Feb. 10, 1948. H. E. HERR 2,435,939

SELF-LUBRICATING SPINNING RING

Filed Dec. 13, 1945

Fig. 1.

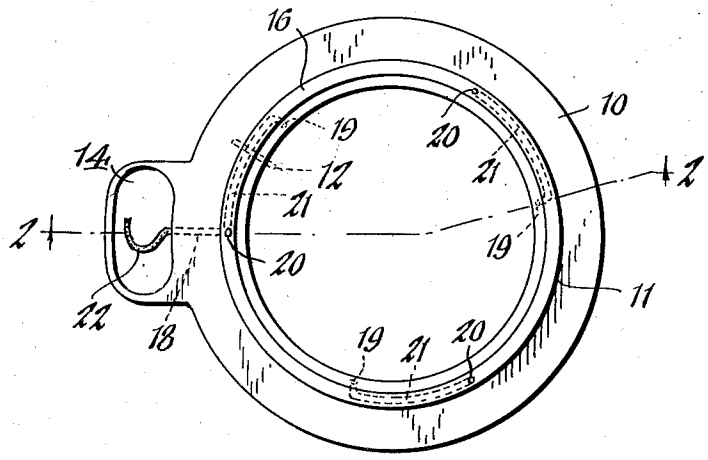


Fig. 2.

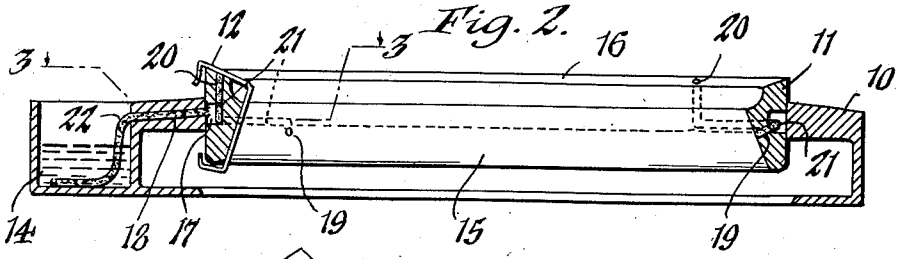


Fig. 3

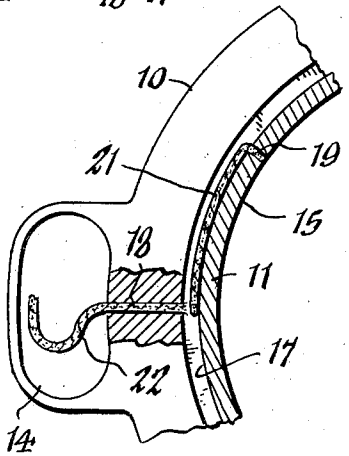
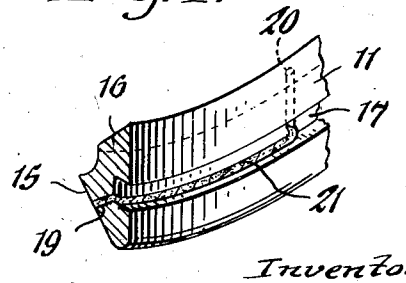


Fig. 4.



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SELF-LUBRICATING SPINNING RING

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2 Claims. (Cl. 57—120)

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This invention relates to certain new and useful improvements in spinning rings for travelers, but more particularly to novel means for rendering such rings self-lubricating.

It has for one of its objects to provide a simple and efficient means for spot-lubricating a plurality of the traveler-engaging faces of the ring from a common source and wherein the lubrication of such faces not only insures a smooth-running of the traveler but effects the lubrication in a clean manner and without danger of soiling the threads being twisted.

Another object of the invention is to provide a spinning ring lubricating means which employs a novel wick arrangement for conducting the lubricant to the bearing faces of the ring and wherein such wicks are so disposed as to prevent their carbonizing.

Other features of the invention reside in the construction and arrangement of parts hereinafter described and particularly pointed out in the appended claims.

In the accompanying drawings:

Figure 1 is a top plan view of a spinning ring and traveler equipped with my improved lubricating means. Figure 2 is an enlarged cross section thereof taken on line 2—2, Figure 1. Figure 3 is a fragmentary horizontal section, taken on line 3—3, Figure 2. Figure 4 is a perspective view of a portion of the ring and the lubricant features thereof.

Similar characters of reference indicate corresponding parts throughout the several views.

Referring now to the drawings, showing my invention in association with a well known form of ring and traveler construction, 10 indicates the holder which is adapted to be mounted on the traverse bar of the spinning machine, and 11 indicates the spinning ring applied to the holder and upon which the traveler 12 revolves. The holder may be ring-like in form with its opening adapted to receive the spinning ring in a snug or pressed fit, in the manner shown in Figure 2. Formed integrally with the holder at one side thereof is a lubricant-receiving well 14. In the example of the ring shown in the drawings, it has an inner bearing face 15 and a top bearing face 16, and it is the purpose of my invention to effectually lubricate both these faces in a clean and efficient manner.

For the purpose of effectually lubricating the bearing faces of the ring, the outer wall or periphery thereof, contained and enclosed within the holder, is preferably provided with an annular lubricant-receiving groove or channel 17 which,

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jointly with the surrounding portion of the holder forms a lubricant feed chamber. This chamber communicates with the lubricant-receiving well 14 through a transverse duct 18 formed in such holder. Leading from the lubricant-receiving groove or chamber 17 and opening onto the companion traveler-engaging faces 15 and 16 are a plurality of ports 19 and 20, respectively. These ports vary in number depending upon the size of the ring, and the ports 19 lead downwardly or inwardly from the groove 17 to the ring-face 15, while the ports 20 lead upwardly from this groove to the ring-face 16 and are disposed in a radially different plane from the companion ports 19. Each pair of ports 19, 20 is adapted to be fed with the lubricant from a common wick 21 whose intermediate portion is seated in the lubricant-receiving groove 17, while its opposite or free ends extend into the companion ports 19, 20 of a pair, thereby providing spot-lubricating points about the bearing faces of the ring. By way of example, three sets of ports and three separate wicks have been shown in the drawings, but more or less may be employed to meet the lubricating requirements of the ring.

By this construction, each wick serves to lubricate two adjoining bearing points in different planes about the ring and it will be further noted that only a small portion of the wick, namely, the end thereof, is exposed to the traveler, thereby preventing carbonizing of the wick. For the purpose of feeding the lubricant from the well 14 to the lubricant-receiving groove 17, a wick 22 may be provided which extends through the duct 18.

I claim as my invention:

1. A spinning ring, comprising a body having an annular groove in the outer face thereof constituting a lubricant-receiving chamber and having a plurality of pairs of ports leading therefrom to the traveler-engaging bearing portions of the ring, the ports of a pair being disposed in different planes, and a wick common to each pair of ports having its intermediate portion seated in said groove and its ends extending into the companion ports of a pair.

2. A device of the character described, comprising a ring-like holder having a lubricant-receiving well applied thereto and a duct leading therefrom to the inner periphery of the holder-opening, a spinning ring fitted in said holder-opening and having a lubricant-conducting chamber formed therein in contiguous enclosed relation to said holder and in communicating relation with said duct, said ring having a plu-

rality of traveler-engaging bearing faces thereon disposed in different planes and pairs of ports leading from said chamber to such faces, and a wick common to each pair of ports having its intermediate portion seated in said chamber and its ends extending into the companion ports of a pair.

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