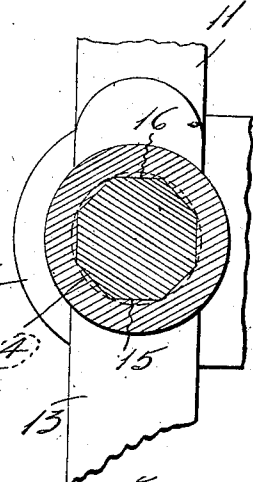
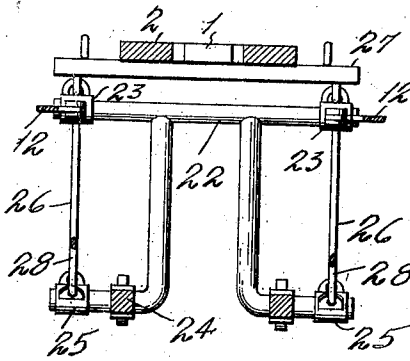
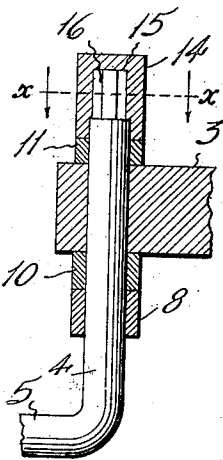
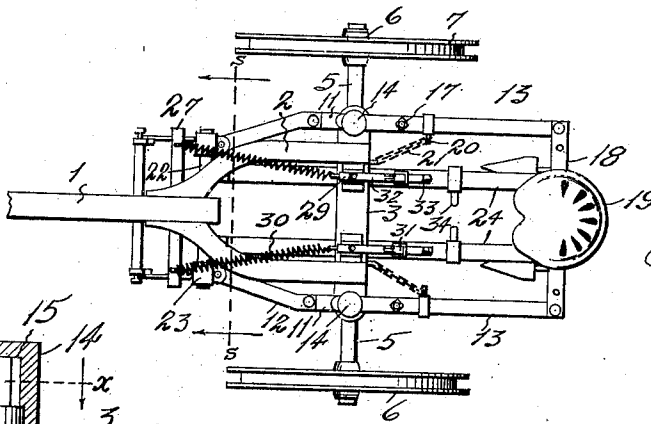
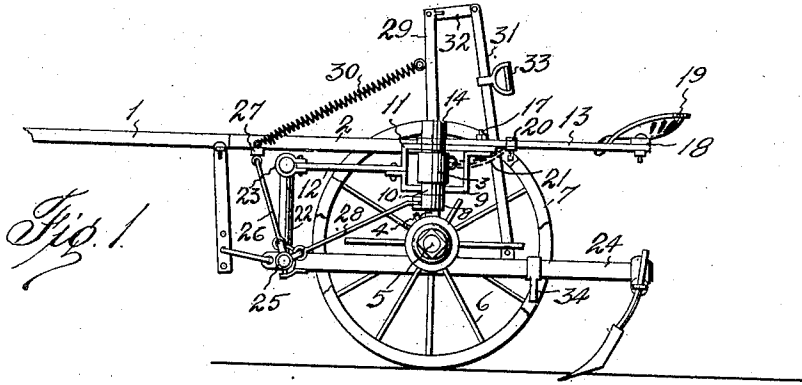


J. H. FOSTER.
CULTIVATOR.

APPLICATION FILED OCT. 15, 1910.

980,410.

Patented Jan. 3, 1911.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOHN H. FOSTER, OF CUTHBERT, TEXAS.

CULTIVATOR.

980,410.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed October 15, 1910. Serial No. 587,168.

To all whom it may concern:

Be it known that I, JOHN H. FOSTER, citizen of the United States, residing at Cuthbert, in the county of Mitchell and State of Texas, have invented certain new and useful Improvements in Cultivators, of which the following is a specification.

This invention relates to new and useful improvements in cultivators.

The object of the invention is to provide mechanism and so mount the ground wheels that the driver may swing the wheels and guide the cultivator, the invention residing in certain novel features of construction hereinafter described.

Finally the object of the invention is to provide means of the character described that will be strong, durable, efficient, and easy of operation, simple and comparatively inexpensive to construct, and also in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in this specification and illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation, Fig. 2 is a plan view, Fig. 3 is a transverse vertical sectional view on the line S—S of Fig. 2, Fig. 4 is a detail of one of the axle members in vertical section, and Fig. 5 is a horizontal cross sectional view on the line x—x of Fig. 4.

In the drawings the numeral 1 designates a central tongue to each side of which rearwardly extending frame members 2 are attached. At their rear ends the members 2 are fastened on a transverse supporting bar 3. The vertical posts 4 of axle members 5 extend through and above the ends of the supporting bar and are adapted to turn therein. Each axle member at its lower end is directed outward and supported in a ground wheel 6 mounted to revolve thereon. The ground wheels have channel shaped rims 7 which are of great advantage as they will grip the soil and hold the cultivator to its course.

On each post 4 a collar 8 is fixed below the bar 3. A bracket 9 is provided near its central portion with a collar 10 which fits loosely about the post 4. Two of these brackets are employed and the collar of each rests on the collar 8 of its respective post and

in turn supports the bar 3. A second bracket 11 has its central portion loosely engaging about one of the posts 4 and resting on the bar 3. From each bracket 11 an arm 12 extends forward and slightly inward at an angle. The forward end of each bracket 9 is secured to the arm 12 thereabove. Each bracket 11 extends rearward from the post a short distance and overlaps the rear end of the underlying bracket 9. A side bar 13 is provided on each side of the machine. At its forward end each side bar has fixed thereon a cap 14. Each cap is provided with a recess 15 having angular walls. Each post has at its upper end a regular sided portion 16 which is adapted to fit snugly in the recess 15 of the super-posed cap. The portion 16 has the same number of sides as the recess has walls. It is obvious that the portion 16 may have either an equal or an odd number of sides and by this construction the axle members are swung when the side bars are swung, the posts 4 acting as vertical pivots.

At each side the brackets 9 and 11 the side bar 13 are fastened together by a nut and bolt 17. Should the bars 13 and the wheels 6 get out of alinement, the bolt 17 can be removed, the cap 14 removed from the portion 16 by raising the bar 13 and the axle member adjusted, after which the parts may again be fastened together. It is to be understood that each cap is either formed integral or rigidly secured to its respective bar 13. At their rear ends the bars 13 are connected by a transverse seat bar 18 at the center of which a suitable seat 19 is mounted. Hooks 20 are fastened to the side bars 13 near the brackets and are adapted to be engaged by short chains 21 attached to the bar 3 as shown in Fig. 2. These chains limit the swinging movement of the side bars and they may be either fastened taut or slack by engaging different links with the hooks and whereby the side bars may be held against movement or allowed a limited movement.

At the forward end of the machine a vertical arch 22 is provided. This arch has extensions at its upper end to which collars 23 are secured. Each collar has pivotal engagement with the forward end of one of the arms 12 of the brackets 11 and thus when the side bars 13 are swung the arch is also swung laterally. The lower ends of the arch are directed outward and have suitable pivoted connection with the plow gangs 24 at

the forward ends of the latter. For supporting the arch a collar 25 is secured on each lower outer end. Each collar has engagement with a link 26 extending upward to a cross bar 27 secured to the frame members 3 in front of the arch and also with a link 28 extending rearward and having pivotal connection with the adjacent collar 8. For supporting and raising the gang a pair of masts 29 are hinged on the bar 3. From each mast a coil spring 30 extends forward to the bar 27. A rod 31 is provided for each gang and each rod is pivoted to the gang at its lower end and has pivotal connection at its upper end with a short link 32 which in turn is pivotally connected to the upper end of one of the masts. On each rod 31 a handle 33 is suitably secured. On each gang a stirrup 34 is mounted.

20 In operating the cultivator the driver occupies the seat 19 and engages his feet in the stirrups 34. Should he desire to guide the cultivator to the right it is simply necessary for him to throw his body to the left with the pressure on his right limb which will cause the side bars 13 to swing to the left and the arch and wheels to the right, the action being reversed when it is desired to guide the cultivator to the left.

30 What I claim is:

1. In a cultivator wheel turning apparatus, the combination with a frame, an arch, and cultivator gangs connected to the arch and supported from the frame, of swinging axle members having vertical posts, side bars, a seat supported between the side bars, the vertical posts of the axle members each having a regular sided portion, the side bars each having a member provided with a recess to receive the regular sided portions of the posts, and connections pivoted on the axle members and connected with the arch and the side bars.

2. In a cultivator wheel turning apparatus, the combination with a frame, an arch, and cultivator gangs connected to the arch

and supported from the frame, of swinging axle members having vertical posts, side bars, a seat supported between the side bars, the vertical posts of the axle members each having a regular sided portion, the side bars each having a member provided with a recess to receive the regular sided portions of the posts, connections pivoted on the axle members and connected with the arch and the side bars, and connections for limiting the swing of the parts, one extending from each side bar to the frame.

3. In a cultivator, the combination with a frame, an arch movably supported by the frame, gangs attached to the arch and supported from the frame, of axle members having vertical posts pivotally mounted in the frame and extending above the same, ground wheels mounted on the axle, a collar fixed on each axle, a bracket pivoted on each axle and resting on the collar below the frame, a second bracket pivoted on the post of each axle above the frame, the first bracket being connected to the second bracket, an arm on each side of the frame extending from one of the brackets and connected at its forward end to the arch, a side bar on each side of the frame, a seat bar connecting the rear end of the side bars, a seat mounted on the seat bar, stirrups mounted on the gangs, the axle posts having radially sided portions at their upper ends, caps fixed on the side bar and having recesses shaped to snugly engage the regular sided portions of the axle posts, fastenings securing the brackets and side bar on each side together, hooks mounted on the side bars, and chains attached to the frame and engaging the hooks.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. FOSTER.

Witnesses:

W. L. DOSS,
J. I. PAYNE.