

(No Model.)

B. W. MARSTON.
SAW GIN.

No. 453,933.

Patented June 9, 1891.

FIG. I.

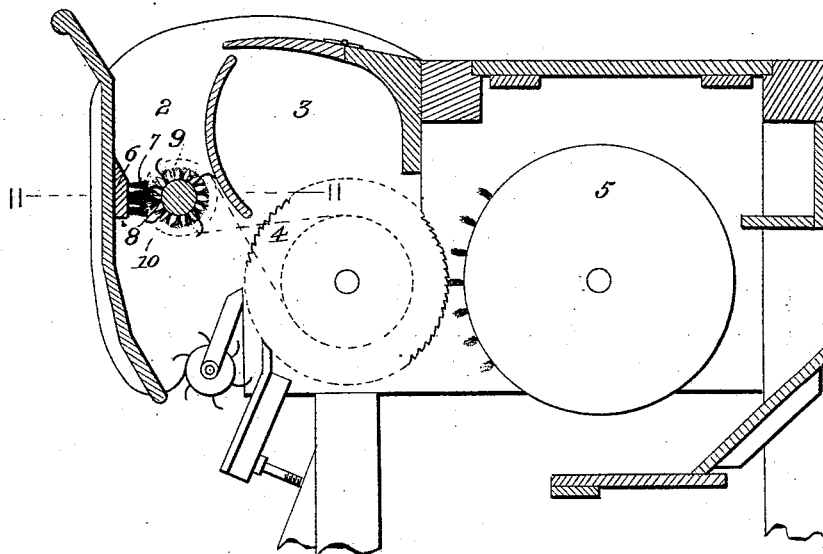
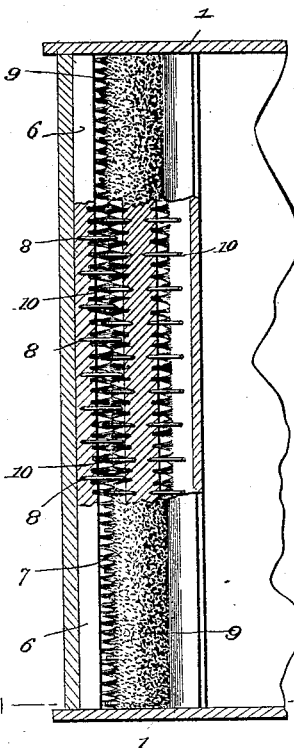


FIG. II.



Witnesses:

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UNITED STATES PATENT OFFICE.

BULOW W. MARSTON, OF EAST POINT, LOUISIANA.

SAW-GIN.

SPECIFICATION forming part of Letters Patent No. 453,933, dated June 9, 1891.

Application filed December 13, 1890. Serial No. 374,571. (No model.)

To all whom it may concern:

Be it known that I, BULOW W. MARSTON, a citizen of the United States, residing at East Point, in the parish of Red River and State of Louisiana, have invented certain new and useful Improvements in Saw-Gins, of which the following is a specification.

My invention is designed to be used in connection with what is known to the trade as the "Eclipse" cotton-gin, which is a gin having a double breast or cotton-box; but my invention may be applied to other forms of cotton-gins.

The invention consists in placing in the outside breast or box of the gin a combined brushing and breaking device consisting of a stationary and a revolving combined brush and breaker, each provided with suitable bristles or fine wire or other material for brushing, and intermeshing rearwardly-projecting and inclined breaking-fingers, the object being to break apart as it falls from the feeder all half or imperfectly opened cotton, whether in the hull or not, and also to break apart all green or solid hulls which usually obstruct the spike-rollers of Eclipse cotton-gins, as well as to thoroughly brush the material and relieve the cotton of a great part of the dust, dirt, leaf, and other trash which it is well known cling to the outside of the cotton only before it reaches the saws, and at the same time to distribute evenly and dry out damp cotton and improve the ginning.

In order that my invention may be more fully understood, I will proceed to describe the same with reference to the accompanying drawings, which represent so much of a cotton-gin as is necessary to illustrate my invention, and in which—

Figure I is a vertical longitudinal section on the line I I, Fig. II; and Fig. II is a horizontal section on the line II II, Fig. I.

1 represents the casing; 2 3, the outer and inner cotton-boxes, respectively; 4, the saws, and 5 the brushing-cylinder for removing the cotton from the saws. In the cotton-box 2 is mounted the combined cleaning and breaking device, which consists of a stationary brush 6, having bristles 7, downwardly-curved breaking-fingers 8, and the rotary brush 9, also provided with suitable bristles 7, and upwardly-inclined breaking-fingers 10, intermeshing with the breaking-fingers 8 of the

stationary brush. The side of the rotating brush adjacent to the stationary brush moves downward, and this brush may be driven by suitable cross elastic belt or other connection with the main driving-shaft, or by any other suitable means.

When the material passes through the feeder of a gin and then into the outside box, where my improvement is located, and through the combined brushes and breakers, the brushing and breaking action will be completed, the material evenly distributed and separated, and most of the dirt and foreign substances dislodged, so as to pass off with the hulls through the spike-roller below.

In practice the breaking-fingers on the respective brushes are placed about one and one-half inch apart and in the row of bristles; but they may be placed at any desired distance and of any length required.

Having thus described my invention, the following is what I claim and desire to secure by Letters Patent:

1. The combination, with a gin having outer breast 2, the inner breast 3, and suitable mechanism for removing the fiber, of the combined cleaning and breaking mechanism consisting of the stationary brush provided with the bristles and the downwardly-curved crushing-fingers, and the revolving brush having suitable driving connection and provided with suitable bristles and upwardly-curved crushing-fingers intermeshing with the fingers of the stationary brush, said feeding, cleaning, and crushing mechanism being located in the outer breast 2, substantially as and for the purposes herein set forth.

2. The combination, with a cotton-gin having suitable means for removing the fiber from the seed, of a combined brushing and breaking device located in the box or passage through which the seed-cotton passes, said brushing and breaking device being adapted to pass the material to the device for removing the fiber and consisting of the stationary and revolving brushes provided with intermeshing teeth, substantially as and for the purpose set forth.

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Witnesses:

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