2 Sheets—Sheet 1.

E. STANLEY.

BAG-MACHINE.

No. 191,013. Patented May 22, 1877.

Fig. 1

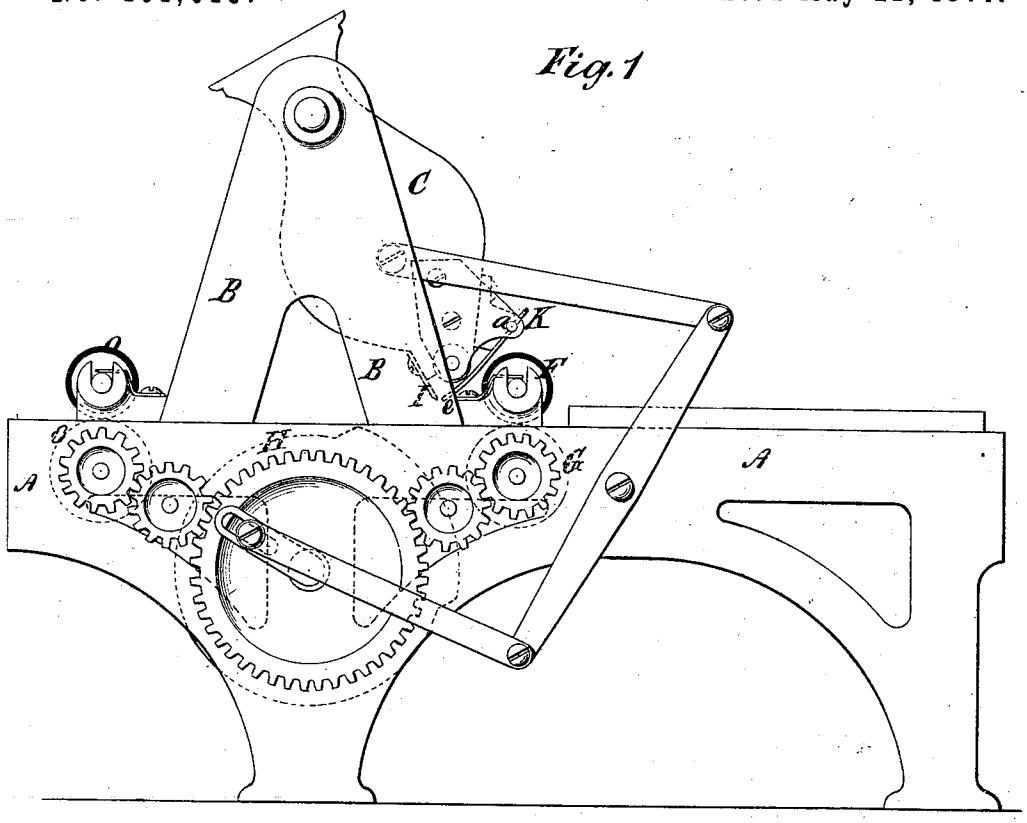
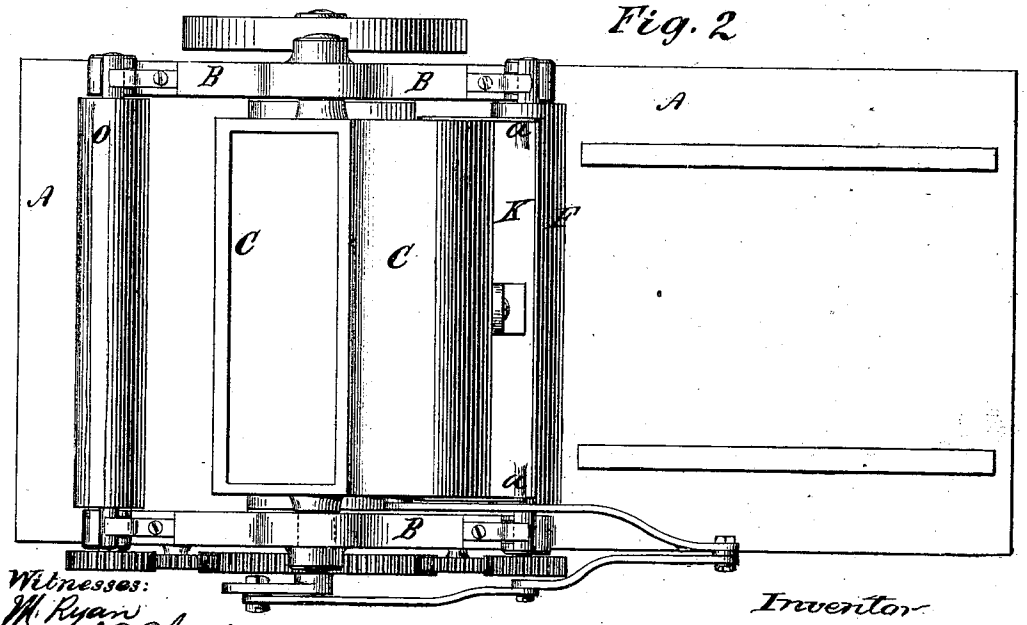


Fig. 2



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2 Sheets—Sheet 2.

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Fig. 4

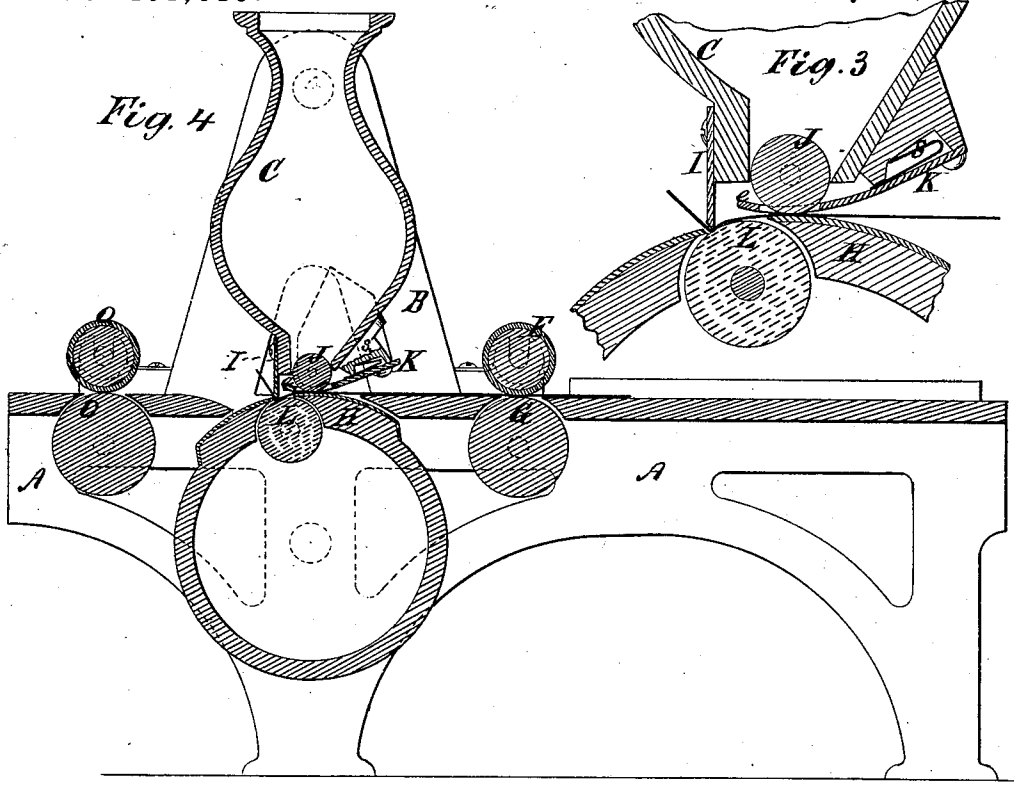


Fig. 3

Fig. 5

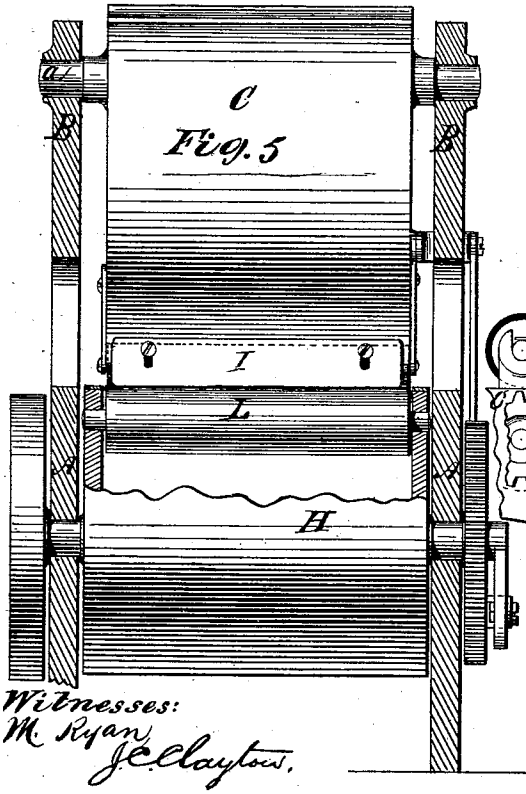
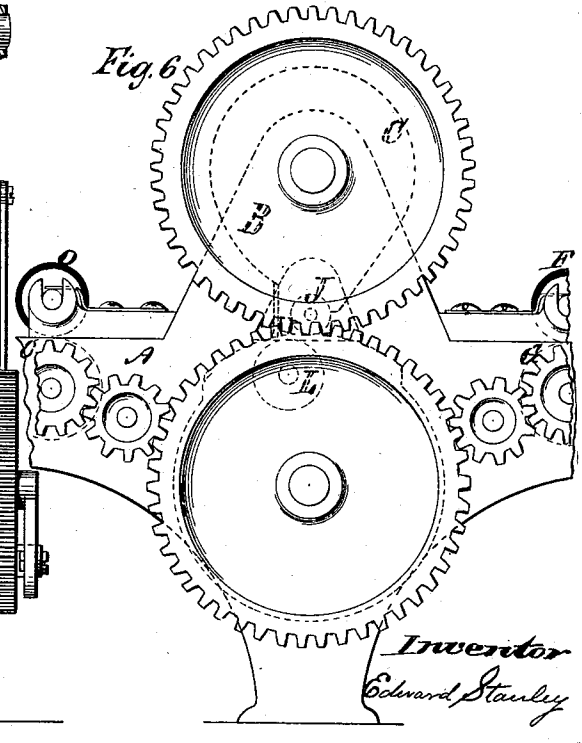


Fig. 6



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UNITED STATES PATENT OFFICE.

EDWARD STANLEY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN BAG-MACHINES.

Specification forming part of Letters Patent No. **191,013**, dated May 22, 1877; application filed December 30, 1876.

To all whom it may concern:

Be it known that I, EDWARD STANLEY, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Machines for Making Paper Bags; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification, in which—

Figure 1 is a side elevation, Fig. 2 is a plan, Fig. 3 is a detail, of the creasing-blade and detaching plate or frame. Fig. 4 is a longitudinal vertical section, Fig. 5 is a cross vertical section, and Fig. 6 is an elevation, showing the gearing and a revolving instead of oscillating paste-holder, all of which is more fully hereinafter set forth.

My present invention relates, chiefly, to the mechanism by which the bottom lap of a partly-formed paper bag is creased, pasted, and finished.

In the drawings, A represents the bed-plate and frame of the machine, and B, the standards which support, in journals, the oscillating paste-box. C is the oscillating paste-box; F and G, the feeding-rollers; H, main rollers; I, creasing-blade; J, paste-roll; K, detaching-plate; L, rubber roller; *a a*, pivots of detaching-plate; *e*, edge of detaching-plate; *s*, spring, and O O, discharging-rollers.

After the bag is partly formed out of a blank, folded, and pasted with the center lap, and having a projecting lap for the bottom, it is ready for the action of the mechanism which constitutes the invention hereinafter set forth.

The partly-formed bag is fed forward by the rollers F and G to the main roller H. The surface of this roller H and the lower extremity of the horizontally-oscillating paste-holder C are so connected as to move with the same velocity and in the same direction as the advancing bag. As the bag advances its bottom end comes in contact with the creasing-blade I, paste-roll J, and detaching-plate K, all of which are carried by the paste-holder C, and with the rubber roll L, which is journaled at or within the main roller H, as shown in Fig. 4. The lower edge of the creasing-blade I extends down a little below the surface of roller L, and, consequently, moves with a greater velocity than the surface of roller H, and as the creasing-blade I presses the paper, at the folding-line for the bottom lap, into the rubber surface of the roller L, it creases and bends up the bottom lap, and at the same time forces the roller L to turn on its own axis, and acquire the same velocity as itself while the paper is being creased, thereby preventing any slipping of its edge on the paper.

The detaching-plate K has a vertical automatic oscillating movement around its pivots *a a*. This motion is given by the contact of its edge *e* with the bag and the roller H when the paste-holder C is moving in the same direction that the roller H revolves. This action presses the detaching-plate K against the bottom of the paste-holder C, which causes the paste-roll J to protrude through an opening left for that purpose in plate K, and come in contact with the bag at that place, where it is necessary that it should receive the paste for the bottom lap. As the paste-holder C passes beyond the point of contact with the roller H the pressure upon plate K is relieved and a spring, *s*, fastened upon the paste-holder C, and, bearing upon the upper side of plate K, causes said plate to reassume the position in relation to the paste-holder C that it had before coming in contact with roller H. This action detaches the bag from the paste-roll J and creasing-blade I. The bag continuing its forward movement, the bottom lap thus creased, pasted, and standing at a proper angle, is laid down, covering the paste, and firmly pressed upon the body of the bag by the discharging-rollers O O.

I have described, and prefer, the oscillating paste-holder; but the paste-holder may be constructed and arranged so as to revolve, as shown in Fig. 6.

The drawings so fully illustrate the construction and proportion of my invention that further description is needless. By its means I am enabled to crease, paste, and press down the bottom lap of paper bags in a good, cheap, and quick manner, and, by the action of the creasing-knife against the elastic surface of the roller L, a much shorter flap may be folded than is possible with a creasing-knife operat-

ing to force the crease between folding-rollers in the usual way, and thereby a very material saving of stock is effected.

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

1. A moving paste-holder, C, provided with the paste-roller J, and the roller H, coupled to move coincidently, combined with a creasing-blade, I, attached to said holder C, and an elastic surface, L, attached to said roller H, but capable of motion corresponding with said blade, and independent of the motion of roller H, substantially as described.

2. A moving paste-holder, C, with the paste-roller J, combined with the detaching-plate K, pivoted to the outer side of said holder, and actuacted in one direction by a spring, and in the opposite direction by contact with the roller H, substantially as set forth.

3. An automatic detaching-plate, K, pivoted to the paste-holder, and provided with an opening through which the paste-roller can protrude without touching.

4. The oscillating paste-holder, in combination with the detaching-plate K, pivoted to blocks on the outer side of the paste-holder, and the actuating-spring *s*, substantially as and for the purpose set forth.

5. The oscillating paste-holder, in combination with the creasing-knife I, and elastic roller L, mounted within the periphery of roller H, substantially as and for the purpose set forth.

6. The creasing-blade I, in combination with the elastic roller L, substantially as and for the purpose set forth.

7. The creasing-blade I, in combination with the detaching-plate K, elastic roller L, and main roller H, substantially as and for the purpose set forth.

8. The oscillating paste-holder C, in combination with the creasing-blade I, detaching-plate K, elastic roller L, and main roller H, substantially as and for the purpose set forth.

EDWARD STANLEY.

Witnesses:

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T. J. KEANE.

1.25 words.