

Park & Watson. Sheet 1 of 2 Sheets.
Envelope Mach.

N^o 0055.

Patented Jan 23. 1849.

Fig. 2.

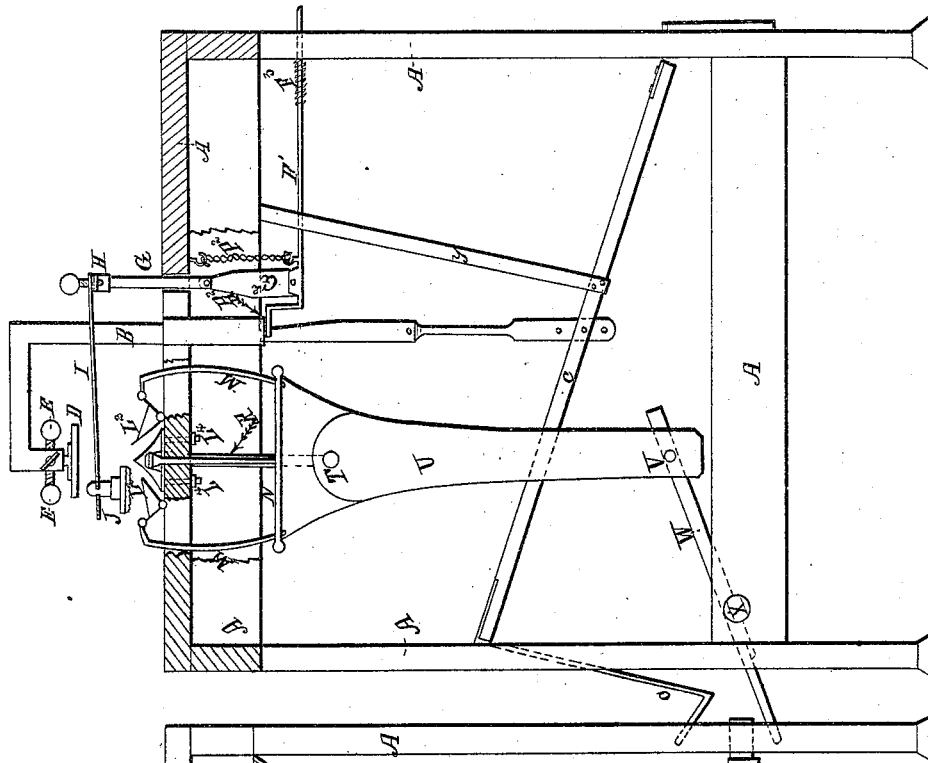
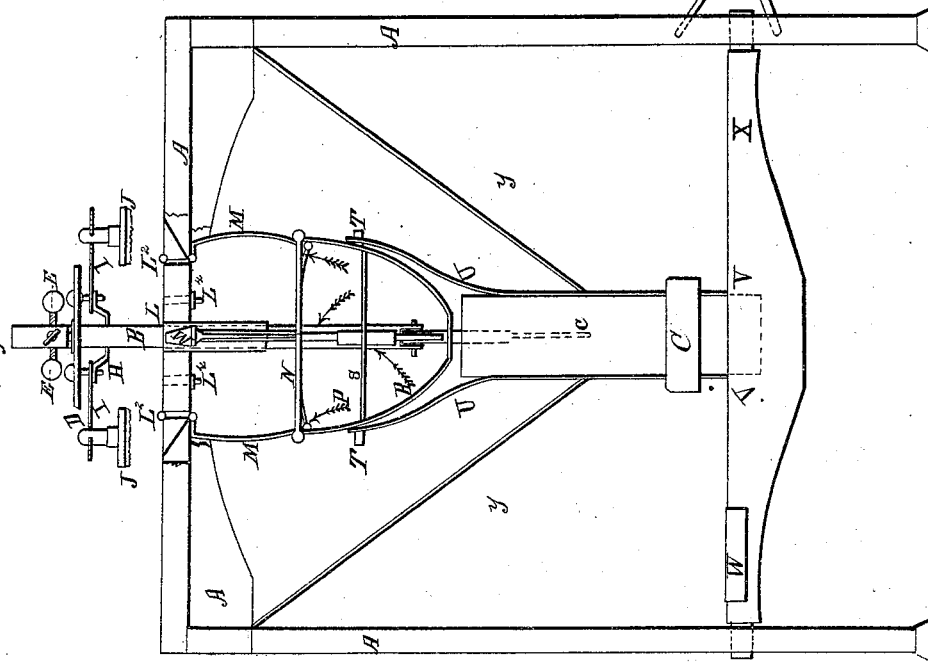


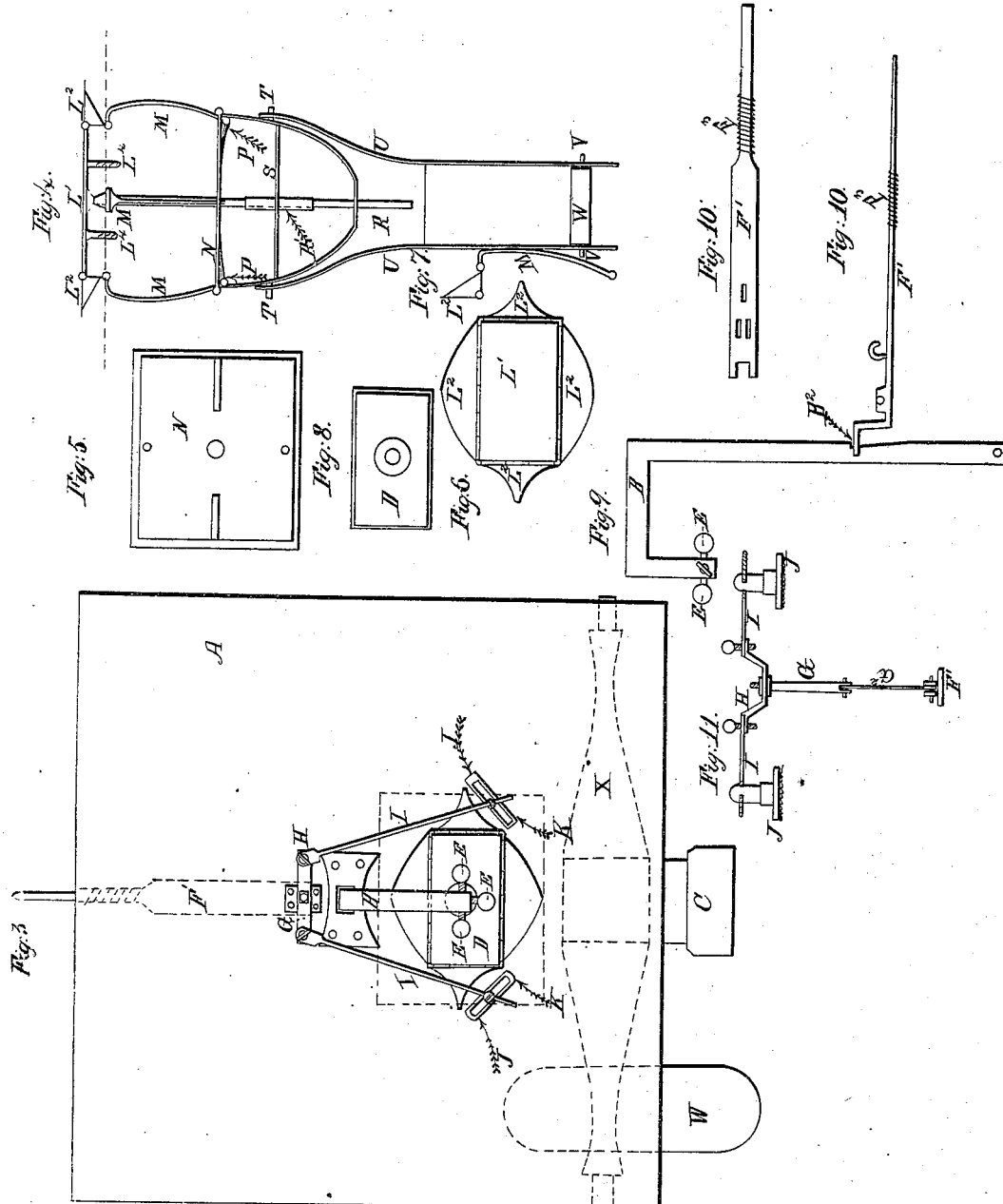
Fig. 1.



Park & Watson. Sheet 2 of 2.
Envelope Mach.

N^o 6055.

Patented Jan 23. 1849.



UNITED STATES PATENT OFFICE.

JESSE K. PARK AND CORNELIUS S. WATSON, OF NEW YORK, N. Y., ASSIGNORS TO W. W. ROSE.

MACHINE FOR MAKING ENVELOPS.

Specification of Letters Patent No. 6,055, dated January 23, 1849.

To all whom it may concern:

Be it known that we, JESSE K. PARK and CORNELIUS S. WATSON, of the city, county, and State of New York, have invented a new and useful machine for embossing, folding, and gumming paper for envelopes for letters, papers, cards, packages, or any other like use, which we denominate "The envelop folder, gummer, and embosser;" and we do hereby declare the following to be a full and exact description of the said machine, its construction, arrangement, and operation.

The nature of our invention consists in the combining and arranging in a table or frame certain levers or treadles, having upright sliding bars connected thereto for stamping or creasing the paper for envelopes, and gumming the edges of the same, with a folder frame and folders attached, in such a manner as when the treadles are operated upon by the attendant of the machine, the paper is gummed and folded into envelopes at one operation. But to describe our invention more particularly, and the combination of the several parts of the same, we will refer to the accompanying drawings.

Fig. 1, is a front view or elevation of the machine having a portion of the table removed so as to exhibit the folders more fully. Fig. 2, is a side elevation, and as in Fig. 1, has a part of the table removed to show the folders more fully, and which are raised as in the act of folding the paper. Fig. 3, represents a top view of the machine. Fig. 4, a front view of the folder frame, and apparatus as detached from the table and stamper. Fig. 5, a view of the top of the folder frame. Figs. 6 and 7 representations of the folder square and wings or leaves attached thereto by hinges for folding the paper. Fig. 8, is the stamper. Figs. 9 and 10 are views of the stamper bar, and lever for working the gumming apparatus, and Fig. 11, a representation of the gumming apparatus and connecting rod and section of the lever for working it.

In each of the several drawings the same letters refer to the same parts wherever they occur.

Letters A A A, &c., represent the frame of the machine. Letters B, B, B, &c., in Figs. 1, 2, 3, and 9 are several views of the stamper rod or lever. This stamper rod or lever may be made of iron or any other

suitable material. At its lower end is a connecting rod keying to it, and to a treadle, (see letters C, C, &c.), for the purpose of working the stamper bar up and down, to crease or stamp the paper, by means of the stamper or creaser (D, D, &c., Figs. 1, 2 and 3,) attached to the bent end of the stamper bar, by the binding screws E, E, E, &c. This stamper or creaser D, is made in the form of an oblong square, (or any other form suitable for envelopes), and has its edges slightly bent downward, so that, when brought down on the middle piece of the folder L', it creases or breaks the paper, as the folder leaves L², &c., are being raised to fold over or down its edges. On the back of the stamping bar is a notch B² see Figs. 2 and 9. This notch, when the stamper bar is drawn down by the treadle C, catches into a corresponding notch cut in the end of the gumming apparatus lever (F', F', &c., Figs. 2, 3 and 9) and draws it down until the gummers have gummed the edges of the paper, (when it slips from off the notch) and is drawn up again by the reaction of the spiral spring F², while the stamper is creasing the paper preparatory to its being folded. Letters F', F', &c., Figs. 2, 3, and 10—10, are representations of the gumming lever or spring. From out the end of the lever is cut a square notch corresponding to the width of the stamper-bar B, and fitting into the notch B², on the back of it, and into which, it catches on the drawing down of the stamper. On the upper side of the lever is attached the end of the gumming apparatus rod or stem G², &c., by a pin so as to allow of the bending motion of the lever when being drawn down; also a hook, to take hold of the lower end of the spiral spring F² for the purpose of drawing back the lever, and a spiral spring F³ on its end, and against the upper girt piece of the frame, for the purpose of keeping the notched end of the lever always in contact with the back of the stamper bar, when drawn down by the notch B², and back again by the spring F² after slipping from the notch B² and the edges of the envelopes have been gummed.

Letters G, G, &c., Figs. 1, 2, 3 and 11, are representations of the stem of the gumming apparatus, and G², &c. the rod connecting its lower end to the lever F', so as to admit of its vibrating as the lever F', is drawn

down, and springing back on slipping from the notch, on the stamper bar. Upon the upper end of the gumming stem is a bracket shaped head piece (see letters H, H, &c., Figs. 1, 2, 3 and 11) secured at its center by a screw to the end of the stem, and having on its ends two arms (secured by binding screws,) for holding the brushes or sponges for gumming the edges of the envelopes. Letters J, J, &c., Figs. 1, 2, 3, and 11, are the gumming apparatus arms, on the outer ends of which are brushes or sponges, for gumming the edges of the envelop paper, when brought into contact with it, and the charging or feed sponges K and K, (Fig. 3,) directly underneath them on the face of the table, and at the edges of the folders. Letters L', L', and L², &c., Figs. 1, 2, 3, 4, and 6, are representations of the folders let into the top of the table, so as to be level with it, and by means of the bolts or screws L⁴, L⁴, &c., on the under side of it, held down to the top of the table. On the four sides of the folder square, L', are wings or leaves L², L², &c., jointed to the middle piece L' so that, when the stamper D, has given an impression or creasing to the envelop paper and before being lifted from it, the leaves (L², &c.) may begin to fold or break the edges of the paper up to the required shape, and while the stamper D is being withdrawn, completes the folding of them over, and sealing them by pressing together their gummed edges. These folder wings (L², &c.) have on their lower sides a right angled lever or leg, having a fulcrum at a point where they hinge to the middle piece (L'), and braced or stiffened by a shoulder piece as represented in Fig. 7. To the lower legs of the folder wings are attached, by joints the upper ends of the folding apparatus rods M, M, &c., Figs. 1, 2, 4, and 7. These rods are connected at their lower ends to the top piece of the folder apparatus frame N, N, &c., Figs. 1, 2, 4 and 5, and extend upward with a gradual curve, until within an inch and a half of their upper ends, when they are bent at right angles, and connected by a hinge joint to the lower leg of the folder wings for the purpose of working them in the semi-circular motion required for folding the paper.

Letters N, N, &c., Figs. 1, 2, 4, and 5, are representations of the top piece of the folding apparatus frame. In Fig. 5, it shows the two slots cut out of it, for connecting the ends of the side folding rods to the spring underneath, (see P, P, &c., Figs. 1 and 4); and two holes, (one back and front), for the ends of the front and back folding rod levers, M and M, to be inserted and attached thereto. These rods or levers M, M, &c., are bent outward, and connected to the top piece N; the two side ones through slots to the

springs P, P, and the back and front ones by buttons or washers, at the upper and lower side of the top piece N, so as not to bind their ends, and allow of play enough to facilitate throwing the leaves L², off their centers, when the folder frame is being raised to fold the envelop.

Letters R, R, &c., Figs. 1, 2, and 4, represent a guide rod; at its upper end attached to the under side of the table, and extending down through the center of the folder frame, some 18 or 20 inches for the purpose of steadying or guiding the folder apparatus, as it is worked up and down in folding the envelopes.

Letters T, T, T, &c., Figs. 1, 2 and 4, are representations of the centers upon the sides of the folder apparatus frame, to which are attached the upper ends of the connecting rods or metal straps U, U, &c., for connecting the folder apparatus frame to the treadle W, W, &c., for the purpose of working it.

Letters V, V, &c., represent the pin or bolt for connecting the straps U, U, to the treadle, and mode of bolting them together.

Letters X, X, is a representation of the treadle (W, W, &c.) shaft or center extending across the frame of the machine, and working into "steps" or holes into the lower girt pieces of the frame, and Y, Y, &c., Figs. 1 and 2, a representation of an elastic strap of india rubber, passing underneath the treadle C, C, &c., and attached at its ends to the underside of the table, for the purpose of lifting or drawing back the stamper treadle C after having given an impression to the paper.

The operation of these several parts is that when the treadle C, and stamper bar B are brought down, the notch B², on the back of the bar, catches into the end of the lever F', which it bends down, and also, the gumming apparatus (G—G² and H, I, J,) until the gummers J, have gummed the edges of the paper, when the end of the lever F', slips off the notch B², and is drawn up again by the spiral spring F², attached to its upper side and the lower side of the table. While this is being done, the stamper D, is brought down on the middle piece of the folders L', and the paper, to crease or stamp it, and held there, (that is on the paper) until the operator raises the treadle W, and folding apparatus attached thereto, so as to elevate the leaves L², to a point nearly at right angles to the plate L', for the purpose of breaking the paper around the edges of the stamper D, which at this point, is released by the operator, and is drawn up by the spring Y, and the folders turned down to complete the folding and sealing of the envelopes at which time, the operation is completed and the envelop may be removed.

Having now described the various parts of our machine, and the operation of the same, what we claim as our invention and desire to secure by Letters Patent is—

- 5 The invention herein described for making envelopes, the same consisting of the stamper rod, the gumming apparatus and the folding apparatus, each and all con-

structed and operating substantially in the manner set forth.

JESSE K. PARK.
CORNELIUS S. WATSON.

Witnesses:

MILES B. ANDRUS,
GEO. GIFFORD.