Apr. 3, 1923. 1,450,884

J. ESZTO

LUBRICATING DEVICE FOR SAWS

Filed Apr. 22, 1920

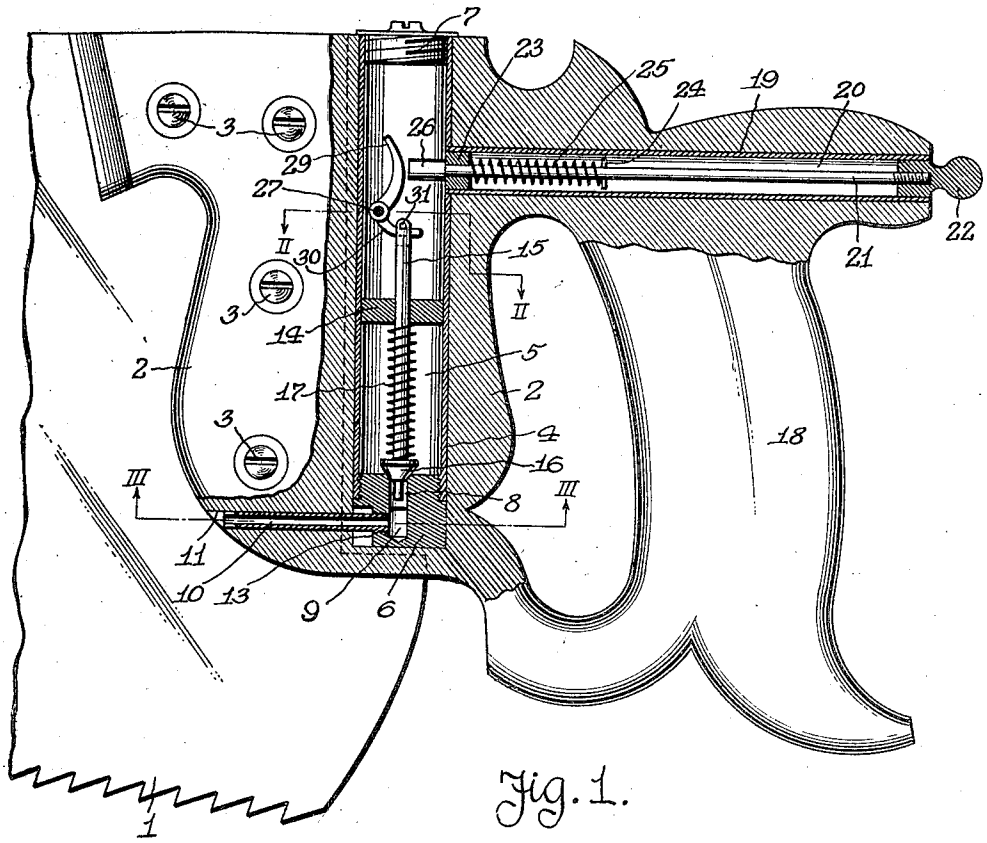


Fig. 1.

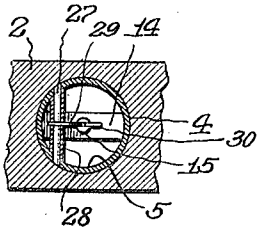


Fig. 2.

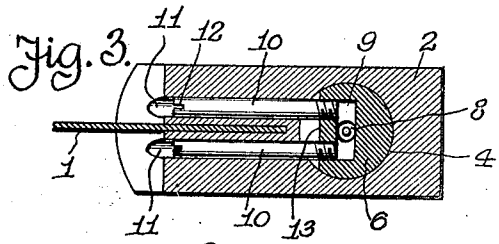


Fig. 3.

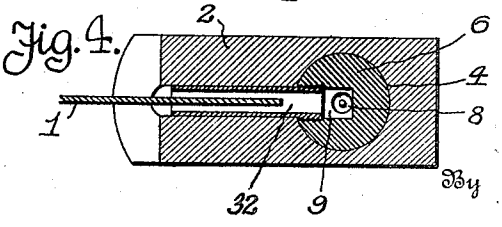


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOSEPH ESZTO, OF HALFWAY, MICHIGAN.

LUBRICATING DEVICE FOR SAWS.

Application filed April 22, 1920. Serial No. 375,725.

To all whom it may concern:

Be it known that I, JOSEPH ESZTO, a citizen of Hungary, residing at Halfway, in the county of Macomb and State of Michigan, have invented certain new and useful Improvements in Lubricating Devices for Saws, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a lubricating device for saws, and the primary object of my invention is to furnish a hand saw with simple and effective means for distributing a lubricant, as a light oil at the side walls of the saw blade, the lubricant being primarily used to prevent rust of the saw blade and when a light oil is used it will insure easy movement of the blade within a kerf.

Another object of this invention is to provide the hand piece or grip of a saw blade with a lubricant reservoir for distributing a lubricant to both sides of a saw blade, and valvular means is associated with the reservoir for controlling the supply of lubricant to the blade of the saw. Neither the reservoir or the valvular means interfere in the least with the usual construction of the hand piece or its use.

A further object of my invention is to accomplish the above result by a simple, durable and inexpensive construction that will be hereinafter specifically described and then claimed, and reference will now be had to the drawing, wherein—

Figure 1 is a side elevation of the hand piece of a saw blade, partly broken away and partly in section, showing the lubricating device embodied therein;

Fig. 2 is a horizontal sectional view taken on the line II—II of Fig. 1;

Fig. 3 is a similar view taken on the line III—III of Fig. 1, and

Fig. 4 is a similar view illustrating a single oil distributing tube.

In the drawing, the reference numeral 1 denotes a portion of a saw blade having a hand piece 2 connected to the saw blade in the usual manner, as generally indicated at 3. The hand piece 2 is provided with a vertical bore 4 open at the upper edge of said hand piece and in said bore is mounted a cylinder 5 having a base piece 6 mounted in the inner end of the cylinder and a cap or plug 7 mounted in the outer end of the cylinder, said cap or plug permitting of a light oil or other lubricant being placed within the cylinder 5.

The base piece 6 has a vertical port 8 and lateral communicating ports 9, said lateral ports communicating with the inner ends of tubes 10 mounted in openings 11 provided therefor in the hand piece 2. The outer ends of the openings 11 terminate in proximity to the sides of a saw blade 1, as best shown in Fig. 3, so that oil emitted by the tubes 10 may flow on to the sides of the saw blade 1. The outer ends of the tubes 10 are slotted, as at 12, so that the inner ends of said tubes may be conveniently screwed into the base piece 6 to communicate with the ports 9 thereof. The inner threaded ends of the tubes 10 enter a facet 13 of the base piece 6, and this facet permits of the base piece being easily screwed into the inner end of the cylinder 5 prior to placing said cylinder in the bore 4.

In the cylinder 5, intermediate the ends thereof, is a spider 14 serving as a guide for a reciprocable valve rod 15 which has a valve 16 on its inner end normally seated against the end of the port 8 of the base piece 6 by the expansive force of a coiled spring 17 encircling the valve rod 15, between the spider 14 and the valve 16.

The hand piece 2, above the handle 18 thereof, has a bore 19 for a cylinder 20 and slidable in said cylinder is a plunger 21 having its outer end provided with a hand piece or finger grip 22 which supports the outer end of the plunger within the cylinder 20. The inner end of the plunger is slidable in a guide or spider 23 mounted in the inner end of the cylinder which extends into an opening in the wall of the cylinder 5. Encircling the plunger 21, between the spider 23 and the transverse pin 24 of said plunger is a coiled expansion spring 25 and the expansive force of this spring against the pin 24 holds the plunger 21 normally retracted so that it will protrude from the outer end of the cylinder 20 and permit of the fingers easily pushing it inwardly. The outward movement of the plunger under the influence of the spring 25 is limited by a head 26 on the inner end of said plunger engaging the spider 23.

Between the spider 14 and the plunger head 26, which extends into the cylinder 5, said cylinder has a transverse pin 27 supporting a bell crank 28 which has its long arm 29 in the path of a plunger head 26

and its short arm extends into the upper bifurcated end of the valve rod 15 and under a pin 31 transversely of the bifurcation of said valve rod.

Assuming that the cylinder 5 contains a suitable lubricant, the plunger 21 may be pushed inwardly to actuate the bell crank 28 and raise the valve rod 15, so that the valve 16 will permit the lubricant to flow through the ports 8 and 9, into the tubes 10 and out of the openings 11 on to the side walls of the saw blade 1, where the lubricant may be distributed to prevent rust and insure an easy reciprocable movement of the saw blade in a kerf.

In lieu of the tubes 10 at each side of the blade 1, I may use a single large tube 32 and slot or bifurcate it to provide clearance for the saw blade 1, as shown in Fig. 4, thereby permitting the single tube 32 to distribute lubricant at both sides of the saw blade.

It is thought that the operation and utility of my lubricating device will be apparent without further description, and while in the drawings there are illustrated the preferred embodiments of my invention, it is to be understood that the structural elements are susceptible to such changes, in size, shape and manner of assemblage, as fall within the scope of the appended claim.

What I claim is:—

In a saw lubricator, the combination with a saw blade having a handle, of a tubular reservoir in said handle, disposed to have its outer end open at the upper edge of the saw handle and its inner end communicate with side walls of said saw blade, a cap normally closing the outer end of said reservoir, a ported base piece at the inner end of said reservoir, a spider intermediate the ends of said reservoir, a spring pressed valve slidable in said spider and normally closing said ported base piece, a bell crank pivoted in said reservoir above said spider and adapted for opening said valve, and a spring retracted plunger in said saw handle extending into said reservoir and adapted for actuating said bell crank, said plunger being operatable by thumb pressure at the end of the saw handle.

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

JOSEPH ESZTO.

Witnesses:
KARL H. BUTLER,
ANNA M. DORR.