(No Model.)

R. HATHAWAY.

APPARATUS FOR ERECTING POLES.

No. 426,534. Patented Apr. 29, 1890.

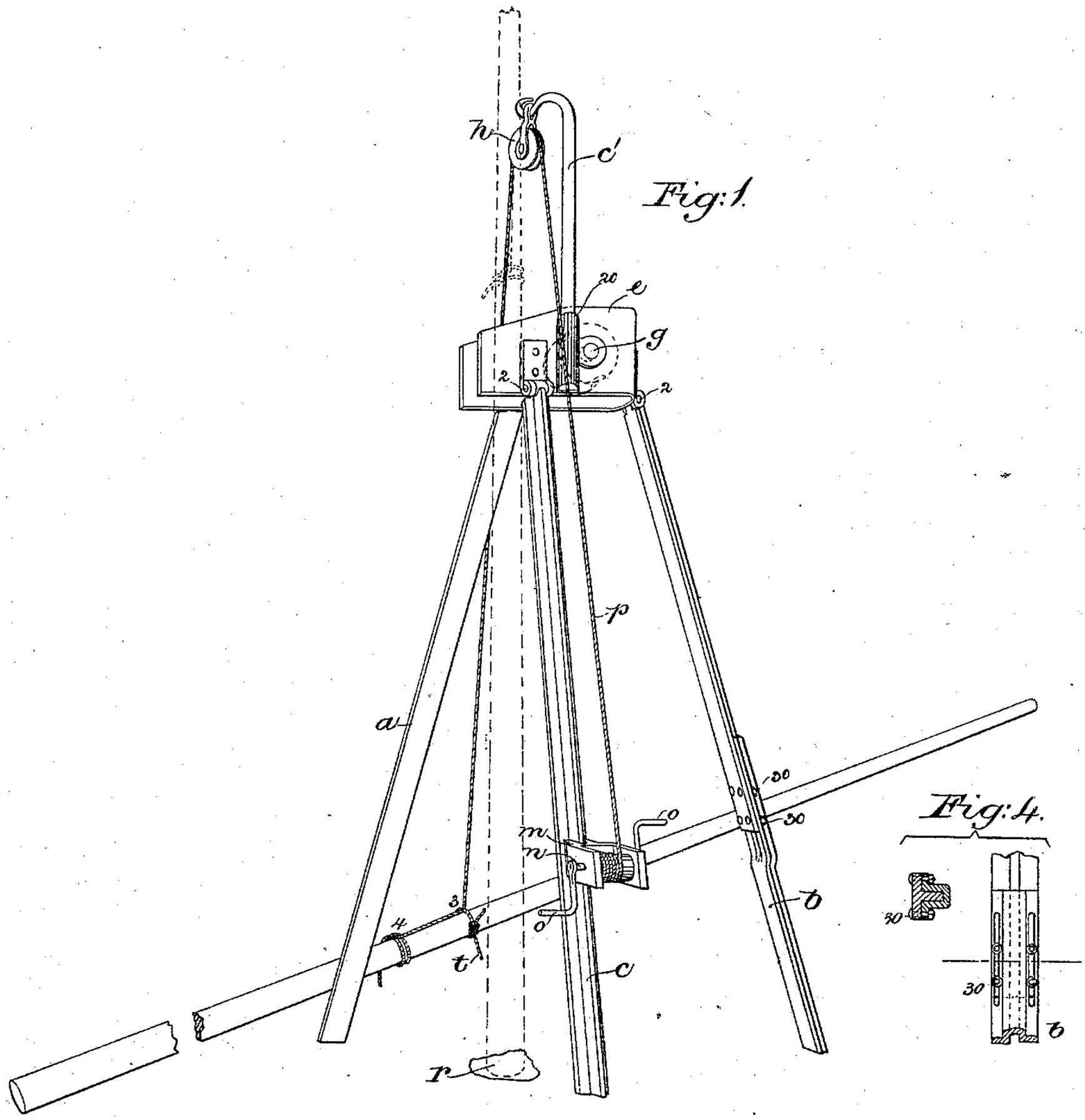


Fig: 1.

Fig: 4.

Fig: 3.

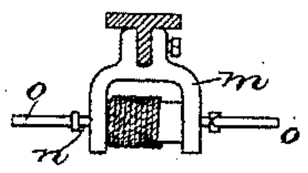
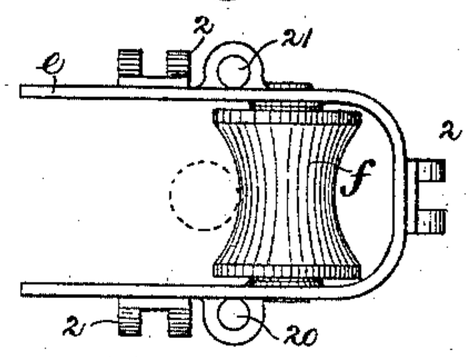


Fig: 2.



Witnesses:
Edgar A. Goddin
Frederick L. Emery

Inventor:
Russell Hathaway,
by Crosby & Gregory
Attys.

UNITED STATES PATENT OFFICE.

RUSSELL HATHAWAY, OF FAIRHAVEN, MASSACHUSETTS.

APPARATUS FOR ERECTING POLES.

SPECIFICATION forming part of Letters Patent No. 426,534, dated April 29, 1890.

Application filed December 17, 1889. Serial No. 334,071. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL HATHAWAY, of Fairhaven, county of Bristol, State of Massachusetts, have invented an Improvement in Apparatus for Erecting Poles, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

Much difficulty is at the present time experienced in erecting or setting up wooden and iron poles for electric and other wires and for other purposes, and as such work is now done quite a number of men are required.

In my study to facilitate the erection of poles and lessen labor and expense I have devised the apparatus to be herein described, it consisting, essentially, of a tripodal stand having a pulley-block above the head of the stand, the said head also having a pole-rest below the said pulley, so that the strain on the hoisting-rope attached at one end to the pole and at its other end to a windlass preferably forming part of the stand will act to lift one end of the pole faster than the other end and draw the pole gradually up along the outside of one leg of the stand, the pole finally passing over the upper end of said leg and taking bearing on the pole-rest in the head of the stand below the pulley, and thereafter further winding of the hoisting-rope causes the pole to be gradually shoved up into erect or perpendicular position. The pole-rest is preferably made as a roller to avoid friction, the power applied to lift the pole into erect position being applied to the pole between its butt and the point where the pole bears or slides on the rest.

My invention consists in a stand having a head provided with a pole rest or guide, a pulley and support therefor located above the head of the stand, and means for actuating a hoisting-rope.

Figure 1 in perspective represents an apparatus embodying my invention, the hoisting-rope being shown as attached to a pole, which latter has been partially elevated at one end, the dotted lines showing the pole on the pole-rest; Fig. 2, an enlarged detail showing the head of the stand, the pole rest or guide, and the pulley-support; Fig. 3, a detail showing the windlass for the hoisting-rope, with part of one of the legs of the stand in section; and Fig. 4, details referring to the adjustable leg.

The stand herein shown is composed of three legs *a b c*, jointed preferably by joints 2, of any usual or suitable construction, to the head *e*, open at one side and provided with a pole rest or guide *f*, made preferably as a spool or roller mounted on a shaft *g*, or mounted in the head in other usual or suitable manner, so as to rotate as the pole is being pushed longitudinally from below over the said rest and into erect position. A strong rigid arm *c'*, extended above the head and rest, serves as a support for a pulley *h*, and preferably the arm *c'* will be substantially in continuation of one of the legs; but the lower end of the arm is shown as entered into a socket 20, attached to the head. The arm may be entered into the socket 20 or 21, thus enabling the position of the arm to be changed according to the requirements of the pole being raised.

The legs will preferably be of T shape in cross-section, and to one or the other of the said legs I may clamp by suitable screws or bolts a loop or yoke *m*, having bearings for the windlass-shaft *n*, provided with handles *o o*, by which to rotate it and wind thereon the hoisting-rope *p*, attached at its outer end to the pole to be erected, the said windlass in practice having suitable ratchets or usual devices to prevent accidental unwinding of the rope from the windlass-shaft. By jointing the legs at their upper ends to the head *e* the stand when not in use may be folded together into compact space for transportation.

The stand having been set up over the hole *r*, in which the butt of the pole is to be dropped, the hoisting-rope is attached to the pole, preferably, as in Fig. 1, at the point 4 and again at the point 3, by, it may be, tying a part of the said rope by a second rope *t* to the said pole, the latter point 3 being so located with relation to the length of the pole as to enable the butt or large end of the pole to be kept down while the hoisting-rope is wound or drawn upon to lift the long or small end of the pole. During this operation the pole, being lifted at one end, travels up along one of the legs—as herein shown, along the leg *a*—and finally passes over one side of and drops into

the open notch or space of the head *e* and upon the rest or guide *f*, and then preferably the rope will be disconnected from the pole at 3, the power being thereafter applied to the pole at 4 or at a point nearer its butt, the point 4 being preferably distant from the butt about equal to the distance that the butt is to enter the hole *r*. Now, as the hoisting-rope is further drawn upon, the pole is pushed up into erect position, it sliding on the rest or guide, and the attendant can easily guide the butt of the pole so that it will be carried into position to enter the hole *r* when the rope is made slack. Preferably one or more legs, as represented by leg *b*, may be made in two parts, so that one part may be moved longitudinally on the other after loosening screws 30 to enable the stand to stand upon uneven ground or on a side hill.

I do not desire to limit my invention to a stand with any particular number of legs, nor do I desire to limit my invention to the particular means shown for drawing upon the hoisting-rope.

While I prefer to erect the pole with its butt to the ground, yet I do not desire to limit the use of my invention in that way, for it will be obvious that the hoisting-rope may be attached to the pole near its butt and the butt elevated to swing over the top of the head and into the rest or guide thereon below the pulley *h*, and thereafter the hoisting-rope may be made to draw the pole in the direction of its length until the butt projects sufficiently beyond the rest or guide to permit the butt-end of the pole to be drawn and the pole to be tipped into position over the said rest and head as a fulcrum.

From the foregoing it will be seen that the pole or weight to be lifted is drawn up in contact with the inclined legs of the stand, having at its top the pole-rest, and that, owing to the location of the pulley above the said pole-rest, the pole, as it arrives at the upper end of one of the legs and the head connecting them, passes over the top of the leg and head into position upon the pole-rest, so that it may be moved longitudinally thereon in one or the other direction, as may be desired, in order to put the pole into vertical position.

Prior to my invention I am not aware that a weight has ever been lifted or drawn up as described and permitted to come to a bearing upon the top of the stand and between the said top and the pole supporting the hoisting-rope.

I claim—

1. An apparatus for erecting poles, it including a stand having a head and a pole rest or guide mounted thereon, a support for a pulley, and a pulley located above the said head and rest, the said pulley being adapted to receive the hoisting-rope, to operate substantially as described.

2. An apparatus for erecting poles, it including a stand having a head and a pole rest or guide thereon, a support for a pulley, and a pulley located above the said head and rest, the said pulley being adapted to receive the hoisting-rope, and with a windlass attached to a part of the said stand, to operate substantially as described.

3. An apparatus for erecting poles, it including a stand having a head and a pole rest or guide mounted thereon, the legs of the stand being pivoted or jointed to the said head, a support for a pulley, and a pulley located above the said head and rest, the said pulley being adapted to receive the hoisting-rope, to operate substantially as described.

4. An apparatus for erecting poles, it including a stand having a head and a rotating pole rest or guide mounted thereon, a support for a pulley, and a pulley located above the said head and rest, the said pulley being adapted to receive the hoisting-rope, to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

RUSSELL HATHAWAY.

Witnesses:

GEO. W. GREGORY,

E. J. BENNETT.