2 Sheets--Sheet 1.

J. WRIGHT.

Cotton-Cleaner.

No. 166,054. Patented July 27, 1875.

Fig. 1

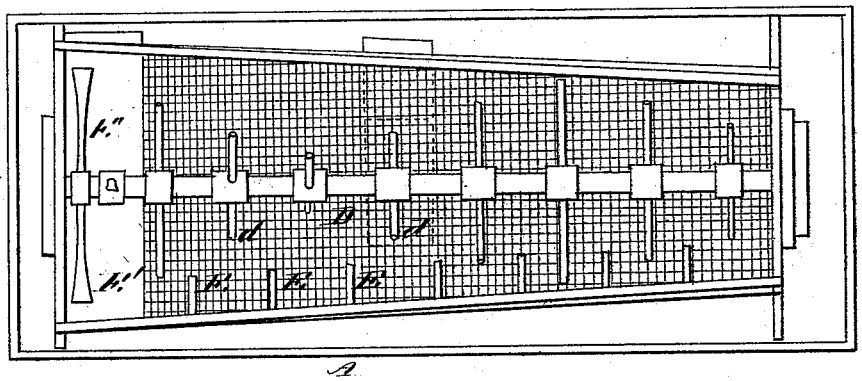
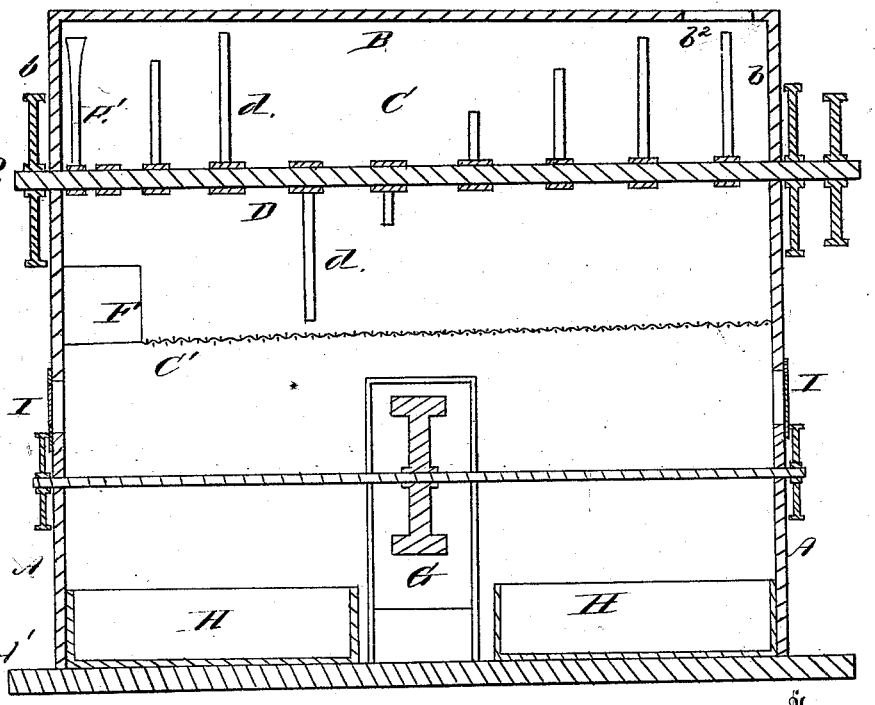


Fig. 2



Witnesses
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Inventor
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2 Sheets--Sheet 2.

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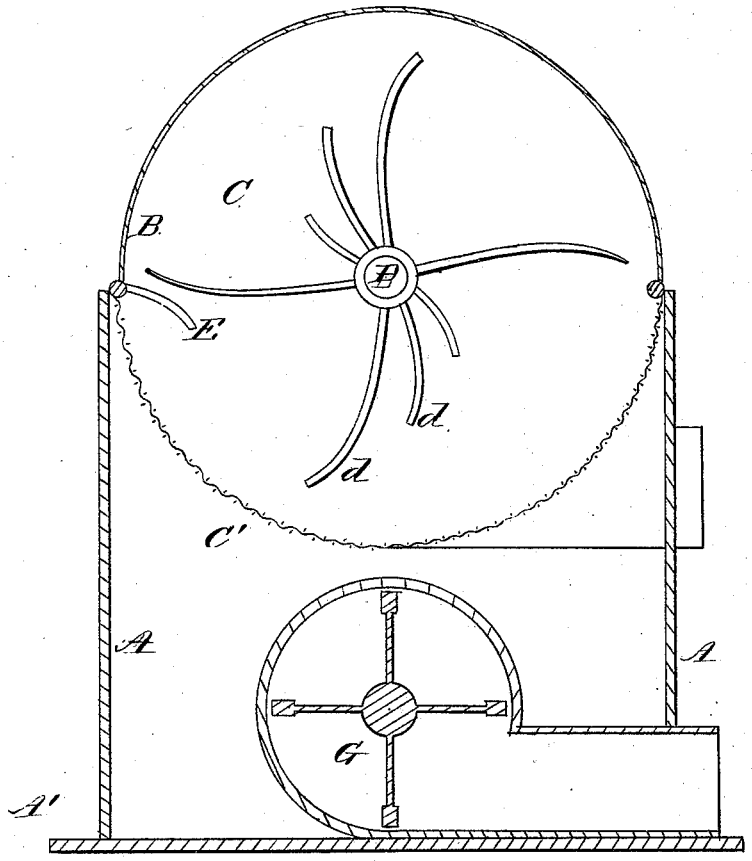

Fig. 3

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UNITED STATES PATENT OFFICE.

JAMES WRIGHT, OF MOUNTAIN MILLS, ALABAMA.

IMPROVEMENT IN COTTON-CLEANERS.

Specification forming part of Letters Patent No. **166,054**, dated July 27, 1875; application filed November 7, 1874.

To all whom it may concern:

Be it known that I, JAMES WRIGHT, of Mountain Mills, in the county of Colbert and State of Alabama, have invented a certain new and useful Combined Cotton-Willow, Cotton-Waste Cleaner, and Cotton-Seed Opener; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a plan view, Fig. 2 is a vertical longitudinal section, and Fig. 3 is a vertical transverse section, of my invention.

The object of my invention is to provide a cheap and compact machine, which will thoroughly and efficiently subserve the several purposes of a cotton-willow, cotton-waste cleaner, and cotton-seed opener.

The nature of my invention consists in the peculiar construction and combination of parts, as hereinafter more fully set forth.

In carrying my invention into effect, I provide a rectangular frame with a movable lid. Beneath this lid is a wire screen or mesh, and between the lid and screen is a revolving shaft with curved arms or beaters, which, as they revolve, pass between or break joints with pins or teeth arranged on the upper side of the frame, and designed to act as clearers for said revolving arms. The arms are of graduated length, increasing from the receiving to the delivery end of the machine, and the screen slopes in the same direction, thus forming a frusto-conical chamber, with a central revolving shaft, having correspondingly-tapered arms. Centrally located below the screen is a fan, by which the dust from the cotton is blown off through a suitable trunk, and on either side of this fan are drawers to receive large impurities falling through the screen. The cotton, fed in from a suitable table above the machine through a hopper opening in the top of the latter, is received into the cleaning-chamber and subjected to the action of the revolving beaters which carry it around, striking it against the clearing-pins and along the screen until it comes to the delivery end, whence it is ejected by paddles or fans through an exit opening or trunk. The dust and other impurities passing through the screen are, respectively, carried away by the fan and deposited in the drawers. The suction or blast of the fan is controlled by openings having doors or slides, which may be moved so as to admit more or less air.

Referring to the accompanying drawing, A is the upright frame of the machine, resting upon the floor or on a suitable base, A′. B is the cover of the machine, being in the shape of one-half of the frustum of a cone divided longitudinally, and provided with ends *b* b^1. Near the end *b* is an opening, b^2, by which the cotton is admitted to the cleaning-chamber C. The floor of this chamber is composed of a sloping wire screen, C′, narrower at the receiving than at the discharge end. D is a horizontal shaft, having bearings on the top of the frame of the machine, and designed to be so arranged that when the cover is taken off it can be removed without undoing any fastenings. This shaft is provided with a series of radial arms or beaters, *d d*, arranged spirally, and of graduated lengths, so as to conform to the conical shape of the cleaning-chamber in which they are situated. E E are short curved pins, arranged on one side of the machine, and breaking joints with the beater-arms, which they serve to clear of any cotton adhering to them. E′ E′ are delivery beaters or fans, which serve to eject the cotton, after it has been cleaned, through the delivery opening or trunk F. G is a fan placed centrally beneath the screen C′, and serving to carry off the dust falling through the latter, the larger impurities dropping into drawers H H, from which they are readily removed.

I have shown the cotton-delivery trunk and the dust-trunk as issuing from the same side of the machine; but I do not limit myself to this arrangement, but may place them on opposite sides of the machine. I I are gates or slides for regulating the quantity of air admitted to the fan, so as to increase or diminish the force of the blast.

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

The improved cotton willow or cleaner, consisting of the frame A, containing the following elements: The frusto-conical chamber C, having removable top B and wire-screen bottom C′, the beating-shaft, provided with curved radial and spirally-arranged beaters, breaking joints with pins E, the beaters E′ above opening F, the fan G located under the screen C′, and having the laterally-projecting spout and the drawers H H on opposite sides of the fan, all combined as described, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 19th day of October, 1874.

JAMES WRIGHT.

Witnesses:
F. E. WHITFIELD,
JNO. MCDERMOT.