

J. S. DUNCAN.
 PRINTING DEVICE.
 APPLICATION FILED JULY 17, 1911.

1,015,758.

Patented Jan. 23, 1912.

Fig. 1

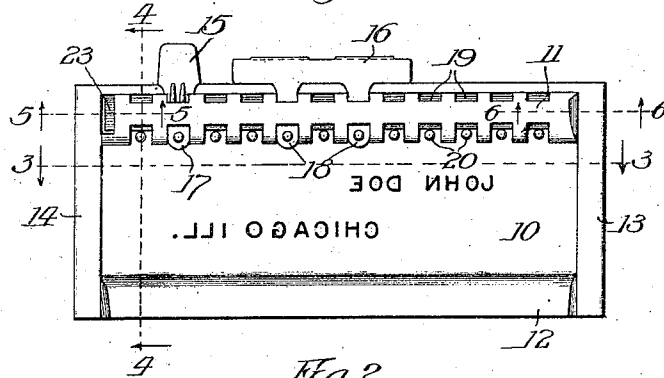


Fig. 2.

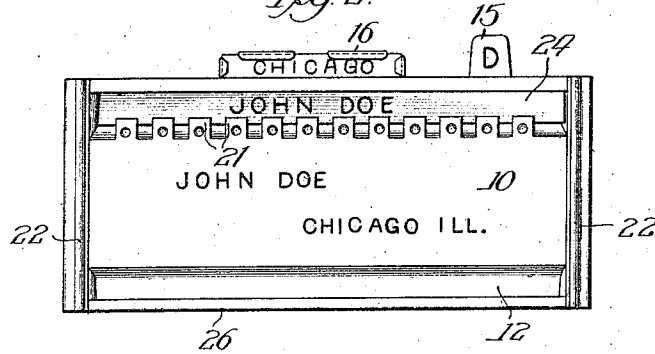


Fig. 3.



Fig. 4.

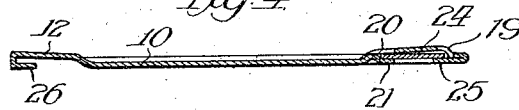


Fig. 5.

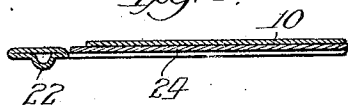
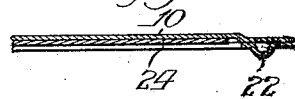


Fig. 6.



Witnesses:

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UNITED STATES PATENT OFFICE.

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PRINTING DEVICE.

1,015,758.

Specification of Letters Patent.

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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 certain new and useful Improvements in Printing Devices, of which the following is a specification.

This invention relates in general to that class of printing devices in which the printing characters are stamped in relief on one side of the metal plate, the other side of the plate showing the printing characters in intaglio.

One of the objects of this invention is the provision of a printing device of this character which is adapted to be arranged in accordance with a card-index system with the intaglio side at the front and is constructed to hold a reference card which may be read from the intaglio side of the plate and which may be slipped into position from the relief side of the plate.

Another object is the provision of a plate having a printing panel depressed below the surrounding portions of the plate, the surrounding portions at two sides of the plate being of less height than the remaining portions and the outer faces of the higher portions being inclined to permit the plate to be pressed against the card or envelop to be printed without breaking or injuring the surface of the card or envelop.

The invention will be best understood by reference to the following description when taken in connection with the accompanying drawings illustrating one preferred embodiment thereof.

Referring to the drawings—Figure 1 is a plan view of a printing device embodying my invention and showing that side thereof on which the type characters appear in relief, this being the front or printing side of the device. Fig. 2 is a plan view showing the opposite side of the device on which the type characters appear in intaglio and, ordinarily considered the back of the device. Fig. 3 is a longitudinal sectional view on the line 3—3 of Fig. 1. Fig. 4 is a transverse sectional view taken on the line 4—4 of Fig. 1; and Figs. 5 and 6 are fragmentary longitudinal sectional views on the lines 5—5 and 6—6 of Fig. 1.

The device is preferably stamped from a single sheet of metal and comprises a centrally disposed panel 10 which may be of

any desired dimensions, but is preferably made large enough to accommodate an address of several lines.

The device is originally composed of a sheet-metal blank or plate and the panel is formed by depressing the same so that its printing face is depressed relatively to the original front face of the plate and the rear face of the panel is projected relatively to the original rear face of the plate. The type characters are stamped in the panel so that they appear in relief on the depressed face. The portions of the plate surrounding the panel are elevated relatively to the printing face thereof, the top and bottom portions 11 and 12, respectively, being elevated above the printing face of the panel a greater distance than the end portions 13 and 14. It will be manifest that when the plates are stacked or nested, some protection must be afforded to the printing characters which are formed in relief on the printing panel and the top and bottom portions 11 and 12 are accordingly projected above the printing face of the panel a sufficient distance to afford the required protection to the printing characters. It has been found, however, that it is unnecessary that the end portions of the plate adjacent the panel project as far as the top and bottom portions and, on the contrary, such a construction is not desirable for the reason that when the plate is forced or pressed against an envelop or card to be printed, the card, particularly if it is of relatively thick material, is apt to be bent or broken at the junction of the end and longitudinal elevated portions of the plate. For this reason the end portions are made lower than the top and bottom portions to permit the card to be curved or depressed longitudinally between the top and bottom portions and against the printing characters without being permanently bent or broken. To further facilitate the temporary curving of the card, the projecting surfaces of the top and bottom portions 11 and 12 are preferably inclined inwardly toward the printing face of the panel.

The device may be provided with index tabs of various kinds and I have shown it constructed to receive the tabs 15 and 16 of which the former may be used for alphabetical classification and the latter for geographical classification, if desired. These

tabs are each provided with stems 17 and 18 which are adapted to engage openings 19 and 20 at the top and bottom of the elevated portion 11. I prefer to remove the metal entirely, forming the openings 19, but in forming the openings 20 the metal is arranged to form lips 21 on the back of the device for the purpose hereinafter described. The openings 19 and 20 are arranged in pairs, one above the other, and as many pairs may be provided extending lengthwise of the portion 11, as desired. The tabs are adapted to be engaged with any of the openings so that they may be located in any desired position longitudinally of the device. The edges of the device at the ends thereof, are bent backwardly upon themselves, as shown in Fig. 3, and are also folded to form ribs or beads 22 which serve the dual purpose of strengthening the device transversely and of assisting in spacing the devices apart when they are nested. The projecting portion 11 is closed at one end and open at the other, as indicated at 23 to permit of the insertion of a card 24 beneath the flange 25 and the lips 21. The card may bear the name appearing on the address and the date of expiration of the party's subscription or any other desired information or data and, while inserted from the printing side of the device, is adapted to be read from the opposite side thereof, as will be evident from Fig. 2. The outer edge of the projection 12 is turned back upon itself as indicated at 26 (Fig. 4), forming a flange spaced from the inclined bottom portion of the projection.

It will be evident from the foregoing that the printing panel itself, is depressed relatively to the surrounding portions of the plate and that the printing face thereof is depressed below the end portions of the plates 13 and 14, while the front faces of said portions are, in turn, depressed relatively to the projecting portions 11 and 12. This construction enables a stiff card, such as a postal card, to be firmly pressed against the printing characters carried upon the printing panel, the lower ends 13 and 14 permitting the card to curve or bend longitudinally between the higher projecting portions 11 and 12 without liability or danger of permanently distorting or breaking the card. The data-bearing card 24 may be readily replaced at comparatively small expense when the subscription is renewed and this avoids the expense of renewing the entire device which would be necessary if the date of expiration were stamped direct upon the device itself. The tabs 15 and 16 are capable of removal and replacement when desired and may also be shifted longitudinally of the device into any position required by the location of the device in the index system.

It is believed that the construction and many advantages of this invention will be apparent without further description and it will be obvious that various mechanical changes in the size, shape and proportion of the various parts may be resorted to, without departing from the spirit or sacrificing any of the material advantages of the invention.

I claim:

1. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, and printing characters on the depressed face of the panel portions of the plate on the printing side thereof and adjacent to said depressed panel varying in height, substantially as described.

2. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, portions of the plate adjacent to said depressed panel varying in height, and printing characters on the depressed face of the panel projecting therefrom a distance not exceeding the height of the highest portion of the plate, substantially as described.

3. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, portions of the plate extending longitudinally of the panel projecting beyond the depressed face of the panel more than portions of the plate extending transversely of the panel, and printing characters on the depressed face of the panel projecting therefrom a distance not exceeding the projection of said longitudinal portion beyond the depressed face of the panel, substantially as described.

4. A sheet metal printing plate having a substantially rectangular panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, portions of the plate at opposite edges of the panel between the latter and the respective edges of the plate projecting beyond the depressed face of the plate more than the plate portions lying between the other edges of the panel and the other edges of the plate, and printing characters on the depressed face of the panel projecting therefrom a distance not exceeding the projection of the first mentioned plate portions, substantially as described.

5. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, and printing characters on the depressed face of the plate, a portion of the plate which projects beyond the depressed face of the panel constituting a depressed

card-receiving part on the opposite side of the plate, one end of said card-receiving part having an opening for the insertion and removal of a card, substantially as described.

6. A sheet metal printing plate having printing characters upon one face, and a card-receiving seat at the other face of the plate, said seat being projected at the printing face of the plate and depressed in the opposite face of the plate, one end of the seat having an opening formed therein at the printing face of the plate for the insertion and removal of a card, the seat being open at that face of the plate which is opposite the printing face for the inspection of a card in the seat, substantially as described.

7. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, and printing characters on the depressed face of the panel, a portion of the plate between the panel and one edge of the plate being inclined inwardly toward the depressed face of the panel, substantially as described.

8. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, and printing characters on the depressed face of the plate, portions of the plate at opposite sides of the panel upon the printing face of the plate being inclined inwardly toward the depressed face of the panel, substantially as described.

9. A sheet metal printing plate having a panel stamped therein, said panel being depressed in one face of the plate and projected at the opposite face of the plate, printing characters on the depressed face of the panel, portions of the plate at opposite edges of the panel being inclined inwardly toward the depressed face of the panel and projecting beyond the depressed face of the panel more than the plate portions at the other opposite edges of the panel, substantially as described.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."