M. HENDREN.

CULTIVATOR ATTACHMENT.

APPLICATION FILED AUG. 24, 1910.

983,493.

Patented Feb. 7, 1911.

FIG. 4.

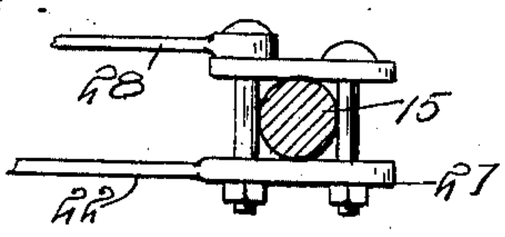


FIG. 1.

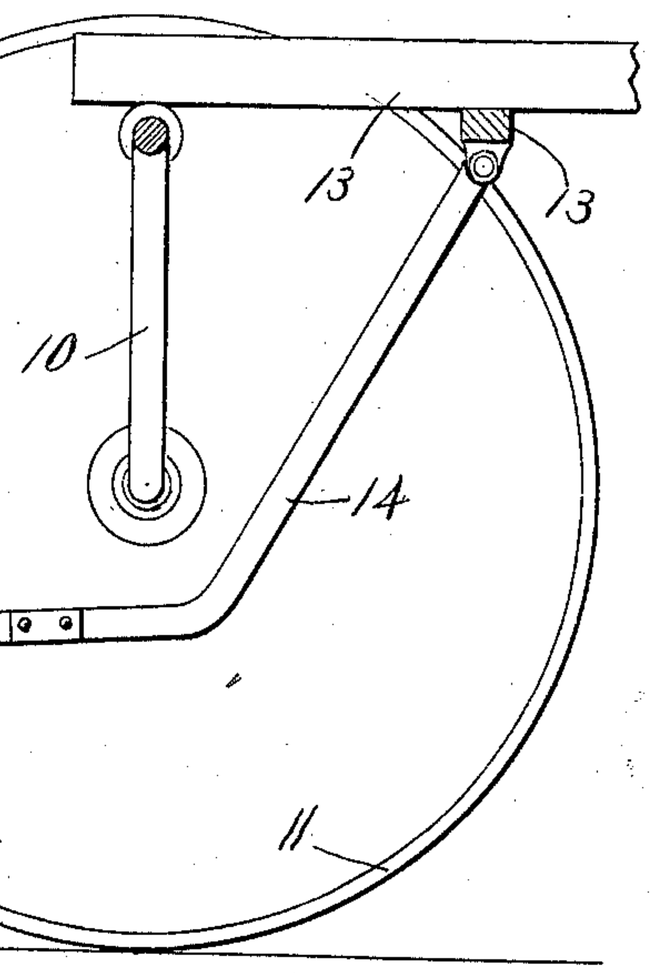
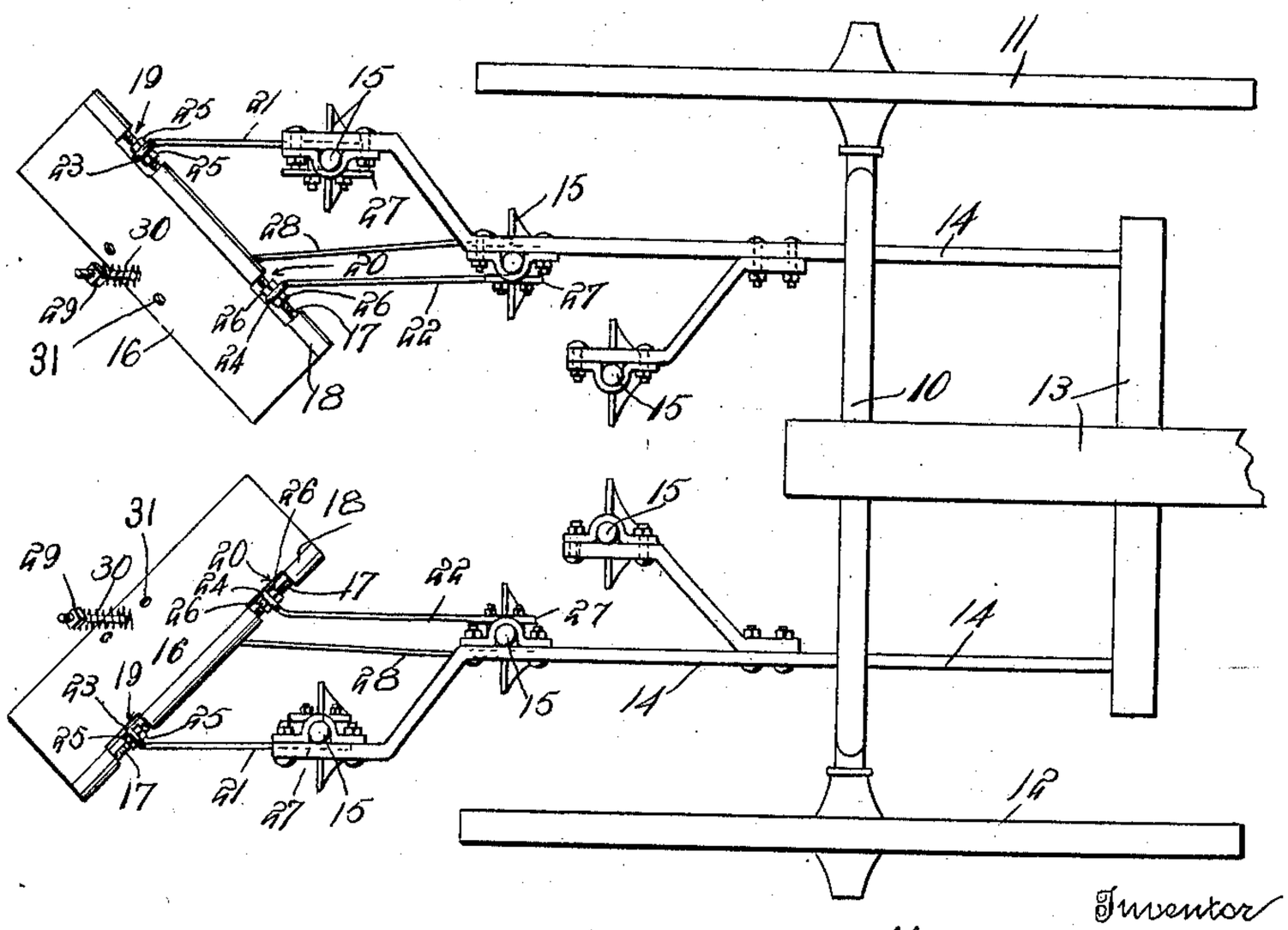


FIG. 3.

FIG. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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CULTIVATOR ATTACHMENT.

983,493. Specification of Letters Patent. **Patented Feb. 7, 1911.**

Application filed August 24, 1910. Serial No. 578,620.

To all whom it may concern:

Be it known that I, MORRIS HENDREN, a citizen of the United States, residing at Coatesville, in the county of Hendricks, State of Indiana, have invented certain new and useful Improvements in Cultivator Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in attachments to cultivators and similar implements, and has for one of its objects to provide a simply constructed attachment whereby the furrows caused by the shovels are leveled and the ground smoothed and an effect produced similar to that of rolling the ground.

With this and other objects in view, the invention consists in certain novel features of construction as hereinafter shown and described and then specifically pointed out in the claims.

The improved device may be applied to any of the various constructions of cultivators, and it is not desired therefore to limit the invention to any specific construction of cultivator, as the changes required to be made to attach the device to different forms of cultivators are not material, but for the purpose of illustration the improved device is shown applied to a conventional cultivator, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of a portion of a conventional cultivator with the attachment applied, Fig. 2 is a plan view of the same, Fig. 3 is a sectional detail illustrating the manner of arranging the tension portion of the improved device. Fig. 4 is an enlarged sectional detail of one of the clamp devices.

The device is shown applied to a riding cultivator, to which the improved device is particularly adapted, and comprises in general an arched axle 10 having ground wheels 11—12 and a tongue supporting frame 13. I have not shown the seat or the beam lifting mechanism, as these portions form no part of the present invention, but have shown conventional beams 14 carrying cultivator standards 15 and mounted to swing from the tongue frame in the ordinary manner.

The improved attachment comprises a relatively long and wide plate 16 having a rod 17 connected thereto at the upper edge, preferably by rolling the material of the plate around the rod, as shown at 18. The "roll" 18 is formed with openings at two points as represented at 19—20, and the portions of the rod 17 which are exposed in the openings are threaded, as shown in Fig. 2, the object to be hereinafter explained.

One of the plates 16 will be associated with each of the beams 14 of the cultivator, and arranged to operate inwardly, as shown in Fig. 2 when applied to a double or two-beam cultivator, but as they are precisely alike like reference characters are employed for each and the description of one will suffice for both. The plate 16 is connected to a pair of standards 15, preferably the rearmost pair, as represented.

The coupling means between the plate 16 and the standards 15 comprises two rods 21—22 having eyes 23—24 at their rear ends bearing around the rod 17 within the apertures 19—20, and adjustable thereon by clamp nuts 25—26 operating on the threaded portion of the rods. By this means the plate 16 may be adjusted longitudinally relative to the rods 21—22. At their opposite ends the rods are gripped or otherwise secured, as shown at 27 to the standards.

Means are provided for changing the inclination of the plates 16, and this means comprises a rod 28 mounted to swing at one end to one of the standards, preferably by utilizing one of the bolts by which the clips 27 are secured in position as shown in Fig. 4. The rod 28 is bent downwardly from the pivot of the clip, as shown in Fig. 3, and thence extended horizontally through the plate 16 and threaded at the outer portion and provided with an adjusting nut 29 and with a spring 30 between the nut and the outer face of the plate 16. By this means the tension of the plate may be increased or decreased and its inclination altered, as required. By this arrangement a yieldable support is produced so that in event of abnormal strains being encountered, such as heavy stones, stumps, or the like, the plate will yield and pass over the obstruction and thus be prevented from breakage. By this arrangement of the parts the plates may be adjusted longitudinally by manipulating the nuts 25—26, or adjusted to its inclination by actuating the clamp nut 29.

The plate 16 will generally be arranged to

travel rearwardly of the cultivator shovels, and at an angle to the path of the cultivator, as shown in Fig. 2, and operates to scrape the earth rearwardly of the shovels and restore it to its level position, or operated to produce substantially the same effect as if the ground were lightly rolled. By this means all furrows formed by the cultivator shovels are eradicated and the ground restored to its former condition. By this means the cultivators are employed to break up the soil and destroy the weeds, and the attachment is utilized to restore the ground to its former smooth or level condition, the weeds being left exposed upon the surface of the ground where they perish and may be removed or plowed under. The plate 16 may be of any required size but for an ordinary cultivator will generally be about twenty inches long and six inches wide, but these dimensions may be varied as required. The plate 16 and the other parts will preferably be of steel, as light as possible consistent with the strains to which they will be subjected. The plate 16 is provided with a plurality of apertures as shown at 31 to enable the rod 28 to be adjusted longitudinally of the plate if required.

What is claimed is:—

1. The combination with a cultivator including the shovel standards, rods connected at one end to said standards and swingingly connected at their other ends to said plate, and another rod mounted to swing at one end to one of said standards and adjustably connected at the other end to said plate.

2. The combination with a cultivator including the shovel standards, rods connected at one end to said standards and swingingly connected at their other ends to said plate, and another rod mounted to swing at one end to one of said standards and slidable at the other end through said plate, and yieldable means between said last mentioned rod and the plate.

3. An attachment for cultivators comprising a plate having the upper edge rolled to produce a longitudinal socket, said rolled socket having recesses spaced apart therein, a rod extending through said socket and threaded where it passes through said recesses, clamp nuts engaging the threaded portions of said plate rod, tie rods having eyes engaging around the threaded portions of said plate rods and between said clamp nuts, means for coupling the opposite ends of said tie rods to the standards of a cultivator, an adjusting rod mounted to swing upon the connecting means of the tie rods and extending at one end through said plate, and a spring carried by said adjusting rod and bearing against said plate.

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

MORRIS HENDREN.

Witnesses:

EMMA MASTEN,

GUILIA MASTEN.