(No Model.) 2 Sheets—Sheet 1.

D. B. HASELTON.

COTTON HARVESTER.

No. 313,421. Patented Mar. 3, 1885.

Fig. 1.

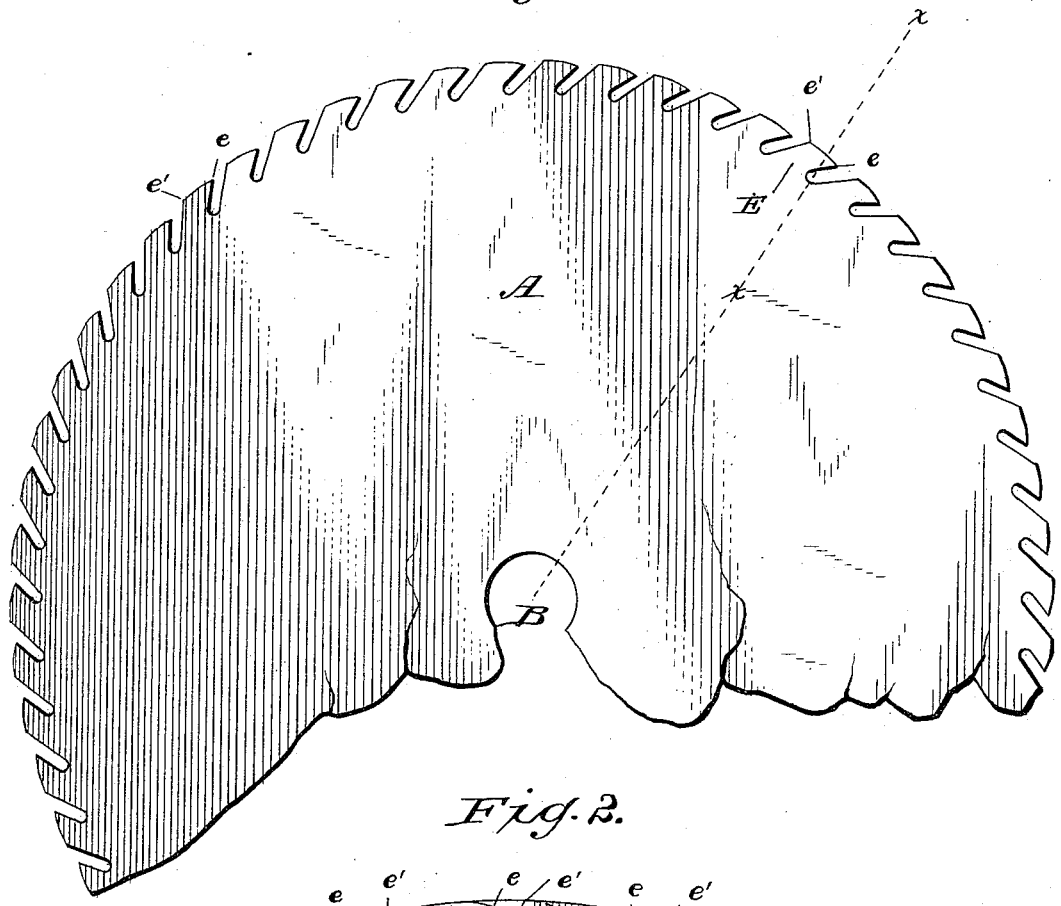
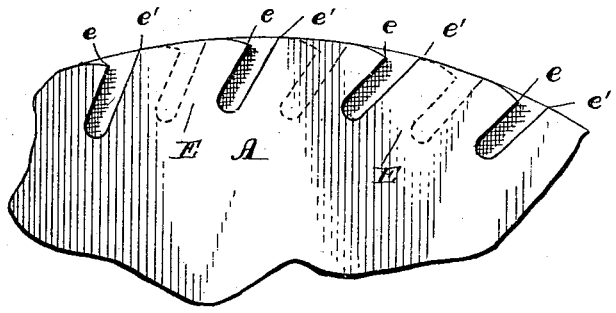


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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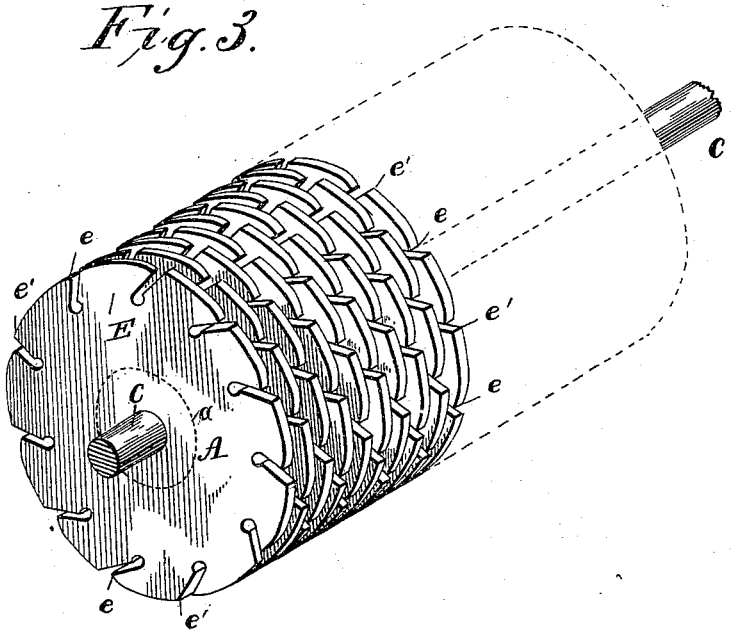
Fig. 3.



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UNITED STATES PATENT OFFICE.

DANIEL B. HASELTON, OF CHARLESTON, SOUTH CAROLINA, ASSIGNOR TO THE SOUTHERN COTTON PICKING COMPANY, OF SOUTH CAROLINA.

COTTON-HARVESTER.

SPECIFICATION forming part of Letters Patent No. 313,421, dated March 3, 1885.

Application filed November 21, 1883. (No model.)

To all whom it may concern:

Be it known that I, DANIEL B. HASELTON, a citizen of the United States, residing at Charleston, in the county of Charleston and State of South Carolina, have invented certain new and useful Improvements in Cotton-Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to cotton-harvesters, and more particularly to the pickers or picking-cylinders which remove the ripe cotton from the bolls; and the object of the invention is to provide a device for this purpose consisting of a revolving cylinder provided with a series of teeth the points of which are depressed below the periphery of said cylinder, whereby said teeth will seize the ripe elastic cotton, while all rigid substances—such as the hulls, unripe bolls, dead leaves, twigs, and the like—will not be interfered with, as they will come in contact with the smooth surface of the cylinder, and, not being elastic, will not be forced into the teeth depressions, but will be left behind; and to these ends the novelty consists in a cylinder having a practically smooth periphery, which is provided with a series of teeth the points of which are depressed below the surface of said periphery, as will be hereinafter more fully set forth.

In the accompanying drawings the same letters of reference indicate the same parts of the invention.

Figure 1 is a side view of one of the disks, part broken away, a series of which, mounted on a shaft, form the picker-cylinder. Fig. 2 is a portion of two disks placed together so as to show the smooth surface of the cylinder; and Fig. 3 is a perspective view of the cylinder, part in dotted lines.

A is a metal disk provided with a central opening, B, by means of which it is mounted upon a shaft, C. The periphery of this disk has a series of teeth, E, of which *e* is the point or toe, and *e'* the heel. The surface or face of the tooth, being that part included between the point and the heel, is a true circle from the center B for a distance of about two-thirds of its length, beginning at the heel and running toward the point, and the remaining portion of the face of the tooth is depressed so that the point of the tooth lies below the true periphery of the cylinder. To make this clear, the face of the tooth from the heel *e'* to the line *x* is the true circumference of the disk, while the remaining portion from the line *x* to the point *e* is depressed or inclined so that the point itself is below the circumference of the disk. A series of these disks, A, is secured upon a shaft, C, with a washer, *a*, between, so that the points of the teeth of one disk will be in a longitudinal line with the center of the highest portion of the adjoining tooth on the next disk, and so on throughout the whole series. It will thus be seen that the point is protected, first, by the heel of the preceding tooth and by its own heel, and, secondly, by the heels or highest portions of the teeth on the disks on each side of it, and in an operative picker-cylinder the sum of the raised surfaces of the teeth on the whole cylinder is far greater than the inclined portions which form the points of the teeth. It follows that the cylinder has a practically true surface, which protects or guards the points of the teeth which lie below said surface. Of course, the width or thickness of the intervening washers may be varied to suit the kind of cotton to be picked; but in practice I have found that when the cylinder is built up with the washers about the same thickness of the saws the best results are obtained. From the construction of this cylinder it will be seen that while it is revolving any hard or non-elastic substance with which it may come in contact will not be affected any more than if it came in contact with an ordinary pulley, while the cotton or elastic material, being pressed into the depressions between the guards, will be caught upon the points of the teeth and carried forward.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. In a cotton-harvester, a picker-cylinder composed of a series of washers and toothed disks alternately arranged upon a central shaft, the points of the teeth on one disk being in line with the heels of the teeth on

adjacent disks, as and for the purpose set forth.

2. In a cotton-harvester, a series of saws of uniform diameter mounted on a common shaft, with a series of intervening washers, the whole arranged to form a picker-cylinder in which the depressed points of the teeth of one saw will be in line with the raised heels of the teeth of the adjacent saw, as and for the purpose set forth.

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

DANIEL B. HASELTON.

Witnesses:

H. J. ENNIS,

M. P. CALLAN.