

(No Model.)

J. I. GREER, W. M. HARPER & J. GREER.

COTTON CHOPPER.

No. 330,477.

Patented Nov. 17, 1885.

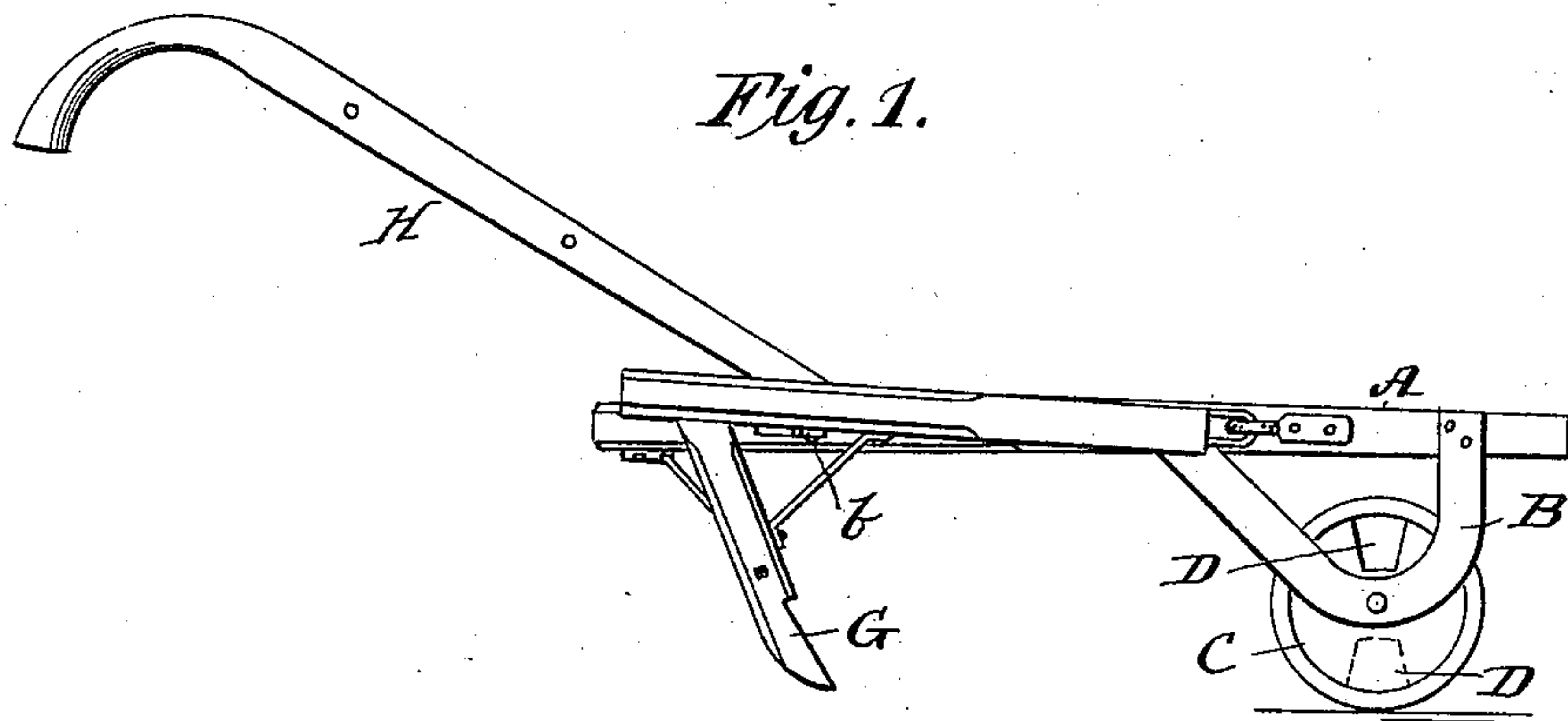


Fig. 3.

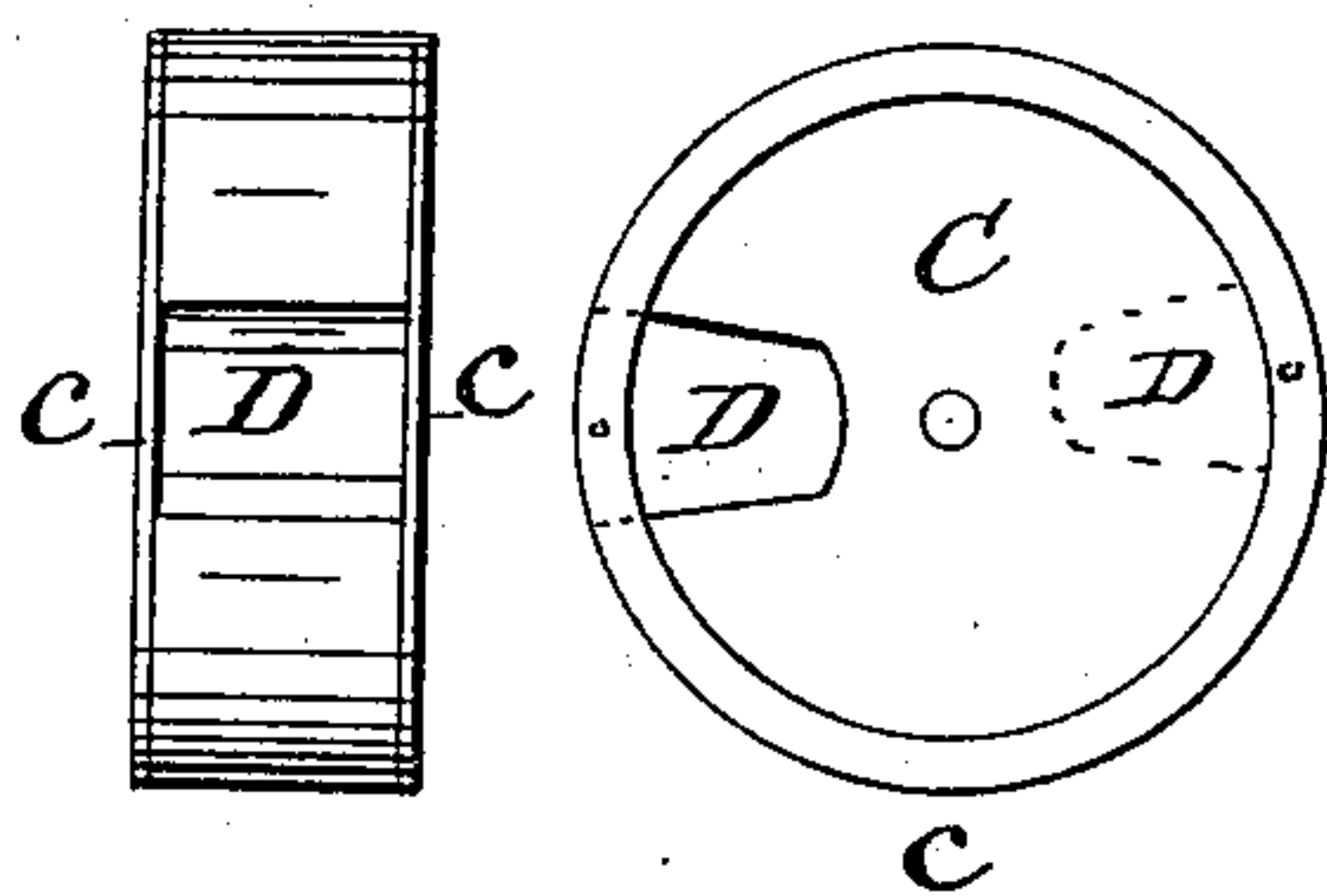


Fig. 2.

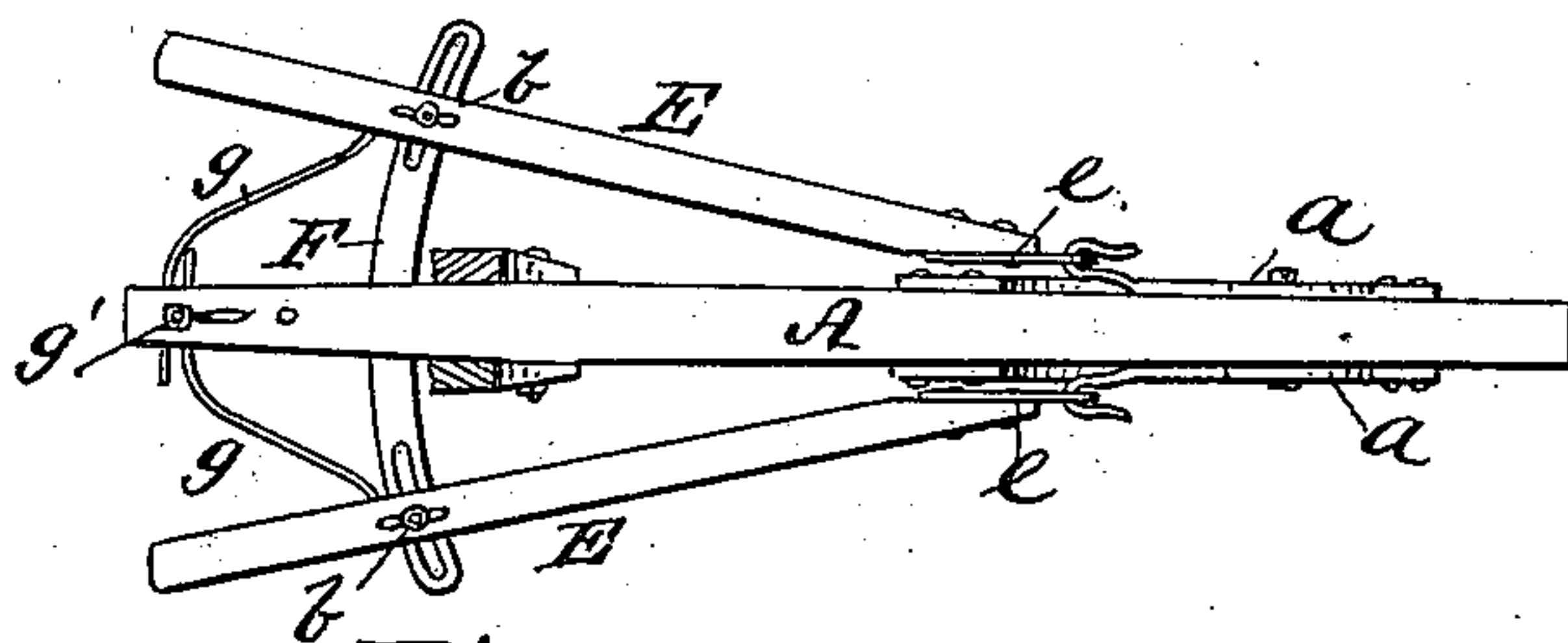
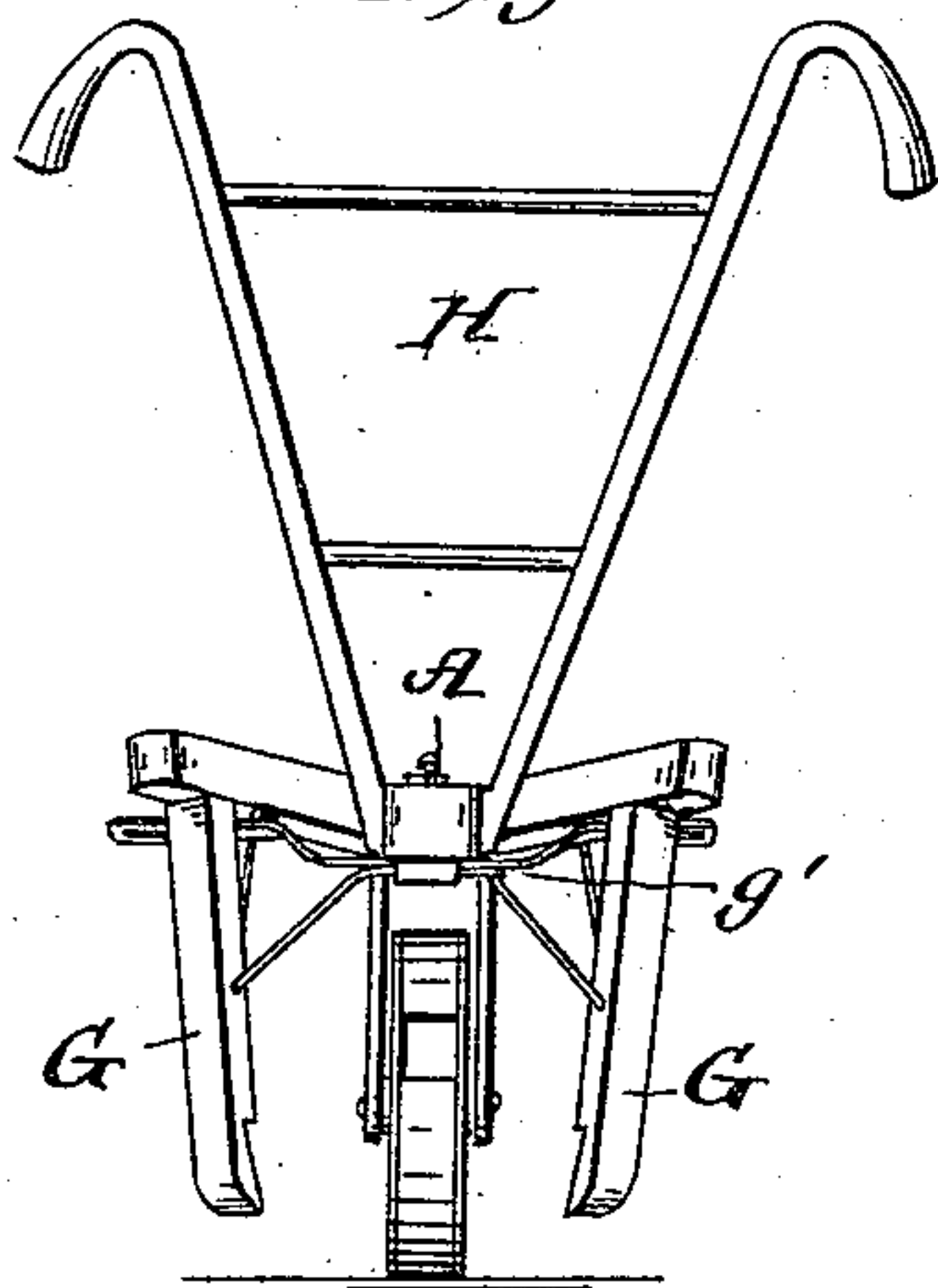


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN I. GREER, WILEY M. HARPER, AND JOHN GREER, OF HEADSVILLE,
TEXAS.

COTTON-CHOPPER.

SPECIFICATION forming part of Letters Patent No. 330,477, dated November 17, 1885.

Application filed May 13, 1885. Serial No. 165,338. (No model.)

To all whom it may concern:

Be it known that we, JOHN I. GREER, WILEY M. HARPER, and JOHN GREER, citizens of the United States, residing at Headsville, in the county of Robertson and State of Texas, have invented certain new and useful Improvements in Cotton-Choppers; and we 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in "cotton-choppers," and has for its object to simplify and cheapen the construction of the same; and it consists in combining with a frame a roller of any desired width and size having one or more slots or openings in its periphery, and so mounted as to roll over and crush the stand of cotton, except those portions which enter the slots or openings referred to, which regulate the distance apart at which the portions of the stand are left remaining, as hereinafter more fully set forth.

It also consists in combining with the said frame a pair of cultivator-beams loosely connected therewith and adapted to have their sweep, as well as the inclination of the cultivator-blades to the stand, made adjustable.

The invention further consists in the peculiar construction, arrangement, and combination of parts, as more fully hereinafter set forth and claimed.

In the accompanying drawings, Figure 1 represents a side elevation of our improved machine. Fig. 2 is a plan view of the same. Fig. 3 represents an enlarged detail of the crushing-wheel detached. Fig. 4 is a rear elevation of the machine.

A single beam, A, carries all the operating parts of the machine, and is provided with brackets B, between which is journaled the crushing-wheel C, which latter is designed to run over the stand of cotton or grain and crush the same. As only portions are to be crushed and the others left standing, the wheel has openings or slots D formed in the periph-

ery. Thus when the solid portions come in contact with the stand or drill it crushes the same; but when its open or slotted portions come opposite to the drill a portion of the latter equal in area to the area of the opening enters the same, and is thereby preserved from injury. The thinning out of the stand or drills is regulated by the size of the wheel and the number of openings in its periphery, which latter may be closed by removable plugs D', as shown by dotted lines, Fig. 3. Beams E are hinged on opposite sides of the beam A by an eye-plate, e, secured to their forward ends, and a hook-plate, a, securely fastened to the beam A. The sweep of said beams is adjusted by a plate, F, secured to the under side of the beam A, and having slotted ends, through which pass threaded bolts provided with set-screws f, to hold the beams in their adjusted position. Standards G, carried by the beams E, are provided with suitable cultivator-blades, (not shown,) and are adjusted to and from one another, to present the cultivator-blade at the proper inclination, by braces or rods g, fastened to the standards near their lower ends and extending upwardly and inwardly, with their free ends overlapping, and passing through a clip, g', extending vertically through the rear end of the beam A, its upper end being threaded and provided with a thumb-nut for tightening the clip about the ends of the braces. Handles H are suitably secured to the beam A.

In practice the machine is drawn over the drill or stand of cotton by any suitable power applied to the beam A, the crushing-roller passing over the drill and thinning out the same, while the cultivators or plows following cover the crushed portion of the drill and loosen the earth about the portion remaining. It often happens that the crust is so disturbed and broken up by the cultivator that the young plants that are not deeply rooted are destroyed by these ruptures, to obviate which, the openings are made to extend entirely across the width of the roller, which latter is provided on either side with a cutting-rim, which cuts through such crust, thereby separating that portion around the young shoots from that acted on by the cul-

tivators. This rim, extending flush with the periphery of the roller, allows the same to pass over its slotted portion without any jar. The same result may be accomplished by boring or mortising the openings in the periphery of the roller, having a thin portion on either side; but the construction shown is far preferable, as it is cheaper and more durable.

While we have shown the roller as made of wood, with metal cutting-rims, it is evident that the same may be made of metal and cast in one piece with the rims, which in some instances may be more advantageous, as it will add to the weight of the roller.

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

1. The herein-described device for thinning out drills of cotton, consisting of a roller-disk having a series of openings extending across its periphery, and provided with cutting-rims on either side of the openings, having their cutting-edge flush with the periphery of the roller-disk, and removable plugs for said openings, the parts being constructed, arranged, and operating substantially as and for the purposes set forth.

2. In a cotton thinner and cultivator, a crushing-roller having openings in its periphery, in combination with a pair of cultivator-beams adapted to be laterally adjusted to regulate their sweep, torsionally adjusted to give the proper inclination to the cultivator-shovels, substantially as described.

3. The herein shown and described cotton thinner and cultivator, consisting of a single beam, a crushing-roller having openings in its periphery, with cutters on either side of said openings supported in brackets attached to said beam, a pair of beams hinged to the main beam and provided with cultivator-standards, braces to adjust the sweep of the cultivator-beams, and a second pair of braces connected with the cultivator-standards to adjust their inclination, the parts being combined, arranged, and operating substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN I. GREER.

WILEY M. HARPER.

JOHN GREER.

Witnesses:

J. J. SWANN,

W. F. ELLZEY.