

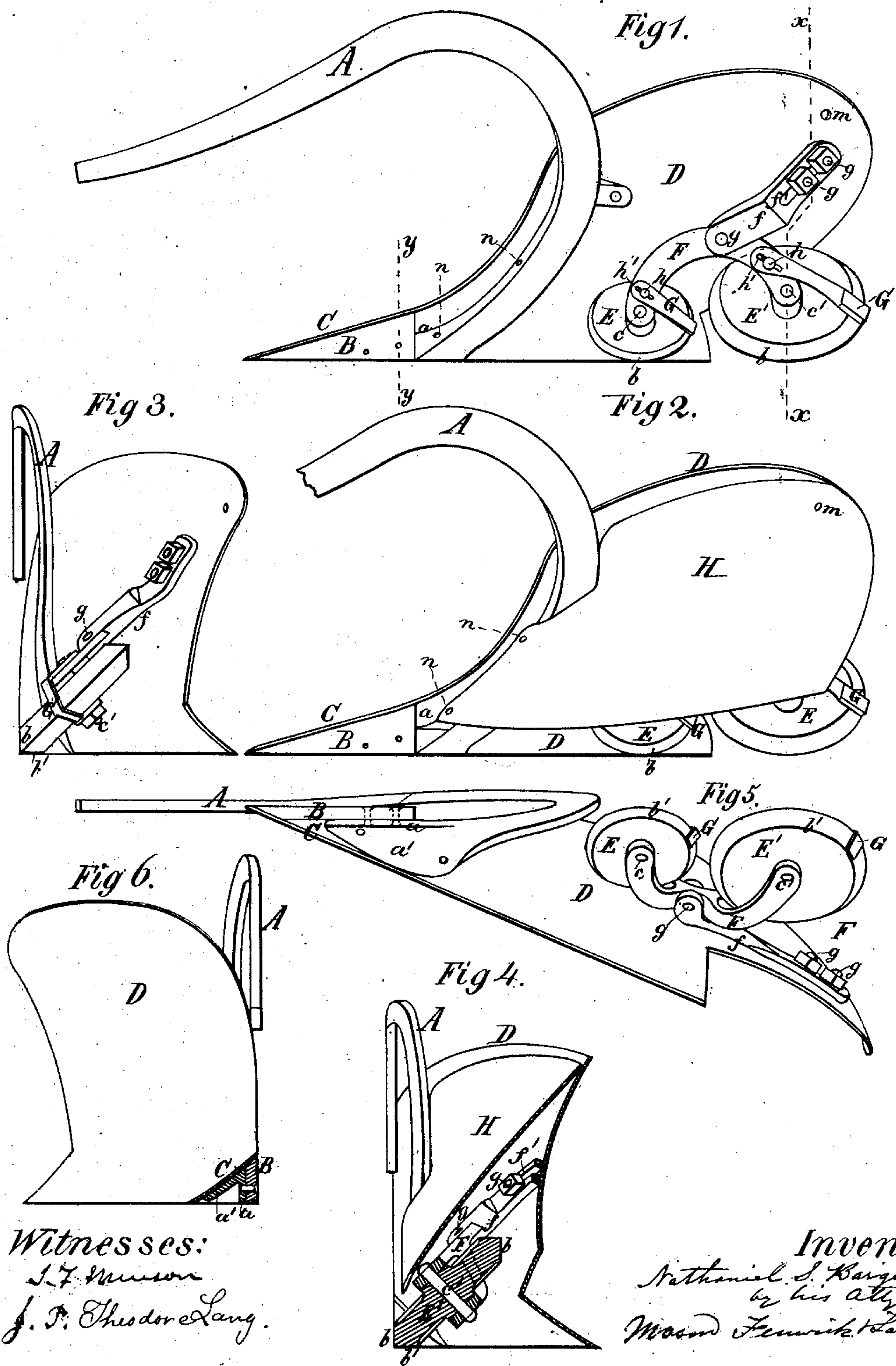
(No Model.)

N. S. BARGER.

PLOW.

No. 244,787.

Patented July 26, 1881.



UNITED STATES PATENT OFFICE.

NATHANIEL S. BARGER, OF HAMPTON, IOWA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 244,787, dated July 26, 1881.

Application filed May 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL S. BARGER, a citizen of the United States, residing at Hampton, in the county of Franklin and State of Iowa, have invented a new and useful Improvement in Plows, of which the following is a specification.

My invention relates, first, to an improved double-wheeled landside bearing or support for the plow; second, to a pivoted yoke carrying wheels and scrapers, and applied beneath the mold-board of the plow, whereby the several parts maintain their proper relation while the yoke and wheels vibrate; and, third, to an improved shield for preventing trash collecting upon the support and interfering with the rotation of the wheels.

The nature of my improvements will be fully understood from the description which I will now proceed to give of the construction and operation of the parts of the plow represented in the accompanying drawings.

Figure 1 is a landside elevation of a plow with my improvements applied to it. Fig. 2 is a similar view with the shield, which was removed in Fig. 1 to expose the parts, replaced. Fig. 3 is a rear view of Fig. 1, the shield being removed. Fig. 4 is a transverse section in the line $x x$ of Fig. 2. Fig. 5 is a broken inverted plan of the point portion of the plow, and Fig. 6 is a transverse section in the line $y y$ of Fig. 1.

A is the standard or beam of the plow, its lower front end extending under the share C of the mold-board D, and spreading out into a double-flanged bolting portion, $a a'$, the flange a being bolted to the short landside-bar B, and the other, a' , to the share C, as shown. The landside-bar B terminates at about the junction of the share and mold-board. In rear of this bar, and on the under side of the mold-board, two oblique landside supporting and bearing wheels, E E', are applied, so that their peripheries respectively are on a line with the point of the share. The landside beveled bearing-surface b of each of these wheels is at right angles with the sole of the plow, or horizontal part of the furrow formed by the plow, as shown in Fig. 3 of the drawings, while the beveled or bearing surface b' of said wheels is at right angles with the vertical face of the landside, as also shown in said figure of the

drawings. This special shape of the wheels is no part of my invention, it being old. The axles $c c'$ of the wheels are inclined, and they are applied to an arch-shaped yoke, F, which may be forked at its ends in order to afford a support on each of the faces of the wheels, or which may consist of two arch-shaped pieces united by a block between them at the top of the arches. One axle is applied at one end of the arched yoke and another at the other end, as shown, and both axles may be provided with bearing-boxes to run in, and such boxes may have friction-rollers applied within them for the purpose of reducing friction between the axles and their bearings.

The yoke F is pivoted to a bracket, f , which is adjustably bolted to the under side of the wing of the mold-board. The pin g , by which the yoke is pivoted, is passed through the arched portion of the yoke and the forked ends of the said bracket f , and its location is about central of the span of the arch of the yoke. The yoke by being thus fastened by a single pin allows either of the wheels to rise or descend, and thus to more easily pass over any obstruction which may come in their path.

The bracket f has an oblong slot, f' , through which bolts $g g$ pass and enter the mold-board, thereby fastening it in position. By means of the bolts and slots the yoke and wheels can be raised or lowered and thus adjusted to the plow.

It is desirable to have long landside bearing-support for the plow, and at the same time to have such support a rolling instead of a sliding one. A single wheel does not give a sufficient length of support when made of a size adapted for use behind a plow and beneath the mold-board; but two wheels yoked together, and the one, E, made of less diameter than the other, E', gives the proper length of support, and at the same time they are adapted for use in the position mentioned, and by being applied to a pivoted yoke will operate without liability of their becoming clogged, or of their acting to arrest the movement of the plow when an obstruction comes in their way, the pivotal movement enabling them to readily or easily ride over the obstruction. This manner of applying and operating two rollers upon a plow I believe is a new and useful invention.

In order to keep the wheels clean scrapers G are applied to the yoke and extended back,

and made to fit the beveled surfaces of the wheels, as shown. These scrapers are fastened in position by bolts *h* passed through slots *h'*, and they can be set nearer to or farther from the wheels, as circumstances may require. By means of the scrapers mud and other substances will be cleaned off the wheels during their revolutions.

For the purpose of shielding the wheels and the yoke from dirt and other matters a shield, *H*, is placed over these parts, it being fastened at *m* to the under side of the wing of the mold-board, and to the front of the beam at *n*, as shown, or otherwise suitably. This shield does not extend down to the sole of the plow, but is of just sufficient depth to allow the wheels to bear against the land side of the furrow, while it prevents trash and dirt from falling upon the yoke and bearings of the wheels, and by being steeply inclined it allows any dirt and trash falling on its outside to glide off freely. It is in cross-section of a form corresponding very nearly to the mold-board, except that it is considerably more concaved or dishing, being made so in order to accommodate and yet not touch the operating parts which it covers.

From the foregoing description it will be seen that the two wheels on a line with the point of the share, in combination with the short landside-point terminating at junction of share and mold-board, enable me to make a plow wherein the friction is greatly reduced, the landside being mainly a revolving one.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a plow, of the short landside-bar *B*, and two wheels, *E E'*, yoked together and attached pivotally to the under side of the mold board *D*, substantially as and for the purpose described.

2. The combination of the mold-board *D*, bracket *f* on its under side, yoke *F*, pivoted to the bracket, the two wheels *E E'*, and the short landside-bar *B* of the plow, substantially as and for the purpose described.

3. The plow provided with wheels *E E'* having beveled edges and arranged on the under side of the mold-board and supported by an arched pivoted yoke, *F*, and a bracket, *f*, and revolving on inclined axes *c c'* set to cause the beveled wheels to fit the angle of the landside and furrow, substantially as described.

4. The pivoted yoke carrying wheels and scrapers and applied beneath the mold-board of the plow, substantially as described.

5. The inclined shield *H*, applied on the rear under side of the mold-board and to the standard of the beam, and extending from near the rear upper portion of the mold-board diagonally toward the landside, and covering the wheels above their bearing-edges, substantially as described.

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Witnesses:

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