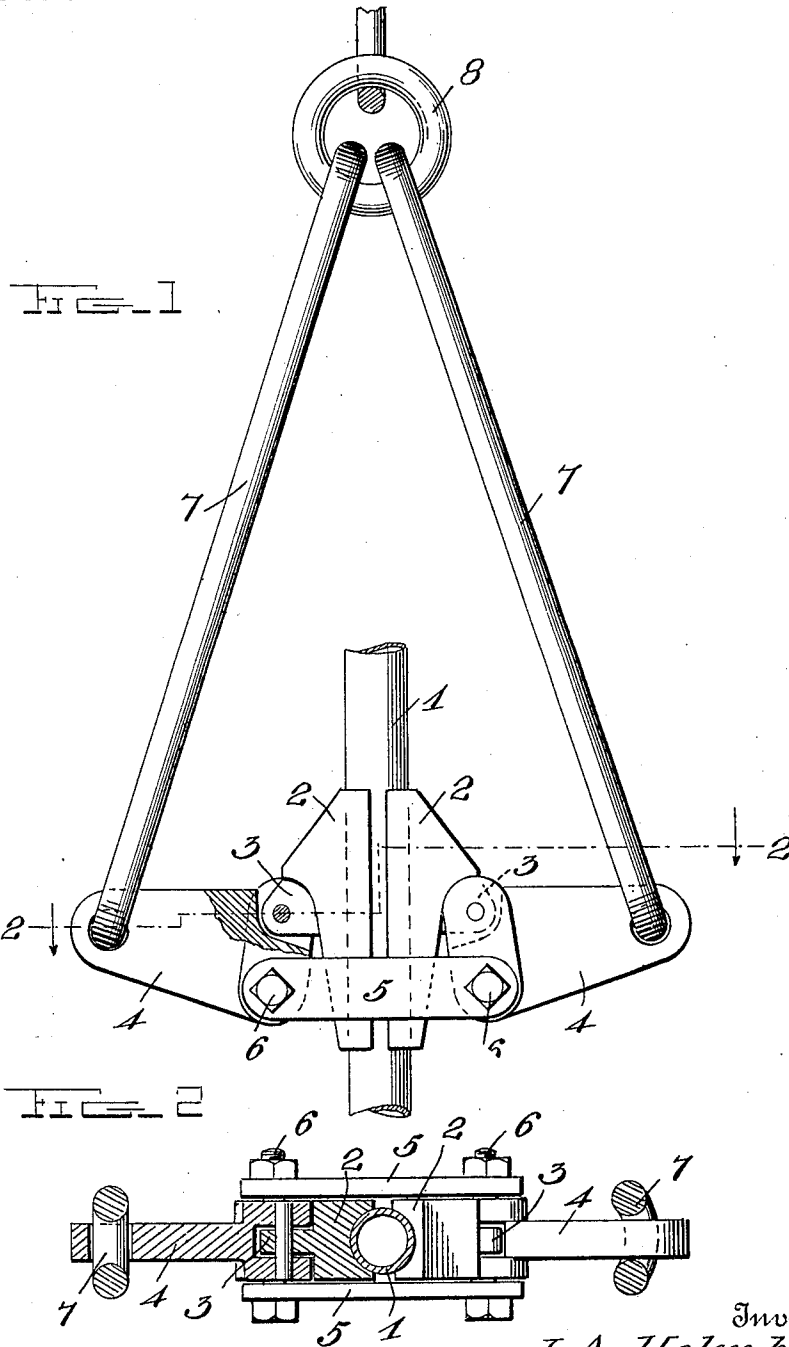


J. A. HOLMBERG.
GRAPPLE.
APPLICATION FILED APR. 13, 1908.

910,062.

Patented Jan. 19, 1909.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. HOLMBERG, OF LINDSBORG, KANSAS.

GRAPPLE.

No. 910,062.

Specification of Letters Patent.

Patented Jan. 19, 1909.

Application filed April 13, 1908. Serial No. 426,821.

To all whom it may concern:

Be it known that I, JOHN A. HOLMBERG, a citizen of the United States, residing at Lindsborg, in the county of McPherson and State of Kansas, have invented certain new and useful Improvements in Grapples; and I do declare the following to be 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.

My invention relates to grapples, and particularly to that type which are used in connection with the hoisting of well pipes.

The object of the invention is to provide a device of this character which will be efficient in operation, cheap to manufacture and which is easily applied to the pipes.

A further object of the invention is the provision of a device of this character which will positively grab the pipe and grip it with increased firmness as the tension thereupon is increased and will immediately release the pipe when the strain upon the grapple is relieved.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side elevation, Fig. 2 is a horizontal section on the line 2—2 of Fig. 1.

Referring more especially to the drawings, 1 represents the pipe which is gripped between the jaws 2, having semi-cylindrical recessed inner faces formed in their inner edges for engaging the pipe as will be hereinafter described. These jaws have lugs 3, projecting out from their side edges which are pivotally attached to the upper inner end of the levers 4. Suitable links 5, pivotally connect the lower inner ends of the levers 4 and straddle the jaws 2. The bolts 6, which connect the links to the levers are made removable so as to permit relative

movement of the jaws and levers so that the pipe may be properly inserted between the jaws 2. The outer ends of the levers are connected to converging links 7, which are brought together at their upper ends by a strain ring, which in this instance is connected in any suitable manner to a power device, such as a lever, or a winch. When a strain is put upon the levers 4 to raise them, and the pipe is in position between the jaws 2, the top inner end of the levers moves inwardly and forces the jaws against the pipe to clamp it. The harder it is to draw from the ground the greater the gripping quality of the grapple.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claim.

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

In a device of the class described, a pair of jaws having vertical straight gripping faces, a pivotal lug extending from each jaw, triangular levers having one of their corners pivotally connected to the lugs, links straddling the jaws and pivotally connected to the levers at another corner thereof, and strain links connected to the remaining corners of said levers and adapted to operate the same.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN A. HOLMBERG.

Witnesses:

ALMA J. PETERSON,
GUST JOHNSON.