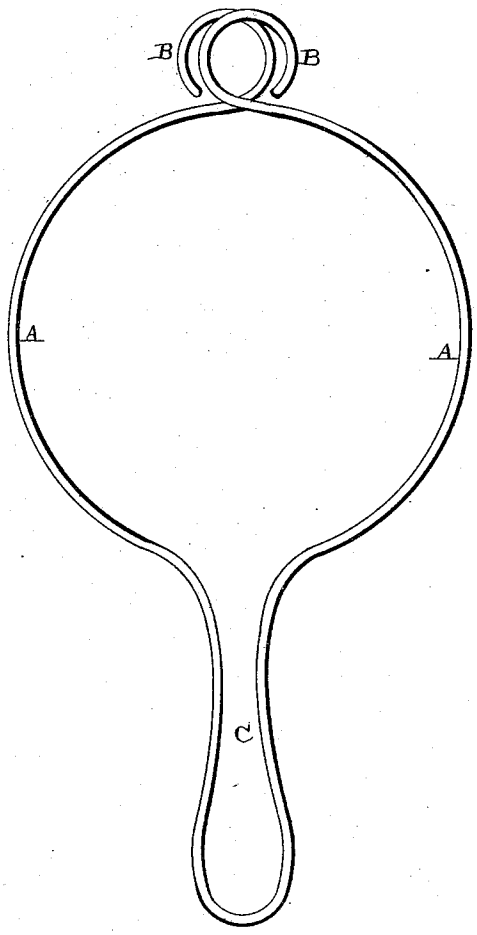
(No Model.)

C. H. MILLER & W. P. HARRISON.

GRAPPLING RING.

No. 278,165. Patented May 22, 1883.



Witnesses:
Louis F. Gardner
W. H. Kerr

Inventor:
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per
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UNITED STATES PATENT OFFICE.

CHARLES H. MILLER AND WILLIAM P. HARRISON, OF COLUMBUS, OHIO.

GRAPPLING-RING.

SPECIFICATION forming part of Letters Patent No. 278,165, dated May 22, 1883.

Application filed September 14, 1882. (No model.)

To all whom it may concern:

Be it known that we, CHARLES H. MILLER and WILLIAM P. HARRISON, citizens of the United States of America, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Grappling-Rings, of which the following is a specification, reference being had therein to the accompanying drawing.

Our invention relates to a device that we call a "grappling-ring," for catching the lower end of the chain of a chain-pump, when lowered through the tube, to be drawn to the top outside of the tubing, whereby the necessity of climbing down into the well in order to seize the chain, as is now the custom, is avoided.

The accompanying drawing represents our invention.

A represents a ring made of steel spring-wire, of a diameter larger than that of the tube of the chain-pump suspended in the well, so that it may be easily lowered over it. The ring is open and provided at its ends with loops B, that overlie each other. Opposite to the loops B the circular form of the ring is broken by a deflection of the wire into a long loop, C, slightly increasing in width until by a round turn it is returned to the annular form of the ring, as shown in the drawing. The loops B serve for an attachment of a cord or rope by which the ring is lowered and drawn up. The loop C, being narrower near the circle than at its farther end and elastic, expands when pressed against to let the chain pass, and again closes when the chain has entered, thus preventing its escape. The chain being lowered through the jointed and suspended tubing in the well until it passes a foot or two below the lower end, the grappling-ring is let down over the tubing by the cord attached to the loops B until it has just passed the lower end of the tubing, when it is again drawn up, and the end of the chain protruding from the tubing, clutched in the deep recess or loop C, is firmly held to be drawn up. Thus the necessity of climbing down into the well to seize the chain is avoided.

The usefulness of our device will be readily appreciated by all who have broken chains or defective buckets on chain-pumps to repair or new ones to construct, since to descend into a well and grapple for the chain to draw it up to the top is sometimes a tedious but always a disagreeable job.

Having thus described our invention, we claim—

In a device for grappling the end of a chain in a chain-pump, the ring A, with the loops B and C, arranged as and for the purpose substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

CHARLES H. MILLER.
WILLIAM P. HARRISON.

Witnesses:
WM. A. POSTE,
JOHN J. JOYCE.