

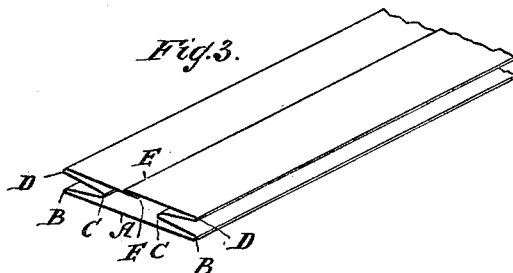
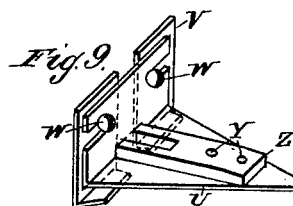
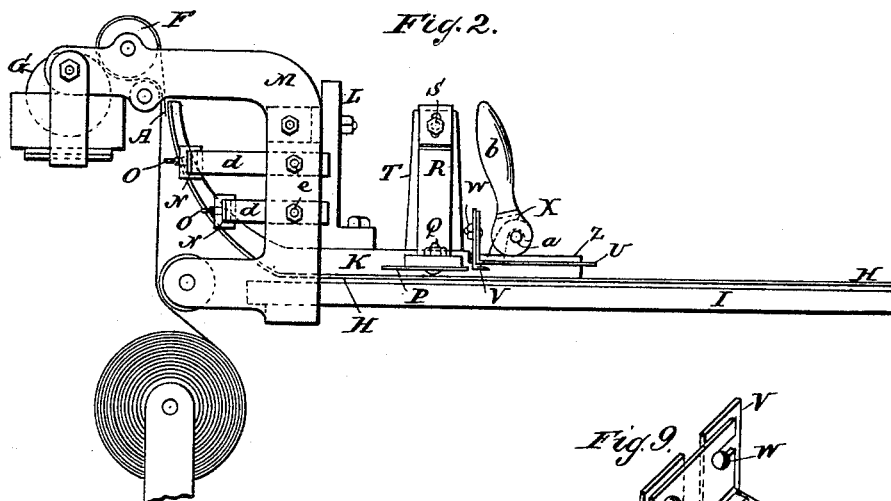
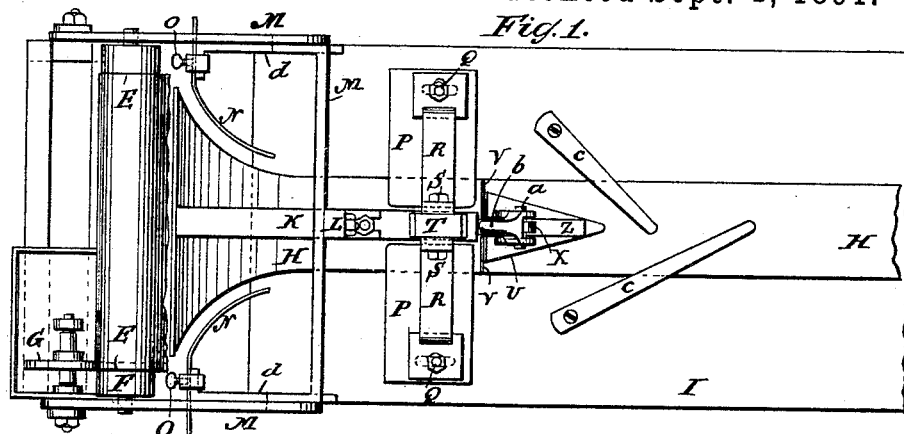
(No Model.)

2 Sheets—Sheet 1.

F. W. B. McCREEDY.
PAPER BAG MACHINE.

No. 458,914.

Patented Sept. 1, 1891.



WITNESSES:

Edward Wolff.
William Miller

INVENTOR:

Franklin W. B. McCreedy

BY

Van Santvoord & Hauff
his ATTORNEYS

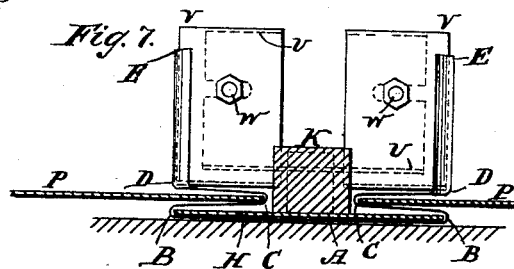
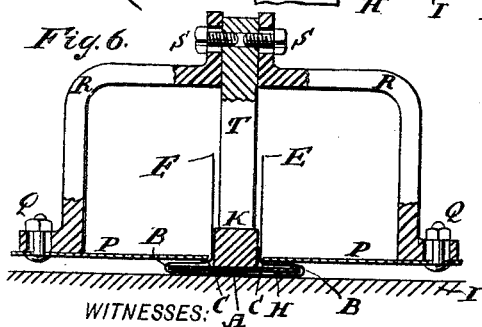
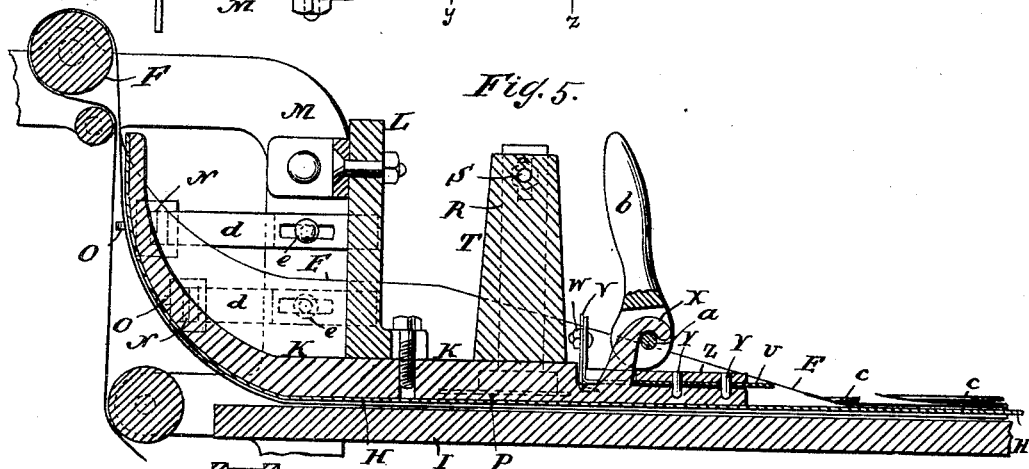
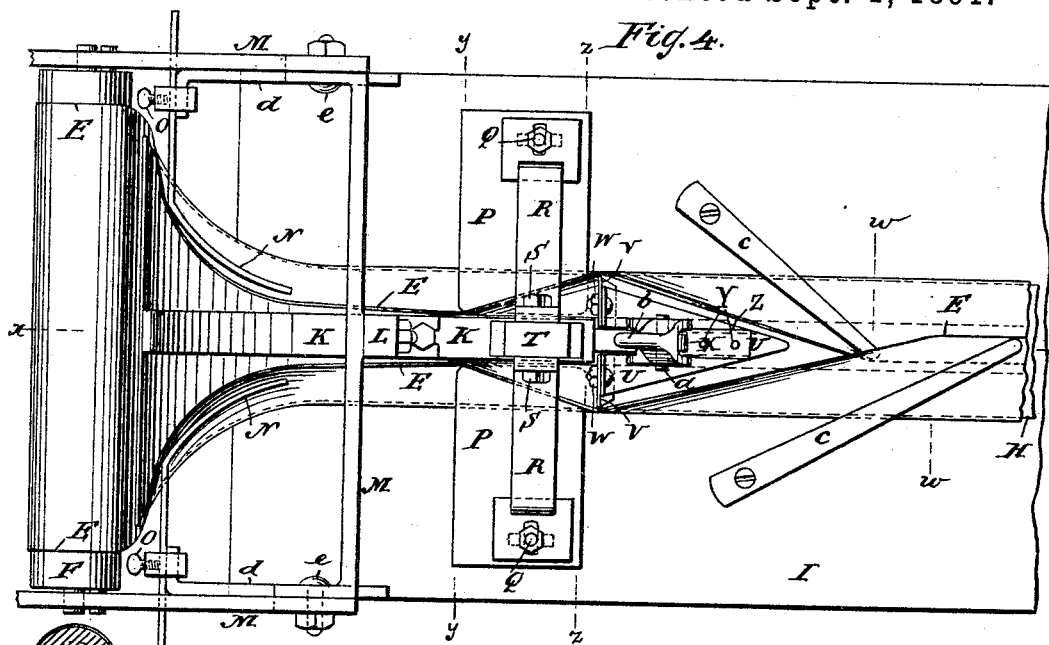
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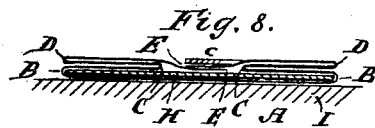
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UNITED STATES PATENT OFFICE.

FRANKLIN W. B. MCCREEDY, OF NEW YORK, N. Y.

PAPER-BAG MACHINE.

SPECIFICATION forming part of Letters Patent No. 458,914, dated September 1, 1891.

Application filed November 15, 1890. Serial No. 371,536. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN W. B. MCCREEDY, a subject of the Queen of Great Britain, residing at New York, in the county and State of New York, have invented new and useful Improvements in Paper-Bag Machines, of which the following is a specification.

This invention relates to improvements in paper-bag machines; and the invention consists in the details of construction set forth in the following specification and claims, and illustrated in the annexed drawings, in which—

Figure 1 is a plan view of a paper-bag machine. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a perspective view of the paper tube from which the bags are formed. Fig. 4 is a plan view similar to Fig. 1 with the paper inserted in the machine. Fig. 5 is a section along *x x* of Fig. 4. Fig. 6 is a section along *y y*, Fig. 4. Fig. 7 is a section along *z z*, Fig. 4. Fig. 8 is a section along *w w*, Fig. 4; and Fig. 9 is a detail perspective view of the supplemental former.

In forming the bags the paper is first formed into a tube and then cut into suitable lengths for bags, one end of each section being closed or pasted shut to form the bag-bottom and the other end being left open to form the mouth. The tube is shown in Fig. 3, the letter A representing the tube-body. At each side of the tube are the tucks or folds B C D, and the edges E E are pasted together to complete the tube.

The paper is fed from a suitable supply or roll over guide-rollers, one of said rollers being marked F and running in contact with a paste-disk G, whereby one of the edges E of the paper is pasted, so as to enable the edges to be secured to one another. After leaving roller F the paper is folded about the former H, said former being secured somewhat above the table or base I, so as to leave a space for the paper to pass between the former and the table. The former H has a rib K, bolted or secured to an arm or bracket L, secured to the frame M. The frame M is shown secured to table I. The rear end or portion of the former—that is, the end toward the roller F—is flaring, so that as the paper is gradually folded from the flat shape in which it leaves

roller F said paper during its gradual folding will be supported by said flaring portion of the former. The flaring rear end of the former H is curved and rises upwardly, and the opposite edges of the flaring portions are converged from the top edge of the flaring part to the horizontal portion of the former. At opposite sides of the converging edges of the former are arranged adjustable guides N, which are curved and follow the converging edges of the former in such manner as to fold, guide, and support the edges E of the paper as it moves downward toward the horizontal portion of the former. The curved or segmental folding-guides N are adjustable through the medium of set-screws O, which serve to clamp the guides to the arms *d*, secured to the main frame M, as hereinafter explained. After passing forward from the folding-guides N the paper encounters the oppositely-arranged tuckers or tucking-guides P. By means of these tuckers, as seen in Fig. 6, the paper is tucked or bent over. The paper then has the folds B C. The tucking-guides P are secured by bolts or screws Q to arms R. The openings in the guides P and arms R for said bolts are slotted, so as to allow the tucking-guides to be adjusted. The arms R are also slotted for the passage of bolts S, so that the arms are adjustable on their support or standard T.

In proximity to the tucking-guides P is placed a supplemental former U, having adjustable shoes V, which extend under such former, as seen in Fig. 7, and cause the paper to be bent or folded, so as to form the folds D. The supplemental former U consists of a suitably-shaped piece of sheet metal, to which the shoes V are secured by bolts or screws W, passing through slots, so that the shoes V can be adjusted as required. The supplemental former U is slotted or perforated for the passage of the hook X, rising from rib K on the main former H, and for the passage of pins Y, extending from the plate or stay Z. The hook X is engaged by the pin or fulcrum *a* of the cam-lever *b*, by which lever the stay Z is held in place. By swinging the lever *b* to its releasing position the pin *a* can be slipped out of engagement with the hook X, thus allowing the removal of lever *b*, stay Z, and sup-

plemental former U with its shoes V. When the paper passes the fingers *c*, said fingers press down the edges *E* of the paper, so as to cause said edges to adhere to one another and complete the tube shown in Fig. 3.

To secure considerable adjustability for the guides *N*, said guides are not secured directly to frame *M*, but are secured to arms *d*, which are held to the frame *M* by bolts *e*, said bolts being made to pass through suitable slots, so that the arms *d* can be adjusted as required. The curved or segmental guides *N* are of considerable service, since they guide the paper along the converging side edges of the flaring end portion of the former *H*, and prevent the edges *E* of the paper from fluttering or waving, whereby irregularity might be caused in the formation of the tube.

If a bag is to be made without the folds *C* *D* and only having folds *B*, such bag is readily obtainable by detaching or removing the tuckers *P* and supplemental former *U*.

By securing the tucking-guides to the former said guides and former always maintain the same relative position, while if the tucking-guides were fastened to the table and heavy paper were drawn through the machine the vibration or bending of the former by the heavy paper might cause irregularity in the work because of the relative change of position of the former and tucking-guides.

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

1. In a paper-bag machine, the combination, with a former having a curved flaring rear portion, the opposite edges of which converge toward a horizontal part of the former, of curved or segmental folding-guides *N*, arranged directly opposite the converging edges of the flaring part of the former, substantially as and for the purpose described.

2. In a paper-bag machine, the combination, with a main former *H*, having a curved flaring rear portion, the edges of which converge to a horizontal part of the former, of curved

or segmental folding-guides *N*, arranged directly opposite the converging edges of the former, the tuckers *P*, a supplemental former *U*, arranged in advance of the tuckers, and means for detachably securing the supplemental former in position on the main former, substantially as described.

3. In a paper-bag machine, the combination, with a main former *H*, of tucking-guides and a supplemental former *U*, provided with adjustable shoes *V*, substantially as described.

4. In a paper-bag machine, the combination, with a main former *H*, of tucking-guides, a supplemental former *U*, and a detachable cam-lever *b* for holding or locking the supplemental former, substantially as described.

5. In a paper-bag machine, the combination, with a main former *H* and tucking-guides, of a supplemental former *U*, a hook *X*, extending from said main former, and a lever *b*, secured to said hook for securing the supplemental former, substantially as described.

6. In a paper-bag machine, the combination, with a former and a standard *T*, fixed to said former, of tucking-guides and arms *R* for said tucking-guides, said arms being adjustably secured to the standard, substantially as described.

7. In a paper-bag machine, the combination, with a main former having a flaring rear portion, of guides or supports *N* at said rear portion, adjustable tuckers *P*, and a detachable supplemental former *U*, with adjustable shoes *V*, substantially as described.

8. In a paper-bag machine, the combination, with a former, of tucking-guides secured to said former, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANKLIN W. B. MCCREEDY.

Witnesses:

WM. C. HAUFF,

E. F. KASTENHUBER.