

F. THATCHER.
OILING DEVICE FOR STOCK DIES.
APPLICATION FILED MAY 27, 1908.

932,513.

Patented Aug. 31, 1909.

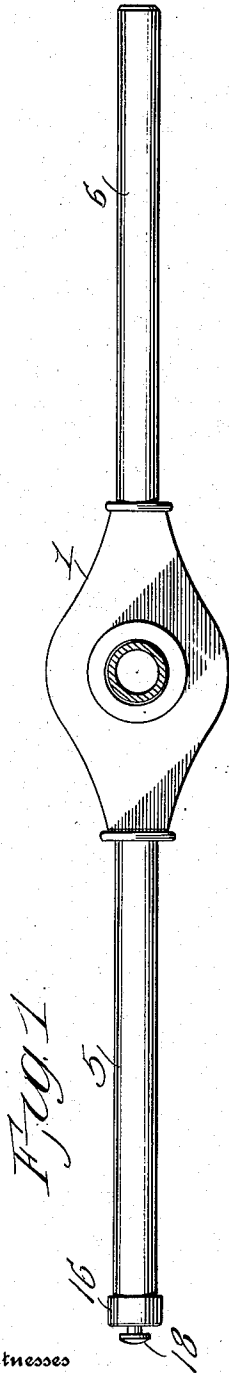


Fig. 1.

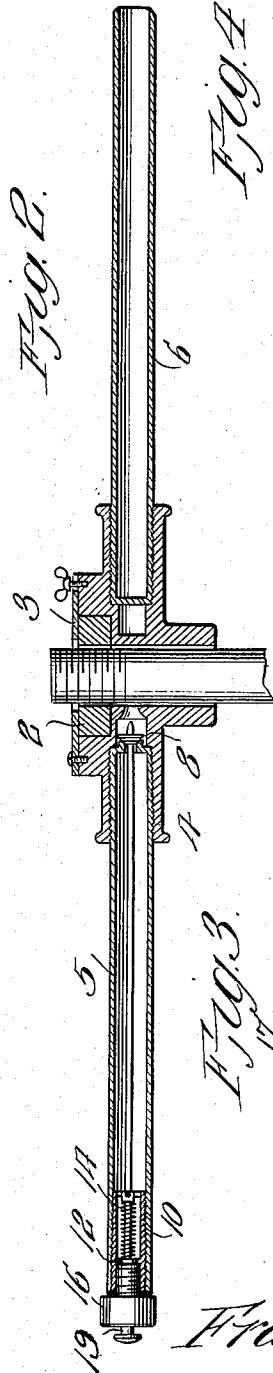


Fig. 2.

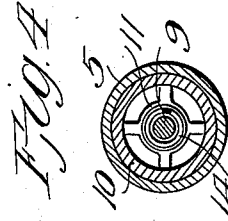
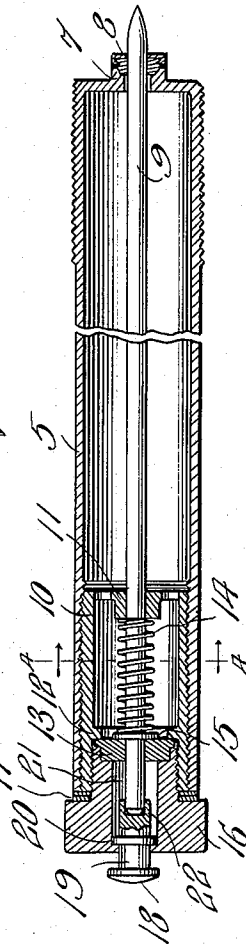


Fig. 4.

Fig. 3.



Witnesses

Frank Hough.
R. M. Smith.

Inventor

Frank Thatcher,

By Victor J. Evans

Attorney

UNITED STATES PATENT OFFICE

FRANK THATCHER, OF EL PASO, TEXAS.

OILING DEVICE FOR STOCK-DIES.

932,513.

Specification of Letters Patent.

Patented Aug. 31, 1909

Application filed May 27, 1908. Serial No. 435,360.

To all whom it may concern:

Be it known that I, FRANK THATCHER, a citizen of the United States, residing at El Paso, in the county of El Paso and State of Texas, have invented new and useful Improvements in Oiling Devices for Stock-Dies, of which the following is a specification.

This invention relates to stock dies, the object of the invention being to provide an oiling device for supplying lubricant to the dies carried by the stock, the oiling device forming a part of the complete implement and embodying a valve which is under the control of the operator who may supply oil to the dies as required, the construction of the oiling device embodying means whereby the initial operating device may be disconnected without affecting the remaining mechanism to enable the supply of oil to be replenished whenever necessary.

A further object of the invention is to so combine and arrange the mechanical parts of the oiling device that they may be readily taken apart to facilitate the cleaning of the oiling device as a whole.

With the above and other objects in view, the invention consists in the novel construction and arrangement herein fully described, illustrated and claimed.

In the accompanying drawing, Figure 1 is a plan view of a thread-cutting die stock showing the oiling device applied thereto. Fig. 2 is a longitudinal section through the same. Fig. 3 is an enlarged longitudinal section through the handle which is utilized as the oil container, showing the valve controlling means. Fig. 4 is a cross section on the line 4-4 of Fig. 3.

In the drawings, 1 designates the die stock which is chambered out to receive the die 2, the latter being held in place by means of the usual retainer cap 3. The die stock is also provided with the usual socket extensions 4 which receive the inner ends of the handles 5 and 6.

The handles 5 and 6 are ordinarily tubular, and in carrying out the present invention, one of said handles, indicated at 5, is provided at its inner end with an external valve seat 7 in connection with which an externally-arranged valve 8 is employed, the latter being mounted fast on the inner end of a valve stem 9 which extends lengthwise

entirely through the tubular handle 5, as shown in Fig. 3.

In the outer end of the handle 5 there is arranged a bushing 10 which is preferably secured into the handle, as best shown in Fig. 3, so that it may be readily removed for the purpose of repair or cleaning. The bushing is provided at its inner end with a central guide opening 11 for the stem 9, and at a point nearer its outer end, said bushing is provided with an annular shoulder 12 against the outer side of which bears a guide 13 forming a second bearing for the stem 9. Encircling the stem 9 within the bushing 10 is a valve-closing spring 14. This spring is interposed between the guide 11 at the inner end of the housing and a bearing shoulder 15 on the valve stem 9 so that the tension of said spring is exerted to hold the valve 8 normally closed.

The outer end of the bushing 10 is internally threaded to receive an end cap or closure 16, the outer end of which is enlarged to form a head, as shown in the drawings, while one or more gaskets or packing rings 17 may be interposed between the head of the cap and the extremities of the handle 5 and bushing 10 to form a liquid-tight joint, the construction referred to being illustrated in Fig. 3. The cap 16 carries a push button 18, the stem or shank 19 of which is provided at its inner end with an annular stop shoulder 20 which works in a recess 21 in the cap, the outer end of said recess being reduced to form a corresponding shoulder against which the annular stop shoulder 20 bears when the button is in its outward position, and against which the head of the button bears when said button is pushed inward. At its inner end, the shank of the button is provided with a socket or recess in which the outer extremity of the valve stem 9 is received, as shown in Fig. 3, the arrangement being such that when the button 18 is pushed inward, it acts to move the valve stem 9 in a corresponding direction to open the valve 8 and allow the oil to pass to the die space of the stock. At the same time, the construction described will admit of the removal of the cap 16 to enable oil to be introduced into the tubular handle without disarranging the valve stem or any parts connected therewith.

The handle 5 may be detached from the

stock and all parts of the oiling mechanism may be detached from said handle, thereby giving free access to all parts of the oiling device and enabling the same to be kept in
5 good working condition.

Having thus described the invention, what I claim is:—

The combination with a die stock, of a tubular handle forming an oil container and
0 conduit leading to the die space and provided at its inner end with a terminal valve seat, an externally arranged valve movable relatively to said seat, a valve stem extending longitudinally through said handle, a
5 bushing removably fitted by a threaded en-

gement in the outer end of the handle and provided with a guide opening for said stem, a valve-closing spring engaging said stem and housed within the bushing and removable therewith, a detachable cap fitting
20 into the outer end of the bushing, and a push button carried by said cap having a shouldered engagement therewith and adapted to engage and move the valve stem.

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

FRANK THATCHER.

Witnesses:

U. A. NOEN,
WM. H. ENGEL.