

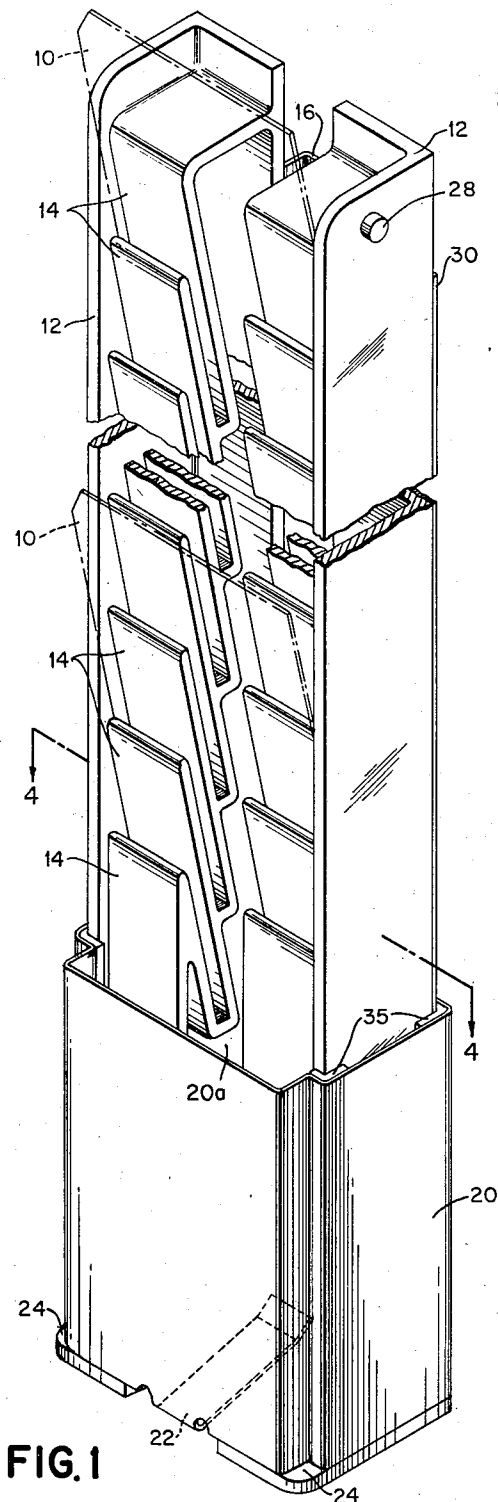
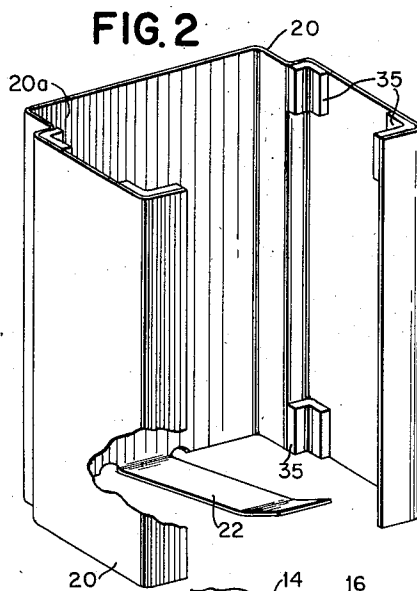
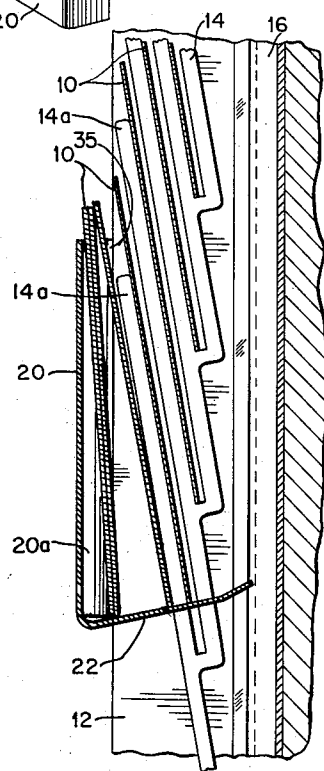
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CARD COLLECTING RACK

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1

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CARD COLLECTING RACK

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3 Claims. (Cl. 270—58)

This invention relates to card racks and more particularly to an improved card rack having means operable to mechanically collect the individual time cards carried in the rack.

The many advantages of utilizing clock stamped time cards for recording the working hours of employees are of course well established. However, one difficulty which remains in a great number of plants making use of this system is that of quickly and efficiently collecting the cards from a number of time racks. In many plants the design of the card racks is such that it is necessary for the clerk, charged with this responsibility, to remove each card individually from its place in the card racks. Other designs permit manual removal of a group of cards from the rack in one operation. This later design though advantageous demands some manual dexterity and in many cases requires the use of both hands in order to avoid the possibility of dropping the cards. The difficulties encountered with the use of card racks of this nature become an acute problem in a large plant having numerous individual racks from which the cards must be collected. This is especially so where the accounting and checking systems utilized demand that the cards be collected daily.

Thus it is the object of the present invention to provide an improved card rack which includes a receptacle manually operable to collect in sequential order a group of the cards carried in the rack.

In carrying out this object, the improved card rack is provided with a vertical channel running through each of the individual card slots. A card collector is slidably mounted on the rack and carries a tongue which extends into this vertical channel and is effective when the card collector is raised to collect the individual cards carried in the card slots. Frictional means are provided to hold the card collector at any position after the cards are collected to allow for easy removal of the group of cards and thus facilitate one hand operation.

Other objects of the invention will be pointed out in the following description and claims and illustrated in the accompanying drawings, which disclose, by way of examples, the principle of the invention and the best mode, which has been contemplated, of applying that principle.

In the drawings:

Fig. 1 is an isometric view of the improved card rack.

Fig. 2 is a detail view taken from the rear of the card rack and showing the card collector in its uppermost position.

Fig. 3 is a sectional view taken through the middle of the card rack and showing the card collector being raised to collect the individual cards in the rack.

Fig. 4 is a sectional view taken on lines 4—4 of Fig. 1.

Fig. 5 shows a pair of adjacently mounted card racks with the card collectors having been raised to their uppermost position to collect all the cards in the rack.

The card rack unit as in shown in Figs. 1 and 4 comprises an elongated frame 16 to which is attached a pair of formed plate members 12. These members 12 are mounted parallel to each other and each contains a plu-

2

ality of vertically spaced card separators 14. These separators 14 are aligned to form a plurality of individual card slots spaced along the vertical length of the rack. The frame 16 is formed to include a vertical recess 16a (Fig. 4), and the members 12 are mounted on either side of this recess to form therewith a channel 17 running the vertical length of the card rack.

A carriage in the form of a sleeve 20 is slidably mounted on the spaced members 12 and frame 16. This sleeve 20 has attached to its a tongue 22 which extends between the separators 14 into the recess in frame 16. Each of the members 12 is formed to supply a stop 24 for the sleeve 20 when it is in the normal or lower position shown in Fig. 1.

The sleeve 20 is sprung inward to bear against the members 12 with sufficient frictional force to hold the sleeve in place after it has been raised. Collection of any number of individual cards in the rack may be accomplished by manually gripping the sleeve 20 and raising it to the desired up position. Once raised, the frictional engagement between the sleeve 20 and members 12 will hold the sleeve in the raised position and the cards collected may then be easily removed from the rack. As the sleeve is raised cards are collected by the extending tongue 22 which as shown in Fig. 3 engages the lowermost edge of each of the cards in the rack. Since, as is shown in Figs. 1 and 3, the card separators 14 are inclined outward the cards will be collected in the receptacle formed by the sleeve 20 and the extending tongue 22 in the same sequence in which they are arranged in the rack. The width of the front portion 20a of sleeve 20 is only slightly greater than that of the cards so that the sleeve is effective to laterally adjust and group the cards as they are collected, and the angle of the tongue 22 is so disposed that the cards will lie forward in the receptacle and thus not interfere with ejection of subsequent cards. The upper portion 14a of each inclined separator serves, as sleeve 20 is raised, to force previously collected cards into the front or pocket portion 20a of the sleeve so that the cards are grouped and laterally adjusted as they are collected.

Studs 28 (Figs. 1 and 5), are secured to the sides of plate members 12 to provide an upper stop for the sleeve 24 and thus prevent the sleeve from being moved off the rack unit. Fig. 5 shows a pair of adjacent rack units, the sleeves of which have been raised to their uppermost position and are being held in that position by the frictional engagement between sleeve 20 and members 12. After the groups of cards have been removed from an individual rack, downward pressure on the sleeve will restore it to its lower position against the stop surface 24 in readiness for the next ejection cycle. Noise elimination and smoothness of operation are accomplished by the felt runners 35 which are cemented to the inner surface of the carriage 20.

Another feature of the invention is illustrated in the embodiment of Fig. 5. Secured to adjacent sides of the sleeve 20 of the card rack there shown are a pair of fingers 32 and 34. These fingers are so mounted that when sleeve 20 of the left hand rack is raised to collect the cards therein the finger 32 will engage finger 34 to likewise raise the sleeve of the right hand rack. With interconnecting fingers such as these, it is possible to collect all or a number of the cards carried in a plurality of card racks merely by raising one sleeve of the group to the desired level.

While there have been shown and described and pointed out the fundamental novel features of the invention as applied to a preferred embodiment, it will be understood that various omissions and substitutions and changes in the form and details of the device illustrated and in its operation may be made by those skilled in the

3

art, without departing from the spirit of the invention. It is the intention, therefore, to be limited only as indicated by the scope of the following claims.

What is claimed is:

1. A card rack comprising an oblong frame, a pair of formed members vertically mounted in parallel spaced relationship on said frame, a plurality of inclined card separators in each of said members, said separators in each member being aligned with each other to form a vertical row of supports for removably carrying the cards, a sleeve mounted on said members, said sleeve being normally positioned at the lower extremity of said members but movable vertically thereon, a tongue mounted on said sleeve and extending into the space between said parallel members to collect cards carried in the aligned slots as said sleeve is moved upward on said members, said sleeve and said separators being formed to cooperate to effect lateral adjustment of said cards as they are collected, and means for holding said sleeve stationary in any vertical position on said rack.

2. A card rack comprising a frame, a pair of members vertically mounted in parallel spaced relationship on said frame, a plurality of inclined supports in said members so aligned as to form a vertical row of supports for removably carrying the cards, a sleeve having a pocket portion, said sleeve being mounted on said members and movable longitudinally with respect to the row of card supports therein, and a tongue mounted on said sleeve and extending into the space between said parallel members to engage the cards carried in the aligned supports as the sleeve is moved on said members, said inclined supports being

4

effective to guide each card engaged by said tongue into the pocket portion of said sleeve.

3. A card rack comprising a frame, a plurality of inclined card separators mounted in vertical spaced relationship on said frame to removably carry a plurality of record cards, each of said separators being formed to include a vertical slot and each being aligned on said frame so that said slots form a vertical channel through the plurality of card separators, a card collector mounted on said frame, said collector being normally positioned at the lower extremity of said frame but movable vertically thereon, a tongue mounted on said card collector and extending into said vertical channel to engage the cards carried by said card separators as said card collector is moved upward on said frame, said inclined separators being effective to force each card engaged by said tongue into said collector as it is raised, said collector being formed to laterally adjust the cards as they are collected and capable of remaining stationary in a raised position on said frame with the cards collected therein.

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