J. E. REDMOND.

EXCAVATING APPARATUS.

APPLICATION FILED AUG. 12, 1912.

1,066,655.

Patented July 8, 1913.

2 SHEETS—SHEET 1.

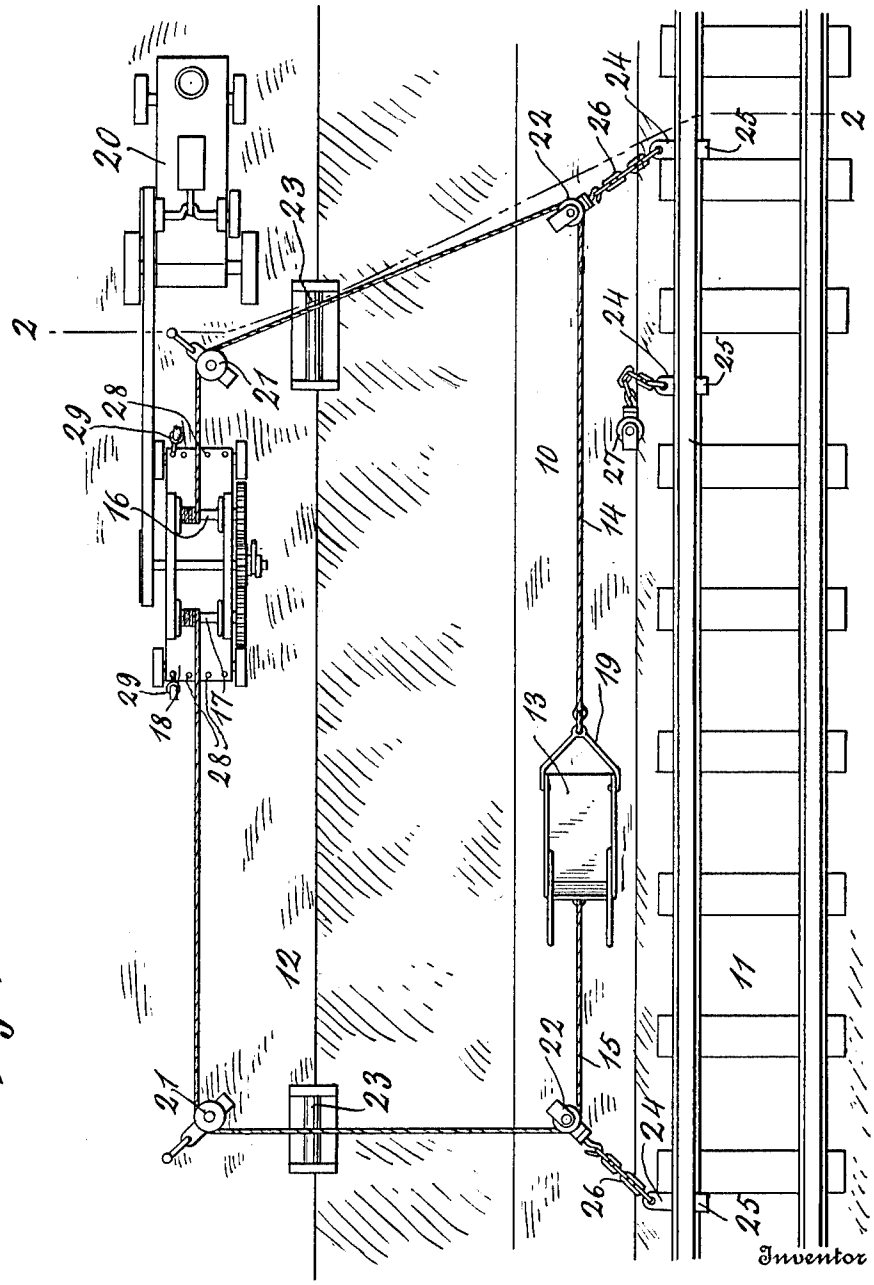


Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

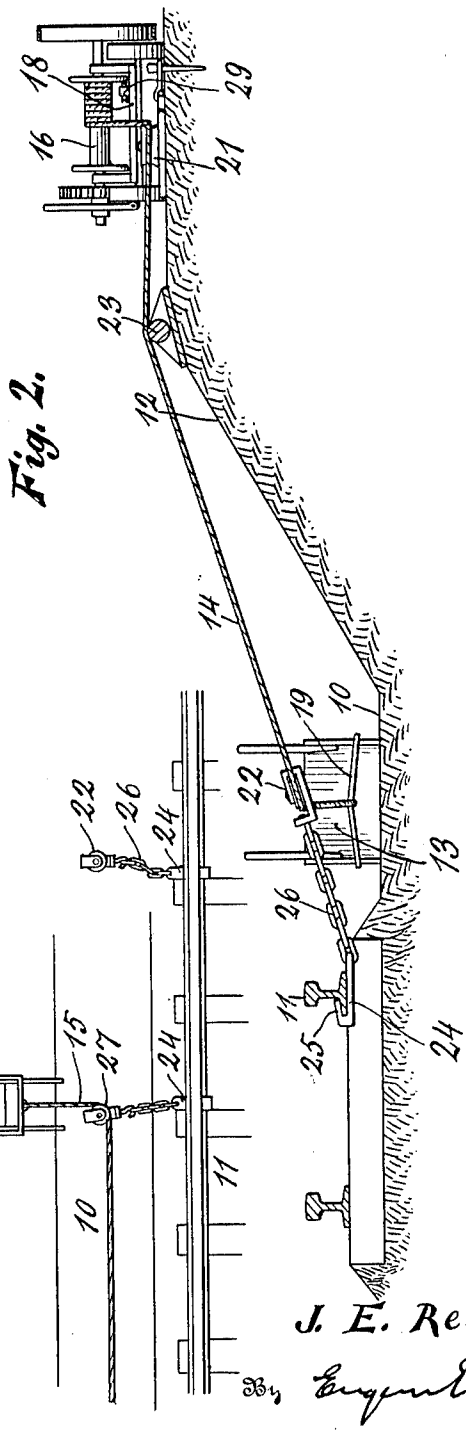
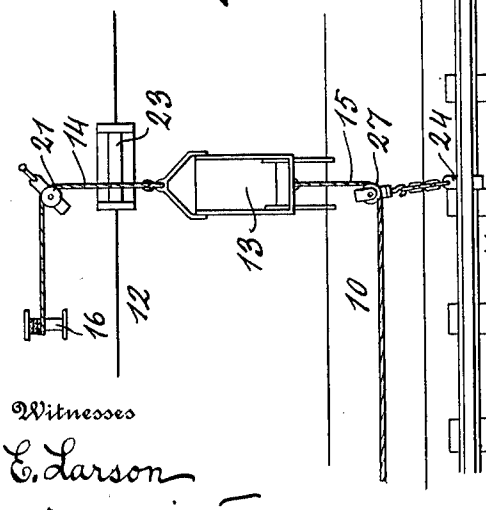


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES E. REDMOND, OF CRANDALL, GEORGIA, ASSIGNOR OF ONE-FOURTH TO ELDRIDGE L. BATES, OF CRANDALL, GEORGIA, AND ONE-FOURTH TO JUDGE J. BATES, OF ETOWAH, TENNESSEE.

EXCAVATING APPARATUS.

1,066,655. Specification of Letters Patent. Patented July 8, 1913.

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To all whom it may concern:

Be it known that I, JAMES E. REDMOND, a citizen of the United States, residing at Crandall, in the county of Murray and State of Georgia, have invented certain new and useful Improvements in Excavating Apparatus, of which the following is a specification.

This invention relates to apparatus for excavating ditches alongside railway tracks, and its object is to provide an apparatus of this kind which can be easily and rapidly operated, and readily shifted to a new position.

With this object in view, the invention consists in a novel combination and arrangement of parts to be hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view showing the application of the invention. Fig. 2 is a transverse section on the line 2—2 of Fig. 1. Fig. 3 is a plan view showing the parts in another position.

Referring specifically to the drawings, 10 denotes a ditch running alongside a railway track 11. From the ditch rises an embankment 12. A scraper 13 is employed for excavating the ditch, said scraper being operated by cables 14 and 15 extending forward and rearward therefrom and leading to winding drums 16 and 17 mounted on a truck 18 located at the top of the embankment. To the front end of the scraper is pivotally connected a bail 19 to which the cable 14 is removably attached. The cable 15 is removably attached to the back of the scraper. The cable 14 is wound on the drum 16 and the cable 15 on the drum 17.

The drums 16 and 17 are operated by a traction engine 20, a suitable drive-gear being provided. The traction engine is also employed for hauling the truck 18 along the embankment.

In order to guide the cables 14 and 15 to their winding drums, the following devices are provided: Some distance ahead of the truck 18 is located a vertically positioned guide-pulley 21 around which the cable 14 passes and thence extends obliquely down the embankment to a snatch-block 22. At the top of the embankment is mounted a horizontal guide-roller 23 over which the cable also passes. The cable passes around the sheave of the snatch-block and then extends rearward and is connected to the bail 19 of the scraper 13. The snatch-block is anchored to one of the rails of the track by means of a shoe 24 which extends beneath the base of the rail and has one of its ends hook-shaped, as indicated at 25 to engage one of the base flanges of the rail. The other end of the shoe has an eye to which is connected a chain 26 to which latter the snatch-block is connected. Similar guide devices as herein described are provided for the cable 15.

A scraper rigged up as herein described can be easily and rapidly operated to make a ditch alongside the track. One of the drums pulls the scraper forward and the other drum rearward for a new load. The apparatus can be readily taken up and moved forward for a new cut, as the snatch-blocks permit the cables to be taken out of the same without reeving them therethrough.

A third snatch-block 27 is anchored to the track rail a short distance to the rear of the first described snatch-block 22. This snatch-block 27 is directly in line with the pulley 21 and is employed for guiding the scraper 13 up to the top of the embankment 12, which is done by disconnecting the cable 14 from the forward snatch-block 22 when the scraper reaches the snatch-block 27, and connecting the cable 15 to the snatch-block 27. The cable 14 being now hauled in will pull the scraper up to the top of the embankment. Fig. 3 shows the parts arranged for the last described operation.

The scraper can be detached and a plow used in its place.

To each end of the truck 18 is adjustably connected by means of a series of holes 28 a guide pulley 29, the same being designed for use in case the scraper is to be dumped out of line of the guide pulleys 21.

I claim:

1. In an excavating apparatus, a scraper, operating cables connected to the front and the rear of the scraper, winding drums on which the cables are wound, guide pulleys for the cables located in front of the winding drums, a guide pulley behind the scraper from which pulley the rear cable passes to the scraper, a pair of guide pulleys in front of the scraper over one of which pulleys

the front cable passes to the scraper, said front cable being disengageable from the last mentioned pulley, and the rear cable being disengageable from the rear pulley and engageable with the other one of the front pulleys when the scraper is adjacent to said front pulleys.

2. In an excavating apparatus, a scraper, operating cables connected to the front and to the rear of the scraper, winding drums for the cables, and guide pulleys for the cables behind the scraper and in front thereof, said cables being disengageable from said guide pulleys, and the rear cable being engageable with the front pulley when disengaged from the rear pulley and when the scraper is adjacent to said front pulley.

3. In an excavating apparatus, a scraper, operating cables connected to the front and to the rear of the scraper, winding drums on which the cables are wound, a guide pulley behind the scraper over which the rear cable passes, a pair of guide pulleys in front of the scraper over one of which pulleys the front cable passes, said front cable being disengageable from the last mentioned pulley, and the rear cable being disengageable from the rear pulley and engageable with the other one of the front pulleys when the scraper is adjacent to said front pulley.

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

JAMES E. REDMOND.

Witnesses:
J. N. COUCH,
S. A. ARNOLD.

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