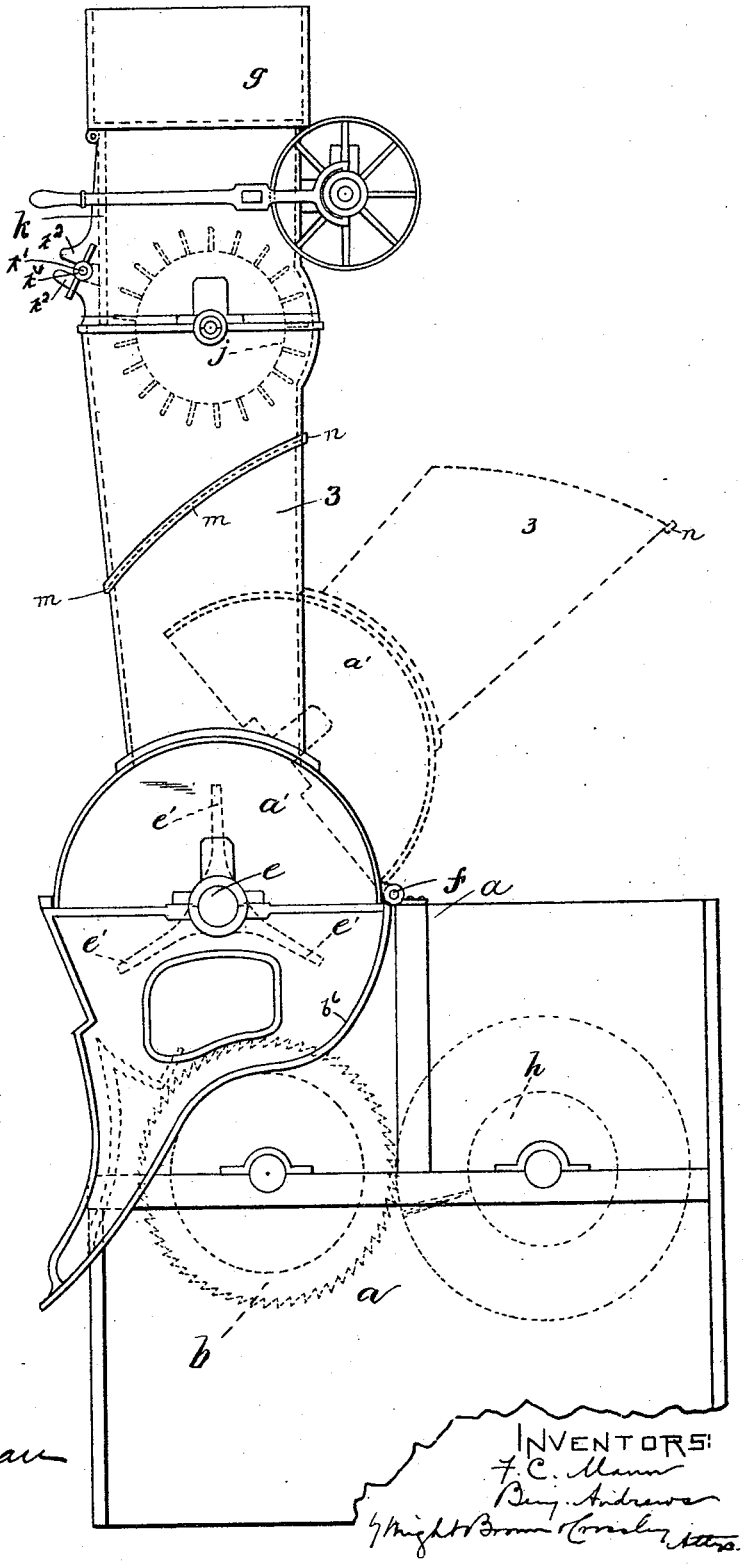
(No Model.)

F. C. MANN & B. ANDREWS.

COTTON SEED LINTING MACHINE.

No. 457,969. Patented Aug. 18, 1891.



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UNITED STATES PATENT OFFICE.

FREDERICK C. MANN, OF EAST BRIDGEWATER, MASSACHUSETTS, AND BENJAMIN ANDREWS, OF NEW ORLEANS, LOUISIANA.

COTTON-SEED-LINTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 457,969, dated August 18, 1891.

Application filed August 18, 1890. Serial No. 362,302. (No model.)

To all whom it may concern:

Be it known that we, FREDERICK C. MANN, of East Bridgewater, in the county of Plymouth and State of Massachusetts, and BENJAMIN ANDREWS, of New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Cotton-Seed-Linting Machines, of which the following is a specification.

This invention relates to machines for separating the lint or cotton fibers that adhere to cotton-seeds. In the linting-machines now in general use the separation of the lint from the seed is effected by means of what is called a "linter," comprising a series of saws mounted side by side on an arbor, portions of said saws projecting through the ribs in a box or casing, into which the unlinted seeds are fed by a vertical feeding-chute from a hopper, a suitable feeding device being employed at the upper end of the chute to regulate the passage of the seeds from the hopper to the casing containing the linting saws and ribs.

Our invention has reference to the chute that connects the hopper and feeding devices with the linting devices. The lower end of said chute is attached to the top of the linter-casing. It is often necessary to remove said top to obtain access to the lint-removing devices; but heretofore it has been necessary to detach the chute from the top of the casing to permit such removal, the chute having always been of such construction that it will not permit the removal of the top of the linter-casing unless it is entirely detached therefrom.

Our invention has for its object to permit the removal of the top of the linter-casing without disconnecting it from the chute; and to this end it consists in the improved construction which we will now proceed to describe and claim.

The accompanying drawing represents an end elevation of a linting-machine provided with our improvements.

In the drawing, a represents the linter-casing, containing the lint-removing saws b, the ribs b^6, which co-operate with the saws in removing the lint from the seeds, the shaft e, which is arranged above the ribs and saws and is provided with spirally-arranged conveyer-blades e', formed to convey the mass of seeds along the casing over the saws, all the parts above described being of the usual construction and requiring no detailed description. The casing a is provided with a movable top or cover a', which is hinged at f to the main portion of the casing and is adapted to be swung back on its hinges to expose and permit access to the conveyer and its linting devices, as shown in dotted lines.

g represents the fixed portion or section of a chute which extends from and is rigidly secured to an elevated hopper or reservoir. (Not shown.) At the lower end of said fixed section is a hinged section 3, hereinafter described, said fixed section g and hinged section 3 connecting the hopper with the hinged cover a' of the casing a.

A suitable feeding device is located in the fixed section g of the chute, said device including a cylinder j, mounted on a rotary shaft and provided with radiating-pins and a hinged valve or gate k, which is adjustable toward and from the cylinder and varies the size of the opening through which the seeds pass to the chute, thereby regulating the feed, or, in other words, permitting the seeds to pass more or less rapidly to the linter. We have here shown the gate k provided with a stud k', adapted to move in a segmental slot between ears k^2 k^2 on the chute and provided with a clamping-nut k^3. The movable lower section 3 of the chute is secured to the hinged cover a' of the linter-casing, said lower section being adapted to swing with the cover a'. The meeting ends of said sections g and 3 are formed so that the meeting-point is higher at one side of the chute than at the other, so that the lower section may be swung backwardly from the upper, as shown in dotted lines. We prefer to give said meeting ends the curved form shown, the upper end of the lower section 3 having a convex curvature, while the lower end of the upper section has a corresponding concave curvature, said ends being so formed that when the lower section is in the position shown in full lines the two sections form a continuous chute, the lower section being permitted by the form of said

ends to swing out of line with the upper section when the cover a' is raised, as shown in dotted lines. The upper section has a downwardly-projecting flange m along three of its sides, said flange being omitted along the highest side and formed to bear against the external surfaces of three sides of the lower section, thus preventing the formation of a crack or crevice between the two sections. The lower section has an upwardly-projecting flange n extending along its highest side and arranged to bear on the lower end of the same side of the upper section to prevent the formation of a crack at that side.

It will be seen that by forming the chute in two separable sections, as described, and attaching the lower section to the hinged cover of the linter-casing we are enabled to quickly displace said cover to obtain access to the conveyer and linting devices without the trouble and inconvenience of separating the chute from the cover to permit the displacement of the latter.

We claim—

1. The combination, with the linter-casing of a linting-machine, of a hinged cover for said casing, and a chute composed of two separable sections, one of which is fixed or rigidly supported and the other attached to the hinged cover, the meeting ends of said sections being curved or inclined to permit the lower section to be moved with the cover to which it is attached, as set forth.

2. The combination, with the linter-casing having the hinged cover, of the chute composed of the fixed upper section having the curved or inclined lower end provided at three sides with the downwardly-projecting flange m, and the lower section attached to the hinged cover and having the curved or inclined upper end provided at its highest sides with the upwardly-projecting flange n, as set forth.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

FREDERICK C. MANN.
BENJAMIN ANDREWS.

Witnesses to Frederick C. Mann:
C. F. BROWN,
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Witnesses to Benjamin Andrews:
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