C. M. HURD.

TRANSPORTING DEVICE.

APPLICATION FILED MAY 26, 1917.

1,276,067.

Patented Aug. 20, 1918.

3 SHEETS—SHEET 1.

Fig. 6.

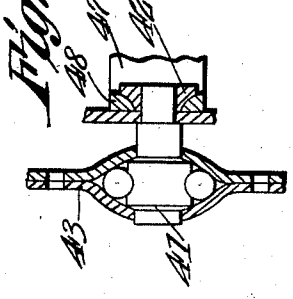


Fig. 1.

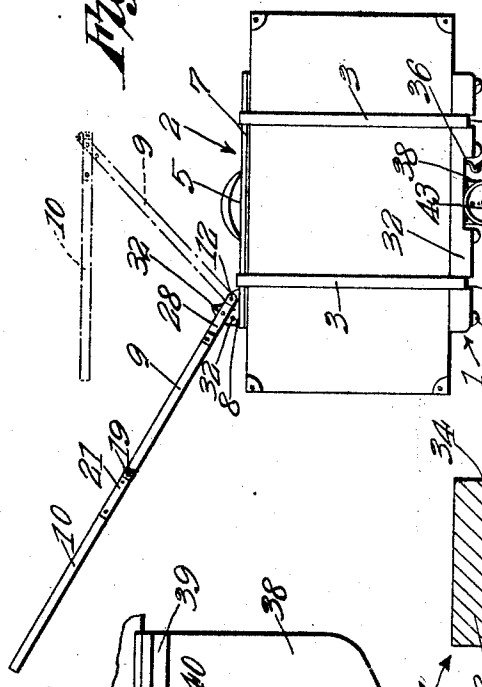


Fig. 5.

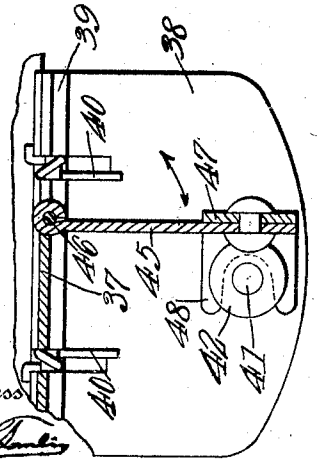
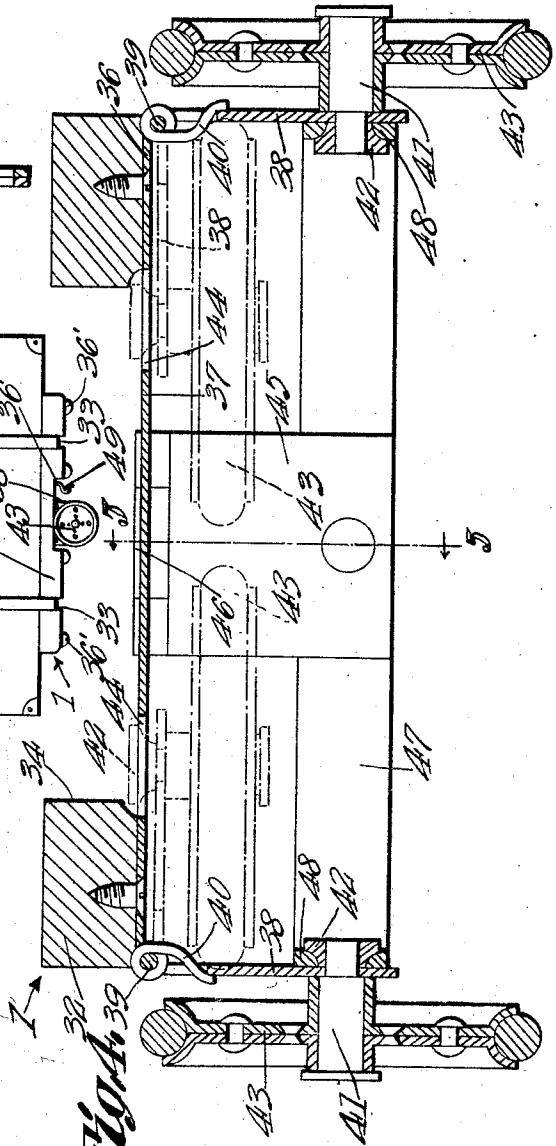


Fig. 4.



Witness

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3 SHEETS—SHEET 2.



Fig. 2.

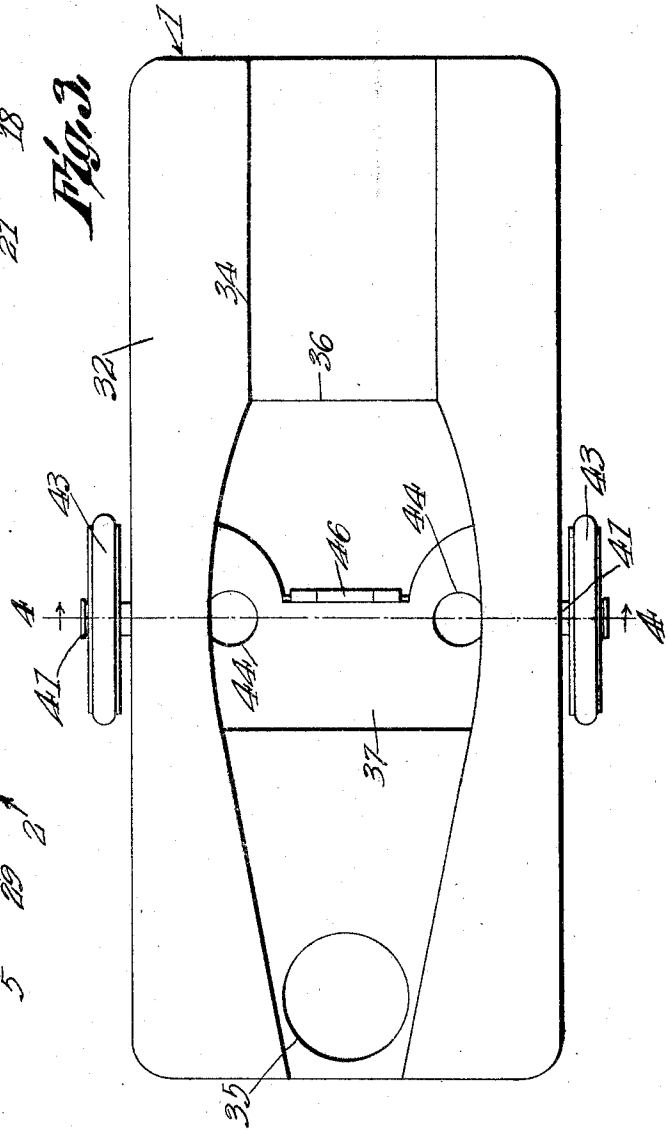


Fig. 3.

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3 SHEETS—SHEET 3.

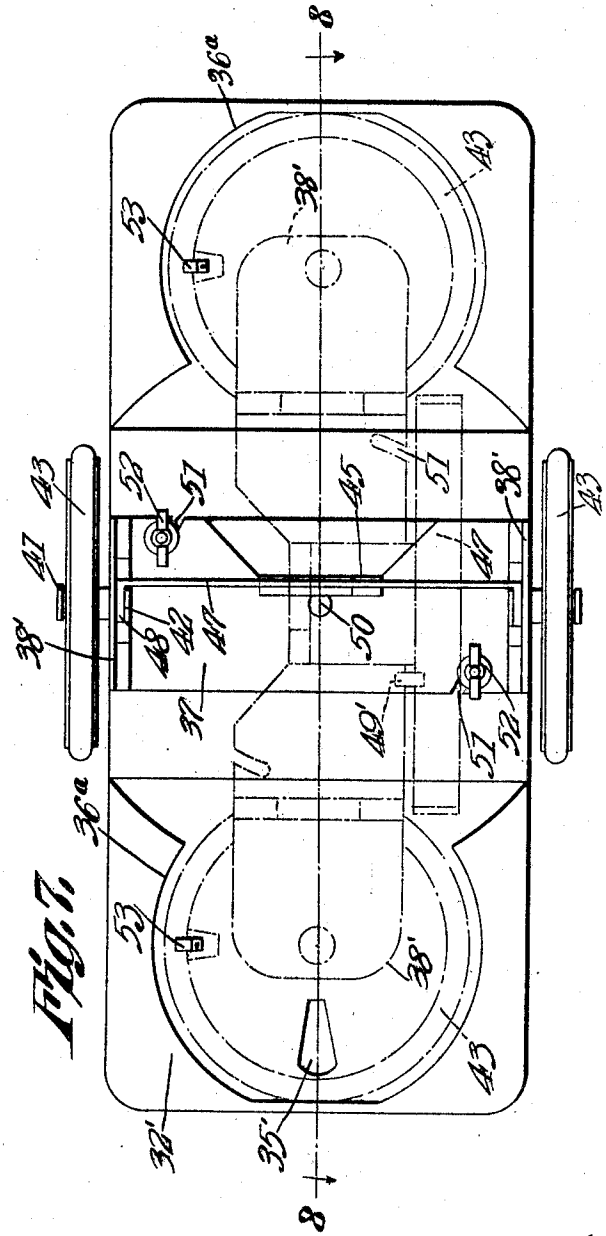


Fig. 7.

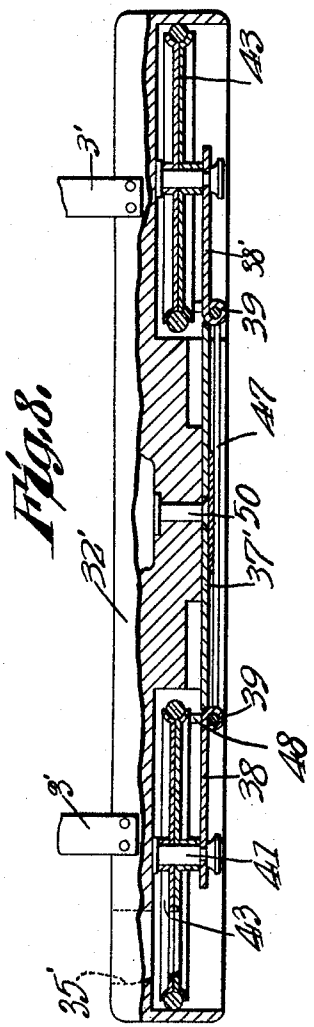


Fig. 8.

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UNITED STATES PATENT OFFICE.

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TRANSPORTING DEVICE.

1,276,067. Specification of Letters Patent. Patented Aug. 20, 1918.

Application filed May 26, 1917. Serial No. 171,241.

To all whom it may concern:

Be it known that I, CHAUNCEY M. HURD, a citizen of the United States, residing at San Jose, in the county of Santa Clara and State of California, have invented a new and useful Transporting Device, of which the following is a specification.

The present invention relates to a device for transporting suitcases, satchels, or other hand baggage or articles, and it is the object of the invention to provide a novel and improved device of that character, which will facilitate the transportation of such objects and which will be a benefit to persons of limited strength, especially when the luggage is heavy.

A further object of the invention is the provision of a novel device for trailing the suitcase or other article, the device being foldable into a compact relation when not in use, to be conveniently carried or stored.

Another object of the invention is to provide a transporting device of the nature indicated which can be applied to various objects easily and conveniently.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a side elevation of the device as applied to a suit case, the handle being shown in operative position in full lines, and partially folded in dotted lines.

Fig. 2 is an enlarged plan view of the upper section of the device.

Fig. 3 is a similar view of the bottom section.

Fig. 4 is a cross section on the line 4—4 of Fig. 3.

Fig. 5 is a sectional detail on the line 5—5 of Fig. 4.

Fig. 6 is a sectional detail illustrating a modified form of wheel which may be used.

Fig. 7 is a bottom plan view of a modified form of bottom section.

Fig. 8 is a longitudinal section on the line 8—8 of Fig. 7.

Broadly considered, the device embodies a bottom wheel mounted section 1 to support the suitcase or other article to move over the pavement or sidewalk easily, and a top section 2 to rest upon the article for pulling or moving it, the suitcase or other article being held between the bottom and top sections by means of straps 3 embracing them and enabling the sections to be readily applied and removed. The device is illustrated as being in the form of an attachment applicable to various articles, although it can be constructed as a unit with a suitcase or the like, within the scope of what is hereinafter claimed. Thus, the bottom and top sections can be united permanently with the bottom and top of a suitcase, or other object, the construction being altered accordingly, within the spirit of the invention as outlined in the claims.

The top section 2 embodies a pair of longitudinal yoke plates 4 at the ends thereof and a pair of parallel side plates 5 having their adjacent edges hinged, as at 6, to the edges of the plates 4, whereby the plates are foldable on longitudinal lines. The plates therefore can swing into a flat position for resting upon the flat top of a suitcase or similar package, or the plates or wings 5 can be swung downwardly to fit the inclined sides of a satchel, handbag, or the like. The top section can, therefore, conform to the top of the article to which it is applied, and there is an opening surrounded by the plates 4 and 5 through which the handle of suitcase or other article can project upwardly to carry or lift it by said handle when desired. The lower surfaces of the plates 4 and 5 are preferably padded with felt or other soft material, as at 7, to prevent the marring of the article, and to assist in holding the top section in place.

The top section is provided with a handle for pulling or moving the device about, and for this purpose one plate 4 is provided with an upstanding lug 8 to which a foldable handle is connected. This handle embodies the sections 9 and 10 pivotally connected with each other and with the lug 8, so that the handle can be folded snugly onto the plates 4—5. The handle section 9 embodies a pair of bars 11 bowed apart intermediate their ends, and overlapping the lug 8 at one end and pivoted thereto, as at 12. The handle section 10 comprises a doubled bar

13 of loop-shape and having its terminals overlapping the free terminals of the bars 11 and pivoted thereto, as at 14. When the use of the folding handle has passed, it can be folded out of the way, the section 9 swinging downwardly against the plates 4—5, while the section 10 also swings against said plates and surrounds the section 9 and lug 8, as seen in Fig. 2.

The handle sections are provided with means for holding them in alinement, in either folded or unfolded position, and for this purpose a latch pin 15 is slidable in apertures 16 with which the bar 13 is provided near the ends thereof, or near the pivot 14, and said pin 15 has a reduced shank 17 provided with a knob 18. The shank 17 is slidable through a bracket 19 fastened to the handle section 10, and the shank 17 has a lug 20 slidable through a notch in the bracket 19, whereby when the pin 15 is withdrawn and turned, the lug 20 in bearing against the bracket 19 will hold the pin retracted until turned to a position for the movement of the lug 20 through the slot. A leaf spring 21 is riveted or otherwise secured to the bar 13 and its free end bears against the shoulder of the pin 15, thereby tending to project said pin into engagement with the handle section 9, the bars 11 of which are provided with apertures 22 and 23 at opposite sides of the pivot 14. When the handle is in folded position, the pin 15 enters the aperture 22, to hold the handle sections folded, and when the handle is unfolded, the pin 15 having been withdrawn, said pin can enter the aperture 23 to hold the handle rigid, when in the position shown in full lines of Fig. 1.

Similar means are employed for holding the handle in place relatively to the plates 4—5, a latch pin 24 being slidable in apertures 25 with which the bars 11 are provided near the pivot 12, said pin having a shank 26 provided with an operating knob 27. The shank 26 slides through a bracket 28 riveted or otherwise secured to one bar 11, and the shank 26 has a lug 29 to move through a slot in bracket 28 for holding the pin 24 retracted, similar to the pin 15.

A leaf spring 30, which may be clamped between one end of the bracket 28 and the corresponding bar 11, has a free end bearing against the pin 24 to project it between the bars 11. The lug 8 has several apertures 31 for the engagement of the pin 24 when the handle is in operative position, whereby to hold the handle rigid relatively to the plates 4—5, and by engaging the pin 24 in the different apertures 31, the handle can be held at different angles, to suit persons of different heights.

Coming to the bottom section 1, the same embodies a body or carrier 32 constructed of wood or other suitable material, and provided with lower transverse grooves 33 for the reception of the strap 3. The body 32 has an upper longitudinal recess 34 for receiving the folded handle of the top section when the two sections are placed together with the top section inverted and handle folded. The body 32 is provided at one end of the recess 34 with a supplemental recess 35 to receive the lug 8. The body 32 is further provided with a lower transverse recess, or cavity 36 between its ends for housing the wheels when they are swung to folded position. Buttons or studs 36′ are also preferably secured to the bottom of the body 32 at opposite sides of the recess 36 to support the body on the floor when the wheel structure is folded.

In order to mount the body 32 on wheels, a transverse plate 37 is secured to the lower surface of the body 32 within the recess 36, and wings or plates 38 are hinged, as at 39, to the ends of the plates to swing about longitudinal axes, springs 40 being provided for the hinges tending to swing the wings 38 inwardly and upwardly against the plate 37. Wheel spindles 41 are engaged inwardly to the wings 38 and are clamped thereto by flanged nuts 42 threaded upon the inner reduced threaded ends of the spindles and bearing against the inner sides of the wings. A pair of supporting wheels 43 of any suitable construction have their hubs journaled on the spindles 41. Said wheels, as seen in Fig. 4, may each embody a pair of plates secured together and carrying a rubber tire, or the wheels can be constructed, as shown in Fig. 6, with the antifrictional balls between the hub of the wheel and the spindle. The plate 37 and wings 38 provide an arched axle having the outstanding spindles 41 at its ends, with the wings or limbs 38 of the axle foldable inwardly and upwardly to carry the wheels 43 therewith, as seen in dotted lines in Fig. 4. The plate 37 has openings 44 for receiving the nuts 42 when the structure is folded.

In order to hold the wings 38 in upright position when swung downwardly and outwardly, a hanger plate 45 is hinged, as at 46, to the plate 37, and a transverse strip 47 is riveted or otherwise secured to the plate 45 and is provided at its ends with forks 48 extending at an angle and adapted to fit astride the nuts 42 behind the flanges thereof and against the inner sides of the wings 38. Thus, when the wings 38 are swung downwardly and outwardly to bring the wheels 43 into operative position, the plates 45 can be swung downwardly to bring the strip 47 between the wings 38, the forks 48 being moved snugly between the flanges of the nuts 42 and the wings 38, whereby the strip 47 provides a stay or brace between the wings 38 to hold them in place. When the device is to be folded, the plate 45 is

swung upwardly out of the way, and is held by means of a spring catch 49, and the springs 40 will swing the wings 38 and wheels 43 inwardly and upwardly within the recess 36, thus compactly folding the structure.

From the foregoing, taken in connection with the drawings, the utility of the device will be apparent, it is thought, without further explanation.

In Figs. 7 and 8, a modified form of bottom section is shown. The bottom section in this case comprises a body 32′ for supporting the suitcase or as shown, the straps 3′ are secured to the edges of the body 32′ and are buckled together over the article and top section. The plate 37′, similar to the plate 37 above described, has the wings 38′ hinged thereto and carrying the wheels 43, a plate 45 being hinged, as at 46, to the plate 37′ and having the strip or stay 47 engageable with the nuts 42 and wings 38, as above described, to hold said wings in place. The plate 37′ is pivoted intermediate its ends, as at 50, to the bottom of the body 32′ between the ends thereof, whereby said plate 37′ can be swung from a transverse to a longitudinal position about a vertical axis, and the body 32′ has lower recesses 36ª near its ends, whereby the wings 38′ can be swung toward the ends of the body and upwardly to move the wheels 43 and wings into recesses 36ª, to fold the bottom section compactly. When the plate 37′ is in longitudinal position, the plate 45 can also be swung upwardly against the body and held by a suitable catch 49′. The plate 37′ is provided with notches 51 engageable with fastening bolts or clamps 52 carried by the body 32′, when the plate 37 is swung to transverse position, in order that it can be held in this position. The wheels 43 can be held within the recesses 36ª by means of suitable catches 53. In this form, as well as the one above described, the wings carrying the wheels 46 are swingable upwardly and the body is recessed to receive said wheels and wings.

Having thus described the invention, what is claimed as new is:

1. A transporting device embodying a wheel mounted section, an upper section adjustably connected thereto, said sections being adapted to hold an article therebetween, and a sectional propelling handle connected to and extending beyond one end of the upper section, said handle being collapsible onto said section, there being an opening in the upper section for the handle of an article held between the sections.

2. A transporting device embodying top and bottom sections, supporting wheels for the bottom section, and a folding handle connected to the top section, the bottom section having a recess for receiving said handle when folded.

3. A transporting device embodying a member to be secured to an article, and a handle embodying pivotally connected sections pivotedly connected with said member, said handle sections being foldable together and swingable onto said member, the handle sections having interengageable means for holding them rigidly relatively to one another, and one handle section and said member having interengageable means for holding the handle rigid relatively to said member.

4. A transporting device embodying a member to be secured upon an article, and a folding handle embodying two pivotally connected sections, one section being pivoted to said member to swing thereagainst, and the other section of loop shape to surround the aforesaid section when folded.

5. A transporting device embodying a top section, comprising longitudinal hinged plates to fit upon and conform to the top of an article, and a handle connected to one of said plates.

6. A transporting device embodying a pair of yoke plates, a pair of side plates hinged to the yoke plates to swing downwardly to conform to the top of an article, said plates having an opening therebetween for the handle of the article, and a folding handle connected to one of the yoke plates.

7. A transporting device embodying a carrier, members hingedly connected thereto, spindles carried by said members, flanged nuts engaging the spindles for attaching them to said members, wheels rotatable upon said spindles, and a stay hingedly connected with the carrier and having portions engageable between said nuts and members for holding the members in place when swung downwardly.

8. A transporting device including top and bottom sections, a container therebetween, there being recesses in the bottom section, members hingedly connected to the bottom section, wheels carried thereby and adapted to support the bottom section, said wheels and hinged members being movable into the recesses to be completely housed within the bottom section, and a sectional propelling handle adjustably connected to and extending beyond one end of the top section, said handle being collapsible onto said section.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHAUNCEY M. HURD.

Witnesses:
J. RULE.
ALMA DICEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."