Jan. 5, 1937. H. W. DI CRISTINA 2,066,828

PORTABLE, FOLDABLE, AND EXTENDIBLE WARDROBE

Filed Feb. 18, 1936 2 Sheets-Sheet 1

Fig. 1.

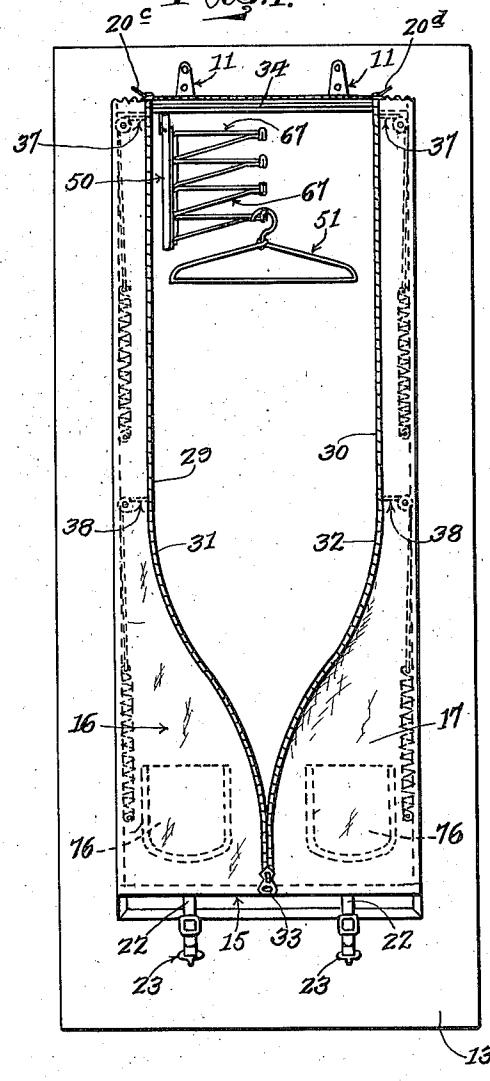


Fig. 2.

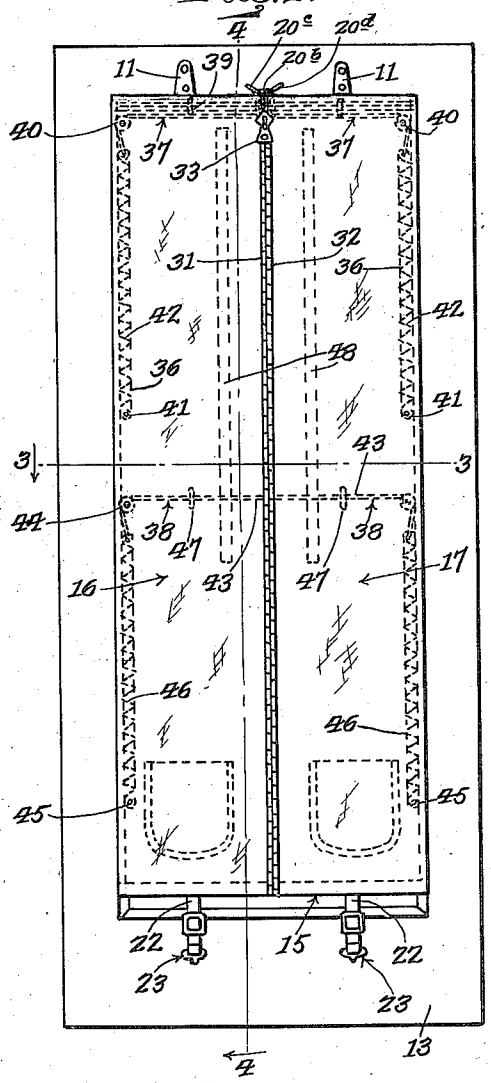
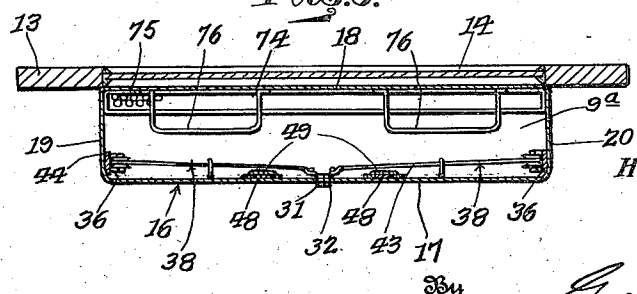


Fig. 3.



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PORTABLE, FOLDABLE, AND EXTENDIBLE WARDROBE

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Fig. 4.

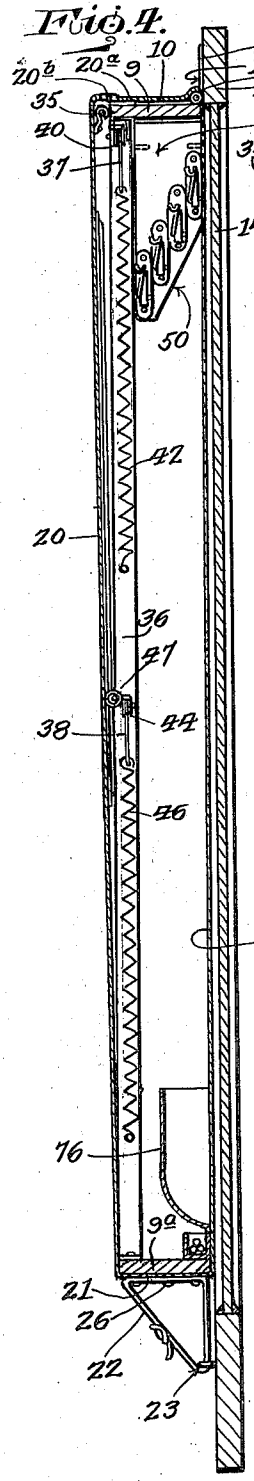


Fig. 5.

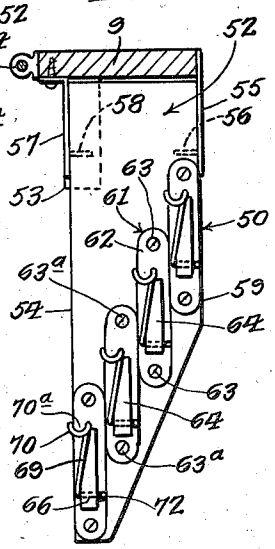


Fig. 6.

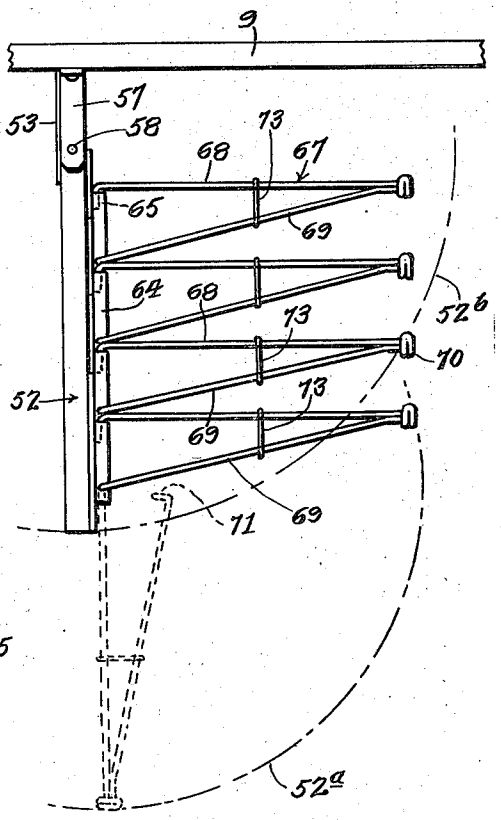


Fig. 7.

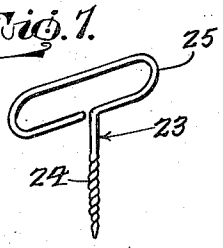


Fig. 8.

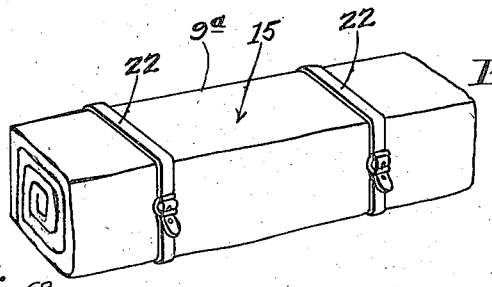
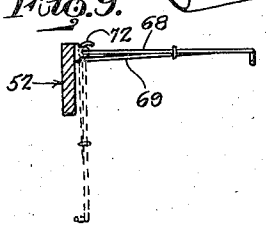


Fig. 9.



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UNITED STATES PATENT OFFICE

2,066,828

PORTABLE, FOLDABLE, AND EXTENDIBLE WARDROBE

Humbert W. Di Cristina, Decatur, Ga.

Application February 18, 1936, Serial No. 64,592

10 Claims. (Cl. 312—5)

This invention relates to a portable foldable and extendible wardrobe and has for its object to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to for supplementing regular closet space.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to capable of being readily extended to storage position and detachably connected to a support, by way of example, to the outer face of the door of a closet without impairing to a material extent the said face.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including, when extended, a pair of oppositely movable contractible spring controlled normally latched flexible front closures.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including a pair of oppositely movable contractible and extended front closures normally latched in extended position, spring controlled pull elements for folding said closures to open the wardrobe when the closures are unlatched, and guiding means for said elements.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including a foldable and extendible suspended suspension structure for garment hangers.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including means for fluffing the front closures thereof.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to having its body in the form of a flexible, foldable bag-like element capable when extended to provide a storage compartment.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including a bottom provided with a moth preventative container.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including means for detachably connecting it at its top and bottom for suspending it upon one face of a vertically disposed support, such as a closet door.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including a bottom provided with a pair of coupling members of strap-like form for coupling the lower end of the wardrobe to a support, and with said members further functioning as ties for maintaining the wardrobe in a compact bundle when it is folded or rolled up.

A further object of the invention is to provide, in a manner as hereinafter set forth, a wardrobe of the class referred to including a suspension structure for garment hangers and with said structure so formed to enable the garments carried by the hangers to be disposed in stepwise relation to permit them to be readily identified.

Further objects of the invention are to provide, in a manner as hereinafter set forth, a wardrobe of the type referred to which is simple in its construction and arrangement, strong, durable, compact, conveniently extended and folded when occasion requires, readily connected to a support when extended, thoroughly efficient in its use and inexpensive to manufacture.

With the foregoing objects in view and other objects which may hereinafter appear, the invention consists of the novel construction, combination and arrangement of parts as will be more specifically referred to and are as illustrated in the accompanying drawings wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications may be resorted to which fall within the scope of the invention as claimed.

In the drawings:

Figure 1 is a front elevation of the wardrobe as extended and opened and showing it as suspended upon the front of a closet door,

Figure 2 is a view similar to Figure 1 with the wardrobe closed,

Figure 3 is a section on line 3—3, Figure 2,

Figure 4 is a section on line 4—4, Figure 2,

Figure 5 is a detail in section and side elevation of the suspension structure for the garment hangers in depending or suspended position,

Figure 6 is a fragmentary view in front elevation of the garment hanger suspension structure suspended and further showing, in dotted lines, a hanger supporting arm shifted to inactive position,

Figure 7 is a perspective view of the form of connector element employed relative to the bottom of the wardrobe,

Figure 8 is a perspective view of the wardrobe when secured in a folded or rolled up position, and

Figure 9 is a sectional detail illustrating the

positions of the suspension arm in full and dotted lines.

The wardrobe includes a rectangular top member 9, preferably formed of wood having secured permanently to its outer face, which face would be the upper face when the wardrobe is extended, a leaf 10 of each hinge 11 of a pair of leaf hinges. The other leaf 12 of each hinge is adapted to be detachably secured to a vertical support 13 on which the wardrobe is suspended. By way of example, the support 13 is illustrated as a closet door provided with a panel 14. The wardrobe includes a bottom member 9a and a flexible, foldable lengthwise, split bag-like fabric body 15 formed of a pair of oppositely movable front portions 16, 17, a rear portion 18, a pair of side portions 19, 20, a top portion 20a and a bottom portion 21. The split in said body 15 is disposed lengthwise and horizontally thereof and is of T-shape contour. The head of the split is arranged at the upper end and disposed horizontally of the front of said body. The stem of the split is disposed centrally and lengthwise of said body and is of greater length than the head. The upper end of the stem merges into the head centrally of the latter. The portions 16, 17 form the front wall, the portion 18 the rear wall, the portions 19, 20 the side walls, the portion 20a the top wall and the portion 21 the bottom wall of the wardrobe. The member 9 is arranged against the inner face of the portion 20a. The member 9a is arranged within and seats upon the inner face of portion 21. The members 9, 9a constitute means for maintaining the body 15 extended when the latter is employed for storage purposes. The portion 18 bears against the rear edge and the portions 19, 20 against the side edges of member 9 and also against the side and rear edges of member 9a. The portions 16, 17 oppose in spaced relation the front edge of member 9 and bear against the front edge of member 9a. The body 15 is apertured at the top, as at 21a for the passage therein of the leaves 10 of the hinges 11. The head of the split separates the upper ends of the portions 16, 17 from the portion 20a. The edges of the head of the split have attached thereto a slide fastener device 20b for connecting said edges together. The said device is of well known form and includes a pair of oppositely movable slide elements 20c, 20d.

The bottom member 9a is of rectangular contour and is formed of wood or light metal. Permanently secured intermediate their ends to the outer face of bottom portion 21 and to the member 9a, such face being the lower face when the wardrobe is extended, is a pair of spaced parallel flexible coupling straps 22 for connecting to a pair of connector elements 23 adapted to be removably secured to the support 13. The connector elements are of like form and each consists of a threaded stem 24 and a loop-shaped head 25 through which extends a strap. Each strap is secured transversely with respect to portion 21 and member 9a by a series of spaced anchoring devices 26. The straps not only constitute coupling means coacting with the elements 23 to detachably secure the lower end of the wardrobe to the support 13, but further function to detachably secure the wardrobe in folded or rolled up position, as shown in Figure 8.

There is associated with the portions 16, 17 a slide fastener device for detachably connecting the edges 29, 30 of the said portions in opposed relation to detachably close the front of the wardrobe. The connector elements of the fastener device are indicated at 31, 32 and are carried by the portions 16, 17 respectively, as shown in Figures 1 and 2. The slide element of the fastener device is indicated at 33 and it is common to and associates with the elements 31, 32 for detachably connecting the portions of the body 15 which constitute the front of the wardrobe together to close the latter. The elements 31, 32 extend from the top to the bottom of portions 16, 17. When element 33 is at the upper end of portions 16, 17 the front of the wardrobe is closed. The slide fastener device is of well known construction. The portions 16, 17 respectively will be hereinafter referred to as closures.

Secured to and in extended relation with respect to the front edge of top member 9 is a rounded track rail 34 upon which are slidably mounted guide pins 35 carried by, arranged at the upper end of and secured to the inner face of the closures. Four guide pins are employed. A pair for each closure. One pin of a pair is arranged substantially centrally of the upper end of a closure and the other pin of the pair is positioned contiguous to an element 31 or 32. The pins 35 also function as hangers and couplers for the upper ends of the closures.

Secured to the front ends of the side edges of the top and bottom members 9, 9a are the upper and lower ends of a pair of parallel foldable straps 36. The straps 36 are arranged inwardly of the closures and are of less length than that of the wardrobe in order to fluff the closures thereby giving the fullest area for use.

The closures are spring controlled and for such purpose a pair of oppositely disposed upper spring controlled pulling devices 37 and a pair of oppositely disposed lower spring controlled pulley devices 38 are employed. The pulley devices 37 are of like form, one being connected to the upper end of one closure and the other to the upper end of the other closure. The pulling devices 38 are of like form, one being connected to one closure substantially at the transverse center of the latter.

Each pulling device 37 consists of a flexible pull member 39 traveling over a pulley 40 suspended on the rear face of the upper end of a strap 36. Anchored at its lower end, as at 41, to strap 36 is a controlling spring 42 having its upper end connected to one end of pull member 39. The other end of the member 39 is secured to a closure contiguous to the lengthwise edge of the latter. Each pulling device 38 consists of a flexible pull member 43 traveling over a pulley 44 suspended on the rear face of a strap 36. Anchored at its lower end, as at 45, to strap 36 is a controlling spring 46 having its upper end secured to an end of pull member 43. The other end of the member 43 is secured to a closure contiguous to the lengthwise edge of the latter. The member 43 extends through combined guide and supporting ring 47 attached to the inner face of the closure.

On opening the wardrobe, the closures would ordinarily form irregular folds and pile up resulting in imperfect opening. To overcome this objection the rings 47 align with the outer pins 35 and coact with flexible metallic strips 48 mounted in pockets 49 on the inner face of the closures. The straight lines between the outer pins 35 and rings 47 constitute the points which the closures fold in a uniform manner. The strips 48 are arranged between the rings 47 and the inner pins 35. The purpose of the strips is to prevent sagging and keep the closures in an even drape. Thus the strips, in combination

with the uniform folds, will provide a perfect curtain-like opening when the closures are shifted to open the front of the wardrobe. The strips may be of any suitable cross section. The strips 48 extend from the upper end of the closures to a point slightly below the pull members 43.

The wardrobe includes a pivoted extendible suspension structure 50 for removably suspending garment hangers in a step-like manner whereby the garments on the hangers may be readily identified. With reference to Figure 1, a garment hanger 51 is shown removably suspended from the lower suspension arm of structure 50. The latter comprises a pivoted carrier 52 provided on one side face thereof with a stop 53 which extends outwardly beyond the side edge 54 of said carrier. Secured to the rear edge of the top member 9, in proximity to a side edge of the latter, is a hanger 55 provided with a pivot 56 extending towards one of the closures. Secured to the lower face of top member 9, in proximity to the front edge of the latter, as well as being arranged rearwardly of said front edge, is a hanger 57 arranged in parallel spaced relation to hanger 55 and formed with a rearwardly directed pivot 58 aligning with the pivot 56. The carrier 52 is arranged between the hangers 55, 57 and loosely mounted on the pivots 56, 58. The pivot 58 extends in the side edge 54 of the carrier. The pivot 56 extends into the side edge 59 of the carrier. The latter is of materially greater length than the hangers. The stop 53 coacts with the hanger 57 for limiting the movement of the carrier when it is shifted to its suspended position, as shown in Figures 4, 5, and 6. Secured to the side face 60 of carrier 52, below the pivots 56, 58 and arranged in a stepwise manner is a series of brackets 61 of like form. Each bracket 61 includes a base plate 62 disposed lengthwise of face 60 and formed in proximity to its ends with openings 63 for the passage of holdfast means 63a to fixedly secure plate 62 to the carrier. Integral with and disposed lengthwise of the outer face of plate 62 is a coupler 64 positioned between and spaced from the openings 63. The coupler 64, at one end and lengthwise thereof, is formed with a socket 65. The coupler 64, in proximity to its other end, is provided with an opening 66 disposed at right angles to the socket 65.

The structure 50 includes a foldable set of pivoted stepwise arranged suspension arms 67 for the garment hangers. Each of said arms is pivotally connected to and suspended from a bracket 61. The arms 67 are of like construction and are of skeleton tapered form. Each of the arms 67 consists of a horizontal stretch 68, an inclined stretch 69 and a concave stretch 70 which provides a seat 70a disposed at right angles to stretches 68, 69. The seat 70a is for receiving the hook 70b of hanger 51 to provide for the suspension of the latter. The stretch 68 has an angularly disposed inner end portion 71 which is removably mounted in the socket 65 of coupler 64. The stretch 69 has its inner end portion 72 extending through the opening 66 of coupler 64. The end portion 72 closes on itself forming a loop so as to allow the arm 67 to swing in a horizontal plane. The stretch 68 merges at its outer end into one end of stretch 70. The stretch 69 merges at its outer end into the other end of stretch 70. The stretch 69, other than its angularly disposed end portion 72, is disposed diagonally relative to plate 62. Mounted on the stretches 68, 69 is a slidable loop 73 for latching stretch 68 to coupler 64.

The arms 67 are capable of being folded relative to each other in a nest-like manner, and in this connection the stretch 68 of each arm 67 is unlatched from its associate coupler 64. The arms are then swung to the dotted line position shown in Figure 6 and folded upon each other to oppose the side face of the carrier 52. When arms 67 are folded they move in an arc as indicated by the line 52a. The carrier 52 is folded upon the line 52b. The arms 67 may also be swung to a horizontal position as indicated in dotted lines, Figure 9.

Secured to the inner or upper face of bottom member 9a and flush with the rear edge of the latter is a holder 74 for a moth preventative medium 75. The portion 18 of body 15, in proximity to its lower end, is provided with a shoe pocket 76.

Owing to the arrangement of the arms 67 when extended, that is not directly under each other in a straight plane but at an obtuse angle like staircase steps, economy in space is provided and which permits of the garments carried by the hangers to be readily identified.

Upon opening the slide fastener the closures fold and open automatically, like a curtain, permitting immediate access to the interior of the wardrobe.

The wardrobe may be removed from its suspended position relative to the support by unhinging the top member 9, that is to say, by detaching the hinge leaf 12. After this the straps 22 are unbuckled thereby disconnecting the bottom 21 of body 15 from the elements 23. These latter are removed from the support and are to be housed in the wardrobe when it is rolled up. The structure 50 is swung against top member 9. The sectional body 15 is rolled up upon itself from member 9 until the last fold includes member 9a. The body is then detachably secured in rolled up position by the straps 22 whereby it will appear as shown in Figure 8.

Prior to the opening of the wardrobe the slide elements 20c, 20d are shifted to the position shown in Figure 1, after which the element 33 is shifted to the position shown in Figure 1.

What I claim is:

1. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, and oppositely disposed spring controlled pulling means for automatically shifting said closures in opposite directions to open position on the opening of the slide fastener device.

2. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, oppositely disposed spring controlled pulling means for automatically shifting said closures in opposite directions to open position on the opening of the slide fastener device, rectangular top and bottom

members arranged within said body at its top and bottom respectively, and means secured with said members for detachably connecting them to a support for suspending said body in wardrobe like form.

3. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, oppositely disposed spring controlled pulling means for automatically shifting said closures in opposite directions to open position on the opening of the slide fastener device, rectangular top and bottom members arranged within said body at its top and bottom respectively, and means secured with said members for detachably connecting them to a support for suspending said body in wardrobe like form, spaced parallel straps arranged inwardly of said closures and having their ends connected to said members, pulleys carried by said straps and over which the said pulling means travel, said pulling means being secured to said straps.

4. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, oppositely disposed spring controlled pulling means for automatically shifting said closures in opposite directions to open position on the opening of the slide fastener device, rectangular top and bottom members arranged within said body at its top and bottom respectively, means secured with said members for detachably connecting them to a support for suspending said body in wardrobe like form, and means for slidably connecting one end of said closures to said top member.

5. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, a pair of upper and a pair of lower oppositely disposed spring controlled pulling means for automatically shifting said closures to open position on the opening of the slide fastener.

6. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, a pair of upper and a pair of lower oppositely disposed spring controlled pulling means for automatically shifting said closures to open position on the opening of the slide fastener, top and bottom members arranged within said body respectively at its top and bottom, said members opposing the inner faces of said closures, and means for detachably connecting said members with a support for suspending said body.

7. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, a pair of upper and a pair of lower oppositely disposed spring controlled pulling means for automatically shifting said closures to open position on the opening of the slide fastener, top and bottom members arranged within said body respectively at its top and bottom, said members opposing the inner faces of said closures, means for detachably connecting said members with a support for suspending said body, a track rail carried by said top member, means for slidably connecting said closures at one end to said rail, guide means carried by said closures for the said lower pair of pulling means, and means carried by said closures and coacting with said connecting and guide means to provide for the uniform folding of the closures when shifting to open position.

8. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, oppositely disposed spring controlled pulling means for automatically shifting said closures in opposite directions to open position on the opening of the slide fastener device, rectangular top and bottom members arranged within said body at its top and bottom respectively, and means secured with said members for detachably connecting them to a support for suspending said body in wardrobe like form, spaced parallel straps arranged inwardly of said closures and having their ends connected to said members, pulleys carried by said straps and over which the said pulling means travel, said pulley means being secured to said straps.

9. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, a pair of upper and a pair of lower oppositely disposed spring controlled pulling means for automatically shifting said closures to open position on the opening of the slide fastener, spaced parallel straps arranged inwardly of said closures and having their ends connected to said members, pulleys carried by said straps and over which the said pulling means travel, said pulley means being secured to said straps.

10. In a portable, foldable and extendible wardrobe, a foldable, flexible split front bag-like body formed with a pair of oppositely shiftable portions providing closures constituting a sectional front for the wardrobe, said body having portions thereof providing the top, rear, side and

bottom walls of the wardrobe, a slide fastener device for detachably connecting the lengthwise edges of said closures in abutting relation, oppositely disposed spring controlled pulling means for automatically shifting said closures in opposite directions to open position on the opening of the slide fastener device, rectangular top and bottom members arranged within said body at its top and bottom respectively, means secured with said members for detachably connecting them to a support for suspending said body in wardrobe like form, and a suspended extendible and foldable suspension structure pivotally connected to said top member for suspending garment hangers.

HUMBERT W. DI CRISTINA.