No. 890,655. PATENTED JUNE 16, 1908.

F. HUNT.

DERRICK.

APPLICATION FILED AUG. 30, 1907.

2 SHEETS—SHEET 1.

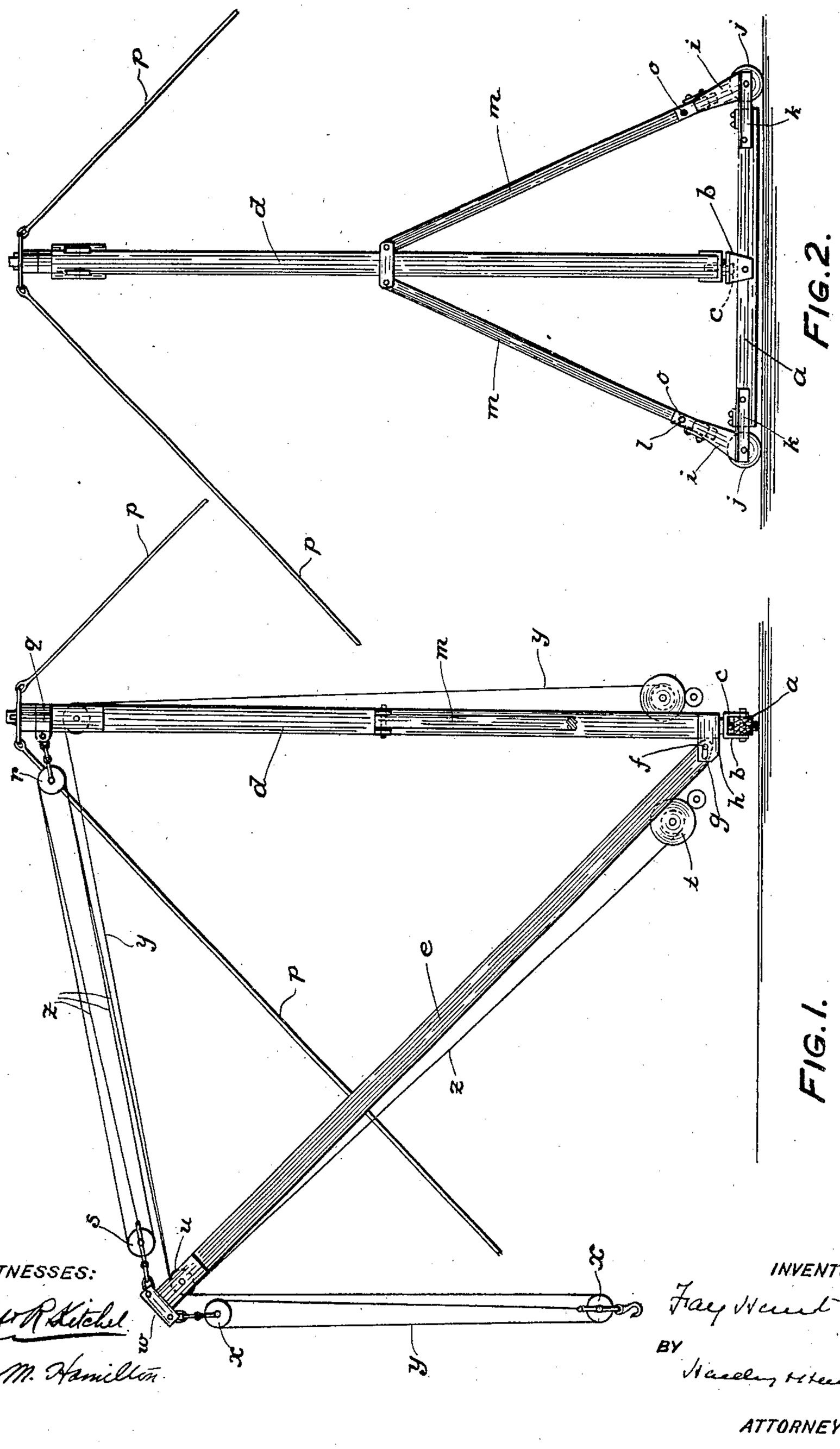

FIG. 2.

FIG. 1.

WITNESSES:

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2 SHEETS—SHEET 2.

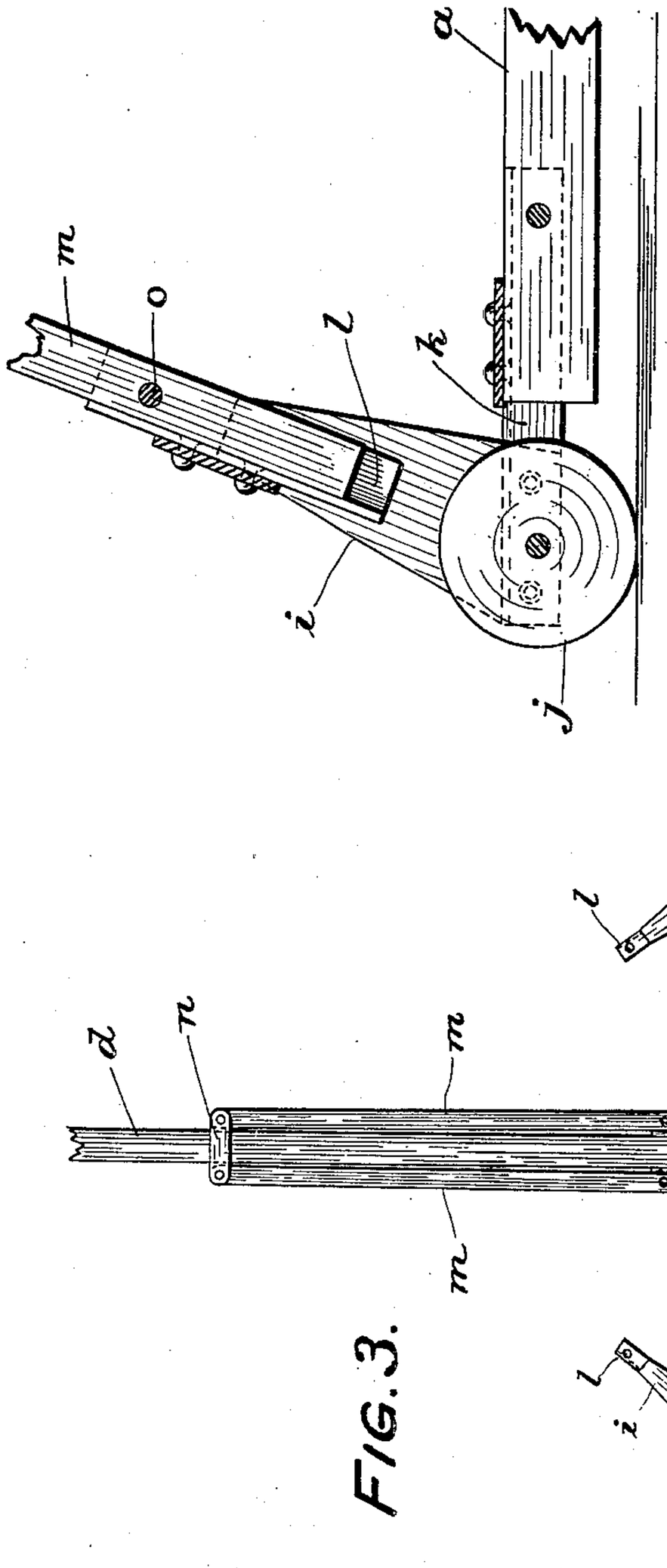

FIG. 4.

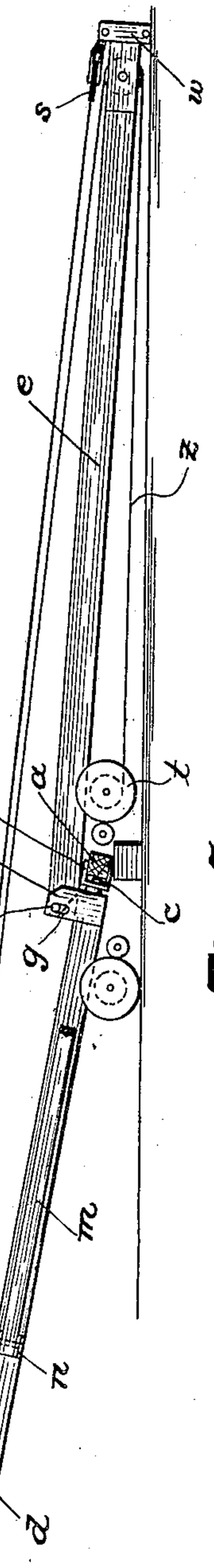

FIG. 5.

FIG. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

FAY HUNT, OF NEW YORK, N. Y.

DERRICK.

No. 890,655. Specification of Letters Patent. Patented June 16, 1908.

Application filed August 30, 1907. Serial No. 390,730.

To all whom it may concern:

Be it known that I, FAY HUNT, a citizen of the United States, residing at the borough of the Bronx, New York city, county of New York, and State of New York, have invented a new and useful Improvement in Derricks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a new and improved derrick in which the mast and boom are readily elevated and depressed and in which the derrick may be readily transported from place to place.

My invention can more readily be seen by reference to the embodiment thereof shown in the accompanying drawings in which

Figure 1 represents a side elevation of my improved derrick set up for moving. Fig. 2 represents a rear view of same. Fig. 3 is a partial rear view of derrick in working condition. Fig. 4 is a detail of one end of the sill with attached frame and roller. Fig. 5 is a side view showing method of raising.

a is the sill, *b* the yoke secured to the sill, *c* the gudgeon pin connected to the mast *d* and seated in a socket in the yoke *b*. The yoke *b* is pivoted to the sill *a*. The mast *d* can thus have a rotary movement by the pin and socket and a vertical movement by the hinge connection of the yoke and sill.

e is the boom. The lower end of the boom has the pin *f* in the horizontal slot *g* in the projection *h* from the mast *d*. The purpose of the slot *g* is to prevent the boom, in being brought to a horizontal position, striking the yoke *b*, and thus the boom is enabled to be brought to a horizontal position.

The sill *a*, at each end, has, pivotally connected to it, a plate or frame *i*, each of which forms a bearing for a roller *j*. Under normal conditions the weight of the apparatus is such the roller frames *i* are forced upward on their pivots, and the sill is supported independent of the rollers, as shown in Fig. 3. To each of the plates *i* an angle iron *k* is secured.

m m are braces, each pivotally attached to a frame *n* secured to the mast *d*. When swung outward these braces *m* will pass between the corresponding angle irons *l* and may be secured thereto by the pin *o* passing through an orifice in the brace and angle iron. When in this position the angle plates *k* are held from swinging and the sill is supported upon the rollers. Furthermore, the mast is held vertical independent of the side guy ropes *p*.

Pivotally attached to a bracket *q* at the upper end of the mast is the sheave *r*. Pivotally attached to the frame *w* at the outer end of the boom is a sheave *s*.

t is a drum mounted upon the lower end of the boom. A cord or cable *z* is secured to this drum and passes over the sheave *u* on the upper end of the boom to and around the sheave *r*, to and around sheave *s*, then again around sheave *r*, then to and secured to sheave *s*.

x x are the lifting sheaves or pulleys, and *y* the lifting cable.

In practice, when it is desired to elevate the mast and boom—the braces *m* being connected and one back guy rope connected, the mast and boom are in the position shown in Fig. 5, the slot *g* enabling the boom to rest in a horizontal position. The mast is slightly raised at its outer end, the boom being held down by one or more of the operatives. The drum *t* is rotated, which winds up the cable *z*, elevating the mast which may be held in its successive and ultimate vertical position by means of the guy ropes. When the mast is in the vertical position and the guy ropes secured, the outer end of the boom is released and further turning of the drum elevates the boom.

When it is desired to move the apparatus from place to place, the braces are swung outward and secured to the angle irons *l*, when the sill will be supported upon the rollers and readily moved from place to place. As may be seen, with my improved apparatus the mast may readily be elevated and further, the apparatus can easily be moved from point to point.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:

1. In an apparatus of the character described, the combination with the sill, of rollers connected therewith normally inactive and means to render said rollers active.

2. In an apparatus of the character described, the combination with the mast and the sill, of rollers connected with said sill, and normally inactive, braces connected with said mast and adapted to be connected with said sill, and means to render said rollers active when said braces are connected with said sill.

3. In an apparatus of the character described, the combination with the mast and the sill, of rollers connected with said sill, and normally inactive, braces pivotally connected with said mast and adapted to be connected with said sill, and means to render said rollers active when said braces are connected with said sill.

4. In an apparatus of the character described, the combination with the sill, of rollers pivotally connected to said sill and means to hold said rollers from moving on their pivots.

5. In an apparatus of the character described, the combination with the sill, of rollers, bearings for said rollers pivotally attached to said sill and means to hold said bearings from moving on their pivots.

6. In an apparatus of the character described, the combination with the sill and mast, of rollers, bearings for said rollers pivotally attached to said sill, braces carried by said mast and means to connect said bearings and said braces.

7. In an apparatus of the character described, the combination with the sill and mast, of rollers, bearings for said rollers pivotally attached to said sill, braces pivotally connected to said mast and means to connect said bearings and said braces.

8. In an apparatus of the character described, the combination with the sill and mast, of rollers, a frame for each roller in which the roller has a bearing, said frames being pivotally attached to said sill, angle irons projecting from said frames, braces carried by said mast and a connection between said braces and said angle irons.

9. In an apparatus of the character described, the combination with the sill and mast, of rollers, a frame for each roller in which the roller has a bearing, said frames being pivotally attached to said sill, angle irons projecting from said plates, braces pivotally connected to said mast and a connection between said braces and said angle irons.

10. In an apparatus of the character described, the combination with the mast and boom, of a projection from said mast having a horizontal slot, and a pin, connected to said boom, in said slot.

11. In an apparatus of the character described, the combination with the mast and boom, of a drum carried by the inner part of said boom, a sheave carried by outer part of said boom, a sheave carried by the outer part of said mast and a cord or cable extending from said drum to and around said sheaves, substantially as described.

12. In an apparatus of the character described, the combination with the mast and boom, of a drum secured to the inner part of said boom, a sheave pivotally secured to the outer part of said boom, a sheave pivotally secured to the outer part of said mast and a cord or cable extending from said drum to and around said sheaves, substantially as described.

13. In an apparatus of the character described, in combination, a mast pivotally supported so as to be adapted to assume a substantially horizontal position, a boom pivotally connected to said mast so as to be adapted to assume a substantially horizontal position, a drum carried by the inner portion of said boom, a sheave carried by the outer portion of said boom, a sheave carried by the outer portion of said mast and a cord or cable extending from said drum to and around said sheaves, substantially as described.

14. In an apparatus of the character described, in combination, a mast pivotally supported so as to be adapted to assume a substantially horizontal position, a boom pivotally connected to said mast so as to be adapted to assume a substantially horizontal position, a drum carried by the inner portion of said boom, a sheave pivotally connected to the outer portion of said boom, a sheave pivotally connected to the outer portion of said mast and a cord or cable extending from said drum to and around said sheaves, substantially as described.

15. In an apparatus of the character described, in combination, a mast pivotally supported so as to be adapted to assume a substantially horizontal position, a boom, a projection from said mast having an elongated slot, a pin, connected to said boom, in said slot, a drum carried by the inner portion of said boom, a sheave carried by the outer portion of said boom, a sheave carried by the outer portion of said mast and a cord or cable extending from said drum to and around said sheaves, substantially as described.

16. In an apparatus of the character described, in combination, a mast pivotally supported so as to be adapted to assume a substantially horizontal position, a boom, a projection from said mast having an elongated slot, a pin, connected to said boom, in said slot, a drum carried by the inner portion of said boom, a sheave pivotally connected to the outer portion of said boom, a sheave pivotally connected to the outer portion of said mast and a cord or cable extending from said drum to and around said sheaves, substantially as described.

In testimony of which invention, I have hereunto set my hand, at New York, on this 10th day of Aug., 1907.

FAY HUNT.

Witnesses:
RICHMOND H. FORD,
R. F. FULLER.