

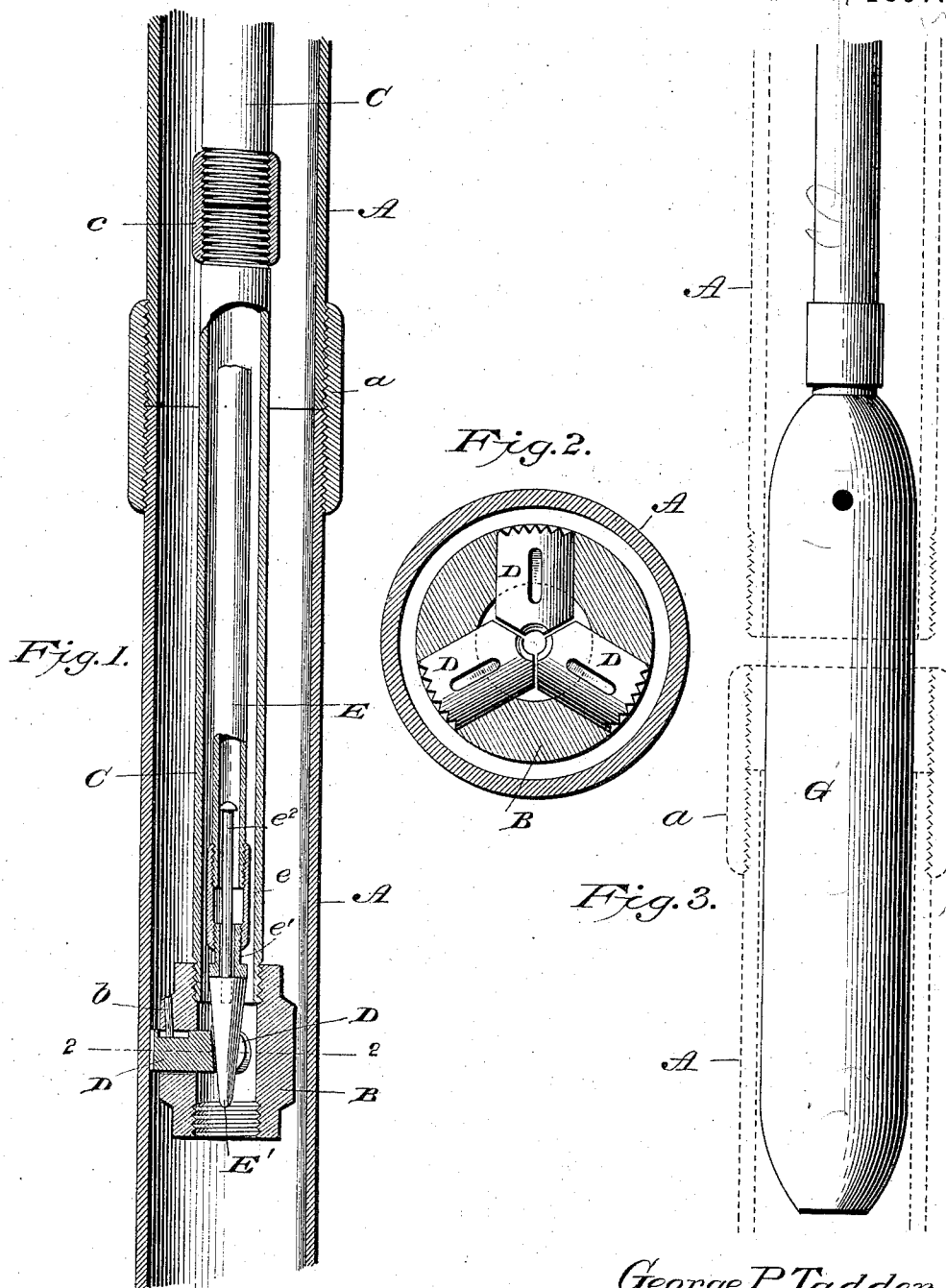
(No Model.)

G. P. TADDER.

APPLIANCE FOR UNSCREWING CASINGS DOWN IN OIL WELLS.

No. 577,812.

Patented Feb. 23, 1897.



WITNESSES
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GEORGE P. TADDER, OF MILLERSTOWN, PENNSYLVANIA.

APPLIANCE FOR UNSCREWING CASINGS DOWN IN OIL-WELLS.

SPECIFICATION forming part of Letters Patent No. 577,812, dated February 23, 1897.

Application filed May 7, 1896. Serial No. 590,636. (No model.)

To all whom it may concern:

Be it known that I, GEORGE P. TADDER, a citizen of the United States, residing at the borough of Millerstown, in the county of Butler, and in the State of Pennsylvania, have invented a new and useful Appliance for Unscrewing Casings in Oil, Gas, Water, or other Wells, of which the following is a specification.

10 This invention has in view to provide a simple, cheap, and effective implement for unscrewing well-casings when it is necessary to repair same or for other purposes.

When a leak has been discovered in the well-casing by any of the well-known methods, the section of tubing that is damaged is removed with those above, and in order to disconnect said sections from those below I have devised an effective implement for the purpose. The implement comprises a housing or head containing "wickers" or grips that slide laterally to engage the casing or tubing, a tube of small diameter being connected to the housing or head by left-hand threads in order that said housing or head may be turned in the direction to unscrew the casing. In connection with this implement I use a supplemental implement for moving the wickers in positive engagement with the casing.

30 In the accompanying drawings, forming part of this specification, Figure 1 is a vertical sectional view showing the application of my invention. Fig. 2 is a transverse sectional view on the line 2 2 of Fig. 1. Fig. 3 is a side elevation of a centering device employed in coupling the sections.

40 A A designate adjoining sections of a well-casing, which are connected to each other by the usual threaded sleeve or coupling *a*, having right-hand threads, with which corresponding threads on the ends of the sections engage.

50 B designates a head or cylinder the intermediate portion of which is preferably of increased thickness to provide suitable bearings for the wickers hereinafter described. The head or cylinder has a longitudinal opening, in the upper part of which are left-hand threads to receive corresponding threads on the lower end of a tubing or operating-stem C. This stem or tubing is made of separable sections, which are connected to each other

by couplings *c*, having left-hand threads to receive the correspondingly-threaded ends of the said section, in order that the implement 55 may be turned to the left in unscrewing the casing and not affect the joints of said implement.

Within the enlarged portion of the side walls of the housing or head B are three transverse openings, though a larger number may be provided, and within each opening is located a wicker or grip D, adapted to slide therein, the movement being limited by a pin *b*, let into the head and engaging a slot in said 65 wicker. The inner ends of the wickers are beveled outward from the sides toward the center and at the center are provided with vertical concave recesses practically forming an opening when the wickers are retracted. 70 The outer ends of the wickers are provided with vertical teeth pitched slightly toward the right to take a better hold upon the casing.

In connection with this implement I use a tool for projecting the wickers when the head 75 B is lowered to the desired depth in the well-casing, the said tool consisting of a hollow stem or tube E, having a sleeve *e* attached to the lower end thereof, and a guide *e'*, attached to the end of the sleeve. Within the 80 lower end of the hollow stem and parts attached thereto is located a stem *e''*, carrying a tapered or conical head E', the upper end of the stem being headed to contact with the guide *e'* and thereby prevent the separation 85 of the parts. It will be understood that the stem *e''* may be let directly into the lower end of the hollow stem or tube E and the extreme end of said stem or tube turned inward to engage the head of the stem *e''*. By either arrangement the head E' will have a considerable movement independent of the hollow stem, for the purpose hereinafter set forth. 90

In the operation of unscrewing a well-casing the head B is let down into the damaged 95 section, and the hollow stem E, carrying the head E', is dropped into the tubing C, so that said head will enter between the inner ends of the wickers and force them into engagement with the well-casing or section thereof, 100 a more secure engagement being provided for by raising the stem E upon the stem *e''* and then letting it drop to act as a plunger. Then by turning the head B to the left,

through the intervention of the tubing C, the casing will be unscrewed from the coupling *a* below and can be removed to repair the damaged section or replace it with a new one.

5 In coupling the well-casing after repairs have been made an ordinary centering device is employed, the preferred form being illustrated in the accompanying drawings and designated by the letter G.

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

1. In an implement for unscrewing well-casings, the combination, of a head having left-hand threads and provided with a series of
15 transverse openings through the same, wickers located in said openings and adapted to be projected beyond the head, said wickers having teeth at their outer ends and their inner ends shaped to leave a vertical opening
20 between them, and a stem or tubing having left-hand threads which engage the corresponding threads of the head; together with an independent tapered head for separating
25 the wickers, substantially as shown and for the purpose set forth.

2. In an implement for unscrewing well-casings, the combination, of a head having a vertical opening, left-hand threads in the upper

part of said opening, and transverse openings
30 through the walls of the head; wickers located in said openings and adapted to be projected beyond the head, said wickers having teeth at their outer ends and their inner ends
35 shaped to leave a vertical opening between them; a stem or tubing made up of separable sections connected by couplings having left-hand threads, said stem being connected to the head; together with an independent tapered head for separating the wickers, sub-
40 stantially as shown and for the purpose set forth.

3. In an implement for unscrewing well-casings, the combination, of the head having vertical and transverse openings therein, wick-
45 ers located to slide in the transverse openings, the inner ends of said wickers projecting within the vertical opening of said head; together with a hollow stem or tube E presenting shoulders at its lower end, and a tapered head E' having a headed stem located
50 within the hollow stem or tube, substantially as shown and for the purpose set forth.

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Witnesses:

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