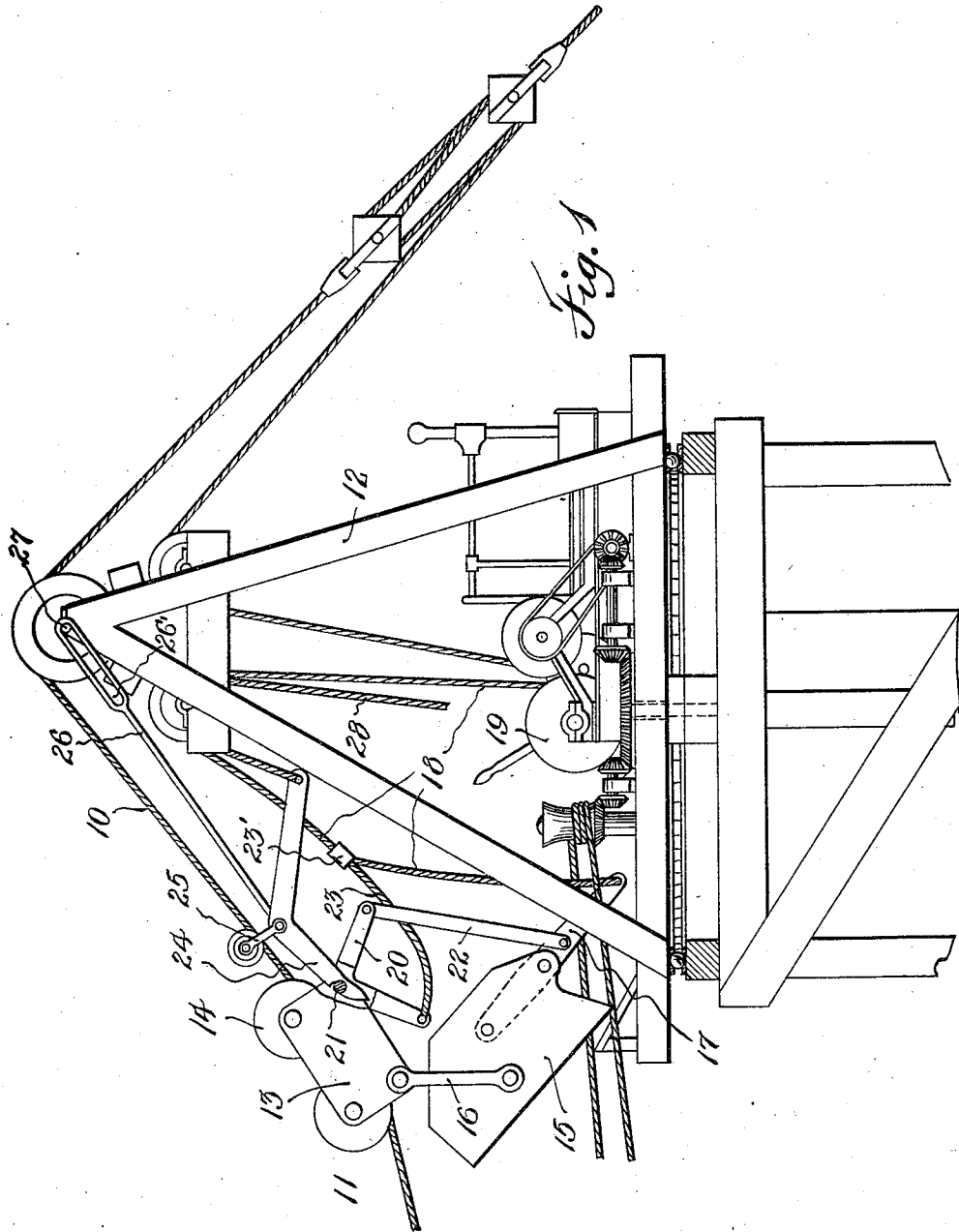


A. D. HADSEL.
EXCAVATOR.
APPLICATION FILED DEC. 5, 1911.

1,046,180.

Patented Dec. 3, 1912.

2 SHEETS—SHEET 1.



WITNESSES

G. W. Kirkley

Olive Malone

INVENTOR

A. D. Hadsel

BY

Geo. L. Beeler

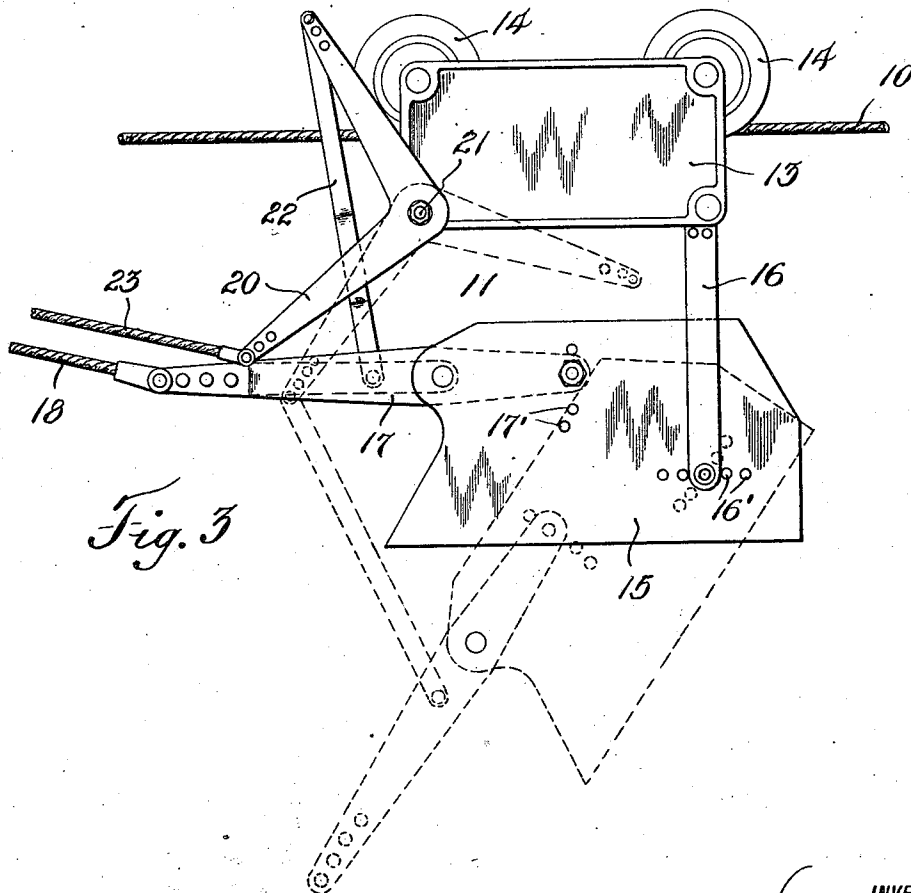
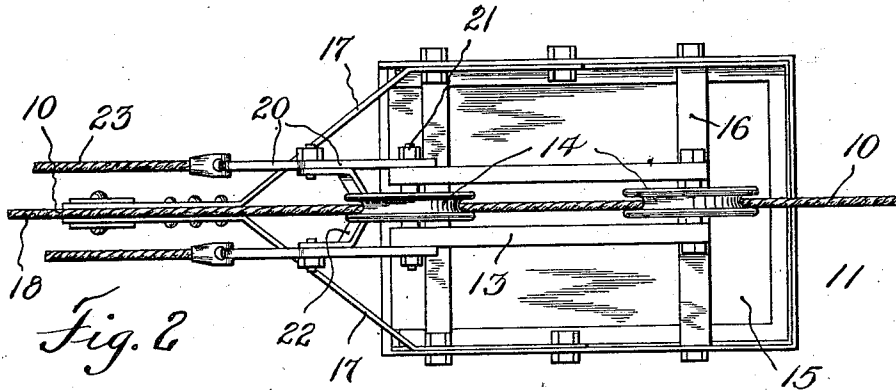
ATTORNEY

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EXCAVATOR CO., OF PHILADELPHIA, PENNSYLVANIA.

EXCAVATOR.

1,046,180.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Original application filed September 5, 1911, Serial No. 647,660. Divided and this application filed December 5, 1911. Serial No. 663,980.

To all whom it may concern:

Be it known that I, ALVAH D. HADSEL, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Excavators, of which the following is a specification.

This invention relates to excavators adapted for operation particularly by distant power, although it is to be understood that certain features thereof are capable of broad practical application.

As shown in the drawings, wherein similar parts are designated on the several figures by like reference characters, the improvement is mounted for use upon a slack cable construction shown and particularly claimed in my co-pending application S. N. 647,660, filed Sept. 5, 1911, of which application this is a division.

Figure 1 is an elevation of the upper portion of a turntable support and the excavator in proximity thereto in dumping position; Fig. 2 is a plan view of the excavator, and Fig. 3 is a side view of the same.

In the drawings 10 indicates a cable way over or along which the conveyer or excavator 11 may operate, such way being merely suggestive of any number of modifications in practice. In the form shown said way is supported upon a tower 12 at or adjacent to which the material conveyed may be dumped.

The excavator comprises a carriage 13 with wheels 14 rolling upon the cable way 10 and a scoop 15 pivotally connected by links 16 to the rear end of the carriage through holes 16'. The scoop has one or more draft arms 17 adjustably connected thereto through holes 17' and to which the draft cable 18 is attached and operated from a power drum 19 located at any convenient place.

A pair of bell cranks 20 are pivoted on a bolt or pin 21 extending across the front part of the carriage below the aforesaid cable way. The upper or forward ends of the bell cranks are connected by bars 22 to the front part of the scoop, as at the draft

arms 17. To the other or lower ends of the bell cranks are connected a pair of auxiliary draft cables 23 secured to the main draft cable 18 at 23' any convenient distance from the scoop. When the draft cable is slackened the bell cranks rotate around the pin 21, permitting the scoop to tilt downward in front to discharge its load and yet remain pivotally suspended by the links 16.

In order to hold the carriage stationary while the scoop is being emptied I provide as one form of suitable means a hook 24 adapted to engage over the pin 21, the hook being a part of a lever or bell crank pivoted on a trolley 25 movable along the main cable way as far as permitted by a slotted bar 26 connected at 27 at the top of the tower. The slot 26' may be of any desired length so as to permit the trolley 25 to shift temporarily due to the impact of the carriage. A pull downward upon the cord 28 will cause the hook 24 to be disengaged from the pin 21 to permit the excavator to be re-turned for another charge.

I claim:

1. In an excavator, the combination of a way, a carriage movable thereon, a scoop having pivoted link connection to the carriage, draft means connected to the scoop, bell cranks pivoted to the carriage, and means to cause the bell cranks and scoop to operate in unison through said draft means.

2. The combination of a way, a carriage movable thereon, a scoop pivotally connected to the rear end of the carriage, bell cranks pivoted to the front end of the carriage, bars extending from one end of the bell cranks to the front part of the scoop, and draft means connected to the scoop and to the other end of the bell cranks.

3. An excavator carriage, a scoop attached to one end of the carriage, a bell crank pivoted to the other end of the carriage, a bar extending from one end of the bell crank to the scoop, and a single draft means having connection with the scoop and the other end of said bell crank.

4. In an excavator, the combination of a way, a carriage movable thereon and having a cross pin, a scoop pivotally connected to

the carriage, a bell crank pivoted on said
pin and connected to the scoop, draft means
connected to the bell crank and the scoop,
and means adjacent one end of the way to
5 control the operation of the carriage along
the way with respect to the dumping of
the scoop.

In testimony whereof I have hereunto
affixed my signature in the presence of two
subscribing witnesses.

ALVAH D. HADSEL.

Witnesses:

CHARLES SINKLER,
G. L. BEELER.

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