

P. J. DANSEREAU.
 IMPRINTING ATTACHMENT FOR ENVELOP MACHINES.
 APPLICATION FILED AUG. 27, 1912.

1,062,895.

Patented May 27, 1913.

2 SHEETS—SHEET 1.

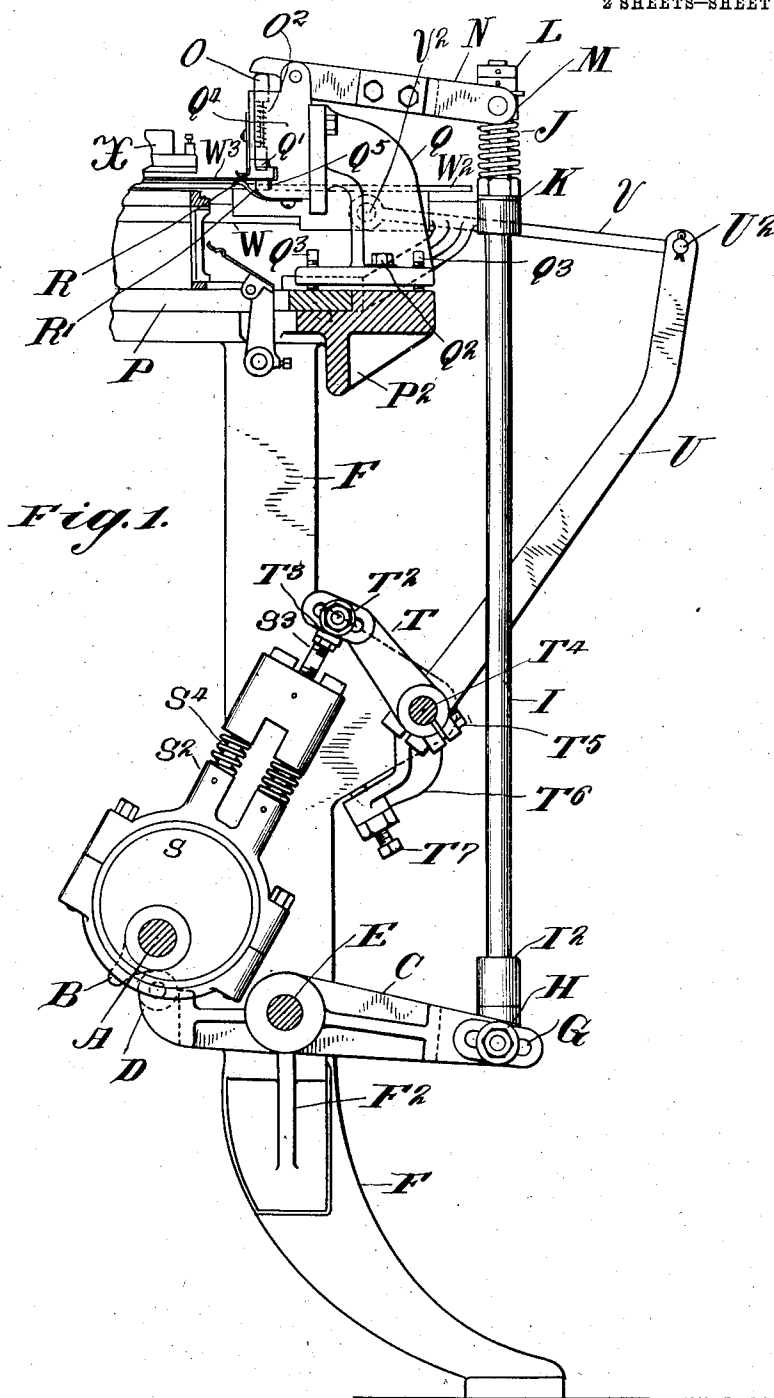


Fig. 1.

WITNESSES
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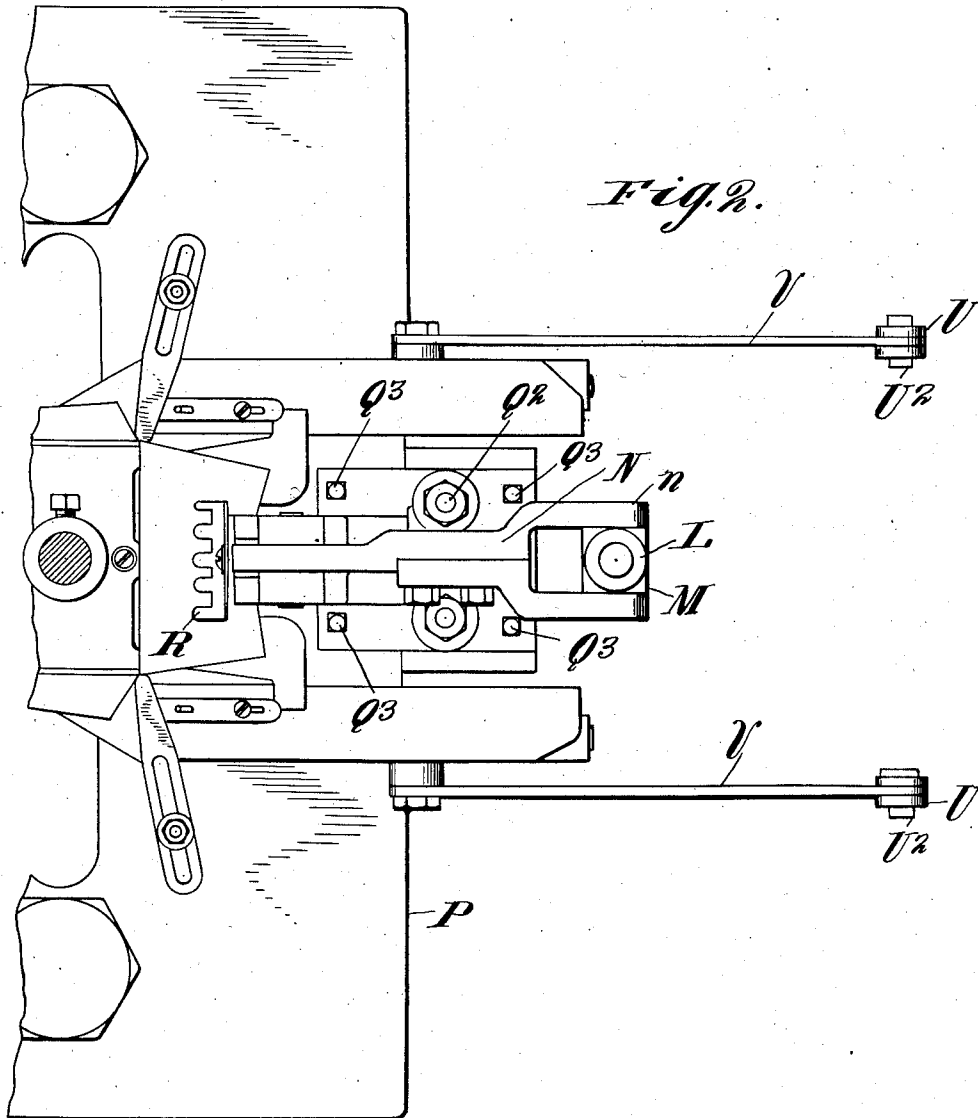
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UNITED STATES PATENT OFFICE.

PRIME JOSEPH DANSEREAU, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO EATON, CRANE & PIKE CO., OF PITTSFIELD, MASSACHUSETTS, A CORPORATION OF MAINE.

IMPRINTING ATTACHMENT FOR ENVELOP-MACHINES.

1,062,895.

Specification of Letters Patent.

Patented May 27, 1913.

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To all whom it may concern:

Be it known that I, PRIME JOSEPH DANSEREAU, a subject of the King of Great Britain, residing at Pittsfield, Berkshire county, State of Massachusetts, have invented certain new and useful Improvements in Imprinting Attachments for Envelop-Machines, of which the following is a specification.

10 This invention relates to machinery for folding and imprinting or embossing envelops, and in particular to that class of envelop machinery where the embossing is done in an envelop machine which follows the general lines, and is an improvement upon what is known as the Reay envelop folder, which was patented in 1863.

15 My invention has for its object to provide means whereby the envelop blank may be embossed while it is in position for the plunger to fold the same; further, to provide cushioned embossing means whereby the paper is preserved; and further, to provide other improvements in the construction of such machines hereinafter set forth.

20 In the accompanying drawings is illustrated a desirable embodiment of my invention. Here, Figure 1 shows a side elevation of part of an envelop machine having my invention applied thereto. Parts of the machine are omitted. Fig. 2 is a plan view of the same.

25 The general method of operation of the machine is to pick up the envelop blank by means of the pickers which gum it and deposit it upon the carriage, then it is carried beneath the plunger and beneath the embossing counter, and when in position beneath the plunger, it is in position for the embossing guide to imprint the flaps.

30 According to my invention a main shaft A is provided which carries an eccentric S which through suitable arms moves the carriage W² and carries the blank W³ to position beneath the plunger X. While the blank is held in such position, imprint cam B on the shaft A through suitable mechanism causes an embossing die to emboss the blank. Adjustable means are provided for limiting the travel of the carriage, and

means are also provided for cushioning the action of the embossing die operating mechanism and for adjusting the imprinter frame.

A detailed description is as follows:—The carriage W² for the envelop machine is moved by the eccentric S which is mounted upon the driving shaft A. Surrounding the eccentric S is the yoke S², which is provided with springs S⁴ to adapt itself to the varying positions of the eccentric S and to permit the operation of means for regulating the travel of the carriage. Yoke S² is connected by means of the right and left hand threaded adjusting rod S³ with the lever arm T, and is adjustable within the slot T² through bracket T³ in which it is threaded and which is mounted in said slot. The lever arm T¹ is clamped upon the rock shaft T⁴ by means of the binding screw T⁵. Upon the same shaft T⁴ is a rocking stop arm T⁶ having adjustable screw T⁷ which comes against frame F. It is possible to regulate the throw of this eccentric S and obtain any desired position at the end of the throw, by adjustment of the bracket T³ in slot T² and of the stop arm screw T⁷. Springs S⁴ permit such variation in the movement of the carriage operating devices. The lever arm U is also clamped upon the rock shaft T⁴ and its upper end is connected by means of a short rod and pins U² to the link V. The link V connects with the carriage W² bearing the envelop W³ by means of the stud V². The carriage W² slides upon the rods W and carries the envelop W³. The driving shaft A also carries an imprint cam B. This cam B engages with an arm of rock lever C through the roll D. The rock lever C rocks about a shaft E suitably supported in the frame F as by the brackets F². The rock lever C on its end opposite the roll D is slotted at G to receive the adjustable stud H, whereby an adjustable connection is provided with link I.

The link I is provided at its lower end with the link heads I² carrying studs H, and thereby the link I is rendered adjustable upon the lever C so as to increase or diminish its movement. Link I is pivotally con-

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nected to the imprint lever N which has a forked end formed of arms *n n* which are trunnioned in a swivel block M which slides upon said link I. This block is maintained in position by adjustable nuts L and K. Between the said block and the nuts K a pressure adjusting spring J is coiled about the said link, which provides a cushion to prevent the movement of the imprinter actuating devices from injuring the paper and permits the pressure on the die to be increased or diminished as desired by adjusting nuts L.

Imprint lever N bears upon plunger O, slidably supported in imprinter head Q⁴, the lower end of which plunger carries the counter Q¹ bearing the matter which it is desired to imprint upon the envelop. A spring O² coiled about the plunger O serves to retract same upon lifting of the imprint lever N.

The machine table P is reinforced with the brackets P². The imprinter head Q⁴ is mounted on imprinter frame Q which is mounted upon the table P, and said frame can be raised or lowered by the adjusting screws Q³, and it is held in place by adjustable studs Q², of which four are illustrated, one on each side of each of the screws Q². By these means the imprinter frame is raised or lowered as desired. The imprint head Q⁴ is fastened to this frame and carries the imprint die Q⁵ and also the two guides R R¹.

The imprinting is so timed that as the plunger O leaves the envelop W³, the envelop machine plunger X operates to form the envelop. In this manner the envelop is mechanically imprinted upon or embossed and completely folded, both operations being completed within such a short space of time and for all intents and purposes, are done practically at the same time.

The operation of this device is as follows:—The rotation of the driving shaft A through cam S causes the link U to move the carriage W², so that the blank W³ is in position beneath the embossing counter Q¹. The length of the carriage stroke may be varied to suit different sizes of blanks by adjustment of set screw T⁷. A continued rotation of the driving shaft A brings the imprint cam B into engagement with the roll D of the lever arm C. The rod I is thereupon thrust upward and the imprint lever N being fulcrumed in the imprint head Q⁴ forces downward the plunger O and bears the imprint die Q¹ against the envelop sheet W³, supported beneath the same on the disk Q⁵, from which position it is returned by spring O². When the imprint cam B passes out of engagement through the roll D, the plunger X is caused to operate to form the envelop.

By the use of the above described mecha-

nism the paper cut will not be held so tightly and will not be strained or in turn strain the press, and by means of various adjustments regulating the tension in the springs it is possible to get either a heavy or light pressure to bear upon the paper suiting the pressure to the stock that it got through the machine, and to also adjust the position of the counter.

Without particularly limiting myself or confining the invention the above described apparatus simply shows one of the means by which my invention can be carried out, but I claim and desire to protect as the essential features of my device as follows.

I claim as my invention:—

1. In an envelop making machine, means for imprinting the blank before folding comprising an imprinting plunger, a rock lever for actuating same, an actuating link and connections between the lever and link comprising a block swiveled to said lever and adapted to slide on said link, adjusting nuts on said link for limiting the play of said swivel block, and a cushioning spring between one of said nuts and said block and means for operating said parts.

2. In an envelop making machine, a folding mechanism, an imprinting head, imprinting devices therein, said imprinting head adapted to operate upon a sheet of paper while the paper is in position to be folded by said folding mechanism, and adjustable means for actuating said imprinting devices and means for adjusting the height of said imprint head.

3. In an envelop making machine, an imprinting head, imprinting devices therein, and adjustable spring cushioned means for actuating said imprinting devices and means for adjusting said imprint head, a frame carrying said imprint head, threaded means for adjusting the height of said frame, and adjustable studs for holding said frame in adjusted position.

4. In combination with a machine for making envelops having a forming plunger, an imprinting device positioned to operate on a blank when in position to be operated on by said forming plunger, a carriage for moving blanks into position to be operated on by said plunger and said imprinting device, yieldable means for reciprocating said carriage, and an adjustable stop adapted to limit the movement by said operating means of said carriage in its movement to bring said blanks into position to be operated on by said plunger and imprinting device, said means for reciprocating said carriage being adapted to yield when said stop acts to limit the movement of the carriage.

5. In combination with a machine for making envelops having a forming plunger,

an imprinting device positioned to operate on a blank when in position to be operated on by said forming plunger, a carriage for moving blanks into position to be operated on by said plunger and imprinting device, means for operating said carriage comprising a rock shaft, an adjustable stop arm mounted on said rock shaft and adapted to abut against a fixed part of the machine to adjustably limit the travel of said carriage in its movement to bring said blanks into position to be operated on by said plunger and imprinting device.

6. In combination with a machine for making envelopes having a forming plunger, an imprinting device positioned to operate on a blank when in position to be operated on by said forming plunger and imprinting device, a carriage for moving blanks into position to be operated on by said plunger and imprinting device, means for operating said carriage comprising a rock shaft, an adjustable stop arm mounted on said rock shaft and adapted to abut against a fixed part of the machine to adjustably limit the travel of said carriage in its movement to bring said blanks into position to be operated on by said plunger and imprinting device, and spring means for adjusting the stroke of said imprinting devices whereby the same is adapted for printing various thicknesses of paper.

7. An envelop making machine having a forming plunger and a carriage for moving a blank beneath said plunger, a main driving shaft and connections therefrom for operating said carriage including an adjustable stop for varying the travel of said carriage, and imprinting devices adapted to print the blank when in folding position and connections whereby said imprinting devices are operated from said main shaft.

8. An envelop making machine having a forming plunger and a carriage for moving a blank beneath said plunger, a main driving shaft and connections therefrom for operating said carriage, including a rock shaft, a stop arm adjustably mounted on said rock shaft and adapted to abut against a fixed part of the frame, and imprinting devices adapted to print the blank when in folding position and connections whereby said imprinting devices are operated from said main shaft.

9. An envelop making machine having a forming plunger and a carriage for moving a blank beneath said plunger, a main driving shaft and connections therefrom for operating said carriage, and imprinting devices adapted to print the blank when in folding position and connections whereby said imprinting devices are operated from said main shaft, including a rock lever and

a link, a block mounted to slide upon one of said parts and swiveled to the other, adjustable nuts limiting the play of said swivel block, and a cushioning spring between said block and one of said nuts.

10. An envelop making machine having a forming plunger, a carriage adapted to carry the blank beneath said plunger, imprinting devices adapted to print said blank when in folding position, a main shaft adapted to actuate both said carriage and said imprinting devices and operating connections, the said connections between said shaft and said carriage including adjustable stopping means, a cam on said shaft, and connections between said cam and said stop arm including a compression spring.

11. An envelop making machine having a forming plunger, a carriage adapted to carry the blank beneath said plunger, imprinting devices adapted to print said blank when in folded position, a main shaft adapted to actuate both said carriage and said imprinting devices and operating connections, the said connections between said shaft and said carriage including a rock shaft, a stop arm thereon adapted to abut against a fixed part of the frame, a cam on said shaft, a rock lever on said rock shaft, and means for operating said lever from said cam including a compression spring.

12. An envelop making machine having a forming plunger, a carriage adapted to carry the blank beneath said plunger, imprinting devices adapted to print said blank when in folding position, a main shaft adapted to actuate both said carriage and said imprinting devices and operating connections, the said connections between said shaft and said carriage including a rock shaft, a stop arm thereon adapted to abut against a fixed part of the frame, a cam on said shaft, a rock lever on said rock shaft, and means for operating said lever from said cam including a compression spring and an adjustable connecting rod.

13. In combination with a machine for making envelopes having a forming plunger, a carriage for moving blanks into position to be operated on by said plunger, yieldable means for reciprocating said carriage, and an adjustable stop adapted to limit the movement of said operating means of said carriage in its movement to bring said blanks into position to be operated on by said plunger, said means for reciprocating said carriage being adapted to yield when said stop acts to limit the movement of the carriage.

14. In combination with a machine for making envelopes having a forming plunger, a carriage for moving blanks into position to be operated on by said plunger, means for

operating said carriage comprising a rock shaft, an adjustable stop arm mounted on said rock shaft and adapted to abut against a fixed part of the machine to adjustably
5 limit the travel of said carriage in its movement to bring said blanks into position to be operated on by said plunger.

In witness whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

PRIME JOSEPH DANSEREAU.

Witnesses:

HENRY DAY BRIGHAM,
EDSON BONNEY.
