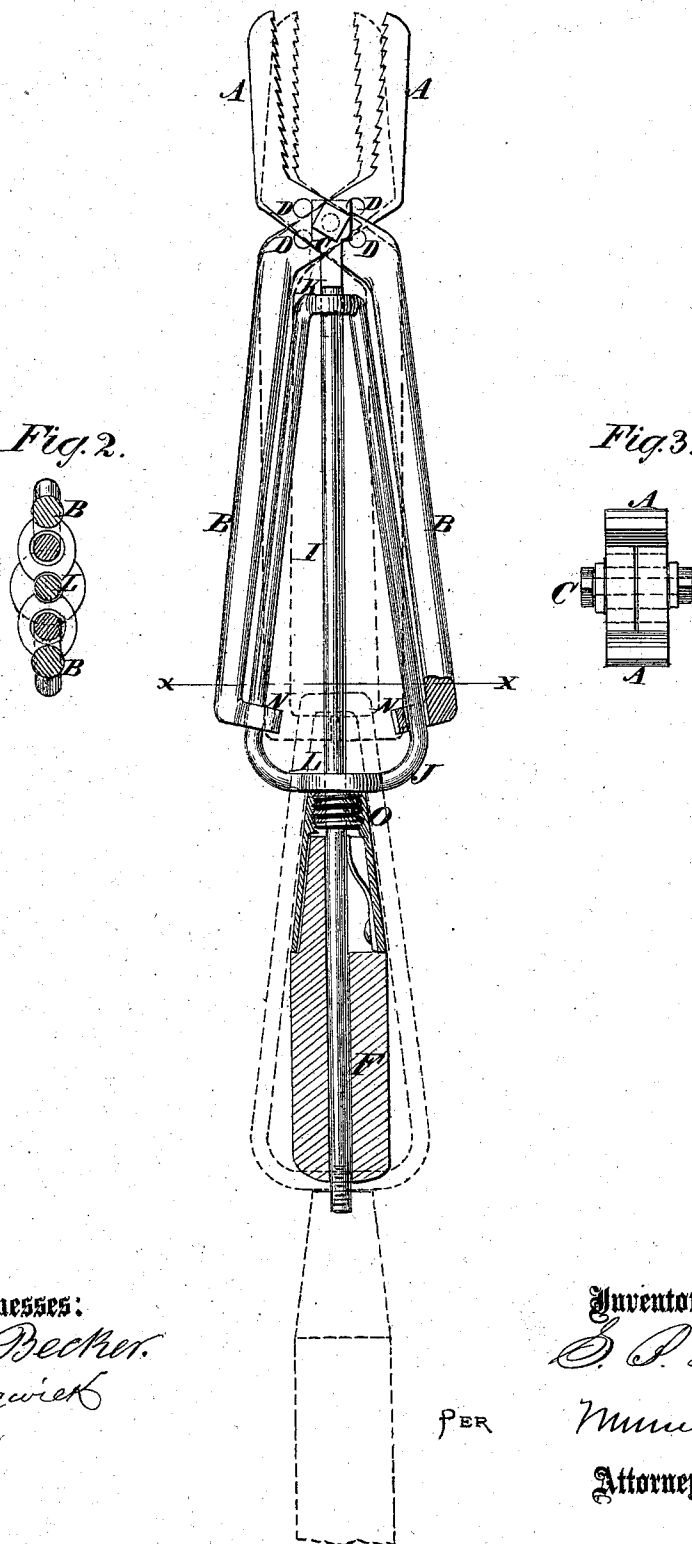


S. B. DEXTER.
Combined Adjustable Pincers and Grappling Tool.
 No. 136,907. Patented March 18, 1873.

Fig. 1.

Fig. 2.

Fig. 3.



Witnesses:

John Becker.
E. Sedgwick

Inventor:

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UNITED STATES PATENT OFFICE.

SIMON B. DEXTER, OF MASON CITY, IOWA.

IMPROVEMENT IN COMBINED ADJUSTABLE PINCHERS AND GRAPPLING-TOOLS.

Specification forming part of Letters Patent No. 136,907, dated March 18, 1873.

To all whom it may concern:

Be it known that I, SIMON B. DEXTER, of Mason City, in the county of Cerro Gordo and State of Iowa, have invented a new and useful Improvement in Combined Adjustable Pinchers and Grappling-Tool, of which the following is a specification:

This invention relates to the construction of a tool or instrument which may be used as a wrench, pinchers, or grapple for raising or carrying weights; and consists in the construction and arrangement of parts hereinafter described.

In the accompanying drawing, Figure 1 represents a side view of the tool, showing the same in two different positions, one being in dotted lines. Fig. 2 is a cross-section of Fig. 1 taken on the line *xx*. Fig. 3 is an end view of the jaws.

Similar letters of reference indicate corresponding parts.

A A are the jaws, and B B the handles, of a lever-pinchers. C is the fulcrum-pin. The jaws, by means of a series of holes, D, are made adjustable or may be placed further from or nearer to each other to adapt them to articles of different size. I is a shank-rod, connected, by means of a fork on the end thereof, with the fulcrum-pin of the pinchers. This rod extends back and passes into the handle F, or into or through any appliance which may be used in adapting the tool to the various purposes for which it is intended. On this shank-rod is placed the wedge-shaped slide J, consisting of two rods connected together by means of the eyes K L, through which the rod passes, as seen in Fig. 1. N N are eyes at the ends of the pincher-handles B B. The rods of the wedge-shaped slide pass through these eyes, as represented. At the back end of this slide is a screw, O, which allows the handle F or other appliance to be firmly attached to the slide.

As this slide is moved back and forth on the rod it will be seen that the handles of the pinchers B B and the jaws A A will be made to move nearer to or further from each other, the variations in this movement depending upon the angle of the slide-rods with the shank-rod I.

When any article is secured between the jaws A A, it is pinched or gripped by pulling upon the slide or handle, and is loosened therefrom by a contrary movement. This feature adapts the tool for grappling for articles in wells or under water, as well as for carrying heavy articles or hot pieces of iron in founderies and similar places.

The jaws are first adjusted to near the size of the article by changing the fulcrum-pin, and then, by drawing up the slide from the position seen in the drawing, the article is tightly gripped and held.

The handle F may be modified or changed for any other appliance by which the slide may be operated in adapting the tool to various purposes.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In combination with the jaws A A and handles B B, the adjusting-holes D, eyes N, rod I and slide J, arranged to operate as and for the purposes described.

2. The wedge-shaped slide J and rod I, in combination with the handles B B, as and for the purposes described.

3. The handle F, or its equivalent, and screw O, in combination with the slide J, as and for the purposes described.

SIMON B. DEXTER.

Witnesses:

W. C. STANBERRY,
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