

No. 628,592.

Patented July 11, 1899.

E. F. TERRY.  
DERRICK.

(Application filed July 30, 1898.)

(No Model.)

2 Sheets—Sheet 1.

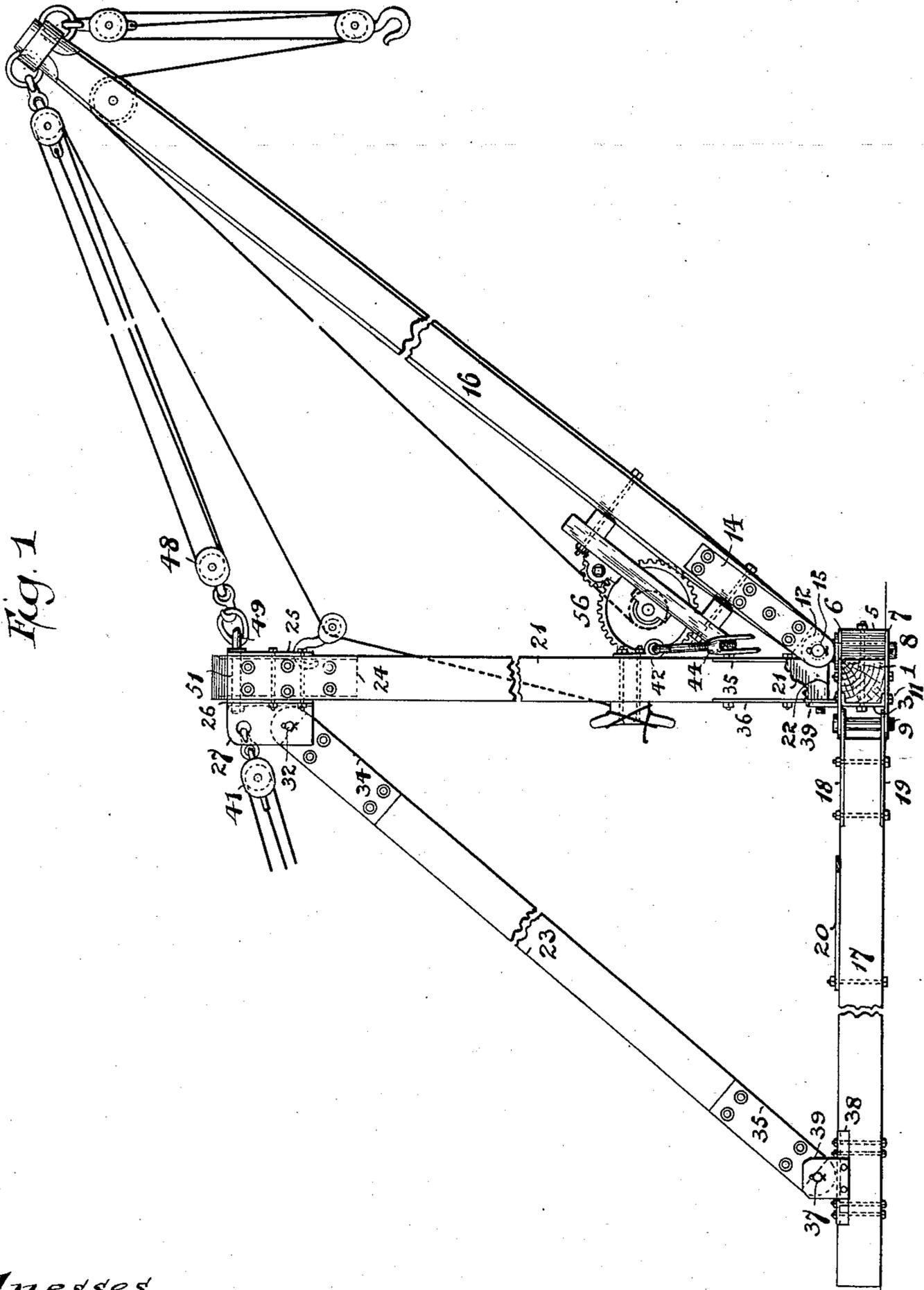


Fig. 1

Witnesses.  
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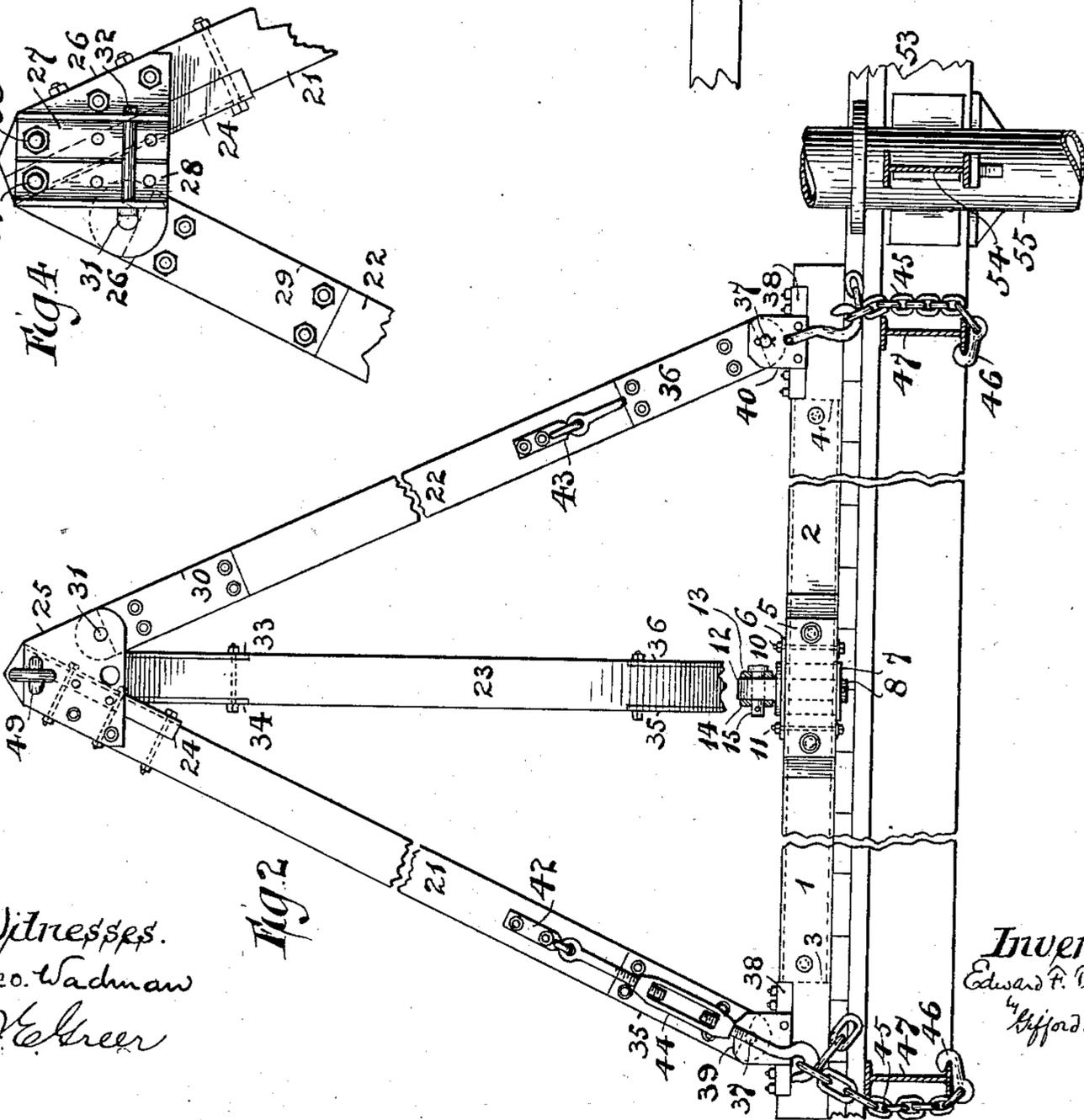
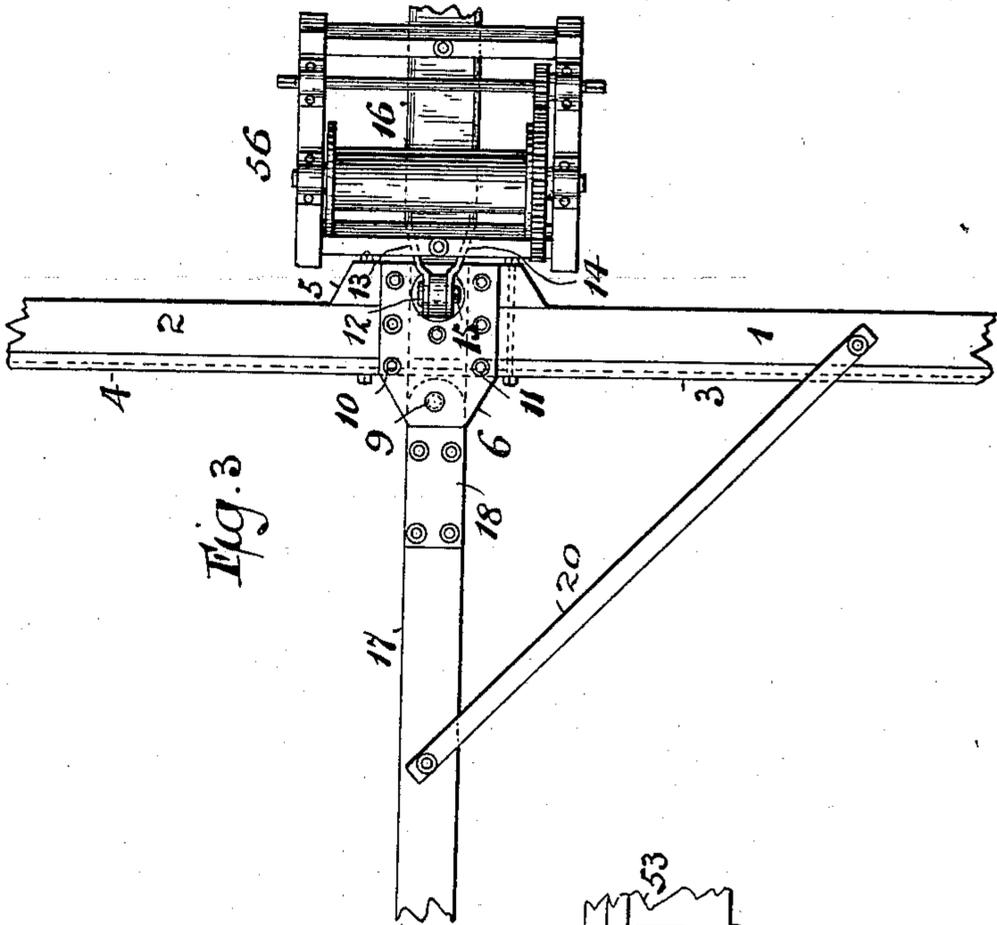
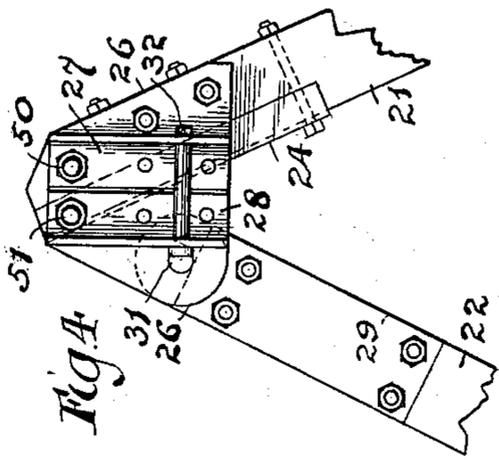
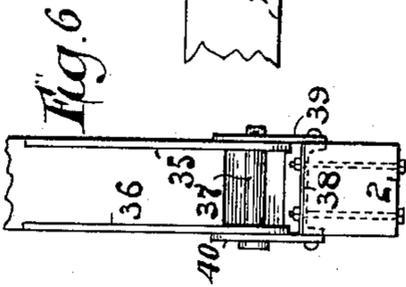
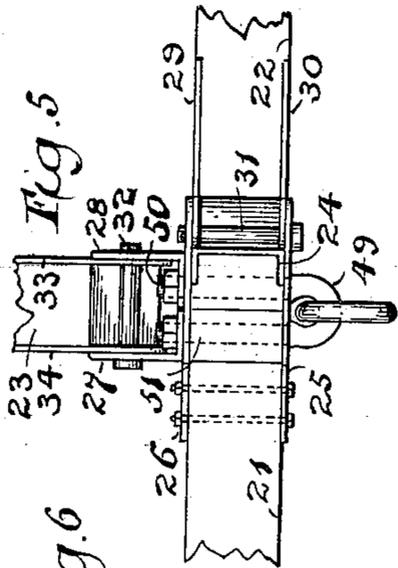
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2 Sheets—Sheet 2.



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# UNITED STATES PATENT OFFICE.

EDWARD F. TERRY, OF NEW YORK, N. Y.

## DERRICK.

SPECIFICATION forming part of Letters Patent No. 628,592, dated July 11, 1899.

Application filed July 30, 1898. Serial No. 687,256. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD F. TERRY, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Derricks, of which the following is a specification.

The object of this invention is to construct a derrick particularly adapted for use in setting the floor-beams of iron-frame buildings by reason of its adaptability for being shifted from one side of the building-frame to another and for being hoisted through small openings and for being readily put together and taken apart and by reason of the area covered by the reach of its boom.

In the accompanying drawings, Figure 1 is a side view of the derrick with certain portions broken away for clearness of illustration. Fig. 2 is a front view of the same resting on the floor of a partially-constructed building, with the boom omitted. Fig. 3 is a plan view of the central portions of the sills and adjacent parts. Figs. 4 and 5 are details, on an enlarged scale, showing, respectively, a rear view and a top view of the joint uniting the upper extremities of the legs. Fig. 6 is a similar view showing the method of connecting each of the three legs at the sills.

The base of the derrick is in the form of the letter T. The front part consists of the sill 1 2, backed by the channel-iron 3 4, extending nearly the full length. 5 is a block bolted to the front of the sill 1 2.

6 is a plate bolted to the sill 1 2 and the block 5, which plate, together with a corresponding plate 7, bolted to the bottom of the sill 1 2 and block 5, provides the bearings for the pins 8 9. The bolts 10 and 11 pass vertically through the flanges of the channel-iron already mentioned and through the plate 6, as well as through the sill. The pin 8 is formed in an eye 12 at its top, which eye is fastened sidewise, so as to fit neatly between tin plates 13 and 14, bolted on opposite sides of the bottom of the boom and coupled to the eye by the pin 15.

16 is the boom.

17 is the back sill at right angles with the front sill 1 2. Plates 18 and 19, bolted to this back sill, are coupled with the plates 6 and 7 by the pin 9.

20 is an iron brace connected to the front of the sill 1 and running at an angle of forty-five degrees to the back sill 17, so as to prevent the back sill from swinging out of position.

21 and 22 are the front legs, and 23 the back leg, of a tripod-mast. The irons at the head of the tripod, by which the legs are coupled together, consist of the channel-plate 24, bolted to the under side of the leg 21, and the plate 25, bolted to the front of the leg 21 and the plate 26, which plate 26 is bolted to the back of the leg 21. Certain of the bolts by which the plates 25 and 26 are secured to the leg 21 pass also through the flanges of the channel-iron 24. Side plates 29 and 30, bolted to the side of the leg 22, are coupled to the plates 25 and 26 by the pin 31.

27 and 28 are angle-irons bolted to the back of plate 26 and which are coupled by the pin 32 with plates 33 and 34, bolted on opposite sides of the back leg 23. Thus it will be seen that the legs 22 and 23 are pivotally coupled with the irons bolted to the head of leg 21, so that when said legs are detached from the base and lifted by the head the legs will swing together in a bunch and may be hoisted through a very small opening.

At the lower end of each leg are bolted the plates 35 and 36, provided with pin-holes for the coupling-pin 37.

38 is an inverted channel-iron bolted to the sill, to which are riveted plates 39 and 40, having pin-holes for the pin 37. Thus the bottom of each leg is coupled to the sill by a pin 37, which is removable, and thus the legs are readily detachable from the sill. The back tackle 41 may be hooked to the angle-iron 27, as shown in Fig. 1. Eyes 42 and 43 are bolted to the front of the front legs, into which eyes are hooked turnbuckles, as 44, each provided with a chain 45, having a grab 46 so constructed as to be easily hooked under the flange of a floor-beam, as 47, as shown in Fig. 2. This forms a very quick and safe method of fastening the derrick to the floor upon which it rests. The boom-tackle 48 can be secured to an eye 49, fixed to the head-irons by bolts and 51, passing entirely through the plates 25 and 26 and the flanges of angle-irons 27 and 28, as shown in Fig. 5.

47, 47, 52, 53, and 54 are floor-beams already

laid, and 55 is a pillar of the building already erected.

The crab 56 is bolted to the boom, on the top side thereof, and the men operating the crab can at the same time swing the boom in the direction desired.

It will be observed that each of the coupling-pins 8, 9, 15, 37, 31, and 32 is held in position merely by a cotter-pin, so that such coupling-pins are readily removable, and the three legs and two members of the sill and boom may all be thus easily detached from each other and as easily put together. When the derrick is to be moved from one floor to another of a building in process of construction, I usually after bringing the boom to the vertical position tip the mast forward until its front legs are brought to a horizontal position. Then I remove the brace 20 and pin 32 and turn the rear portion 17 of the base parallel with the front portion. In this shape it may be passed through a comparatively small opening. If the opening is not large enough to permit its passage in this shape, the pins 37 37 may be removed, the legs 21 and 22 folded together, and the derrick moved in two separate pieces.

I claim—

1. In a derrick, in combination, a tripod-mast the legs of which are, at the apex, pivotally connected together, and a base in the form of the letter T, the rearwardly-extending portion of which is pivotally connected to the front portion, substantially as described.

2. In a derrick, the combination with a tripod-mast, of a base in the form of the letter T to which the mast is attached, the rearwardly-extending portion of the base being pivotally connected to the front portion, substantially as described.

3. In a derrick, the combination with a tripod-mast, of a base in the form of the letter T, the rearwardly-extending portion of the base being pivotally connected to the front portion and the rearwardly-extending leg of the tripod being removably connected to the other legs and pivotally connected to the rearwardly-extending portion of the base, substantially as described.

4. In a derrick, in combination, the boom, a horizontal front sill with which said boom is pivotally connected and the legs 21, 22, detachably connected with opposite ends of said sill and pivotally connected with each other at an apex, substantially as described.

5. In a derrick, in combination, the boom, a horizontal front sill to which said boom is pivotally connected, a pin 8 journaled to said sill, a pin 15 whereby said boom is detachably secured to said pin 8 and the legs 21 and 22 detachably secured to opposite ends of said sill and pivotally secured together at an apex and means for supporting the boom from said apex, substantially as described.

6. In a derrick, in combination, a base com-

posed of horizontal sills, an upwardly-inclined boom detachably secured to one of said sills and the legs 21 and 22 detachably connected with said base and pivotally connected together at an apex and a tackle connecting the extremity of said boom with said apex, substantially as described.

7. In a derrick, in combination, a base composed of horizontal sills, a boom pivotally connected with one of said sills, the legs 21 and 22 standing in substantially the same vertical plane and the leg 23 inclined to said plane; all of said legs being detachably connected with said base and pivotally connected together at an apex which apex is substantially vertically above the point at which said boom is pivotally connected with said sill, substantially as described.

8. In a derrick, in combination, a boom, a front horizontal sill with which said boom is pivotally connected, the legs 21 and 22 connected with opposite ends of said sill and connected together at an apex, a rearwardly-extending sill pivotally connected with said front sill and a leg 23 extending from said rearwardly-extending sill to said apex and detachably connected with the legs 21 and 22 to said apex, substantially as described.

9. In a derrick, in combination, a boom, a base composed of sills pivotally connected together and a mast composed of legs pivotally connected together at an apex which legs are detachably connected with said base, substantially as described.

10. In a derrick, in combination, a boom, a horizontal front sill to which said boom is pivotally connected, a sill extending rearwardly from said front sill at a point substantially opposite that at which the said boom is pivoted; the legs 21, 22 and 23 extending from the extremities of said sills to an apex and pivotally secured together at the apex; substantially as described.

11. In a derrick, in combination, the legs 21 and 22 standing in substantially the same vertical plane, the sill 1, 2, connecting the lower ends of said legs, the leg 23 inclined to said vertical plane, the boom pivotally secured to said sill 1, 2; all of said legs being pivotally connected at an apex and detachable at their lower ends in such manner that when detached at their lower ends and lifted at the apex they will fall together, substantially as described.

12. In a derrick, in combination, a boom, a base composed of sills pivotally connected together to which base said boom is pivotally secured, a tripod-mast and a boom-tackle secured to the masthead, substantially as described.

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Witnesses:

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