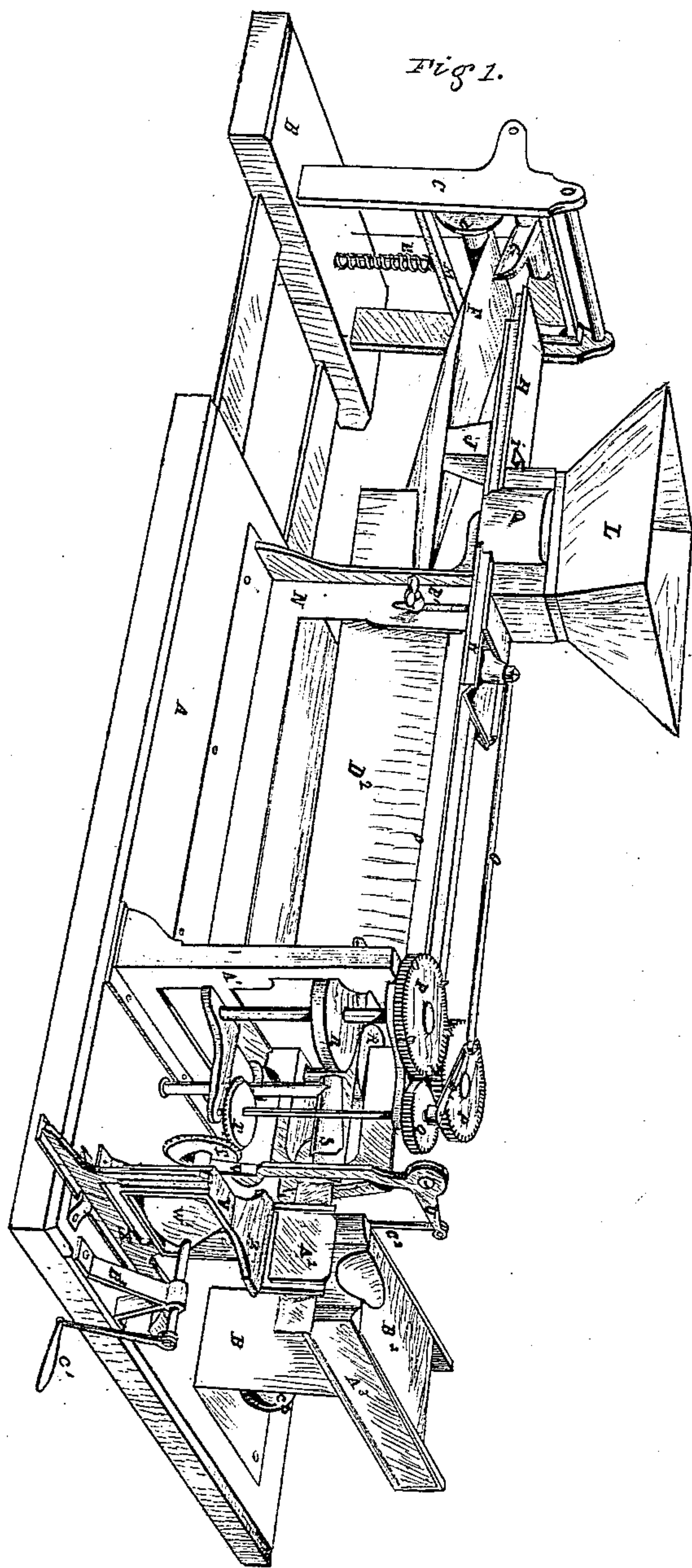


J. W. MAXWELL.  
MACHINE FOR FOLDING POWDERS.

No. 102,568.

Patented May 3, 1870.



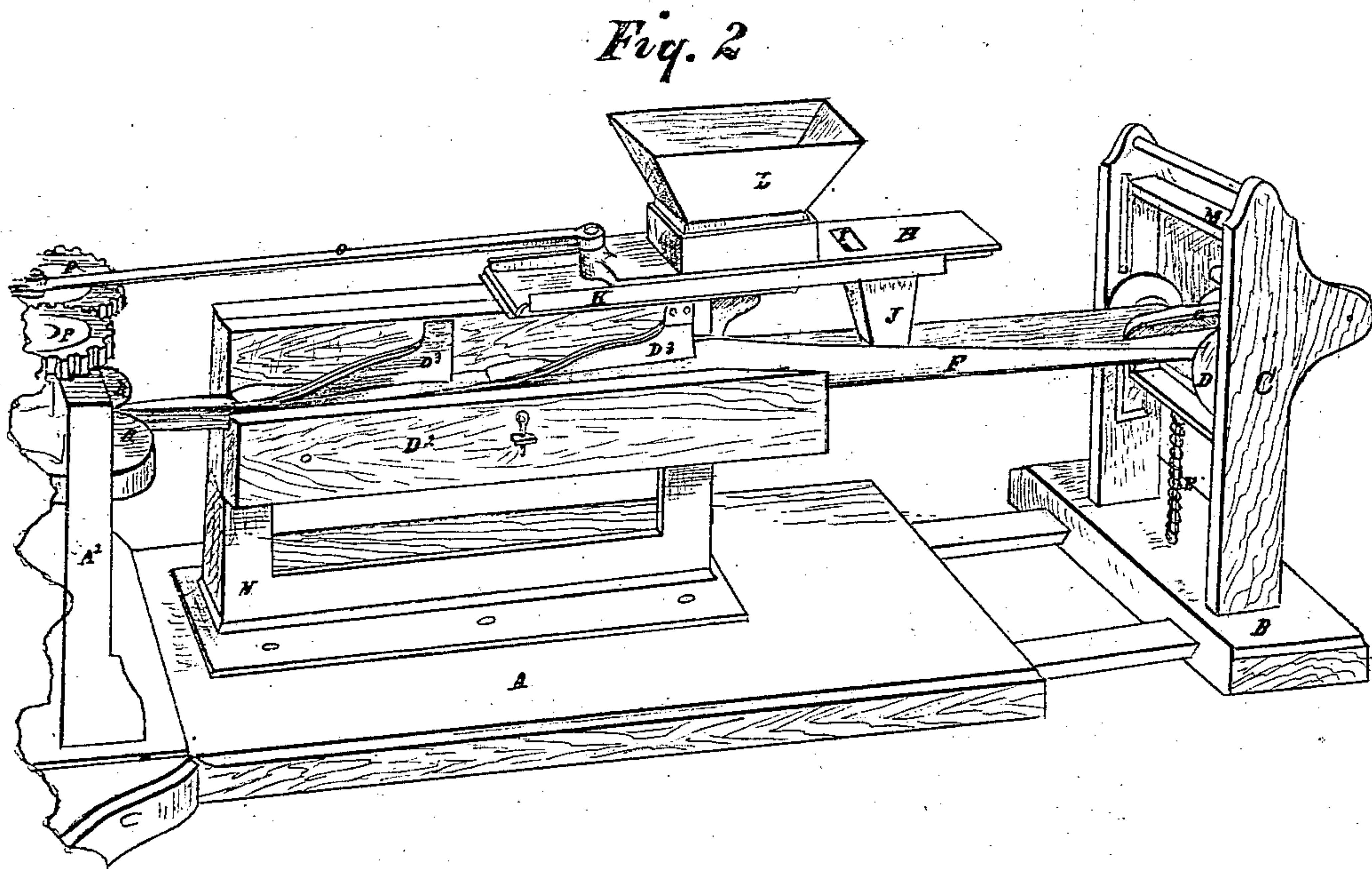
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*Inventor.*

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# United States Patent Office.

JOSEPH W. MAXWELL, OF LOUISVILLE, KENTUCKY.

*Letters Patent No. 102,568, dated May 3, 1870.*

## MACHINE FOR FOLDING POWDERS.

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

I, JOSEPH W. MAXWELL, of the city of Louisville, county of Jefferson, and State of Kentucky, have invented certain Improvements in Machines for Filling and Folding Sedlitz or other Powders, of which the following is a specification.

The nature of my invention consists in the simple combination of machinery adapted to the purpose of filling, cutting, and folding sedlitz or other powders or other material at one and the same time, the first part of which consists of a hopper placed on top of the frame, in which the material to be used is deposited, and immediately under this hopper there is a graduating slide having a hole through the center of sufficient size to hold just the proper quantity of the material, but as this is frequently to be changed, there may be another small slide placed on the under side of the last named, with the end turned up so as to enter the hole, and, by means of an adjustable set-screw, may be set so as to graduate the powder to any required quantity, and is kept from dropping out until the proper time by means of a box or match-slide on the under side, on which it works close down.

The latter slide has a discharge-pipe at the end, and at the proper time the first-named slide moves over the discharge-pipe and deposits the powder from the hole into the paper below, which is delivered to the machine from a spool in a sliding frame at the end of the machine, the bottom or base of which is made to be extended or drawn out when in operation.

Said spool, with the paper, is held up by a spiral against the sharp edge of a piece of wood or trigger, by means of which the paper is creased in the center in order to facilitate its folding in the proper place, and, as it passes into the wooden guide and through the folders, the powder is dropped in behind at intervals before the paper closes up, and is afterward drawn through the wooden guide by the rolls in front, driven by gearing, while the edges are being turned down by the folders on the guide as it passes onto the rolls, by which it is drawn through the proper length and then made to rest, by means of teeth removed from the driving-wheel, until the powder is cut off by means of shears in front of the rolls, after which the powder is caught by the prongs of the end-folder and forced into the folding-box, the springs of which turn the ends down as it enters the box, where it is held firmly by the block in the box, which is made to press against it by means of a weight attached to a cord passing over a pulley in the bottom of the box, which is made of wood with steel springs at the sides, on the ends of which there are small pieces of wood made in a triangular shape so as to project over the inside of the box, and, as the prongs of the folding-yoke force the powder into the box, the ends are turned down by them.

The above folding-yoke is simply a square yoke with

two prongs on the top working up into the folding-box, and operated by means of a cam somewhat in the shape of a triangle on the driving-shaft.

Having thus fully described the nature of my invention, I will proceed to describe it more fully by reference to the drawings, in which—

Figure 1 is a perspective view of the machine complete.

Figure 2 is a view of that part showing the folders and guide.

A is the wooden base or platform.

B is the extension-slide.

C and M are the frame for the spool.

D is the spool.

G is a wooden trigger for creasing the paper.

E is a spiral spring pressing the spool and paper up against the trigger G.

F is the paper as delivered from the spool.

L is the hopper in which the material is deposited.

H is the slide working under it.

I is a hole in said slide for the purpose of graduating the quantity in each powder, which may be changed by another graduating slide closing up the hole I more or less.

K is the box or match-slide in which the slide H works.

J is the discharge-pipe through which the powder is dropped in the paper F below.

O is the pitman by which the slide H is operated.

N is the frame to which the machinery is attached.

D<sup>2</sup> is a wooden guide through which the paper passes.

D<sup>3</sup> D<sup>3</sup> are the folders on the guide.

E<sup>1</sup> is the thumb-screw for adjusting the guide.

A<sup>1</sup> is a frame to which the gearing of the machine is attached.

P P is the principal wheel transmitting motion to the machine.

R R are rolls through which the paper passes, completing the process of folding the paper and pressing the powder.

Q is a small wheel by which motion is transmitted to the wheels P P, one side of which is blank, causing the machine to rest while the powder is being cut off.

D<sup>1</sup> is a crank by which the slide H is operated.

S is a small guide to keep the paper in its proper place while being cut off.

U is the blade of the shears which cuts it.

C<sup>2</sup> is the spring which replaces the shears.

V is the arm by which they are operated.

T T are miter-wheels by which the machine is driven.

C<sup>1</sup> is the crank by which they are operated.

X is a sliding frame working on the bottom of the machine, the upper part of which is open.

Y is a square yoke working in the last-named frame.

Z is the end-folder on top of said yoke.



A<sup>2</sup> is a small piece of iron or brass projecting from the front of the folding-box to receive the powder when cut off.

A<sup>3</sup> are the springs of the folding-box.

B<sup>2</sup> is a block by which the powders are pressed up in the box by means of the weight C<sup>3</sup> under the box.

B<sup>1</sup> is the stand and folding-box.

Having thus fully described the construction of my invention, its operation is simply that of depositing the material to be used in the hopper L, after which pass the end of the paper F through the guide and folders into the rolls R R, by which it will be caught and drawn through and cut off and folded complete by turning the crank C<sup>1</sup>; therefore,

I claim as my invention—

1. The combination of the sliding frame or case B, the frame C, the trigger G, and the spiral spring E<sup>1</sup>, the frame M, and the spool D, for delivering the paper, substantially as and for the purpose set forth.

2. The combination of the hopper L, the slides H and K, the graduating hole I, the pipe J, and the pitman O, the folders D<sup>3</sup> D<sup>3</sup>, the wooden guide D<sup>2</sup>, and the frame N, and base A, substantially as and for the purpose set forth.

3. The combination of the frame A<sup>1</sup>, the rolls R R, the wheels P P and Q, the crank D<sup>2</sup>, and the shears U, the guide S, and miter-wheels T T, substantially as and for the purpose set forth.

4. The sliding frame X, the yoke J, the end-folder Z, the cam W, and crank C<sup>1</sup>, the folding-box and stand B<sup>1</sup>, the springs A<sup>3</sup>, the block B<sup>2</sup>, and the front rest A<sup>2</sup>, substantially as and for the purpose herein set forth.

JOSEPH W. MAXWELL.

Witnesses:

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E. F. HUYCK.