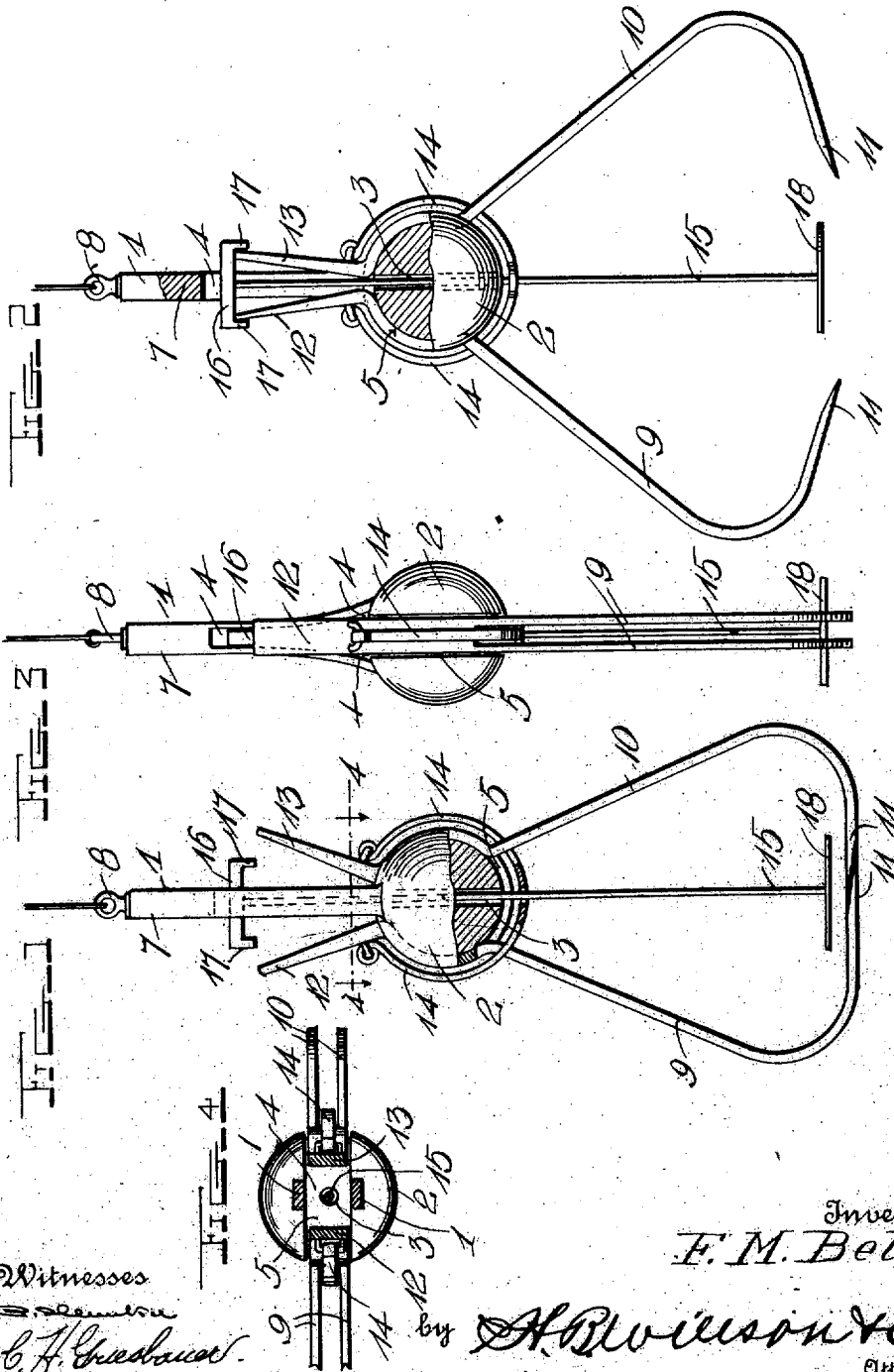


F. M. BELL.
GRAPPLING HOOK.
APPLICATION FILED JAN. 27, 1910

973,252.

Patented Oct. 18, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

FRANCIS M. BELL, OF MORRILLTON, ARKANSAS.

GRAPPLING-HOOK.

973,252.

Specification of Letters Patent.

Patented Oct. 18, 1910.

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To all whom it may concern:

Be it known that I, FRANCIS M. BELL, a citizen of the United States, residing at Morrillton, in the county of Conway and State of Arkansas, have invented certain new and useful Improvements in Grappling-Hooks; and I do 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.

This invention relates to improved grappling hooks or well grabs.

The object of the invention is to provide a simply constructed and efficient device of this character which is operable to grip the article to be raised or come in contact therewith.

With this 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 claims.

In the accompanying drawings; Figure 1 is a side elevation partly in section of this improved device with the jaws in closed position. Fig. 2 is a similar view with the jaws open; Fig. 3 is an edge view thereof. Fig. 4 is a horizontal section taken on the line 4-4 of Fig. 1.

In the embodiment illustrated a body member 1 is shown having an enlarged lower end 2 preferably made spherical in form and having an aperture 3 extending there-through. The body member 1 is preferably made as shown in Fig. 3 being composed of a flat bar having the lower portion thereof slotted as shown at 4 the lower end of said slot communicating with the aperture 3 in the enlarged spherical portion 2 for a purpose to be described. The member 2 is provided at diametrically opposite sides with a segmental groove 5 to receive the grappling jaws hereinafter to be described. The upper end of the bar is solid as shown at 7 and is provided with a ring as 8 for connection with a chain or cable for lowering and raising the implement. The jaw members 9 and 10 which are pivotally mounted in the segmental grooves 5 and 6 of the spherical portion 2 are constructed with forward and inwardly curved hook like ends as 11 and with diverging arms 12 and 13 at their upper ends designed for a purpose to be described. An expansion spring 14 is secured at one

end of the outer face of the arm 13 and extends around the member 2 and is connected at its other end to the outer face of the opposite arm 12 and is designed to exert its tension to force the hook ends 11 of the members 9 and 10 normally into closed position.

A rod 15 is slidably mounted in the aperture 3 of the member 2 and in the slot 4 of the body member 1 and is provided at its upper end with a head 16 which extends on opposite sides of the member 1 and is provided with hooks as 17 on its lower face which are adapted to engage the free ends of the arms 12 and 13 by means of which the hooked ends 11 are held in open or set position. On the lower end of the rod 15 is mounted a piston 18 which is adapted to extend between the hooks 11 when the jaws are in open position and when said piston comes in contact with the article to be elevated the rod 15 moves upwardly and disengages the head 16 from the arms 12 and 13 and the spring 14 immediately forces the jaws into closed position firmly gripping the article to be moved between them.

The jaws 9 and 10 may be constructed of any suitable material and in any preferred shape each being here shown consisting of two laterally spaced tines.

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 claims.

I claim as my invention.

1. A grappling hook comprising a longitudinally slotted bar having an enlarged lower end with an aperture extending there-through in alinement with the slot in the body of the bar and communicating therewith, a piston rod slidably mounted in said slot and aperture and provided at its upper end with a head having hooks on its lower face, a piston mounted on the lower end of said rod, gripping jaws pivotally mounted on opposite sides of the enlarged portion and having diverging arms at their upper ends adapted to be engaged by the hooks on the head carried by the piston rod and a

spring arranged to force said jaws normally into closed position.

2. A grappling hook comprising a longitudinally slotted body member having an enlarged portion at its lower end with an aperture extending through said enlarged portion and communicating with the slot in the body member, segmental grooves formed in the outer faces of said enlarged portions at diametrically opposite points, gripping jaws pivotally mounted in said grooves and having diverging arms at their upper ends, a piston rod slidably mounted in the slot of said body member and provided at its upper end with a head having

spaced hooks on its lower face for engaging said diverging arms to hold the jaws in open position, a piston arranged at the lower end of said rod opposite the hooked ends of the jaws and an expansion spring connected with said diverging arms for forcing the jaws into closed position. 20

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

FRANCIS M. BELL.

Witnesses:

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CHAS. R. EARL.