

D. A. MANROSS.
POLE DERRICK.
APPLICATION FILED AUG. 1, 1910.

1,015,236.

Patented Jan. 16, 1912.

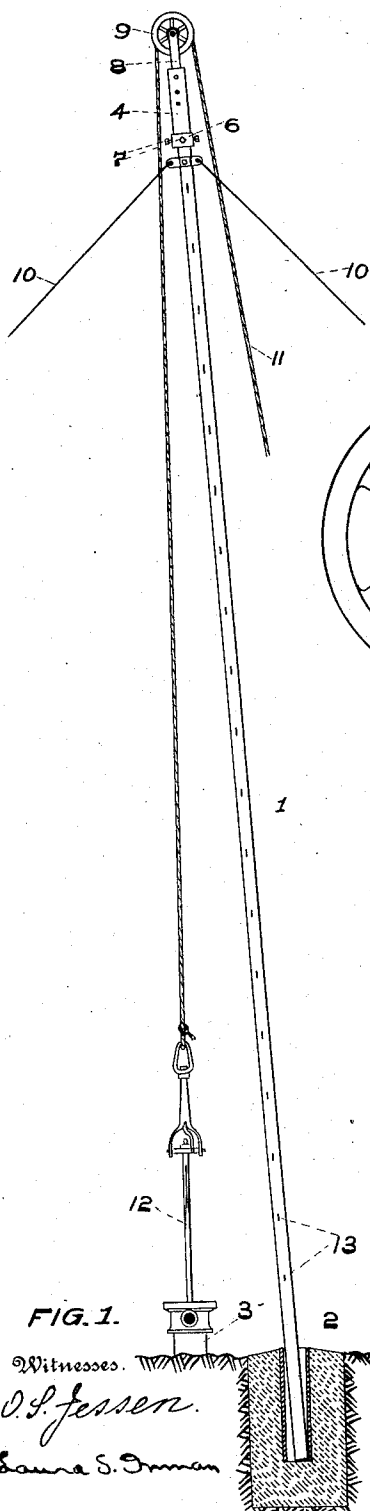


FIG. 2.

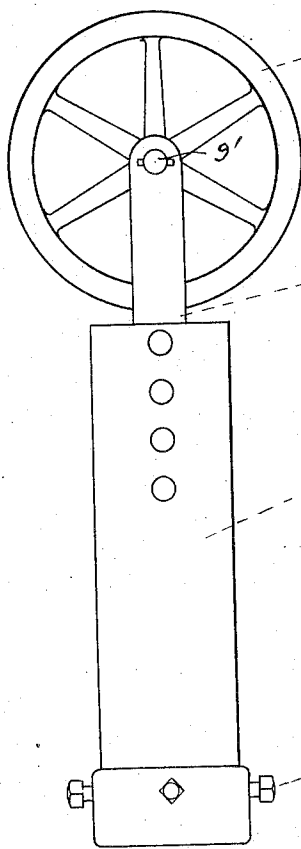


FIG. 3.

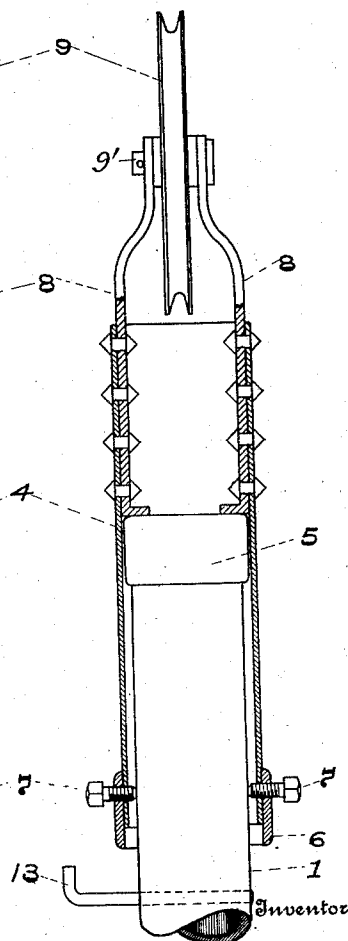


FIG. 1.

Witnesses.

O. P. Jessen.
Laura S. Inman

DAVID A. MANROSS

By *Edward R. Inman*
Attorney

UNITED STATES PATENT OFFICE.

DAVID A. MANROSS, OF FRANKLIN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
HARRY SMITH, OF FRANKLIN, PENNSYLVANIA.

POLE-DERRICK.

1,015,236.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed August 1, 1910. Serial No. 574,902.

To all whom it may concern:

Be it known that I, DAVID A. MANROSS, a citizen of the United States, residing at Franklin, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in Pole-Derricks, of which the following is a specification.

My invention relates to improvements in pole-derricks for use around oil wells, and will be fully understood by a reference to the accompanying drawings which fully illustrate the same and in which:—

Figure 1 is an elevation of my improved pole-derrick. Fig. 2 is an elevation of the removable pulley-head of the derrick. Fig. 3 is a longitudinal section of said head.

The object of my invention is to provide a simple and inexpensive derrick which may be substituted for the oil-well derricks usually constructed of timbers and boards.

Wooden derricks are not only expensive to construct on account of the increasing scarcity and consequent cost of lumber, but they are expensive to maintain on account of becoming weather-beaten, and damaged by fire and wind. In constructing my pole-derrick, I utilize a length of casing 1, which is, usually, about forty feet long, though it may be any other suitable metallic mast. The lower end of this is inserted into a socket 2 positioned in close proximity to the well from which the casing 3 projects. Upon the top of the pole or mast 1 is placed a removable pulley-head,—Figs. 2 and 3—which is composed of a short cylindrical section, preferably of pipe or casing 4. Section 4 is enough larger in diameter than the pole 1 so that when a collar 5 is placed on the upper end of said casing 1 to reinforce the same, it will just about fill the interior of said cap-section transversely. Upon the lower end of the cap-section is placed a collar 6 for the purpose of reinforcing said cap-section 4. Through said collar and the contiguous portion of the cap, are placed a number of set-screws 7 which are for the

purpose of positioning the lower end of the cap concentric with the mast 1, and also for securing the cap in position upon the mast. Projecting upwardly from the cap are two arms 8, in the upper end of which a pulley 9 is mounted. A pin or bolt 9' passes through the arms and the pulley, and upon said pin the pulley revolves.

When my improved derrick is in use, the same is raised to an upright position, and the lower end thereof is inserted in a socket 2 as shown, which socket is located in close proximity to a well. Guy-lines 10 are attached to the upper portion of the mast to hold the same in said upright position. When the rods or tubing of the well are to be pulled, a line 11 is passed over the pulley 9 and down to the sucker-rod 12 as shown, or to the tubing, as the case may be, and any suitable power,—not shown—is applied to said line 11 for the purpose of raising said rods or tubing from the well. The derrick is also used for replacing the rods and tubing and when this is accomplished, the pole may be taken down and erected at another well.

If desired, however, the mast of my derrick may be permanently erected at a well, and the casing only may be removed and placed upon the mast similarly located at another well; in either case a derrick of low cost, ample strength and suitable efficiency is produced.

I claim:

1. A pole derrick for use about oil wells consisting of a metallic mast, a cylindrical, removable pulley-head therefor, a pulley carried by said head, in combination with a socket arranged approximate to a well for receiving the base of said mast, and means for securing said mast in the upright position.

2. In a pole derrick for use about oil wells, a metallic mast, a reinforcement at the upper end of said mast of larger diameter than the body of said mast, a cylindrical pulley-cap adapted to receive said reinforce-

ment and the upper end of said pole or mast,
a reinforcement at the lower end of said cap,
set-screws passing through said cap rein-
forcement, the inner ends of said set-screws
5 bearing against said mast, upwardly ex-
tending arms secured to said cap, and a pul-
ley revolubly mounted in said arms.

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

DAVID A. MANROSS.

Witnesses:

E. W. CRISWELL,
D. M. FLEISHMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."