

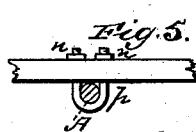
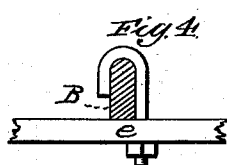
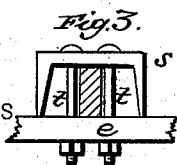
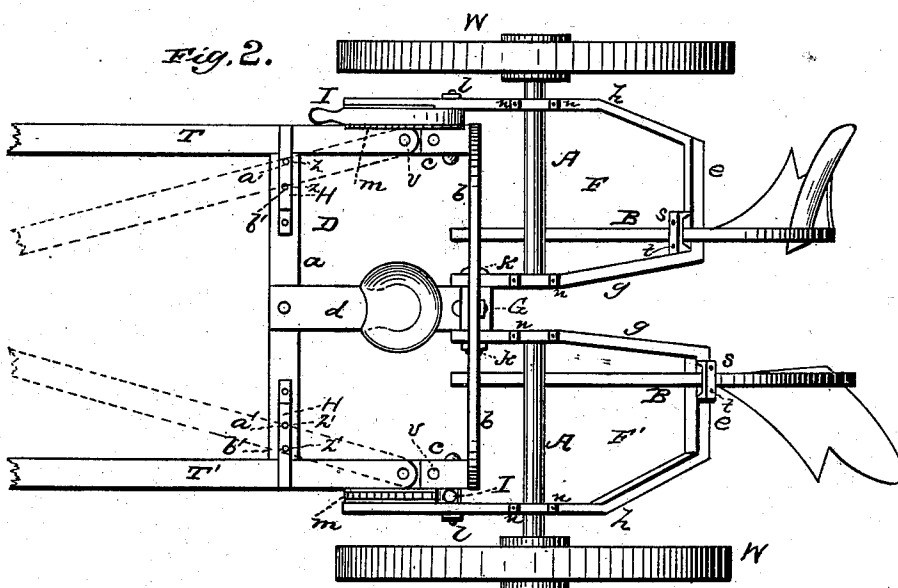
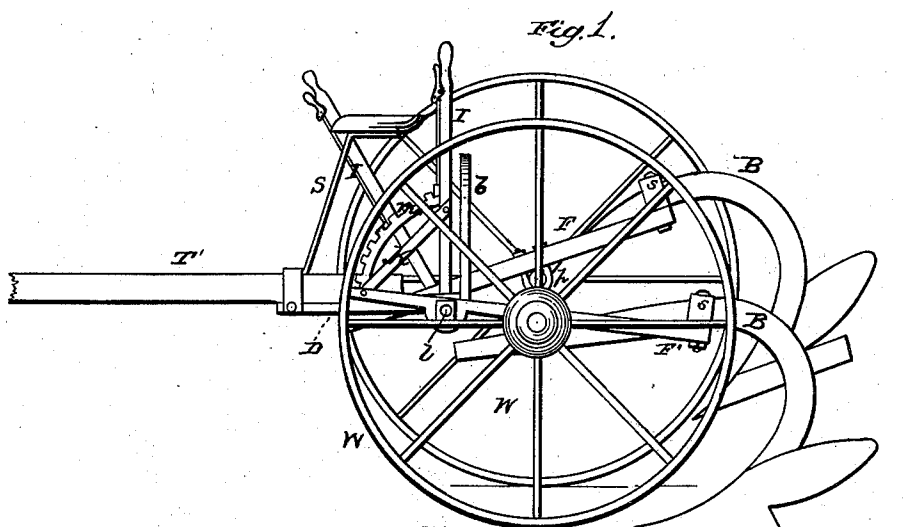
(No Model.)

F. C. BRYAN.

WHEEL PLOW.

No. 269,002.

Patented Dec. 12, 1882.



WITNESSES  
E. H. Bates  
P. C. Masini.

INVENTOR  
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# UNITED STATES PATENT OFFICE.

FRANKLIN C. BRYAN, OF WINONA, MINNESOTA.

## WHEEL-PLOW.

SPECIFICATION forming part of Letters Patent No. 269,002, dated December 12, 1882.

Application filed May 20, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, FRANKLIN C. BRYAN, a citizen of the United States, and a resident of Winona, in the county of Winona and State of Minnesota, have invented a new and valuable Improvement in Wheel-Plows; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a side view of this invention. Fig. 2 is a plan view of the same. Figs. 3, 4, and 5 are details of the construction.

This invention has relation to wheel-plows; and it consists in the construction and arrangement of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, the letter D represents the tongue-frame, which is of rectangular form, raised in rear, and consists principally of the front transverse bar, *a*, the raised rear transverse bar, *b*, the side bars, *c*, and the middle bar, *d*, to which the seat-standard S is fastened.

F and F' indicate the plow-frames, which are independent of each other, and are laterally arranged one on each side of the center. These frames are similar in form, one being designed for the right-hand plow and the other for the left.

Each frame consists of a rear transverse bar, *e*, and extending forward therefrom an inner arm, *g*, and an outer arm, *h*.

The frame-work is of wrought-iron, and the three sections D, F, and F' are pivoted together in the following manner: The inner arms, *g*, of the plow-frames are pivoted to each other and to a central bearing, G, of the frame D by means of the transverse bolt *k*, and the outer arms, *h*, are pivoted to the side bars, *c*, of the tongue-frame by the bolts *l*. The arms *h* extend forward of the pivots *l*, and are provided with the lever-handles I, which are firmly secured in position with relation to said arms by braces K.

The tongue-frame is provided on each side with a toothed quadrant, *m*, to engage a spring-catch on each lever, whereby the relative posi-

tion of each plow-frame after adjustment is secured.

The axles A are located in rear of the pivotal connections of the plow-frames with the tongue-frame, and are securely bolted respectively to the arms of each frame by means of the U-shaped bolts *p* and nuts *n*, as indicated in the drawings. The wheels W therefore have independent axles, one being carried by each plow-frame.

B B designate the plow-beams, which are connected at a point above the front ends of the plows, or at any point the plows work best, to the rear bars, *e*, of the plow-frames by means of clamps *s* and vertical parallel bolts *t*, which are located one on each side of the plow-beam and extend through perforations *r* in the rear bar of the frame. A single hook-bolt may be used in place of the two bolts. This is the only fastening employed in connecting the beam, and it is designed to allow the beam to have a lateral vibratory movement, so that each plow will be self-adjusting, always keeping in the line of draft. The forward ends of the plow-beams extend under the axles and bear against them. Only one of the plows is intended to be used at a time, the other being elevated, so that this construction constitutes a side-hill plow. When the plows are not in use they are raised by means of the levers *l*, and are held in the raised position by the lever-catches and the quadrants of the frame D. By raising its lever either plow-frame can be dropped in working position, together with its plow, and its wheel is at the same time depressed or set lower as required. The low wheel always runs in the furrow just turned, so that the machine is kept level.

T and T' indicate the two tongues, which are secured to the sides of the frame D by pivot-bolts *v*, extending vertically through the frame-bars some distance in rear of the front bar, *a*, of the frame. These tongues rest on the frame D, extending through the elongated transverse bearings formed between the ends of the front of the frame and the raised straps H, which are secured thereto. Perforations *a'* and *b'* are made through the straps and the bar *a* to receive the vertical bolts *z* and *z'*, whereby the tongues are fastened in position. When three horses are employed the tongues are ad-

justed in parallel position, extending straight forward, and are held by the bolts  $z z'$ . When two horses are to be used the tongues are adjusted in oblique position, as indicated by the dotted lines, so that their ends will meet in front. In making either adjustment of the tongues the bolts  $z z'$  are to be removed, and then replaced after the tongues have been arranged in the desired position.

10 Independent plow-frames, each pivoted to the tongue-frame and each carrying the axle of one wheel, have been used prior to my invention, and said construction is not broadly claimed herein.

15 Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a wheel-plow, the combination, with the

lateral plow-frames  $F F'$  and their independent axles  $A$ , of the plow-beams  $B$ , and the clamps, 20 having the vertical parallel bolts  $t$ , one on each side of the plow-beam, substantially as specified.

2. The wheel-plow consisting of the front frame,  $D$ , its quadrants  $m$ , and tongues  $T T'$ , 25 the lateral independent plow-frames  $F F'$ , pivoted to said front frame, their levers  $I$ , axles  $A$ , and wheels  $W$ , and the plow-beams  $B$  and their plows, substantially as specified.

In testimony that I claim the above I have 30 hereunto subscribed my name in the presence of two witnesses.

FRANKLIN C. BRYAN.

Witnesses:

A. N. BENTLEY,

J. R. BUCK.