(No Model.)

A. W. TROTTER.

FURROW CLOSING ATTACHMENT FOR CORN PLANTERS.

No. 516,067. Patented Mar. 6, 1894.

Fig: 1.

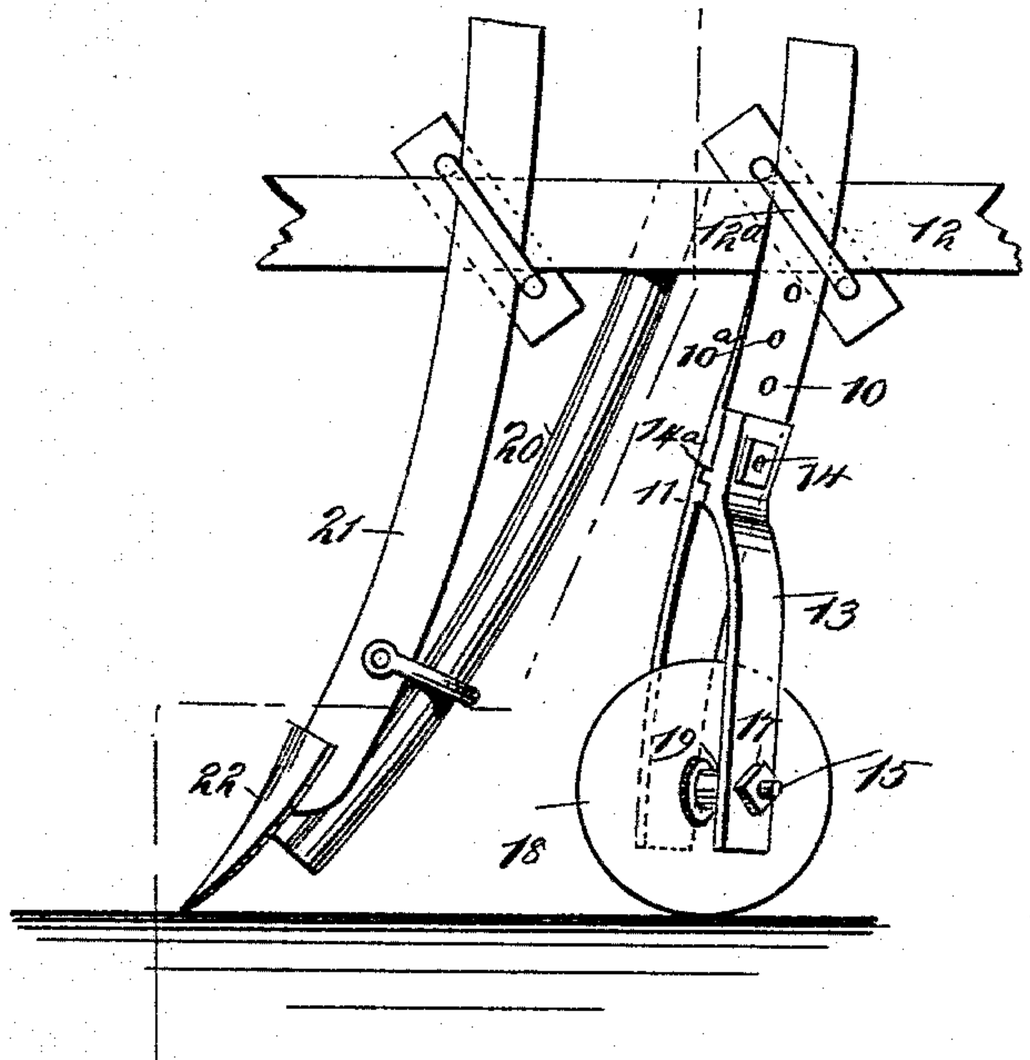


Fig: 2.

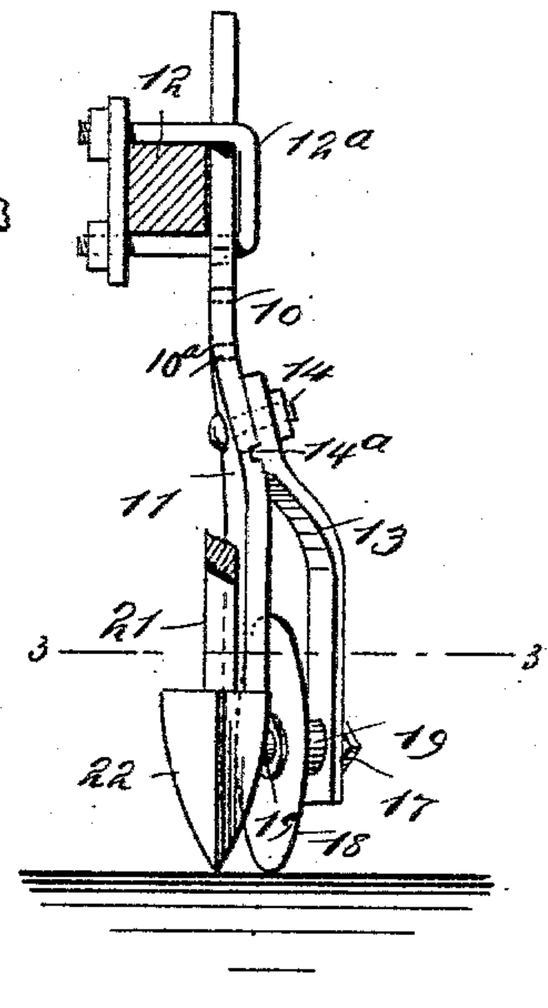
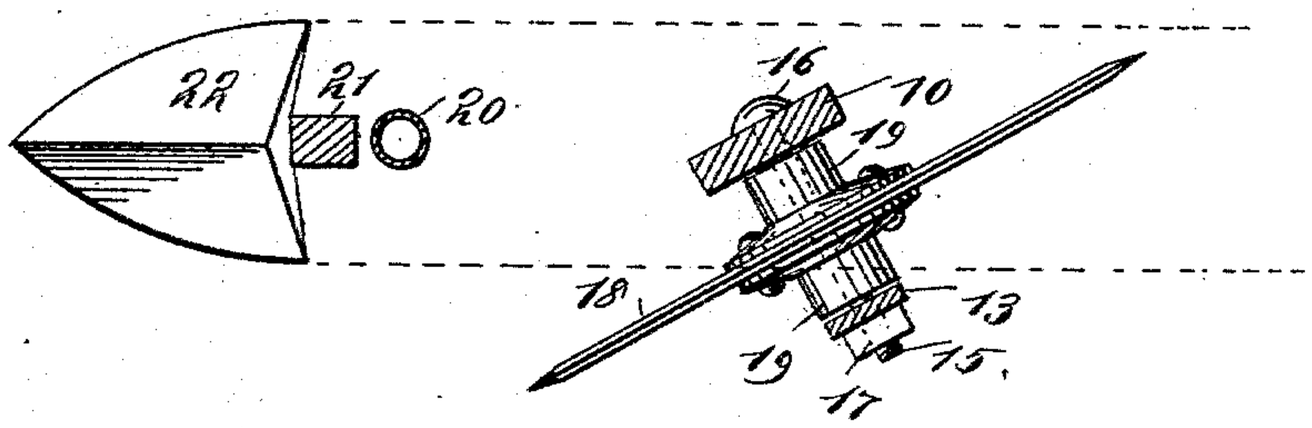


Fig: 3.



WITNESSES:

Chas. Nida.

C. Sedgwick

INVENTOR

A. W. Trotter

BY Munn & Co

ATTORNEYS.

THE NATIONAL LITHOGRAPHING COMPANY.
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ANDREW WASHINGTON TROTTER, OF NEAR PETERSVILLE, INDIANA.

FURROW-CLOSING ATTACHMENT FOR CORN-PLANTERS.

SPECIFICATION forming part of Letters Patent No. 516,067, dated March 6, 1894.

Application filed November 16, 1893. Serial No. 491,111. (No model.)

To all whom it may concern:

Be it known that I, ANDREW WASHINGTON TROTTER, residing near Petersville, in the county of Bartholomew and State of Indiana, have invented a new and Improved Furrow-Closing Attachment for Corn-Planters, of which the following is a full, clear, and exact description.

My invention relates to a furrow-closing attachment for corn-planters, and it has for its object to improve upon the construction of the like device for which Letters Patent were granted to myself February 7, 1893, No. 491,390; and the object of the invention is to provide a covering attachment of the type described in my above mentioned patent and adapted to supersede a covering share.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claim.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of the attachment, illustrating the relative position it occupies to the plow and seed distributing tube. Fig. 2 is a vertical section through the beam, taken practically on the line 2—2 of Fig. 1, the plow and the attachment being in front elevation; and Fig. 3 is a horizontal section taken essentially on the line 3—3 of Fig. 2.

The attachment consists of a standard 10, which is given a twist at a predetermined point in its length, as shown at 11 in the drawings, the twist serving to throw the lower end of the standard out of the plane of the upper end, the upper end of the standard having an inward and the lower end an outward inclination; and the upper end of the standard is adapted to stand parallel with the beam 12 to which the attachment is to be made, while the lower end stands at somewhat of an angle to the said beam. The standard is preferably attached to the beam 12 through the medium of the clip 12^a, the clip comprising a U-body, which straddles the standard and the beam, and a plate uniting the two members of the body at the opposite side of the beam, the plate being held in position by lock nuts carried by the members of the body. The standard is likewise provided with a series of apertures 10^a, which are brought into use for attaching the standard to the beam when the clip 12^a is not employed, and when the standard is secured upon the beam, by means of bolts which have served to hold in place covering shares, as when the attachment is applied the shares are removed, and the bolts are then passed through the most convenient aperture 10^a. A strap 13, is located above, below and at the point where the twist 11 is made in the standard; and the upper end of this strap is provided with an aperture to receive a bolt 14, which bolt passes through a corresponding aperture in the standard; and just below the said aperture receiving the bolt 14, a spur 14^a is made in the forward face of the strap, which enters a corresponding depression made in the rear face of the standard. In this manner the strap is securely fastened to the standard and lateral movement is prevented, since the standard may be made rectangular or polygonal in cross section. The strap arches outward and downward from the standard, and through the lower end of the strap one end of a short shaft 15 is passed, the other end of the shaft being rigidly yet removably secured in the lower end of the standard, and this rigid attachment to the standard may be effected by squaring the ends of the shaft passing through the standard, and likewise producing a correspondingly-shaped opening in the standard to receive the shaft. Ordinarily the shaft is provided at its squared end with a head 16, while its opposite end is threaded to receive a lock nut 17, said lock nut being screwed to an engagement with the strap, as is best shown in Fig. 3.

By reason of the inclination given to the lower end of the standard, the shaft 15 stands at somewhat of an acute angle to the longitudinal axis of the beam 12, as shown in Fig. 3; and the shaft between the standard and the strap is adapted to carry a rolling cutter or disk wheel 18, the periphery of which is more or less sharpened to produce a cutting edge. This disk wheel is usually attached to two hubs 19, the hubs being secured to opposite sides of the wheel, and they turn loosely upon

the shaft. The hubs are of such length that no lateral movement of the hubs and wheel upon the shaft is possible.

In applying the attachment to a planter for example, the covering share is ordinarily removed, and the standard 10, is secured to one side of the beam 12 by means of the clip 12^a, or an equivalent device, or through the medium of the apertures in the standard and bolts passing through the said apertures and engaging with the beam. In any event, the standard 10, is located back of the seed-conducting tube 20, and the shank 21 with which the tube is connected, the shank carrying at its lower end any approved form of plow 22. The travel of the disk wheel is at an angle to the path pursued by the plow, and as the machine is advanced and the plow creates a furrow, the seed is deposited in the furrow in any approved manner, and the rolling cutter or disk wheel which follows revolves diagonally across the furrow and causes the earth to be fed in a steady stream over one side of the furrow and over the seed, effecting a perfect covering of the latter. The attachment may be as readily applied to or removed from the standard as the ordinary covering shares for which the device is to be substituted.

I desire it to be understood that the revolving cutter or disk wheel may be employed for covering surfaces whether a furrow has been made or not.

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

The combination, with a planter beam and the seed-drop tube thereof, of a covering attachment adapted to supersede a covering share, the said attachment consisting of a standard bifurcated at its lower end, one member having a socket connection with the other, the said standard being provided with a twist at a point in its length, whereby it stands at an acute angle to the beam, a rolling cutter or disk wheel mounted in the bifurcated end of the standard, said beam being located at the rear of the lower end of the seed-drop tube, and standing at an angle to the path of the said tube, and means whereby the upper end of the standard is removably attached to the beam, as and for the purpose specified.

ANDREW WASHINGTON TROTTER.

Witnesses:
C. M. ROMINGER,
W. M. HARTZELL.