J. GREAVES.

COTTON-CLEANERS.

No. 190,314. Patented May 1, 1877.

Fig. 1.

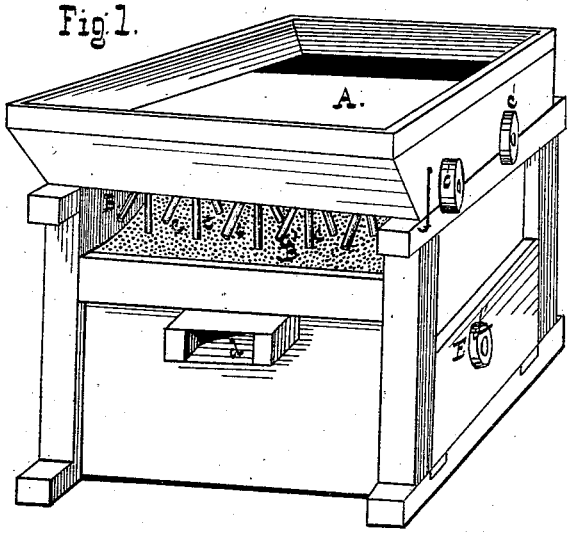
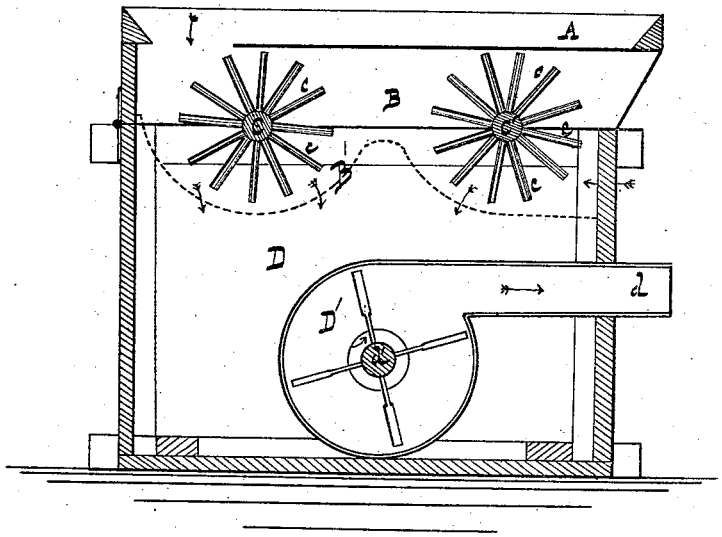


Fig. 2.



ATTEST

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JAMES GREAVES, OF WACO, TEXAS.

IMPROVEMENT IN COTTON-CLEANERS.

Specification forming part of Letters Patent No. **190,314**, dated May 1, 1877; application filed April 17, 1877.

To all whom it may concern:

Be it known that I, JAMES GREAVES, of Waco, county of McLennan, State of Texas, have invented certain new and useful Improvements in Cotton-Cleaners; and I hereby declare the same to be fully described as follows, reference being had to the accompanying drawings.

This invention relates to devices for cleansing cotton from grit, sand, dust, and other impurities; and it consists in certain details of construction and combinations of parts, as hereinafter fully set forth and claimed.

The market value of cotton depends, in a great measure, upon its comparative freedom from foreign matter, such as dust, sand, and "trash," and it is, therefore, a desideratum to remove these materials as completely as possible. The device hereinafter described is designed to effect this end.

In the accompanying drawings, Figure 1 represents a perspective view, and Fig. 2 a longitudinal vertical sectional view, of my device.

A represents a hopper, into which the cotton is delivered, and from which it falls into the chamber B. The bottom of this chamber is composed of wire-gauze or perforated sheet metal, B′, curved twice in the arc of a circle, as shown. Above the curved portions of the sieve are situated shafts C C′, having arms or pickers *c c c*, and which are caused to revolve by means of belts upon the pulleys *c′ c′*. The chamber D below the sieve contains a fan-blower, D′, having a suitable orifice, *d*, and shaft *d′*, to which latter motion is communicated from a belt upon the pulley E.

The operation of the device is as follows: The cotton, being delivered into the hopper, falls into the chamber below, in which it is torn and whipped by the pickers. The downward current of air carries with it the dust and sand through the sieve, and thence through the fan-chamber, the cotton being carried forward by means of the pickers, and out through the opening of the picker-chamber.

Of course the number of picker-shafts may be multiplied; but two or three will be found sufficient to thoroughly open the cotton, and admit of its impurities being carried away by the blast of air. The pickers are firmly secured to their shafts, and are preferably constructed of iron.

Heretofore cotton has been delivered to the gin while still containing many impurities, such as sand, sticks, leaves, pieces of boll, &c., which are comminuted in the process of ginning, and thoroughly mixed with the cotton, rendering their elimination almost if not quite impossible.

By the use of my device the cotton is cleaned prior to ginning, resulting in the production of a better article of cotton, facilitating and rendering more uniform the running of the gin, and lessening the wear and tear upon its parts.

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

1. In a machine for cleaning cotton, the combination of a series of pickers, to agitate and whip the lint, a screen over which the lint is carried, and a fan-blower, to induce a current of air through the screen, arranged substantially as described.

2. The pickers *c c*, in combination with the curved screen B′ and fan D′, all arranged as set forth.

3. The combination of the hopper A, pickers *c c*, screen B′, and fan D′, all arranged substantially as described.

Witness my hand this 11th day of April, 1877.

JAMES GREAVES.

Witnesses:
J. T. DONOVAN,
J. T. WALTON.