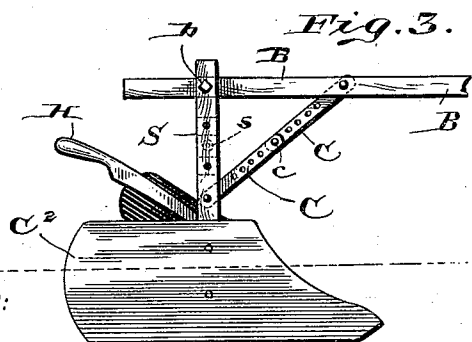
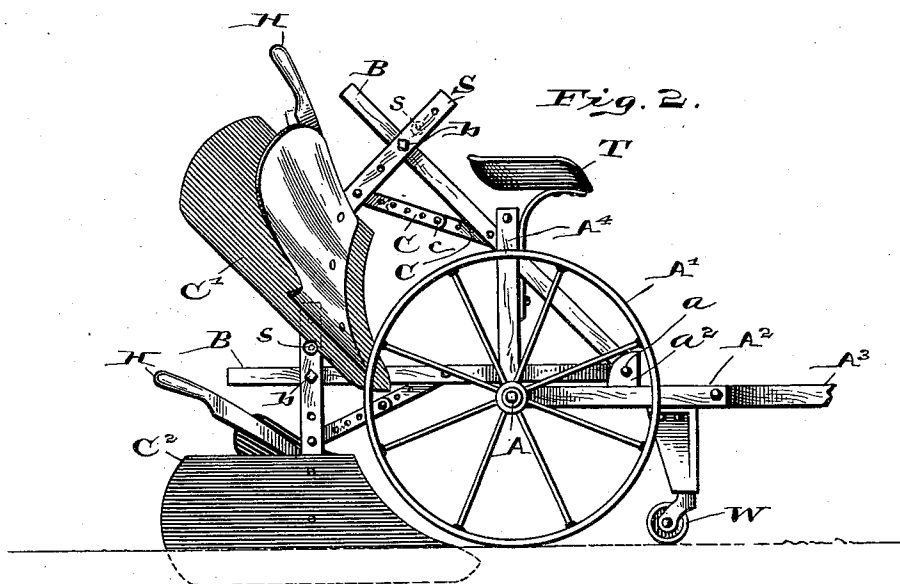
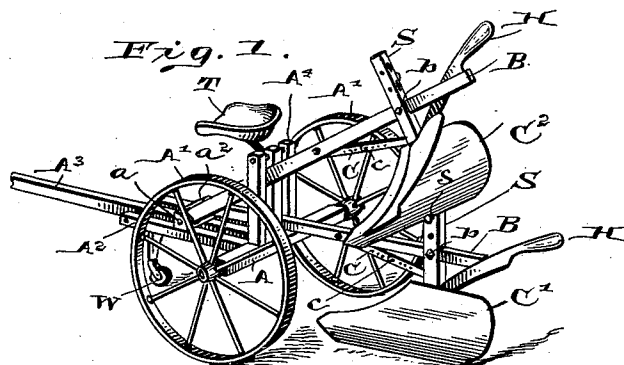


(No Model.)

H. WESTPHAL.
PLOW.

No. 544,017.

Patented Aug. 6, 1895.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY WESTPHAL, OF INDIANAPOLIS, INDIANA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 544,017, dated August 6, 1895.

Application filed March 19, 1895. Serial No. 542,370. (No model.)

To all whom it may concern:

Be it known that I, HENRY WESTPHAL, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Plows, of which the following is a specification.

The object of my said invention is to produce a plow capable of doing continuous back-and-forth plowing, and also of turning the furrows uniformly in the same direction.

It mainly consists in a plow structure, including two plowshares arranged to be alternately used, and which are preferably provided with appropriate means for adjustment and readjustment.

A plow embodying my said invention will be first fully described and the novel features thereof then pointed out in the claims.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a perspective view of a wheel-plow embodying my said invention as it appears when in condition for use; Fig. 2, a side elevation of the same, showing it arranged to plow in the opposite direction from that illustrated in Fig. 1; and Fig. 3, a fragmentary view showing the plowshare and a portion of the plow-beam with the standard and brace and illustrating a different adjustment of said plowshare.

In said drawings the portions marked A represent the axle of the plow, B the plow-beams, and C' and C² the plow-shares.

The axle A is carried by the usual wheels A', and has extending forward therefrom frame-pieces A², to the forward ends of which the draft devices are attached, which may include either a pole A³ or a doubletree or a whiffletree, or two or more of said devices, according to the use which is to be made of the plow. These frame-pieces A² are supported by a caster or gage wheel W at the forward end, as shown most plainly in Fig. 2. Extending upwardly from the center are the standards A⁴, which serve as guides for the plow-beams. A seat T may be secured to these standards, as shown.

The plow-beams B are secured by a pivot a to an appropriate housing a² or other suitable construction upon the frame-pieces A², pref-

erably some distance in advance of the axle A, and said plow-beams extend thence backwardly between the standards A⁴ to a suitable distance behind the axle, where the plow-shares are attached thereto.

The plowshares C' and C² are in themselves of an ordinary construction and are formed oppositely to each other, one being formed to throw the dirt to the right and the other to the left, in plowing its furrow. These plowshares are mounted upon standards S, which are in turn mounted upon the plow-beams B, as shown, and each plowshare is also preferably provided with a handle H. Each standard is provided with a stud s, upon which the opposite plow is supported when raised, as clearly shown in the drawings, Figs. 1 and 2. The standards S are secured to the plow-beams B by bolts b, and said standards are preferably provided with several mortises or equivalent engaging-points for said plow-beams, so that the distance between the plow-beams and the lower sides of the plows may be varied to facilitate plowing at different depths. In order that such changes may be readily effected, and still the necessary rigidity be retained in the direction of the line of draft, I have provided adjustable braces C, each consisting of two parts, and the parts being respectively pivoted to the plow-beams B and the standards S, and said parts being united at their ends which approach each other by bolts c, while one or both the parts of each brace are provided with several holes to which the bolts c can be shifted, thus providing for the lengthening or shortening of the braces as the plows are shifted up and down. This is particularly illustrated by a comparison of Figs. 2 and 3. In Fig. 2 the plow is shown as arranged to plow to a shallow depth, while in Fig. 3 it is shown as arranged to plow deeper, and the braces are adjusted accordingly.

By the use of my invention it is easy to plow back and forth continuously wherever desired, instead of plowing around a field, as is common; and the furrows are uniformly thrown in the same direction, thus avoiding the leaving of a trench or open furrow at the middle of the field. By this means I also secure that the draft-animals shall not have to travel upon the plowed ground, as one may

travel in the bottom of the furrow last plowed and the other upon the unplowed ground, where two are used; and where one is used it may travel upon the unplowed ground entirely. All that is necessary in shifting the plow to run in the opposite direction to its former course is to lift that plowshare which is out of use off the opposite supporting-studs and let it down to position to use, and lift the other one onto the corresponding stud on the standard which has just been lowered.

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

1. The combination, in a plow, of the axle, frame-pieces extending forward from said axle, standards extending upwardly from said axle, plow-beams pivoted on the forwardly extending frame-pieces and running thence back between the upwardly extending standards, and plow-shares adjustably secured by suitable means, such as the standards S and braces C and their adjustable connections upon the rear end of said plow-beams, and each capable of independent adjustment and use, substantially as shown and described.

2. The combination, in a plow, of the axle, the frame-pieces, standards attached to said axle, two plow-beams pivoted to said frame pieces and guided by said standards, and plow-shares carried by standards attached to

the rear ends of said plow-beams and adjustable vertically thereon, and adjustable braces connecting said standards and said plow-beams, substantially as set forth.

3. The combination, in a plow, of a suitable frame-work, two pivoted plow-beams attached to said frame-work, a plow-share adjustably secured to each of said plow-beams by means of standards S having a series of perforations, with bolts b, and adjustable braces C having also a series of perforations, and the two parts whereof are united by bolts c, substantially as shown and described.

4. The combination, in a plow, of a suitable frame-work, two pivoted plow-beams attached to said frame-work, and a plow-share adjustably secured by suitable means to each of said plow-beams and provided with standards S each having a stud s upon which the other plow may be supported when lifted out of operative position, said several parts being arranged and operating substantially as set forth.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 14th day of March, A. D. 1895.

HENRY WESTPHAL. [L. S.]

Witnesses:

CHESTER BRADFORD,
JAMES A. WALSH.