

C. C. & A. G. DAVIS.
Cotton Chopper and Cultivator.

No. 223,488.

Patented Jan. 13, 1880.

Fig. 1.

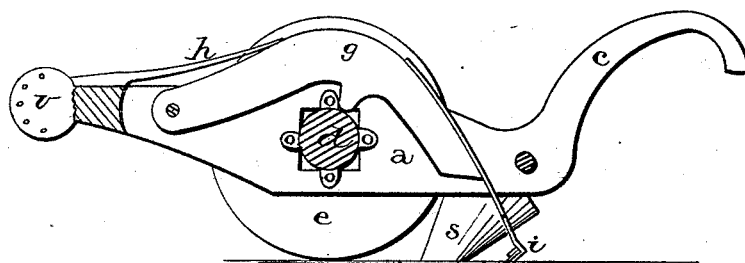
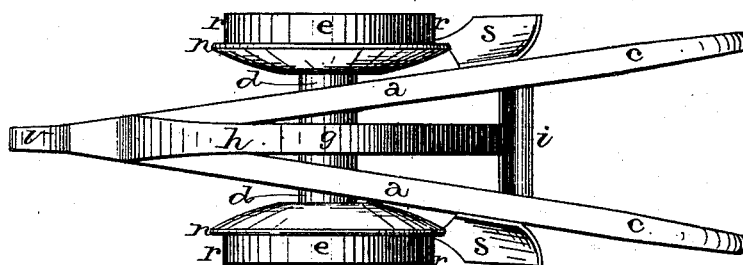


Fig. 2.



Witnesses:

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Inventors:

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per
F. A. Lehmann, Atty

UNITED STATES PATENT OFFICE.

CHARLES C. DAVIS AND ALFRED G. DAVIS, OF SMITH'S FORD, S. C.

COTTON CHOPPER AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 223,488, dated January 13, 1880.

Application filed November 22, 1879.

To all whom it may concern :

Be it known that we, CHARLES C. DAVIS and ALFRED G. DAVIS, of Smith's Ford, in the county of Union and State of South Carolina, have invented certain new and useful Improvements in Cotton Choppers and Cultivators; and we 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

Our invention relates to an improvement in cotton-choppers; and it consists in the arrangement and combination of parts whereby a cheap, simple, and effective machine is produced, as will be more fully described hereinafter.

Figure 1 is a vertical longitudinal section of our chopper. Fig. 2 is a plan view of the same.

a represents a triangular frame, which is formed by uniting the two front ends of the beams directly together. To the rear ends of these beams are secured the handles *c*, and on the under side of each one of the beams is formed a journal or bearing for the axle *d*. This frame may be placed inside of the wheels, as here shown, or the wheels may be placed inside of it, as may be preferred. The axle *d* may be formed with the two wheels *e* in a single piece, or each part may be made separately, or one wheel may be rigid or solid on the axle and the other revolve.

Pivoted in the front end of the frame *a* is the curved arm or lever *g*, which has a suitable knife, cutter, or other device, *i*, secured to its lower rear end, for thinning out the cotton as the machine is drawn over the field. This arm is operated by means of the tappets *o* on the axle, which alternately raise the arm upward far enough above the ground at its rear end to allow the cutter to pass over the tops of those plants that are to be left undisturbed. The distance between the cuts can be increased or diminished at will by arranging the tappets *o* nearer together or farther apart on the axle, as may be necessary. Secured to the front end of the frame, and bearing down upon the top of the arm *g*, is the spring *h*, which serves not only to steady the arm, but to cause it to descend quickly to the earth as soon as it is released from the tappet.

Both of the wheels are made convex or bulging on their inner sides, and have the cutting flanges or edges *n* and the treads or shoulders *r*. These wheels are made bulging for the purpose of packing the drill and preventing the wheels from breaking down the edges of the drill as they pass along, thus leaving each row sharply and clearly defined. The flanges *n* serve to cut any grass or weeds or stalks that may be lying across the drill, and to form a groove for the inner edges of the scrapers *s* to follow in casting the dirt outward from the drill without in any way interfering with it. On the tread or shoulder of each wheel there may be made the usual projections to prevent the wheel from slipping around, and each wheel may be made concave on its outer side, so as to make it lighter.

Each of the scrapers has two vertical slots cut in it, so that they can be adjusted up and down, and are secured to the frame *a* by means of an iron and a wooden pin or bolt. If so desired, the arm or lever may be removed from the frame, or else tied up, so that it will not operate, and then the machine may be used for cultivating other crops.

To the front end of the frame is formed the nose *u*, which has a series of holes through it for the adjustment of the clevis into any desired position. To this nose may be added an attachment, which extends to one side at a proper angle, and to which a horse may be fastened, so as to walk in between the rows; or, if so desired, a double-tree may be used, and then a horse walk on each side of the row.

The frame *a* may be made of either wood or iron, and being journaled on the axle, its rear end can be raised upward at any time to prevent the cutter from destroying a stand of cotton.

In operating our machine it will be found that the bulge on the wheels will pack the edges of a curved as well as a straight row without breaking the edges, and that the depth at which the thinner and the scrapers run can be regulated by raising and lowering the handles, and that the machine can be moved back and forth without any injury to the moving parts.

Cotton-choppers have heretofore been patented in which the axle operates a lever-pivot near its center and in the rear of the axle, the

rear end of the lever serving to operate a mechanism which operates the chopping device; but no machine has heretofore been made in which the operating-lever has been pivoted in front of the axle so as to extend back over its top and have the chopping device secured directly to its rear end.

Having thus described our invention, we claim—

10 1. In a cotton-chopper, the combination of the frame *a*, the curved arm or lever *g*, pivoted in the front of the frame and extending back over the top of the axle, and axle *d*, provided with tappets and driving-wheels, substantially
15 as shown.

2. The combination of the triangular frame *a*, curved lever or arm *g*, that extends back over the top of the axle and is operated thereby, and a spring, *h*, to force the rear end of
20 the arm downward after having been raised by the axle, substantially as described.

3. In a cotton-chopper, the combination of the two wheels *e*, secured upon the same axle, the two wheels being made convex on their inner sides, so as to pack the drill between them, substantially as set forth.

4. In a cotton-chopper, the combination of the two wheels *e*, secured upon the same axle, the two wheels being made convex on their inner sides, so as to pack the drill between them, and provided with cutting-flanges *n*, substantially as specified.

In testimony that we claim the foregoing we have hereunto set our hands this 15th day of November, 1879.

CHARLES CHRISTOPHER DAVIS.
ALFRED GAMEWELL DAVIS.

Witnesses:

W. J. DUNCAN,
CHAS. RAUCHFUSS.