Aug. 25, 1953 K. R. COSTIKYAN 2,650,105

LUGGAGE CARRIAGE

Filed July 20, 1949

Fig. 4.

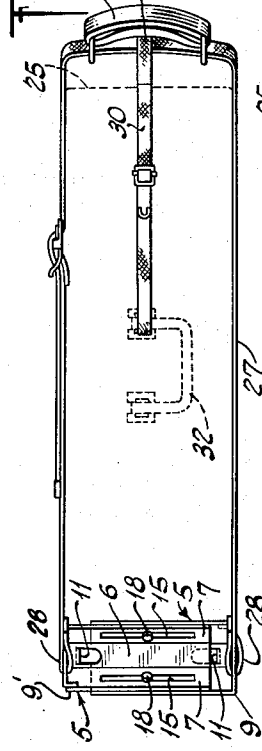


Fig. 2.

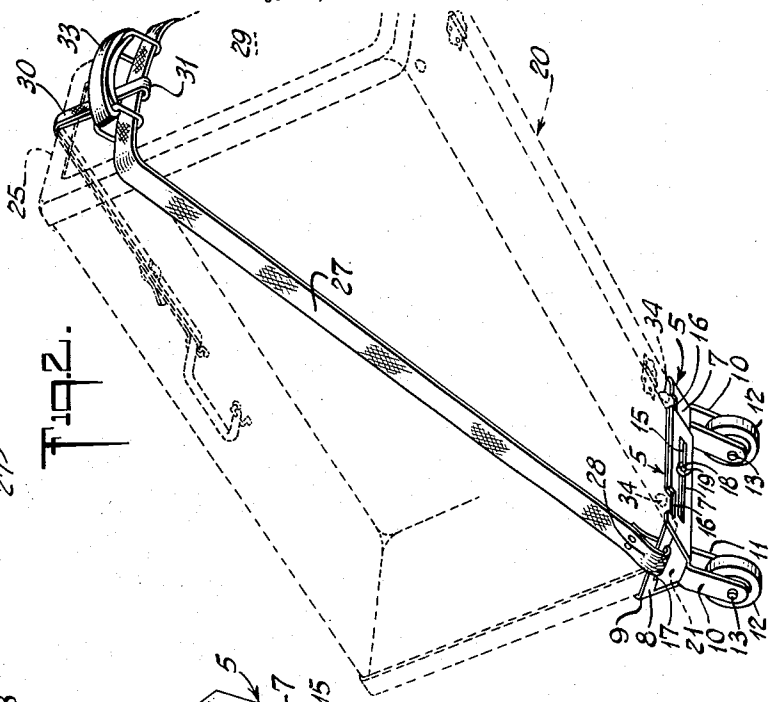


Fig. 3.

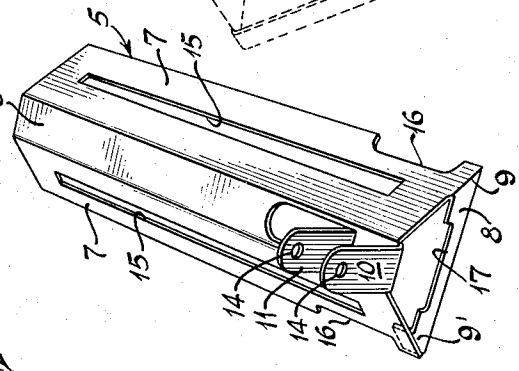
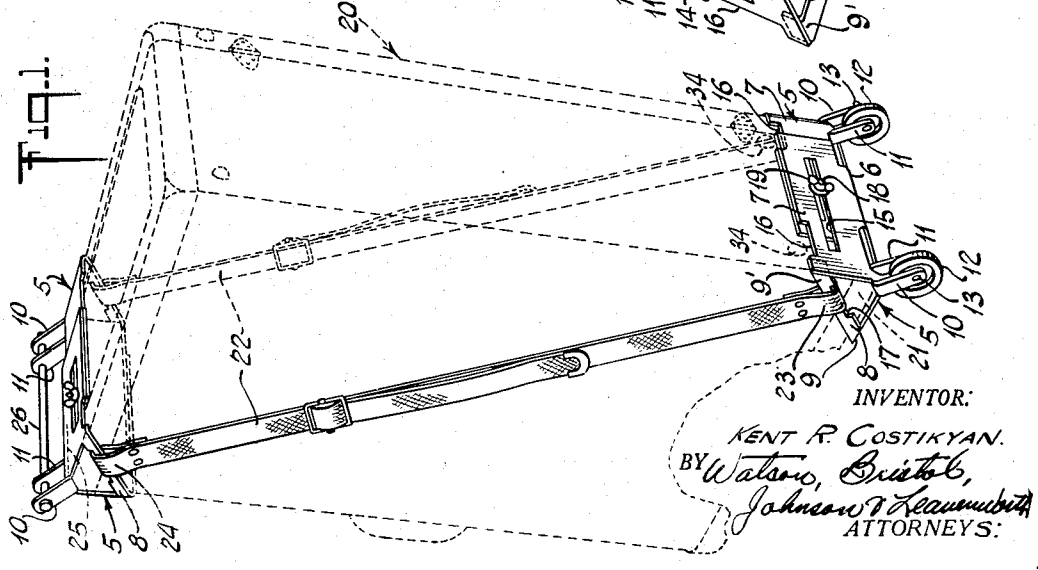


Fig. 1.



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Patented Aug. 25, 1953 2,650,105

UNITED STATES PATENT OFFICE

2,650,105

LUGGAGE CARRIAGE

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Application July 20, 1949, Serial No. 105,823

1 Claim. (Cl. 280—35)

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The present invention relates to wheeled luggage carriages of the type adapted temporarily to be mounted on pieces of luggage, such as suitcases, trunks and the like to facilitate their manual transportation.

A general object of the present invention is to provide such a device which is readily and economically constructed and easily manipulated, and is of very light weight and compact in form while being readily collapsible or compactly packable to permit desirable storage with minimum occupancy of space in luggage when not in use; such apparatus being readily attached and detached in a simple manner, preferably adaptable to various shapes and sizes of different types of luggage pieces, and readily employed with maximum comfort by people of different heights for easy rolling transport of such luggage pieces without interfering with the carrying thereof on stairways.

A more specific object of the invention is to provide such apparatus in a form which permits wheeled support of one end edge of such luggage pieces with secure seating therein of the corners at both ends of that edge, the device preferably being readily adjustable to the dimensions thereof and being simply and removably fastened thereto in a most efficient and secure manner by strap or tying means extending toward the diagonally opposite end edge.

A further object of the present invention is to provide an embodiment of the device which is readily adapted to effective manual transport use either as a single unit or in pairs, with one in the latter case serving at one end edge of the luggage piece as the wheeled carriage and the other at the diagonally opposite end edge as a strap anchorage and hand engagement device.

Other objects of the invention will in part be obvious and will in part appear hereinafter.

The invention accordingly comprises the features of construction, combination of elements and arrangement of parts, which will be exemplified in the construction hereinafter set forth, and the scope of the invention will be indicated in the claim.

For a fuller understanding of the nature and objects of the invention, reference should be had to the following detailed description taken in connection with the accompanying drawing, in which:

Fig. 1 is a perspective view of an embodiment of the device of the present invention showing it mounted in a particular manner upon a large suitcase, the outlines of which are indicated in dotted lines with parts broken away, for wheeled support of the latter;

Fig. 2 is another perspective view of the carriage structure shown in Fig. 1, with outlines of

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a suitcase mounted thereon being indicated in dotted lines and with parts broken away, showing a modification of the harness means employed to secure the suitcase upon the carriage, and with the assembly shown tilted to normal wheeling position;

Fig. 3 is an enlarged perspective view of one of the two complementary members of the carriage device shown in Figs. 1 and 2 which together serve as a unitary carriage when mounted together and equipped with wheels; and

Fig. 4 is a top plan view of the structure shown in Fig. 2 with dotted line portions of the suitcase omitted in order to avoid confusion.

Referring to the drawings, in which like numerals identify similar parts throughout, it will be seen that an embodiment of the present invention comprises a carriage structure formed of a pair of complementary members 5, 5, each in the form of a V-shaped, elongated unit made from rigid material, such as light metallic composition or plastic. By reference to Figs. 1 and 2, it will be seen that each member 5 comprises a relatively narrow, elongated, rectangular bottom panel 6 flanked on both longitudinal sides by substantially rectangular, elongated side panels 7, 7. As best seen in Fig. 2, the two side panels 7, 7 are arranged substantially normal or at ninety degrees (90°) to each other, with the medially interposed bottom panel 6 arranged substantially at one hundred and thirty-five degrees (135°) to each. An apertured end piece 8 is provided in the form of a cross bar extending from the outer corners at 9, 9' of side panels 7, 7. Each member 5 is provided with means for supporting a roller or a wheel in the nature of a pair of axially-apertured, projecting members or ears 10 and 11 extending substantially normal to and outwardly away from bottom panel 6. Ears 10 and 11 are laterally spaced to receive a wheel 12 therebetween, rotatably supported on an axle 13 extended through holes 14, 14 in those ears, as shown.

Each side panel 7 is provided with a longitudinally-extending, elongated slot 15, and a notch 16 is provided in its outer edge near the corner 9. Cross bar 8 has its inner edge provided with a notch 17 to serve as a strap seat extending substantially normal to a line approximately bisecting the angle between side panels 7, 7. Notch 17 prevents the strap from undesirably sliding along cross bar 8 and thus predetermines the location of the strap anchorage. In a preferred construction, the ear 11 is formed by striking out and bending up a portion of the bottom panel 6, as indicated in Fig. 2, and an extension of an end of the latter is bent up to provide the ear 10. Although it is possible to form the member 5, shown in Fig. 2, by means of a casting or molding pro-

cedure, it is preferred to stamp it out of sheet metal, with the bar 8 formed as an integral part of one end of one side panel 7 at 9 and having the free end of that bar subsequently welded to the opposite end edge of the other side panel 7 at 9', after shaping. Alternately the bar 8 may be stamped as a separate piece and welded on at both ends.

Two such members 5 as shown in Fig. 2, after equipping each with a wheel 12, are then slidably connected together, such as by means of a pair of carriage bolts 18, 18, each extended through aligned slots 15, 15 of both members, and upon the threaded end of which is mounted a wing nut 19. With loosening of the wing nuts 19, 19 it will be seen that a pair of complementary members 5, 5 may be slid longitudinally relative to each other so as to adjust the distance between their cross bars 8, 8. Such sliding connection of the pair of members 5, 5 also permits compact packing thereof by telescoping them toward each other, and in an actual embodiment of the invention, such carriage structure is easily packed within a box four inches by four inches by eight inches (4'' x 4'' x 8'') in size.

As proposed in Fig. 1, such carriage construction may be mounted on a large suitcase, such as that indicated in dotted lines at 20, by loosening the wing nuts 19, 19 and seating an end edge 21 of the suitcase within the trough-like seat provided by the carriage. Members 5, 5 are then slid toward each other so as to bring the cross bars 8, 8 snugly up against opposite sides of the suitcase, after which wing nuts 19, 19 are tightened. It is intended that the carriage so fitted on the end edge 21 of suitcase 20 be temporarily and securely held thereon by means of diagonally-arranged tying members. Such members may comprise a pair of adjustable straps 22, each having one end 23 fastened about one of the cross bars 8 and seated within the notch 17 therein. The other end 24 of each flexible strap 22 may likewise be fastened to a similar member 5 of a similar carriage unit fitted on the diagonally opposite corner edge 25. Thus, one carriage unit may serve as a wheeling device, with the other carriage unit serving as an anchorage means for the diagonal straps 22, and also as means for engagement by the hands of a person to facilitate wheeling the suitcase in a tilted position if swung over to the right as viewed in Fig. 1 substantially to that indicated in Fig. 3. In such case, it may also be desirable to substitute for the wheels 12, 12 and their axles 13; 13 of one carriage unit a through rod 26 to serve as a cross bar easily grasped by the hands for manipulating the carriage-equipped suitcase.

As proposed in Fig. 3, the carriage unit may be equipped with a flexible and adjustable strap loop 27 having its ends 28 respectively secured to cross bars 8, 8, and of sufficient length as to pass around the opposite end 29 of suitcase 20 up to the vicinity of the diagonally opposed end edge 25. The flexible strap loop 27 of the modification shown in Fig. 3 is provided with a flexible and adjustable length of auxiliary strap 30 having a loop 31 slidably receiving strap 27. The auxiliary strap 30 is of such length as to permit it to be lapped up over end edge 25 of suitcase 20 and down to handle 32 thereof for fastening thereto as indicated. Strap loop 27 may be additionally provided with a handle 33 to facilitate handling of the piece of luggage which may be easily wheeled along in the tilted position shown therein. The adjustability of strap loop 27 may be provided by well known buckle means hidden from view on the far side of luggage piece 20 in Fig. 3.

As indicated in Fig. 3, the notches 16, 16 in the edges of the side panels 7, 7 accommodate glide buttons 34, 34, or like projections, with which pieces of luggage are frequently equipped.

It will thus be seen that the objects set forth above, among those made apparent from the preceding description, are efficiently attained and, since certain changes may be made in the above construction and different embodiments of the invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawing shall be interpreted as illustrative and not in a limiting sense.

It is also to be understood that the following claim is intended to cover all of the generic and specific features of the invention herein described, and all statements of the scope of the invention which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

In a luggage carriage having a pair of complementary members, each member comprising a one-piece, rigid structure having a narrow, elongated, planar bottom panel of quadrilateral configuration; a pair of elongated, planar side panels of quadrilateral configuration flanking opposite sides of said bottom panel, and each side panel having one side edge secured to a corresponding side edge of said bottom panel, each of said side panels being arranged about normal to each other and at an angle of about 135° to said bottom panel to provide a receptive seat for a portion of a bottom end edge of a rectangular piece of luggage; a cross bar providing an end piece extending between, and secured to the upper end portions of, the pair of outboard end edges of said side panels, said cross bar having a downwardly facing medial strap seat extending longitudinally of said bar; each of said side panels being longitudinally slotted for reception of fastening means and having a glide button-clearance notch in its outer edge in the vicinity of said cross bar; and a pair of axle-apertured spaced ears for reception of a wheel therebetween to be rotatably supported thereby, said ears being mounted on the bottom side of and extending out away from said bottom panel about normal thereto and about parallel to each other and to said cross bar with one ear located in the vicinity of the outboard end of said bottom panel nearest said cross bar.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
1,788,150	Curtin	Jan. 6, 1931
2,375,338	Alexander	May 8, 1945
2,439,660	Keil	Apr. 13, 1948

FOREIGN PATENTS

Number	Country	Date
552,374	Great Britain	Apr. 5, 1943
622,602	Great Britain	May 4, 1949
821,263	France	Dec. 1, 1937
869,576	France	Nov. 17, 1941