No. 673,036. Patented Apr. 30, 1901.

B. R. SNIDER.

EXCAVATOR PLOW.

(Application filed Dec. 13, 1900.)

(No Model.)

Fig. 1

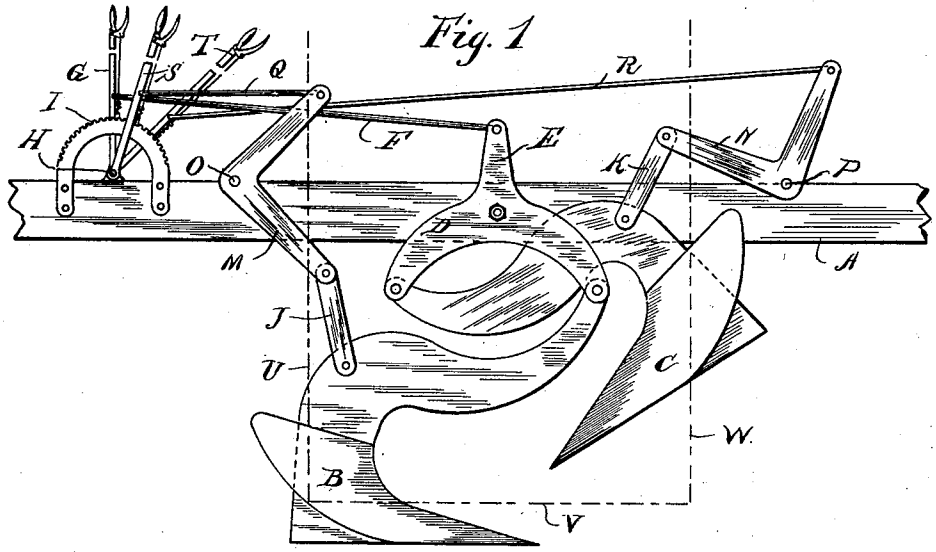
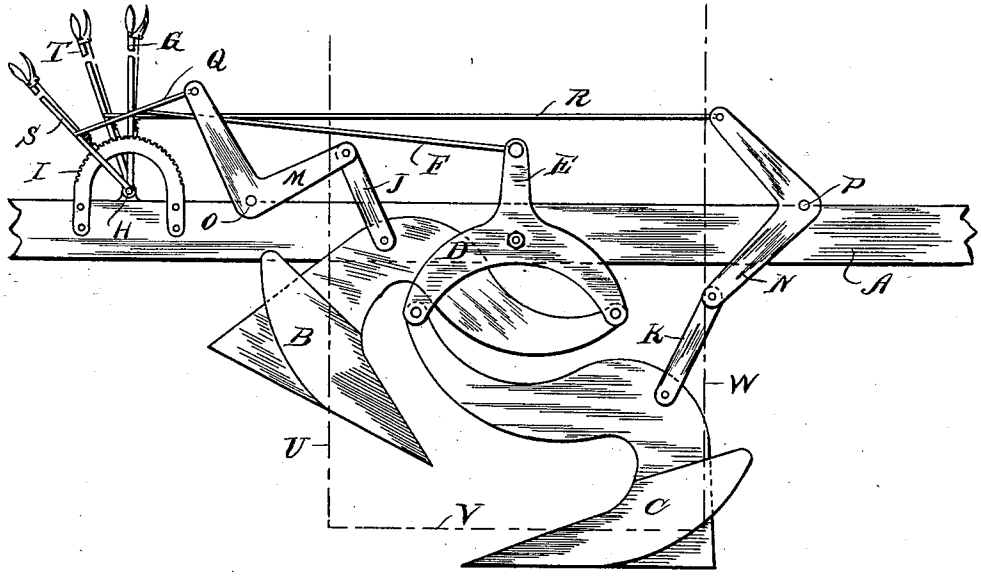


Fig. 2



Witnesses:

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EXCAVATOR-PLOW.

SPECIFICATION forming part of Letters Patent No. 673,036, dated April 30, 1901.

Application filed December 13, 1900. Serial No. 39,583. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN R. SNIDER, a citizen of the United States, residing at Abingdon, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Excavator-Plows, of which the following is a specification.

My invention relates to plows for excavating purposes wherein the dirt is discharged by the plow upon an elevator which conveys it to a wagon or other receptacle; and it consists of an arrangement of two plows set in opposite directions, point to point, so as to plow when going either way and to deliver the dirt on substantially the same part of an elevator, as set forth in the specification, and more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my invention, showing it set to plow when being drawn to the right; and Fig. 2 is the same, showing it set to plow when drawn to the left.

A represents a supporting-bar, which is adapted to be attached to an excavator of any suitable construction and in any suitable manner, or it may be a part of the excavator-frame. The plows B and C are connected at the front ends of their beams B′ and C′ to the opposite ends of a rocker D, which is pivoted at or near its center to the bar A and is provided with an arm E, to the end of which a connecting-rod F is attached. The other end of the connecting-rod F is attached to a hand-lever G, which is pivoted to the bar A at H and is provided with a pawl and ratchet I of suitable construction, as shown in the drawings. To the rear end of the plow-beam B′ a connecting-bar J is pivoted at its lower end, and its upper end is pivoted to one end of a bent rocking bar M, which is pivoted at O to the bar A. The opposite end of the rocker M is connected to the hand-lever S by the rod Q, which lever is also pivoted to the bar A at H and is fitted with a suitable pawl and ratchet. In a like manner the rear end of the plow-beam C′ is connected by a bar K to one end of the rocker N, which is pivoted at P to the bar A, and the other end of the rocker N is connected to the hand-lever T by means of the rod R. The lever T is likewise pivoted to the bar A at H and is provided with a suitable pawl and ratchet to hold it in position. It will be seen that by this arrangement the plows are suspended substantially below the bar A, point to point, and that either plow may be set to plow when the excavator is moving in its direction, while the other plow will be lifted up out of the way. They may both be lifted out of the ground while the excavator is being taken from one field or work to another; but they cannot both be let into the ground at the same time, because their points would come in contact with each other. As shown in the drawings, the beams of the plows lap on each other, and the end of each beam is secured to the end of the rocker nearest to the other plow. In this way the plows are made to occupy substantially the same space and to deliver their dirt at substantially the same point with relation to the bar A or the excavator to which it may be attached.

The excavator proper is not shown in the drawings, because my plow may be attached to any kind of excavator which is capable of being run in opposite directions over the dirt to be excavated, and any person who is skilled in the art can make the attachment by affixing the bar A to the frame of the excavator or by attaching the plows B and C to the excavator-frame, so that they may be alternately set in the ground or lifted out of it. The foot of the elevator belonging to the excavator is to be set close to the plows, as indicated by the dotted lines U V W, so that without changing its position the dirt from both of the plows B and C will be delivered upon it.

The construction and operation of the rocker-frame D are such that by manipulating the hand-lever G the front ends of the plow-beams may be raised or lowered, so as to make the plow, which is in the ground, cut deeper or shallower, as desired. The hand-levers G, S, and T are preferably grouped at one place, so that the operator can adjust or set either plow without having to move from his position to do so.

It is evident that a number of changes may be made in the details of construction to more fully adapt the plow to different conditions without departing from the sphere and scope of my invention. Therefore I do not confine myself to the precise construction shown; but

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

1. In excavators, the combination of a supporting bar or frame, with two plows set point to point so as to work alternately in opposite directions, and occupying so nearly the same space that both plows will deliver the dirt at substantially the same point of deposit, substantially as described.

2. In excavators, the combination of a supporting bar or frame, with two plows set point to point so as to work alternately in opposite directions, and occupying so nearly the same space that both plows will deliver the dirt at substantially the same point of deposit, and means to adjust the depth of the plows, substantially as described.

3. In excavators, the combination of a supporting bar or frame, with two plows set point to point so as to work alternately in opposite directions, and occupying so nearly the same space that both plows will deliver the dirt at substantially the same point of deposit, and means to lift and hold the plows out of the ground, substantially as described.

4. In excavators, the combination of a supporting bar or frame, with two plows set point to point so as to work alternately in opposite directions, and occupying so nearly the same space that both plows will deliver the dirt at substantially the same point of deposit, and means to adjust the depth of said plows and to lift and hold them out of the ground, substantially as described.

5. In excavators, the combination of a supporting bar or frame, with two plows set point to point so as to work alternately in opposite directions, and occupying so nearly the same space that both plows will deliver the dirt at substantially the same point of deposit, and means to hold one plow in and the other out of the ground, and vice versa, substantially as described.

6. The combination of two plows set point to point, so as to work in opposite directions, and their working positions overlapping each other so as to deliver the dirt at substantially the same point of deposit, substantially as described.

7. The combination of a supporting bar or frame with two plows set in opposite directions and lapping on each other, a rocker pivoted to said bar or frame and connected at its opposite ends to the front ends of the plow-beams and means to adjust the position of the rocker and thus regulate the depth of the plows in the ground, substantially as described.

8. The combination of a supporting bar or frame with two plows set in opposite directions and lapping on each other, a rocker pivoted to said bar or frame, and connected at its opposite ends to the front end of the plow-beams, an arm on the rocker, a hand-lever fitted with a pawl and ratchet and a rod connecting the hand-lever, and the arm of the rocker together substantially as described.

9. The combination of a supporting bar or frame with two plows set in opposite directions and lapping on each other, bent rocking levers pivoted to said bar or frame above the rear ends of the plows, bars connecting the rear ends of the plows to the lower arms of the rocking levers, and means to operate the rocking levers and to thus lift the rear ends of the plows out of the ground and to hold them in the ground and vice versa substantially as described.

10. The combination of a supporting bar or frame with two plows set in opposite directions and lapping on each other, bent rocking levers pivoted to said bar or frame above the rear ends of the plows, bars connecting the rear ends of the plows to the lower arms of the rocking levers, hand-levers provided with suitable pawls and ratchets and rods connecting the hand-levers and the upper ends of the rocking levers together, substantially as described.

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Witnesses:
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