(No Model.)

L. D. HATHAWAY.

LIFTING JACK.

No. 559,579. Patented May 5, 1896.

Fig: 1.

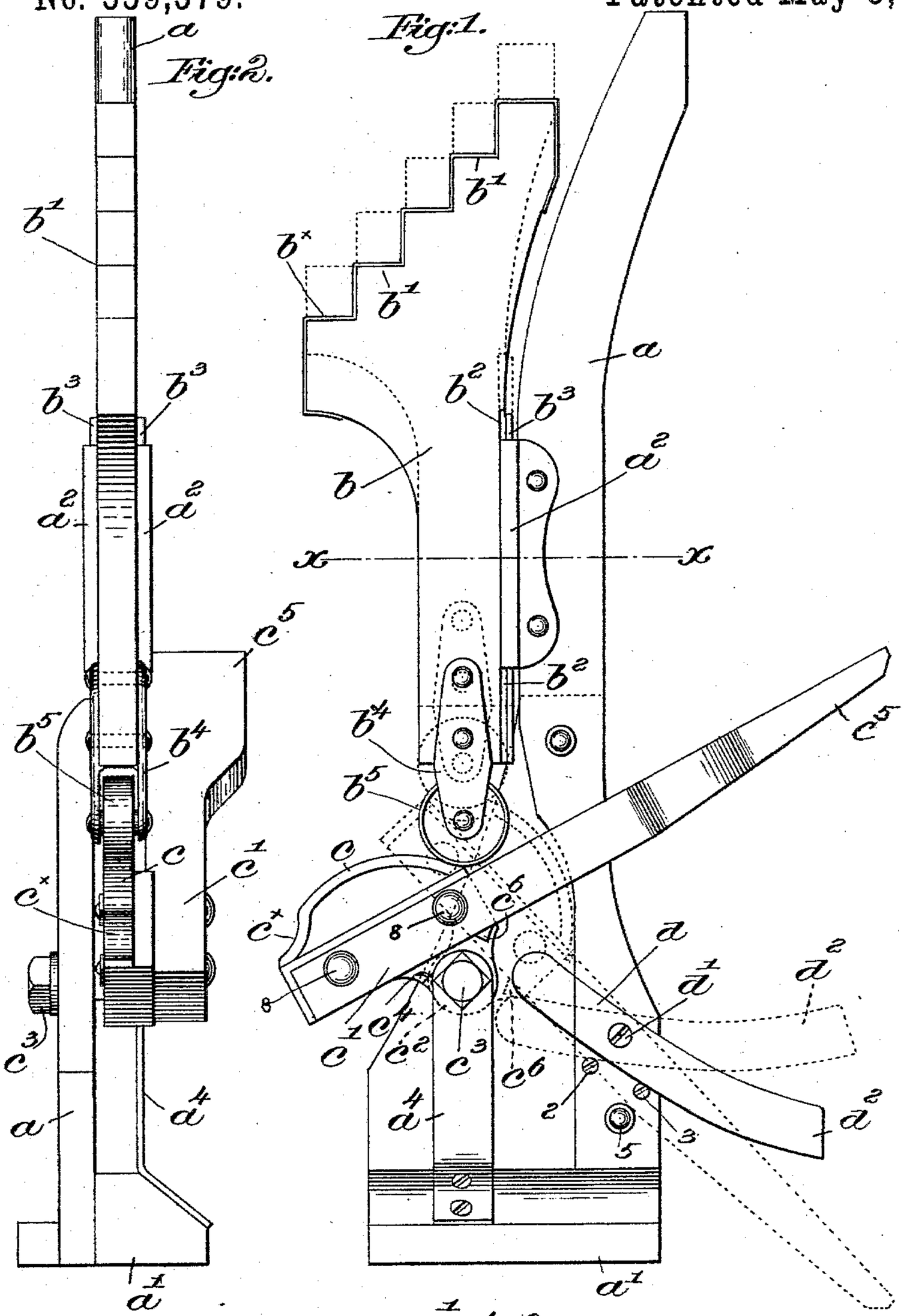

Fig: 3.

Witnesses.
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LIFTING-JACK.

SPECIFICATION forming part of Letters Patent No. 559,579, dated May 5, 1896.

Application filed December 26, 1895. Serial No. 573,289. (No model.)

To all whom it may concern:

Be it known that I, LORENZO D. HATHAWAY, of Foxborough, county of Norfolk, State of Massachusetts, have invented an Improvement in Lifting-Jacks, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object the production of a simple and strong lifting-jack particularly adapted for carriages and wagons provided with means for automatically locking the jack when the movable member is lifted, an independent releasing or unlocking device being provided to unlock the movable member of the jack when desired.

In accordance therewith my invention consists in a lifting-jack, the novel features of which are hereinafter fully described in the specification, and particularly pointed out in the claims.

Figure 1, in side elevation, represents a lifting-jack embodying my invention, the normal position of the operative parts being shown in full lines, and the locked position of such parts is illustrated by dotted lines. Fig. 2 is a front elevation of the apparatus shown in Fig. 1; and Fig. 3 is a transverse sectional view thereof on the line $x\ x$, Fig. 1, looking down.

I have herein shown the operative parts of the jack as mounted on a suitably-shaped upright standard or support a, laterally widened at the bottom to form a broad and firm base a'.

The movable member b has its top shaped to form a series of successively-elevated shoulders b' to engage the article to be lifted, as the axle of a wagon or carriage, a metal strap $b^\times$ protecting the shouldered portion, if desired. The member b is longitudinally grooved adjacent its rear side at b^2, and has secured thereto a strong plate b^3, projecting laterally beyond its sides to enter and be guided in its vertical movement by guides a^2, bolted or otherwise secured to the standard a, and having overturned longitudinal edges a^3 to enter the grooves b^2, as clearly shown in Fig. 3, to retain the movable member b on the standard without interfering with its longitudinal movement or complete withdrawal when desired. A bracket b^4, securely bolted to the lower end of the member b and projecting below it, has mounted therein, preferably, a roll b^5, adapted to rest on and travel over an actuator c, shown as a casting having a cam-face and an ear which is mounted on a bolt c^2, extended through the standard, and an upright metallic strap a^4. The actuator has a lever c^5 attached to it by bolts 8 8, and a lug c^4 of the actuator is adapted to engage the strap a^4 when the member b is depressed, limiting its downward movement. The lever is herein shown as broadened at c^5 to form a foot-rest, so that the operator can operate the jack with his foot, though the actuator could of course be used as a hand-lever, if desired. A depression $c^\times$ is made in the cam c, so located that when the rear end of the lever c' is depressed to fully lift the movable member b into operative or dotted-line position, Fig. 1, the roll b^5 will enter the depression, and the centers of the member b, the roll b^5, the depression $c^\times$, and the fulcrum c^3 will be in the same vertical line, the depression in the cam c thus acting, in conjunction with the roll, to form a locking device for the movable member b. The jack is thus locked into operative position, and the weight of the lifted object will prevent unlocking by any accidental movement of the actuator c'. A releasing device or trip is provided to obviate the necessity of an upward pull on the actuator, said device being shown as a preferably upwardly-curved flat lever d, pivoted at d' on the standard, and having its inner end in the path of movement of a suitable lug c^6 on the casting c at the rear of its fulcrum. When the jack is locked, said lug c^6 bears against the lever d and elevates its outer end d^2 (see dotted lines, Fig. 1) above the actuator, so that when it is desired to lower the member b the end d^2 of the releasing-lever is depressed, thereby raising its inner end and turning the cam c and actuating-lever c' on the pivot c^3. As soon as the highest part of the cam has passed center the weight of the jacked object continues the movement until the parts are restored to normal position. (Shown in full lines.) The jack is thus readily controlled by the operator, who, with one foot, can either raise and lock the lifting member b or unlock

it and cause its return to normal lowered position, the jack being powerful, while very easy to operate.

Stops 2 3 on the standard limit the movement of the releasing device, and a stop 5 arrests the actuator *c'* when the jack is locked.

My invention is not restricted to the exact construction and arrangement herein shown, as the same may be arranged or modified without departing from the spirit and scope of my invention.

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

1. In a lifting-jack, a supporting-standard, a lifting member vertically movable thereon, an actuator adapted to be moved by the foot to engage the lower end of and lift the movable member, a locking device controlled by the actuator to retain said movable member in its elevated position, and independent releasing means for said locking device, to start the movement of the actuator to lower the movable member, substantially as described.

2. In a lifting-jack, a supporting-standard, a lifting member movable thereon, and provided with a roller, a cam-shaped actuator, having a locking depression coöperating with said roller, to lift and automatically lock the movable member in its elevated position, and means to move the actuator, and a releasing device to start the movement of the cam to lower the movable member, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LORENZO D. HATHAWAY.

Witnesses:
FREDERICK L. EMERY,
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