F. G. LORF.

PLOW WHEEL.

APPLICATION FILED MAY 29, 1916. RENEWED APR. 30, 1917.

1,230,308. Patented June 19, 1917.

Fig. 1.

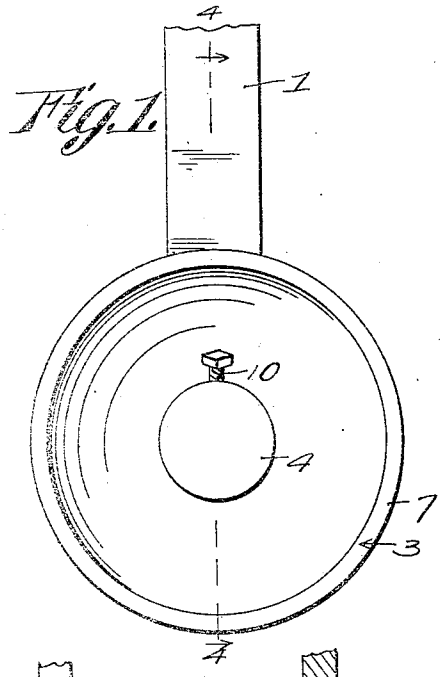


Fig. 2.

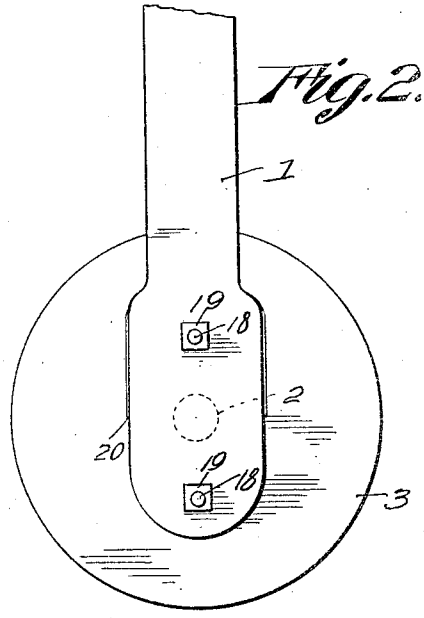


Fig. 3.

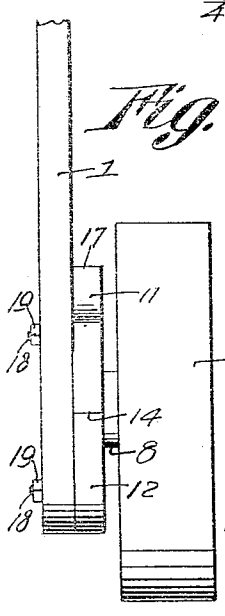


Fig. 4.

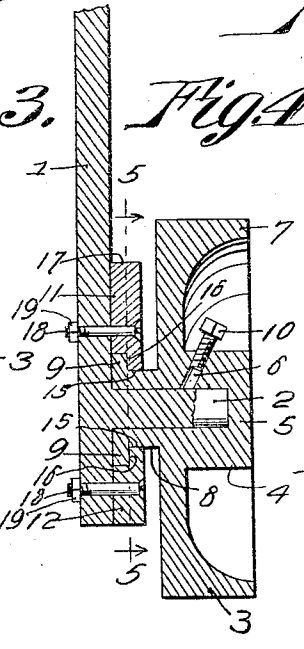


Fig. 5.

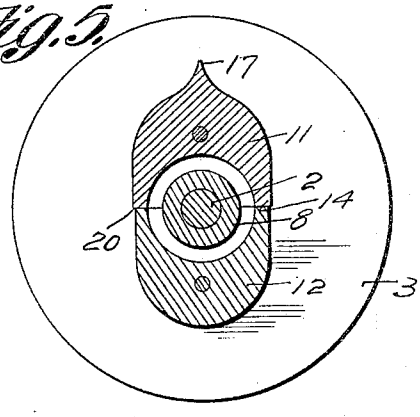
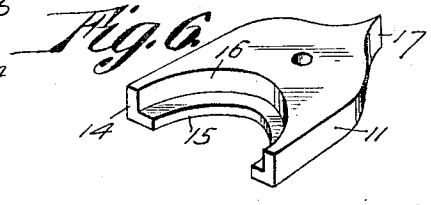


Fig. 6.



Witnesses

J. R. Lowell

R. Z. Parker

Frank G. Lorf. Inventor

by C. A. Snow & Co.

Attorneys

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANK G. LORF, OF CASCO TOWNSHIP, ST. CLAIR COUNTY, MICHIGAN.

PLOW-WHEEL.

1,230,308. Specification of Letters Patent. Patented June 19, 1917.

Application filed May 29, 1916, Serial No. 100,671. Renewed April 30, 1917. Serial No. 165,606.

To all whom it may concern:

Be it known that I, FRANK G. LORF, a citizen of the United States, residing in Casco township, in the county of St. Clair and State of Michigan, have invented a new and useful Plow-Wheel, of which the following is a specification.

It is the object of the present invention to provide novel means for assembling a wheel with the standard of a plow in such a way that the wheel and its axle may be lubricated readily without permitting dirt to enter within the wheel about the axle, the novelty lying essentially in the means whereby the entrance of dirt is avoided.

With the above and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings:—

Figure 1 shows the invention in front elevation;

Fig. 2 is a rear elevation;

Fig. 3 is a side elevation;

Fig. 4 is a longitudinal section on the line 4—4 of Fig. 1;

Fig. 5 is a section on the line 5—5 of Fig. 4; and

Fig. 6 is a perspective view showing the upper retaining member.

In the accompanying drawings, the numeral 1 indicates a standard of the kind which is commonly assembled with the forward end of a plow beam, and is adapted to carry a gage wheel. The standard 1 is provided with an outwardly projecting axle 2. The invention includes a wheel 3 including an outer hub 4 closed at its outer end as indicated at 5, and provided with a peripheral oil hole 6. A closure 10 for the oil hole is provided, the closure 10 if desired being in the form of a screw plug. The wheel 3 includes a tread rim 7 and an inner hub 8 having a circumscribing rib 9. The axle 2 is received in the hubs 4 and 8.

The invention comprises an upper retainer 11 and a lower retainer 12 applied to the inner face of the standard 1 and having abutting ends 14 provided with coöperating notches 15 receiving the inner hub 8 for rotation. The retainers 11 and 12 are equipped with coöperating recesses 16 receiving for rotation the rib 9 on the hub 8. The upper edge of the upper retainer 11 is pointed to form a dirt deflector 17. Bolts 18 extend through the retainers 12 and 11 and through the standard 1, the heads of the bolts 18 being countersunk, if desired, into the retainers. Nuts 19 are threaded onto the rear end of the bolts and engage the rear face of the standard 1. The bolts may be described as studs carried by the retainers 11 and 12. If desired, the upper retainer 11 may be slightly wider than the lower retainer 12, for a purpose which will be made manifest hereinafter, attention being directed to the point at which the reference character 20 is applied.

In practical operation, the closure 10 may be removed from the oil hole 6, to permit a lubrication of the axle 2 in the usual manner. Especial attention is directed to the combination whereby dirt is prevented from finding its way within the wheel 3 about the axle 2. Under this heading, and with the above mentioned object in view, it is to be observed that the outer hub 4 is closed as shown at 5 at its outer end, and consequently dirt cannot find its way within the wheel at this point. Further, the tread 7 overhangs the oil hole 6, and dirt on the tread rim cannot drop into the oil hole or about the oil hole. Owing to the fact that the inner hub 8 is provided with the circumscribing rib 9 which is received for rotation in the recesses 16 of the retainers 11 and 12, no dirt can enter within the wheel adjacent the inner hub. Since the ends of the retainers 11 and 12 abut in close relation, as shown at 14, it will be difficult for dirt to find its way between the abutting ends of the retainers. By tightening up the nuts 19, the retainers 11 and 12 may be drawn closely against the standard 1, and consequently, dirt cannot find its way between the retainers and the standard. Dirt deposited on top of the upper retainer 11 will be carried laterally, owing to the fact that the upper retainer embodies the dirt deflector 17. In this connection, noting the point at which the reference character 20 is applied, and recalling that the upper retainer 11 is slightly wider than the lower retainer 12, it will be understood that as dirt slides down the vertical edges of the upper retainer 11, the dirt will not be caught upon the upper end of the lower retainer 12.

From the foregoing it will be obvious that in this application there is disclosed a novel combination of elements coöperating to produce a single result, namely, to prevent the passage of dirt within the wheel 3 about the axle 2.

Having thus described the invention, what is claimed is:—

1. In a device of the class described, a standard having an outwardly projecting axle; a wheel including an outer hub closed at its outer end and provided with a peripheral oil hole, a tread rim overhanging the oil hole, and an inner hub having a circumscribing rib, the axle being received in both hubs; a closure for the oil hole; an upper retainer and a lower retainer applied to the inner face of the standard and having abutting ends provided with coöperating notches receiving the inner hub, the retainers having coacting recesses receiving the rib of the inner hub for rotation, the upper end of the upper retainer being pointed to form a dirt deflector; studs carried by the retainers and projecting through the standard; and clamping devices on the studs and engaging the standard to bind the retainers closely against the standard.

2. In a device of the class described, a standard having an outwardly projecting axle; a wheel including an outer hub closed at its outer end and provided with a peripheral oil hole, a tread rim overhanging the oil hole, and an inner hub having a circumscribing rib, the axle being received in both hubs; a closure for the oil hole; an upper retainer and a lower retainer applied to the inner face of the standard and having abutting ends provided with coöperating notches receiving the inner hub, the retainers having coacting recesses receiving the rib of the inner hub for rotation, the upper end of the upper retainer being pointed to form a dirt deflector, and the upper retainer being wider than the lower retainer, measured in a direction at right angles to the standard and parallel to the wheel; studs carried by the retainers and projecting through the standard; and clamping devices on the studs and coacting with the standard to bind the retainers closely against the standard.

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

FRANK G. LORF.

Witnesses:
JOHN STOECKER,
FRANK LORF, Sr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."