that the invention may be more clearly understood, an embodiment of the same is shown in the accompanying drawings, in which 1 is the housing of the bucket which is preferably formed by a blank, provided with suitable perforations for securing rivets or bolts. The rear of the bucket is formed rounded at 2 and receives a suitable back of any desired kind which is preferably secured to the sides and bottom. The bucket is cut away at 3 in order to permit the excavating bit or knife 4 to be set back a short distance from the front of the bucket.

Secured to each side of the bucket are brackets or ears 5, 6 and 7. Connecting brackets 5 and 6 on each side of the bucket are cables 8 which are longer than a direct line between the ears, so that when brought under tension the cable is raised above the

brackets, except at the connecting points therewith, as clearly shown in Fig. 1. The cables 8 are designed to accommodate pulleys 9 which are mounted in suitable supporting members 10. Supporting members 10 are connected to chains 11 and cables 12. Chains 11 are pivotally connected with bail 13 and cables 12 are secured to draft bail 14 by suitable ears or brackets 15. Connected with bail 13 are chains 16, on each side of the bucket, which extend downward to ears or brackets 7, and pivotally engage pins 17. Brackets or ears 7 are set slightly toward the rear of the bucket so that when chains 11 are released and all the weight of the bucket rests upon chains 16 the bucket will automatically dump, and the pulleys 9 will automatically move to the rear of the cables 8 as more clearly shown in Fig. 3.

Secured to the front of the bucket near the cut-away portion 3 are brackets 18 through which extend pivotal pins 19. Pivotal pins 19 extend through brackets 18, a pivotal extension 20 of bail 14, and through the sides of the bucket. Bail 14 has connected therewith a cable 21 of any desired kind, which acts as a draft cable for pulling the bucket longitudinally, and bail 13 has connected therewith a chain or cable 22 for acting as a lifting cable.

When it is desired to fill the bucket the same is lowered to any desired place, and then draft cable 21 pulled and when the bucket is thus dragged along the earth, member 4 engages the earth and scoops up sufficient thereof for filling the bucket. After the bucket has been filled the cable 21 is held stationary and the lifting bail 13 is raised and the bucket is then moved to any desired place for dumping, cable 21 being held taut. When the bucket has reached its dumping place cable 21 is loosened which will permit pulleys 9 to travel along cables 8 toward the rear, and also throw the entire weight on ears 7. This will overbalance the bucket, and cause the same to automatically turn until the front is pointing downward.

What I claim is:

1. In a device of the character described, the combination with an excavating bucket, of ears secured to said bucket at the rear of its center of gravity, a supporting member, flexible means connecting said supporting member and said ears, hauling mechanism secured to the excavating bucket at the front of its center of gravity, means for connecting the supporting member and hauling mechanism, and a cable secured to the bucket engaging said means for causing the bucket to remain in an upright position during the time the hauling mechanism is under tension.

2. In a device of the character described, the combination with an excavating bucket,

of a supporting member secured to the excavating bucket at the rear of its center of gravity, a hauling mechanism connected with the excavating bucket at the front of its center of gravity, means, including a pulley, connecting the supporting member and the hauling mechanism, and a cable secured at its ends to said excavating bucket arranged to travel over said pulley for assisting in counter-balancing the bucket when tension is on the hauling mechanism.

3. In a device of the character described, the combination with an excavating bucket, of a supporting member, ears secured to said bucket at the rear of the center of gravity of the bucket, a flexible member connecting said supporting member and said ears, a draft member pivotally connected with said excavating bucket at the front of the center of gravity, a flexible member connecting the supporting member and the draft appliance, a cable secured to said bucket near the ends thereof, and an anti-friction member mounted on the means connecting the supporting member and the draft appliance and engaging said cable for causing the bucket to remain in an upright position during the time the draft appliance is under tension.

4. In an excavating bucket, a housing, a draft bail pivotally secured to the front of said housing, a cable on each side of said bucket secured thereto near the ends thereof, an elevating bail, a chain connecting said elevating bail and said housing back of the center of gravity, a second chain on each side of said housing extending from said bail, anti-friction means connected with said second chains and engaging said cables for conveying motion from said second mentioned chains to the front of said housing, and means connecting said anti-friction means and said draft bail for preventing said anti-friction means from moving to the rear of said housing, except when the draft bail is released.

5. In an excavating bucket, a housing, a draft bail, an elevating bail, a pair of chains projecting from said elevating bail on each side of said bucket, means for securing one of said chains on each side of said bucket to said housing nearer the rear end than the front end, a pulley connected to each of the other chains, a cable secured to each side of said bucket and passing over said pulleys, and means connecting each of said pulleys and said draft bail for normally preventing said pulleys from moving to the rear of said cables.

6. In an excavating bucket, a housing, a draft bail, an elevating bail, a comparatively long chain secured to said elevating bail on each side of said bucket, means for connecting the opposite ends of said chain to said bucket, a comparatively short chain extending from said elevating bail on each

side of said bucket, a pulley connected with
each of said short chains, a cable connected
with said pulley and with said draft bail
for holding said pulley near the front of the
5 bucket while the draft bail is under tension,
and a cable on each side of said bucket se-
cured to the bucket near each end thereof
and passing over the pulley, said pulley and

said cable providing a shifting support for
said short chains.

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

JOHN CRITY CRENSHAW.

Witnesses:

THOMAS F. NAVE,
W. M. BUCHANAN.