(No Model.)

W. H. GONGWER.

PLANTER ATTACHMENT.

No. 597,644. Patented Jan. 18, 1898.

Fig. 1.

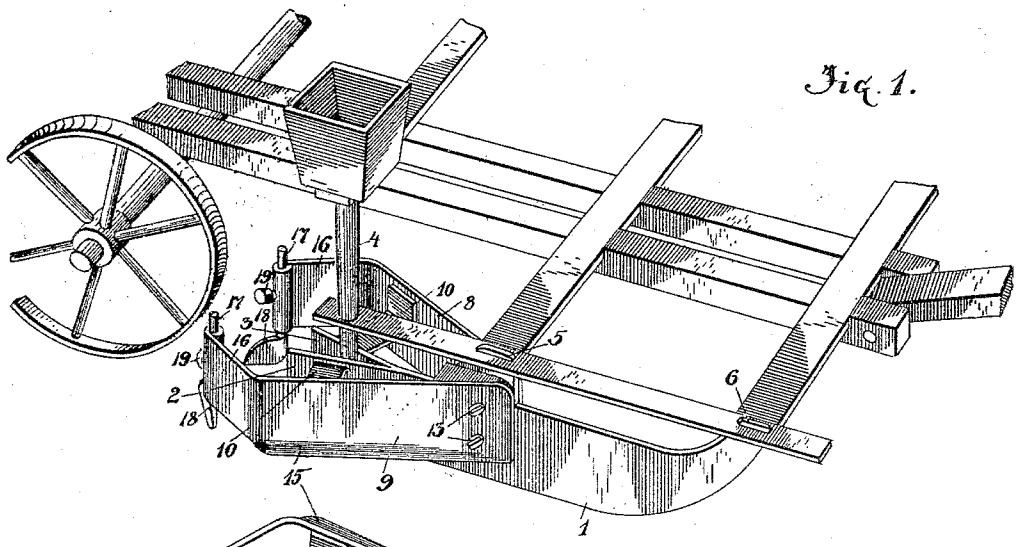


Fig. 2.

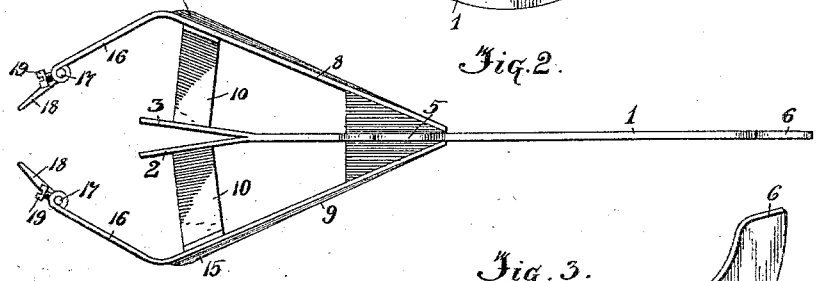


Fig. 3.

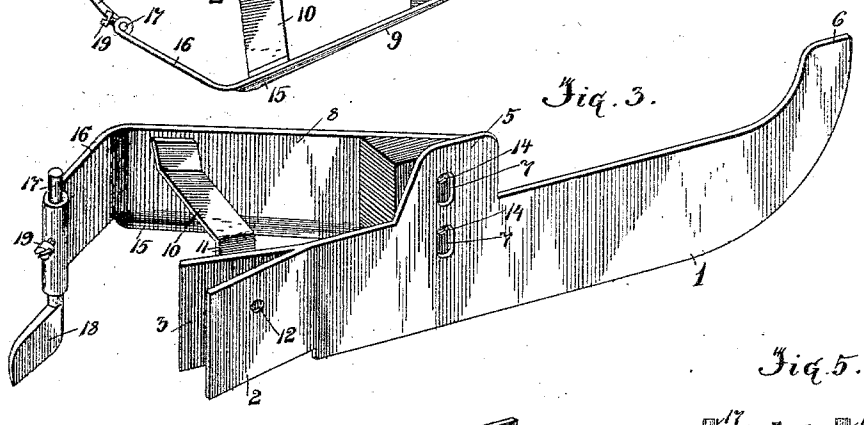


Fig. 4.

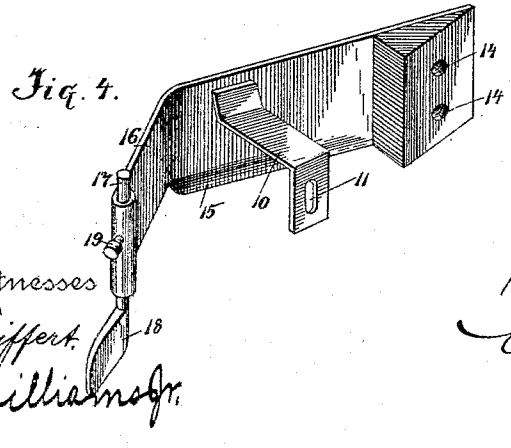
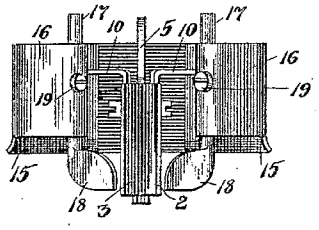


Fig. 5.



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UNITED STATES PATENT OFFICE.

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PLANTER ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 597,644, dated January 18, 1898.

Application filed August 30, 1897. Serial No. 650,020. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. GONGWER, a citizen of the United States, residing at Adamsville, in the county of Cass and State of Michigan, have invented certain new and useful Improvements in Planter Attachments; 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.

My invention has relation to corn-planters, and relates more particularly to that portion of a planter usually designated the "shoe" or "planter-blade."

The object of my invention is to provide a reliably efficient and readily adjustable means for making the furrow designed to deposit the grain at any desired depth and additional means for insuring that the grain so deposited will be uniformly covered throughout the length of the furrow.

The details of construction involved in materializing my invention will be fully set forth in the following specification, illustrated in the accompanying drawings, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view showing part of a planter with my improved shoe attached thereto ready for use. Fig. 2 is a top plan view of my improved adjustable shoe separated from the frame of the planter. Figs. 3 and 4 are detailed perspective views of parts of the shoe, while Fig. 5 is a rear elevation of Fig. 2.

In materializing my invention I provide the shoe proper or furrow-opener 1, which is constructed substantially in the usual manner, except that the rear end thereof is bifurcated, said bifurcation forming the wings 2 and 3, between which the grain-depositing tube 4 extends, thus facilitating the introduction of the grain into the furrow made by the shoe.

My improved shoe is preferably provided with the central integrally-formed standard 5 and the upwardly-curved end designed to take into suitable slots or apertures provided in the contiguous section of the frame and be therein secured by suitable bolts or otherwise.

As illustrated in Fig. 3, the central or body section of the shoe proper is provided with the vertically-disposed slots 7, designed to provide means for adjusting the lateral blades 8 and 9 with respect to said shoe. Said blades 8 and 9 are provided with the inwardly-extending arm or bracket 10, permanently secured at one end to said blades, while the inner end thereof is bent so as to lie in a vertical plane and is provided with the vertically-disposed slot 11, designed to facilitate the vertical adjustment of the side blades.

It will be seen that the wings 2 and 3 are provided at an opposite point with the aperture 12, designed to receive a suitable bolt passing through the slots 11, by which the side blades are held in an adjusted position. The forward ends of the side blades are held in an adjusted position with respect to the shoe by a suitable bolt passing through the apertures 7, said bolts first passing loosely through suitable apertures 13, provided in the forward end of the blade 9, and thence through the apertures 7 into threaded sockets 14, formed in the forward end of the blade 8.

It will be observed by Fig. 2 that the blades 8 and 9 are inclined outward, forming at their point of juncture with the shoe an obtuse angle, their function being to direct the soil away from the furrow formed by the lower edge of the shoe and thus insure that a uniform depth will be provided for the grain.

The lower edge 15 of the blades 8 and 9, it will be seen, is preferably curved slightly outward and is suitably sharpened to insure that it will reliably perform its office. Each of the blades 8 and 9 is provided with a rear inwardly-extending portion 16 or a slightly-narrower reach than the forward body portion of said blades.

Mounted in the rear ends of the rear extension 16 are the rotatably-adjustable standards 17, each provided upon its lower end with the blade 18, each preferably disposed substantially at right angles to its respective standard, and in order that said shovels or blades may be reliably held in an adjusted position I provide the locking or set screw 19, as clearly set forth in the several views of the drawings.

By means of the adjustable shovels 18 the operator is enabled to direct the requisite

quantity of soil into the path of the shoe and thus provide that the grain may be deeply or lightly covered, as preferred.

It will be further apparent that the depth of the furrow-bed designed for the reception of the grain may be further regulated by means of the bolts 13 coöperating with the bolt passing through the apertures 12 and the slots 11.

The construction herein described and illustrated will also enable the operator to deposit the grain as deeply below the general surface of the soil as he may desire and yet provide that such grain will not be covered by more soil than is deemed productive of the best results—that is to say, if it is desired that the grain shall be covered, say a couple of inches, the shoe proper will be adjusted accordingly in the manner and by the means set forth, and while the lower edge of the shoe may go considerably deeper below the general surface of the soil than two inches it will be insured that the grain will not be covered to a greater depth, as the side blades 8 and 9 will push aside the adjacent earth, thus leaving the grain much below the general surface, yet providing that it will not be covered more than to the desired extent. This method of planting the grain is desirable in many varieties of soil, as it will enable the grain to be placed into the earth early in the season and insure its germination by reason of the light covering and yet place it sufficiently below the general surface of the soil to provide a sufficient depth of root to reliably carry it through the dry season following, as subsequent cultivation of the plant will tend to level the general surface and thus replace the earth which has been moved to one side by the blades 8 and 9 around the growing plant, all of which it is thought will be readily apparent.

It will be understood that various means may be employed to attach the shoe proper to the frame of the planter and that suitable connection, as by pipe 4, may be made with the usual grain-receptacle, which may be provided with the usual or any preferred mechanism for distributing the grain.

While I have described the preferred construction and accessories deemed necessary in carrying out my invention, it will be understood that the equivalents thereof are comprehended by me.

Believing that the advantages, operation, and construction of my improved planter attachment are made fully apparent from the foregoing specification and the accompanying drawings, I will dispense with further description thereof.

What I claim as new, and desire to secure by Letters Patent, is—

1. As an improvement in corn-planters the combination with a suitable supporting-frame of a furrow-opener or shoe having its rear end bifurcated and further provided with vertically-disposed apertures 7; laterally-extending blades consisting of the outwardly-extending body-section 8 and the inwardly-extending section 16; brackets connected to the inner surface of said blades and suitable means for vertically adjusting the blades with respect to said shoe, substantially as specified and for the purpose set forth.

2. As an improvement in corn-planters, the herein-described planter-shoe consisting of the shoe proper having its rear end bifurcated; laterally-extending blades and brackets therefor designed to adjustably hold said blades in position with respect to said shoe and adjustable shovels mounted in the rear inwardly-extending ends of the side blades and suitable means for holding said shovels in the desired position substantially as described and for the purpose set forth.

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

WILLIAM H. GONGWER.

Witnesses:
WILLIAM R. FISHER,
JOHN P. MENGLE.