

W. H. EDWARDS.
PIPE GRIP.
APPLICATION FILED NOV. 9, 1920.

1,420,532.

Patented June 20, 1922.

Fig. 1.

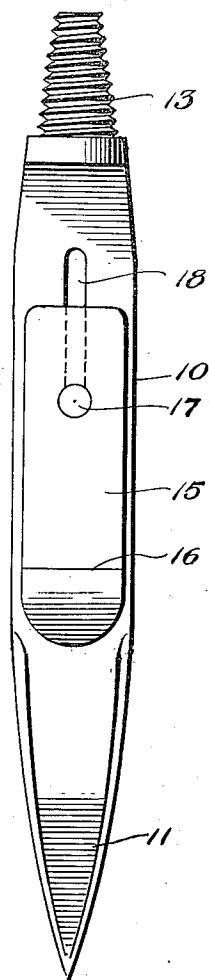


Fig. 2.

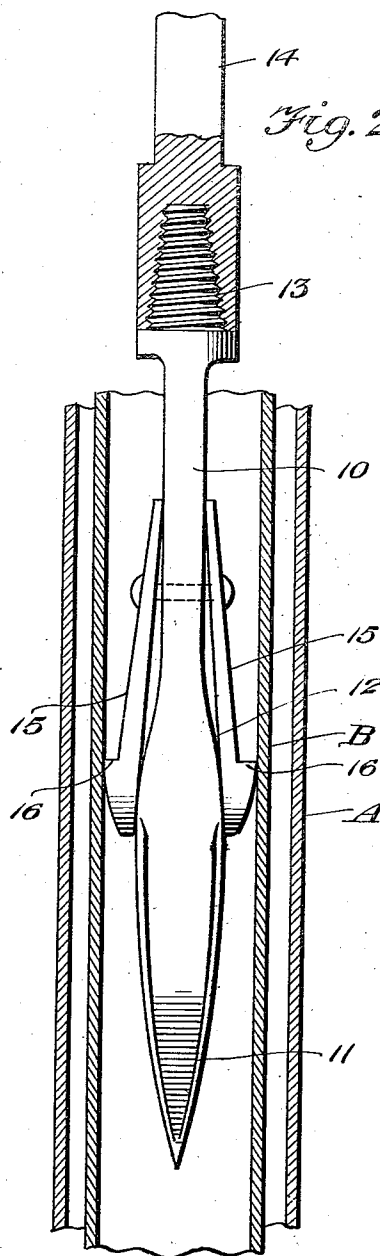


Fig. 3.

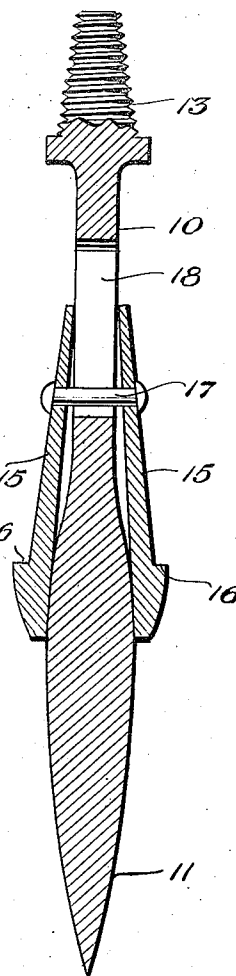
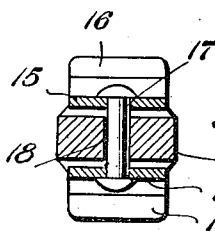


Fig. 4.



W. Ackman Jr.

WITNESS:

W.H. Edwards

INVENTOR

BY *Victor J. Evans*

ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIAM H. EDWARDS, OF GARYSBURG, NORTH CAROLINA, ASSIGNOR OF ONE-HALF
TO JOHN F. PENNEWELL, OF GUMBERRY, NORTH CAROLINA.

PIPE GRIP.

1,420,532.

Specification of Letters Patent. Patented June 20, 1922.

Application filed November 9, 1920. Serial No. 422,877.

To all whom it may concern:

Be it known that I, WILLIAM H. EDWARDS, a citizen of the United States, residing at Garysburg, in the county of Northampton and State of North Carolina, have invented new and useful Improvements in Pipe Grips, of which the following is a specification.

This invention relates to tools for use in connection with wells and has for its object the provision of a device adapted to be inserted within a well casing whereby to pull up and extract any broken or disconnected pipe sections.

An important object is the provision of a device of this character which may descend freely through a well casing but which will, when an upward pull is exerted thereon, automatically expand and grip the interior of a pipe so that the same may be pulled out.

An additional object is the provision of a device of this character which will be very simple and inexpensive in manufacture, highly efficient in use, durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which—

Figure 1 is an elevation of the device,

Figure 2 is an elevation taken at right angles to Figure 1, showing the tool within the casing and pipe,

Figure 3 is a cross sectional view, and

Figure 4 is a longitudinal sectional view.

Referring more particularly to the drawings, the letter A designates a portion of a well casing and B designates a pipe to be drawn. In carrying out my invention I provide a pipe grip which comprises an elongated body 10 which has one end tapered, as indicated at 11, which has its intermediate portion flattened on opposite sides and formed wedge shaped longitudinally, as shown at 12, and which has its other end threaded, as shown at 13, for engagement with a pipe or the like 14 which serves as a handle. It is of course conceivable that the device might be secured upon the end of a cable if preferred.

Disposed upon the wedge shaped sides 12, are gripping members 15 which conformingly engage against the inclined por-

tions 12 and which have their lower end portions formed with shoulders 16. These grips are adapted to slide along the body and are connected by a transverse bolt or rivet 17 which is slidable along a longitudinal slot 18 in the body.

In the operation of the device the members 15 are slid upwardly toward the threaded end of the body and the device is lowered through the well casing and into the pipe to be drawn. The tendency of the gripping members 15 is to descend gravitationally with respect to the body so that the shoulders 16 will always be in engagement with the inner periphery of the pipe to be drawn. The device being thus positioned in the pipe, when an upward pull is exerted it is apparent that the frictional engagement of the shoulders 16 with the pipe will cause the gripping members 15 to slide downwardly along the inclined or wedge shaped sides 12 whereupon these members will move outwardly into very firm gripping engagement with the pipe so that when the device is elevated the pipe will be drawn out.

While I have shown and described the preferred embodiment of my invention, it is of course to be understood that I reserve the right to make such changes in the form, construction, and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention, I claim:

A fishing tool of the character described comprising an elongated body formed at one end with a threaded extension adapted for engagement with suspension means whereby to be lowered within a well casing, said body being formed at its other end with a spear shaped head and having its intermediate portion flattened to provide opposite parallel faces, said intermediate flattened portion being formed with a relatively narrow elongated slot, a pair of gripping jaws slidably engaged upon opposite sides of said intermediate portion and formed at their lower ends with outward extensions defining shoulders, the lower portions of the outer surfaces of said extensions being curved inwardly and downwardly, and a transverse member connecting said gripping members and slidable longitudinally of said slot.

In testimony whereof I affix my signature.
WILLIAM H. EDWARDS.