J. A. Lutz,

Cotton Chopper.

No. 108,918. Patented Nov. 1, 1870.

Fig. 1.

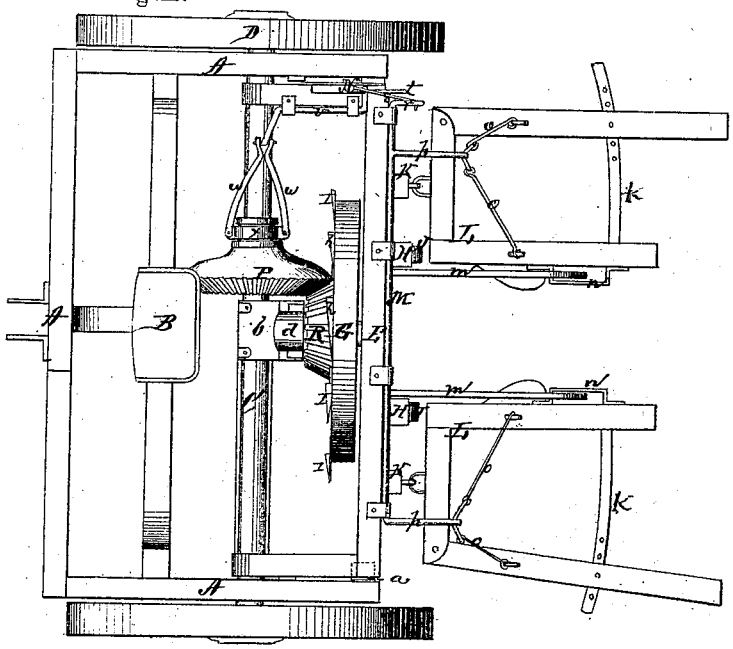


Fig. 3.

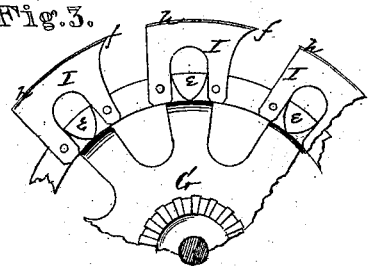
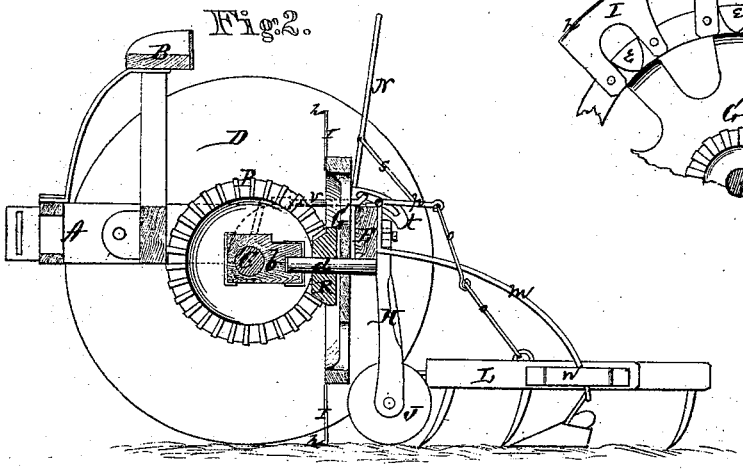


Fig. 2.



Witnesses:
Chas. Kenyon.
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UNITED STATES PATENT OFFICE.

JOHN A. LUTZ, OF WAYNESBOROUGH, VIRGINIA.

IMPROVEMENT IN COTTON-CHOPPERS.

Specification forming part of Letters Patent No. **108,918**, dated November 1, 1870.

To all whom it may concern:

Be it known that I, JOHN AUGUSTUS LUTZ, of Waynesborough, in the county of Augusta and State of Virginia, have invented a new and valuable Improvement in Cotton-Choppers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my machine in plan view, and Fig. 2 is a transverse vertical section of the same. Fig. 3 is a section of the revolving wheel with hoes attached.

The nature of my invention consists in the construction and arrangement of a cotton-chopper and cultivator, as will be hereinafter fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation.

A represents a frame, of any suitable dimensions, supporting the driver's seat B, and through which the axle C passes. Upon the end of the axle are placed the driving-wheels D D, one or both of which should be secured on the axle, so that it will revolve with the wheel. The axle C also passes through the front end of another frame, E, which extends in rear of the axle, and rests upon lugs or plates *a a* at the rear end of the main frame A.

On the center of the axle C is placed a box, *b*, connected by any suitable means with the left end of the frame E. In this box *b*, and in the center of the frame E, the shaft *d* has its bearings, said shaft being thus placed at right angles with the axle.

On the shaft *d* is placed a large wheel, G, which is made to revolve by means that will be presently described.

On the front side of the wheel G, at the outer edge, are cut notches *e e*, at equal distances apart, and over each of these notches is placed a hoe, I. These hoes have a sharp point, *f*, projecting from the outer edge, which first strikes the ground, and back of this point, on the outer edge of the hoe, is a gradually-increasing flange, *h*, bent forward, as is shown in Fig. 2. Directly over and beyond the notches *e e* the hoes I are cut out, as shown in Fig. 3.

On the rear side of the frame E are two adjustable bars, H, having each a wheel, J, at its lower end, which wheels move on the ground. By adjusting these bars, the depth of the hoes or cutters on uneven ground is regulated. The hoes or cutters strike diagonally across the cotton rows, clearing out the bottom and leaving it in hills.

On the outer side of each adjustable bar H, on the rear side of the frame E, is another bar, K, to the lower end of which is hooked the cultivator-frame L. These frames are constructed as shown in Fig. 1, one side of each frame being pivoted and rendered adjustable by means of a cross-brace, *k*. Each of these frames is steadied while in the ground, or, rather, while the plows of said frame are in the ground, by means of a curved bar, *m*, extending from the frame E, and passing through a loop, *n*, on the side of the cultivator-frame. The frames L L are, by means of rods or chains *o o*, connected with arms *p p*, extending from a rod, M, which is placed in bearings along the upper rear edge of the frame E. On the right side of the machine another arm, *r*, extends in the same direction from the rod M, which arm is, by a rod, *s*, connected with a lever, N, pivoted on the side of the frame E. By turning the lever N forward it will be seen that the cultivator-frames L L are first raised up out of the ground, almost close up to the bars H K, the curved bars *m m* acting as guides for them, and then the entire frame E, with wheel G and other attachments, is turned on the axle upward till the lever is held by a hook at the front side of the frame A, and thus the entire working mechanism is out of the ground. From the lever N extends toward the rear a slotted curved bar, *t*, in which is inserted the end of a bent rod, *v*, which works in bearings on the side of the frame E, and the other end of which is, by rods *w w*, connected with a collar or band, *x*, surrounding the hub of a miter-wheel, P, placed on the axle C. This wheel P turns with the axle, but can move lengthwise on the same, the axle being provided with a feather fitting in a groove in the hub of the wheel for that purpose. When the machine is in operation, this wheel P gears with a similar wheel, R, formed or attached in the center of the wheel G, and by this means the said wheel G obtains its rotating motion.

It will be observed that at the same time as

the lever N raises the cultivator-frames L L, the wheel P is, by the connections above mentioned, drawn away from the wheel R, and when the frames are lowered the wheels are thrown in gear again.

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

1. The cutters I I, provided with points *f f* and flanges *h h*, in combination with the revolving wheel G, when constructed and arranged to operate substantially as and for the purpose specified.

2. The combination of the lever N, rod M, with arms *p r*, connecting-rods *o s*, slotted bar *t*, rod *v w*, and collar *x*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN AUGUSTA LUTZ.

Witnesses:
JAS. M. ELLISON,
JNO. W. ELLISON.