No. 842,283. PATENTED JAN. 29, 1907.

J. WEST.

APPARATUS FOR APPLYING ADHESIVES.

APPLICATION FILED AUG. 12, 1904.

2 SHEETS—SHEET 1.

Fig. 1.

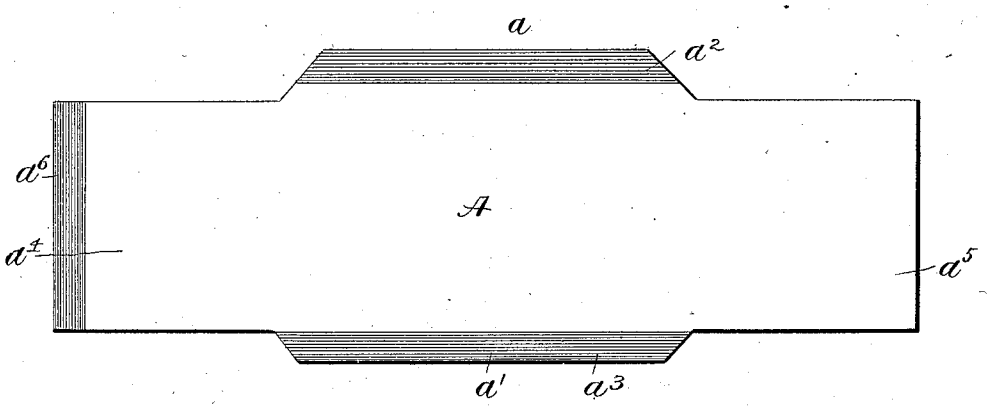


Fig. 2.

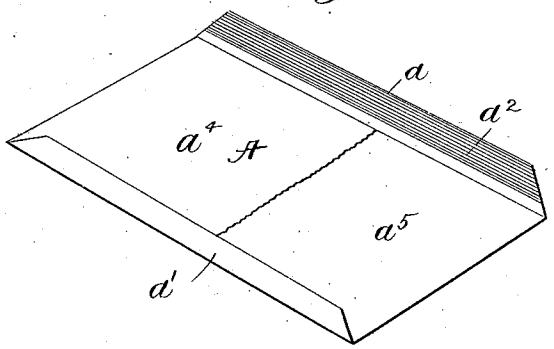
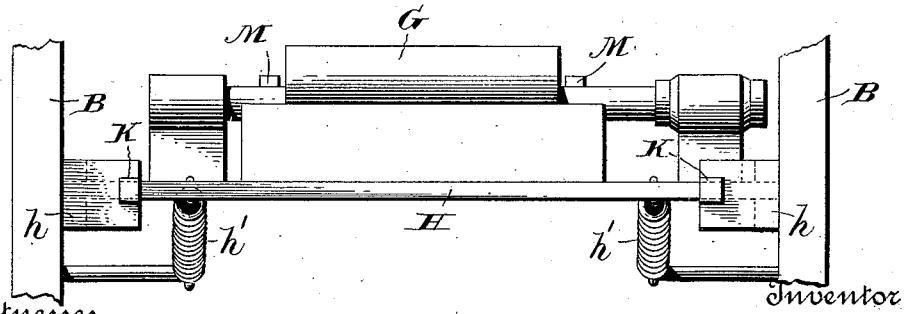


Fig. 3.



Witnesses

Jas. E. Hutchinson.

J. L. Lawlor.

Inventor

James West,

By Pindle and Williamson. Attorneys.

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 842,283. PATENTED JAN. 29, 1907.

J. WEST.

APPARATUS FOR APPLYING ADHESIVES.

APPLICATION FILED AUG. 12, 1904.

2 SHEETS—SHEET 2.

Fig. 4.

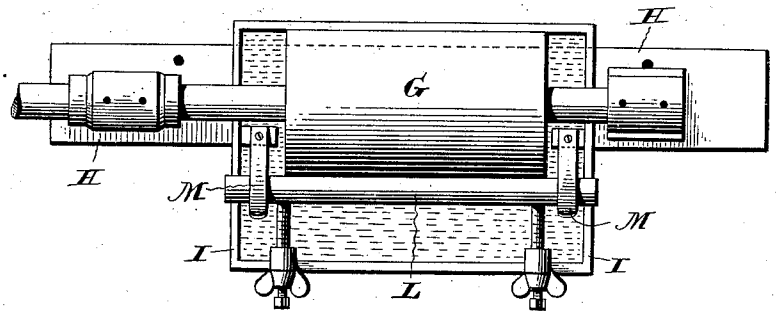


Fig. 5.

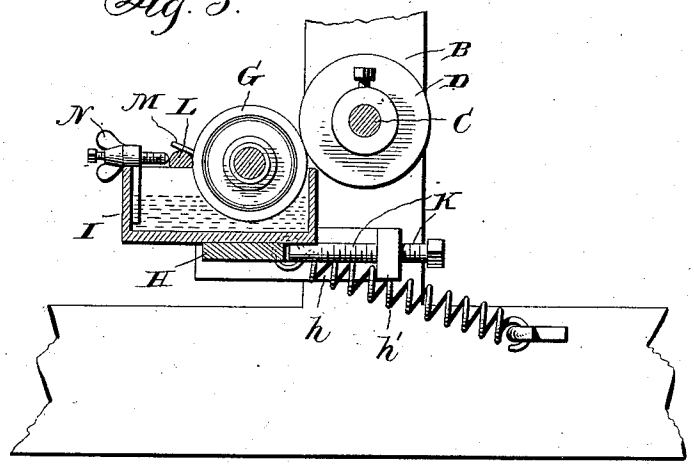


Fig. 6.

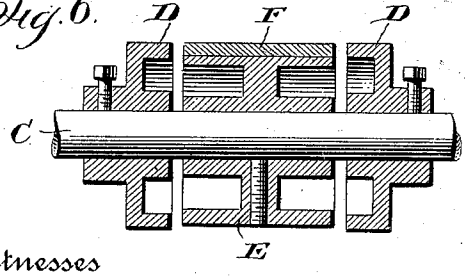
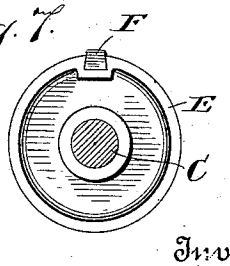


Fig. 7.



Witnesses

Jas. E. Hutchinson.

J. L. Lawlor.

Inventor:

James West.

By Prindle and Williamson, Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES WEST, OF BROOKLYN, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO UNITED STATES ENVELOPE COMPANY, OF SPRINGFIELD, MASSACHUSETTS, A CORPORATION OF MAINE.

APPARATUS FOR APPLYING ADHESIVES.

No. 842,283. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed August 12, 1904. Serial No. 220,524.

To all whom it may concern:

Be it known that I, JAMES WEST, of Brooklyn, in the county of Kings, and in the State of New York, have invented a certain new and useful Improvement in Apparatus for Applying Adhesives; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which—

Figures 1 and 2 are respectively a view of a blank and of a completed envelop made from such blank, to which blank my apparatus is adapted to apply adhesive. Fig. 3 is a side elevation of an adhesive-applying apparatus embodying my invention. Fig. 4 is a plan view of the apparatus illustrated in Fig. 3. Fig. 5 is a transverse sectional view taken on the line $x\,x$ of Fig. 3, and Figs. 6 and 7 are respectively a longitudinal sectional view and an end view of the adhesive-applying roller.

The object of my invention has been to provide an apparatus for applying adhesive, which apparatus shall have, among others, the advantages of being simple, efficient, easily adjusted to apply adhesive to precisely the depth desired, and easily cleaned without disturbing the adjustments; and to such ends my invention consists in the adhesive-applying apparatus hereinafter specified.

As an illustration of my invention I have chosen an apparatus which is adapted to form part of a machine for making envelops from a strip of paper as it travels through the machine.

The envelop, as illustrated in Figs. 1 and 2, may consist of a blank in the form of a rectangular body A, having top and bottom flaps a and a', respectively, each of which is provided with a strip of adhesive a^2 and a^3, respectively. The body A also has end flaps a^4 and a^5, respectively, one of which, the under one a^4, is provided with a strip of adhesive a^6. The blank, as illustrated in Fig. 2, is made into an envelop by securing the gummed end flap a^5 to the opposite end flap a^4 and by securing the bottom flap a' upon both end flaps. The envelop-blanks pass in succession through the adhesive-applying mechanism which forms the subject-matter of the present application, and such action is conveniently effected by having the adjacent end flaps of successive blanks attached to each other, as by forming the blanks out of a continuous strip of paper. The cutting of the end edges of the top and bottom flaps and of the top and bottom edges of the end flaps may be done either before or after the strip passes through the adhesive-applying apparatus.

The frame of my apparatus, so far as I have illustrated it, consists of uprights B, which may comprise part of the frame of the said envelop-machine. A shaft C is journaled in the arms B, and the adhesive-applying devices are mounted on such shaft. As such devices in the use selected are intended to apply the adhesive to a traveling strip of paper or other material, they are preferably, although not necessarily, made circular in cross-section. As I desire to apply the adhesive in a cross-stripe and longitudinal edge stripes on the strip, I provide for such purpose disks D, between which is mounted a cylinder E. The portions of the peripheries of the disks from which it is desired to have adhesive taken up are higher or of greater radius than those portions which it is not desired to so use. The adhesive-applying portion of the cylinder E, I prefer to form as a type-bar F, which is secured to the cylinder, as by dovetailing. The face of the type-bar is flush with that of the adhesive-applying surfaces of the disks D.

Glue or other adhesive is supplied to the disks D and to the type-bar F by such means as a roller G, the latter being mounted on a shaft in bearings upon a bar H, upon which latter is also mounted a preferably rectangular glue-pan I. The shaft of the glue-applying roller is driven in any desired manner. The bar H is received in guides formed in arms h, that are secured to the frame of the machine. Springs h', that are connected to the frame and to the bar H, tend to draw the glue-pan toward the glue-applying devices, the movement in such direction being limited by screws K, that are threaded in said arms and against which the bar H abuts. A scraper-bar L rests upon the upper edges of the glue-pan, forward of the glue-transferring roller L, and such bar is held down upon the said edges by leaf-springs M, that are pivoted upon lugs formed on the glue-pan. The said springs are bent upward at an angle to the horizontal, so that they tend to force the bar away from the

glue-transferring roller. Thumb-screws N regulate the distance at which the scraper-bar stands away from the glue-transferring roller under the action of the said springs. The scraper-bar can be readily removed for cleaning or other purposes by swinging the springs from over the said bar and lifting the bar from behind the screws N. The bar can be instantly replaced in adjusted position, since it is not necessary to turn the screws N in order to remove it. The glue-pan and all its attached parts can also be readily removed by disengaging the springs h' from the bar H, and as this can be done without turning the screws K the glue-pan can be quickly replaced to operative and adjusted position by simply placing the bar H upon its guides and reëngaging the springs h'.

It will be observed that as all the moving parts of my glue-applying apparatus have purely rotary motions the apparatus can be run at a high rate of speed. In practice I have found my apparatus highly efficient and capable of being easily adjusted and cleaned, the cleaning being accomplished without disturbing the accuracy of the adjustments.

Having thus described my invention, what I claim is—

1. In an apparatus of the class described, means for applying adhesive material, a removable pan, a roller in said pan adapted to supply adhesive material to said applying means, stops against which said pan is adapted to rest to determine the distance of the roller from the said applying means, and springs for holding said pan against said stops.

2. In an apparatus of the class described, means for applying adhesive material, a removable pan, a roller in said pan adapted to supply adhesive material to said applying means, adjustable stops against which said pan is adapted to rest to determine the distance of the roller from the said applying means, and springs for holding said pan against said stops.

3. In an apparatus of the class described, the combination of glue-applying rollers, a glue-pan, a glue-transfer roller, a support for said roller and said pan, guides on the frame upon which said support is adapted to rest, screws to engage said support and adjust said transfer-roll with reference to the glue-applying rollers, and springs engaging a fixed part and said support and pressing the latter toward said screws.

4. In an apparatus of the class described, the combination with a glue-pan, a transfer-roll mounted therein and a scraper-bar applied to said transfer-roll, of springs pivoted at one end to allow them to be rocked to release the scraper-bar and having their free ends applied to said scraper to move it away from said transfer-roll.

5. In an apparatus of the class described, the combination with a glue-pan, a transfer-roll mounted therein, of a scraper-bar having its ends supported on said glue-pan and capable of sliding thereon, adjusting-screws bearing against said scraper-bar and springs applied to said scraper-bar with their line of pressure forming an oblique angle with the top of said glue-pan and also with the axes of said adjusting-screws, whereby said scraper-bar is pressed by said springs against the ends of said screws and the top of said glue-pan.

6. In an apparatus of the class described, the combination with a glue-pan and a transfer-roll mounted therein, of a scraper-bar having its ends supported on said glue-pan and capable of sliding thereon, screws held by said glue-pan and bearing against said scraper-bar to adjust its position relatively to said transfer-roll, and springs bearing on said scraper-bar and arranged to crowd it away from said transfer-roll and toward the supporting-surface of said glue-pan.

7. In an apparatus of the class described, the combination of a glue-pan and a transfer-roll mounted therein, of a scraper-bar resting on the upper edges of said glue-pan, springs with their free ends applied to said scraper-bar to press it toward the glue-pan, said springs being pivoted at their opposite ends to enable them to be rocked in order to release the scraper-bar.

In testimony that I claim the foregoing I have hereunto set my hand.

JAMES WEST.

Witnesses:
WM. C. FULLER,
E. B. MURRAY.