

L. Cutting,

Hay Elevator.

No. 90,823.

Patented June 1, 1869.

Fig. 1.

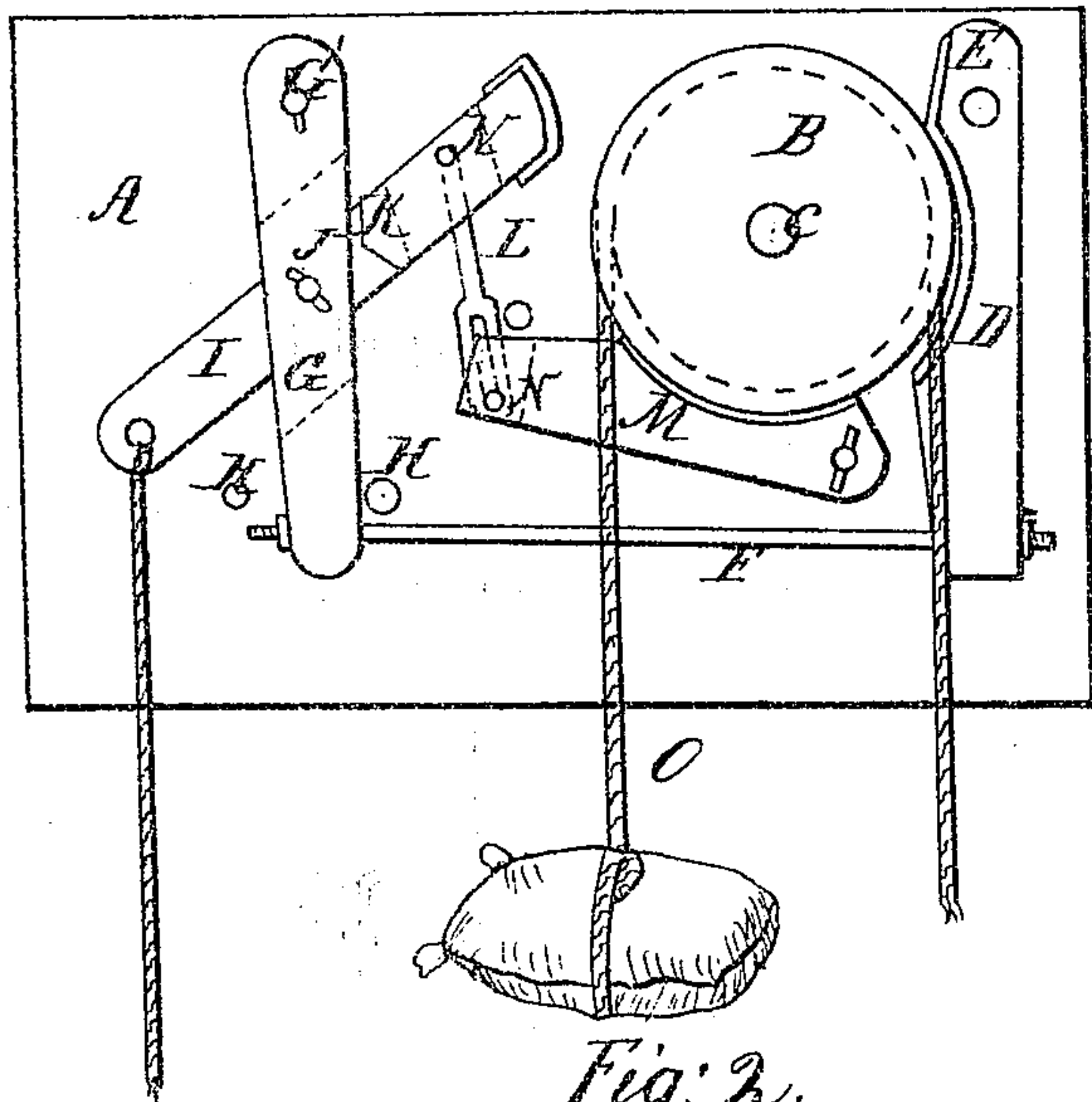
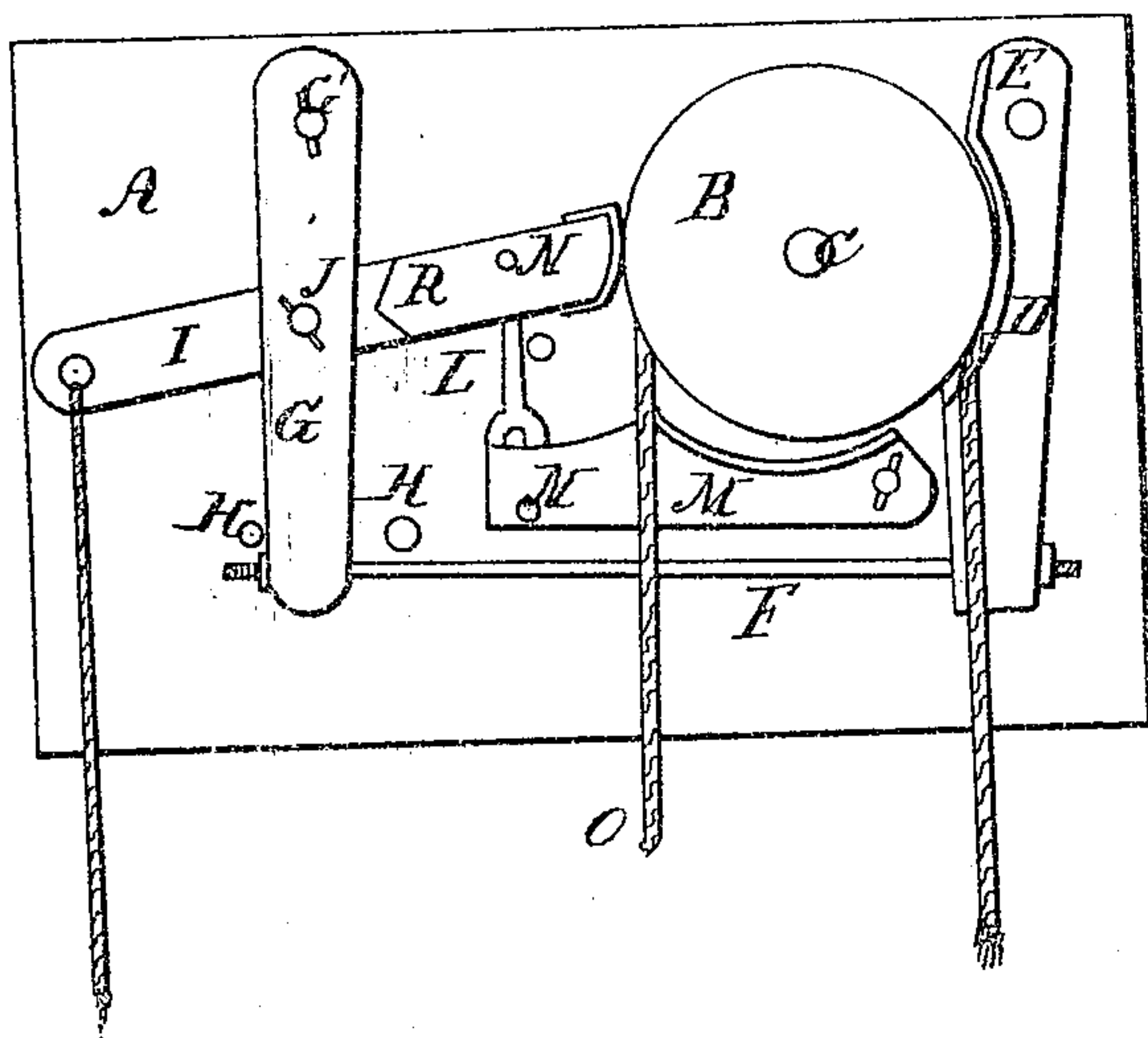


Fig. 2.



Witnesses;

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Inventor;

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United States Patent Office.

LEWIS CUTTING, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 90,823, dated June 1, 1869.

IMPROVED HOISTING-APPARATUS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, LEWIS CUTTING, of San Francisco, in the county of San Francisco, and State of California, have invented certain new and useful "Improvements in Hoisting-Apparatus;" and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention is to provide an improved hoisting-machine, cheap and simple in its construction, and that will be effective for the purpose of raising and lowering goods, wares, merchandise, and, at the same time, be a sure safeguard against accidents in its operations.

It consists of a grooved pulley, against which bears a series of lined or covered brakes, that check the machine at any point desired, while the weight is being elevated or lowered. It occupies but little space, and can be placed on any floor of the building, and be operated with ease.

Referring to the drawings—

Figure 1 is a front elevation, with brakes removed.

Figure 2 is also a front elevation, with brake-bar and brake down against the pulley.

A represents a frame, to which the pulley B is connected by means of a spindle, or shaft, C, which passes through the pulley and frame, where it is held by a pin turning against a washer.

To one side of the pulley is attached a brake, D, which is held by a pin, E.

A connecting-rod, F, passes through the lower end of the brake, and also through the lower end of a slotted bar at the opposite side of the pulley, where it is held by set-screws, allowing both brake and bar to play on the rod between the set-nuts.

The slotted bar G is connected to the face of the frame by means of a pin and key, G', and moves between the two projecting-pins H H.

Through the opening in the slotted bar passes a brake-bar, I, where it is held by a pin and key, J, the slot being made large enough to admit of the free play of the bar up and down until arrested by the angular

shoulders K. The end of this bar is bevelled, and is covered with vulcanized rubber, or leather. Near the end of this bar is a slot, in which the end of a link works.

The link L has also a slot in its lower end, and connects the brake-bar to a horizontal brake, M, by means of pins, N N, so that when the brake-bar is raised, it will draw up the horizontal brake against the pulley, and when it is lowered, the brake falls down automatically, the object sought being to prevent the too sudden starting of the pulley when the brake-bar is raised.

In the operation of the machine, when the brake-bar is down, it bears against the pulley, and draws firmly with it, by means of the connecting-rod, the brake at the opposite side, and the pulley is held tightly between the two, and the greater the bearing-down weight, or load on the cage, or rope O, the more firmly the brake and brake-bar hold the pulley.

If the brake-bar should be borne down below the first bite by increased weight, or accident, it will be arrested by the pin P.

Both of the horizontal and vertical brakes are covered with vulcanized rubber, or leather.

A cord is attached to the end of the brake-bar, within easy reach of the operator, for raising or lowering it.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

1. The brake-bar I, provided with the angular shoulders K, in combination with the brake D, horizontal brake M, and connecting-rod F, the whole constructed and arranged to operate substantially as described.

2. The slotted link L, for connecting the brake-bar and horizontal brake, as described, and the pin P, for arresting the downward movement of the brake-bar, substantially as set forth.

In witness whereof, I have hereunto set my hand and seal.

LEWIS CUTTING. [L. S.]

Witnesses:

C. W. M. SMITH,
E. V. SUTTER.