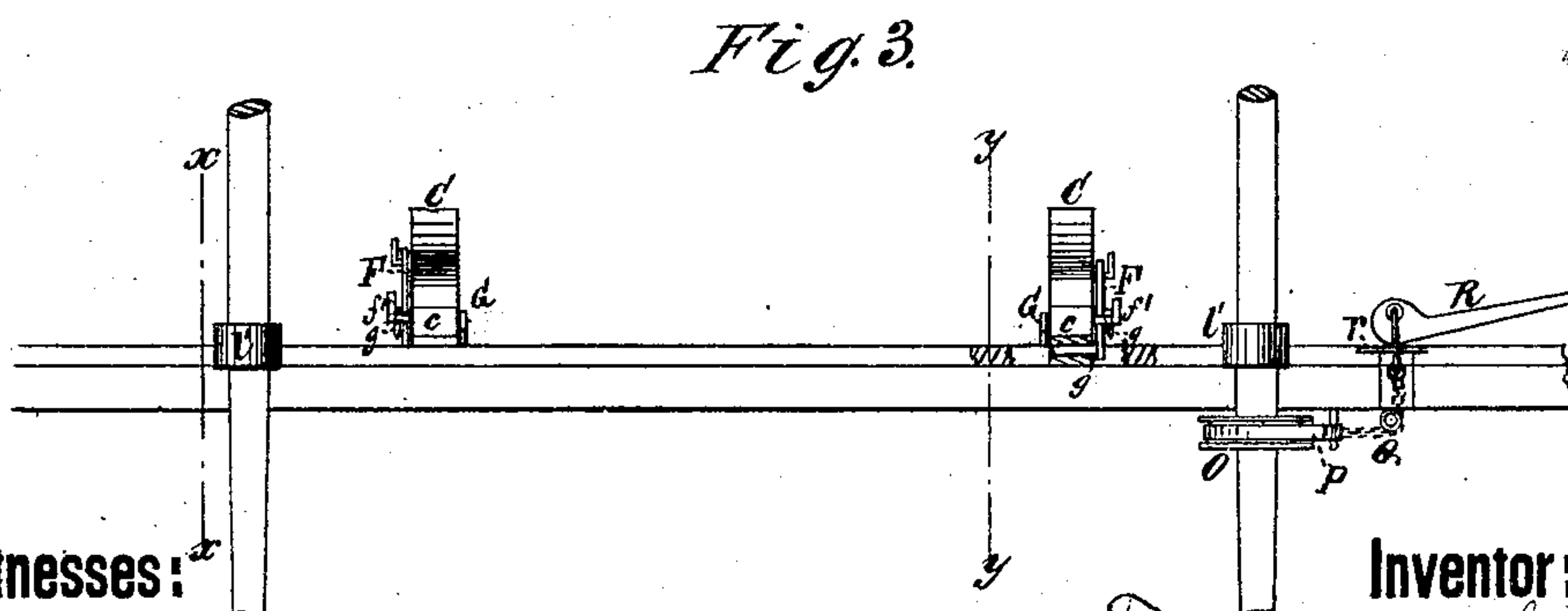
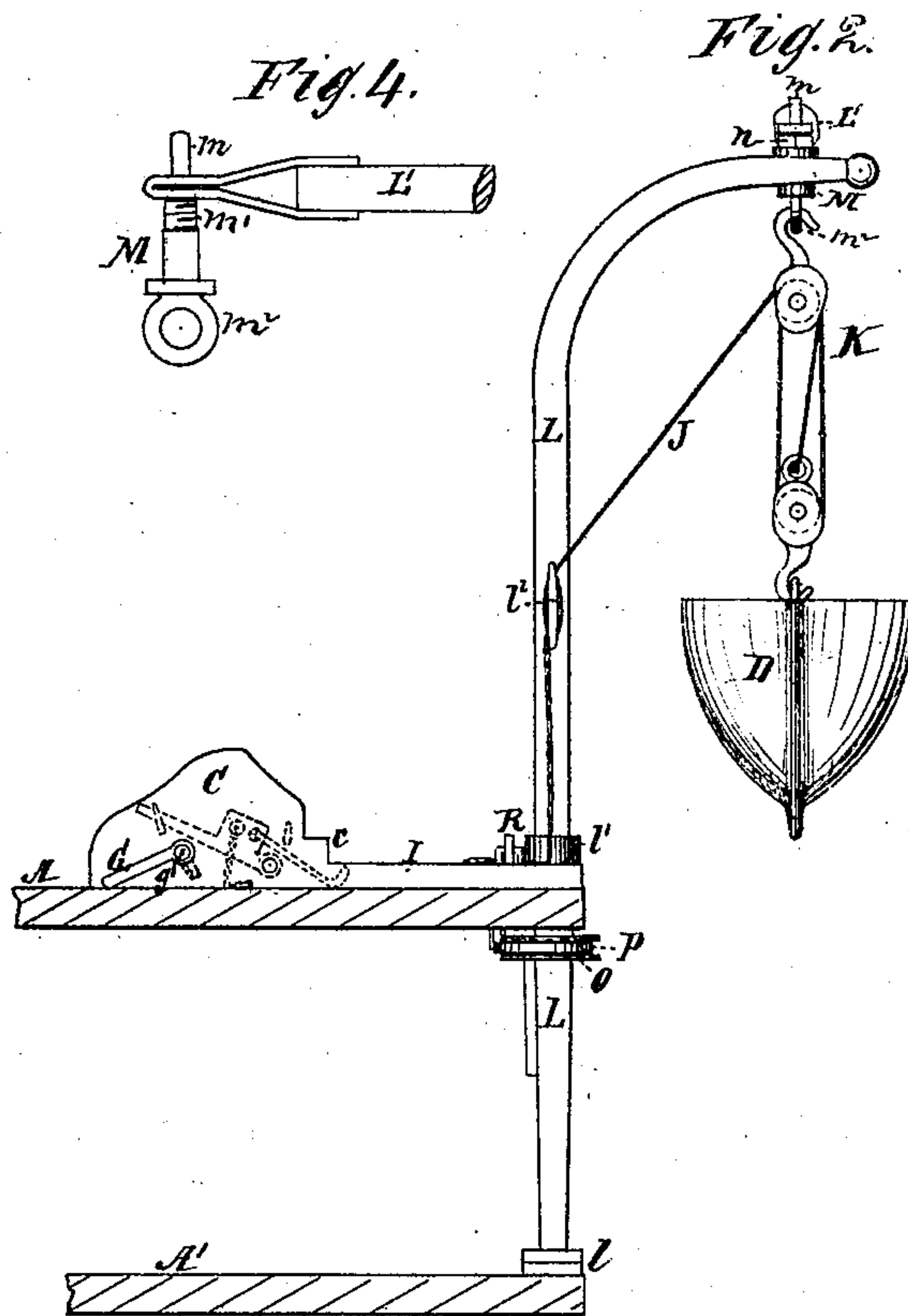
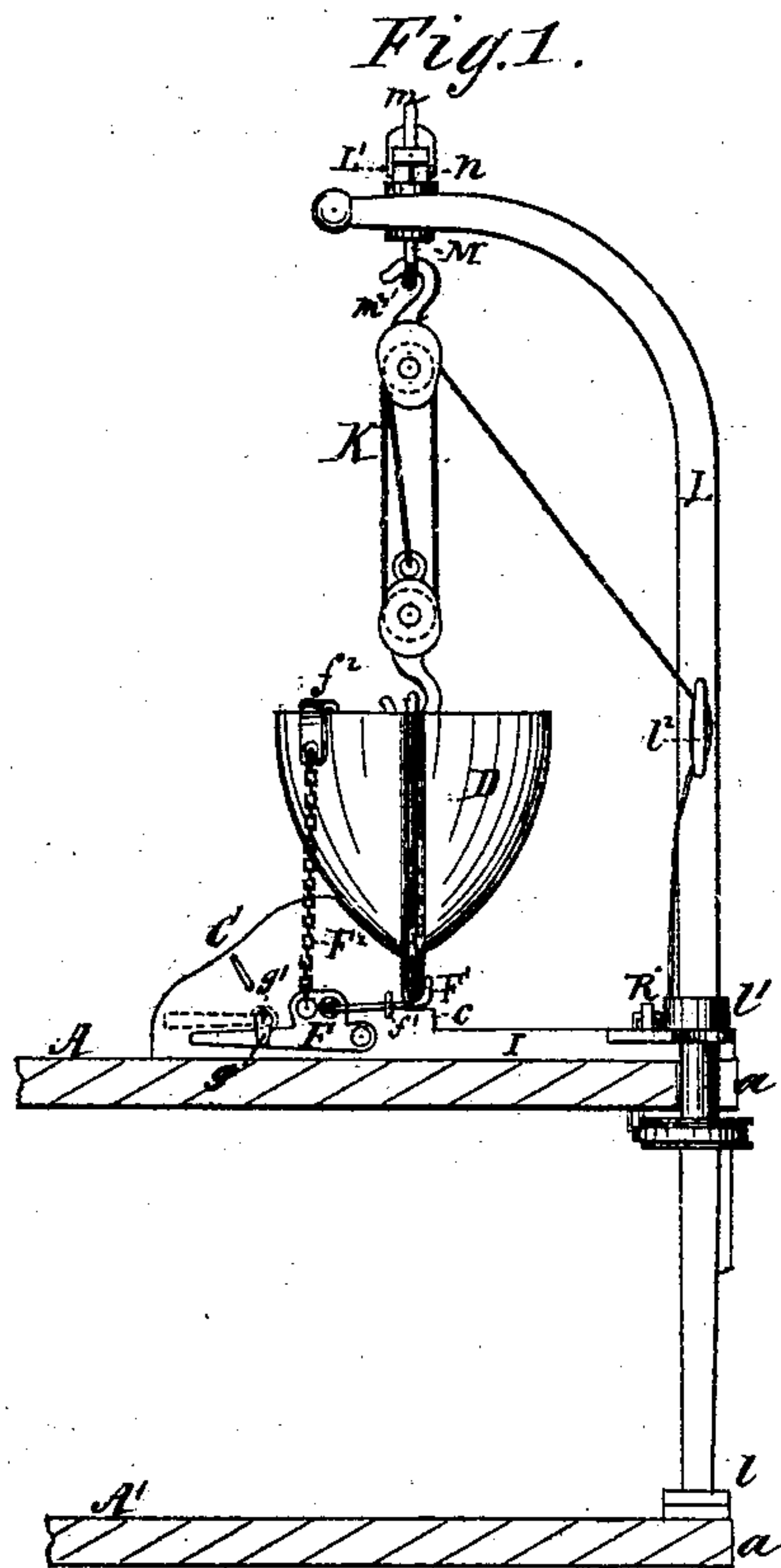


F. M. HOWES.

Means for Chocking and Securing Boats.

No. 145,873.

Patented Dec. 23, 1873.



Witnesses:

G. Matthey.
C. C. Pettit

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UNITED STATES PATENT OFFICE.

FRANCIS M. HOWES, OF SOMERVILLE, MASSACHUSETTS.

IMPROVEMENT IN MEANS FOR CHOCKING AND SECURING BOATS.

Specification forming part of Letters Patent No. **145,873**, dated December 23, 1873; application filed October 30, 1873.

To all whom it may concern:

Be it known that I, FRANCIS M. HOWES, of Somerville, in the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Boat-Gripes and Crane-Keepers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a cross-section in line *xx* of Fig. 3. Fig. 2 is a cross-section in line *yy* of Fig. 3. Fig. 3 is a portion of a side elevation. Fig. 4 is a detail view.

The invention will first be fully described, and then pointed out in the claim.

A A' represent, respectively, the upper and lower deck of a steamer, ship, or vessel; and *a a*, the outer edges thereof. On the upper surface of deck A, on each side, is usually located two pairs of chucks, C, between which the bottom of a boat, D, is made fast by overlapping chains, ropes, or similar devices. I dispense with one of each pair of these chucks C, as shown in the drawing, and use gripes, consisting of the lever F, having the end-bent clamp F¹ and the chain F², both attached to a projection, *f*, of the lever F. The chain F² has a hook, *f*², which fastens over the upper edge of boat side, and the lever is held down by an arm, *g*, of a shaft, *g'*, that is operated by a lever, G. *f*¹ is a hook, on which the pivoted clamp F¹ rests and is supported when the boat is made fast on deck. The upper surface of base-piece I is, preferably, somewhat lower than the end *e* of chuck, so that, if the boat should slightly fall by the slack of hoisting-ropes J, the keel of the boat will not drag thereover, but pass clear, and without any un-

necessary friction. K is the ordinary fall and tackle, and L L the ordinary boat-davits, vibrated in steps *l* and guides *l*¹. The davits are connected by a bar, L', and have each two pronged side studs *l*², by which the hoisting-ropes are secured and held. M M are screw-bolts, having the smooth-pointed end pivot *m*, the middle *m*¹, and the eye-head *m*². The point *m* forms the journal, around which turns the bearing of the connecting-bar L'. The thread *m*¹ receives a nut, *n*, that fastens the bolt to the rod L', and the eye-head receives the hook of upper pulley-block of the tackle. When the rods L are turned, and the boat thrown out beyond the deck, the rods are firmly secured, and the boat held conveniently above the water. For this purpose, a pulley, O, is keyed to one of the davits L, and wound around it is a flexible metallic compression-band, P, which is fastened at one end, by a link, to the deck, and at the other to a chain, Q, that passes up through the deck and is attached to a cam-lever, R. By hinging the most eccentric portion of the lever R against the upper surface of deck, or on a plate, *r*, the band locks the shaft L so that it cannot turn in either direction, and thus enables the boat to be lowered.

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

The lever F provided with pivoted clamp F¹ and hook-chain F², in combination with single chucks C, as and for the purpose described.

F. M. HOWES.

Witnesses:

EDWARD J. HODGDON,
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