May 1, 1956 R. W. JONES, SR 2,743,845

TWISTER RING OILER

Filed July 20, 1953

FIG 1

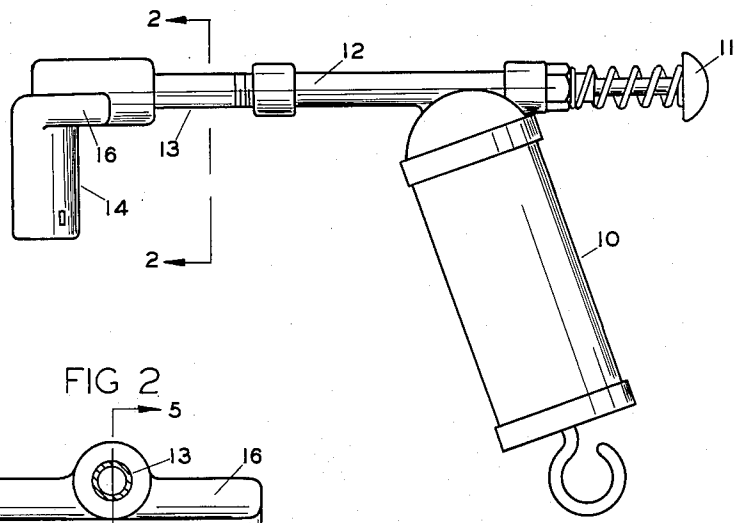


FIG 2

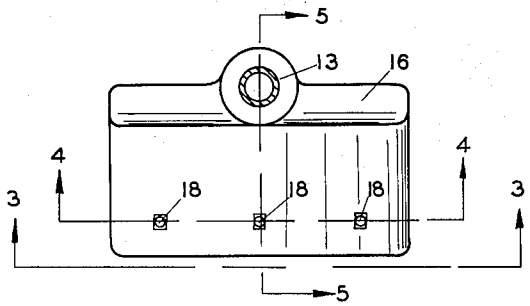


FIG 3

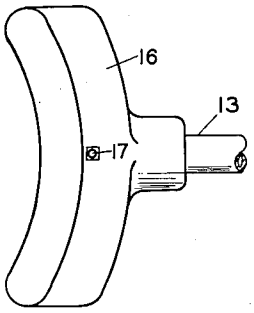


FIG 4

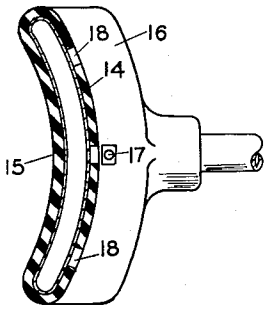
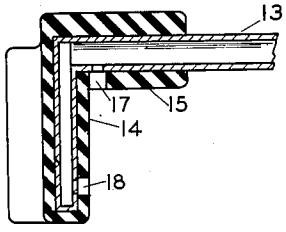


FIG 5



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2,743,845

Patented May 1, 1956

2,743,845

TWISTER RING OILER

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Application July 20, 1953, Serial No. 368,881

4 Claims. (Cl. 222—117)

This invention relates to oiling and greasing devices, and more particularly to a twister ring oiler which finds particular use for oiling or greasing the spinning or twister rings found in textile mills.

The spinning and twister rings in textile mills are provided with travelers which fly around the rings at tremendous speeds. In order to prevent undue wear, the rings must be frequently oiled, but great care must be taken to apply just the proper amount of oil or grease at the proper place so that the oil will not get onto the yarn being handled by the equipment.

The need has long existed for an oiling device for twister rings which will serve the long felt need of applying grease at just the right spots in the proper needed quantity; however, no prior art device has been entirely satisfactory.

It is an object of my invention to provide a twister ring oiler which will apply oil or grease to both the inner periphery and the top surface of a twister ring simultaneously.

Another object of my invention is to provide a twister ring oiler which will apply a lubricant to a twister ring at the proper places and simultaneously provide its own shield to prevent the lubricant from touching the yarn being handled.

Another object of my invention is to provide a twister ring oiler which is simple in design, rugged in construction, inexpensive to manufacture and efficient in operation.

Other and further objects and advantages of my invention will become apparent from the following description taken in conjunction with the accompanying drawing in which like characters of reference designate corresponding parts throughout the several views, and wherein:

Fig. 1 is a side view of an oiler embodying my invention.

Fig. 2 is a cross-sectional view taken along the line 2—2 in Fig. 1.

Fig. 3 is a bottom plan view of a detail taken along the line 3—3 in Fig. 2.

Fig. 4 is a cross-sectional view taken along the line 4—4 in Fig. 2.

Fig. 5 is a cross-sectional view taken along the line 5—5 in Fig. 2.

In the embodiment chosen for purpose of illustration, I have shown my twister ring oiler in association with a pressure-type grease gun of ordinary construction, the gun having a cylindrical supply chamber **10** which may conveniently be held in one hand, and being provided with a spring returned plunger **11** by means of which grease is customarily forced from the gun through the barrel **12**. Fig. 1 shows my oiler attached to the gun barrel **12** by means of the threaded inlet pipe **13**. The inlet pipe **13** is affixed to an arcuate head **14** which is hollow for the reception of a lubricant, as shown in Figs. 4 and 5. This hollow head is formed of metal or other rigid material which is suitable for retaining the arcuate shape in which it is set to conform to the size of the ring to be oiled. It will be observed that the head **14** is convex on the side adjacent the inlet pipe **13**, and is concave on

the side outwardly away from the inlet pipe **13**. Also, it will be noted that the depending arcuate head **14** is set at an angle of approximately 90° to the inlet pipe **13** from which it depends.

A sponge rubber cover **15** is provided for my oiler, and this rubber cover completely encases the head **14** and the end of the inlet pipe connected thereto, as well as covering a horizontal flange **16** which passes beneath the inlet pipe **13** and extends to the extremities of the arcuate head **14**. The purpose of this horizontal flange is twofold. First, it serves to distribute the lubricant applied to the top of the twister ring; and, secondly, it serves to provide a stop gauge for the device in use, as the device is placed inside a twister ring for oiling the interior thereof. The inlet pipe **13** is provided with a discharge opening **17** which extends through the sponge rubber covering **16** and has its opening in a horizontal plane parallel with the bottom of flange **16**. The head **14** is provided with a plurality of openings **18** which extend through the convex wall of the head and outwardly through the sponge rubber covering, as best seen in Figs. 2, 4 and 5. It will be observed that the lubricant discharge opening **17** discharges grease beneath the flange **16** near the top of my device, whereas the discharge openings **18** are provided near the bottom of my oiler for the discharge of lubricant well down inside the twister ring, sufficient surface being provided on the sponge rubber covering **15** for evenly distributing the lubricant as my oiler is swung around inside the twister ring.

In operation, it will be obvious that when my device is placed inside a twister ring, pressure may be applied to the plunger **11** to eject lubricant from the opening **17** to be spread beneath the flange **16**, and simultaneously therewith lubricant will be ejected from the lower openings **18** on the convex face of my oiler for an even distribution of the lubricant about the inner surface of the twister ring.

It will be obvious to those skilled in the art that many modifications, changes and adaptations can be made in the single embodiment chosen for purpose of illustration without departing from the scope of my invention as defined in the following claims.

I claim:

1. In a twister ring oiler, an arcuate head, said head being hollow for reception of a lubricant, an inlet pipe connected to the top of said head and communicating with the hollow interior for the introduction of a lubricant into said head, said head being formed of shape retaining material and being convex on the side adjacent said inlet pipe and concave on the side outwardly away from said inlet pipe, a flange on top of said head extending beneath said inlet pipe, and a lubricant spreading cover fastened about said head and said flange, said oiler being provided with a lubricant discharge opening for discharging lubricant on the convex side of said head and also a lubricant discharge opening for discharging lubricant beneath said flange.

2. In a twister ring oiler, an arcuate head, said head being hollow for reception of a lubricant, an inlet pipe connected to the top of said head and communicating with the hollow interior for the introduction of a lubricant into said head, said head being formed of shape-retaining material and being convex on the side adjacent said inlet pipe and concave on the side outwardly away from said inlet pipe, a flange on top of said head extending beneath said inlet pipe, said oiler being provided with a lubricant discharge opening for discharging lubricant on the convex side of said head and also a lubricant discharge opening for discharging lubricant beneath said flange, and a covering surrounding said head and said flange for spreading lubricant, said covering being

provided with lubricant discharge openings respectively in registry with said discharge openings in said oiler.

3. In a twister ring oiler, an arcuate head, said head being hollow for reception of a lubricant, inlet means connected to the top of said head and communicating with the hollow interior for the introduction of a lubricant into said head, said head being formed of shape-retaining material and being convex on the side adjacent said inlet means and concave on the side outwardly away from said inlet means, a flange on top of said head beneath said inlet means, said oiler being provided with a lubricant discharge opening for discharging lubricant on the convex side of said head and a lubricant discharge opening for discharging lubricant beneath said flange, and a sponge rubber covering surrounding said head and said flange, said covering being provided with lubricant discharge openings respectively in registry with said discharge openings in said oiler.

4. In a twister ring oiler, an arcuate head, said head being hollow for reception of a lubricant, an inlet pipe connected to the top of said head and communicating with the hollow interior for the introduction of a lubricant into said head, said head being formed of shape-retaining material and being convex on the side adjacent said inlet pipe and concave on the side outwardly away from said inlet pipe, a flange on top of said head extending beneath said inlet pipe, said head being provided with a lubricant discharge opening for discharging lubricant on the convex side thereof, said inlet pipe being provided with a lubricant discharge opening on the bottom thereof for discharging lubricant beneath said flange, and a sponge rubber covering surrounding said head and said flange, said covering being provided with lubricant discharge openings respectively in registry with the discharge opening in said head and the discharge opening in said inlet pipe.

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