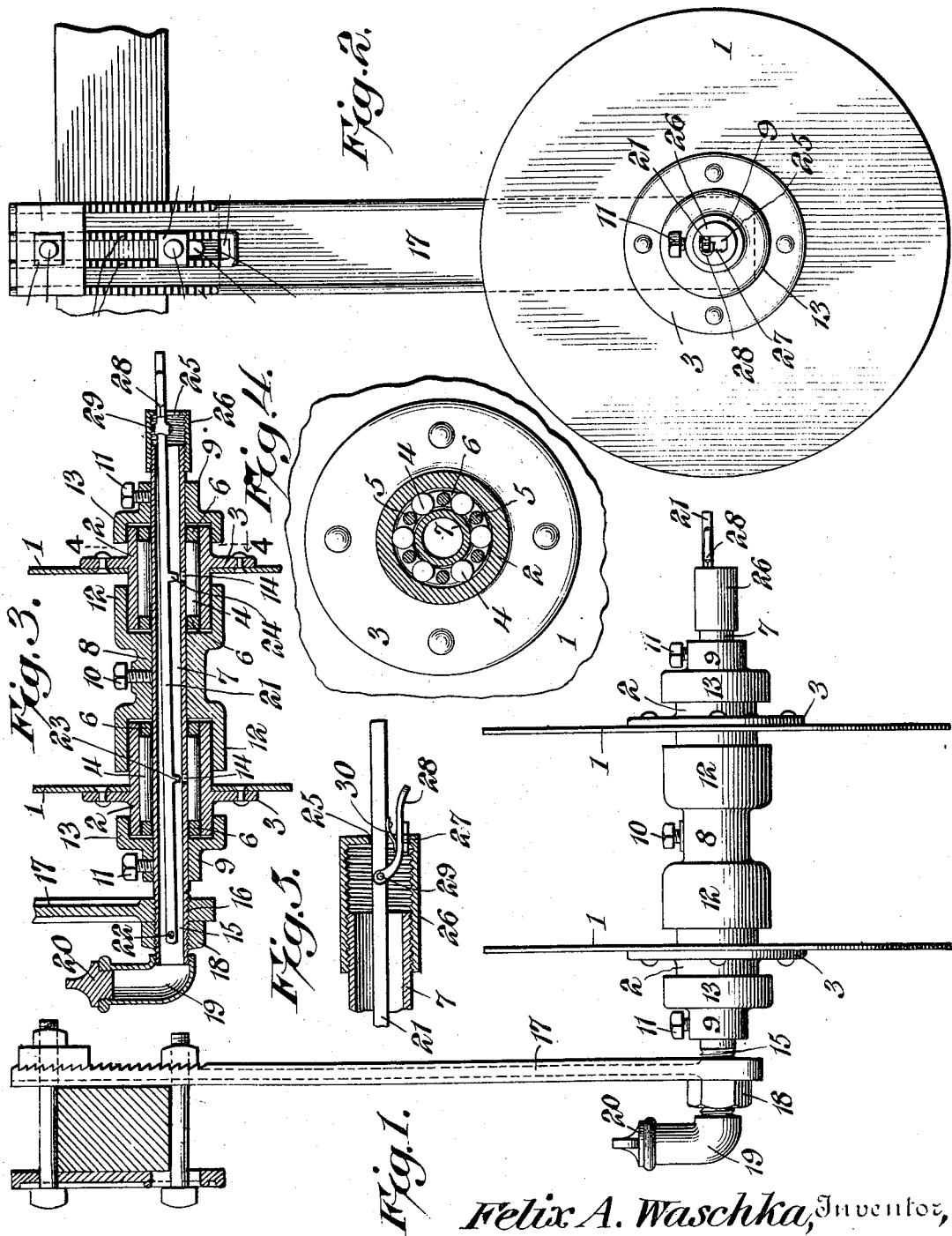


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LUBRICATOR FOR FURROW CUTTERS.
APPLICATION FILED JULY 23, 1909.

1,001,103.

Patented Aug. 22, 1911.



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FELIX A. WASCHKA, OF CROWLEY, LOUISIANA.

LUBRICATOR FOR FURROW-CUTTERS.

1,001,103.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed July 23, 1909. Serial No. 509,077.

To all whom it may concern:

Be it known that I, FELIX A. WASCHKA, a citizen of the United States, residing at Crowley, in the parish of Acadia and State of Louisiana, have invented a new and useful Lubricator for Furrow-Cutters, of which the following is a specification.

The invention relates to a lubricator for furrow cutters for plows.

The object of the present invention is to provide a simple, inexpensive and efficient lubricator for furrow cutters, adapted to feed a lubricant to the hubs of a plurality of disks, and equipped with means for controlling the flow of the lubricant and for also cleaning the oil passages leading to the hubs to prevent the same from becoming clogged.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings: Figure 1 is a rear elevation of a furrow cutter provided with a lubricator, constructed in accordance with this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse sectional view, illustrating the manner of mounting the disks. Fig. 4 is a detail sectional view, taken substantially on the line 4—4 of Fig. 3. Fig. 5 is a detail sectional view, illustrating the construction of the latch of the oil regulating and hole cleaning device.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

The device comprises in its construction a plurality of straight flat disks 1 of any preferred number, designed to be located in front of the plowshare (not shown) and adapted to cut the soil into a plurality of strips, as the soil is turned over by the mold board of the plow to form a furrow. By cutting the ground as it is plowed, it obviates the necessity of using a disk harrow after plowing, and it enables the plow to run easier. The disks are provided with cylindrical hubs 2, having annular attaching flanges 3 to which the disks are riveted or

otherwise secured. In the embodiment of the invention illustrated in the accompanying drawing, two furrow cutting disks are illustrated, but the number may be varied. Each is preferably equipped with a roller bearing consisting of an annular series of rollers 4, arranged in spaced relation and maintained in such relative arrangement by longitudinal rods 5, interposed between the rollers and connecting end rings 6, which confine the rollers in the hub 2 of the disk 1. Any other preferred form of bearing, however, may be employed. The roller bearings are arranged on a tubular axle 7, forming a lubricant chamber and also supporting an intermediate collar 8 and end collars 9, secured to the axle by set screws 10 and 11. The intermediate collar or sleeve 8 has a central portion of a diameter to fit snugly on the axle, and it is also provided with enlarged annular end portions 12, forming terminal bearing cups and receiving the inner ends of the hubs 2 of the disks. The outer collars 9 are provided with inner annular enlargements 13, forming cylindrical cups and receiving the outer ends of the hubs of the disks. The set screws 11 pierce the collars 9 and rigidly and adjustably secure the same to the end portions of the axle.

The axle is tubular and is provided within the hubs 2 of the disks 1 with oil holes 14, adapted to permit the passage of a lubricant to the bearings. The inner end portion 15 of the tubular axle is threaded, and is locked in a threaded opening 16 of a standard 17 by a jam nut 18, and it also receives an oil cup 19 having a removable plug or closure 20, preferably threaded into the upper end of the oil cup. The flow of oil to the roller bearings is controlled by a rod or lever 21, pivoted at its inner end 22 by a horizontal pin to the axle, and provided at intermediate points with lugs or projections 23 and 24, located opposite and adapted to form closures for the oil holes 14, and capable also of movement through the same to clean the oil holes. The rod or member 21 is arranged at an inclination when the holes are open, and the lugs or projections which are of different lengths, are tapered and their inner or upper portions are of a diameter to positively close the oil holes, while their lower or outer portions are sufficiently small to pass through and clean the holes. The outer portion of the hole cleaning and lubricant regulating rod or

member extends through a slot 25 of a cylindrical cap 26, threaded on the outer end of the axle and provided with an outer end wall in which the slot 25 is formed. One of the walls of the slot 25 is provided with teeth 27, and the rod or member 21 is provided with a spring actuated latch 28, adapted to engage with the teeth for securing the rod or member 21 in its adjustment. The latch consists of a lever pivoted at its inner end 29 and engaged at an intermediate point by a spring 30, secured to the adjacent edge of the rod or member, and adapted to force the latch outwardly with respect to the rod or member, as clearly illustrated in Fig. 5 of the drawing. The outer portion of the latch extends beyond the cap 26, and is adapted to be readily pressed inward against the rod by the operator. The rod is movable vertically and by oscillating it, it is adapted to clean the oil holes, admit a quantity of lubricant to the bearings and close the oil holes to cut off the flow of the lubricant. The lower end wall of the vertical slot of the cap is located a sufficient distance above the bottom of the latter to form a receptacle for a considerable quantity of oil.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A device of the class described including a plurality of rotary elements having hubs, a tubular axle receiving the rotary elements and forming a lubricant chamber and provided with spaced oil holes, and a longitudinally arranged combined cleaning and regulating member movably mounted within the axle and provided with correspondingly spaced tapered projections located at the said oil holes and arranged to enter and clean the same and forming closures for the said holes to cut-off the flow of the lubricant.

2. A device of the class described including a plurality of rotary elements having hubs, a tubular axle receiving the rotary elements and forming a lubricant chamber and provided with oil holes located within the

hubs, a combined cleaning and regulating member pivotally mounted within the axle and provided with projections forming closures for the oil holes and adapted also to clean the same, and means for securing the member in its adjustment.

3. A device of the class described including a plurality of rotary elements having hubs, a tubular axle receiving the rotary elements and forming a lubricant chamber and provided with oil holes located within the hubs, a combined cleaning and regulating member pivotally mounted within the axle and provided with projections forming closures for the oil holes and adapted also to clean the same, and means for securing the member in its adjustment including a spring actuated latch arranged to lock and release the said member.

4. A device of the class described including a tubular axle forming a lubricant chamber and having an outlet for the lubricant and provided with a vertical series of teeth, a rotary element mounted on the axle at the outlet, a cleaning and regulating member mounted within the axle and having a projection forming a closure for the outlet and adapted also to clean the same, and a latch carried by the member and arranged to engage the teeth for securing the member in its adjustment.

5. A device of the class described including a tubular axle forming a lubricant chamber and having an outlet, a rotary element provided with a hub located at the said outlet, a rod mounted within the axle and having a closure for the outlet adapted also to clean the same, a cap fitted on the axle and provided with a slot receiving the outer portion of the member, a locking device mounted on the member and engaging with the cap for securing the former in its adjustment.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FELIX A. WASCHKA.

Witnesses:

HOMER J. GUIDRY,
SHELBY TAYLOR.