

(No Model.)

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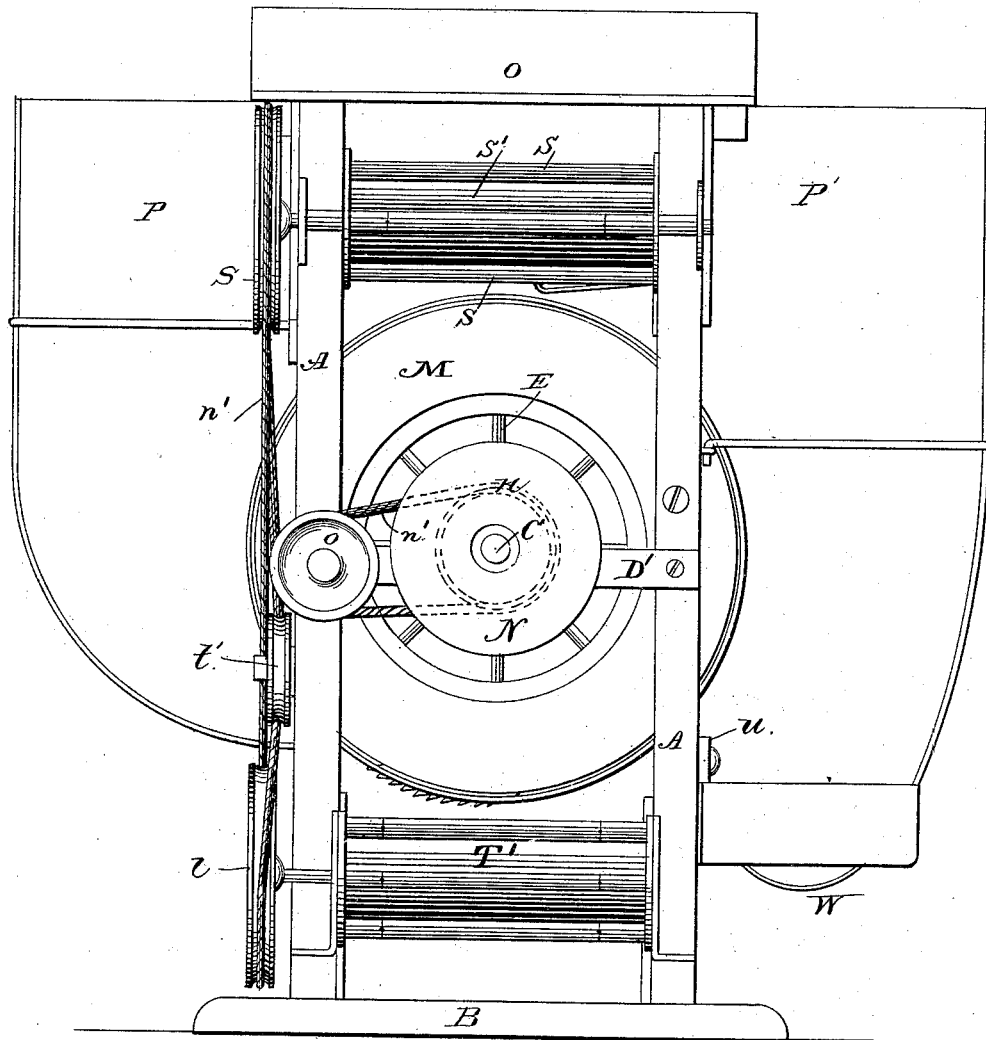
D. B. HASELTON.

COTTON GIN.

No. 383,223.

Patented May 22, 1888.

*Fig. 1.*



Witnesses:

Chas. N. Smith,  
W. L. Serrell.

Inventor:

Daniel B. Haselton  
per Samuel W. Serrell.  
*[Signature]*

(No Model.)

3 Sheets—Sheet 2.

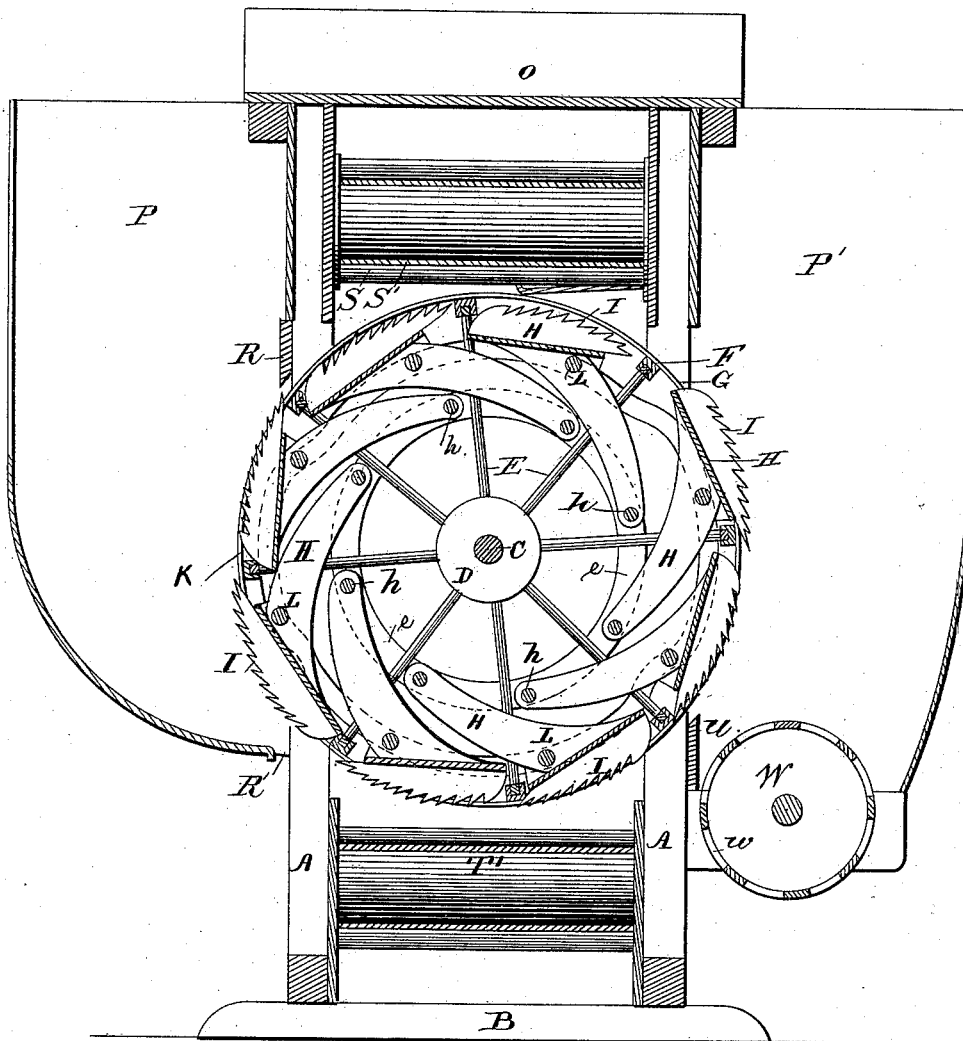
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Patented May 22, 1888.

*Fig. 2.*



Witnesses:

Chas. H. Spink  
W. L. Serrell.

Inventor:

Daniel B. Haselton,  
by Lemuel W. Serrell. atty

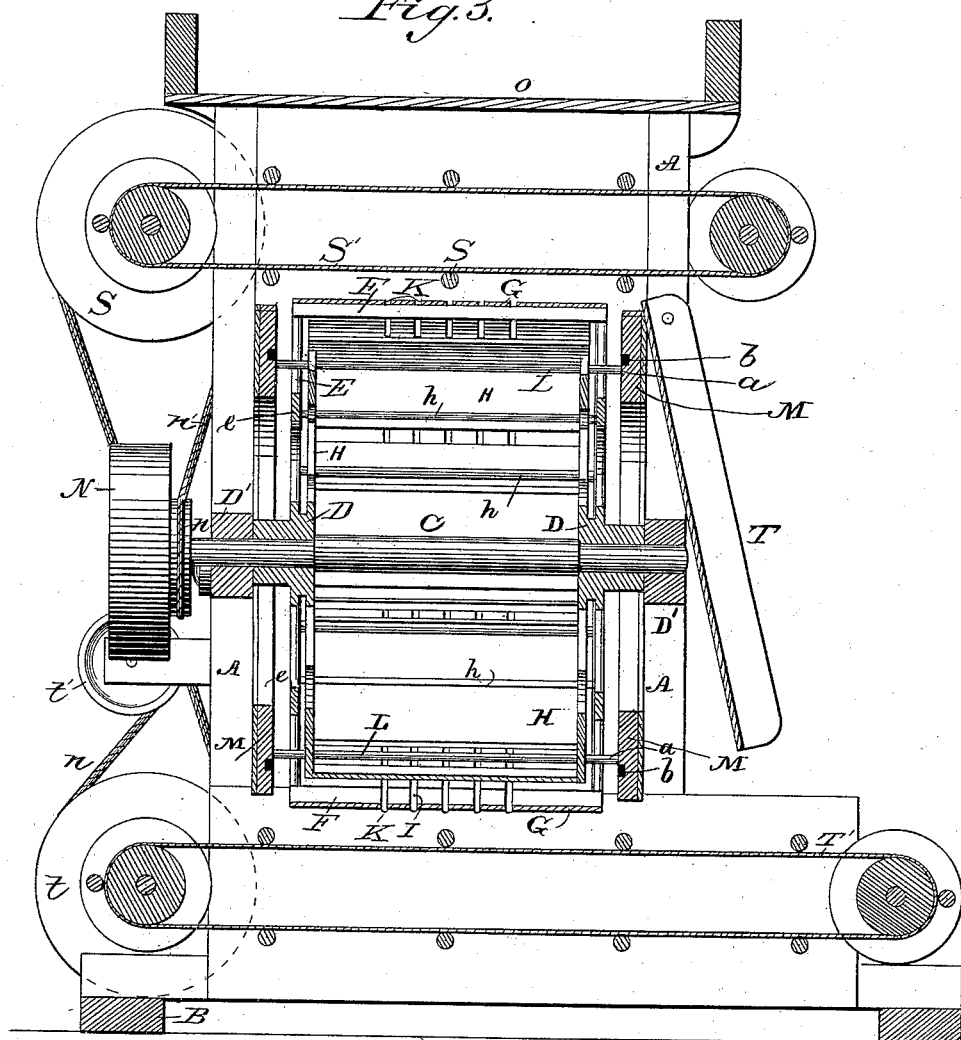
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COTTON GIN.

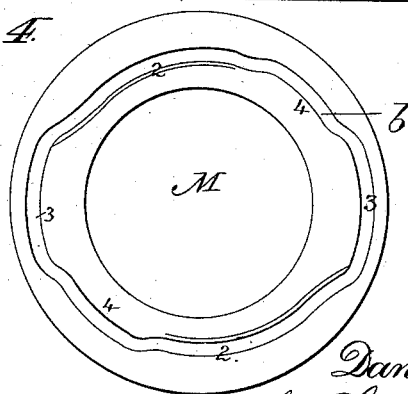
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*Fig. 3.*



*Fig. 4.*



Witnesses:

Chas. H. Smith  
W. L. Serrell

Inventor:

Daniel B. Haselton  
per Lemuel W. Serrell att

# UNITED STATES PATENT OFFICE.

DANIEL B. HASELTON, OF CHARLESTON, SOUTH CAROLINA.

## COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 383,223, dated May 22, 1888.

Application filed February 9, 1887. Serial No. 237,070. (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-Gins, of which the following is a specification, reference being had to the accompanying drawings.

My invention has relation to cotton-gins, and the object is to provide a double gin whereby the cotton will be ginned on both sides of the single ginning-cylinder, thus increasing the capacity of the machine without materially adding to the cost; and the novelty consists in the construction and combination of the parts, as will be hereinafter more fully described, and particularly pointed out in the claims.

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

Figure 1 is an elevation of my improved gin; Fig. 2, a transverse central section of the same; Fig. 3, a longitudinal section thereof; and Fig. 4, a side or face view of one of the cams hereinafter described.

A A is the frame-work of the machine secured to the base B.

C is the main shaft, suitably journaled in boxes secured to the cross-bars D' of the frame.

D D are hubs rigidly secured to the shaft C and provided with radial arms E, forming ends to the ginning-cylinder. To the extremities of the arms are secured a series of parallel strips, F, around which a sheet-metal casing is formed which constitutes the cylinder G. The rings *e* at the ends of the cylinder receive the pivot-bars *h*. These rings *e* are connected to or formed with the radial arms E, so as to constitute part of the cylinder ends.

A series of frames, H, within the cylinder, are pivoted at their inner ends on the bars *h*, and ranges of teeth, I, are mounted upon the cross-pieces of such frames. The teeth I are in line with the respective slots K in the periphery of the cylinder G, and the frames, being pivoted at *h*, may be swung so that the ranges of teeth are projected through said slots beyond the surface of the cylinder, or be withdrawn into such cylinder. Each of these frames H is provided with a cross-bar, L, the outer ends, *a*, of which project beyond the ends of the cylinder and enter grooves *b* in the cams M, which are at each end of the cylinder and

rigidly secured to the frame A A. As this cylinder is rotated by a band passing around the pulley N, the ranges of teeth I will be alternately extended beyond the periphery and withdrawn twice in each revolution through the medium of the grooves *b* in the cams M, the teeth being first fully projected to stick into the cotton, and then they are drawn back more gradually.

The cam M (shown in Fig. 4) has a groove *b* with three sets of steps. The portions 2 thereof nearest the center cause the teeth to be entirely retracted, and the portions 3 farthest from the center cause the teeth to be entirely projected to take the cotton, and the intermediate portions, 4, of the groove cause the teeth to be partially withdrawn as they pass by the respective breasts R and *u*.

O is a platform, upon which the cotton to be ginned is placed, and it is passed from there into the two hoppers P and P'.

From the hopper P the cotton is caught by the projecting teeth and carried past the breast R, which keeps the seeds back, and they fall into the hopper and out on the ground through the outlet R', while the cotton, after being freed from the seed and carried past the breast R, is released from the teeth by reason of the withdrawal of the latter below the periphery of the cylinder, and the bars S on the endless belt S' now carry the cotton to the chute T, whence it falls on the lower endless belt, T', and is conveyed to any suitable receptacle. While this operation is going on on one side of the gin a similar operation is being carried on on the other side, because the cotton which is passed into the hopper P' is caught by the projecting teeth on this side of the cylinder and carried past the breast *u*, leaving the seed behind, and the sections of teeth, after they pass the breast *u*, being withdrawn within the surface of the cylinder by the action of the cams M, as above described, the cotton being thus freed, falls upon the endless belt T', and is thence carried away, as before described.

W is a perforated cylinder loosely journaled in the bottom of the hopper P', which makes an anti-friction bearing for the roll of cotton to rest upon while being ginned, and the perforations W in which allow the trash and dirt to fall through, while the seeds pass out through the space on either side of the said cylinder.

Alongside of the band-wheel N is a grooved pulley, *n*, around which a belt, *n'*, passes under an idler, *o*, thence around the pulley S, thence crossing down around the pulley *t* and up behind the idler *t'* to give the proper motion to the endless carrier-belts S' and T.

A peculiar feature of the ginning-teeth is the manner in which the frames upon which they are mounted are pivoted within the cylinder, the pivotal points *h* being located as far in front of the teeth as possible, and this gives the teeth a drawing motion from the heel to the toe in the direction of the length of the tooth, so as to prevent any tendency of the cotton to hang or remain upon the teeth, as would be the case if they were withdrawn radially with respect to the cylinder.

I claim as my invention—

1. A ginning-cylinder of slotted sheet metal, a shaft and ends for such cylinder, in combination with frames within the cylinder, pivot-bars for connecting the frames to the cylinder ends, ranges of teeth connected with the frames and in line with the slots, and stationary cams acting upon the frames to swing them and project and withdraw the teeth, substantially as specified.

2. The shaft C, slotted cylinder G, and the ends thereof, in combination with the frames H, pivot-bars *h*, to connect the frames to the cylinder ends, and ranges of teeth I upon the frames, the cross-bars L in the respective

frames, and the cams M for acting on the ends of the cross-bars, substantially as specified.

3. The combination, with the slotted ginning-cylinder, the ranges of teeth, the frames carrying the same, the cams for projecting and withdrawing the teeth, and the two supply-hoppers, of the belts S' and T' to carry away the cotton as the teeth are withdrawn from the same, and the chute T, substantially as specified.

4. The combination, with the slotted cylinder, its ends and shaft, of frames within the cylinder, ranges of teeth thereon that are projected through the slots, the frames extending forwardly at their ends, and pivot-bars for connecting the end pieces of the frames, and cams for moving the frames and ranges of teeth, substantially as specified.

5. The combination, with the breast in a cotton-gin, and a slotted ginning-cylinder having a shaft and ends, of frames pivoted to the cylinder ends, and ranges of teeth on the frames, and cams having three sets of steps that project the teeth to take the cotton and partially withdraw the same as they pass the breast and then completely withdraw the teeth to discharge the cotton, substantially as specified.

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

DANIEL B. HASELTON.

Witnesses:

W. GIBBES WHALEY,  
J. BACHMAN CHISHOLM.