No. 715,282. Patented Dec. 9, 1902.

G. M. McLAUGHLIN.

PLOW.

(Application filed Oct. 26, 1900. Renewed May 10, 1902.)

(No Model.)

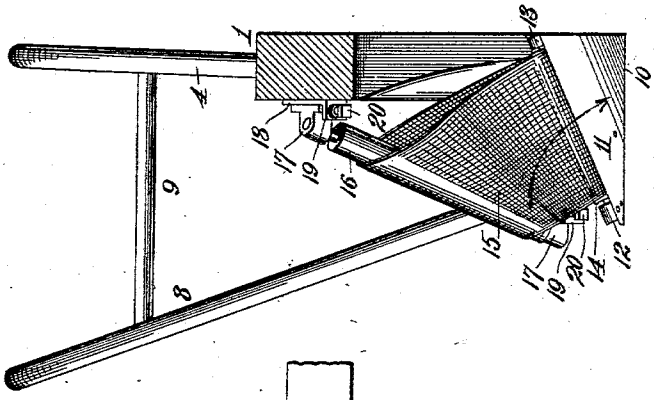


Fig. 2.

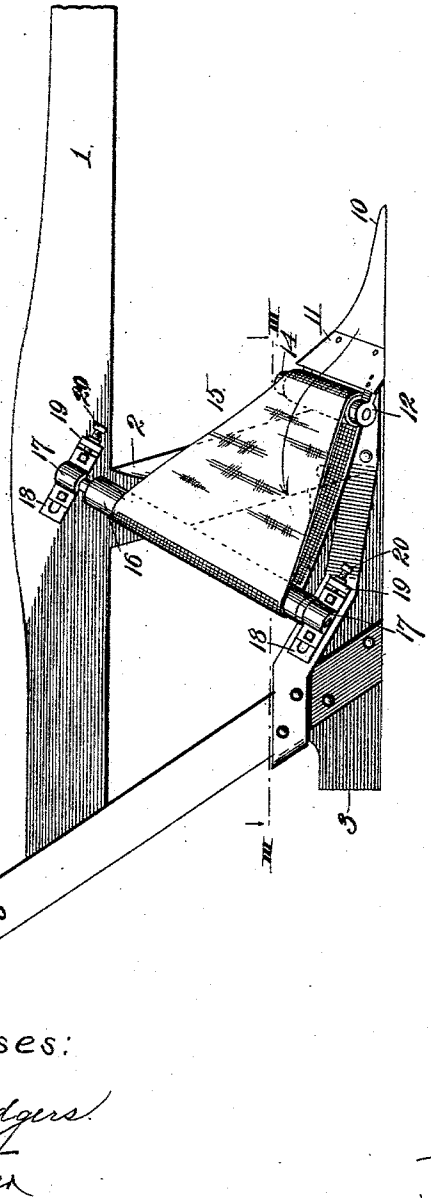


Fig. 1.

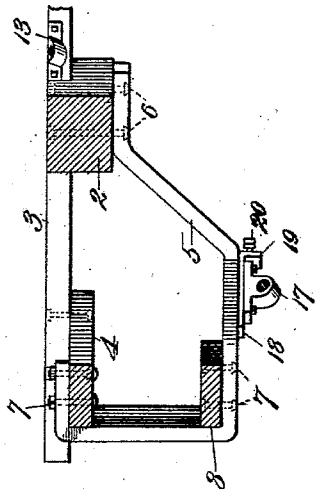


Fig. 3.

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UNITED STATES PATENT OFFICE.

GEORGE M. McLAUGHLIN, OF KANSAS CITY, MISSOURI, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO HENRY P. SCOTT, OF KANSAS CITY, MISSOURI.

PLOW.

SPECIFICATION forming part of Letters Patent No. 715,282, dated December 9, 1902.

Application filed October 26, 1900. Renewed May 10, 1902. Serial No. 106,732. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. McLAUGHLIN, a citizen of the United States, residing at Kansas City, Jackson county, Missouri, have invented a new and useful Plow, of which the following is a specification.

My invention relates to plows; and my object is to produce a plow embodying what may be termed a "revolving" moldboard for the purpose of facilitating the work of plowing, particularly in gumbo-soil, and relieving the draft-animals of a large amount of heavy work. Furthermore, to produce a plow having a revolving moldboard which may be easily and quickly tensioned to accommodate conditions of the weather or of the soil.

With these objects in view the invention consists in certain novel and peculiar features of construction and combinations of parts, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 represents a side elevation of a plow embodying my invention. Fig. 2 is a front view of the same with the plow-beam in section. Fig. 3 is a horizontal section taken on the line III III of Fig. 1, with the plow proper omitted.

In the drawings, 1 designates the usual plow-beam; 2, the plow-standard; 3, the landside, and 4 one of the handles secured to the rear ends of the landside and the beam in the usual manner.

5 designates a metallic frame or bracket of the form shown in Figs. 1 and 3 and secured at its front end to the lower end of the standard, as at 6, and at its rear end, as at 7, to the handles 4 and 8, the latter diverging upwardly, as usual, from and connected to the former by the cross rod or brace 9.

10 designates the point of the plow, and 11 what may be termed the "stationary" portion of the moldboard, the plow-point being detachably secured to this portion in order that it may be conveniently removed when it needs sharpening. The outer and lower edge of the stationary moldboard-section 11 carries a bearing-bracket 12, in which and in the companion bracket 13, secured to the landside 3, is journaled a roller 14, said roller being parallel with and adjacent to the upper edge of moldboard-section 11 and with the upper portion of its periphery about in the same plane as said section. This roller extends downward and outward at about the angle shown in Fig. 2 and has its outer and lower end rearward of its inner and upper end, as shown in Fig. 1.

15 designates an endless carrier of equal width throughout and extending from roller 14 to a second roller 16, this carrier, in conjunction with the rollers, forming what I term the "revolving" moldboard. The endless carrier is given a peculiar twist which approximates very closely the shape of the customary moldboard, because roller 16 extends in a direction more nearly approaching the perpendicular than roller 14, as shown most clearly in Fig. 2, and consequently causes the inner edge of the carrier to slip upward to a point considerably higher than any other portion. The object is to give the carrier or revolving moldboard a form which while conveying the upturned soil rearward will also force it outward at one side of the furrow in the usual manner. Furthermore, the peculiar angular relation between the rollers is such that the tendency of the carrier is to climb or creep to its original position upon roller 16, if from any cause it should be forced downward thereon. The opposite ends of the roller 16 are journaled in bearings 17, slidingly mounted on plates 18, secured to the draft-beam and frame or bracket 5, said plates having shoulders 19 at one end to provide bearings for set-screw 20, which when turned in one direction forces the bearings rearward and tensions the carrier. When turned in the opposite direction, the bearings are permitted to slide forward under the power of gravitation and of the weight which is imposed upon the carrier when in operation.

The plow is handled in the customary manner, and as the upturned soil slides over the stationary portion of the moldboard in the customary manner it bears heavily against the revolving portion of the moldboard and causes the upper strand of the same to travel rearward, thus eliminating a large part of the

friction engendered by the passage of the soil across a dead or immovable surface, like the common moldboard. As a consequence the labor of the draft-animals is materially lessened and the work thereby facilitated. In ordinary soil the revolving moldboard operates to relieve the animals of labor, because its forward movement against the upturned and continuous strip of earth insures the revolution of the moldboard, where simply the weight alone of light soil might be insufficient; but in gumbo-soil or other heavy soil it works to greatest advantage and lightens the labor of draft-animals and of the plowman in a very great degree.

From the above description it will be apparent that I have produced a plow possessing the features of advantage enumerated as desirable in the statement of the invention, and while I have illustrated and described its preferred embodiment it is to be understood that it is susceptible of minor changes in the form, proportion, detail construction, and arrangement of the parts without departing from the spirit and scope or sacrificing any of the advantages of the invention. It will also be apparent that my improved plow possesses the desirable features of simplicity, strength, durability, and cheapness of construction, and that the revolving moldboard may be made in the form of a fabric or any other flexible style of carrier.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is—

In a plow, a frame 5, having its front end attached to the plow-standard as at 6, and its rear end to the handles as at 7; a pair of plates 18, one secured to the draft-beam and the other to said frame 5, and provided with shoulders 19, and set-screws in said shoulders; bearing-brackets 17, secured slidingly to said plates; a roller journaled in said bearing-brackets; bearing-brackets 12, 13, secured respectively to the moldboard and landside; a roller journaled in said bearing-brackets, and an endless conveyer connecting said rollers, all arranged as and for the purpose set forth.

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

GEORGE M. McLAUGHLIN.

Witnesses:
F. G. FISCHER,
G. Y. THORPE.