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CONTAINER FOR SEPARATING SLOTTED CARDS

Original Filed July 31, 1919

Fig. 1.

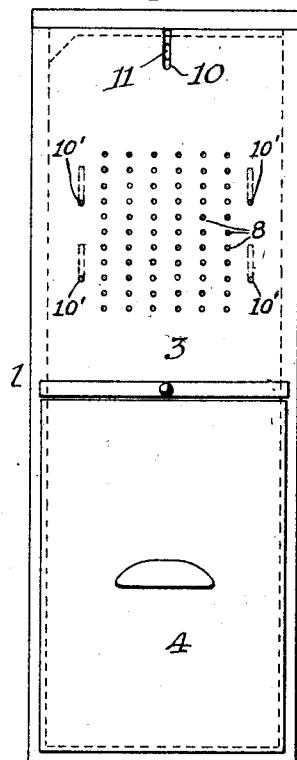


Fig. 2.

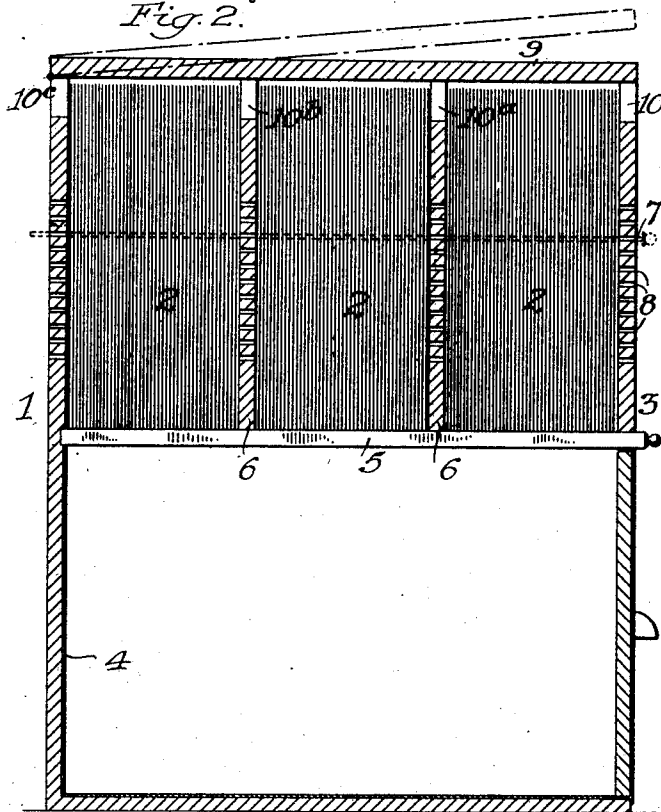
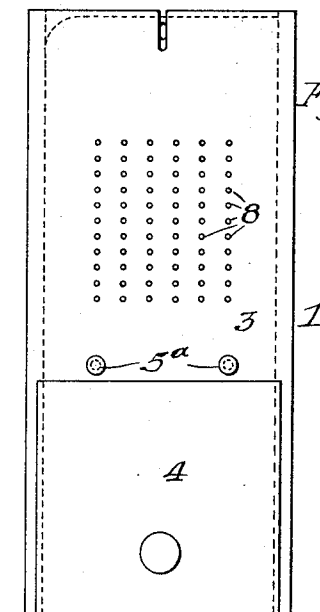


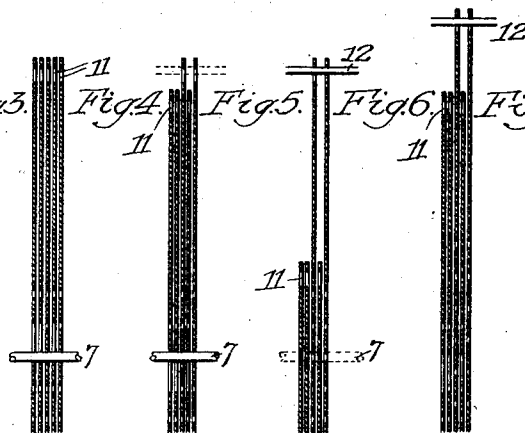
Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.



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CONTAINER FOR SEPARATING SLOTTED CARDS.

Application filed July 31, 1919, Serial No. 314,579. Renewed June 12, 1926.

My invention relates to means or mechanism for sorting slotted cards; that is to say, cards originally perforated and which have had their perforations connected by a slot or slots to serve as an indication or record of specific data, and the object of my invention is to provide a container in which the cards may be placed, and to combine with such container means whereby groups of cards having identical slot formation may be separated from the rest of the collected cards.

While my improved sorting means have been devised more particularly for the purpose of sorting card ballots such as those described in the application of C. G. Hoag, filed May 17, 1919, Serial No. 297,879, patented Jan. 24, 1922, No. 1,404,611, it is obvious that they may be employed for sorting any form of slotted card wherein the slots connect perforations or apertures arranged in a definite or predetermined manner.

These and other features of my invention are more fully described hereinafter, reference being had to the accompanying drawings, in which:

Figure 1, is a front elevation of one form of holder or container within the scope of my invention.

Fig. 2, is a sectional elevation of the same.

Fig. 3, is a front elevation of a modified construction within the scope of my invention.

Figs. 4, 5, 6, are diagrammatic views illustrating one of the ways in which the structure forming the subject of my invention may be used, and

Fig. 7, is a similar diagrammatic view illustrating another of the possible methods of use.

My invention comprises a container preferably of such size that the cards will remain in alignment when in place therein. Or it may be of such size as to hold in alignment the largest cards likely to be used; smaller cards being held in alignment by means of rods which may be inserted in the container temporarily for that purpose. Preferably the container is of such a character as to provide two portions—an upper receptacle initially receiving the cards, and a lower drawer portion subsequently receiving certain of the cards separated from other cards, with some suitable form of removable means, a partition, a rod (or rods), or other removable support between the receptacle portion of the container and the removable drawer,

so that those cards designed for removal from any lot may be segregated from the main group and drop into the drawer. The separated cards or the main group may be dropped into the drawer, or the main group of cards may be lifted from the receptacle; leaving the separated cards therein to be later removed.

In the drawings, 1 represents a container receiving cards 2; the front of the same being indicated at 3, and a lower drawer being shown at 4. In Fig. 1, I have shown a removable partition 5 between the upper portion of the container and the removable drawer 4. In lieu of a partition 5, such as shown in Figs. 1 and 2, I may employ a rod (or rods) 5^a to support the cards in the receptacle, as indicated in Fig. 3.

The upper portion or receptacle of the structure is designed to receive the cards initially, and this portion preferably contains one or more vertical partitions 6 for disposal between the cards so that a rod (or rods), such as that indicated by dotted lines at 7 and employed to segregate the cards, will have additional support and will be prevented from such flexure as would prevent proper segregation of the desired cards to be removed.

The cards are perforated at predetermined points; certain of such perforations being joined to form slots, and the front and back, and any intermediate partitions provided in the upper portion of the container, are perforated at 8 to correspond or register with the perforations of the cards used, so that when the cards are placed in the container, a rod passed through any perforation in the front wall of the same will pass through the corresponding perforation in every card, as well as the perforation 8 of the partitions and rear wall. If the cards used are provided with guide slots, perforations 10^a may also be made in the front and rear walls and in the partitions to correspond or register with the base of each guide slot position.

The sides of the container may be partly open, if desired, so that the cards may be handled from the side though prevented from sidewise displacement. Preferably, also, the container may be provided with a cover or lid 9, which may be locked in place. The upper part of the front, back, and any intermediate partitions should be perforated, slotted or notched as at 10, 10^a, 10^b, etc., corresponding to a special perforation or slot 11

on every card used, which is placed so near the top of the cards that any card displaced downward the length of one of the selective slots will be entirely below the horizontal level of the bottom of the perforations, slots or notches 10, 10^a, 10^b, etc., and all cards not displaced may be supported by a rod 12 passed through said perforations, slots or notches 10, 10^a, 10^b, etc., and through the perforations or slots 11 of the cards. The perforations or openings 10, 10^a, 10^b, etc., in front, back, and any intermediate partition of the container, are preferably in the form of an open slot, so that a rod placed through the slotted apertures 11 of the cards which have not dropped, may serve to lift them out of the receptacle, if desired.

If necessary the container may be shaken to cause the cards to fall as far as the rods or other supports in use will permit. The mechanism may be such that it can be easily turned over so that cards displaced downward may be easily replaced without separating them from the others.

Cards may be sorted by the use of my improved mechanism in the following manner:

Insert a rod (or rods) 7 at the bottom of the slot position or positions indicating the kind of cards to be sorted out, as indicated in Fig. 4. Remove all other rods or other supports which would prevent the slotted cards from falling, and the desired cards will then fall down the length of one slot, and all other cards will be kept in position by the rod (or rods) 7, as indicated in Fig. 5. A rod such as that indicated at 12 may then be inserted in the slot or perforation 10 at the top of the front of the structure, and passed through the corresponding perforations 11 in the cards not displaced downward; such rod passing over the latter cards. Then remove all other rods. The cards desired to be separated will then fall, as indicated in Fig. 6, into the drawer 4 for instance or into any other receiver that may be arranged to catch them. If the other rods are not removed, other cards may be similarly displaced downward and finally separated with the cards first displaced. Various combinations of cards may thus be sorted out. Instead of dropping the separated cards, they may be lifted out of the receiver, as indicated in Fig. 7.

The complete container may be in the form of a drawer for insertion in a cabinet. It may also form the upper part of a solid mechanism or structure; the lower part being merely a support providing space for cards to fall out, or a container to catch the cards when they do fall out. Such a solid mechanism or structure may be housed in a suitable cabinet for protection when not in use. If the container as a whole is in the form of a drawer, a cabinet may

contain any number of such drawers. There may be a supplemental drawer beneath each main container to catch cards allowed to fall. Or each container may be equipped with hooks or other devices so that when it is drawn out a receptacle may be attached beneath it to catch cards allowed to fall.

I claim:

1. The combination, in card-separating means, of a container having an upper receptacle for the said cards, a removable drawer in the lower portion of said container adapted to receive said cards, and removable separating means between the upper receptacle and the drawer.

2. The combination, in card-separating means, of a container having a receptacle for the said cards in the upper part of the same, a removable drawer in the lower portion of said container adapted to receive said cards, and a removable partition separating the upper receptacle and the drawer.

3. The combination, in card-separating means, of a container having an upper receptacle for cards, a removable drawer slidably mounted in the lower portion of said container, removable separating means between the upper receptacle and the drawer, and means for supporting one group of cards in the upper receptacle while others are allowed to fall into said drawer.

4. The combination in card-separating means, of a container having a removable support between the upper and lower portions thereof, said upper portion with said support constituting a card receptacle, means for supporting certain of the cards in the receptacle after the said removable support is withdrawn, and a removable drawer in the lower portion of the container adapted to receive the unsupported cards when the said removable support is withdrawn.

5. The combination, in card-separating means, of a container, a removable drawer in the lower portion of said container, and removable rods supporting the cards in the upper portion of the container.

6. The combination, in card-separating means, of a container, a removable drawer in the lower portion of said container, and removable rods above the drawer and serving as means to support the cards in the upper portion of the container.

7. The combination in card-separating means, of a container having apertured front and rear walls, removable separating means between the upper and lower portions of the container and constituting with the said upper portion of the container a receptacle for cards, said cards having apertures registering with the apertures in the container walls, and slots connecting certain of said apertures, a rod adapted to be threaded through the apertures in the container and in the cards whereby the cards are supported when

the said separating means is withdrawn, said slots permitting certain of the cards to be displaced vertically, a rod adapted to be threaded through registering apertures in the cards which have not been displaced
 5 and in the container, and a removable drawer in the lower portion of said container adapted to receive the said displaced cards upon withdrawal therefrom of said first-named rod.

whereby they are permitted to be displaced vertically, and a rod adapted to be threaded through the cards which have not been displaced to hold said latter cards in place upon withdrawal of said first-named rod, while
 50 the said displaced cards are permitted to fall into the lower portion of the container.

10 8. The combination in card-separating means, of a container having apertured front and rear walls, said walls being notched at their upper edges, removable separating
 15 means between the upper and lower portions of the container and constituting with the said upper portion a receptacle for cards, said cards being apertured and having slots joining certain of said apertures, a rod
 20 adapted to be threaded through registering apertures in the container walls and in the cards and adapted to support said cards when the separating means has been with-
 25 drawn, said slots permitting displacement of certain of the cards vertically, a rod adapted to occupy the notches in the front and rear walls of the container and to be
 30 threaded through the cards which have not been displaced vertically, and a removable drawer in the lower portion of said container for receiving the said displaced cards
 upon withdrawal of the first-named rod.

10 10. The combination in a card-separating means, of a partitioned container having apertured front and rear walls, said parti-
 15 tions also being apertured and the walls and partitions being notched at their upper edges, a removable support between the up-
 20 per and lower portions of the container forming with the said upper portion a re-
 25 ceptacle for cards, a rod adapted to be threaded through the apertures in the con-
 30 tainer walls and in the partitions and adapted to retain the cards in the receptacle after withdrawal of the removable support, cer-
 35 tain of said cards being provided with means whereby they are permitted to be displaced vertically with respect to the others, a rod
 40 adapted to occupy the notches in the front and rear walls and partitions and adapted
 45 to be threaded through the cards which have not been displaced whereby said latter cards are supported in the upper portion of the container after withdrawal of the said first-named rod, while the said displaced cards
 50 are permitted to fall into the lower portion of the container.

11. The combination, in card-separating means, of a container with apertures there-
 15 in, apertured cards having slots formed therein connecting certain of said apertures,
 20 a rod adapted to be supported in said container apertures and to be threaded through the apertures in the cards, and a removable
 25 rod support for the cards; the removal of such rod support after the insertion of said
 30 rod permitting certain slotted cards to drop on said rod.

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