

No. 708,325.

Patented Sept. 2, 1902.

W. J. DUNLAP.
TOOL FOR OIL WELLS, &c.
(Application filed Apr. 11, 1902.)

(No Model.)

Fig. 1.

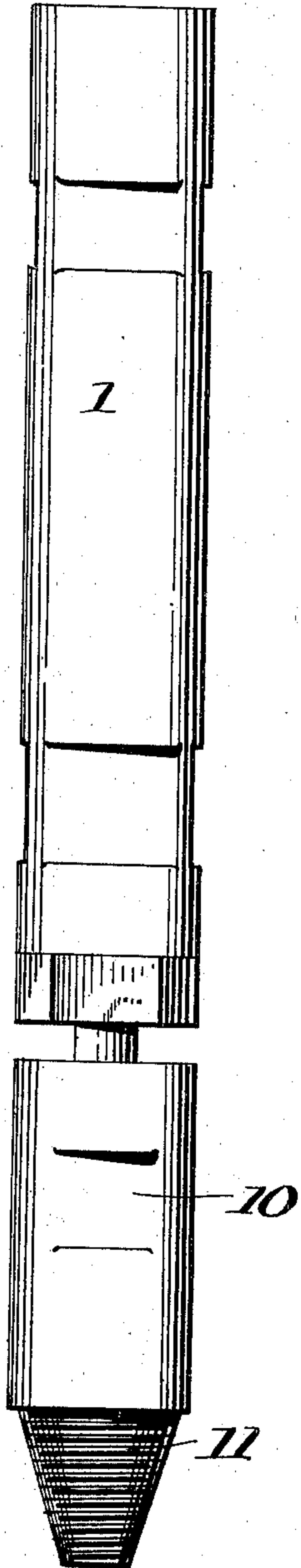


Fig. 2.

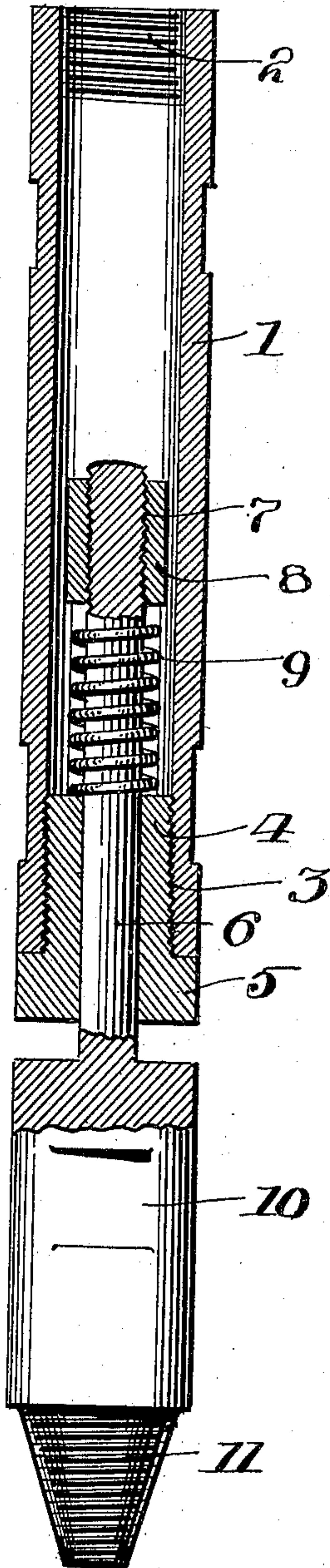
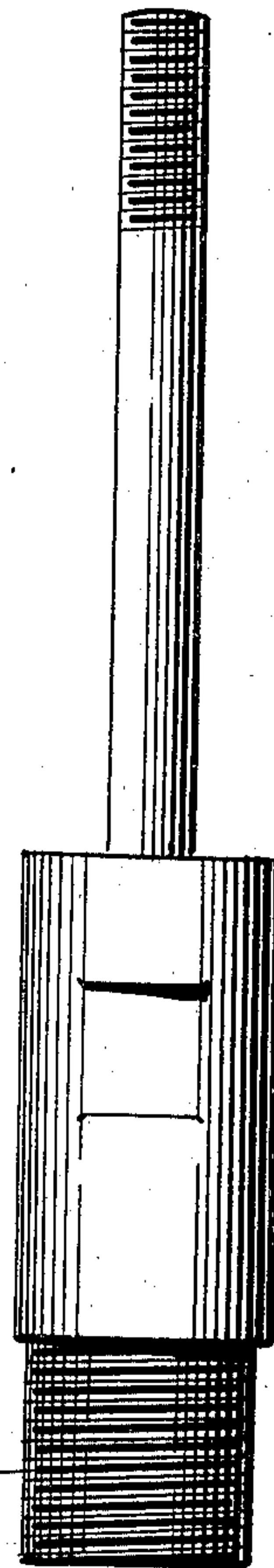


Fig. 3.



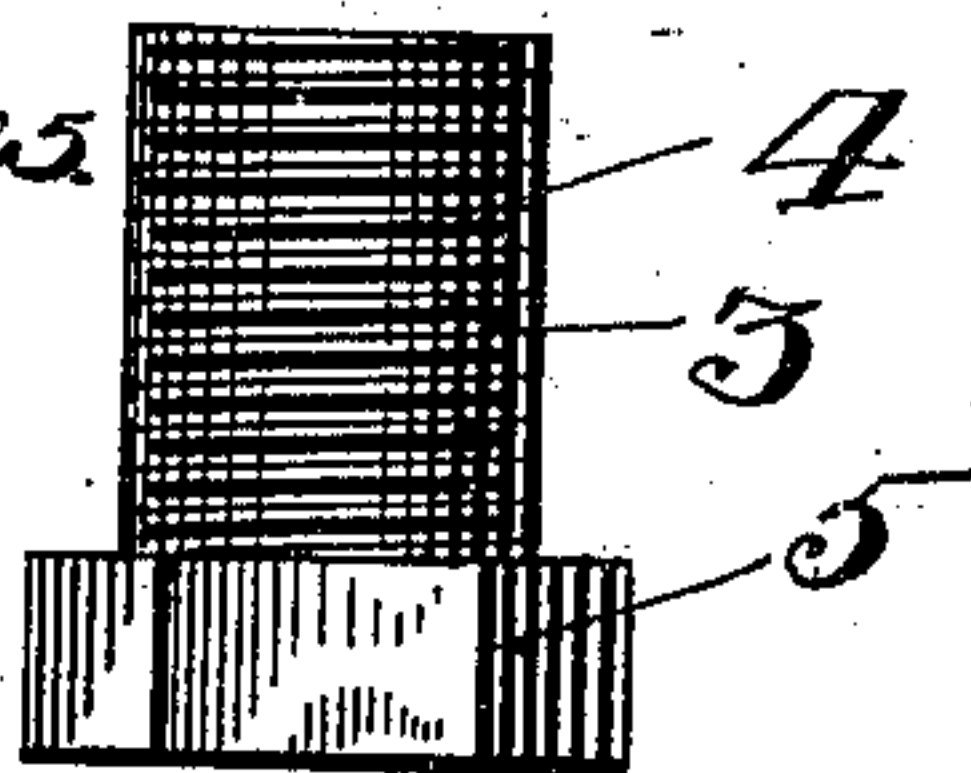
Fig. 4.



Witnesses:

J. P. Appleman,
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Fig. 5.



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UNITED STATES PATENT OFFICE.

WILLIAM J. DUNLAP, OF ETNA, PENNSYLVANIA.

TOOL FOR OIL-WELLS, &c.

SPECIFICATION forming part of Letters Patent No. 708,325, dated September 2, 1902.

Application filed April 11, 1902. Serial No. 102,424. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. DUNLAP, a citizen of the United States, residing at Etna, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Tools for Oil-Wells and other Wells, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in tools for oil-wells and Artesian wells, and relates more particularly to a flexible bit-holder.

The invention has for its object the provision of novel means whereby the jar incident to the drilling of Artesian wells is taken up to a great extent, thereby preventing the bit-holder from breaking and obviating the necessity of employing fishing-tools to remove the broken parts from the bottom of the well.

My invention further contemplates to provide a device of this character that will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its use.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts, to be hereinafter more fully described, and specifically pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Fig. 1 is a side elevation of my improved device. Fig. 2 is a vertical sectional view thereof. Fig. 3 is a side elevation of the interior nut. Fig. 4 is a similar view of the head and shank. Fig. 5 is a side elevation of the screw-threaded sleeve.

In these drawings the reference-numeral 1 represents the cylindrical casing, which is interiorly screw-threaded, as shown at 2, to hold same in proper position. Said casing is also interiorly screw-threaded at its lower end, as shown at 3, to receive the screw-threaded sleeve 4, carrying the enlarged portion 5, which is of equal diameter to the casing. The said sleeve 4 has a central opening formed therein to receive the stem 6, which is screw-threaded at its upper end, as shown at 7, for the reception of the nut 8. This rod 6 is surrounded by a spiral spring 9, which abuts at its upper end against the lower face

of the nut and its lower end abutting against the upper face of the sleeve 4. This stem 6 carries a head 10, having a lower cone-shaped threaded extension 11, which extension may also be cylindrical instead of cone-shaped, as shown in Fig. 4 of the drawings. The upper end of head 10 abuts against the lower end of the enlarged portion 5 of sleeve 4, thereby limiting the vertical movement of the former. The said threaded extension 11 is adapted to receive a drill, which is connected thereto in the ordinary manner. It will be seen that by operating the herein-described device the stem 6 will slide into the casing and sleeve and the jar will be taken up by the coil-spring 9, thereby preventing breakage, as heretofore stated. It will be further noted that the casing may be easily taken apart when desired in order to adjust the tension of the spring or replace some of the parts.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

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

In a device of the type set forth, the combination of a casing having its upper and lower portions interiorly threaded, a sleeve threaded in the lower portion of said casing, an enlarged portion carried by the sleeve of the same diameter as the casing and having its upper side abutting against the lower edge of the casing, said sleeve and enlarged portion being apertured, a stem received within said aperture, a head on the lower end of the stem of the same diameter as said casing and adapted to have its vertical movement limited by engagement of its upper side with the underside of the enlarged portion of the sleeve, the lower end of said head being externally screw-threaded, the upper end of the stem being threaded, a nut on the upper end of the stem, a spiral spring encircling the stem and engaging the nut and the upper end of the sleeve, substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM J. DUNLAP.

In presence of—

LOUIS MOESER,
M. HUNTER.