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ADJUSTABLE BAGGAGE APPLIANCE
FOR ROLLING MOVEMENTS
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Fig. 3

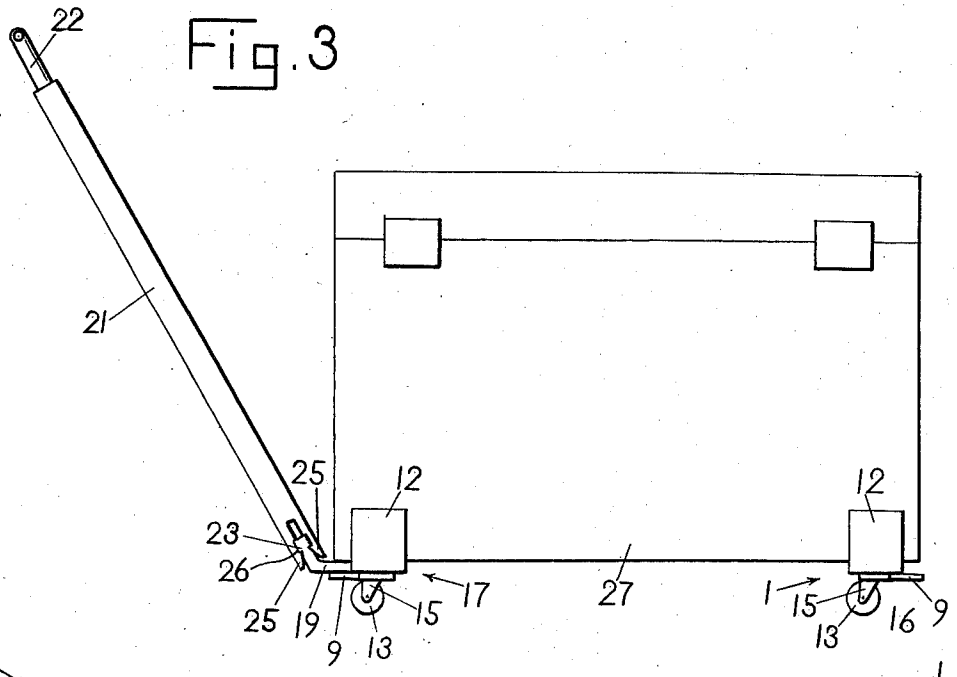


Fig. 2

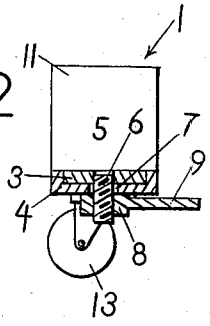


Fig. 1

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AGENT

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ADJUSTABLE BAGGAGE APPLIANCE FOR ROLLING MOVEMENT

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2 Claims. (Cl. 280—35)

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My invention relates to devices that are applied to baggage in order to facilitate the transportation of the baggage.

An object of my invention is to provide a trunk, suitcase, box or any other piece of baggage temporarily with four rollers or wheels whereby this piece is transformed into a carriage which can be easily moved rolling over the ground.

Other objects are to provide two pairs of wheels which can be attached to a piece of baggage in such a manner that each of these wheels is positioned near to and lower than one of four lower corners of this piece, thereby to support the piece of baggage during the rolling transportation and during occasional rest times on a broad and long area, thereby to secure a stable support and a horizontal position of the baggage, and to avoid any damage which may result from tilting or overturning the baggage.

Further objects are to provide a device that can be applied to pieces of baggage of different sizes, to make the distance between the two wheels of each pair adjustable, and to make the distance between the two pairs of wheels or between their axes adjustable.

Still other objects are to provide convenient means for pushing or pulling the carriage constituted by the inventive device in connection with the piece of baggage, to provide the device with a shaft terminating in a handle, and to make the position of this shaft adjustable so that the shaft can be connected to the remaining device in a position equidistant from the two wheels of one pair whether these wheels are adjusted at a larger or smaller distance from each other.

Still further objects are to facilitate storage and transportation of the device when the same is not used, to incorporate each pair of wheels in a separate unit, these two units being connected by the piece of baggage only when the device is applied thereto, to make each of these units reducible in length, to connect the shaft to one of the units detachably, and, thereby, to make it possible to arrange all parts of the device in a small space when the device is not used.

Still other objects and advantages will appear from the following description of an exemplifying embodiment of my invention, from the appended claims and from the accompanying drawing in which:

Fig. 1 shows a perspective view of an illustrative embodiment of my invention, a part of the shaft being cut out and omitted.

Fig. 2 shows a cross-section of one of the units used in this embodiment, this cross-section being

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seen in the direction of the arrows 2 in Fig. 1 and being taken along the vertical plane indicated by the broken line to which the arrows 2 point.

Fig. 3 shows a side view of a trunk provided with the device shown in Figs. 1 and 2, Fig. 3 being represented on a more reduced scale than Figs. 1 and 2.

Referring to the drawing, numeral 1 indicates a supporting unit adapted to be placed under and across the bottom of a piece of baggage. The unit 1 comprises two elongated flat parts 3 and 4 which are so connected that they can be shifted relatively to each other in longitudinal direction whereby the total length of the unit 1 can be adjusted. For example, the part 3 may have a longitudinal plate 5 slidable in a corresponding channel or groove of the part 4. The parts 3 and 4 together form a narrow elongated platform of adjustable length.

Means are provided to connect the parts 3 and 4 immovably after adjustment of their mutual position and, thereby, to secure the adjusted length of the unit 1. These means may be constituted by a screw bolt 6 having an upper end permanently screwed or affixed to the plate 5 and having a shaft passing through a longitudinal slot 7 of the part 4, and by a nut 8 engaging the lower end of the bolt 6. The nut 8 may be provided with a laterally projecting handle 9 which facilitates the turning of the nut. As long as the nut 8 is loose, the parts 3 and 4 are connected movably. When the nut is tightened, these parts are secured firmly in their mutual position.

The small ends of the unit 1 are provided with substantially vertical extensions 11 and 12, a plate 11 forming an integral portion of the part 3, and a similar plate 12 forming an integral portion of the part 4. The plates 11 and 12 form end walls of the platform constituted by the assembled parts 3 and 4.

A wheel or roller 13 is positioned under the outer end of the part 3 and an identical wheel 13 is positioned under the outer end of the part 4. The wheels 13 have axles 14 carrying brackets 15. Preferably, the brackets 15 are not immediately affixed to the parts 3 and 4, but are affixed to horizontal disks 16 which are so rotatably connected to the parts 3 and 4 in a manner well known in the art of wheel construction that the disks 16 can turn around vertical axes. Thereby the wheels can adjust themselves easily to any moving direction.

Another unit 17 is similar to the unit 1 and comprises identical parts 3, 6, 8, 9, 11, 12, 13, 14, 15 and 16. The only difference between the units

17 and 1 is that the part 4 of the unit 1 is replaced in the unit 17 by a part 18 which differs from the part 4 by a tongue or projection 19. The tongue 19 may form a continuation of the platform constituted by the parts 3 and 18 and is adapted for the attachment of a shaft 21.

The shaft 21 has an upper end forming a handle 22 and has a lower end adapted to engage the tongue 19. For example, the tongue 19 has a part 23 extending upwardly in a conveniently oblique direction. Two juxtapositioned grooves 24 run horizontally along the tongue part 23. The lower end of the shaft 21 is forked and forms two resilient projections 25 with inner recesses 26 fitting the upper end of the part 23. When the shaft 21 is pressed down on the tongue part 23, the forked projections 25 snap into the grooves 24 whereupon the shaft is secured to the tongue. In order to detach the shaft, the forked projections 25 are spaced resiliently whereupon the shaft can be removed either to the upper side or in the direction of the grooves 24.

The shaft 21 is preferably attached to the tongue in a position that is equidistant from the lateral plates 11 and 12 or central with respect to the longitudinal extension of the unit 17. The tongue 19 extends in the longitudinal direction of the unit sufficiently far to allow the proper position of the shaft whatever the adjusted length of the unit may be.

The described device may be applied to a piece of luggage, for example, to a trunk 27, in the following manner:

The trunk 27 is placed on the platforms of the units 1 and 17, these units being in parallel positions near two opposite ends of the trunk's bottom. Then, the plates 11 and 12 of each unit are compressed until these plates contact and grip the sides of the trunk firmly whereby the lengths of the units are adjusted. In this condition, the units are secured by turning the handles 9. Or the units may be adjusted and secured before the trunk is placed on the same. In order to provide a better grip, the plates 11 and 12 may be slightly resilient and may have rough inner sides. The shaft 21 may be attached to the unit 17 either before or after the unit has been attached to the trunk.

It is to be noted that the units 1 and 17 are free of any mutual connection, except the connection by the trunk 27. Thereby, the supporting and rolling structure is very simple and has little weight and can be used as well for short trunks as for very long ones. During the use, the trunk engages both units frictionally, the friction resulting partly from the weight of the trunk, partly from the lateral pressure of the plates 11 and 12.

When the device is not used, the shaft 21 may be disengaged from the unit 17, and both units may be shortened as far as possible. Then, the shaft and the two units can be placed closely beside each other. In this condition, the device is neither bulky nor heavy and can be easily carried, for example, by a traveler.

I desire it understood that my invention is not confined to the particular embodiment shown and described, the same being merely illustrative, and that my invention may be carried out in other ways without departing from the spirit of my invention as it is obvious that the particular embodiment shown and described is only one of the many that may be employed to attain the objects of my invention.

Having described the nature of my invention, what I claim and desire to protect by Letters Patent is:

1. A baggage appliance comprising two separate units, each comprising two flat parts shiftable relatively to each other whereby these parts form a platform of adjustable length, a wheel rotatably connected to and supporting one of said parts and another wheel rotatably connected to and supporting the other part, said units being adapted to be placed under and across a piece of baggage at any desired distance from each other, said appliance further comprising a shaft and means to attach said shaft to one of said units in any of a variety of positions shifted relatively to each other in the longitudinal direction of said unit whereby said shaft can be attached in a position central with respect to said unit whatever the adjusted length of said unit may be.

2. A baggage appliance comprising two separate units, each comprising two flat parts shiftable relatively to each other whereby these parts form a platform of adjustable length, a wheel rotatably connected to and supporting one of said parts and another wheel rotatably connected to and supporting the other part, said units being adapted to be placed under and across a piece of baggage at any desired distance from each other, said appliance further comprising a shaft and means to attach said shaft to one of said units in any of a variety of positions shifted relatively to each other in the longitudinal direction of said unit whereby said shaft can be attached in a position central with respect to said unit whatever the adjusted length of said unit may be, said means comprising a tongue projecting from one of said parts of said latter unit in a direction substantially perpendicular to the longitudinal direction of said latter unit, said tongue having an end provided with grooves running substantially parallel to the longitudinal direction of said unit, said shaft having a forked end comprising two resilient projections provided with inner recesses whereby said forked end is adapted to snap around and to engage said grooved end of said tongue.

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