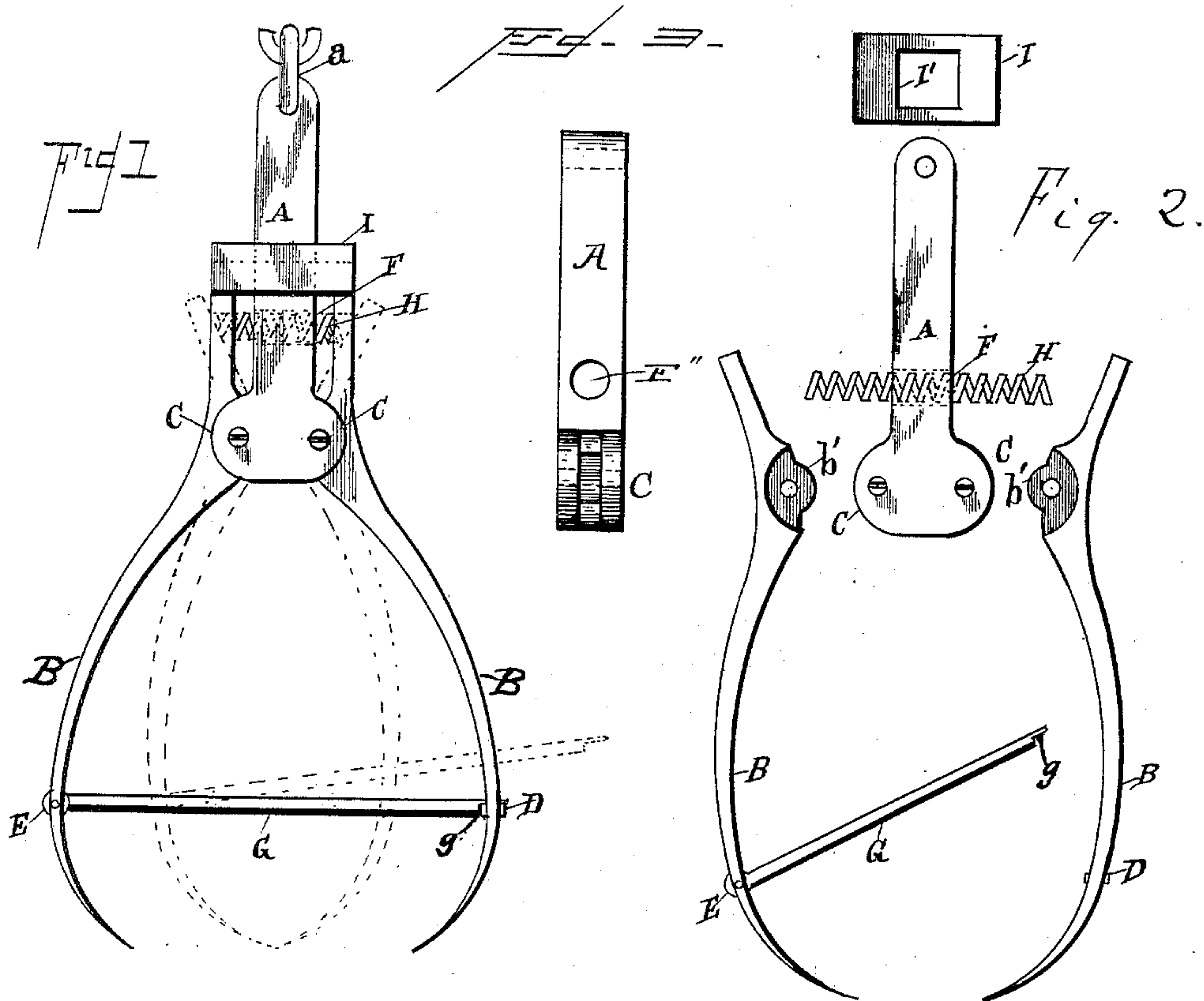


(No Model.)

S. A. SAXON.  
GRAPPLING HOOK.

No. 435,590.

Patented Sept. 2, 1890.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

SAMUEL A. SAXON, OF MORRILLTON, ARKANSAS.

## GRAPPLING-HOOK.

SPECIFICATION forming part of Letters Patent No. 435,590, dated September 2, 1890.

Application filed April 30, 1890. Serial No. 350,067. (No model.)

*To all whom it may concern:*

Be it known that I, SAMUEL A. SAXON, a citizen of the United States, residing at Morrillton, in the county of Conway and State of Arkansas, have invented certain new and useful Improvements in Grappling-Hooks; 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.

My invention consists in a new and improved automatic device for removing from driven or bored wells, or from other wells, cisterns, &c., any object which may fall into the well—such as buckets, chickens, rats, frogs, chains, or any other object which may enter or fall into a well and which will ruin a well of good and healthy water—and my invention will be hereinafter fully described and claimed.

The greater number of wells now made are bored or driven wells, the diameters of which are so small that it is difficult, if not impossible, to remove from them any object which may fall into them, and which ruins the water for drinking purposes. To overcome this difficulty I have invented a device which can be set and lowered at the end of a rope into any driven or bored well and which will be sprung when it comes in contact with the object in the well, and will grab or seize the object, by the hooks with which it is formed, and hold it securely so that it can be easily raised out of the well.

Referring to the accompanying drawings, Figure 1 is a side view of my invention, showing the same set ready for use, and in dotted lines showing it sprung. Fig. 2 is a side view showing the several parts of the device separate from each other. Fig. 3 is an edge view of the bar A.

The same letters of reference indicate corresponding parts in all the figures.

Referring to the several parts by letter, A indicates the main bar of my invention, which is formed on each side of its lower end with the parallel lugs C. The upper end of the bar is provided with a suitable ring a.

B indicates hooks which are formed in pairs with an apertured projection b', and the hooks are secured to the lower end of the bar

by having these projections pivoted within the lugs C. One pair of the jaws B is provided with a transverse rod D, while the other pair is pivoted to a transverse axle E, on which is mounted one end of the trigger G. The free end of this trigger is notched at g, and adapted to engage with the bar D, when the device is opened or set. The bar A is formed above its lower end with a transverse opening F, and a spiral spring H, preferably of brass, passes through this opening and has its ends attached to the shanks of the pivoted hooks B, which project above the pivotal points of the hooks. Upon the upper part of the bar A slides the stop I, consisting of a metal block formed with the central aperture I'.

In operation the hooks B B are separated or drawn apart, and the trigger raised until its free notched end engages with the bar D, thus setting the grab. It will be seen that when the hooks are thus open the slide I will rest upon the upper ends of the shanks of the hooks. The grab is then lowered, by a rope attached to the ring at its upper end, into the well, and being of such small size can readily enter any driven well. When the grab reaches the bucket or other object which has fallen down the well, as soon as the trigger strikes upon the object its notched end is freed from the bar D and it flies up as the pressure of the spring H throws or presses the hooks together. The hooks thus automatically seize the object, whatever it may be, and hold it tightly. It is then only necessary to pull the rope and draw the object out of the well without any further trouble. When the trigger is released, as above described, and the hooks spring together, the stop I will by its own weight slide down the bar A between the shanks of the pivoted jaws, and thus effectually prevent the hooks from opening, as it will be impossible for them to spread apart or open while the stop-block is resting between their shanks.

My grab or device is to be constructed of several different sizes to suit wells of different bores or diameter.

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

1. In a spring-grab for driven wells, the



combination of a bar having spring-actuated hooks pivoted at its lower end, and a trigger for holding the said hooks in their open position, substantially as set forth.

5 2. In a spring-grab for driven wells, the combination of a bar having at its lower end the pivoted spring-actuated hooks, one of which is provided with the bar D, and the pivoted trigger, substantially as and for the purpose set forth.

10 3. The combination of the bar having a ring at its upper end, the transverse opening F, and formed at its lower end with the lugs C, the hooks B, pivoted in said lugs and having the projecting shanks, the cross-bar D, the pivoted trigger, and the spiral spring H,

substantially as and for the purposes set forth.

4. The combination of the bar A, having the transverse opening F, and formed at its lower end with the lugs C, the pivoted hooks B, having the projecting shanks, the cross-bar D, the pivoted notched trigger, the spiral spring H, and the stop I, sliding on the bar, substantially as and for the purpose set forth.

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

SAMUEL A. SAXON.

Witnesses:

J. T. PANKEY,

J. M. CRAVIN.