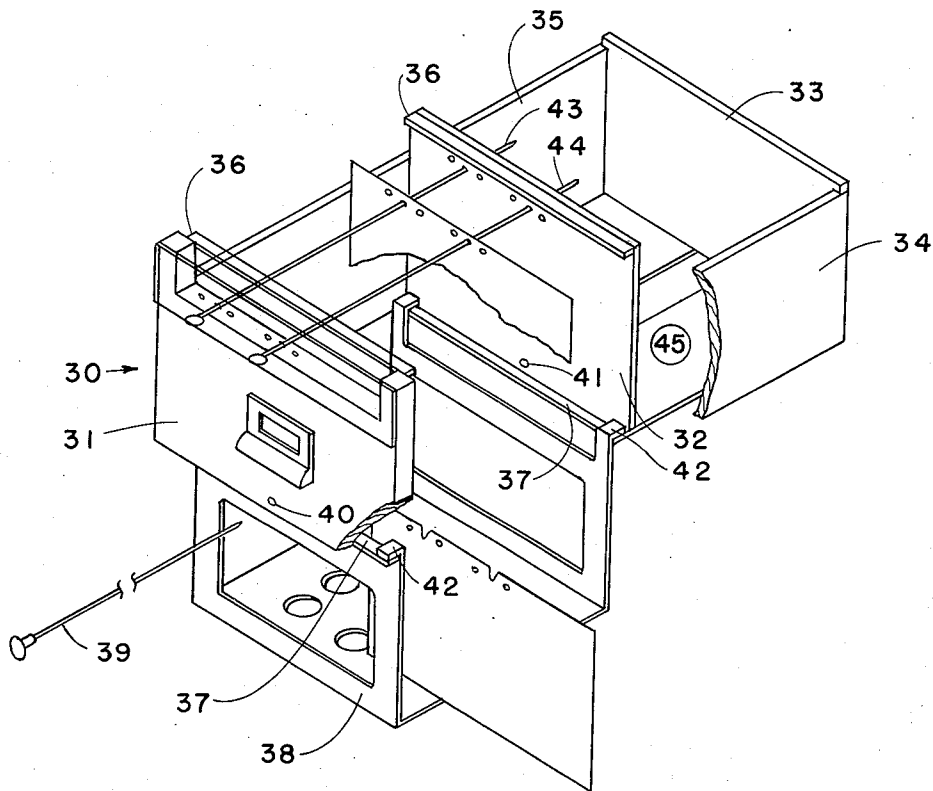


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M. E. DAVIS ET AL
CARD SORTING DEVICE

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CARD SORTING DEVICE

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1 Claim. (Cl. 129—16.1)

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A non-exclusive, irrevocable, royalty-free license in the invention herein described, for all governmental purposes, throughout the world, with the power to grant sublicenses for such purposes, is hereby granted to the Government of the United States of America.

This invention relates to card sorting devices and the prime object of this invention is the provision of apparatus suitable for the sorting of cards, this apparatus being simple in construction and operation. Further objects and advantages will be obvious from the description herein.

It is of course well known in the art that cards may be punched and/or slotted according to a pre-determined scheme to represent the information on the cards. Thus each hole or slot may be used to designate some particular item of information and the slots or holes may then be used to sort the cards thus to obtain all the cards which possess some item of information in common to all of them. Many devices have been proposed for carrying out this sorting operation. In general, the devices which operate satisfactorily are very expensive as they involve the use of electronic devices and other complicated and expensive machinery. It therefore has long been the aim in the industry to devise a sorting device which is inexpensive and yet reliable in operation.

The apparatus which we have devised meets these qualifications. It is simple in construction requiring no electronic or other electrical components. It is reliable in action and can be operated even by unskilled persons.

In the annexed drawing, the figure illustrated is a three dimensional view of the card sorting device, parts having been cut away in the figure for clarity of representation.

Referring with particularity to the figure, the construction and operation of the illustrated device is described as follows:

Container 30, essentially a drawer which is adapted to fit into a conventional card filing cabinet, is formed of front panel 31, intermediate panel 32, end panel 33, and side panels 34 and 35. Bottom 45 is omitted in the area from front panel 31 to intermediate panel 32. On panels 31 and 32 are positioned upper cleats 36 and lower cleats 37.

Open-sided frame 38 is adapted to fit in the space bounded by panels 31, 32, 34, and 35. When

it is desired to slide container 30 into its cabinet, frame 38 is raised and rod 39 is then slid beneath the bottom of frame 38 through holes 40 and 41 thus holding the frame in place. It is evident that by removal of rod 39, frame 38 may be dropped into the position shown in the figure. Cleats 36 restrict upward movement of frame 38 whereas cleats 37, cooperating with hooks 42 serve to support frame 38 in its lowered position.

To operate this device, frame 38 is raised and secured in place by inserting rod 39. The cards are then placed in the container 30 resting on the bottom of frame 38. Needles 43 and 44 are then inserted through the holes or slots in the cards. Rod 39 is then withdrawn whereby frame 38 drops to its lowermost position and at the same time the cards which had slots at the points where needles 43 and 44 were registered, drop with frame 38. These cards may then be removed by sliding to the right or left through the open sides of frame 38.

The device of the figure has the advantage that it serves both as a container for the cards and as a device for selecting cards. Thus this apparatus is in one respect a drawer for holding the cards in a file cabinet. When cards are to be selected, it is merely necessary to pull out the drawer about half-way, then operate the needles as explained above to cause the selection. This feature of our device makes it unnecessary to move the cards into a separate sorting device. It is evident that the cards which drop into frame 38 can be subjected to further selection by use of devices corresponding to those illustrated in the figure and by utilizing different perforations or groups of perforations not used in the previous selection.

Having thus described our invention, we claim:

A device adapted for use in sorting perforated cards comprising a drawer, a vertically-movable, open-sided receptacle positioned within the forward portion of said drawer, said receptacle occupying not more than about half the length of the drawer, said receptacle being movable in a vertical plane between an upper position wherein it is nested within the drawer and a lower position wherein it protrudes beneath the drawer, said receptacle providing the means for holding a group of perforated cards to be sorted, cleats adjacent the top of said drawer, cleats adjacent the bottom of said drawer, offset members on said receptacle for cooperation with said top cleats to

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restrict upward movement of said receptacle and for cooperation with said bottom cleats to restrict downward movement of said receptacle, a slidable rod positioned beneath said receptacle for maintaining it in its upper position, a series of holes through the front of said drawer, a series of holes through a rear panel of said drawer aligned with said first series of holes, rods for passage through said holes for cooperation with perforations in said cards to retain some cards in said drawer and to permit others to drop into said receptacle when it is dropped to its lowered position.

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