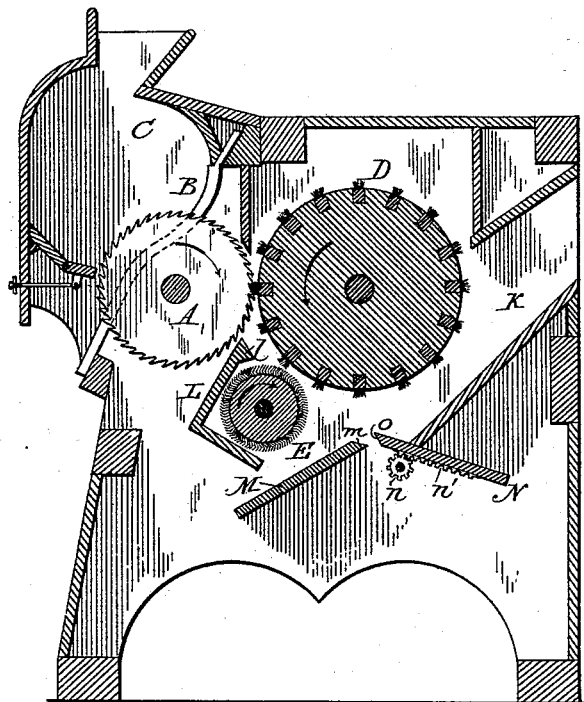


(No Model.)

F. GARRAUX.  
SAW COTTON GIN.

No. 490,745.

Patented Jan. 31, 1893.



Witnesses,  
*Sidney P. Hollingsworth*  
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Inventor,  
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by his attorneys  
*Palmer Davidson Wright*

# UNITED STATES PATENT OFFICE.

FREDERICK GARRAUX, OF ATLANTA, GEORGIA, ASSIGNOR TO THE WINSHIP MACHINE COMPANY, OF SAME PLACE.

## SAW COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 490,745, dated January 31, 1893.

Application filed September 26, 1892. Serial No. 446,932. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK GARRAUX, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Saw Cotton-Gins, of which the following is a specification.

In Letters Patent of the United States, No. 444,080, dated January 6, 1891, and granted to George Winship and myself, a cotton gin is shown, designed to straighten out tufts or naps in the lint cotton, and at the same time remove motes and trash therefrom, while saving portions of the lint wasted in other machines. I have found, however, that the construction shown in said patent does not completely separate the motes from the cotton, and my present invention is designed to overcome this difficulty.

The accompanying drawing represents a vertical section through so much of the cotton gin embodying my improvements as is necessary to illustrate the subject-matter claimed. The machine is in most respects similar to that shown in the patent above mentioned. The rotating saws A, ribs B, and hopper C, are essentially the same as those shown in said patent, as are also the stripping brush D, the whip-roll E, and flue K. An L-shaped mote board L, is interposed between the lower portion of the saws and stripping brush and the upper portion of the whip-roll. The lower or angular portion of this board encircles two sides of the whip-roll, while its upper part is inclined inward and overlies the whip-roll. Its upper inclined edge is straight, and terminates in a point close to the saws, while the inner side of its upper end is provided with a triangular lip *l*, which extends downward toward the whip-roll, the center of which it overlies at some little distance therefrom, its inner inclined surface being at about the same distance from and substantially parallel with the stripping brush. The mote board thus partially incloses the whip-roll on three sides, while its point lies in the triangular space between the saws, the stripping brush and the whip-roll. The effect of this organization is to prevent an eddy being formed,

and to allow the lint to be siezed by the stripping brush and saved.

In operation, the saws separate the lint from the seed in the hopper, and draw it through the ribs C, the seed falling through the bottom of the hopper, as usual. The more rapidly revolving stripping brush removes the lint from the saws, and by its centrifugal action, throws the heavier motes and trash through the space between the saws and mote board into a suitable receptacle. The mote board lip prevents the eddy that would otherwise be formed in the space by it, and causes the brush to create a strong draft which carries to the whip-roll lint that would otherwise be caught up by the saws and clog the ribs. The stripping-brush carries the lint to the whip roll and the two in conjunction whip and card it until all the tufts and naps are smoothed and straightened out.

In the patent above mentioned, it was designed to drop the remaining motes and trash through an opening in the bottom of the casing below the stripping-brush. But, I find that the work is very much better done, in fact perfectly done, by my improvements.

Below the lower end of the mote board L, I arrange an inclined stationary board M, and in rear of this board arrange an inclined board N, which is movable back and forth toward and from the upper rear end of the board N. This board N, may be moved in any suitable way. I have shown a pinion *n*, engaging with a rack bar *n'*, for this purpose. The front end of the board N, is beveled or inclined at *o*, as is also the end of the board M, at *m*. The beveled end *o*, presents a sharp edge to the ginned cotton, and separates more or less of the motes, according to the adjustment of the board. The cotton passes from the saws between the cylinders D and E, the lighter cotton adhering closely to the cylinder D, and following it around to near the top of the chute K, while the heavier cotton or that containing motes, runs closer to the boards M and N.

Some dealers prefer to get as much cotton as possible from the seed cotton, and therefore do not care to have special pains taken

to separate the motes, while others wish to have the cotton as free from motes as possible. Of course, when provision is made for separating the motes, a good deal of the cotton is separated with them. By adjusting the board N, I may separate more or less of the motes, as desired. If the end of the board N, were straight, or square, the cotton would bank up against this end and be deflected inwardly toward the chute K, but by inclining it or beveling it, as shown at *o*, this tendency is obviated, and the motes are directed downwardly and separated from the body of the cotton. The inclination or bevel at the end of the board *m*, also promotes this separation. It will be observed that the edge of the bevel *m*, is about on a line with the bottom of the board N. If this edge were straight, the cotton and motes would tend to pass by the edge of the board into the chute, but by inclining it as shown, this tendency is obviated, and the motes are readily separated.

I claim as my invention,—

1. A cotton gin comprising saws for separating the cotton from the seed, a stripping brush for clearing the cotton from the saws, a whipping and carding roll having its axis arranged in a vertical plane in front of the axis of the stripping brush, and an adjustable mote board inclined from its rear end up-

wardly and having its working edge arranged below the stripping brush in rear of the whipping and carding brush.

2. A cotton gin comprising a series of saws, ribs through which the saws work, a stripping or clearing brush for cleaning the cotton from the saws, and a mote board N, inclined from its rear end upwardly and having a beveled edge *o* inclined from its upper side downwardly to present a sharp edge at the top of its front end, substantially as described.

3. The combination of the saws and ribs, the rotary stripping brush, the rotary carding and whipping brush, a mote board L arranged around the front of the whipping brush, an inclined mote board E, below the whipper and an adjustable inclined board N, in rear thereof.

4. A cotton gin comprising a series of saws, ribs through which they work, a clearing brush for cleaning the cotton from the saws, an inclined adjustable mote board N, having a beveled edge *o*, and a stationary inclined mote board E, having a beveled edge *m*.

In testimony whereof I have hereunto subscribed my name.

FREDERICK GARRAUX.

Witnesses:

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