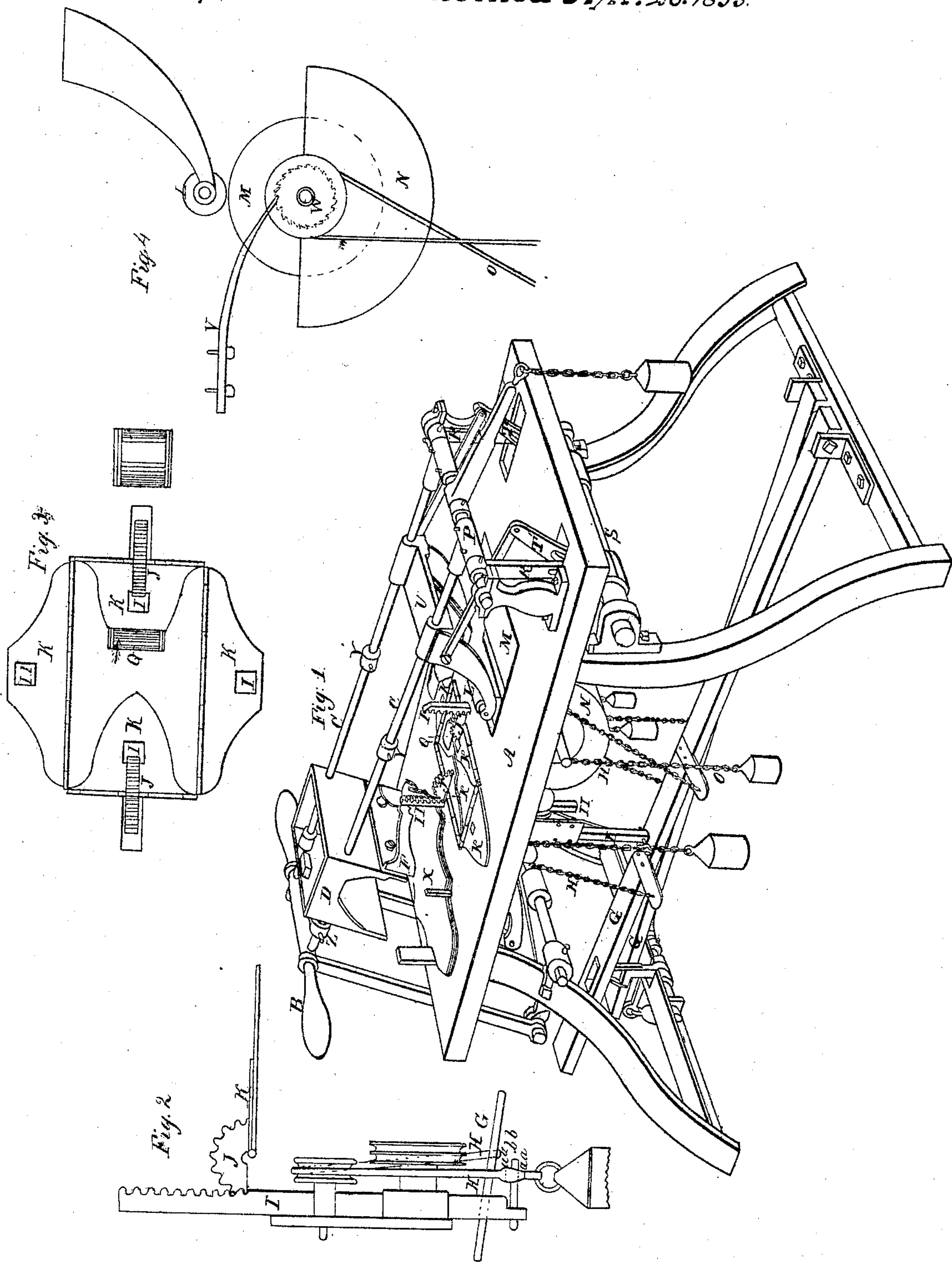


E. Coleman.
Envelope Mach.

N^o 9683.

Patented Apr. 26. 1853.



UNITED STATES PATENT OFFICE.

EZRA COLEMAN, OF PHILADELPHIA, PENNSYLVANIA.

MACHINE FOR FOLDING ENVELOPS.

Specification of Letters Patent No. 9,683, dated April 26, 1853.

To all whom it may concern:

Be it known that I, EZRA COLEMAN, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented
5 certain new and useful Improvements in Machines for Folding and Pasting Paper; and I do hereby declare that the following is a full and exact description thereof.

To enable others skilled in the art to make
10 and use my invention I will proceed to describe the construction and operation of the same.

In the accompanying drawings, which form a part of this specification, Figure 1
15 is a perspective view, Fig. 2 section representing the racks, pinions, and chains in connection with the pedals and folders, Fig. 3 top view of the folders representing the end folders as closed and the side folders as
20 open; showing the pinions which are not represented in Fig. 1. Fig. 4 end view of the paste and distributing rollers.

Like letters represent like parts.

Letter A bedplate, B handle, C guides on
25 which D and U slide, D sliding lifter; F paster having a narrow surface on the lower side of the shape of the edge of the paper before it is folded. G pedals. H chains connected to the racks and pedals and passing
30 over pulleys as represented in Fig. 2. In this figure the dotted lines *a, a*, represent a slot in the chain through which slot the stud *b b* passes. This slot is only in the chain connecting with the rack I I. In all
35 the other chains the holes for the reception of the studs, are only sufficiently large to receive the same. The object of the slot is that the opposite folder—it being at the side upon which the paste is placed upon the
40 paper—may move ahead of the other so as to insure the pasted lap to come down first, the slot allowing the pedal to move a short space before operating that folder. I, and I, I, racks, J semipinions fast to hinged
45 folders, K, and gearing in the racks, L distributing or pasting roller, M paste roller, N paste font, O chain or cord passing over pulley on paste roller shaft, as represented in Fig. 4, P rock-shaft, R arms on P, S lower
50 rock-shaft, T arms on S, which arms are connected with arms R, by means of a pin screwed fast in a slot in R and working in slot in T, U sliding frame in which the pasting roller is hung, V pawl, W ratchet on paste
55 roller shaft, for the purpose of preventing the roller from turning backward, Q dis-

charging roller hung in a spring, which spring raises the upper side of the roller above the surface of the bed, when the folders are open so as to admit of its rising. 60 This roller is connected to the left hand pedal in the same manner that the paste roller is to the right hand pedal, *i. e.* a cord from the pedal passes over the pulley on the shaft of Q and at the opposite end of the
65 cord a weight is attached; there is also a ratchet wheel upon the shaft of Q, and a pawl, to prevent the roller from turning backward as the weight rises.

To use the above described machine, the
70 paste, which is usually made by dissolving gum arabic in water, must be placed in the font N. Then by working the pedal a few times the roller M is turned around so as to bring a portion of the paste up, and as the
75 handle B is let down, L comes in contact with M, and receives a portion of the paste, D is then moved back to Y Y. B is then raised, by hand, which causes L to slide up under the paster and leave a portion of the
80 paste on F. D is then moved, in the same manner, back to stop Z, and pressed down on the paper X, the top piece of which adheres to the paste. It is then raised up and
85 carried forward to stops Y, as hereinbefore described, and the folders being all open, the sheet is pressed down upon the bed by bearing down upon B. The right hand pedal is then pressed down, which operation folds
90 the ends. Then D is raised and the left hand pedal pressed down closing the side folders, at the same time raising the weight hereinbefore mentioned for the purpose of removing the folded paper. Then both
95 pedals are allowed to rise, the folders are thrown open by the weights pulling the racks down, the roller Q rises above the surface of the bed by the action of the spring as hereinbefore described, and at the same
100 time the weight cord above referred to descends, causing the roller Q to turn in the direction indicated by the arrow Fig. 3 and the folded paper resting upon Q is removed from the machine by the action of the roller.

Having thus fully described the construction and operation of my machine for pasting and folding paper what I claim therein as new and of my invention is— 105

1. The lifter D, which acts in the double capacity of taking the paper from the pack-
110 age to the folders and holding it while the ends are being folded.

2. The folders K in combination with the pedals, in such a manner as to hold the paper by the end folders pressing it upon the bed while the sides are being folded; the
5 connection between the pedals being through the medium of racks, pinions, and pulleys or other analogous device.

3. The arrangement of the roller L in connection with the handle B by means of
10 arms, rock-shafts, and levers, or other analogous device, so arranged that the simple

action of raising and lowering the handle B distributes the paste on F.

4. The roller Q for the purpose of removing the paper after it has been folded, 15 substantially as herein described and for the purpose set forth.

EZRA COLEMAN.

Witnesses:

WM. BULLOCK,

H. BULLOCK.