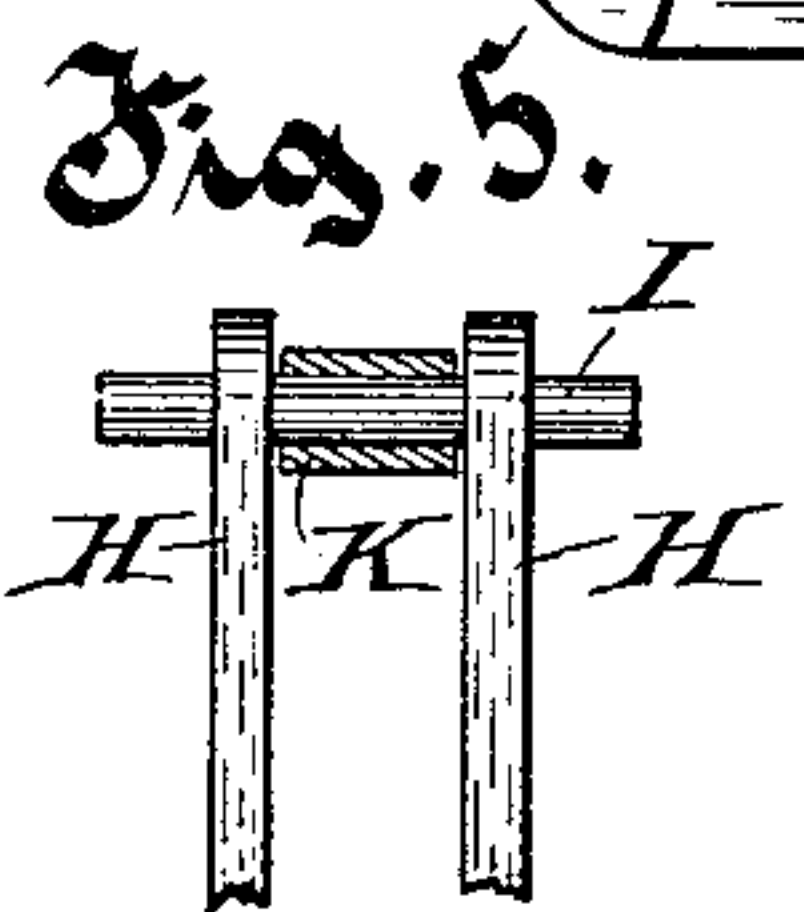
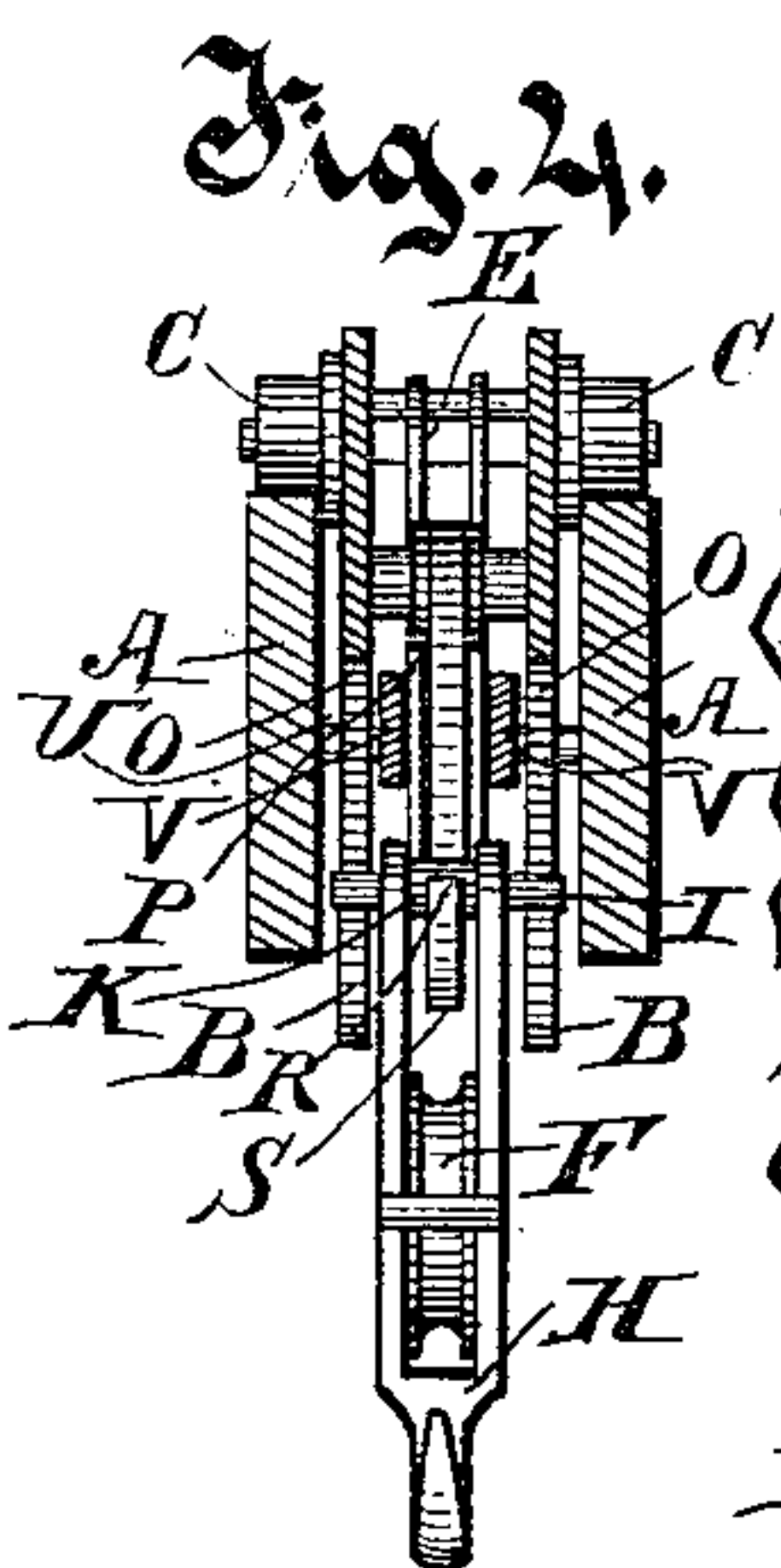
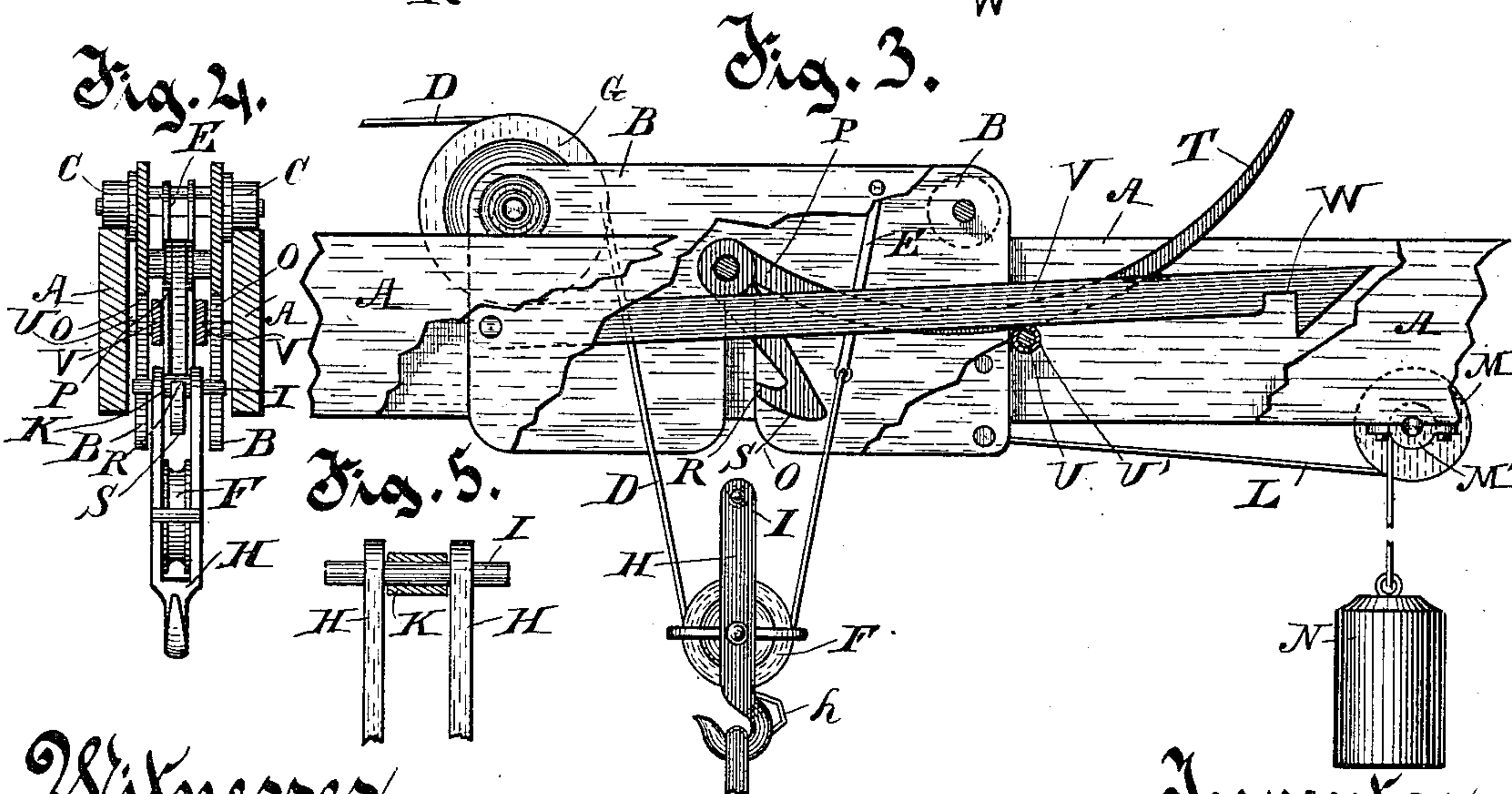
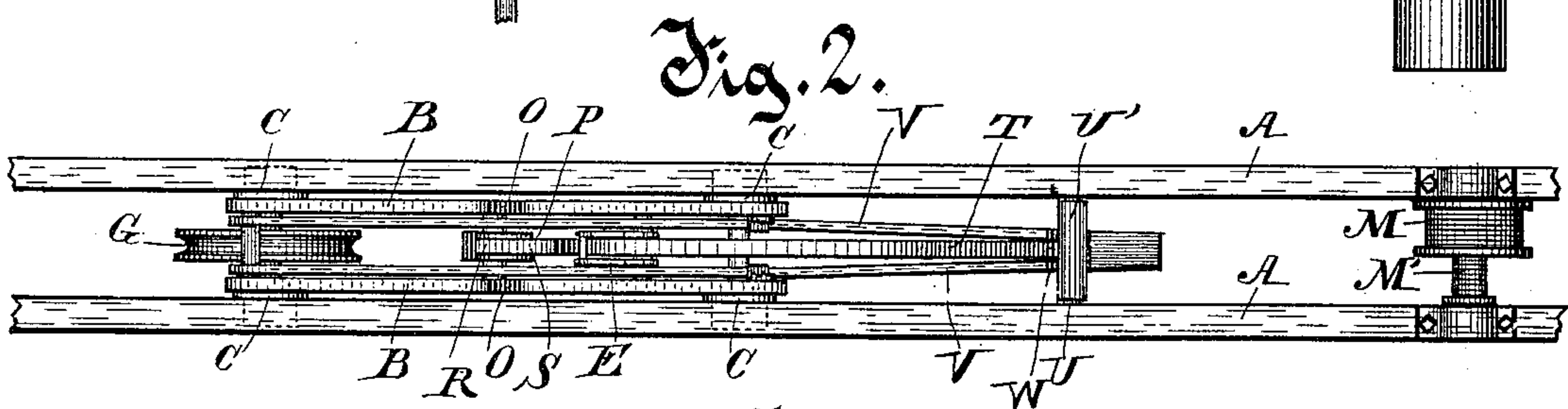
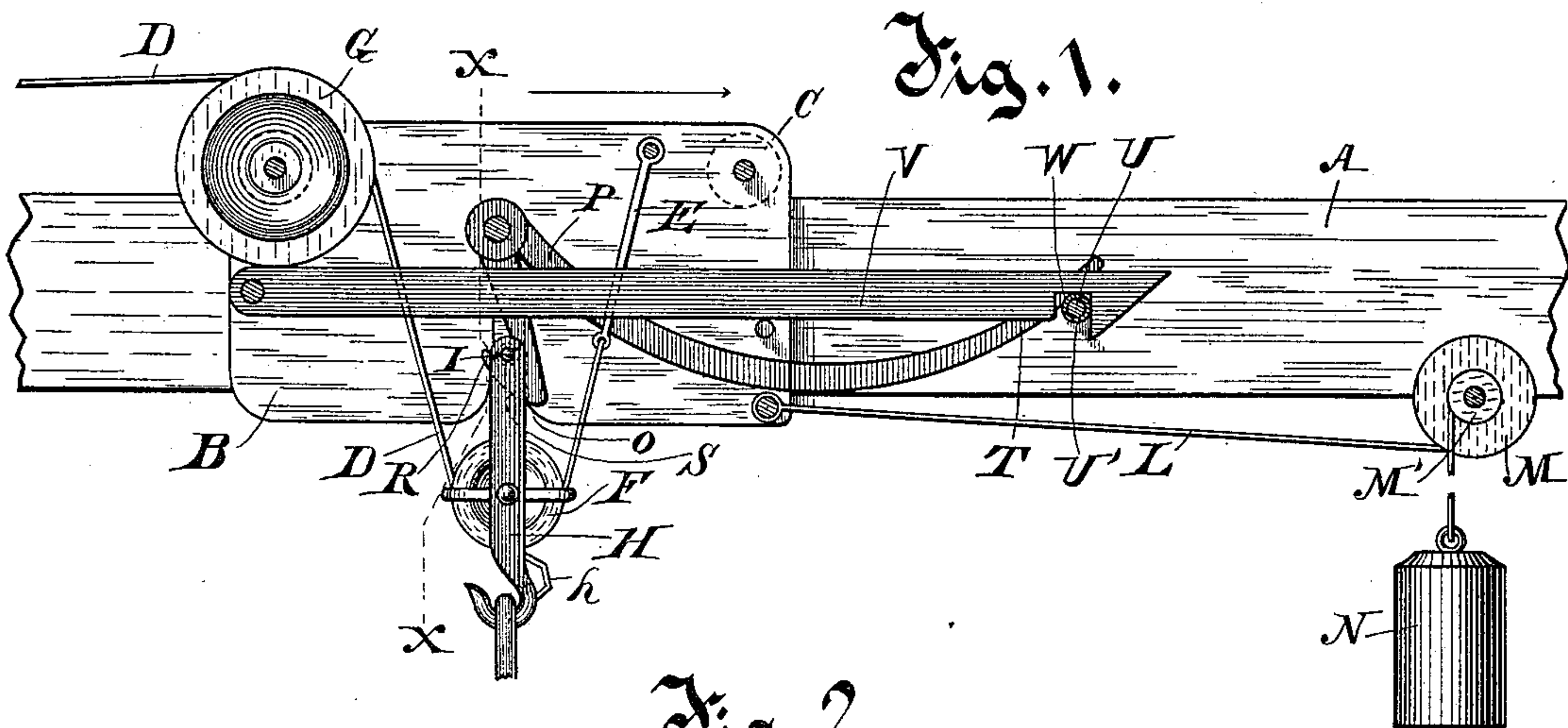


(No Model.)

T. LONG.  
CARRIER.

No. 405,785.

Patented June 25, 1889.



Witnesses.

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# UNITED STATES PATENT OFFICE.

TIMOTHY LONG, OF MILWAUKEE, WISCONSIN.

## CARRIER.

SPECIFICATION forming part of Letters Patent No. 405,785, dated June 25, 1889.

Application filed February 11, 1889. Serial No. 299,426. (No model.)

*To all whom it may concern:*

Be it known that I, TIMOTHY LONG, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful  
5 Improvements in Carriers; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked  
10 thereon, which form a part of this specification.

The carrier in which my invention is embodied is adapted for travel on a track supported in a shed or on a frame at a distance from the ground, and is adapted for use for  
15 transporting a bucket, in loading or unloading coal from a vessel, or for other similar work.

In the drawings, Figure 1 is a side elevation of my complete device, one rail of the track  
20 and one side of the frame or body of the carrier being omitted to show interior parts of the device. Fig. 2 is a plan of the same device from below. Fig. 3 is the same device in which the operative arms of the carrier are  
25 in the position in which they appear just after the sheave-frame has been released from the carrier when the bucket descends for its load. Fig. 4 is a vertical transverse section of the device on line X X of Fig. 1. Fig. 5 is a detail  
30 of the upper part of the sheave-frame.

The track on which the carrier travels consists of two rails A A, which are supported at a distance from the ground on a frame or in a building.

35 The frame of the carrier consists of two plates of metal B B at a distance apart, connected together by bolts and supported and adapted to travel on the rails A A on the wheels C C, the axles of which are fixed in the  
40 plates of the frame B B. A hoisting-rope D is affixed at one end to a rod or link E, which is hinged to the plates of the frame B B near one end. The rope D passes down around a sheave F and up over a pulley G, supported  
45 and rotating in the frame. This rope D is intended and adapted for hoisting the sheave F with its thereon-supported bucket of coal, and for pulling the carrier with its load to the left on the track. The sheave has its axle  
50 bearing in a frame H, which frame at its lower end terminates in a hook adapted to receive and hold the bail of a coal-bucket, and at its

bifurcate upper end is provided with a cross-bar I, provided with a loose friction-sleeve K  
between the ends of the frame.

55 A retrieving-rope L is attached to the frame at one extremity and runs on a rotating drum M, supported and having its axle-bearing in the rails A A. The drum M is provided with a smaller drum M', integral therewith, to which  
60 is affixed a cord which runs thereon, on which is supported a retrieving-weight N. This retrieving-weight N, with the drum M and rope L, is adapted for bringing the carrier with  
its empty bucket back to the place where it  
65 receives the load after it has been drawn away to the depositing-place by the rope D, as hereinbefore described.

The plates B B are each provided with a recess O, extending upwardly from the lower  
70 edge, into which the sheave-frame is adapted to enter and be guided and held in position by the ends of the cross-bar I bearing against those parts of the plates B B which form the walls of the recesses O O. A bent lever P is  
75 pivoted in the carrier between the plates B B just above the recesses O O, one arm of which lever P is constructed in the form of a hook R, adapted to engage the cross-bar I of the  
sheave-frame, the lower outer end of this hook  
80 being beveled or curved off at S, whereby it is adapted to be pushed to one side of the recess by the ascending sheave-frame as the bar I in its upward movement pushes against  
the beveled end of the hook, and when the  
85 bar I has passed the hook the hook by gravity tilts underneath and engages the bar, thereby supporting the sheave-frame with its load. The other arm T of the lever P is in a curved  
form, and is adapted, when the carrier runs  
90 to the right on the track, to impinge against a pin U, fixed in the rails A A, as shown in Fig. 1, and to be raised thereby as the carrier continues its movement to the right into the  
position shown in Fig. 3, thereby releasing  
95 the hook R from engagement with the cross-bar I of the sheave-frame, permitting the sheave-frame and the bucket thereon to descend. The pin U is provided with a loose anti-friction sleeve U'. A swinging arm V is  
100 pivoted at one extremity in one end of the carrier, and extending through the carrier horizontally, passing opposite the recesses O O, projects some distance from the other end of



the carrier, and is provided with a beveled free end adapted to impinge against the pin U and be raised thereby and run over it to the position shown in Fig. 3, in which the carrier is stopped in its movement toward the right by coming directly in contact with the pin U; and when the carrier is moved a little to the left by the weight of the bucket on the rope D the pin U enters a recess W in the arm V by the gravity of the arm, and the carrier is thereby locked in position on the track, where it is held until the cross-bar I of the sheave-frame, as it is raised, comes in contact with the arm V and lifts it above the pin U, when the carrier is at liberty to run away to the left under the draft of the rope D, the hook R in the meantime being tilted beneath the cross-bar I in position to engage it and hold the sheave-frame from descending.

The arm V is made bifurcate, and the lever P swings between the bifurcate parts of the arm V, as shown in Fig. 2. A loop-handle *h* is affixed to the sheave-frame for convenience in manipulating it. As the carrier moves to the right and comes in contact with the beveled front end of the arm V, the arm is thrown up, so that by the motion of the carrier the arm is carried so far over the pin U by the forward movement of the carrier that the pin U does not enter the recess W as the carrier runs in that direction, but only enters it when the carrier starts in the opposite direction.

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

1. The combination, in a carrier provided with wheels and traveling on a track, of the frame which has a recess for the reception and travel therein of the sheave-frame, a bent lever pivoted in the carrier, which lever has a hook and a beveled outer end on one arm and a curved edge on the other arm, a swinging arm provided with a front beveled end and a recess, and a pin inserted in the track and adapted to impinge with the lever and with the arm of the carrier, substantially as described.

2. The combination, in a carrier, of a bent lever, having a hook on one arm and a curved edge on the other arm, pivoted therein, a straight horizontal arm, having a beveled end and a recess therein, pivoted at one end of the carrier-frame, and extending past a sheave-frame-receiving recess in the carrier and projecting beyond the carrier, a sheave-frame having a bar adapted to impinge against the straight arm and to engage with the hook on the bent lever, and a pin fixed in the rails of the track adapted to impinge against the lever and the arm and to engage with the arm, substantially as described.

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

TIMOTHY LONG.

Witnesses:

C. T. BENEDICT,  
ANNA FAUST.