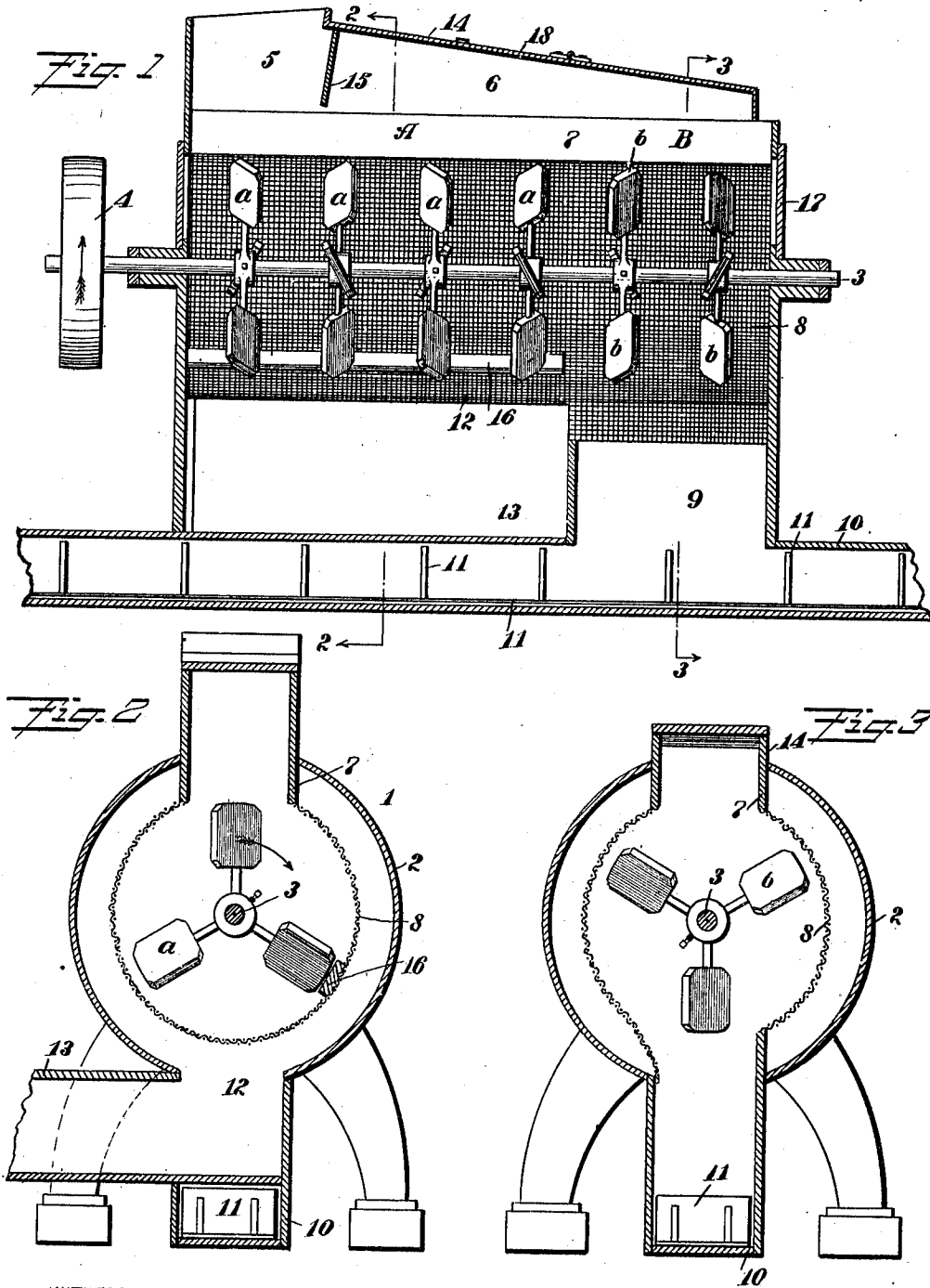


A. L. TREESE.
COTTON CLEANER.
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Patented Dec. 13, 1910.



WITNESSES
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ALBERT LEROY TREESE, OF JENNINGS, OKLAHOMA.

COTTON-CLEANER.

978,237.

Specification of Letters Patent.

Patented Dec. 13, 1910.

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To all whom it may concern:

Be it known that I, ALBERT L. TREESE, a citizen of the United States, and a resident of Jennings, in the county of Pawnee and State of Oklahoma, have invented a new and Improved Cotton-Cleaner, of which the following is a full, clear, and exact description.

This invention relates to cotton cleaners of the same class as the device covered by my Patent No. 909,714, issued to me January 12, 1909.

The present invention constitutes an improvement on that described in my patent, the object being to enable the cleaner to be used, if desired, without the separator, an arrangement being provided in which the cotton is deposited directly upon a conveyer belt or distributor.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

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 longitudinal vertical section through a cotton cleaner constructed according to this invention and showing a portion of the distributor belt to which the machine delivers, a portion of the channel or trough in which the distributor belt runs being broken away; Fig. 2 is a vertical section taken on the line 2—2 of Fig. 1; and Fig. 3 is a vertical section taken on the line 3—3 of Fig. 1.

Referring more particularly to the parts, 1 represents the body or case of the device, which is in the form of a barrel 2 in which a longitudinally disposed horizontal shaft 3 is rotatably mounted, said shaft being provided with a belt pulley 4 for rotating the same. On this shaft I provide a set of beaters indicated collectively by the letter A. In the illustration I have shown four of these beaters, indicated individually by the letter *a*. These beaters have blades which are inclined all in the same direction so that they tend to advance the cotton which is introduced through a feed hopper 5 which is formed over the shaft at one end of the case. This feed hopper is formed at one end with a rectangular housing 6 which extends throughout the entire length of the

body. The side walls 7 of this housing project down through the interior of the barrel, and to the lower edges thereof a substantially cylindrical wire gauze screen 8 is attached, as shown in Figs. 2 and 3. The beaters revolve within this screen, presenting broad paddles, the outer edges of which move near the inner face of the screen, as will be readily understood.

At the end of the device, and remote from the feed hopper 5, I provide a set of beaters indicated collectively by the letter B. In the illustration I have shown two of these beaters indicated specifically by the letter *b*. These beaters are similar to the beaters A, except that their paddles are disposed in a reverse position, that is, they are inclined oppositely to the paddles of the beaters A. Below these beaters *b* a delivery chute 9 is formed, at the under side of the barrel, which communicates with the interior of the screen, as indicated in Fig. 3, so that the cotton which has traveled throughout the entire length of the screen passes down through this chute. The lower end of the chute 9 is in communication with a delivery duct or pipe 10, which duct is of substantially rectangular form, and forms a guide for a distributor belt 11 which runs longitudinally therein, as shown. This delivery belt is provided on its upper side with a plurality of upwardly projecting gates or valves 11^a. These gates are simply plates which substantially fill the cross section of the delivery duct, and advance the cotton through the end of the duct as the belt is advanced.

Under the beaters A, an opening 12 is formed on the under side of the barrel, and through this opening a trunk 13 communicates with the interior of the barrel. This trunk is intended to be connected with a suction fan or similar device for withdrawing the air.

The housing 6 is formed with a cover 14 which inclines downwardly toward the delivery end of the device. In this way the housing is made to form a tapered hood over the screen. The space under this hood is cut off from the feed hopper by a baffle wall or plate 15 which projects downwardly, as shown, and this wall 15 insures that the cotton will pass down directly so that it must come under the influence of the beaters.

On the inner side of the barrel, and dis-

posed to one side thereof, as indicated in Fig. 2, I provide a breaker bar 16 which extends parallel with the shaft, and opposite to the beaters A. The inner face of this bar lies quite near the edges of these beaters as they revolve so as to enable the beaters to break up the cotton bolls as they rotate. The pieces of the bolls and the dirt which is removed by the beaters, is drawn down by the air current and suction produced in the trunk 13. This produces a downward draft through the hopper 5 and a good draft can be maintained on account of the fact that the gates or valves 11^a substantially cut off any flow of air into the delivery end of the device through the delivery duct 10. In this way I am enabled to dispense with the separator such as described in my patent.

At the ends of the cleaner body I provide removable doors 17 which give access at these points. In addition to this I provide a removable door 18 in the cover, which may be opened so as to give access to the interior of the housing or hood.

Special attention is called to the reverse position of the beaters *b*. The fact that these beaters oppose the beaters *a* prevents any tendency of the cotton to pack itself against the end wall at the delivery end of the device.

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

1. A cotton cleaner having an elongated body, a substantially cylindrical screen disposed therein, a shaft extending longitudinally in said screen, a plurality of beaters attached to said shaft and arranged in sets, one set of said beaters being inclined in a direction to advance the cotton toward the delivery end of said screen when said shaft is rotated, the other set of said beaters being disposed adjacent to the delivery end and being adapted to retard the cotton advanced by said first set of beaters, a delivery chute communicating with said screen at the delivery end of said body, means for withdrawing the cotton from said delivery chute, said means being adapted to cut off admission of air to said delivery chute, said body having an exhaust connection for withdrawing air through said screen, and a feed hopper for delivering cotton to the interior of said screen.

2. A cotton cleaner having an elongated body, a substantially cylindrical screen extending longitudinally therein, a shaft lying within said screen, a plurality of beaters

carried by said shaft having inclined paddles adapted to advance the cotton therein when said shaft rotates, other beaters carried by said shaft having paddles oppositely inclined adapted to arrest the advance of the cotton at the delivery end of said body, a delivery chute for receiving the cotton from said screen, a delivery duct in communication with said delivery chute, and a conveyer belt running in said delivery duct and having gates substantially closing the interior thereof, said body having an exhaust connection for drawing an air current through said screen.

3. A cotton cleaner comprising a casing, a substantially cylindrical screen arranged within the casing, a shaft concentric with the screen and a plurality of beaters carried by the shaft, each of said beaters comprising an inclined paddle extending radially from the shaft, the beaters at the entrance end of the casing being inclined in the same direction to advance the cotton and the beaters at the delivery end of the casing being inclined in the opposite direction to arrest the advance of the cotton, a delivery chute below the last-named beaters, a delivery duct with which the chute communicates, and a conveyer belt running in the delivery duct and having gates substantially closing the interior thereof, the casing having an exhaust connection for drawing an air current through the screen.

4. A cotton cleaner comprising a casing, a substantially cylindrical screen in the casing, a shaft journaled concentrically of the screen, a plurality of beaters attached to the shaft and arranged in sets, one set of the beaters being inclined in a direction to advance the cotton toward the delivery end of the screen when the shaft is rotated and the other set being arranged adjacent to the delivery end of the casing and inclined to retard the cotton advanced by the first set, a delivery duct to which the casing delivers, means for withdrawing the cotton from the casing, said means being adapted to cut off the admission of air to the delivery duct, the casing having an exhaust connection for withdrawing air through the screen and a feed hopper for delivering cotton to the interior of the screen.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALBERT LEROY TREESE.

Witnesses:

F. ADAMS,

MARIAN E. ADAMS.