Aug. 17, 1965 S. J. ZAGEL 3,200,523

SLIDE SORTING DEVICE

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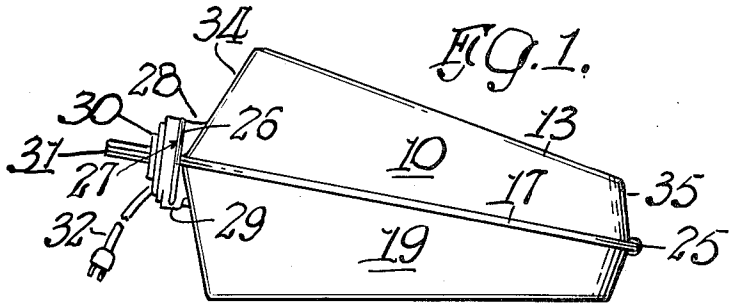


FIG. 1.

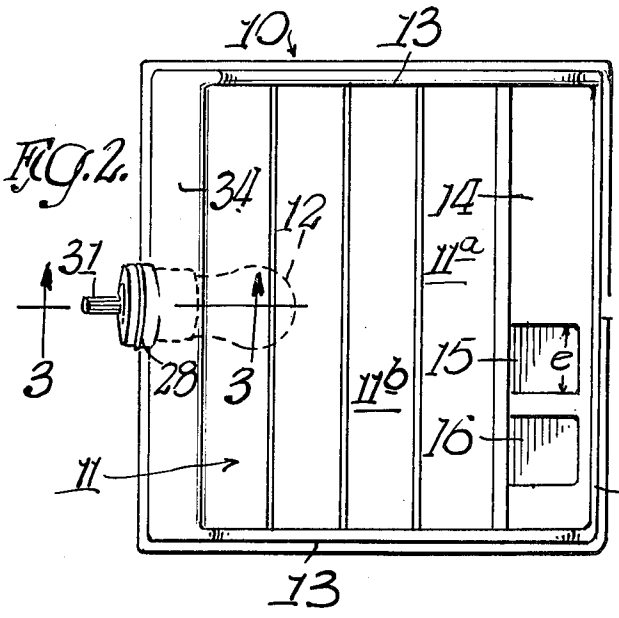


FIG. 2.

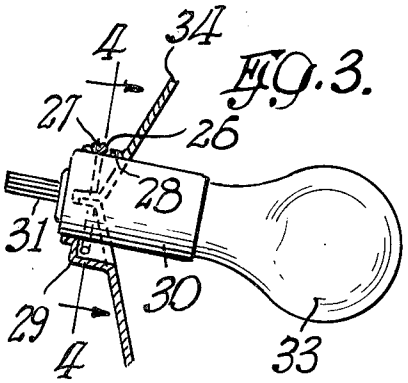
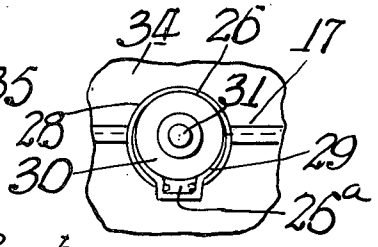


FIG. 3.



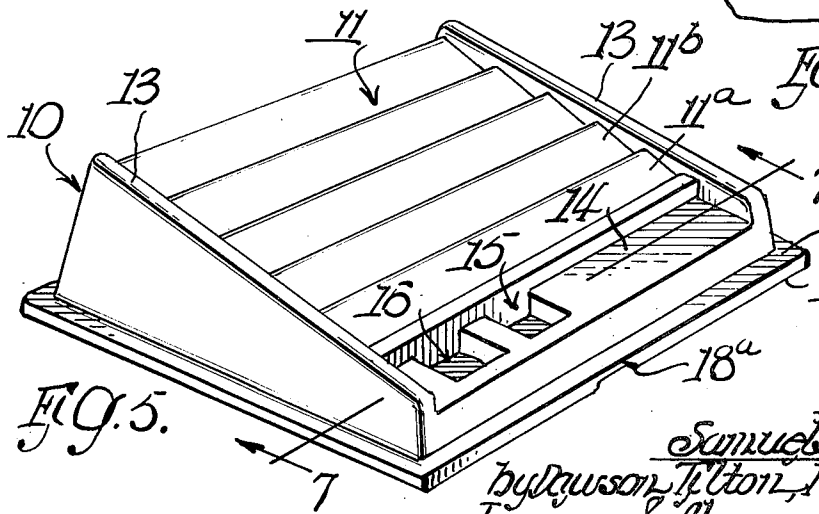


FIG. 4.

FIG. 5.

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SLIDE SORTING DEVICE

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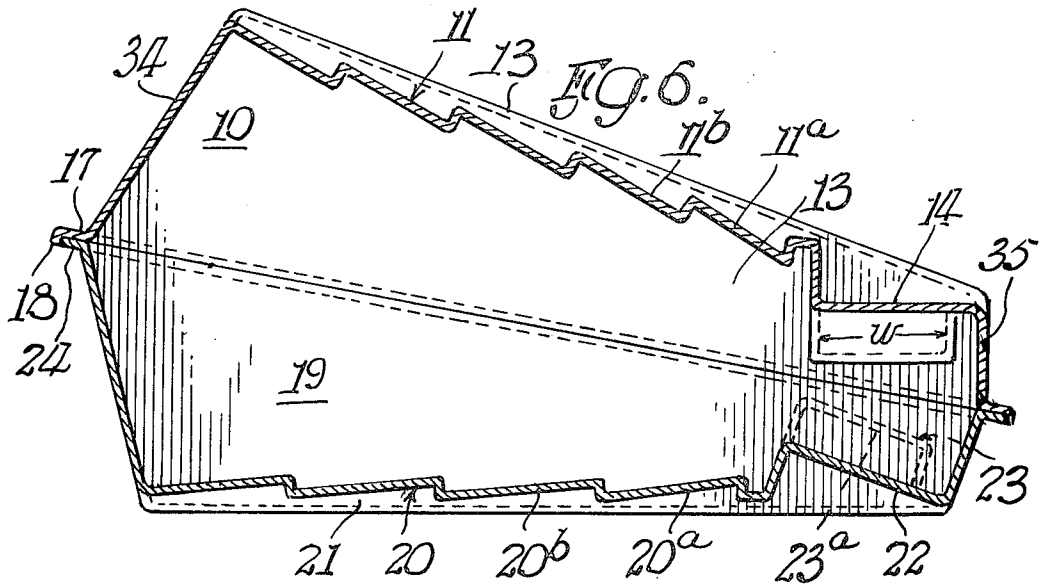


Fig. 6.

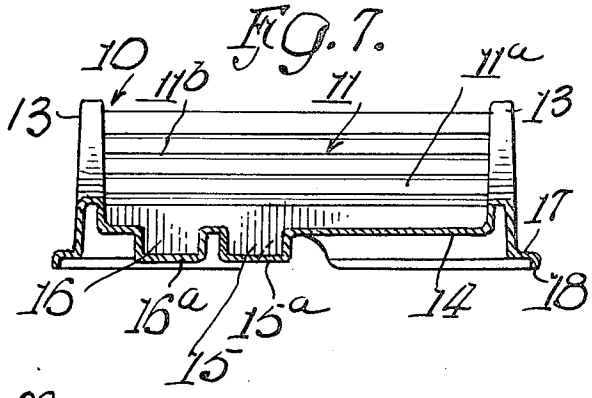


Fig. 7.

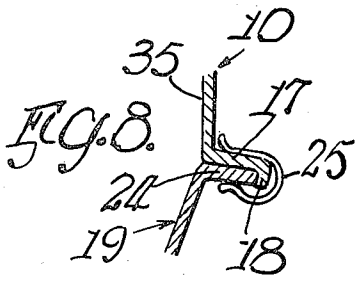


Fig. 8.

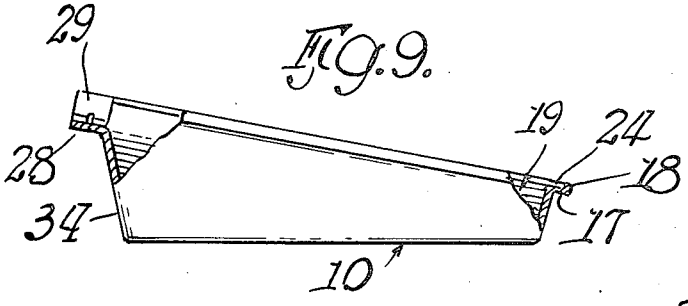


Fig. 9.

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SLIDE SORTING DEVICE

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1 Claim. (Cl. 40—106.1)

This invention relates to a slide sorting device, and, more particularly, to a translucent device permitting visual inspection and advantageous arrangement of film transparencies.

It is an object of this invention to provide a novel, light weight, easily handleable device for visually inspecting and arranging camera slides. The inventive device is particularly advantageous in that novel means are provided for the sorting or arranging of the slides, i.e., the collection thereof in a prescribed order. Although slide sorting devices have been known in the past, they have suffered from various drawbacks, including awkwardness of set-up and inadequate working and collecting surfaces.

It can thus be seen that an important object of the invention is to provide a device that overcomes the drawbacks characteristic of the prior art. In one aspect, the inventive device is advantageous since it precludes "kitchen table" operation where valuable slides previously had to be set down on a greasy or otherwise inadequate surface, thereby damaging or soiling the transparencies.

Another object of the invention is to provide a slide sorting device wherein component parts are uniquely constructed and contoured so as to facilitate their storage between usages.

Other objects and advantages of the invention may be seen in the details of construction and operation set down in this specification.

The invention is described in conjunction with the accompanying drawing, in which:

FIG. 1 is an elevational view of the inventive device in its "set up" condition, i.e., ready for use;

FIG. 2 is a top plan view of the device seen in FIG. 1;

FIG. 3 is an enlarged fragmentary sectional view taken along the line 3—3 of FIG. 2;

FIG. 4 is a fragmentary sectional view taken along the line 4—4 of FIG. 3;

FIG. 5 is a perspective view of the top portion of the device seen in FIG. 1;

FIG. 6 is an enlarged sectional view of the device seen in FIG. 1;

FIG. 7 is a transverse sectional view taken along the line 7—7 of FIG. 5;

FIG. 8 is an enlarged fragmentary sectional view of the extreme right-hand portion of the structure seen in FIG. 6; and

FIG. 9 is an elevational view, partially broken away, showing the nesting of the two casing parts as they would be arranged for shipment or storage.

In the illustration given, and with particular reference to FIG. 5, a casing generally designated 10 is seen to be equipped with a stepped upper surface generally designated 11. The stepped surface 11 can be seen clearly in FIG. 6 and it is intended that a plurality of slide transparencies may be placed on the various steps 11*a*, 11*b*, etc. for viewing when the same are illuminated by means of a light bulb 12 (see FIG. 2). For this purpose, the housing 10 is constructed of translucent material such as polyvinyl chloride or other readily moldable plastics.

In the illustration given, the housing or casing 10 is molded with upstanding side walls 13 and with the lowermost step or surface 14 extending horizontally (see FIG. 6 in particular). The surface 14 serves as a work surface for supporting slide transparencies before or after

sorting, and the surface is interrupted as at 15 and 16 to provide wells for the receipt of stacked slides. Each well 15 and 16 is long enough (i.e., having a dimension in the direction of the length of the step surfaces 11*a* and 11*b*) to accommodate a slide. However, the width dimension of the wells 15 and 16 (i.e., the dimension *w* in FIG. 6) is shorter than the width of the slides, so that the slides are prevented from lying flat in the bottom of the wells 15 and 16.

For example, slides are provided with dimensions 2″ x 2″. The length dimension of the wells 15 and 16, i.e., that designated *l* in FIG. 2, is slightly over over 2″, while the dimension *w* is slightly under 2″ for this particular size of slide.

The housing 10 is equipped with a perimetric flange 17 which terminates in a downwardly-extending lip as at 18 (see FIG. 6). Supporting the housing 10 is a second housing 19 (see FIG. 6). The housing 19 is in general similarly constructed to the housing 10. In the illustration given, it will be seen that the stepped surfaces 20*a*, 20*b*, etc. provided in the large wall generally designated 20 of the housing 19 are slightly wider than their counterparts 11*a*, 11*b*, etc., in the illustration given, five stepped surfaces being provided in the housing 10, while four such stepped surfaces are provided in the housing 19. In practice, the surface 11 can be employed for transparencies 2″ x 2″, while merely by inverting the assembled device of FIG. 6, the large wall 20 becomes the top wall and has stepped surfaces 20*a*, 20*b*, etc. for the support of 2¼″ x 2¼″ slide transparencies. As before, the housing 19 is equipped with a side wall as at 21 (corresponding to the walls 13) and is equipped with a flat working surface 22 interrupted to provide wells 23.

The housing 19 is equipped also with a perimetric flange 24 which is seen to be received within the perimetric construction at the bottom of the housing 10, i.e., confined by the perimetric flange 17 and the depending lip 18. In the case of either housing, 10 or 19 as the case may be, the working surfaces 14 and 22 are arranged to extend horizontally when positioned uppermost and when the housings are interrelated as seen in FIG. 6. In such case, the bottom walls 15*a* and 16*a*, or 23*a*, as the case may be, are arranged parallel to the working surfaces 14 or 22, respectively.

Initially, or for storage, the housings 10 and 19 may be nested as seen in FIG. 9, wherein the flange 24 is still received within the support provided by the flange 17 and lip 18 of the housing 10. To accommodate the nesting seen in FIG. 9, the wells 23 are asymmetrically related to the wells 15 and 16 (see FIG. 2). It will be appreciated, however, that the work surfaces 14 and 23 may be positioned in other portions of the housings 10 and 19 than those shown, i.e., at an intermediate step or at the uppermost step, and that the wells may be located centrally or in any other stepped position. However, the illustrated embodiment is preferred, since the provision of the work surface 14, for example, as the lowermost step makes it relatively easy for the slide user to slip the transparencies off the surface into his hand.

Facilitating the erection of the device from the FIG. 9 to the FIG. 1 configuration is the provision of a recess as at 18*a* in the depending lip 18 (see FIG. 5). This facilitates the installation and removal of a C-shaped retainer clip 25 (see FIG. 8).

The two parts 10 and 19 are also secured along the rear edge by means of a spring ring lock 26 (see FIG. 3). The lock 26, as seen in FIG. 4, is slit as at 26*a* and fits within a groove 27 provided in a circular portion 28 of the flange 17 and a corresponding circular portion 29 of the flange 24. The circular portions 28 and

29 accommodate the receipt of a light bulb socket 30 suitably equipped with a switch 31 and cord 32. The socket 30 receives a conventional light bulb 33, which therefore can be readily and economically replaced by the user.

In the operation of the device, the unit may be packaged for shipment as seen in FIG. 9. When it is desired to utilize the sorter for arranging slide transparencies, the inner housing 19 is removed from its nested position as seen in FIG. 9 and is disposed relative to the outer housing 10 as seen in FIG. 6, i.e., the flange 24 being received within and confined by the L-shaped flange made up of parts 17 and 18. If it is desired to sort smaller sized transparencies, i.e., 2" x 2", the surface 11 is positioned upper most and the work surface 14 is employed, with its wells 15 and 16. The two units are firmly integrated in the FIG. 6 configuration through the use of the retainer clip 25 as seen in FIG. 8 and the ring lock 26 as seen in FIG.3. The unit may be positioned on any horizontal surface without regard to grease, dirt, etc., since the erected unit rests upon the side wall edges 21 (see FIG. 6). A plurality of slides may be initially stacked on the work surface 14 and thereafter disposed singly along the steps 11*a*, 11*b*, etc., and then regrouped and deposited in the wells 15 and 16. As the wells 15 and 16 are filled, or as a given grouping is achieved, these stacked and arranged slides may then be relocated to the work surface or shelf 14 for subsequent mounting in a projector loader, feeder, etc.

If slides of larger dimension are employed, the same erection procedure is followed except that the housing 19 is positioned uppermost so that the surface 20 faces upwardly.

Through the construction presented, an extremely rugged, yet simple, housing is provided through the cooperation of the side walls 13, the stepped top wall 11, and the sloping end walls 34 and 35 for the housing 10. Each housing includes an angle of the order of about 12° between the perimetric flange 17 or 24 and the supporting edge of the side walls 13 or 21, as the case may be. This results in the disposition of the upper stepped surfaces 11*a*, 11*b*, etc., being disposed at slightly over a 30° angle to the horizontal. As indicated previously, the work surface is provided in a horizontal plane

and preferably is somewhat wider than the corresponding dimension of the stepped surfaces. This protects against inadvertent dislodgement of slides placed on the work surface.

While in the foregoing specification I have set down a detailed description of an embodiment of the invention for the purpose of explanation thereof, many variations in the details herein given may be made by those skilled in the art without departing from the spirit and scope of the invention.

I claim:

A slide sorting device, comprising a box-like frame presenting a plurality of upper, vertically-stepped translucent support surfaces, all of which but the lowermost surface being inclined to the horizontal, the lowermost surface being horizontally disposed, the width of each of said support surfaces approximating that of a slide transparency to be supported thereon, a well in the said lowermost support surface and having a generally horizontal bottom wall, the width of said well being less than the width of said surfaces, whereby a slide transparency placed in said well is necessarily supported at an angle to said bottom wall, said lowermost surface being joined to the next adjacent surface by a generally vertical wall adapted to serve as a support for a slide transparency placed in said well, and means for illuminating the underside of said surfaces.

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