

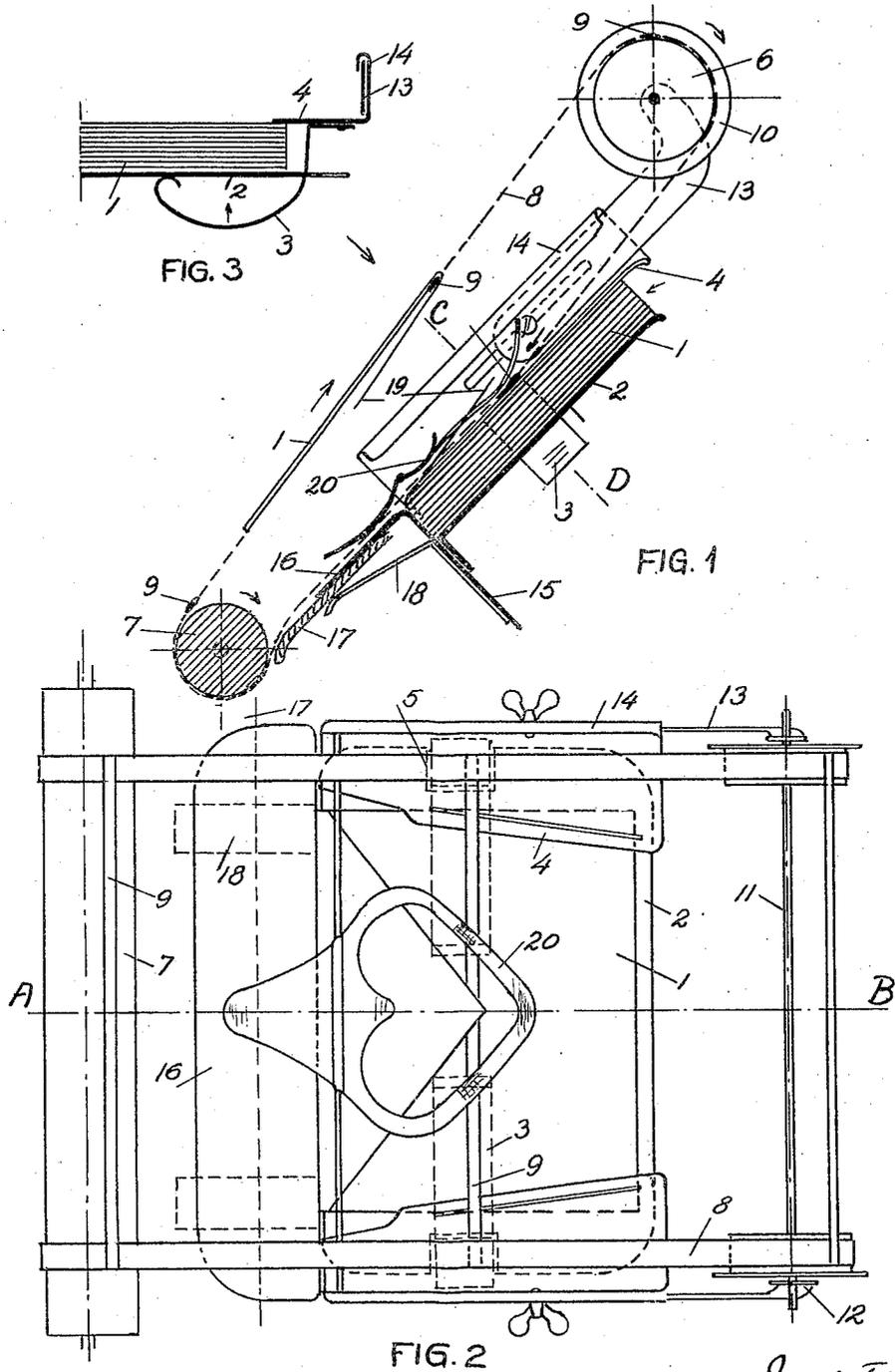
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TYPEWRITER AND LIKE MACHINE

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UNITED STATES PATENT OFFICE

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TYPEWRITER AND LIKE MACHINE

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I have made applications in Norway on the 12th April, 1930. Patent not yet granted; Sweden on the 9th April, 1931, Denmark, on the 11th April, 1931, Germany on the 11th April, 1931, and Great Britain on the 13th April, 1931.

The present invention relates to typewriters and has for its object to provide an automatic device for the insertion of envelopes into a typewriter. According to one construction a pile of envelopes is arranged on a support adapted to receive a feed movement, and the envelopes are removed one by one from the pile by means of endless transporting means, are carried by these means around the platen of the typewriter, and after the completion of the typing are removed from the platen and conveyed to a suitable point where they are discharged.

One construction embodying the features of the invention is illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a sectional elevation of the improved device taken on line A—B of Fig. 2,

Fig. 2 is a plan of the device corresponding to Fig. 1, and

Fig. 3 is a detailed cross section on line C—D of Fig. 1, showing the pile support and the manner of its mounting on the machine.

Referring to the drawing, a pile containing a suitable number of envelopes 1 is carried upon a supporting plate 2 adapted to be fed by springs 3 which hold the supporting plate pressed against a frame 4, slots 5 being provided in the plate 2 for the reception of the springs and for guiding the plate 2 along its longitudinal edges with flanges 14 in which are adjustably mounted lugs 13. These lugs 13 carry by means of bearing members 12 a shaft 11 on which are rotatably mounted rollers or pulleys 6. Over the pulleys 6 and the ends of the platen 7 of the typewriter run two bands or belts 8 carrying a number of thin cross bars 9. The pulleys 6 are preferably provided with flanges 10 for guiding the endless belts. Alternatively, the pulleys may be provided with projections en-

gaging openings in the belts for the purpose of guiding and driving the latter.

The envelopes 1 rest with their forward ends against a stop plate 15 which is provided with a downwardly bent portion 16. The latter portion 16 rests on the paper apron 17 of the typewriter and serves as a slide for the envelopes. The plate 15 is provided with two clips 18 which grip the surface of the paper apron 17 and together with the portion 16 serve for attaching the device to the machine.

To insure that the cross bars 9 of the transporting device shall always slip under the closing flap 19 of the envelope, a plate 20 is provided which forces the said cross bars down, just before they reach the flaps of the envelopes. The plate 20 is so shaped as to leave the closing flaps loose or free.

The operation is as follows:

When the platen of the typewriter is turned, the belts are moved in the direction of the arrows and one of the cross bars 9 slips under the closing flap 19 of the topmost envelope and during continued rotation of the platen carries the envelope around the platen into the position for typing. Upon further rotation of the platen the endless belts are further moved and the cross bars carry the envelope out of the platen, whereupon the envelope is discharged at the rear of the device.

It will be understood that in the foregoing description the term "typewriter" is meant to include any similar machine employing a platen, and the term "envelope" is intended to cover articles similar to envelopes and intended to be inserted into the machine. Details of construction may be modified in various ways without departing from the scope of the invention. For instance, instead of employing two belts provided with cross bars a single broad belt arranged on rollers might be employed.

I claim:

1. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes; means for rolling the topmost envelope around the platen comprising thin cross bars arranged between two endless bands and adapted to engage the envelopes

between the closing flap and the main body; and means for pressing down the said cross bars against the pile comprising a resilient plate adapted to press upon the pile whilst leaving the closing flap of the topmost envelope free, substantially as described.

2. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes; means for rolling the topmost envelope around the platen comprising thin cross bars arranged between two endless bands and adapted to engage the envelopes between the closing flap and the main body; and means for guiding the said cross bars and forcing them to slip under the flap of the topmost envelope comprising a resilient plate adapted to press upon the pile whilst leaving the closing flap free, substantially as described.

3. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes; means for rolling the topmost envelope around the platen comprising two endless bands having between them cross bars adapted to engage the envelopes between the closing flap and the main body; and means for pressing the said cross bars against the pile just before the said cross bars reach the flap comprising a resilient plate adapted to press on the pile whilst leaving the flap free, substantially as described.

4. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes comprising a displaceable plate and spring means acting on said plate; means for rolling the topmost envelope around the platen comprising two endless bands having between them cross bars adapted to engage the envelopes between the closing flap and the main body; and means for pressing the said cross bars against the pile just before the said cross bars reach the flap comprising a resilient plate adapted to press on the pile whilst leaving the flap free, substantially as described.

5. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes; means for rolling the topmost envelope around the platen comprising thin cross bars arranged between two endless bands and adapted to engage the envelopes between the closing flap and the main body; said supporting means including means for feeding the pile of envelopes to the said cross bars comprising a movable plate and spring means tending to move the said movable plate towards the said cross bars; and means for pressing the said cross bars against the pile just before the said cross bars reach the flap comprising a resilient plate adapted to press on the pile whilst leaving the flap free, substantially as described.

6. In a typewriter the sub-combination of a platen; means for supporting a pile of en-

velopes; two endless bands passing around said platen; cross bars arranged between said endless bands and adapted to engage under the closing flap of the topmost envelope of the said pile; and a resilient plate pressing on said pile, said resilient plate being adapted to leave the closing flap free, substantially as described.

7. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes; two endless bands passing around the said platen; cross bars arranged between said endless bands and adapted to engage under the closing flap of the topmost envelope of the said pile; and a resilient plate adapted to press upon the said pile whilst leaving the closing flap free, substantially as described.

8. In a typewriter the sub-combination of: a platen; means for supporting a pile of envelopes; two endless bands passing around the said platen; cross bars arranged between said endless bands and adapted to engage under the closing flap of the topmost envelope of the said pile; and a resilient plate adapted to guide the said cross bars and force them to slip firmly under the flap of the topmost envelope, substantially as described.

9. In a typewriter the sub-combination of: a platen; a movable plate for supporting a pile of envelopes; spring means adapted to press said movable plate against said pile; two endless bands passing around the said platen; cross bars arranged between said endless bands and adapted to engage under the closing flap of the topmost envelope of the said pile; and a resilient plate adapted to press the said cross bars against the said pile and force them to slip firmly under the flap of the topmost envelope, substantially as described.

Signed at Stavanger, Norway this 8th day of May, 1931.

PAUL DREYER.

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