Aug. 14, 1928. 1,681,023

C. E. WHITE

COVERING WHEEL FOR PLANTERS

Filed Sept. 24, 1923 2 Sheets-Sheet 1

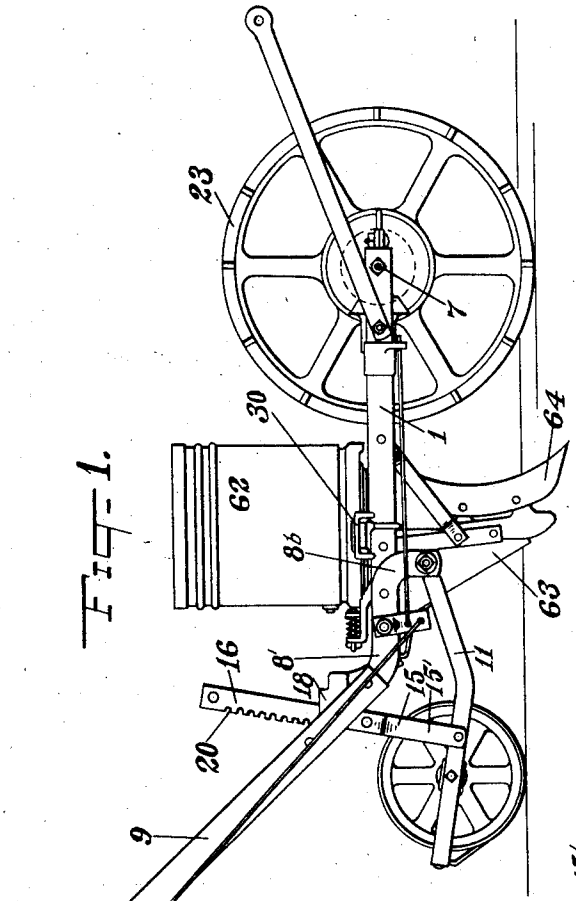


Fig. 1.

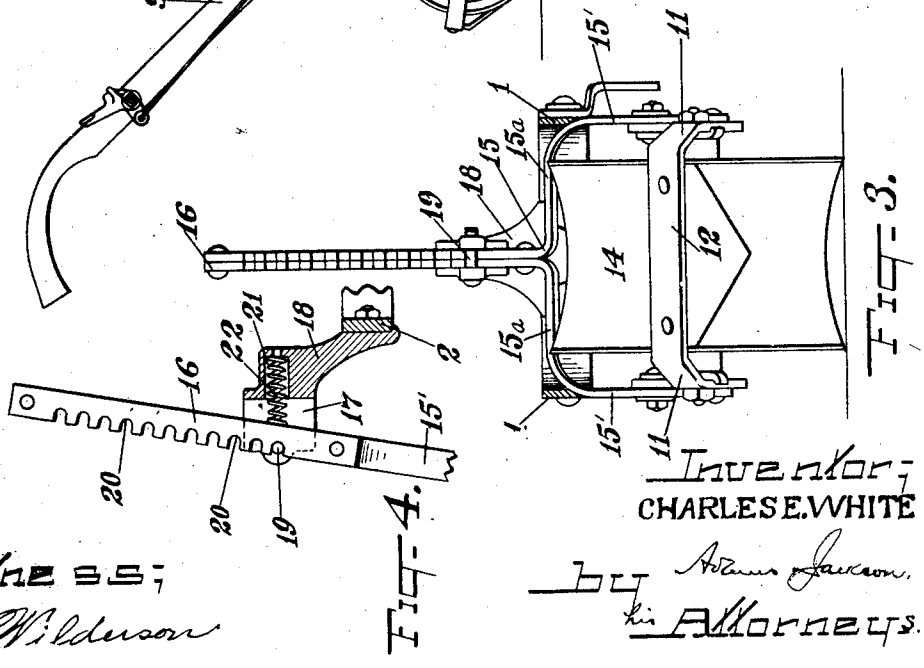


Fig. 3.

Fig. 4.

Witnesses:
C. Wilderson

Inventor:
CHARLES E. WHITE
by Adams & Jackson.
his Attorneys.

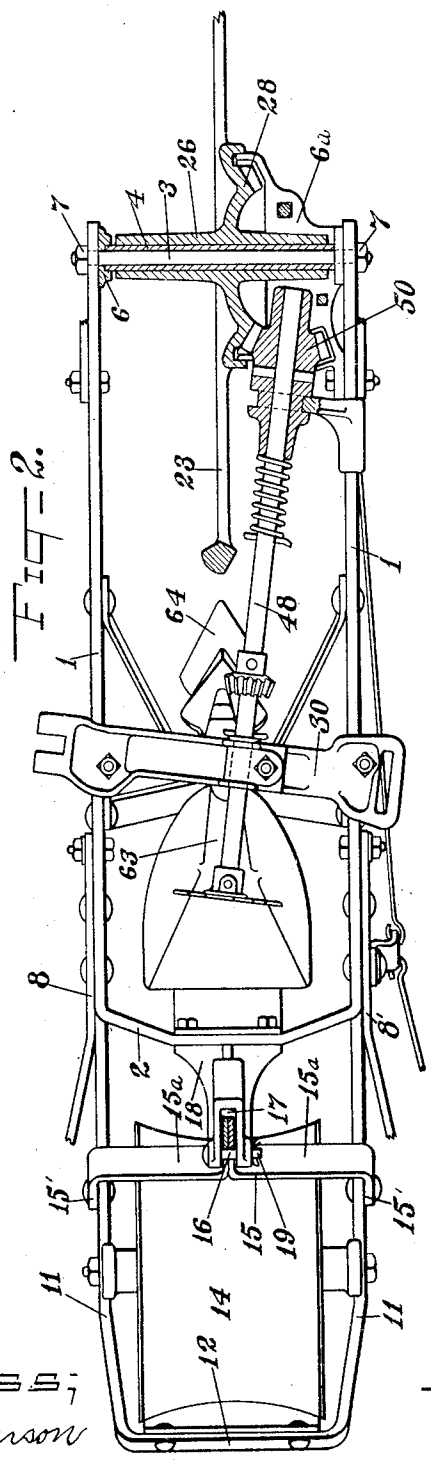
Aug. 14, 1928. 1,681,023

C. E. WHITE

COVERING WHEEL FOR PLANTERS

Filed Sept. 24, 1923 2 Sheets-Sheet 2

Fig-2.



Witness;
E. Wilderson

Inventor;
CHARLES E. WHITE

By Adams & Lawson,
his Attorneys.

Patented Aug. 14, 1928. 1,681,023

UNITED STATES PATENT OFFICE.

CHARLES E. WHITE, OF MOLINE, ILLINOIS, ASSIGNOR TO DEERE & COMPANY, OF MOLINE, ILLINOIS, A CORPORATION OF ILLINOIS.

COVERING WHEEL FOR PLANTERS.

Original application filed March 22, 1918, Serial No. 224,057. Divided and this application filed September 24, 1923. Serial No. 664,490.

My invention relates to seeding machinery, and more particularly to the supporting features embodied therein, and the principal object of my invention is to provide a wheel supported device in which certain adjustments are included to add to the efficiency of the machine. Other objects are disclosed in the following specification.

Referring to the drawings, in which similar numerals indicate identical parts—

Figure 1 is a side elevation of a seeding machine in which my improvements are included. Figure 2 is an enlarged plan view, in part section, of the frame and parts illustrating my improvements, the seeding devices having been removed. Figure 3 is a detail rear elevation, and Figure 4 is a detail of the covering wheel adjustment device.

The main frame is made preferably of a single bar bent to provide side sills 1 and a rear cross bar 2. The forward ends of the sills 1 are spaced by a tube 4 having its ends held in bosses 6 and 6ª, and extending through the tube 4 and sills 1 is a bolt 3 on the ends of which are nuts 7 holding the parts firmly together. Bars 8 and 8′ are riveted or otherwise secured to the sills 1 and to their rear ends, which diverge and incline upwardly, are secured the handle-bars 9.

A covering wheel frame, formed preferably of a single bar bent to have parallel arms or sides 11 and a rear connecting bar 12, is pivotally attached to downwardly extending arms 8ᵇ of the bars 8 and 8′ so that it may swing vertically, and between the sides 11, and on suitable bearings, is supported a covering wheel 14. Pivotally attached to the wheel frame 14 to swing for and aft is a yoke-frame 15 having depending portions 15′ and parts 15ª which are brought together and extended upwardly in parallel relation to form a centrally disposed bar 16 which passes through a slot 17 in a bracket 18 mounted on the cross bar 2 so that it is embraced by said bracket. A detent 19 carried by said bracket extends across the slot 17 back of the bar 16 and is adapted to engage with any one of a series of notches 20 in the rear edge of said bar. The slot 17 is of sufficient depth to permit the bar 16 to be moved forward out of engagement with said detent. The yoke frame 15, which constitutes a rack forked at its lower end portion, is secured to the sides 11 of the wheel frame for I have found that this construction is productive of greater stability under the strain of operation of the machine. A spring 22, held in a recess 21 in the bracket 18, contacts with the forward edge of the bar 16 and by pressing it rearwardly holds the latter in the desired position of adjustment by engagement of the detent 19 and a notch 20, it being readily understood that by an upward or downward movement of the notched bar or rack 16 relative to the frame the latter is raised or lowered, as may be desired, to regulate the depth of planting. Pressure from a foot of the operator serves to release the bar 16 and to hold it free until the desired adjustment has been secured by manual operation of the handle bars after which the pressure is removed from the bar 16 and the spring 22 moves the latter again into engagement with the detent 19.

A supporting and power wheel 23 having an elongated hub 26 is journaled on the bolt 3 between which and the hub is interposed the bushing 4. Preferably integral with the wheel 23 is a bevel gear 28 which meshes with a bevel pinion 50 secured on the forward end of a shaft 48 journaled in a suitable bearing in the bracket 6ª and also in a bearing in a cross bar 30 mounted on the sills 1 of the main frame. Power to operate the mechanism of the seeding device is transmitted thereto from the wheel 23 through the gears stated and the shaft 48, the seeding device being more fully described and covered in my copending application, Serial No. 224,057, of which this is a division, and including the seed can 62, the chute 63 and the furrow-opener 64.

What I claim is—

1. In a planter, the combination with a main frame, a wheel frame having side members pivotally attached to the main frame to swing vertically, and a covering wheel supported by the wheel frame, of a yoke shaped element comprising arms pivotally connected to the side members of the wheel frame to swing fore and aft, said element having an intermediate upwardly extending bar rigid therewith, notches in the rear margin of said bar, means at the rear of said bar adapted to engage the notches therein to hold said bar in different positions of vertical adjustment, where-

by the wheel frame and covering wheel may be raised or lowered relatively to the main frame, a spring for normally holding said bar in engagement with said holding means, and handle bars secured to the main frame.

2. In a planter, the combination with a main frame, a wheel frame having side members pivotally attached to the main frame to swing vertically, and a covering wheel supported by the wheel frame, of an upwardly extending bar pivotally connected with the wheel frame to swing fore and aft, said bar having notches in its rear margin, means carried by the main frame and having a detent at the rear of said bar adapted to engage said notches to hold said bar in different positions of vertical adjustment, and a spring for normally holding said bar in engagement with said detent.

3. In a planter, the combination with a main frame, a wheel frame having side members pivotally attached to the main frame to swing vertically, and a covering wheel supported by the wheel frame, of an upwardly extending bar pivotally connected with the wheel frame to swing fore and aft, said bar having notches in its rear margin, a bracket mounted on the main frame, a detent carried by said bracket at the rear of said bar adapted to engage the notches therein to hold it in different positions of vertical adjustment, a spring for normally holding said bar in engagement with said detent, and handle bars secured to the main frame.

CHARLES E. WHITE.