No. 640,260. Patented Jan. 2, 1900.

M. O. BECKNER.

HILLSIDE DOUBLE SHOVEL PLOW.

(Application filed Sept. 27, 1899.)

(No Model.)

Fig. 3

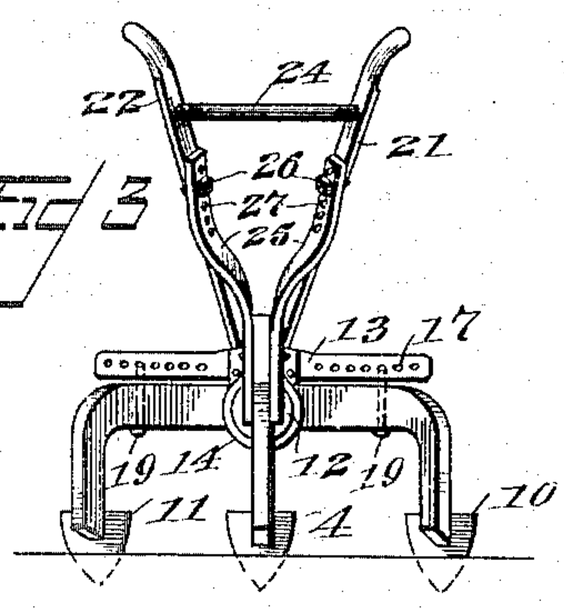

Fig. 4

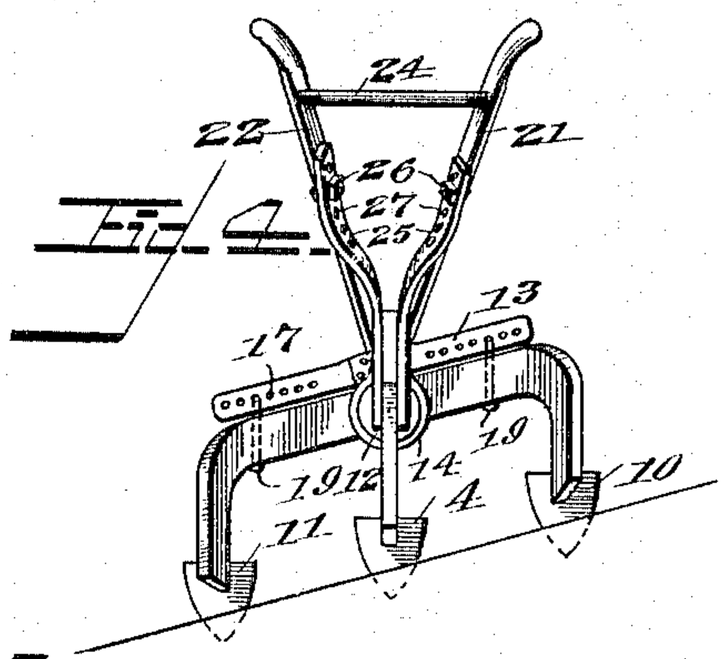

Fig. 2

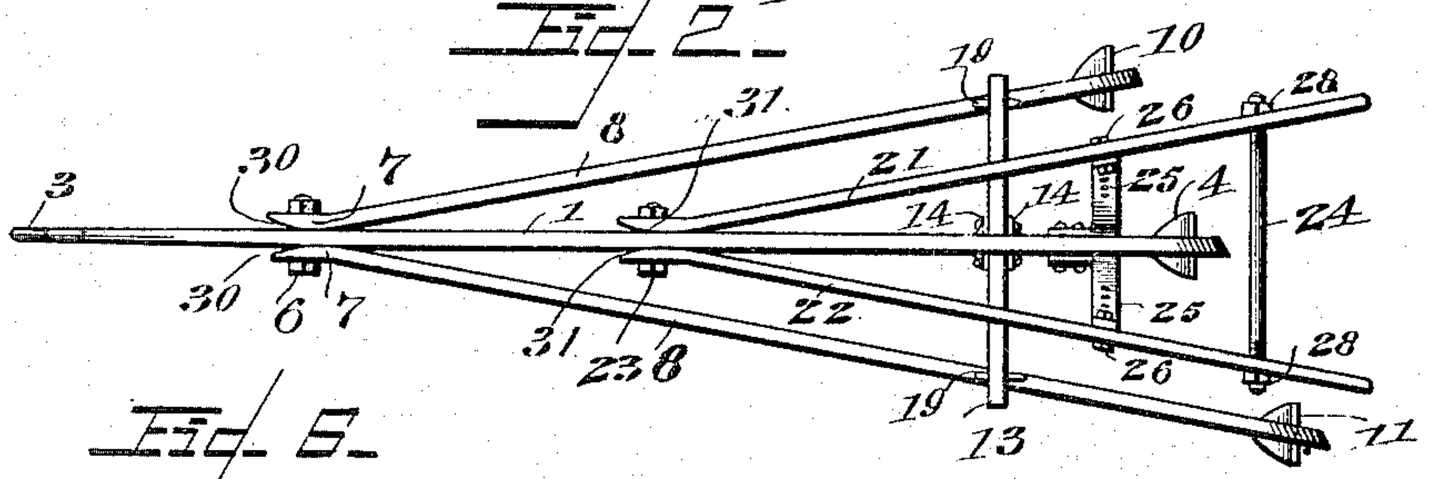

Fig. 6

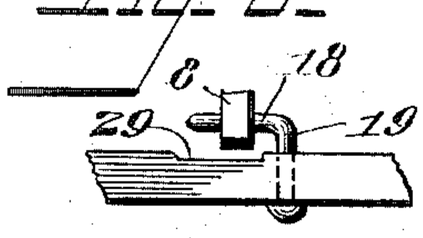

Fig. 1

Fig. 5

Witnesses

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UNITED STATES PATENT OFFICE.

MATTHEW O. BECKNER, OF TROUTSVILLE, VIRGINIA, ASSIGNOR TO WILLIAM J. JOHNSON, OF ROANOKE COUNTY, VIRGINIA.

HILLSIDE DOUBLE-SHOVEL PLOW.

SPECIFICATION forming part of Letters Patent No. 640,260, dated January 2, 1900.

Application filed September 27, 1899. Serial No. 731,882. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW O. BECKNER, a citizen of the United States, residing at Troutsville, in the county of Botetourt and State of Virginia, have invented a new and useful Hillside Double-Shovel Plow, of which the following is a specification.

My invention relates to improvements in plows of that particular type known as "hillside-plows." These plows are constructed in a manner to accommodate them to hilly or uneven ground; and the objective point is a construction which will accommodate the plow to uneven surfaces without necessity for the attention of the plowman and without producing side drafts.

My invention therefore consists in constructing a plow with a plurality of plow-beams independently pivotally mounted, connected and retained in their proper relative positions by a yoke permitting their independent pivotal movement, and designed to be held in contact with the ground by means of an adjustable handle, which under all conditions will maintain its proper horizontal position.

The invention consists, further, in the provision of novel mechanism for retaining the plow-beams at different distances apart and for causing the plows to maintain their proper vertical positions at all times, notwithstanding the incline of the ground and the consequent varying horizontal positions of the plows.

Referring to the drawings, Figure 1 is a perspective view of my plow complete. Fig. 2 is a top plan view thereof. Fig. 3 is a rear elevation. Fig. 4 is a similar view illustrating the position of the parts when the plow is employed on a hillside. Fig. 5 is a detail sectional view illustrating the construction of the beam-yoke and the manner of its connection with the beam, and Fig. 6 is a detail view of one of the beam-supporting hooks and the immediately-connected parts.

Referring to the numerals of reference indicating corresponding parts in the several views, 1 indicates the center beam of my plow, provided at one end with a series of openings 2 and a draft-hook 3 and carrying at its rear end a plow 4 of any desired form, secured, as usual, to the standard 5 of the beam. The apertures 2 are designed for the reception of a transverse bolt 6, upon which are pivotally mounted the substantially parallel front ends 7 of the diverging side plow-beams 8, preferably shorter and longer, respectively, than the center beam 1 and, like said beam, provided with plows 10 and 11.

The center beam 1 at a point preferably somewhat nearer its rear extremity is provided with an integral or otherwise formed cylindrical enlargement or yoke-hub 12, constituting a medial journal for a rocking beam-yoke 13, preferably provided with a bearing-strap 14, bent around the hub and having its upper parallel extremities 15 twisted to a plane transverse to the hub and bolted or otherwise secured to a slightly-elevated central portion 16 of the yoke.

As intimated by the term applied to the yoke 13, it is designed to rock upon the center beam to accommodate the pivotal movements of the side beam while serving to connect the several beams at proper distances apart. The under edge of the center of the yoke preferably rests upon the hub, as shown in Fig. 5, and at its outer ends the yoke is provided with series of apertures 17 for the reception of the right-angular extremities 18 of beam-supporting hooks 19, passing edgewise through the side beams and secured in any suitable manner.

20 indicates a plow-handle comprising the upwardly and rearwardly diverging bars 21 and 22, pivotally supported at their lower front ends adjacent to the opposite faces of the center beam by a bolt 23. These bars are connected near their rear ends by the usual cross-bar 24 and are adjustably supported upon a handle-supporting frame 25 by bolts 26, passed through the handle-bars and through the corresponding openings of two series 27, formed in the diverging side plates of said frame. The cross-bar 24 of the handle is preferably screw-threaded through a portion of its length adjacent to each end for the reception of securing-nuts 28, by means of which relative lateral movement of the handles is permitted as the distance between

them is increased or diminished by their elevation or depression along the diverging sides of the handle-frame.

It will now be seen that as the plow is drawn over the ground the side bars will be permitted to swing to accommodate the horizontal positions of the plows to the hillside without tilting the handle and without disturbing the proper vertical positions of the plows and standards. As the side beams assume the positions, for instance, illustrated in Fig. 4 of the drawings the yoke will rock upon the hub 12, and the pivotal connection established between the yoke and side beam by the beam-supporting hook 19 will permit the angular disposition of the yoke without affecting the vertical position of the beam. If desired, the upper edges of the beams may be slightly recessed, as indicated at 29, to prevent the beams and yoke from abutting during the change of position of these elements. If it is desired to make the plow wider or narrower, as the case may be, the yoke is moved transversely to cause the disengagement of the hooks 19. The side beams are then swung toward or from the center beam, as the case may be, and the yoke is moved to its normal position, causing the engagement of the hooks with the proper openings 17. This horizontal movement of the side beams is facilitated by the curved faces 30 at the forward ends of the side beams and opposed to the opposite faces of the center beam in the plane of the bolt 6. Similar faces 31 are provided at the ends of the handle-bars to facilitate their lateral adjustment.

A plow constructed in accordance with my invention may be readily converted for use as a harrow, cultivator, or plow by mounting teeth, shovels, or shares upon the several standards, or, if desired, the side beams can be entirely removed. Furthermore, the plow 4 may be removed from the middle beam when it is desired to use the implement as a double plow. Thus it will be seen that the present invention may be used as a single or double plow and may also employ the three plows, as desired, without changing or altering the handles and at the same time preserving the adjustment of the two side beams.

From the foregoing it will be noted that I have devised a novel plow comprising a plurality of plow-beams automatically relatively movable vertically and adjustable horizontally to accommodate the device to the character of the ground, and the handles of which may be adjusted vertically and horizontally to suit all conditions, and that by the provision of a connecting beam-yoke of novel construction I am enabled to impart like pressure to the several plows, notwithstanding their various horizontal positions. I do not desire to limit myself, however, to the structural details illustrated and described, but reserve the right to change, modify, and vary the structural embodiment of my invention at will within the scope of the protection prayed.

What I claim is—

1. A plow, comprising a plurality of pivotally-connected beams, a transverse rocking beam-yoke, mounted intermediate of its ends upon an intermediate beam, and also connected to the other beams, and handle-bars connected to the said intermediate beam.

2. In a plow, the combination with a center beam, of side beams pivoted at their front ends to the center beam and capable of horizontal and vertical movement with respect thereto, a rocking yoke carried by the center beam and an adjustable pivotal connection between said yoke and each of the side beams.

3. In a plow the combination with a center beam, of a pair of rearwardly-divergent side beams pivotally connected at their front ends with the center beam, a transverse beam-yoke journaled upon the center beam and provided with longitudinal series of apertures, and angular beam-supporting hooks extending from the upper edges of the side beams and engaging openings in the yoke.

4. In a plow, the combination with a center beam, of side beams having substantially parallel front ends provided with curved faces opposed to the center beam, a bolt passing through one of a series of apertures in the center beam and through the ends of the side beams, a rocking yoke carried by the center beam, and means for effecting an adjustable pivotal connection between each of the side beams and the yoke.

5. In a plow, the combination with a center beam provided with a cylindrical hub, of a rocking yoke provided with a bearing-strap passing around said hub, a pair of side beams pivoted at their front ends to the center beam, and angular beam-supporting hooks extending from the side beams and engaging apertures in the yoke.

6. A plow comprising vertically-movable and horizontally-adjustable beams operatively connected and a vertically-adjustable handle supported by one of the beams and comprising laterally-adjustable handle-bars.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

MATTHEW O. BECKNER.

Witnesses:
F. G. WOODSON,
W. B. SIMMONS.