

O. W. MASSEY.

Cotton-Gin.

No. 164,316.

Patented June 8, 1875.

Fig. 1.

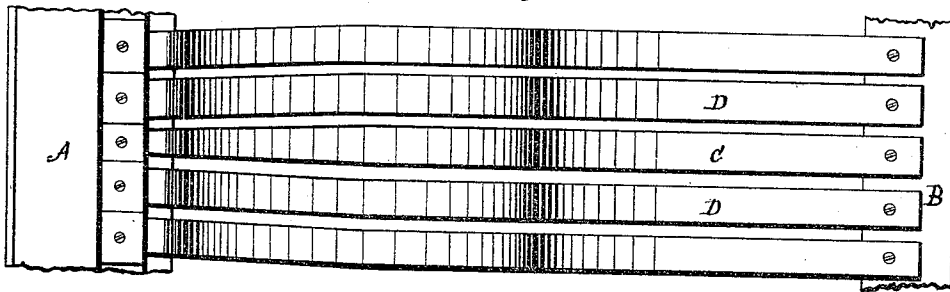


Fig. 2.

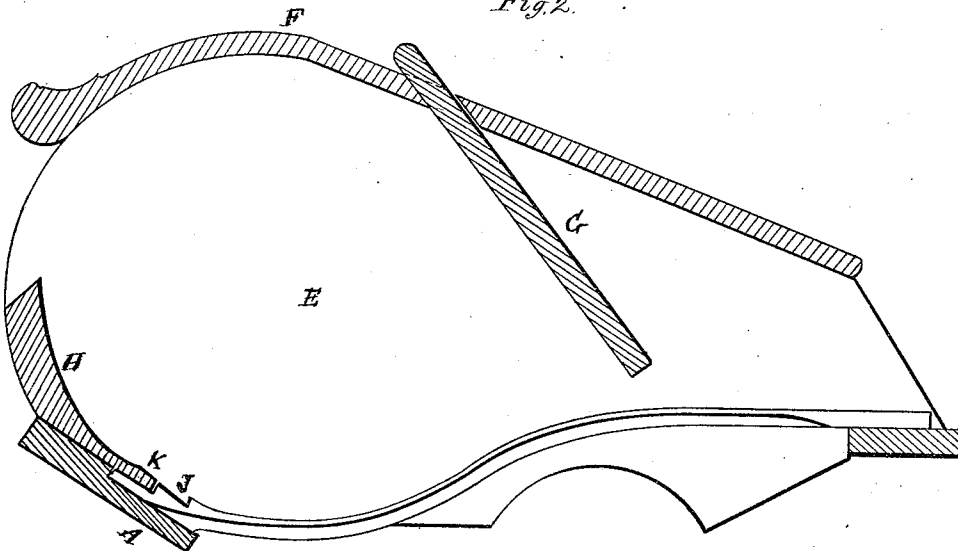
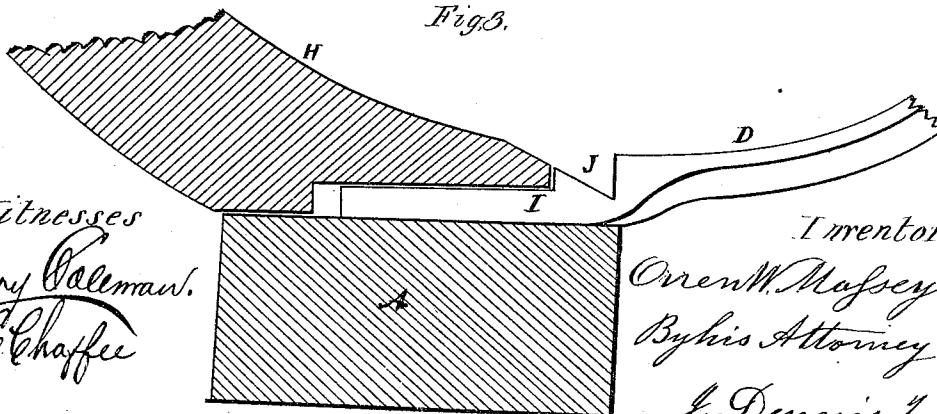


Fig. 3.



Witnesses  
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## IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. **164,316**, dated June 8, 1875; application filed April 26, 1875.

*To all whom it may concern:*

Be it known that I, ORREN W. MASSEY, of Macon, Bibb county, in the State of Georgia, have invented certain new and useful Improvements in Cotton-Gins; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification.

The nature or essence of my invention consists in making the central rib gradually narrower from above the periphery of the saws to the top of the rib, and in making the ribs, each side of the center above the saws, to incline toward the center parallel with the sides of the center rib.

The object in inclining the ribs toward the center is to compress the roll of unginned cotton endwise, and lessen the friction of the roll against the ends of the feed-box, and also to bring the surface of the roll against the saws in a new place, and not in the old track.

In the accompanying drawings, Figure 1 shows a part of the ribs with my improvements. Fig. 2 is a section of the feed-box. Fig. 3 is a section of the top bar, a portion of the rib-board, and the upper end of the rib.

In these drawings, A is the top and B the bottom bar, to which the ribs C and D D are fastened with screws to form the breast of the gin. The central rib C has a uniform width until it gets above the periphery of the saws, when it is made gradually narrower for about three inches, so that its upper end will be one-half the width, or less than it is at the saws. Those portions of the ribs D D between which the saws pass or rotate are parallel, as shown in the drawing; but when they get above the peripheries of the saws they incline each way from the ends of the feed-box toward the center, parallel to the inclined sides of the middle rib C, as shown in the drawing.

In ginning cotton, that portion of the fiber which is drawn in between the ribs, but is not separated or detached from the seed, moves or travels up between the ribs as the roll of seed-cotton is turned by the saws, so that the fiber hanging between the ribs serves to guide

the surface of the roll of cotton, and the spaces or grooves between the ribs being inclined each way from the ends of the feed-box toward the center, the cotton in the roll being ginned is, by the inclination of the grooves or spaces between the ribs, constantly worked each way from the ends toward the center, so as to present new surface on the roll of unginned cotton to the saws, to enable the saws to gin more cotton in a given time than they would if the roll was not shortened by the inclined grooves and the saws ran continuously in the same track. Another advantage in contracting or shortening the roll of cotton endwise is, it takes a part of the friction off the ends of the feed-box, and the roll turns easier.

In Fig. 2, E is the end of the feed-box; F, the front; G, the seed-board, and H the rib-board.

It has been common heretofore to make one notch, I, in the upper ends of the ribs D, to receive the lower edge of the rib-board H, so that the fibers of cotton between the ribs, as they passed up as the roll turned, were resisted by the edge of the rib-board and flattened onto the roll, thus affording considerable resistance to the turning of the roll of seed-cotton. To relieve the roll of this resistance, I made a second notch, J, in the rib below the notch I, which notch J is about three-eighths of an inch long on the surface of the rib, and about one-fourth of an inch deep at the lower end of the notch, and about one-eighth at the upper end, next to the rib-board H, as shown in section, Fig. 3; and to facilitate the passing up of the cotton, the rib-board H is beveled at K, to correspond with the notch J.

I claim—

The center rib C, made gradually narrower from the upper bend above the saws to the top, in combination with the inclined side ribs D D, inclining from the bend above the saws to the top or center-rib, substantially as shown and described, for the purpose set forth.

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Witnesses:

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