J. S. DUNCAN.

PRINTING DEVICE.

APPLICATION FILED JUNE 8, 1912.

1,087,223.

Patented Feb. 17, 1914

Fig. 1

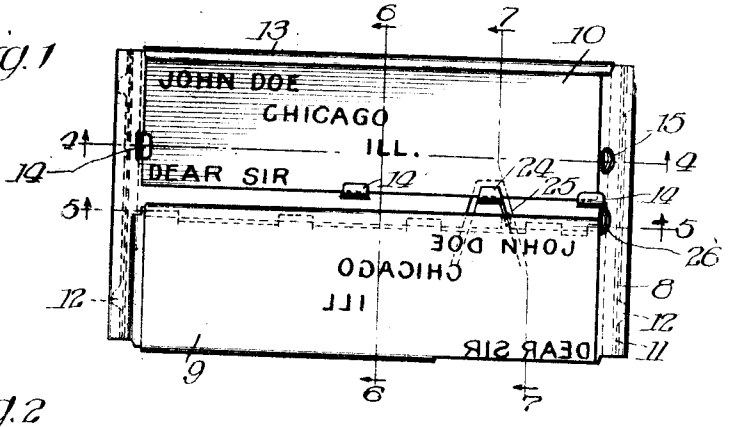


Fig. 2

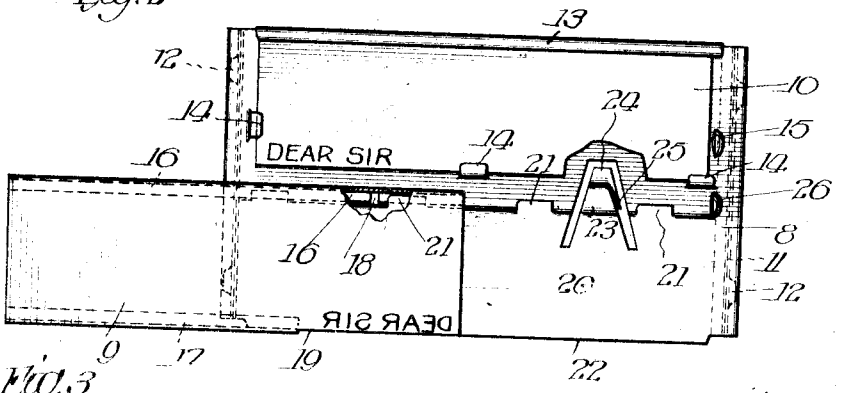


Fig. 3

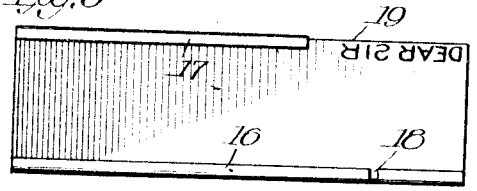


Fig. 4

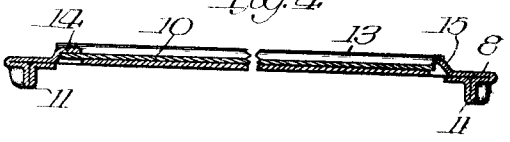


Fig. 5

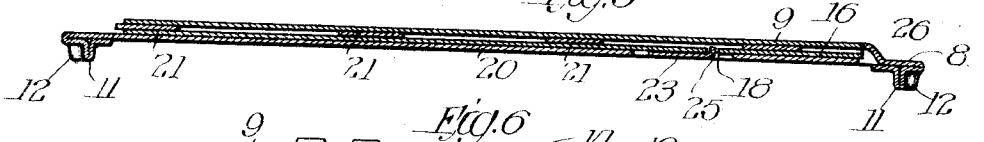


Fig. 6

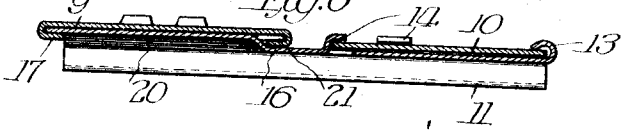
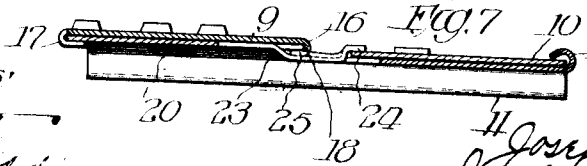


Fig. 7



Witnesses:

Inventor:

Joseph S. Duncan

by Duncan, Dick & Fuller

UNITED STATES PATENT OFFICE.

JOSEPH S. DUNCAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO ADDRESSOGRAPH COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

PRINTING DEVICE.

1,087,223. Specification of Letters Patent. Patented Feb. 17, 1914.

Application filed June 8, 1912. Serial No. 702,381.

To all whom it may concern:

Be it known that I, JOSEPH S. DUNCAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Printing Devices, of which the following is a specification.

This invention relates to novel improvements in printing devices of that class which bear addresses or other matter and are run through suitable machines to print on envelops and the like and are stored in trays or drawers in accordance with a card index system.

The invention relates more particularly to that special class of printing devices which embody a frame having a card and a printing plate detachably mounted thereon, the printing plate having printing characters stamped thereon and the card bearing an impression of the printing characters or other matter. The impression from these printing devices is made through an ink ribbon directly upon the envelop or other article or the type characters are inked by a roller or other suitable means and the impression taken therefrom, and it is desirable that the ribbon or other inking device should engage the face of the type characters only and not engage any of the other parts of the printing device. I propose to employ these printing devices for printing the address of letters and they are intended to carry a salutation and be used in connection with a letter form. It is desirable, therefore, that the salutation shall be so disposed on the plate that it will appear on the letter in its proper position relative to the body of the letter in accordance with standard typewriter spacing which is six lines to the inch.

One of the objects of this invention is to provide improved means for holding the plate so that the printing faces of the type characters on the plate will be the only parts exposed to the ribbon or other inking means.

Another object of the invention is to elevate the printing faces of the type characters above the adjacent parts of the device so that they will receive ink and all of the other parts will be protected from engagement with the inking means. And a further object of the invention is to enable the location of the salutation close to the margin of the device so that it will register with the address and also with a letter form with which the device is used to print in accordance with standard typewriter spacing.

In the accompanying drawings illustrating one embodiment of the invention Figure 1 is a front view of the device; Fig. 2 is a similar view with the printing plate partially engaged with the frame; Fig. 3 is a back view of the detached printing plate; Figs. 4 and 5 are enlarged lengthwise sectional views of the printing device on the lines 4—4 and 5—5, respectively, of Fig. 1; and Figs. 6 and 7 are enlarged transverse sectional views on the lines 6—6 and 7—7, respectively, of Fig. 1.

In the drawings like numerals of reference designate corresponding parts in the several figures and referring thereto 8 is the frame, 9 the printing plate and 10 the card. The frame is made of sheet metal and its ends are bent inwardly upon the back of the frame and upset and squeezed together to form the spacing flanges 11, substantially as disclosed in my Patent No. 1,026,245 dated May 14, 1912. The spacing flanges are widened at intervals at 12 by providing bumps or projections or protuberances on the outer side thereof. This is conveniently effected by not squeezing the upset portions forming the flanges where it is desired that they shall be widened. These widener portions of the spacing flanges prevent the ends of the frame from becoming accidentally locked in engagement with spacing flanges of the open type as illustrated, for example, in my Patent No. 1,026,246 dated May 14, 1912, when devices having the two different types of flanges are used at the same time.

The card 10 is removably held in place on the upper part of the frame by the bead 13, the lips 14 and the end stop 15, all of which are integral with the frame. The plate 9 has a bead 16 at its upper edge and a bead 17 at its lower edge, both located on the back of the plate. The upper bead 16 has a notch 18 and the lower bead 17 extends from one end of the plate only part way to the other end of the plate, leaving that part of the lower edge of the plate at 19 without a bead. The lower portion of the frame is elevated to form a bed 20 for the printing plate and this bed is provided at its upper margin with a plurality of lips 21. The plate is arranged to slide lengthwise from left to right into position on the

frame, the upper bead 16 engaging the lips 21 on the frame and the lower bead 17 engaging the lower edge 22 of the frame. I provide a spring locking device which consists of a tongue 23 formed by cutting material out of the frame and this tongue is suitably bent to provide a lip 24 and a lug 25, the latter being arranged to engage the notch 18 in the bead 16 to lock the plate in place on the frame. The lip 24 is bent to project above the card 10 in convenient position to be depressed by the thumb or finger to release the lug from the notch so that the plate may be removed. I may also provide a stop 26 at the end of the frame to limit the movement of the plate in that direction.

It will be observed that there are no projections on the type side of the plate other than the type characters and that the projections on the frame are all preferably located in a plane below the face of the type characters. If the impression is made through a ribbon directly upon an envelop by applying pressure to the frame or to the envelop or to both, there will be no liability of any part of the device except the face of the type characters receiving ink for the ribbon will not be pressed into engagement with any of the parts of the frame or with any part of the printing plate except the face of the type characters thereon; and the same will be true if the ink is applied by means of a roller or other means. This construction and arrangement of parts permits the salutation to be located very close to the lower edge of the device. This is an important feature of the invention because, as before stated, it is desired to use the device in connection with a letter form and take an impression from both the address form on the plate and the letter form at the same time, the location of the salutation at the margin or edge of the device permitting the device to be registered with the printing form so that the impression of the address, the salutation and the letter form will all be spaced according to standard typewriting spacing. The salutation may be stamped in the plate when the beads are formed thereon in one operation for which reason the bead 17 extends only as far as the salutation space. Thus a quantity of plates with the different salutations "Dear Sir", "Dear Madam", and "Gentlemen" may be made up and kept in stock and the address stamped on the plate bearing the proper salutation for the address. This facilitates the production of the stamped plates and lessens the cost to manufacture, besides insuring the location of the salutation at the proper place.

My invention provides a printing device of simple construction and compact form which receives ink only on the face of the type characters, and the other parts are protected so that they will keep clean and not smudge the work or make an impression through an ink ribbon on the work. The salutation may be omitted if the device is not to be used in connection with a letter form, or provision may be made to prevent it from printing.

I claim:

1. A printing device comprising a frame and a printing plate, said printing plate having type characters stamped thereon and also provided with beads on the back of the plate forming grooves to slidably engage parts of the frame, one of said beads having a notch, and the plate having a locking device to engage the notch.

2. A printing plate provided with beads on the back of the plate to slidably engage parts of a frame, said beads being formed by bending over opposite edges of the plate and the bead at the lower edge of the plate extending from the lefthand end of the plate to a point intermediate of the ends of the plate, said plate having type characters stamped thereon to form an address and other type characters stamped thereon to form a salutation adjacent to the lower edge of the plate where the bead is omitted.

3. A printing device, comprising a sheet-metal frame having an elevated bed stamped up along and including one edge thereof, there being lips struck up from the frame at the inner edge of the elevated bed and projecting laterally away therefrom substantially in the plane of the bed, and a printing plate having type characters on its face and beads at its opposite edges providing grooves to slidingly engage said lips and the outer edge of the bed.

4. A printing device comprising a frame having lips and a locking device thereon, a plate having type characters thereon, and beads on the back of the plate to engage an edge of the frame and said lips, one of said beads having a notch to receive said locking device.

5. A printing device having a spacing flange at each end thereof and extending transversely on the back of the device, each flange being extended laterally at intervals on the outer side thereof.

6. A printing device consisting of a metal frame having edge portions folded back upon the frame, said folded portions being upset between the inner edges thereof and the outer end edges of the frame and squeezed together to form spacing flanges, said spacing flanges being widened on the outer sides thereof at intervals.

7. A printing device comprising a sheet metal frame, and a printing plate removably carried by the frame and having its outer edge bent over across the back of the printing plate to form a bead embracing the ad-

jacent edge of the frame, said printing plate being provided with printing characters at the beaded edge of the plate, whereby a predetermined line spacing may be preserved.

8. A printing device comprising a sheet metal frame having an elevated bed stamped up along one longitudinal edge thereof, and a printing plate removably supported on said bed and provided with printing characters along one edge thereof adapted to overlie the outer longitudinal margin of said bed on the frame, whereby the printing characters are disposed at the edge of the frame to preserve a predetermined line spacing.

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Witnesses:
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M. A. KIDDIE.