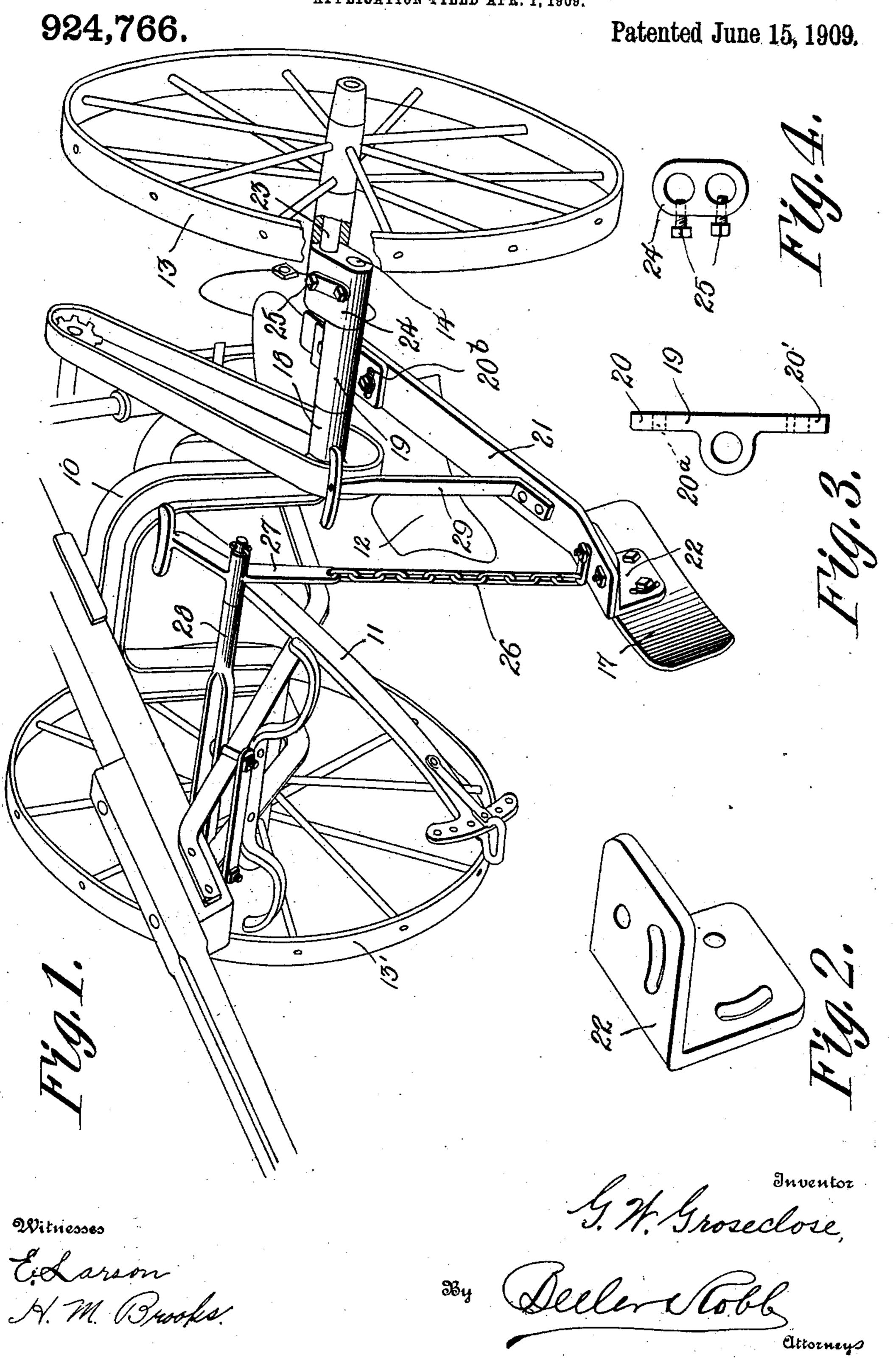
G. W. GROSECLOSE.

GUIDE FOR LISTERS,
APPLICATION FILED APR. 1, 1909.



UNITED STATES PATENT OFFICE.

GEORGE W. GROSECLOSE, OF NEAR ZENITH, KANSAS.

GUIDE FOR LISTERS.

No. 924,766.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed April 1, 1909. Serial No. 487,210.

To all whom it may concern:

Be it known that I, George W. Grose-CLOSE, a citizen of the United States, residing near Zenith, in the county of Stafford and 5 State of Kansas, have invented certain new and useful Improvements in Guides for Listers, of which the following is a specification.

This invention relates to certain improvements in agricultural implements, and has 10 particular reference to attachments for lister or list plows whereby such machines may be operated with more satisfaction and precision.

It is well known that it is difficult to hold 15 a lister from lateral movement with respect to the middles or ridges when operating upon land which has been previously listed.

The primary object of this invention is to provide a guiding means which will over-

20 come the objections above noted.

For a full understanding of the invention reference is to be had to the following detail description, and to the accompanying drawings, in which—

25 Figure 1 is a perspective view of a conventional form of lister to which the invention is applied; Fig. 2 is a perspective view of the bracket hereinafter described, and Figs. 3 and 4 are end views of details de-30 scribed below.

Throughout the following detail description and on the several figures of the drawings similar parts are referred to by like ref-

erence characters.

35 The lister shown may be of any conventional type and comprises a frame 10, a draft beam 11, a mold board 12, and supporting wheels 13 and 13'. When the machine is used as a lister the wheel 13 is journaled on 40 a spindle 14 and provides a sprocket wheel having operative driving connection with the seeding or drilling mechanism usually employed in the rear of the mold board. When it is desired to prepare the land which 45 has been previously listed for wheat sowing, I employ an attachment which includes a runner or shoe 17, so supported as to operate in connection with the edge or side of the ridge that is being straddled by the machine. 50 Said shoe 17 may be supported by any suitable means on either side of the frame, and may coöperate either with the ridge or with a previously broken furrow. In some in-

stances it is desirable for the shoe to be ad-

justed so as to coöperate with one edge of 55 the furrow and the adjacent wheel to cooperate with the other edge of the furrow. I prefer, however, in preparing land for wheat sowing to attach the shoe to that side of the frame which carries the gearing for the listing 60 devices. To this end the wheel 13 and sprocket wheel are removed from the spindle 14, a ring or bushing 18 is slipped upon the spindle to take the place of the sprocket wheel, and a member or casting 19 is slipped 65 upon the spindle 14 adjacent to the bushing 18. The casting 19 is pivotally mounted upon the spindle and has attachment flanges 20 and 20 one of which has a bolt hole 20a and the other a slot 20^b and to this member 70 19 is connected an arm or beam 21 by means of bolts passing through the openings aforesaid in the flanges and to the front end of the beam 21 is connected the shoe 17 by means of a V-shaped bracket 22, said bracket being 75 in the form of an angle member, the flanges of which have holes and slots for adjustable connection between the bracket and the shoe and beam respectively.

When the parts are assembled as indicated 80 the shoe is held from lateral movement with respect to the machine with the result that the machine will be held in proper alinement with the ridge. The wheel 13 is connected with the spindle 14 by means of an auxiliary 85 spindle 23 which is connected parallel to the spindle 14 at any desired elevation by means of a coupling sleeve 24. Said sleeve 24 is a casting having two parallel holes in which are received the spindles 14 and 23 and 90 rigidly connected to the same by means of set screws 25. By this means the wheel is set out at a greater distance from the frame and may be elevated or lowered to any desired extent by adjustment of the coupling 95 sleeve around the spindle 14, and this also leaves ample room on the spindle 14 for the

pivot member 19.

The depth at which the shoe may operate may be determined by a flexible connection 100 shown as a chain 26 connected to the shoe and to a bell crank 27 journaled on a supporting arm 28, which extends laterally from the tongue or frame of the machine. By operation of the bell crank, either by hand or by 105 the foot the shoe may be lifted clear of the ground as may be desired when turning the machine around or during transportation.

A foot member 29 is connected to the beam 21 and may be used for holding the shoe firmly to the ground.

Having thus described the invention, what

5 is claimed as new is:

1. In a device of the character set forth, the combination with a lister frame and lister plow, of a guiding shoe therefor comprising a pivot member, a beam connected to 10 said pivot member and extending forwardly therefrom, and a shoe connected to the front end of the beam, and means for controlling the elevation of the guiding means.

2. In combination with a lister frame, in-15 cluding a spindle, of a pivot member journaled on said spindle, a beam connected to said pivot member and extending forwardly therefrom, a shoe connected to the front end of the beam, means to control the elevation 20 of the shoe, a sleeve on the outer end of said spindle, an auxiliary spindle carried by said sleeve, and means to secure said sleeve to the

said spindles adjustably.

3. In a device of the character set forth, the combination of a frame including a spin- 25 dle, a pivot member journaled on said spindle, a beam connected to the pivot member and extending forwardly therefrom, a Vshaped bracket connected to the front end of the beam, a shoe connected to said bracket, 30 means to hold the shoe downwardly, means to elevate the shoe, and an auxiliary sleeve spindle connected to the first mentioned spindle.

In testimony whereof I affix my signature 35

in presence of two witnesses.

GEORGE W. GROSECLOSE.

Witnesses:

LORENA HINSHAW, W. H. HINSHAW.