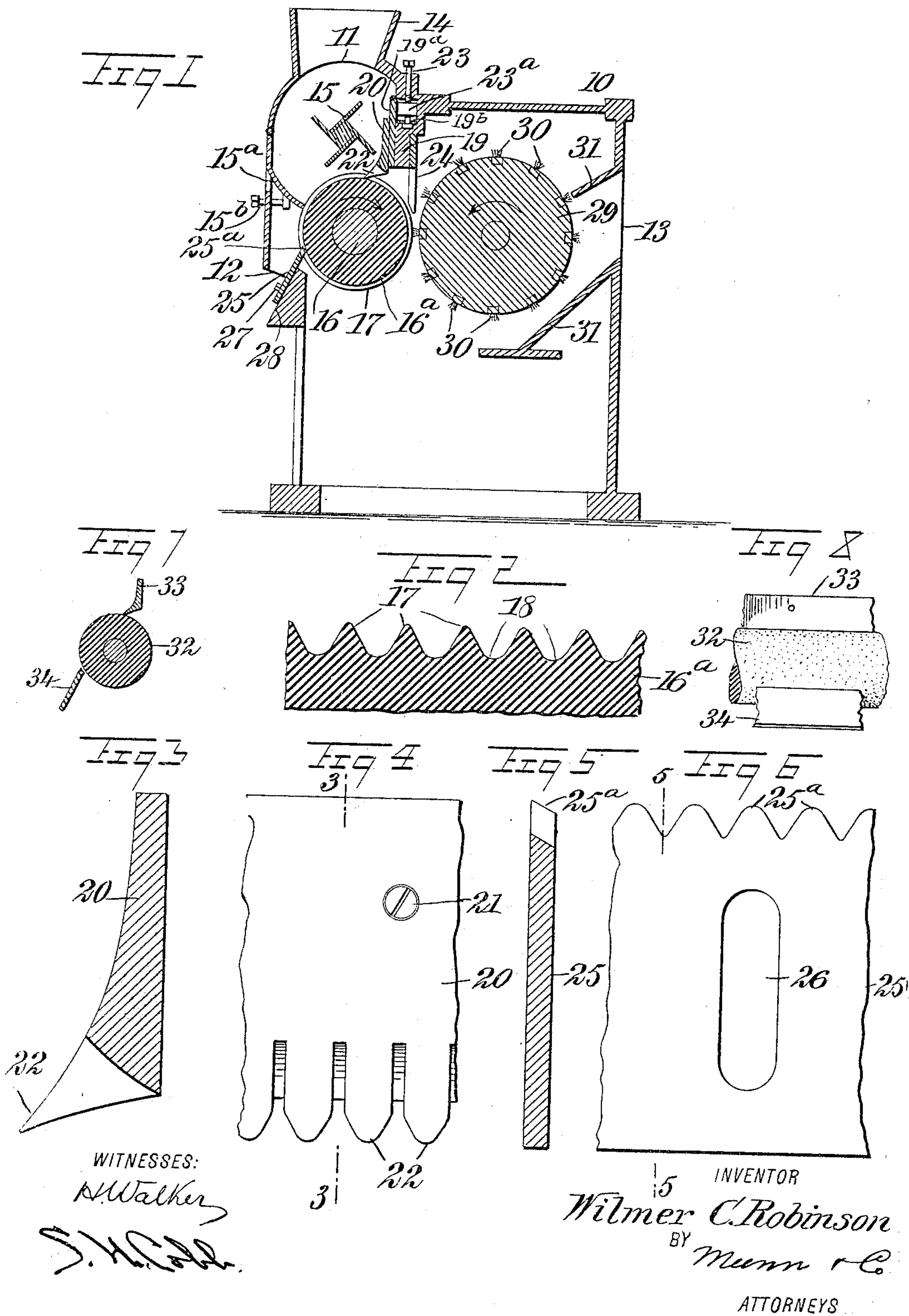


No. 801,609.

PATENTED OCT. 10, 1905.

W. C. ROBINSON.  
COTTON SEED LINTER.  
APPLICATION FILED JULY 29, 1904.





# UNITED STATES PATENT OFFICE.

WILMER CHAPMAN ROBINSON, OF PENSACOLA, FLORIDA.

## COTTON-SEED LINTER.

No. 801,609.

Specification of Letters Patent.

Patented Oct. 10, 1905.

Application filed July 29, 1904. Serial No. 218,632.

*To all whom it may concern:*

Be it known that I, WILMER CHAPMAN ROBINSON, a citizen of the United States, and a resident of Pensacola, in the county of Escambia and State of Florida, have invented a new and Improved Cotton-Seed Linter, of which the following is a full, clear, and exact description.

My invention relates to machines for removing the lint from cotton-seed, its principal objects being to provide an efficient apparatus for this purpose.

It consists in the various features and combinations hereinafter described and more particularly claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a central vertical transverse section through one embodiment of my invention. Fig. 2 is a broken sectional detail through the edge of the drawing-cylinder. Fig. 3 is a transverse section through the upper grate on the line 3 3 of Fig. 4. Fig. 4 is a partial front elevation of said grate. Fig. 5 is a transverse section through the lower grate on the line 5 5 of Fig. 6. Fig. 6 is a partial front elevation of said lower grate. Fig. 7 is a transverse section through drawing-cylinder of another form of my invention, and Fig. 8 is a partial side elevation thereof.

10 designates a suitable frame or casing, having a feed-opening 11 and discharge-openings 12 and 13. Above the first-named opening may be situated a hopper 14, delivering into a chamber, in which operates a rotatable float or stirrer 15. At the lower side of this chamber are the usual finger-bars 15<sup>a</sup>, extending above the opening 12 and having an associated screw 15<sup>b</sup>, by which they may be adjusted in position.

Journalled below the chamber is a drawing-cylinder 16, at least the surface 16<sup>a</sup> of which consists of emery or other granular material of a suitable tooth or roughness, such as carborundum or sand glued on a drum. It is provided with pointed peripheral projections 17, between which are curved grooves 18. This cylinder is rotated in the direction indicated by the arrow in Fig. 1 by any suitable gearing.

Attached to a depending portion of the casing above the cylinder 16 is a breast 19<sup>a</sup>, to which is secured a grate 20, conveniently by screws 21. (See Fig. 4.) The bars of this grate are preferably curved inwardly, lying

substantially about the circumference of a cylinder of which the axis is that of the float and having rounded ends 22 extending into the cylinder-grooves. The breast and the upper grate are adjustable toward and from the drawing-cylinder by some such device as a screw 23, threaded through a bar 23<sup>a</sup>, secured to the breast near the top of the depending portion of the casing. The screw 23 is rotatably secured to the depending portion of the casing 19 by means of the washer 19<sup>b</sup>, secured to the part 19, the end of the bolt being headed below the washer. When the screw is turned, the bar 23<sup>a</sup> is elevated and depressed, carrying with it the breast and the grate. At the opposite side of the depending portion from the breast may be attached a deflector or back board 24, serving to direct the current of air generated by the brush-cylinder downward tangentially to the drawing-cylinder.

At the opposite side of the drawing-cylinder from the upper grate and lying below the opening 12 is a lower grate 25, in which are formed transverse slots 26, by which it may be adjustably held in position by screws 27, threaded into an inclined portion 28 of the casing. The lower grate-bars, which are comparatively short, have rounded ends 25<sup>a</sup> projecting into the cylinder-grooves.

Journalled in the casing beyond the drawing-cylinder and rotatable in the direction of the arrow is a wiper-cylinder 29, upon the surface of which are carried brushes 30, operating close to the periphery of said drawing-cylinder. Adjacent to this cylinder 29 and extending from it to each side of the discharge-opening 13 are directing-boards 31.

In the use of the machine the cotton-seed is fed into the chamber through the hopper and is there passed over the surface of the cylinder 16 by the float. The rough surface of the granular material draws the lint from the seeds and carries it between the upper grate-bars, which retain the seeds themselves. The lint is then carried along by the cylinder until it is removed therefrom by the brushes 30 and discharged from the opening 13. When the seed has been sufficiently cleaned, it becomes of small enough diameter to pass between the drawing-cylinder and the finger-bars, whereupon it falls on and is directed by the lower grate through the opening 12. The operating-surface furnished by the granular material is such that while it effectively seizes and removes the lint from the seeds it has no



tendency to break the former. The independence of the upper and lower grate-bars permits their separate adjustment to suit the peculiar conditions existing at any time.

5 Figs. 7 and 8 show another form of my invention, in which the drawing-cylinder 32 is provided with an operating-surface of granular material, as previously described, but is without the projections—the members 33 and  
10 34—which take the places of the grates 20 and 25, having corresponding straight edges.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A cotton-seed linter comprising a drawing-cylinder having an operating-surface on which are peripheral projections, and a top grate provided with bars having their ends extending between the projections.

2. A cotton-seed linter comprising a drawing-cylinder having an operating-surface of granular material on which are peripheral projections, and a top grate provided with bars having their ends extending between the projections.

25 3. A cotton-seed linter comprising a drawing-cylinder having an operating-surface on which are pointed peripheral projections having between them curved grooves, and a top grate provided with bars having their ends  
30 projecting into said grooves.

4. A cotton-seed linter comprising a drawing-cylinder having an operating-surface on which are pointed peripheral projections having between them curved grooves, and a top grate provided with curved bars having their  
35 ends projecting into said grooves.

5. A cotton-seed linter comprising a drawing-cylinder having an operating-surface of granular material, on which surface are peripheral projections having between them  
40 curved grooves, a top grate provided with bars having their ends projecting into said grooves, and a bottom grate also having bars with their ends entering the grooves.

6. A cotton-seed linter comprising a drawing-cylinder, and independent top and bottom  
45 grates having separated bars coacting with the surface of cylinder.

7. A cotton-seed linter comprising a drawing-cylinder, independent top and bottom  
50 grates having separated bars coacting with the surface of cylinder, and means for separately adjusting the grates.

In testimony whereof I have signed my name to this specification in the presence of two sub-  
55 scribing witnesses.

WILMER CHAPMAN ROBINSON.

Witnesses:

A. A. FISHER,

CLARENCE PFEIFFER.