Oct. 17, 1933. W. T. GOLLWITZER 1,930,799

PRINTING DEVICE

Filed Dec. 18, 1930

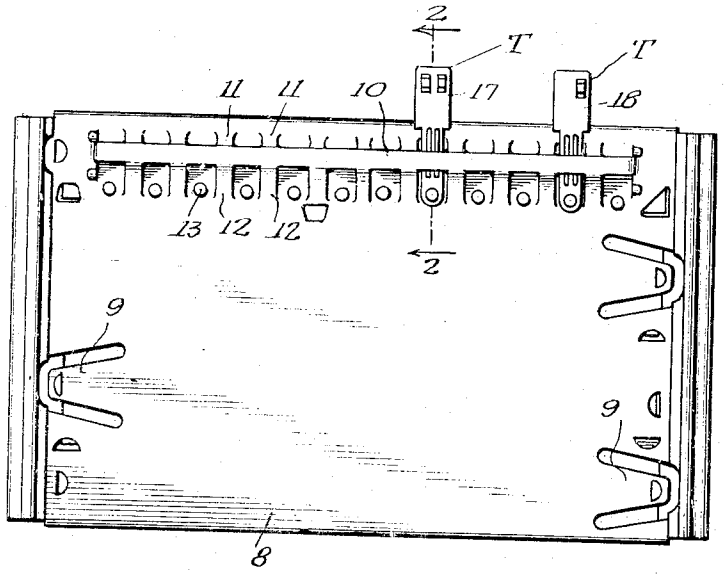


Fig. 1

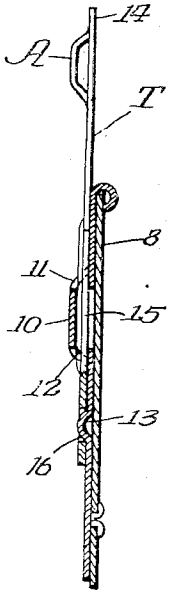


Fig. 2

Fig. 3

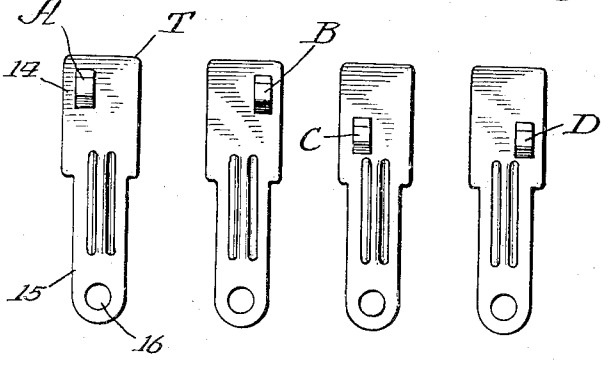
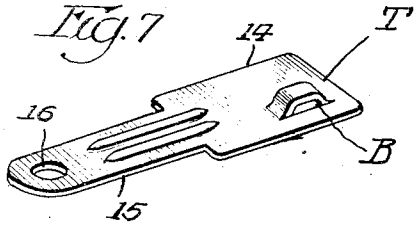


Fig. 4 Fig. 5 Fig. 6

Fig. 7



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1,930,799

PRINTING DEVICE

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Application December 18, 1930
Serial No. 503,161

6 Claims. (Cl. 101—369)

This invention relates to printing devices of the character sequentially passed through printing machines and from which printing impressions are selectively made.

Printing devices of the character to which my invention appertains are sometimes made in one piece, that is, the printing characters are directly embossed on the body of the device, and sometimes these printing devices embody a frame on which plates, having the printing characters embossed thereon, are detachably secured. These printing devices are usually arranged for classification and this may be done by securing detachable tabs thereto or by providing notches, openings or the like for this purpose. When not in use the printing devices are stored in drawers of suitable cabinets in sequentially classified arrangement. Preferably the means providing the classification are so arranged that the classification of a particular plate may be readily ascertained when the plates are stored in drawers. When the printing devices are introduced into the magazine of a printing machine and are withdrawn therefrom and passed through the machine, the classification means are acted on by detectors which operate mechanisms that select only printing devices of a certain classification and these selected printing devices are then used in a printing operation or are skipped depending upon the set-up of the machine. The size of the printing device is usually definitely determined and therefore the number of classifications that may be provided is limited by the size of the space on the printing devices that may be used for this purpose. The salient object of my invention is to provide a novel classification for printing devices that may be readily associated with printing devices and which will embody a large number of classification markers in a compact space.

The markers of each classification constitute what is known as a primary selection, and when the printing devices are passed through the machine the selection may be determined from any one of these primary selections or the selection may be determined by a determined group of such primary selections. It is therefore another object of my invention to provide a classification for printing devices which will greatly facilitate the selecting of the printing device during passage through the machine either individually or in groups.

Further objects of the invention are to provide a printing device to which detachable tabs may be secured and on which tabs the classification markers may be provided; and to provide classification markers which will be of restricted size in order that a plurality of such markers may be arranged on each of the tabs.

In the selected embodiment of the invention illustrated in the accompanying drawing

Fig. 1 is a rear elevation of one form of printing device with which my invention is associated;

Fig. 2 is a fragmentary view taken substantially on the line 2—2 on Fig. 1;

Figs. 3, 4, 5, and 6 are elevational views of the tabs of my invention, showing different positions of the markers; and

Fig. 7 is a perspective view of the tab illustrated in Fig. 4.

In the embodiment of the invention illustrated in the accompanying drawing I have shown a printing device 8 which may be, for example, of the character set forth in the patent to H. E. Hubbard, No. 1,677,449, patented July 17, 1928. This printing device includes a frame having retaining devices 9 thereon which serve to secure printing plates, having the printing characters embossed thereon, on the frame 8, but it is to be understood that the invention might be used on a so-called one-piece printing plate where the printing characters are embossed directly on the body of the plate. Along the upper edge of the plate retaining devices are provided for securing the tabs T and in the present instance these retaining devices embody the panel 10 struck up from the body. Sets of aligned keepers 11 and 12 are also thus formed. Between the keepers 12 inwardly of the panel 10 studs 13 are formed on the frame. The tabs T include a body 14 and a stem 15 and at the lower end of the stem is an opening 16. To secure the tab to the device the stem 15 of a tab T is first disposed between adjacent keepers 11, 11 and is then passed below the juxtaposed portion of the panel 10 to extend between adjacent keepers 12, 12 and the stud 13 enters the opening 16. The tabs are preferably innately resilient and therefore undesired displacement thereof will be prevented after the stud 13 has entered the opening 16. The device as thus far described is merely exemplary of a printing device with which my invention may be associated and I therefore do not wish to be limited to the precise details described, for my invention may be associated with tabs T of any desired construction, which may be detachably secured to the printing devices in any selected manner.

It has been pointed out that it is an object

of my invention to provide a large number of classification markers in order that the number of primary selections for the printing devices may be increased. To this end the classification means or markers in the form of protuberances are embossed at four different positions on the tabs. The protuberances are formed on the body of the tabs by slitting the tabs longitudinally and then bending the portion between the slits upwardly from the plane of the body whereby the portion appears in relief on one face of the tab and in intaglio on the opposite face. A protuberance A so formed on the tab T is disposed adjacent the upper left hand corner of the body 14, as shown in Fig. 3. In Fig. 4 a protuberance B is shown on the tab located adjacent the upper right hand corner of the body. In Fig. 5 I have shown a protuberance C located adjacent the lower left hand corner of the body. And in Fig. 6 I have shown a protuberance D located adjacent the lower right hand corner of the body. These tabs are mounted on the printing devices with the protuberances at the front of the device and the detectors in the machine operatively engage these protuberances as described; but the tabs may be reversed with the protuberances at the back of the device in which case the depressions formed by the protuberances and functioning as openings would be engaged by the detectors with equivalent results in the operations. The printing device illustrated in the drawing is one including retaining devices for twelve tabs. Thus, since twelve tabs may be secured to the device and as each of the tabs may have four protuberances formed thereon it is manifest that provision is made for forty-eight classification markers. However, while I have illustrated an arrangement providing forty-eight classification markers it is to be understood that the printing devices might be so arranged that a greater or less number of tabs might be secured thereto and the tabs may have more than four or less than that number of protuberances provided thereon, and by so doing the number of possible primary selections might be increased or decreased.

If the printing devices of the described character are being used by a mail order house a tab located in the position 17 may indicate the buying characteristics of a customer. A protuberance A might indicate that the customer whose name and address is embossed on the plate sometimes buys boots and shoes. A protuberance B might indicate that the customer buys clothing. A protuberance C might indicate that the customer buys books and novelties. While the protuberance D might indicate that the customer buys groceries. Thus, a customer buying boots and shoes, clothing, and books and novelties, but not groceries, would be represented by a printing device having a tab at the position 17 and on this tab protuberances A, B, and C would be provided, but no protuberance D. Thus, if the machine were set up to address literature to customers buying boots and shoes and a printing device such as the above described were passed through the machine an impression would be made therefrom since the tab in the position 17 would have a protuberance A thereon. Moreover, if it were desired at the same time to circularize customers buying clothing and a printing device such as the above described were passed through the machine it would be used in a printing operation for a protuberance B is provided on the tab located in the position 17, and under this last-named set-up of the machine all printing devices having tabs T at the position 17 with protuberances A and B thereon would be used in printing operations.

When but one protuberance is used to control the printing impressions made from the printing device, it is known as an individual selection. However, group selections are sometimes performed as when it is desired to print printing devices representing customers having certain buying characteristics and living in certain geographical areas. The geographical areas may be represented by, for example, a tab located in the position 18 and the protuberances A, B, C, and D might be used to indicate north, south, east, and west, respectively, this being indicative of different sections of the country. Thus, it might be desired to circularize customers having buying characteristics as above described, living only in the southern district, and therefore only those customers whose printing devices have tabs at the positions 17, as above described, and tabs at the position 18 with a protuberance B thereon will be printed. Such an operation of the machine would be a group selection and the number of possible group selections is greatly increased. If the tabs themselves were relied upon to afford the classification markers it is manifest that eight of the twelve tab positions would be exhausted by the above described arrangement, for a tab need be provided for each of the above described characteristics. But when printing devices with tabs thereon embodying protuberances as above described are employed, but two tab positions need be required to attain the foregoing.

Since the protuberances A, B, C and D appear in relief on one face of the tab and in intaglio on the opposite face, it is possible by the use of a suitable detecting mechanism to provide three selections at each of the protuberance positions. For example, in the position whereat the protuberance A is located, a detecting mechanism may be arranged to operate in one way if it engages the protuberance A as it appears in relief, to operate in another way if it engages the plane of the tab as when no protuberance is formed, and in still another way when it engages the protuberance when it appears in intaglio. Furthermore, the detecting mechanism need not be arranged to function in all three of these ways but can be arranged to function in say but in two, that is, to function when it engages a protuberance or when it engages the face of a tab. Under this latter manner of operation in order to change a classification all that would be required would be removal of the tab, a reversal, and reinsertion. Still another manner in which the protuberances on the tab can be used is to so emboss the protuberances that part of the protuberances appear in relief on one face of the tab and part in relief on the other face. All of these arrangements are within the purview of my invention and obviously can best be attained by providing protuberances which appear in relief on one face of the tab and in intaglio on the opposite face.

From the foregoing description it is manifest that I have provided an arrangement affording a large number of primary selections that may be expeditiously associated with a single printing device. Furthermore, by providing the clas-

sification markers on detachable tabs it is possible to expeditiously vary the classification of a printing device, for a tab T having markers thereon in certain positions may be readily removed and another tab substituted therefor which will have the classification markers arranged thereon differently from the first tab, for it is apparent that any desired grouping of the classification markers may be provided on each of the tabs, that is, protuberances A and B may be provided on a tab or protuberances B and D may be provided or protuberances C and B or any other desired grouping. Moreover, the tabs may be easily made and the protuberances may be provided thereon in definite positions. Thus, it is possible to make up tabs formed in each of the possible manners and these tabs may be kept in stock and used when so desired, thereby enabling expeditious and economical manufacture which will result from the quantity production of tabs.

While I have illustrated and described a selected embodiment of my invention it is to be understood that this is susceptible of variation and modification and I therefore do not wish to be limited to the precise details set forth but desire to avail myself of such changes and alterations as fall within the purview of the following claims.

I claim:

1. A printing device which has means at a plurality of classification positions for receiving and holding a tab, the combination of a reversible tab engageable with said means in any one of said positions and having a marker embossed thereon within its marginal edge in one of a plurality of predetermined positions relative to the marginal edge thereof for cooperation with detector means in a selector mechanism, said marker appearing in relief on one face of the tab and in intaglio on the opposite face to provide a plurality of selection indicating means at each of the predetermined positions on the tab.

2. In a printing device which has means at a plurality of classification positions for receiving and holding a tab, the combination of a reversible tab engageable with said means in any one of the positions and having classification means embossed in relief on one face of the tab and in intaglio on the opposite face and positioned within the marginal edges of the tab in selected of predetermined positions, the relief side of the embossed classification means being adapted for cooperation with the detector means of a selector mechanism, reversal of said tab positioning the relief side of the embossed classification means out of position whereat the means cooperate with the detector means.

3. A reversible tab for printing devices having a proturberance embossed in relief on one face thereof and in intaglio on the opposite face, the protuberance being adapted for cooperation with the detector portions of a selector mechanism.

4. A reversible tab for printing devices having classification means embossed thereon in relief on one face thereof and in intaglio on the opposite face and positioned within the marginal edge of the tab in selected of predetermined positions, the relief side of said classification means being adapted for cooperation with the detector portions of a selector mechanism.

5. A reversible tab for printing devices having slots therein within the marginal edges thereof in selected of predetermined positions and having the portion thereof intermediate said slots embossed to appear in relief on one face of the tab and in intaglio on the opposite face and adapted for cooperation with the detector portions of a selector mechanism.

6. A reversible tab for printing devices having parallel and coextensive slots therein at selected of predetermined positions, the portion of the tab intermediate said slots being embossed to appear in relief on one face of the tab and in intaglio on the opposite face to provide a classification marker adapted for cooperation with the detector portions of a selector mechanism.

WALTER T. GOLLWITZER.