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HARROW AND CULTIVATOR.
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2 SHEETS-SHEET 1.

Fig. 1

Fig. 2

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To all whom it may concern:

Be it known that I, ADOLPH STAVINOSA, a citizen of the United States, residing at Engle, in the county of Fayette and State of Texas, have invented new and useful Improvements in Harrows and Cultivators, of which the following is a specification.

This invention relates to harrows and cultivators, and the invention has for its object to produce a wheel harrow or cultivator of simple and improved construction, the earth engaging members of which may be conveniently raised and lowered or otherwise adjusted and guided.

A further object of the invention is to simplify and improve the general construction whereby the implement carrying beams and the supporting wheels are connected with the body of the implement.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings there has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawings—Figure 1 is a top plan view of a cultivator constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a side elevation. Fig. 4 is a front elevation. Fig. 5 is a vertical sectional detail view taken on the line 5—5 in Fig. 1 through one of the beams and one of the implements carried thereby. Fig. 6 is a perspective detail view of one of the clips for connecting the implements with the beams. Corresponding parts in the several figures are denoted by like characters of reference.

The body 1 of the improved implement consists of a rectangular block, on the side faces of which metallic bars 2, 2 are secured by means of transverse bolts 3. One of said bolts also serves to secure the lower ends of the handles 4 which are thereby connected with the body.

The forward ends of the bars 2 are curved and extended downwardly to present necks 5 having terminal eyes or sleeves 6 supporting a shaft or axle 7 having transporting wheels 8. One or two wheels may be used, as desired; when two wheels are used, one of said wheels is preferably mounted detachably by means of a set screw 9 engaging the shaft 7 through the hub of such wheel in order that the first cultivation may be performed with a single wheel which is deemed desirable. Two wheels of a slightly different construction, one having a flat tread and the other having a rounded tread are shown, but it is to be understood that wheels of any suitable and convenient construction may be employed. A draft hook, link or clevis 10 is suitably connected with the body member from which it extends forwardly, as shown.

Implement carrying beams 11 are hingedly connected with the rear ends of the bars 2 by means of pins or pindles 12 disposed in an approximately vertical plane, so that said beams may swing in an approximately horizontal plane. The rear ends of the beams 11 are downturned to form integral standards 13 upon which blades or shovels 14 of suitable construction are mounted by means of bolts 15 which also serve to secure in position the shoes 16, each of which consists of a V-shaped plate, one limb of which constitutes an earth engaging blade or runner, whereby the depth of the operation of the earth engaging implements may be gauged, it being understood that the shoe is vertically adjustable.

Each of the beams 11 is equipped forwardly of the standard 13 with a plurality of earth engaging teeth 17, preferably of a resilient nature, each of said earth engaging teeth or implements including a shank 18 which is adjustably connected with the beam by means of an inverted V-shaped clip 19 having a slot 20 for the passage of the shank which, together with the beam, is included between the limbs or side members of said clip. The latter is provided with apertures for the passage of clamping bolts 21 positioned adjacent to the front and rear edges of the shank 18. It will be readily understood that by loosening the clamping bolts, adjustment of the shank vertically, as well as longitudinally of the beam, may be readily effected, the parts being securely retained in adjusted position by tightening the bolts.

The beams are connected together and spaced apart adjustably by means of overlapping braces 22, each of which is suitably...
connected at one end with a beam 11, the overlapping ends of the braces being slotted for the passage of a connecting member, such as a bolt 23. The beams are also connected with the handles by means of braces 24, and the handles may be connected together by means of a rung 25, it being understood that the handle braces are to be connected with the handles by means such as interengaging eyes 26 which will not interfere with the desired adjustability of the beams.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood. The construction is simple, inexpensive and thoroughly practical and efficient for the purposes for which it is intended.

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

1. A body block provided with transverse bolts, side bars mounted on the bolts and having downturned front ends provided with terminal sleeves, a wheel carrying shaft supported in the sleeves, implement carrying beams connected hingedly with the rear ends of the side bars, handles connected at their lower ends with one of the transverse bolts of the body block, link-braces connecting the handles with the beams, and means whereby the beams are connected together adjustably.

2. A body block having transverse bolts, side bars mounted on said bolts, a wheel carrying shaft supported at the front ends of the side bars, implement carrying beams connected hingedly with the rear ends of the side bars, slotted overlapping braces connected with the beams, a fastening member adjustably connecting the overlapping ends of the slotted braces, handles connected at their lower ends with one of the transverse bolts of the body block, handle braces connected at their lower ends with the beams, and interengaging eyes connecting the upper ends of the handle braces with the handles.

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

ADOLPH STAVINOHA.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."