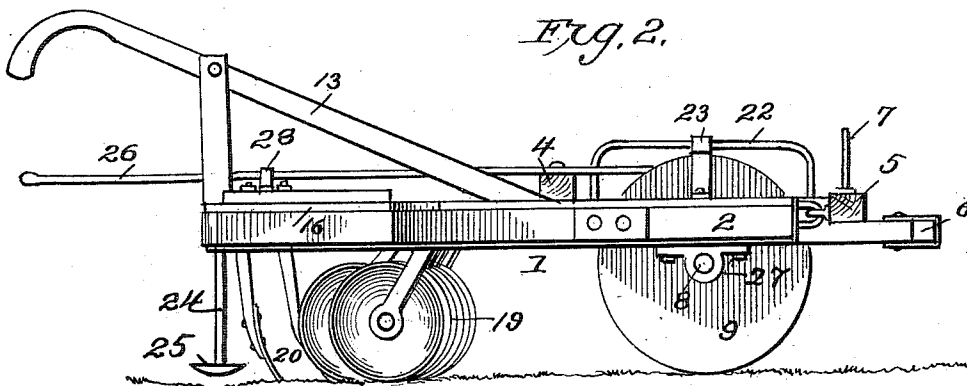
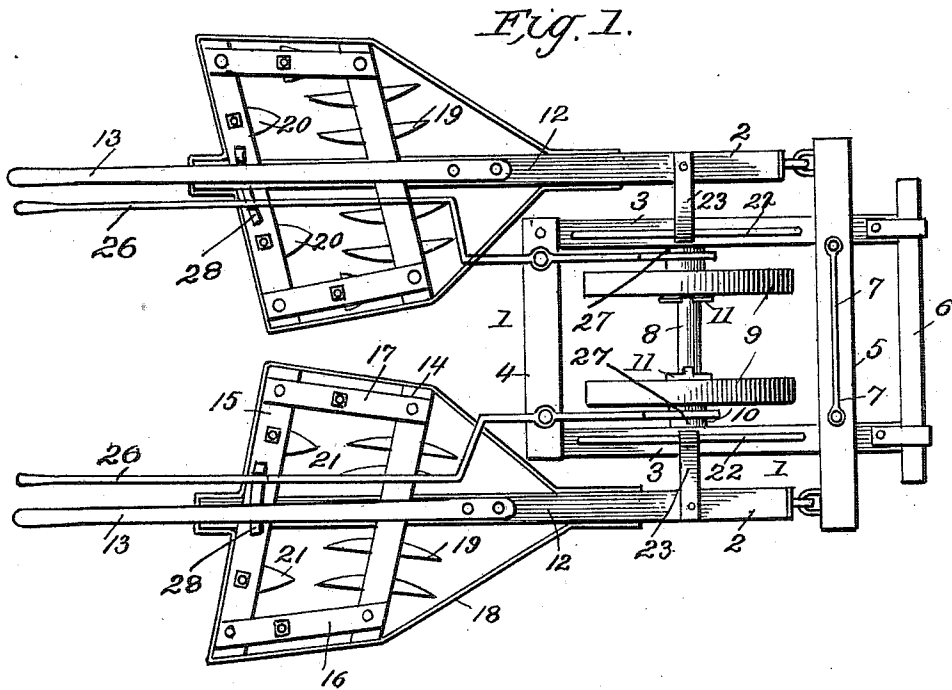


J. S. MARSH.
 COMBINED HARROW AND CULTIVATOR.
 APPLICATION FILED NOV. 11, 1909.

994,766.

Patented June 13, 1911.

2 SHEETS—SHEET 1.



Witnesses:

R. M. Elliott
 Jos. A. Ryan

Inventor:

James S. Marsh,

By

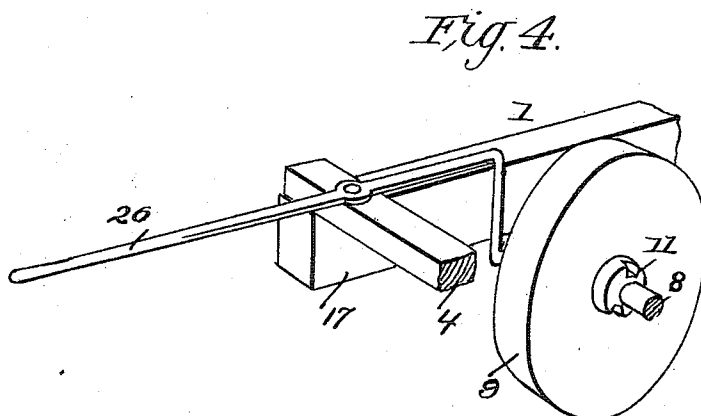
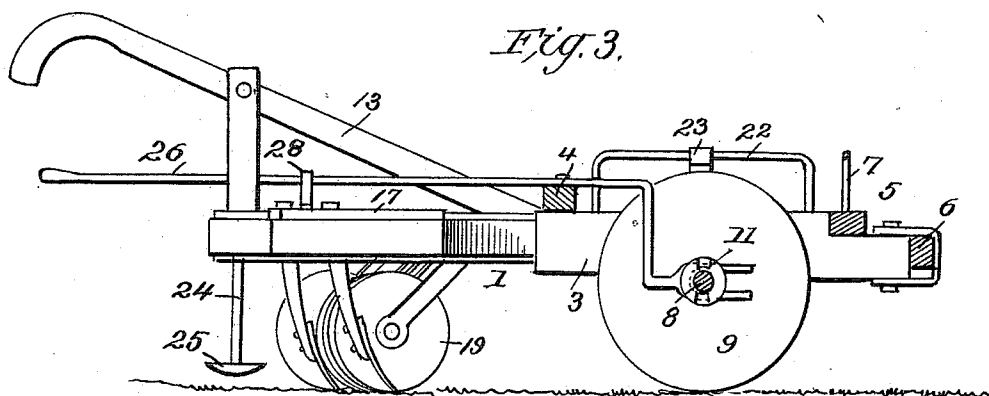
Samuel L. Jones
 Attorney.

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2 SHEETS—SHEET 2.



Witnesses:
R. M. Elliott
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UNITED STATES PATENT OFFICE.

JAMES S. MARSH, OF QUINCY, ILLINOIS.

COMBINED HARROW AND CULTIVATOR.

994,766.

Specification of Letters Patent. Patented June 13, 1911.

Application filed November 11, 1909. Serial No. 527,518.

To all whom it may concern:

Be it known that I, JAMES S. MARSH, a citizen of the United States, residing at Quincy, in the county of Adams and State of Illinois, have invented certain new and useful Improvements in Combined Harrows and Cultivators, of which the following is a specification.

This invention relates to combined harrows and cultivators.

The object of the invention is to provide an implement of this character which shall be simple in construction, thoroughly efficient and durable in use, and in which provision is made whereby to prevent the mashing down of a ridge between the rows of cotton or corn.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a combined harrow and cultivator, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts:—Figure 1 is a top plan view of the implement. Fig. 2 is a view in side elevation. Fig. 3 is a longitudinal sectional view taken through the center of the machine. Fig. 4 is a detail view displaying the means for holding the two ground wheels in locked engagement.

The implement embodies a main frame designated generally 1 and two side or supplemental frames designated generally 2. The main frame comprises two side members 3 and two end members 4 and 5, the side members being extended beyond the end member 5 and having combined therewith a cross-bar 6 carrying a loop 7 through which the lines of the bridle will be passed.

Journalled in the side members 3 of the main frame is a shaft 8 upon which are mounted two wheels 9 the hubs 10 of which are designed to be interlocked by a clutch 11 of any preferred construction. The object for employing two wheels that are separable, but are capable of being rendered unitary, is to allow the wheels to be separated for the purpose of straddling a ridge, but when the ridge has been split, the wheels will be interlocked and thus present a single wheel.

The supplemental frames are counterparts

of each other and are hinged to the end bar 5 of the main or wheel-carrying frame. Each supplemental frame embodies a beam 12, a handle 13, two diagonally disposed beams 14 and 15, and two angularly disposed beams 16 and 17, the series of beams being braced by strap irons 18.

Depending from the beams 14 is a series of harrow-disks 19, in this instance four being used, and depending from the beam 12 at a point intermediate of that portion located between the beams 14 and 15 is another harrow-disk 20. Carried by the beams 15, 16 and 17 are plow-points 21, of which any preferred number may be employed, four being shown in the present instance. The lateral members or beams 3 of the main frame 1 have secured thereon upstanding bail-like metal stanchions 22, and upon the beams 2 of the supplemental frames, carrying the plows and harrow disks, are secured upstanding metal arms 23, of suitable strength and of limited resiliency for obvious reasons, said arms extending inwardly and upwardly and having their free ends formed into hooks for engagement with said bail-like stanchions. By means of this arrangement the beams 2 of the supplemental lateral frames, together with their plows and harrow disks are steadied and held suitably in operative or working position.

To prevent tipping downward of the main frame each of the beams 15, 15 has secured to its underside practically adjacent to its center a hanger 24, the lower end of which carries a shoe 25 that is normally free of the ground, and will thus not interfere with the working of the machine.

The means for actuating the two wheels 9 to move them into or out of engagement with each other consists of two levers 26 that are pivotally connected with the end member 4, the outer extremity of each of which being provided with a fork to engage a groove in the hub 10 on the outer side of the wheel. These bosses 27, as shown in Fig. 2 serve as axle bearings, said bosses being secured to the beams 3. Any suitable means may be employed for holding the levers in locked adjustment, that herein shown consisting of two segmental racks 28 with which the levers interlock, as clearly shown in Fig. 1.

The implement is designed to enter be-

tween the rows, either of cotton or corn, and to cultivate the made sides of two rows at a time.

5 As will be seen from the foregoing description, the implement is exceedingly simple of construction, but will be found to be thoroughly efficient in use, and to accomplish the objects designed.

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

A cultivating instrument of the character described, including a main frame, carrying wheels for said main frame, a supplemental frame equipped with cultivating means and

connected to said main frame, bail-shaped 15 upstanding stanchions carried by said main frame, and upstanding members carried by said supplemental frame, said upstanding member having an inwardly extending lateral arm having a hook-ended terminal engaging said bail-shaped stanchion. 20

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

JAMES S. MARSH.

Witnesses:

C. A. HAMILTON.

H. H. JANSEN.

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