Feb. 10, 1942. J. W. CONNORS 2,272,364

OILING TOOL

Filed May 24, 1940

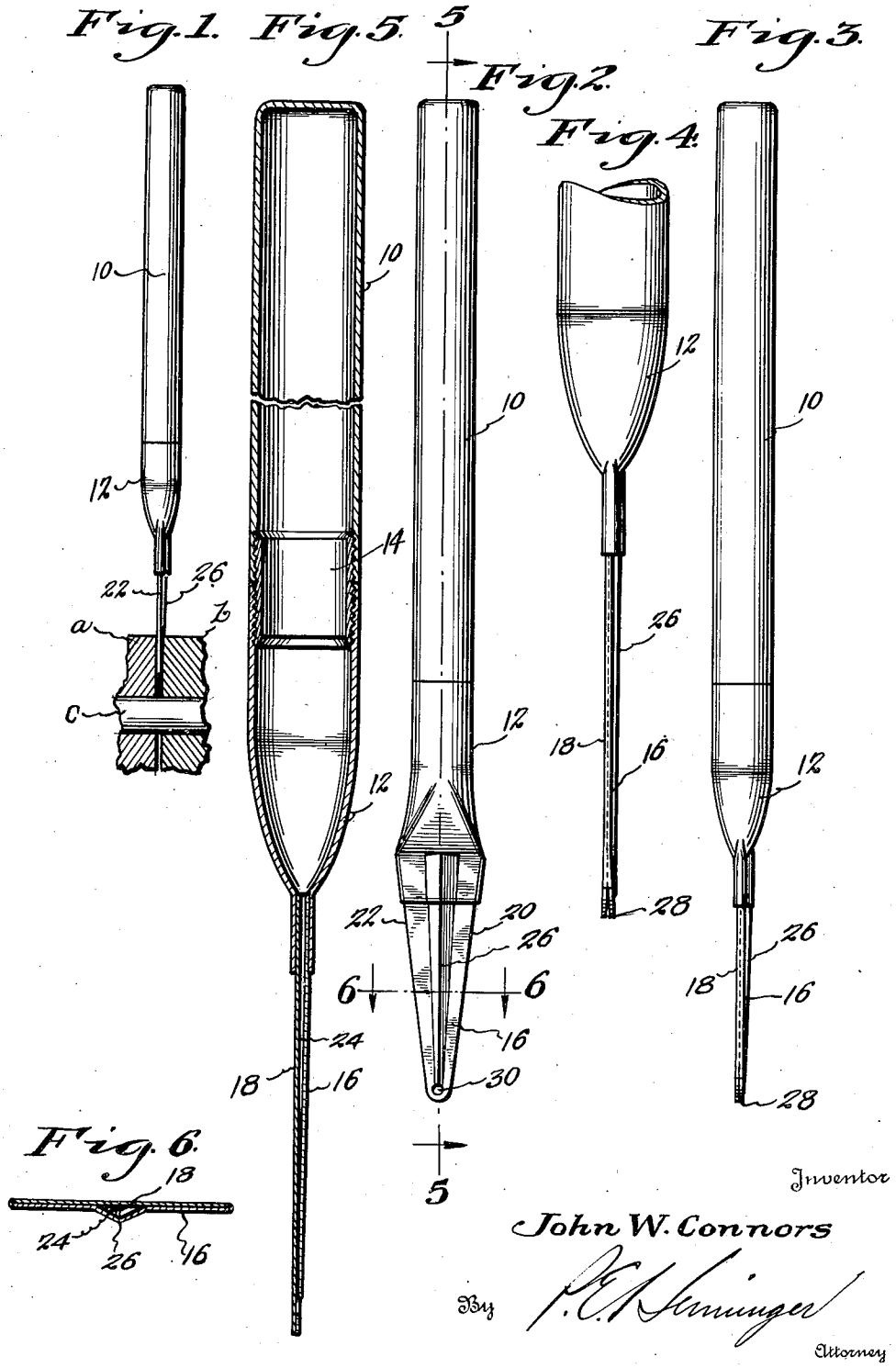


Fig. 6.

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Patented Feb. 10, 1942 2,272,364

UNITED STATES PATENT OFFICE

2,272,364

OILING TOOL

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Application May 24, 1940, Serial No. 337,069

4 Claims. (Cl. 221—44)

This invention relates to an oiling tool consisting of an oil reservoir and an oil applying nib. The invention more particularly relates to an oiling tool which has a relatively wide but thin oil applying nib with which small quantities of oil may be applied to surfaces to which access is difficult.

There are numerous machines which have relatively rotating parts which have so little space between them as to render lubrication of adjacent surfaces difficult. In such devices as numbering blocks on printing machines wherein the printing surface of the numbering wheel may not be contaminated with lubricating oil, proper lubrication becomes a real problem. Heretofore, such numbering wheels have been lubricated by inserting a thin tool having oil on the surface thereof between adjacent wheels. This practice, despite the greatest care by the operator, resulted in application of oil to the printing periphery of the wheel with the result that a large percentage of the work produced subsequent to such lubricating operations was subject to rejection.

It is, therefore, the object of this invention to provide an oiling tool which may be inserted between machine parts despite the small space therebetween for the purpose of applying a lubricant to adjacent surfaces without danger of soiling the outer surface of such parts with oil.

This object is accomplished by the provision of an oiling tool having a substantially airtight reservoir which feeds oil through an oiling nib which is relatively flat and very thin, and which is provided with an oil outlet at its point through which oil will not discharge until the surface to be lubricated is contacted, or until pressure is applied to the side of the nib.

Other objects and advantages of the invention will become apparent from a reading of the particular description thereof in light of the drawing, in which like reference numerals indicate like parts, and in which:

Figure 1 is a side elevational view of the tool comprising the invention in operative relation to parts to be lubricated;

Figure 2 is a front elevational view of the tool;

Figure 3 is a side elevational view;

Figure 4 is an enlarged side elevational view of the nib;

Figure 5 is a longitudinal cross-sectional view taken on line 5—5 of Figure 2; and

Figure 6 is a cross-sectional view taken on line 6—6 of Figure 2.

The oiling tool comprises a substantially cylindrical casing 10 which serves as an oil reservoir. An oil applying nib 12 engages the reservoir 10 in threaded relation so as to form a substantially airtight joint. The joint may be conveniently formed by providing an internal ferrule 14 having screw threads on the exterior thereof which are engaged by internal threads on the casing 10 and on the nib 12 thereof.

The nib 12 is composed of two thin side walls 16 and 18. These sidewalls are formed of resilient metal and lie in contact with each other throughout the major portion of their adjacent surfaces. The side walls 16 and 18 are shaped to provide a relatively wide base where they join the body of the tool and they merge into edges 20 and 22 which converge from the base portion toward the tip of the nib.

In the nib is formed an oil channel 24 leading from the upper end of the nib to its point. This channel is preferably formed midway between the edges 20 and 22 by spacing one of the side walls outwardly as at 26.

The side walls 16 and 18 are joined along the converging edges 20 and 22 to a point near the bottom of the nib whereat these walls are spaced to provide an oil outlet 28 at the tip of the nib. A lateral oil discharge passage 30 is formed in one of the side walls and communicates with the oil channel 24 whereby a lubricant may be applied in a lateral direction to parts to be lubricated.

In the use of the device, the nib 12 is inserted between relatively rotating machine members, such as, for example, number wheels *a* and *b* of Figure 1. Inasmuch as the reservoir 10 is substantially airtight, oil will not be discharged through either the outlet 28 or the outlet 30 until the tip 28 contacts a machine part such as the shaft *c* or until the lateral passage 30 is brought in contact with the adjacent surface of either elements *a* or *b*. The capillary attraction, when such contact is established, is ordinarily sufficient to effect the discharge of a minute quantity of oil required. However, it is also contemplated that the nib may be pressed against an adjacent machine part so as to exert pressure on the walls 16 or 18, and thereby assist in expelling small quantities of oil through the discharge openings 28 and 30.

The invention has been illustrated in a single form but it is obvious that modifications thereof may be made without departing from the spirit of the subjoined claims.

I claim:

1. An oiling tool comprising a substantially airtight casing constituting an oil reservoir, a

relatively wide, thin oil applying nib in communication with said reservoir, a medial oil channel lying above the facial plane of said nib and extending to the end thereof, and a small oil outlet passage at the end of said nib, said nib being formed of resilient metal whereby lateral pressure thereon is transmitted to said channel during operation thereof to expel oil through said oil outlet.

2. An oiling tool comprising a substantially airtight casing constituting an oil reservoir, an oil applying nib in communication with said reservoir, said nib having two thin contacting side walls merging into edges which converge from a relative wide base toward the point thereof, a medial oil channel lying above the facial plane of said nib and extending to the end thereof, and an oil outlet passage at the end of said nib remote from said reservoir, said nib being formed of resilient metal whereby lateral pressure thereon is transmitted to said channel during operation thereof to expel oil through said oil outlet.

3. An oiling tool comprising a substantially airtight casing constituting an oil reservoir, an oil applying nib in communication with said reservoir, said nib having two thin contacting side walls merging into edges which converge from a relative wide base toward the point thereof, an oil channel formed centrally between said side walls by spacing one of said walls outwardly beyond the facial plane of said nib, and a lateral oil discharge passage formed in one of said walls in communication with said channel, said nib being formed of resilient metal whereby lateral pressure thereon is transmitted to said channel during operation thereof to expel oil through said oil discharge passage.

4. An oiling tool comprising a cylindrical casing constituting an oil reservoir, an oil applying nib in threaded engagement with said reservoir, said nib having two thin contacting side walls merging into edges which converge from a relatively wide base toward the tip thereof, an oil channel formed centrally between said side walls by spacing one of said walls outwardly, an oil outlet between said side walls at the tip of said nib, and a lateral oil discharge passage formed in one of said side walls in communication with said channel, said nib being formed of resilient metal whereby lateral pressure thereon is transmitted to said channel during operation thereof to expel oil through said outlet and passage.

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