Sept. 27, 1966 J. W. WARNER, JR 3,275,336

EXTENDABLE ATTACHMENT FOR LUGGAGE

Filed Jan. 30, 1964 2 Sheets-Sheet 1

Fig. 1

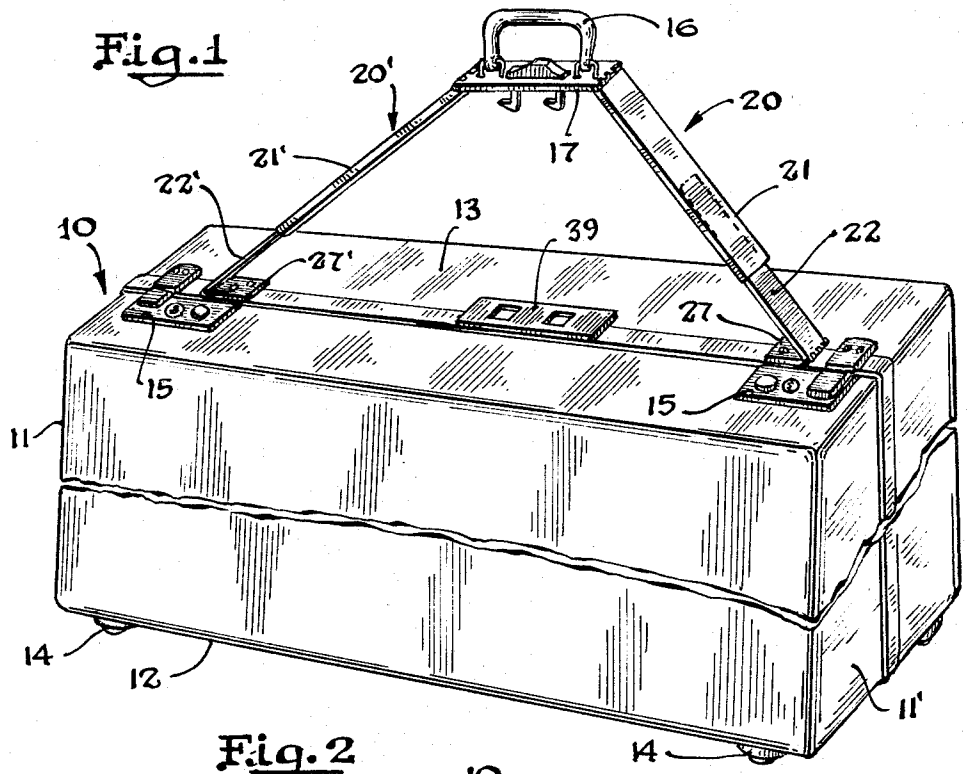


Fig. 2

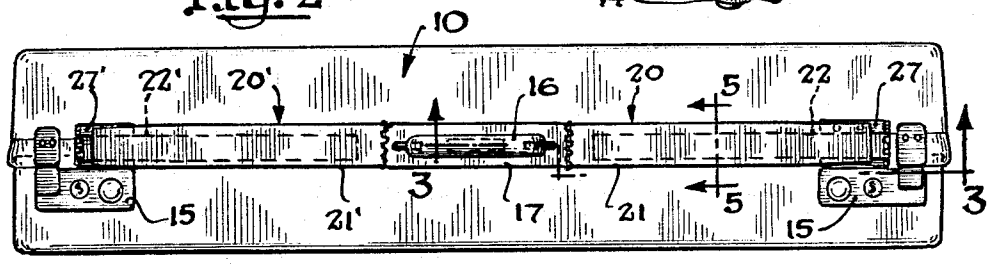
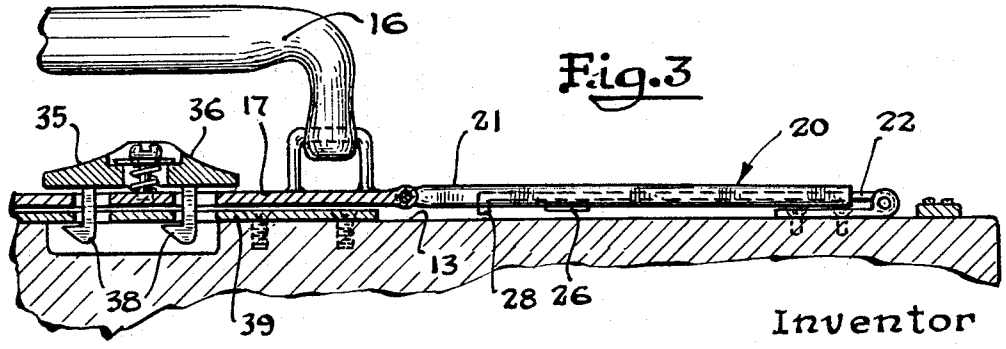


Fig. 3



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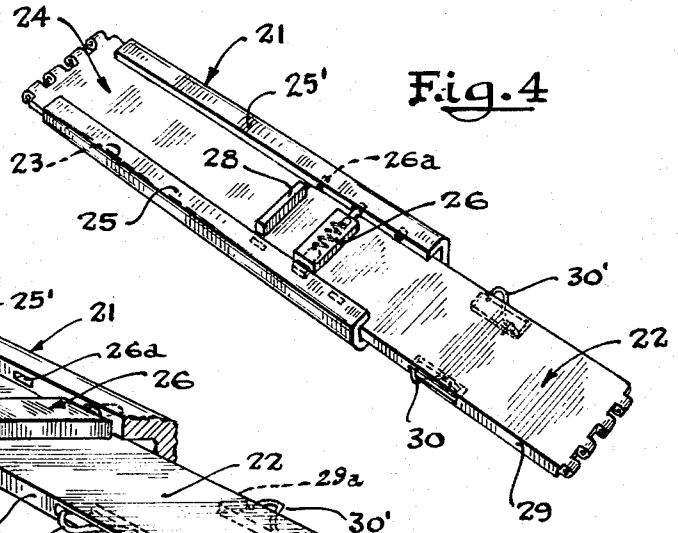
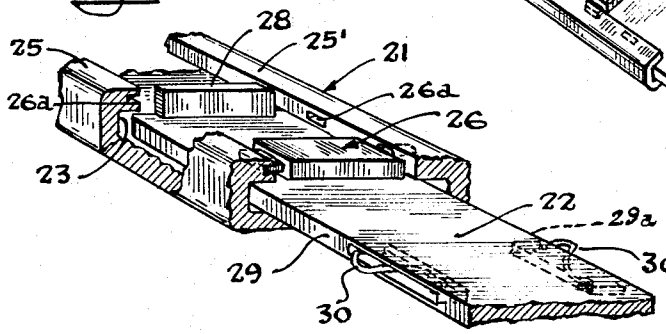


Fig.4

Fig.5



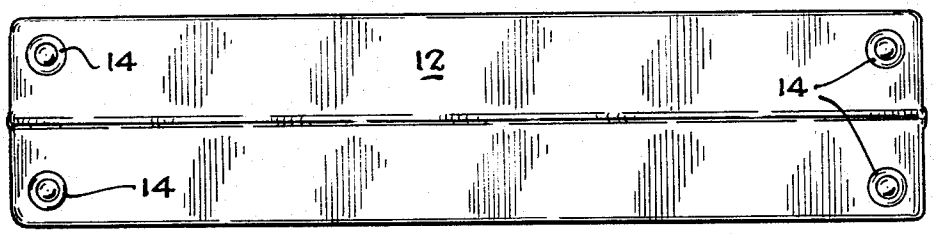


Fig.6

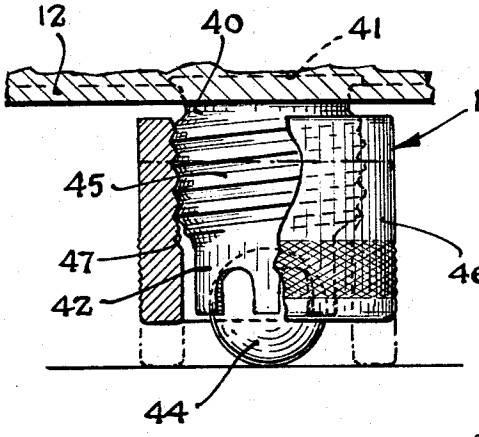


Fig.7

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EXTENDABLE ATTACHMENT FOR LUGGAGE

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10 Claims. (Cl. 280—43.24)

The present invention relates generally to an attachment for baggage and more particularly to an extension handle for traveling bags, such as suit cases and similar hand luggage, which are provided with rollers or other bearing means on a lower surface thereof.

Heretofore it has been proposed to provide the lower supporting surface of baggage with a plurality of casters, rollers, or slides which permits readily moving the baggage along the supporting surface, such as a station platform, floor or street surface without lifting the baggage from the supporting surface. Baggage of the above type has also frequently been provided with attachments which facilitate pushing or pulling the baggage along the supporting surface while the baggage remains supported by rollers or other bearing means. The baggage attachments which have been suggested heretofore for the most part have been cumbersome, have an unattractive appearance, and serve no useful purpose when the baggage is being carried in a normal manner.

It is therefore an object of the present invention to provide a baggage with an improved extension attachment which facilitates movement of the baggage along a supporting surface without lifting the baggage.

It is a further object of the present invention to provide an extension handle for baggage which is also usable for carrying the baggage.

It is still another object of the present invention to provide an extension handle for baggage which can be converted from an extension to a carrying handle and from a carrying to an extension handle almost instantaneously by one hand operation.

It is still another object of the present invention to provide a retractable extension handle for baggage which gives the appearance of being a conventional carrying handle when in retracted position.

It is a further object of the present invention to provide baggage with improved means for moving said baggage along a supporting surface.

Other objects of the present invention will be apparent from the detailed description and claims to follow when read in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view of a piece of luggage having an improved attachment embodying the present invention in an extended position;

FIG. 2 is a top plan view of the attachment of FIG. 1 with the attachment in retracted position;

FIG. 3 is a fragmentary vertical sectional view taken along the line 3—3 of FIG. 2;

FIG. 4 is a perspective view showing a portion of the attachment of FIGS. 1–3;

FIG. 5 is an enlarged fragmentary perspective view partially in vertical section;

FIG. 6 is a bottom plan view of the baggage of FIG. 1; and

FIG. 7 is a fragmentary side elevational view partially in section showing a bearing means mounted on the lower surface of the baggage shown in FIG. 6.

The improved baggage of the present invention comprises in the preferred form illustrated in the drawing, a piece of conventional hand luggage **10** having spaced lateral walls **11, 11'**, a bottom wall **12**, and a top or upper wall **13**. The bottom wall **12** is provided with a plurality of supports or bearing means **14** having low frictional resistance which facilitates moving the luggage along a supporting surface. Suitable closure means **15** are provided to hold the luggage **10** in closed position.

The top or upper wall **13** of the luggage is provided with a hand engageable extension attachment which in the preferred form comprises in combination a handle grip member **16** secured to a handle base plate **17**. The handle base plate **17** has secured to the opposite ends thereof, preferably by a hinged connection, extension arm assemblies **20, 20'**. The extension arm assemblies **20, 20'** have the lower ends thereof pivotally secured to the upper wall **13** of the luggage **10**. The extension arm assemblies **20, 20'** preferably comprise at least two sections which are interconnected so as to permit increasing and decreasing the length of each of the extension arm sections within predetermined limits.

In the preferred form illustrated the extension arm assemblies **20, 20'** are comprised of extension sleeve sections **21, 21'** secured by means of a hinged connection to opposite ends of the base plate **17** and telescoping extension arm members **22, 22'** arranged in slidable telescopic relationship with said extension sections **21, 21'**. The lower end of each of the arm members **22, 22'** is fixedly pivotally secured to the upper wall **13** of the luggage, preferably by a hinged connection to one of the anchor plates **27, 27'**, which is riveted or otherwise fixedly secured to the upper wall **13**. The anchor plates **27, 27'** are preferably spaced inwardly from the opposite ends of the upper wall **13**.

In the preferred form of the invention, each of the extension sleeve sections **21, 21'** is comprised of a generally rectangular tubular section adapted to slidably receive therein one of the arm members **22, 22'** and having the inner walls **23** thereof provided with a longitudinal slot **24** defined by spaced flanges **25, 25'**, as best shown in FIG. 4. An adjustable stop member **26**, such as a spring-loaded bar, is adapted to be mounted between said spaced wall sections **25, 25'** to limit the outward movement of the extension sections **21, 21'** relative to the arm members **22, 22'**, respectively, as will be described hereinafter. The bar **26** is preferably capable of being mounted in suitable slots **26a** formed in the sleeve sections **21, 21'** at several positions intermediate the ends so that the extension arm assemblies **20, 20'** can be adjusted to various heights above the wall **13** to accommodate different arm lengths.

The extension arm members **22, 22'** are formed preferably of generally rectangular tubular sections or bar sections of smaller dimensions than sleeve sections **21, 21'** so as to be slidable therein. Each of the arm members **22, 22'** are provided with a transversely outwardly extending flange **28** formed at the upper end and having a width which enables it to be longitudinally slidable within the slot **24**. The flange **28** is adapted to engage the stop member **26** when the latter is in position intermediate the ends of the extension sections **21, 21'**. The opposite lateral surfaces **29, 29'** of each of the arm members **22, 22'** are also provided in the preferred form with a spring detent means **30, 30'** at one or more spaced points intermediate the ends thereof. The spring detent means **30, 30'** are positioned so that they engage the end of the sleeve sections **21, 21'** when the end flanges **28, 28'** of the arm members **22, 22'**, respectively, are in engagement with a stop member **26**. It will be apparent that the spring detent means **30, 30'**, when in the above described engagement, maintains the handle grip member **16** in its extended position until such time as a downwardly pressure is applied to the handle grip member **16**. When a positive downwardly pressure is applied to the handle grip member **16**, the sleeve sections **21, 21'** ride over the spring detent means **30, 30'** and permits the extension arm assemblies **20, 20'** to be moved into a retracted or lower position. A spring detent similar to detent means **30** is preferably

provided for each position of adjustment of the stop member **26** or, if desired, the spring detent means can be adjustably mounted on each of the arm members **22, 22'**.

The handle base place **17** is provided with a latch means **35** which can be of any desired type but which in the form illustrated comprises a spring biased slide **36** having engaging members **38** extending downwardly through apertures in the base plate **17** forming a releasable locking engagement with a latch plate member **39** which is securely fastened to the upper surface of the wall **13** intermediate the ends thereof, as best shown in FIG. 3 of the drawing. The handle grip member **16** with the extension arm assemblies **20, 20'** in the retracted locked position, as shown in FIG. 3, is in a position which permits the luggage **10** being carried in the conventional manner by holding the handle means **16** with one hand. If desired, additional means can be provided for securing the base plate **17** to the latch plate member **39**.

The bearing means **14** which are secured to the lower surface **12** of the luggage **10**, preferably adjacent the four corners thereof, can be comprised of any type of bearing which will permit readily moving the luggage **10** along a support surface with a minimum of resistance and in the preferred embodiment, as best shown in FIG. 7, comprises a stud member **40** having the inner end **41** thereof permanently secured to the lower wall **12** and extend downwardly perpendicular thereto. The outer end **42** of the stud member **40** is provided with a smooth spherical concave surface which slidably retains therein a spherical steel ball **44**. The outer surface of the stud member **40** intermediate the ends thereof is preferably provided with a threaded section **45**. The threaded section **45** has mounted thereon a sleeve member **46** having an interior threaded section **47**. The threaded sections **45** and **47** operatively interengage to permit axial adjustment of the sleeve member **46** from a position wherein the lower end of the sleeve member is withdrawn upwardly to permit the ball **44** to extend beyond the end of the sleeve **46** to another position of adjustment wherein the sleeve member **46** extends axially beyond the end of the ball **44** so that the ball **44** is held out of rolling contact with a supporting surface. The sleeve member **46** is also preferably provided with "closed" and "open" stops to hold the sleeve either in retracted or extended position, as desired.

While the specific form of the invention illustrated in the drawing shows a conventional piece of hand luggage with the novel extension attachment of the present invention mounted thereon, it should be understood that the present invention can be used with any type of baggage or luggage, including trunks, where it is desired to move the baggage or luggage along a supporting surface without lifting the baggage or luggage. Also, other bearing means in place of the means specifically shown can be provided on the lower surface of the baggage or luggage, including casters, slides, roller bearings or other forms of ball bearings.

I claim:

1. In a hand luggage having bearing means on a lower wall surface to facilitate moving said luggage along a supporting surface, an extension attachment secured to longitudinally spaced anchor means fixedly mounted on a wall of said luggage opposite said lower wall surface which comprises; spaced arm members with each of said arm members being hingeably secured at one end to one of said anchor means, each said arm member having an extension section in telescopic slidable engagement therewith and having one end extendable beyond the said arm member to a predetermined limit, each said arm member and each of said extension section being normally held in a plane substantially parallel with the plane of said wall and in close proximity thereto, and a hand grip means hingeably secured to the extension sections; whereby said hand grip means can be substantially elevated from a position of close proximity to said wall into a position substantially above the level of said wall when said arm members are hingeably moved away from said wall.

2. A hand luggage as in claim **1**, wherein each of said arm members has an outwardly extending flange formed at the outer end thereof, and each of said extension sections has a groove formed therein to slidably receive said flange, and each said extension section being provided with a stop member extending across said groove with said stop member engageable by said flange to limit the outward movement of each of said extension sections relative to each of said arm members.

3. A hand luggage as in claim **1**, wherein each of said arm members has a spring detent means on a lateral surface thereof intermediate the ends thereof which is adapted to engage with said extension section associated therewith when in an extended position for limiting the relative movement therebetween and to support said extension section in an extended position until a positive downwardly pressure is applied thereto; whereby said hand grip means can be maintained in an elevated position substantially above the level of said wall until a positive downwardly pressure is applied thereto.

4. A hand luggage as in claim **1**, wherein said hand grip means is provided with a latch means which forms a detachable locking engagement with said upper wall of said luggage; whereby said hand grip means can be used as a handle to lift said luggage when said hand grip means is in locking engagement with said upper wall.

5. A hand luggage as in claim **1**, wherein said bearing device comprises; a generally cylindrical stud member which is attached at the inner end thereof to said lower wall surface and which extends outwardly from said lower wall surface, said stud member having a roller slidably mounted on the outer end thereof, a portion of said stud member which extends outwardly having a threaded lateral surface to receive thereon a sleeve member, said sleeve member having a threaded section formed on a surface thereof and adapted to form a threadable engagement with said threaded lateral surface, whereby said sleeve member can be threadably moved axially relative to said stud member and said roller from a position intermediate the ends of said roller to a position where the lower edge of said sleeve member extends axially beyond the lower edge of said roller.

6. An extension attachment for luggage provided with bearing means on a lower wall surface thereof to facilitate movement of said luggage along a supporting surface comprising; spaced extension arm assemblies, a hand engageable means which is pivotally secured to the outer ends of said spaced extension arm assemblies, each of said spaced extension arm assemblies formed of rigid sections adapted to slidably interengage one with another to permit a change in the effective length thereof within predetermined limits, each of said spaced extension arm assemblies also having the lowermost of said rigid sections secured to an upper wall surface of said luggage and said rigid sections having engaging means which operatively coact with another of said rigid sections to limit the outward movement of said hand engageable means, and said hand engageable means adapted to be held in close proximity with said upper wall surface in a plane substantially parallel to said wall surface when said extension arm assemblies are in a fully retracted position of adjustment and said hand engageable means adapted to being releasably held in an elevated position above said upper wall surface in another position of adjustment of said extension arm assemblies.

7. An extension attachment for luggage as in claim **6**, wherein a first said rigid section and another of said rigid sections which slidably interengages with said first rigid section are provided with releasable interengaging means which are adapted to releasably hold the said rigid sections in one of a plurality of interengaging positions; whereby the length of the said arm assemblies can be adjusted to one of a plurality of predetermined positions.

8. An extension attachment for luggage as in claim 6, wherein a first said rigid section and another of said rigid sections slidably interengaging with said first rigid section have releasable interengaging stop means in the form of spring detent means which releasably hold the slidably interengaging said rigid sections in one of a plurality of interengaging positions.

9. An extension attachment for luggage as in claim 6 wherein a first said rigid section is provided with an adjustable stop member adapted to engage with a fixed stop member on another of said rigid sections slidably interengaging therewith and said adjustable stop member adapted to being disposed at a plurality of positions intermediate the ends of said first rigid section.

10. An extension attachment for luggage as in claim 6, wherein a first said rigid section is provided with flanges along the lateral edges thereof, said flanges having oppositely disposed openings formed therein, and an adjustable stop member adapted to be disposed transversely between said flanges and engageable in said openings of said flanges, thereby providing an abutment for engaging a fixed stop member formed on another said rigid section slidably engageable with said first rigid section.

References Cited by the Examiner

UNITED STATES PATENTS

901,636	10/1908	McIntire	16—19
1,640,522	8/1927	White et al.	190—57
2,392,926	1/1946	Kelly.	

FOREIGN PATENTS

766,678	1/1957	Great Britain.
515,072	2/1955	Italy.

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