

No. 663,714.

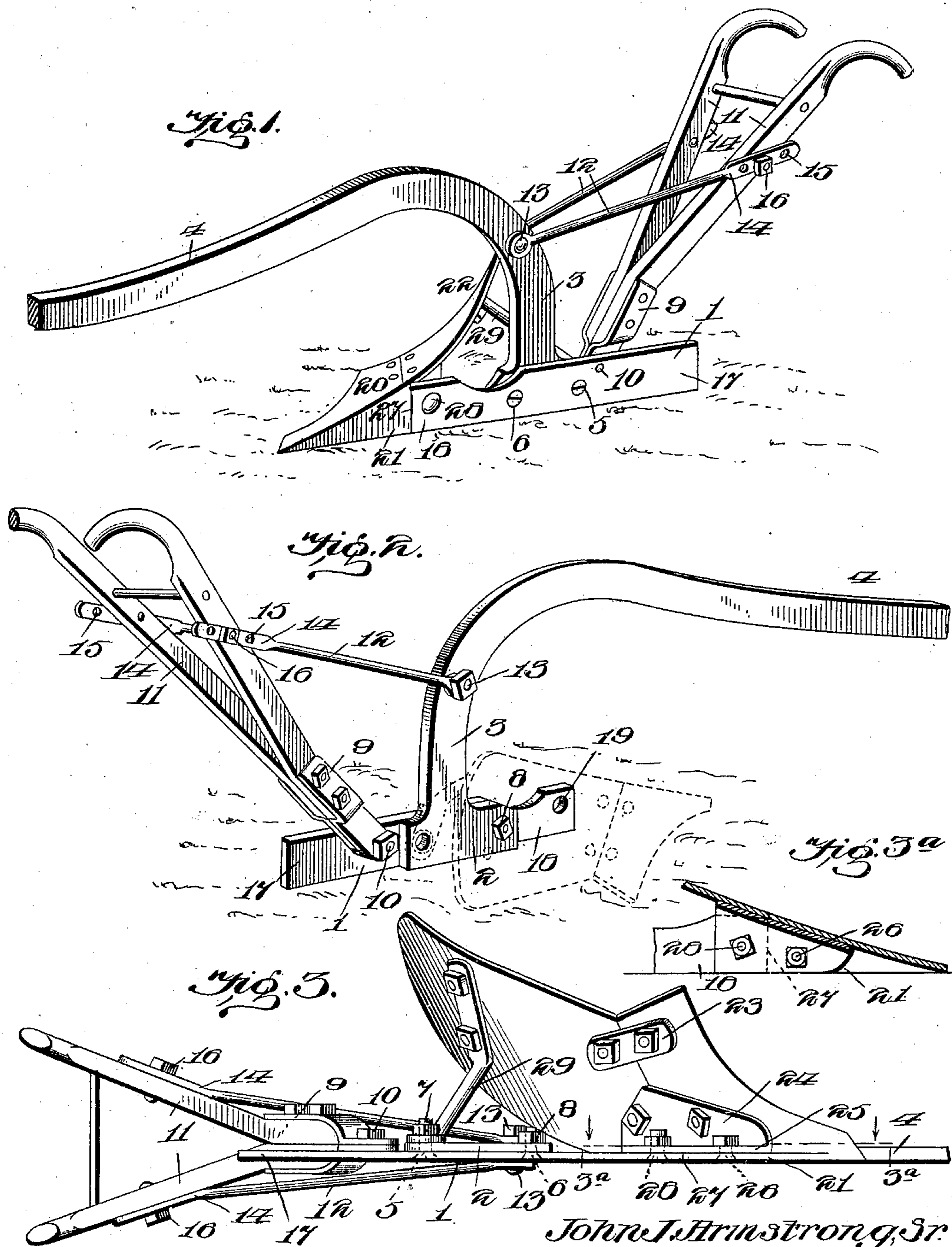
Patented Dec. 11, 1900.

J. J. ARMSTRONG, SR.
PLOW.

(Application filed June 30, 1900.)

(No Model.)

2 Sheets—Sheet 1.



John J. Armstrong, Sr.

By

Inventor

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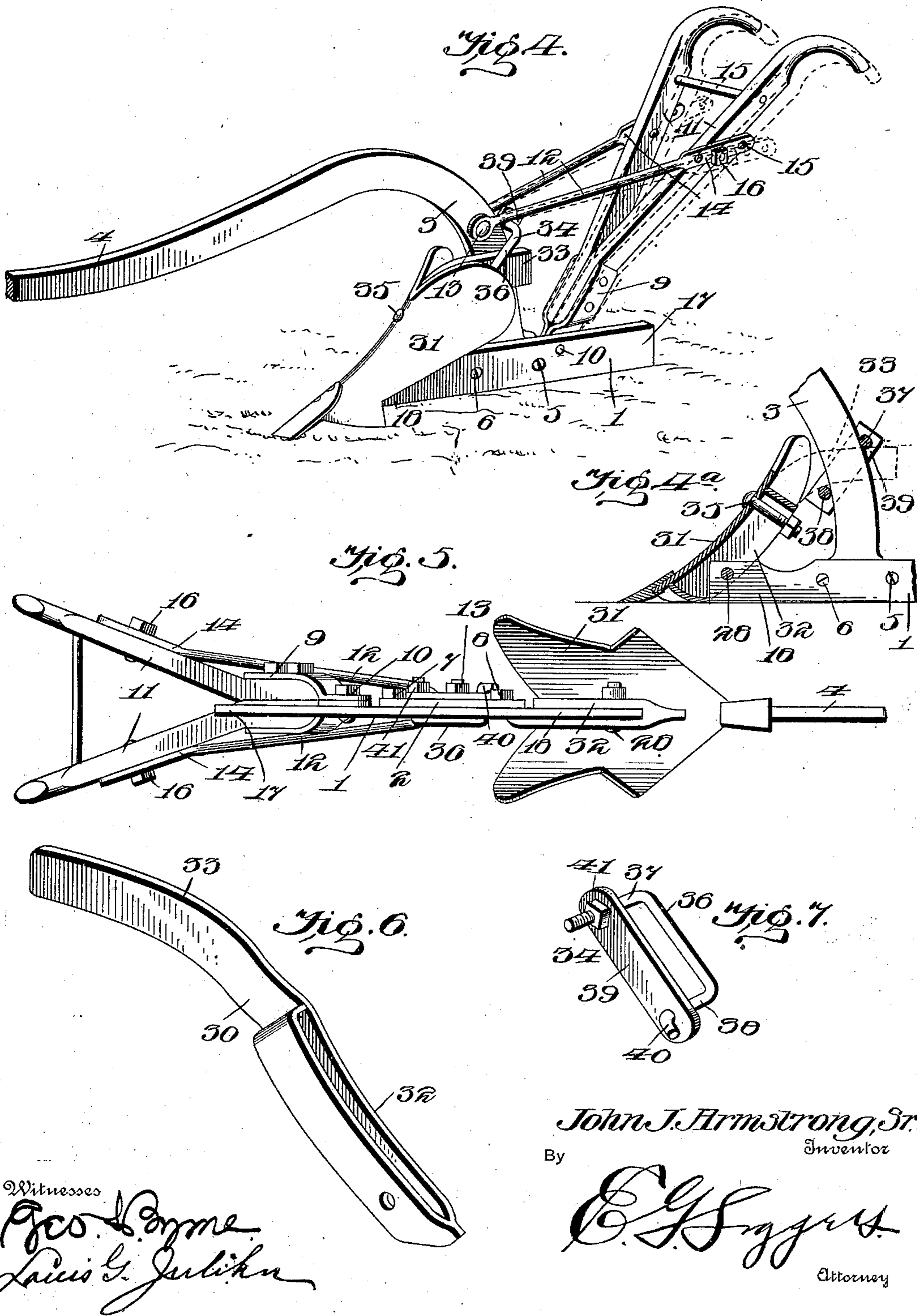
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UNITED STATES PATENT OFFICE.

JOHN JOSHUA ARMSTRONG, SR., OF WEIMAR, TEXAS.

PLOW.

SPECIFICATION forming part of Letters Patent No. 663,714, dated December 11, 1900.

Application filed June 30, 1900. Serial No. 22,194. (No model.)

To all whom it may concern:

Be it known that I, JOHN JOSHUA ARMSTRONG, Sr., a citizen of the United States, residing at Weimar, in the county of Colorado and State of Texas, have invented a new and useful Plow, of which the following is a specification.

This invention relates to improvements in plows, one object in view being to produce a plow-stock comprising the beam, handles, and landside arranged with special reference to the effective use of a turning-plow mounted in a novel manner upon the stock thus constructed.

A further object of the invention is to render the plow convertible for various uses by adapting the stock for the convenient attachment of the turning-plow ordinarily employed therewith and the ready attachment of various other forms of plows without necessitating the disorganization of the stock or the detachment of any elements except the bolts which serve to retain the turning-plow upon the heel-bar or landside.

To the accomplishment of these objects and others subordinate thereto, all as will hereinafter more fully appear, my invention consists in the construction and arrangement herein described, illustrated in the accompanying drawings, and embraced within the scope of the appended claims.

In said drawings, Figure 1 is a perspective view of my plow complete. Fig. 2 is a similar view of the stock looking from the opposite side, with the position of the turning-plow indicated by dotted lines. Fig. 3 is a bottom plan view of the subject-matter of Fig. 1. Fig. 3^a is a sectional view on the line 3^a 3^a of Fig. 3. Fig. 4 is a perspective view illustrating the convertibility of the plow and showing a middle burster-plow mounted upon the stock in lieu of the turning-plow shown in the first three figures. Fig. 4^a is a vertical sectional view showing the front end of the heel-bar and the manner of attachment of the center burster-plow. Fig. 5 is a bottom plan view of the subject-matter of Fig. 4. Fig. 6 is a detail view of the standard, and Fig. 7 is a similar view of the standard-clamp.

Referring to the numerals of reference employed to designate corresponding parts in the several views, 1 indicates the heel-bar or

landside, which, as illustrated, is a flat bar of metal serving as a common support for the various other elements of the plow. At a point intermediate of the ends of the landside is bolted, upon the inside face thereof, the foot-plate 2 of the upstanding beam-stock 3, which is extended in a forward direction to form the usual beam 4, fitted with suitable draft appliances (not illustrated) for the attachment of the draft-animals. The foot-plate 2 is secured to the landside by bolts 5 and 6, having their heads countersunk in the outer face of the landside 1 and retained by nuts 7 and 8, screwed upon the bolts and against the face of the foot-plate 2. Immediately in the rear of the foot-plate is pivotally mounted the handle-socket 9, retained upon the landside by a bolt 10 and securely clamping the lower convergent ends of the usual plow-handles 11, adjustably retained by handle-braces 12, pivotally secured to the beam-stock 3 by a bolt 13 and having their rear ends flattened, as indicated at 14, and provided, respectively, with a series of bolt-holes 15, through either of which may be passed the bolts 16 to retain the handles at the desired relative inclination, one adjusted position of the handles 11 being illustrated in dotted lines in Fig. 4. This, then, is a complete description of the plow-stock in its entirety—that is to say, that aggroupment of elements which constitutes the entire plow with the exception of the actual working implement or plow—and attention is called to the fact that the various parts connected to the landside are mounted upon one side thereof and that the several bolt-heads are countersunk in the outer face of the landside for the purpose of leaving the latter perfectly smooth in order that its function as a landside will not be interfered with. Attention may be called, further, to the fact that the rear end or heel 17 of the landside or heel-bar is extended a considerable distance behind the handle-socket 9 and that its front end or toe 18 is extended a considerable distance beyond the foot-plate 2 and is provided with a bolt-hole 19.

In the normal organization of my plow the stock just described is employed in connection with a turning-plow comprising, as usual, the plow-point 20, having a vertical side wall or land face 21, and a moldboard 22, connected

to the share by a bolt-clip 23 and by the coupling-plate 24. The coupling-plate is an angle-iron plate, as illustrated, and its vertical flange 25 is bolted by a bolt 26 to the side wall or land face 21 of the point and extends rearwardly beyond the rear edge 27 of said wall or face to facilitate the attachment of the plow-point to the landside by a bolt 28, piercing the flange 25 and passed through the bolt-hole 19 in the toe of the landside, the front edge of which latter abuts against the edge 27 of the wall 21 to retain the land face of the plow-point in flush relation with the outer face of the landside. Additional rigidity is imparted to the device as a whole by a moldboard-brace 29, bolted to the under face of the moldboard and having its lower end pierced and retained by the bolt 5, which serves to secure one end of the foot-plate 2 to the heel-bar.

It will now be seen that I have produced a durable and efficient plow comprising a comparatively small number of separate parts organized in a rigid organization with a very small number of retaining devices, and it will also appear that the conversion of the plow for use in various connections is facilitated by the employment of the plow-securing means described. For instance, if it is desired to employ a middle burster, sweep, or other form of plow in lieu of the turning-plow illustrated in the first three figures of the drawings the removal of the turning-plow is effected by the loosening of the bolts 5 and 28, the former to release the moldboard-brace 29 and the latter to effect the detachment of the stock-bracket 24 from the toe of the landside or heel-bar. A detachable plow-standard 30 is now utilized to effect the mounting of the middle burster-plow 31 upon the stock. This standard is formed from a flat bar of iron and comprises an elongated loop 32, from the upper end of which extends at one side of the loop a curved shank 33, the shank being retained upon the beam-stock 3 by a standard-clamp 34. The lower end of the loop is slipped over the toe of the heel-bar, as better illustrated in Fig. 5, and is secured by the replacing of the bolt 28, which, as we have seen, was removed from the heel-bar to effect the detachment of the turning-plow. The burster-plow 31 is then secured upon the standard by passing the breast-bolt 35 of said plow through the loop 32, where it is retained by a nut in the usual manner. Obviously, if desired, the plow 31 may be attached to the standard before the latter is mounted upon the plow-stock, the order of attachment of these several parts being a mere matter of choice.

Various forms of clamps may be employed for the attachment of the standard-shank 33 to the beam-stock 3; but the novel form of clamp which I employ, and which I believe to be preferable, comprises a clip 36, having its opposite ends 37 and 38 bent into parallel relation for the reception of a clamping-plate

39, pierced by said ends, the extremity 40 of the end 38 being bent back upon the plate and the extremity of the end 37 being threaded for the reception of a nut 41, designed to be screwed against the plate 39 for the purpose of drawing up the clamp to securely fasten the standard-shank 33 to the beam-stock. The employment of this form of clamp makes it possible to adjust the upper end of the standard 30 to any position upon the stock 3 for the purpose of securing any desired inclination of the burster-plow for regulating the degree of penetration of the latter.

From the foregoing it will be observed that I have produced a durable and efficient plow capable of ready conversion for use in various connections and necessitating the removal of only two bolts to effect such conversion; but while the present embodiment of the invention appears at this time to be preferable I do not wish to limit myself to the structural details defined, as, on the contrary, I reserve the right to effect such changes, modifications, and variations as may be comprehended within the scope of the protection prayed.

What I claim is—

1. In a plow, the combination with a landside, of a plow-point, share and moldboard carried at the front end thereof, a beam-stock having a foot-plate bolted to the landside, handles likewise connected to the landside, and a moldboard-brace extending from the moldboard and attached to the foot-plate of the beam-stock by a bolt which serves to secure said landside, whereby said bolt constitutes a single device for connecting the landside, foot-plate and brace.

2. In a convertible plow, the combination with a landside, a beam-stock and handles extending from the landside at points intermediate of its ends, of plow-point-retaining means located at the front end of the landside and designed to detachably connect a plow-point thereto, and a standard having means of attachment to the beam-stock and arranged to be engaged by the plow-point-retaining means at the front end of the landside.

3. In a convertible plow, the combination with a landside, a beam-stock and handles secured to one side face of the landside at points intermediate of its ends, of plow-point-retaining means located at the front end of the landside, a standard comprising an elongated loop designed to receive the end of the landside and to be engaged by the plow-point-retaining means, and a curved shank extending from one end of the loop at one side thereof, and a standard-clamp connecting said shank to the beam-stock.

4. In a convertible plow, the combination with a landside, a beam-stock and handles suitably connected, of a plow-retaining device located at the front end of the landside, a standard comprising an elongated loop designed to receive the end of the landside and to be engaged by the plow-point-retaining

means, said standard being likewise connect-
ed to the beam-stock, a plow supported by
the standard, a bolt connected to said plow
and passed through the loop of the standard,
5 and a nut retained upon the rear end of the
bolt behind the loop for the purpose of ad-
justably securing the plow upon the standard.

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

JOHN JOSHUA ARMSTRONG, SR.

Witnesses:

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