Dec. 13, 1938. A. M. MARTIN 2,140,207

SLIP ACCOUNTING MEANS

Filed Oct. 12, 1936

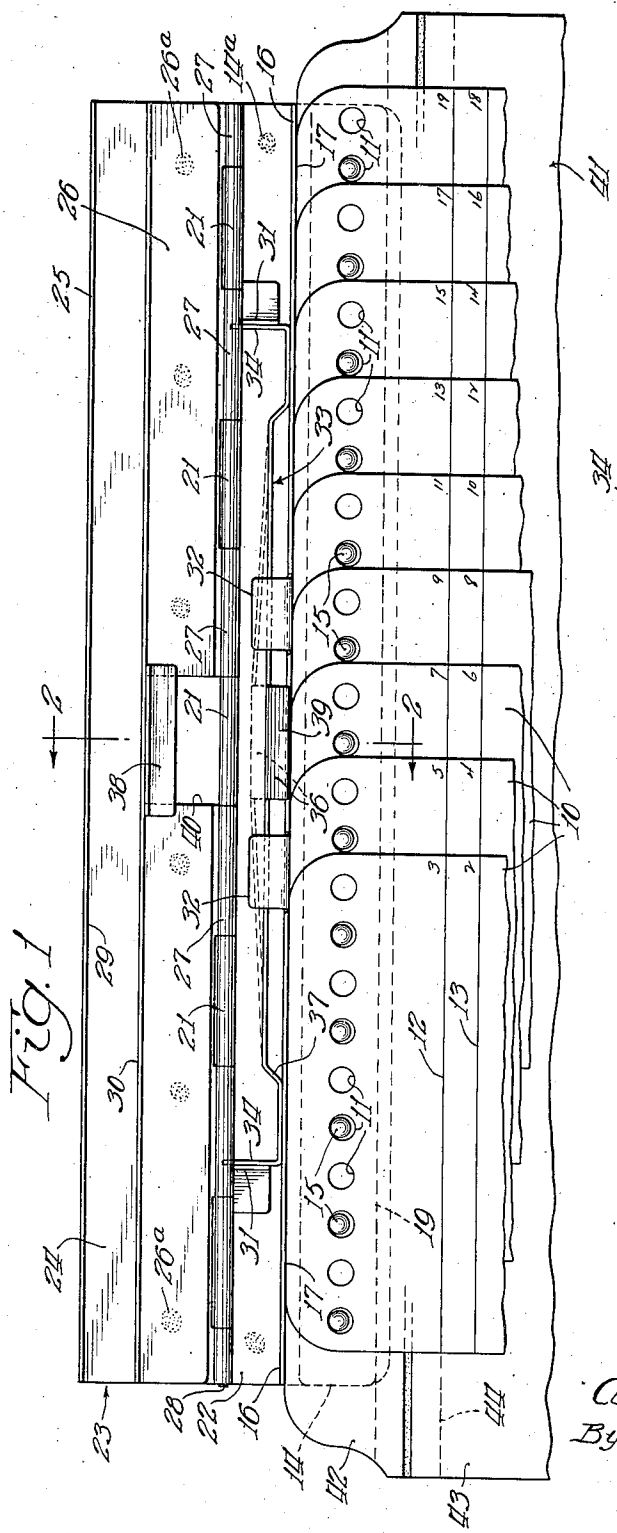

Fig. 1

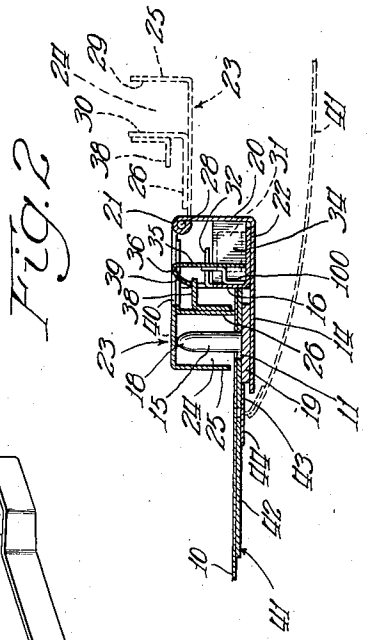

Fig. 2

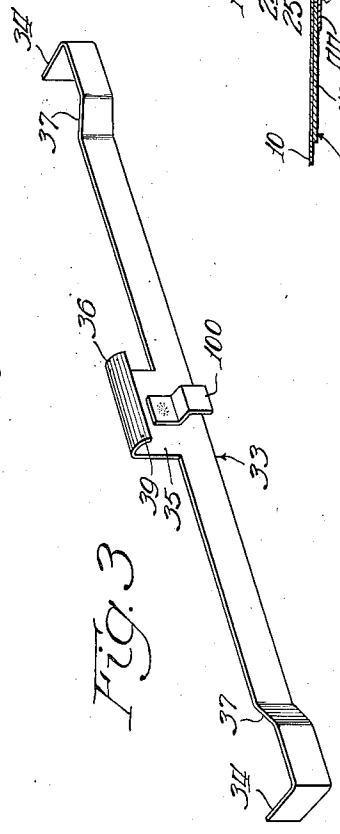

Fig. 3

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Patented Dec. 13, 1938 2,140,207

UNITED STATES PATENT OFFICE

2,140,207

SLIP ACCOUNTING MEANS

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Application October 12, 1936, Serial No. 105,219

9 Claims. (Cl. 129—23)

This invention relates to slip accounting means for facilitating, in general, the addition of comparable items of account displayed upon a plurality of separate similar record slips.

Where such slips are at first loose, it is desirable that they be temporarily mounted side by side for such comparison, in partially overlapping, or what is known as shingled relation. Holders for this purpose are shown in prior patents to Niemann et al. No. 1,884,814 and Dawson No. 2,006,795. For such holders to be useful, the record slips must be quickly transposable to and from the holders, while, when engaged by the holders, the slips must be maintained with their ruled lines aligned transversely of the slips, and for that reason must be maintained against any appreciable shifting. An objection to prior holders has been that if the slips have been maintained against shifting, they have not been readily transposable, or vice versa; and an important object of the present invention is to provide means which will accomplish both of these desired results without the sacrifice of either advantage.

Another object of the invention is to provide an improved holder for this purpose which is simple and economical to manufacture and which is at the same time convenient to handle and efficient in its operation.

Other objects and advantages will be apparent from the following description taken together with the accompanying drawing in which—

Figure 1 is a partial plan view of my improved means, showing the holder in open position;

Figure 2 is a cross-section of the structure of Fig. 1 taken on the line 2—2 thereof, the numeral 10 in this instance representing the composite thickness of the very light weight slips shown; and

Figure 3 is a perspective separated view of one of the parts.

Referring in detail to the illustrative embodiment shown in the drawing, the record slips 10, of which there are here shown nine in all, are similar. For the present purposes it is necessary to show only the tops of these slips but it will be understood that they are relatively narrow elongated paper slips having perforations 11 of uniform size along their top margins and being ruled transversely as by the lines 12, 13, etc. It will be understood that each slip carries a plurality of the perforations 11, in this instance circular, and somewhat closely spaced apart. On their comparable lines 12, for example, the slips may have, respectively, a series of numbers such as 3, 5, 7, 9, 11, 13, 15, 17 and 19 which it is desired to total quickly, usually by means of an adding machine. The comparable lines 13 in the slips may have another series of numbers such as 2, 4, 6, 8, 10, 12, 14, 16 and 18 which it is also desired to total in the same way. For holding the slips in proper relationship for this purpose, I have shown, in general, a mounting 14 carrying a row of cylindrical posts 15 of uniform size spaced apart, from center to center, the same distance as the centers of the perforations 11 of the slips. The slips may be impaled on the posts so that there is a post for every alternate perforation.

In accordance with my invention the perforations 11 of the slips, however, are substantially larger in diameter than the diameters of the posts. In other words, the posts are of smaller cross-section than the perforations of the slips and thus the slips may be readily placed upon or removed from the posts with ease and without danger of tearing the slips by enlarging or mutilating the margins of the perforations. It will be readily perceived, however, that since the posts are substantially smaller in cross-section than the perforations, unless limited in their movement with respect to the posts and to each other, the slips would not be prevented from shifting, particularly upwardly and downwardly. Such shifting would, of course, wholly defeat the purpose, since it would throw out of alignment the Figures 3, 5, 7, etc. and would make it difficult or impossible to add these items on the comparable lines 12 of the slips, for instance; and furthermore, would cause one slip to cover and conceal the figures of another slip by reason of canting of the slips.

To prevent such shifting or canting while leaving the slips readily removable by reason of the enlarged perforations, I have provided an abutment 16 for one edge, such as the upper edge 17 of the slips. This abutment extends the length of the row of posts, parallel to the row, and a distance from the posts equal to the distance between the upper margins of the perforations 11 and the upper edges 17 of the slips. Thus, the slips being similar, when the slips are placed on the posts, the portions of the slips between the perforations 11 and their edges 17 are just snugly received in the narrow passage defined between the row of posts 15 and the abutment 16. This effects two desirable results. It prevents the slips from shifting up or down, keeping their lines 12 and 13 respectively aligned, for purposes of ready comparison, and also, it places the excess

area of the perforations 11 at the ends of the slips nearest the operator so that when the operator lifts the slips off the posts, by taking hold of their lower ends (not shown) the slips will slip readily off the posts. To facilitate placing of the slips on the posts, the posts are desirably tapered at their upper ends as at 18, and the abutment 16 is substantially the height of the posts.

Also in accordance with my invention, the mounting 14, as here shown, is in the form of an elongated bar along the front of which the posts 15 are mounted as through the intermediation of a filler strip 19. The mounting bar at its rear is bent upwardly to form a support 20, the upper edge of this support being formed into aligned spaced-apart hinge knuckles 21. The abutment 16 is shown in the form of an upstanding strip of material secured between the row of posts 15 and the support 20 as by being bent to form a foot 22 which is spot-welded to the bar 14, as at 14a.

In order to prevent accidental displacement of the slips from the posts and also to press the slips to the bottom of the posts for better alignment of the slips, I provide means such as the channel member indicated generally by the numeral 23, the channel 24 of which is arranged to telescope over the posts 15. Such channel member is here represented by two angular members 25, 26 which are secured together as by spot-welding 26a, one of these members, in this instance the member 25, being laterally extended and having a series of spaced-apart aligned hinge knuckles 27 formed along one edge. By aligning the hinge knuckles 21 of the mounting bar, and the hinge knuckles 27 of the channel member, the hinge pin 28 may be passed therethrough, the channel member 23 thus forming somewhat in the nature of a pivoted closure for the mounting bar. The walls 29, 30 of the channel 24 are approximately of the same height as the posts 15 and abutments 16, one of these walls, the wall 30, being received between the row of posts and the abutment, when the channel member is telescoped over the posts for the purposes already mentioned, as shown in full lines in Fig. 2.

In order to provide releasable locking means for maintaining the channel member in closed position with respect to the mounting bar, I have provided, further in accordance with my invention, the expedients such as I will next describe. In the space between the abutment 16 and the support 20, there is secured two spaced apart stops 31, and at two spaced apart points the upper edge of the abutment 16 is bent over toward the support to form a pair of lugs 32. Between these stops and under these lugs is a removable hooked spring which I have indicated generally by the numeral 33.

The hooked spring 33 is here shown in the form of an elongated metal strap having its ends 34 bent angularly and of lengths sufficient to fit snugly between the abutment 16 and the support 20. Medially of these ends the strap is extended upwardly, perpendicularly to the bent ends 34, as at 35, this 35 portion being curved at its upper end as at 36 to form a hook. The portion of the strap carrying the hook is desirably offset as at 37 to be spaced away from the abutment 16 when the spring is slipped into place between the stops 31, the spring being flexed medially to pass the lugs 32 and to be received thereunder, thus being secured in position against accidental displacement. It will be understood that the spring is inserted while the channel member 23 is removed, the stops 31, and therefore the bent ends 34 of the strap, being disposed each respectively opposite one of the hinge knuckles 27 on the channel member, as clearly shown in Fig. 1. Thus also when the channel member is secured in position, the hinge knuckles 27 opposite the ends 34 of the spring, further lock the spring in place.

The channel member 23 carries a detent 38 which engages under the hooked end 36 of the spring, as shown in Fig. 2, to releasably hold the channel member and mounting bar in closed position as shown in Fig. 2. In order to cause the spring to flex to permit the hooked end 36 of the spring to first pass by and then hook over the detent 38, this hooked end is shown of cam formation as at 39.

In order that the spring may be manually flexed to release the parts, I have shown the channel member 23 cut away to provide an opening 40 in which the hooked end or nose 36 of the spring is received by means of which the spring may be flexed, as shown in broken lines in Fig. 1, to release it from the detent and thus permit swinging of the channel member away from the row of posts 15 as shown in broken lines in Fig. 2, to permit insertion or removal of the slips 10.

Desirably the slips 10 are superposed upon the backing support, which, in accordance with my invention may be a flexible sheet 41 of somewhat heavier material than the slips but perforated similarly thereto and also impaled on the posts 15 before the slips are placed thereon. As it is sometimes desirable to turn the slips over, without removing them from the holder, to view the opposite sides of the slips, this may be done by first locking the channel member 23 and the mounting bar 14 releasably together, as I have already described, and then turning the entire means over. Thereupon the flexible backing support 41 may be folded back over the holder as shown in broken lines in Fig. 2 so as not to interfere with the view of the slips. To facilitate this folding backwardly of the backing support, the latter may be formed in sections 42 and 43 secured together as by a flexible tape hinge 44.

Generally, the various parts of the holder may be made conveniently of metal, and they are readily adapted for japanning, enameling, or the like.

To limit movement of the hook 36 of the spring 33 in a direction toward the abutment 16, the spring may carry a stop 100 disposed between the abutment 16 and the offset portion of the spring.

Manifestly, the invention is not limited to the details of construction employed in the specific embodiment here shown. Furthermore, it is not indispensible that all features of the invention be used conjointly, as various combinations and sub-combinations may be advantageously employed.

Having described my invention, I claim:

1. Slip accounting means including a mounting bar, a row of short posts mounted on the bar and a channel member hinged to the bar and adapted to have its channel telescoped over said row of posts to a substantial depth on said posts, said member engaging the slips front and rear of the posts and limiting movement of the slips away from said mounting bar to a substantially infinitesimal degree.

2. The structure of claim 1 wherein the abut-

ment is provided by a strip of material upstanding between the posts and the place where the channel member is hinged to the mounting bar.

3. The structure of claim 1 wherein the posts, the walls of said channel and the abutment are substantially the same height.

4. A holder for slip accounting comprising, in combination, a mounting bar, a row of posts mounted on said bar, a member hinged to said bar and adapted to be overlapped with said posts, a hooked spring carried by the bar, an aperture in said member receiving the hook of the spring when the parts are overlapped and a detent on the channel member engaging the said hook to maintain the parts in said position, the spring being normally movable to effect release.

5. The structure of claim 4 wherein the hooked spring is in the form of a removable elongated metal strap having its ends bent angularly and carrying an upwardly extending hook portion medially of its length and extending perpendicularly to said bent ends, said strap being adapted to be sprung into place on said bar, the portion of said strap carrying said hook portion being offset in the direction of said bent ends.

6. A holder for slip accounting, comprising in combination, a mounting bar, a row of posts mounted on said bar, an upstanding support on said bar, a row of spaced-apart aligned hinge knuckles formed along the upper edge of said support, a channel member, a row of spaced-apart aligned hinge knuckles on the channel member, said knuckles on the bar and channel member being aligned and intercalated, a hinge rod passing through said aligned knuckles, a strip of upstanding material carried by the bar between the row of posts and said support of the length of said row, said channel member being adapted to have its channel telescoped over said row of posts, one wall of the channel being between the posts and said strip, spaced-apart stops in the space between the strip and said support, said stops each registering with one of the hinge knuckles on the channel member, lugs on the strip bent in the direction of the support, a removable metal strap having ends bent angularly and having a hooked portion intermediate its length and flexed to be received snugly between said stops and under said lugs, an aperture in the channel member receiving the hooked portion therein, and a detent carried by the channel member releasably engaging the hooked portion.

7. Slip accounting means including a plurality of slips having perforations along one margin, the sides of the perforations nearest the adjacent edge of each slip being uniformly spaced from said edge in all of the slips, a mounting bar for the slips adapted for holding the slips in laterally shingled relation, said mounting bar having thereon a series of longitudinally aligned posts adapted to pass through said perforations, the cross-sectional area of each post being substantially smaller than the area of the perforation through which it passes, and means carried by the bar and abutting the said edge of each of the slips and limiting movement of the slips on the posts to cause the slips to engage the posts at corresponding sides thereof and to be free from the posts at corresponding other sides thereof, whereby both to align the slips while on the bar and to permit ready stripping of the slips from the bar.

8. Slip accounting means including a mounting, a row of posts carried on the mounting, a plurality of relatively narrow slips having perforations along one margin and adapted to be laterally shingled on said mounting, perforations of the slips having said posts passed therethrough the perforations being substantially larger than the cross-sectional area of the posts, and an abutment carried by said mounting parallel and closely adjacent to said posts, the row of posts and said abutment defining therebetween a narrow passage, the width of which is exactly equal to the distance between the proximate side of each perforation and the edge of each slip at said margin.

9. Slip accounting means including a mounting bar, a row of short posts mounted in longitudinal alignment on the bar, an abutment member carried by the bar parallel to said row of posts, and a hinged member on said bar having a part adapted to be swung into position between said row of posts and said abutment and to a depth on said posts immediately adjacent the bases thereof, as and for the purpose described.

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