

No. 851,767.

PATENTED APR. 30, 1907.

L. B. McCARGAR.
OILING DEVICE FOR FEED GRINDERS.

APPLICATION FILED DEC. 31, 1906.

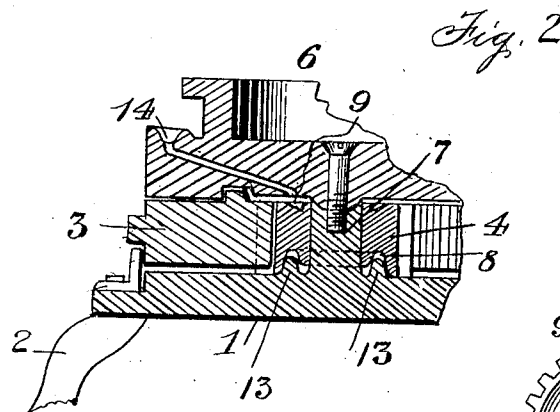
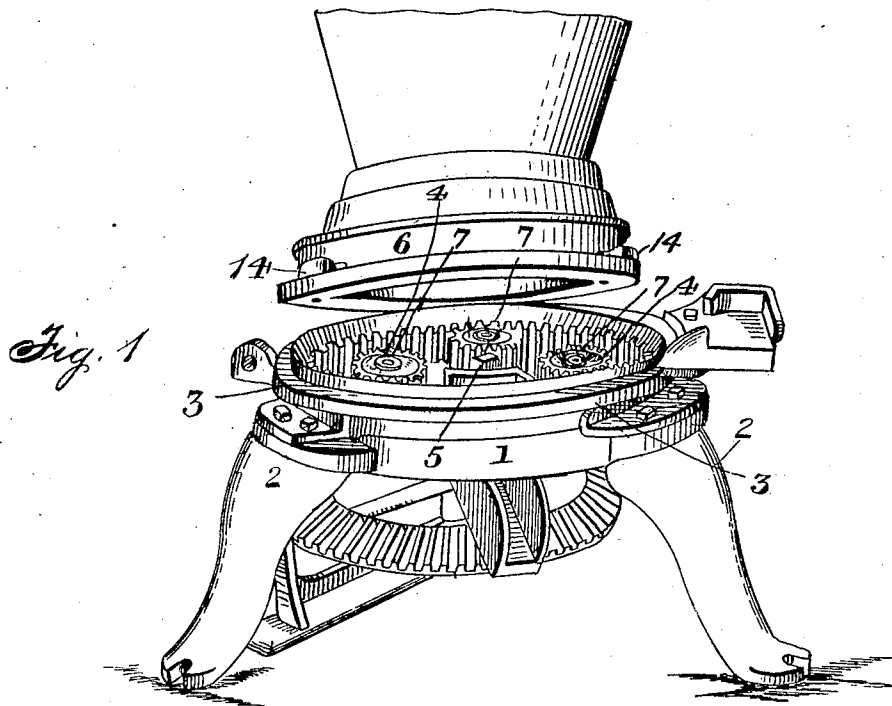
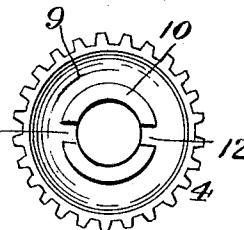
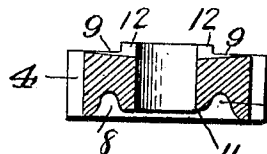


Fig. 3.



Inventor



By

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UNITED STATES PATENT OFFICE.

LARREN B. McCARGAR, OF SAVANNAH, MISSOURI.

OILING DEVICE FOR FEED-GRINDERS.

No. 851,767.

Specification of Letters Patent.

Patented April 30, 1907.

Application filed December 31, 1906. Serial No. 350,209.

To all whom it may concern:

Be it known that I, LARREN B. McCARGAR, a citizen of the United States of America, residing at Savannah, Missouri, have invented certain new and useful Improvements in Oiling Devices for Feed-Grinders, of which the following is a specification.

This invention relates to new and useful improvements in feed grinders and has relation more particularly to means for lubricating the gearing contained in the power driven grinder, in order that the said gearing may be lubricated without dismantling the said grinder and otherwise disturbing the operating parts of the same.

In order to minimize the friction between the stub shafts and the gearing of a feed grinder, it is my purpose to have the contacting parts thereof practically immersed in oil in order to lessen the power required for operating the grinder and further, to prolong the utility of the parts comprising a grinder of this character.

In a grinder having a series of pinions meshing with the master wheel, the parts are of such heavy structure that they can not be readily disconnected for the purpose of gaining access to the interior mechanism. I, therefore, have provided a series of inclined ducts or ways which connect with the oil cups at one end and terminate at points over the bearings of the pinions, so that the oil applied to the oil cups may readily gravitate and be discharged on the pinions which pinions have recessed or cupped faces inclined toward their centers so that the oil is directed to the contacting points of the shafts and pinions.

Finally an object of this invention is to provide novel means in a device of this character that will be simple in construction, efficient in practice and economical to manufacture.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, in which—

Figure 1, is a view in perspective illustrating the invention, said view being shown with part of the mechanism separated. Fig.

2, is a fragmentary sectional view illustrating the invention. Fig. 3, is a top plan view of a pinion employed in the invention. Fig. 4, is a sectional view of Fig. 3.

In the drawings 1, denotes a base suitably supported by the legs 2. Rotatably resting on said base is the master wheel 3, and said master wheel is rotated through the medium of the pinions 4, which mesh therewith and are rotated through the medium of the vertical shaft 5. Further detail of this operating mechanism is believed to be unnecessary as the same is fully set forth in an application filed on even date.

Arranged above the master wheel is the feed trough 6, which forms an inclosing casing therefor. Further detail of this device is also believed to be unnecessary as it is similar to that well known in the arts employed for the purpose designed by the device illustrated.

The pinions 4, are rotatable on the studs 7, which are formed with the base although this is not necessary as they can be secured thereto in any desired manner. The under surfaces of the pinions have an annular groove as shown at 8, while the upper face of each pinion is concaved as at 9. On each surface of the pinion adjacent the bore is an annular flange 10 and 11. The upper flange 10, is cut away at diametrical points as at 12, to permit the oil discharged on the concaved surface to pass downwardly through the bore of the pinion. Surrounding each stub shaft or stud formed on the base is an annular flange 13, which forms a cup or receptacle which is intended to retain the oil or lubricant fed through the bore of the pinion. By this arrangement means is provided whereby the studs or shafts of the pinions are at all times within oil, as it will be understood that the space between the studs and the bore of the gears will be filled with oil as long as there is oil on the gears or pinions.

The feed trough is provided adjacent its periphery with oil cups 14, which communicate with the oil ducts which extend diagonally through the trough and terminate just above the concaved surfaces of the pinions. Oil is fed through these ducts from the oil cups and is discharged into the concaved portions of the pinions and passes down the studs and is collected within the receptacle formed therebeneath.

From the foregoing description it is believed that it is clearly apparent that oil can

be fed to the internal operating gearing without the necessity of removing any of the parts of the grinder.

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

1. In combination with a base, studs thereon, pinions on the studs contacting with the base, said pinions having their under
10 faces provided with annular grooves and their upper faces concaved, a trough arranged above the base and pinions, said trough being provided with ducts leading from the exterior thereof and terminating above the con-
15 caved portions of the pinions.

2. In combination with a base, studs thereon, annular flanges on the base surrounding said studs, pinions on the studs contacting with the base, said pinions having
20 their under faces provided with annular grooves into which extend the flanges, the

upper faces of said pinions being concaved and a trough arranged above the base, said trough being arranged with ducts leading from the exterior thereof to a point above the
25 concaved portions of the pinions.

3. In combination with a base, studs thereon, annular flanges on the base surrounding said studs, pinions on the studs contacting with the base, said pinions and their
30 opposite faces provided with annular grooves, the grooves on one of the faces being in communication with the bore of the pinions and a trough arranged above the base, said trough being provided with ducts leading from the
35 exterior thereof to above the pinions.

In testimony whereof, I affix my signature in the presence of two witnesses.

LARREN B. McCARGAR.

Witnesses:

M. M. McCARGAR,
JESSE. B. CALVERT.