

I. F. TAYLOR.
CRANE.

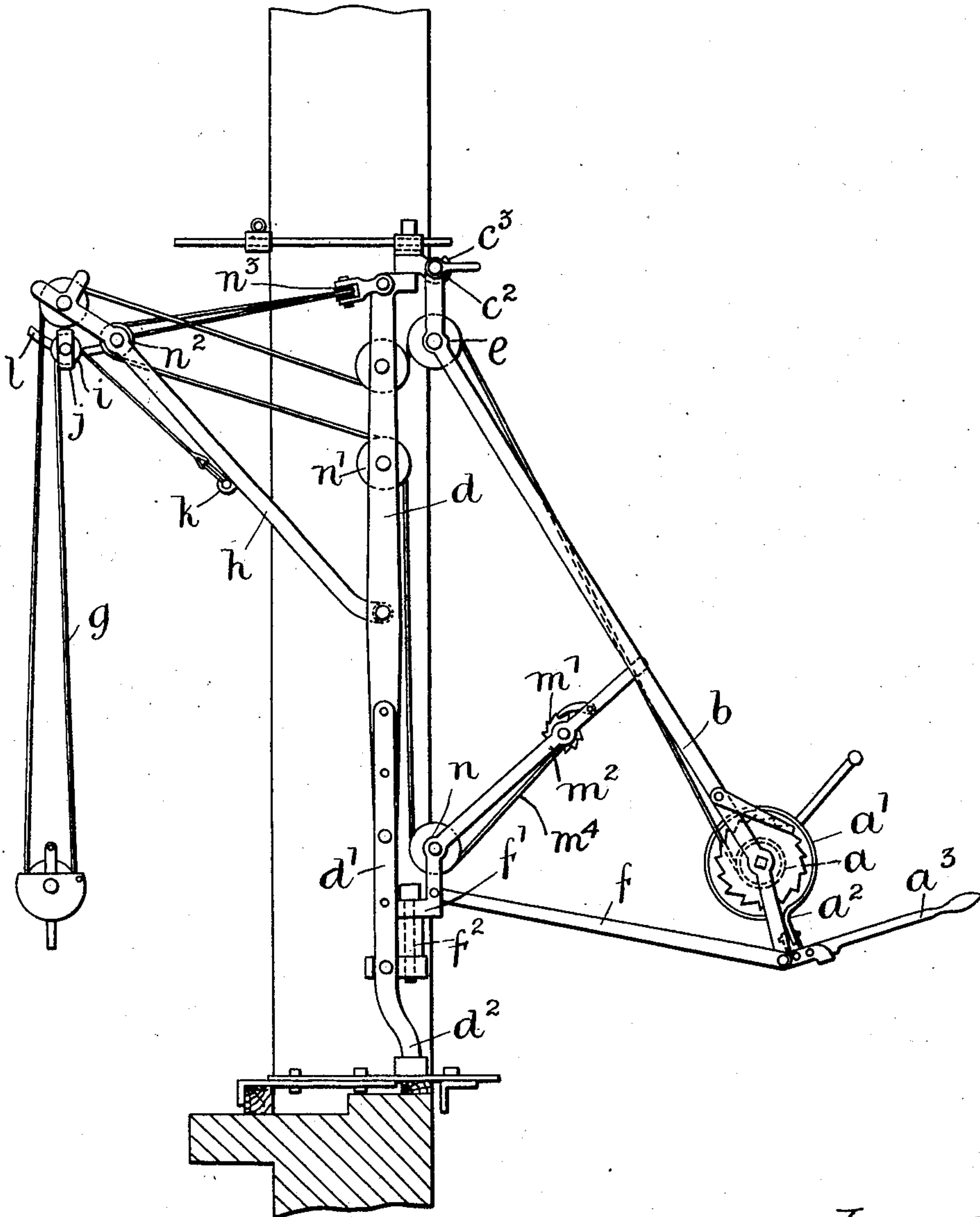
APPLICATION FILED APR. 6, 1910.

998,134.

Patented July 18, 1911.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

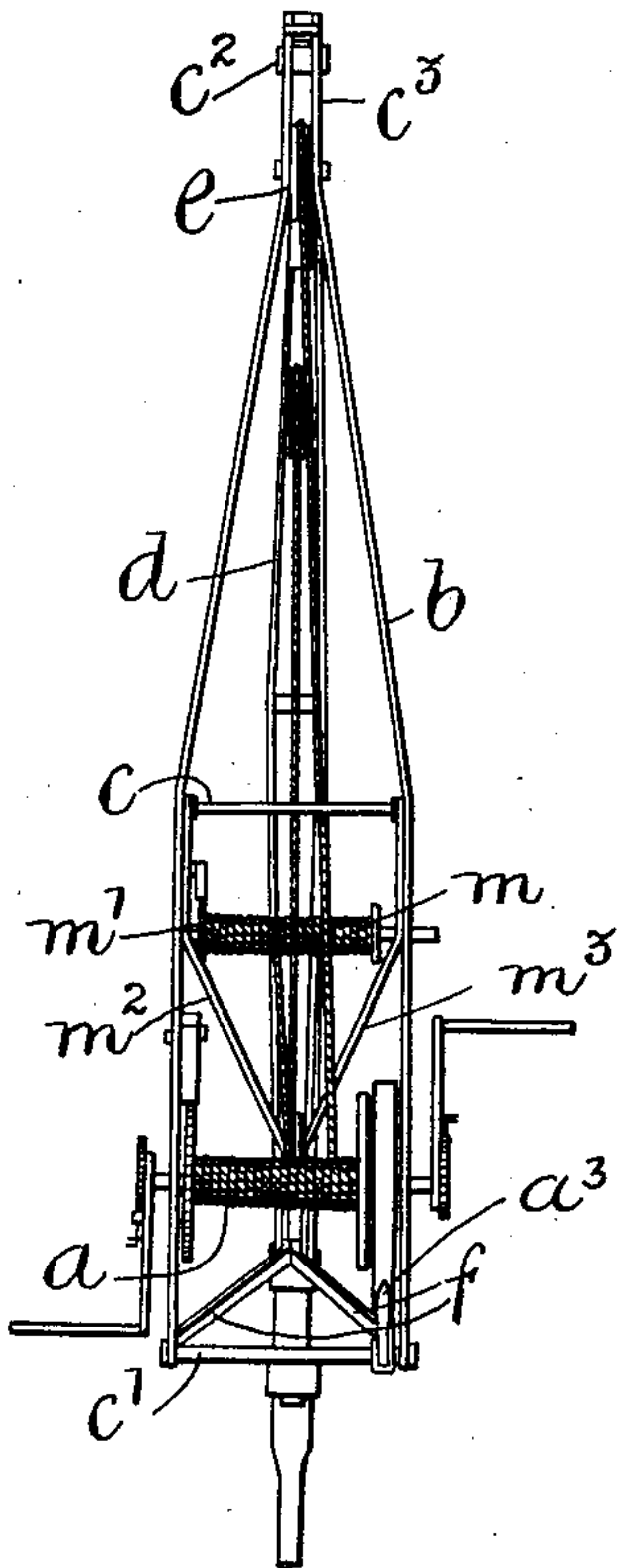
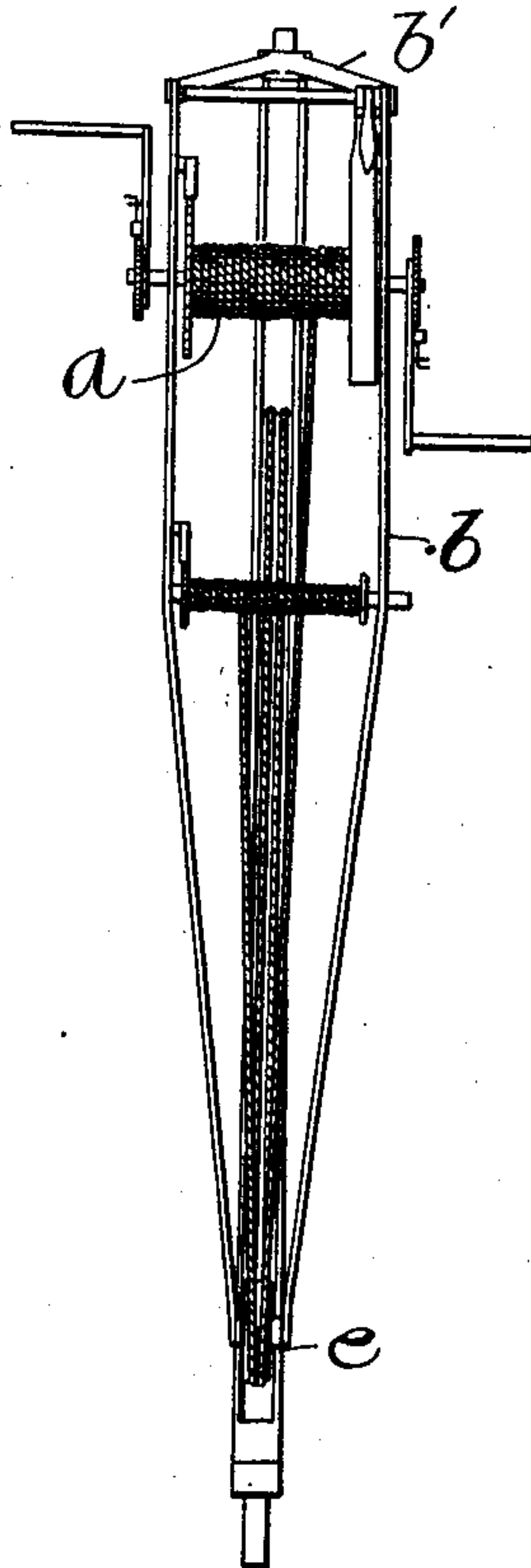


Fig. 4.



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CRANE.

998,134.

Specification of Letters Patent. Patented July 18, 1911.

Application filed April 6, 1910. Serial No. 553,808.

To all whom it may concern:

Be it known that I, ISAAC FRANCIS TAYLOR, a subject of the King of Great Britain and Ireland, residing at 5 Upland road, East Dulwich, London, England, have invented certain new and useful Improvements in Cranes, of which the following is a specification.

This invention relates to cranes more especially applicable to windows, doors, or similar openings, at the upper floors of buildings for raising or lowering articles of furniture or other goods, or to vehicles for loading and unloading the same and comprising when applicable to a window or the like a crane post pivoted at its upper end in a cross bar readily adjustable to openings of different widths, and to walls of different thicknesses, and pivoted at its lower end in a foot plate, also adjustable to sills or walls of different thicknesses, a jib fulcrumed to the crane post and connected at its upper end to a small adjusting barrel in the crane post, and a winch for raising or lowering the load. Heretofore the winch was carried by a rearwardly extending bracket, bolted to the crane post, which by coming in contact with the interior of the wall, limited the horizontal angle through which the crane could be turned on its bearings to swing the jib and load inward toward the window or other opening.

Now this invention has for one of its objects to enable the jib to be swung inward through a much greater angle than before so that goods after being raised can be readily carried by the jib through the window or opening and deposited inside or likewise be lifted inside, swung out and lowered.

A further object of the invention is to enable the cross bar to be readily adjusted and fixed in position in cases where the windows have internal projections such as shutters at the sides in such a manner that the crane post can always be vertically mounted.

Other objects are to provide an improved support for the crane when applied to a van or lorry, an improved crank or lever handle with brake for use on the winch and a readily detachable snatch block.

According to this invention the winch frame or bracket is pivotally connected with the crane post so that the winch frame and winch can be swung about a vertical axis on the crane post, or the crane post swung about a vertical axis on the winch frame to

prevent any of the parts fouling the adjacent walls as the jib is swung inside.

In the accompanying drawings Figures 1 and 2 are side and rear elevations respectively of a crane, constructed according to this invention, Figs. 3 and 4 are similar views to Figs. 1 and 2 showing a slightly modified form of construction.

In the form of the invention shown in Figs. 1 and 2 the winch barrel *a* which is made of sheet metal for lightness is mounted in the lower end of a substantially triangular frame *b*, the converging sides of which are connected by cross stays *c c'* above and below the barrel and are connected by a bolt *c²* at the upper end by which the frame is detachably suspended from a hook *c³* pivoted to turn horizontally on the top of the crane post *d*. A guide pulley *e* for the winch rope is also mounted in the top of the frame *b*.

At the bottom of the frame *b* are stays *f* connecting the frame with a hinge eye or socket *f'* detachably mounted on a pin or pivot *f²* vertically above the lower bearing pivot of the crane post *d*, so that the winch frame and crane post *d* turn about the same vertical axis.

In order to vary the height of the crane post *d* when desired a detachable extension *d'* is arranged to receive the lower end of the post, such extension comprising two upwardly extending arms arranged to receive the post between them, and terminating in a pivot *d²* at the lower end.

Instead of hooking the fixed end of the rope or chain *g* directly to a shackle on the end of the jib *h* it is passed over a pulley *i* suspended in an open sided loop *j* at the end of the jib and secured to a lug, bar or other device at a point *k* lower down on the jib. This arrangement enables the load to be hauled up closer to the top of the jib than hitherto. A guide finger *l* is arranged to prevent the rope being accidentally pulled sidewise off the pulley as the jib is swung around.

A barrel *m* provided with a ratchet and pawl *m'* for adjusting the jib is supported between frame stays *m²*, *m³*, its rope or chain *m⁴* passing around pulleys *n*, *n'*, *n²*, *n³* and being finally attached to the jib.

In a slightly modified form of construction Figs. 3 and 4 the winch frame *b* is inverted, the winch barrel *a* being at the upper end and the guide pulley *e* for the rope *g*

at the lower end. Hinge brackets or stays
 b' at the top and a lug b^2 at the bottom of
 the frame b are detachably mounted on the
 pivots at the top and bottom of the crane
 5 post d .

What I claim and desire to secure by Let-
 ters Patent is:—

1. A window crane mechanism compris-
 ing in combination, a crane post, devices
 10 pivotally supporting said post on the win-
 dow structure to permit the post to swing
 about vertical axes, a jib pivotally mounted
 on said post and provided with a block and
 tackle for the load, means for adjusting the
 15 jib with respect to the post, and a winch
 frame pivotally mounted on the crane post
 and provided with a winch mechanism con-
 nected with the block and tackle for raising
 and lowering the load.

20 2. A window crane structure comprising
 in combination, a crane post, devices piv-
 otally supporting said post on the window
 structure to permit the post to swing about
 vertical axes, a jib mounted on said post and
 25 provided with a block and tackle for the
 load, and a winch frame pivotally mounted

on the crane post and provided with a winch
 mechanism connected with the block and
 tackle for raising and lowering the load.

3. A window crane mechanism compris- 30
 ing in combination, a crane post, devices
 pivotally supporting said post on the win-
 dow structure, said post having a jib with
 a block and tackle thereon, a winch frame
 pivotally mounted on axes alining with the 35
 pivotal axes of said post, and a winch on
 said frame for operating said block and
 tackle.

4. A window crane mechanism compris- 40
 ing in combination, a crane post, devices
 pivotally mounting the post upon the win-
 dow structure, a jib for said post, a winch
 frame pivotally mounted on said post, and
 means disposed on said winch frame for ad-
 45 justing said jib.

In testimony whereof I have affixed my
 signature, in presence of two witnesses.

ISAAC FRANCIS TAYLOR.

Witnesses:

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 HERBERT D. JAMESON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
 Washington, D. C."