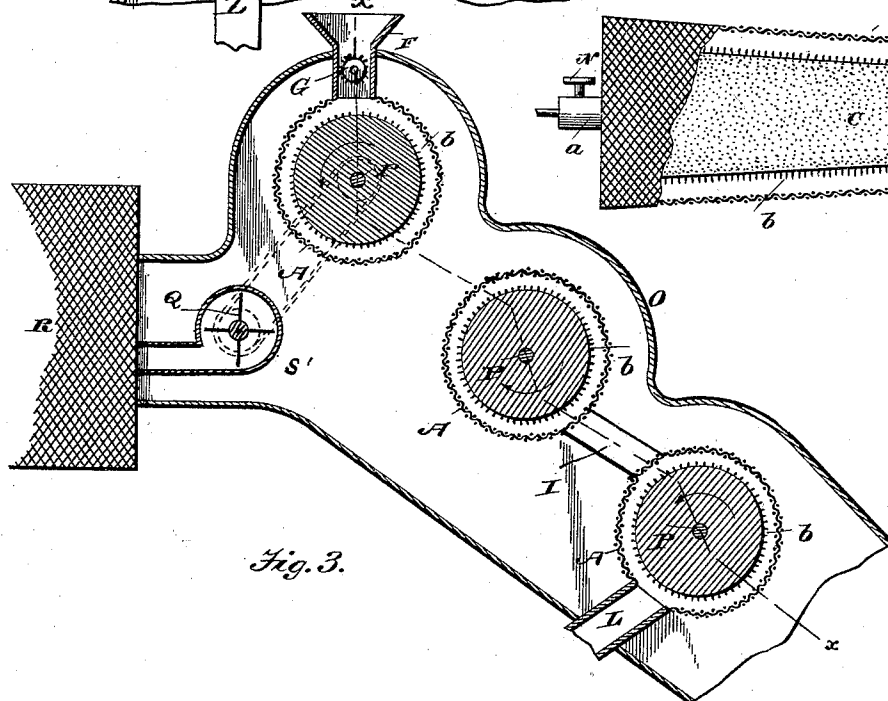
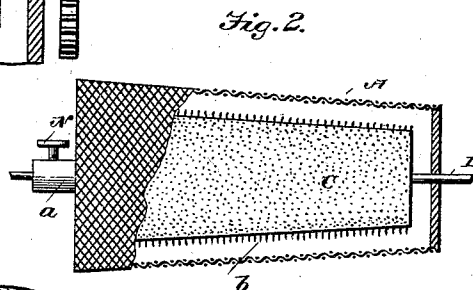
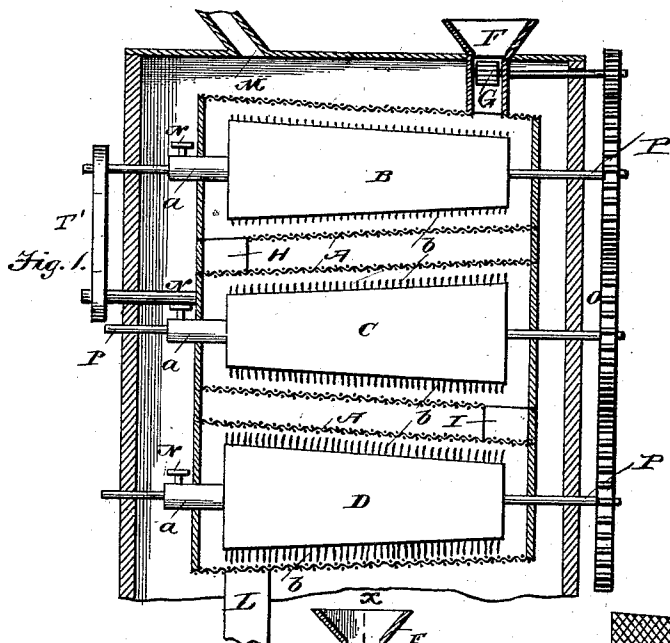


(No Model.)

R. H. COLLYER.  
COTTON SEED CLEANER.

No. 408,085.

Patented July 30, 1889.



*Witnesses:*

*Ed. Phillips.*  
James J. Sheehy.

*Inventor:*  
*Robt. H. Collyer.*

By, W.R. Stringfellow,

*Attorney.*

# UNITED STATES PATENT OFFICE.

ROBERT H. COLLYER, OF NEW ORLEANS, LOUISIANA, ASSIGNOR TO EDWARD  
A. BLAKELY, OF SAME PLACE.

## COTTON-SEED CLEANER.

SPECIFICATION forming part of Letters Patent No. 408,085, dated July 30, 1889.

Application filed September 24, 1888. Serial No. 286,154. (No model.)

### *To all whom it may concern:*

Be it known that I, ROBERT H. COLLYER, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Cotton-Seed Cleaners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to machines for delinting cotton-seed, and it is designed as an improvement upon the invention shown and described in my application for patent filed March 27, 1888, Serial No. 268,723. The novelty will be fully understood from the following description and claims, when taken in connection with the accompanying drawings, in which—

Figure 1 is a vertical transverse sectional view of my improved machine, taken in the plane indicated by dotted line *x x* on Fig. 3. Fig. 2 is a view of one of the brush chambers and cylinders removed, with the gauze partly broken away; and Fig. 3 is a vertical longitudinal sectional view.

Referring by letter to the said drawings, O indicates a frame, which may be of metal, wood, or other suitable material, and made in any suitable manner to receive the various parts of my machine, as will be hereinafter more fully described. This frame is provided at its upper end with a hopper F to receive the cotton-seed, and this hopper is provided in its throat with a feed-roller G or agitator to prevent the said hopper from becoming choked. This roller has a pinion on the outer end of its shaft, so that it may engage the gear on the shaft of the upper cylinder and receive motion therefrom. The main frame is furthermore provided in its upper portion adjacent to the said hopper with an aperture M, adapted for the admission of air to the interior of the machine, and is provided at its lower portion with a discharge-aperture L, which communicates with the lowest conical chamber, whereby the cotton-seed, after it has been stripped from its lint, may be discharged or received in a suitable vessel.

B indicates a brush-body, which is of a conical form, there being three of these brushes employed B C D, arranged obliquely one above the other, as shown. These conical brushes are secured to shafts P, which have their bearings in the main frame, as shown, and may be provided with drive-gears, as shown, whereby motion may be imparted from one to the other. These conical brushes are adapted to be adjusted longitudinally with respect to their supporting-shafts, and the small end of one is designed to lie in the same vertical transverse plane as the large end of another, so that the full effect of each cone may be had in operation.

As a means of adjustment I have provided each brush-cone at one end with an integral collar *a*, through which the shaft P passes, and to which, by the employment of the set-screw N, the said cone may be adjustably secured upon the shaft, thereby regulating the distances between the gauze cones, which will be presently described, and the cleaning-brushes.

A indicates a wire-gauze conical chamber, which is of a contour similar to that of the brush-cone, but sufficiently large to receive and surround the said brush-cone and permit of the same being adjusted therein. The gauze conical shells or casings A, which surround the brush-cones, are connected by ports or passages H and I, the passage H leading from the top gauze cone or casing at its lower portion and communicating with the upper portion of the intermediate gauze cone, the said intermediate cone having its lower portion connected with the higher portion of the lowest cone in the series, so that as the cotton-seed is fed from the hopper it will get the full force and effect of each brush before being discharged from the main frame.

The cones B C D, which are adjustably secured to the shafts P, are provided each with a brush *b*, and each one may carry a brush of different texture.

R indicates a cotton or lint chamber, which is arranged so as to communicate with the main frame or case O at a suitable point, the position here shown being in a plane between the upper and intermediate cones.

Q indicates a suction or draft fan, which is arranged within a casing S', placed in the main frame adjacent to the lint-chamber R, the discharge-spout of the fan-casing being arranged to discharge the blast of the fan into the lint-chamber. This fan Q is driven by a belt T', leading from a pulley on the shaft P of the upper cone B, the said belt passing over a similar pulley on the fan-shaft.

By having conical cones arranged on horizontal shafts I find that they are not so liable to choke as when arranged vertically.

Having described my invention, what I claim is—

1. In a machine for delinting cotton-seed, the combination, with the main frame, of a plurality of conical gauze chambers arranged one above the other obliquely and having communication with one another, the small end of one being in a vertical transverse plane with the large end of another, brush-cones mounted on horizontal shafts and arranged within the gauze chambers, a lint-chamber communicating with the main frame, and a fan for drawing the cotton from the gauze

conical chambers and discharging it into the lint-chamber, substantially as specified.

2. In a machine for delinting cotton-seed, the combination, with the main frame or case having a feed-hopper at its upper end, an inlet-aperture adjacent thereto, and a seed-discharge aperture at its lower end, of a plurality of conical gauze chambers arranged obliquely one above another and communicating with one another by the passages H I, and having the large end of one lying in a vertical transverse plane with the small end of another, brush-cones arranged upon horizontal shafts within the said gauze cones, a lint-chamber communicating with the main frame, and a suction-fan for delivering the lint into the said holder, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT H. COLLYER.

Witnesses:

HENRY J. RHODES,  
PERCY D. PARKS.