April 8, 1930. M. McDONALD 1,753,525

CARD INDEX TRAY

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Fig. 1

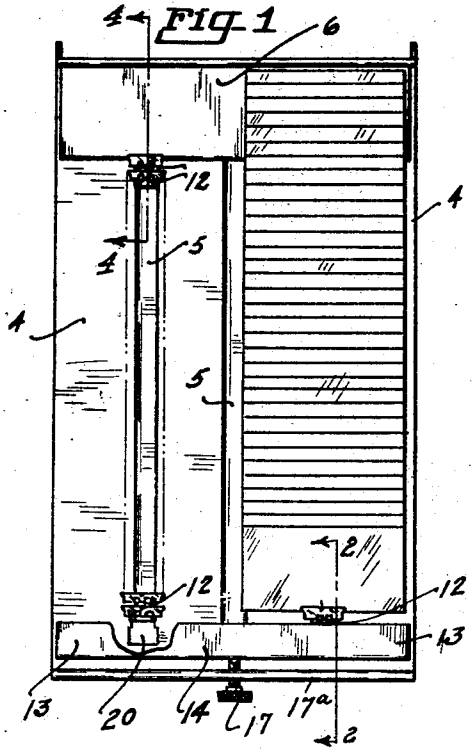


Fig. 2

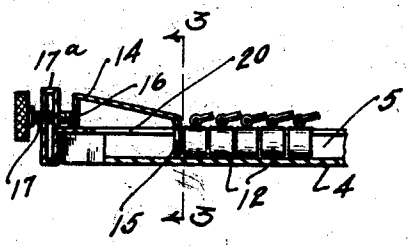
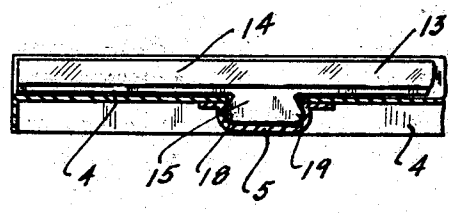


Fig. 3



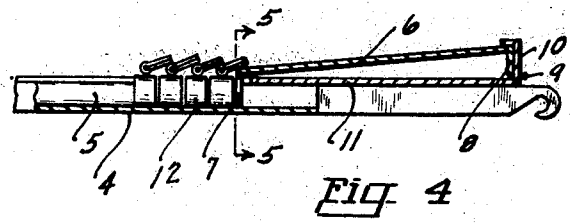


Fig. 4

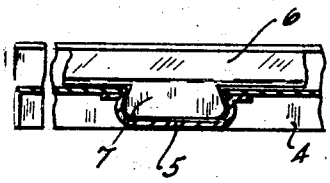


Fig. 5

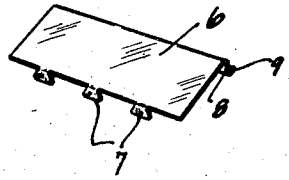


Fig. 6

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CARD INDEX TRAY

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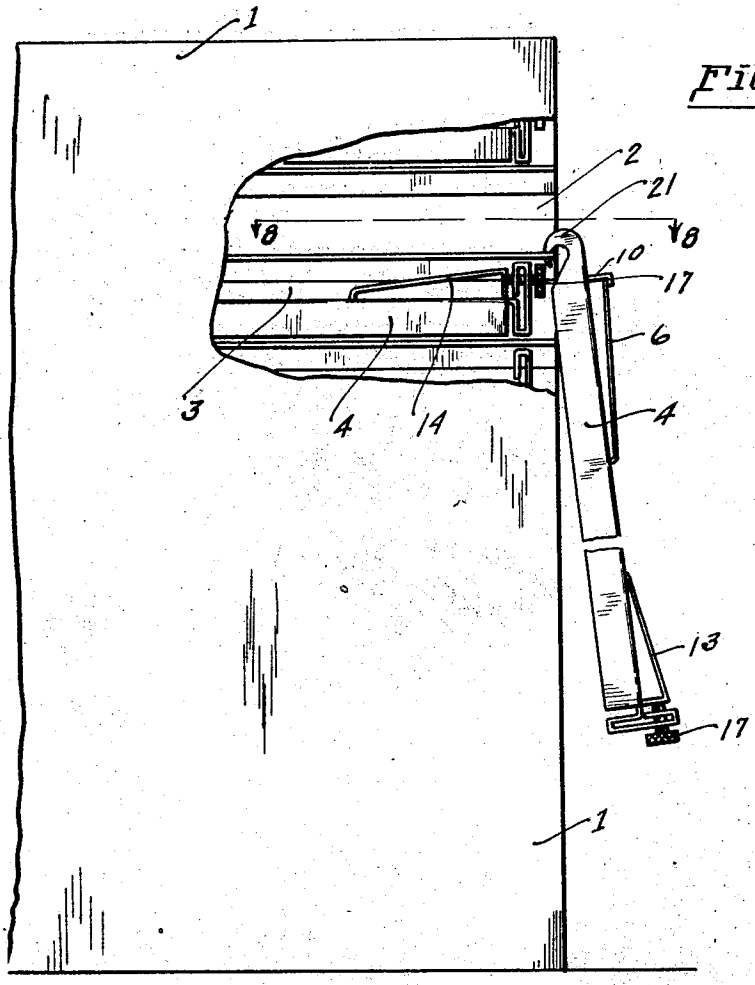


Fig. 7

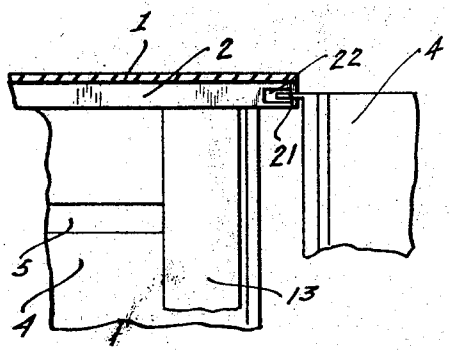


Fig. 8

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UNITED STATES PATENT OFFICE

MALCOLM McDONALD, OF ORENCO, OREGON

CARD-INDEX TRAY

Application filed August 31, 1927. Serial No. 216,614.

This application relates to my United States Patent Number 1,649,244, issued Nov. 15, 1927, for a Card index and file, and also relates to two copending applications for patent, one for a Card index and file, filed August 31, 1927, Ser. No. 216,616, and the other for a Card index and file, filed August 31, 1927, Ser. No. 216,615.

An object of my invention consists in providing means whereby the cards inserted upon the supporting elements are maintained in uniform spaced relationship and in locked position.

With this and incidental objects in view, the invention consists in certain novel features of construction and combination of parts, the essential elements of which are set forth in the appended claims, and a preferred form of embodiment of which is hereinafter shown with reference to the drawings which accompany and form a part of this specification.

In the drawings:—

Fig. 1 is a top, plan view, of a tray of my preferred form of embodiment, illustrating the one side of the tray completely filled with cards, the opposite side being entirely empty.

Fig. 2 is a cross section view, taken on line 2—2 of Fig. 1, looking in the direction indicated.

Fig. 3 is an enlarged cross section view, taken on line 3—3 of Fig. 2, looking in the direction indicated.

Fig. 4 is a fragmentary cross section view, taken on line 4—4 of Fig. 1, looking in the direction indicated.

Fig. 5 is a fragmentary cross section view, taken on line 5—5 of Fig. 4, looking in the direction indicated.

Fig. 6 is a perspective view, of the end supporting table to elevate the end index cards, and to give the whole series a uniform alignment and appearance.

Fig. 7 is a side elevation of a cabinet having a series of trays positioned therein and illustrating supporting means for maintaining the tray in a substantially inclined position.

Fig. 8 is a fragmentary side elevation, taken on line 8—8 of Fig. 7, looking in the direction indicated.

Like reference characters refer to like parts throughout the several views.

1 is the case into which a series of trays are placed, the same being carried in guideways 2 and 3, provided therein to carry the trays in spaced relationship. 4 is the body of the tray having one or more guideways 5. Each guideway 5 is preferably made of an independent piece of material which may be secured to the tray body by any suitable fastening means, as by spot welding. Where long cards are to be used, but one guideway 5 is necessary, but should it be found desirable to carry different sizes or series of cards in each tray, a multiple of guideways may be provided.

I have found that the end cards, without suitable provision being made therefor, will not rest at the same elevation as the cards disposed intermediate the ends and to correct this, I have provided an elevated body or card rest 6, having a series of lugs 7, of suitable shape and form which fit within the guideways 5, as illustrated in Fig. 6. This section is placed, as shown at 6, in Fig. 1, with its end portion 8, provided with a projecting ledge 9 disposed at the bottom thereof passing through an opening in the upturned wall 10, as illustrated in Fig. 4. This positions the body 6, and maintains the same in place as the downwardly disposed projections 7 engage with the flat top member 11, as illustrated in Fig. 4. Then the yokes 12 carried by the clips 23 which hold the cards 24 are placed within the guideways 5 and the tray is filled for its entire length. The entrance end pad section 13 is then placed in position, the same being inclined, as illustrated at 14 in Fig. 2 and adapted to close the entrance to the tray as well as lock the yokes therein.

The downwardly projecting elements 15 on the rear edge of section 13 engage within the guideways 5 and are movable therein. The pad 13 has an outwardly disposed wall 16 against which the threaded element 17, threaded through the front 17ª of the tray may be made to engage. The forcing of the pad 13 against the outermost yoke 12, as illustrated in Fig. 2, causes a lateral pressure upon the yoke and therefore creates an intimate contact between each of the yokes within the series and therefore maintains the same rigidly in place. The locking projections disposed upon either side of the projections 15 of the pad 14, as illustrated at 18 and 19 in Fig. 3, prevent the removal of the pad or the yokes without releasing of the threaded element 17. This release of screw 17, permits of the lateral movement of the section 13 until the projections 15 enter the increased opening, as illustrated at 20, thus permitting the removal of the pad from the tray and therefore the removal of the yokes through the same enlarged opening 20.

Since the yokes 12 are locked in position within the tray, the same may be maintained in a substantially vertical position, if desired, and may be suspended by the engagement of the hooks 21 within the openings 22 in the guideway 2 of the filling case 1.

While the form of mechanism herein shown and described is admirably adapted to fulfill the objects primarily stated, it is to be understood that it is not intended to confine the invention to the one form of embodiment herein shown and described, as it is susceptible of embodiment in various forms, all coming within the scope of the claims which follow.

What I claim is:—

1. In a device of the class described, the combination of a tray, guideways disposed longitudinally of the tray, the tray bottom being formed with an enlarged opening at one end of each of the guideways, an elevated body element at one end of the tray having a portion that is inclined to the horizontal when in normal position, fixed to the tray, card-carrying yokes slidable within the guideways, an entrance end section having an inclined surface disposed intermediate its ends, means for locking the entrance end section and the yokes in intimate relation with each other.

2. In a device of the class described, the combination of a tray body, a multiple of guideways disposed longitudinally of the tray body, the tray bottom being formed with an enlarged opening at one end of each of the guideways, an elevated card rest element disposed at one end of the tray, card-carrying yokes slidable within the guideways, an entrance end pad section adjustable on the tray and having a downwardly projecting element engageable within the guideways and slidable therein, and means for locking the end section and the yokes in intimate relation with each other.

3. In a device of the class described, the combination of a tray, guideways formed within the bottom element of the tray, said guideways having a restricted top opening, the tray bottom being formed with an entrance opening at one end of each guideway, card-carrying yokes slidable within each guideway, and an entrance end pad section adjustable on the tray and having portions slidable within the guideways, and means for maintaining intimate contact between the yokes and the entrance end section.

MALCOLM McDONALD.