

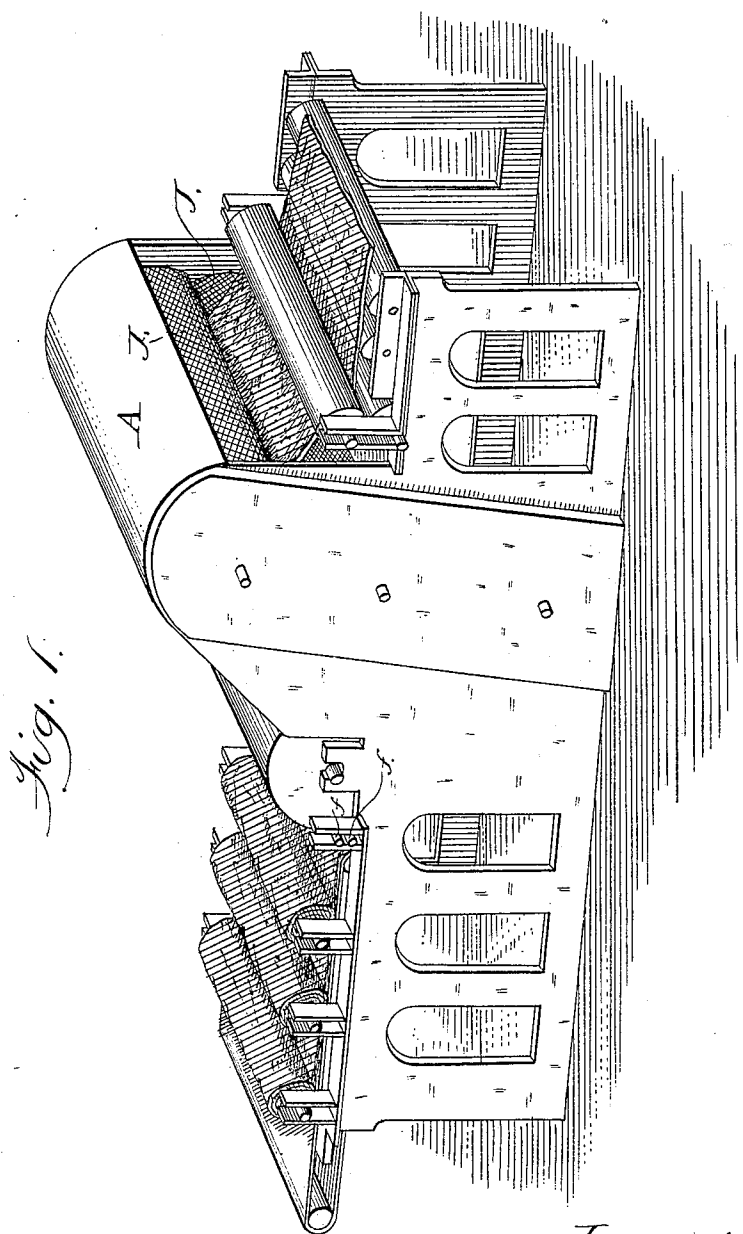
(No Model.)

2 Sheets—Sheet 1.

W. P. FAULKNER.
COTTON OPENER OR LAPPER.

No. 258,397.

Patented May 23, 1882.



Witnesses;

*Charles Fowler,
H. B. Applewhite,*

Inventor;

*Wm P. Faulkner
Per atty
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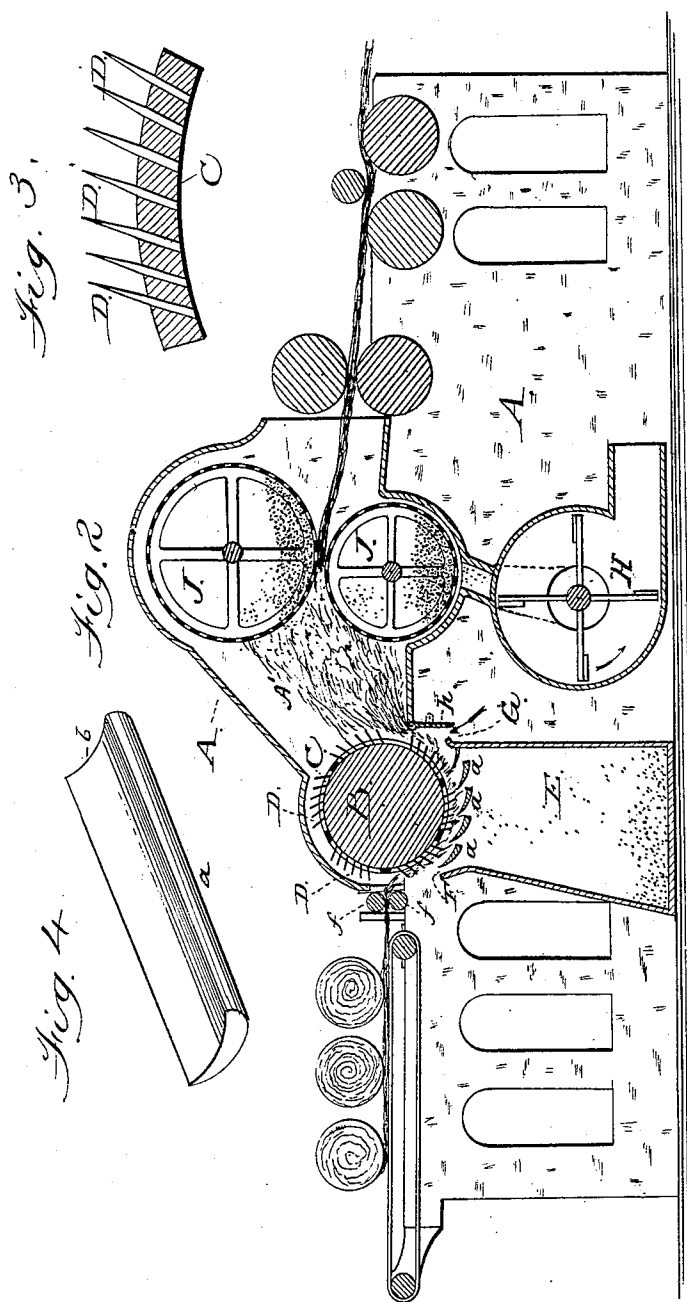
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2 Sheets—Sheet 2

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COTTON OPENER OR LAPPER.

No. 258,397.

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Shatter Fowler,
H. B. Applewhite,

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UNITED STATES PATENT OFFICE.

WILLIAM P. FAULKNER, OF McMINNVILLE, TENNESSEE.

COTTON OPENER OR LAPPER.

SPECIFICATION forming part of Letters Patent No. 258,397, dated May 23, 1882.

Application filed February 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. FAULKNER, of McMinnville, in county of Warren and State of Tennessee, have invented certain new and useful Improvements in Cotton Openers or Lappers, of which the following is a clear, full, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

10 Figure 1 is perspective view of a lap-machine with my improvements attached. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 shows the construction of the wood card-clothing. Fig. 4 shows the form of my
15 grate-bars.

My invention relates to cotton openers or lappers for preparing cotton for carding-engines, and more particularly to that class of openers and lappers employing fans for suction
20 or air-blasts to carry the cotton to the dust-cages or screen-cylinders; and it consists in the combination of devices hereinafter described and claimed.

To enable others skilled in the art to make
25 and use my invention, I will proceed to describe the exact manner in which I have carried it out.

In the drawings, A represents the usual inclosing case of a cotton opener or lapper, and
30 B represents a cylinder, usually from twelve to eighteen inches in diameter and from thirty to forty inches long, made of cast-iron or other suitable material, which I envelop in wood card-clothing C set with the needle-pointed
35 steel wires D, with about twenty to thirty-six points to the square inch, instead of employing the ordinary flails or beaters now in use. This wooden card-clothing C is fastened on the cylinder securely by means of screws or other
40 well-known means. The teeth D of the cards are set in the wood in the line of rotation.

E represents a tight chamber or box underneath the cylinder B and extending from the base of the machine or floor up to the grate-bars or knives *a*. The purpose of this tight
45 box or chamber E is to catch all light impurities or foreign substances—such as the particles of cotton-leaf, dirt, and sand—falling of their

own gravity into the chamber and to prevent their being interfered with and taken back 50 into the cotton after having been once separated from it by centrifugal force while the cotton is being operated upon.

F is an open space between the feed-rollers *ff* and the grate-bars *a a*, through which it has 55 been the custom to let the air-current flow to supply the suction-fan H, thereby producing a current of air exactly where there should be none, for such a current entering at the point F would not allow the disengaged motes, im- 60 purities, and foreign substances before referred to to fall of their own weight into the chamber E. To overcome this difficulty I form an adjustable opening, G, in rear of the cylinder B, and to the rear of the grate-bars, through 65 which air is supplied to the suction-fan, so as to strip or disengage the cotton from the teeth of the cards on cylinder B and carry it to the dust-cages or screen-cylinders J J. This opening serves a twofold purpose in my invention: 70 First, it supplies the suction-fan with the necessary amount of air-current to bring the open cotton from the cylinder B to the dust-cages to form a sheet or lap; and, secondly, it prevents any air-current between the feed-rollers 75 and the grate-bars *a a*, so that all light impurities, as before mentioned, are forced to fall by their own gravity into the chamber E when they are disengaged from the cotton. The opening G into trunk A' is provided with a 80 hinged plate or wing, *h*, for the purpose of regulating or adjusting the amount of air-passage.

Having thus described my invention, what I claim as new, and desire to secure by Letters 85 Patent, is—

The frame A, cylinder B, having needle-pointed wires D, and concave knife-edged grate-bars *a a*, in combination with the trunk A', provided with the opening G, the hinged plate 90 *h*, chamber E, and fan H, all constructed to operate substantially as set forth.

WILLIAM PRESTON FAULKNER.

Witnesses:

GEO. F. PENNEBAKER,
ROBT. A. THATCH.