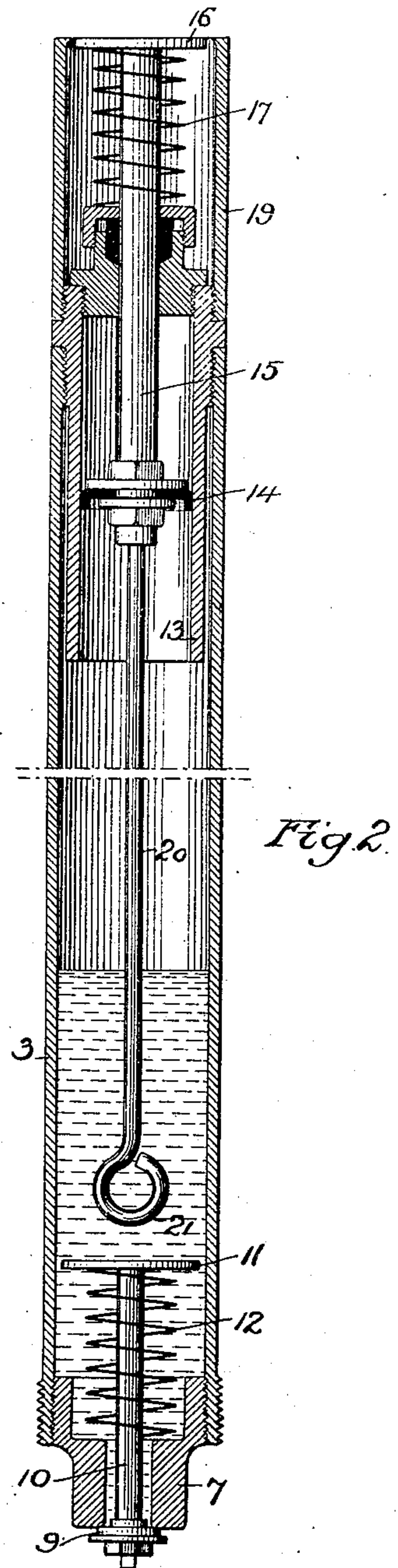
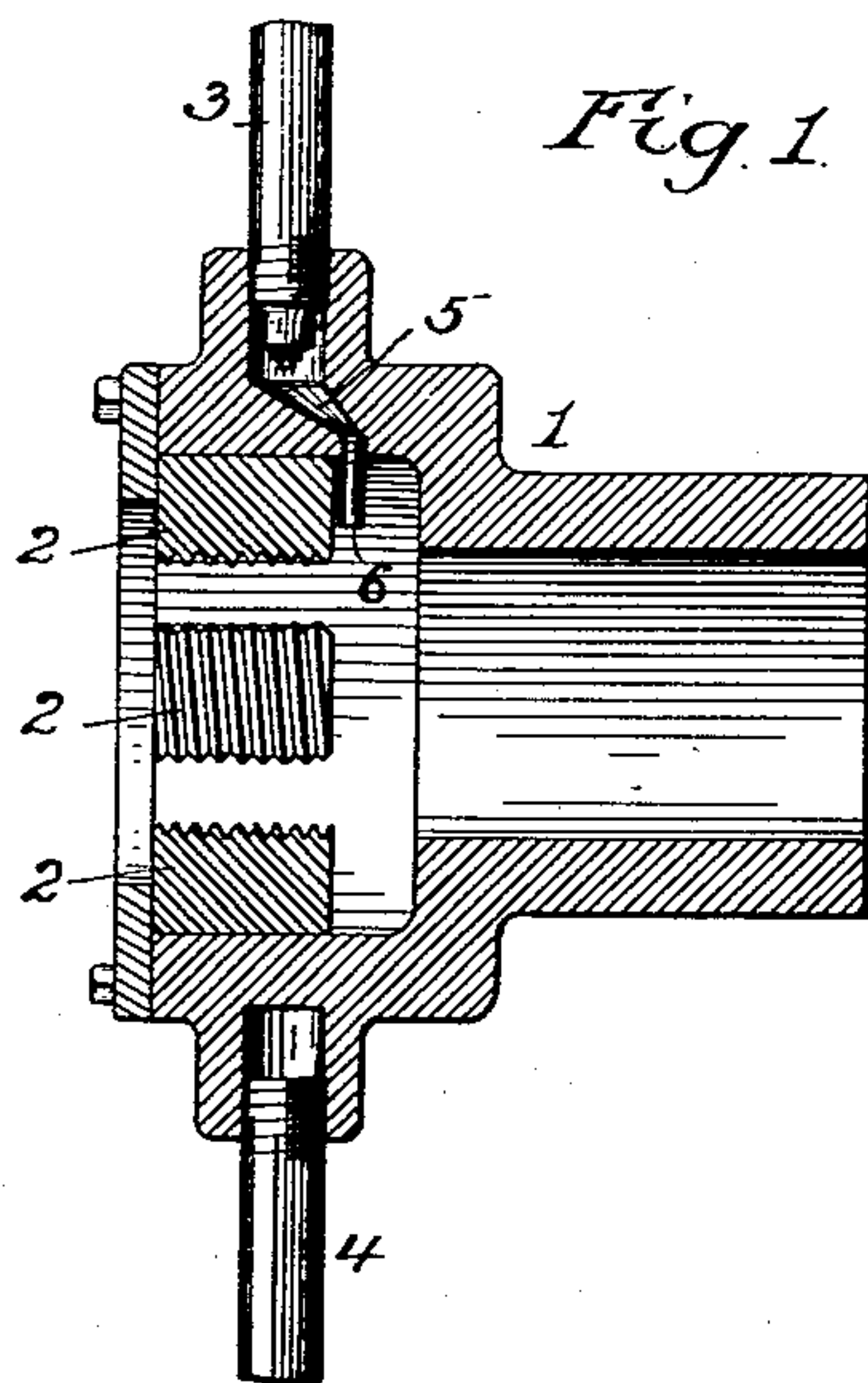


W. M. & I. S. SHREVE.
 SELF OILING DIE STOCK.
 APPLICATION FILED JUNE 13, 1907.

908,343.

Patented Dec. 29, 1908.



Witnesses
 Harry L. Smith
 Kamelton J. Turner

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UNITED STATES PATENT OFFICE.

WALTER M. SHREVE AND ISAAC S. SHREVE, OF PHILADELPHIA PENNSYLVANIA.

SELF-OILING DIE-STOCK.

No. 208,343.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed June 13, 1907. Serial No. 378,837.

To all whom it may concern:

Be it known that we, WALTER M. SHREVE and ISAAC S. SHREVE, citizens of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Self-Oiling Die-Stocks, of which the following is a specification.

Our invention relates to that class of die stocks which are provided with a hollow handle constituting a reservoir for the oil which is employed for lubricating the dies or for application to the rod or tube at the point where the dies begin to act upon the same, the object of our invention being to insure the proper flow of oil from the reservoir to the dies. This object we attain in the manner hereinafter set forth, reference being had to the accompanying drawing, in which—

Figure 1 is a sectional view of sufficient of a die stock to illustrate the means employed for conveying the oil from the hollow handle to the dies, and Fig. 2 is an enlarged section of said hollow handle as constructed in accordance with our invention.

In Fig. 1 of the drawing, 1 represents the body of a die stock, which may be of any ordinary character, and provided with suitable cutting dies 2. Screwed into suitable bosses on the body of the stock are the handles 3 and 4, whereby the same is turned, the handle 3, in the present instance, constituting a reservoir for the oil which is employed for lubricating the dies, the oil being conveyed from the handle to a point in advance of the dies by means of a passage 5 and a short tube 6, screwed into the threaded end of said passage. The handle 3 consists of a tube having at its lower end a tubular plug 7, whose under face constitutes a seat for a valve 9, the stem 10 of said valve passing up through the plug and having, at the top, a disk 11 between which and a seat in the plug is interposed a coiled spring 12, whereby the valve 9 is normally maintained in close contact with its seat and the escape of oil from the handle is prevented. Screwed into the upper end of the tube 3 is a cylinder 13 containing a piston which is provided with a cup-leather packing 14, the rod 15 of said piston passing through a stuffing box at the upper end of the cylinder and being provided at its upper end with a knob or button 16, between which and the cap of the stuffing box is introduced a coiled spring 17 tending to raise the piston in the cylinder 13, a protecting tube 19 constituting the outer end of

the handle 3 and serving to inclose the projecting portion of the piston rod, its knob and spring, and thereby prevent depression of the piston by accidental blows upon the knob. The piston rod 15 has a depending stem 20 which may, if desired, be connected to the valve stem 10 but which preferably terminates, at its lower end, in a yoke or bow 21, this bow, when the piston is in its highest position in the cylinder being disposed at any desired distance above the disk 11 at the top of the valve stem 10.

Normally, the parts occupy the position shown in Fig. 2, the valve 9 being closed and escape of oil from the hollow handle being thereby prevented. Pressure of the thumb or finger upon the knob or button 16, however, will cause downward movement of the piston in the cylinder 13, and the cup-leather packing of said piston will fit snugly to the walls of the cylinder so as to prevent any leakage of air past the piston, consequently the body of air which is contained between the piston and the upper surface of the body of oil in the handle will be compressed to a certain extent, and when the bow 21 finally contacts with the disk 11 and depresses the latter so as to open the valve 9, this pressure of air behind the body of oil contained in the handle will insure the discharge of a jet of oil between the valve and its seat, the piston being raised by the action of the spring 17 as soon as pressure is removed from the knob 16, and the valve 9 being likewise raised by its spring 12 as soon as the pressure of the bow 21 is removed from the disk 11 as said bow 21 rises with the piston.

We claim:—

1. The combination of a die stock with a hollow handle constituting an oil reservoir and having a valved opening at its inner end, a tightly fitting piston in the handle, means for normally closing the valve, and a connection between the valve and piston whereby said valve will be opened independently of the pressure of the oil thereupon when the piston is depressed.

2. The combination of a die stock with a hollow handle constituting an oil reservoir and having a valved outlet at its inner end, means for normally holding said valve in the closed position, a cylinder removably contained in the outer portion of the handle, a piston contained in said cylinder, and means for depressing said piston.

3. The combination of a die stock with a hollow handle constituting an oil reservoir and having a valved opening at its inner end, means for normally closing said valve, a piston contained in the handle, and means, normally free from connection with the valve, for imparting movement of said piston to the valve independently of the pressure of the oil thereupon.

4. The combination of a die stock with a hollow handle constituting an oil reservoir, a valve closing the inner end of said handle and having a stem with disk and spring acting thereupon to normally close the valve, a tightly fitting piston contained in the handle, and a rod depending from said piston, and serving, by contact with the valve-stem disk, to open the valve.

5. The combination of a die stock with a hollow handle constituting an oil reservoir and having a valved opening at its inner end, a cylinder contained in the outer portion of the handle and having a piston with rod pro-

jecting therefrom, a knob or button on said rod, a spring for raising the same, and a protecting tube surrounding the button but open at the outer end to permit access to the same.

6. The combination of a die stock with a hollow handle constituting an oil reservoir, a spring-pressed valve normally closing the inner end of the handle, a spring-raised piston in the handle, and means normally free from connection with the valve whereby inward movement of the piston will effect opening movement of the valve independently of the pressure of the oil thereupon.

In testimony whereof, we have signed our names to this specification, in the presence of two subscribing witnesses.

WALTER M. SHREVE.
ISAAC S. SHREVE.

Witnesses:

FLEETWOOD FULMER,
ELMER E. E. SHIELDS.