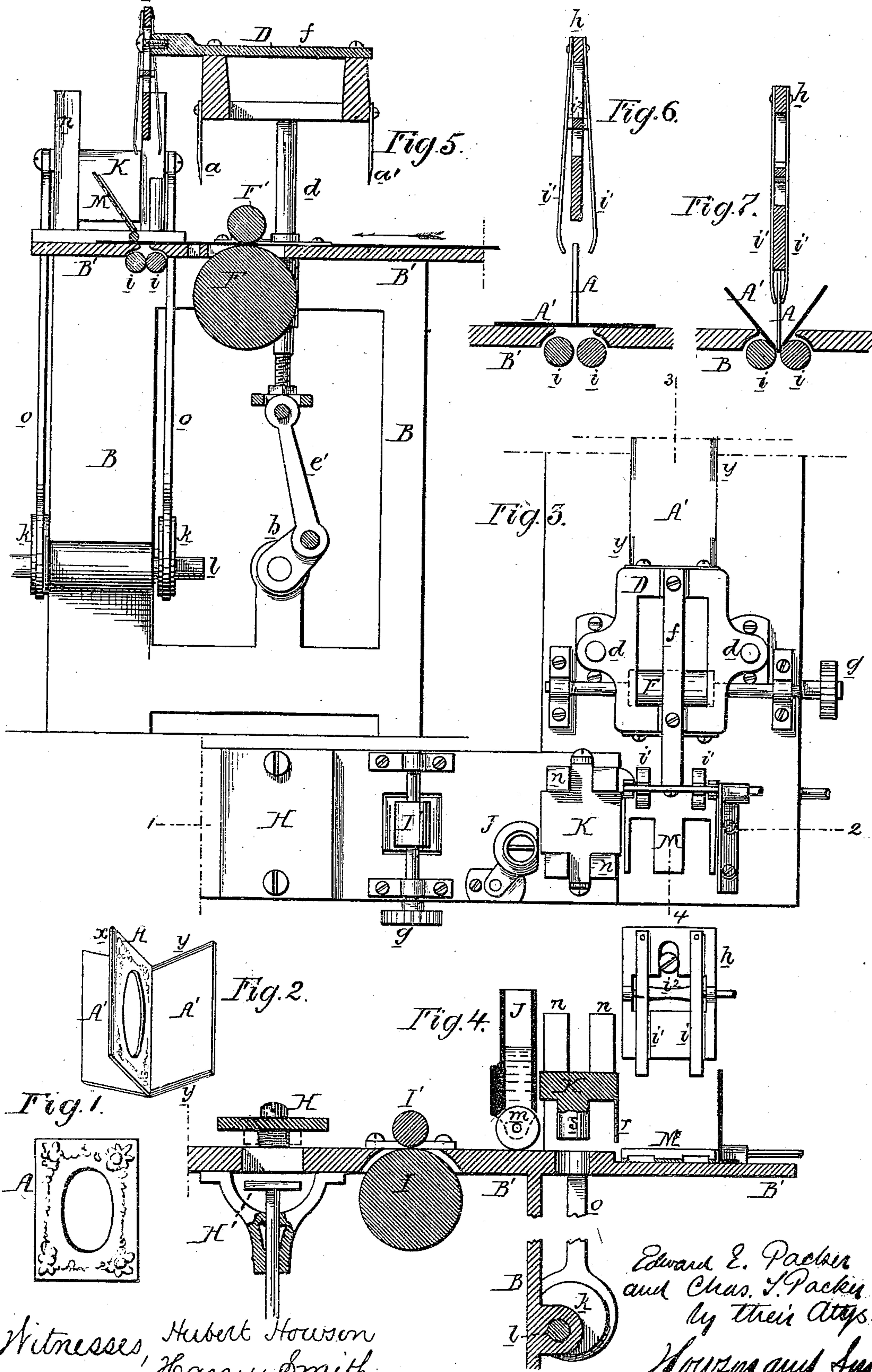


E. E. & C. T. PACKER.
Machines for Making Card-Envelopes.
No. 148,743. Patented March 17, 1874.



Witnesses, Hubert Howson
Harry Smith

Edward E. Packer
and Chas. T. Packer
by their Atty.
Howson and Son.

UNITED STATES PATENT OFFICE.

EDWARD E. PACKER AND CHARLES T. PACKER, OF PHILADELPHIA, PA.,
ASSIGNOR TO WILLIAM H. NIXON AND EDWARD D. STOKES, OF SAME
PLACE.

IMPROVEMENT IN MACHINES FOR MAKING CARD-ENVELOPES.

Specification forming part of Letters Patent No. 148,743, dated March 17, 1874; application filed
January 10, 1874.

To all whom it may concern:

Be it known that we, EDWARD E. PACKER and CHARLES T. PACKER, of Philadelphia, Pennsylvania, have invented a Machine for Making Card-Envelopes, of which the following is a specification:

The object of our invention is to manufacture, rapidly and economically, photograph cards or mats and card-envelopes, such as are used principally for ferrotypes, one of these cards or mats being shown in the perspective diagram, Figure 1 of the accompanying drawing, and one of the envelopes in the perspective diagram, Fig. 2; and we accomplish this object by means of the machine shown in the plan view, Fig. 3, and vertical sections, Figs. 4 and 5 of the drawing.

The card or mat A, Fig. 1, is composed of a single piece of comparatively thick paper or card-board, and the envelope, Fig. 2, consists of a similar card, H, provided with a cover, A', of thinner paper.

The complete machine illustrated in the drawing is adapted for the production of the envelope, Fig. 2, and consists of two parts, one for forming the card A, and the other for forming the cover A', these two parts operating separately, but in unison with each other, during the preliminary treatment of their respective papers, but having a joint action during the completion of the envelope.

In the drawing, Fig. 4—which is a vertical section on the line 1 2, Fig. 3—shows sufficient of the mechanism for operating on the thick paper composing the card A, and Fig. 5—which is a vertical section on the line 3 4, Fig. 3—illustrates the device for operating on the thinner paper, of which the cover A' of the envelope is composed.

B is the frame of the machine, carrying the table B', above which are those parts of the machine which operate on the two papers, and which we will now proceed to describe by referring, in the first instance, to the parts which act on the card A, and which are shown in Fig. 4. To the table B', near the outer end of the same, is connected a printing-press, for printing or embossing the ornamental design which surrounds the oval opening in the card, H be-

ing the bed of the press, and H' the platen, operated from below by any suitable mechanism. In bearings on the table turn two drawing-rollers, I and I', the former being beneath and the latter above the table, and to the journal of the roller I is attached a ratchet-wheel, g, Fig. 3, which is operated at the proper intervals by any suitable appliances from some moving part of the machine. A paste-reservoir, J, is arranged above the table, and is provided with a wheel, m, which deposits an even layer of paste on one side, near the edge x of the card-paper. (See Fig. 2.) A cross-head, K, operated by eccentrics k on a counter-shaft, l, through the medium of connecting-rods o o, slides between, and is guided by four upright standards, n, and is provided with a punching-die, s, and a blade, r, the functions of which will be explained hereafter. A hinged platform, M, is arranged near the cross-head, for receiving the card and delivering it to the folding mechanism. That portion of the machine which operates on the cover paper A', Fig. 2, is arranged on the table B' at right angles to the mechanism above described, and is shown in the plan view, Fig. 3, and vertical section, Fig. 5. Above the table B' is a vertically-reciprocating cross-head, D, provided at its opposite ends with blades a a', and operated directly from a crank, b, on the driving-shaft, through the medium of sliding rods d d and connecting-rods e'. There are in the table B' a suitable opening and groove, which admit the edges of the blades a a' when the cross-head D descends. To the top of this cross-head is attached a bar, f, the front end of which carries the plate h, shown more fully in the enlarged sections, Figs. 6 and 7, and to this plate are attached the spring-jaws i' i', referred to hereafter. In suitable bearings on the table turn two drawing-rollers, F and F', similar to the rollers I I', above referred to. There is an opening in the table B' directly beneath the plate h, and below this opening turn the folding-rolls i i'.

The operation of the machine is as follows: The paper from which the card A is to be formed is taken from a roll in a continuous strip of the proper width, and passes first be-

neath the bed H of the printing or embossing press, where it receives from the platen the desired impression, and is then fed by the drawing-rollers I I' beneath the paste-receptacle J, and receives a layer of paste near its edge *x*, after which it passes beneath the cross-head K, the die *s* of which punches the desired hole in the card-paper, which finally reaches the platform M, the card being severed from the continuous strip by means of the blade *r*. The paper from which the cover A' of the envelope is to be formed is also taken in a continuous strip from a roll, and in its passage toward the cutting and creasing knives *a a'* is pasted at intervals on both edges *y y*, by means of pasting appliances common to envelope-machines, and therefore not shown in the drawing. The paper passes between, and is drawn forward by the rollers F F', and fed by them, in the direction of the arrow, across the opening in the table, beneath which turn the folding-rolls *i i*, and is severed by the blade *a*, and creased by the blade *a'*. The severed paper while in this position is ready for the reception of the printed, pasted, punched, and severed card A, which is now turned upward, as shown in Fig. 5, until the card is in the vertical position seen in Fig. 6, with its lower edge on the cover A', directly above the folding-rolls *i i*, and beneath the plate *h*, the latter being provided with spring-jaws *i¹ i¹*, which can be opened, as shown in Fig. 6, by means of a cam, *i²*. The plate *h* descends, and the cam *i²* is turned so as to permit the spring-jaws to close on the card, as shown in Fig. 7, when the platform falls to its original position. The spring-jaws hold the card firmly, and prevent it from being bent or distorted as it is forced downward by the plate *h* onto the cover paper, and is directed with the latter between the folding-rollers *i i*, which complete the operation by uniting the card and cover at the points where they have been pasted, the completed envelope passing directly to a receptacle be-

neath the machine, or being carried by means of an endless belt to further pressure appliances in order to thoroughly insure the proper junction of the two parts of the envelope.

By the aid of the above machine, which, as will be seen, is perfectly automatic, we are enabled to entirely dispense with the manual labor heretofore required in the manufacture of this class of work, and consequently to produce it much more rapidly and economically.

It has not been deemed necessary to illustrate in the drawing or describe in the specification the driving mechanism by which the intermittent and other movements of the operating parts of the machine are effected, as different devices for this purpose will readily suggest themselves to those familiar with machines of this class.

In manufacturing the simple card or mat A without a cover, as shown in Fig. 1, the portion of the machine illustrated in Fig. 5, and the pasting appliances J, and hinged platform M, Fig. 4, are dispensed with.

We claim as our invention—

1. In a machine for manufacturing card-envelopes, mechanism substantially as described, for feeding, pasting, punching, and severing the card-paper A, and operating in unison with mechanism substantially as specified, for pasting, feeding, and severing the cover paper A' preparatory to the union of the two papers.

2. The combination of the hinged platform and spring-jaws *i¹ i¹* for seizing the severed card.

3. The spring-jaws *i¹ i¹* and plate *h*, in combination with the folding-rolls *i i*.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

EDWD. E. PACKER.
CHAS. T. PACKER.

Witnesses:

WM. A. STEEL,
HARRY SMITH.