

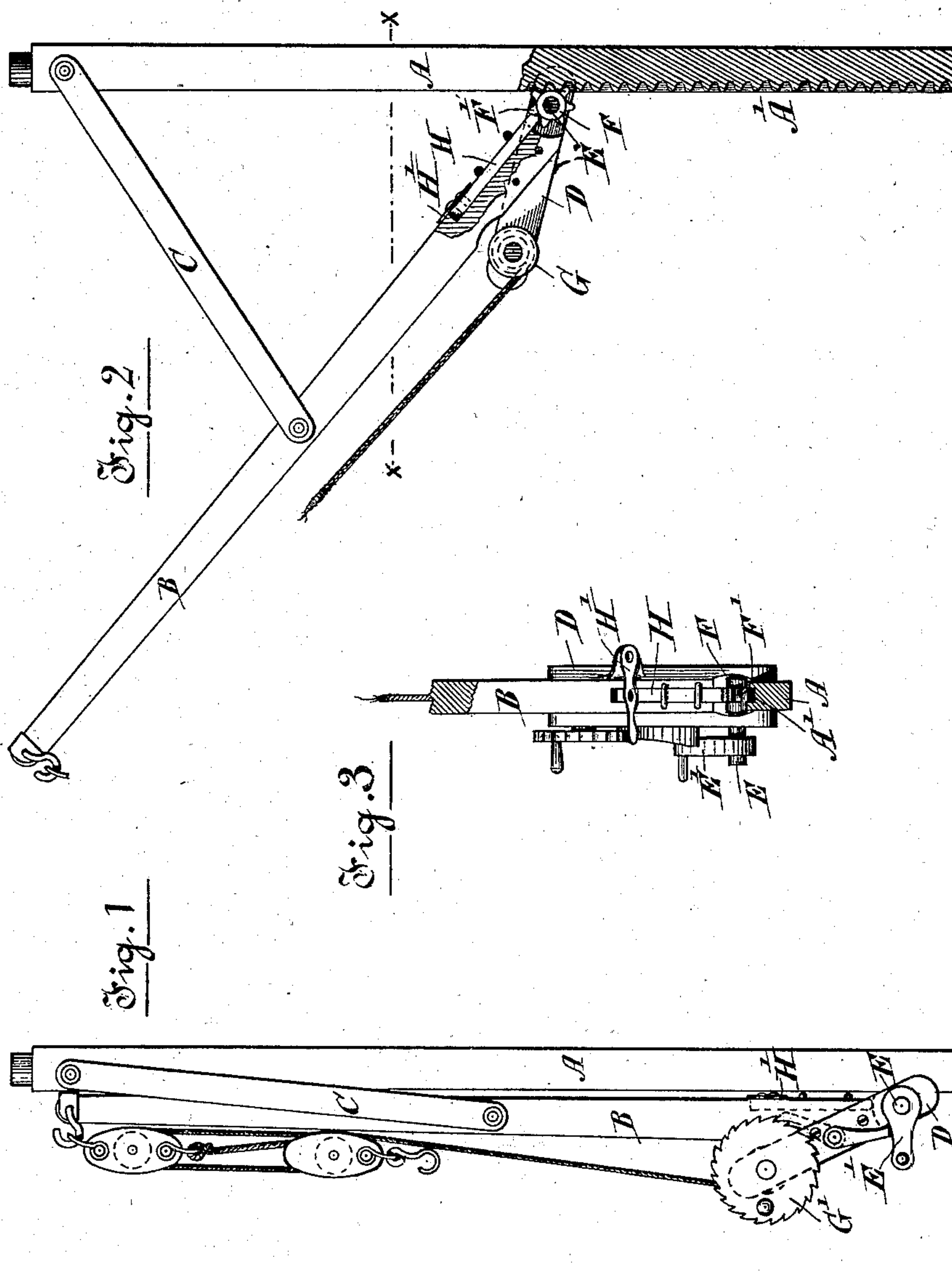
(No Model.)

L. DUVAL.

DERRICK.

No. 254,941.

Patented Mar. 14, 1882.



Witnesses:

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UNITED STATES PATENT OFFICE.

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DERRICK.

SPECIFICATION forming part of Letters Patent No. 254,941, dated March 14, 1882.

Application filed November 25, 1881. (No model.)

To all whom it may concern:

Be it known that I, LOUIS DUVAL, of the town of Longueuil, in the county of Chambly and Province of Quebec, Canada, have invented certain new and useful Improvements in Derricks; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention refers to that class of derricks or derrick-cranes which perform the two operations of hoisting the article to be moved and swinging it around horizontally to the place desired. It may be thus briefly described.

To the upper end of the upright are pivoted arms, also pivoted to the jib centrally in its length, which is nearly that of the post itself. By raising the lower end of the jib its upper end, from which the article to be moved is suspended, is forced out to the required distance, means being provided for raising it to the height desired, and when at that level it may be either swung around, as usual in a derrick, or drawn in to any distance nearer the post without altering its level. For full comprehension, however, of the invention, reference must be had to the annexed drawings, in which—

Figure 1 is a side view of my invention, showing the parts closed up; Fig. 2, a view partly in section of the derrick with the jib extended; and Fig. 3, a sectional view on line *x x*, Fig. 2.

Similar letters of reference indicate like parts.

A is the post, of the height desired, and of any material and section, although preferably square. This may be set in a base of sufficient area or weight to prevent any chance of tipping, or secured on a platform mounted on wheels, or with both its ends fixed respectively the one in the ceiling and the other in the floor of any warehouse or store.

B is the jib, secured to the upright A by means of arms C, pivoted to A near its apex, and to B near the center of its length. To the inner end of this jib are secured rigidly two side pieces or arms, D, clipping the post A. In these arms D is carried a spindle, E, upon which is mounted a roller, F, having projecting from its center pinion teeth F', which intermesh with a rack, A', formed in the cen-

ter of the post, while the periphery of the roller F bears against its face. The rotation of the roller F and gear F', by means of a crank, E', mounted on the spindle E, raises the lower end of the jib B, and correspondingly extends outward its upper end, from which are suspended suitable blocks and tackling, by which the article to be moved is raised.

The end of the rope passing over these is secured to and wound upon a roller, G, carried in the arms D, and provided with an ordinary ratchet, G', and pawl to hold it at any point.

On the upper side of the jib B is arranged, as shown in Fig. 3, a slide, H, operated by means of a pivoted arm, H', and serving, when pushed down, to stop the rotation of the gear-wheel F' and hold it at any desired height on the rack A'.

It will be observed that by the construction just described the article to be moved cannot only be swung around, but also brought in close to the post itself, without raising the point of the jib above the top of the post. This enables any derrick to pass the article or weight to be moved through a narrow opening or door, and from this the invention will be found of special use in warehouses and other places where the vertical space is limited and partitions exist.

It must be understood that the details of construction may in some cases be slightly varied—such as, for instance, by the substitution of a guide-rail on the post and a grooved wheel running on it for the rack A' and roller FF', or by trussing the jib—without in any way interfering with the invention, the main features of which will always be the same.

What I claim as new, and wish secured by Letters Patent, is as follows:

A derrick or derrick-crane composed of the following elements, namely: a post suitably secured, a jib or boom of nearly the same length as the post, having a changeable point of connection therewith, and adapted to be folded vertically against such post, and braces or arms pivoted to the post and to the jib, all substantially as and for the purposes described.

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Witnesses:

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