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BY A. P. C.

M. PIGNI
DEVICE FOR HOLDING SLIPS OR THE LIKE, FOR
ACCOUNTING SYSTEMS OR STATISTIC
REGISTRATIONS OR SIMILAR RECORDS
AND THE RESPECTIVE APPARATUS
FOR CUTTING THE SLIPS
Filed Dec. 17, 1940

Serial No.
370,548

2 Sheets-Sheet 1

FIG. 1

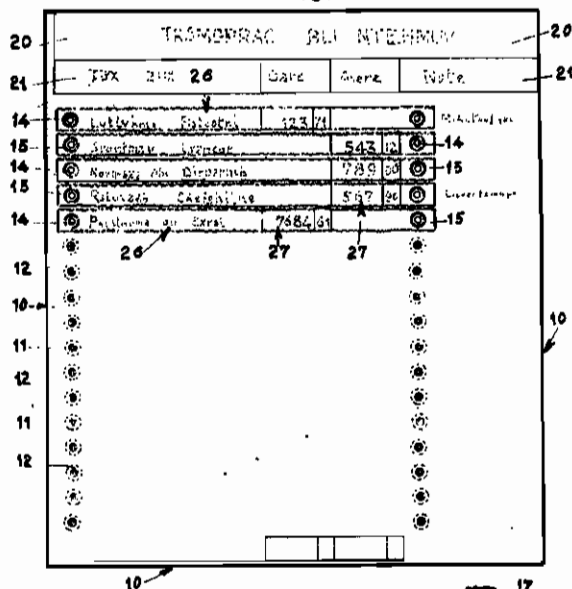


FIG. 2

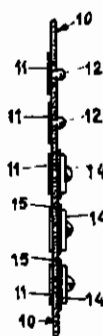


FIG. 5

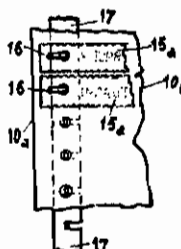
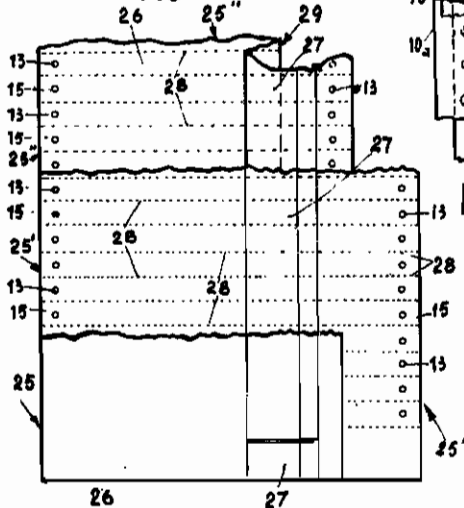


FIG. 3

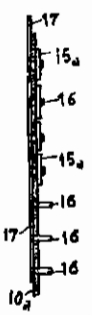


FIG. 4

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Serial No.
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2 Sheets—Sheet 2

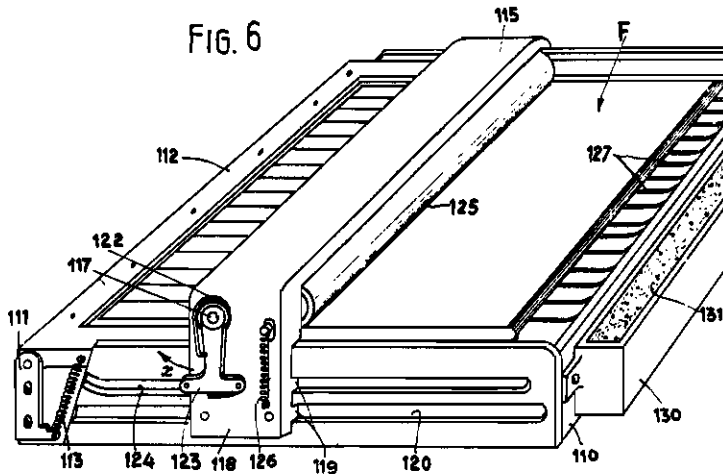


FIG. 7

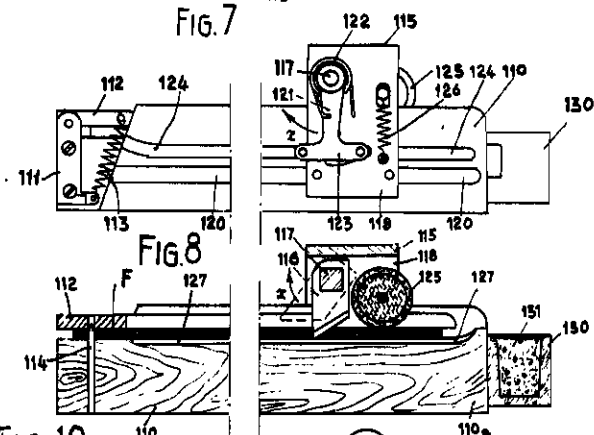


FIG. 8

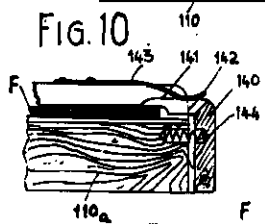


FIG. 10

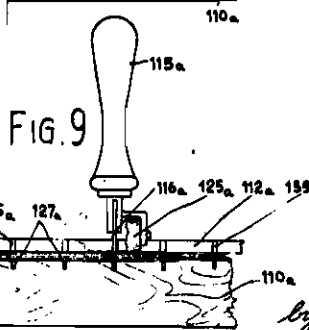


FIG. 9

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DEVICE FOR HOLDING SLIPS OR THE LIKE, FOR ACCOUNTING SYSTEMS OR STATIS- TIC REGISTRATIONS OR SIMILAR REC- ORDS AND THE RESPECTIVE APPARATUS FOR CUTTING THE SLIPS

Mario Pigni, Milan, Italy; vested in the Alien
Property Custodian

Application filed December 17, 1940

The subject-matter of this invention is a device for holding slips or the like for accounting systems, statistic registrations or similar records and the respective apparatus for cutting the slips.

The use of cards for accounting or statistics for copying the variations of goods, articles, or other sizes that can change in any, is well known.

However, to compile and draw up such cards requires a good deal of time, and besides this work of this kind always leads to mistakes in computation, copying and the like, which even the most expert and careful people are liable to make. The foregoing is due to the fact that this kind of work is undoubtedly of a mental nature in as much as only recopying, sorting and copying of groups of figures in the order and successions required, are being dealt with.

The aim of invention is to do away with this source of mistakes by changing the exclusively mental work into manual work, which is therefore less subject to errors, and even if this should not happen for accidental causes or others, the said mistakes could easily be put right.

According to the invention, the device calls for at least one supporting plate or the like, fitted up in such a way as to receive on one or both its surfaces, but preferably with the possibility of removal, at least one set of strips or slips arranged one under the other beforehand so as to facilitate their sorting and the arithmetical operations of the different particulars.

In one advantageous form of performance the supporting plate has means, preferably metallic, to hold back the different slips, and such means have holes or slots to allow orderly filing through same and to also allow the said slips to be removed.

The fixing means can consist of bulging parts or projections made in the supporting plate, or of metal discs or strips fixed to the aforesaid plate in such a way that they jut out from same to receive the slips which are held by removable spring stops and they cooperate with the said bulging parts to allow the slips to be moved. These fixing means may consist of metallic tongues fixed or obtained from the supporting plate and suitable to hold back the slips, which are locked by means of the bending of the said tongues although it is not excluded that they can be glued.

The slips can be obtained advantageously by tearing along the perforated folds of one or more sheets of paper compiled at the same time, by means of copying by tracing, with at least one sheet compiled to receive the list of the different

items to be computed or to be signalled in their movement; the said slips, after being compiled and separated, are placed on the respective supporting plates. If the sheets of paper should not have perforated folds or the like, they can be reduced to slips with an apparatus having in combination a supporting and placing tablet, means for fixing the sheets to be cut, as well one or more cutting organs, eventually provided with pressing means for the said sheets to be cut.

In another advantageous form of performance the tablet or the like is provided with moveable spring rules for placing and fixing the sheets to be cut, on the upper surface of which parallel grooves are made at a suitable distance from each other for the purpose of guiding one or more cutting blades.

When there are several cutting blades, these are entrusted to a slide with guiding means provided by the tablet and one or more spring rollers that press on the sheets and these cutting organs can be raised automatically to remove and place the sheets in their proper place.

Eventually the tablet can have means to glue the single slips so that they are fixed on supporting frames and the like.

The invention will now be explained but only as an indicating example and not to confine the extent of the invention, with reference to the annexed drawing which illustrate supporting plates or cards, with the respective slips, particularly, but not exclusively suitable for use in accounting operations or statistics and the apparatus for obtaining such slips.

Fig. 1 is a raised view of a card with slips kept back by means of movable organs.

Fig. 2 is the section on a larger scale.

Fig. 3 is a part view of a variation.

Fig. 4 is the respective section.

Fig. 5 shows a form of performance, with parts removed, of the slips to be compiled in three copies.

Fig. 6 is a perspective part view of a first form of the apparatus.

Fig. 7 is a raised side view.

Fig. 8 is a cross section.

Fig. 9 is a lengthwise part section of a variation of performance according to Fig. 6.

Fig. 10 is a lengthwise part section of the other end according to Fig. 9.

With reference to Figures 1 and 2, card 10, which can be made of suitable material (thin cardboard, metal, etc.) has at a suitable pitch, two or more sets of holes which keep back the

discs 11 fixed to the card with glue or owing to the bending of wings coming from the said discs from where come the projections 12 suitable to lock with holes 13 (see Fig. 5) in the slips 15. The spring stops 14 then engage with the said projections; these stops consist of for instance discs having elastic lamellae which press elastically on projections 12 so as to keep back slips 15 and to allow them to be removed at the same time.

In Figures 3 and 4, card 10a provides to have the slips fixed to it by means of the bending of metal tongues 16 obtained from a fillet 17 and fixed to the said card or by means of hooks or the like. If the cards 10 should be made of metal, it is not to be excluded that the means for keeping the slips back can be advantageously obtained direct from the said cards. Arrangement of the slips on the latter can take place according to the requirements called for by practice in use. For instance the card illustrated in fig. 1 requires a space 20 above to receive the headings of the subject of statistics or the like, whereas space 21 with suitable divisions, is to head the columns concerning the particulars written on the slips, and regarding for instance, the date, place or similar details, the amount sent out or taken in, or the Cr. and Dr. items and the notes to be pointed out.

Fig. 5 illustrates a very advantageous form of realisation for the different slips drawn up in three copies in the example illustrated, but the number of the said copies can vary in any way in practice. The sheets in question can be loose or grouped together in a swatch and between each sheet and the following one, a sheet of tracing paper is put for copying at the same time on the remaining sheets 25' and 25''.

In this way and by compiling sheet 25 the movement is registered in space 26 of the items to be checked (goods, money, etc.) during determined times and the respective number values are written in space 27. The sheets 25' and 25'' following the first, or other similar sheets have the same interlining with each other and crosswise the said sheets have perforation 28, so that they can be torn off for the purpose of obtaining the slips 15.

To allow compilation at the same on one volume only of the different numerical sizes, (either positive or negative) to again have either amount taken in or sent out, etc. one or more of the sheets 25' and 25'' have a fold 29 so that the folded sheets are shorter than the previous ones. This fold is done away with when the slip is applied on the supporting card 10 (see Fig. 1), so that it comes back to the same length of the other slips and the different positive or negative value are found in columns with the respective supporting columns 10, so as to make the required computations easy.

It is clear that there is no difficulty in compiling the said sheets and when this operation is finished, the different slips are detached and then placed on their cards. To make this operation easy, the said sheets can be of different colours to do away with any chance of mistakes in this way. According to the length of slip 15 one or more series of means can be provided (tongues, discs, etc.) for keeping them back and fixing them. Such means can be presented by both surfaces of support 10 and they can be replaced if necessary according to other forms commonly used. Fixing of the slips to supports 10 with glue is not to be excluded.

With reference to Figures 6 to 3, a wooden tablet 110 or something to take its place, has the side hinged 111 for a metal rule 112, which by means of return springs 113 keeps the sheets F to be cut, pressed. The metal points 114 on which sheets F are filed to be further held during cutting, are fixed in tablet 110 in correspondence with the rule 112.

A cross-piece 115 runs lengthwise to tablet 110 and it carries a set of knives of a suitable shape fixed to a shaft 117 preferably with a polygonal section hinged in sides 118 of the aforesaid cross-piece. These sides have the guide projections 119 running in grooves 120 made sidewise to tablet 110, so that cross-piece 115 is kept in order during use. Shaft 117 is in one with arms 121 acted upon by springs 122 which make it revolve in the direction of the arrow to raise knives 116 which take the position given by the dots in Figure 8. Arms 121 terminate with the side appendixes 123 provided with rollers engaging with hollows 124 having a suitable course. Sheets F are kept pressed by a roller 125 supported by sides 118 of the cross-piece 115 and acted upon by springs 126. A series of parallel grooves 127 is made crosswise in tablet 110 and they are pitched between each other by the width of each slip, and these grooves allow the points of knives 116 to come out to obtain a complete cut of the slips and a further guide for knives 116.

The use of the apparatus is evident: to arrange sheets F on tablet 110, it is sufficient to bring cross-piece 115 to the end of the run to have knives 116 rise to disengage arm 121 from the hollows 124. Rule 112 is raised to engage the sheets with points 114. By moving cross-piece 115 the knives are lowered in the beginning and by continuing the sheets are cut into slips. The apparatus can be completed with a basin 130 for a sponge 131 so that if the slips should become fixed by gluing to the card or the like, the operation can be made much easier with use of the said sponge.

The variation according to Figures 9 and 10 provides for the slips to be cut one by one by means of one knife only 116a, which can be changed completely, with a manoeuvre handle 115a and combined with a roller 125a for pressing the sheets F.

In this case and to make it easier to insert the knife in the proper position in one of the grooves 127a, notches 135 are provided for along the lengthwise element making up rule 112a and on its internal side and these notches correspond with grooves 127a. In this way and by resting with 116a in notch 135, cutting of the sheets is started and the said blade is guided in the rest of its course along groove 127a.

At the moment of cutting sheets F can be held tightly by the other side too and lengthwise when the said sheets are cut slip by slip. In conformity with Fig. 10 is arranged for this purpose that the ends of sheets F are held back by an auxiliary rule 140 hinged to tablet 110a and ending with a square appendix 141 provided with cuts 142 for the passage of the blade. Lamellar springs 143 or the like press the slide and hence sheets F, these springs being disengaging for the auxiliary rule 140 to replace the sheets. With this end in view the said auxiliary rule is acted upon by springs 114, which remove it from the contact of the sheets.

Eventually the auxiliary rule 140 can be hinged to tablet 110a, instead of in the outside part, as shown in Fig. 10, with two arms which move

away in cuts in the ends of the said tablet, so that when rule 140 is raised, it is kept raised by a suitable stop device and it is easier to replace the sheets F to be cut in this way.

The apparatus according to Figures 6 to 10 5 can have other uses besides those under consideration here; for instance to cut accounting sheets into strips, as well as sheets of paper, etc., made out with the tracing system or the like.

The apparatus can be completed with the most 10

suitable means of engaging and disengaging for the cross-piece 115 and the grooves 127 can have metal sides; the tablet 110 too can have pins or projections for meeting and housing the sheets to be cut.

Other modifications of the details above mentioned may also be used without departing from the spirit and scope of the invention.

MARIO FIGNI.