

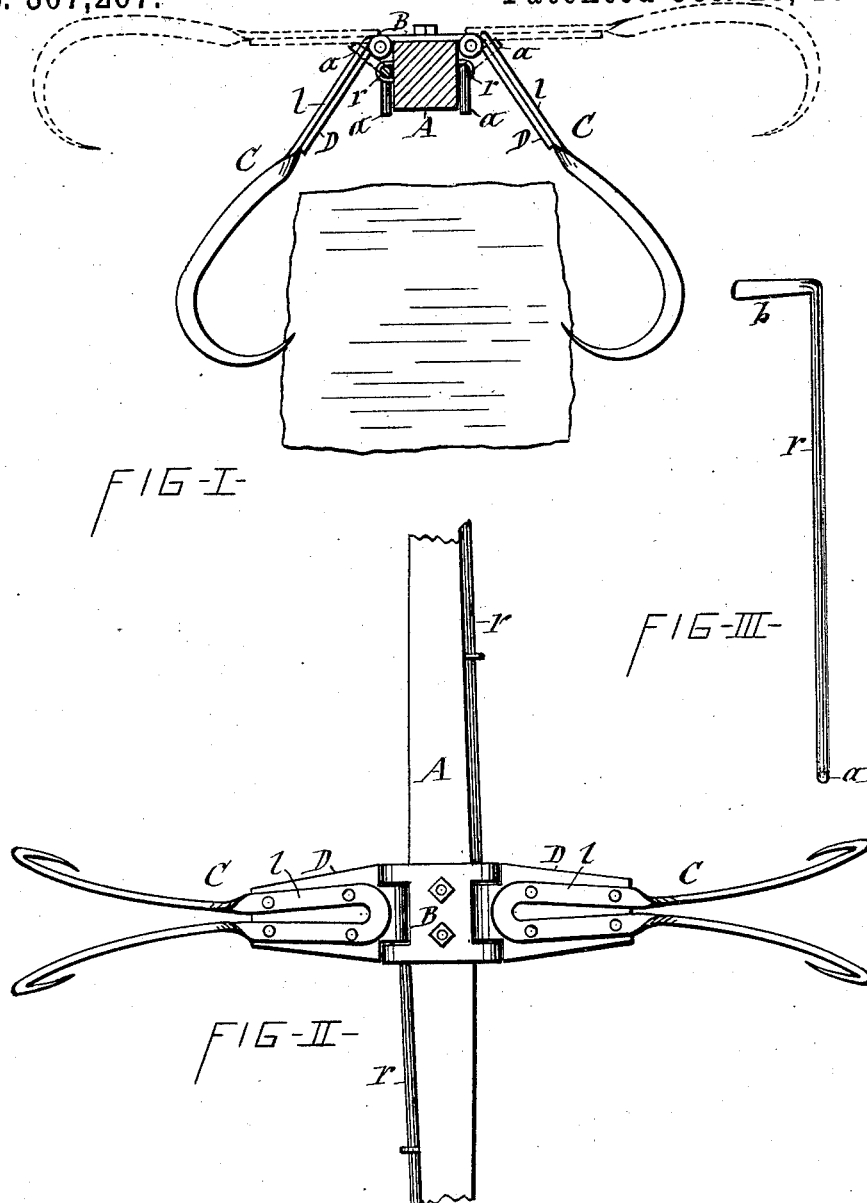
(No Model.)

J. CARPENTER.

GRAPPLE.

No. 307,267.

Patented Oct. 28, 1884.



WITNESSES

C. Bendixon

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INVENTOR

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# UNITED STATES PATENT OFFICE.

JAMES CARPENTER, OF MORAVIA, NEW YORK.

## GRAPPLE.

SPECIFICATION forming part of Letters Patent No. 307,267, dated October 28, 1884.

Application filed March 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES CARPENTER, of Moravia, in the county of Cayuga, in the State of New York, have invented new and useful  
5 Improvements in Grapples, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention consists in the novel construction of a grapple, by means of which two  
10 persons are enabled to conveniently grasp, lift, and carry between them a heavy body, ice or stone or other substance, and as readily release the said substance when desired,  
15 all as hereinafter more fully described.

The invention is fully illustrated in the annexed drawings, wherein Figure I is a transverse section of the grapple, showing it in its operative position. Fig. II is a top view of  
20 the same, showing it in its distended position; and Fig. III is a detached view of the lever by means of which the grappling-arms or grappling-irons are thrown out of engagement and raised in position for re-engagement  
25 with the substance to be lifted or carried.

Similar letters of reference indicate corresponding parts.

A is a bar, shaped at its extremities to form suitable handles for manipulating the same. To the central portion of said bar is  
30 attached a plate, B, to opposite edges of which are hinged two leaves, D, and to said leaves are rigidly attached the grappling-arms or grappling-irons C, which I prefer the form  
35 of a bar bent at its center into the shape of a loop or flattened yoke, *l*, constituting the attached end of the grappling-iron, the extremities of said bar being bent into the form of hooks similar in shape to the hooks of ice-tongs. On opposite sides of the bar A are  
40 pivoted two rods, *r*. The inner ends of said rods are formed with the cam *a*, and the outer ends of the rods are formed with a handle, B, by which to impart an oscillatory motion  
45 to the rod. The cam *a*, lying under the leaf D of the grappling-iron, is caused to lift the said grappling-iron by the oscillation of the aforesaid rods.

In using the described instrument, two persons take hold of the bar at opposite ends,

and by turning the rods *r* they lift the grappling-iron C, as represented by dotted lines of Fig. I of the drawings. Then, after bringing the central portion of the bar over the object to be lifted and releasing the rods *r*,  
55 the grappling-irons are allowed to drop and engage with the object to be lifted, as shown by Fig. I of the drawings. This brings the load a proper distance from the ends of the bar and allows the operators to carry the load  
60 conveniently between them.

Having described my invention, what I claim is—

1. A grapple comprising a handling-bar, grappling-arms hinged to the central portion  
65 of the bar, and rods connected with said bar for raising the grappling-arms, substantially as set forth.

2. The combination, with the bar, of grappling-arms hinged to the central portion of  
70 said bar, and extended from opposite sides thereof, and rods extending from the center of the bar respectively to opposite ends thereof, and provided with lifting-cams under the grappling-arms, and with handles at the outer  
75 ends, substantially as described and shown.

3. In combination with the bar A, the plate B, secured to the central portion of the bar, the grappling-arm C, hinged to said plate at  
80 opposite edges of the bar, and oscillatory rods *r r*, connected to opposite sides of the bar, and formed with the cam *a* and handle B, substantially as described and shown.

4. In combination with the bar A, the plate B, secured to the central portion of said bar,  
85 the leaves *d d*, hinged to the opposite edges of said plate, and the grappling-arms *c c*, formed respectively of a bar bent at the center into the shape of a flattened attaching yoke or loop  
90 *l* and terminating hook shape, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York,  
95 this 5th day of March, 1884.

JAMES CARPENTER. [L. S.]

Witnesses:

F. H. GIBBS,  
C. BENDIXON.