

(No Model.)

S. M. HEWETT.  
HOISTING AND CONVEYING APPARATUS.

No. 517,859.

Patented Apr. 10, 1894.

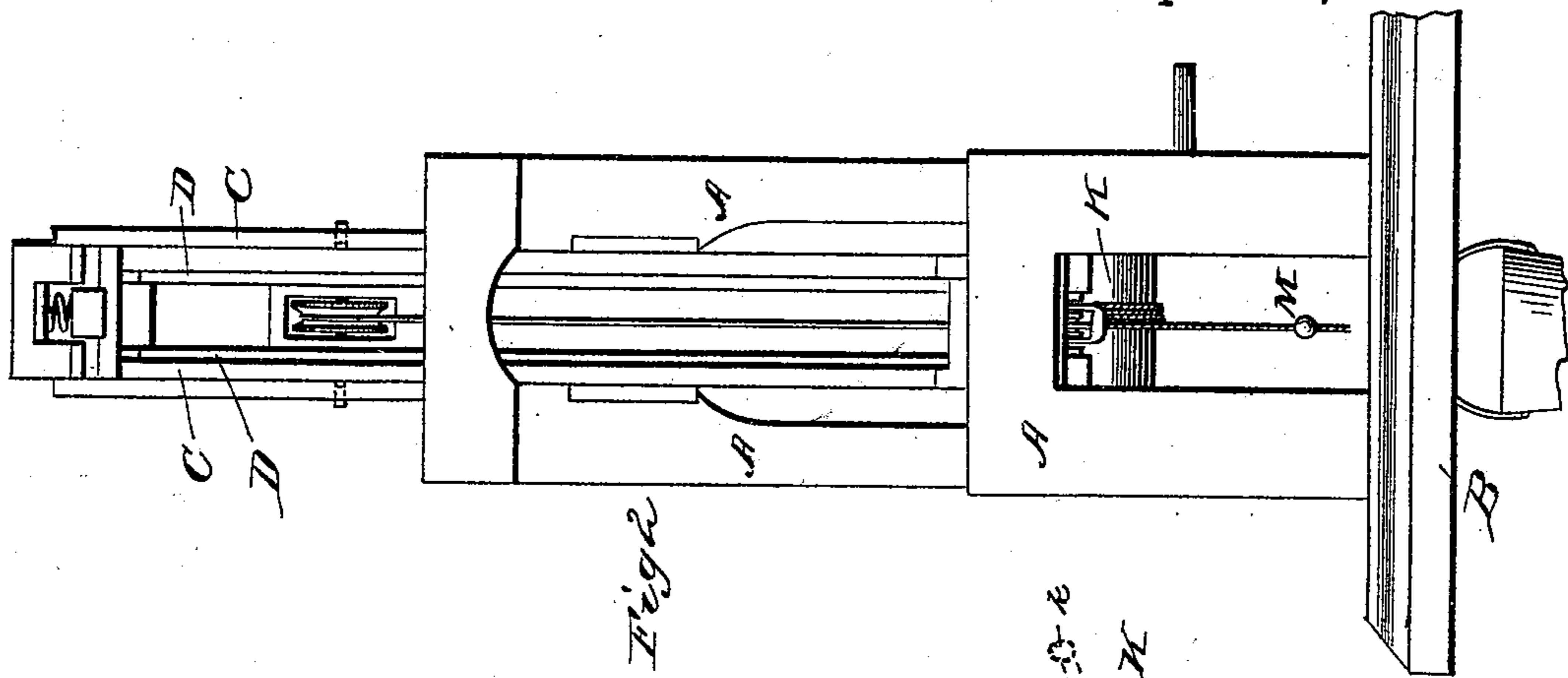


Fig. 2

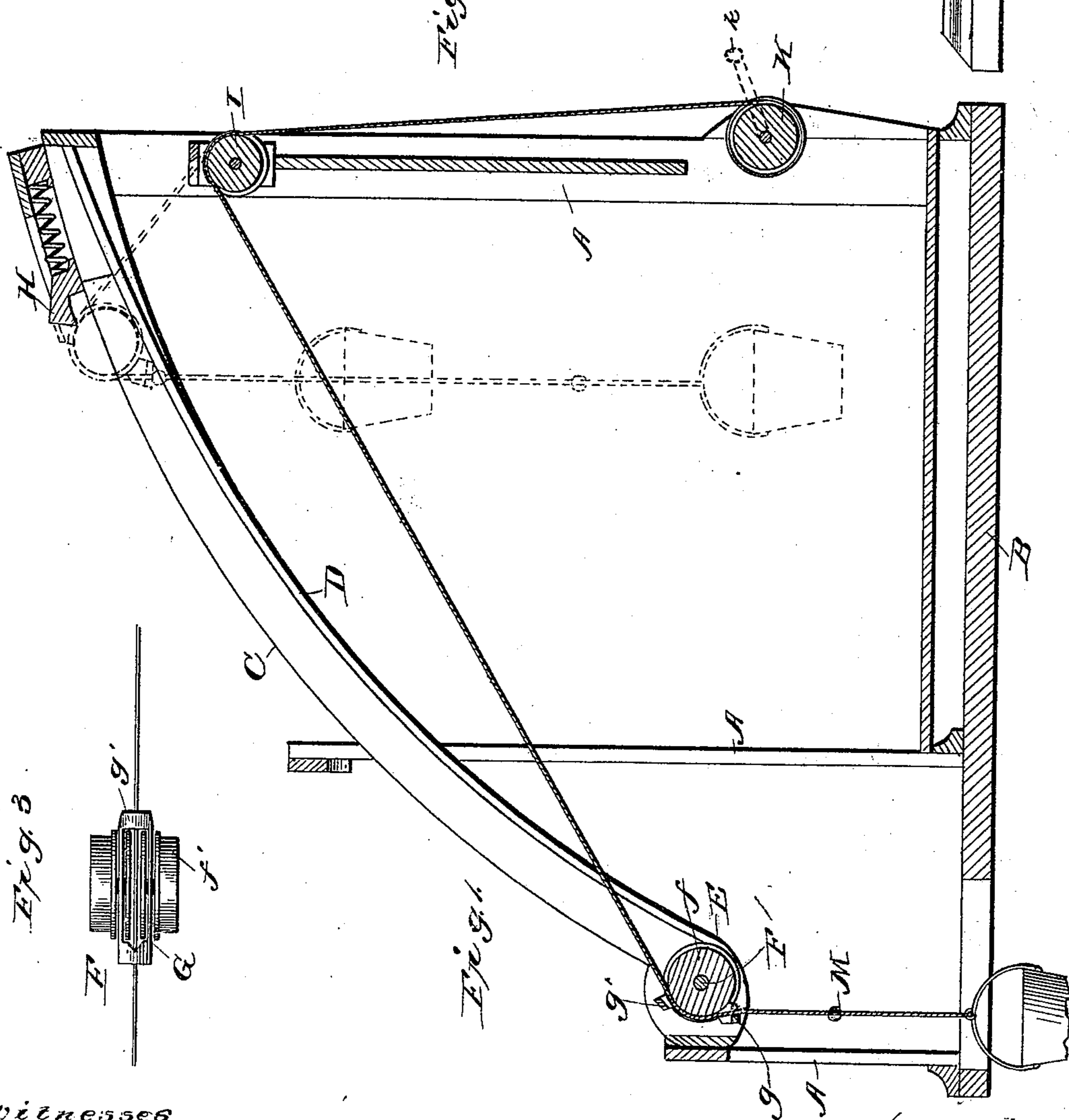
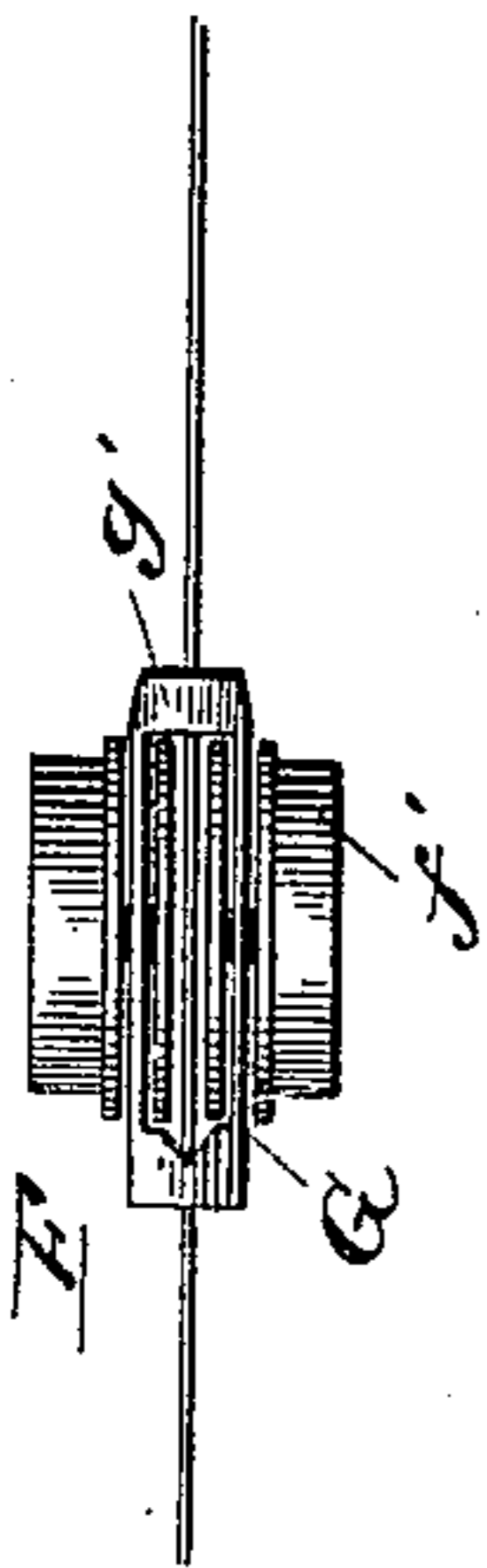


Fig. 1

Fig. 3



Witnesses  
J. M. Fowler Jr.  
Thomas Durant

Inventor  
Seth M. Hewett

By Louis Freese  
Attorney

# UNITED STATES PATENT OFFICE.

SETH MORRIS HEWETT, OF MINNEAPOLIS, MINNESOTA.

## HOISTING AND CONVEYING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 517,859, dated April 10, 1894.

Application filed February 18, 1893. Serial No. 462,883. (No model.)

*To all whom it may concern:*

Be it known that I, SETH MORRIS HEWETT, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Hoisting and Conveying Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention has for its object to provide a simple and efficient device for use in digging ditches, sewers, &c., where the dirt excavated has first to be hoisted and then carried a short distance laterally away from the excavation, to the desired dumping place, and, it consists in certain novel details of construction, combinations and arrangements of parts, all, as will be now described and pointed out, particularly in the appended claim.

Referring to the accompanying drawings: Figure 1 is a vertical sectional elevation of an apparatus embodying the present invention. Fig. 2 is an end elevation of the same. Fig. 3 is a detail plan of the traveler for securing the necessary lateral movement of the vessel carrying the earth or other material.

Like letters of reference in the several figures indicate the same parts.

A frame work preferably formed by uprights A mounted on a base B is provided, upon the upper portion of which, is rigidly mounted the curved inclined track frames C, carrying the track rails D. These rails are slightly separated for the passage of the rope, as will be presently described, and, at the lower ends, terminate in a seat E for the carriage F, such seat being directly over an opening in the base frame through which the bucket descends into the excavation.

The carriage referred to consists, essentially, of a central pulley *f* journaled on a central shaft or axle carried by flanged wheels *f'* as shown clearly in Fig. 3. Between the wheels and pulley *f* is journaled a skeleton frame G, having an aperture *g* in the lower end, through which the rope is adapted to pass, and a curved upper portion or bridge *g'* passing over the rope at a point above the pulley. At the upper end of the tracks, and in position to engage the frame G is a spring

pressed stop or buffer H adapted to engage the frame G, or the upper portion thereof, raise the same from the rope as will be presently understood, and arrest the further upward movement of the carriage. Within the tracks, and preferably mounted on the uprights beyond the upper ends of the same, is a pulley I journaled in relatively fixed bearings and below the same in convenient position to be operated by manual or other power is the drum or windlass K, which as shown is provided with a crank handle *k* for operation by manual power. The rope L is attached at one end to the drum so as to be wound thereon, and passes from thence up over the pulley I, through between the tracks and over the pulley as before described, thence to the bucket or other load to be raised from the excavation. At a proper point below the pulley *f* to allow the bucket or load to clear the edge of the opening, is located a knot or stop M, which is adapted to strike the frame G whereby the carriage and the bucket depending therefrom are caused to travel up along the tracks.

The operation is clear from the above, and is as follows: Assuming that the parts are in the position indicated in full lines, Fig. 1, and the drum is being turned in the direction to raise the bucket, as soon as the knot M strikes the frame G the upper portion of the frame will clamp down on the rope, and, further movement of the drum, causes the carriage and the bucket depending therefrom, to travel up the tracks until the buffer at the upper end of the tracks is encountered, when such upward movement is arrested and the frame moved to release the rope, then the drum is rotated, or allowed to rotate in the reverse direction, the result of which is, that the carriage remains at the upper end of the tracks and the bucket or other load, descends vertically to the platform where it may be dumped or otherwise disposed of. It will be noted, that the angle of the tracks at the top is such, and the pulley I is so located with relation thereto, that the direction of the force exerted on the carriage by the loaded bucket, and pull on the rope, will tend to hold the carriage at the upper end of the tracks, but as soon as the bucket is relieved of its load the force of gravity acting on the carriage,

will move the same down to the lower end of the tracks again, and I preferably make the carriage of such weight that it will carry the empty bucket out over the opening at once, 5 when the rope is slackened sufficiently. The tracks might properly be described as having the lower ends inclined steeply while the upper ends approach the horizontal, thus, when the carriage is at the lower end the passage 10 of the rope over the same does not tend to draw the carriage up, and, when it is at the upper end of the tracks, the weight of the load holds it there.

Having thus described my invention, what 15 I claim as new is—

In a hoisting apparatus, such as described,

the combination with the fixed inclined tracks, the fixed pulley, drum and rope as described, of the carriage, traveling on the tracks, having the wheels at each side, the central pulley 20 over which the rope passes and the frame journaled on the carriage and having the aperture at the bottom and the bridge at the top for cooperation with the rope as described.

In testimony whereof I have hereunto set 25 my hand in presence of two subscribing witnesses.

SETH MORRIS HEWETT.

Witnesses:

LOUIS FEESER, Jr.,

L. J. WITHEE.