

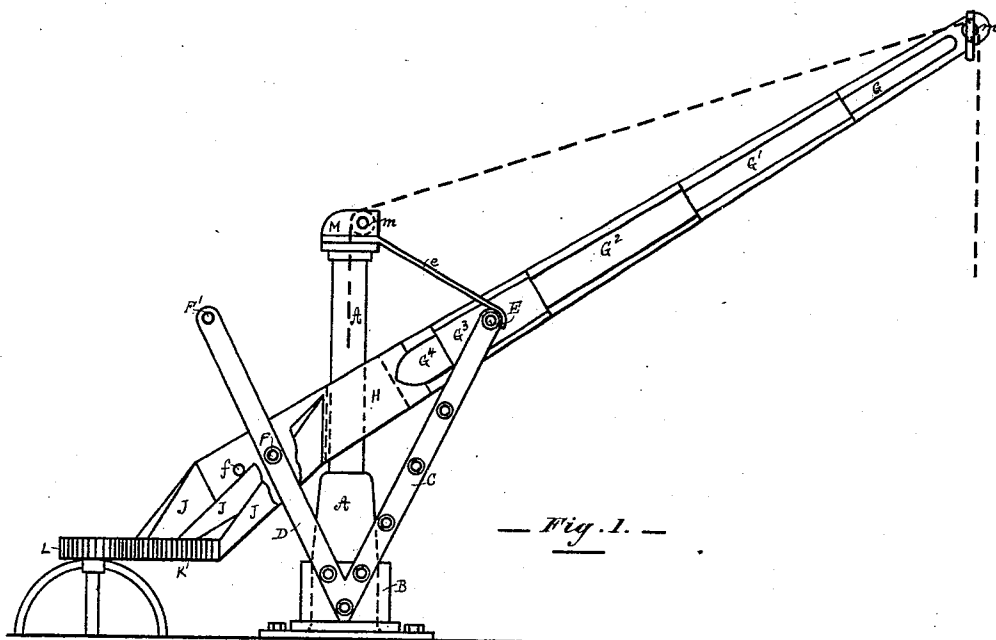
(No Model.)

S. H. EDGERLY.

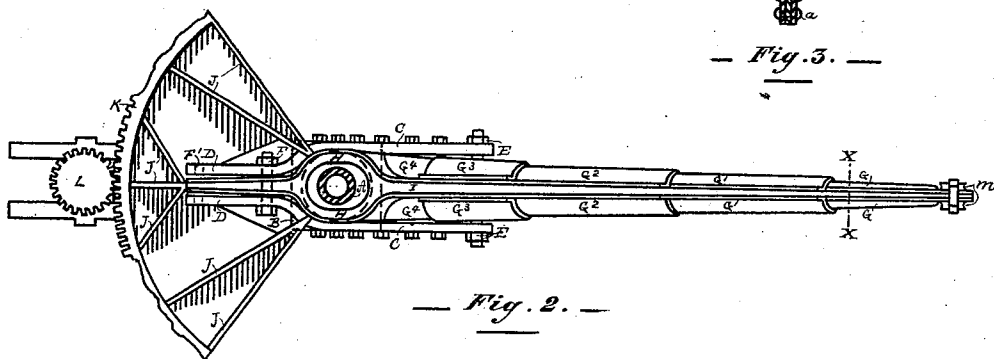
CRANE.

No. 282,869.

Patented Aug. 7, 1883.



— Fig. 1. —



— Fig. 2. —



— Fig. 3. —

WITNESSES
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UNITED STATES PATENT OFFICE.

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CRANE.

SPECIFICATION forming part of Letters Patent No. 282,869, dated August 7, 1883.

Application filed May 31, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. EDGERLY, of Jackson, in the county of Jackson and State of Michigan, have invented a new and useful Improvement in Cranes, of which the following is a specification.

Figure 1 is a side elevation, Fig. 2 a plan view, and Fig. 3 a cross-section through the jib on line *x x*, Fig. 2.

My invention consists in certain improvements in the construction of cranes, hereinafter specially pointed out.

A represents a hollow iron mast firmly set in a railway-car or other suitable foundation.

B represents a heavy iron ring adapted to encircle mast A and to rest on the upper surface of the foundation in which the mast is secured.

M represents a hollow metal cap adapted to fit and turn on the upper end of mast A, and carrying a sheave, *m*.

C C D D represent two V-shaped iron frames securely bolted at the angle to opposite sides of ring B. The legs C C are connected by heavy tie-rods, and the upper ends thereof are fastened to cap M by rods *e*.

H represents the jib, which is constructed as follows: I is a central web running the whole length of the jib, and gradually tapering toward its outer end. G G represent a pair of curved tapering plates having flanges thereon, which are of the same length and vertical taper as web I. G' G', G² G², G³ G³, and G⁴ G⁴ represent similar pairs of curved flanged plates, but of less length, each pair shorter than the preceding one. Each pair of curved plates is firmly secured to the web I and the other plates by bolts *a*, which pass through the flanges of the plates at top and bottom, and through the web. This manner of construction makes a jib of extraordinary strength and rigidity, with comparatively light weight of metal. The jib H does not come directly in contact with the mast, but is split, and passes around the mast, as shown in Fig. 2. The inner end of the jib is securely fastened to a heavy segment, K, toothed and strengthened by webs J.

L represents a pinion which meshes into toothed segment K and swings the jib.

E represents a heavy iron bar passing through the upper ends of legs C C, and through jib H, which supports the weight of the jib. Its ends are firmly held by heavy nuts. Bar E may be made in the form of heavy trunnions cast on heavy plates and bolted to jib H.

F represents an iron bar which passes through legs D D and jib H, and holds the inner end of jib H down. Bar F is made with a head on one end and a screw-thread on the other adapted to receive a nut, and in the upper ends of legs D D are holes F', through which bar F will pass. When the crane is mounted on a railway-car, the end of the jib is frequently too high to pass under bridges which cross railway-tracks. By removing bar F the inner end of the jib can be raised until the hole therein for bar F is opposite holes F', when bar F is passed through said holes and the jib, thus depressing the outer end of the jib.

m' represents a sheave on the end of the jib.

The arrangement of the hoisting rope and tackle does not differ from that commonly used on cranes, and does not need any detailed description, the course of the rope being shown in broken lines in Fig. 1.

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

1. A jib for a crane consisting of a tapering central web and two or more pairs of curved flanged plates of decreasing lengths, all bolted together, substantially as shown and described.

2. In a crane, the combination of a stationary mast having a movable ring around its lower end and a movable cap on its upper end, a V-shaped frame secured to and turning with said ring and cap, and a jib pivoted to one side of said frame, removably attached to the other side thereof, and having therein a hole adapted to loosely encircle the mast, substantially as shown and described.

3. In a crane, a jib pivoted in a supporting-frame, and having its rear end vertically adjustable in said frame, substantially as and for the purposes specified.

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