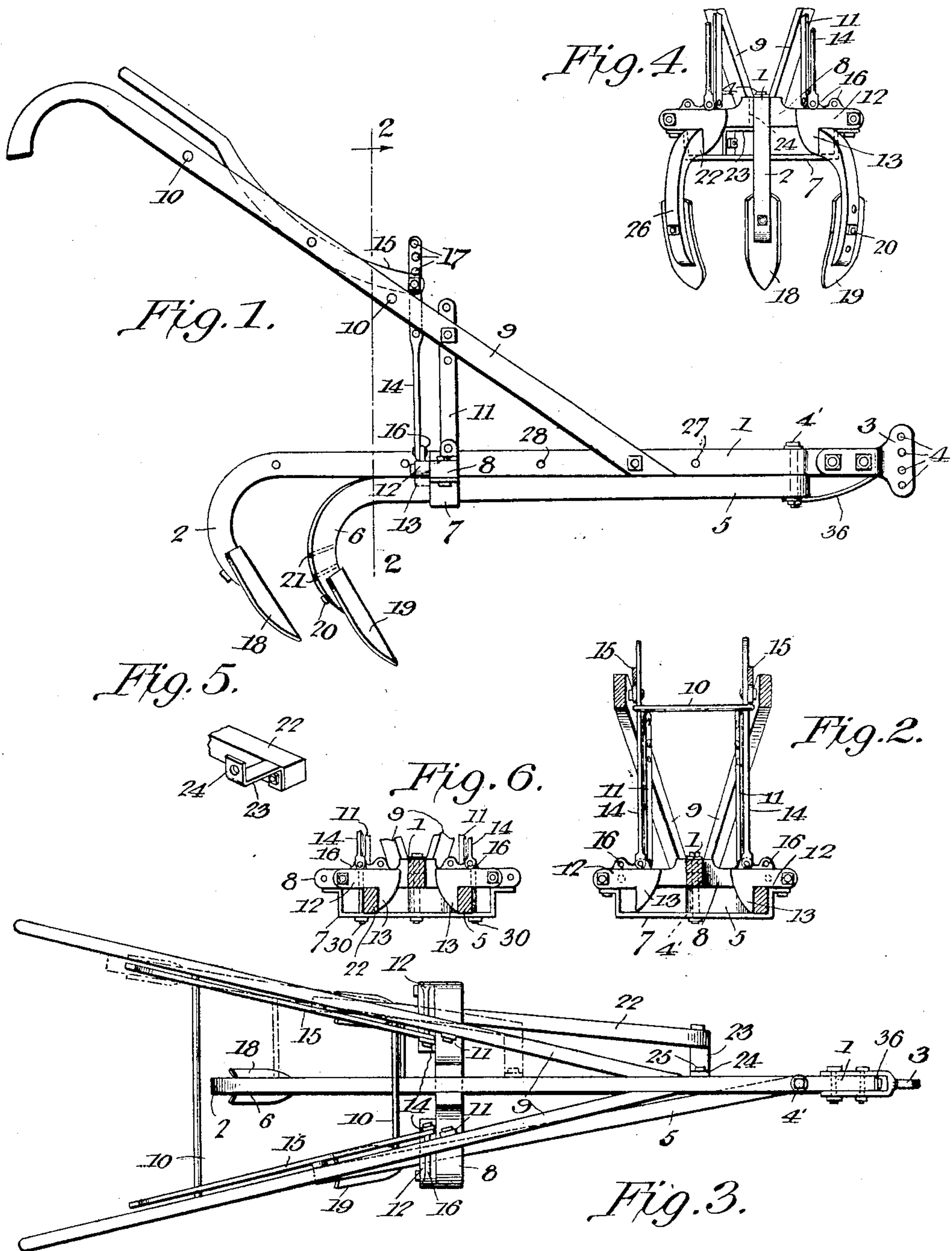


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PLOW AND CULTIVATOR.
APPLICATION FILED JUNE 21, 1905.



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UNITED STATES PATENT OFFICE.

BOOKER DALTON, OF STUART, VIRGINIA.

PLOW AND CULTIVATOR.

No. 803,404.

Specification of Letters Patent.

Patented Oct. 31, 1905.

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To all whom it may concern:

Be it known that I, BOOKER DALTON, a citizen of the United States, residing at Stuart, in the county of Patrick and State of Virginia, have invented a new and useful Plow and Cultivator, of which the following is a specification.

This invention relates to plows and cultivators; and it has for its object to present an implement of this class which may be adjusted and arranged for work upon the level or for hillside-work.

A further object of the invention is to provide an attachment whereby the device may be converted into a cultivator for cultivating between the rows, the same being also further convertible so that a pair of the devices may be used for cultivating the sides of a single row.

Further objects are to simplify and generally improve the construction and operation of this class of devices.

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 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 may be resorted to when the same may be used without sacrificing the advantages of the device and when they fall within the scope of the invention.

In said drawings, Figure 1 is a side elevation of the improved implement. Fig. 2 is a sectional view taken on the plane indicated by the line 2 2 in Fig. 1. Fig. 3 is a plan view showing the device equipped with an auxiliary beam whereby it is converted into a cultivator. Fig. 4 is a rear elevation of the device as shown in Fig. 3. Fig. 5 is a perspective detail view of the front end of the auxiliary beam with its supporting-bracket. Fig. 6 is a detail rear view illustrating a modification.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The improved implement includes a main beam 1, curved downwardly at its rear end to

form a standard 2 and provided at its front end with a bracket member 3, having a plurality of transverse perforations 4 4 for the attachment adjustably of a clevis whereby draft may be attached to the beam. The latter is provided a short distance in rear of the bracket member 3 with a vertical bolt 4', constituting a pivot, upon which is mounted a secondary beam 5, which is shorter than the beam 1 and which is provided with a downturned standard 6, which is located a suitable distance in front of the standard 2. The beam 5 is capable of swinging clear under the beam 1, and it is supported by means of a keeper 7, the ends of which are attached to a cross-bar 8, which is suitably connected with the main beam 1. The latter is provided with handles 9, spaced apart by rungs 10 and connected with the cross-bar 8 by means of braces 11.

Pivotally mounted upon the rear side of the cross-bar 8 near the ends of the latter are latch members 12, provided at their inner free ends with beveled hook members 13. The latch members 12 are connected, by means of links 14, with operating-levers 15, fulcrumed upon the handles 9. It will be seen that the beam 5 may be swung upon its pivot 4 in such a manner as to place said beam in engagement with either of the latch members, which operate by gravity. The disengagement of the beam 5 for the purpose of changing its position relative to the main beam 1 may be effected by simply depressing the handle of one of the operating-levers, as will be readily understood. The latch members 12 are preferably provided with a plurality of perforated lugs 16 for adjustable connection with the links 14, and the latter are likewise provided with several perforations 17 for adjustable connection with the operating-levers 15.

The standard of the main beam 1 carries an earth-engaging implement or blade 18, and the beam 5 likewise carries a blade 19, which latter is secured by means of a heel-bolt 20, extending through any one of a plurality of perforations 21 in the standard 6, so that the blade or earth-engaging implement 19 may be adjusted vertically. Thus for hillside-work it is preferred to place the blade 19 lower than the blade 18, as seen in Fig. 1 of the drawings. When the plow is reversed at the end of the furrow upon the hillside, the beam 7 is shifted from one side of the main beam to the other side, and the work may thus progress, two furrows being made at one time.

When the device is to be converted into a

cultivator, an auxiliary beam 22 is provided, having at its front end a laterally-extending bracket 23, provided with a vertical offset adapted to be connected, as by means of a bolt 5 25, with one side of the main beam. The auxiliary beam 22 has a downturned implement-carrying standard 26, and said standard may be adjusted in alinement with the standard 6 of the beam 5, as shown in full lines in 10 Fig. 3 of the drawings, or it may be adjusted in rear of the standard 2 of the main beam 1, as shown in dotted lines in said figure. The adjustment may be effected by connecting the bracket 23 with either one of a pair of trans- 15 verse perforations 27 28 in the main beam. When the auxiliary beam is in the former position, the device may be used as a one-horse cultivator for cultivating between two rows of plants. When the auxiliary beam is ad- 20 justed in the position shown in dotted lines in Fig. 2, the device may be regarded as forming a unit of a two-horse straddle-row cultivator, two such units being united by means of an arched connection of ordinary construc- 25 tion, which is no part of the present invention and which has not been illustrated.

It may at times be desired to space the rear ends of the cultivator-beams at different distances apart. In order that this may be read- 30 ily accomplished, perforations are provided in the cross-bar 8 and the keeper 7 at suitable distances from the ends of the latter for the reception of bolts 30, as shown in Fig. 6 of the drawings. By moving their pivotal bolts 35 the latch members 12 may now be moved inwardly upon the cross-bar 8, placing them in a position to properly engage the inner sides of the cultivator-beams 5 and 22, the outer sides of which are now supported against the 40 bolts 30 instead of, as heretofore, against the ends of the keeper 7. It is in order to admit of such adjustment that each of the latch members 12 is provided with a plurality of perforated lugs 16 for engagement with the 45 lower ends of the links 14, as will be readily understood. It is obvious that the adjustment may be varied by insetting only one instead of both of the cultivator-beams.

From the foregoing description, taken in 50 connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood by those skilled in the art to which it appertains. The construction is simple and inexpensive, and the 55 device is thoroughly efficient for the purposes for which it is intended.

If desired, the lower end of the bolt 4' may be connected with the front end of the beam 1 by means of a reinforcing plate or brace 36, 60 which appears in Figs. 1 and 3 of the drawings. Space should be left between the front end of the beam and the draft member 3 for

a bolt or fastening member 37, whereby the front end of the brace 36 is secured.

Having thus described the invention, what 65 is claimed is—

1. A beam having a cross-bar, a keeper supported by said cross-bar beneath the beam, latch members pivoted adjustably upon the rear side of the cross-bar near the ends of the 70 latter and provided at their inner ends with beveled hook members, a beam connected pivotally with the main beam, slidable beneath the latter and supported upon the keeper, beam-engaging bolts connecting the cross- 75 bar and the keeper and spaced from the ends of the latter, and means for operating the latches.

2. A main beam having a cross-bar, a keeper connected with the cross-bar and extending 80 beneath the main beam, a secondary beam connected pivotally with the main beam and supported upon the keeper, and an auxiliary beam having a bracket detachably connected with 85 the main beam.

3. A main beam having a cross-bar, a keeper connected with the cross-bar and extending 90 beneath the main beam, and a pair of complementary beams connected with the main beam and supported upon the keeper.

4. A main beam having a cross-bar, latch members connected with said cross-bar, a keeper connected with the cross-bar and ex- 95 tending beneath the main beam, and complementary beams connected with the main beam, supported upon the keeper and engaging the latch members connected with the cross-bar.

5. A main beam having a cross-bar, a keeper connected with the cross-bar and extending be- 100 neath the main beam, complementary beams connected with the main beam and supported upon the keeper, latch members connected adjustably with the cross-bar, and beam-en- 105 gaging bolts connecting the cross-bar and the keeper at a distance from the ends of the latter.

6. A main beam having a cross-bar, a keeper connected with the cross-bar and extending 110 beneath the main beam, complementary beams connected with the main beam and supported upon the keeper, latch members connected adjustably with the cross-bar and provided each with a plurality of perforated lugs, a beam-engaging bolt connecting the cross-bar 115 and the keeper, latch-operating levers, and links connecting said levers adjustably with the latch members by the perforated lugs of the latter.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

BOOKER DALTON.

Witnesses:

C. R. MARTIN,
G. D. HUBBARD.