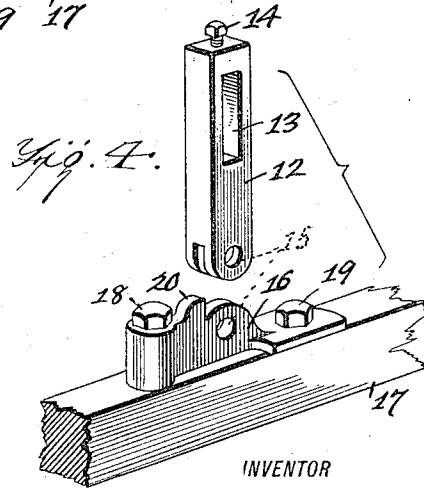
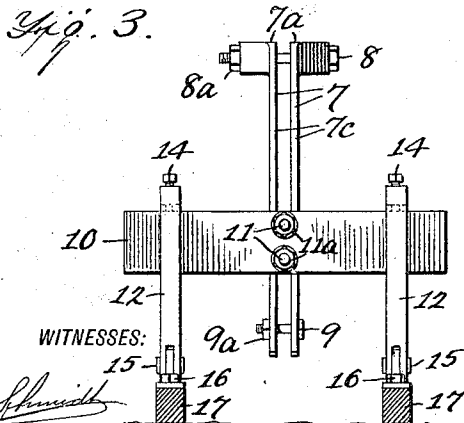
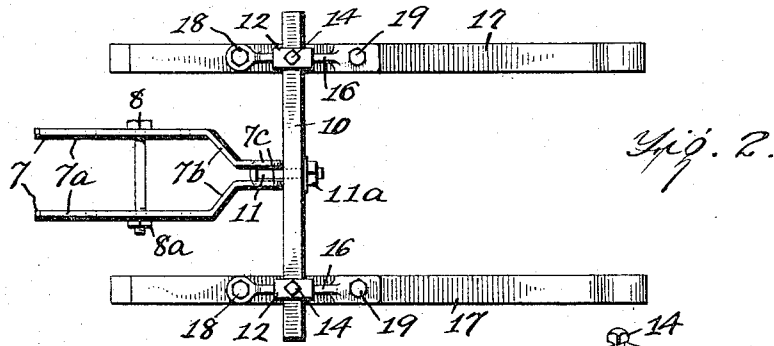
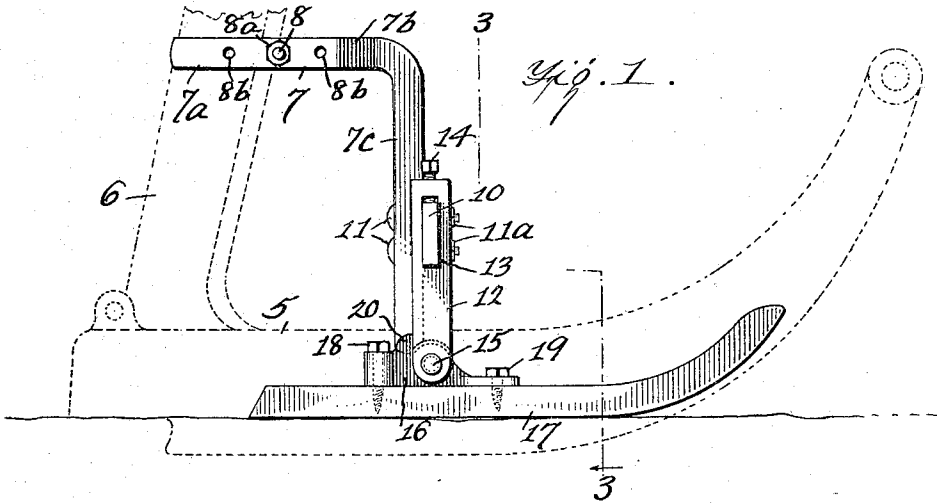


B. F. GREIMANN.  
GAGE ATTACHMENT FOR PLANTERS.  
APPLICATION FILED APR. 7, 1916.

1,209,430.

Patented Dec. 19, 1916.



WITNESSES:

*L. H. Schmidt*  
*J. C. Larsen*

INVENTOR  
BENJAMIN F. GREIMANN,  
BY *Mumford*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

BENJAMIN F. GREIMANN, OF GARNER, IOWA.

## GAGE ATTACHMENT FOR PLANTERS.

1,209,430.

Specification of Letters Patent.

Patented Dec. 19, 1916.

Application filed April 7, 1916. Serial No. 89,551.

*To all whom it may concern:*

Be it known that I, BENJAMIN F. GREIMANN, a citizen of the United States, and a resident of Garner, in the county of Hancock and State of Iowa, have invented certain new and useful Improvements in Gage Attachments for Planters, of which the following is a specification.

My invention relates to gages for planters and is an improvement over the form shown and described in Letters Patent of the United States issued to me on the 11th day of February, 1913, No. 1,052,479, and the main objects thereof are to provide such gages which cannot be knocked from position, which do not interfere with the shoe of the planter, wherein the runners are so shaped that they will ride over or guide away all rubbish with which they contact, which allows the runners to be set close to or far from the shoe according to the character of the soil, which insures that the runners will move straight ahead regardless of their distance from the shoe, which permits independent movement of each runner in a vertical plane, which may be adjusted at any height with respect to the shoe, and which is adaptable to the different types of shoes now in use.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which like characters refer to like parts in each of the views, and in which:—

Figure 1 is a side elevation of my improved gage in operative position with respect to a shoe of a planter shown in dotted lines; Fig. 2 is a plan view of the gage; Fig. 3 is a section taken on the line 3—3 of Fig. 1; and Fig. 4 is an enlarged perspective view of a detail.

Referring to the drawings, 5 represents the shoe of a planter having the spout 6 of any conventional form, and it is to the latter that I attach my improved gage. This gage comprises two clamping bars 7 having a horizontal portion 7<sup>a</sup>, each, inwardly bent at 7<sup>b</sup>, and a vertical portion 7<sup>c</sup>, the portions 7<sup>a</sup> and 7<sup>c</sup> being arranged parallel with each other, the rearward ends of the portions 7<sup>a</sup> being clamped to the shoe by means of bolts 8 and nuts 8<sup>a</sup> arranged in any of a plurality of holes 8<sup>b</sup> spaced apart so that the gage may be adapted to any type of shoe, and the lower ends of the portions 7<sup>c</sup> are held together by means of a bolt 9 and nut 9<sup>a</sup>.

Vertically adjustable on the vertical portions 7<sup>c</sup> of the bars 7 is a cross-bar 10 held in position by means of bolts 11 passed between the bars 7 and provided with nuts 11<sup>a</sup>, thereby permitting any desired vertical relationship between the cross-bar 10 and shoe 5. Slidably mounted upon each outwardly directed arm of the cross-bar 10 is a standard 12, one upon each side of the shoe 5, each standard being provided with an angular hole 13 therethrough for the reception of the similarly formed cross-bar arms, and each standard is adapted to be locked in adjusted position by means of a set-screw 14. The lower end of each standard 12 carries a pivot 15 engaged in the web of a casting 16 secured to a runner 17 by means of screws 18 and 19, this pivotal mounting of each runner permitting oscillation of the latter in a vertical plane, but I prevent upward movement of the rear end of each runner by means of a stop 20 on the respective casting 16, this stop contacting with the rear of the respective standard 12.

By means of the foregoing, it will be seen that I may clamp my gage to any type of shoe and at any desired height thereon; I may adjust the position of my gage forwardly or rearwardly of the shoe; I may adjust my cross-bar vertically with respect to the clamping bars 7; I may adjust the standards 12 toward or from the vertical portions of the clamping bars according to the nature of the ground; and each runner is maintained in a straightforward position while being permitted to rise or fall at its forward end, this oscillation in a vertical plane being, however, limited in one direction by the stop 20.

My invention is very simple though highly efficient, is quickly and easily attached to or detached from a planter without the need for skill, and is comparatively inexpensive.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. The combination with a planter shoe, of a gage comprising clamping bars having vertical portions, a cross-bar vertically adjustable on said vertical portions, a standard on each arm of said cross-bar and adjustable longitudinally thereof, and runners carried by said standards.

2. The combination with a planter shoe, of a gage comprising clamping bars having vertical portions, a cross-bar vertically ad-

justable thereon, a standard longitudinally adjustable on each arm of said cross-bar, and a runner in pivotal connection with each standard.

- 5 3. The combination with a planter shoe, of a gage comprising clamping bars having vertical portions, a cross-bar vertically ad-

justable thereon, a standard longitudinally adjustable on each arm of said cross-bar, a runner in pivotal connection with each stand- 10 ard, and means for limiting the movement of said runners on their pivots.

BENJAMIN F. GREIMANN.

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