

2 Plates

Plate 1.

Edwin Corles' Card-Board Cutter.

No. 119,827.

Patented Oct. 10, 1871.

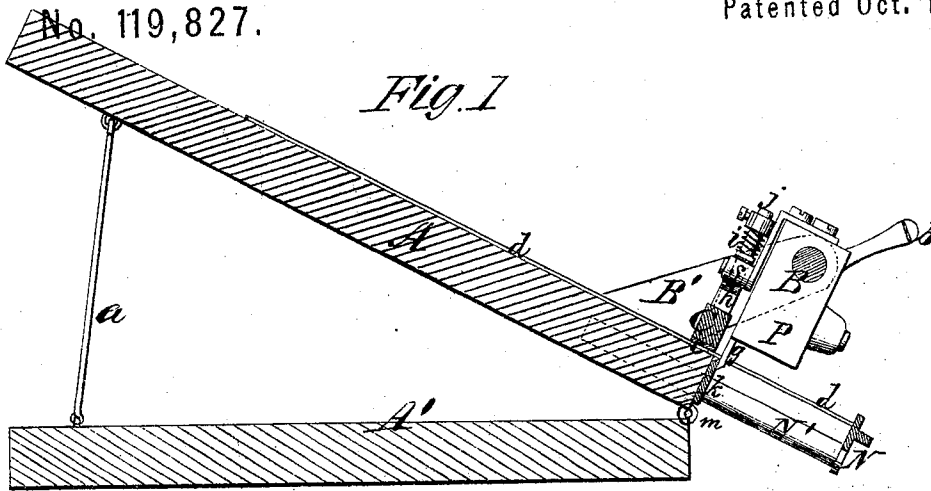


Fig. 1

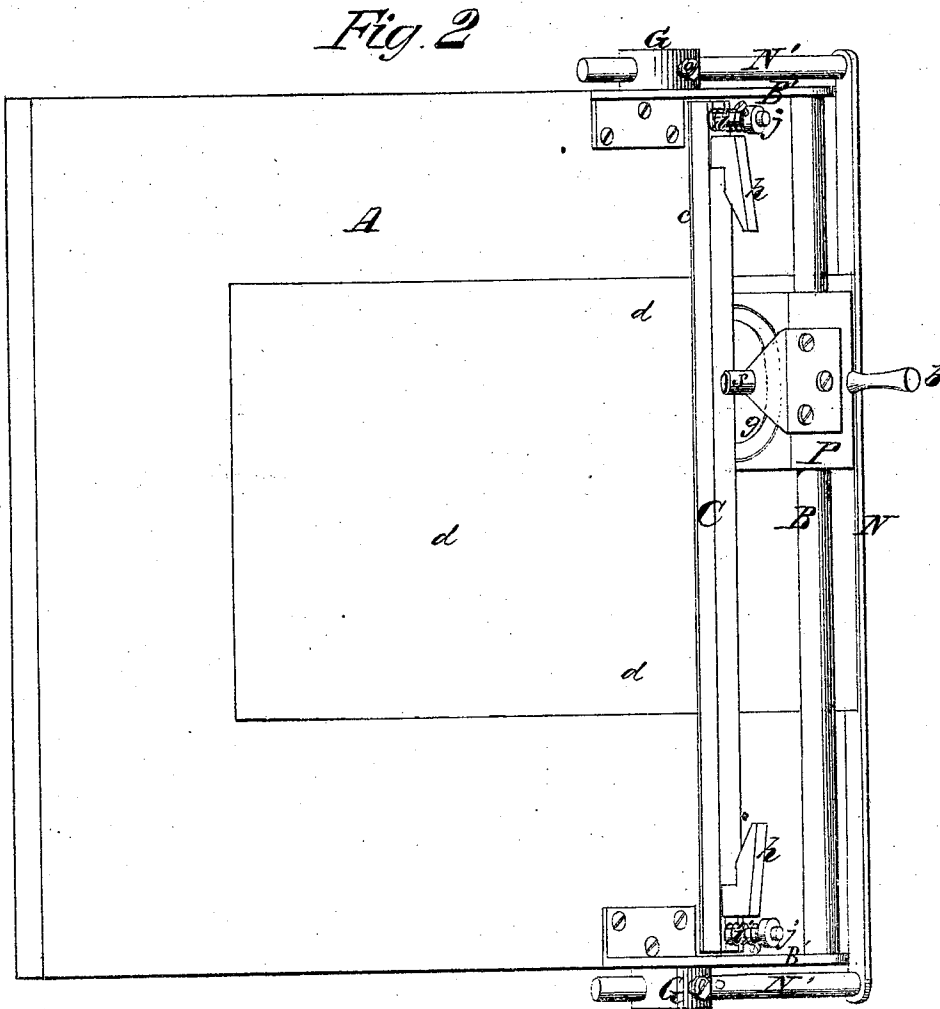


Fig. 2

Witnesses
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J. W. Campbell.

Inventor.

E. Corles.

by

Mar. F. Smith & Lawrence

2 Plates.

Plate. 2

Edwin Corlies' Card-Board Cutter.

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Fig 3

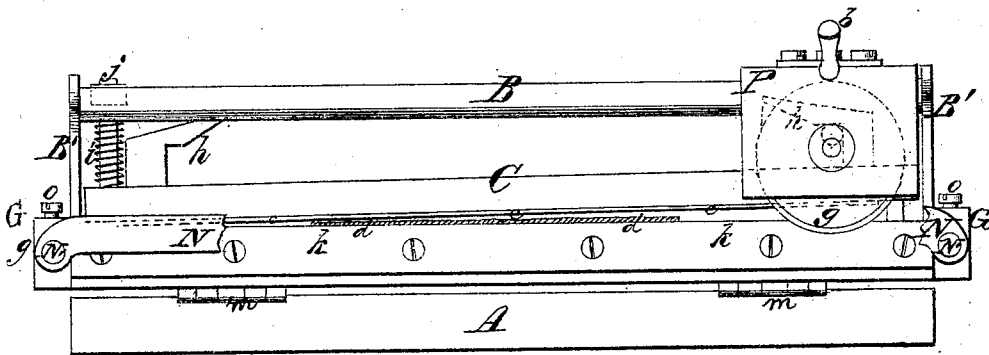
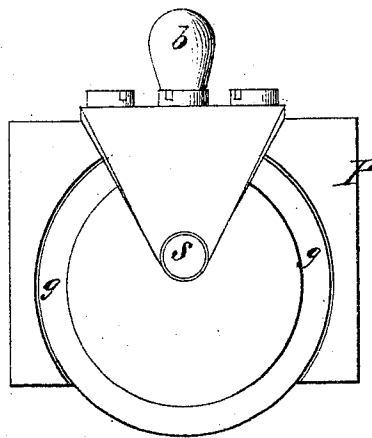


Fig. 4



Witnesses
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Inventor
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UNITED STATES PATENT OFFICE.

EDWIN COWLES, OF CLEVELAND, OHIO.

IMPROVEMENT IN PAPER-CUTTING MACHINES.

Specification forming part of Letters Patent No. 119,827, dated October 10, 1871.

To all whom it may concern:

Be it known that I, EDWIN COWLES, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a new and Improved Card-Board Cutter; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1, Plate 1, is a section taken vertically through the machine, showing a card in the act of being cut. Fig. 2, Plate 1, is a top view of the machine. Fig. 3, Plate 2, is a front view of the machine. Fig. 4, Plate 2, is a view of the circular cutter and its cutter-stock.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in combining a cutting instrument, a pressure-bar, and a gauge with an inclined table, in such manner that the card-board will be fed down by its own gravity to the gauge at the termination of each stroke of the cutter and held firmly upon the table during the operation of the cutter, as will be hereinafter explained. My invention also consists in a stud or its equivalent applied to the cutter-stock in combination with toes on the pressure-bar, for the purpose hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawing, A represents the table upon which the card-board to be cut is laid. This table A may be permanently sustained in said inclined position, or it may be hinged at *m* to a base, A', and supported by the hooked prop *a*, so that when the machine is not in immediate use the table can be brought to a horizontal position and the machine made more compact than it otherwise would be. To the lower straight edge of the table A a straight-edge knife, *k*, is secured so that its cutting-edge is on a level with the surface of the table. At opposite sides of the table A, and rising above this table, two inclined standards, B' B', are secured, which support a horizontal transverse bar, B, on which slides the cutter-carrying stock P. The stock P has a handle, *b*, applied to it, by which the operator moves it back and forth, and at the same time keeps the cutter *g* up against the knife *k*. The cutter *g* is of the circular kind, as is clearly shown in Fig. 4, and rotates during

the act of cutting the card-board so as to make a smooth clean cut. There is also applied to the cutter-stock P an anti-friction roller or stud, *s*, the object of which is to lift a pressure-bar, C, at proper times to allow the card-board *d* to drop down against a gauge, N. The pressure-bar C lies transversely across the table A, near the lower edge thereof, and has its bottom side covered with India rubber *c* or some other suitable frictional substance. This bar C is held in place and guided at its ends by means of the posts *j j*, around which springs *i i* are coiled that press the bar C down upon the card-board *d* lying on the table, and prevent this card-board from displacement during the act of cutting off the strips. Near each end of the bar C, and rising from its upper side, is a beveled toe, *h*, by means of which and the stud *s* on the cutter-carrying block P the pressure-bar C is lifted at the termination of every full stroke of said block. The gauge N is applied to rods N' N', which pass through fixed guides G G, and are held by set-screws *o o*. This gauge N is parallel to the knife *k*, and can be adjusted nearer to or further from it, according to the width required of the strips to be cut from the card-board.

The cutter-stock P is moved to one end of the bar B out of the way, when the stud *s* will pass beneath one of the toes *h* and lift one end of the pressure-bar C, as indicated in Fig. 3, Plate 2. A sheet of card-board, *d*, is then laid upon the table A, when it will slide down beneath the pressure-bar C and be arrested squarely against the gauge N. The operator, with his hand grasping the handle *b* of the cutter-carrying stock, draws the latter to the opposite end of the bar B and cuts off all that portion of the card-board which was between the edge of the knife *k* and the gauge, and then lifts the opposite end of the pressure-bar C by the stud *s* passing beneath a toe, *h*, so as to free the card-board on the table and allow it to descend by its own gravity, induced by the inclination of table A, until it is arrested by the gauge N.

It will be seen that during the cutting operation the card-board is firmly held down upon the table in its place by means of springs *i i* acting on the pressure-bar C, and that at the termination of each stroke of the cutter the bar C is raised and the card-board thus allowed to descend to the gauge preparatory to the next cutting stroke.

I am aware that circular cutters have been used for various purposes; and I do not, therefore, claim such contrivance as my invention when considered alone.

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

1. The combination of a pressure-bar, C, with an inclined table, A, supporting-gauge, and a cutting instrument, substantially as described.

2. A stud or its equivalent applied to the cutter-carrying stock P, in combination with toes *h* on the pressure-bar C, whereby the latter will be lifted automatically at the termination of each stroke of the said stock, substantially as described.

Witnesses:

I. M. MOORE,
E. H. PERDUE.

EDWIN COWLES.