

[54] WHEELED ACCESSORY FOR SUIT CASES

3,633,774 1/1972 Lee ..... 280/47.13 R X

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[57] ABSTRACT

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[51] Int. Cl. .... B62b 1/10

[58] Field of Search ..... 280/79.1, 47.13; 16/30;  
190/18 A, 18 R

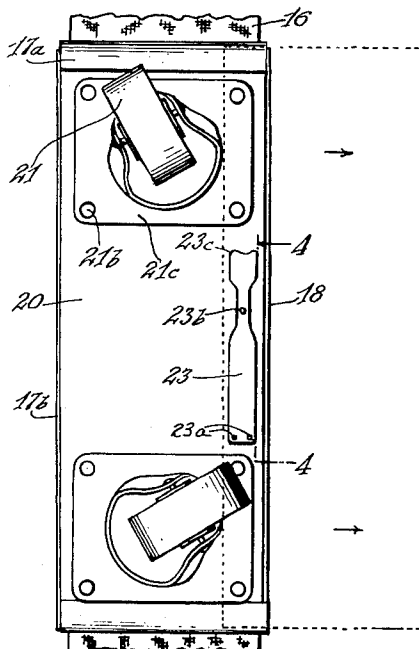
An accessory to make suitcases wheeled for manual propulsion. The base of an accessory unit — one near each end of the suitcase — is tied to the same by a strap which is adjustable by a buckle either on top or on the side of the suitcase. The bases receive slides underneath which carry the wheels, with latches to keep the slides in place. When these are unlatched and removed, the straps and bases remain with the suitcase; and the slides and wheels make a small package conveniently carried by the owner of the suitcase.

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5 Claims, 8 Drawing Figures



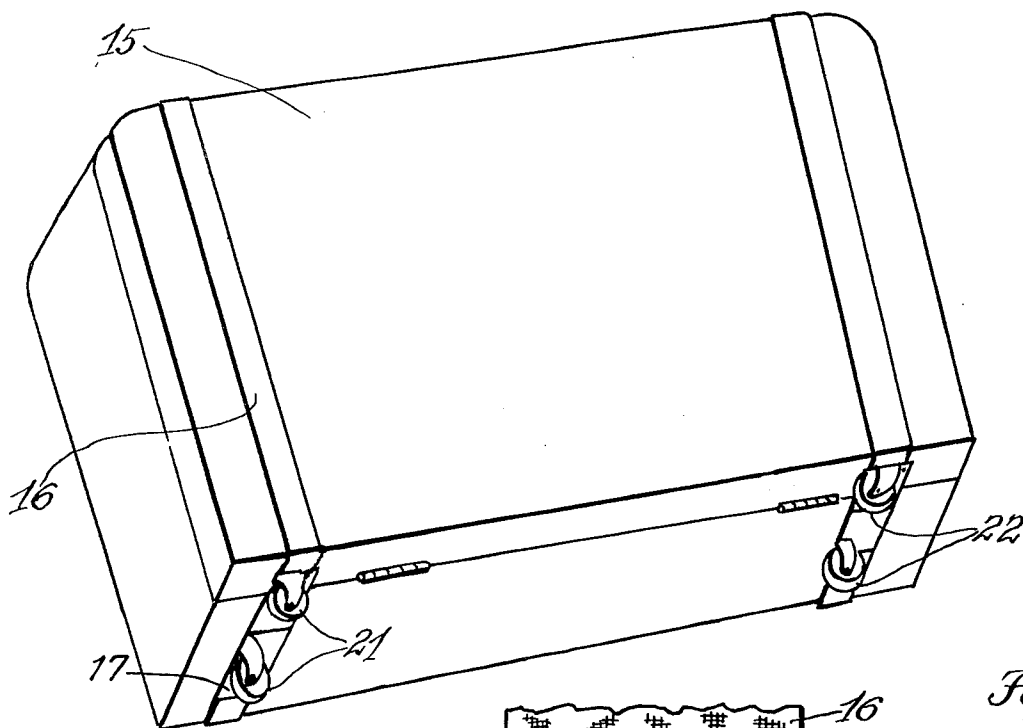


Fig. 1

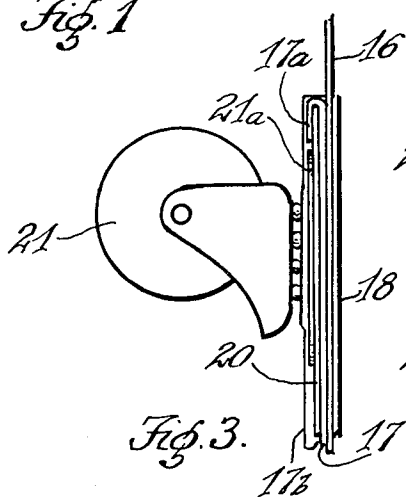


Fig. 3.

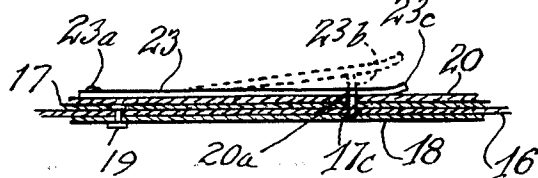


Fig. 4.

Fig. 2.

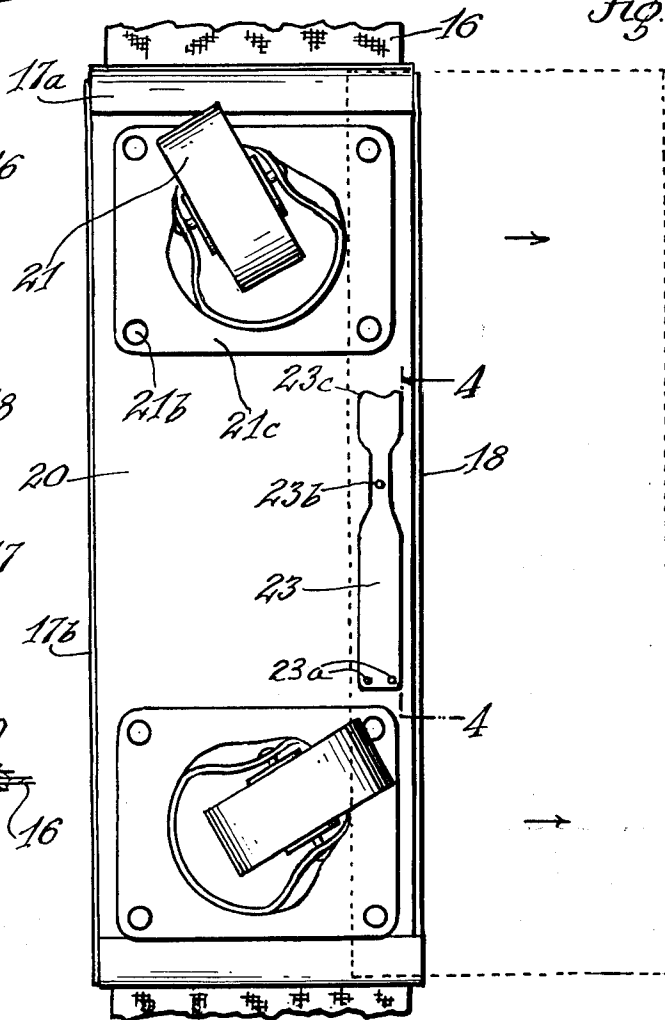


Fig. 5.

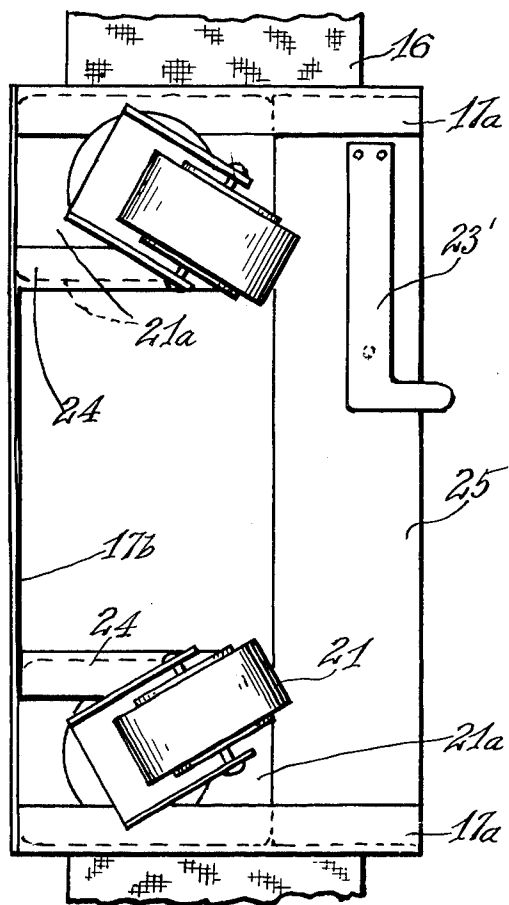


Fig. 6.

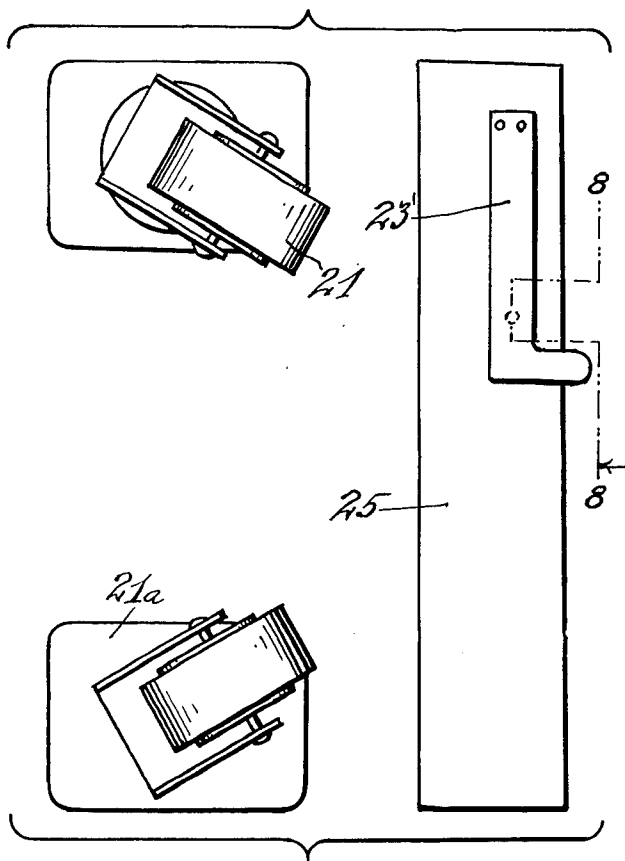
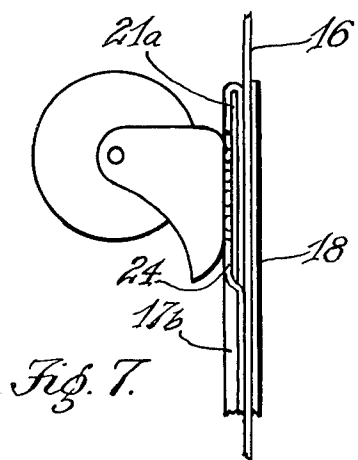


Fig. 7.

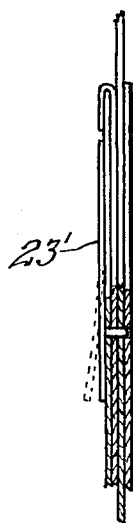


Fig. 8.

**WHEELED ACCESSORY FOR SUIT CASES**

This invention relates to appliances for the wheeled support of luggage while it is drawn by hand. Devices of this character have been made which are attached to the luggage permanently and usually project several inches from the bottom of the luggage, taking up extra room or interfering with other luggage stored underneath or on the side. Also, if attachments of this nature are made to be removed from the luggage when it is ready to be stored or shipped, the task of removing and replacing them later usually requires mechanical skill or tools. Further, the removed parts, such as straps, wheels, holding plates, buckles, etc. make up a sizable and clumsy package which must be carried by the owner of the suitcase during its transit.

In view of the above situation, one object of the present invention is to provide a wheeled accessory which is not a fastened attachment, but has means to tie it temporarily to a suitcase for the convenience of wheeling it manually.

A further object is to provide an accessory for the purpose mentioned which employs simple straps wrapped around the suitcase and secured by adjustable buckles to hold the accessory in the position of use for the manual propulsion of the suitcase.

A still further object is to design the accessory to leave only virtually flat base plates and straps bound to the suitcase when it is to be stored or shipped, so that it will have no wheeling elements projecting from it to interfere with any other objects or luggage among which the suitcase may be deposited.

Another object is to provide a set of wheeling units which are locked to the suitcase when the latter is being moved by hand, but easily unlatched from the same when the suitcase is to be stored or shipped, and kept in a handy pouch or pocket until again needed for application to the suitcase.

An important object is to construct the accessory along sturdy and compact lines in order that it may serve efficiently while subject to shocks and rough handling.

A better understanding of the invention may be gained by reference to the accompanying drawings, in which

FIG. 1 is a perspective view on a small scale of a suitcase to which the units of the accessory have been applied, one near each end;

FIG. 2 is a full-sized bottom view of one unit;

FIG. 3 is an edge view of the upper part of FIG. 2, from the right-hand side;

FIG. 4 is a section on the line 4—4 of FIG. 2;

FIG. 5 is a view of a modification similar to FIG. 2;

FIG. 6 is a duplicate of parts from FIG. 5, separated;

FIG. 7 is an edge view of the upper part of FIG. 5, from the right-hand side; and

FIG. 8 is a section on the line 8—8 of FIG. 6.

Referring specifically to the drawings, 15 denotes a suitcase which is the usual piece of luggage to which the invention is applicable. For this purpose the invention is designed as a removable accessory, so that the suitcase may be used or stored without the accessory if desired. The removable feature is a strap 16 of fabric, leather or other suitable material which receives one end portion of the suitcase in the bottom, and is bound together on top of the suitcase by a suitable buckle (not shown). FIG. 1 shows two accessory units carried by the suitcase for wheeled movement; and the suitcase

may be drawn either by pulling on its handle or on a strap tied to the handle.

FIG. 1 shows that each accessory unit receives a base plate 17 at the bottom; and FIG. 2 shows a full-sized view of the base plate. The latter receives a duplicate liner 18 over it. The bottom part of the binding strap 16 is lodged between the liner and the base plate as indicated in FIG. 3; and the liner and base plate are riveted together as shown at 19 — or welded — to permanently secure the assembly of the liner and base plate to the strap.

For the first embodiment of the invention the base plate 17 is designed as a foundation or support for a slide 20. The latter is lodged endwise between terminal folds 17a of the base plate; and the base plate is made with a back flange 17b against which the slide seats in its normal position, the flange being slightly higher than the level of the slide as shown on the left side in the lower portion of FIG. 3.

Caster wheel units 21 are applied to one slide near the ends from underneath, the base 21a of each unit being riveted at 21b — or welded — to the slide. These units are shown at the left in FIG. 1. However, the unit at the right carries parallel wheels 22 which do not turn sidewise. Therefore, when the caster wheel units 21 are in front, they steer the suitcase when it is drawn.

It is necessary to maintain the slide 20 in fixed relation to the base plate 17 during the drawn movement of the suitcase. A spring latch 23 is provided for this purpose. FIG. 2 shows that the latch is riveted at one end — as seen at 23a — to the slide. The opposite end carries a pin 23b which extends through an aperture 20a in the slide into an opening 17c in the base plate 17, terminating with a raised tip 23c. Constituted as described, the latch locks the slide to the base plate. However, when the latch is flexed by raising its tip — as indicated by dotted lines in FIG. 4 — the latch may be used to draw the slide to a position such as indicated by finely-dotted lines in FIG. 2 and further to be free of the base plate. This leaves the parts still carried under the suitcase almost flat; and the suitcase may therefore be inserted among other baggage for storage or shipping without presenting casters or wheels as obstacles to its movement, or scuffing or otherwise injuring other luggage underneath or on the side. The wheeled parts, removed from the suitcase as just described, may be carried in a small pouch by the owner of the suitcase while it is in storage or transit, and easily re-applied to the suitcase when it is again to be drawn manually.

FIGS. 5 to 8 show a modified form of the invention. This form uses the bases 12a of the wheel units as slides and to operate in the same directions as the slide 20. Thus, FIGS. 5 and 7 show that the outer end portions of the bases 21a are lodged in the terminal folds 17a, while the inner ends are lodged in guides 24 welded to the base plate 17. At one side the bases 21a abut the back flange 17b; and they are so held by a long guard plate 25 at the other side. The guard plate is held to the base plate by a latch mechanism 23' similar to the one previously described for FIGS. 1—4. Thus, the removal of the wheeled feature — the casters or wheels and the guard plate — may be procured as before. The removed parts appear as in FIG. 6; and they are so small that the suitcase owner may keep them in a pocket while the suitcase is in storage or transit. Or, after the wheel units have been withdrawn as described, the guard plate 25 may be reinserted in the base plate, so

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that only the wheel units need be kept or carried while the suitcase is in storage or transit.

It is now apparent that the invention makes it possible for any person who uses a wheeled suitcase because it is easily drawn from place to place to also deposit the suitcase for storage or shipment without fear that it will obstruct other luggage because of its projecting wheels, injure such luggage or be rejected for these reasons. Further, with each accessory unit entirely carried by a strap, it is a simple matter to attach two units to a suitcase when its manual propulsion is desired, and to slide off only the wheeled parts when the storage or shipment of the suitcase is desired. The suitcase is thus freed of undesirable projections.

I claim:

1. A wheeled accessory for a suitcase comprising one accessory unit applicable near each end of the suitcase, each unit comprising a strap for binding the unit to the suitcase, a base plate attached to the outer side portion of the strap which is fitted over the under side of the suitcase, a liner attached to the inner side of said portion of said strap thereby clamping said strap portion between the base plate and the liner, pendent wheel means slidably inserted onto each base plate, means on said base plate to receive said wheel means in sliding engagement and resilient means to lock said wheel means on each base plate.

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2. The structure of claim 1 wherein said wheel means comprises a slide bearing a pair of laterally spaced wheels, said locking means being borne by said slide.

3. The structure of claim 1 wherein said receiving means on said base plate comprises an inwardly directed terminal fold back of each end of the base plate to form a lateral guide and a depending back flange extending along one side of said base plate between said lateral guides, the base plate further having a recess to receive said locking means when said slide is inserted into said lateral guides and brought into engagement with said back flange.

4. The structure of claim 1 wherein said wheel means comprises a pair of slides, each slide bearing a single pendent wheel, said base plate receiving means comprising an inwardly directed terminal fold back of each end of the base plate to form a lateral guide, an additional matching guide on each end portion of said base plate spaced from and faced toward the lateral guide on said base plate and a depending back flange extending along one side of said base between said lateral guides.

5. The structure of claim 4 wherein said slides are retained in said guides by a guard plate fitted into said lateral guides and said locking means are carried by said guard plate to hold said guard plate on said base plate by engagement with a recess in said base plate.

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