

No. 700,216.

Patented May 20, 1902.

V. MATULA.
PIPE GRAB.

(Application filed Nov. 27, 1901.)

(No Model.)

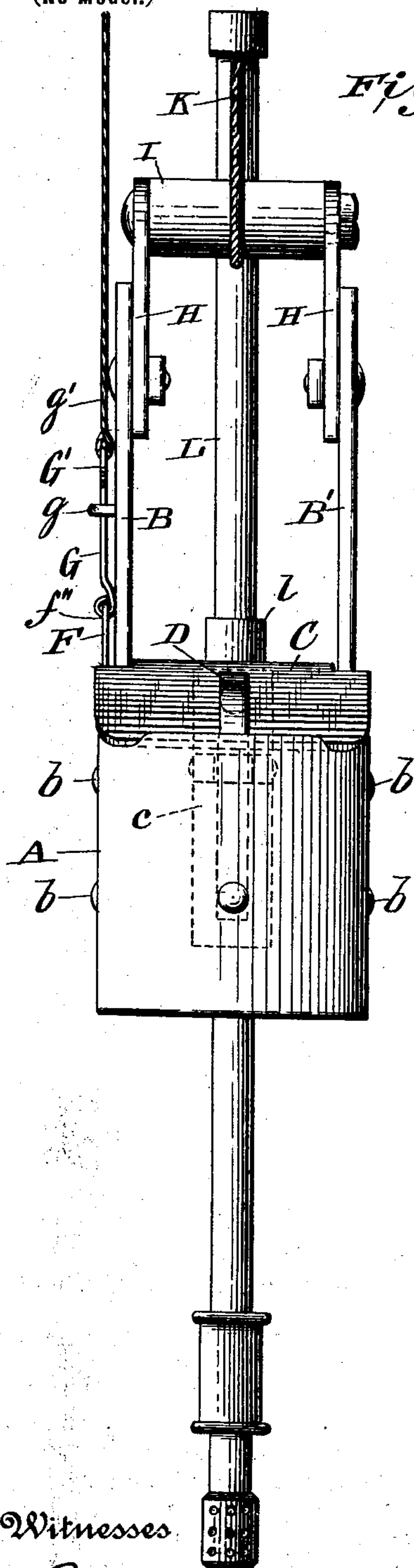


Fig. 1.

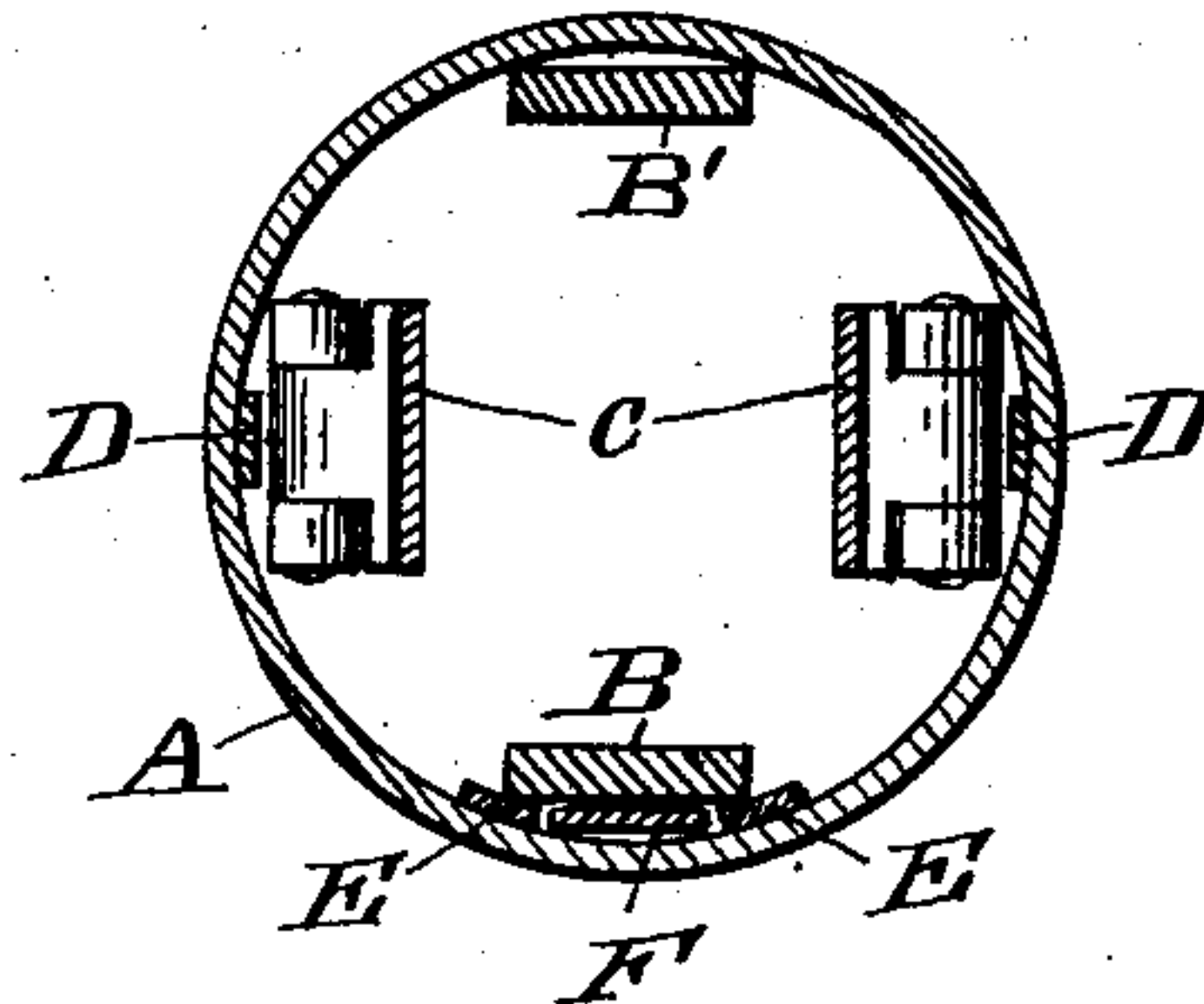


Fig. 3.

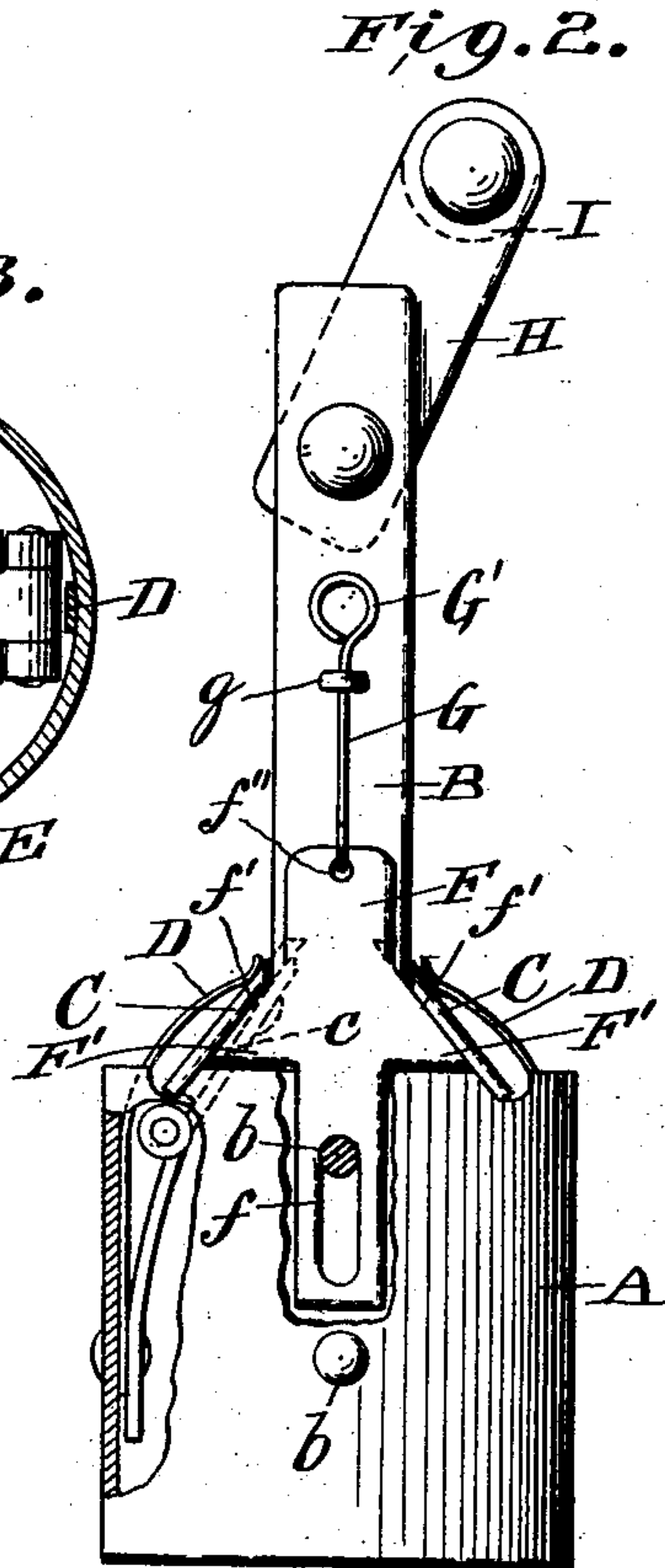


Fig. 2.

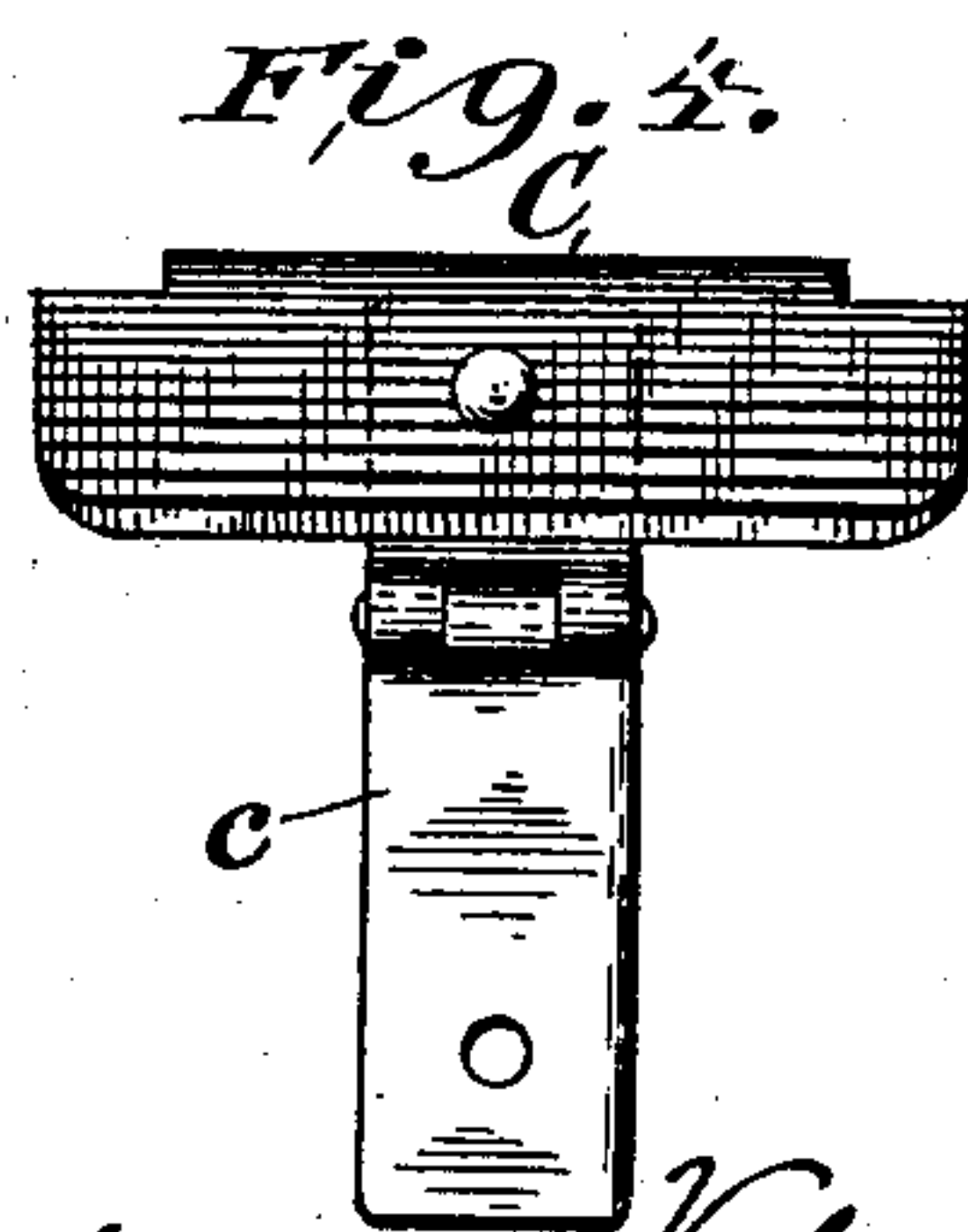


Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

VALENTINE MATULA, OF BELMONT, TEXAS, ASSIGNOR OF ONE-HALF TO
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PIPE-GRAB.

SPECIFICATION forming part of Letters Patent No. 700,216, dated May 20, 1902.

Application filed November 27, 1901. Serial No. 83,914. (No model.)

To all whom it may concern:

Be it known that I, VALENTINE MATULA, a citizen of the United States, residing at Belmont, in the county of Gonzales and State of Texas, have invented certain new and useful Improvements in Pipe-Grabs, of which the following is a specification.

My invention relates to devices for raising and lowering pipe and tools used in drilling oil-wells, and has for its object to provide a device of the class described that is reasonable in cost of construction, easy to manipulate, and because of the peculiarities of construction capable of handling the heaviest pipes and tools used in well-boring.

Further advantages of the construction of my invention will appear in the following description and by reference to the drawings, in which—

Figure 1 is a front view in elevation of my invention, showing it in operation; Fig. 2, a side view in elevation; Fig. 3, a section of the grab on the line *xx* of Fig. 2; Fig. 4, a detail of one of the jaws and the means of attaching it to the grab.

Referring to the drawings, in which similar reference characters indicate corresponding parts throughout the several views, A represents a cylinder, B B' standards secured thereto by means of screws *b*, and C jaws hinged to said cylinder by means of strap-hinges *c*.

D represents a leaf-spring secured between each strap-hinge *c* and the inner side of the cylinder A, and by bearing against the jaw C on that side of the cylinder holds the upper edge of said jaw normally against the standards B B'. A portion of standard B is spaced apart from the inner side of the cylinder A by means of the strips of metal E to permit the insertion of the jaw-lifter F, which is made of a thin strip of metal and has an elongated slot *f*, through which the upper screw *b* is inserted. The sides of the lifter F are extended, as shown at F', and have a slanting edge *f'* to bear against the bottoms of the jaws C. The upper end of the lifter F is perforated at *f''* to receive a hook G, that passes through an eye *g* on the side of the standard B and has a loop G' to receive an operating-line *g'*.

H represents arms pivoted to the ends of

the standards B B', and I a bolt connecting the free ends of the arms H, to which the cable K is attached for raising and lowering the device.

L represents a pipe used in oil-wells, and *l* a coupling on said pipe.

All the parts of my invention are preferably made of steel, and the construction may be altered in some particulars without affecting the spirit of my invention. The size may also be graded to suit different sizes of pipes and tools.

The operation is as follows: It being desired to lower a pipe L into the well, the proper-size grab is selected to accommodate the pipe, and the cylindrical portion A is slid over the pipe until the jaws C snap under one of the couplings *l*. The pipe and grab are then lowered into the well to the distance desired, when the operating-line *g'* is pulled, thus raising the lifter F and swinging the jaws C from engagement with the coupling *l* and the grab released from the pipe. The grab can then be lifted from the well. If the pipe or tool is in the well, the grab is lowered until the jaws secure a hold on same, when it may be raised from the drill-hole. The arms H permit the cable-attaching portion of the grab to swing out of line with the pipe or tool when the end of the pipe extends above the bolt I.

Having thus described my invention, what I claim is—

1. In a pipe-grab, a cylinder, standards attached thereto, a rope-hold pivoted to the free ends of said standards, jaws hinged to said cylinder, means to hold the upper edges of said jaws against said standards, and means to swing said jaws from engagement therewith, substantially as shown and described.

2. In a pipe-grab, a cylinder, standards attached thereto, a rope-hold pivoted to the free ends of said standards, jaws hinged to said cylinder, a leaf-spring attached to said cylinder and bearing against each said jaw, and means to lift said jaws, substantially as shown and described.

3. In a pipe-grab, a cylinder, standards attached thereto, a rope-hold pivoted to the free ends of said standards, jaws hinged to said cylinder, a leaf-spring attached to said cylinder and bearing against each said jaw, a

slidable plate mounted on said cylinder having a portion shaped to bear against said jaws to lift them, and means to limit the upward movement of said plate, substantially as shown and described.

4. In a pipe-grab, a cylinder, standards attached thereto, a rope-hold pivoted to the free ends of said standards, jaws hinged to said cylinder, a leaf-spring attached to said cylinder and bearing against each said jaw, a slotted plate slidably mounted on said cylinder, and projections at each side of said plate having slanting upper surfaces to bear against the bottoms of said jaws, substantially as shown and described.

5. In a pipe-grab, a cylinder, standards attached thereto, one of said standards spaced apart from the inner side of said cylinder, a longitudinally-slotted plate slidably mounted between said cylinder and said standard, angular projections on each side of said plate, jaws hinged to said cylinder, means to hold said jaws against said standards, and means

to raise said slotted plate to swing said jaws from said standards, substantially as shown and described.

6. In a pipe-grab, a cylinder, standards secured thereto, one of said standards spaced apart from the inner side of said cylinder, a longitudinally-slotted plate slidably mounted between said cylinder and said standard, angular projections on each side of said plate, a rope attached to said plate, arms pivoted to said standards and connected by a bolt for attaching the rope for raising and lowering the grab, jaws hinged to said cylinder, and a leaf-spring secured to said cylinder bearing against each jaw, substantially as shown and described.

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

VALENTINE MATULA.

Witnesses:

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W. L. FOSTER, Jr.