(No Model.) 2 Sheets—Sheet 1.

A. L. GOODEN.

WHIM.

No. 600,070. Patented Mar. 1, 1898.

Fig. 2.

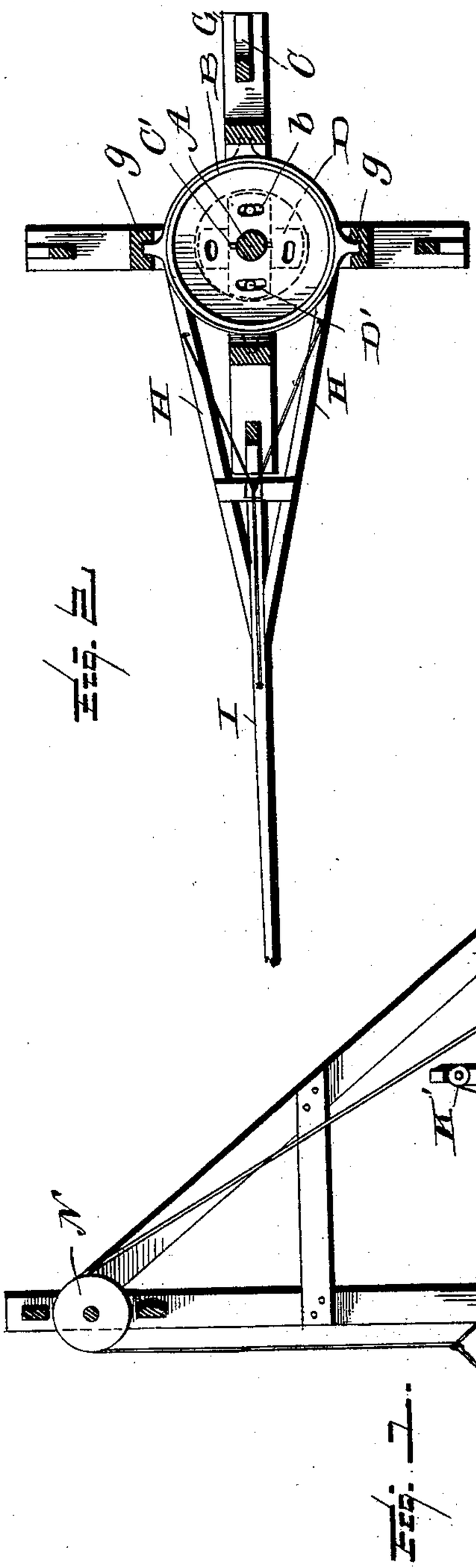

Fig. 1.

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A. L. Hough.

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Attorney

(No Model.) 2 Sheets—Sheet 2.

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WHIM.

No. 600,070. Patented Mar. 1, 1898.

Fig. 3.

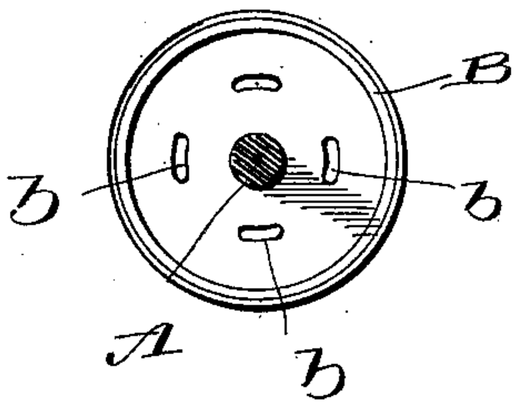


Fig. 4.

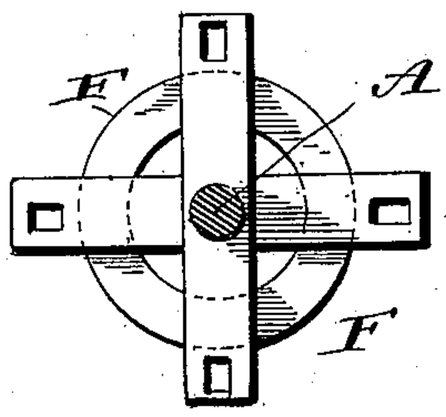
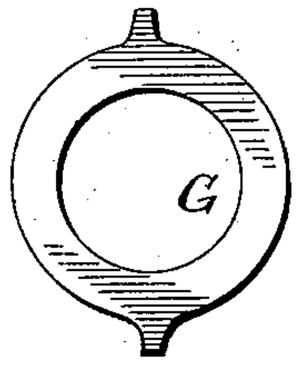


Fig. 5.



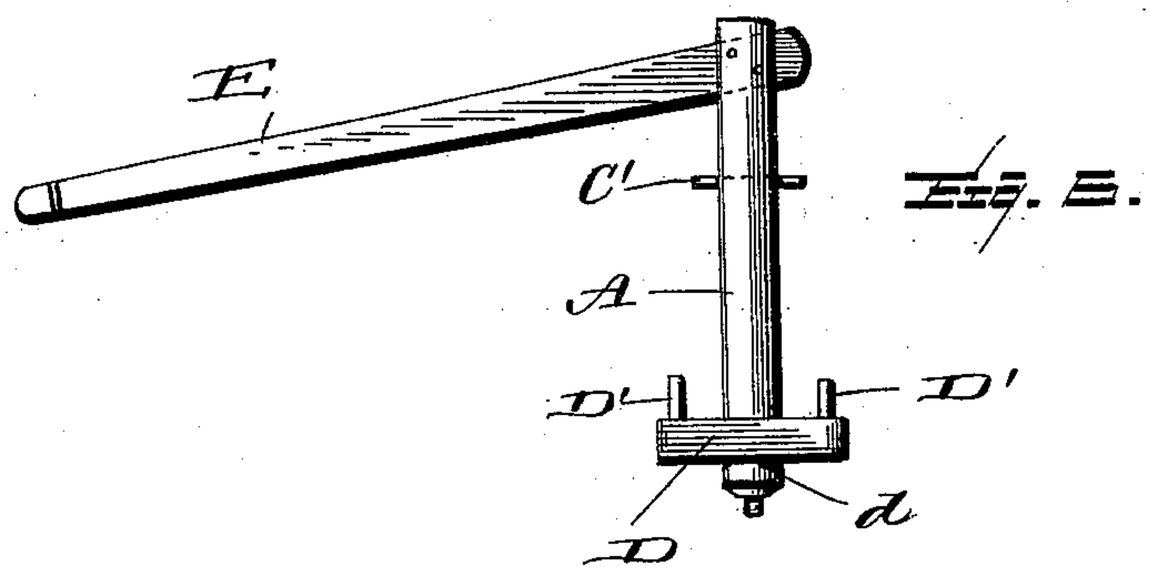


Fig. E.

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UNITED STATES PATENT OFFICE.

ALBERT LOGAN GOODEN, OF LAKE GEORGE, COLORADO.

WHIM.

SPECIFICATION forming part of Letters Patent No. 600,070, dated March 1, 1898.

Application filed March 24, 1897. Serial No. 629,072. (No model.)

To all whom it may concern:

Be it known that I, ALBERT LOGAN GOODEN, a citizen of the United States, residing at Lake George, in the county of Park and State of Colorado, have invented certain new and useful Improvements in Whims; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in windlass elevating devices and whims adapted for use in raising water or ore from mines, &c., and especially to the provision of means for automatically throwing the windlass out of gear when it is desired without stopping the rotation of the drum.

The invention relates, further, to the provision of means for automatically checking the descent of the bucket in case of a breakage to any parts of the mechanism, whereby the rope attached to the bucket may be gripped and held from falling in the shaft.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and adaptation of the parts, as will be hereinafter more fully described, and then specifically defined in the appended claim.

The invention is illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a central vertical sectional view through the drum and clutch mechanism, showing attachments to same in side elevation. Fig. 2 is a section on line *x x* of Fig. 1. Fig. 3 is a bottom plan view of the winding-drum. Fig. 4 is a top plan view of the brake at the upper portion of the drum. Fig. 5 is a detail view of the ring designed to raise the drum out of engagement with the clutch. Fig. 6 is a detail view of the post with drum removed, showing the clutch-plate with pins thereon.

Reference now being had to the details of the drawings by letter, A designates the whim-post, on which is loosely carried the drum B, the said post A being loosely mounted in the framework C, and the lower end of the said post is pivoted in a beam in the framework. Securely secured to the said post, as at *d*, is the clutch-block D, which carries a series of bearings D′, which are adapted to normally engage in the recesses or holes *b* in the bottom of the drum for the purpose of causing the drum, which is loosely mounted on the said post, to turn with the said clutch-block. Secured to the upper end of the said post is the sweep E, to the end of which a horse may be attached. Secured to the upper end of the frame is the brake-block F, and mounted about the circumference of the clutch-block D is the lower brake-block G, which is allowed to move vertically against the lower end of the drum outside of the series of apertures or recesses *b*. Secured to the bearings *g* on diametrically opposite sides of the said brake-block are the arms H, which are secured to the operating-lever I, which has secured to its outer end a wire K, passing over a pulley K′ and secured to its end a weight L. This weight is provided to counterbalance and hold the clutch-bar normally in engagement with the apertures in the drum. This lever I is pivoted at I′ to a block and may be suitably braced by means of wire cables or other suitable devices.

M is a cable which is adapted to be secured at one end to and wind about the said drum, thence passes over pulleys N, and its other end is secured to a bucket O, which is designed to be lowered into the shaft Q, there being provided suitable trap-doors R′ over the entrance of the shaft, which also serve as brakes as the free edges of the doors engage against the cable. In operation the said drum normally rests on the clutch-block, with the pins seated in the apertures at the bottom thereof, and when it is desired to throw the drum out of gear or engagement with the said clutch-pins the operator merely applies pressure to the end of the lever I, which will cause the brake-shoe G to raise the drum out of engagement with the said pins and lift it, so that its upper end will engage with the upper brake-block F, thus securely holding

the drum against rotation while the clutch-block is at liberty to revolve. If desired, there may be a rack-bar and pawl or other suitable device to hold the drum out of engagement with the said clutch-block.

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

In combination with the winding-post journaled in a suitable framework-plate D secured thereto and provided with upwardly-extending lugs D′, the drum loosely mounted on said post and designed to normally rest on the plate D with the lugs D′ engaging in apertures in the bottom of the drum, the posts *g*, the vertically-movable ring G having diametrically opposite guide extensions fitted in slots in the said posts *g*, said ring adapted to rest underneath the drum, the lever H having arms connected with the ring and the brake member F against which the upper end of the drum frictionally engages as the latter is lifted, by the said ring and lever, out of engagement with the lugs D′, substantially as shown and described.

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

ALBERT LOGAN GOODEN.

Witnesses:
TOM GALLAGHER,
A. L. PRESTON.