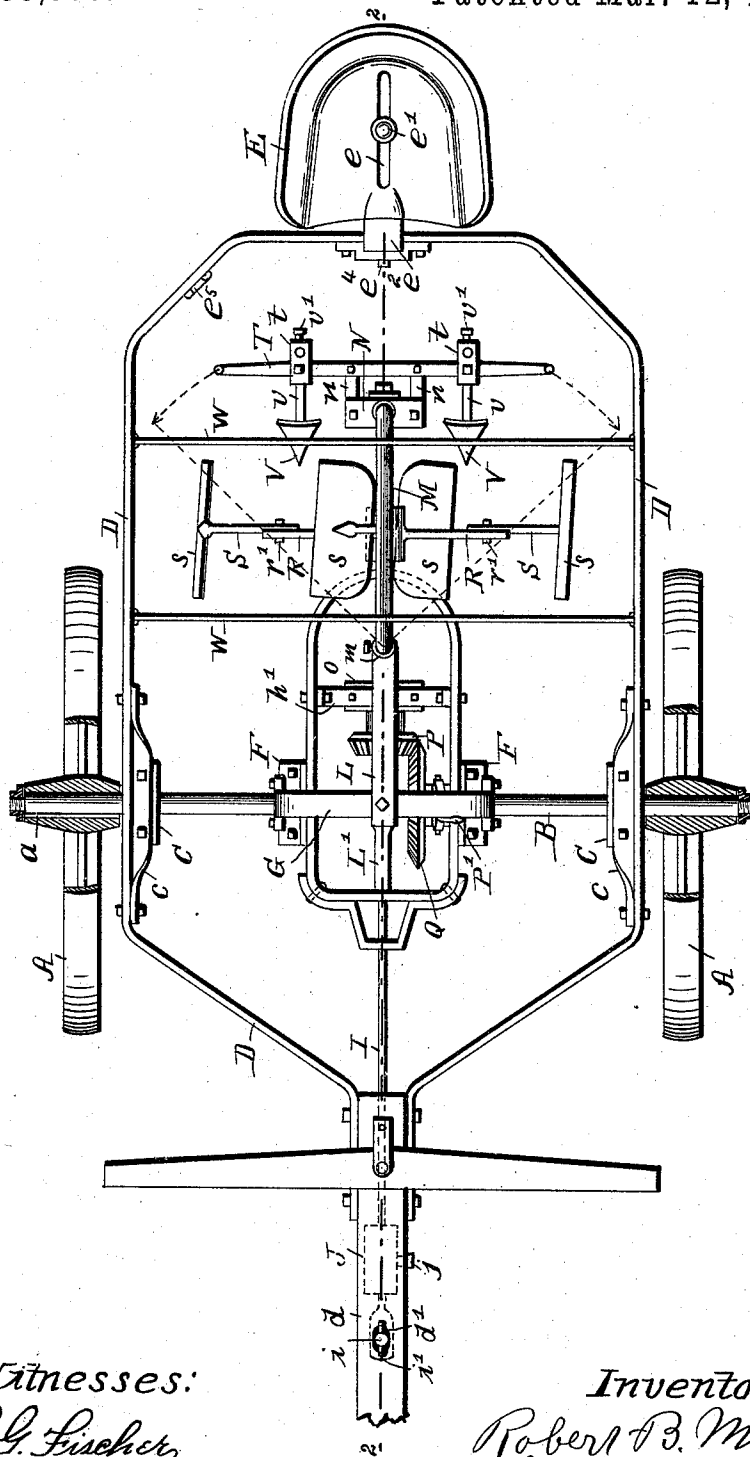


R. B. MORRIS.
COTTON CUTTER AND CULTIVATOR.

No. 535,506.

Patented Mar. 12, 1895.

Fig. 1.



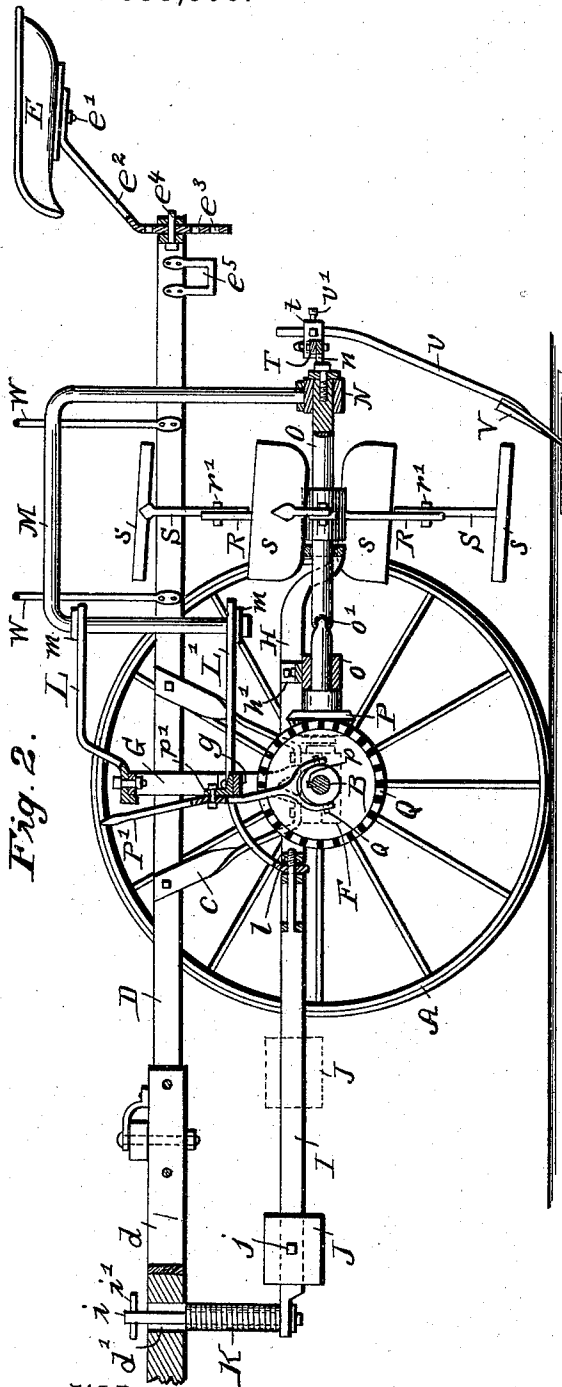
Witnesses:
A. G. Fischer
H. M. Kline

Inventor
Robert B. Morris
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Att'y.

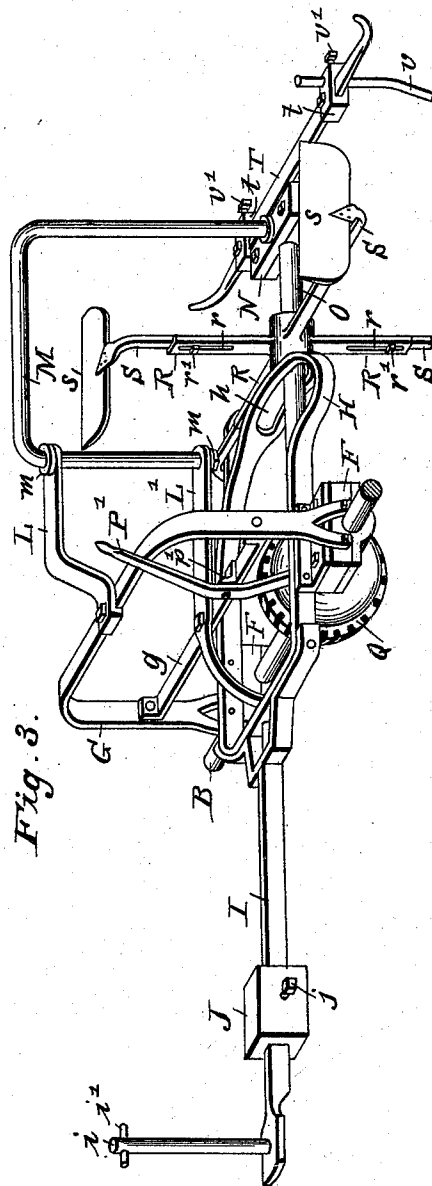
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UNITED STATES PATENT OFFICE.

ROBERT B. MORRIS, OF KANSAS CITY, MISSOURI.

COTTON CUTTER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 535,506, dated March 12, 1895.

Application filed February 19, 1894. Serial No. 500,766. (No model.)

To all whom it may concern:

Be it known that I, ROBERT B. MORRIS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Cotton Cutters and Cultivators; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to a combined cotton cutter and cultivator; and it consists in the novel combination and arrangement of the different parts, as will be more fully hereinafter set forth and claimed.

In the accompanying drawings forming part of this specification, and in which similar letters of reference indicate corresponding parts, Figure 1 represents a plan view of the invention. Fig. 2 is a vertical longitudinal section, taken on line 2—1 of Fig. 2, and Fig. 3 is a detail perspective view of the inner and swinging frames.

The object of the invention is to provide a machine which will cut stalks and cultivate the soil, and in constructing the same, I employ a pair of carrying wheels A, one of which is loosely mounted upon a shaft B, the other being rigidly secured to the shaft by means of a key *a*. Located upon the shaft near the wheels, are two main bearings C, which carry brackets *c*, to which is secured an outer frame D, this frame being provided at its front portion with a tongue *d*, by means of which the machine is drawn while in operation. The rear portion of the frame is provided with a seat E, which has a central slot *e*, through which passes a bolt *e'* which adjustably secures the seat to its post *e''*, said post being provided with perforations *e'''* for receiving a bolt *e''''*, which secures the post to its frame. This seat is gained by a step or stirrup *e'''''*, which is also secured to frame D.

By making the seat adjustable, the convenience of the driver is secured, and the machine is easily balanced by moving the seat backward or forward.

Mounted on shaft B at an equal distance

between the carrying wheels are two auxiliary bearings F, which carry an inner frame comprising a yoke G, the lower bifurcated ends of which are bolted to the sides of the bearings, and a horizontal portion H, the circular rear end of which is provided with a slot *h*. Projecting from the forward end of the horizontal portion H of the inner frame, is a bar I which continues out beneath the tongue, and is provided at its end with an upright rod *i*, which works through a slot *d'* in the tongue, and is prevented from pulling through said slot by means of a pin *i'*, which passes through its upper end. The end bar of I is normally depressed by an adjustable weight J, which is held at any desired point on the bar by a set-screw *j*. A spring K, which is coiled around rod *i*, also serves to depress rod I and hold it under spring pressure as shown in Fig. 2.

L L' represent two brackets, the upper one of which is bolted to the top of yoke G, and extends backward a suitable distance. The front end of the lower bracket L' is secured to the diminished rear end of bar I by a nut *l*. It then curves upward over cross bar *g* on yoke G, and extends rearwardly the same distance as the upper bracket L. The rear ends of these brackets are bored out to receive an inverted U shaped bar M, which is swiveled therein on collars *m*, which holds the frame in position.

Secured to the lower rear end of bar M is a bearing N, in which is journaled the rear end of a shaft O, the forward end of which is journaled in a bearing *o*, which is secured to cross-bar *h'* on the horizontal portion H of the inner frame. Shaft O is provided at a point directly beneath the swiveled end of bar M, with a link joint *o'*, which permits the rear portion of the shaft to swing around in a horizontal plane with the bar M. Shaft O extends through slot *h* in the rear portion of frame H, and is provided at its front end with a beveled pinion P, which meshes with and is driven by a master beveled wheel Q. Said master wheel is loosely mounted on shaft B and is turned with the shaft by a feather *p* which is cast thereon. The master bevel wheel is thrown in and out of mesh with pinion P, by means of a lever P' which is fulcrumed to a lug *p'* on cross-bar *g*. The lower bifurcated end of this lever is secured to the

hub of the master bevel wheel by lugs *g*, which are located on opposite sides of said hub.

Rigidly mounted on the rear section of shaft *O*, is a spider consisting of four radial arms *R*, which are provided with longitudinal grooves on one side and also slots *r* for receiving bolts *r'*. Located in said grooves and adjustably secured by means of the bolts *r'*, are four arms *S*, the curved outer extremities of which are provided with hoes or blades *s*, which rotate with the shaft and thus cut the stalks. Secured to the under side of bearing *N* are two short arms *n*, which carry a cross-bar *T*, at their rear ends. The opposite ends of this cross bar are turned up to form foot-rests for the driver. It also carries two adjustable blocks *t* placed a suitable distance apart, which in turn carry cultivating spades *V* that are adjustably secured to the blocks by rods *v* and set screws *v'*.

The reins of the driver are kept from entanglement with the rotating stalk cutter by means of two rods *W*, which are formed into bows which pass over the swinging bar *M* and have their opposite sides secured to the main frame *D*.

It will be seen that by constructing the inner frame independent of the outer main frame, and by using the coiled spring and sliding weight, the depth of the cultivating spades can be readily adjusted to suit the condition of the soil. Another great advantage is also obtained by mounting the stalk-cutter in the swinging frame, for by so doing all stalks in uneven rows can be easily cut by swinging the stalk cutter from one side to the other by the pressure of the driver's feet on cross-bar *T*.

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

1. A combined cotton cultivator and cutter comprising a main frame pivotally secured upon the drive axle, a master gear-wheel also secured upon the drive-axle, a pinion mounted upon a shaft and engaging the master gear-wheel, a supplemental frame pivoted to the main frame, a shaft bearing cutting blades and journaled at its rear end in the supplemental frame and connected at its forward end with the pinion shaft by a link joint.

2. A combined cotton cultivator and cutter comprising a main frame pivotally secured upon the drive axle, a pinion mounted upon a shaft and engaging the master gear-wheel, a supplemental frame pivotally connected to the main frame, a shaft bearing cutter blades and journaled at its rear end in the supplemental frame and connected at its forward end with the pinion shaft, and a cross-bar secured upon the supplemental frame.

3. In a combined stalk cutter and cultiva-

tor, an inner frame, comprising a yoke, the lower bifurcated ends of which are attached to a pair of auxiliary bearings, a horizontal portion *H*, having a curved rear end which is provided with a slot *h*, a pair of brackets *L L'*, a swinging portion, of an inverted *U* shaped form, which is hung on said brackets, a bearing which is attached to the lower rear end of the swinging portion, two short arms *n*, which are secured to said bearing, a cross bar arranged upon the two short arms, a suitable number of blocks secured to said cross-bar, and adapted to carry cultivating blades, which are adjustably secured thereto, a bar *I*, which projects from the front of the horizontal portion of the frame, an adjustable weight which is arranged to slide on said bar, an upright rod which is secured to the front portion of the bar, and adapted to operate through the slotted tongue, said rod being provided with a coiled spring which is interposed between the bar and the tongue, substantially as set forth and described.

4. In a combined stalk cutter and cultivator, the combination of an inner frame comprising a yoke, which is mounted upon a pair of auxiliary bearings, a horizontal portion *H*, having a curved rear end which is provided with a slot *h*, a pair of brackets *L L'*, a swinging portion of an inverted *U*-shaped form which is hung on said brackets, a bearing which is connected to the lower rear end of the swinging portion, short arms *n* which are secured to said bearings, a cross bar arranged upon the short arms, a suitable number of blocks secured to said cross bar and adapted to carry cultivating blades which are adjustably secured thereto, a bar *I* which projects from the front of the horizontal portion of the frame, an adjustable weight which is arranged to slide on said bar, an upright rod which is secured to the front portion of the bar, and adapted to operate through the slotted tongue, said rod being provided with a coiled spring which is interposed between the bar and tongue, together with a jointed shaft, one end of which is journaled to the stationary portion of the inner frame, and opposite end being journaled to the swinging portion of the frame, a bevel wheel which is keyed upon said shaft, and adapted to mesh with a master wheel journaled upon the main shaft, a pair of carrying wheels mounted upon said main shaft, and an outer main frame which is carried by said shaft, substantially as set forth and described.

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

ROBERT B. MORRIS.

Witnesses:

KITTIE REES,
BESSIE E. YOUNG.