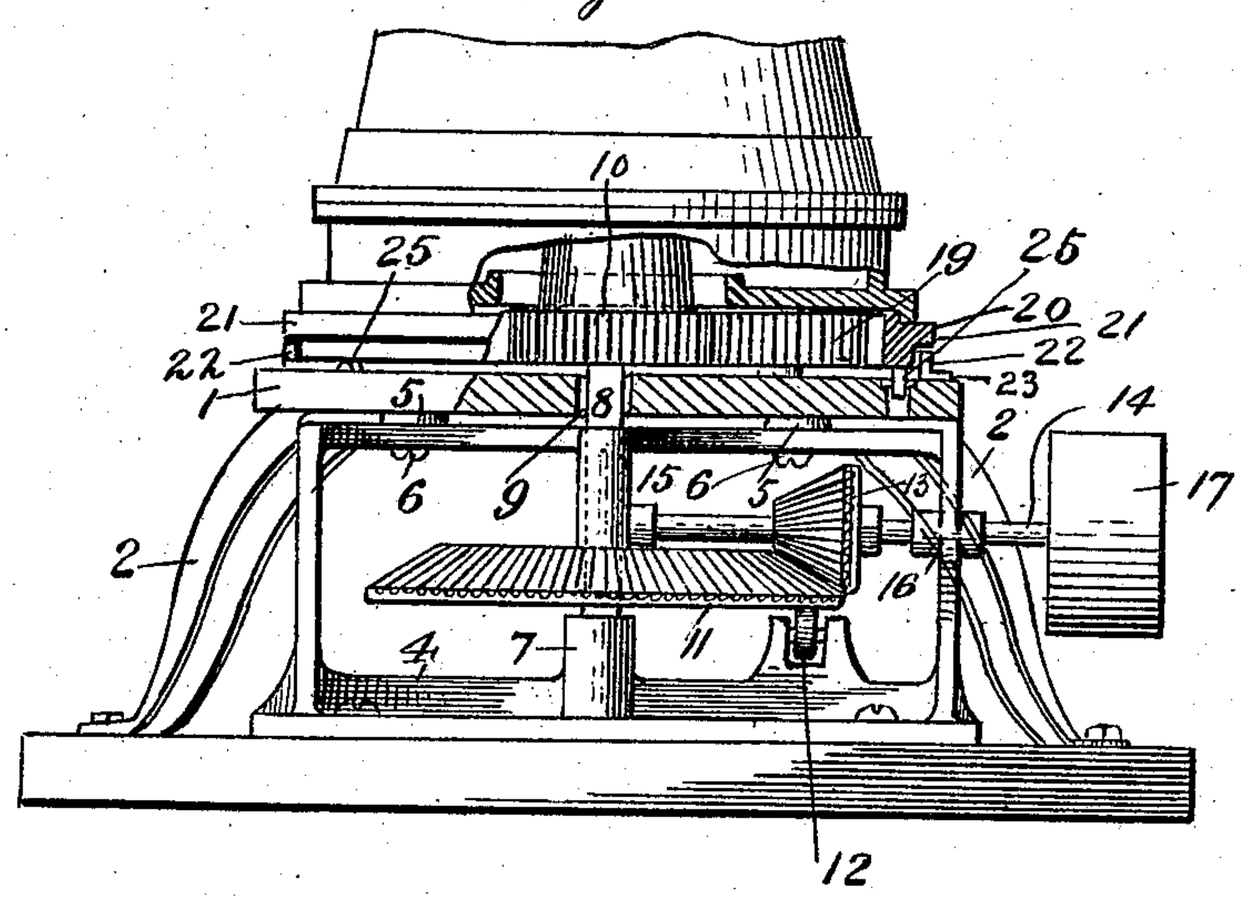
No. 858,464. PATENTED JULY 2, 1907.

L. B. McCARGAR.

POWER ATTACHMENT FOR FEED GRINDERS.

APPLICATION FILED DEC. 31, 1906.

Fig. 1.



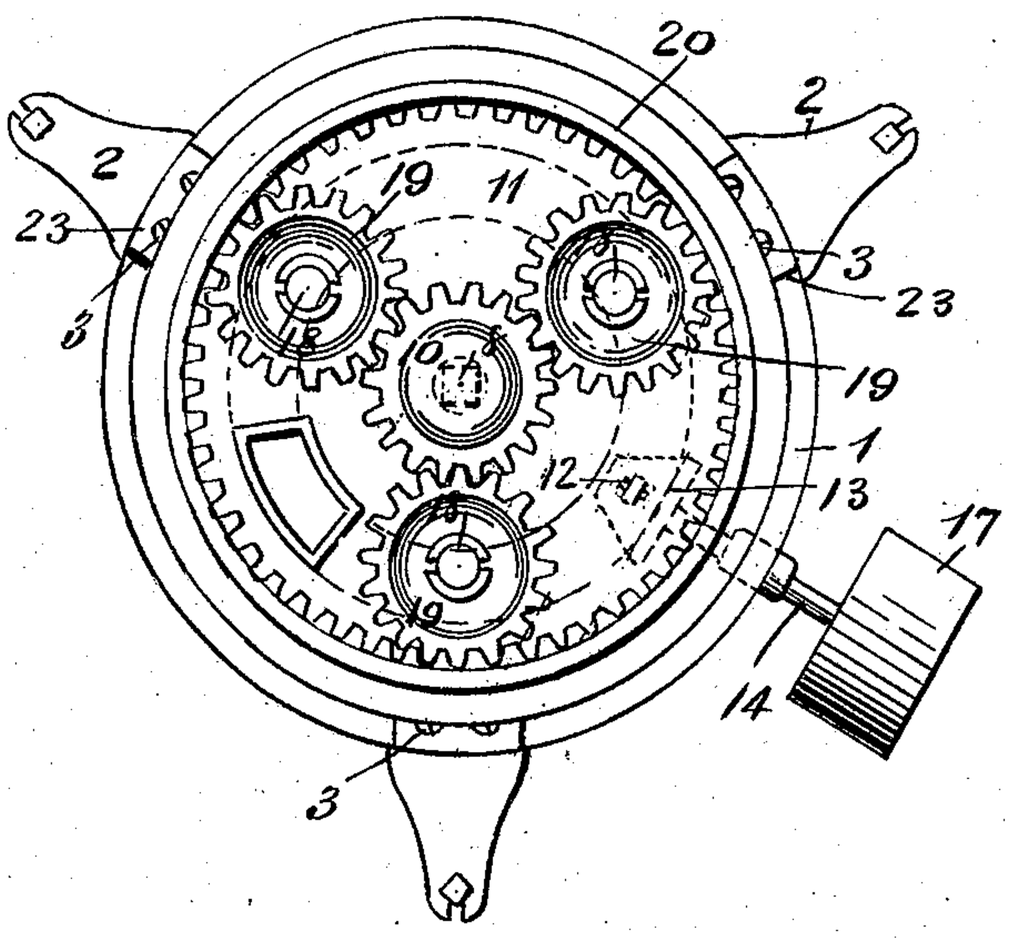




Fig. 2.

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# UNITED STATES PATENT OFFICE.

LORREN B. McCARGAR, OF SAVANNAH, MISSOURI, ASSIGNOR TO L. B. McCARGAR FEED MILLS COMPANY, OF ST. JOSEPH, MISSOURI.

## POWER ATTACHMENT FOR FEED-GRINDERS.

No. 858,464. Specification of Letters Patent. Patented July 2, 1907.

Application filed December 31, 1906. Serial No. 350,208.

*To all whom it may concern:*

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

This invention relates to new and useful improvements in mills and has relation more particularly to a feed grinding device designed primarily for use in agricultural districts where the users of ground feed are enabled to produce it on the farm without the necessity of transporting it to the mill and back again to the farm.

An object of this invention is to provide in a device of this character novel means for transposing the feed grinder of the sweep operated type into a power grinder. In other words, the invention contemplates the substitution of a rotary power driven shaft for the ordinary sweep now so commonly employed in agricultural feed grinders.

A further object of this invention is to provide in a device of this character novel means whereby the said feed grinder may be operated with a tumbling shaft or with a belt pulley, means being also provided for permitting the use of a tumbling shaft in connection with a sheller, so that the corn can be shelled and ground simultaneously or the said sheller and grinder may be utilized as suits the requirements of the operator.

A further object of this invention is to provide a novel device of this kind wherein the power transmitting gear is mounted in such relation to the master wheel as to require a minimum number of parts to be interposed in order to properly drive said master wheel.

Furthermore, it is an object of this invention to provide a novel power driven feed grinder having a series of pinions driven from the power shaft, said pinions being in engagement with the master wheel, said master wheel taking motion therefrom; these parts being the substitution for the sweep hereinbefore mentioned.

Finally an object of this invention is to provide a device of the character noted, which will possess advantages in points of simplicity, efficiency and durability, proving at the same time comparatively inexpensive to produce and maintain.

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 partly in elevation and partly in section illustrating the invention. Fig. 2, is a view in top plan, parts of the grinder being removed, to illustrate the invention.

In the drawings 1, denotes a base having the supporting legs 2, which may be of any desired number, but preferably three. These supporting legs 2, may be formed integral with the base or separate therefrom and secured thereto by screws 3, as shown in the drawings. This latter method has been found best as should any of the legs suffer injury, one can be replaced independently of the other.

Extending centrally across the base and positioned therebeneath is an approximately D-shaped frame 4, the base of said frame being flush with the ends of the legs, while the top of the frame is secured to the base. This may be done in any desired manner, but as shown, the top of the frame is provided with the hollow bosses 5, which are engaged by the screws 6, which pass through the base. Centrally of the base of the frame is a bearing 7, in which is mounted an end of a vertical shaft 8, which passes through an opening 9, in the base 1, and terminates a distance thereabove, that portion of the shaft above the base being squared to receive a bull-pinion 10. Mounted on the shaft just above the base of the frame is a gear wheel 11, which contacts with a supporting roller 12, mounted in elongated bearings formed on the bottom of said frame. Said roller is positioned just beneath the gear wheel 13, carried by a horizontal shaft 14, which passes through a side of the frame and is mounted at one end in the bearing 15. This bearing 15, is approximately L-shaped and the stem thereof embraces the vertical shaft 8, and is formed with the top of the frame. The foot of the bearing terminates just above the gear wheel 11, and it is in this foot portion that the horizontal shaft is mounted. It may be well to mention at this time that the side through which the horizontal shaft passes is provided with a bearing 16. On the portion of the shaft exterior of the frame is mounted the belt pulley 17. The outer end of this horizontal shaft is squared in order that a crank may be employed should it be desired to operate the device manually.

Extending upwardly from the base 1, are stub shafts 18, which are, preferably, formed with said base. Mounted on these stub shafts are the pinions 19, which mesh with the bull-pinion 10, and with the toothed interior face of the master wheel 20. The lower portion of the exterior of the master wheel is provided with an annular shoulder 21, the vertical wall of which is engaged by the upright portions 22, of the angular plates 23, carried by the base. These plates confine the master wheel in its movement, or in other words hold it true with relation to the bull pinion. In order to reduce friction caused by the master wheel in its rotation the base 1, is provided near its edge intermediate the angular plates, with openings or perforations 24, in which are mounted the rollers 25, said rollers being engaged by the under surface of the master wheel.

From the foregoing description it is believed that the

operation of the device is clearly apparent and it is thought that a detail thereof is unnecessary. And as the remaining parts of the device form no feature of the present invention, a description thereof may, it is thought, be omitted, as the same comprises a structure well known in the arts.

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

In combination, a base, a support therefor, a frame secured to the base therebeneath and extending thereacross, a shaft mounted vertically in said frame and extending through the base, a gear wheel carried by the shaft, a sleeve on the shaft above the gear wheel formed with the frame, a bearing carried by the sleeve, a second shaft horizontally mounted in the frame of the bearing of the sleeve, a gear wheel on said second shaft meshing with the gear wheel of the first named shaft, a master wheel, means made operative by the first named shaft for rotating said master wheel and means for rotating the second named shaft.

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

LORREN B. McCARGAR.

Witnesses:
M. M. McCargar,
Jesse B. Calvert.