(No Model.)

A. LINDGREN.

LANDSIDE WHEEL FOR PLOWS.

No. 427,881. Patented May 13, 1890.

Fig. 1.

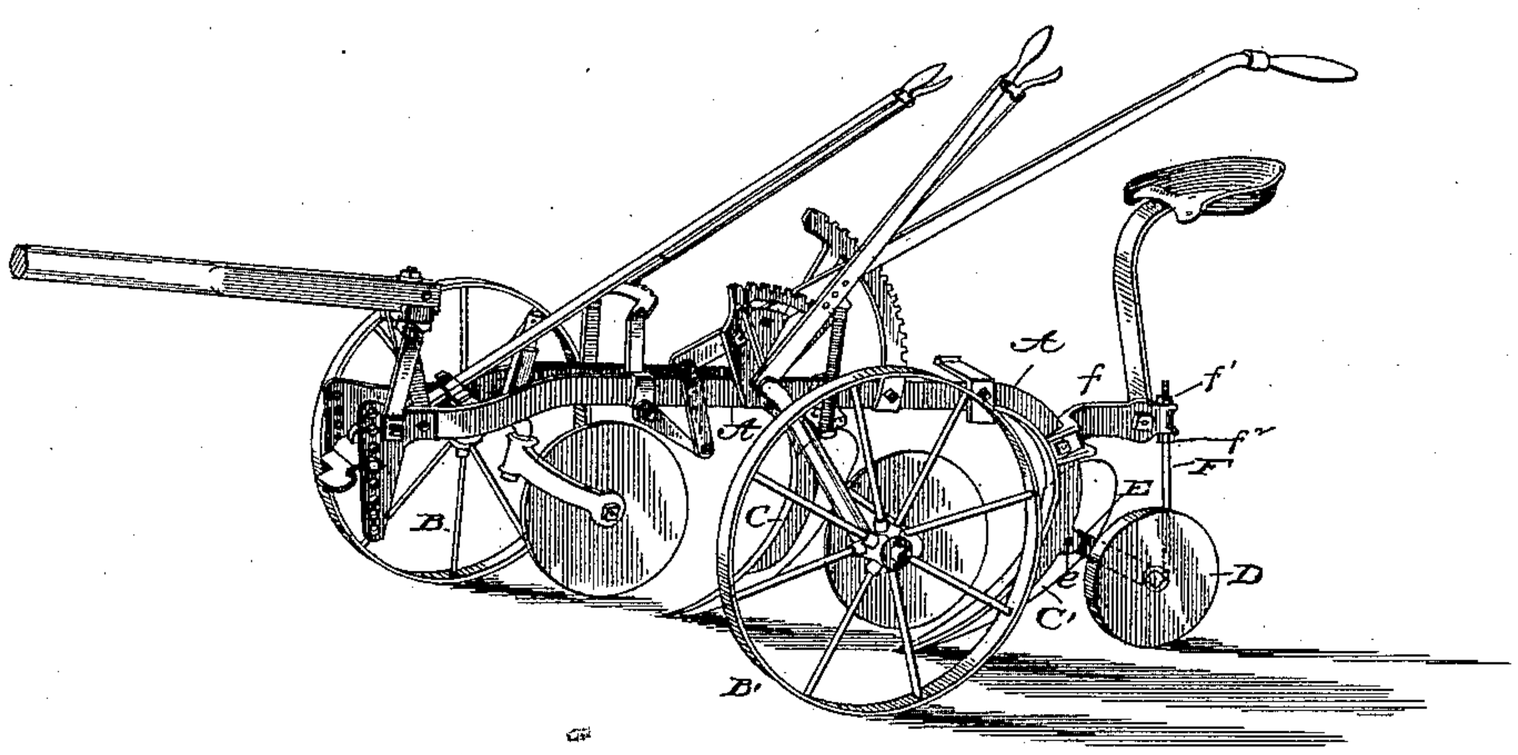


Fig. 2

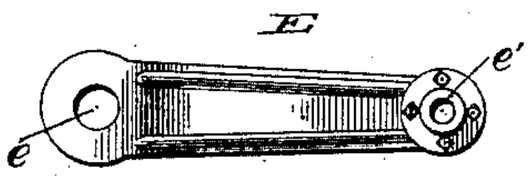


Fig. 3.

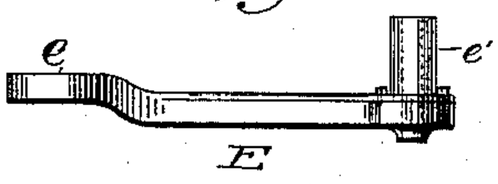
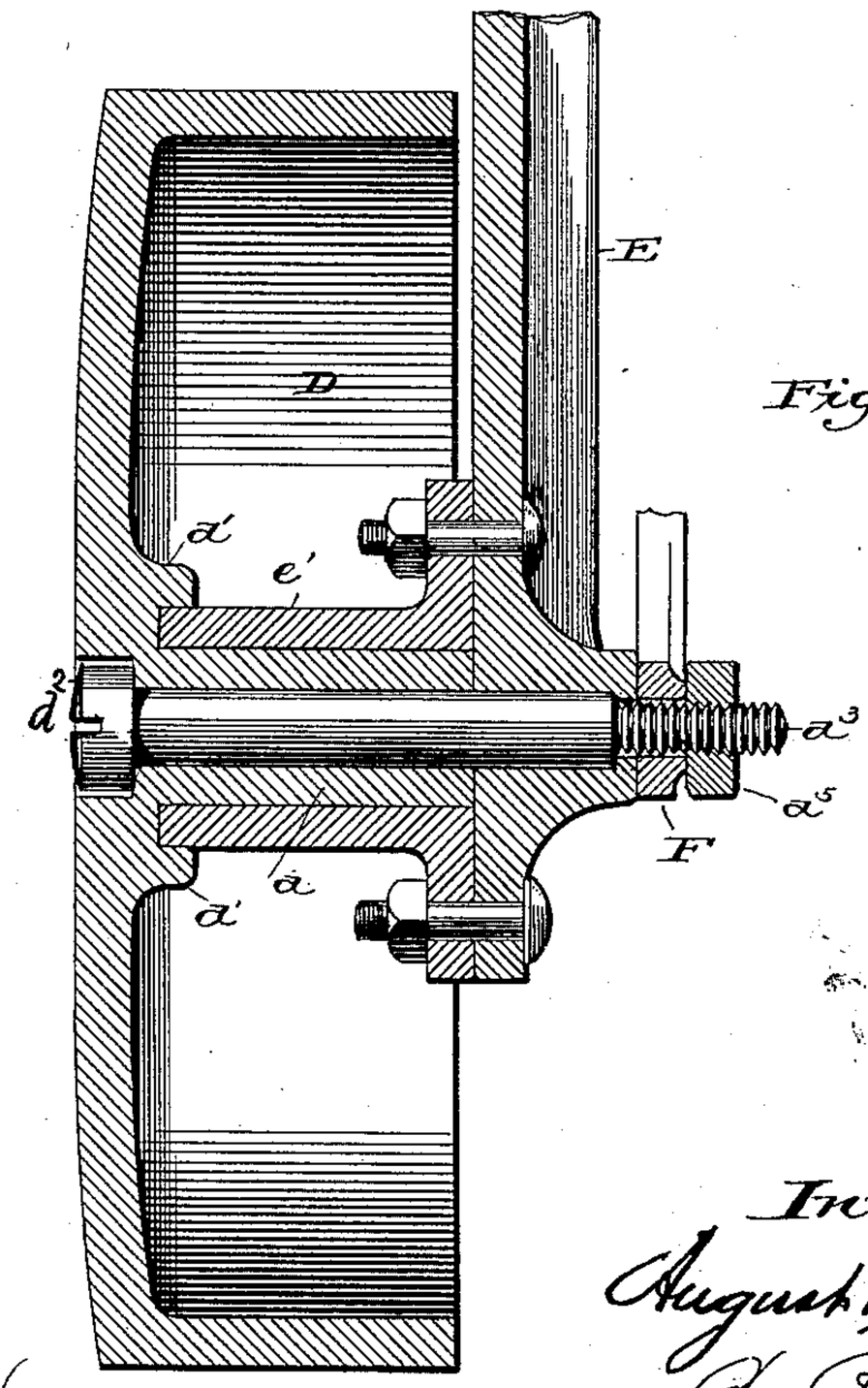


Fig. 4.



Witnesses:

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By P. J. Dodge

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UNITED STATES PATENT OFFICE.

AUGUST LINDGREN, OF MOLINE, ILLINOIS, ASSIGNOR TO THE MOLINE PLOW COMPANY, OF ILLINOIS.

LANDSIDE-WHEEL FOR PLOWS.

SPECIFICATION forming part of Letters Patent No. 427,881, dated May 13, 1890.

Application filed August 2, 1889. Serial No. 319,547. (No model.)

To all whom it may concern:

Be it known that I, AUGUST LINDGREN, of Moline, in the county of Rock Island and State of Illinois, have invented certain Improvements in Landside-Wheels for Plows, of which the following is a specification.

Mold-board plows, particularly wheeled plows, are frequently provided at the present day with a wheel traveling in the furrow against its vertical wall as a substitute for the ordinary landside. These landside-wheels must be sustained wholly from the furrow side or face, and my invention relates to improved means for thus sustaining them with the necessary rigidity and for effecting their gradual vertical adjustment.

In the accompanying drawings, Figure 1 is an outline perspective view of an ordinary wheeled gang-plow provided with my improvement; Figs. 2 and 3, a side and an edge view of the wheel-carrying arm; Fig. 4, an axial section through the wheel and its supports.

Referring to the drawings, A represents the main frame, which may be of any suitable form and construction, mounted on the two adjustable main wheels B B′ and provided with the rigidly-attached plows C C′.

The foregoing parts are of ordinary construction, and are not claimed herein.

D is the landside-wheel, to which my invention relates. It is mounted to run in an upright position behind the last plow in the furrow and against the vertical face of the same to prevent the plow from running "to the land." The wheel is made with a smooth unbroken surface on the landside and with a wide overhanging flange to produce a broad face or tread. It is carried by the rear end of an arm E, which is pivoted at *e* to the plow-standard, so that it may swing up and down. A rod F is jointed or attached in any suitable manner to the rear end of the arm, and its upper end threaded and passed through a plate *f* on the frame, and provided with two adjusting-nuts *f′* and f^2 above and below the plate, respectively. By means of these nuts the rod may be caused to raise or lower the wheel gradually and accurately in order to compensate for the wearing away of the plow. The rod serves not only to permit the exceedingly small adjustments which are necessary, but also to hold the wheel against the very severe strains to which it is subjected with much greater rigidity than the supporting devices commonly used.

In order to give the wheel an extended wearing-surface at the center, and thus keep it in line and at the same time exclude dust and dirt from the wearing-surfaces, I adopt the construction shown in Fig. 4.

The wheel is cast with a strong central hub *d* and an annular flange *d′* on the landside, and is bored through from the side to admit the central bolt d^2. The bolt has at the outer end a head to retain the wheel and at the inner end a reduced threaded neck d^3. It is projected beyond the wheel and tightly into the arm E, the shoulder at the end of the neck being seated against a corresponding shoulder in the arm, while the neck is continued through to the outside of the arm to receive the end of the arm E and the fastening-nut d^5, by which the bolt is held immovably in place, so as to form a central bearing for the wheel.

On the side of the arm there is formed or bolted a sleeve *e′*, which is fitted closely around the wheel-hub and extended within the flange, as shown. This sleeve serves as an additional support or bearing for the wheel, which has, it will be seen, wearing-surfaces on both the inside and the outside of its hub.

Having thus described my invention, what I claim is—

1. In a mold-board plow, the beam or frame having the plow proper fixed rigidly thereto, in combination with the landside-wheel behind the plow, the arm having the wheel mounted on its rear end and having its forward end attached to the beam by a horizontal pivot, the vertical rod attached at its lower end to said arm and passed at its upper end through a guide on the beam, and the nuts applied to the rod above and below the guide, whereby the wheel may be given the accurate vertical adjustments necessary to control the depth of the plow and held firmly in place to resist the heavy strains thereon.

2. The arm E, having the rigid tubular

sleeve *e'* thereon, in combination with the furrow-wheel having the tubular hub fitted to revolve closely within said sleeve, and the collar *d'*, fitting over the end of the sleeve, and the headed bolt passed centrally through the wheel and through the arm E, and secured by a nut, said bolt constructed, as shown, with a shouldered end seated tightly and against a shoulder in the arm E, whereby the bolt is enabled to assist in sustaining the wheel and to hold the wheel to its place.

In testimony whereof I hereunto set my hand, this 1st day of June, 1889, in the presence of two attesting witnesses.

AUGUST LINDGREN.

Witnesses:
S. M. HILL,
W. V. RICHARDS.