

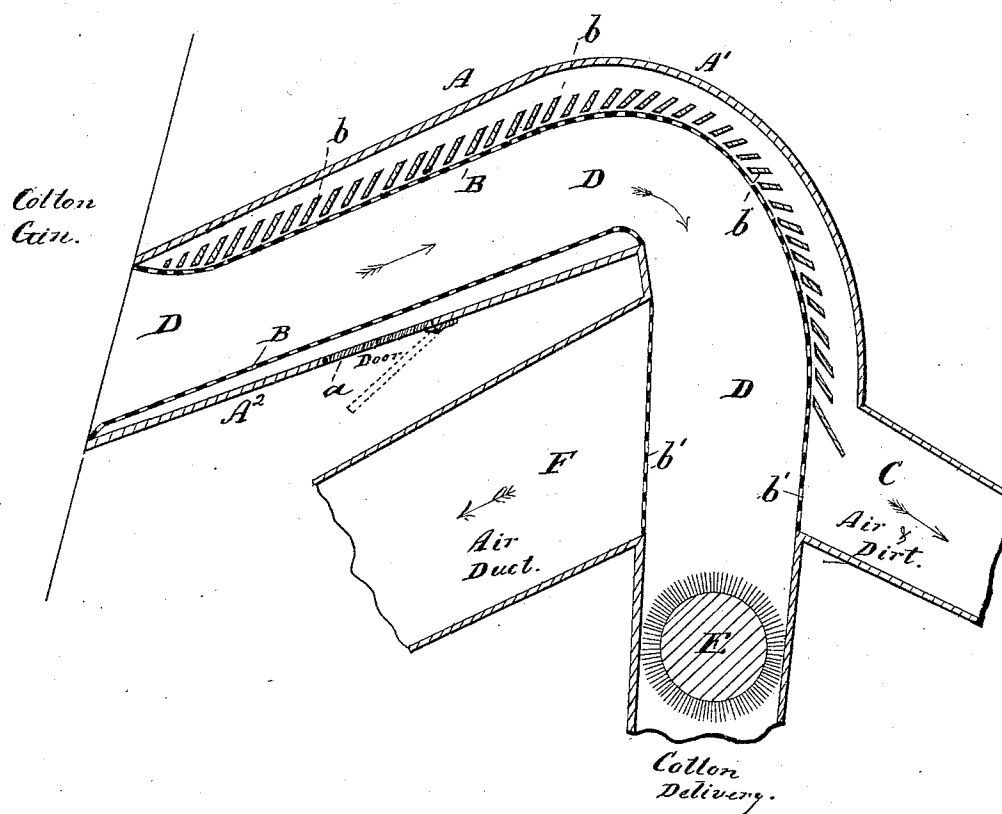
(No Model.)

F. BALTZELL.

COTTON CLEANER AND CONDENSER

No. 271,297.

Patented Jan. 30, 1883.



WITNESSES:

Wm. L. Dieterich
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UNITED STATES PATENT OFFICE.

FRANK BALTZELL, OF TROY, ALABAMA.

COTTON CLEANER AND CONDENSER.

SPECIFICATION forming part of Letters Patent No. 271,297, dated January 30, 1883.

Application filed June 29, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANK BALTZELL, of Troy, in the county of Pike and State of Alabama, have invented certain new and useful Improvements in Cotton Cleaners and Condensers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification, and in which I have shown the apparatus or machine in longitudinal vertical section.

My invention has relation to apparatus for cleaning and condensing cotton, which is adapted to be attached to cotton-gins and to receive the cotton direct therefrom; and my improvement consists in the detailed construction and arrangement of the parts of the same, as hereinafter more fully described and claimed.

To carry out my invention, I attach to the delivery end of a cotton-gin a flue or casing, of any suitable dimensions, consisting of a top part, A, and bottom part, A², the latter having hinged door *a*. As will be seen from the drawing, this flue passes in an upward direction to the arch or rounded part A' and then down to the condensing-cylinder E, a short distance above which it is intersected by branch flues or ducts C and F, which pass in opposite directions. Inside of the main flue or casing A, A', and A² is placed a smaller flue or casing, B, constructed of perforated zinc or wire-netting, thus forming a duct, D, into which the ginned cotton is whirled from the saws of the gin by the gin-brush, the rapid revolution of which generates a strong blast or air-current, which enters the duct with the cotton, as indicated by the arrows. Sand and other heavy impurities contained in the ginned cotton will drop through the inclined perforated bottom of the inside flue, B, upon the inclined floor A² underneath, from which it may be emptied through the door *a*. Dust, particles of the hull, and other light impurities contained in the lint are forced by the air-blast through the inclined and rounded top part into the casing

A A', within which is arranged a series of parallel slats, *b*, set at an incline to the perforated flue B, and extending transversely from one side of the outer casing to the other. In other words, the inclined slats *b* cross the casing within which the perforated flue B is placed at right angles, one slat being arranged between each row of perforations, and their object is to so deflect the air-current that it will follow the rounded or arched part A' down to the dirt-flue C, which communicates with the outside of the gin-house. The inside perforated flue is continued across the intersecting flues C and F, as shown at *b'* *b'*; but the slats *b* are here dispensed with. The surplus air, which does not escape with the dirt through flue C, finds an outlet through the supplementary air-duct F. The revolving cylinder E takes up the cotton as it falls upon it through the vertical part of the main duct D, against the sides of which it is condensed and dropped out beneath.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In an apparatus for cleaning and condensing ginned cotton, the combination, with the casing A, A', and A² and the condensing-cylinder E, of an interior casing, B, of perforated material, and branch flues C and F, intersecting the outside casing above the condensing-cylinder E, substantially as and for the purpose shown and set forth.

2. In an apparatus for cleaning and condensing ginned cotton, the combination, with the casing A, A', and A² and the condensing-cylinder E, of an interior casing, B, of perforated material, and slats *b*, arranged transversely within the outer casing, above the perforated casing, substantially as and for the purpose shown and set forth.

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

FRANK BALTZELL.

Witnesses:

OGLETHORPE WORTLEY,
WILLIAM J. MAY.