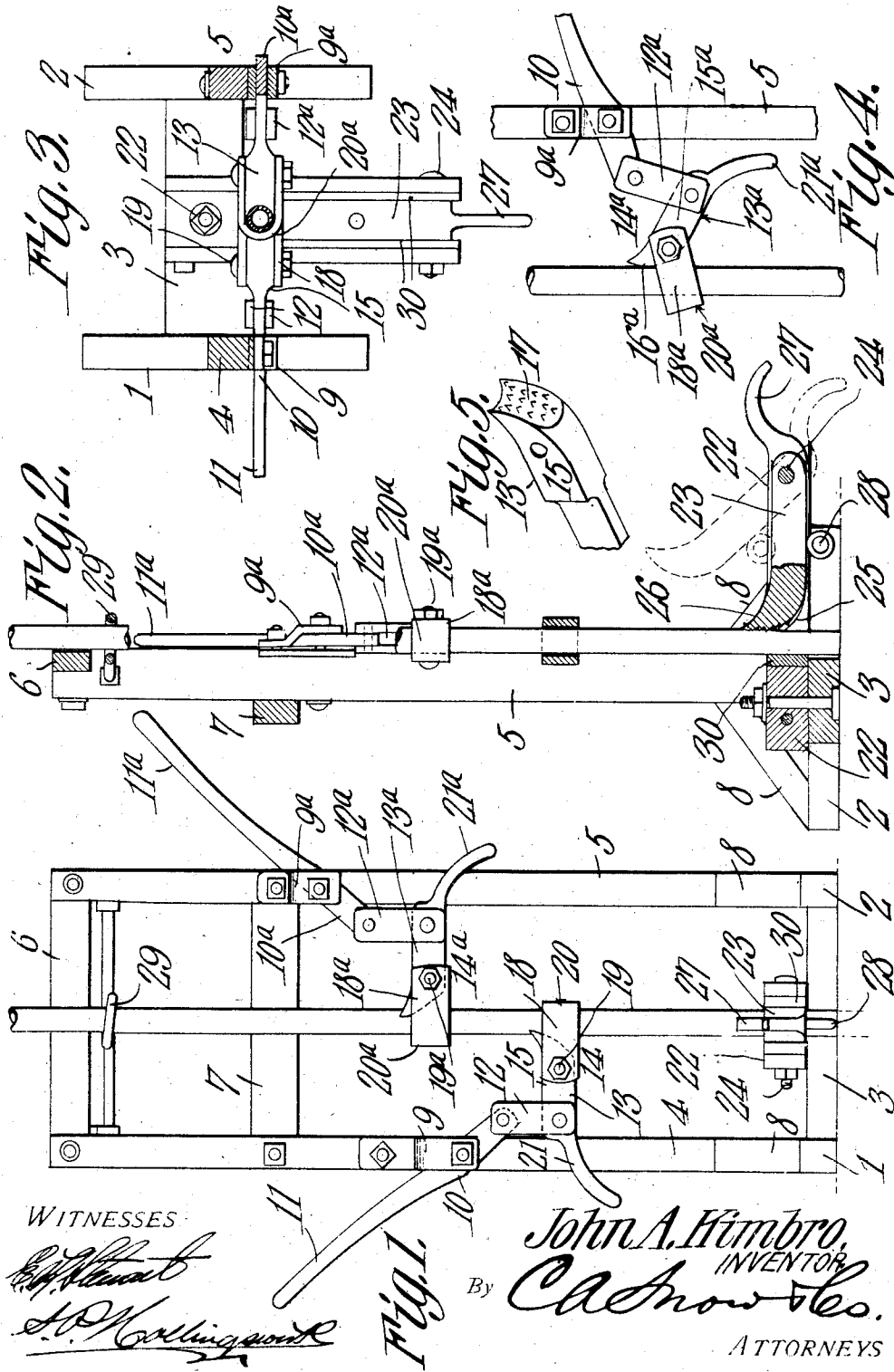


No. 874,086.

PATENTED DEC. 17, 1907.

J. A. KIMBRO.
WELL PIPE LIFTER.

APPLICATION FILED MAY 20, 1907.



UNITED STATES PATENT OFFICE.

JOHN A. KIMBRO, OF GEORGETOWN, TEXAS, ASSIGNOR OF ONE-HALF TO MARVIN PATE, OF GEORGETOWN, TEXAS.

WELL-PIPE LIFTER.

No. 874,086.

Specification of Letters Patent.

Patented Dec. 17, 1907.

Application filed May 20, 1907. Serial No. 374,631.

To all whom it may concern:

Be it known that I, JOHN A. KIMBRO, a citizen of the United States, residing at Georgetown, in the county of Williamson and State of Texas, have invented a new and useful Well-Pipe Lifter, of which the following is a specification.

This invention relates to a mechanism for raising pipes or rods from wells and also for lowering the same into wells, and comprises a suitable frame to which is pivoted the lifting devices; also a foot operated catch for holding the pipe in any position to which it may be raised.

The main object of the invention is to provide a simple and easily operated portable mechanism for lifting pipes or rods from wells by means of clutches attached to hand operated levers, and to lower the same into wells by the same means, the pipe or rod being held at any height by a foot lever pivoted to the frame.

In the accompanying drawings, Figure 1 is a front elevation of the invention. Fig. 2 is a vertical central sectional view of the same. Fig. 3 is a top view partly in section. Fig. 4 is a detail view of one of the operating levers. Fig. 5 is a perspective view of a detail of the invention.

Similar numerals of reference indicate the same parts on all the figures.

The operating mechanism is supported on a suitable portable frame comprising two parallel base beams 1 and 2 connected centrally by a cross beam 3. From the center of the respective beams 1 and 2 rise two uprights 4 and 5 to a suitable height, connected at the top by a cross beam 6 and a little lower down by another cross beam 7. Angular braces 8 extend upwardly from the base beams 1 and 2 and assist in maintaining the uprights 4 and 5 firmly in place.

Rigidly attached to the upright 4 about midway its height is a bracket 9 in which is pivoted intermediate its length a lever 10, the longer end extending outwardly and shaped into a handle 11. On the upright 5, a little higher than the bracket 9 is a similar bracket 9^a to which is pivoted a lever 10^a with a handle 11^a. Depending from the levers 10 and 10^a, respectively, are links 12 and 12^a, pivoted to the inner end of said

levers and to the members 13 and 13^a of two clutches 14 and 14^a. The clutch 14 comprises two members 13 and 18 hinged together. The part 15 of the former clutch member 13 is about as wide between the arms of the member 18 as the well pipe, but beyond them it is much narrower. The broad inner end of the member 13 is curved upwardly and forms a sharp edge with the upper face of the member which also has a slight upward curve. The curved face 16 of the member is concaved and provided with teeth 17. (See Fig. 5.) The other member 18 of the clutch consists of a U-shaped band of metal hinged by a bolt 19 to the member 13. The curved end 20 of the member 18 embraces the pipe when in operation. The opposite clutch 14^a is similar in all respects to the clutch 14, it having the members 13^a and 18^a connected by the pivot 19^a, the former member with its clutching end 16^a and the latter member with its curved end 20^a. Each member 13—13^a is provided, respectively, with a handle 21, 21^a extending outwardly. By means of these handles, the clutches are manually operated to engage and release the pipe. Each clutch mechanism is wholly independent of the other, and either may be operated alone, in unison, or alternately, with the other.

Bolted to the cross beam 3 and extending in a forward direction therefrom is an arm 22 provided with a longitudinal central slot in which a foot lever 23 is pivoted on a bolt 24 near its outer end so that the weight of the lever will tend always to keep it in engagement with the pipe. The rear end of the foot lever 23 which engages the pipe has its upper and lower sides curved similar to the members 13 and 13^a, and has also the concaved seat 25 provided with teeth 26 for grasping the pipe. The outer end of the foot lever 23 has an upwardly curved arm 27 on which the foot is placed to lift the rear end away from the pipe. When it is desired to keep the foot lever away from the pipe, it is raised until an eye 28 on its under side is lifted sufficiently high to permit a pin or anything convenient to be passed through the eye and rest on the arm 22, see dotted line in Fig. 2.

At the top of the frame is placed a guide 29 for the pipe; this guide prevents the pipe from tilting when it gets above the clutches and relieves them from all side strains due to the pipe being out of plumb.

When it is desired to raise a pipe from a well, should there be a sufficient length above ground for the clutches to grasp, the foot lever is removed and the frame placed in position against the pipe, that is to say the slotted arm 22 straddles the pipe until the wear plate 30 in the bottom of the slot abuts against the pipe. The foot lever is then replaced, the clutches 14 and 14^a connected to the pipe, and the arms 11 and 11^a, when operating in unison, raised to their full height. They are then depressed causing the members of each clutch to bite on the pipe and raise it. When the levers 10 and 10^a are again raised, the foot piece which is in constant contact with the pipe, holds the pipe in position against the wear plate 30 until the levers have been raised

and the pipe once more started on its upward movement.

Having thus described the invention what is claimed is:—

A mechanism of the class described comprising a rigid movable frame having parallel vertical uprights, two clutches independent of each other between said uprights one above the other but in the same vertical plane, a hand lever intermediately pivoted in a bearing on each upright above each clutch, a link connection between the inner end of each hand lever and a member of each clutch, a hand grip on the outer end of said members, and a foot lever adapted to uphold a pipe at the bottom of the frame.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN A. KIMBRO.

Witnesses:

C. F. McMURRAY,
THOS. H. FLINN.