

No. 702,282.

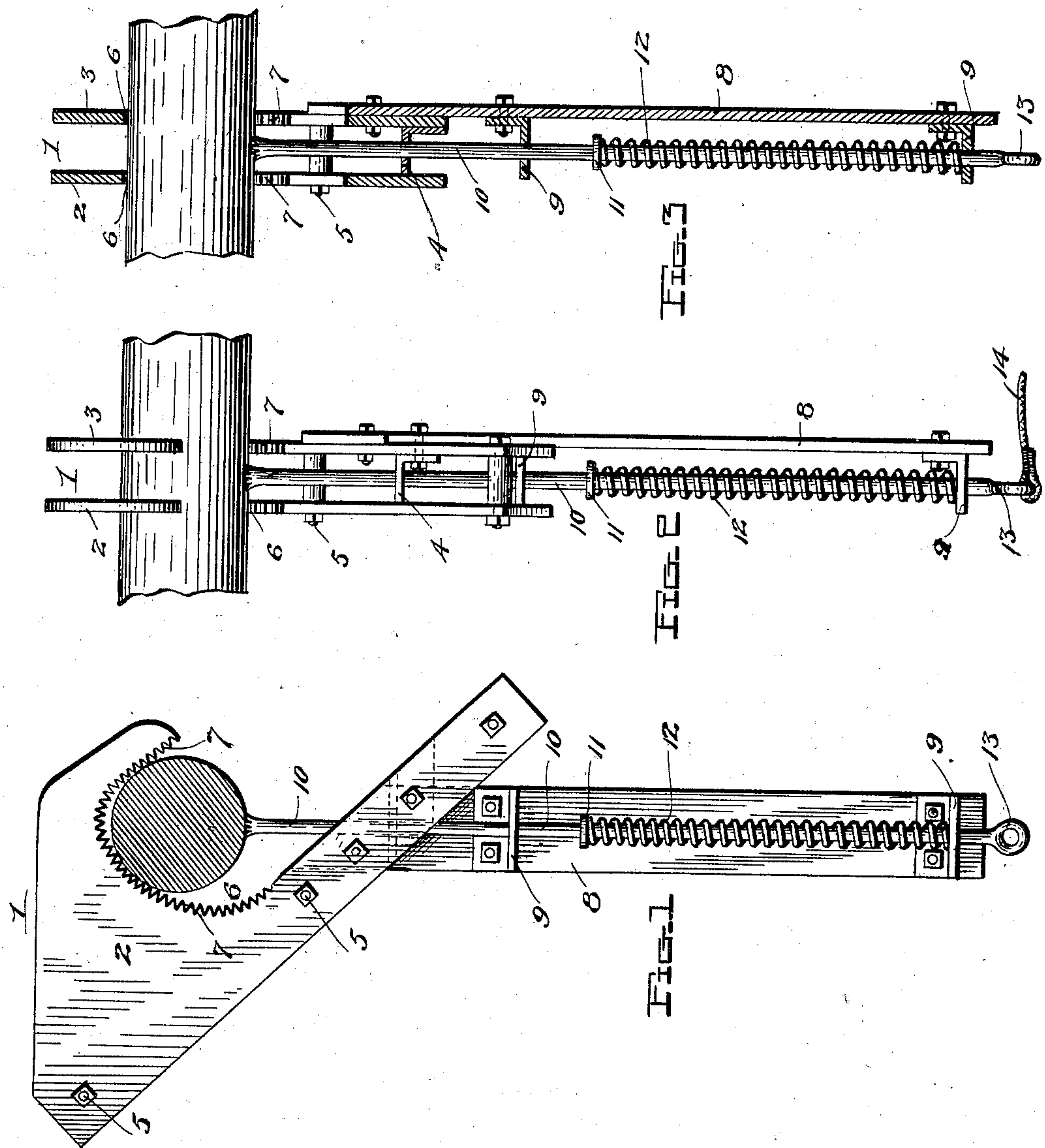
Patented June 10, 1902.

W. W. CAMPBELL.

DRILL ROD GRAB.

(Application filed Oct. 21, 1901.)

(No Model.)



W. W. Campbell ^{Inventor}

Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM W. CAMPBELL, OF PETROLIA, PENNSYLVANIA.

DRILL-ROD GRAB.

SPECIFICATION forming part of Letters Patent No. 702,282, dated June 10, 1902.

Application filed October 21, 1901. Serial No. 79,373. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. CAMPBELL, a citizen of the United States, residing at Petrolia, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Drill-Rod Grabs; and I do 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.

The invention relates to drill-rod grabs.

The object of the invention is to provide a device of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and by means of which a drill rod or stem may be firmly held against turning while the bit is being removed from or screwed onto its lower end.

With these objects in view the invention consists in certain features of construction and combination of parts which will be hereinafter more fully described and claimed.

In the accompanying drawings, Figure 1 is a bottom plan view of my improved drill-rod grab. Fig. 2 is a side view of the same, and Fig. 3 is a longitudinal vertical sectional view.

In the drawings, 1 denotes the rigid jaw of the grab, which comprises two parallel plates 2 and 3, spaced apart by angle-irons 4 and connected by bolts 5. One edge of each plate is provided with a curved recess 6, formed with serrations 7.

8 denotes a shank bolted to the frame and provided with depending guide-brackets 9. 10 denotes a stem mounted to slide in said brackets and provided with a collar 11, between which and the outermost bracket is confined a coil-spring 12, which exerts its energy to force the inner end of the stem, which is roughened and constitutes the movable jaw, toward the fixed or rigid jaw. The outer end of the stem is provided with an eye 13, with which may be engaged a rope 14, that extends over a pulley down within convenient reach of the operator, whereby the movable jaw may be retracted for the purpose of removing the drill rod or stem.

In operation when it is desired to remove

the bit or tool from the lower end of the drill rod or stem the rope attached to the eye 13 is released or slackened to permit the spring to force the movable jaw against the drill rod or stem, and thus confine it between the movable and fixed jaws. The drill rod or stem will now be firmly held against rotation and will permit the operator to twist or turn off the bit or tool from the lower end of the drill-rod or secure it to the drill-rod, as the case may be.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring a more extended explanation.

While the preferred form of the invention is as herein described, it will of course be understood that changes in the form, proportion, and the minor details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

A drill-rod and grab comprising two plates connected by bolts and spaced apart, said plates being provided with parallel registering recesses formed with serrated edges, a shank bolted to said plates and extending rearwardly and provided with brackets, a rod having a sliding movement in said brackets and provided with a fixed collar and with a roughened end, and a coil-spring about said rod confined between one of said brackets and the fixed collar thereon, and exerting its energy to force the inner end of said rod toward the serrated edges aforesaid, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM W. CAMPBELL.

Witnesses:

S. P. SHAKLEY,

C. A. S. CAMPBELL.