I. A. WEAVER.

MOUNTING FOR PLOWS.

APPLICATION FILED MAR. 15, 1912.

1,043,277. Patented Nov. 5, 1912.

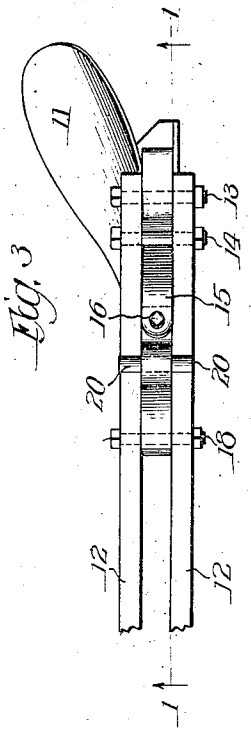

Fig. 3

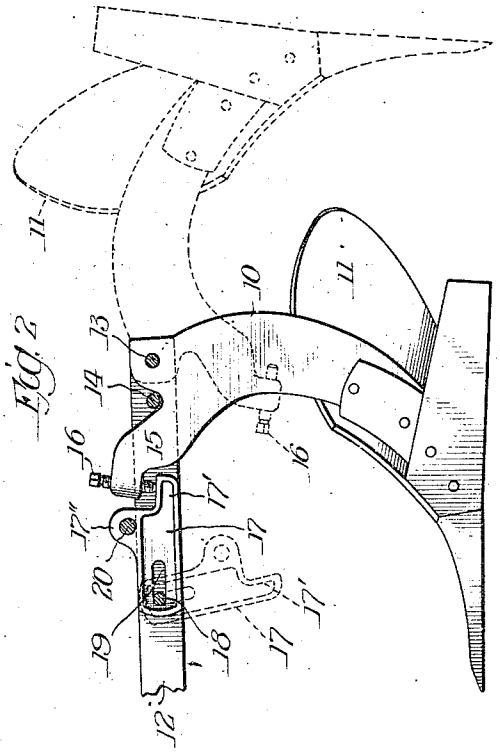

Fig. 2

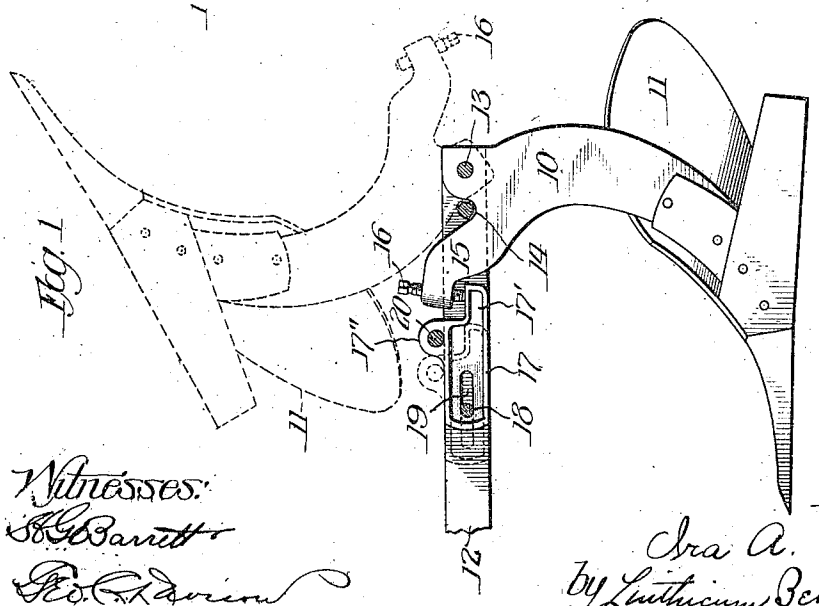

Fig. 1

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UNITED STATES PATENT OFFICE.

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MOUNTING FOR PLOWS.

1,043,277. Specification of Letters Patent. Patented Nov. 5, 1912.

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To all whom it may concern.

Be it known that I, IRA A. WEAVER, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Mounting for Plows, of which the following is a specification.

My invention relates to mountings for plows, and has more particular reference to improvements in the standards and break-pins of plow mountings for use principally in engine-driven plows.

The principal objects of the present invention are to provide a plow mounting in which the point of the plow-share is readily adjusted for depth; secondly, to provide a break-pin in such mounting for preventing injury to the plow when unyielding obstructions are encountered in service; thirdly, to provide a plow mounting by which the plow-share may be readily turned upside-down for convenience in application or repair, and, fourthly, to provide a plow standard invertible as above indicated which, together with the plow-share thereon, may be returned to the original plowing position without altering the adjustment.

Other objects will appear hereinafter.

The invention will be best understood by reference to the accompanying drawings forming a part of this specification, in which:—

Figure 1 is a side elevation of a preferred embodiment of these improvements, the dotted lines showing the position of the plow when inverted, the front beam being removed for the better illustration of the pin-block. This view and that of Fig. 2 are taken on the line 1—1 of Fig. 3. Fig. 2 is a similar side elevation, the dotted lines indicating the position of the plow-share and the break-pin block just after the plow has encountered an obstruction sufficiently unyielding to shear the pin, and Fig. 3 is a top plan showing the several parts clamped between the 2-part draft bar or plow beam.

The standard 10, to which is secured the plow-share 11, is pivotally mounted between the arms of the two-part or bifurcated plow beam 12 by means of the through-bolt 13. The standard 10 is formed with a depression in its upper edge adapted to engage the stop-bolt 14, whereby the forward and uptilting movement of the point of the plow-share is limited. By reference to the dotted lines of Fig. 1 it will be seen that this stop-bolt 14 also limits the rotative movement of the standard in the opposite direction. A forwardly projecting end 15 upon the standard 10 is vertically recessed and tapped for the accommodation of the adjusting screw 16. The pin-block 17 comprises preferably a casting or stamping having a rearward projection 17′ and an upstanding projection 17″. This block is loosely held between the two arms of the plow beam 12 by the through-bolt 18, a slot 19 in the block permitting a forward and backward movement thereof. The projection 17″ is transversely apertured for the accommodation of the break-pin 20, which is preferably made of wood of suitable thickness and toughness to withstand a predetermined strain.

From the foregoing it will be readily understood that when it is desired to raise or lower the point of the plow-share it is only necessary to turn the screw 16 in one direction or the other, and that having made an adjustment of the plow-share as desired, this adjustment will remain constant and fixed until intentionally changed. It is plain from the drawings that the required resistance to the downward tendency of the screw 16 during the plowing action is resisted by the pin-block 17, which, in turn, is supported in its substantially horizontal position by means of the break-pin 20 contacting the upper surface of the plow beam 12. It will now be understood that when the plow-share encounters an obstruction which is sufficiently unyielding to cause a breakage of the plow-share, standard or other part of the plow, the pin 20 will be broken through the shearing action of the pin-block and plow beam, and that thereupon the block will fall or be forced out of contact with the screw 16, whereupon the point of the plow, being still held by the obstruction, will turn to the position shown by the dotted lines in Fig. 2 and be released, the plow as a whole still traveling forward. In order to readjust the plow-share for further plowing it is only necessary to swing it forward into plowing position, raising the pin-block, or stop-block, as it may also suitably be called, until it contacts the screw 16, and lock the parts together by the insertion of a new break-pin. The plow-share can thus be put into plowing position without appreciable loss of time,

and without any thought as to the degree of elevation or lowering of its point, the adjustment of the screw 16 remaining unchanged.

Should it be desired to remove or repair the plow-share, the stop-block may be easily moved, through its pin-and-slot mounting, out of the path of travel of the adjusting screw 16 and the plow-share inverted as shown by the dotted lines of Fig. 1. When the repairs are completed the standard and plow-share may be readily returned to their plowing positions, and, when the pin-block is moved into contact with the screw 16 plowing may be begun without any adjustment of the plow-point, the adjustment of the screw 16 not having been altered.

While there is illustrated and described herein a preferred embodiment of the present improvements, it will be evident to those skilled in the art that many changes in the construction and arrangement of parts may be made without departing from the spirit or scope of this invention.

I claim:—

1. In a mounting for plows, the combination of a plow-beam, a plow-standard pivotally mounted thereon, a plow-share on said standard, a stop on said plow-beam adapted to be moved into engagement with said standard and thereby hold said plow-share in plowing position, said stop being adapted to be moved out of engagement with said standard, thereby permitting the plow-share and standard to be rotated into inverted position, substantially as described.

2. In a mounting for plows, the combination of a bifurcated plow-beam, a plow-standard and a break-pin block pivotally mounted between the arms of said plow-beam, said block being slotted to permit longitudinal movement thereof and having a break-pin aperture, a break-pin in said aperture and contacting said plow-beam, an adjusting screw in said standard for raising and lowering the point of said share, said screw being arranged to bear against said block and maintain said share in plowing position, said pin being adapted to break under a strain less than sufficient to break said share or standard and thereby automatically release said share from plowing engagement with the ground, said block being also adapted to be moved manually out of engagement with said screw whereby the standard and share may be raised to inverted position on said plow-beam, substantially as described.

3. In a mounting for plows, the combination of a plow-beam, a plow-standard pivotally mounted thereon, a plow-share on said standard, means for manually adjusting the inclination of the point of said share and for holding the same in plowing position, said means being adapted to release said share from plowing engagement with the ground when said share encounters a resistance likely to break said share or standard, substantially as described.

4. In a mounting for plows, the combination of a plow-beam, a plow-share, a standard movably mounted on said beam and constituting a support for said plow-share, a stop-block against which said standard bears, a break-pin associated with said stop-block adapted to break and release said block and plow-share under abnormal plowing strains, and a mounting for said block permitting the latter to be readily shifted out of coöperative relation to said standard without removal of said break-pin, whereby the standard and plow-share may be moved relatively to said beam to permit the ready replacement or repair of the plow-share, substantially as described.

5. In a mounting for plows, the combination of a plow-beam, a plow-share, a standard hinged on said beam and constituting a support for said plow-share, a stop-block against which said standard bears, a break-pin associated with said stop-block adapted to break and release said plow-share under abnormal plowing strains, and a pin-and-slot mounted for said block on said beam permitting said block, by turning on said pin when the break-pin breaks, to release said plow-share, and also permitting the block to be readily shifted out of coöperative relation to the standard without removal of the break-pin, whereby the standard and plow-share may be swung on their hinge connection with the plow-beam, to permit the ready replacement and repair of said plow-share, substantially as described.

6. In a mounting for plows, the combination of a plow-beam, a plow-share, a standard hinged on said beam and constituting a support for said plow-share, a stop-block, a pin-and-slot mounting for said block on said beam, a break-pin associated with said stop-block and adapted to break under abnormal plowing strains, and means between said standard and block which impose the plowing strains on said block and constitute a means for adjusting the point of the plow, substantially as described.

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