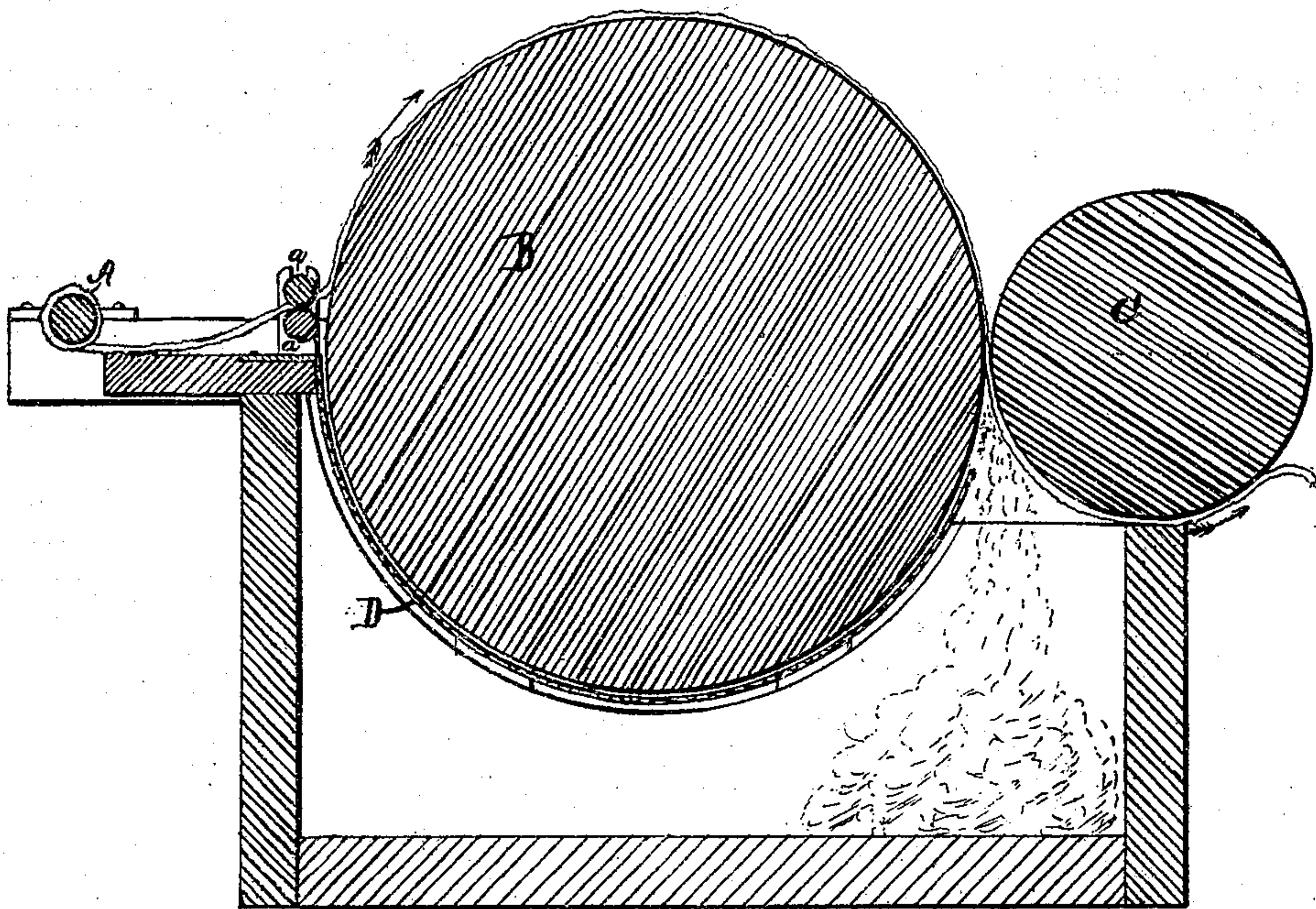


DAVID PHETEPLACE.

Improvement in Carding-Machines.

No. 127,985.

Patented June 18, 1872.



Witnesses.  
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# UNITED STATES PATENT OFFICE.

DAVID PHETEPLACE, OF LEWISTON, MAINE.

## IMPROVEMENT IN CARDING-MACHINES.

Specification forming part of Letters Patent No. 127,985, dated June 18, 1872.

### SPECIFICATION.

*To all whom it may concern:*

Be it known that I, DAVID PHETEPLACE, of Lewiston, in the county of Androscoggin and State of Maine, have invented a new and useful Improvement in Carding - Machine; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and to the letters of reference marked thereon.

This invention has for its object the saving of that portion of the cotton which is usually thrown off from the face of the main carding-cylinder by the velocity of its movement; and it consists in the employment of a tight casing under and about the sides of the cylinder, so arranged, however, as to leave a space near the doffer-cylinder for the passage of dirt, &c., by means of which a current of air is created strong enough to carry the loose cotton with it, but not strong enough to carry the dirt and heavy articles, which, falling through the open space, accumulate upon the floor beneath, as will be described herein-after.

In the drawing is shown a sectional elevation of my improved machine.

To enable others skilled in the art to make and use my invention, I will now proceed to describe fully its construction and manner of operation.

A represents the lap of cotton, *a a* the feed-roll, B the carding-cylinder, and C the doffer-cylinder. The course in which the cotton moves is indicated by the arrows. D represents the casing, which constitutes the main portion of my invention. It is made of any suitable material—zinc, however, being preferred. At one end it makes a close connection with the feed-rolls, and, thence extending under the cylinder close to it across its entire width, it terminates at the other end at a point a little back of a line dropped perpendicularly from the point of contact of the main cylinder and doffer. The precise point of termination which will produce the best effect may depend somewhat upon the velocity of the cylinder and other circumstances. The cylinder itself is to be tightly inclosed in any proper manner.

The operation is as follows: The machine being first put into operation in the usual man-

ner, all foreign substances heavier than the cotton will be thrown off at the usual point where the fleece is detached from the main cylinder by the doffer. The cotton, however, which is detached from the main cylinder by the rapidity of its movement, and which usually falls with the dirt and becomes waste, is caught by the current of air created by the movement of the cylinder within the casing, and is carried about with it to the feed-rolls, and again united with the mass passing over the main cylinder.

The advantage of this machine is that much cotton which usually goes into the waste, and must, therefore, be worked over, is caught and delivered to the doffer perfectly clean; and, moreover, by means of the current of air, the casing is kept clear, so that no time is lost in stopping to clear the machine.

I am aware that perforated casings have been employed, but these I consider utterly fail to accomplish the result obtained by my improved machine.

I am also aware that tight casings have been employed under the main cylinder in the English Patent No. 999, of 1854, and the United States Patent of Bennett, April 18, 1865; but in the former case no space is left for the discharge of the dirt, the heavier part of which is taken out through a trap-door, and in the latter case the sides of the cylinder are not incased. The current of air is impaired by the guard-roller, so that the loose cotton is not carried into the casing; and, furthermore, no open space is left for the discharge of the dirt.

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

A carding-machine provided with a tight casing about its sides and under its main cylinder, the latter casing being arranged, as described, so as to leave an open space for the discharge of the dirt, &c., while the detached fibers are returned toward the feed-rolls, as described.

This specification signed and witnessed this 7th day of February, 1872.

DAVID PHETEPLACE.

Witnesses:

H. T. SPENCE,  
BENJ. A. BAILEY.