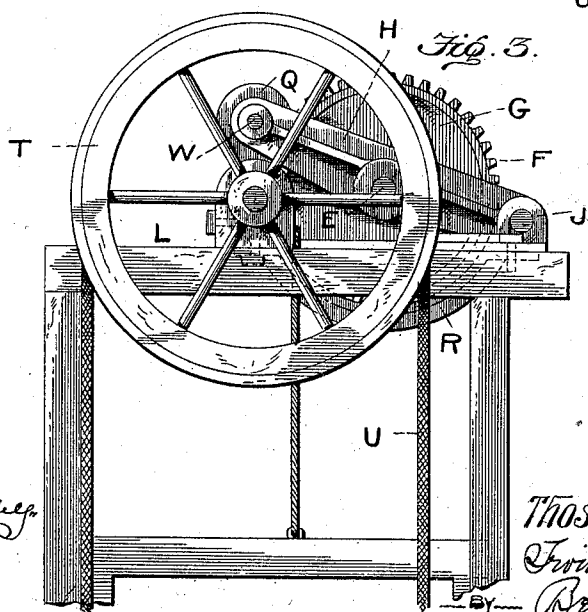
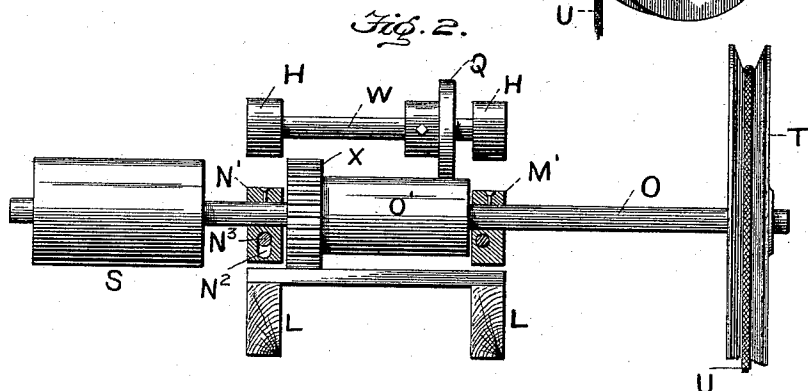
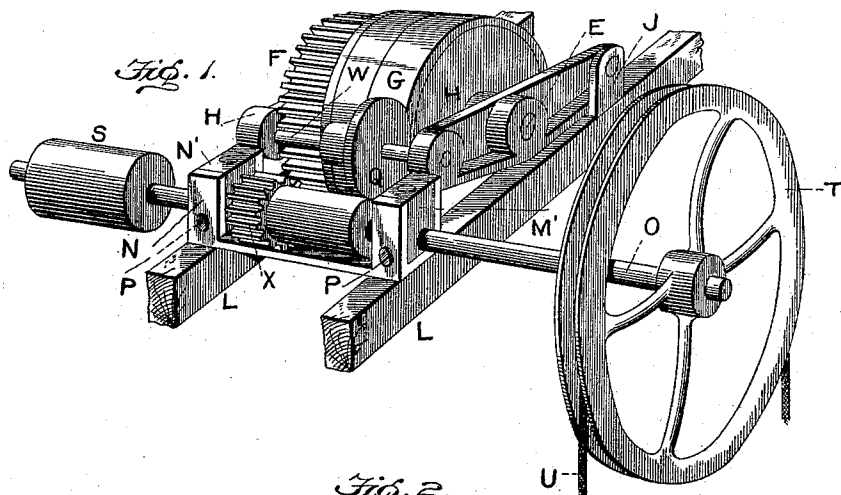


(No Model.)

T. W. BARBER.
ELEVATOR.

No. 534,945.

Patented Feb. 26, 1895.



Witnesses:
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Geo. H. Evans

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UNITED STATES PATENT OFFICE.

THOMAS WALTER BARBER, OF ST. LEONARD'S, ENGLAND.

ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 534,945, dated February 26, 1895.

Application filed May 8, 1893. Renewed February 6, 1895. Serial No. 537,430. (No model.)

To all whom it may concern:

Be it known that I, THOMAS WALTER BARBER, a citizen of Great Britain, residing at Ellora, Silverhill, St. Leonard's-on-Sea, in the county of Sussex, England, have invented new and useful Improvements in Self-Sustaining Lifts and Elevators, of which the following is a specification.

My invention relates to hand hoisting apparatus and is designed more particularly to provide an improved brake mechanism, whereby the brake is automatically thrown out of engagement when the hoisting rope is pulled so as to allow the hoisting mechanism to be operated, and set when the rope is released.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a hoisting apparatus constructed in accordance with my invention. Fig. 2 is a detail vertical longitudinal section. Fig. 3 is a side elevation.

In the said drawings the reference letters L, L, designate two beams upon which the hoisting mechanism is supported. Secured to these beams are two bearing or journal boxes M and N, in which are located bearings or blocks M' and N'. One of these bearings M', is pivoted in its box by means of pivot P, so that it can oscillate or tilt therein. The opposite bearing N' is formed with an elongated slot N² through which passes a pin N³. The letter O designates the hoisting shaft passing through said bearings and provided at one end with a weight S, and at its other end with a grooved hoisting wheel T around which passes the hoisting rope U. Intermediate the ends of said shaft is a pinion X which meshes with a cog wheel F on a load shaft E. This shaft is journaled in arms H, one end of each of which is pivoted to a lug J, secured to the beams L. At their free ends these arms are connected by means of a shaft W, provided with a friction wheel Q, which bears against a wheel or enlarged circular portion O', of shaft O.

Secured to extensions of the lugs J, of the beams L, is a segment R, which is adapted to engage with a wheel G, secured to the shaft E. This wheel if desired may be formed integral with cog wheel F.

The operation is as follows: When it is desired to elevate the rope secured to the load shaft, the hoisting rope U is pulled which will slightly raise the opposite end of the shaft O, which in turn will raise the arms H and throw the wheel G out of engagement with the brake segment and allow the load shaft and cog wheel F to be rotated through the medium of the pinion X. When the hoisting rope is released the shaft O will return to normal by reason of weight S and the hoisting mechanism be checked by the wheel G engaging with the segment R. It will thus be seen that the brake will be released as the hoisting rope is actuated to rotate the hoisting shaft and set when said rope is released.

Having thus described my invention, what I claim is—

1. In a hand hoisting machine, the combination with the load shaft, having a friction wheel or drum and a cog wheel, and the pivoted arms in which said shaft is journaled, of the tilting hoisting shaft, having a pinion meshing with said cog wheel, the brake segment, the wheel resting on said shaft, and a shaft on which said wheel is journaled, said latter shaft being journaled in the free ends of said pivoted arms.

2. In a brake mechanism for hoisting apparatus, the combination with the tilting hoisting shaft and its wheel, and the pinion and weight carried by said shaft, of the pivoted arms having a friction wheel adapted to engage with said shaft, the load shaft journaled in said arms, provided with a cog wheel and a friction drum and the brake segment with which said drum engages substantially as described.

THOMAS WALTER BARBER.

Witnesses:

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