March 29, 1949. G. R. SULLIVAN 2,465,494

SHIFTABLE TAB MEANS FOR ADDRESS PRINTING PLATES

Filed June 18, 1942

FIG. 1.

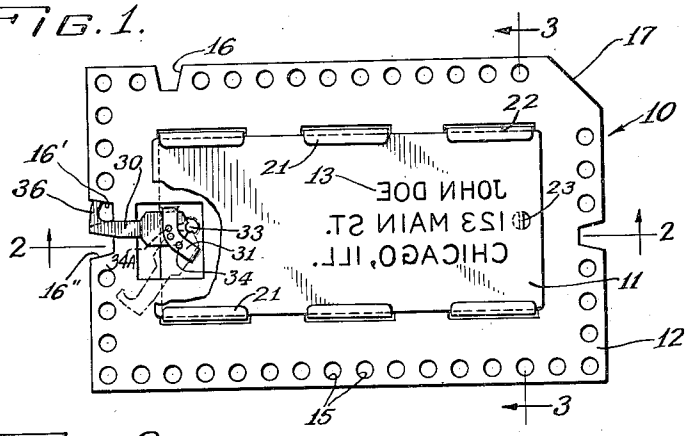


FIG. 2.

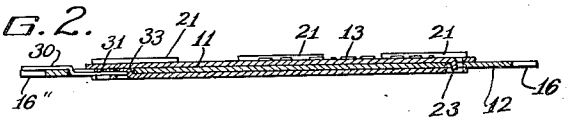


FIG. 3.

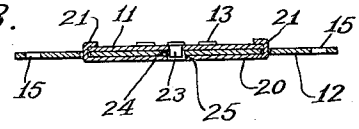


FIG. 4.

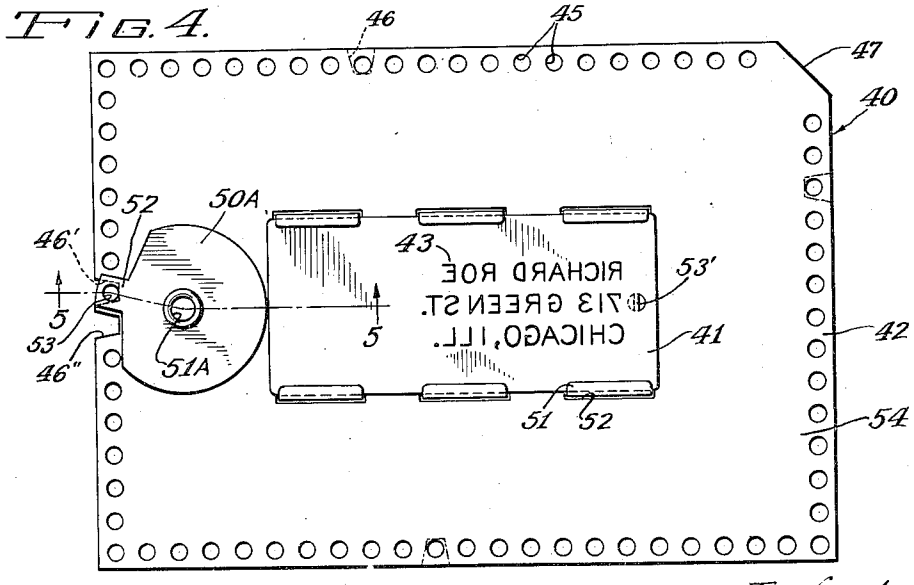
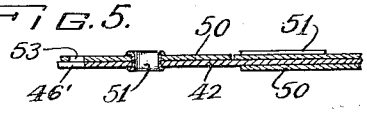


FIG. 5.



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SHIFTABLE TAB MEANS FOR ADDRESS PRINTING PLATES

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3 Claims. (Cl. 101—369)

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This invention relates to printing devices of the kind that are usually stored in drawers, trays or the like when not in use, the devices being removed from such storage and being introduced into a suitable printing machine to be passed therethrough seriatim to have one or more impressions made therefrom, the printing devices being returned to storage, as aforesaid, after having passed through the printing machine.

Printing devices of the aforesaid character are customarily stored in the drawers, trays or the like in accordance with a selected classification as, where names or the like may be printed therefrom, the printing devices are stored in the drawers or the like in alphabetical arrangement according to the names or the like that may be printed therefrom. Moreover, such printing devices usually embody classification or identifying means which heretofore have been utilized in the printing machines through which the printing devices have been passed to enable selection of the printing devices to be effected, which is to say, to enable the printing devices to be passed through the machine in such a way that impressions are made from selected of the printing devices while other of the printing devices are passed through the machine without having impressions made therefrom, wherefore, as it is termed in the art, such printing devices are skipped.

Printing devices of the aforesaid character are utilized in a wide variety of ways and an exemplary use of such printing devices is in the trust department of a bank or the like. In such use, the printing devices may, for example, be so arranged that the name and address of a client or customer of the trust department may be printed therefrom and frequently, in such instances, the classification or identifying means on the printing devices are arranged to indicate the kind and amount of stocks or bonds in the respective accounts of the clients or customers to which printing devices respectively pertain. In such instances where it has been desired to ascertain, for example, the names of the owners of some particular stock or bond or number of stocks or bonds, or the value thereof that are owned by the customer or clients, it has been customary to pass all of the printing devices in the collection thereof through one or more printing machines and as the devices are so passed through the machine or machines impressions are made from only those printing devices which relate to customers or clients owning the particular stock or bond concerning which data are

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desired. In instances where the collection of the printing devices was rather large there have been circumstances where appreciable time was required in order to ascertain data such as the foregoing primarily because it was necessary to pass all of the printing devices in the collection through the printing machine or machines in order to ascertain the desired data.

In some instances instead of passing all of the printing devices through a printing machine or machines, as aforesaid, those printing devices in the collection relating to the particular classification or subject concerning which data were desired have been manually selected from the collection. This was, of course, subject to the ever present possibility of human error.

It will be understood that the foregoing is merely exemplary of one instance, and of ways in which, data borne by printing devices have been selectively ascertained and that in many other instances it is desirable and advantageous to quickly and accurately ascertain what data are borne by selected printing devices or which printing devices bear certain data.

Therefore, among the important objects of the present invention is to so arrange printing devices of the aforesaid character that those bearing or relating to particular data or a class of data may be accurately and expeditiously separated or selected from the remainder of the printing devices in a particular collection thereof, and so that data borne by selected printing devices in a collection thereof may be accurately and expeditiously ascertained.

Other objects of the invention are to so arrange printing devices of the aforesaid character that they may be accurately and expeditiously sorted into related groups; to associate with the printing means of a printing device of the aforesaid character an arrangement which will enable the printing devices to be sorted into related groups; and to detachably associate in printing devices of the aforesaid character the printing means and the means which enable the printing devices to be sorted into related groups.

Among the uses to which printing devices of the character to which this invention pertains are put are those which require that the classification of printing devices be of such nature that it may readily be altered as in an instance where printing devices are employed in and pertain to an accounting system under which accounts will be paid from time to time. In such circumstances it is frequently desirable to indicate by means of the classification of the print-

ing devices whether accounts are paid or unpaid and in such circumstances it is desirable that the arrangement be such that classification of a particular printing device may be readily varied so as to, for example, enable classification of a printing device to be changed from that pertaining to an unpaid account to that pertaining to a paid account.

Hence other objects of the present invention are to enable the classification of printing devices to be expeditiously altered when and as required; to incorporate, in association with the classifying means embodied in printing devices of the aforesaid character, an arrangement whereby one particular classification may be rendered ineffective and another rendered effective; and to afford an arrangement of the aforesaid character whereby changes of the classification may be accurately and expeditiously effected.

While resort might be had to a wide variety of arrangements to enable printing devices of the aforesaid character bearing or relating to particular data or a class of data to be automatically and expeditiously separated or selected from the remainder of the printing devices in a particular collection thereof and to enable other of the hereinabove set forth and related objects of this invention to be realized, one particular arrangement to which resort may be had for such purposes is that to which Perkins Patent No. 1,544,172, patented June 30, 1925, pertains and, while it is to be understood that this particular arrangement is merely illustrative of a wide variety of arrangements to which resort may be had for the purposes of this invention, it is nevertheless a specific object of this invention to enable an arrangement of this character to be included in a printing device so as to thereby enable the above set forth objects of this invention to be realized. Moreover, another specific object of this invention ancillary to the foregoing is to so arrange a printing device embodying an arrangement as that to which the aforesaid Perkins patent pertains in such a way that a particular classification imparted to the printing device in accordance with the method disclosed in the aforesaid Perkins patent to be expeditiously changed when and as required, and a yet further ancillary object is to enable this to be accomplished by an arrangement permanently included on the printing devices.

Other and further objects of the present invention will be apparent from the following description and claims and are illustrated in the accompanying drawings which, by way of illustration, shows preferred embodiments and the principles thereof and what I now consider to be the best mode in which I have contemplated applying those principles. Other embodiments of the invention embodying the same or equivalent principles may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention and the purview of the appended claims.

In the drawings:

Fig. 1 is a front elevational view of a printing device embodying the present invention;

Fig. 2 is a longitudinal cross sectional view taken along the line 2—2 of Fig. 1;

Fig. 3 is a transverse sectional view taken along the line 3—3 of Fig. 1;

Fig. 4 is a front elevational view of a printing device which constitutes another embodiment of this invention; and

Fig. 5 is a fragmental sectional view taken along the line 5—5 of Fig. 4.

In the form of the invention disclosed in Figs. 1 to 3 of the accompanying drawings, I have shown a printing device 10 including a printing plate 11 that is secured on one face of a carrier 12 so that printing means such as the embossed type characters 13 formed on the printing plate are exposed to enable printing impressions to be made therefrom. The carrier 12 is formed from cardboard or other suitable sheet material and is so related to the printing plate 11 that it defines and provides a border about and projecting outwardly from the marginal edges of the printing plate 11. The extending border which is thus provided by the carrier 12 is of such a width that a series of spaced openings 15 may be formed about and along but inwardly spaced from the edges of the carrier 12 and in spaced relation to the printing plate 11. The openings 15 are preferably spaced equally from each other and when the material intermediate an opening 15 and the adjacent edge of the carrier of the printing device is cut away to thereby afford an outwardly opening slot 16, the printing device is then arranged to be sorted from a group of similar printing devices in accordance with the method disclosed in the patent to Perkins No. 1,544,172, patented June 30, 1925. In order to assure that the printing devices 10 in a particular group thereof will be located in similar positions during such a sorting operation, one corner of the carrier 12 is cut away or chamfered as at 17.

In the form of the invention disclosed in Figs. 1 to 3 of the drawings the printing device 10 has rows of openings 15 formed along all four of the edges thereof, but it will be understood that the objects of the present invention may be attained in many instances through the use of openings 15 along less than all of the side edges of the carrier 12. The printing plate 11 is rectangular in outline and the relationship between the printing plate 11 and the card or carrier 12 is such that the extending border portion of the carrier 12 is substantially uniform on all sides of the printing plate. In this embodiment of the invention the printing plate 11 is secured upon the carrier 12 by a mounting plate 20 which is disposed on the face of the carrier 12 opposite that on which the printing plate is disposed and lugs 21 formed on the mounting plate 20 extend through slots 22 formed in the carrier 12. The lugs 21 extend past the side edges of the printing plate 11 and are turned inwardly so as to overlie the face of the printing plate. The printing plate 11 is held against longitudinal displacement by a tongue 23 struck from the printing plate 11 and extended through an opening 24 in the carrier 12 and into an opening 25 formed in the mounting plate 20. Thus it will be clear that the printing plate 11 is maintained in a predetermined position on one face of carrier 12, and the printing device 10 which is thus formed may be readily sorted in accordance with related classification data or other characteristics which may be incorporated in or imparted to the printing device by the selective formation of notches as 16 at appropriate identifying positions afforded by the openings 15.

Most of the data which may thus be represented on a printing device as 10 are permanent in character but in certain uses of printing devices of this kind, as for example in the use of such printing devices for accounting purposes, certain of the representation of the data may

require frequent change. This is particularly true where the user desires to afford an indication of the payment status of the accounts of the customers whose names and addresses are embossed on the printing plates 11 of the printing devices 10, and in accordance with the present invention means are provided whereby such an indication may be readily incorporated in printing devices adapted for sorting in accordance with the method of the aforesaid Perkins patent. In the embodiment of the invention illustrated in Figs. 1 to 3 of the drawings this end is attained through the provision of a member that is shiftably mounted on the printing device 10, which member may be moved into different positions to thereby enable different data representations to be afforded at a pair of identifying positions on the printing device.

Thus, as shown in Figs. 1 and 2, one end of a relatively thin metallic arm 30 is extended beneath a generally arcuate retaining strip 31 struck from the material of the mounting plate 20 adjacent to one end thereof. The end of the arm 30 which is thus projected beneath the strip 31 is extended beneath and pivotally mounted upon an upwardly struck pivot 33 formed on the mounting plate so that the arm 30 may be swung about the pivot 33. The arm 30 has an upwardly struck boss or projection 34A which in the aforesaid swinging movement of the arm 30 is adapted to be successively engaged by friction with spaced positioning openings 34 formed in the strip 31 to thereby be retained in the position into which it is moved. It will be understood that the projecting boss 34A on the arm 30 snaps into an opening 34 in the strip 31 to serve as a frictional detent holding the arm 30 in adjusted position. Moving the arm 30 to another position forces the boss 34A out of the opening 34. As shown in Fig. 2, the arm 30 is offset at 33 so that a position thereof extends through an opening in the card 12 and the free end of the arm 30 may thereby be disposed on the same face of the card or carrier 12 as the printing plate 11. The arm 30 has a laterally projecting finger 36 formed on the margin near the free end thereof so that in one position of the arm 30 the finger 36 will extend across the open end of a slot 16' which is formed at one of the identifying positions on the carrier 12. When the slot 16' is thus closed by the finger 36 the slot 16' has the same characteristics as one of the openings 15, but when the arm 30 is swung in a counterclockwise direction, as viewed in Fig. 1, to the position determined by the next one of the positioning openings 34, the slot 16' is opened; and at this time the arm 36 is effective to close the end of a slot 16'' which is located in the identifying position next or adjacent to the slot 16', a projecting card tab which separates the two slots being hidden by the arm 30 but shown in dotted lines in Fig. 1.

By means of the foregoing arrangement, the arm 30 may be located in one position to close the slot 16' to thereby indicate that the particular account to which the printing device relates is unpaid, and when payment is received, the arm 30 may be moved to its second position to thereby indicate such payment; or, if desired, the arm 30 may be used for indicating other frequently changed classification data pertaining to the printing device 10. The arm 30 may also have an additional position such as that shown in the dotted outline in Fig. 1 wherein the slots 16' and 16'' are both left open. Furthermore, a plurality of arrangements such as that just described may be incorporated in a single printing device if desired or required.

It will be evident that a group of printing devices such as that shown in Figs. 1 to 3 may be classified into a plurality of different classifications through the formation of notches 16 at different positions about the edges thereof, and printing devices falling in any one of the various classifications which are thus afforded may be separated from the group through relatively simple manually performed sorting operations. Hence the sorting of the printing devices is expedited and may be performed in an accurate manner. Moreover, by reason of the fact that the printing device may be sorted or selected, data may be accurately and speedily collected and printed.

In many uses of printing devices of the character to which the present invention pertains, the user may wish to keep records of transactions which relate to the same subject as a particular printing device, and this may be expeditiously done through the making of entries upon the printing device. The area of printing devices of this character is usually quite limited, but in Figs. 4 and 5 I have illustrated an embodiment of the present invention which not only enables the printing devices to be sorted manually in accordance with the method disclosed in the aforesaid Perkins patent, but also enables entries to be made upon the printing device.

Thus, the printing device illustrated in Figs. 4 and 5 embodies a printing plate 41 secured upon a relatively large carrier 42 made from cardboard or like material. The printing plate 41 has printing means such as embossed type characters 43 formed thereon from which printing impressions may be made. This printing plate 41 is held in place on the carrier 42 by a mounting plate 50 having securing flanges 51 extending through slots 52 in the carrier 42 and bent over the face of the printing plate 11 in substantially the same manner as in the embodiment as disclosed in Fig. 1. A tongue 53' formed on the printing plate 41 holds this printing plate against longitudinal displacement in the same manner as does the tongue 23 shown in Figs. 1 to 3. The carrier 42 is relatively large and is rectangular in form and a cut away or chamfered corner 47 is provided for the purpose of facilitating properly locating or positioning the printing device 40. The carrier 42 has a plurality of spaced openings 45 about its edges which are preferably spaced apart equidistantly and which are located relatively close to the edges of the carrier 42. The material intermediate each of the openings 45 and the adjacent edge of the carrier is adapted to be cut away, as indicated in 46, to form notches whereby printing devices 40 may be readily sorted in accordance with the method disclosed in the aforesaid Perkins patent.

To enable certain classifications of the printing device 40 to be readily changed or reversed, the carrier 40 has two notches 46' and 46'' formed adjacent to each other on one edge of the carrier 42 and a shiftable disk-like member 50A is provided whereby one or the other of the notches 46' and 46'' may be closed so as to have the characteristics of an opening 45. The disk 50A is secured on the carrier 40 by flanged eyelet 51A so that the disk may be rocked about the axis provided by the eyelet 51A. At one of its edges the disk 50A is cut away to provide a radially projecting arm 52 and the arm 52 has an opening 53

formed therein which when located over one of the slots 46' or 46'', serves to impart to the slot the characteristics of one of the openings 45. Thus the disk member 50A may be shifted from one position to another to indicate changes of classification of the printing device 40. It will be understood that, if desired or required, a plurality of such arrangements could be included in a single printing device.

The carrier 42 is considerably larger than the printing plate 41 and hence when the printing plate 41 is located substantially centrally of the carrier 42, relatively large recording areas 54 are afforded about the printing plate 41 on one side or face of the printing device and about the mounting plate 50 on the other face of the printing device. Hence entries may be made upon the areas 54 so that the printing device 42 may constitute a complete record of all transactions or information pertaining to the same subject as the printing device 42, and the record which is thus provided may be widely varied to meet varying conditions which are encountered within the field of use of printing devices of this character. Moreover it will be evident that as to certain of such entries made upon the spaces 54, the user may make related entries mechanically upon the printing device 42, this being accomplished through the formation of notches 46 at appropriate locations about the edge of the printing device. Hence, as to such mechanically incorporated data, the user may select related printing devices from a group thereof through manually performed sorting operations.

Hereinabove I have described the invention as embodying a carrier that includes a portion that is so arranged that means may be afforded along the marginal edges thereof to thereby enable sorting or other separation of the printing devices of this invention to be effected for purposes such as those referred to hereinabove. It is to be understood, however, that it is within the purview of the present invention to so arrange the carrier that means which will enable sorting of the printing devices to be effected other than along the marginal portions of the carrier, and this will be particularly true in those instances where it is desired to effect the desired sorting of the printing devices in conventional sorting machines, arrangements of this character being well understood in the art.

Moreover, it will be appreciated from the foregoing description that this invention primarily resides in so arranging printing devices that sorting or other separation thereof may be accurately and expeditiously effected and in this respect it will be understood that those means which are included in the printing devices for the purposes of enabling sorting and selection thereof to be effected may be utilized for other purposes such as being indicative of data or classifications of data.

Therefore, while I have illustrated and described preferred embodiments of my invention, it is to be understood that these are capable 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. In a manually sortable printing device of the character described, a card formed from sheet material, a printing plate disposed on one face of said card, a mounting plate disposed on the other face of said card, projecting means on at least one of said plates and extending through said card and to said other plate to hold said plates in position on said card, said card embodying selective means disposed at a plurality of positions thereon to enable sorting of the printing device from a group thereof, and a shiftable member mounted on one of said plates adjacent a pair of said selective means for shifting movement between two positions, said shiftable member having an element thereon operable to reverse the sorting characteristics of said pair of selective means selectively in accordance with the location of said member in one or the other of said two positions.

2. In a sortable device of the character described, a card formed from a material such as cardboard and having a series of spaced openings formed therein at predetermined positions and in inwardly spaced relation to the edges thereof and in positions such that said openings may be selectively converted into notches by cutting away additional portions of the card at the positions defined by said openings to thereby enable sorting of the card from a group thereof, said card having a pair of adjacent openings notched as aforesaid to impart different characteristics thereto, and a shiftable member pivotally mounted on said card adjacent to said pair of openings for shifting movement between at least two positions, said shiftable member having means thereon operable selectively in accordance with the location of said member in one or another of its positions to impart selectively to one of said pair of openings the characteristics of one of the unconverted openings.

3. In a manually sortable device of the character described, a card formed from a material such as cardboard and having a series of spaced openings formed therein along and adjacent at least one edge thereof in positions such that notches may be formed in the card at one or more selected positions defined by said spaced openings, said card being formed with a pair of notches in closely spaced relation therein at one edge thereof, and a shiftable member pivotally mounted on said card adjacent said pair of notches for shifting movement between two positions, said shiftable member having means thereon operable to close the ends of said pair of notches selectively in accordance with the location of said member in one or the other of said two positions, thereby to impart selectively to one of said pair of notches the characteristics of one of said spaced openings.

GEORGE R. SULLIVAN.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
889,503	Belknap	June 2, 1908
898,425	Belknap	Sept. 15, 1908
950,747	Duncan	Mar. 1, 1910
1,390,026	Duncan	Sept. 6, 1921
1,544,172	Perkins	June 30, 1925
1,629,033	Hubbard	May 17, 1927
1,654,040	Duncan	Dec. 27, 1927
1,739,087	Perkins	Dec. 10, 1929
1,765,370	Gollwitzer	June 24, 1930
1,768,767	Hubbard	July 1, 1930

(Other references on following page)

UNITED STATES PATENTS

Number	Name	Date
1,792,085	Gollwitzer	Feb. 10, 1931
1,989,635	Detwiler	Jan. 29, 1935
2,005,749	Osborn	June 25, 1935
2,080,417	Gollwitzer	May 18, 1937
2,131,503	Elliott	Sept. 27, 1938
2,198,992	Elliott	Apr. 30, 1940
2,225,297	Connor	Dec. 17, 1940
2,261,719	Connor	Nov. 4, 1941

Number	Name	Date
2,305,195	Richter	Dec. 15, 1942
2,331,471	Holleck	Oct. 12, 1943
2,363,096	Sullivan	Nov. 21, 1944

FOREIGN PATENTS

Number	Country	Date
522,386	Great Britain	1940
846,020	France	May 27, 1939