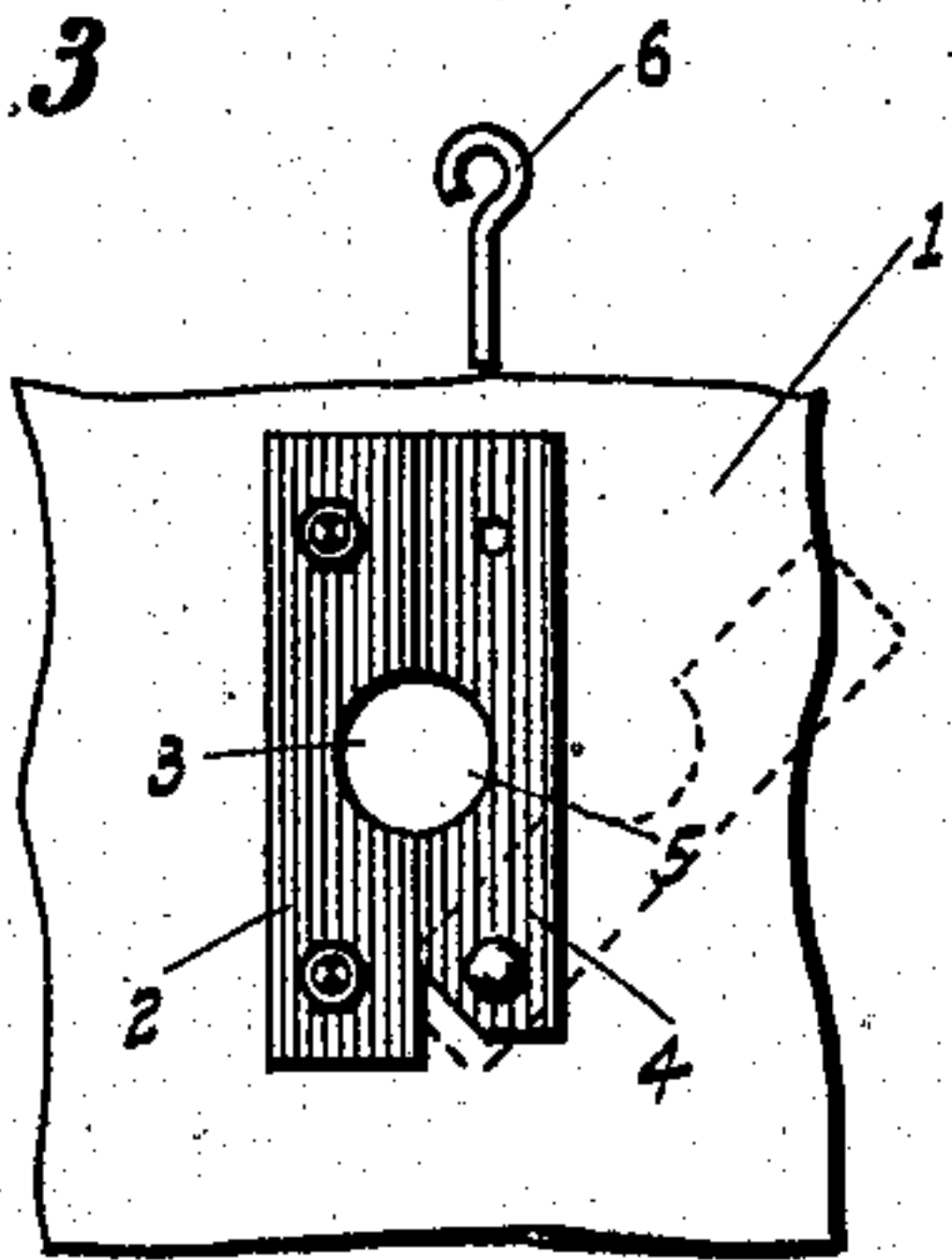
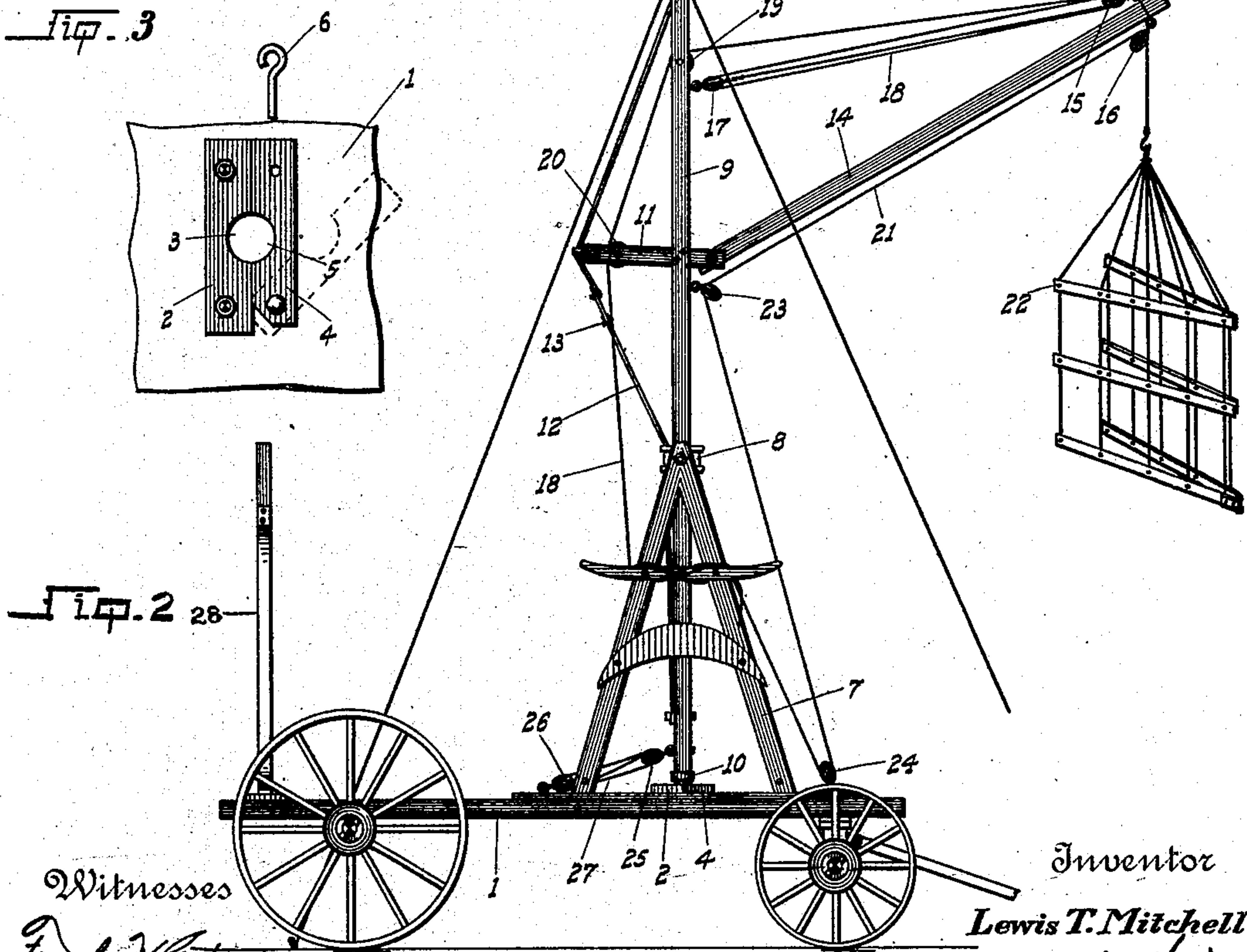
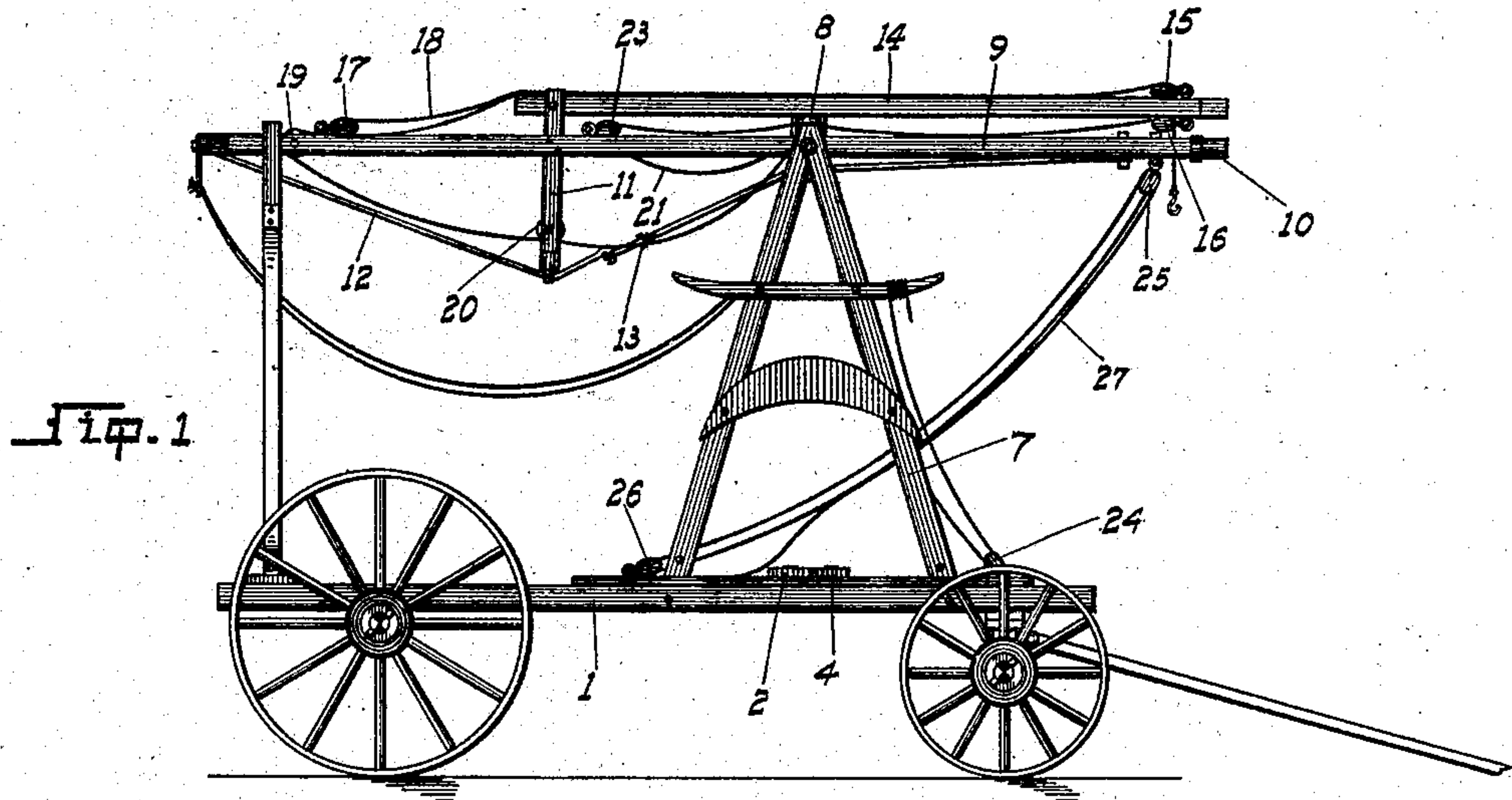


L. T. MITCHELL.
PORTABLE SWINGING DERRICK.
APPLICATION FILED APR. 8, 1908.

905,208.

Patented Dec. 1, 1908.



Witnesses

Frank H. Hart
James H. Hart

Inventor

Lewis T. Mitchell

Barney S. Webster
Attorney

UNITED STATES PATENT OFFICE.

LEWIS T. MITCHELL, OF SANTA MARGARITA, CALIFORNIA.

PORTABLE SWINGING DERRICK.

No. 905,208.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed April 8, 1908. Serial No. 425,862.

To all whom it may concern:

Be it known that I, LEWIS T. MITCHELL, a citizen of the United States, residing at Santa Margarita, in the county of San Luis Obispo and State of California, have invented certain new and useful Improvements in Portable Swinging Derricks; and I do declare the following to be a full, clear, and exact description of the same, 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 characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in derricks and particularly to that class known as portable swinging derricks used in stacking hay, straw or similar material, the object of the invention being to produce a simple and effective implement for the purpose which will be simple and inexpensive of construction and yet exceedingly strong and durable and well adapted to perform the functions for which it is devised. Also to produce an implement for the purpose which can be easily handled and operated by one person. This object I accomplish by means of a carrying truck on which is turnably secured a main mast having a swinging boom and a strong and efficient truss brace, said mast and boom being equipped with net and tackle in the manner and for the purpose as will appear. Also by such other and further construction as will appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Figure 1 is a side elevation of the device as dismantled ready to be transported. Fig. 2 is a similar view showing the equipment of the device positioned ready for use. Fig. 3 is a top plan view of a mast retaining block mechanism.

Referring more particularly to the characters of reference on the drawings 1 designates the body of the truck which may be either installed on wheels, sled runners or other suitable gear. Disposed on said body 1 is a fixed block 2 having a central semi-circular orifice 3, while 4 is a similar block pivoted on said body, and having a central semi-circular orifice 5 adapted to be brought into register with the orifice 3 and be held

in such position by means of a removable pin 6 extending through the block 4 and body 1. Disposed on each side of said blocks 2 and 4 are upwardly extending supporting frames 7 between which is swung a collar or ring 8 through which is disposed the mast or main standard 9 which is provided at its lower end with a metal cap 10 normally held in the orifice 3—5.

Secured on the mast 9 is a cross beam 11 braced by means of a truss brace member 12 extending from the top of the mast 9 over the outer end of said beam 11, thence through the ring 8 and secured then along the lower portion of the mast 9. Said truss brace 12 is provided with a turnbuckle 13 at an intermediate point for tightening purposes etc. Hinged to the other end of the beam 11 is a boom 14 on the outer end of which are secured pulleys 15 and 16 on the upper and lower sides respectively.

17 is a pulley secured near the upper end of the mast 9 and 18 is a rope secured to said pulley and extending through the pulley 15, through the pulley 17 back through the pulley 15, over a pulley 19 in the top of the mast 9, thence through a pulley in the cross beam 11 and thence to any suitable stationing point.

21 is a rope extending through the pulley 16 and having the usual net 22 secured to its outer end, said rope extending through a pulley on the mast 9 thence through a pulley 24 on the body 1.

25 is a pulley secured to the lower end of the mast 9 and 26 is a pulley secured to the body 1, there being a rope tackle 27 disposed in the same for the purposes as will appear.

28 is a forked standard disposed on the rear of the body 1 in which the mast 9 normally rests when not in use, the same then lying parallel to the body 1 and the boom 14 also lying parallel to the mast 9 when not in use, all as shown in Fig. 1. This makes a compact and simple arrangement for transporting said derrick. When it is desired to position said derrick ready for use the block 4 is opened and the rope 27 operated in conjunction with the pulleys 25 and 26 to swing the mast 9 into upright position by means of the swinging collar 8. The said mast is then locked in the orifice 3—5 by means of swinging the block 4 into closed position and locking it in such position by means of the pin 6. When said mast 9 is so secured the rope 18 is operated

to adjust the boom 14 at the desired angle and the rope 21 is operated to raise and lower the net 22 as is desired, the mast 9 swinging freely in the collar 8 to any point
5 necessary to deposit the load in said net.

Among the main features claimed for my improved derrick is the means for holding the mast erect and the means for raising and lowering it. Also the feature of the truss
10 brace 12 extending through the collar 8, I have found to be of great advantage, since it braces the mast effectually and at the same time swings freely in said collar, which would not be permitted if such brace was
15 outside said collar.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfils the objects of the invention as set forth herein.

20 While this specification sets forth in detail the present and preferred construction of my invention, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention.
25 the invention.

Having thus described my invention what I claim as new and useful and desire to secure by Letters Patent is:

30 1. In a device of the character described, a body, two standards thereon, a collar swung between said standards, a mast dis-

posed through said collar, a cross beam on said mast, a truss brace extending from the top of said mast over one end of said cross beam, through said collar and thence along
35 the lower end of said mast and below said collar and a boom and tackle mechanism disposed on said mast, as set forth.

2. In a device of the character described, a body, two standards thereon, a collar
40 swung between said standards, a mast disposed through said collar, a cross beam of the upper end of said mast, a boom pivotally mounted in one end of said cross beam, a pulley held in the other end of said beam,
45 a pulley on the upper outer end of said beam; a pulley on the upper end of said mast above said beam, a pulley held in said mast above said last named pulley, a rope secured to said third named pulley and ex-
50 tending through said second named pulley and thence through said third named pulley, said second named pulley, said fourth named pulley and said first named pulley to
55 a desired point, and a net and tackle mechanism on said boom as set forth.

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

LEWIS T. MITCHELL.

Witnesses:

PERCY S. WEBSTER,
FRANK H. CARTER.