

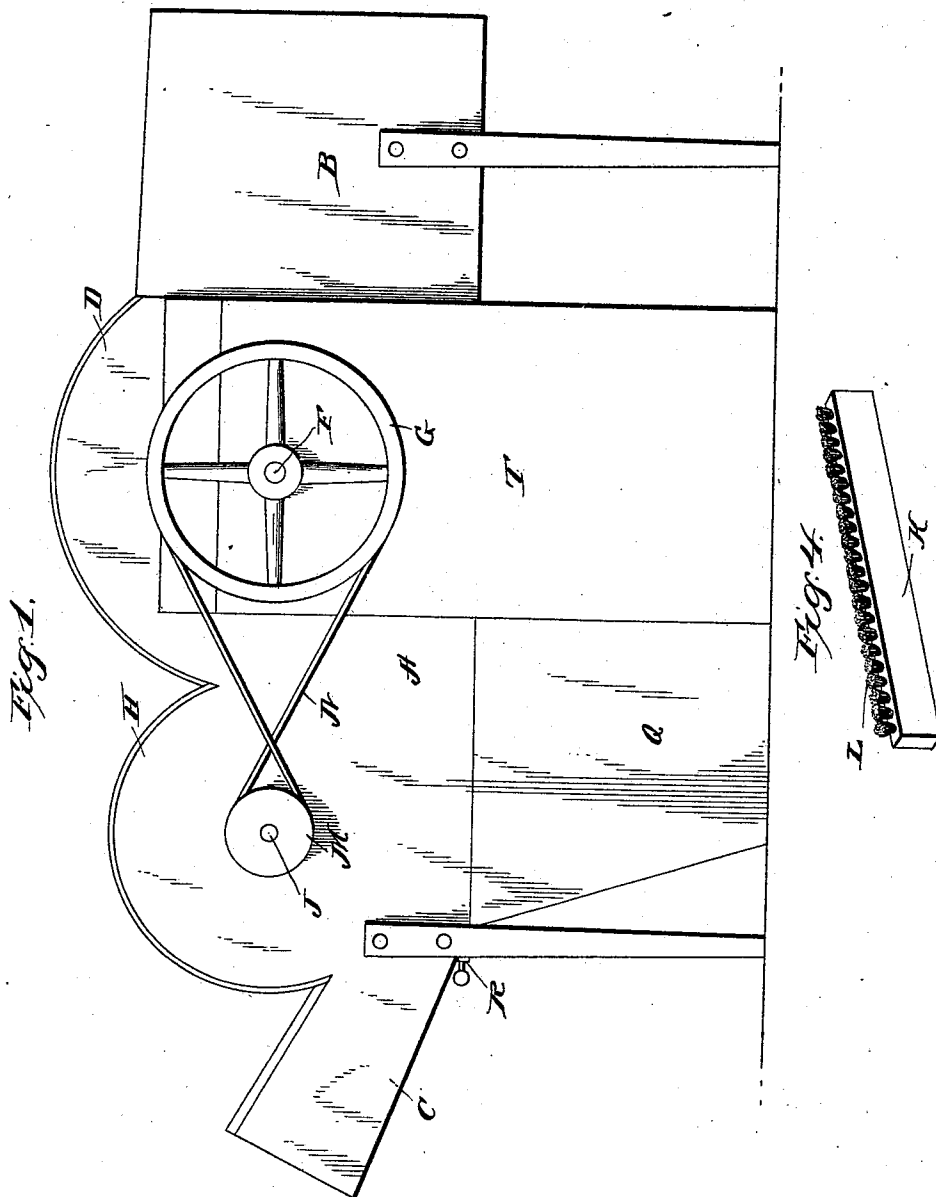
(No Model.)

2 Sheets—Sheet 1.

H. REMBERT.
COTTON CLEANER.

No. 506,134.

Patented Oct. 3, 1893.



Witnesses

E. C. Hurdman
S. P. Wolhaupter

Inventor

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By *his* Attorneys,

C. A. Snow & Co.

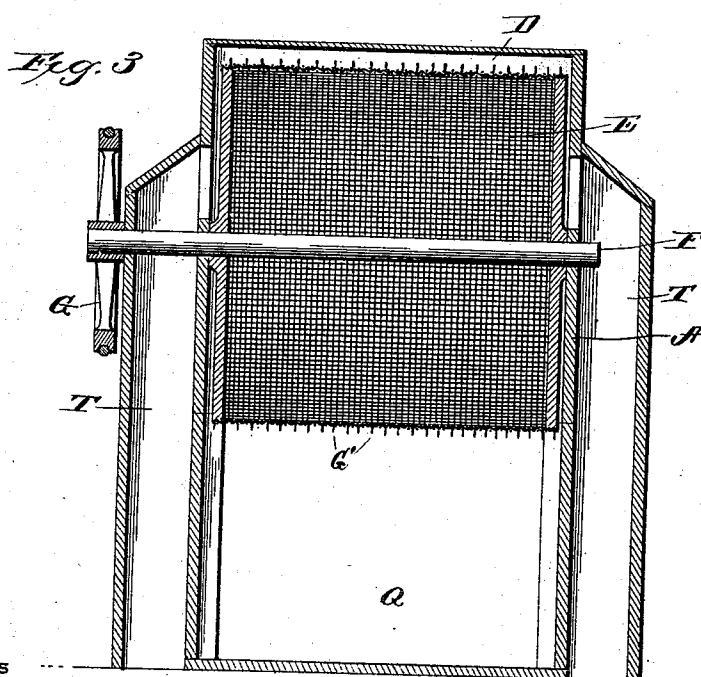
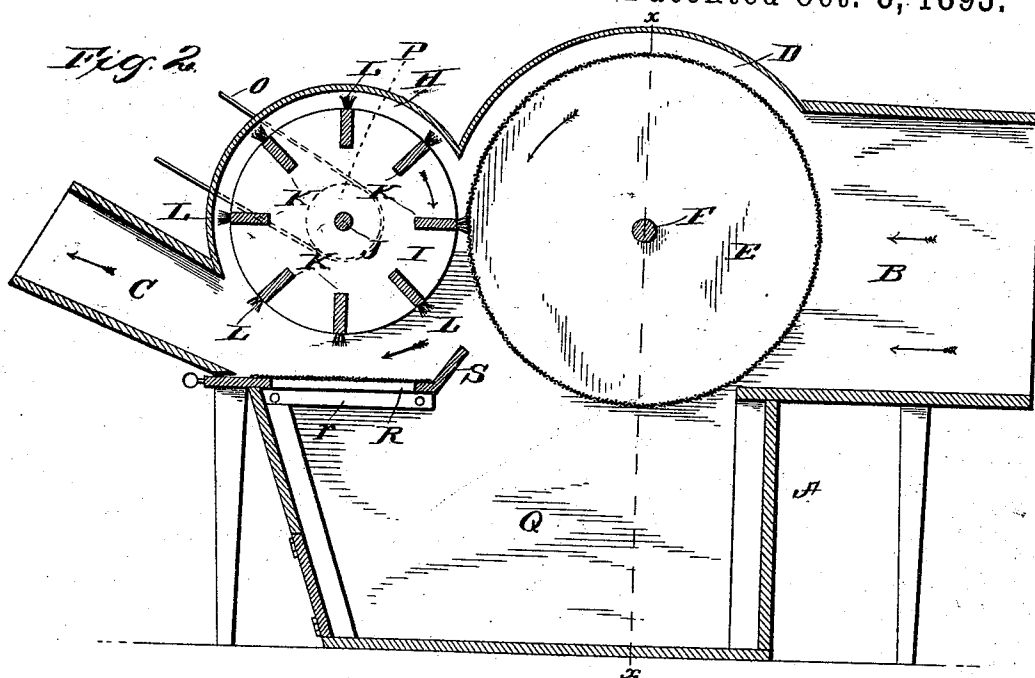
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H. REMBERT.
COTTON CLEANER.

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No. 506,134.

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Witnesses

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UNITED STATES PATENT OFFICE.

HENRY REMBERT, OF WILLIS, TEXAS.

COTTON-CLEANER.

SPECIFICATION forming part of Letters Patent No. 506,134, dated October 3, 1893.

Application filed April 5, 1893, Serial No. 469,121. (No model.)

To all whom it may concern:

Be it known that I, HENRY REMBERT, a citizen of the United States, residing at Willis, in the county of Montgomery and State of Texas, have invented a new and useful Cotton-Cleaner, of which the following is a specification.

This invention relates to cotton cleaners; and it has for its object to provide certain improvements in machines for cleaning lint cotton, and especially to provide a machine of this character which is intended to be arranged in the common lint flue, so as to occupy a position between the ordinary condenser in the lint room, and the nearest gin thereto.

To this end the main and primary object of the invention is to provide a cotton cleaner by means of which the lint cotton after leaving the gin will be subjected to a thorough cleaning before it passes to the lint room or condenser, so that motes, stems, sticks, dry leaves, sand, &c., will be completely separated from the lint without any interference with the output of the gins, and by what will be practically a continuous operation.

With these and other objects in view which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a side elevation of a cotton cleaning machine constructed in accordance with this invention. Fig. 2 is a central vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view on the line $x-x$ of Fig. 2. Fig. 4 is a detail in perspective of one of the fan blades and the brushes thereon.

Referring to the accompanying drawings, A represents an enlarged cleaning casing having at one end the enlarged cotton receiving flue B, and at its other end the contracted cotton discharge flue C, the former receiving flue B, being a continuation of, or connected with, the ordinary discharge flue of a cotton gin, while the contracted discharge flue C, of the cleaner casing leads into an ordinary condenser in the lint room, so that the cleaner casing A, is practically a part of the ordinary

lint flue employed in connection with ginning machinery.

The cleaner casing A, is provided at a point adjacent to the enlarged receiving flue B, at one end thereof with the drum chamber D, in which is mounted for rotation the cylindrical screen cleaning drum E. The cylindrical screen cleaning drum E, is of a size sufficient to nearly fill the chamber D, in which it rotates, and is mounted on the drum shaft F, journaled at its ends in suitable bearings and carrying at one end the belt wheel G, to which motion is communicated in order to slowly revolve the screen drum E, within the drum chamber D. The drum E, works in very close proximity to the lower edge of the inner end of the flue B, so that the cotton forced into the flue B, from the cotton gin, and against the drum E, will not find a passage under the bottom portion of the drum, but follows the direction of rotation thereof, and is carried thereby through the top portion of the chamber D, and the screen drum may be provided with retaining teeth G', a few of which are shown in Fig. 3 of the drawings, and which serve to assist in holding the cotton intact and onto the drum until it, the cotton, is knocked off of the drum, by force, in the manner to be presently described, and at this point it may be stated that by reason of the draft kept up in the cleaning machine, the cotton is necessarily held onto the periphery of the screen drum owing to the draft of air maintained through the same.

Adjacent to the drum chamber D, the cleaner casing A, is further provided with a smaller brush and fan chamber H, in which is mounted for rapid rotation the combined brush and fan I. The said combined brush and fan I, is mounted on a suitable shaft J, and comprises a peripheral series of fan blades K, to which are secured the brush bristles L, which, as the combined brush and fan rotates, work against one side of the rotary screen E. The shaft J, carries at one end the belt wheel M, over which passes the crossed belt N, which also passes over the wheel G, so as to communicate motion to the rotary screen E, and turn the same in a direction opposite to the direction of rotation of the combined brush and pan, and very much slower than the latter, which is given a very rapid rotation from the

drive belt O, passing over the drive pulley P, at one end of the shaft J.

The casing A, is extended at a point under the point of contact of the rotary screen E, and the combined brush and fan, to form an enlarged mote box or chamber Q, into which the dirt and other trash is swept by the force of the brush and fan, and directly under the combined brush and fan I, is arranged the removable mote board R. The mote board R, is arranged to slide on the supports r, so as to be adjusted in proper position and be capable of removal, and the same comprises a wire screen which is intended to provide for the separation of the cotton from the motes and other foreign substances, the same allowing the sand and other light dirt to be sifted from the cotton as it is driven over the mote board by the combined brush and fan. At the inner end of the mote board R, is arranged the inclined deflecting board S, which serves to direct the cotton onto the mote board after it is drawn and knocked from the screen E, by the suction and direct impelling action of the combined brush and fan I.

Arranged at opposite sides of the cleaner casing A, are the opposite inclosed vertical dust flues T, which communicate with the interior of the casing, and are designed to have their lower ends project through the floor of the gin house so as to relieve the press room of the dust and air usually created by the operation of ginning.

Now from the foregoing it is thought that the operation of the herein described cleaner will be readily apparent. The lint cotton enters the machine at the enlarged receiving flue B, and is lodged on the rotating screen cylinder E. The said cylinder E, rotates in the direction indicated by the arrow, and carries the cotton on its periphery until it comes in contact with the combined brush and fan I, which revolves in a direction toward the cylinder E, and much more rapidly than the same, so that the brush bristles L, forcibly and violently knock the cotton off of the screen cylinder or drum, so that all substances heavier than the lint will be swept into the enlarged mote box Q, while the lighter lint cotton will follow the draft of the com-

bined brush and fan, and will discharge through the contracted discharging flue C, which is connected with the ordinary condenser. It will also be apparent that in case the rotary screen E, is provided with the teeth hereinbefore referred to, the brush portion of the combined brush and fan I, together with such teeth, will serve to comb out all foreign substances, while the draft of air passing through the screen will blow the cotton off of the teeth at the very moment the point of contact of the combined brush and fan is passed.

Changes in the form, proportion and the minor details of construction, as embraced within the scope of the appended claims, may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a cotton cleaner, the inclosed casing having opposite flue ends, and an enlarged bottom mote box between the flue ends, a cylindrical screen drum mounted for rotation within the casing, an adjacent oppositely rotating combined brush and fan comprising fan blades and brush bristles on the blades adapted to work against the screen drum, and a screen mote board removably arranged under the combined brush and fan and having at its inner end an inclined deflecting board disposed under the point of contact between the screen drum and the combined brush and fan, substantially as set forth.

2. In a cotton cleaner, the casing an ordinary lint flue leading into said casing, a toothed screen drum mounted in the casing, and an adjacent combined brush and fan arranged at one side of the drum, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY REMBERT.

Witnesses:

THOS. ROBINSON,
W. F. PORTER.