Nov. 16, 1926. 1,607,102

F. H. SCHUTTER

PLANTER

Filed April 26, 1924

Fig. 1.

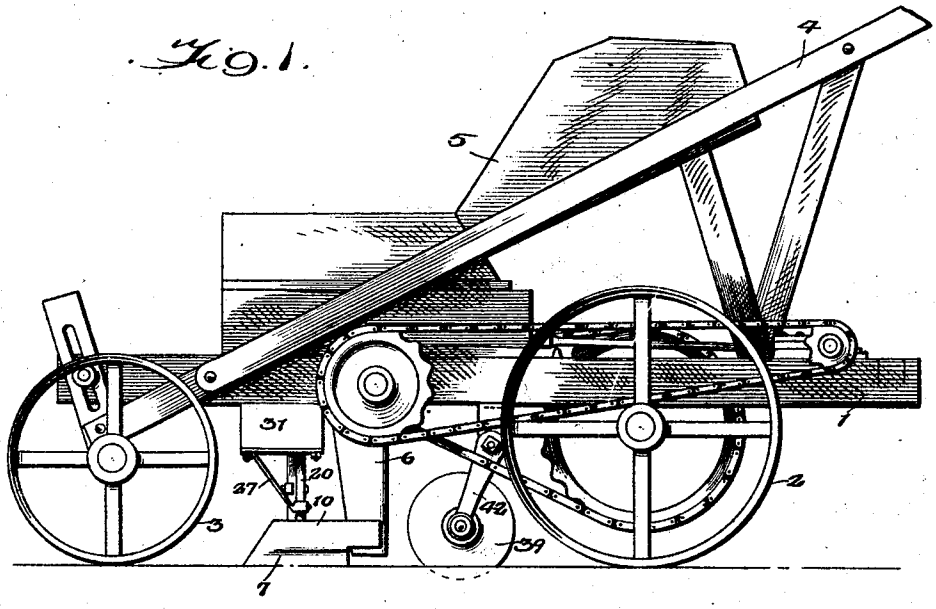


Fig. 3.

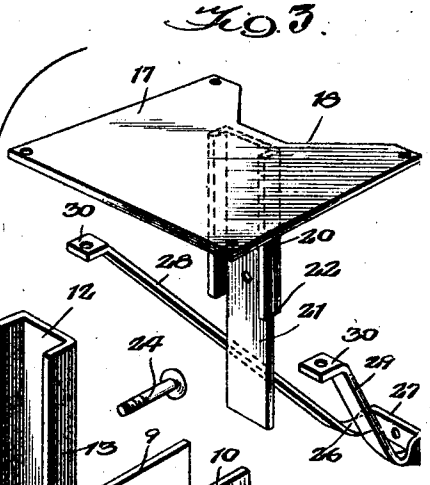


Fig. 2.

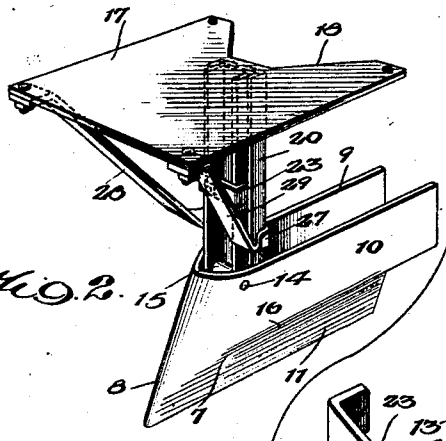
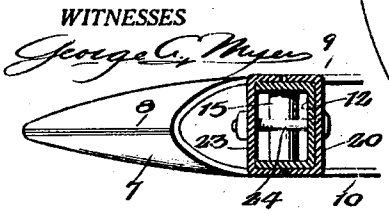


Fig. 4.



WITNESSES

George G. Myers

INVENTOR

F. H. SCHUTTER,

BY Munn & Co.

ATTORNEYS

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UNITED STATES PATENT OFFICE.

FRED H. SCHUTTER, OF PLEASANT VALLEY, IOWA.

PLANTER.

Application filed April 26, 1924. Serial No. 709,256.

This invention relates to planters and is more particularly directed to a device for planting onion sets.

An object of the invention is the provision of a device for planting onion sets having a shoe for forming a very narrow furrow to receive the periodically deposited sets.

A further object of the invention is the provision of a shoe in a planter for forming rows, said shoe being secured to a bracket in a very simple and efficient manner.

This invention will be best understood from a consideration of the following detailed description, in view of the accompanying drawing froming a part of the specification; nevertheless it is to be understood that the invention is not confined to the disclosure, being susceptible of such changes and modifications which shall define no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:

Figure 1 is a side view of a planter showing the onion set depositing device in operative relation.

Figure 2 is a view in perspective of the shoe which is adapted to form rows.

Figure 3 is a view in perspective of the shoe and related parts in disengaged relation.

Figure 4 is a horizontal section through the bracket which supports the shoe.

The planter as a whole is described and claimed more particularly in Patent No. 1,343,286 under date of June 16, 1920, and since the planter as a whole forms no part of the present invention only those elements will be described which are necessary to a proper understanding of the improvements.

Referring more particularly to the drawings, 1 designates a bed frame supported by the wheels 2 and 3 and guided by the handle bars 4. The onion sets are periodically fed from a container 5 through a chute 6 into the rows formed by a sharp pointed shoe 7.

The shoe as shown is formed of a single U-shaped blank bent along its median line to form a rearwardly inclined front ground engaging surface as shown at 8 and two parallel side walls 9 and 10. These walls are bent inwardly along a longitudinal line midway their height from which they abruptly converge to form a central cutting edge as shown at 11. By this construction the walls are offset from the cutting edge and at the line where the walls converge are formed ground engaging shoulders as shown at 16.

A channel iron 12 has its side flanges 13 in engagement with the inner walls of the walls 9 and 10 of the shoe when the lower end of the channel iron is inserted within the shoe and a bolt 14 having its outer end swaged or provided with nuts passes through perforations in the walls 9 and 10 of the shoe and through perforations in the flanges 13 of the channel iron 12. A sleeve 15 on the bolt 14 is located within the channel iron 12 and has its opposite ends in engagement with the inner faces of the flanges 13 of said channel iron. The lower ends of the channel iron rest upon the inside of the offset portions or shoulders 16 of the shoe 7 and cooperate with the bolt 14 to maintain the shoe in a horizontal position when the planter is being operated.

A plate 17 is cut away at its rear end, as shown at 18 in substantially V-shaped formation to which is secured the upper end of a U-shaped channel iron 20 which is adapted to partially embrace the flanges 13 of the channel iron 12. The channel iron 20 has a straight portion 21 devoid of flanges which engages the rear wall of the channel iron 12 and is projected into the shoe 7. When the channel iron 20 is securely bolted to the channel iron 12 the lower shoulders 22 of the flanges of the channel iron 20 rests upon the upper edges of the walls 9 and 10 of the shoe 7.

A short reinforcing member 23 of channel iron construction is perforated, as is the channel irons 12 and 20 through which the bolt 24 is passed for locking the three channel irons together to form a unitary structure with the ends 25 of the member 23 in engagement with the side edges of the flanges of the channel iron 20. The upper end of the channel iron 20 is welded or the same may be formed integrally with the V-shaped portion 18 of the plate 17.

A bracket 26 has its rear portion 27 secured to the rear face of the channel iron 20 and is provided with arms 28 and 29 embracing opposite sides of the channel iron 20 and extended upwardly and formed with horizontal lugs 30 adapted to be secured to the forward end of the plate 17. The ends of the plate where engaged by the lugs 30 are perforated as are the lugs so that bolts or rivets may be passed through the lugs or plate for securing the arms 28 and 29 to said

plate. The plate 17 is secured to a block 31 which is secured to the frame 1 of the planter.

It will be seen that the chute 6 which delivers the onion sets is adapted to be received within the V-shaped notch 18 of the plate 17 with the lower end of the chute projected between the walls 9 and 10 of the shoe 7.

A coverer 39″ is suspended from the frame 1 by an arm 42 at the rear of and in longitudinal alinement with the shoe 7 which is adapted to follow the deposited onion sets and cover the same over with soil.

What I claim is:

1. In a planter, a shoe formed from a U-shaped blank of metal and having a rearwardly inclined front ground-engaging surface and a pair of spaced parallel side walls rearwardly extending from the ground engaging surface, the side walls at the lower edges thereof being bent inwardly to form a horizontally disposed single cutting edge located at the bottom and centrally of the shoe.

2. In a planter, a shoe having parallel side walls, said side walls converging at their lower ends from a line midway of their height, and ground-engaging shoulders formed along the lines where said walls begin to converge a channel iron having its lower end seated within the shoe with the side walls of the shoe in engagement with the side edges of the channel iron, a pin connecting the channel iron to the side walls, the lower end of the channel iron engaging the inside of said shoulders and cooperating with the pin to prevent relative movement between the channel iron and the shoe, a channel iron embracing the first channel iron and having a depending portion, the side edges of the depending portion engaging the side walls of the shoe, a plate rigidly connected with the upper end of the second mentioned channel iron and resting on the upper edge of the first mentioned channel iron, a U-shaped bracket having legs secured to the outer free end of the plate, and means for securing the intermediate portion of the bracket and the second mentioned channel iron together.

FRED H. SCHUTTER.