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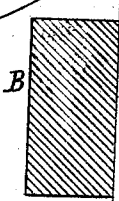
O.W. Mafsey
Cotton Gin.

PATENTED JUL 4 1871

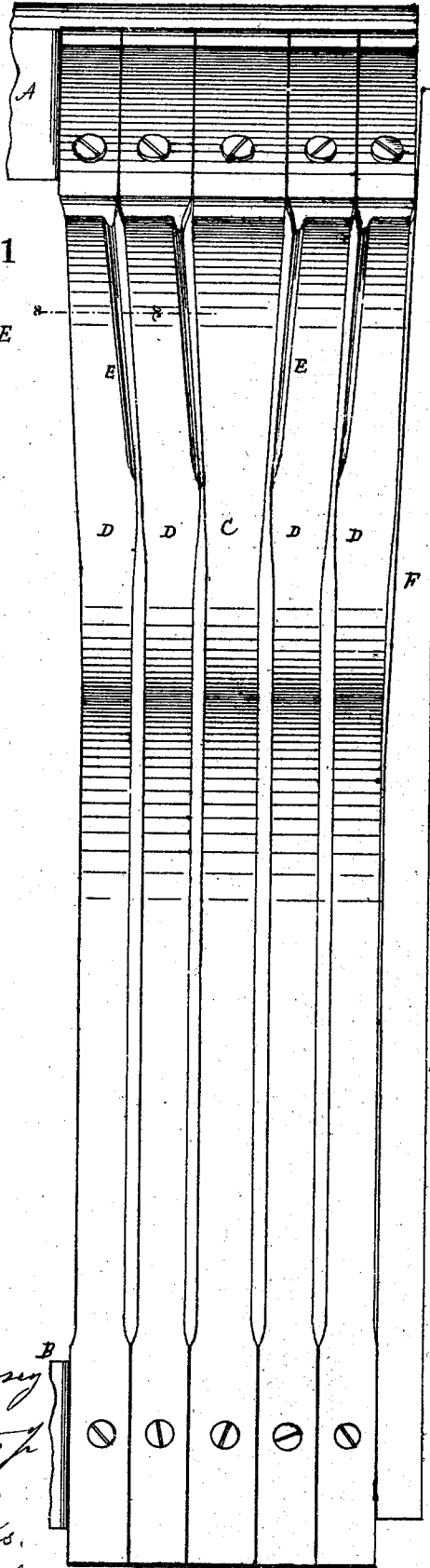


Fig. 2.

Scale: $\frac{3}{4}$ model size.



Owen W. Mafsey
By his Atty
J. Dennis
Witnesses:
Fred. Artos.
J. G. Barker



UNITED STATES PATENT OFFICE.

ORREN WEBB MASSEY, OF MACON, GEORGIA.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. 116,615, dated July 4, 1871.

To all whom it may concern:

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

The nature or essence of my invention consists in making the central rib gradually wider above the peripheries of the saws to the top, so as to incline the grooves or spaces between the ribs each way from the center above the saws, and in making the side ribs to incline each way from the center toward the end of the feed-box above the periphery of the saws; also, in making the feed or roll-box for cotton-gins to flare gradually from the periphery of the saws to the top, so that it will be about one inch wider at the top than at the periphery of the saws. The object of my invention and improvements in cotton-gins is to elongate the roll of cotton being ginned by spreading it gradually each way from the center above the saws toward the ends, so that, as the roll turns, the saws will catch into the spaces between where they caught on the previous turn of the roll, so as to constantly present new surface of the roll to the saws, instead of the old track, as is now practiced in the gins in common use.

In the accompanying drawing, Figure 1 shows the five center ribs of a cotton-gin and one end of the feed or roll-box. Fig. 2 shows the side of one of the side ribs; Fig. 3, the section of a rib on the line *x x*.

In this drawing, 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 wider for about three inches, so that its upper end will be about twice as wide as it is at the periphery of 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 central rib at an angle, so that the upper portions of the side ribs are parallel to the two sides of the middle rib, as shown in the drawing.

In the process of 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 upward 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 center toward the ends, the cotton in the roll being ginned is, by the inclination of the groove or spaces between the ribs, constantly worked each way from the center toward the ends, so as to constantly present new surface on the roll of unginned cotton to the saws, so as to enable the saws to gin more cotton in a given time than they would do if the roll were not elongated by the inclined grooves, so that the saw ran continuously in the same track.

To aid in elongating the roll of raw cotton I make some small ribs or projections, E, on the ribs D D, as shown in the drawing. The ribs E are only on the inclined portions of the ribs D D, and they may be put next to either edge of the rib, as may be preferred, and, being inclined each way from the center, they serve to aid in elongating the roll of seed-cotton as it is turned against them in the operation of ginning the cotton. The ends of the roll or feed-box are beveled off above the peripheries of the saws, as shown at F, Fig. 1, so as to make the feed-box about an inch longer at the top than it is at the peripheries of the saws. This allows the top of the roll of unginned cotton to expand or elongate each way from the center as it is turned by the saws.

It requires far less care and attention to feed a gin with my improvements, as it is not necessary to be so careful to feed uniformly from end to end, as it may be fed most in the middle as it gradually works toward each end. Besides, my improved gins, with the same number of saws, will gin about twenty-five per cent. faster than those heretofore in common use.

Having described my improvement in cotton-gins, I make the following claims:

1. The central rib, made gradually wider above the peripheries of the saws to the top, so as to incline the grooves or spaces between the ribs each way from the center, substantially as described.

2. The side ribs, made to incline each way from the center toward the ends of the feed-box above the periphery of the saws, substantially as described.

3. A feed or roll-box for cotton-gins, made to flare gradually from the periphery of the saws to the top, so that it will be about one inch

wider at the top than at the periphery of the saws.

ORREN WEBB MASSEY.

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