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M. G. BALES

2,485,998

LUBRICATOR

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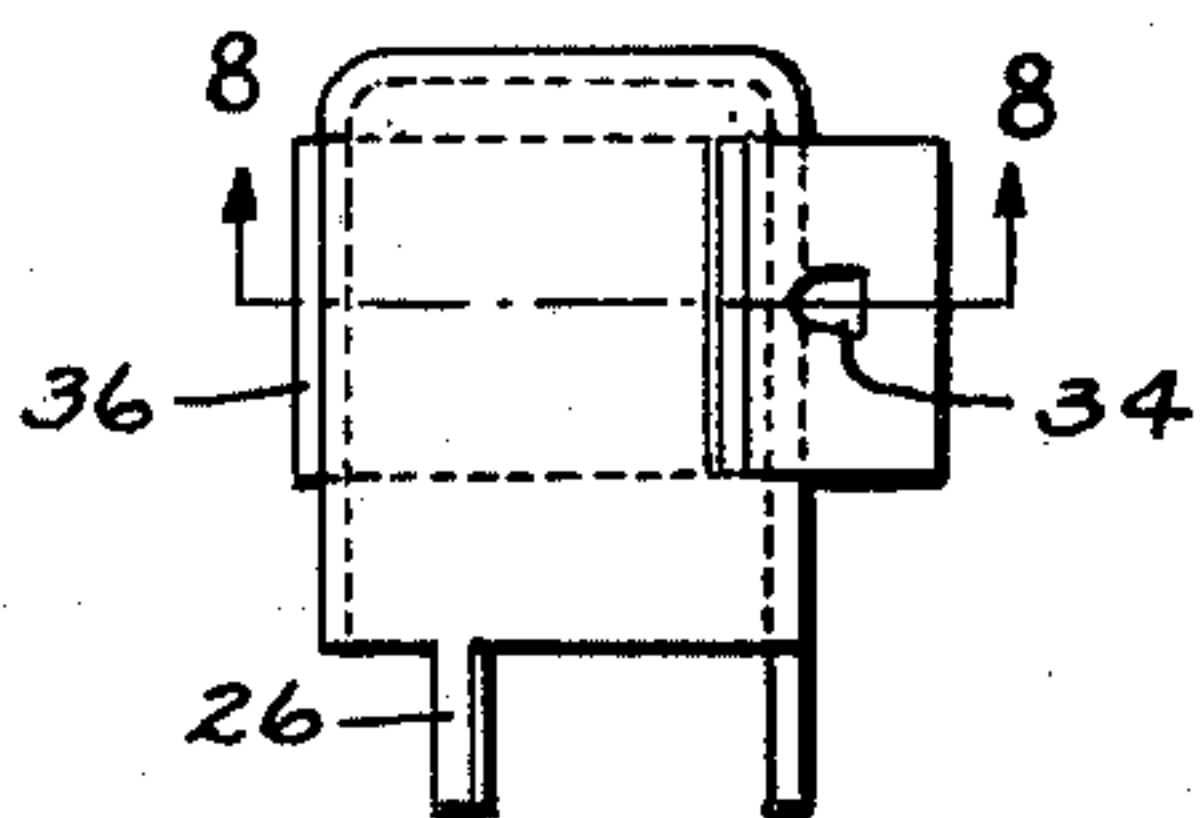


Fig. 1

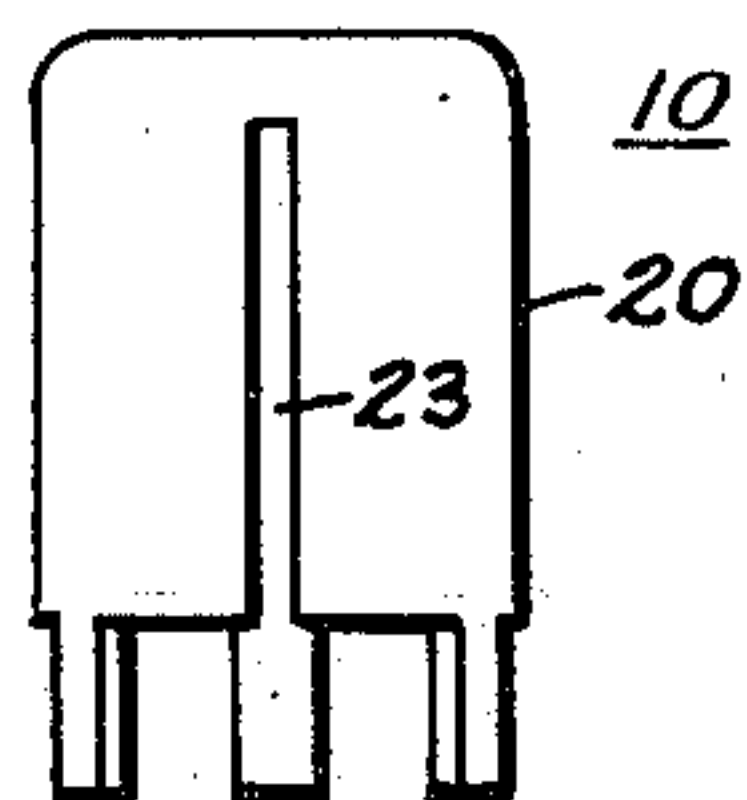


Fig. 4

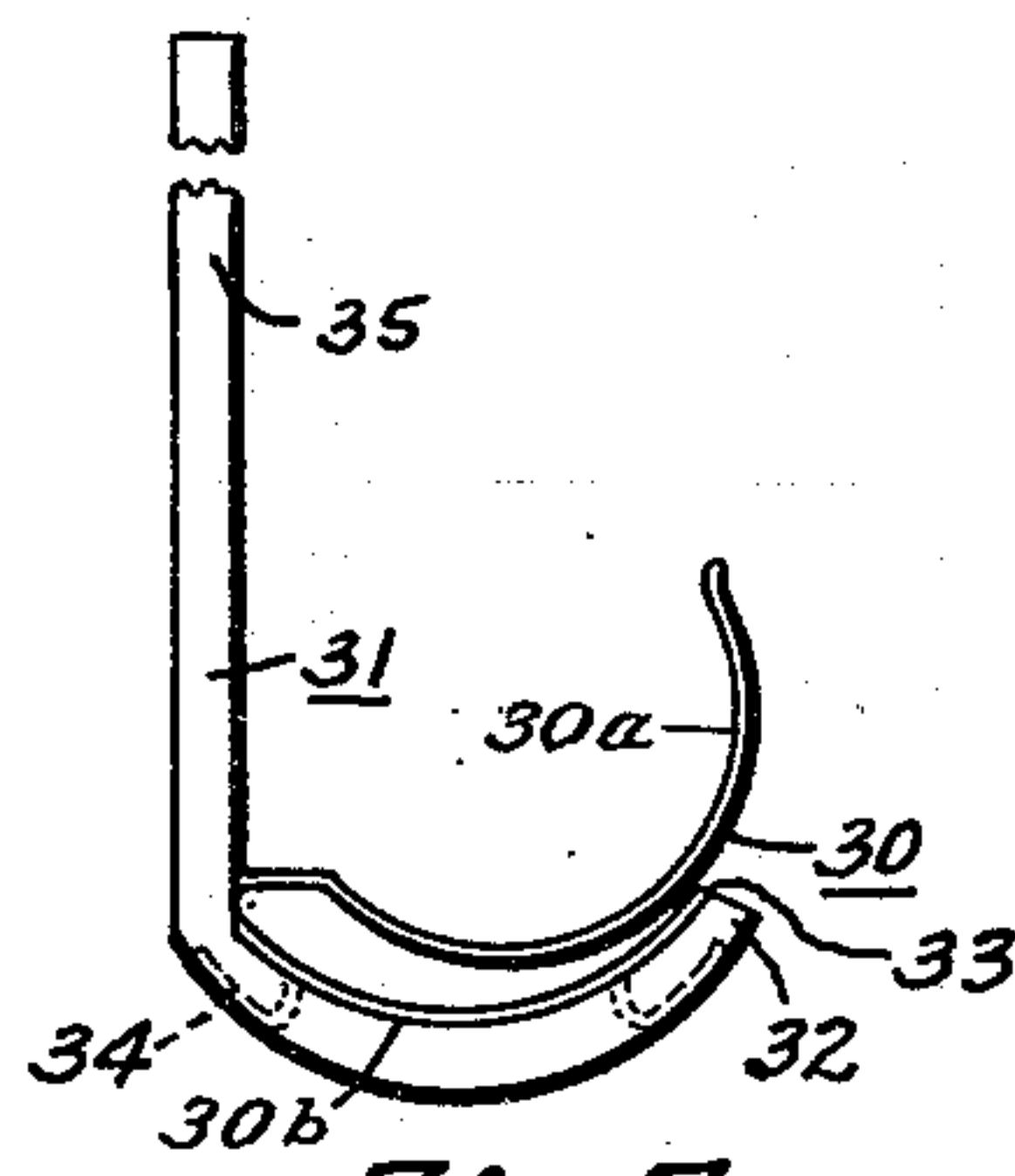


Fig. 7

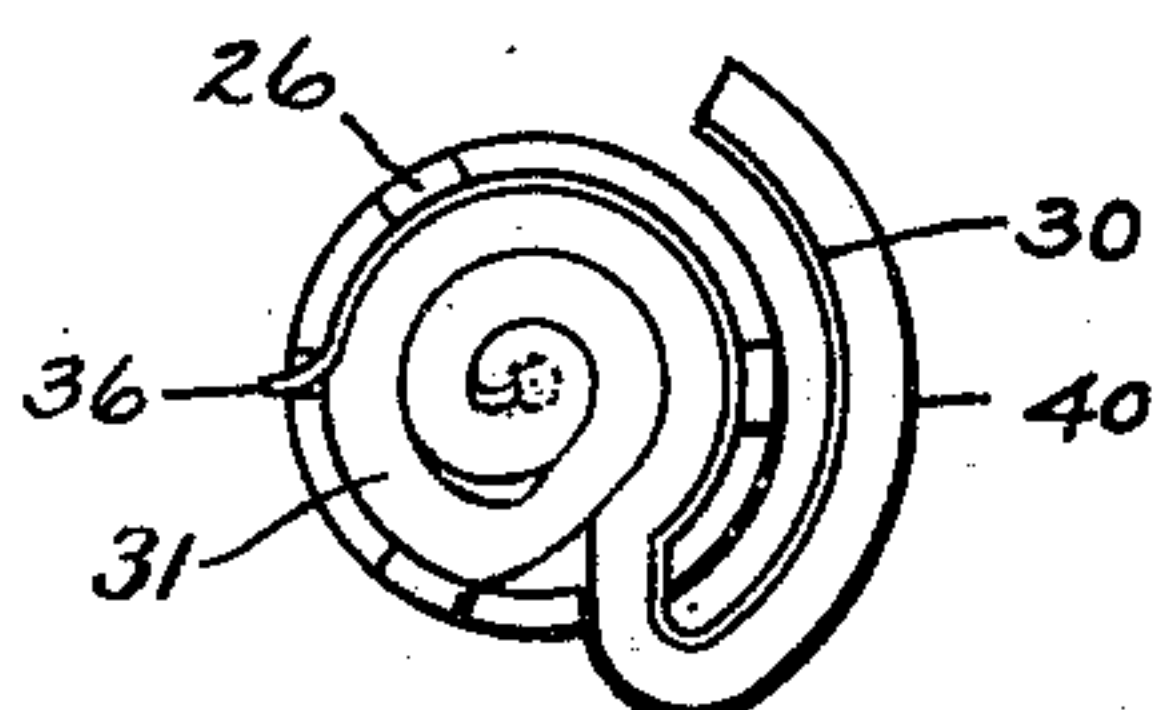


Fig. 2

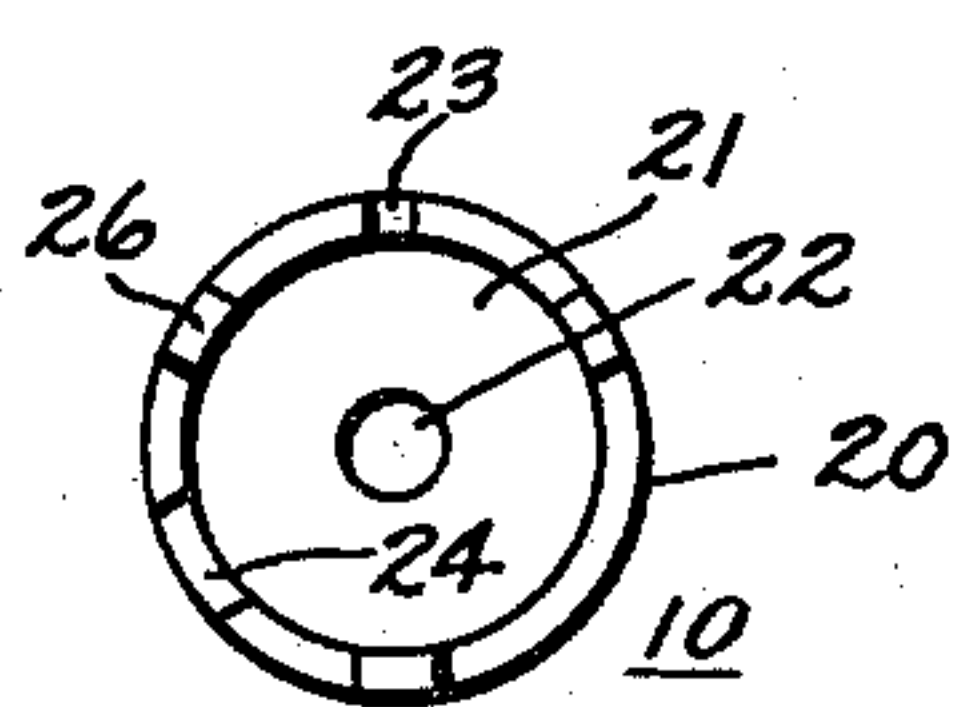


Fig. 3

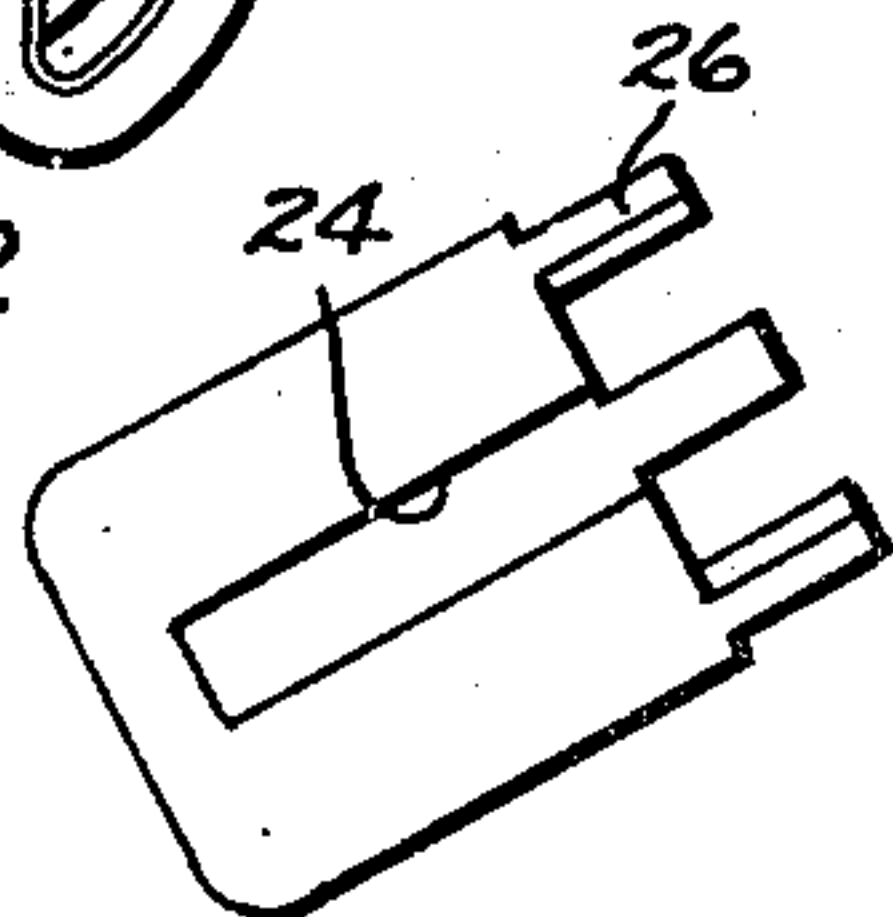


Fig. 5

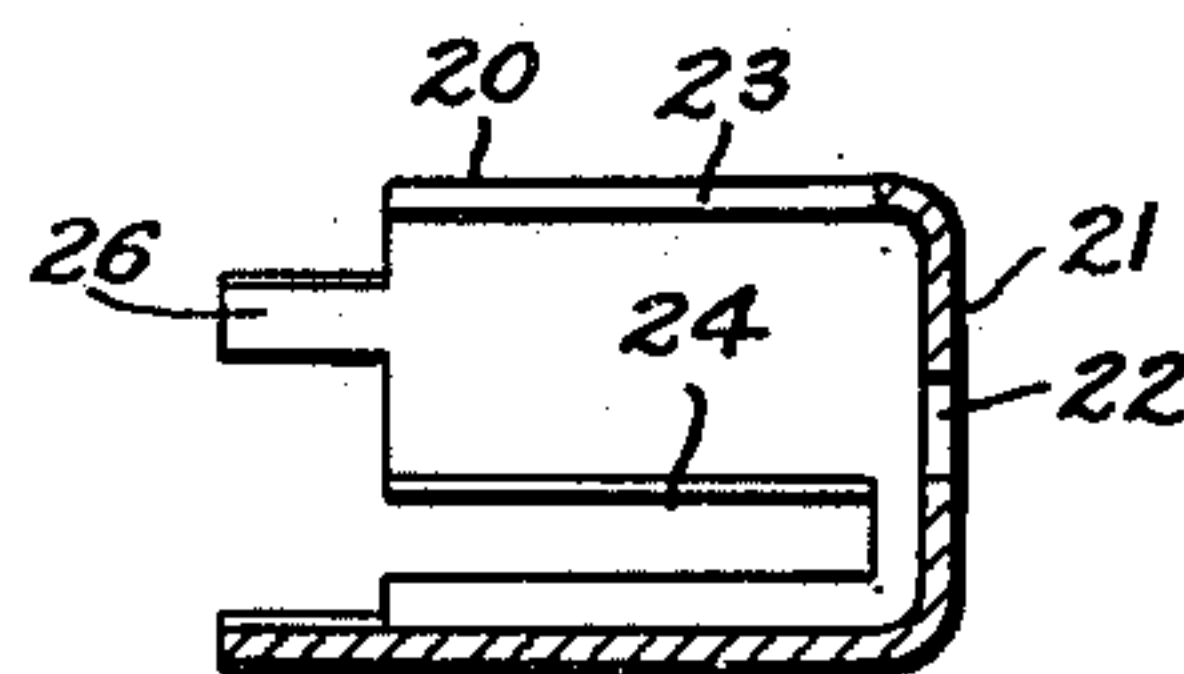


Fig. 6

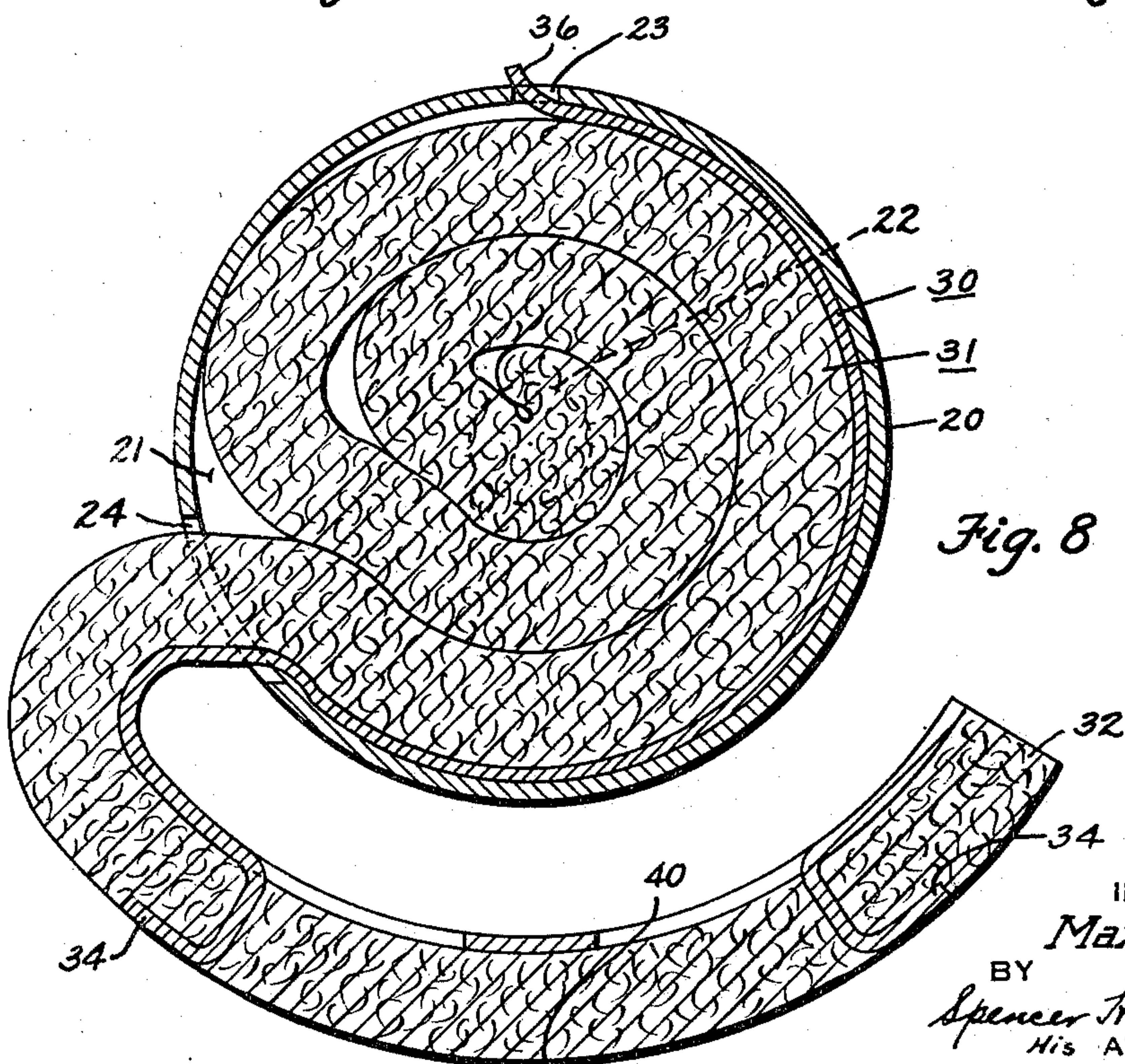


Fig. 8

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LUBRICATOR

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6 Claims. (Cl. 184—102)

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This invention relates to lubricators, and more particularly to the rotatable cam of an ignition timer, and an object of the present invention is to provide new and improved lubricating means of this type.

Another object of the present invention is to provide means of the above mentioned character, which are extremely simple in construction, inexpensive to manufacture, and which can be assembled and attached relative to the parts to be lubricated in an efficient manner.

Another object of the present invention is to provide a simple, compact and efficient lubricator which can be easily assembled with devices now in use without disturbing the relative arrangement of the parts to be lubricated.

A more specific object of the invention is the provision of a lubricating device comprising a container capable of holding a supply of lubricant, and a wick and a leaf spring assembly, one end of the assembly being located within the container with the spring member anchored to the container and having the other end of the assembly extending through an opening to the exterior of the container with the spring arranged so that it will urge the wick against the surface to be lubricated.

Further objects and advantages of the present invention will be apparent from the following description, reference being had to the accompanying drawings wherein a preferred embodiment of the present invention is clearly shown.

In the drawings:

Fig. 1 is a side view of a lubricator embodying the present invention.

Fig. 2 is a plan view of the lubricator.

Figs. 3, 4 and 5 are respectively, bottom and side views of the container shown in Fig. 1.

Fig. 6 is a longitudinal sectional view of the container.

Fig. 7 is an end view of a wick assembly to be assembled with the container.

Fig. 8 is a sectional view, on an enlarged scale taken on line 8—8 of Fig. 1.

Referring to the drawings 10 designates a cup-shaped housing or container having a bottom wall 21 and an annular wall 20. An opening 22 is provided in the bottom wall of the container while the annular wall is formed with notches 23 and 24, and the extremity of the annular wall is provided with tangs or fingers 25 which are adapted to pass through openings in a plate or support, not shown, with the extremities of the tangs bent over the under side of the plate or

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support to hold the container in a fixed position.

Before the container 10 is fixed to the support a wick assembly is inserted in the container, said wick assembly, as shown in Fig. 8, comprising a leaf spring member 30 of substantially S formation to provide loop portions 30a and 30b and a grease-soaked wick 31. The wick is preferably made of absorbent material such as cotton or wool. In the present instance one end 32 of the wick is attached to one end 33 of the leaf spring 30 by tongues 34. The tongues are formed by striking out portions of member 30 from the normal plane of the member. The tongues 34 are preferably pointed so that they may easily pass through the wick. After the tongues 34 are forced through the wick they are bent back away from each other over the outer surface of the wick to provide a wiping surface 40 and also to secure the wick to the spring member. The other end 35 of the wick is free and is rolled up and placed within the loop portion 30a which is provided with a hook 36. It is to be understood that other means may be used to attach the wick to the end 33.

When the wick assembly comprising the spring member 30 and the wick 31 is assembled with the container, the loop portion 30a is pushed into the container so that the hook 36 enters the slot 23 and an intermediate portion of the spring member and wick will enter the slot 24. The loop 30 is slightly larger than the inner wall of the container. Thus, when the loop portion 30 is inserted in the container it will resiliently yield and cause the hook 36 to bear firmly against at least one corner of the notch 23 to anchor the spring member 30 to the container. As the loop portion 30a is being inserted in the container and the intermediate portions of the spring and wick enter the notch 24, the loop portion 30b and one end of the wick will be positioned outside and spaced from the exterior wall of the container 20. With the wick assembly so assembled the resiliency of the loop portion 30 will urge the portion 40 of the wick into engagement with lobes of a cam or against any surface of a movable part to be lubricated. It is to be understood, however, that when the container is mounted on a support it will be mounted so the part to be lubricated will be brought into contact with the portion 40.

The loop portion 30a of the spring member 30 is so formed that it will hug the inner wall of the container and confines the rolled up portion or wad of the wick to a certain portion of

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the space within the container so as to provide a space between the wick and the bottom wall 21. The space between the wick and the bottom wall 21 may be filled with a quantity of relatively soft grease injected into the container through the opening 22 by a grease gun or the grease can be forced through the opening by any other suitable means. The grease is gradually absorbed by the wick.

Among the advantages of the lubricator are the following: The lubricator is not only constructed to receive a quantity of grease to supply lubricant for long service, to supply continually lubricant to a surface to be lubricated but also provides a construction which can be easily attached to a device which has been in use for a long time.

While the embodiment of the present invention as herein disclosed, constitutes a preferred form, it is to be understood that other forms might be adopted, all coming within the scope of the claims which follow.

What is claimed is as follows:

1. A device for lubricating surfaces of movable parts comprising, a tubular container having means thereon for securing the container in a fixed relation relative to movable parts, said container having a notch in one of the walls; a unitary wick assembly comprising a wick and a spring member, said spring member having one of its ends anchored within the container and having both the spring member and wick extending through the notch, the arrangement being such that the spring member will urge the wick against a surface to be lubricated when said container is secured; and means carried by the spring outside the container for securing the wick and spring together.

2. A lubricating device adapted to be fixed relative to a rotatable part having a surface to be lubricated comprising in combination; a cup-shaped housing having an opening in the bottom wall through which a supply of lubricant may be injected into the housing and having a slot in its annular wall; a grease-soaked wick having one end rolled into a wad and inserted in the housing and having the other end extending through the slot to the exterior of the housing to engage the surface and lubricate same; and a leaf spring inserted in the housing and anchored to the housing and having the other end extending through the slot and connected with the wick exterior of housing in a manner that the spring will urge the wick against the surface to be lubricated.

3. A lubricating device adapted to be mounted relative to a movable surface to be lubricated comprising, a container having an opening in one of its walls; a grease-soaked wick having one end curled up and positioned within the container and having the other end extending through the opening to engage the moving surface; a spring member bent into S shape formation to form a pair of loop portions and having its intermediate portion received by the opening so that one loop portion is located within the container and the other loop portion outside the container, said

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outer loop being arranged to engage the wick and in a manner to urge same against the movable surface; and means for anchoring the spring to the container.

4. A lubricating device adapted to be mounted relative to a moving part to be lubricated comprising, a rigid tubular container having an opening; a wick inserted in the tubing and having one end thereof extending through the opening to engage the moving part outside the container; a removable leaf spring inserted in the container and anchored thereto, said spring comprising the wick to hold same in a certain position therein, said spring also having one end thereof passing through the opening to engage the wick exterior of the container the arrangement being such that the spring holds the wick against the moving part.

5. A lubricating device adapted to be mounted relative to a moving part to be lubricated comprising, a rigid tubular container having an opening; a wick inserted in the tubing and extending through the opening to engage the moving part; a removable spring member inserted in the container and extending through the opening to engage the wick exterior of the container; means for anchoring the spring to the container, the anchoring being such that the spring results in the application of forces to compress the wick within the container to hold same in a definite position and also to hold the wick exterior the container against the surface to be lubricated.

6. A lubricating device adapted to be mounted relative to a movable surface to be lubricated comprising, a container having an opening through which a supply of lubricant may be injected into the container; a wick inserted in the container and having a portion extending through the opening to engage the movable surface; a removable spring inserted in the container and anchored thereto, said spring compressing the wick within the container toward one side thereof to hold same in a definite position therein, said spring also passing through the opening to engage the wick portion outside the container, the arrangement being such that the spring will yieldingly hold the said wick portion against the moving part; and means for securing the wick portion outside the container to the spring and thereby prevent the wick portion from leaving the spring.

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