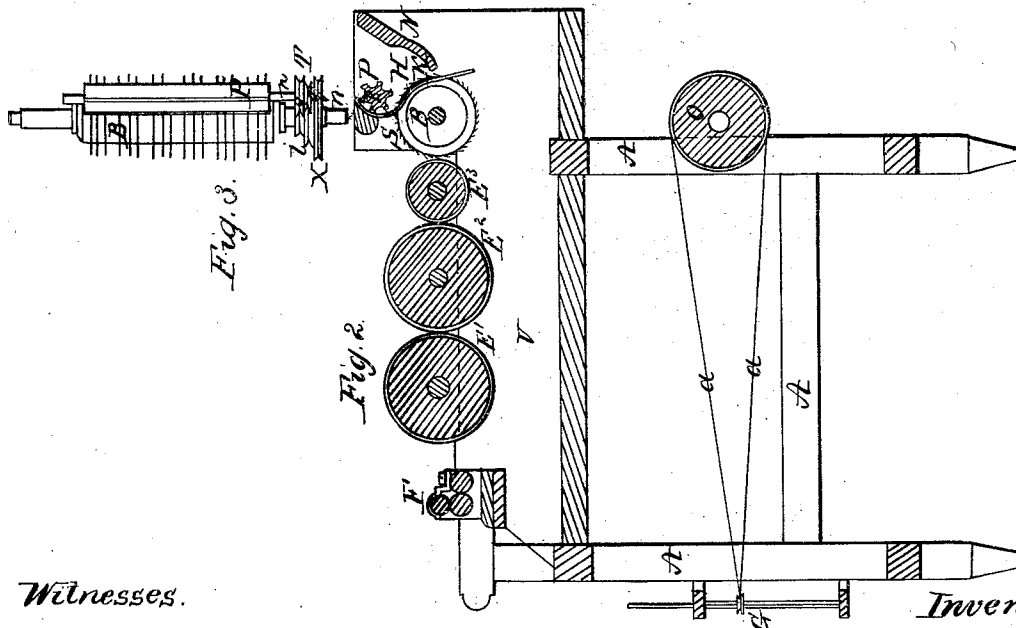
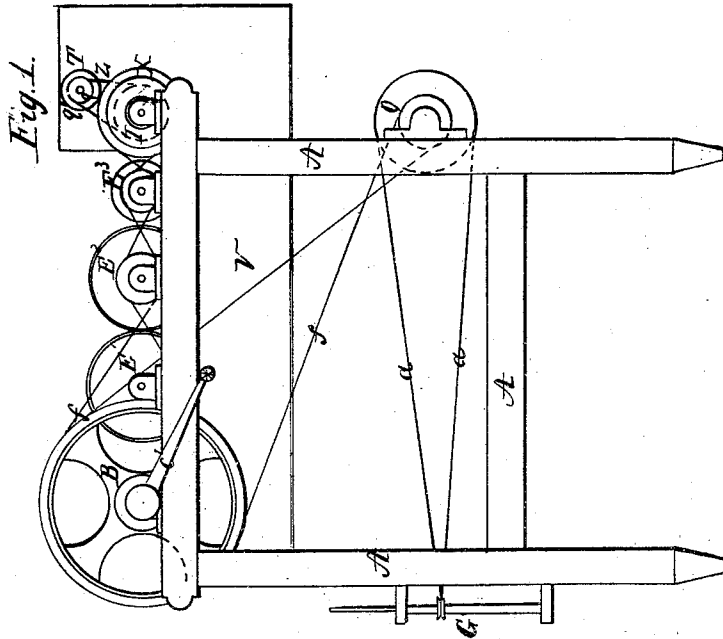


# J. E. Burdge, Carding Machine.

No. 76,299.

Patented Apr. 7, 1868.



Witnesses.

*H. L. Stevenson  
Richard Nelson*

Inventor

*J. E. Burdge*

# United States Patent Office.

J. E. BURDGE, OF CINCINNATI, OHIO.

*Assign to A. C. Brown*  
Letters Patent No. 76,299, dated April 7, 1868.

## IMPROVEMENT IN SPINNING-MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, J. E. BURDGE, of the city of Cincinnati, Hamilton county, and State of Ohio, have invented a new and useful Improvement in a Cotton-Ginning and Spinning-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation,

Figure 2 is a longitudinal sectional elevation, and

Figure 3 is a detached plan of picker-cylinder B, fluted roller P, and cone-pulley T I.

The nature of my invention consists in placing a fluted roller, P, in the inner and upper curve, *d*, of the gin-ribs *c*, so that the lower periphery of the roller will come about even with the upper terminus of the slots *s*, through which the gin-saws on cylinder B work, and then rotating this roller in the same direction as the gin-cylinder B, which prevents the cotton from clogging or choking in the upper terminus of the aforesaid slots *s*, and causes it to be kept constantly and regularly rolling on the breast of the gin-cylinder B, and in this way supplying the picker-teeth and the cards  $E^3 E^2 E^1$  evenly with cotton, that is finally received and spun upon the spindles into a smooth and even yarn.

I place a cone-pulley, T, on one end of the fluted roller P, so that the speed of said roller can be increased or diminished thereby, as the case requires, to spin a fine or coarse thread. To spin a fine thread, the speed of the roller should be increased, and decreased when a coarse thread is required.

In the old way, without the roller, the cotton would clog in the upper terminus of the slots *s*, consequently would not be fed regularly to the cards  $E^1 E^2 E^3$ , and the thread would, therefore, become very uneven; and break down, causing much trouble and delay, besides making poor work. My improvement entirely obviates this difficulty, besides requiring only one-half the attention.

A A A represent a wooden frame, to which all the machinery is attached. V, the mote-box, and G the spindles, which are driven by band *a a* from the drum O.  $E^1 E^2 E^3$  are cards, for carding the cotton. The crank *c'* is secured to one end of the drawing-roller F, on which the main driving-pulley B' is attached. The gin-cylinder B is driven by band from pulleys X and B'. The cone-pulley T (which is fastened on the fluted roller-shaft *u*, and driven from the pulley *i* on gin-cylinder shaft *n*) is provided with two sheaves, *q q*, so that the speed of the fluted roller P may be altered to run faster or slower, as the case requires, to spin a fine or coarse thread. When a fine thread is desired, the band Z is caused to work on the small sheave *q*, and on the large sheave *q'* when a coarse thread is required.

The cotton is fed into the hopper H, and is carried up by the gin-teeth K until it meets the fluted roller P, which, being rotated in the proper direction, wipes it off from the ribs *c*, and rolls it back against the breast-board N, which, being slightly concave, causes it to slide down again on the gin-teeth K, and by which it is instantly taken up, as before. The fibres that are carried through the gin-ribs *c* are taken up by the small card  $E^3$ , and carried to the next card,  $E^2$ , which, in return, takes and lays them on the card  $E^1$ , and from thence they are taken off, in the usual and well-known way, by a comb or doffer, and passed, through the drawing-rollers F, to the spindles G, and twisted into yarn.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination and arrangement of the fluted roller P, cylinder B, and carding-cylinders  $E^2 E^3 E^1$ , as and for the purpose set forth.

In combination with the above, I claim the spindles G, as and for the purpose set forth.

J. E. BURDGE.

Witnesses:

C. L. FISHER,  
JOHN H. BOGART.