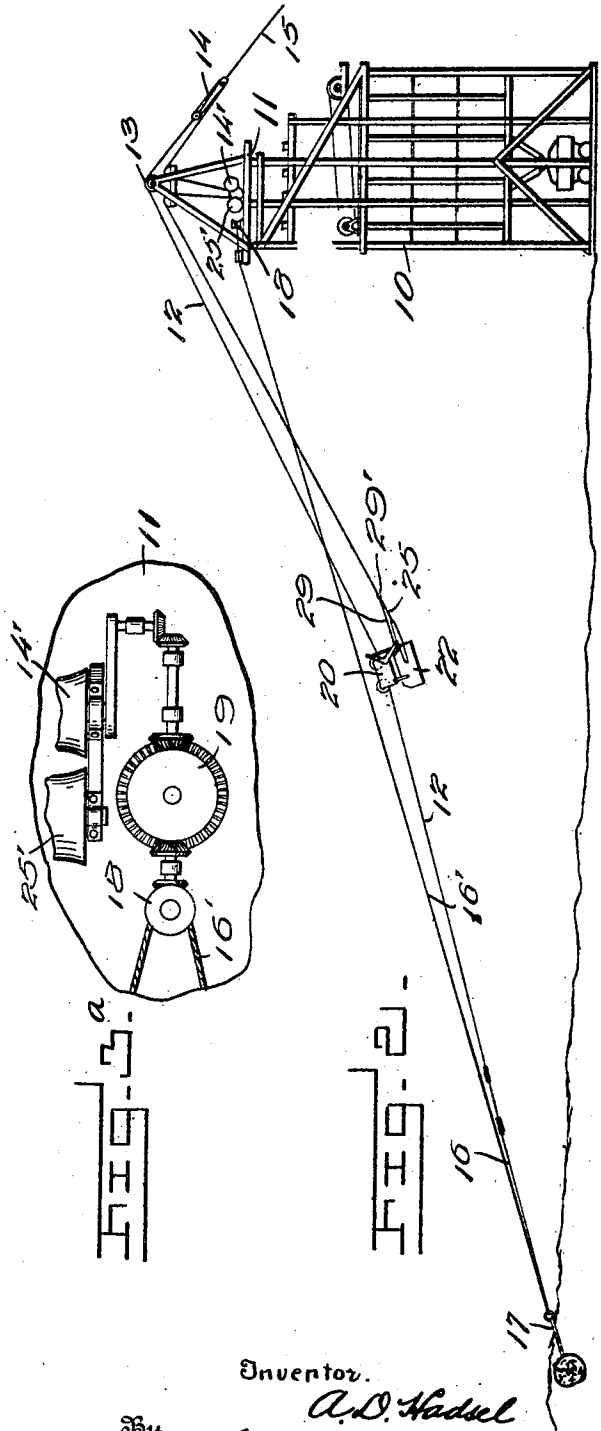


APPLICATION FILED SEPT. 5, 1911.

3 SHEETS—SHEET 1.



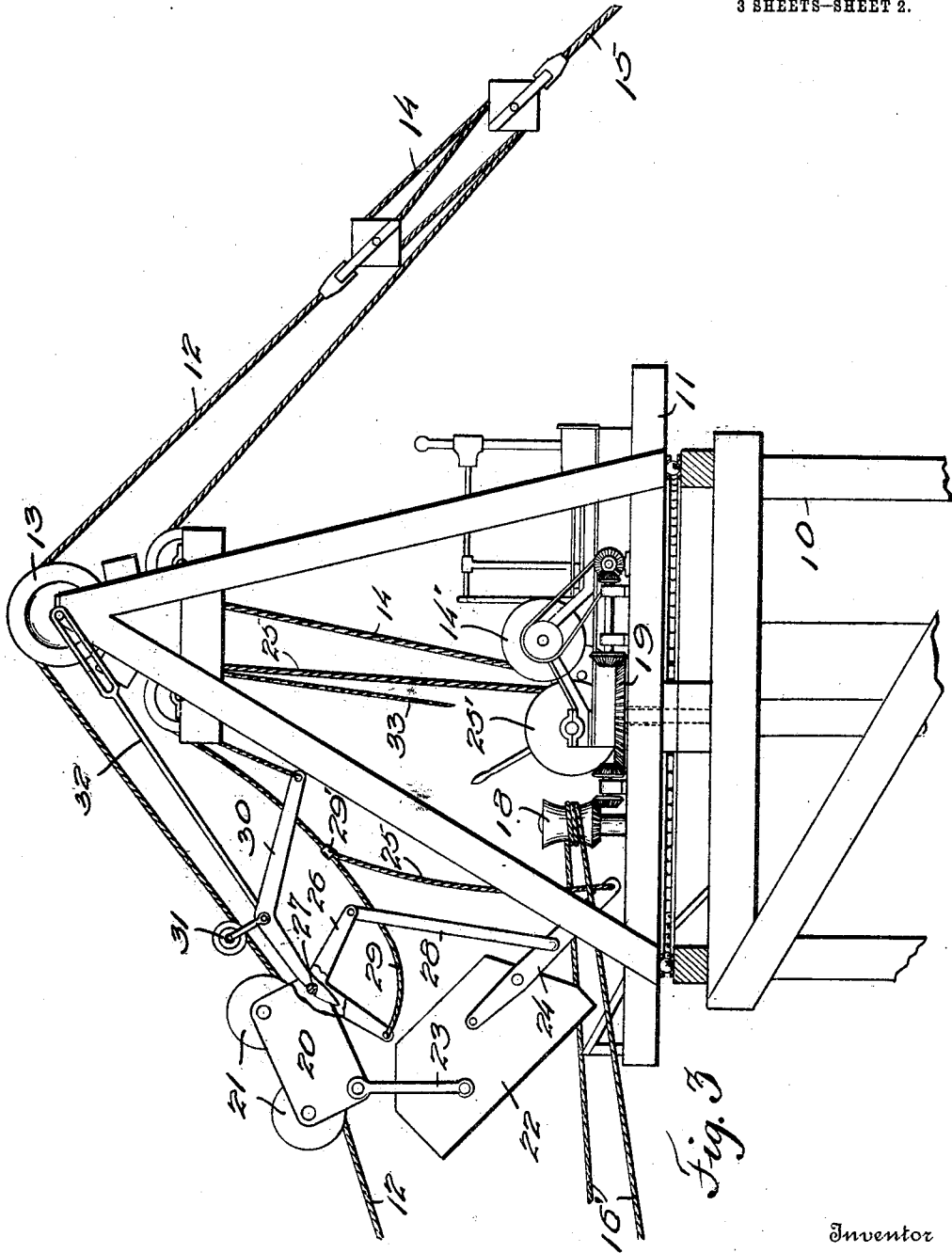
Attorney

A. D. HADSEL.  
SLACK CABLE EXCAVATOR.  
APPLICATION FILED SEPT. 5, 1911.

1,045,973.

Patented Dec. 3, 1912.

3 SHEETS—SHEET 2.



Witnesses  
*L. R. Pennington*  
C. R. Hampton

By

*Geo. L. Beeler*  
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Inventor

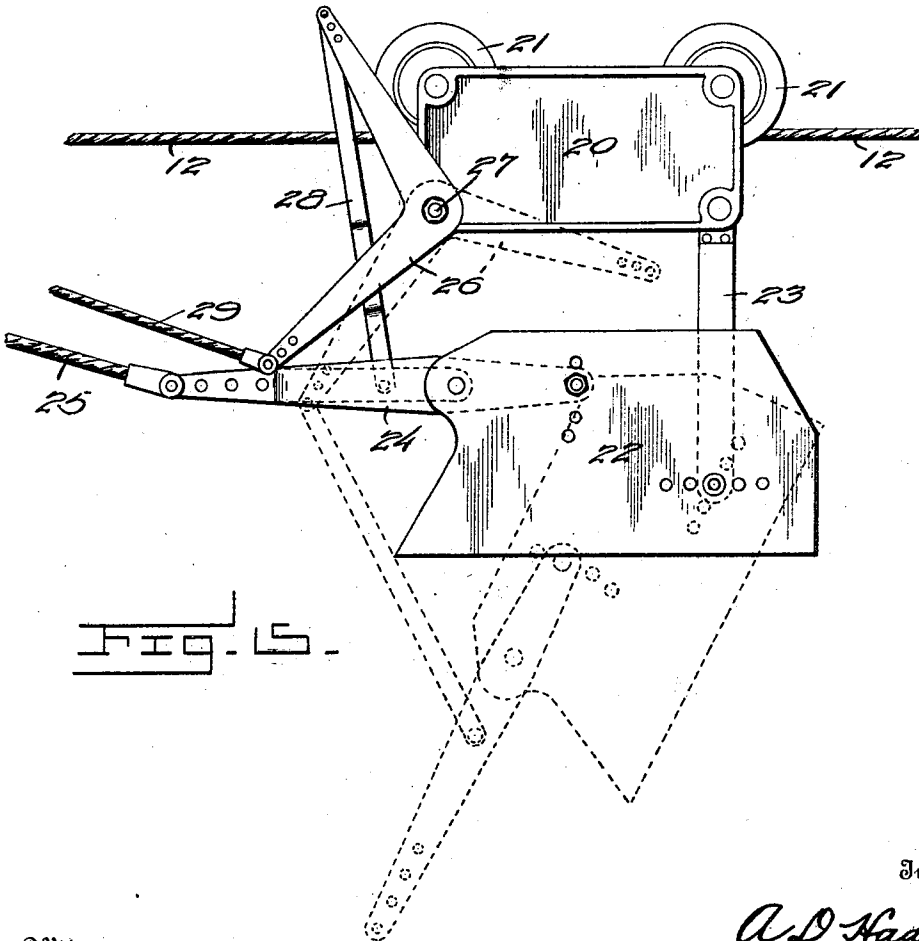
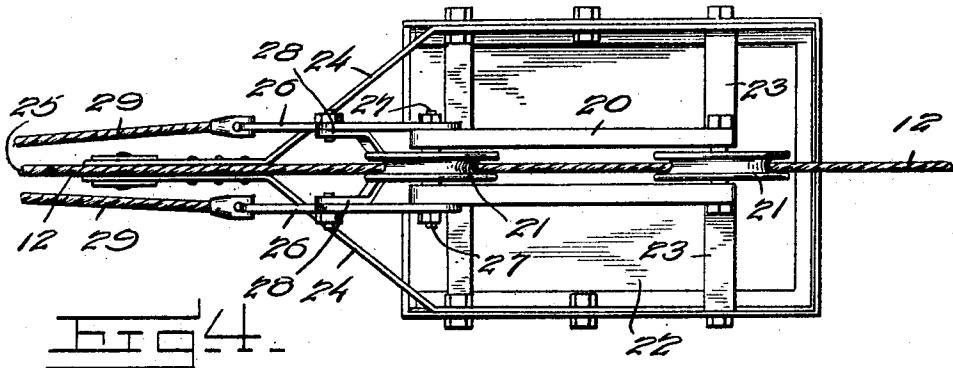
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3 SHEETS—SHEET 3.



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SLACK-CABLE EXCAVATOR.

Specification of Letters Patent.

Patented Dec. 3, 1912.

1,045,973.

Application filed September 5, 1911. Serial No. 647,660.

To all whom it may concern:

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 Slack-Cable Excavators, of which the following is a specification.

lowing is a specification.  
This invention relates to distant power  
10 excavators of that type in which the scoop  
or conveyer is movable along or upon a  
cable way, composed of one or more cables,  
the cable way being so arranged as to be  
adapted to be slackened to permit the scoop  
15 to engage the earth for digging and filling,  
and to be tightened to cause the conveyer to be  
operated free from the earth during trans-  
portation in either direction.

The invention comprises certain details of  
20 construction hereinafter fully described and  
claimed, and illustrated in the accompany-  
ing drawings, in which—

Figure 1 is a diagrammatic plan view representing the general arrangement of the cable way and supporting and operating devices therefor; Fig. 2 is an elevation corresponding to Fig. 1; Fig. 3 is a view of the turntable support, showing the scoop in the dumping position; Fig. 3<sup>a</sup> is a detail of the adjusting mechanism; Fig. 4 is a plan view of the turntable support, showing the scoop in the dumping position.

11. The following information is being furnished to you for your information only. It is not intended to be used for any other purpose.

1. La B. O. S. è un'isola di terra e acqua, di cui si dice che è di forma  
 2. e che è di forma di un'isola di terra e acqua, di cui si dice che è di forma  
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The degree of abstraction of the content of  
 the material is a function of the degree of abstraction  
 of the material.

way is adjustable laterally. The anchorage 55 means 16 for this end of the way includes flexible connections 16' leading to deadmen 17 or otherwise suitably secured to the earth on opposite sides of the ditch, said connections being adapted to be respectively paid 60 out and taken in by any suitable means, but herein shown as extending to the turntable support and frictionally or otherwise connected to a winch 18 under the immediate control of the operator upon the turntable and whereby a rotation of the winch 65 in either direction will effect a corresponding lateral adjustment of the anchorage means 16 and cable way 12. The turntable may rotate automatically to compensate for 70 such lateral adjustment of the way, or it may be rotated positively by any suitable power devices, but I prefer to gear the winch 18 to the turntable as indicated at 19, to cause simultaneous lateral movements there- 75 of.

of. The conveyer is illustrated as comprising a carriage 20 having wheels 21 rolling upon the cable way 12 and a scoop 22 pivotally connected by links 23 to the rear end of the carriage. The scoop has one or more draft arms 24 to which the main draft cable 25 is attached, the same being operated from any suitably located power drum 23'. A pair of bell cranks 26 are pivoted on a center 85

upon the pull rope 33 attached to an extension of the hook as shown.

The cable 12 on which the conveyer trolley 20 operates toward or from the tower is adapted to be supported on the tower end through the cable 14 and drum 14' whereby said cable may be tightened or allowed to be slack enough to permit the conveyer to roll away from the tower to the point of excavation. While the cable way then remains slack, power applied to the draft rope 25 through another drum 25' will cause the scoop 22 to be filled with earth. After the scoop is filled, the draft upon the cable 25 will be continued and in connection therewith the cable 12 will be tightened to cause the scoop to be lifted free from the earth, whereby it will be drawn along the cable way to the dumping point, where the dumping will be effected in the manner above described.

From what has been set forth above it will be understood that the turntable is intended to be rotated through a comparatively slight angle or in proportion to the lateral adjustment of the way 12, whereby the excavator proper may be caused to dig a canal or ditch of considerable width, depending upon the distance apart of the deadmen 17 and the arrangement of the anchorage means 16. By the aforesaid slight rotation of the turntable it will be practically assured that when the rear or lower end of the way 12 is adjusted to one side of the center line of the ditch, the tower end thereof

will bear a proper relation to the turntable and the tower mechanism.

I claim:

1. In a cable excavator, the combination of a cable way, a turntable supporting one end thereof, anchorage means for the opposite end of the cable way, means to secure the anchorage means to the earth at a distance from the turntable, and means operative from the turntable to effect lateral adjustment of said anchorage means.

2. In a cable excavator, the combination of a cable way, a turntable to support one end of the way, anchorage means for the other end of the way, deadmen securing the anchorage means to the earth on opposite sides of the ditch, and means for effecting lateral adjustment of the anchorage means simultaneously with the rotation of the turntable.

3. In a cable excavator, the combination of a cable way, a turntable to support one end of the way, anchorage means for the other end of the way securing the same to the earth, and means on the turntable operative to simultaneously rotate the turntable and effect a corresponding degree of lateral adjustment of said anchorage means.

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

ALVAH D. HADSELL.

Witnesses:

O. W. LAWRENCE,  
J. C. LAWRENCE.