S. C. Ames.

Cotton Picker.

No. 29,945. Patented Sept. 11, 1860.

Fig. 2.

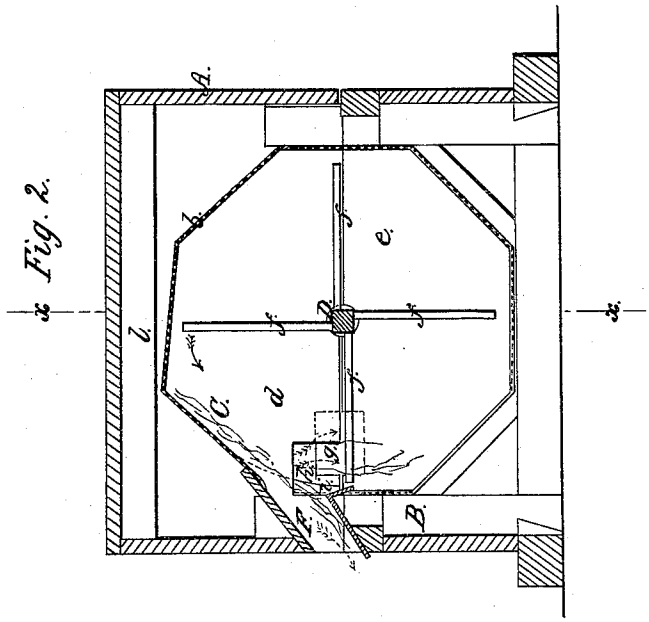
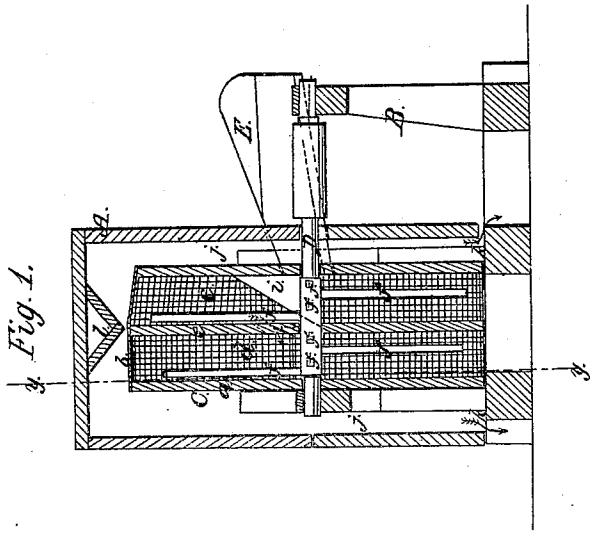


Fig. 1.



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UNITED STATES PATENT OFFICE.

S. C. AMES, OF WASHINGTON, ARKANSAS.

COTTON-CLEANER.

Specification of Letters Patent No. 29,945, dated September 11, 1860.

To all whom it may concern:

Be it known that I, S. C. AMES, of Washington, in the county of Hempstead and State of Arkansas, have invented a new and Improved Device for Cleaning Cotton; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a transverse vertical section of my invention taken in the plane *x*, *x*, Fig. 2. Fig. 2 a longitudinal vertical section of the same taken in the line *y*, *y*, Fig. 1.

Similar letters of reference indicate corresponding parts in both figures.

This invention has for its object the removal of dirt and trash from cotton preparatory to or after the ginning of the same so that the staple may be baled or prepared for market in a clean state and its value very materially enhanced thereby.

The invention consists in the employment or use of a stationary screen of polygonal, cylindrical or other form, said screen being divided into compartments of vertical partitions and each compartment provided with rotary beaters, the screen being placed within a suitable case and all the parts being so arranged that the cotton will, by the rotation of the beaters, be forced around and through the several compartments of the screen and perfectly cleaned.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents a case or box which may be of rectangular form and placed in a suitable frame B. Within the case or box A, there is placed a stationary screen C. This screen may be constructed of a box *a*, of polygonal form its sides being of wood or sheet metal and its end or periphery of wire cloth *b*. The case or box A, is divided into two compartments *c*, *d*, by a partition *e*, which is parallel with its sides see Fig. 1.

On the frame B, there is placed transversely a shaft D. This shaft extends through the screen C, and has radial arms or beaters *f*, attached to it said arms or beaters extending nearly to the periphery of the screen C. There is a set of beaters *f*, in each compartment *c*, *d*, of the screen, four beaters being in each compartment.

E, is an inclined feed box which is placed on the frame B, and projects through the case A, the inner end of said box communicating with the compartment *c*, of the screen C, near its periphery as shown at *g*, in Fig. 2. The two compartments *c*, *d*, communicate with each other as shown at *h*, and within the compartment *c*, and just in front of the opening *g*, there is placed an inclined block *i*, the side of the block toward the opening *h*, in the partition *e*, gradually approaching said opening, the lower end of the block extending nearly or quite to opening *h*, see Fig. 1, in which the block *i* is fully shown and the opening *h*, indicated by dotted lines.

At the front part of the compartment *d*, of the screen there is a discharge spout F, shown clearly in Fig. 2.

The case or box A, is sufficiently wide to admit of a space or chamber *j*, at each side of the screen as shown in Fig. 1. The lower ends of these spaces or chambers are open as shown at *k*, in Fig. 1.

To the under side of the upper part of the case or box A, there is a ledge or projection *l*, which extends the whole length of the case and directly over the center of the screen C. This ledge or projection is transversely of V form as shown in Fig. 1, and its lower edge is directly over the partition *e*.

The operation is as follows: The cotton is fed down the feed box E, into the compartment *c*, of the screen C, and the shaft D, is rotated by any convenient power. The cotton as it passes into the compartment *c*, is forced or carried around within said apartment by the beaters *f*, the cotton being forced once around within said compartment and then coming in contact with the block *i*, is deflected by said block through the opening *h*, into compartment *d*, and is carried once around said compartment and is discharged through spout F, which is about in line with opening *h*. The beaters *f*, rotate in the direction indicated by the arrow in Fig. 2. The heavy dust, dirt, sand etc. which are loosened or shaken out of the cotton by the action of the beaters *f*, pass through the wire cloth *b*, and that which passes through the bottom of the screen falls directly down out of the case A, which has no bottom, while that which passes out through the upper part of the screen comes in contact with the ledge *l*, and is deflected by it to either side of the case and into the

spaces or chambers *j*, *j*, and passes out through the openings *k*. The rotation of the beaters *f*, generates a blast which drives all light loose dirt through the wire cloth *b*, and the ledge *l*, divides the blast as well as the dust which is consequently driven down the spaces *j*, *j*.

The passing of the cotton consecutively through two compartments *c*, *d*, causes it to be acted upon very efficiently. More than two compartments may be employed if necessary as the screen C, may be of any desired length. It will be seen that the dividing of the screen into compartments and forcing the cotton around them consecutively causes the cotton to be passed over a considerable area of wire cloth within a limited space.

I do not claim broadly the employment or use of a stationary screen and rotating beaters for such device has been used for purposes similar or analogous to that herein described; but

I do claim as new and desire to secure by Letters Patent—

1. The employment or use of a screen C, divided into two or more compartments communicating with each other and provided with beaters *f*, and one or more of them provided with oblique deflecting blocks *i*, the latter being arranged relatively with the opening or openings *h*, to give the cotton a lateral movement from one compartment to the other substantially as and for the purpose set forth.

2. In connection with the screen C, the case or box A, provided with the ledge or projection *l*, at its upper part the case being so arranged over the screen as to allow spaces *j*, *j*, at each side of it for the purpose set forth.

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