

March 29, 1960

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2,930,467

CARD GUIDE DEVICE

Filed Aug. 22, 1957

2 Sheets-Sheet 1

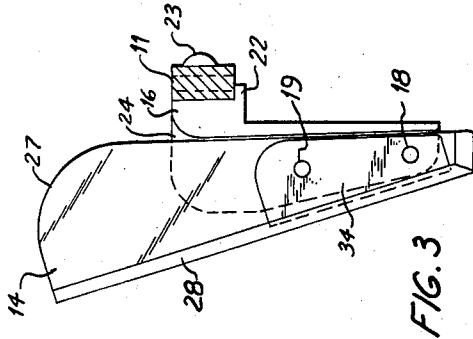


FIG. 3

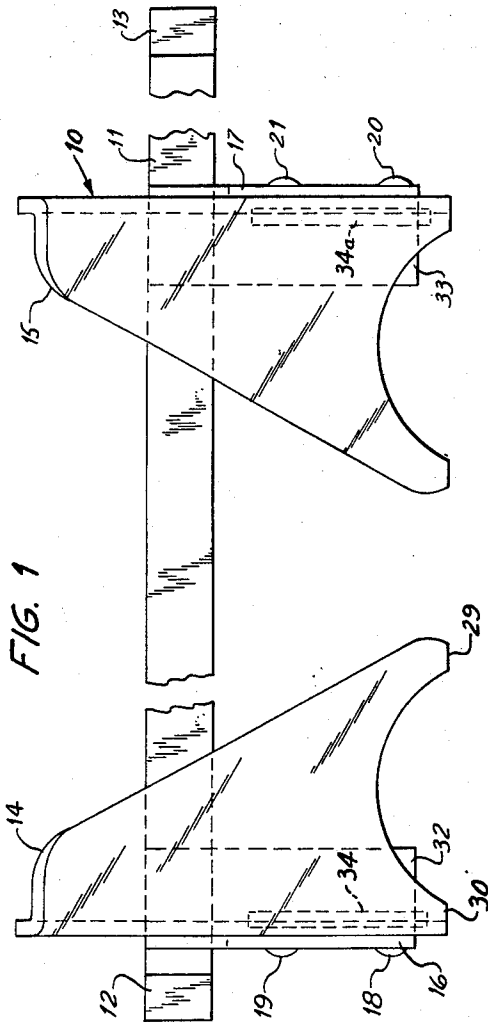


FIG. 1

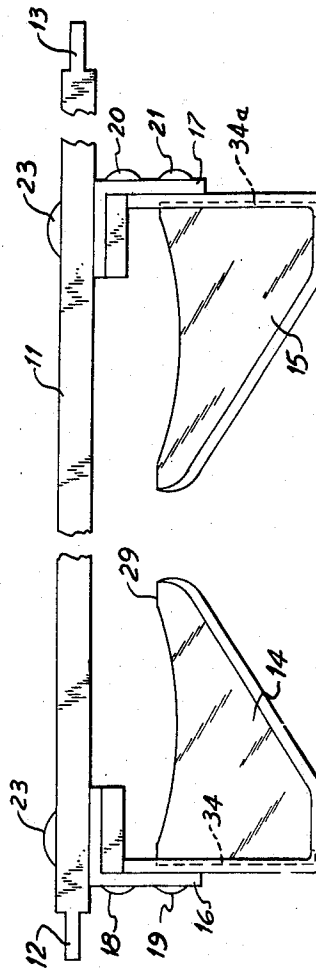


FIG. 2

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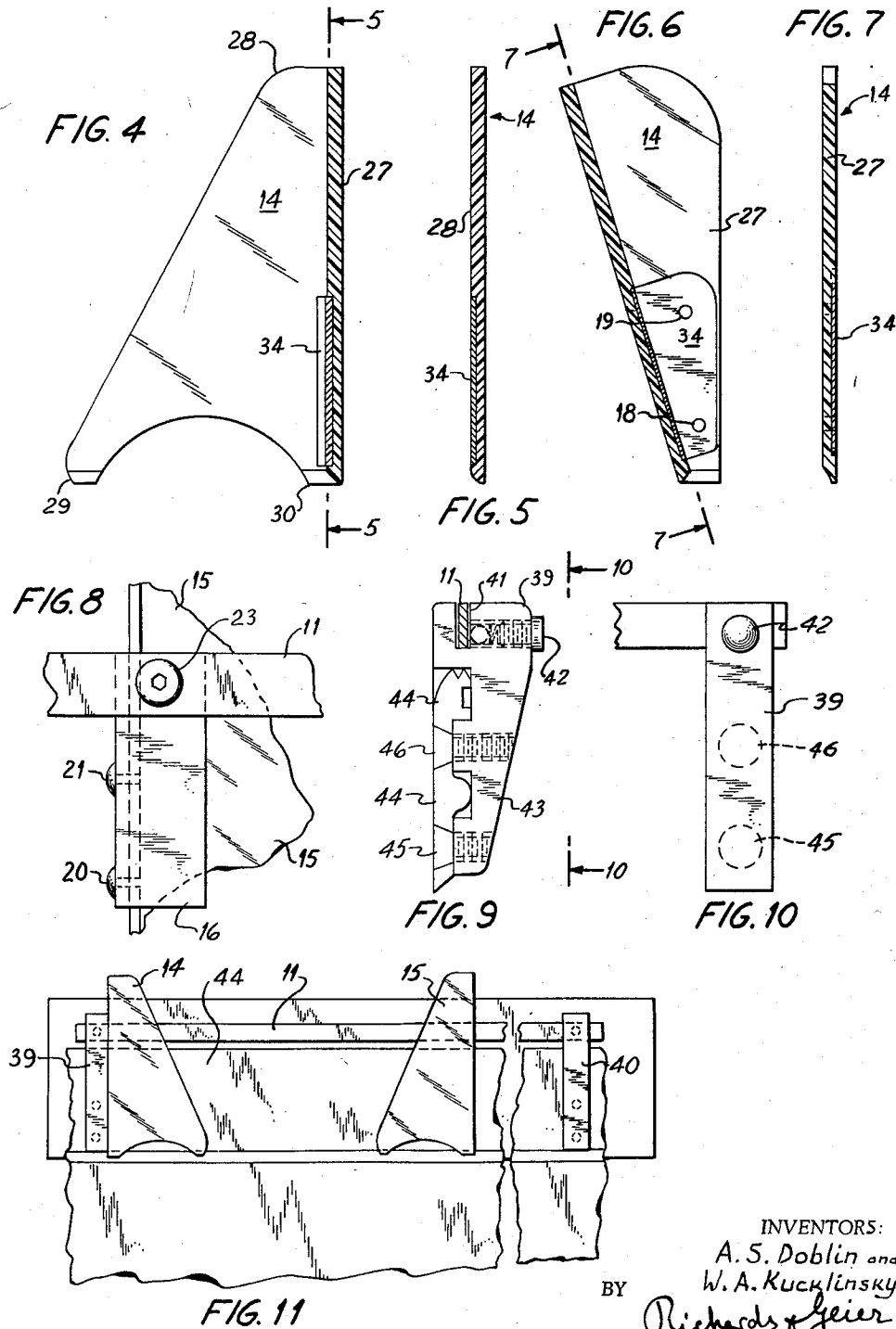
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2,930,467

CARD GUIDE DEVICE

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Application August 22, 1957, Serial No. 679,683

3 Claims. (Cl. 197—127)

This invention relates to a card guide device and refers more particularly to a card guide device for a movable carriage used in connection with automatic accounting, tabulating machines, and the like.

Practical experience has shown that it was a difficult and a time-consuming operation to maintain accurate bookkeeping records for voluminous data. Prior art constructions did not provide a construction which could be readily attached to a modern automatic bookkeeping or tabulating machine for holding a plurality of cards and the like, whereby the tabulating operation could be greatly facilitated and much of the monotony from such operation eliminated. Numerous expedients have been presented, however, which intended to eliminate some of the drawbacks normally encountered by the prior art but none of these have proved to be successful enough to yield a thoroughly satisfactory solution to this problem.

It is an object therefore of the present invention to provide a greater degree of accuracy in the manipulation and tabulation of data upon permanent records, files and the like.

Another object of the present invention is to provide greater degree of facility in the operation of automatic bookkeeping, tabulating, accounting machines and the like.

Yet another object of the present invention is to provide greater degree of efficiency in maintaining up-to-date records.

Another object is to provide for an automatic indexing of cards in relation to the printing position of the machine on repeat card insertions.

Another object of the present invention resides in the provision of a card guide device which may be firmly and removably mounted to a movable carriage of an automatic, modern tabulating, bookkeeping machine and the like.

Still another object of the present invention is to provide an interchangeable construction which may be readily utilized for a plurality of bookkeeping and record-containing cards through the provision of a pair of card guide holders.

An additional object of the present invention resides in the provision of an interchangeable card guide device which is readily interchangeable with various types of commercially available bookkeeping and tabulating machines, and the like.

Another object of the present invention is to provide for an elimination of time-consuming operations and manipulations of bookkeeping and the like presently encountered.

Still another object of the present invention is to provide a unique interchangeable attachment for present-day automatic accounting and tabulating machines and which

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are provided with a plurality of pairs of card guide holders.

Accordingly, broadly speaking, it is an object of the present invention to provide a card guide device which is not subject to the disadvantages of the prior art.

In the attainment of the aforesaid and other objectives, the inventive concept of the present invention may be realized through the provision of a horizontal bar which has firmly mounted thereon at least two complementary card guide holders equidistantly spaced from each other.

More than one pair of correspondingly opposite complementary card guide holders may be suitably mounted along the horizontal axis of the horizontal bar; that is, another pair of similar card guide holders may be mounted and equidistantly spaced from each other adjacent the first pair of card guide holders to receive cards of similar length, if desired.

The horizontal bar may have machined therein at each end correspondingly narrower portions to fit rigidly within a groove of an end mounting block normally disposed firmly on each end of the movable carriage of a bookkeeping, tabulating machine and the like. The length of the bar constituting the novel device of the present invention may be manufactured either as a stock item or it may be custom-made to fit the specific requirements of individual tabulating machines. The novel horizontal bar constituting one of the novel structural features of the card guide device may be readily removed from the movable carriage of an automatic tabulating, bookkeeping machine and the like.

The card guide device, in addition to being firmly positioned in place by means of the end mounting blocks upon the movable carriage of a machine, may also obtain support from the carriage through the provision of the novel constructed card guide holders.

It has been found that the above and other difficulties encountered in practical machines are satisfactorily overcome by the novel device of the present invention which will be disclosed in greater detail herein, reference being made to the accompanying drawings as the description proceeds.

A fuller understanding therefore of the present invention may be had by referring to the following description taken in conjunction with the accompanying drawings showing, by way of example, a preferred embodiment of the inventive concept.

In the drawing:

Figure 1 is a front view of the novel card guide device constituting the present invention.

Figure 2 is a top view of the novel card guide device.

Figure 3 is a side elevational view partly in section of one portion of one novel card guide holder.

Figure 4 is a side elevational view of another portion of one card guide holder, some parts being shown in section.

Figure 5 is a section of the card guide portion shown in Figure 5 taken along the line 5—5.

Figure 6 is a partial side elevational view of another portion of one card guide holder.

Figure 7 is a section through the card guide holder shown in Figure 6 taken along the line 7—7 thereof.

Figure 8 is a side elevational view of a card guide holder mounted on the card guide bar, some parts being shown as broken off.

Figure 9 is a side elevational view, partly in section, showing the card guide bar mounted upon one end of an end mounting block carried by the movable carriage.

Figure 10 is a side elevational view of the end mount-

ing block shown in Figure 9 taken along the line 10—10 thereof.

Figure 11 is a diagrammatic view of the card guide device shown in use with a tabulating or bookkeeping machine.

Referring now to the drawings in greater detail, reference numeral 10 indicates a card guide device of the present invention, and like reference numerals indicate like parts.

A horizontal bar 11, as illustrated in Figure 1, is provided on both its opposite ends with a correspondingly narrower portion as indicated by reference numerals 12 and 13. Intermediate both ends 12 and 13 of the horizontal bar 11 is at least one pair of complementary card guide holders 14 and 15. Each of the card guide holders 14, 15 is firmly mounted upon adapters 16 and 17 by means of screws 18, 19 and 20, 21, respectively.

The distance between each pair of card guide holders 14 and 15 is predetermined in order to accommodate various size cards, files and the like for standard models of bookkeeping, tabulating, accounting machines and the like.

Each of the card guide holders 14 and 15 may be constructed of a rigid material, preferably plastic, while each card guide adapter and bar may be constructed of a suitable, durable material, preferably metal alloy.

Each adapter 16, 17 is so constructed that one portion 22 is firmly and contiguously mounted upon the rectangularly-shaped bar 11 as shown in Figure 3, and is firmly fastened thereto by means of a screw 23. Another portion 24 is integrally formed with the parent portion 22 at right angles thereto. The card guide holder 14 is firmly fastened by means of the screws 18 and 19 to the portion 24 of the adapter 16. The card guide holder 14 is likewise formed of two integrally shaped portions 27 and 28 which are disposed at substantially 90° angles to each other. The card guide holder 15 is connected to the adapter 17 in a similar manner.

The card guide portion 28 of the card guide holder 14 is shaped in such a manner that its two lowermost tips 29 and 30 are conveniently adapted to be seated upon a movable carriage guide (not shown) of an accounting or tabulating machine. The card guide holder 15 has the same tips. Supplemental support of the device upon the carriage is obtained through the substantially vertically disposed card guide adapters 16, 17 which provide horizontal edges 32 and 33 to reinforce the mounting contiguously thereon.

A metal insert 34 is located in recesses provided in the card guide holder 14 and is firmly connected with the holder 14 and the adapter 16 by the same screws 18 and 19. The card guide holder 15 is provided with a similar insert 34a.

Thus, it is apparent from this construction that the card guide portion 27 of each holder 14, 15 is rigidly fastened intermediate the metal insert 34, 34a and one portion of the card guide adapter 16, 17.

As shown in Figure 2, the adapters 16 and 17 lie in the same planes.

A plurality of cards or the like may be conveniently disposed in the wedge formed by the shape of the card guide holders as shown in Figure 2 which, looking in the direction of Figure 3, form a triangularly-shaped pocket narrowing at the lowermost tips 29, 30 of the holders and broadening at the uppermost extremity of each card guide holder 14, 15.

The card guide device of the present invention is mounted upon the movable carriage 44 of a modern automatic bookkeeping accounting or tabulating machine and the like by means of end mounting blocks 39, 40 as illustrated in Figures 9 and 11. The rectangularly-shaped horizontal bar 11 is firmly positioned in the groove 41 of the end mounting block 39 and is firmly held thereto by a screw 42 engaging an inner spring-loaded ball. The lowermost portion 43 of the end mounting block 39 is

adapted to be engaged upon the movable carriage 44 and is firmly held in position by means of screws 45 and 46.

From this construction it is apparent that the rectangularly-shaped horizontal bar 11 may be readily removed by merely lifting the card guide device 10 from the groove of each end mounting block 39 and 40. This simple and easy operation will thereby enable the user to replace the device 10 with another similarly constructed interchangeable card guide device, if desired, such as, for example, differently spaced card holders or a plurality of card guide pairs, without difficulty.

In the accompanying drawings Figure 11 has been more or less diagrammatically shown and detailed only to such extent as to illustrate the important mechanisms of the machine.

Each narrowed portion 12 and 13 of the rectangularly-shaped horizontal bar 11 is of such dimension as to prevent to the slightest degree a movement in any direction, thereby also serving as a locking mechanism for the card guide device.

The operation of the novel card guide device constituting the present invention is apparent from the foregoing description.

Structurally its fabrication is relatively simple and it may be easily installed in the usual and otherwise custom-made equipment at relatively low cost.

Another important advantage of the present invention is that the novel card guide device greatly improves the overall office efficiency and reduces time-consuming tabulating operations to a minimum.

It is to be understood that the invention herein-described is not restricted to any specific dimension, preparation, procedure of manufacture or materials of construction described hereinabove, but includes such variations, modifications and equivalents as fall within the scope of the appended claims.

What is claimed is:

1. A card guide device, particularly for attachment to accounting and tabulating machines, said device comprising a horizontal bar, two complementary card guide holders, each of said card guide holders consisting of two portions extending at right angles to each other, one of said two portions being located in a plane extending perpendicularly to said horizontal bar and having a wider part located above said bar and a narrower part located below said bar, the other portions of the two complementary card guide holders being located in the same plane and having inclined side edges extending downwardly toward each other and lower edges having downwardly projecting tips, and rectangular adapters attaching said card guide holders intermediate said wider and narrower parts to said bar.

2. A device in accordance with claim 1, wherein said bar has two narrow ends, a separate machine-mounting block comprising an upper portion having formed therein a groove receiving each of said two narrow ends, a spring-loaded ball located within said upper portion and engaging the narrow end, and a screw carried by said upper portion and engaging said spring-loaded ball, each block further having a lowermost portion, and at least one carriage-engaging screw carried by said lowermost portion.

3. A card guide device, particularly for attachment to accounting and tabulating machines, said device comprising a horizontal bar, two complementary card guide holders, each of said card guide holders consisting of two portions extending at right angles to each other, one of said two portions being located in a plane extending perpendicularly to said horizontal bar and having a wider part located above said bar and a narrower part located below said bar and having a recess formed therein, the other portions of the two complementary card guide holders being located in the same plane and having inclined side edges extending downwardly toward each other and lower edges having downwardly projecting tips, a separate adapter for each card guide holder, each adapter

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consisting of two portions extending at right angles to each other, means firmly connecting one of said two portions of the adapter with said bar, a separate insert in each of said recesses, and means firmly connecting the other portion of each adapter with an insert and with the narrower part of said one portion of each card guide holder.

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