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PATENTED APR. 11, 1905.

W. HEFFRON.
APPARATUS FOR EXCAVATING TRENCHES, &c.
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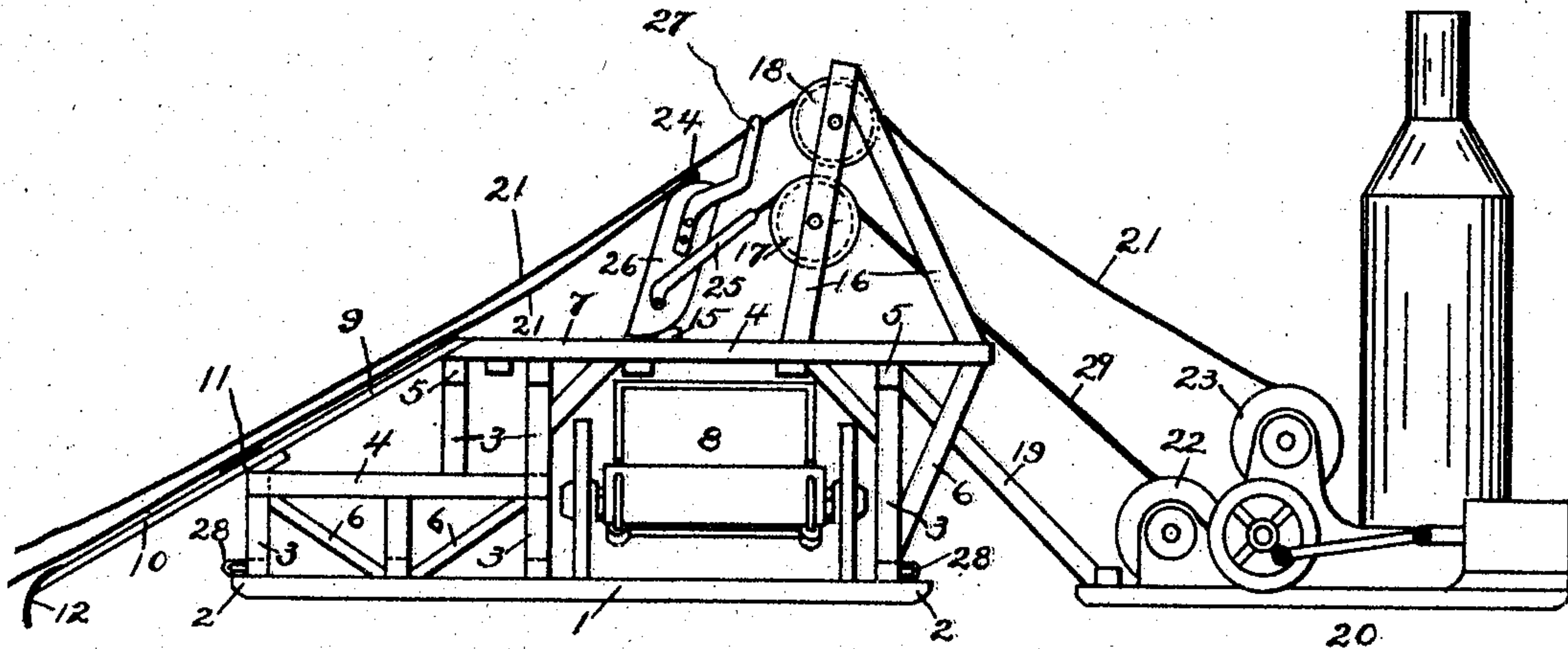


Fig. 1.

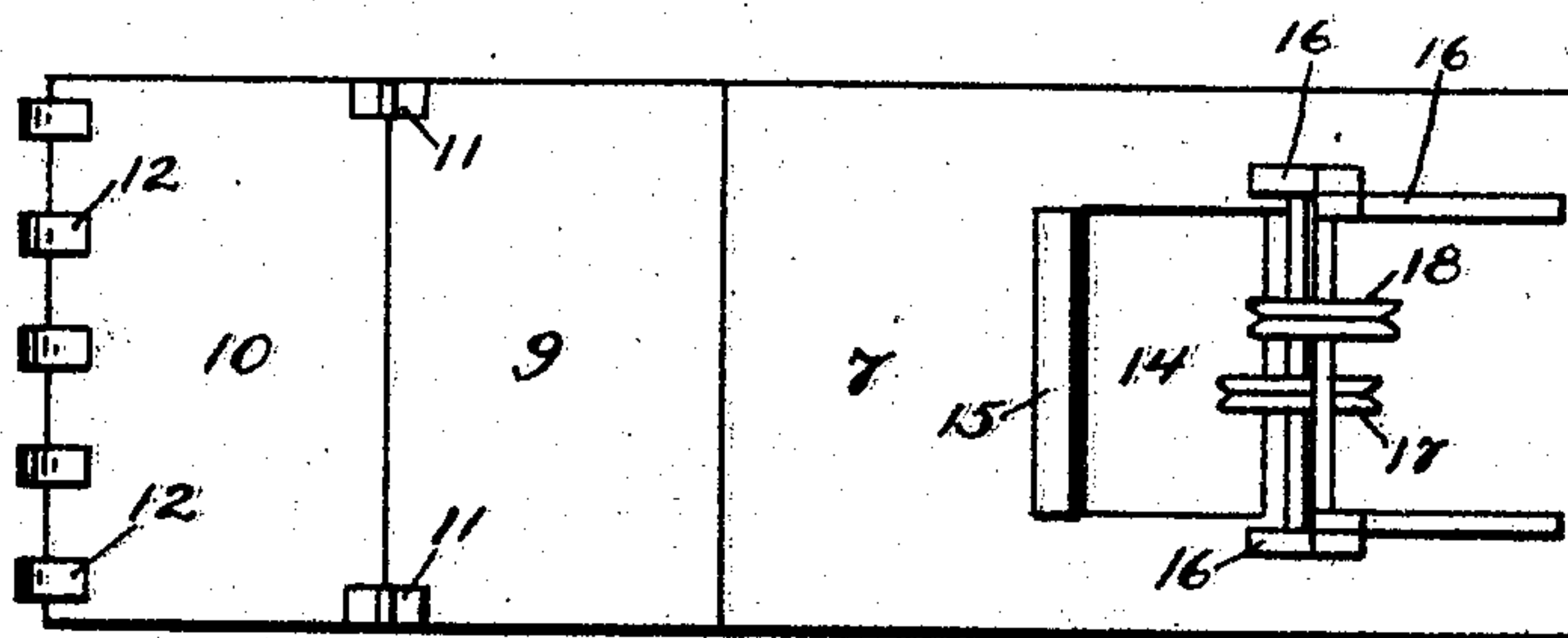


Fig. 2.

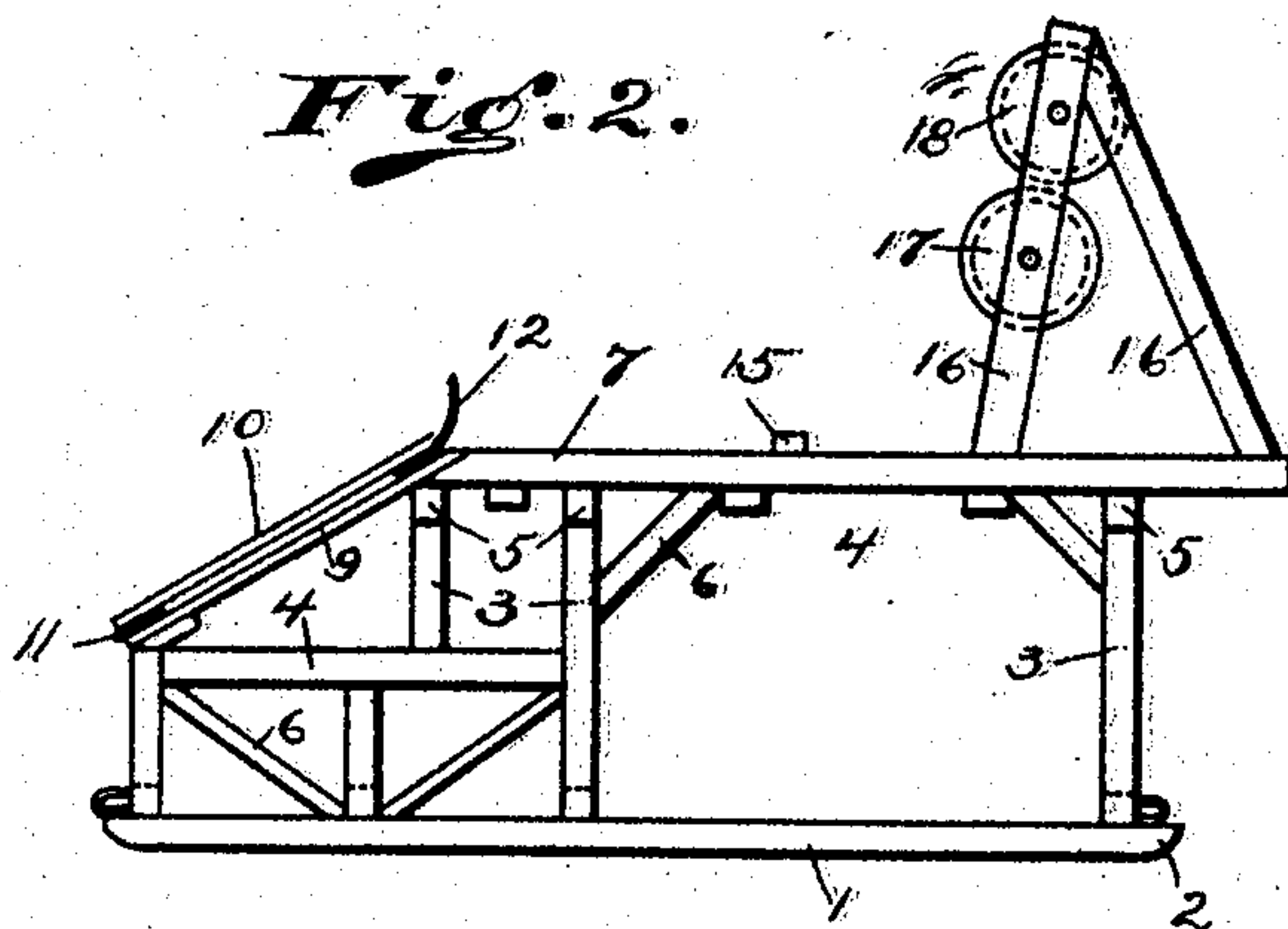


Fig. 3.

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APPARATUS FOR EXCAVATING TRENCHES, &c.

SPECIFICATION forming part of Letters Patent No. 787,040, dated April 11, 1905.

Application filed December 5, 1904. Serial No. 235,540.

To all whom it may concern:

Be it known that I, WILLIAM HEFFRON, a citizen of the United States, residing in Cincinnati, county of Hamilton, and State of Ohio, have invented certain new and useful Improvements in Apparatus for Excavating Trenches and the Like, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to apparatus for the convenient handling and disposition of material in making excavations for cellars, trenches, grading roads, and the like; and it consists of that certain novel construction of framework to be hereinafter particularly pointed out and claimed, whereby the material to be removed may be conveniently handled directly from the excavation into carts and wagons and whereby the apparatus may be quickly and easily removed from place to place, as the progress of the work may demand.

In the drawings, Figure 1 is a side elevation of my improved apparatus. Fig. 2 is a plan view of same. Fig. 3 is a side elevation of the apparatus ready for removal.

Upon a pair of skids 1 1, rounded at the ends 2 2, is erected a substantial framework of uprights 3 3 with longitudinal and cross timbers 4 4 and 5 5 and the cross-braces 6 6 and a platform 7 of a height and width between the longest uprights sufficient to permit a cart or wagon 8 to be driven under the platform. At the end of the platform 7 and connecting therewith is an inclined way 9, to which the leaf 10 is hinged at 11 11, so as to form when the leaf is extended a continuous ascent from the ground to the platform 7. The outer edge of the hinged leaf for the incline is provided with a series of shoes 12 12 curved downward, so that the ends of the shoes may take into the ground, and thus avoid any break in the continuity of the incline at its contact with the surface.

14 is an opening in the platform, and 15 is a trip-block secured to the platform at the edge of the opening.

16 16 are uprights secured to the platform at the sides of the opening 14, in which are suitably journaled the pulleys 17 18.

20 is an ordinary hoisting-engine suitably anchored in place and braced at the front to the framework by the beams 19. This hoisting-engine has the usual hoisting-drums 22 23, arranged so that one winds up while the other unwinds.

29 is a cable running from the drum 22 over the pulley 17 and is attached to the draft-bar 25 of the scoop 26, and 21 is another cable running from the drum 23 over the pulley 18 and around a pulley (not shown) anchored at the farther side of the work to be excavated and is secured in the ring 24 at the back of the scoop.

The apparatus is located, as shown in Fig. 1, at one end of the excavation to be made, and the soil having been loosened and turned over by suitable plows, which may also be operated by the hoisting-engine, the drawing-cable being run on a direct line through the framework with the leaf 10 turned up on its hinges, the scoop 26 is then attached to the cable, as described, and the workman guiding the scoop by the handles 27 fills the scoop with earth as it is drawn along by winding up the cable 29 on the proper drum on the hoisting-engine. The scoop is then drawn up the incline onto the platform and is tripped by the block 15 to dump its contents through the opening 14 into the cart 8, which has been driven under the platform. The action of the hoisting-engine is then reversed, and the cable 21 draws the scoop back into the excavation to be again filled and dumped into the cart as before.

To move the apparatus from place to place as the work progresses, eyes 28 28 are secured to the framework at the ends of the skids 1 1, the cable and scoop are disconnected, and the leaf 10 thrown back against the inclined way 9, as shown in Fig. 3, and the apparatus can be dragged in either direction to the desired new location.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus for excavating trenches, a framework, with a raised platform, an inclined way leading to said platform, a leaf hinged to said way to extend the incline to

the ground, said leaf being provided with curved shoes to enter the ground at the bottom of the incline, an opening through the platform and a trip-block at the edge of said opening, standards extending above said platform with pulleys mounted thereon and a cable over said pulleys for elevating a scoop to said platform, whereby its contents may be dumped through said opening in the platform, substantially as described.

2. In an apparatus for excavating trenches, a framework, with a raised platform, an inclined way leading to said platform, a leaf hinged to said way to extend the incline to the ground, said leaf being provided with

curved shoes to enter the ground at the bottom of the incline, an opening through the platform and a trip-block at the edge of said opening, standards extending above said platform, with pulleys mounted thereon and a cable over said pulleys for elevating a scoop to said platform, said framework being mounted on skids for the ready removal of said apparatus from place to place, substantially as described.

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