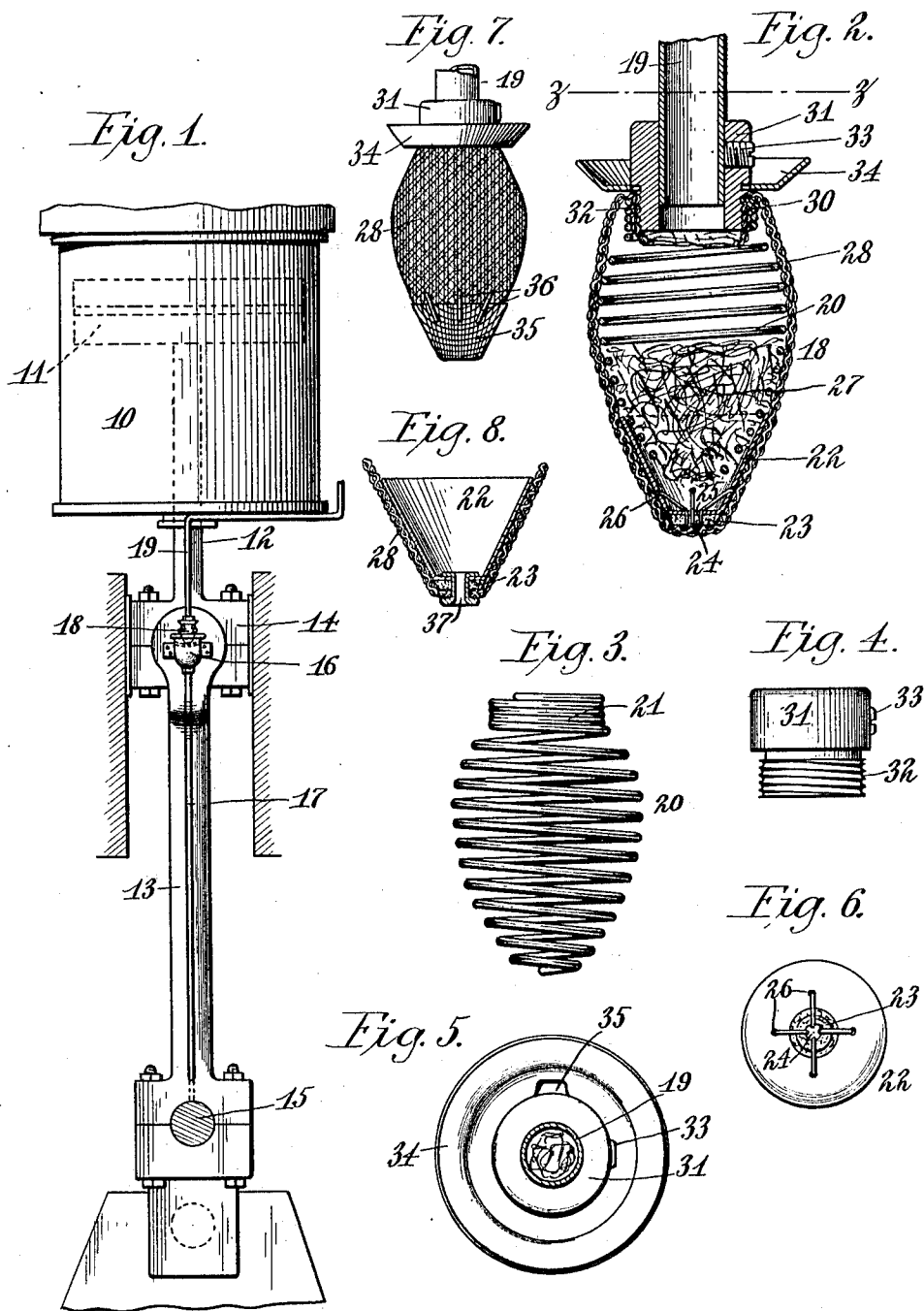


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OIL DRIP.
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OIL-DRIP.

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To all whom it may concern:

Be it known that I, PETER A. CURTIN, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Oil-Drips, of which the following is a specification.

My invention relates to oil drips, and more particularly to drips such as are used for oiling movable machinery parts.

The primary object of my invention is the provision of an oil drip which will positively check the flow of oil from a lubricator and cause the oil to pass off drip by drip.

A further object of my invention is the provision of a collapsible open-work frame against which the oil cup of a moving part may strike and whereby the oil is transferred from the drip to said cup without waste, the drip being collapsible by the oil cup coming in contact with its end and when said oil cup moves away from the drip, the latter expands or returns to normal position.

Other objects of my invention are the provision of a frame adapted to receive a cover or sack of wool or other suitable material; the provision of means to prevent wear of said cover or sack as the oil cup comes in contact therewith; and to otherwise improve on oil drips of this type now in use.

To these ends the invention consists in a collapsible frame or foundation having a cover or sack of woolen or other suitable material placed thereover.

It also consists in the provision of means within the collapsible frame or foundation to check or retard the flow of oil through the woolen sack or cover; and in the construction, arrangement and combination of parts will be hereinafter described, and particularly pointed out in the subjoined claims.

In the drawings,—Figure 1 is a sectional elevation of a portion of an engine, the same being equipped with my improved oil drip. Fig. 2 is a central vertical section of my improved oil drip. Fig. 3 is a detached side elevation of the open work collapsible frame or foundation of the oil drip. Fig. 4 is a detached side elevation of the bushing at the upper end of the oil drip. Fig. 5 is a horizontal section taken on line *z-z* Fig. 2. Fig. 6 is an inverted view of the protector provided to prevent unnecessary wear of the woolen sack or cover. Fig. 7 is a side elevation of a drip having a modified form of

protector thereon. Fig. 8 is a central vertical section through the lower end of the drip showing another modified form of protector.

Referring now to the drawings in detail, like numerals of reference refer to like parts in the several figures.

The reference numeral 10 designates a cylinder having therein a piston 11 provided with a piston rod 12 extending through the lower end of the cylinder, said piston rod having connection with a connecting rod 13 by means of slide head 14, and said connecting rod being actuated by a crank shaft 15. The crank shaft is oiled by means of an oil cup 16 having an oil pipe 17 extending therefrom to said shaft, and 18 designates my improved oil drip held in operative position by means of an oil feed pipe 19 which delivers the oil to feed said cup from any suitable source of supply.

The oil drip comprises an open-work collapsible frame or foundation 20, which in the preferred construction is made of spring-wire coiled, as best shown in Fig. 3; the wire at the upper end being in close contact, as at 21, for a purpose to appear hereinafter. I preferably provide a frusto-conical shaped thimble 22 which is placed over the lower end of the collapsible frame and secured to the end of said thimble is a felt or other cushion 23; said cushion being preferably fastened by means of strong thread or fine wire which is passed through a central opening 24 in said cushion and a central opening 25 in the end of said thimble and also through openings 26 formed in the tapering sides of said thimble.

Within the collapsible frame, hair 27 or other suitable oil retarding matter is placed. Fitting over the thimble with its cushion and the collapsible frame is a woolen or other sack or cover 28, the sack or cover being sewed or knitted to conform somewhat to the shape of the collapsible frame and being open only at the top, the material at the upper end of said sack being turned into the upper end of the collapsible frame, as at 30, Fig. 2. The closely coiled upper end of the frame forms a sleeve for the reception of a bushing 31 having its lower end reduced in diameter and threaded, as at 32, so that it may be threaded into the thimble portion of the frame, the closely coiled wire at the upper end of the frame serving to form a female thread into which the threaded end of the bushing is screwed.

The bushing is secured to the oil feed pipe 19 by means of a screw 33, as best shown in Fig. 2.

Fitted onto the bushing 31 is a dished annulus 34 which is adapted to receive oil and feed the same onto the woolen sack or cover through an opening 35 formed in said annulus. Said opening also permits the removal of the annulus from the bushing by turning the annulus to bring the opening therein in line with the projecting end of the screw, 33, which screw otherwise serves to prevent the annulus from becoming displaced. It is to be understood that oil is only placed into the dished annulus when the drip fails to deliver the necessary quantity to the machine part which it feeds. In many instances, if the flow of oil through the feed pipe 19 is properly regulated, the annulus may be dispensed with.

The oil cup 16 strikes the lower end of the drip so that a quantity of oil is transferred from the drip to the oil cup, the drip being so arranged relative to the oil cup that when the latter engages it, the open-work frame or foundation of the same is collapsed, thus causing the oil to ooze through the open-work frame and thoroughly saturate the sack or cover.

By reason of the felt cushion being interposed between the lower end of the thimble 22 and the sack or cover, the latter is protected from wear when coming in contact with the oil cup. The oil within the drip can also pass through the openings 24 and 25 in the cushion and thimble, respectively, so as to reach the lower extremity of the sack or cover and drip therefrom.

In some cases it may be desirable to have the oil cup so positioned that in its movements it would not come in contact with the drip, and in such cases, the feed of the oil is regulated to flow through the pipe 19 in such quantities that it will drip from the end of the sack or cover and enter the cup drip by drip. It is clear, therefore, that whether or not the oil cup comes in contact with the drip, it cannot be transferred to the cup in a stream or body. By making the sack or cover of heavy wool or other similar absorbent material oil can be squirted on the drip and will be absorbed by the sack or cover, and it also absorbs sprayed oil that is found around a running engine. The conical shaped thimble serves to retain the collapsible frame straight or central and it also serves as a foundation for the cushion. The means of securing the sack to the collapsible frame and both to the bushing allows the easy removal of the sack so that it can be replaced with another when worn.

In Fig. 7 the cushion 23 is dispensed with, and in this case a conical thimble 35 of wire netting is placed over the end of the

sack or cover, said thimble being secured to the sack or cover by threads 36. When thus used, the oil cup strikes the thimble 35 and therefore protects the sack or cover from wear.

In Fig. 8 is shown a conical thimble and cushion similar to those shown in Figs. 2 and 6, but as a means for securing the cushion to the thimble and the sack or cover to both, I employ an eyelet 37 which is passed through the end of the cushion and the sack or covering.

It is apparent from the foregoing that changes in arrangement and construction of parts may be made without departing from my invention or sacrificing any of the advantages thereof.

Having thus described my invention, what I claim is:

1. An oil drip comprising a feed pipe, a frame of coiled wire secured to said feed pipe, and a cover of absorbent material on said frame.

2. An oil drip comprising a feed pipe, a collapsible frame secured to said feed pipe, and a cover of absorbent material surrounding said frame.

3. An oil drip comprising a feed pipe, an open-work collapsible frame secured to said feed pipe, compressible oil retarding material in said frame, and a cover of absorbent material on said frame.

4. An oil drip comprising a feed pipe, a collapsible frame formed of coiled wire, oil retarding material within said frame, and an absorbent material at the lower end of said frame.

5. An oil drip comprising a feed pipe, a collapsible frame formed of coiled wire having its convolutions spaced apart except at the upper end of the frame, said convolutions being in contact at said upper end to serve as a female screw thread, a bushing screwed into the upper end of said frame and having said feed pipe secured thereto, and absorbent material at the lower end of said frame.

6. An oil drip comprising a feed pipe, an open-work collapsible frame, a bushing secured to said feed pipe and entered into the upper end of said frame, and a cover of absorbent material over said frame having its upper end held between said bushing and the upper end of said frame.

7. An oil drip comprising a feed pipe, an openwork frame, a cover of absorbent material placed on said frame, and an auxiliary receptacle positioned above said frame and outside of said feed pipe.

8. An oil drip comprising a feed pipe, an open-work frame, a cover of absorbent material on said frame, a bushing secured to said feed pipe and entered into said frame to clamp the open end of said cover between the two, and a dished annulus surrounding

said bushing and adapted to feed an extra supply of oil to said cover.

9. An oil drip comprising a feed pipe, an open-work frame carried by said feed pipe, 5 a cover of absorbent material at the lower end of said frame, and means for protecting said cover against wear.

10. An oil drip comprising a feed pipe, an open-work collapsible frame secured to 10 said feed pipe, a conical thimble placed over the end of said frame, a cushion at the lower end of said thimble, and a cover of absorbent material placed over said cushion, thimble and frame.

11. An oil drip comprising a feed pipe, a collapsible conical open-work frame, a frusto-conical thimble fitting onto the lower end of said frame and having a central opening in its lower flat end and a series of openings 15 in its tapering side, a cushion placed against the said end of said thimble and having a central opening, threads passed through the central openings of said thimble and cushion

and through the openings in the side of said thimble for securing said cushion to the 25 thimble, and a cover of absorbent material fitted over said frame with its thimble and cushion.

12. An oil drip comprising a feed pipe, an open-work frame secured to said feed pipe, 30 a cover or sack of absorbent material fitted onto said frame, and a dished annulus surrounding said feed pipe above said frame and having an opening through which oil is fed to said cover or sack.

13. An oil drip comprising a feed-pipe, a frame of coiled wire secured to said feed-pipe at its upper end and absorbent material 35 at the lower end of said frame.

In testimony whereof, I have signed my 40 name in the presence of two subscribing witnesses.

PETER A. CURTIN.

Witnesses:

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EMIL NEUHART.