Sheet 1. 2 Sheets.

Ryder, Carpenter & Jolley.

Cotton Picker.

No. 30,989. Patented Dec. 18, 1860.

Fig. 1.

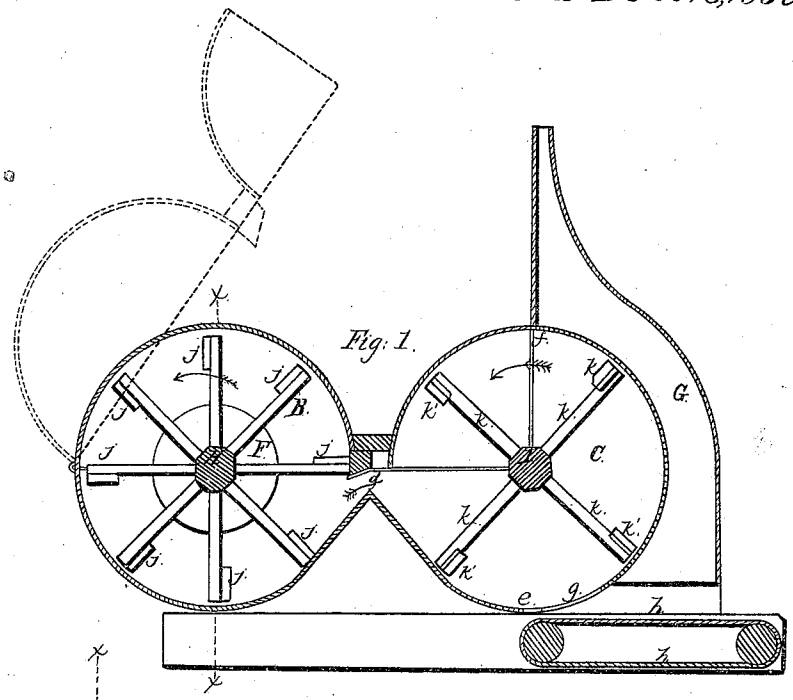
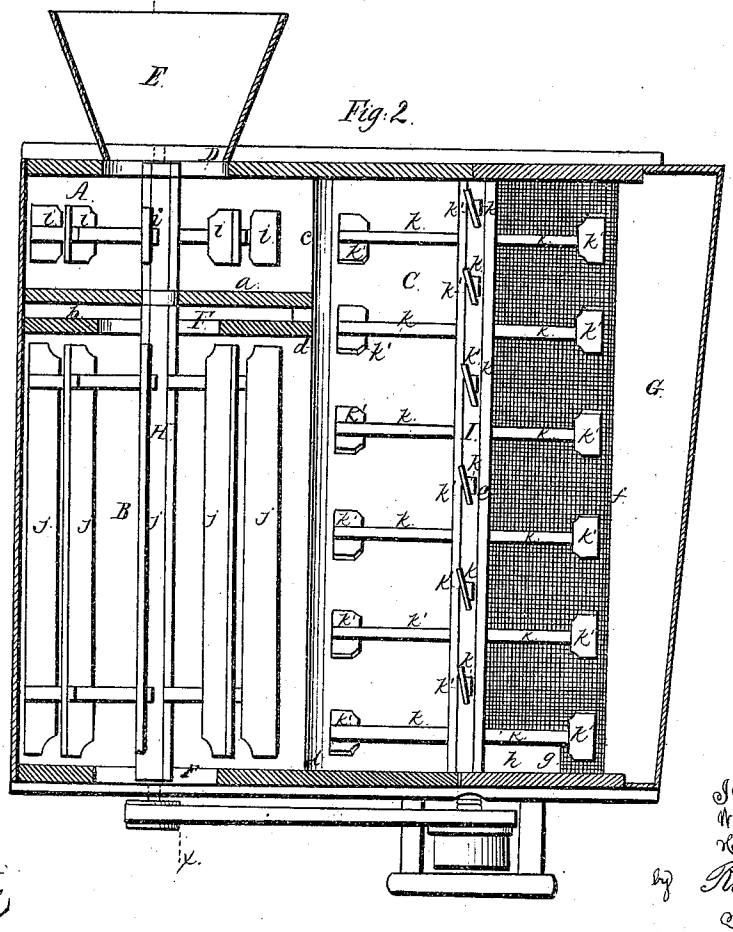


Fig. 2.



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Sheet 2. 2 Sheets

Ryder, Carpenter & Jolley
Cotton Picker.

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Fig. 4.

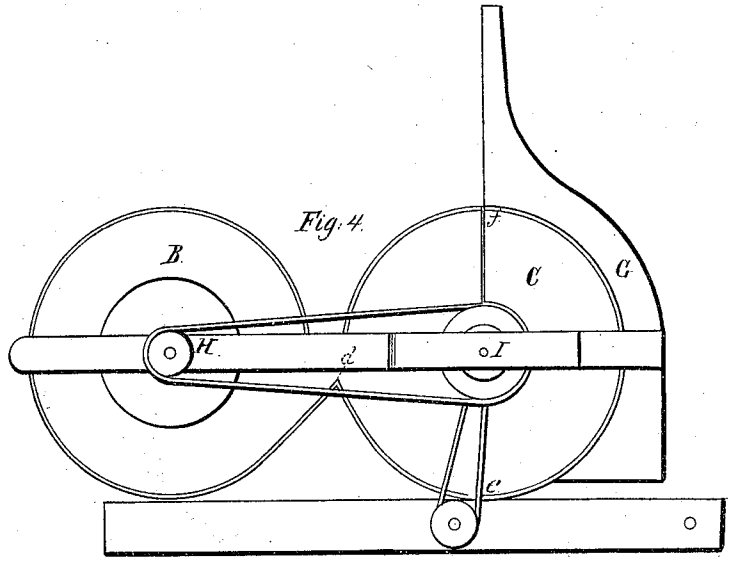


Fig. 3.

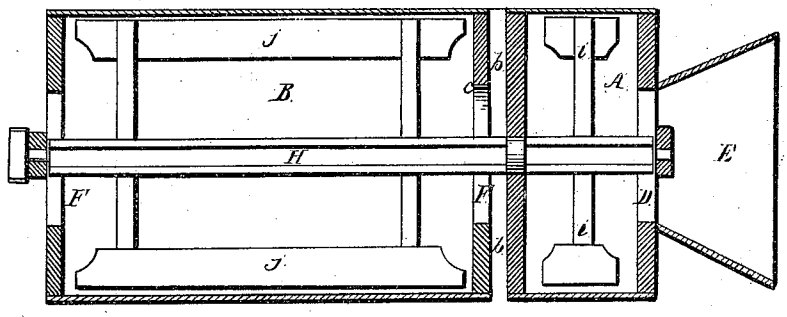
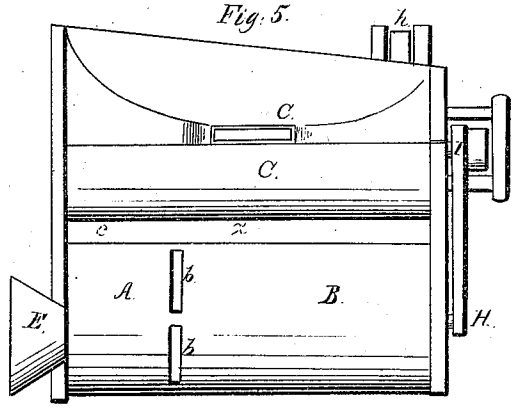


Fig. 5.



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UNITED STATES PATENT OFFICE.

J. RYDER, W. CARPENTER, AND H. R. JOLLEY, OF CLINTON, LOUISIANA.

COTTON-CLEANER.

Specification of Letters Patent No. 30,989, dated December 18, 1860.

To all whom it may concern:

Be it known that we, JOSEPH RYDER, WILLIAM CARPENTER, and HENRY R. JOLLEY, all of Clinton, in the parish of East Feliciana and State of Louisiana, have invented a new and useful Improvement in Cotton-Dusters; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1, is a vertical transverse section of our invention. Fig. 2, is a horizontal section. Fig. 3, is a vertical longitudinal section in the line *x x*, of Figs. 1 and 2. Fig. 4, is an end, and Fig. 5, a plan view of our machine.

Similar letters of reference, in each of the several figures indicate corresponding parts.

The nature of our invention consists in the combination of three cylindrical chambers with passages as hereinafter described, revolving feed knocker, revolving fan blower, revolving beater and a dust flue, all constructed and arranged substantially in the manner and for the purposes herein described.

To enable others, skilled in the art, to make and use our invention, we will proceed to describe its construction and operation.

A, B, C, represent the three cylindrical chambers arranged in the same frame. The chamber A, runs longitudinally with the chamber B, while the chamber C, is situated laterally to the chambers A, B, and adjoins the same, as represented in the drawings. The upper half of the chambers A, B, and one quarter of the chamber C, are made separate from the remaining portions, and are connected to chambers A, B, by hinges, so as to be capable of turning over to the position represented in red in the drawing, when it is desirable to manipulate within the chambers.

The chamber A, is separated from the chamber B, by means of a ring partition *a*, and also by an air supply space *b*, between the heads of the two chambers, but is allowed to communicate, near one end, with the chamber C, by means of a lateral passage *c*.

At the end of the cylindrical chamber A, a circular feed passage D, is formed. This passage is surrounded externally by means of a funnel shaped conducting spout E.

At each end of the chamber B, a circular air supply passage F, is formed, and near the point where the chamber B, adjoins C, a long horizontal air passage *d*, leading from chamber B, into chamber C, exists.

The chamber C, along its whole length, and around one half of its circumference or between the points *e*, *f*, is made of open or wire work, and around this open or wire work portion a sheet metal dust flue G, is placed in the manner represented in the drawings. This flue, in its horizontal section presents a taper form from its first to its last end, and thus is of a capacity at different parts of its length, sufficient to receive the different quantities of dust thrown into it during the progress of the cotton through the chamber C.

At the last end of the chamber C, a discharge passage *g*, is formed, and under this passage an endless apron *h*, is placed.

The several chambers thus constructed, have longitudinal shafts H, I, run centrally through them; said shafts being fitted and arranged to revolve in bearings and circular openings formed in the heads of the chamber, and on the framing, in any of the known ways. That portion of the shaft H, inclosed by the chamber A, is furnished with feeding knockers *i*, *i*, and that portion inclosed by the chamber B, is furnished with long fan blades *j*, *j*. On the shaft I, from end to end, a series of radial beaters *k*, *k'*, are arranged. The outer portion *k'*, of each of these beaters is set diagonally to the shaft I, in order that the object they strike shall be forced toward the last end of the chamber C.

The operation is as follows: The funnel conducting spout being placed at the discharge end of a saw or other cotton gin, and motion imparted to the shafts H, and I, and the endless apron *h*, the cotton passes from the gin into the chamber A, and is discharged therefrom through the passage *c*, into the chamber C, by means of the feed knockers *i*, *i*. As soon as the cotton enters chamber C, it is rapidly pitched up and down by the radial beaters, and also carried along toward the last end of the chamber C, where it escapes through the passage *g*, and falls upon the discharge apron *h*, but before its escape and while it is thus being operated upon, a strong blast of air—nearly the whole length of the chamber C, is blown through it by means of the feed knockers *i*, and the blast

fan *j*, *j*; and thus the dust and trash mixed with it are separated from it and caused to pass off through the wire or open-work portion of the chamber C, into the flue, and thence out into the open air, or down upon that portion of the floor inclosed by the dust flue. Whenever a quantity of heavy trash has accumulated upon the floor, a door in the back of the flue is opened and the same removed.

Our combined arrangement for introducing the cotton to the beaters and blowing a long blast of air through it while it is opened up, and for discharging the dust and trash into the flue, constitutes a novelty in this class of machinery, and at the same time insures a more perfect operation than can be effected with other arrangements heretofore employed.

What we claim as our invention and desire to secure by Letters Patent, is—

The combination of the chambers A, B, C, *d*, *e*, *f*, *g*, revolving shaft H with feed knockers *i*, *i*, and fan blades *j*, *j*; and the dust flue G, the whole constructed and arranged and operating substantially in the manner and for the purposes described.

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