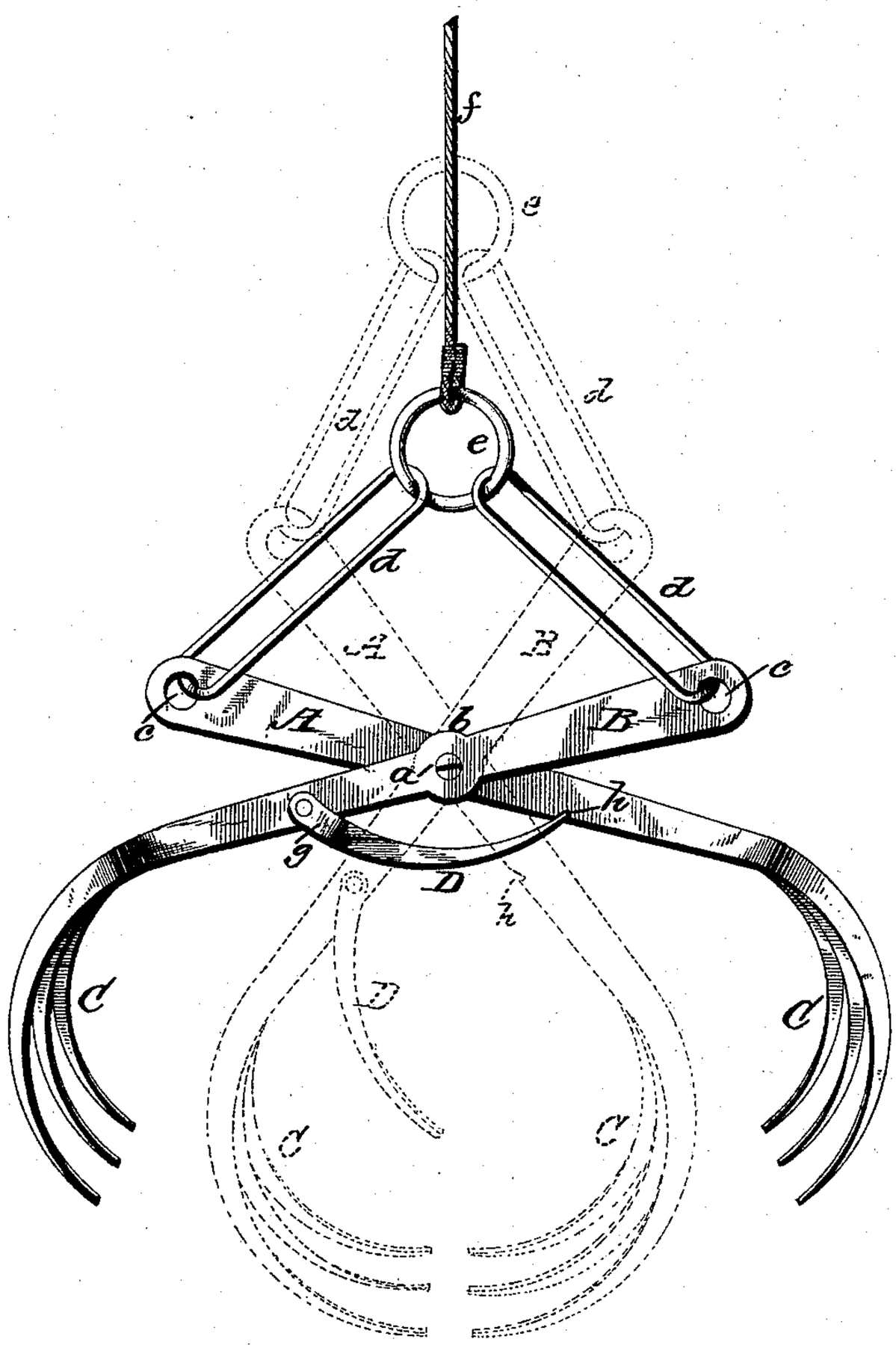
(No Model.)

# W. POTTER.

## GRAPPLE.

No. 365,940. Patented July 5, 1887.




Witnesses:
Chas. J. Williamson.
L. L. Miller.

Inventor:
William Potter,
per Chas. H. Forden
Attorney.

# UNITED STATES PATENT OFFICE.

WILLIAM POTTER, OF SPRING HILL, KANSAS.

## GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 365,940, dated July 5, 1887.

Application filed October 28, 1886. Serial No. 217,413. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM POTTER, a citizen of the United States, residing at Spring Hill, in the county of Johnson and State of Kansas, have invented certain new and useful Improvements in Grapples; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The present invention has for its object to provide a practically operating grapple adapted for digging or cleaning out wells or cisterns, and that can be operated by hand or windlass, and when let down in an open position will effectually close upon the object to be drawn up and hold it securely while being elevated.

The invention consists in a grapple substantially as shown in the drawing, and hereinafter described and claimed.

The accompanying drawing represents a grapple constructed in accordance with my invention, showing it in full lines in an open position ready to be lowered into a well or cistern, and showing it in dotted lines in a closed position.

The grapple consists substantially of the arms A B, pivoted together at *a*, said arms being enlarged, as shown at *b*, and increased in thickness, so as to form a stronger pivoted connection between the two, and insuring increased strength where most needed. The arms A B, at their lower ends, terminate in claws or hooks C; or, if preferred, scoops or other grappling-heads may be substituted, and may be of any preferred size, as found desirable. The upper ends of the arms A B have eyes *c*, with which engage elongated links *d*, said links also engaging with a ring, *e*, to which is attached one end of a chain or rope, *f*, which may either be operated by hand or connected to a windlass. To the arm B, below its pivotal connection, is pivoted a latch, D, the same being curved on the arc of a circle, and is bifurcated at *g* to embrace the sides of the arm to which it is pivoted, so as to strengthen its connection with said arm when forming a support for the arm A. When the grapple is to be set for lowering into the well, the curved latch D at its free end is made to engage with a notch, *h*, on the arm A, thereby holding the arms with their grapple-heads in an extended position, as shown in full lines, and in which position the grapple is let down into the well or cistern, and when the grapple-heads strike the bottom the chain or rope *f* will in turn slack, and consequently the hooks C will be slightly raised sufficiently to release the latch D from the notch *h*, thereby allowing the grapple-heads to come together and close against the object to be raised from out the well or cistern. A peculiar feature of the latch D is that it is curved on the arc of a circle, thereby forming a stronger and more substantial support for the grappling-arms; and, further, it is made tapering, it increasing in width in a direction toward its pivotal connection, so that its greatest weight will be at that point, thus insuring a more perfect automatic action in releasing itself when the grappling-heads strike the bottom of the well or cistern.

I am aware that oyster-tongs and the like have been formed of two arms pivoted substantially like mine and provided with means—as a spring-actuated pawl and ratchet, levers, and cords—for distending the jaws, and do not seek to cover such construction. I dispense with the devices above referred to for distending the jaws, and by my peculiar construction render the grapple automatic in its action. The moment the hooks C strike the ground or other object the latch D is released from its engagement with the notch *h* of one of the jaws, and by reason of its weight falls into the position shown in dotted lines in the drawings. This is important.

I am aware that gravity-latches are not new, broadly, in this connection, and therefore do not seek to cover such. It will be noticed that I arrange my notch and latch below the pivotal point of the arms A B, where the latch can in no way interfere with the perfect working of the arms, as it is apt to do when arranged above the said pivotal point, and I also curve it on the arc of a circle, thus adding greatly to its strength.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The grappling device described, consisting

of the arms A B, pivoted together at *a* and provided with suitable grappling heads or hooks, C, and one of said arms provided with a notch, *h*, below the pivotal point thereof, the latch D, curved on the arc of a circle, and bifurcated at one end, which bifurcated end is pivoted to one of said arms beneath the pivot of said arms, said latch being tapered, as shown, with its greatest width at its pivoted end, links *d*, engaging eyes *c* in the ends of the arms A B, and the ring *e*, engaging the opposite ends of said links, all substantially as shown, and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM POTTER.

Witnesses:
GEORGE B. SOWERS,
THOS. DRYDEN.