J. C. McRAE, Jr.

PLOW.

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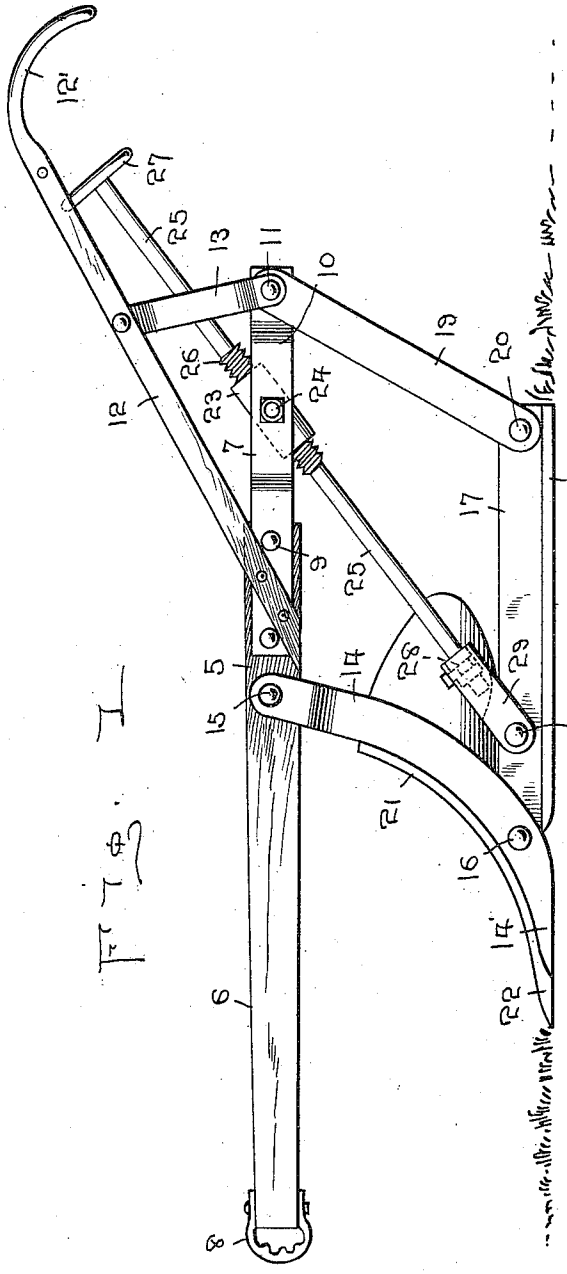
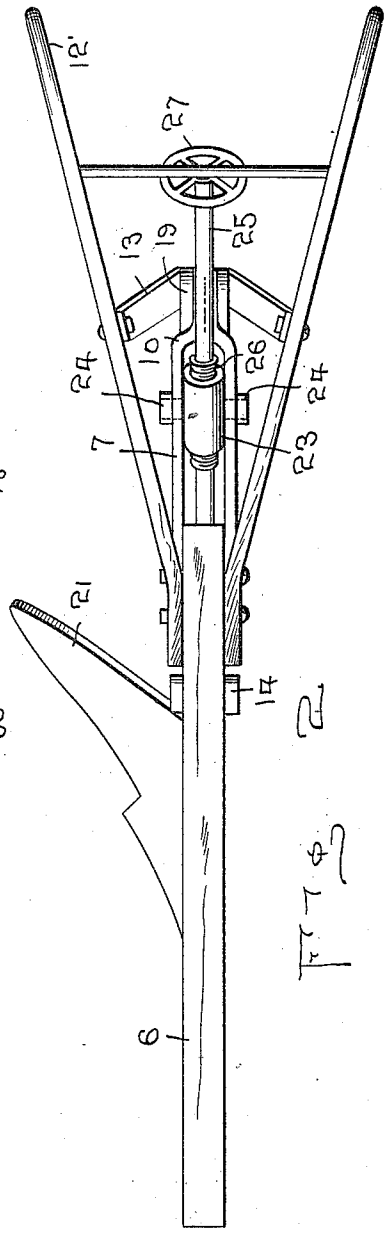
1,078,741. Patented Nov. 18, 1913.





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PLOW.

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Application filed October 12, 1912. Serial No. 725,469.

To all whom it may concern:

Be it known that I, JAMES C. McRAE, Jr., a citizen of the United States, residing at Dunbar, in the county of Marlboro and State of South Carolina, have invented certain new and useful Improvements in Plows; and I do hereby 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.

This invention relates to plows and has for its object to improve the construction of plows whereby the adjustment of the angle of incidence of a plow point, for deeper or shallower plowing and the raising or lowering of the plow beam, may be accomplished without the use of tools.

With this object in view, the invention consists in the improved construction, arrangement and combination of the parts of a device of the character specified, which will hereinafter be fully described and afterwards specifically claimed.

In the accompanying drawings which form a part of this specification, Figure 1 is a side elevation view of my improved plow, and, Fig. 2 is a top plan view thereof.

Referring to the drawings in which similar reference characters designate corresponding parts throughout the several figures, the plow beam 5 consists of a forward end portion 6 and a rear end portion 7, a clevis 8 being secured on the forward end, by which the plow may be drawn.

Obviously, the beam may be made of a single piece of material, but I prefer to form the forward portion 6 of wood, while the portion 7 is formed of two similar flat metal bars secured to the portion 6 by means of bolts 9, the rear ends of the bars 7 being bent inwardly at 10, into contact with each other and are apertured for the reception of a bolt 11. Handles 12 are secured to the beam, in the usual manner, their medial gear portion being supported by struts 13, engaged with the bolt 11.

A stock or principal support 14 is pivotally connected at 15, to the beam, its lower end being pivoted at 16 to the forward end of a shoe 17, said shoe having a sole 18 formed thereon and adapted to lie flat upon the beam of the furrow which is being made by the plow. The rear end of the beam 5 is supported by means of a link or auxiliary support 19, pivoted to the shoe 17 by means of a bolt 20, its upper end being pivoted on the bolt 11.

The stock 14 is curved to conform with the under side of the mold board 21 and the plow point 22; said mold board and plow point being secured on the stock 14, by any proper means. The lower and forward end of the stock 14 is preferably tapered to a point and extends considerably forward of the pivot 16, so as to properly support the plow point. The base of the extended portion 14′, of the stock 14 and the base of the plow point 22 are normally in alinement with the base of the shoe 18, so that the draft of the plow is normally in a horizontal direction. The pivots or bolts 15 and 11 are spaced apart equal to the distance between the pivots 16 and 20, while the pivots 15 and 16 are spaced apart equal to the distance between the pivots 11 and 20, so that the plow beam and the elongated rectilinear shoe 17 are parallel at all times and in every adjusted position on their pivots. Between the bars 7, which constitute the rear end portion of the beam 5, is pivotally mounted an internally threaded sleeve 23, the pivots 24 thereof extending through suitable apertures in the bars 7. An adjusting shaft 25 is screw-threaded at 26, this screw-threaded portion being engaged with the screw-threads of the sleeve 23 and adapted to be rotated for moving it longitudinally through the sleeve, a hand wheel 27 being mounted upon the upper end thereof adjacent to the hand holds 12′, so that one of said hand holds may be held with one hand while the hand wheel 27 is manipulated by the other hand of an operator. The shaft 25 is in swiveled engagement at 28 with a swivel member 29, the latter being pivoted at 30 to the shoe 17.

It will be seen that when the hand wheel 27 and shaft 25 are rotated to the right, or clockwise, the distance will be increased between the pivots 24 and 30; that is, the sleeve 23 will be drawn rearward relative to the shoe 17, and the beam 5 will move rearwardly therewith, at the same time moving to a somewhat lower plane. It will be seen that such relative movement of the several pivoted elements will carry the upper end of the stock 14 backward and downward, so that the front end or extension 14′ and the plow point 22 will be moved upward, and

a further rotation of the shaft 25 will increase the angle of incidence between the plow point and the sole 18, so that the plow point would tend to lead the plow nearer to the surface of the ground or decrease the draft of the plow. On the other hand, if the shaft is rotated to the left, or contra-clockwise, the plow point will be moved downward, so as to increase the suction or draft of the plow, so that the furrow would be made deeper. In this way, the draft of the plow can be quickly changed by the operator whether the plow is in operation or not, to suit the attending conditions of the soil and the height of the draft animals or plows. It will be seen that I have provided a plow of this character which is fully capable of attaining the foregoing objects, and in a thoroughly practical and efficient manner.

I do not limit my invention to the exact details of construction, combination and arrangements of parts as herewith described and illustrated, but my invention may only be limited by a reasonable interpretation of the claims.

I claim:

1. A plow comprising a beam, a standard pivoted thereto, a plow point thereon, a shoe pivoted to the standard, an extension carried by the beam, a link pivoted at its ends to the shoe and to the extension, a nut swingingly supported on the extension, and a threaded shaft operable through the nut and having pivot connection with the shoe.

2. A plow comprising a standard, a plow point thereon, a beam movably connected to the standard, a shoe pivoted to the standard, extensions carried by the beam, a link pivoted to the rear ends of the extensions and the rear end of the shoe, a nut swingingly supported between the extensions, a threaded shaft operable through the nut, and a member pivotally connecting the shaft to the shoe.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES C. McRAE, Jr.

Witnesses:
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B. B. Stubb.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."