(No Model.)

L. T. MITCHELL.

PORTABLE STACKING DERRICK.

No. 275,689. Patented Apr. 10, 1883.

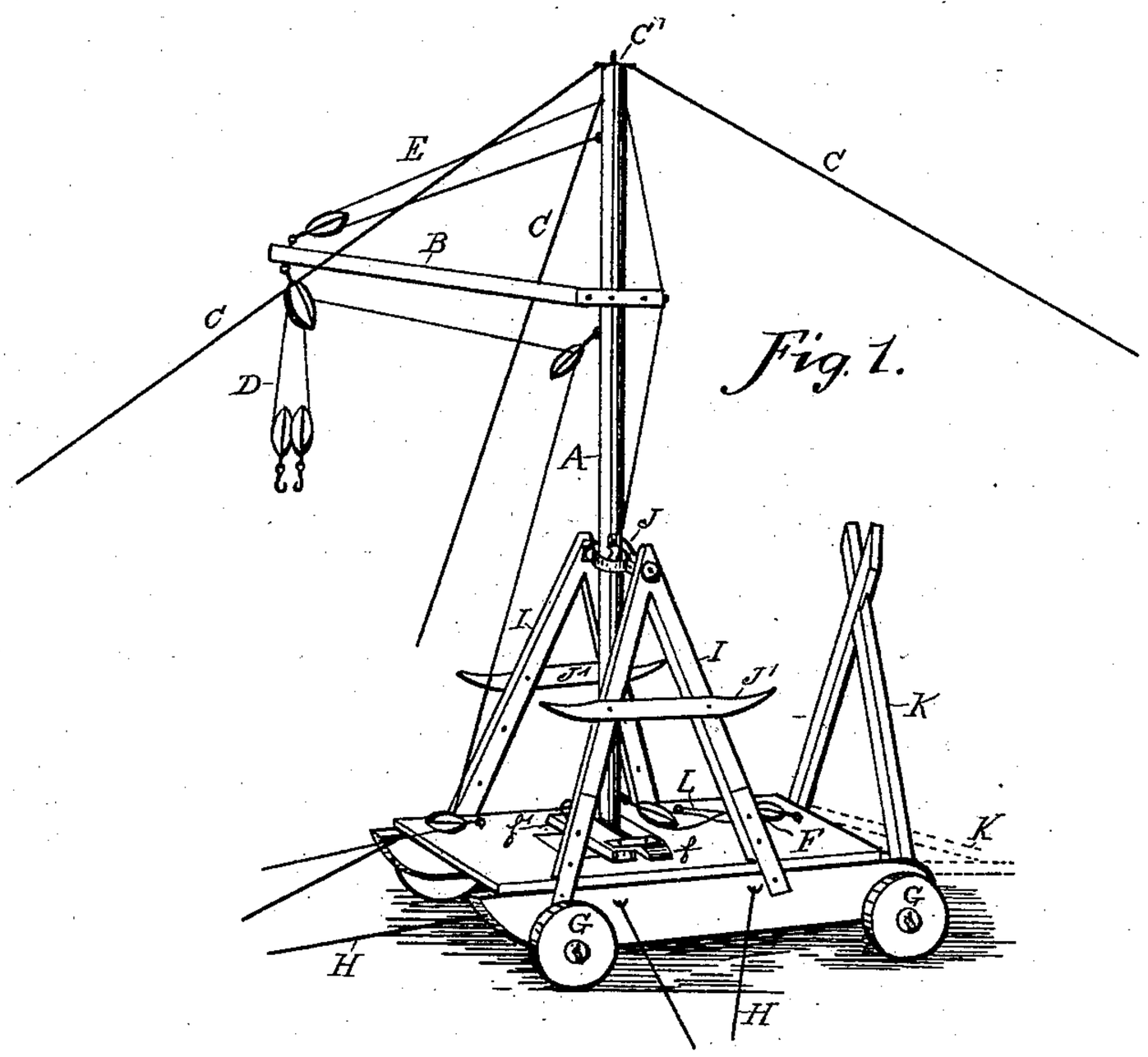
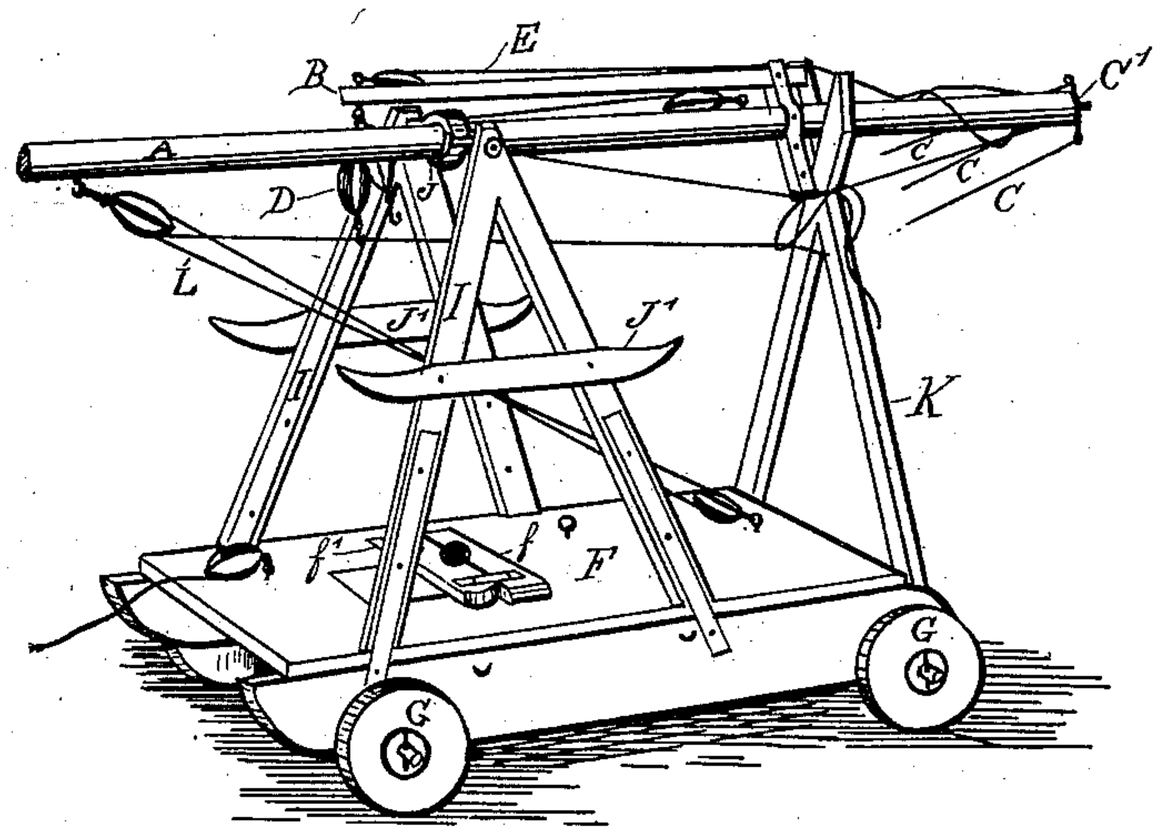


Fig. 1.

Fig. 2



Witnesses.
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UNITED STATES PATENT OFFICE.

LEWIS T. MITCHELL, OF GALT, CALIFORNIA.

PORTABLE STACKING-DERRICK.

SPECIFICATION forming part of Letters Patent No. 275,689, dated April 10, 1883.

Application filed October 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, LEWIS T. MITCHELL, a citizen of the United States, residing at Galt, in the county of Sacramento and State of California, have invented certain new and useful Improvements in Portable Stacking-Derricks; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of my improved derrick in a working position. Fig. 2 is a view of the same with the mast lowered and stowed for transporting.

Similar letters of reference indicate corresponding parts.

The principal object of my invention is to provide a derrick for use with horse-forks and nets for hoisting hay and straw in stacking and mowing, the mast of which may be readily raised or lowered by one man, the objection to similar devices heretofore being that horse-power has been needful to accomplish such purpose.

The invention will first be described in connection with the drawings, and then pointed out in the claims.

A represents the mast, (which is circular,) stayed, when in position for work, by guys C, attached to a swivel-cap, C′, at top of mast. Attached by jaws to the mast, and having at its outer extremity a tackle, D, for the load, and a tackle, E, for raising and lowering its point, is the boom B.

F is the platform, having in its center a step composed of a stationary cleat, *f*, with button *f′* hinged thereto, their relative centers carrying a half-circle, forming a whole circle for the reception of the foot of the mast A. The platform F is mounted upon wheels G, and has at both sides and front end truss-braces H, by which it may be secured firmly in the location of use by stakes, at their extremities, driven into the earth.

Legs I are fastened, two to each side of platform F, and at their tops are brought close together and secured by bolts, and at such apex are mounted with boxes or bearings. An iron transverse beam, J, with a circular hole, through which passes the mast A, and having journals at each end inserted into boxes at apex of posts I, surmounts said posts. Cross-cleats J′ are bolted to posts I, and answer to stiffen them, and also to coil up the tackle when not in use.

Attached to rear of platform F are posts K, which, meeting at their upper extremities, form a bifurcation or jaw.

A tackle, L, one end attached to foot of mast A and the other to eye upon platform F, furnishes means for placing the mast in position.

Having thus described the various parts, I will now show the position of the machine when in use and the method of operation.

Stakes are driven into the ground at the outer extremes of the truss-braces H, so as to hold the platform F in position. The guys C are fastened to other stakes driven into the ground at proper distances from the platform F. The boom B is elevated by tackle E to its desired position. The foot of the mast A is secured in the step formed by cleat *f* and button *f′* at the intersection of their relative half-circles, the button being securely hooked into an eye upon the cleat. The fork or nets are attached to the hooks of the blocks of tackle D, by which tackle the load is raised and the mast A is swung around, carrying with it the boom B in its swivel-cap C′ and step at its foot until the load is over the desired point, when the fork or nets are relieved of their load and the mast A swung back, carrying boom B, to receive another load. When it is desired to move from one location to another, the stakes of truss-braces H and guys C are removed and piled upon the platform F, and the truss-braces are unhooked from the platform and piled upon it, the button *f′* is unhooked from cleat *f*, the point of boom B is lowered by tackle E till it reclines against the mast A. The operator then gradually releases the foot of the mast A from its step by means of the tackle L. The journal ends of beam J, turning in boxes at apex of posts I, permit beam J to act as a turning fulcrum, so that the one operator gradually and easily lowers the mast A until it rests in bifurcation of posts K. The ropes of the different tackles are then coiled upon the ends of cross-cleats J′. The machine

may then be moved upon wheels G to any desired location.

The posts K may be hinged to rear of platform F, so that when the derrick is at work they may be lowered to the ground out of the way and serve as the rear truss-brace in the method previously described as adapted to the front and sides of platform F.

I am aware that it is not new to raise the load in the manner I have indicated and to handle the boom when in working position; hence,

What I claim is—

1. The combination of mast A, having boom B, with its tackle D and E, and having at its end swivel-cap C′, carrying guy-ropes C, with platform F, having cleat *f* and button *f′*, with relative half-circles forming a step for foot of mast A, and posts I, united at their upper extremities, which have boxes or bearings carrying journals of cross-beam J, which admits mast A through a circular opening, said platform F also having attached at its rear posts K, uniting at their upper extremities, and forming a bifurcation to receive mast A when it is lowered by means of tackle L, attached one end to its foot and the other to an eye in the platform, all substantially as herein shown and described.

2. The combination, with the platform F, of truss-braces H and rear posts, K, the latter serving as a truss-brace, in connection with said braces H, when it is lowered, and when erect as a rest for mast A when it is lowered, all as shown and described.

3. The posts J, fastened each two at their lower extremities to the platform F, and each two at their upper extremities being united to form a seat for boxes, in combination with cross-beam J, having journal at each end working in said boxes, and having a circular opening in its center to admit mast A, all arranged as described, and for the purpose herein shown and set forth.

4. The cross-cleats J′, in combination with posts I, as described, and for the purposes herein specified.

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

LEWIS T. MITCHELL.

Witnesses:
JOSHUA B. WEBSTER,
ELIHU B. STOWE.