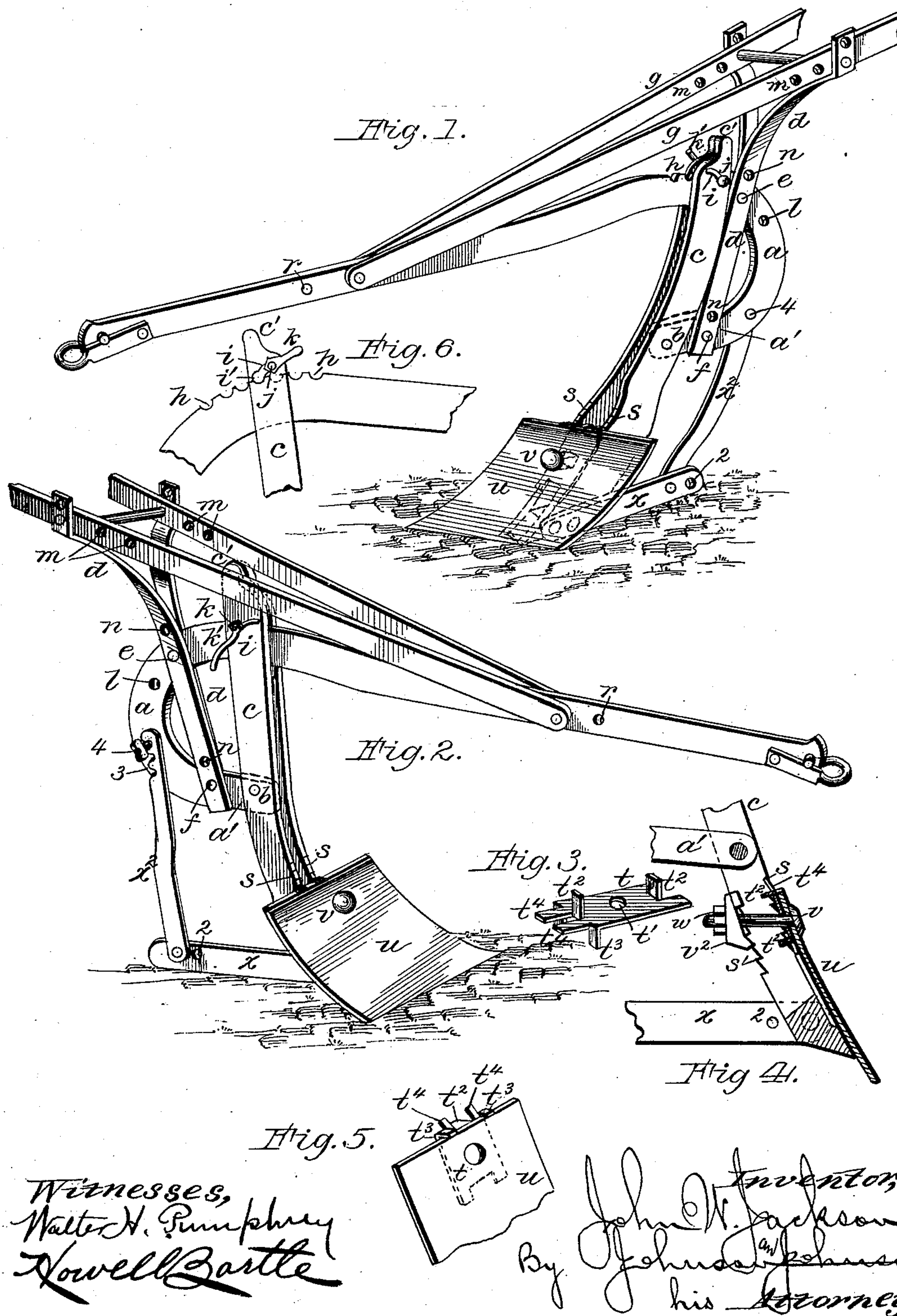


(No Model.)

J. W. JACKSON.
 PLOW.

No. 422,418.

Patented Mar. 4, 1890.



UNITED STATES PATENT OFFICE.

JOHN W. JACKSON, OF OCHLOCHNEE, GEORGIA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 422,418, dated March 4, 1890.

Application filed February 1, 1889. Serial No. 298,343. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. JACKSON, a citizen of the United States, residing at Ochlochnee, in the county of Thomas and State of Georgia, have invented a new and useful Improvement in Plows, of which the following is a specification.

My improvement provides a foot-bar for the shovels or shares pivoted to the bent end of the beam so as to swing adjustably upon it from a vertical to an inclined position to suit different kinds of work and different kinds of plow plates or shares, and for this purpose the upper curved edge of the beam is notched and the upper end of the foot-bar is provided with a slot and a bolt adapted to be secured in the notches and to be raised in said slot free of them in swinging the foot over the curved edge. The handle brace-arms are made adjustable to suit the inclined adjustment of the foot-bar, and for this purpose are secured at two points to the bent end of the beam. The plow shovel or share is supported by a plate of novel construction, and I provide a landside adjustably connected to the bent end of the beam.

The precise improvement which I have made will be designated in the claims concluding this specification, in connection with the drawings illustrating my said improvement.

The accompanying drawings illustrate my improved plow in perspective, in Figure 1 with the foot-bar set back upon the handle brace-arms, and in Fig. 2 with the foot-bar in vertical adjustment; and Fig. 3 is a detail view of the device for supporting the plowshare, for securing and for adjusting it. Fig. 4 is a sectional detail of the device for securing the plowshare. Fig. 5 is a detail view of the same, and Fig. 6 is a detail of the foot adjustment.

The plow-beam is formed of an iron bar curved down at its handle end *a*, so as to terminate in a short return end *a'*, nearly parallel with the beam, and to the front end of which the foot-bar or standard *c* is hung about the middle of its length by a strong pivot-bolt *b*.

The foot-bar or standard *c* is made of strong strap-iron bent double, open at its upper end *c'*, and secured to the beam in front of the

brace-arms *d*, which support the handles in a manner which I shall presently describe. These brace-arms *d d* cross the bent end *a a'* of the beam and are secured to it at two points *e* and *f*, and the handles *g* are secured to the upper ends of these brace-arms and to the beam. The upper edge of the plow-beam, over and above which the ends *c'* of the foot-bar or standard *c* extend, forms an arc struck from the pivot *b* of the foot-bar and has notches *h*, while the upper ends *c'* of the foot-bar are provided with registering slots *i*, through which a bolt *j* passes into the said notches and is fastened by a nut *k*. This construction allows the foot-bar to be swung upon its pivot *b*, so as to set it to a greater or less inclination in relation to the beam to suit the work to be done and to fasten it by the bolt *j* in the notches *h* of the beam. For this purpose the slots *i* are made at one end *i'* to coincide with the notches of the beam and to rise therefrom in a slightly oblique direction to allow the bolt to be freed from its notch by moving it up into the oblique parts *i* of the slots, so as to carry it above the notched edge of the beam to permit the foot to be moved over the notches. The fastening-nut has a handle *k'*, by which to screw and unscrew it, and the upper end of the foot-bar terminates in a handle *c'*, whereby to move it over the beam when the screw-bolt is moved into the upper or oblique part of its slot. This construction permits the use of a foot-bar firmly supported at two points upon the beam and without intermediate or jointed connections and in a substantially vertical position, whereby it is adapted to be used with shovel-plates or with scraper-plates, and is easily and quickly set by hand at different inclinations to suit the use of such different plates, and it gives a strong and durable construction and can be readily made. By loosening the lever-nut *k* and swinging the upper end of the plow-standard *c* backward over the beam-notches against the handle brace-arms the foot-bar can be set inclined for a shovel-plate, as seen in Fig. 1, and by moving this end of the foot-bar forward it can be set in a vertical position for the use of a scraper-plate, as seen in Fig. 2. To permit of the adjustment of the foot as in Fig. 1,

the handle brace-arms are also made adjustable by holes l in the bent end a of the beam, so that the brace-arms can be turned upon their pivot f to set them forward or back upon the beam, and secured by the bolt e in the holes l , and to allow of this adjustment the handles are also provided with holes m , so as to change the connection therewith of the upper ends of the brace-arms. These brace-arms are also provided with holes n at their upper and at their lower ends, whereby the handles can be adjusted higher or lower to suit the height of the plowman, and they can be connected farther forward upon the beam by the holes r , when desired, to suit the adjustment of the brace-arms and the inclined or vertical set of the foot.

The foot-bar is formed with ratchet-teeth s on its front side, standing downward, and ratchet-teeth s' on its rear side, standing upward. I provide a supporting-plate t for the share, formed as follows: This plate is stamped out of comparatively thin sheet metal with a central hole t' , an inwardly-bent lip $t^2 t^2$ at each end, two outward-bent lips $t^3 t^3$ at its upper end, and two ratchet-lips $t^4 t^4$ at its upper end. When seated upon the front side of the foot and the share u placed upon it and secured by the bolt v , the lips $t^2 t^2$ fit into the slot of the foot and hold the plate from slipping laterally. The ratchet-lips $t^4 t^4$ engage the ratchet-teeth s and prevent the plate from moving upward, and thus lock the plate to the foot against side and upward movement, while the outward-bent lips form abutments for the upper edge of the share, so that the upward strain upon the share is transferred by the plate t to the foot, and thus relieves the bolt. A wedge-piece v^2 is formed with lips at its lower end, which engage the ratchet-teeth s' , hold it from slipping downward, and form the seat for the nut w , which secures the share, the plate t , and the wedge-seat for the nut. By this construction the share-support is locked to the foot and the wedge nut-seat is locked to the foot and both the parts t and v co-operate to support, to fasten, and to adjust the share and secure the bolt at an inclination standing upward in relation to the foot, so as not to interfere with the use of a landside x , as shown in Fig. 4. This landside is pivoted to the lower end of the foot, either in the slot or to its outer side, and is pivotally connected at its outer end to the bent end a' of the beam by a bar x^2 , so that in any adjustment of the latter the landside will maintain a horizontal relation to the beam. To adapt the landside to be reversed end for end as it wears, I provide each of its ends with two holes $2 2$, and it may be reversed edge for edge. To lower the rear end of the landside as it wears, I form its upper end with two or more notches $3 3$ or holes, by which it may be secured to the beam by a button 4

or screw and let down as required. The beam is provided with a suitable clevis.

The notches may be made in the side of the beam, and the foot-bar closed at its upper end and secured by a set-screw passing through the side of the foot-bar into the side notches.

I claim as my improvement—

1. The plow-beam terminating in a return-arm a' under the beam, combined with the foot-bar c , adjustably clamped at its upper end to the beam and pivoted to the return-arm, the landside x , pivoted to the foot-bar, the vertical bar x^2 , having notches 3 in its upper end and pivoted to the landside, and the button 4 on the said return-arm, as shown and described.

2. In combination, the plow-beam terminating in a return end a' under the beam, the adjustable handles g , the adjustable braces, $d d$, the adjustable foot-bar c , the adjustable landside x , the adjustable bar x^2 , and the clamping-button 4, the several parts being arranged and constructed as shown and described.

3. The combination of the plow-beam having the under return end a' and provided with the notches h , combined with the pivoted foot-bar c , having slots, the parts i whereof coincide with the beam-notches and the parts i' stand oblique from the parts i , and the clamping screw-bolt whereby the clamping-bolt j , when clamped, is prevented from rising in said slot, as shown and described.

4. The combination, with the double-strap plow-foot c , having the ratchet-teeth s on its front side standing downward and the ratchet-teeth s' on its rear side standing upward, of the shovel-supporting plate t , having the inward-bent lips $t^2 t^2$ at each end, the outward-bent lips $t^3 t^3$ at its upper end, and the ratchet-lips $t^4 t^4$ at its upper end engaging the bar-teeth s , and the wedge-piece v^2 , having the lips v' at its lower end engaging the teeth s' , the screw-bolt v , the nut w , and the plow-plate, as herein set forth.

5. The combination, with the double-strap foot-bar having the ratchet-teeth s on its front side standing downward, of the plow-plate and a support therefor, consisting of the plate t , having the inward-bent lips $t^2 t^2$ at each end engaging with the double strap, the outward-bent lips $t^3 t^3$ at its upper end engaging with the plow-plate and the ratchet-lips at its upper end engaging with the ratchet-teeth, the screw-bolt v , and the nut w , as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN W. JACKSON.

Witnesses:

W. H. SINGLETARY,
W. H. BIBB.