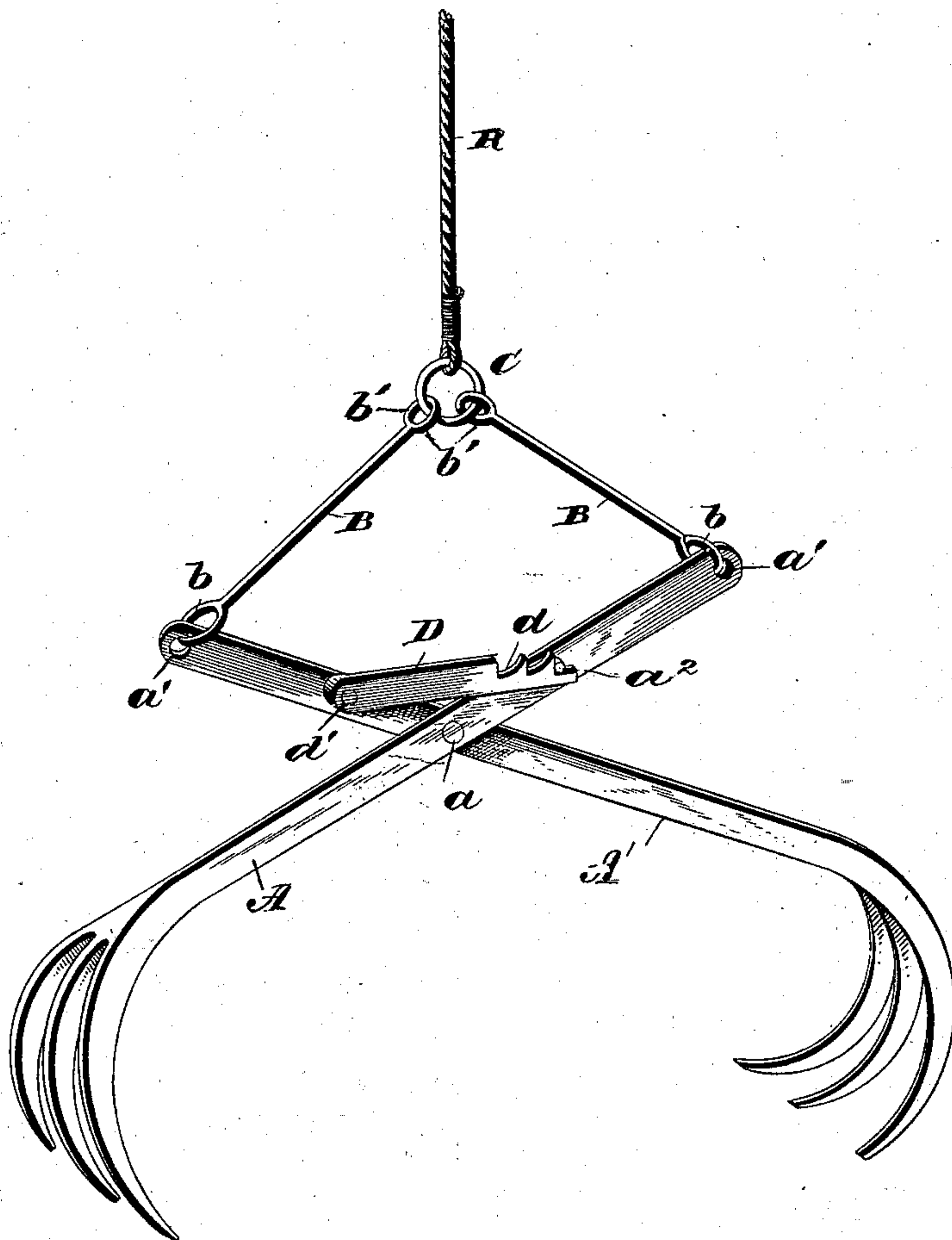


(No Model.)

W. H. WILEY.
GRAPPLE.

No. 384,107.

Patented June 5, 1888.



WITNESSES,
L. S. Elliott.
E. M. Johnson.

William H. Wiley.
INVENTOR,
[Signature]
Attorney.

UNITED STATES PATENT OFFICE.

WILLIAM H. WILEY, OF STOCKTON, KANSAS.

GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 384,107, dated June 5, 1888.

Application filed February 2, 1888. Serial No. 262,717. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. WILEY, a citizen of the United States of America, residing at Stockton, in the county of Rooks and State of Kansas, have invented certain new and useful Improvements in Grapples; and I do hereby 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, reference being had to the accompanying drawing, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in grapples; and it consists in the novel construction and arrangement of the parts thereof, which will be more fully hereinafter described, and particularly pointed out in the claim.

The object of my invention is to provide a grapple having a suitably-constructed pawl connected therewith acting with the stud or pin which is situated above the pivotal connection of the two jaws of the grapple, and is adapted for retaining said jaws in an open position when being lowered in wells or other inclosures, the said jaws being released in striking the bottom of the inclosure, thereby grappling the object sought to be lifted. I attain this object by the construction illustrated in the accompanying drawing, wherein like letters of reference represent similar parts, and in which a perspective view of my improved grapple is shown in an open position with my improvement applied in connection therewith and supporting the jaws in said adjustment.

A A' indicate the jaws, which may be constructed in any preferred manner, and which are pivoted at a point, *a*, below the upper ends of said jaws, as in the usual form of grapple. The upper ends of said jaws A are formed with eyes *a'*, to which loops *b* at the lower ends of tie-rods B are secured, the upper ends of said tie-rods having suitable loops, *b'*, formed therein connected to a ring, C, which in turn is secured to rope R, chain, or other equivalent device by which the grapple may be supported, elevated, or lowered.

To one of the jaws A' a pawl, D, is pivot-

ally secured at a point, *d'*, above the pivot *a* of the jaws, and is formed at its opposite end with a series of indentations or serrations, *d*, which engage with a stud or pin, *a'*, secured to the opposite jaw, A, at a point above the pivot *a*. By this means the extent of opening of the jaws A A' is rendered adjustable, as will be readily understood. When the pawl has been set in connection with the stud or pin *a'*, as shown in the drawing, the grapple is lowered in the inclosure or well, or used for any other purpose that may be desired, and when the lower portions of said jaws of the grapple strike the bottom of the inclosure the rope is slackened and said jaws press open, and the pawl D is released from the stud or pin *a'*. The article or weight to be lifted is then more readily inclosed by the jaws of the grapple without any unnecessary delay of adjustment of the jaws in connection with said article or weight.

I am aware that it is not broadly new to provide a grapple with a device for sustaining the jaws thereof in an open position, and in the devices heretofore used and constructed the pawl has either been below the pivotal point and in a position to be disengaged before the lower portion of the jaws strike the bottom of an inclosure, or they have been arranged above said pivotal point of such length as to be inconvenient and project below the said pivotal point, with the disadvantage which will be readily understood.

Having thus described my invention, what I claim as new is—

A grapple consisting, substantially as set forth, of a pair of jaws pivoted together at a point between their ends, a rope united by links with the upper ends of the jaws and tending to close the latter, a stud secured to one of the jaws above the pivot *a*, and a pawl pivoted to the other jaw, also above said pivot, and having upwardly and outwardly facing notches in its upper edge to engage the stud.

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

WILLIAM H. WILEY.

Witnesses:

J. A. DOCK,
AXEL MEYER.