May 22, 1951 L. T. LAZELL ET AL 2,553,659

FOLDABLE WHEELED LUGGAGE CARRIER

Filed Sept. 13, 1949

Fig 1

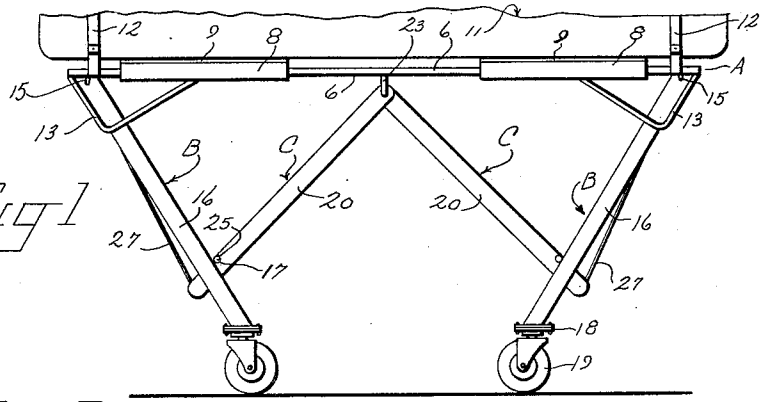


Fig 2

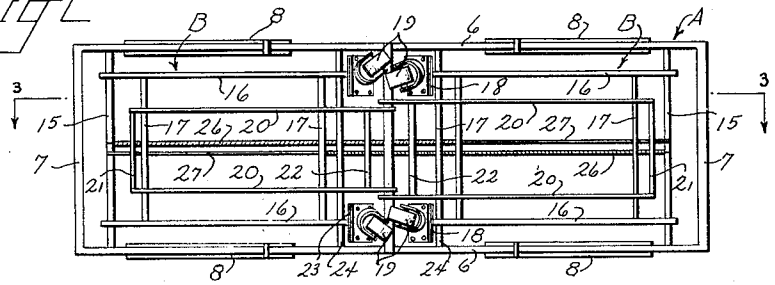


Fig 3

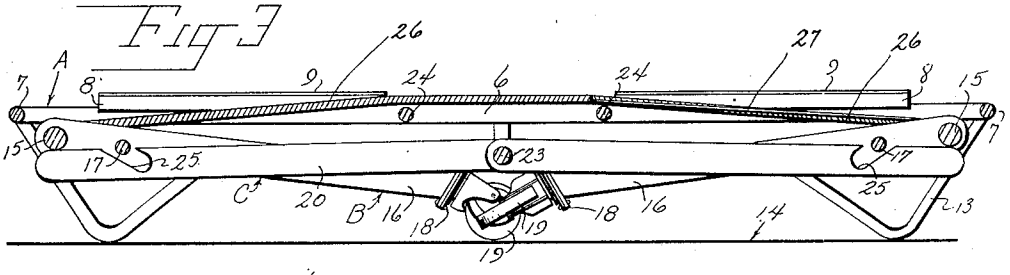


Fig 4

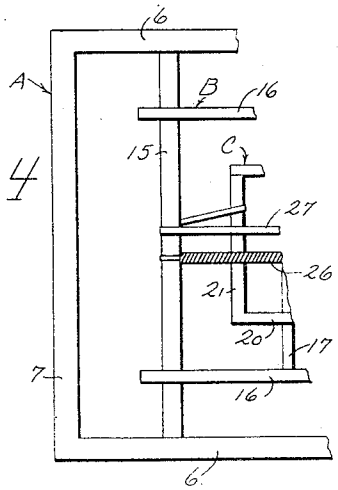
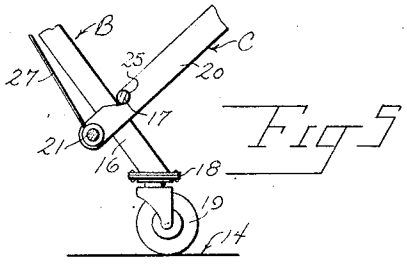


Fig 5



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FOLDABLE WHEELED LUGGAGE CARRIER

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3 Claims. (Cl. 280—41)

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This invention relates to an attachment for luggage, the primary object of the invention being to provide a device adapted to be attached to a piece of luggage, such as a suitcase, and folded or collapsed to a flat, compact condition wherein the bulk and mass of the suitcase is not materially increased, and adapted to be expanded at will to support the suitcase above the floor at a convenient elevation.

Another important object of the invention is to provide a device of the character indicated above in which spring means is incorporated to serve, when released, as the means for expanding the device from its collapsed position.

Another important object of the invention is the provision of a wheeled device of the above-indicated character which in its collapsed condition can serve as a low-level support wherein the wheels are inoperative, and which in its expanded condition serves as a high-level support with the wheels in operative position, whereby the device and the luggage mounted thereon can be readily wheeled about.

Other important objects and advantageous features of the invention will be apparent from the following description and the accompanying drawings, wherein, merely for purposes of illustration herein, a specific embodiment of the invention is set forth in detail.

In the drawings:

Figure 1 is a side elevation showing the device in expanded position;

Figure 2 is a bottom plan view of the device in collapsed position;

Figure 3 is an enlarged vertical longitudinal section taken on the line 3—3 of Figure 2;

Figure 4 is an enlarged fragmentary top plan view;

Figure 5 is an enlarged fragmentary side elevational detail.

Referring in detail to the drawings wherein like numerals designate like parts throughout the several views, the illustrated device comprises a rectangular main supporting frame A composed of side bars 6, 6 and preferably integral end bars 7, 7. Slidable along each of the side bars 6 is a pair of sleeves 8, 8 having plate-like upper sides 9 to supportably engage the bottom of a piece of luggage, such as a suitcase 11, with straps 12, 12 of the suitcase engaged around the side bars 6 to hold the suitcase 11 securely on the frame A. Depending angle bars 13 secured to opposite end portions of the side bars 6, 6, serve as feet, as indicated in Figure 3, for supporting the device on a floor 14 in the collapsed position of the device.

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Transverse rods 15, 15 are secured to the under side of the side bars 6, 6 near the end bars 7, 7, and are parallel thereto in a plane therebelow. On these rods 15 are pivoted similar wheeled leg frame structures B, each consisting of a pair of laterally-spaced, longitudinal bars 16 which are spaced and connected within their opposite ends by cross-rods 17, 17. Obliquely-arranged caster wheel plates 18, 18 are secured on the inner ends of the longitudinal bars 16 and to these are secured caster wheels 19.

Two brace frames C each comprise longitudinal bars 20, 20 spaced and connected by a cross-rod 21 at their outer ends and a cross-rod 22 spaced from their inner ends, the inner ends of the longitudinal bars 20 being pivoted on a rod 23 secured to the under side of the main frame side bars 6, 6 at a point midway between the ends of the main frame A, the bars 20 of one brace frame C being positioned inside of the bars 20 of the other brace frame C and both brace frames being spacedly positioned between the longitudinal bars 16 of the related wheeled leg frames B, as shown in Figure 2. The main supporting frame A has transverse bars 24, 24 extending between the side bars 6, 6 on opposite sides of the middle thereof.

As indicated in Figures 1 and 5, the brace frames C are adapted to pivot downwardly relative to the main frame A to intersect the downwardly-pivoted leg frames B. The brace frames C have notches 25 in the upper edges of outer end portions of their longitudinal bars 20 which are arranged to engage the inner cross-rods 17 of the leg frames so as to lock the brace frames C in bracing relation to the leg frames B in the vertically-expanded condition of the device.

For producing expansion of the device from the collapsed position shown in Figures 2 and 3, wherein it will be noted the caster wheels 19 do not provide rolling support for the device, two helical springs 26, 26 are provided having one end thereof secured to a related transverse rod 15 of the main frame A and have their other ends secured to waxed thongs 27. As shown in Figures 3 and 4, the springs 26 are arranged longitudinally of the main frame A and are trained across the transverse bars 24, and the thongs 27 are trained over the main frame transverse rods 15 and brought inwardly and secured to the outer cross-rods 21 of brace frame C with the springs 26 in stretched condition.

In the collapsed condition of the device, the springs 26 are stretched and the tension of the springs 26 and the friction of the thongs 27 on the transverse rods 15 of the main frame A are sufficient to maintain the device compactly col-

lapsed against the bottom of the suitcase 11 so that the suitcase can be conveniently carried or stored. However, upon placing the suitcase 11 down upon the floor 14 with the device in collapsed condition, the device can be caused to expand to support the suitcase in elevated position by lifting the suitcase and pushing downwardly on the leg frames B with sufficient force to aid gravity in swinging the leg frames to their depressed operative positions. In moving downwardly, the leg frame bars 17 ride upon the upper edges of the sides of the brace frames C against the tension of the springs 26 and the friction of the thongs 27 on the main frame rods 15, and the brace frames C are held up against the rods 17 at the outer or lower ends of the leg frames B by the tension of the springs 26. As the leg frames reach their final depressed positions, the brace frame notches 25 engage the lower leg frame rods 17 and lock the leg frames in operative position with the caster wheels 19 in position to supportably engage the ground 14.

Return of the device to collapsed condition is accomplished by displacing the brace frames C inwardly so as to disengage the notches 25 from the leg frame rods 17 and collapsing both the brace frames C and the leg frames B.

It will be obvious that the hereindescribed device provides an efficient and practical means for transporting heavy hand luggage, as to and from the home to a taxicab or private car, bus, train or other public carrier, enabling women, children and other persons of limited strength to guide and transport such luggage while walking, and at a minimum expenditure of strength while doing so. The device is capable of carrying luggage of substantial weight and requires only the guidance afforded by grasping the handle of the piece of luggage mounted thereon.

What is claimed is:

1. A luggage support comprising a horizontally disposed supporting frame adapted to be secured to the under side of a piece of luggage for supporting the same, a wheeled frame structure positioned transversely of and below said frame adjacent each end thereof and connected to said supporting frame for movement from the transverse position to a collapsed position longitudinally of said frame, a pair of brace frames arranged in end to end diverging relation positioned transversely of and below said supporting frame intermediate said wheeled frame structures and having the facing ends connected to said supporting frame for movement from the transverse position to a collapsed position longitudinally of said supporting frame, a resilient means for each of said brace frames carried by said supporting frame and connected to the other end of the adjacent one of said brace frames for urging said brace frames toward the position longitudinally of said supporting frame, and inter-engaging means on each of said brace frames adjacent said other end and on the portion of said wheeled frame adjacent thereto for holding the wheeled frame and the adjacent brace frame in their transverse positions.

2. A luggage support comprising a horizontally disposed supporting frame adapted to be secured to the under side of a piece of luggage for supporting the same, a wheeled frame structure positioned transversely of and below said frame adjacent each end thereof and connected to said supporting frame for movement from the transverse position to a collapsed position longitudinally of said frame, a pair of brace frames arranged in end to end diverging relation positioned transversely of and below said supporting frame intermediate said wheeled frame structures and having the facing ends connected to said supporting frame for movement from the transverse position to a collapsed position longitudinally of said supporting frame, a resilient means for each of said brace frame means carried by said supporting frame and connected to the other end of the adjacent one of said brace frames for urging said brace frames toward the position longitudinally of said supporting frame, an inter-engaging means on each of said brace frames adjacent said other end and on the portion of said wheeled frame adjacent thereto for holding the said wheeled frame and the adjacent brace frames in their transverse positions, said inter-engaging means including a transverse bar positioned on said wheeled frame transversely thereof and fixed thereto and engageable with said brace frame whereby said brace frame retains said wheeled frame in its transverse and longitudinal positions.

3. A luggage support comprising a horizontally disposed supporting frame adapted to be secured to the under side of a piece of luggage for supporting the same, a wheeled frame structure positioned transversely of and below said supporting frame adjacent each end thereof and connected to said supporting frame for movement from the transverse position to a collapsed position longitudinally of said frame, a pair of brace frames arranged in end to end diverging relation positioned transversely of and below said supporting frames intermediate said wheeled frame structures and having the facing ends connected to said supporting frame for movement from the transverse position to a collapsed position longitudinally of said supporting frame, a resilient means for each of said brace frames carried by said supporting frame and connected to the other end of the adjacent one of said brace frames for urging said brace frames toward the position longitudinally of said supporting frame, inter-engaging means on each of said brace frames adjacent said other end and on the portion of said wheeled frame adjacent thereto for holding the wheeled frame and the adjacent brace frames in their transverse positions, said inter-engaging means including a transverse bar positioned on said wheeled frame transversely thereof and fixedly secured thereto and engageable with said brace frame whereby said brace frame retains said wheeled frame in its transverse and longitudinal position, and legs of less length than said wheeled frame positioned at each end of and extending downwardly from said supporting frame and secured thereto for supporting said luggage support in collapsed position of said wheeled and brace frames.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,286,298	Halliburton	Dec. 3, 1918
1,793,353	Benson	Feb. 17, 1931
1,808,864	Pinheiro	June 9, 1931
2,492,676	Zajicek	Dec. 27, 1949