

UNITED STATES PATENT OFFICE.

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RECORD TRAY.

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This invention relates generally to record filing devices of the type employing a movable follower within a tray or cabinet.

In filing records in trays or cabinets it is frequently necessary to shift the position of the supporting follower in order to accommodate new records or to permit their removal or insertion. Thus it has been common to mount the follower upon suitable guide rods to permit its manual adjustment to the desired position. It has also been proposed to employ means such as a threaded rod, operable from the front of the tray, to permit the follower to be tightly clamped against the records after the removal or insertion of one or more items. While such an arrangement keeps the record compact, much time may be consumed in its operation unless means is provided to permit manual sliding or traversing movement of the follower independently of the rotatable screw, so that rapid changes may be made in the position of the follower after which a clamping force may be exerted by rotation of the screw.

It is an object of this invention to devise a record tray having means for effecting longitudinal movement of the follower in combination with a novel form of mechanism for permitting manual shifting of the follower independently of the moving means.

It is a further object of this invention to devise a record tray in which by bodily shifting the follower relative to the tray, an operator may either make rapid changes in the position of the follower or may clamp it against the records by the rotation of a member extending from the front of the tray.

Further objects of the invention will appear from the following description in which I have set forth the preferred embodiment of the invention. It is to be understood that the invention is to be accorded a range of mechanical equivalents consistent with the state of the prior art.

Referring to the drawings:

Figure 1 is a side elevational view in cross section showing a record tray embodying the principles of this invention.

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

Fig. 3 is a cross sectional detail view showing

the rollers which may be provided for the follower.

Fig. 4 is a perspective detail illustrating the device for guiding the follower upon the rotatable threaded rod.

Fig. 5 is a detail perspective view illustrating the movable member for engaging the threads of the rotatable rod.

Fig. 6 is a detail view in perspective showing the slotted construction of the bottom of the tray.

The invention comprises generally a tray for receiving records and a follower mounted within the tray in such a manner as to permit movement towards or away from the records. In connection with the follower, means is provided operable from the front of the tray for moving the follower back and forth within the tray and for pressing it against the records. The connection between the follower and the means for moving it from the front of the tray is such however that an operator by bodily shifting the position of the follower, may disengage the same from the traversing means so that it may be quickly shifted from one position to another in the tray. The follower may be released from its traversing mechanism even when clamped against the records so that the pressure of the records may force the follower backward to permit the removal or insertion of a certain record, after which the traversing means may be again manipulated from the front of the tray to clamp the follower.

Referring to the preferred embodiment of the invention which is illustrated in the drawing, I have shown a tray 10 for receiving the records to be filed, this tray being provided with a bottom wall 11 upon which the records are adapted to rest. Disposed within the tray there is a follower 12 preferably in the form of a plate, which is provided with suitable guide means within the tray so that it may be moved to any desired position with respect to the records. Disposed below the plane of the bottom wall 11 and arranged longitudinally of the tray there is a rotatable threaded rod 13 having its one end extended through the front wall 14 of the cabinet and provided with suitable manual operating means such as a crank 15.

In order to guide the follower within the tray there is provided a member 17 which is preferably in the form of a tube adapted to encompass the threaded rod 13, and which is secured to the follower 12 in such a manner as to permit bodily shifting movement of the follower relative to the member 17. In the particular construction illustrated I have employed a pivotal connection between member 17 and the follower 12, the connection for example comprising pivot pins 18 which are journaled within a bracket 19, the bracket being secured to the follower 12 as by means of screws or bolts 20.

In order to cause longitudinal movement of the follower 12 upon rotation of the threaded rod 13 and in order to permit independent longitudinal movement of the follower, mechanism is provided for interconnecting the follower with the threaded rod, which mechanism may be disengaged when the follower is bodily shifted with respect to the threaded rod. One suitable mechanism shown for accomplishing this result comprises an arm 22 integral with or otherwise suitably secured to the bracket 19 and carrying at its extremity a depending member 23 which is adapted to engage between the threads of the rod 13. A slot 24 may be provided in the guide member 17 for receiving this depending member 23, in order to prevent lateral play of this member. When the follower is bodily shifted forwardly, it is obvious that member 23 will be disengaged from the threaded rod with the result that the follower may then be shifted backwardly and forwardly independently of the rod 13. However, when the follower is adjusted rearwardly with respect to the threaded rod the member 23 is again brought into operative engagement with the threads with the result that rotation of crank 15 will then cause the follower to traverse in either one direction or the other. In some instances it is desirable to employ means for resiliently urging the member 23 to disengaged position. This may be accomplished by providing a compression spring 26 inserted between the guide member 17 and the arm 22 so that the follower will tend to be rotated to a vertical position when no pressure is being exerted against it by the records. Spring 26 is retained upon member 17 as by means of a projection 25.

In using the device of this invention an operator may either effect slight movement in the follower by rotation of crank 15, or when greater movements are necessary the follower may be quickly shifted by first moving it bodily forward with respect to the threaded rod 13 to disengage the member 23 and then shifting the follower together with the guide member 17 to the desired

position, after which the follower is again swung backward to engage the threaded rod. If it is desired to keep the records clamped together, this clamping may be effected by operating the crank 15 after a record has been inserted or removed. If it is desired to change or alter the records, instead of manipulating crank 15 the operator may merely grasp the upper edge of follower 12 and by shifting it forwardly a certain amount may release it from the threaded rod 13, thus permitting it to be moved rearwardly either by manual force or by the pressure of the records. After the inspection or alteration of records have been made then crank 15 may be manipulated to again clamp the follower.

In practice many structural refinements may be employed depending upon the particular style of work for which the tray is to be used. For example, in some instances it is preferable to employ a front plate 28 mounted to permit limited angular movement in order to facilitate access to the records. One method of mounting this plate is to provide its lower edge with projecting portion 29 engageable in slots 30 provided in the bottom wall 11. The forward end of the tray is also preferably provided with an inclined inner wall 31 forming an abutment for plate 28 when the records are in their normal position. Friction between the follower and the bottom of the tray may be minimized by providing friction reducing devices such as rolls 33 upon the lower edge of the follower. While I have specifically referred to a tray in describing this invention, it is to be understood that this tray may not only be used alone, but may be incorporated as a part of a cabinet or as a drawer in a filing cabinet. The tray which I have illustrated has been shown as provided with a shoulder 32 about its upper edge for positioning a suitable cover.

I claim:

1. A device of the character described comprising a tray, a follower for supporting records, and means for moving said follower backwards and forwards lengthwise of said tray, said means comprising a threaded rod, a tube encircling said threaded rod, and a locking member pivoted to said tube and secured to said follower.

2. A device of the character described comprising a tray, a follower for supporting records, and means for moving said follower backwards and forwards lengthwise of said tray, said means comprising a threaded rod, a tube encircling said threaded rod, and a locking member pivoted to said tube and secured to said follower, said locking member being adapted to engage said rod.

3. A device of the character described comprising a record tray, a follower plate

operably retained within the tray, means for shifting said follower plate forward and backward within the tray, and means operable upon bodily shifting movement of the follower plate relative to said means for effecting disengagement of the plate from said first named means.

4. A device of the character described comprising a tray for records, a follower plate disposed within said tray, means including a member adapted to be manually actuated for moving said plate forward and backward within the tray, and means in addition to said member operable upon movement of said plate relative to said member for operably engaging the follower plate with said first named means.

5. A device of the character described comprising a tray for records, a follower plate disposed within said tray, a rotatable screw for moving said plate, and means operable upon bodily shifting said plate relative to the screw for operatively engaging the same with the screw.

6. A device of the character described comprising a tray for records, a follower plate disposed within said tray, a manually rotatable member, mechanism normally interconnecting said member and said plate whereby the plate is caused to be moved longitudinally of the tray upon rotation of said member, and means operable upon bodily shifting the plate relative to the rotatable member for disengaging said mechanism from said rotatable member so that the follower plate may be moved back and forth within the tray independently of rotation of said member.

7. A device of the character described comprising a tray for records, a follower plate disposed within said tray, means operably connected with the follower plate for moving the same within the tray, said follower being adapted for angular movement relative to said tray, and means for disengaging said first named means from the plate upon movement of the plate to one angular position, whereby an operator may shift the follower plate independently of said moving means.

8. A device of the character described comprising a tray for holding records, a follower plate disposed within said tray, and means for traversing said plate within the tray, said means comprising a threaded rod, guide means secured to the plate and engaging said rod, and a member connected to the guide member and movable into or out of engagement with the threads of said rod.

9. A device of the character described com-

prising a tray for holding records, a follower plate disposed within said tray, and means for traversing said plate within the tray, said means comprising a threaded rod, means for guiding said plate, and a member pivotally connected to said guiding means and movable into or out of engagement with the threads of said rod.

10. A device of the character described comprising a tray for holding records, a follower plate operably retained within said tray, means for guiding the plate for traversing movement, a threaded rod rotatably secured to said tray, and a member pivotally connected to the plate and movable into or out of engagement with the threads of said rod.

11. A device of the character described comprising a tray for holding records, a follower plate disposed within said tray, means for guiding the plate for traversing movement, a threaded rod rotatably secured to said tray, and a member secured to the plate and movable into or out of engagement with the threads of said rod upon bodily shifting the position of the plate.

12. A device of the character described comprising a tray, a follower plate for supporting records, means for moving said plate backwards and forwards within said tray, and means for locking said plate in position by pressure exerted thereon.

13. A device of the character described comprising a tray, a plate for supporting records, and means for moving said plate backwards and forwards lengthwise of said tray, and means for locking said plate in position by pressure exerted thereon, and a second plate adapted to cooperate with said first plate in holding records in place.

14. A device of the character described comprising a tray, a follower plate for supporting records, means for moving said plate longitudinally within said tray, means for engaging said plate with said moving means when force is exerted thereon, and means for retaining the plate in disengaged position when no force is exerted thereon.

15. A device of the character described comprising a tray, a follower plate for supporting records, and means for moving said plate backwards and forwards lengthwise of said tray, means for holding said plate in unlocked position when no force is exerted thereon, and means for causing the weight of records on said plate to lock the same in position.

In testimony whereof, I have hereunto set my hand.

CECIL B. HARRISON.