

G. W. PINE.
 DEVICE FOR LIFTING VEHICLE BODIES.
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1,012,703.

Patented Dec. 26, 1911.

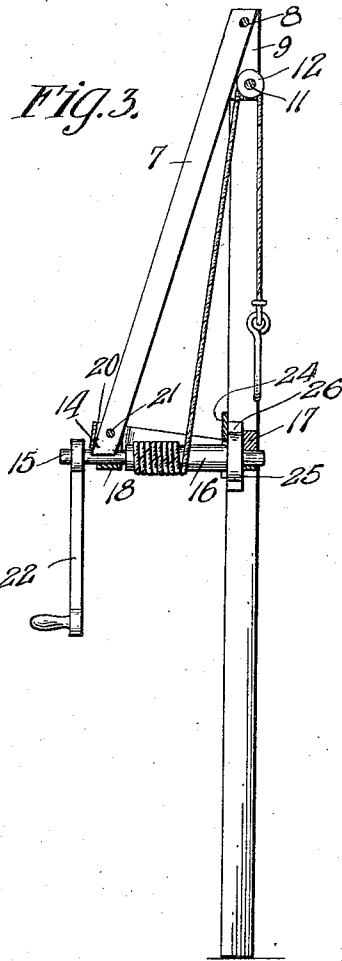
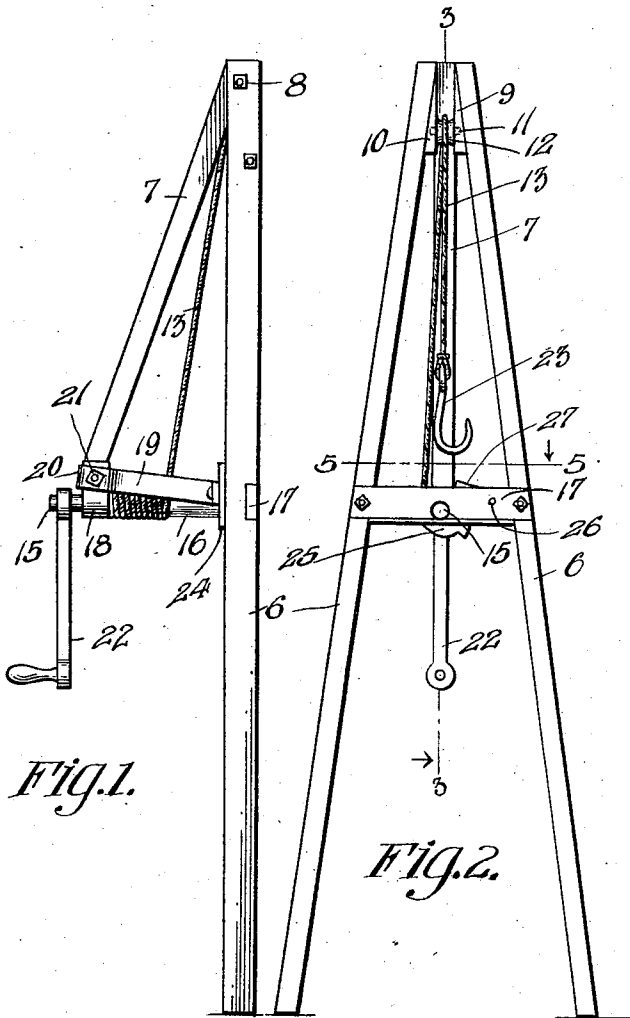
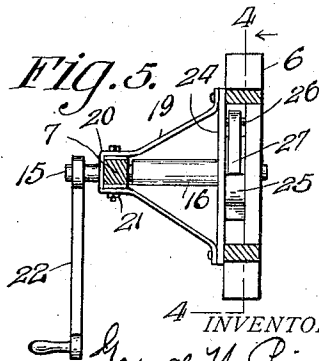
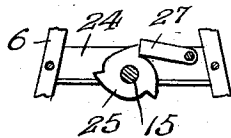


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DEVICE FOR LIFTING VEHICLE-BODIES.

1,012,703.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE W. PINE, a citizen of the United States of America, and resident of Audrain county and State of Missouri, have invented certain new and useful Improvements in Devices for Lifting Vehicle-Bodies, of which the following is a specification.

This invention relates to hoisting machinery and particularly to a device designed primarily for lifting vehicle bodies such as wagon beds from the running gear thereof and an object of the invention is to provide novel means for engaging the vehicle body, associated with means for winding the same for the purpose of lifting the said body vertically.

A further object of this invention is to provide a frame having a winding drum journaled therein, the said drum being provided with means for preventing counter-clockwise rotation thereof except when said means is manipulated for the purpose of releasing the drum to permit a cable wound thereon to be unwound.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a side elevation of the invention; Fig. 2 illustrates a rear elevation thereof; Fig. 3 illustrates a sectional view on the line 3—3 of Fig. 2; Fig. 4 illustrates a sectional view on the line 4—4 of Fig. 5; and Fig. 5 illustrates a sectional view on the line 5—5 of Fig. 2.

In these drawings I have shown two standards or posts 6, well separated at their lower ends and having their upper ends converging into engagement with an outwardly and downwardly extending arm 7, the said standards being secured to the arm by means of the bolt 8. The standards 6 are further provided with blocks 9 and 10 which support a spindle 11 of the pulley 12, which pulley is rotatable and is engaged by a cable 13. The lower end of the arm is recessed to form a journal bearing 14 for the shaft 15 which carries the portion 16 on

which a flexible connection may be wound, the said shaft 15 being also journaled in a cross piece 17 secured to the two standards.

The lower end of the arm 7 has the ends of a metallic strap 18 secured to it, the said metallic strap being looped around the shaft 15 and forming a support for said shaft during its rotation. A bracket 19 has its ends secured to the standards 6 and has its intermediate portion looped to form a socket 20 which embraces the arm at its lower end, the said bracket also embracing the ends of the strap 18 and the said bracket and the said ends of the strap 18 being secured to the arm by a bolt 21. Fig. 1 shows that the bracket extends outwardly from the standards 6 and slightly upwardly from the standards, thereby forming a brace for holding the arm in the position in which it is shown in the drawings. The shaft 15 has a crank handle 22 secured thereon, although any appropriate means may be provided for rotating the said shaft.

The portion 16 which is on the shaft 15 is provided for winding the cable 13 and drawing it over the pulley 12 when the hook 23 secured to the outer end of the cable has been fastened so that the cable will lift a vehicle body or the like.

A plate 24 is secured to the two standards 6 and a ratchet wheel 25 is mounted on the shaft 15 at a point between the plate 24 and the cross piece 17, and the said plate and cross piece contain a stud or pin 26 on which a pawl 27 is pivoted, the said pawl being in such position and in such relation to the ratchet wheel 25 that it engages the teeth of the ratchet wheel to prevent counter-clockwise rotation of the shaft 15.

From an inspection of the drawing, it will be apparent that manipulation of the crank handle 22 will result in rotating the shaft and consequently the drum on which the cable or flexible connection is wound, and that the winding of said cable will result in hoisting the vehicle body or the like to which the cable has been attached and as the pawl rides over the teeth of the ratchet wheel, the said pawl is in position to engage the said teeth to prevent rotation of the ratchet wheel in the opposite direction unless the said pawl is manipulated to elevate its end out of the path of travel of the teeth of the ratchet wheel. It will be observed furthermore that the frame formed by the standards, the arm and the parts associated

therewith, affords a strong and durable structure which will support the weight of objects intended to be lifted by the apparatus.

5 I claim

1. In a hoisting apparatus, standards arranged in an inclined position with their upper ends in proximity, an arm having its upper end interposed between the standards, means for securing the standards and arm together, blocks secured to the inner surface of the standards near the upper ends, a spindle mounted in the blocks, a pulley on the spindle, a cable operating over the pulley, a metallic strap secured to the lower end of the arm and looped to form a support, a shaft rotatable therein, a cross piece secured to the standards in which the shaft is journaled, said shaft having a portion to which the cable is connected, and means for preventing rotation of the shaft.

2. In a hoisting apparatus, standards arranged in an inclined position with their upper ends in proximity, an arm having its upper end interposed between the standards, means for securing the standards and arm together, blocks secured to the inner surface of the standards near the upper ends, a spindle mounted in the blocks, a pulley on

the spindle, a cable operating over the pulley, a metallic strap having its ends connected to the lower end of the arm, a bracket having a looped portion forming a socket embracing the ends of the said strap and the said arm, the said bracket having ends secured to the standards, a shaft supported by the metallic strap, a plate extending between the standards and secured thereto, a cross piece secured to the standards and providing an intervening space between the said plate and cross piece, a shaft rotatably supported by the metallic strap, the said shaft being journaled in the cross piece, a ratchet wheel on the shaft between the plate and the cross piece, a stud or pin supported by the plate and cross piece, a pawl mounted on the stud or pin and having its end in the path of travel of the teeth of the ratchet wheel and operative to prevent rotation of the said ratchet wheel in one direction, said shaft having a portion on which the cable is wound, and means for rotating said shaft.

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

GEORGE W. PINE.

Witnesses:

WILL DANIEL,

M. L. ELYEA.

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