H. LUCIER.

CULTIVATOR.

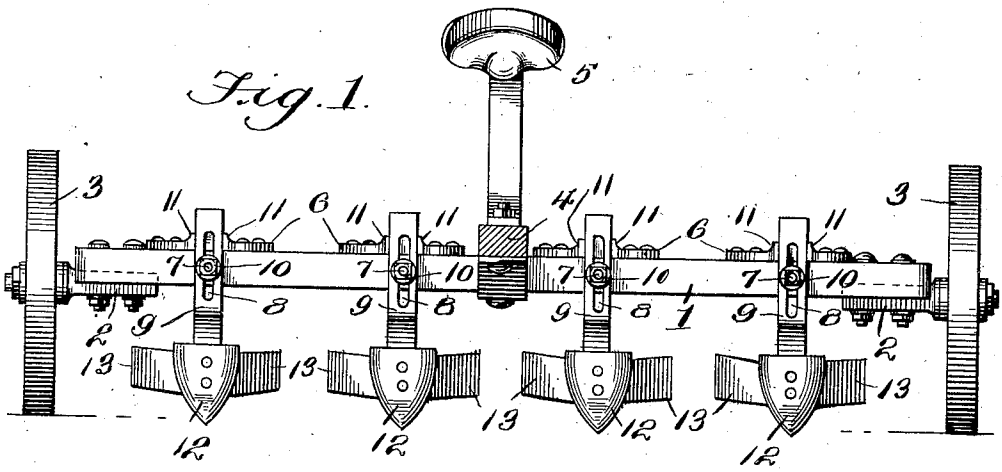
APPLICATION FILED NOV. 24, 1908.

925,362.

Patented June 15, 1909.

2 SHEETS—SHEET 1.

Fig. 1.



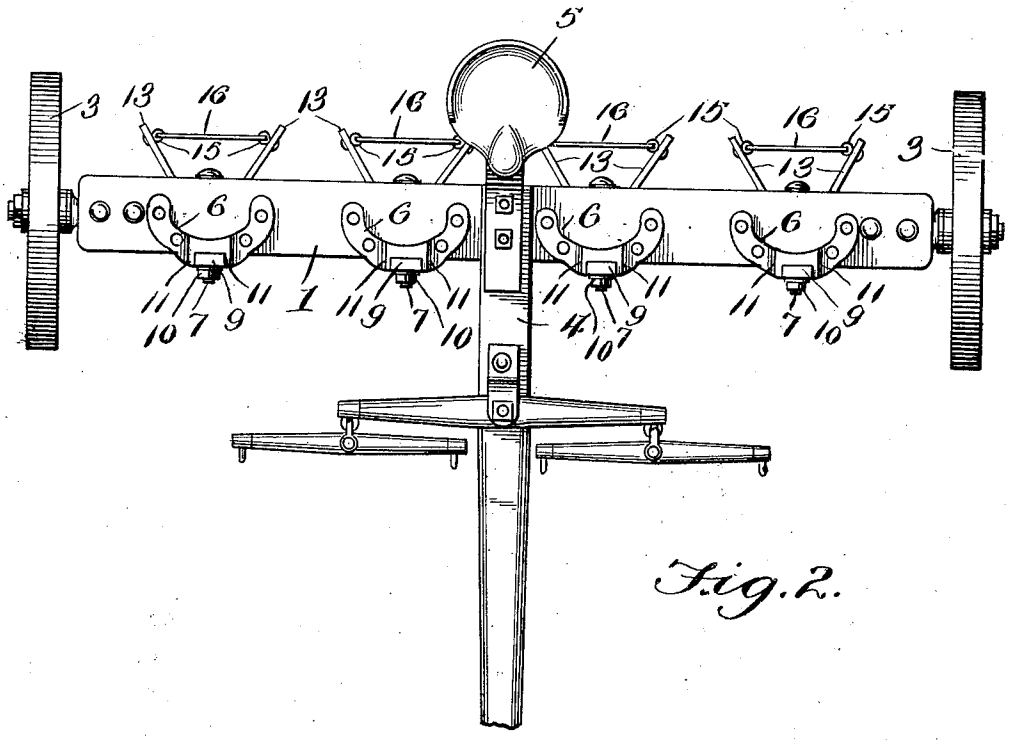


Fig. 2.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

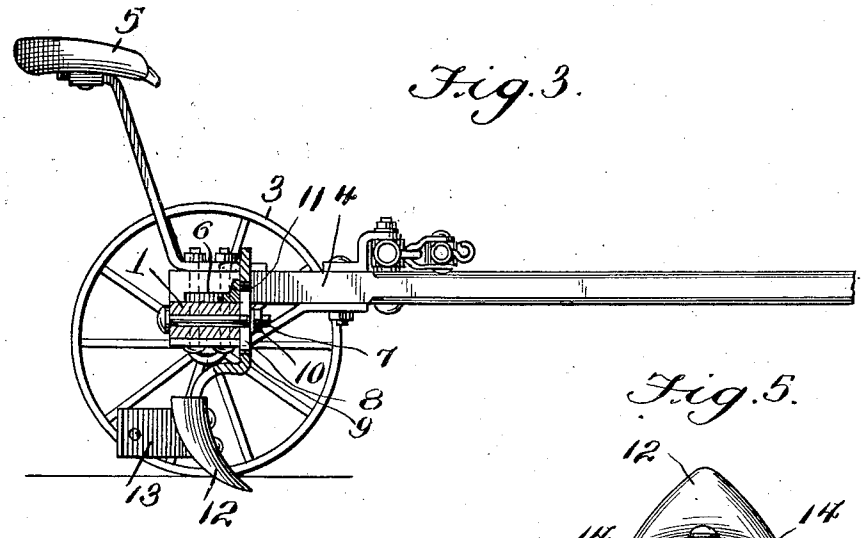


Fig. 5.

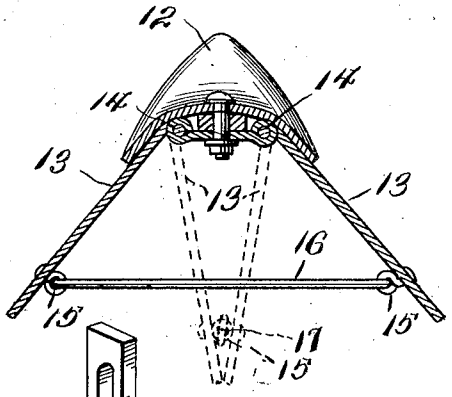


Fig. 4.

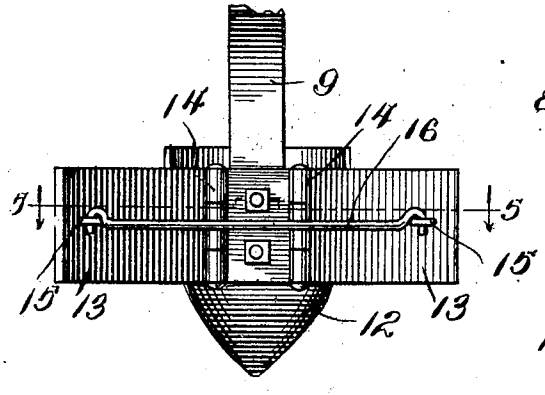
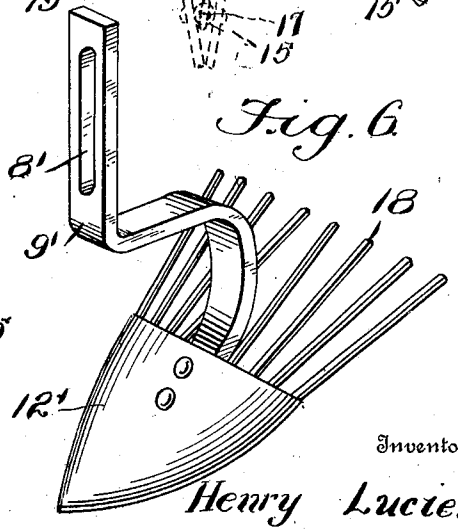


Fig. 6.



Witnesses

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UNITED STATES PATENT OFFICE.

HENRY LUCIER, OF BRAMPTON, MICHIGAN.

CULTIVATOR.

No. 925,362. Specification of Letters Patent. Patented June 15, 1909.

Application filed November 24, 1908. Serial No. 464,262.

To all whom it may concern:

Be it known that I, HENRY LUCIER, a citizen of the United States, residing at Brampton, in the county of Delta and State of Michigan, have invented new and useful Improvements in Cultivators, of which the following is a specification.

This invention relates to cultivators, and the object of the invention is to provide a machine of this character having a plurality of shovels, each of said shovels having a pair of pivoted wings which may be swung outwardly to throw the dirt upon each side of the furrow made by the shovel, the wings being so arranged that they may be folded behind the shovel when the latter is employed for furrowing.

Another object of the invention is to provide a device of this character having a plurality of shovels having hinged wings adapted to be spread adjacent the sides of the shovel or to be folded directly behind the shovel, the said shovels being provided with offset supporting arms which are vertically adjustable upon the cross beam of the frame, and the said frame having suitable bracket members adapted to engage the several supports and prevent lateral movement thereof.

With the above and other objects in view, which will appear as the description progresses the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the invention, and in which,

Figure 1 is a front elevation of the device. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical longitudinal sectional view of the same. Fig. 4 is a rear elevation of one of the shovels, the wings being shown spread. Fig. 5 is a horizontal sectional view upon the line 5—5 of Fig. 4, and illustrating by dotted lines the position of the wings when folded behind the shovel. Fig. 6 is a slightly modified form of shovel employed for digging potatoes.

In the drawings the numeral 1 designates the transverse beam or body member of the device. This beam 1 has its underface adjacent its outer edges provided with a suitable slot or cut away portion adapted for the reception of the axles 2 carrying the wheels 3. The beam 1 is centrally provided with a projecting tongue 4 having a seat 5 and being also provided with the single and double trees by which the draft animals are connected with the device.

Secured to the upper face of the beam 1, and preferably arranged in pairs, two upon each side of the central beam 4 are the bracket members 6. These members 6 are provided with a central cut away portion having its vertical longitudinal wall alining with the outer face of the beam 1. The beam 1 is provided with a plurality of longitudinally extending threaded members 7, arranged central of the cut away portion provided by the bracket 6 and adapted to engage the vertical elongated slotted portion 8 of the shovel supports 9. This support 9 is substantially rectangular in cross section, coinciding with the cut away projecting portion of the bracket 6, with which it is adapted to engage. The threaded members 7 are adapted to receive suitable securing elements 10, such as nuts, as illustrated in the figures of the drawings. By this arrangement it will be noted that the device provides for the vertical adjustment of the shovel supports 9 and that the ears 11 provided by the cut away portion effectively prevent the lateral movement of the supports.

The supports 9 are bent rearwardly, as clearly illustrated in Figs. 3 and 6 of the drawing so as to position the shovels 12 directly beneath the beam 1. The shovels 12 are of the ordinary construction and are each provided with a pair of wings 13, as at 14 and adapted to be swung outwardly in a direct line with the inclined sides of the shovel when the said shovels are employed in hilling. The wings 13 are each provided upon their inner faces with suitable eyes 15, adapted to receive the offset ends of a rod 16 when the wings are retained in spread position. The eyes 15 are also adapted for the reception of a suitable pintle or other securing device 17 when the said wings are folded and positioned directly to the rear of the shovel 12 as indicated by the dotted lines of Fig. 5 of the drawings.

In operating the improved cultivator, the wings 13 are swung to the rear of the shovels 12 as shown by the dotted lines in Fig. 5 of the drawings. The device is propelled until a sufficient number of furrows are made in the ground. The seeds are now placed in the furrows, and the wings of the shovels are spread and the machine posi-

tioned intermediate of the furrows. The machine is then propelled, causing the earth dug by the shovels to be thrown upon each side of the said shovels and to be directed by the wings 13 to close the furrows in which the seeds are placed and to effectively hill the same.

In Fig. 6 I have illustrated a shovel 12′ similar to those illustrated in the other figures of the drawings. The shovel 12′ is also provided with a support 9′ having an elongated slot 8′ similar to the support previously described. This shovel 12′ is adapted for digging potatoes and is provided with a plurality of rearwardly extending fingers 18 adapted for the well known purpose of sifting the dirt from the potatoes.

From the above description, taken in connection with the accompanying drawings, it will be noted that I have provided an extremely simple, cheap and effective cultivator for the purpose set forth, one in which the cultivator blades or shovels are provided with rings which may be readily spread or closed behind the shovel as desired, one in which the shovels are readily adjusted vertically, and one wherein the shovels are respectively sustained against lateral movement.

Having thus fully described the invention what is claimed as new is:

The combination with a beam having its ends provided with supporting wheels, a plurality of bracket members upon the upper face of the beam, said bracket members being each provided with ears projecting over the front face of the beam, a plurality of threaded members extending through the beam directly below the center of each of the pairs of ears of the brackets, of offset shovel supporting members having their vertical arms provided with elongated slots engaging the threaded projections and the ears of the beam, nuts for the projecting threaded members, and a shovel member provided with mold boards secured upon the offset portion of the shovel supporting members directly beneath the beam.

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

HENRY LUCIER.

Witnesses:
JOSEPH RICHARDS,
HERMAN BUIMET.