

G. W. PALMER.

OILER.

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1,043,968.

Patented Nov. 12, 1912.

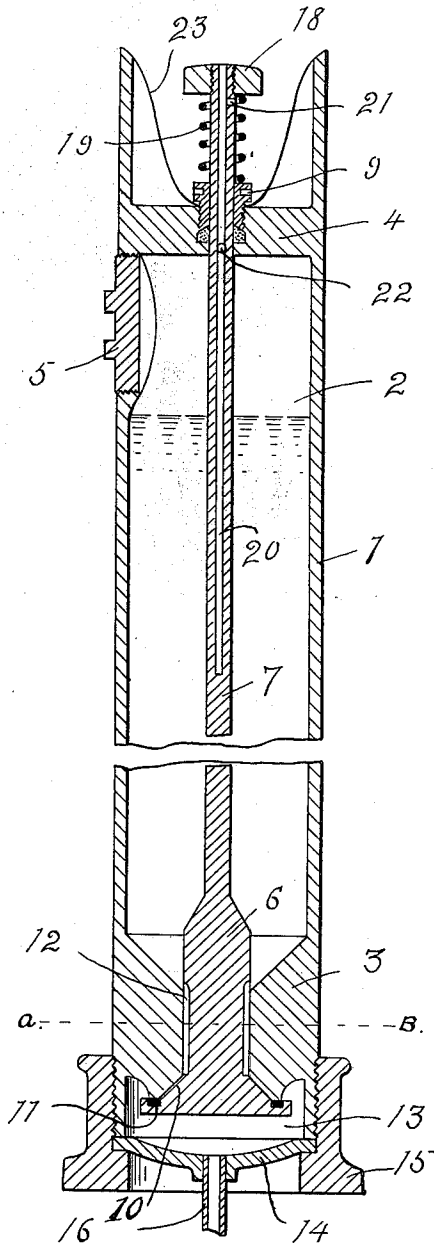


Fig. 2.

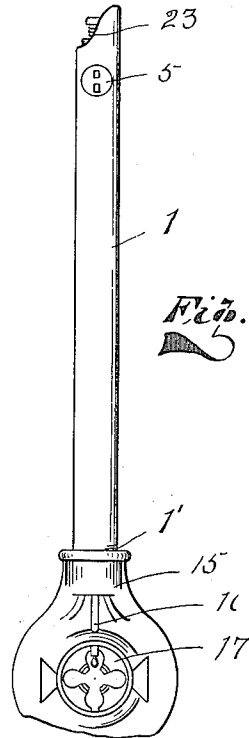


Fig. 1.

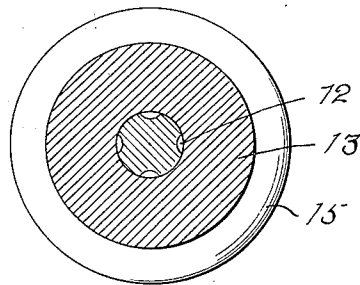


Fig. 3.

WITNESSES:

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OILER.

1,043,968.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE W. PALMER, a citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Oilers, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to improvements in oilers.

The object of my invention is to provide an oiler more particularly designed to be used on pipe die-stocks for cutting of threads upon pipes or bolts, in which the oil can be properly fed to the die at the proper place without stopping the threading operation and thus saving time and preventing injury to the work and tool for the want of oiling.

Another object of my invention is to provide an oiler at all times carried by the tool and having certain details hereinafter fully set forth.

In the accompanying drawings: Figure 1 is an elevation of my improved oiling handle applied to a die-stock. Fig. 2 is a longitudinal cross-sectional view of the handle, and Fig. 3 is a cross-sectional view taken on the line A—B Fig. 2.

Referring now to the drawings, 1 represents the hollow metal handle of a die stock which is screwed into the stock as indicated at 1', and in which is formed the oil-chamber 2 by the two partitions 3 and 4, access being had to said chamber for filling or emptying through a suitable screw-cap covered hole 5.

A piston 6 having the rod 7 is operatively mounted through the partition 3, and rod 7 operating through the partition 4 in which latter a tight joint is effected by means of a screw-threaded stuffing gland 8 having radial holes 9 in the upper end thereof for the purpose of receiving a tool for rotating it and adjusting it up or down.

The lower end of the portion 6 is somewhat conically shaped forming the beveled surface 10, which engages a similarly shaped seat in the lower surface of the partition 3. About the base of the conical portion of the piston is carried a circular washer 11 to act as an additional valve seat and engages the rim of the seat formed in the lower surface of the partition 3, thus a tight joint is insured between the partition and the piston, when the latter is in its uppermost position.

A plurality of longitudinal ports 12 are

formed in the outer surface of the piston 6 which are sufficiently long to extend somewhat above the upper surface of the partition 3, and within the oil chamber 2, when the piston is up which will allow the ports to readily fill with oil therefrom and then when the piston is lowered the communication with the chamber 2 will be closed and the oil in the ports 12 allowed to discharge within the chamber 13 formed between the end of the handle and the dished washer 14, within the stock 15 and upon which the handle 1 is tightly screwed. A feed pipe 16 is attached to the washer 14 and leads to the desired place of discharge over the die 17.

A finger button 18 is attached to the upper end of the piston 7, by which the latter is depressed when desired and the spiral spring 19 is interposed between the button 18 and the upper end of the gland 8, whereby the piston and rod are retained normally at their upward extremity. The piston rod 7 is made hollow a large portion of its length from the upper end forming the hole 20 therein and just below the button 18 is the lateral hole 21 through the side of the piston rod 7, and communicating with the hole 20 and a similar lateral hole 22 is formed in the side of the rod 7, at a point just above the upper end of the chamber 2, when the piston and rod are up. Normally the chamber 2 is sealed, but when the piston and rod are depressed the oil is discharged from the ports 12 and air admitted above the oil in the chamber 2, through the holes 22, 20 and 21 so that a vacuum is not formed in the chamber 2 by the discharging of the oil.

The hole 20 extends considerably below the lateral hole 22 to provide for the collection of dust or dirt without plugging the communication between the outer air and the chamber, and extends up through the end of the rod 7 to admit of readily cleaning with a wire or the like. The upper end of the handle 1 is cut away as at 23 for convenient access to the button 18 and the operation of the device.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. The combination with a die-stock, of a hollow handle for operating the stock and in communication with the dies carried by the stock, an oil containing receptacle

formed in said handle, a piston controlling the communication between the receptacle and the dies, a piston rod extending through the receptacle and out beyond the end of the handle, means carried by the piston for feeding a predetermined amount of oil from the receptacle to the dies, the upper end of the piston rod having an opening extending longitudinally therethrough and having a lateral opening communicating therewith and normally above the upper end of the oil receptacle, whereby upon the downward movement of the piston-rod to feed the oil to the die the upper end of the receptacle is in communication with the outside atmosphere.

2. The combination with a die stock, of a hollow handle removably secured in said stock and in communication with the dies carried by the stock, a receptacle formed in said hollow handle and having a contracted lower end, a piston controlling said contracted lower end, a piston rod carried by the piston and extending out through the upper end of the receptacle and having operating means carried by its upper end on the outside of the receptacle, said piston rod having an opening extending longitudinally of its length and having a lateral opening communicating therewith, which is normally above the upper end of the receptacle, substantially as shown and described.

3. The combination with a die stock, of a hollow handle removably secured in said stock, a receptacle formed in said handle and having a contracted lower end, the lower face of said contracted end being beveled to form a seat, a piston passing through the contracted end of the receptacle and closing the same and having a beveled lower end to rest upon the said outer face of the said piston having longitudinal grooves, the lower ends of which are above the lower end of the receptacle and the upper ends in communication with the receptacle, and means for forcing the piston downwardly whereby the lower ends of the grooves are brought

into communication with the dies and the upper ends out of communication with the receptacle, whereby a predetermined amount of oil is fed to the dies.

4. The combination with a die-stock having handle receiving sockets internally screw-threaded and in communication with the dies, a plate resting in said sockets and having a conically-shaped bottom provided with a pipe extending within the stock and communicating with the dies, a hollow handle screwed within said sockets and holding the conically shaped plate therein, a receptacle formed in the handle for containing oil and means for feeding a predetermined amount of oil from the receptacle to the said conically shaped plate.

5. The combination with a die stock having handle receiving sockets in communication with the dies, a hollow handle screwed into said sockets, an oil containing receptacle formed in said handle, a piston within the handle and controlling the communication between the oil-receiving receptacle and the dies, a piston stem carried by the piston and extending out through the upper end of the receptacle, a spring surrounding said stem and normally holding the piston rod in its upward position, said piston having grooves in its outer face which, when the piston is in its upward position, are in communication with the receptacle, the upper end of the valve stem having a longitudinal opening through a portion thereof, said stem having a lateral opening communicating therewith and above the receptacle when the piston is in its upward position, whereby a predetermined amount of oil is fed to the dies upon the downward movement of the piston rod and air is fed to the upper end of the receptacle above the oil.

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

GEORGE W. PALMER.

Witnesses:

WM. M. GRAVATT,
S. GEO. STEVENS.