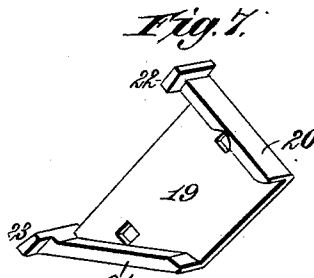
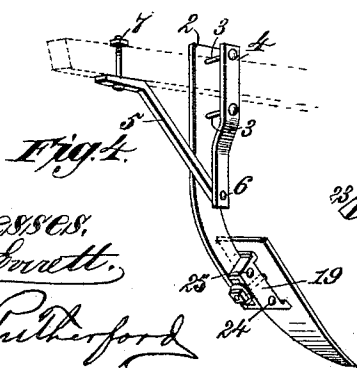
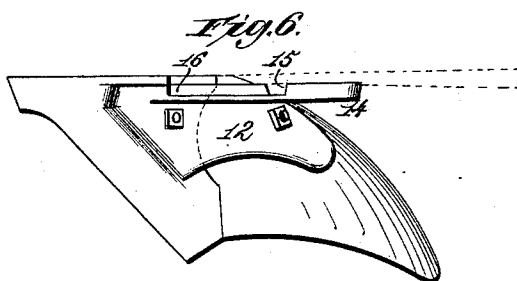
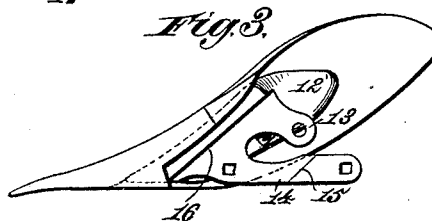
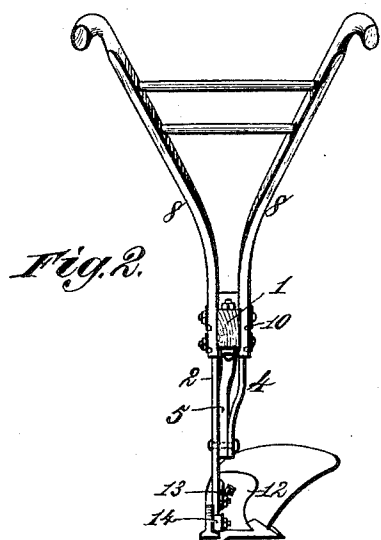
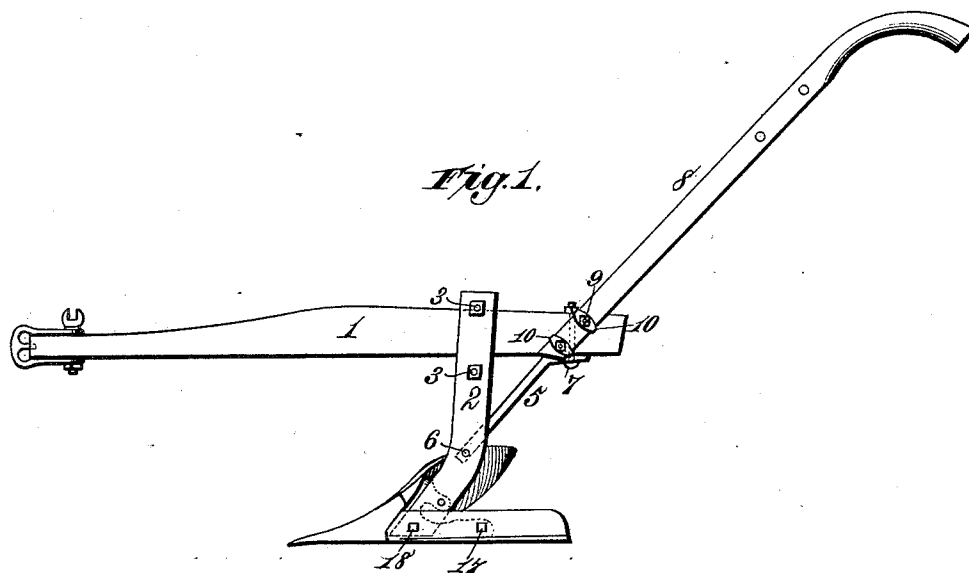


(No Model.)

J. M. BURROWS.
PLOW.

No. 426,166.

Patented Apr. 22, 1890.



Witnesses,
Robert Everett,

J. A. Rutherford

Inventor,
Joseph M. Burrows,
By James L. Norris,
Atty.

UNITED STATES PATENT OFFICE.

JOSEPH M. BURROWS, OF HAWKINSVILLE, GEORGIA, ASSIGNOR TO ROBERT
O. PATE, OF SAME PLACE.

PLOW.

SPECIFICATION forming part of Letters Patent No. 426,166, dated April 22, 1890.

Application filed July 8, 1889. Serial No. 316,784. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. BURROWS, a citizen of the United States, residing at Hawkinsville, in the county of Pulaski and State of Georgia, have invented new and useful Improvements in Plows, of which the following is a specification.

The purpose of my invention is to combine with the plow-standard a clamp-plate which is extended downward to the point where the rear brace springs from the standard, and united to both of said parts in such manner as to afford an extended and firm base of support, whereby the rigidity and strength of the standard are materially increased.

It is a further purpose of my invention to combine with the landside and mold-board of a plow a frog to which said parts are secured, said frog having a recess receiving the lower end of the plow-standard, and having upon each margin of said recess a shoulder, one of which supports the point of the landside and the other its body portion, forming a substantial protection against fracture.

The invention consists to these ends in the several features of construction and combinations of parts hereinafter described and claimed.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a plow embodying my invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a side elevation of the share removed from the standard, taken from the side opposite the mold-board. Fig. 4 is a view of the lower end of the standard, showing the attachment of the half-box for supporting a shovel-plow. Fig. 5 is a detail view of one of the washer-plates and clips. Fig. 6 is a bottom plan view of the frog, mold-board, and share, the landside being shown in dotted lines. Fig. 7 is a detail perspective of the half-box detached from the plow-standard.

In the said drawings the reference-numeral 1 denotes the beam of the plow, which is of wood and of any desired form. Upon this beam is mounted the plow-standard 2, which is fastened by bolts 3 passing through the stand-

ard above and below the beam, and through a clamp-plate 4, which rests against the face of the beam opposite that supporting the standard. This clamp-plate is extended downward to a point considerably below the plow-beam, where it is connected with the standard 2, a brace 5 being interposed between the two and united with them by a bolt or rivet 6. The brace is carried up to the rearward end of the beam 1 and fastened against its lower face by bolt 7.

The handles 8 are formed in the usual manner, and their lower converging extremities inclose the rearward end of the beam, to which they are united by bolts 9. Surrounding these bolts are washer-plates and clips 10, preferably of diamond shape, formed of metal and of such length that their ends overlap upon the two edges of each handle-bar. The washer-plates lying next to the heads of the bolts 9 are provided with square apertures, which substantially fit the square portions of the bolts, and as the ends of these plates are bent down to embrace the handle-bars closely they effectually prevent the bolts from turning when the nuts upon their other ends are tightened or removed. As the handles are extremely liable to work loose, and as the nuts and bolts invariably become more or less rusted with use, it will be seen that unless some lock of this character is used it will be practically impossible either to tighten the nuts or to remove them. Besides holding the bolts in this manner, the washer-plates and clips also prevent the tendency to split caused by the strong leverage upon the ends of the handles, which are already weakened by the bolt-holes, greatly prolonging the life of the plow thereby.

The mold-board and landside of the plow are detachably mounted upon a metallic frog, which consists of a concave plate 12, curved to fit the inner face of the mold-board, which is bolted thereto. From the rearward face of this plate, at a distance from the landside edge equal to the thickness of the standard, are formed two brackets 13 and 14, both extending rearwardly or slightly downward and then rearward, and the lower bracket 14 is provided at its end with a square-shouldered lug 15. These brackets being set back from

the edge of the plate 12, the margin of the latter forms a shoulder 16, which lies just within the edge of the mold-board, while between said shoulder and the lug 15 is a groove or recess, within which the lower end of the plow-standard lies, the edges thereof abutting against the shoulder 16 on one side and the lug 15 on the other. The landside is bolted to the rearward end of the lower bracket 14 by a bolt 17, and a second bolt 18 passes through its forward end and through the lower end of the plow-standard, and then through the bracket near its junction with the plate 12, thereby drawing the landside down upon the face of the standard and upon the outer flat face of the shoulder 16, which gives it a firm support. In this position it fits within a recess formed by cutting away the mold-board near its point, and its outer face lies substantially flush with the edge of the mold-board. This construction gives a broad and firm base of support to the landside and prevents its fracture when in use.

By detaching the two bolts 13 and 18 the frog, together with the mold-board and landside, may be wholly detached from the standard, and in place thereof a half-box is applied thereto, consisting of a metal plate 19, having a rhomboidal shape and provided with two flanges 20 and 21, projecting at right angles with its converging edges. One of these flanges lies against the flat face of the standard and parallel, or substantially so, with its lower end, and a lug 22 upon the forward end of said flange hooks over the edge of said standard. The other flange lies with its edge also resting against the mold-board side face of the standard, and a similar lug 23 upon its end hooks over the edge of the same.

The half-box is fastened in place by bolt 24, passed through the bolt-hole, which receives the bolt 18, and the bolt 25 through the hole at which the end of the upper bracket 13 of the frog is attached to the standard. In the socket formed by the attachment of this half-box a heel-pin to hold shovel-plows, &c., may be inserted, and the plow may then be used as a cultivator.

I do not herein claim the bolt-lock composed of a plate having an angular orifice to receive

a similarly-shaped portion of a bolt and formed with points to penetrate the wood, as shown and described, as it constitutes the subject-matter of my application No. 319,942.

What I claim is—

1. The combination, with a plow having a plow beam and standard, of a detachable frog, consisting of a curved plate supporting the mold-board and having rearwardly-projecting brackets formed near the landside edge, the projecting margin of the plate forming a shoulder, behind which the standard lies and upon which the end of the landside rests, substantially as described.

2. The combination, with a plow-standard, of a frog consisting of a plate curved upon one side to receive and fit the mold-board, and having rearwardly-projecting brackets set back from the landside edge, (the edge of the plate forming, in conjunction with a lug on one of the brackets, a recess to receive the standard,) and a landside resting upon said edge and lug and upon the outer face of the standard, substantially as described.

3. The combination, in a plow having a plow beam and standard, of a detachable frog, consisting of a curved plate fitting in under the face of the mold-board and provided with two rearwardly-projecting brackets springing from its rear face at points removed from the edge of the curved plate at a distance equal to the thickness of the standard, the lower one of said brackets being provided on its rear end with a lug forming, in conjunction with the edge of the curved plate, a recess receiving the end of the standard, a landside resting upon the outer face of said lug and standard and upon the edge of the curved plate, and bolts passing through said landside and lug, through the landside, the standard, and the body of the lower bracket, and through the standard and the end of the upper bracket, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOSEPH M. BURROWS.

Witnesses:

J. P. BROWN,
R. O. PATE.