

No. 685,166.

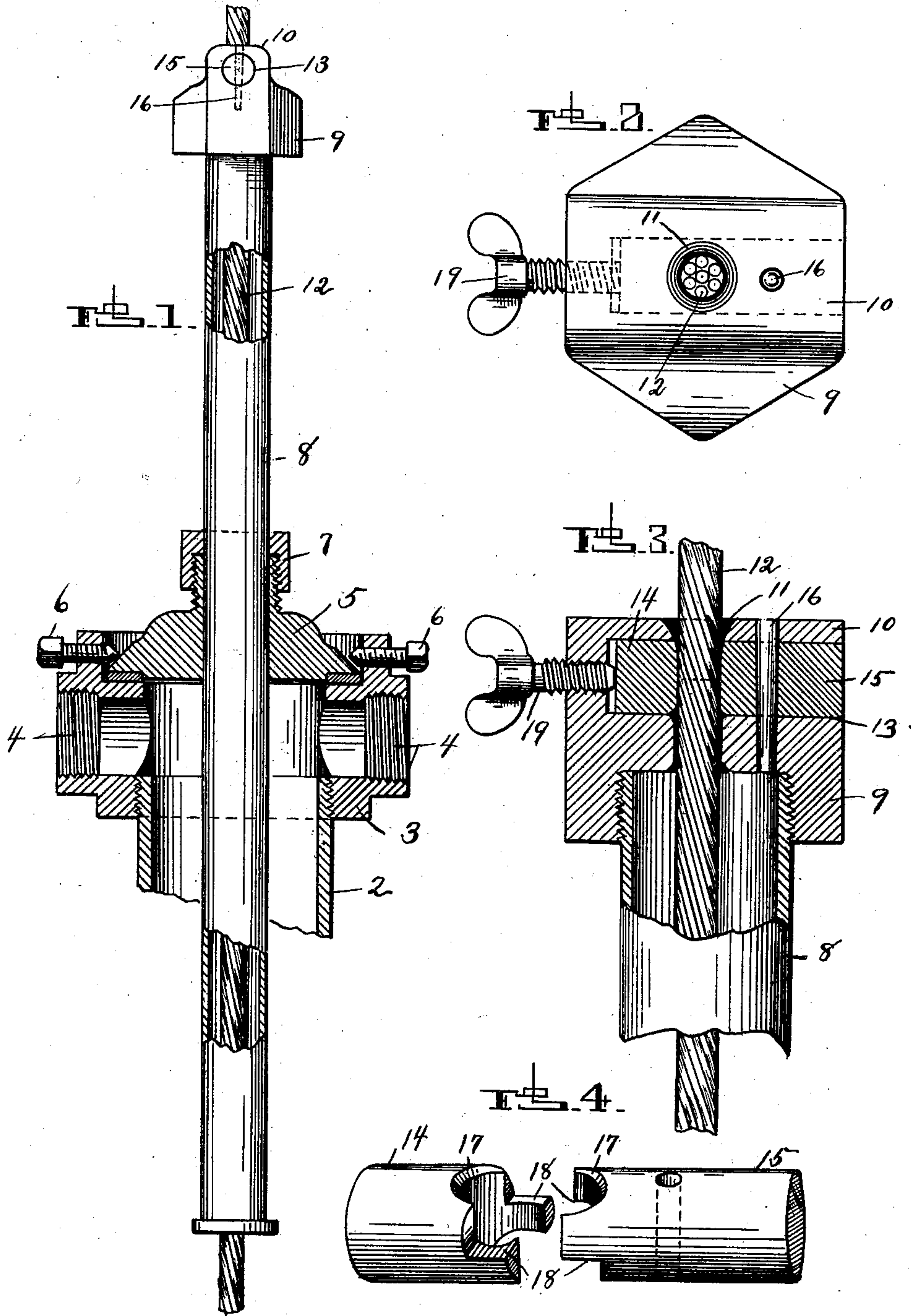
Patented Oct. 22, 1901.

S. W. MUNN.

OIL SAVER.

(Application filed Mar. 8, 1901.)

(No Model.)



WITNESSES.

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UNITED STATES PATENT OFFICE.

SILAS W. MUNN, OF MANNINGTON, WEST VIRGINIA.

OIL-SAVER.

SPECIFICATION forming part of Letters Patent No. 685,166, dated October 22, 1901.

Application filed March 8, 1901. Serial No. 50,311. (No model.)

To all whom it may concern:

Be it known that I, SILAS W. MUNN, a citizen of the United States, residing at Mannington, in the county of Marion and State of West Virginia, have invented new and useful Improvements in Oil-Savers, of which the following is a specification.

This invention relates to oil-savers for oil-wells, and has particular reference to an attachment for oil-saving devices now generally used in connection with Manila drilling-cables, whereby said devices are adapted for use in conjunction with wire cables.

Oil-saving devices are employed when it is desired to drill in the oil-sand while the well is flowing, whereby the oil may be either confined in the casing or discharged through a pipe leading from the casing-head to a tank. While effective devices of this character are provided for Manila cables, said devices as at present constructed are not well adapted to wire cables, which are coming into general use for drilling. It is therefore the object of the present invention to provide an oil-saving attachment which may be effectively used on wire cables.

The invention consists in the novel features of construction and combination of parts hereinafter fully described and claimed, and illustrated by the accompanying drawings, wherein—

Figure 1 is an elevation, partly in section, of an oil-saver provided with my improved attachment. Fig. 2 is a plan view of the attachment, and Fig. 3 a vertical sectional view thereof. Fig. 4 is a detail view of the cable-gripping jaws.

Referring to the drawings, 2 represents the upper end of the casing, and 3 the casing-head, to which discharge-pipes may be connected at 4.

5 is the head-cap, secured by screws 6, and adapted to reciprocate vertically through stuffing-box 7 of the cap is tube or barrel 8. The parts thus far referred to are old and well known in the art and form no part of my invention.

9 is a head having threaded connection with the upper end of barrel 8, with its exterior of hexagon form to receive a wrench. The head is formed with a transverse enlargement 10 and is vertically apertured at 11 to pass the

wire drilling-cable 12. Head enlargement 10 is formed with a horizontal circular depression 13, which intersects cable-aperture 11, and fitting the inner portion of this depression is the adjustable jaw 14 and the outer portion thereof the fixed jaw 15, the latter being secured by vertical pin 16. The jaws are preferably circular in cross-section, and their opposing faces are oppositely recessed at 17 to grip the cable, with their opposite sides notched at 18 to interlock. The solid end of head enlargement 10 is apertured to receive the screw 19, which engages the end of sliding jaw 14 for the purpose of adjusting the same.

In operation before oil begins to flow sliding jaw 14 is relaxed, so that the cable reciprocates freely through barrel 8, which is at a standstill. The jaws, and particularly the gripping ends thereof, are very hard, being formed, preferably, of hard steel, so that the frictional contact therewith of the reciprocating cable has no injurious effect, and as said jaws overhang aperture 11 the cable is held from contact with head 9, and as the diameter of barrel 8 is four or five times that of the cable there is of course no danger of injury to the barrel. As soon as oil begins to flow the cable is tightly clamped between the jaws, causing barrel 8 to reciprocate with the cable and preventing discharge of oil around the latter, and in this connection the interlocking jaw ends are particularly effective.

In oil-saving devices constructed for Manila cables no provision is made for holding the cable from contact with the barrel, and if used on a wire cable the barrel is soon worn away and rendered useless. With my improvement the cable comes in contact only with the clamping-jaws, which are not injured thereby.

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

1. In an oil-saver, the combination of a head having a vertical passage through which the drilling-cable is normally free to reciprocate, the head being formed with a transverse recess intersecting said passage, cooperating cable-gripping jaws within the transverse recess on opposite sides of the cable-passage

and recessed at their ends to embrace the cable and thereby close the said passage, means for permanently securing one of the jaws, and mechanism for adjustably securing the other jaw, substantially as shown and described.

2. The combination of an oil-saver barrel, a head therefor having a vertical cable-passage and formed with a horizontal recess intersecting said vertical passage, cooperating cable-gripping jaws positioned in the recess on opposite sides of the cable-passage, adjacent ends of the jaws being notched to interlock and recessed to embrace the cable, there-
15 by closing the cable-passage around the cable, and means for securing the jaws, substantially as shown and described.

3. An attachment for oil-saver barrels, comprising a head adapted to be secured to the
20 upper end of a barrel and formed with a ca-

ble-passage, the head being also formed with a horizontal recess extending inward from one side and intersecting said passage, a jaw movable in the inner portion of the recess, a screw working through the head for adjust-
25 ing said jaw, a jaw in the outer portion of the recess and cooperating with the first-mentioned jaw to grip the cable and close the cable-passage, and a pin extending vertically
30 through the head and said outer jaw for securing the latter, substantially as shown and described.

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

SILAS W. MUNN.

Witnesses:

GEORGE BASHER,
BARNEY COYLE.