

C. H. KELLOGG.
Paper-Bag Machines.

No. 158,945.

Patented Jan. 19, 1875.

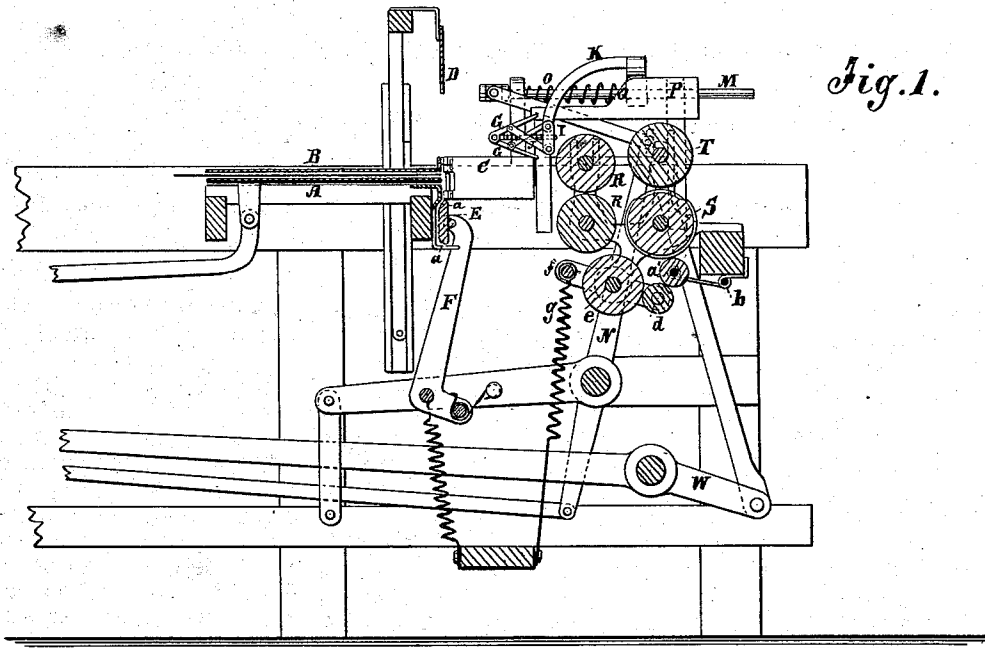


Fig. 1.

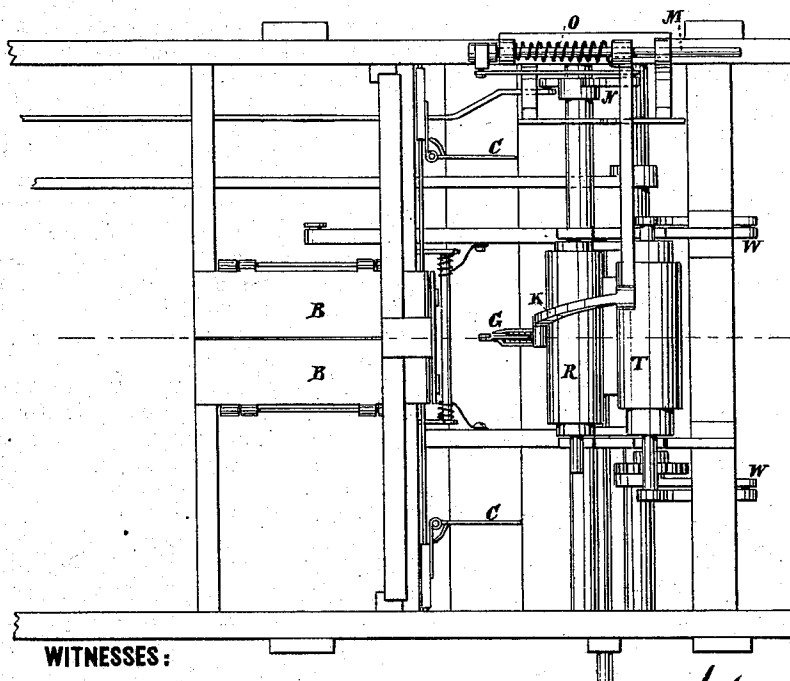


Fig. 2.

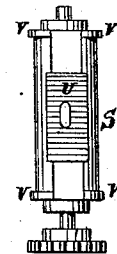
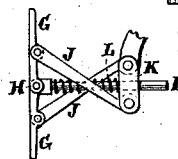


Fig. 3.

WITNESSES:

A. Remmeindorf.
A. F. Terry

Fig. 4.



INVENTOR:

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UNITED STATES PATENT OFFICE.

CHARLES H. KELLOGG, OF LEVERETT, MASSACHUSETTS.

IMPROVEMENT IN PAPER-BAG MACHINES.

Specification forming part of Letters Patent No. **158,945**, dated January 19, 1875; application filed November 14, 1874.

To all whom it may concern:

Be it known that I, CHARLES H. KELLOGG, of Leverett, in the county of Franklin and State of Massachusetts, have invented a new and Improved Paper-Bag Machine, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claims.

Figure 1 is a longitudinal sectional elevation of the part of a paper-bag machine to which my invention applies, together with the apparatus of my invention. Fig. 2 is a plan view of the machinery represented in section in Fig. 1. Fig. 3 is a plan of the printing-roller, and Fig. 4 is a detail of the folding-guard.

Similar letters of reference indicate corresponding parts.

A is the folding-table and discharger; B, folders for forming the tube; C, the horizontal bottom-folders, and D the upper vertical bottom-folder, all of which, together with other apparatus not here shown, form the subject of another application for a patent by me. The paper is moved along over the table, cut off, and then folded over a former, (not shown;) then the horizontal bottom-folders move forward and fold in the sides of a portion of the tube which projects beyond the table, to form the upper part of the bottom; then the upper vertical bottom-folder, D, comes down, and the lower vertical folder, E, moves up to fold the remaining portions and stick them to the other portions, paste having been suitably applied for the purpose beforehand. This bottom-folder E I now propose to make of a simple plate of metal, or any suitable material, with rounded edges *a*, and pivot it in the arms F, by which it is worked up and down, so as to act as a rubbing and smoothing plate, and so that it will be free to turn on its axis, as may be needed in case the stiff paper does not yield readily, whereby it will not be so liable to catch and tear the paper as a rigid one will, and it will be more certain to fold the paper smoothly than a roller will. The guard which I now propose to add for the purpose of more effectually laying the lower folds of the bottom smoothly consists of the arms G, connected at one end by the pivot H to the rod I, and also connected at the middle, or

thereabout, by links J, with the carrier-arm K. The rod I is free to slide in the end of the carrier-arm, and has a spring, L, for pushing the joint H forward to close the arms G, as represented in Fig. 1. The carrier-arm is mounted on the sliding and revolving rod M, which is moved toward the folders by a rock-lever, N, to present the guard between the top and bottom flaps, for guiding them as they are folded by the folders D E, and it is moved back by the spring O. The arm K slides forward and backward on the rest P, which has an incline at Q, to raise the guard over the discharging-rolls R as it is moved away from the work, and to let it down to the proper position when going up to the work. This guard moves forward immediately after the horizontal folders have moved up and folded in the sides of the end of the bag-tube, and the pivot H presses against said folders at the center, between the upper and lower flaps of the tube to be folded down, so as to be forced back relatively to the carrier-arm, whereby the guard-arms G are extended or swung apart, so as to meet the flaps at the beginning of the action of the folders D E upon them; then the carrier-arm moves back, and the guard-arms close together gradually as the flaps are folded in, and finally moves away just before the folders meet, thus preventing the flaps from crimping or folding irregularly as they are folded in upon the upper flaps of the bottom. S is a type-roll, and T a presser-roll, between which I propose to have the bags pass as they escape from the discharging-rolls to be branded. The type-roll has a form of printing-type at U, onto which the bags are to be pressed by the upper roll, which is forced down on the type at the proper time by the rock-lever W, which will be worked by a cam suitably arranged. These rolls will be geared relatively to the other parts so that the type and the presser-roll will always act upon the bags to print them in the proper place as they pass along. The ink is applied to the type by the roll *a'*, which is pivoted to the frame at *b*, and rests on a spreading roll, *d*, which receives the ink from the roll *e*, which will take the ink up from a trough to be arranged below it in the practical machine. The roller for inking the type rolls on the raised ribs or bands

V of the type-roll, to be kept clear from any part of the roll, except the type, to prevent the bags from being blotted, and it is forced up against the type by the roll *d*, which is mounted in the rocker-frame *f*, which is thrown up by the spring *g* when the bands V allow it to go up.

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

1. A bottom-folder, E, pivoted in the ends of reciprocating and vibrating arms F F, as and for the purpose specified.

2. The combination, with folders C and carrier-arm K, of arms G G, pivoted together at the end of a movable spring-rod, I, and from the middle connected with said carrier-arm by the links J, as and for the purpose described.

3. A carrier-arm, K, mounted on a sliding and revolving arm, M, in combination with a rest, P, having incline Q, as and for the purpose set forth.

CHAS. H. KELLOGG.

Witnesses:

GEO. S. LEWIS,

F. A. JUDD.

*1. v v v
muds.*