Aug. 28, 1934. E. P. HAMILTON 1,971,749

TYPE CASE

Filed Dec. 11, 1931 2 Sheets-Sheet 1

Fig. 1

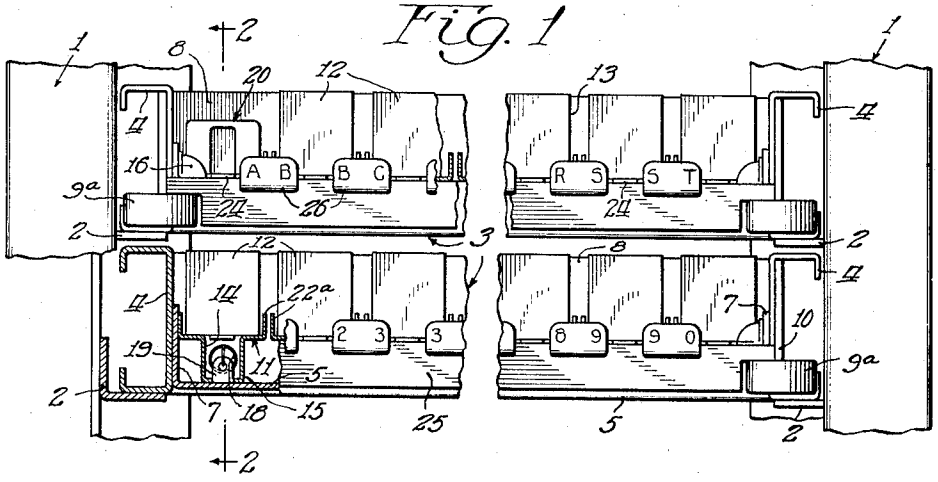


Fig. 2

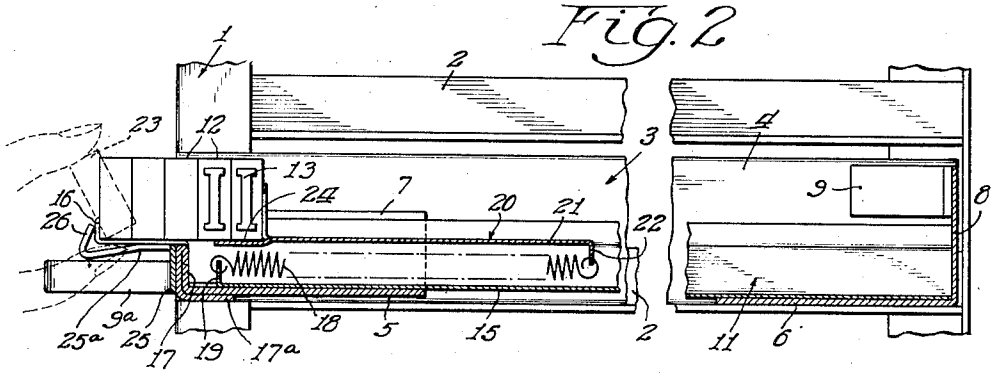
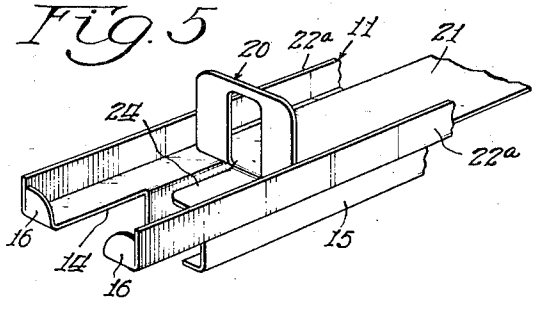


Fig. 5



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TYPE CASE

Filed Dec. 11, 1931 2 Sheets-Sheet 2

Fig. 3

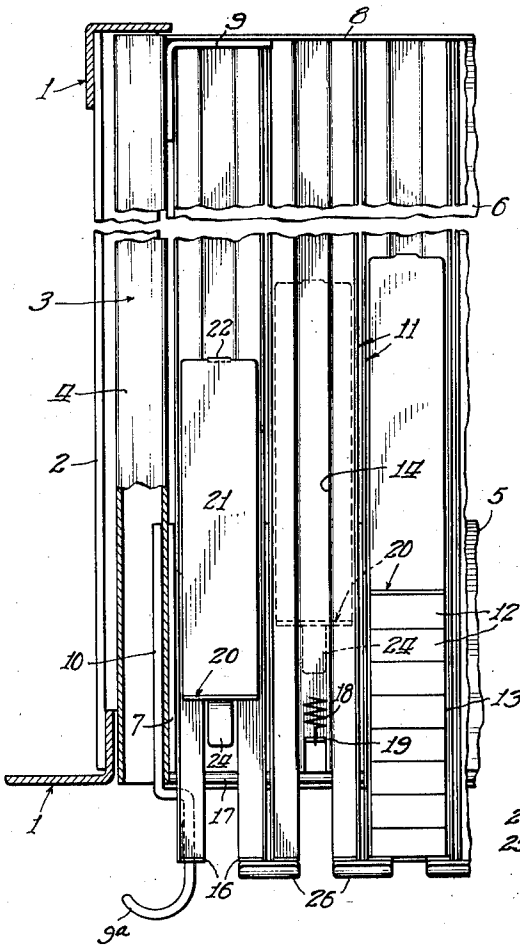
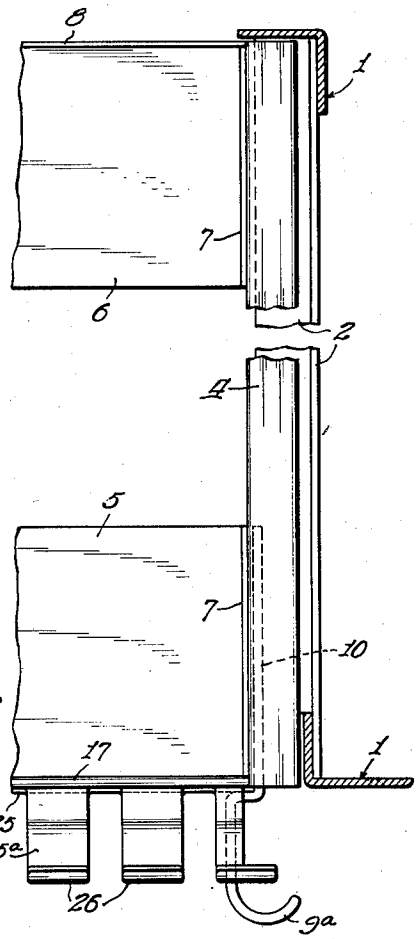


Fig. 4



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UNITED STATES PATENT OFFICE

1,971,749

TYPE CASE

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Application December 11, 1931, Serial No. 580,245

13 Claims. (Cl. 276—45)

This invention relates to type cases and among other objects aims to provide a magazine which may be used with a conventional cabinet for holding type, the type being removable from the magazine without opening the cabinet, means being provided for automatically advancing type toward the mouth of the magazine as type is removed therefrom.

A further object of the invention is to provide a simple and efficient structure to accomplish the foregoing purpose.

Other objects and advantages will be apparent from the following description.

My invention may be understood by reference to the illustrative embodiment thereof shown in the accompanying drawings in which—

Figure 1 is a front elevation, parts being shown in section, of a portion of type case embodying my invention;

Figure 2 is a section taken on the line 2—2 of Figure 1 showing in dotted lines the preferred method of removal of a type block in accordance with my invention.

Figure 3 is a partial plan view of the left hand side of the structure of Figure 1, parts being shown in section;

Figure 4 is a partial plan view of the right hand side of the structure of Figure 1 with certain parts shown in Figure 3 removed to show the construction; and

Figure 5 is a perspective view of the preferred form of tray and follower employed in conjunction with my invention.

Referring in detail to the figures of the drawings, I have shown portions of a conventional cabinet 1 provided with brackets 2 for horizontally supporting type magazines such as the drawers 3. A drawer 3 in this instance comprises a rectangular metal frame including side members 4 of box-section and transverse bottom members 5 and 6 connecting the side members at the front and rear of the drawer. The side members 4 have their closed walls attached to vertical flanges 7 of the bottom pieces 5 and 6 and the side members 4, being of box section, reinforce the drawer longitudinally thereof. The members 4 extend vertically a distance slightly less than the distance between two vertically disposed brackets 2, so that a drawer 3 slides, by means of the side members 4, on two horizontally disposed pairs of said brackets. The side members 4 thus constitute smooth runner portions adapted to contact with said brackets. The rear transverse member 6 is desirably extended angularly in a vertical flange 8 constituting a back wall for the drawer 3. A reinforcing angle 9 connects the flange 8 and each of the side members 4. Handles 9^a may be secured to each side of the drawer 3, preferably in the channel of the side members 4 as at 10 by means of which the drawers may be conveniently slid in and out of the cabinet 1, when this is desired, for example, to quickly reload a drawer. In accordance with my invention, however, the necessity for sliding the drawers in and out of the cabinet is largely eliminated, since I provide means for yieldingly receiving a column of type blocks and a follower pressing upon the rear of the column to advance the blocks toward the front of the cabinet as a block is removed from the column.

As here shown, each drawer 3 contains a plurality of narrow parallel trays 11 arranged side by side longitudinally of the drawer, that is from front to rear, the trays being just wide enough to receive a column of type blocks 12, the blocks being arranged in the trays in front to rear abutment with their type faces 13 preferably facing laterally. Each tray 11 is slotted along the bottom as at 14 and in the illustrative construction this slot is formed in general by depressing a mid-portion of the tray longitudinally thereof as at 15. At the front end of the tray, however, the depressed portion 15 is discontinued while the slot 14 is continued through the front wall 16 of the tray to form a skeleton portion, for a purpose presently described. The front end of the depressed portion 15 may conveniently abut the front wall 17 of the drawer 3 which is conveniently formed by producing a vertical flange portion on the member 5 the flange portion being doubled back upon itself and lapping the bottom piece 5 as at 17^a to strengthen the drawer transversely. In accordance with my invention the trays 11 project forwardly beyond the front wall 17 of the drawer.

In the illustrative construction, disposed longitudinally in the depressed portions 15 of each of the trays, I have shown a coil spring 18 which is anchored at one end to the tray near the forward end thereof as by means of the perforated anchor member 19 which may be produced as a lug struck out of the bottom wall of the portion 15. The other end of the spring is secured to a follower 20 which is slidable in the tray and, in this instance, is elongated longitudinally of the tray as at its portion 21, the portion 21 having an angular tail 22 which travels in the slot 14 and is perforated to have one end of the spring 18 secured thereto. The follower 20 thereby laps the spring 18 and the spring is extensible

in the depressed portion 15 and beneath the slot 14 as the follower slides in the tray 11, the follower having a snug sliding fit between the longitudinal walls 22a of the tray, which serve as guides therefor.

A plurality of type blocks as in the column 12 may be inserted between the front wall 16 of the tray and the follower 20 the tray thus yieldingly receiving them, since as the number of type blocks in the column is increased, the spring 18 will be extended. At the same time, the follower 20 will continue to press the column of type blocks toward the front of the tray. Conversely when a type block is removed by the typesetter, for example, from the front of the tray, the remaining blocks in the column will be advanced, so that there is always a type block at the front or mouth of the tray so long as there are type blocks in the tray. Since the tray projects beyond the front wall 17 of the drawer 3 and since the trays are spaced vertically a greater distance than the height of the type blocks, the mouth of the tray is always open and the foremost type block in a column 12 is always accessible and type blocks may be inserted in or removed from the trays without moving the drawers 3 in the cabinet 1. I have illustrated in dotted lines in Figure 2 a type block 23 being inserted in or removed from a tray 11 by the thumb and forefinger of the typesetter or other operator. The blocks may be removed by merely canting them forward sufficiently to cause them to drop out of the tray, but I desirably provide means such as a skeleton portion formed in part by the continuation of the slot 14 through the front wall 16 of the tray, whereby a finger may be inserted beneath the type block to elevate it while at the same time canting it forward, thus facilitating insertion or removal of the block.

So constructed and arranged the drawers may be used without a special cabinet being provided therefor and the typesetter may quickly select the type required without the necessity of moving the drawers in and out of the cabinet.

To prevent the follower 20 from creeping upwardly, I have shown a tongue 24 which may be struck out of the body of the follower and extended forwardly thereof to lappingly underlie one or more of the type blocks of the column 12.

A legend plate 25 is desirably suitably secured to the front wall of each drawer 3 and this plate has branched extensions 25a which are continued around the forward ends of the trays and present the reclined surfaces 26 upon which legends such as "A", "B", "C" etc. may be inscribed, indicating the particular type contained in a given tray. There will generally be sufficient trays in a cabinet to contain each a column of type blocks corresponding to each of the letters of the alphabet, both upper and lower case, in addition to each of the integer numerals and other special type.

Obviously the invention is not limited to details of construction herein shown for purposes of exemplification and such changes may be made as fall within the scope of the following claims without departing from the invention.

For example, the drawer parts including the trays may be advantageously secured together as by welding or spot welding. In this instance, therefore, the trays are in effect an integral part of the drawer but it is not to be understood that this illustrative construction is essential, since various means of attachment of the parts may be employed and the trays may be made removable from the drawers.

I claim:

1. In a type case, the combination of a cabinet; a drawer slidable in said cabinet; a plurality of parallel trays in said drawer each for holding a column of type blocks, said trays having their front walls projected beyond the front of said drawer; a slot in the bottom of each tray longitudinally thereof; a coil spring anchored below each tray spaced rearwardly from the front wall thereof and extensible in said slot; and a follower in each tray and secured to the spring, whereby the follower presses upon the column of type blocks in each tray and advances the blocks toward the front of the drawer and beyond the said front as blocks are removed from a column.

2. The structure of claim 1 wherein the slot in each tray is continued through the front wall of the tray.

3. The structure of claim 1 wherein the slot in each tray is partially depressed along a mid-portion of the tray longitudinally thereof, said depressed portion terminating short of the front wall of the tray.

4. The structure of claim 1 wherein the slot in each tray is partially depressed along a mid-portion of the tray longitudinally thereof, said depressed portion terminating short of the front wall of the tray and wherein the coil springs are anchored to said depressed portions.

5. In a type case, the combination of a cabinet; a plurality of vertically spaced drawers slidable in said cabinet; a plurality of parallel trays in each said drawer each for holding a column of type blocks, said trays having their front walls projected beyond the front walls of said drawers; a slot in the bottom of each tray longitudinally thereof, said slot being formed partially by depressing a mid-portion of each tray longitudinally, said depressed portion being received within the drawer to abut the front wall thereof and being discontinued short of the front wall of the tray and said slot being continued forwardly of the depressed portion and through the front wall of the tray; a legend plate secured to the front wall of each drawer in longitudinal alignment with the depressed portions of the trays, said legend plate having branched extensions, each of which is continued around a portion of the front walls of adjacent trays and discontinued in longitudinal alignment with the said slots; and yielding means for moving the blocks forwardly of the trays as a block is removed from the forward end thereof.

6. The structure of claim 5 wherein the drawers have side members formed of box-section.

7. The structure of claim 5 wherein the drawers have side members formed of box-section and wherein a handle is secured within each side member and said handle extends beyond the front wall of trays.

8. A type case including a tray having a slot in its mid-portion longitudinally thereof, said slot being partially formed by depressing a mid-portion of the tray longitudinally thereof, said depressed portion terminating short of the front wall of the tray; a slot through the front wall of said tray and merging into the slot formed by the depressed portion; a follower having a portion parallel to the front wall of the tray and snugly slidable in the tray toward and away from said front wall; said follower having another portion in the plane of the bottom of the tray and movable in said slot, said latter portion being extended toward the front wall of the tray to underlie a column of type receivable

in the tray; and spring means for urging the follower toward the front wall of the tray.

9. A type case including a tray for holding a column of type blocks in front to rear abutment; a longitudinal slot in said tray continued uninterruptedly through the front wall thereof; and a follower carried by said tray and having a portion traveling in said slot.

10. A type case including an elongated tray having a slot continued uninterruptedly throughout its bottom wall and front wall, said slot being partially depressed along a mid-portion of the tray to provide a longitudinal channel therein, said channel terminating short of the front wall of the tray; a follower having a portion parallel to the front wall of the tray and another downwardly directed portion traveling in said channel; and an extension coil spring having one end anchored upon an upright tongue stuck out of said channel and having its other end secured to the portion of the follower traveling in the channel, said follower having still another portion directed forwardly thereof and traveling in said channel in the plane of the bottom wall of the tray.

11. In a type case, the combination with a plurality of type magazines carried thereby and arranged one above the other, each of said magazines being vertically spaced one from the other by said case and having a skeleton portion extending beyond the front wall of the case, each magazine adapted to contain a row of separable type blocks in front to rear abutment, and means for advancing the type blocks into said skeleton portion of the magazine.

12. In a type case, the combination with a plurality of type magazines arranged abreast one above the other, each magazine having a portion extending beyond the front wall of the case and being spaced vertically one from the other, and spring means associated with each individual magazine for advancing a row of separable type blocks from the rear to front of said case and into the portion of the magazine extending beyond the case.

13. In a type case, the combination of a plurality of drawers arranged abreast in vertical relationship and slidable horizontally to be removed from said case; a plurality of type magazines arranged abreast in each drawer, each magazine being projected forwardly beyond the case and drawers and being spaced vertically and horizontally from adjacent magazines whereby unobstructed access may be had to each magazine when the drawers are fully received in the case; and spring means associated with each magazine for advancing a column of separable type blocks from rear to front of the drawers and case and into each of the projected portions of the magazines.

EDWARD P. HAMILTON.