

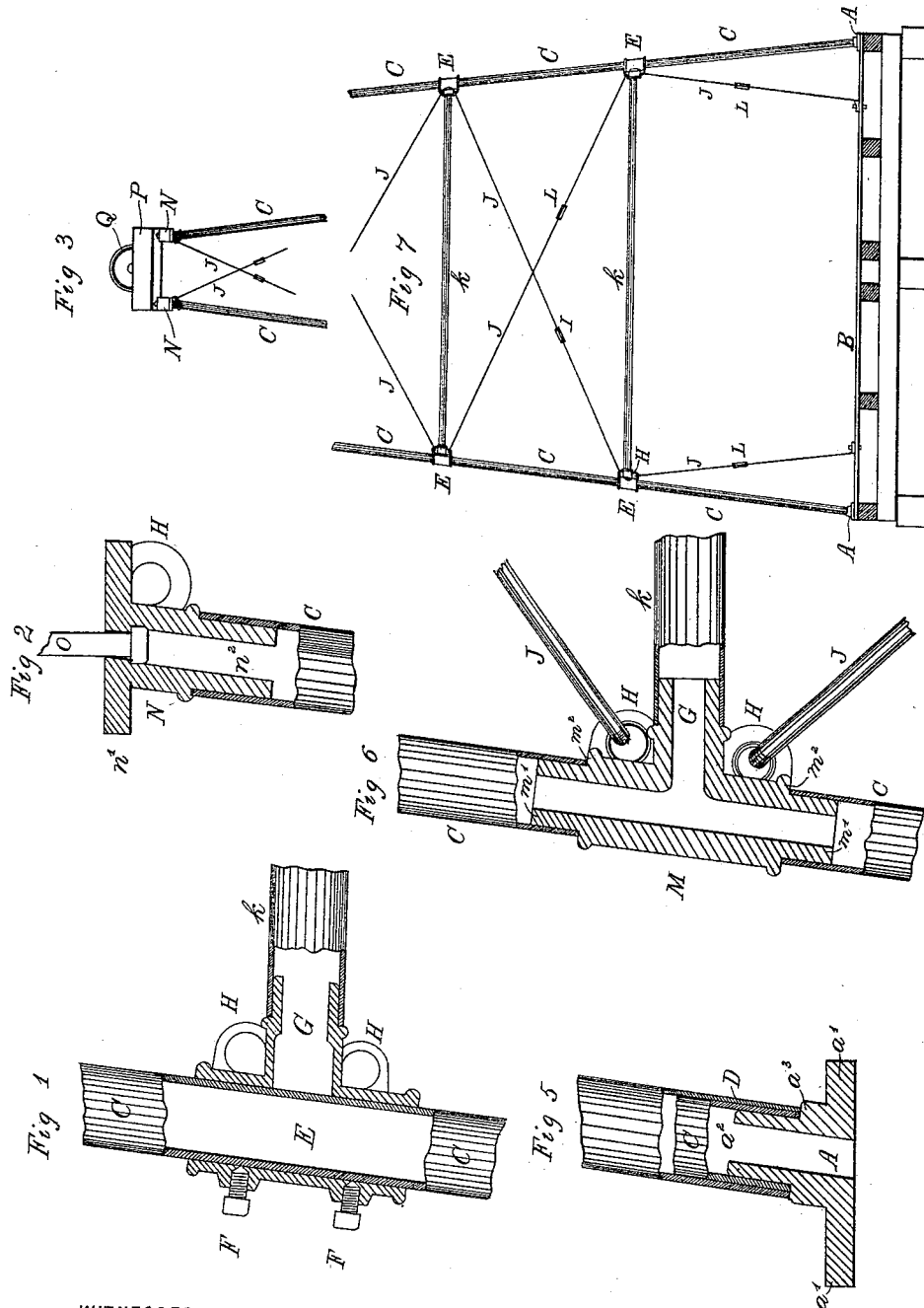
(No Model.)

G. CORBETT.

PIPE DERRICK.

No. 346,466.

Patented Aug. 3, 1886.



WITNESSES
Maggie M. Larn
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Fig. 4
I
J

INVENTOR
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UNITED STATES PATENT OFFICE.

GEORGE CORBETT, OF BRADFORD, PENNSYLVANIA.

PIPE-DERRICK.

SPECIFICATION forming part of Letters Patent No. 346,466, dated August 3, 1886.

Application filed December 31, 1885. Serial No. 187,258. (No model.)

To all whom it may concern:

Be it known that I, GEORGE CORBETT, a citizen of the United States, residing at Bradford, in the county of McKean and State of Pennsylvania, have invented certain new and useful Improvements in Pipe-Derricks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to construct a derrick for Artesian wells, signal-towers, electric-light supports, or other similar purposes, of iron pipe, so that it will be strong, offer but little resistance to winds, and be readily erected or taken down.

I attain the object of my invention by the devices shown in the accompanying drawings, in which—

Figure 1 is a view, partly in section, of one of the corner sockets. Fig. 2 is a view in section of the top socket. Fig. 3 is a view of the top portion of the derrick. Fig. 4 is a view of one of the hooks on the ends of the tie-rods. Fig. 5 is a view of the bottom socket. Fig. 6 is a view of a modified form of corner socket, and Fig. 7 is a view of the lower part of the derrick.

The invention will be described as it will be used on an ordinary derrick for an oil-well. Such derricks are generally seventy-two feet high, twenty feet square at the base, and two and a half feet square at the top, the first girt of the derrick being nine and a half feet (measured on the incline) from the floor, and the other girts being seven feet eight inches apart, (measured also on the incline.) The corner sockets must be all made to fit the desired slant of the legs of the derrick and girts.

The bottom socket is designated by the letter A, and is constructed of cast or malleable iron, with a square base, a' , to rest on the floor B of the derrick. Projecting from said base a' is the stem a^2 , which has a shoulder, a^3 . The stem a^2 is two inches outside diameter, so as to form a stud for the two-inch pipe C. For the lower part of the derrick I recommend that a second pipe two and a half inches inside diameter, D, be placed over the pipe C. The first length of pipe may be either nine and a half feet, seventeen feet two inches, twenty-

four feet four inches, or thirty-one feet six inches long. It should be so cut that its end will come in the middle of one of the corner sockets E. Said corner socket E is made as shown in Fig. 1, having the two set-screws F and two side projections, G, (only one of which is shown in the drawings.) The side projections, G, are at right angles to each other. Above and below each projection is a loop or eye to receive the hook I, Fig. 4, of the tie-rod J.

The tie-rods J J stretch from the corner of one girt, k , to an upper or lower diagonally-opposite corner, and are tightened by the turn-buckles L L, of which there is one on each tie-rod. The tie-rods to the first story are fastened to the derrick-floor B, as shown in Fig. 7.

The corner socket shown in Fig. 1 is made so that it slips over the pipe. When the pipe is long enough, it goes through the socket E, and when fitted to its place the set-screws F are firmly tightened; but if the pipe is not long enough to reach the next girt it is cut off, so as to reach to the center of a corner socket, E.

It is desirable, but not essential, that not more than one or two of the legs should make a joint at the same girt.

When short pieces of pipe are used, the corner socket is constructed as shown at M, Fig. 6, which differs from E, Fig. 1, only in being made with studs m' m' and shoulders m^2 m^2 at top and bottom to receive the pipe C.

The corners at the top of the derrick are terminated by the top sockets, N, which have a top plate, n' , and a stud, n^2 , and two eyes, H, at right angles to each other. A bolt, O, passes through the upper plate, n' , to fasten the top block, P, which supports the corner pulley, Q. A wooden plug may be driven in the hollow of n^2 , to hold the bolt O in place until the nut is attached to it.

If it were desired to make a derrick three-legged, the eyes H and projections G on the sockets would be (as to each upper and lower pair) at angles of sixty degrees to each other, and corresponding changes in the angles would be made if more than four legs were desired.

What I claim as my invention is—

1. A derrick made of pipe resting upon the base-plates A, with girts united to the legs by corner sockets, and the tops of the legs

finished with the top sockets, N, substantially as shown and described.

2. The base-plate of a pipe-derrick, consisting of the base a' and the stud a^2 , the latter
5 provided with the shoulder a^3 , substantially as described.

3. The corner socket E, provided with two side projections for the reception of girts, the set-screws F F, and the eyes H, substantially as
10 shown and described.

4. The top socket, N, provided with the plate n' , the stud n^2 , and the eyes H, substantially as shown and described.

5. The corner socket M, provided with the studs m' , the shoulders m^2 , the side projections, 15 G, and the eyes H, substantially as shown and described.

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

GEORGE CORBETT.

Witnesses:

JAMES C. BOYCE,
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