No. 776,797. PATENTED DEC. 6, 1904.

S. J. PLANT.

COFFIN RAISING OR LOWERING DEVICE.

APPLICATION FILED AUG. 22, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

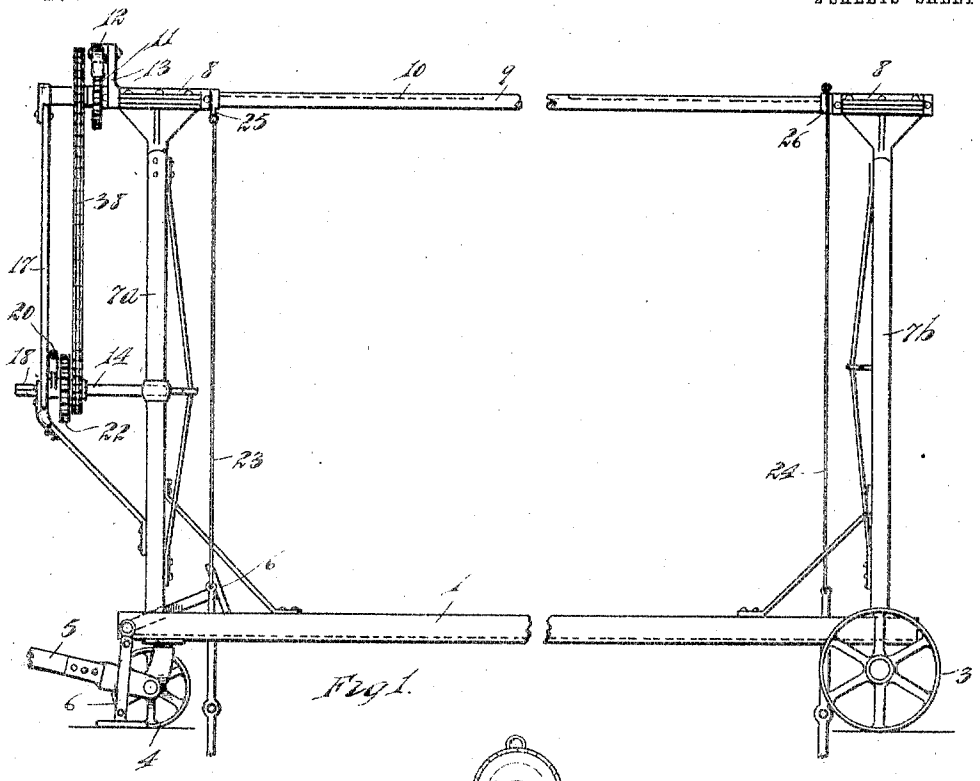


Fig 1.

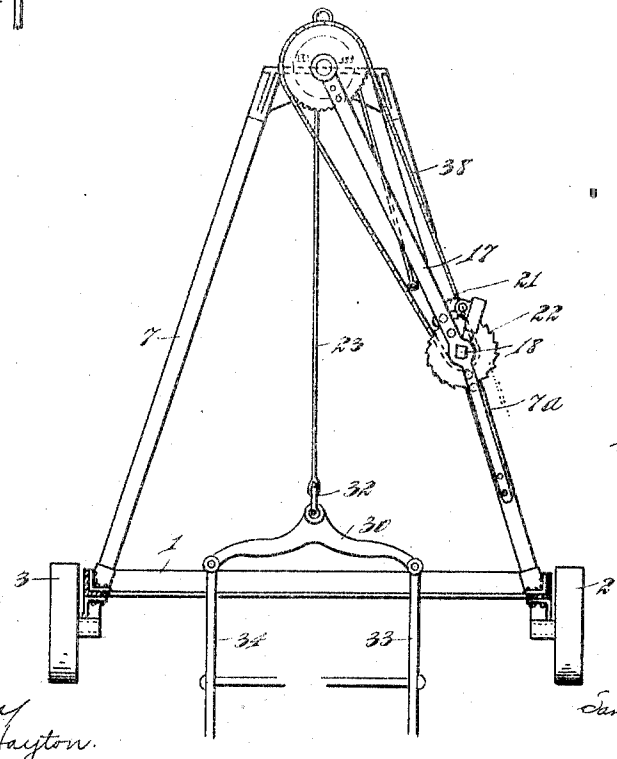


Fig 2.

WITNESSES

J. G. Massey

Lotta Lee Hayton.

INVENTOR

Samuel J. Plant

by Parker & Burton

ATTORNEYS

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NO MODEL. 2 SHEETS—SHEET 2.

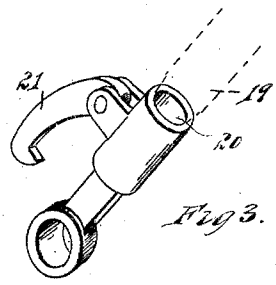


Fig 3.

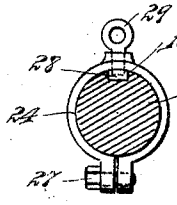


Fig 4.

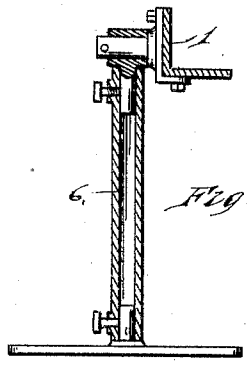


Fig 5.

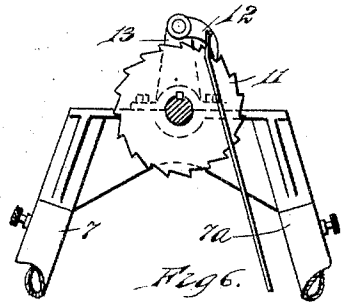


Fig 6.

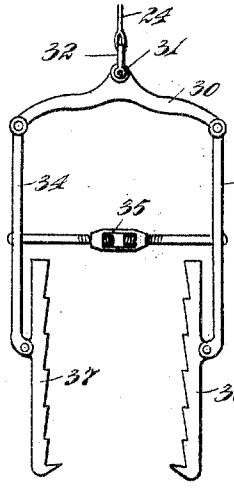


Fig 7.

WITNESSES

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PHOTO-LITHOGRAPHED BY JACOBY & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 776,797. Patented December 6, 1904.

UNITED STATES PATENT OFFICE.

SAMUEL J. PLANT, OF DELRAY, MICHIGAN.

COFFIN RAISING OR LOWERING DEVICE.

SPECIFICATION forming part of Letters Patent No. 776,797, dated December 6, 1904.

Application filed August 22, 1904. Serial No. 221,631. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL J. PLANT, a citizen of the United States, residing at Delray, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Coffin Raising or Lowering Devices; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to coffin raising and lowering devices.

It has for its object an improved machine which is especially intended to be used for the purpose of lifting coffins from graves at times when for any purpose it is desired to remove a coffin from one place to another. The apparatus serves not only to lift, but also for purposes of transportation for short distances, and consists of a windlass, upon which the lifting-cords are wound, appliances for journaling and supporting the windlass, and appliances for turning the windlass with sufficient power to do the necessary lifting. All of these appliances are mounted on a truck with small wheels, which serves to transport the appliance itself and can be utilized to transport the coffin for short distances after it has been lifted. The same appliance which is used for lifting may also be applied to lower the coffin.

In the drawings, Figure 1 is a side elevation. Fig. 2 is an end elevation. Fig. 3 is a detail of the lever-socket used for lifting. Fig. 4 is a cross-section showing in detail the windlass. Fig. 5 is a detail showing a foot employed to steady a corner of the truck. Fig. 6 is an enlarged detail showing a ratchet-wheel on the end of the windlass. Fig. 7 shows the grapple by which the coffin is seized.

1 indicates a truck mounted on three wheels, two of which, 2 and 3, are at the rear, and 4 is a caster-wheel at the center of the front end of the truck. A tongue 5, by which the truck may be drawn, is secured to the axle of the caster-wheel 4. At the front corners of the truck-frame are two swinging legs, one of which, 6, is seen in Fig. 1 and a detail of which is shown in Fig. 5. The leg 6 is pivotally secured to the frame 1 of the truck and is swung up over the frame for transportation. When the truck is used as a support for the lifting device and the lifting device is employed in its intended way, the legs are swung down and rest on the ground at each front corner of the truck and steady and support it. From the truck rises a frame with standards 7 7^a 7^b and a fourth standard. (Not seen in any of the drawings.) These support journal 8, in which is rotatably held a bar or windlass 9, provided with a grooved keyway 10, that extends the entire length between the journal. One end of the windlass projects to the front, and on the projecting part there is mounted a ratchet-wheel 11, with which a pawl 12 engages, and the pawl is held on a standard 13 from the main framework. The ratchet-wheel and pawl is a safety appliance intended to hold the windlass from rotating backward in case the sprocket-chain hereinafter spoken of should break or its pawl become disengaged from the ratchet-wheel. On one of the standards, 7^a, at a proper height above the truck for easy manipulation, is journaled a shaft 14, upon which there is a ratchet-wheel 22, and on the shaft outside the ratchet-wheel is a ratchet-actuating pawl 21, pivoted to handle-socket 20, which is journaled to the shaft. The pawl engages the teeth of the wheel 22. The outer end of the shaft 14 is braced to the end of the windlass 9 by a tie-brace 17, and outside of the tie-brace the end of the shaft 14 is provided with a wrench-hold 18, on which the end of a crank is slipped when a crank may be used to produce a quick rotation of the windlass—as, for instance, when it is desired to unwind the cord or cable that has been wound thereon or when it is not necessary to use the lever-actuator before spoken of. The lever-actuator (shown in Fig. 3) consists of a long lever-like handle 19, extending from a socket 20, that is journaled on the shaft 14 and to which is pivoted a pawl 21, that engages the teeth of the ratchet-wheel 22. The lever is made of a length to furnish any proper amount of power for lifting purposes.

Two lifting cords or cables 23 and 24 are suspended from rings 25 and 26, which slide

along the windlass. These are preferably split rings held together by bolts 27 and are provided with feathers 28, that engage in the keyway in the windlass, and are also provided with eyes 29, to which the end of the cable is secured. At the lower end of the cable is suspended a grapple, the grapple consisting of a hinged bar 30, provided with an eye 31, through which engages a clevis or a hook 32 on the end of the cable. To each outer end of the hinged bar 30 is a suspension-link 33 or 34. The suspension-links are coupled by turnbuckle 35 and are pivotally connected at their lower ends to grapple-bars 36 and 37, both of which are provided with teeth on their inner face. The grapple-bars 36 and 37 adjust themselves to the vertical sides of a box, into which they engage and into which they can be drawn tightly by means of the turnbuckle 35, and furnish a firm and secure holding means at both the top and bottom ends of the box or coffin, which enable the lifting device to lift the coffin and retain it at all times in a substantially perfectly horizontal position.

The windlass is turned by a sprocket-chain 38, that belts sprocket-wheel on the shaft 14 and sprocket-wheel on the windlass.

What I claim is—

1. A lifting device, having in combination a truck, a windlass supported above said truck, cables supported to said windlass by a coupling movable along the same, grapples attached to the cables and means for actuating said windlass, substantially as described.

2. In a lifting device, in combination with a truck, a windlass mounted thereon, means for actuating said windlass, the said truck being provided with a front caster-wheel, and with steadying-feet adapted to swing upward when not in use for steadying purposes, substantially as described.

3. In a lifting device, in combination with means for winding and storing the cable, a grapple comprising parallel jaws connected by links to a cross-bar, and the said links being connected by a turnbuckle, substantially as described.

4. In a grapple for a lifting device, the combination of serrated jaws, a cross-bar of two parts pivotally connected, links connecting the cross-bar to the serrated jaws, and means for actuating the links to forcibly draw the jaws together, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

SAMUEL J. PLANT.

Witnesses:

MAY E. KOTT,

CHARLES F. BURTON.