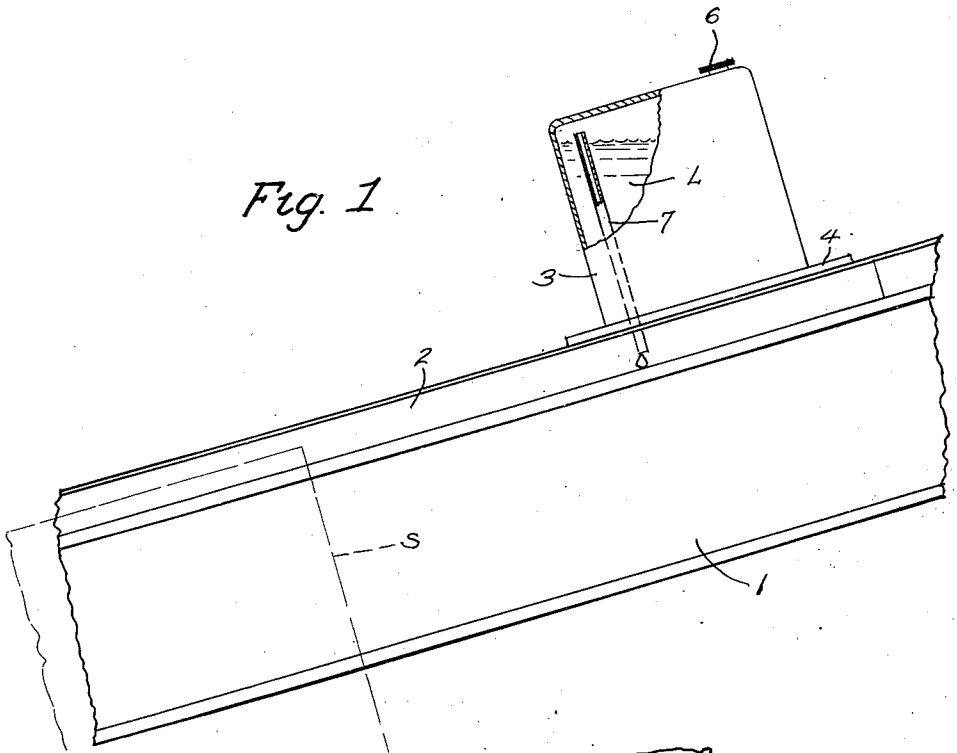
March 29, 1949. R. C. FRANKE 2,465,523

OILER AND LUBRICATING DEVICE

Filed June 15, 1945

Fig. 1



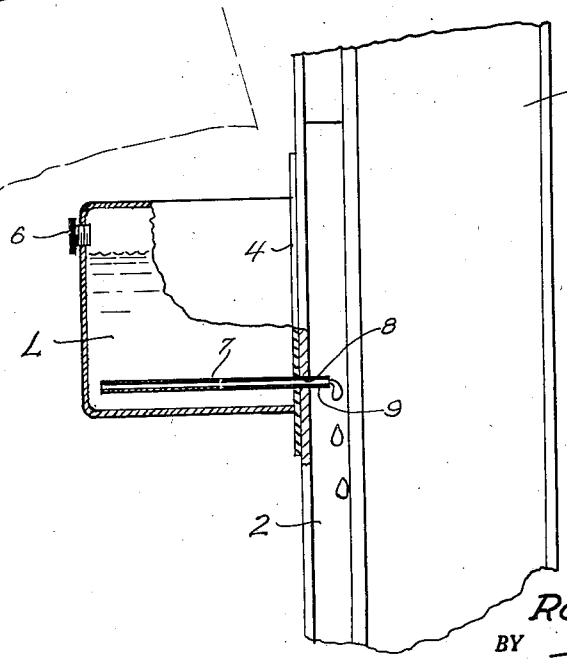




Fig. 2

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## OILER AND LUBRICATING DEVICE

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1 Claim. (Cl. 184—65)

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The present invention relates to oilers and other lubricating devices and is more particularly concerned with lubricating devices for beet loaders and other similar machinery, such as earth handling apparatus and the like.

The principal object of this invention is the provision of a lubricating device for the side arms and slides of a beet loader, but it is to be understood that this invention may be applied to other machinery. More specifically, it is an object of this invention to provide an oiler which is automatically controlled by the movements of the side arms, particularly the movements in which the slides are also shifted along the slide arms.

Another object of my invention is the provision of an oiling device in which changes in the position thereof is made use of for controlling and/or delivering lubricant to the point of utilization. Particularly, it is an object of this invention to provide a container for lubricant, preferably liquid lubricant, in which an outlet tube is so located that lubricant flows out of the container only in response to changes of position of the container.

These and other objects and advantages of my invention will be apparent to those skilled in the art after a consideration of the accompanying drawings and following specifications, wherein is disclosed a single exemplary embodiment of the invention, with the understanding, however, that such changes may be made therein as fall within the scope of the appended claim, without departing from the spirit of the invention.

In said drawings:

Figure 1 is a partial side view of a side arm of a beet loader equipped with an oiler constructed according to the principles of the present invention, the arm being shown in a substantially horizontal position, in which no oil flows to the surfaces to be lubricated.

Figure 2 is a view similar to Figure 1 but showing the side arm in a vertical position in which oil is fed to the surfaces to be lubricated.

Referring now to the drawings, the side arm of a beet loader, such as the one shown in my prior U. S. Patent No. 2,330,041, issued September 21, 1943, is indicated by the reference number 1 and at its outer end is connected with a loading scoop or hopper (not shown). During normal loading operations the side arms are regularly swung from a substantially horizontal position up to a substantially vertical position, and during this action a slide S is shifted along each side arm and acts through intervening connections for controlling the position of the scoop or hopper, both during the transporting position as well as the loading and dumping positions. It will therefore be seen that an automatically operating oiler for the slides will materially contribute to the operation and maintenance of a machine of this kind.

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According to the present invention, I mount on the slide cover 2 a lubricant container 3 consisting essentially of a closed vessel adapted to contain liquid lubricant L. The container 3 preferably is mounted on a plate 4 which is detachably secured in any suitable manner to the slide cover 2. A filler cap 6, preferably of the screw type, is provided in the uppermost part of the container. A tube 7 is disposed in the container 3 adjacent one wall and has its upper end terminating closely adjacent the top or upper wall of the container 3. Its lower end passes through a hole in the lower wall or plate 4, the tube preferably being welded or otherwise fixed in position at this point, and through a hole or slot 8 in the slide cover 2. The inner end of the tube, indicated at 9, terminates adjacent the outer surface of one of the flanges of the slide arm 1, along which surface the slide moves during certain parts of its movement.

The operation of the device is substantially as follows:

When the side arm 1 is in a horizontal position (Figure 1) the upper end of the tube 7 projects above the level of oil in the receptacle 3, but when the side arm is swung up into a vertical position the tube 7 is below the oil level and it fills with oil. If the opening in the tube is of appreciable size, some oil may run directly out of the container 3 via the tube 7, as indicated in Figure 2, but if only limited quantities of lubricant is necessary, the hole in the tube may be small, in which case, while the tube 7 will fill with oil when in the position shown in Figure 2, the oil will not appreciably drip from the tube onto the surfaces to be lubricated until the side arm 1 has been swung down into a horizontal position (Figure 1).

Although I have described a specific embodiment of my invention, and have described it in particular reference to the side arms of a loading machine, it is quite apparent that a machine or machines of entirely different kind may be provided with lubricant devices of the kind described. It will also be understood that modifications of the herein described lubricating device may be made without departing from the spirit and scope of the present invention as set forth in the appended claim.

I claim as my invention:

In a device of the character described having an arm swingable from the generally horizontal to a generally vertical position and a slide mounted for sliding movement thereon; means for lubricating the slide including a lubricant reservoir having a top wall, side walls and a base plate, a filler cap in an uppermost portion of the reservoir, means for supporting the base plate and the reservoir at a spaced distance from the arm and the slide, and a feeder tube extending from a point near the arm and slide but spaced therefrom, through an opening in the base plate and to a point near the top wall, the said tube being positioned so as to occupy the lower portion of the reservoir and near a side wall when the arm is swung to a generally vertical position.

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## REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

| Number | Name | Date |
|---|---|---|
| 239,461 | Davis | Mar. 29, 1881 |
| 2,330,041 | Franke | Sept. 21, 1943 |

FOREIGN PATENTS

| Number | Country | Date |
|---|---|---|
| 63 | Great Britain | Jan. 1, 1894 |
| 12,022 | Germany | No date shown |