

No. 880,230.

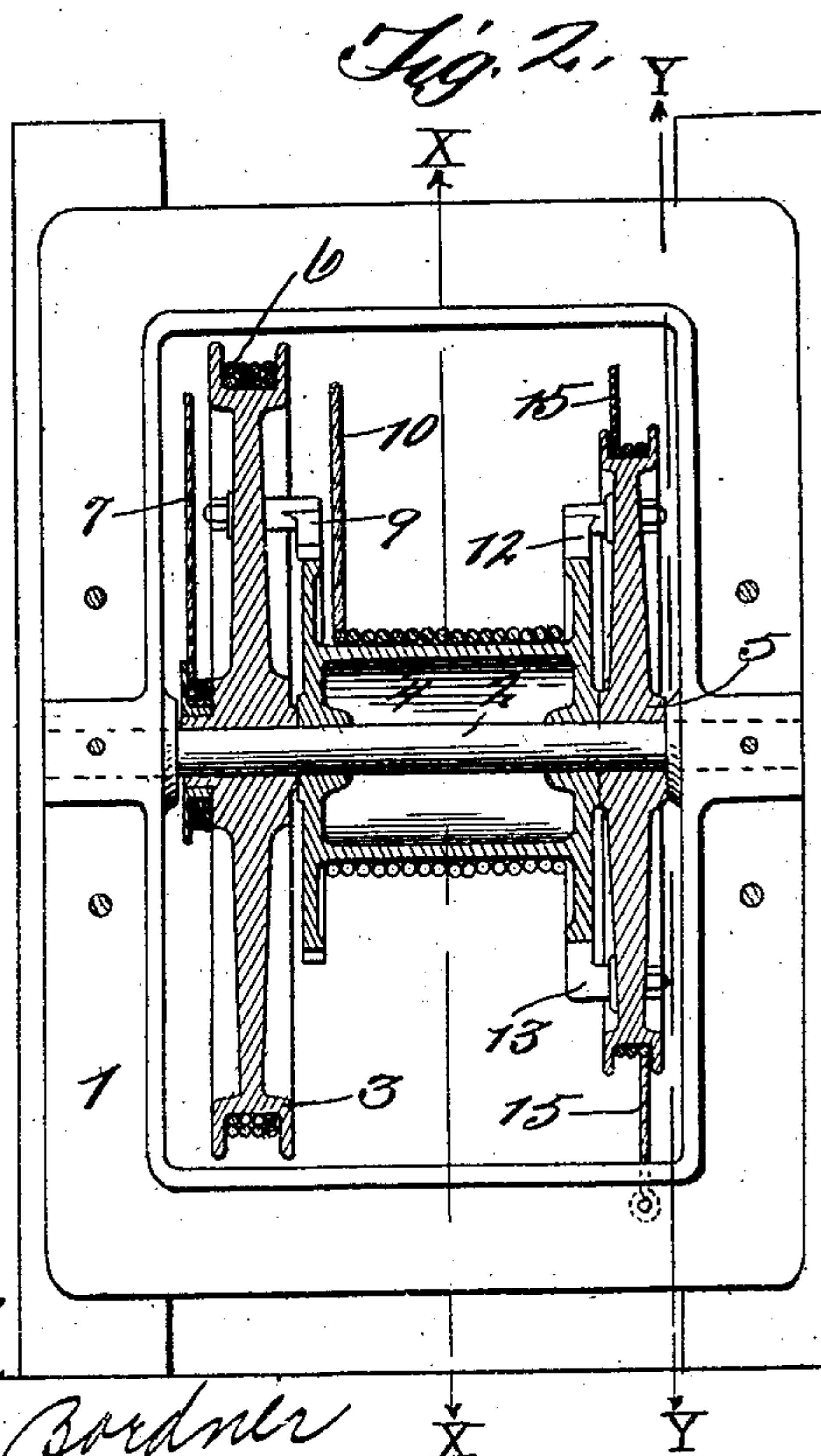
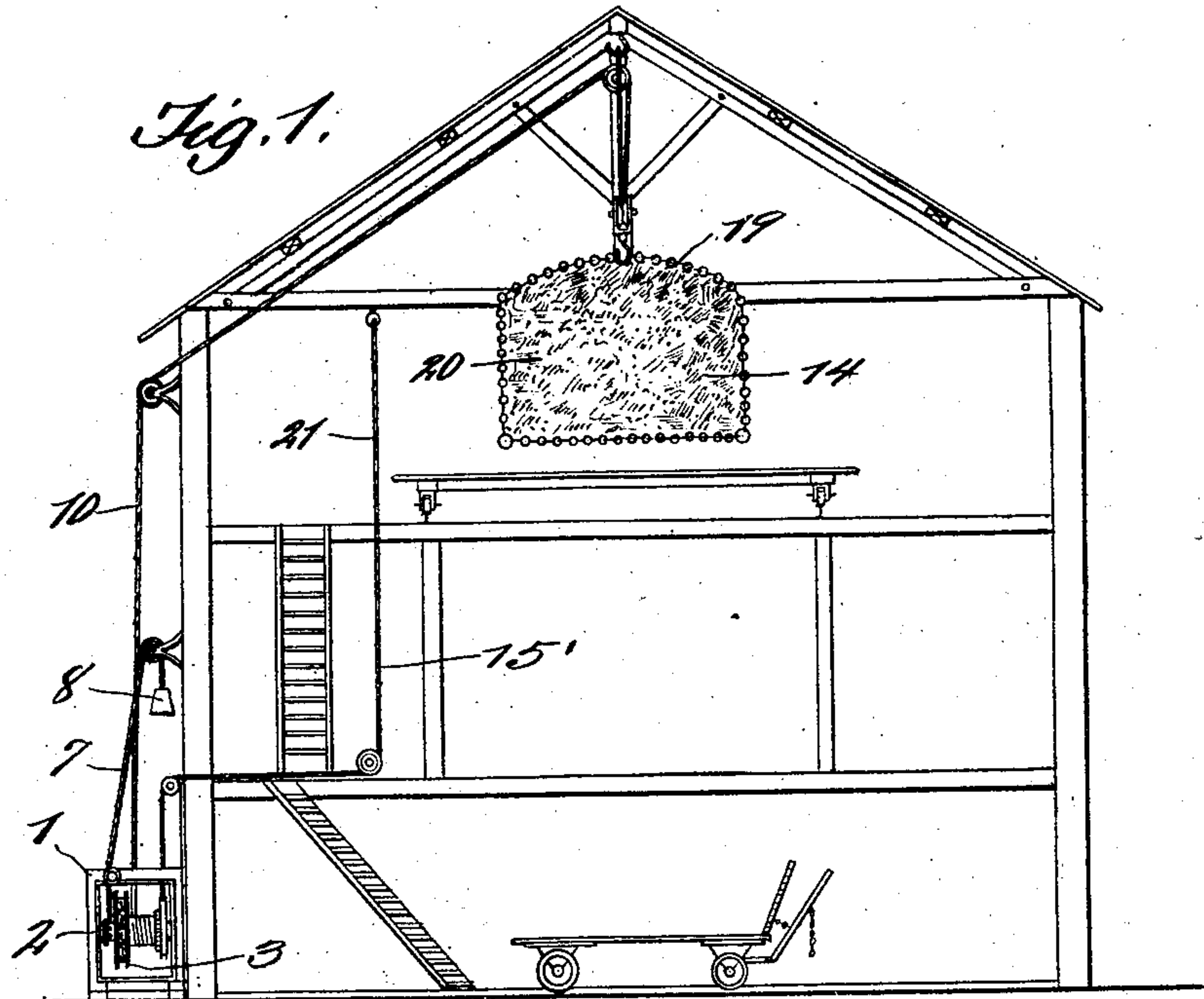
PATENTED FEB. 25, 1908.

E. M. A. MARILLY.

LIFTING OR HOISTING GEAR FOR LIFTING FORAGE, GRAIN BAGS, &c.

APPLICATION FILED SEPT. 17, 1906.

2 SHEETS—SHEET 1.



Witnesses

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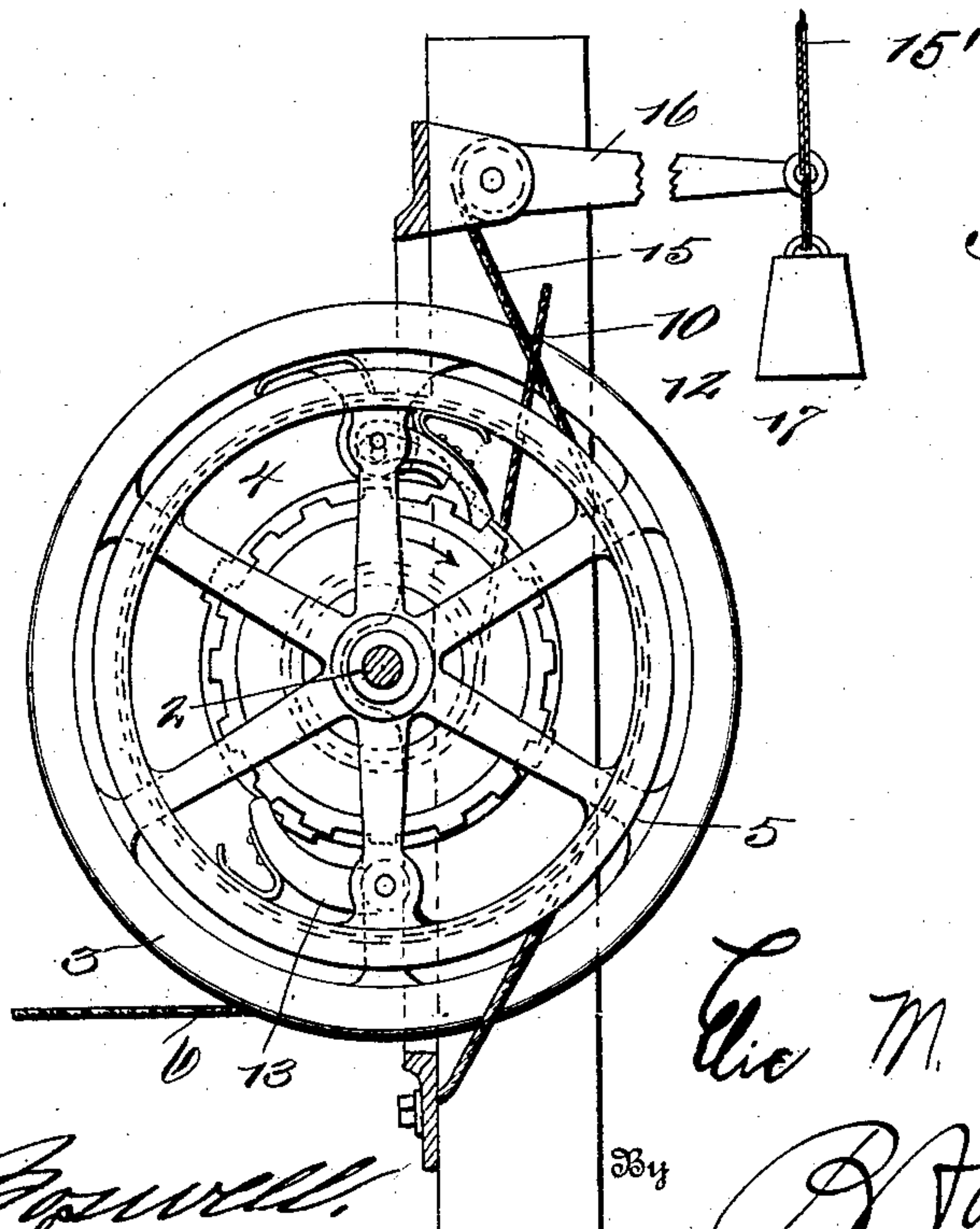
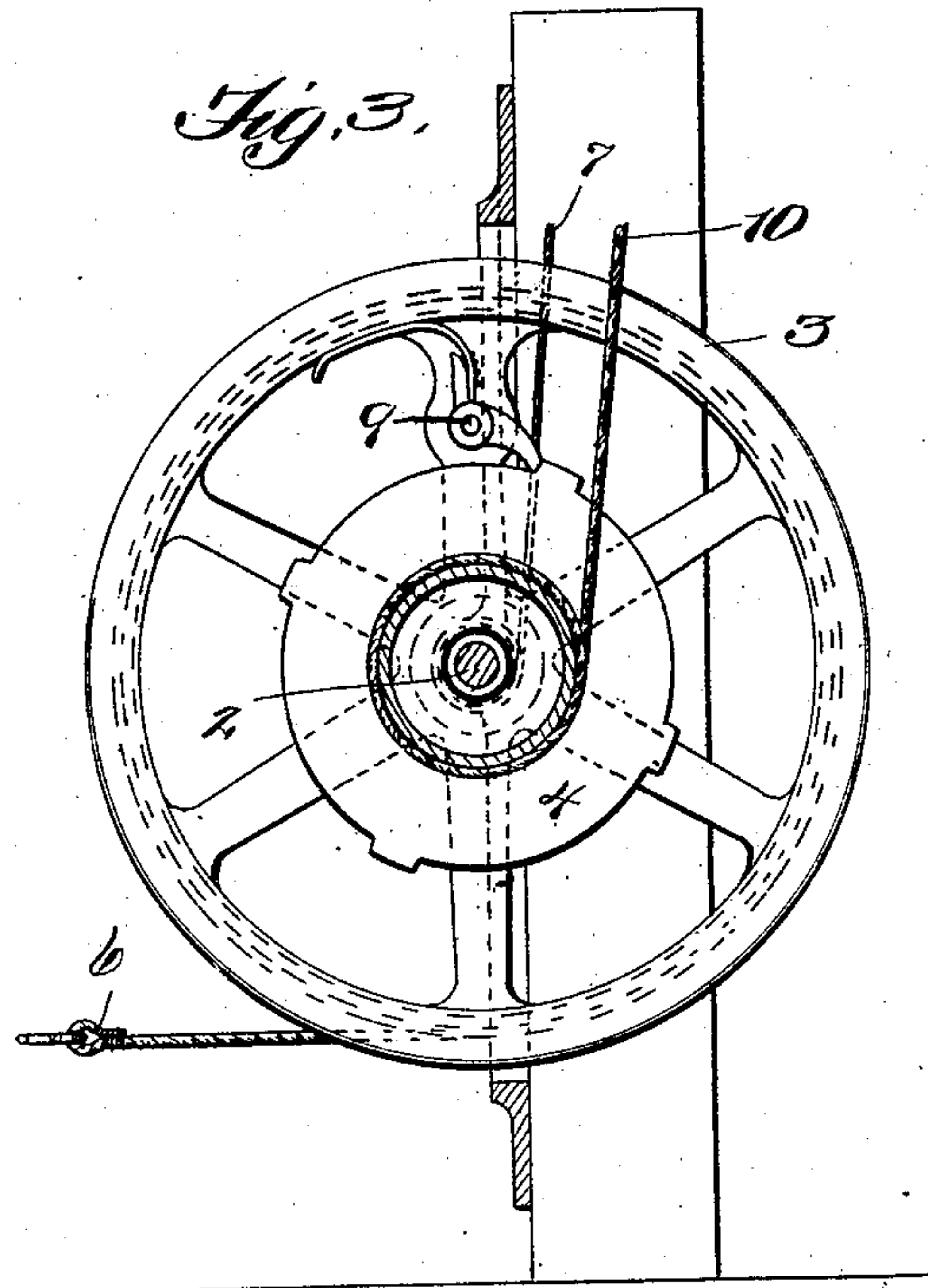
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2 SHEETS—SHEET 2.



Witnesses

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UNITED STATES PATENT OFFICE

ELIE MARIE ALEXANDRE MARILLY, OF BOLANDOZ, FRANCE.

LIFTING OR HOISTING GEAR FOR LIFTING FORAGE, GRAIN-BAGS, &c.

No. 880,230.

Specification of Letters Patent.

Patented Feb. 25, 1908.

Application filed September 17, 1906. Serial No. 335,016.

To all whom it may concern:

Be it known that I, ELIE MARIE ALEXANDRE MARILLY, mechanical constructor, a citizen of the Republic of France, residing at Bolandoz, Département du Doubs, France, have invented certain new and useful Improvements in Lifting or Hoisting Gear for Lifting Forage, Grain-Bags, and the Like, of which the following is a specification, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in lifting or hoisting gear and is more particularly designed for use with loads of forage, grain bags and the like.

In carrying out the invention I employ a windlass or winch-like device consisting of a frame supporting a fixed axle on which are mounted two grooved pulleys and a drum. One of these pulleys carries a cable which is employed to convey power to the device and which I call the traction cable as it may be advantageously pulled by a horse or other convenient power, the other pulley receives a cable which is employed for braking the speed or stopping the device and another cable is wound on the drum and running over suitable wheels or pulleys is connected to a cradle or flexible framework used to hold the forage or the like.

Between the pulley on which the traction cable is wound and the drum a ratchet or dog is arranged so that the pulley can drive the drum when the cable on the pulley is being hauled. When the load has been hauled sufficiently high the hauling power is stopped and the cable released and automatically rewound by a counter poise or weight attached to a cord or its equivalent wound on the side of the pulley. When so released the load remains stationary owing to the action of the brake hereinafter described.

I will now describe my invention with reference to the accompanying drawings, in which:

Figure 1 is a complete view of a lifting device constructed according to my invention and shows the same arranged in a building. Fig. 2 shows in sectional view the winding mechanism of winch-like form. Fig. 3 is a sectional view on line $x-x$ of Fig. 2. Fig. 4 is a sectional view on line $y-y$ of Fig. 2.

In these drawings 1 represents the framework carrying a fixed spindle 2 on which the hauling pulley 3, the drum 4 and the brake

pulley are mounted. A hauling cable 6 is wound on the pulley 3 and a cable 7 is arranged on the side of the pulley and is attached to the weight 8. A spring controlled dog 9 serves to connect the pulley 3 to the drum 4 when the pulley is turned in the hauling or lifting direction.

A cable 10 is wound on the drum and running over suitable pulleys or rollers is attached to hooks or other devices used for lifting the weights. Other spring controlled dogs, 12 and 13, are employed to connect the drum with the brake pulley 5 around which the cable 15 is wound, said cable being controlled by the weighted lever 16—17. A load carrier 19 with chains 20 is attached to the hook of the cable 10.

When the load has reached a predetermined height the cable 15 is manually lowered thus tightening brake cable 15', which maintains brake pulley 5, stationary, and since dogs 12 and 13 engage the ratchet teeth of drum 4, the latter will be prevented from rotating rearwardly, thus holding the load where suspended. A trolley on rails or other carrier is then run under the load which is released and carried away by the trolley. A bell may be automatically rung in any convenient way when the load has ascended the distance required.

The cable 21 actuates the lever 16 and permits the descent or stopping of the load to be regulated at will. A wagon load having been brought into the barn under the carrier 19 the carrier descends automatically by means of counterpoise 17, lever 16 and cable 21. The load is then lifted in the manner before described.

Having now particularly described and ascertained the nature of my said invention, I declare that what I claim is:

1. In an improved hoisting gear for lifting forage, grainbags and the like, a frame work, a fixed spindle supported by the said frame, two grooved loose pulleys mounted on the same axle; and a loose drum on the same axle and between the said pulleys, one of the said pulleys having a hauling cable attached to it, and the other a braking rope or cable, both pulleys being connected to the drum by dogs and a ratchet, automatic means for rewinding the hauling cable when released, and means for operating said braking rope or cable to prevent rearward movement of the hauling cable when the load has reached the desired height.

2. In an improved hoisting gear for lifting forage, grain bags and the like, a frame work, a fixed spindle supported by the said frame, two grooved loose pulleys mounted on the same
5 axle, and a loose drum on the said axle and between the said pulleys, means for conveying power to the device, and consisting of a traction cable attached to one of the said pulleys, which is pulled by a convenient
10 power, means for connecting the said hauling pulley to the drum consisting of a dog and a ratchet, means for lifting the weights consisting of a cable wound on the drum and running over rollers, automatic means for
15 rewinding the traction cable consisting of a counterpoise attached to a cord wound on

the side of the pulley, means for preventing backward motion of the load when the latter has reached the required height, consisting of a cable wound around the brake pulley 20 and acting as a brake on the said brake pulley which is connected to the drum by dogs and a ratchet; the said cable being controlled by a weight lever, and the said weight lever controlled by a cable. 25

In testimony whereof I have affixed my signature, in presence of two witnesses.

ELIE MARIE ALEXANDRE MARILLY.

Witnesses:

MAURICE POLACK,
A. NORFF.