

No. 714,989.

H. A. WORTHINGTON.

GRAPPLING TOOL.

(Application filed Nov. 28, 1900.)

Patented Dec. 2, 1902.

(No Model.)

Fig. 1

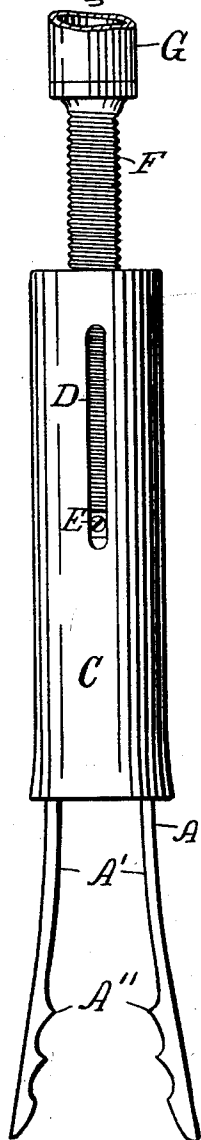


Fig. 2

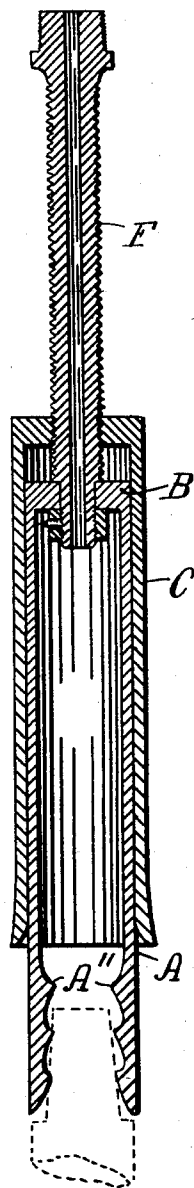


Fig. 3



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY A. WORTHINGTON, OF LOS ANGELES, CALIFORNIA, ASSIGNOR OF
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GRAPPLING-TOOL.

SPECIFICATION forming part of Letters Patent No. 714,989, dated December 2, 1902.

Application filed November 28, 1900. Serial No. 33,053. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. WORTHINGTON, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Grappling-Tools, of which the following is a specification.

My invention relates to devices for recovering from a drilled well-hole drilling-tools lost therein; and the object thereof is to provide an effective tool which will easily grapple and securely hold such tools while bringing them to the surface. I accomplish this object by the grappling-tool described herein and illustrated in the accompanying drawings, forming a part hereof, in which—

Figure 1 is a side elevation of my tool with a piece of pipe attached thereto. Fig. 2 is a central vertical section of the same with the pipe removed. Fig. 3 is a face view of the lower portion of one of the grappling-prongs.

In the drawings, A is the grappling member, composed of the grappling-prongs A', of which there are two or more, united together at their upper ends by the circular head B. On the inner face of the lower ends of these prongs are serrations A'' to prevent the prongs from slipping off a tool which may be caught between them. These prongs are resilient, and when in their lowest position the lower ends will be spread apart, as shown in Fig. 1, for the reception therebetween of the end of the tool which is being grappled for. Inclosing the upper portion of the prongs and extending downward to nearly the foot of the prongs is the jacket C, which has a slot D in the side thereof, through which slot the screw E in the head B projects to prevent the jacket from rotating except when the prongs are rotated. Swivelly connected with the head B is the hollow threaded shank F, which passes through the threaded hole in the top of the jacket, which causes a vertical movement of the jacket over the grappling-prongs whenever the shank is rotated and the prongs held, as when caught on a lost tool. The upper end of the shank is threaded for attachment to a pipe G, by means of which the grappling-tool is lowered into the hole. As soon as the prongs slip over the end of the lost tool the pipe is rotated to cause the jacket to move down over the prongs and cause them to firmly grip the lost tool. Should there be sand in the hole to interfere with the move-

ment of the grappling-tool, water can be turned into the pipe, which will run down through the pipe and hollow shank and clear the sand away and permit the operation of the tool.

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

1. A grappling-tool, comprising a plurality of prongs united together at their top to form a head having a hole therein; a jacket, surrounding said head and a portion of the prongs, and having a screw-threaded hole in the top and a slot in the side thereof; a screw projecting through said slot into the head of the prongs; and a threaded shank swivelly connected at its lower end with the head of the prongs, and passing in threaded contact through the hole in the top of the jacket.

2. In a tool-grappling device for use in well-holes, the combination with the pipe G of the shank F, adapted to be secured to the pipe, and having threads on the exterior thereof; an opening extending longitudinally through said shank; a jacket C screwed onto said shank, being provided with a threaded opening in the top thereof; and the grappling member A provided with grappling-prongs A' having on their inner surface serrations A'', swivelly connected to the lower end of shank F, substantially as shown and described.

3. A device to grapple tools lost in a well-hole, consisting of a shank adapted for engagement to a pipe; the said shank having an opening therethrough for the passage of water; a grappling member, swivelly connected to said shank; the said member consisting of a plurality of grappling-prongs, having catches on the inner sides thereof for holding a tool when caught; and a jacket covering the upper part of the grappling member in screw-threaded contact with said shank thereby providing means, as shown, to cause the ends of the prongs to be forcibly moved toward each other, as the jacket is moved down over them.

In witness that I claim the foregoing I have hereunto subscribed my name this 17th day of November, 1900.

HENRY A. WORTHINGTON.

Witnesses:

G. E. HARPAM,
MATTIE MCGINNIS.