

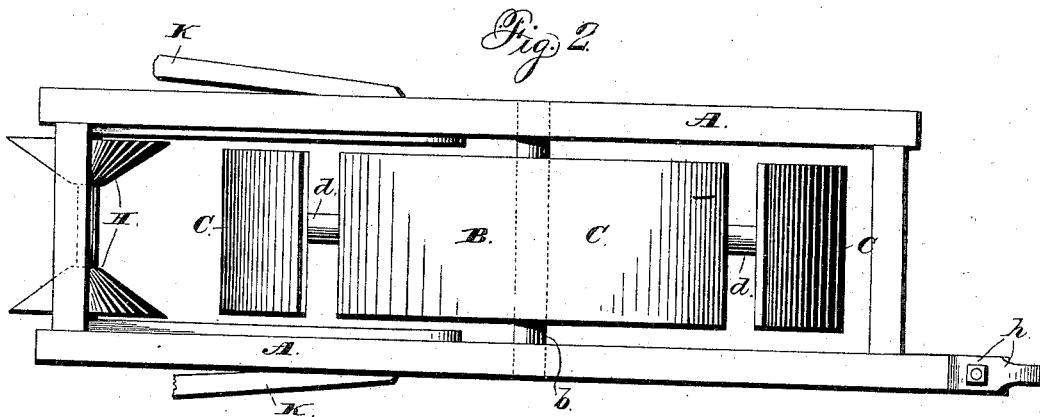
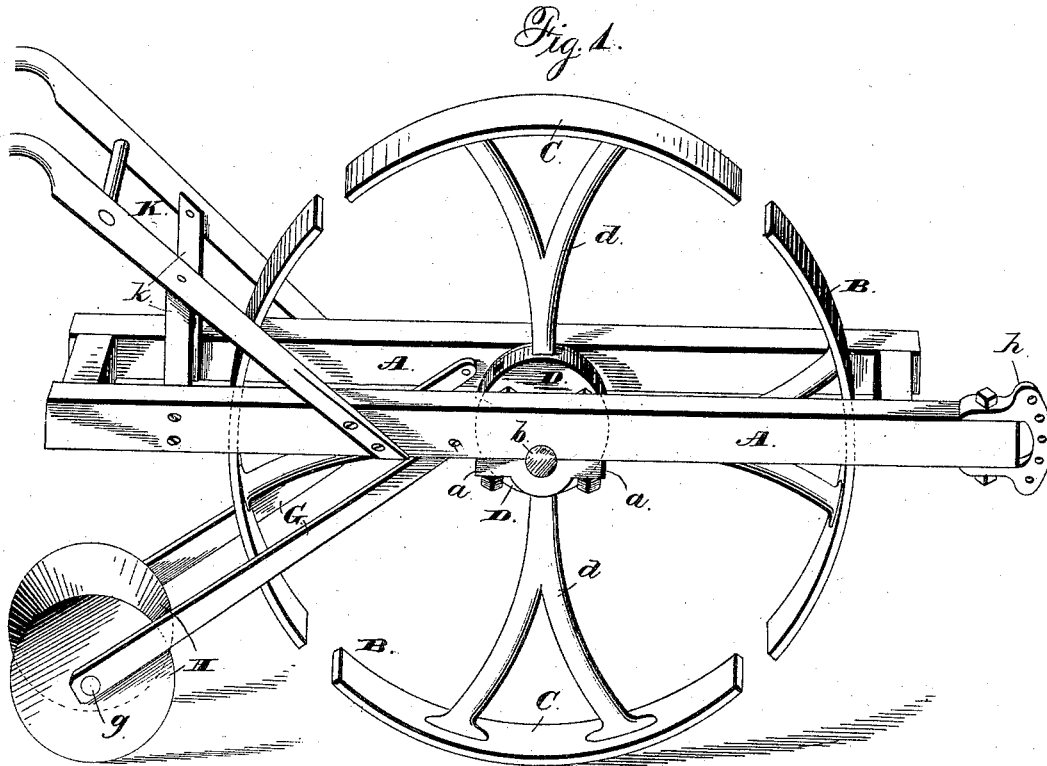
(No Model.)

2 Sheets—Sheet 1.

D. L. McKAY WHITE.
COTTON CHOPPING MACHINE.

No. 302,677.

Patented July 29, 1884.



WITNESSES
Jas. E. Hutchinson.
Geo. F. Downing.

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 Attorneys.

(No Model.)

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Fig. 3.

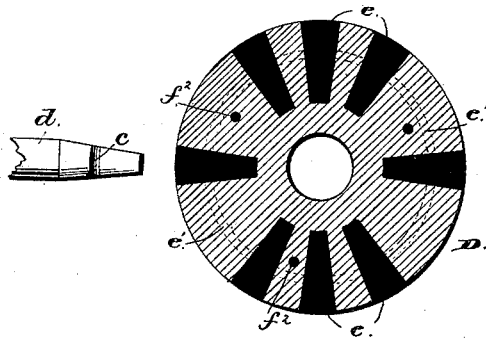


Fig. 4.

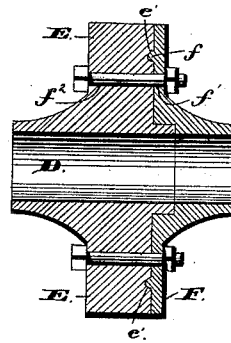
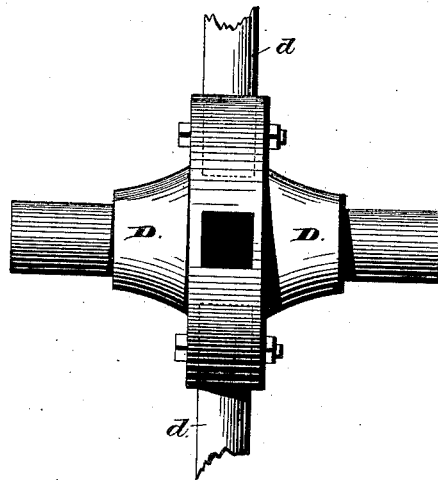


Fig. 5.



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UNITED STATES PATENT OFFICE,

DONALD L. MCKAY WHITE, OF MANNING, SOUTH CAROLINA, ASSIGNOR OF
ONE-HALF TO W. SCOTT HARVIN, OF SAME PLACE.

COTTON-CHOPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 302,677, dated July 29, 1884.

Application filed March 3, 1884. (No model.)

To all whom it may concern:

Be it known that I, DONALD L. MCKAY WHITE, of Manning, in the county of Clarendon and State of South Carolina, have invented certain new and useful Improvements in Cotton-Chopping Machines; 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.

My invention relates to an improvement in cotton-chopping machines, the object of the same being to provide a machine which shall distance the young cotton-stalks at any desired intervals by pressing down such stalks as it seems desirable to destroy, a further object being to provide an attachment to the distancing mechanism which shall cover the depressed cotton-sprouts with soil and spread fresh soil about the roots of the sprouts left standing, a further object being to provide a machine which shall be simple in structure, durable, and inexpensive. With these ends in view my invention consists in certain features of construction and combinations of parts, as will be fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of the entire machine. Fig. 2 is a plan view; Fig. 3, sectional views of the hub at right angles to axle, and Fig. 4 a longitudinal sectional view of the hub. Fig. 5 is a modification.

A rectangular-shaped frame, A, constructed of any suitable material, and of sufficient strength for the purpose for which it is used, is provided with suitable bearings, *a*, in which the axle *b* of the distancing-wheel B is journaled.

The wheel B consists of a broad flat rim, preferably made of iron, and separated into sections C, four in number, more or less. The spaces between the sections of the rim are wider or narrower, according to the number of sprouts which it is desired to leave standing. Each of the sections C is secured to the hub D by a bifurcated spoke, *d*. The spoke and the section to which it is attached may be cast integral, or the section may be bolted or otherwise secured firmly to the bifurcated end of the spoke, as may be desired.

The hub D consists of the cylindrical section

and flange E, provided with the chambers or recesses *e*, radiating from the center, and with the circular groove *e'* formed in the solid portions of the hub between the recesses *e*, and situated about half-way between the periphery of the hub and the axle-box. The hub end of each spoke is provided with a groove, *e*, which, when the spoke is in position in the recess *e*, corresponds with the circular groove *e'*. The hub D further consists of the cap-plate flange F, provided with a circular projection, *f*, the latter being constructed to fit in the groove *e'*. The cap F is further provided with the perforations *f'*, which register with the perforations *f''* in the flange E, which perforations are adapted to receive bolts, whereby the sections E and F are firmly secured together. If preferred, the hub and axle may be formed integral, the spokes being secured in the sockets by bolts passing through the flanges, as shown in Fig. 5. The number and relative positions of the several recesses *e* in the hub-section E depend upon the number and positions of the spokes which it may be found desirable to use. I find it preferable to so arrange the rim-section C with reference to the spoke that when either of the spokes is reversed the rim-sections shall meet, and thereby reduce the number of spaces between the rim-sections by one. If, now, the number of rim-sections be four, the simple reversing of two alternate spokes will reduce the number of spaces to two, and leave these spaces an equal distance apart. If, again, the number of rim-sections be six, and three of the alternate spokes be reversed, it will reduce the number of spaces to three at equal distances apart. It will further be noticed that by changing, or changing and reversing combined, the spokes can be so arranged as to form spaces wider or narrower, as may be desired.

Two rearwardly-extending depending arms, G, are rigidly secured to the side of the frame A, or to the ends of axle *b*, either outside or inside of frame A, and are provided at their lower ends with suitable bearings, in which the axle *g* is journaled. Two sharp-edged concave inwardly-inclined disks, H, are mounted on the axle *g*, and serve by their shape and positions to gather the soil from right and left and leave it in a ridge behind the wheel B.

A pair of handles, K, are rigidly secured to

the sides of the frame A, and extend rearwardly oblique to the vertical plane of the wheel B. The handles are braced by the uprights *h*, or by any other approved means. One of the sides of the frame A (that side lying opposite the inclination of the handles) extends forward and terminates in suitable shape for attaching the clevis *h*. The transversely-oblique direction of the handles and the application of the draft at the opposite corners serve to conveniently balance the machine on a row of sprouts, while the operator and horse are allowed to walk upon opposite sides of the row. The clevis side of the frame A is so constructed that it can exchange places with the opposite side of the frame for the purpose of having one horse draw two machines. By placing two machines side by side—one reversed and the other not—and connecting the clevises by a single whiffletree, or by any other approved means, a single horse can be attached, and will readily draw the two machines, covering from fourteen to sixteen acres in a day. With this arrangement two men will be required—one to attend each machine. The effect of the wheel B is to break and press down the cotton-sprouts at intervals corresponding to the sections C, and leave the sprouts standing at intervals corresponding to the spaces between the sections C. The two disks H, following the wheel B, serve to cover the depressed sprouts with soil, which in their decay fertilize the sprouts left standing. The disks also gather fresh soil about the roots of the standing sprouts, and thereby accelerate their growth. The depth to which the disks are allowed to go and the amount of soil they draw together are easily regulated by the pressure upon the handles.

It is evident that numerous changes in the form and construction of these several parts may be made without departing from the spirit and scope of my invention; hence I do not wish to

be understood as limiting myself strictly to the construction herein set forth.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a cotton-chopping machine, the combination, with a distancing-wheel provided with reversible rim-sections rigidly secured to spokes, the latter being removably secured in a hub, of devices, substantially as described, for covering the broken or pressed-down sprouts with soil, substantially as set forth.

2. In a cotton-chopping machine, the combination, with a distancing-wheel consisting of rim-sections rigidly secured to adjustable spokes, the latter being removably secured in a sectional hub, of devices for covering the broken or pressed-down sprouts with soil, substantially as set forth.

3. In a cotton-chopping machine, the combination, with a distancing-wheel provided with independent reversible rim-sections, of two inclined concave rotary disks adapted to cover the broken or pressed-down sprouts with soil, substantially as set forth.

4. A cotton-chopping machine consisting of a distancing-wheel provided with reversible adjustable rim-sections, a laterally-reversible frame supported upon the axle of the distancing-wheel, two inclined rotary disks mounted upon an axle journaled between two rearwardly-extending depending arms, the latter secured to the frame, and handles rigidly secured to the frame, extending in a rearward transversely-oblique direction, the whole constructed in the manner substantially as set forth.

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

D. L. MCKAY WHITE.

Witnesses:

C. M. DAVIS,
J. E. SCOTT.