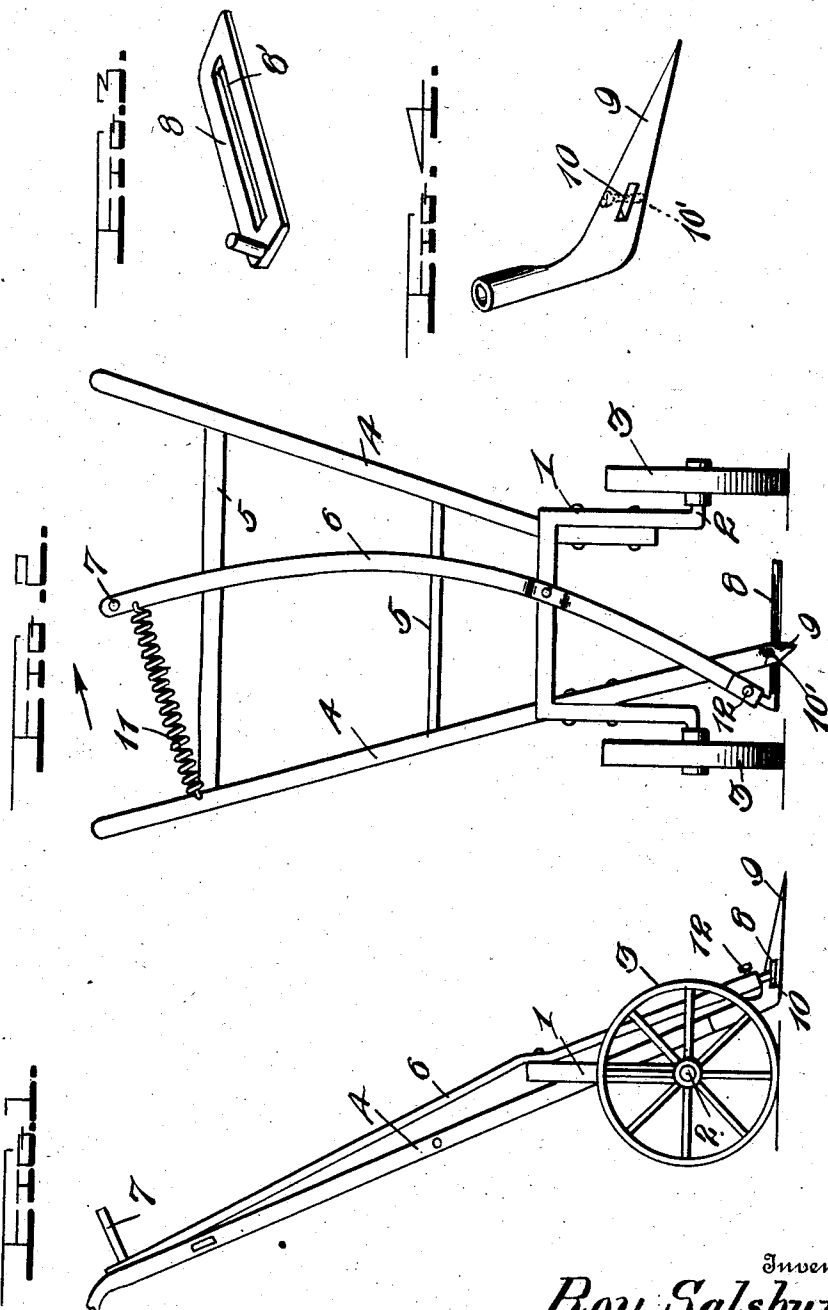


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CHOPPER AND THINNER FOR PLANTS.
APPLICATION FILED AUG. 16, 1911.

1,011,375.

Patented Dec. 12, 1911.



Witnesses

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CHOPPER AND THINNER FOR PLANTS.

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To all whom it may concern:

Be it known that I, ROY SALSURY, a citizen of the United States, residing at Enid, in the county of Garfield and State of Oklahoma, have invented certain new and useful Improvements in Choppers and Thinners for Plants, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to beet and cotton choppers and cultivators, and more particularly to a device for thinning out and spacing plants of this nature.

15 The object of this invention is to provide a chopper for beets, cotton and the like which will be of comparatively simple construction so that the parts can be readily inspected and repaired whenever the same is desirable.

20 Another object of this invention is to have the means for spacing and thinning out the plants such that it can be operated directly by the hand of the operator, and not by any mechanical means, in order to give a more desirable action to the device.

25 A further object is to have the digging means used in this device disposed in permanent alinement with the knife used in connection therewith.

30 A still further object is to have the knife used in this device removable so that the same can be readily taken therefrom and sharpened when necessary.

35 A further object of this invention is to eliminate as far as possible all complicated mechanism such as gears and the like so that the possibility of the device getting out of order is reduced to a minimum.

40 Other objects of this invention will become apparent as it is more fully set forth.

45 While many cultivators for use in thinning plants of the above mentioned nature have been used, they are usually so complicated and are provided with so many parts, which are liable to disarrangement or breakage, that they become objectionable to the operator using it, unless he is highly skilled in the art of repairing them. In addition, the multiplicity of parts makes the device 50 expensive to manufacture and very hard to inspect and repair. This invention avoids these difficulties because it eliminates the necessity of gears to operate the mechanism in connection with the desired operations 55 that are involved in chopping and thinning out the plants. In addition, this character-

istic of this device enables the same to be readily and cheaply manufactured, and at the same time reduces the amount of power required to operate it, and adds several other advantages which are particularly desirable in this class of work.

In the accompanying drawings which illustrate by way of example the embodiment of this invention, Figure 1 represents a view in elevation of a cultivator embodying this invention; Fig. 2 is a front view of the cultivator; and Figs. 3 and 4 are details of various parts of this device.

Similar reference characters refer to similar parts throughout the drawing.

In the construction shown in the drawings 1 represents a frame work that is bent into U-shaped form and provided with extending arms 2, which are adapted to receive wheels 3 that are arranged to carry the device suitably over the ground. Suitably secured to the sides of the U-shaped piece 1 are handles 4, which are provided with braces 5 suitably disposed between them in order to strengthen them. Pivottally secured to the upper portion of the U-shaped member is a shift lever 6 which has its upper portion provided with a handle 7 and its lower portion formed to receive and hold a knife 8. This knife is arranged so as to be disposed at the side of the frame work 1, so as to engage with and pass through a digging point 9, which is provided with a slot 10 therein made wide enough for this purpose so that the blade will not bind within the same. This point is preferably secured to the end portion of one of the handles 4 as clearly shown in the drawings and has its point so disposed as to suitably dig into the ground when the cultivator is moved across the rows to be cultivated. The upper portion of the shift lever 6 has a spring 11 attached to it, that is so arranged as to keep the lever, and its knife attached thereto in the position shown in Fig. 2.

In operation, the operator moves the cultivator across the rows of beets and the like which are to be thinned out, etc.; the spacing of the wheels being such as to permit the cultivator to readily straddle the rows of plants. When a plant is to be dug from the ground and removed therefrom, the operator raises the handles sufficiently to cause the digging point 9 to engage in the ground under the plant to be removed, then when desired by moving the handle 7 on the upper

portion of the shift lever 6 in the direction of the arrow he quickly transfers the blade out of the way, and when it is desired to remove a plant he lets go the handle 7, which permits the lever 6 to return to its normal position under the action of the spring 11, and leaves the blade 8 and the digging point 9 in a position for removing another plant.

When it is desired to remove the blade 8, a set screw 12 is loosened from the shank portion of the same, which serves to hold the blade securely to the end portion of the shift lever, then by moving the lever slightly and tipping the blade 8 the latter is disengaged therefrom, after which it can be readily drawn through the slot 10 and removed for the purpose desired.

In constructing this device it is preferable to provide the blade 8 with a slot 8' so that the latter will receive a bolt 10' disposed in the point 9, as shown in Fig. 4. The bolt 10' controls the movement of the blade 8, and prevents the same from being pulled out of the point accidentally, at the same time the bolt can be made easily removable so that the blade 8 can be removed from the digging point when desired.

It can be easily seen that the device is so simple as to require but ordinary skill to operate it properly, and that there is but little likelihood of the machine getting out of order.

Obviously while there is shown but one form of this invention in the drawings, it is not desired to limit this application for patent in any way otherwise than necessitated by the prior art as many modifications in the construction of my invention may be made without departing from the principles thereof.

Having thus described the invention what is claimed is:—

1. In a device of the class described, the

combination of a U-shaped frame having its end portions horizontally disposed, wheels disposed on said portions of said frame, handles secured to said frame, a digging point disposed on one of said handles and provided with a hole therethrough, a shift lever pivotally mounted on said frame, a blade disposed on the end of said lever and arranged to actuate in said hole.

2. A cultivator of the class described, a U-shaped frame, handles secured to said frame, braces disposed between said handles, a shift lever pivotally secured to said frame, a digging point disposed on the end of one of said handles and provided with a transverse hole therethrough, a blade removably disposed on the end of said shift lever and arranged to actuate within said hole, and resilient means for keeping said lever adjacent to said digging point, and a plurality of wheels disposed on said frame for carrying the same.

3. A cultivator of the class described comprising in combination a U-shaped frame, a plurality of guide handles secured to the sides of said frame, a plurality of carrying wheels secured to the sides of said frame, a digging point disposed on the end of one of said handles and provided with a transverse hole therethrough, a lever pivotally mounted on the upper portion of said frame, a coiled spring secured to said handle and the upper portion of said lever so as to keep the same adjacent to said handle, a blade disposed at the lower portion of the lever and adapted to reciprocate in said hole, and means for removably securing said blade to said lever.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ROY SALSBURY.

Witnesses:

NATHAN RAZEY,
GROWER LEE.