Oct. 1, 1929. P. GEBSER 1,730,069

TRAY FOR CARD INDEX SYSTEMS

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Fig. 1

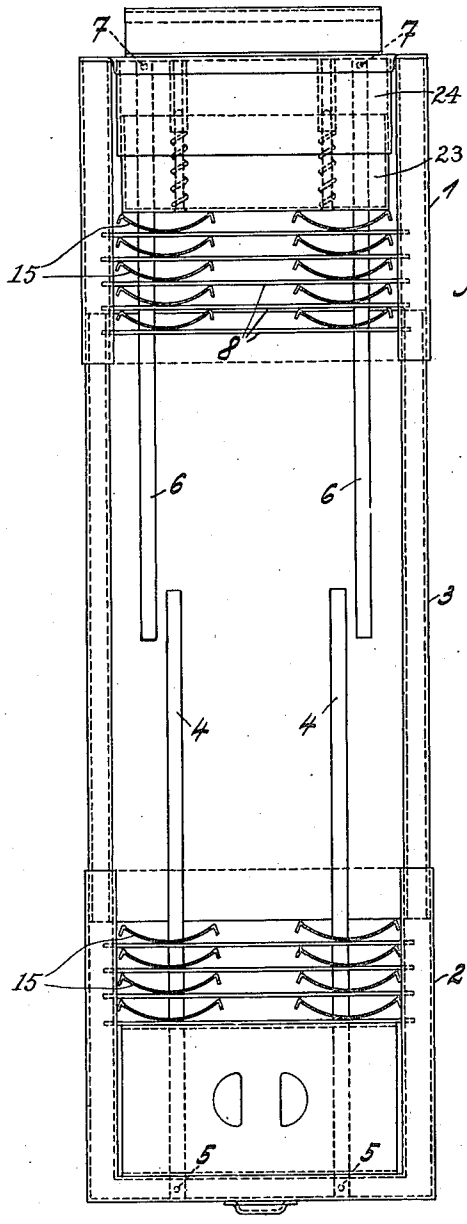



Fig. 2

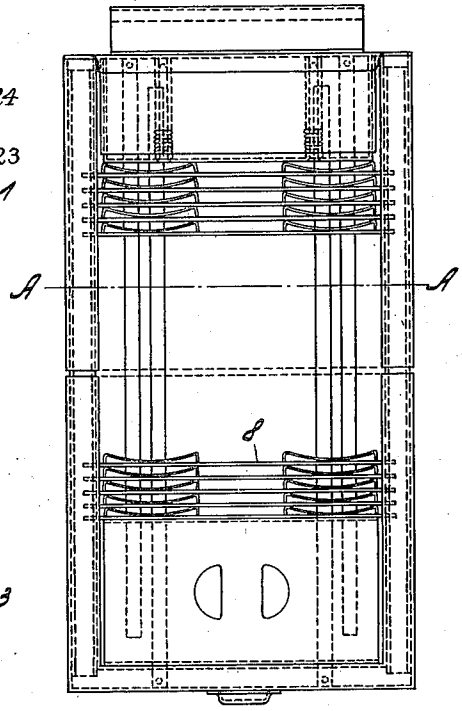



Fig. 3

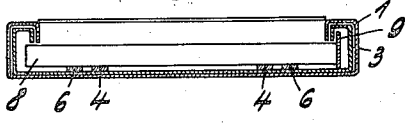



Fig. 5

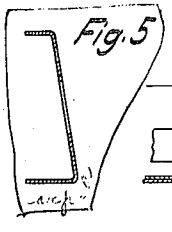
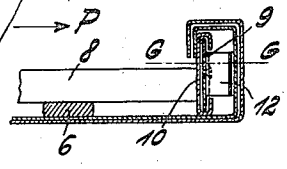



Fig. 4




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TRAY FOR CARD INDEX SYSTEMS

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Fig. 6

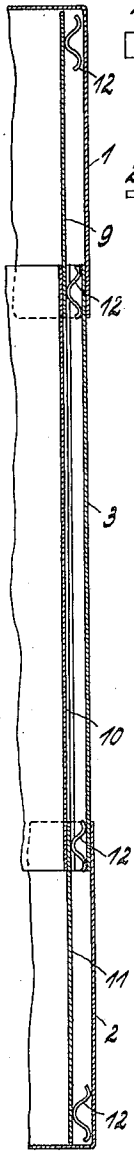
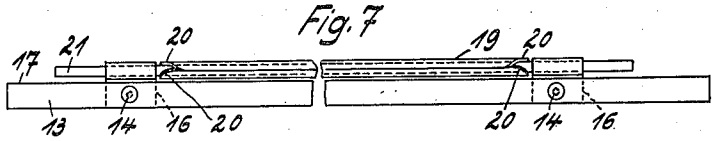



Fig. 7



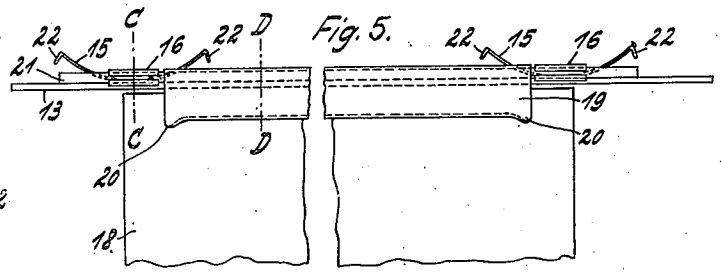




Fig. 8

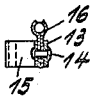



Fig. 9

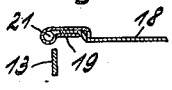



Fig. 10




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Patented Oct. 1, 1929

1,730,069

# UNITED STATES PATENT OFFICE

PAUL GEBSER, OF MAGDEBURG, GERMANY

## TRAY FOR CARD-INDEX SYSTEMS

Application filed March 16, 1927, Serial No. 175,894, and in Germany November 5, 1926.

The present invention relates to trays for card index systems.

According to the invention, the tray consists of a plurality of parts which are relatively displaceable in the longitudinal direction, whereby the holders for the cards within the tray thrust against each other in resilient fashion. This relative supporting of the card holders is performed with the assistance of springs which, when the parts of the tray are moved one into the other, are pressed together in such manner that the card holders are moved more closely together and require less space. In this manner the tray is of shorter length when the same is in position in the cabinet, whereas upon the withdrawal thereof the edges of the overlapping cards are uncovered to such extent as to clearly reveal the index marking on the edge. These index edges become narrower, i. e., the cards thrust to a greater extent one over the other, when the parts of the tray are pressed together.

The invention is illustrated by way of example in the accompanying drawing, in which

Fig. 1 shows a plan view of the tray when the same is extended by being withdrawn from its cabinet.

Fig. 2 being a plan view of the tray with the parts moved together.

Fig. 3 is a section along the line A—A of Fig. 2.

Fig. 4 is a part sectional view on enlarged scale, corresponding with Fig. 3.

Fig. 5 is a plan view of the card holder with one card.

Fig. 6 is a longitudinal section through the withdrawn tray along the line G—G in Fig. 4.

Fig. 7 is a front view of the card holder.

Fig. 8 is a section along the line C—C of Fig. 5.

Fig. 9 is a section along the line D—D of Fig. 5.

Fig. 10 is a view of part of a card holder as seen from the side.

Referring to Figs. 1 and 2, 1 and 2 are the two outer parts of the tray, which are slidably connected with middle portion 3 in any suitable manner. The three parts 1, 2 and 3 may be collapsed in such manner that the index edges of the individual cards are reduced in width, so that the largest number of cards possible may be provided in one tray. As shown in Fig. 1, the flat bars or rails 4 are secured at 5 to the bottom of the tray portion 2. Similar bars or rails 6 are secured at 7 to the bottom of the tray portion 1. When the tray is withdrawn the pairs of rails 4 and 6 lap by each other at the centre of the part 3, so that in this manner the card holders may be moved over the bottom of the three tray sections without jamming at the points where the tray sections meet together.

Within the tray are provided the card holders 8. The edges of the individual tray sections, as shown in Fig. 3, are bent over inwardly in U-fashion, in such manner that the ends of the card holders 8 are situated below these edges. In this manner the card holders 8 are prevented from falling out of the tray. In order, however, to be readily able to remove the card holders from the tray, special rails 9, 10 and 11 are provided on one side of the tray within the U-shaped portion. The middle rail 10 situated within the tray section 3 possesses turned edges, so that the rails 9 and 11 are able to pass through the channel thus formed. The three rails 9, 10 and 11 are acted upon by leaf springs 12 which thrust against the side walls of the tray sections 1, 2 and 3. These springs tend to force the rails 9, 10 and 11 into the interior of the tray, as disclosed by Fig. 4. If the card holders 8 are to be removed the same are moved in the direction of the arrow P, whereby the springs 12 are pressed together with simultaneous displacement of the rails 9, 10 and 11. The card holder is thus released to such extent on the opposite side that the same may be lifted out of the tray.

The card holders are constructed in particular manner as shown in Fig. 5.

The card holder consists of a flat bar 13 conforming with the interior width of the tray. On the one face of the bar 13 the springs 15 are secured by means of rivets 14. At the same time the rivets are also utilized for securing clamping members 16, the

free resilient arms of which are situated on the upper edge 17 of the bar 13. The card 18 is inserted into the clip 19.

This clip is of the form shown in Figs. 9 and 10, the front corners 20 being bent off as shown to permit insertion of the card. The clip consists of a strip of sheet-metal which is bent in the shape of a U and a wire 21 is securely held within the base of the U. The bearings formed by the clamping members 16 conform with the thickness of the wire 21, the ends of the latter projecting beyond the ends of the clip 19 being passed through the spaces formed between the arms of the clamping members 16. The arms of the clamping members 16 are made of resilient material in order that, as shown in Fig. 8 the wire, after the same has been fitted in, on which operation the arms are moved slightly apart, is firmly held by the arms again moving together. In this manner it is possible to employ any type of card and if necessary to remove the card in a simple manner from the holders. The springs 15 have portions at their ends bent towards the adjacent face of the bar 13, in order to limit the compression of the springs, and also at the same time to ensure that the card holder rests as a whole snugly on bases 4 and 6.

It has already been proposed to secure the tray to the cabinet by the use of special intermediate members, the arrangement being such that in withdrawn condition, i. e., when entries on the card are to be made, the upper edge of the tray suspended from the cabinet is situated at a certain distance from the front wall of the cabinet. This arrangement has the object of providing the necessary room to enable entries to be readily made on the last card. According to the invention, this object is attained by arranging a filling member, which is variable in its length, in the part of the tray connected with the cabinet.

The operation is as follows:

Fig. 1 shows the tray in the position when the same is withdrawn and is suspended from the cabinet. The three tray sections 1, 2 and 3 are drawn apart, in such manner that the index markings on the lower edges of the cards are fully visible. The final card may be turned over towards the top, and in this position sufficient space remains relative to the front wall of the cabinet so that the desired entries can be readily made. If the tray 1, 2 and 3 is pushed into the cabinet, the free end of the section 1 strikes finally against the rear wall of the cabinet and the sections 2 and 3 continue to move, i. e., into the section 1, whereby the springs 15 are pressed together, and the distance between the individual card holders 13 is diminished. When in this manner the card holders have been moved together to such extent that the cards cover each other leaving only very narrow exposed strips along the edges, and all the springs 15 have been compressed.

What I claim as new and desire to secure by Letters Patent is:

1. A tray for card index systems, consisting of a plurality of parts which are relatively displaceable in the longitudinal direction, and card holders situated in the said tray, the said card holders being adapted to support each other in yielding fashion between the ends of the tray.

2. A tray for card index systems, consisting of three parts which are relatively displaceable in the longitudinal direction, rails disposed longitudinally over the bottom of the two end parts, the said rails lapping by each other over the middle part of the said tray and being arranged in staggered relation to each other, a plurality of card holders in the said tray resting on said rails, and resilient means separating said card holders.

In testimony whereof I have affixed my signature.

PAUL GEBSER.