No. 649,910. Patented May 22, 1900.

G. H. BURWELL.

PLOW ATTACHMENT.

(Application filed Dec. 26, 1899.)

(No Model.)

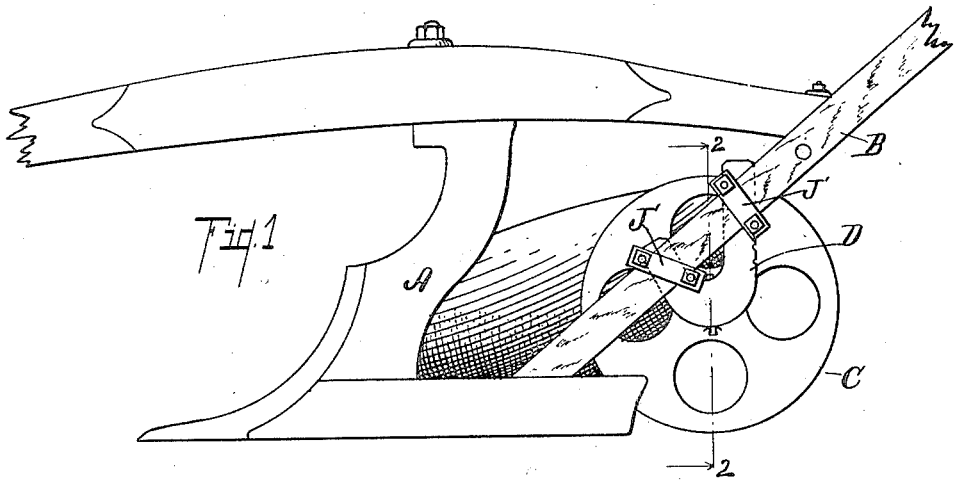

Fig. 1

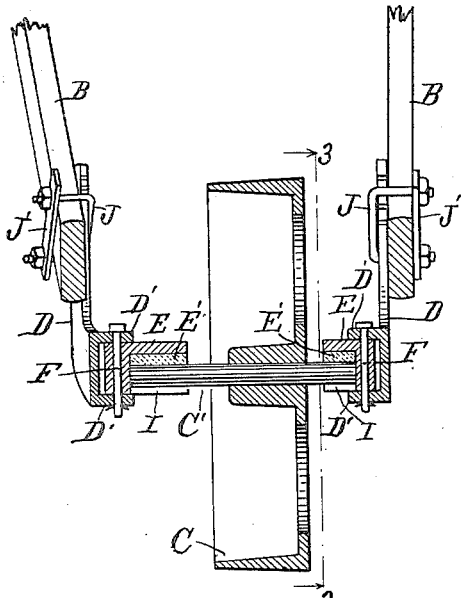

Fig. 2

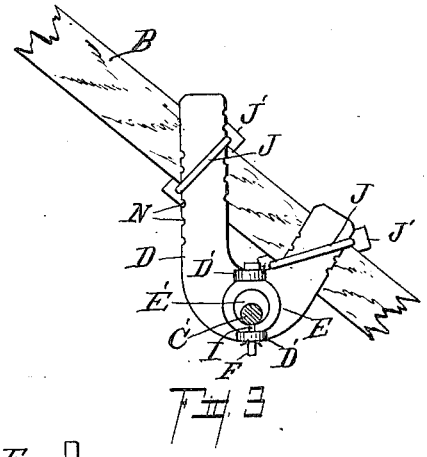

Fig. 3

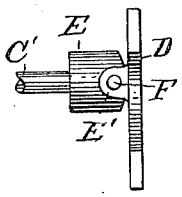

Fig. 4

Witnesses:

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Att'y.

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

UNITED STATES PATENT OFFICE.

GEORGE HENRY BURWELL, OF BENTON HARBOR, MICHIGAN.

PLOW ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 649,910, dated May 22, 1900.

Application filed December 26, 1899. Serial No. 741,612. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HENRY BURWELL, a citizen of the United States, residing at the city of Benton Harbor, in the county of Berrien and State of Michigan, have invented certain new and useful Improvements in Plow Attachments, of which the following is a specification.

This invention relates to an improved attachment for plows.

The objects of the invention are, first, to provide an improved roller or wheel attachment for walking-plows; second, to provide an improved hanger for attaching an antifriction-wheel to the plow; third, to provide, in combination with the plow, an adjustable antifriction-wheel to travel in the furrow.

Further minor objects will definitely appear in the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in this specification.

The structure is fully described in the following specification.

The invention is fully pointed out and defined in the claims.

A structure embodying my invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a detail elevation view of a plow from the land side with my improved antifriction-wheel secured thereto. Fig. 2 is an enlarged detail sectional elevation taken on a line corresponding to line 2 2 of Fig. 1 looking in the direction of the little arrows at the end of the section-lines. Fig. 3 is an enlarged detail inside sectional elevation of one of the handles and hanger attached, taken on a line corresponding to line 3 3 of Fig. 2. Fig. 4 is an enlarged detail plan view of the hanger with the shaft C′ therein partly broken away.

In the drawings similar letters of reference refer to similar parts throughout the several views.

Referring to the lettered parts of the drawings, A is a plow having the usual handles B B.

C is my improved antifriction-wheel, which has the axle C′ cast rigidly therein. This wheel is slightly beveled, the larger part being placed toward the land side.

Secured to each handle B, either inside or outside, is a hanger D, having suitable notches N to receive clip-bolts J, which clamp the same to the handle of the plow by means of clip-plates. One of these hangers is at each side. Inwardly-projecting ears D′ D′ extend inwardly from the lower portion of the hangers and are perforated to receive the vertical pin F. This pin F is retained in its place by a suitable cotter-pin or key through its lower end. Supported on each pin F and adapted to pivot thereon is a bearing-box E. These bearing-boxes receive the ends of the shaft C′. The under side of the journal-bearing for the shaft is open at I to permit the free discharge of sand or accumulations of dirt at that point. The bearing-boxes E are made of Babbitt metal, which, it will be readily understood, is easily renewable as soon as it becomes worn. For that matter the entire box E is very easily constructed and readily renewed in the device, which adds greatly to its durability, making the structure and wheel available for continual wear.

When the shaft becomes worn, a new one is easily substituted or fixed sleeves put on the ends of the old one. I desire to state, however, that hangers in the position which I have shown might be utilized without the pivotal bearings; but the pivotal bearings answer the very useful purpose of making the structure adjustable to any plow-handle to which it is desired to attach the same, and the great utility of this feature must be apparent in the consequences. The particular form of the hanger D′ is of great advantage, as it admits of a complete adjustment of the same forward or back or up or down to locate the wheel in the best position for the purpose intended. The form of this hanger can be greatly varied without departing from my main invention.

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

1. In a plow attachment, the combination of the hangers D, D, with clips and clip-plates adapted to secure the same to the handles of the plow; inwardly-projecting journal-bearings supported by said hangers; and a wheel with a shaft adapted to be supported by the hangers, coacting for the purpose specified.

2. In a plow attachment, the combination of the hangers adapted to be secured by suit-

able means to the handles of a plow; inwardly-projecting ears on said hangers; vertical pivots therethrough; bearing-boxes containing suitable horizontally-arranged journal-bearings supported on said vertical pivots; a wheel with a fixed axle to rest in said journal-bearings, all coacting for the purpose specified.

3. In a plow attachment, the combination of a hanger adapted to be secured by suitable means to the handles of a plow; inwardly-projecting ears on said hanger; a vertical pivot therethrough; a bearing-box containing a suitable horizontally-arranged journal-bearing supported on said vertical pivot; an anti-friction-wheel with a journal to rest in said journal-bearing, coacting as specified.

4. A wheel for use in connection with a plow in combination with a fixed axle; a journal-bearing therefor, open on its under side to permit the discharge of sand; and babbitt within said bearing, as specified.

5. A wheel for use in connection with a plow in combination with a fixed axle; a journal-bearing therefor, open on its under side to permit the discharge of sand, as specified.

In witness whereof I have hereunto set my hand and seal in the presence of two witnesses.

GEORGE HENRY BURWELL. [L. S.]

Witnesses:
CHARLES H. MCBRIDE,
LEILA E. MCBRIDE.