C. CIZEK.

REVERSIBLE PLOW.

APPLICATION FILED JUNE 17, 1911.

1,010,117.

Patented Nov. 28, 1911.

Fig. 1.

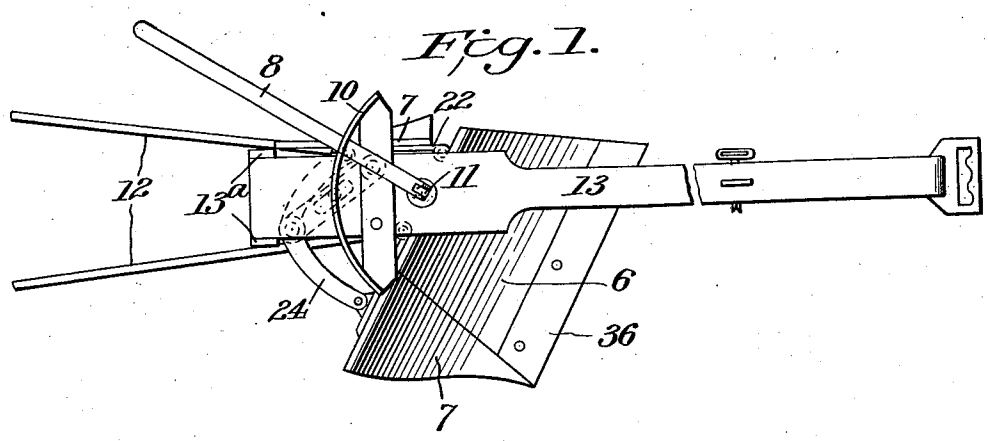
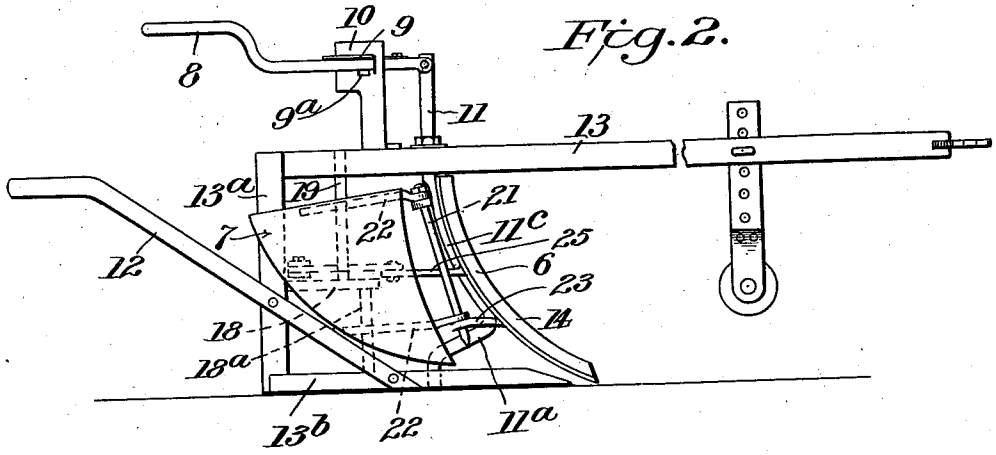


Fig. 2.



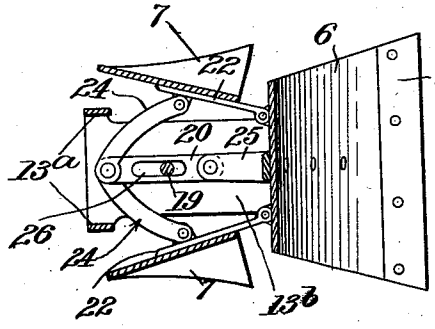


Fig. 3.

WITNESSES

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REVERSIBLE PLOW.

1,010,117. Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed June 17, 1911. Serial No. 633,890.

To all whom it may concern:

Be it known that I, CHARLES CĬŽEK, a subject of Emperor Francis Joseph of Austria-Hungary, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Reversible Plows, of which the following is a specification.

This invention relates to plows, and particularly to that class thereof known as reversible or side hill plows, in which the mold board may be swung from one side to the other as the direction of draft is reversed.

The object of the invention is to provide improved means for reversing the moldboard, a pair of wings being used in connection with the moldboard, so that in either position one wing forms an extension on the moldboard and the other forms the landside.

The invention is illustrated in the accompanying drawings in which—

Figure 1 is a plan of the plow. Fig. 2 is a side elevation showing the parts swung to middle position. Fig. 3 is a detail in sectional plan illustrating the devices for swinging the moldboard and wings.

Referring specifically to the drawings, 6 indicates a moldboard of symmetrical shape, with a removable share or blade 36 at its lower edge.

7 are wings located at opposite sides of the plow and arranged to match or join respectively with the opposite ends of the moldboard, when swung to either right or left hand position.

The plow beam is indicated at 13, and at its rear end has a standard 13^a attached to the rear end of the foot 13^b, the handles 12 being secured to the foot and standard.

The moldboard is pivotally supported between the beam and the foot by means of a long pin 11 which extends through a bearing in the beam and may be turned therein. This pin is flattened as indicated at 11^c, where it is attached to the back side of the moldboard, and at its lower end the pin is cranked backwardly as indicated at 11^a and pivoted in the foot, forming the lower bearing. A lever 8 has a knuckle joint with the upper end of the pin 11, and the lever swings in a slot in a segment plate 10 mounted on top of the beam, the slot having notches 9^a at opposite ends into which the lever 8 is pressed and held by a spring 9 when the lever is swung to full extent in one direction or the other, and this locks the moldboard in adjusted position.

The wings 7 are connected to the moldboard by means of upper and lower arms 22 which are hinged to the moldboard by pins 21 extending through the arms and through lugs 23 on the back of the moldboard, thereby permitting the wings to swing horizontally, said wings being so shaped that their inner edges will match with the ends of the moldboard and form a continuation thereof, and the swing of the wings is effected by reversing the moldboard. A link 24 is pivotally connected to the lug 23 on the back of each wing, and the inner ends of these links are pivotally connected to the rear end of a slotted lever 20 which is pivoted at its front end to a bracket 25 projecting from the moldboard at the middle line thereof. The lever 20 turns on a rod 19 which extends through the slot 26, said rod being connected at its upper end to the beam 13 and at its lower end to a brace 18, projecting forwardly from the standard 13^a, the brace being supported by an upright 18^a on the foot. The lever 20 rests on the brace 18.

When the moldboard 8 is turned either to the right or left as the case may be, by means of the lever handle 8, the arms 22 and link 24 cause the wing on the furrow side to swing outwardly to connection with the edge of the moldboard, and the wing on the landside is drawn inwardly behind the cutting edge of the moldboard, and forms, in effect, a landside. This action is assisted by the swing of the lever 20 which in consequence of its connection to the bracket 25 turns on the pivot rod 19 to swing one wing outwardly and the other inwardly, the slot 26 permitting the longitudinal movement incident to the operation. When the moldboard is reversed the wings are also reversed, by the means illustrated. The arms 22 act as distance rods to hold the wings in proper position relative to the moldboard, and the links 24 support the thrust on the wings.

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

1. In a plow, the combination of a beam and foot, a moldboard pivotally mounted between the beam and foot to swing horizontally to the right or left, means to swing the moldboard, wings connected to the moldboard and arranged to swing to join either wing with the corresponding end of the

moldboard, a lever having a connection to the back of the moldboard at the middle of the latter, and links connecting the rear end of the lever to the wings.

2. In a plow, the combination of a beam, a horizontally swinging moldboard pivoted thereto, wings at opposite sides of the plow, arms connecting the wings to the back of the moldboard, said arms being pivoted to the mold board and of proper length to cause the edge of either wing to join the end of the moldboard, and means connected to the moldboard to swing the wings in and out, substantially as described.

3. In a plow, the combination of a beam, a moldboard pivoted at the middle thereto to turn to the right or left, swinging wings connected to the moldboard toward opposite ends thereof, a lever located between the wings and behind the moldboard and having a slot, a pivot pin extending through the slot, a bracket projecting from the middle of the rear side of the moldboard and connected to the lever, and pivoted links connecting the wings and the rear end of the lever.

4. In a plow, the combination of a beam, a standard 13^a at the rear end thereof, a foot projecting forwardly from the standard, a moldboard provided with an upper pivot in the beam and a lower pivot in the foot, wings pivotally connected to the moldboard, toward opposite ends thereof, a pivot pin 19 supported between the beam and the foot, behind the moldboard, a lever 20 having a slot through which said pin extends, a bracket 25 secured to the back of the moldboard and pivoted to the front end of said lever 20, and links 24 pivotally connected to the rear end of said lever and the wings.

In testimony whereof, I do affix my signature in presence of two witnesses.

CHARLES CIŽEK.

Witnesses:
JOHN A. BOMMHARDT,
STEDMAN J. ROCKWELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."