No. 706,386. Patented Aug. 5, 1902.

O. L. CARMICAL.

PLOW.

(Application filed Jan. 6, 1902.)

(No Model.) 2 Sheets—Sheet 1.

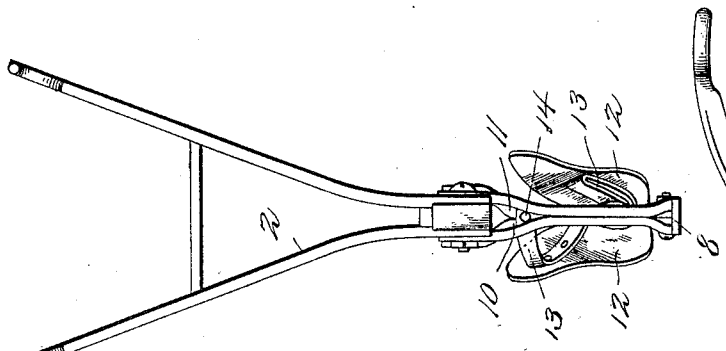


Fig. 2.

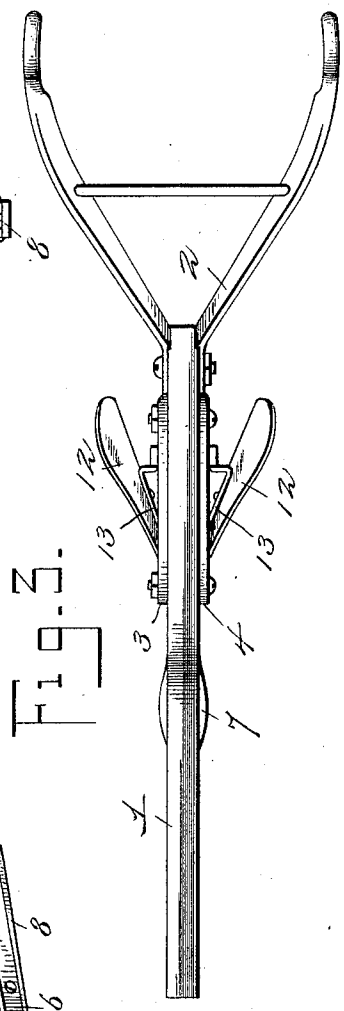


Fig. 3.

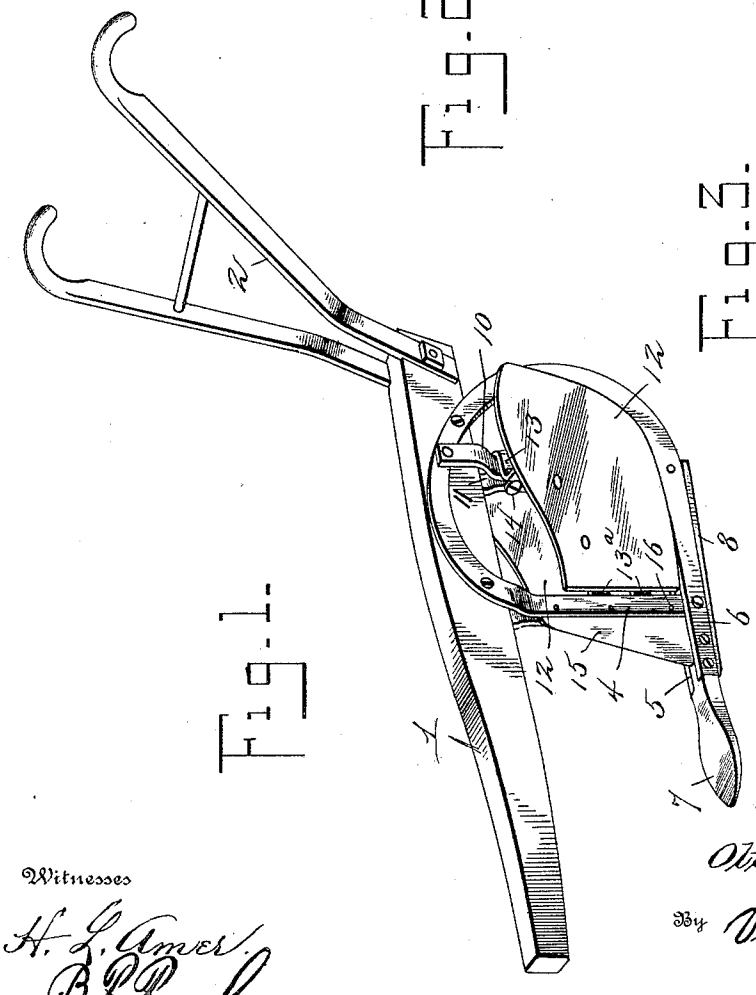


Fig. 1.

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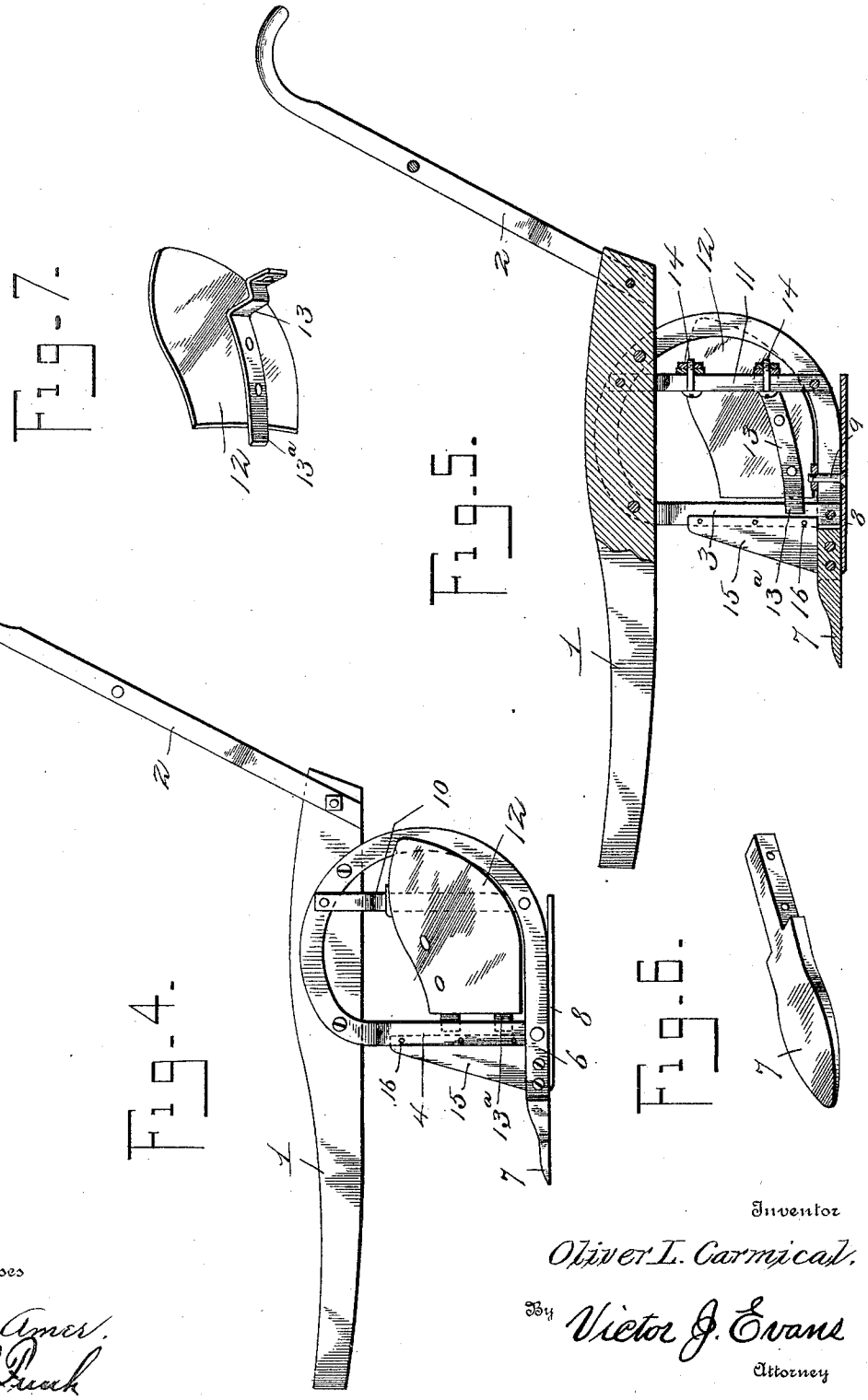
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UNITED STATES PATENT OFFICE.

OLIVER L. CARMICAL, OF MONK, GEORGIA.

PLOW.

SPECIFICATION forming part of Letters Patent No. 706,386, dated August 5, 1902.

Application filed January 6, 1902. Serial No. 88,610. (No model.)

To all whom it may concern:

Be it known that I, OLIVER L. CARMICAL, a citizen of the United States, residing at Monk, in the county of Campbell and State of Georgia, have invented certain new and useful Improvements in Plows; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to a combined subsoil and turning plow; and the primary object thereof is to provide an improved plow which may be used as a subsoil or turning plow, as occasion may demand, without materially changing the construction thereof.

A further object is to provide an improved foot which will possess sufficient rigidity and strength to resist all normal strains and yet consist in a simple construction.

A further object is to provide an efficient and simple means for attaching a wing or moldboard to the plow, whereby the same may be readily removed if occasion should demand.

Further objects, as well as the novel details of construction, will be fully described hereinafter, illustrated in the accompanying drawings, and defined in the appended claims.

In the drawings, Figure 1 represents a perspective view of a plow constructed in accordance with my invention. Fig. 2 is a rear elevation of the same. Fig. 3 is a top plan view. Fig. 4 is a side elevation of the plow. Fig. 5 is a vertical longitudinal sectional view. Fig. 6 is a detail perspective view of the removable plow-point. Fig. 7 is a detail perspective view of one of the wings attached to the foot.

The reference-numeral 1 designates a beam of ordinary construction, and 2 the handles thereof. On either side of the beam 1 and arranged near the rear end thereof is a downwardly-projecting D-shaped piece of steel, forming one-half of the foot of the plow. These steel pieces may be formed of the desired shape in any well-known manner or may be cast, if desired. I designate these foot members by the reference-numerals 3 and 4, and they are provided at their lower extremities with parallel forwardly-projecting extensions 5 and 6, between which is secured the plow-point 7.

The reference-numeral 8 designates a landside or shoe, which is secured longitudinally to the bottom edge of the foot and one end of which terminates adjacent the point 7. This landside is secured to the bottom of the foot by means of a bolt 9, which passes through the same between the foot members 3 and 4.

Two braces or standards 10 and 11 are secured to the steel pieces 3 and 4 near their rear ends, the lower extremities of the said standards being secured between the inner walls of the steel pieces, and their upper ends are bent in opposite directions, so as to engage the outer walls thereof. These standards are for the purpose of supporting the wings or moldboards 12, of which there are two, one secured to either side of the plow. Each wing is provided with a right-angularly-disposed bar 13, forming a support and having one end perforated to receive a bolt 14, which is secured between the standards 10 and 11, whereby the wings may be adjustably supported with relation to said standards.

The bar 13 is provided at its opposite end with a forwardly-projecting extension 13ª, which is adapted to rest in grooves between the foot members 3 and 4, whereby rigidity is provided and strength added to the wings or moldboards 12. By loosening the bolt 14 either of the moldboards may be readily elevated or lowered to suit the particular purpose for which the plow is being used.

15 designates a knife triangular in plan, which is secured between the forward edges of the foot members 3 and 4. The object of this knife is to cut stubble, weeds, and undergrowth, and it may be readily removed or applied through the medium of bolts 16, which pass through the foot and through the knife, as clearly shown in Figs. 1, 4, and 5.

In the operation of the device I may employ either one or both of the wings in connection with the foot at one time. The number used will be dependent upon the character of the work to be performed. In using the device as a subsoil and turning plow it will be necessary to take off the left-hand wing by loosening the bolt which holds it and

adjusting the right-hand wing to a point adjacent the beam. This will permit the point of the plow to enter deeper into the ground, allowing the clay to pass under the wing, whereby it will turn the soil, which is better than having the clay turned on the top. This method will save extra time that would ordinarily be required to turn the soil in front of the subsoil-plow, as is now usually the case.

By removing the right-hand wing a subsoil-plow is provided which may be used to follow other plows after the initial breaking of the soil. The peculiar manner of constructing the foot and bracing the same makes an exceptionally strong plow well adapted to resist any ordinary strain to which it may be subjected.

While I have specifically described in detail what to me at this time appears to be the very best means of accomplishing the desired result, I would have it understood that I do not limit myself to the exact details of construction shown, but reserve the right to make such slight changes and alterations as may suggest themselves from time to time without departing from the spirit of this invention.

I claim—

1. In a plow, the combination with a beam, of a foot secured thereto, comprising two D-shaped members secured together at their lower ends and engaging the beam on either side, a removable plow-point secured to the forward extremity of said foot.

2. In a plow, the combination with a beam, of a foot comprising a pair of vertically-arranged D-shaped pieces of steel secured to said beam, a pair of parallel vertically-arranged standards secured to said members, a removable wing bolted to said standards and adjustably secured between the same.

3. In a plow, the combination with a beam, of a foot secured thereto, comprising two D-shaped members secured together and engaging the beam on either side, a removable plow-point secured to the forward extremity of said foot and a vertically-arranged knife fastened between the members for the purpose specified.

4. In a plow, the combination with a beam; of a foot secured thereto and having two forwardly-projecting lateral extensions at its lower extremity, said extensions being spaced apart, and a removable point secured between the extensions.

5. In a plow, the combination with a beam; of a foot secured thereto and having two forwardly-projecting lateral extensions at its lower extremity, said extensions being spaced apart, and a removable point secured between the extensions, and a removable landside secured to the under side of the foot and terminating adjacent the point.

6. In a plow, the combination with a beam, and a foot secured thereto having a vertical groove in the forward portion thereof, of a pair of standards carried by the foot and arranged parallel to each other, of a vertically-adjustable wing secured to the standards, means interposed between the standards for retaining the wing in its adjusted position, and means carried by the wing for engagement with the slot in the foot.

7. In a plow, the combination with a beam and a vertically-arranged foot carried thereby, of two forwardly-projecting extensions carried by said foot, a removable plow-point secured between the extensions, a removable landside arranged adjacent the point, a pair of standards carried by the foot and vertically-adjustable wings carried by the standards and secured to the foot.

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

OLIVER L. CARMICAL.

Witnesses:
L. R. GOLIGHTLY,
M. H. WOODDALL.