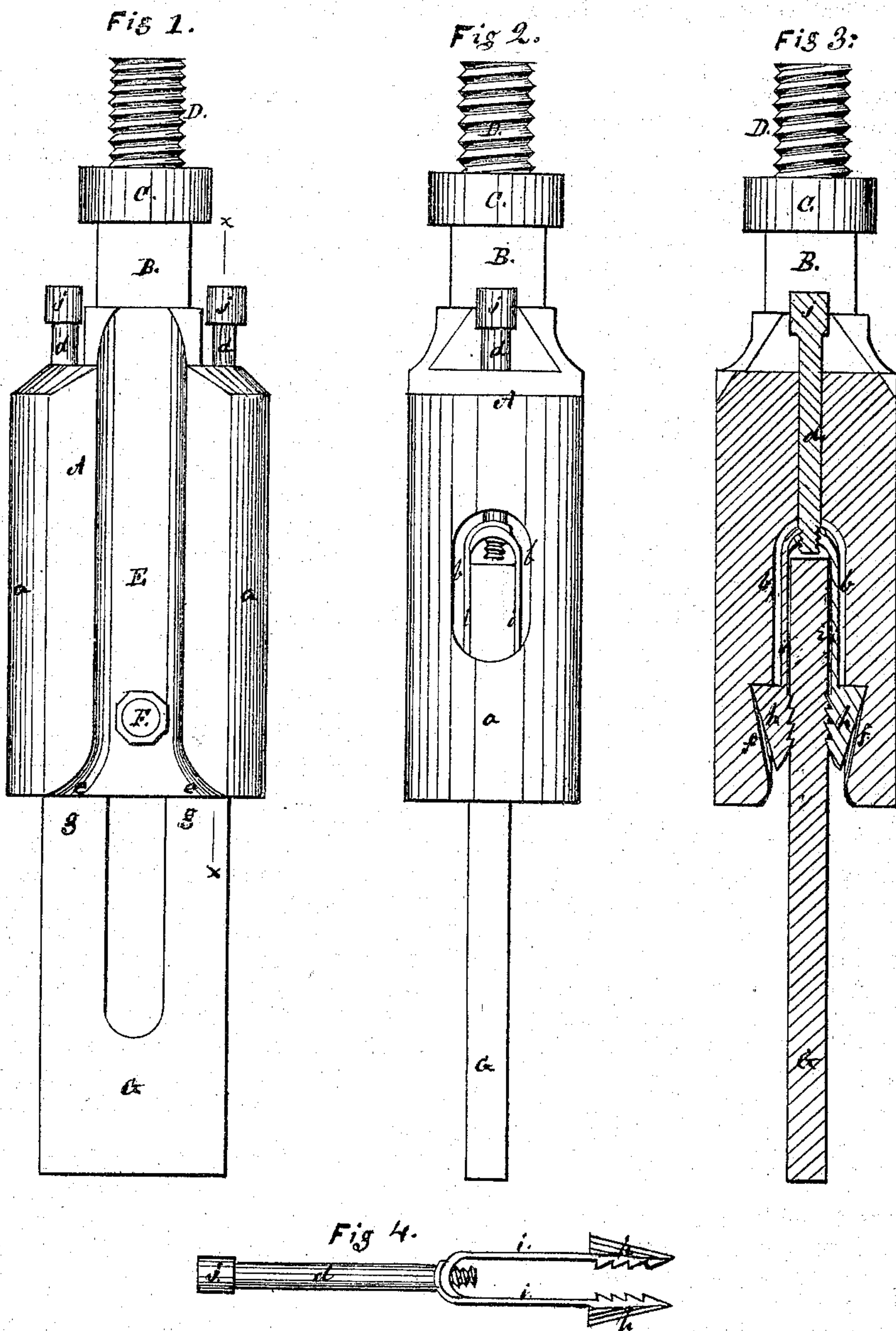


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Improvement in Grabs for Extracting Well-Tools.

No. 127,176.

Patented May 28, 1872.



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IMPROVEMENT IN GRABS FOR EXTRACTING WELL-TOOLS.

Specification forming part of Letters Patent No. 127,176, dated May 28, 1872.

To all whom it may concern:

Be it known that I, JAMES H. LUTHER, of Petroleum Centre, in the county of Venango and State of Pennsylvania, have invented certain new and useful Improvements in a Jar-Grab for taking out broken and lost tools from artesian or oil wells, or other holes drilled in rocks, &c.; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 represents a vertical side view of my improved "jar-grab," showing a piece of a jar-link grasped by it for taking out. Fig. 2 shows an edge view of the same. Fig. 3 shows a section through the same at *x x*. Fig. 4 shows a detached view of one of the serrated nippers and screw for holding it in its place.

My invention relates to a class of implements known as grabs, and used for extracting broken tools, &c., from artesian wells; and it consists in the form and construction of the socket-head, with deep grooves in both sides, and the oblong interior socket, through which one or more transverse bolts may be put to strengthen it when the nature of the tool to be extracted will admit of it. It also consists in providing and securing within the socket two or more pairs of serrated nippers, wedge-shaped, and rounded on the back, fitting in corresponding grooves in the socket to slide up and down, their tops being connected together by a screw-bolt extending up through the socket-head to slide with the nippers. The shanks above the serrated portions of the nippers, being made spring temper, will yield enough to grapple a jar-link or fasten to the piece to be extracted from the hole or well.

To enable others to make and use my improved "jar-grab," I will describe it more fully, referring to the drawing and letters thereon.

A is the stock or body of the tool or implement, made of such a size that the two rounded edges *a a* will nearly fill the diameter of the hole or well in which it is used, the upper end being formed into a shank, B, hav-

ing a shoulder, *c*, and strong screw-thread, D, with which to connect it with the fixtures above for working it. The two flat sides of the stock A have a deep central groove, E, flared out at the bottom *e e*, as seen in Fig. 1. The heads and nuts of the transverse bolts F are seated in the groove E, and are thereby prevented from coming in contact with the sides of the well. The stock A on its edge is provided with an oblong opening, *b b*, extending up half its length or more, if desired. The stock A is hollow from its lower end as high as the upper ends of the openings *b b*, thus forming a socket to hold the grappling-nippers and receive a portion of the broken link or other object to be grappled. Near the lower end of the said socket, on both sides, are rounded tapering recesses *f f*, into which are fitted the backs of the serrated jaws *h h*, which form the spring sliding nippers, connected by the springs *i i* with the sliding screw-bolts *d*, which are provided with heads *j* to hold the grapple or nippers *h h* in their places for extracting a broken link, G, or other tools or fixtures which are liable to become detached or broken and left in a hole while drilling or a well while boring. One or more bolts, F, may be put transversely through the stock A, which, when in, will aid to insure the grappling of broken links when the fork *g g* is up, and other smaller objects, such as bolts, &c., and may be taken out when required, and will also strengthen the socket while jarring. The bolts F must be removed when the object to be grappled is of such size or figure that it will not enter the socket when said bolt is present.

The nippers *h* are, preferably, made separate, as shown in Fig. 4, the upper end of one of the springs *i i* being thickened to form a suitable nut for the reception of the screw end of the bolt *d*.

What I claim is—

1. The stock A, constructed with an interior cavity or socket of oval or elongated section, and fitted to contain two pair of nippers, *h h*, set parallel with each other, so as

to receive and grasp the two parts of a broken link or other object similar in dimensions, as set forth.

2. The stock A, constructed with two longitudinal exterior grooves, E, to receive and protect the heads and nuts of one or more transverse bolts, F, in combination with said bolts F and an interior socket of oval or elongated section, and two sets of nippers, h, as set forth.

3. The nippers h, constructed in two parts, as set forth, and united by the screw-bolt d, as shown and described.

In testimony whereof I hereunto subscribe my name.

JAMES H. LUTHER.

Witnesses:

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