Oct. 8, 1935. M. J. BROWN 2,016,313

CLOTHESRACK

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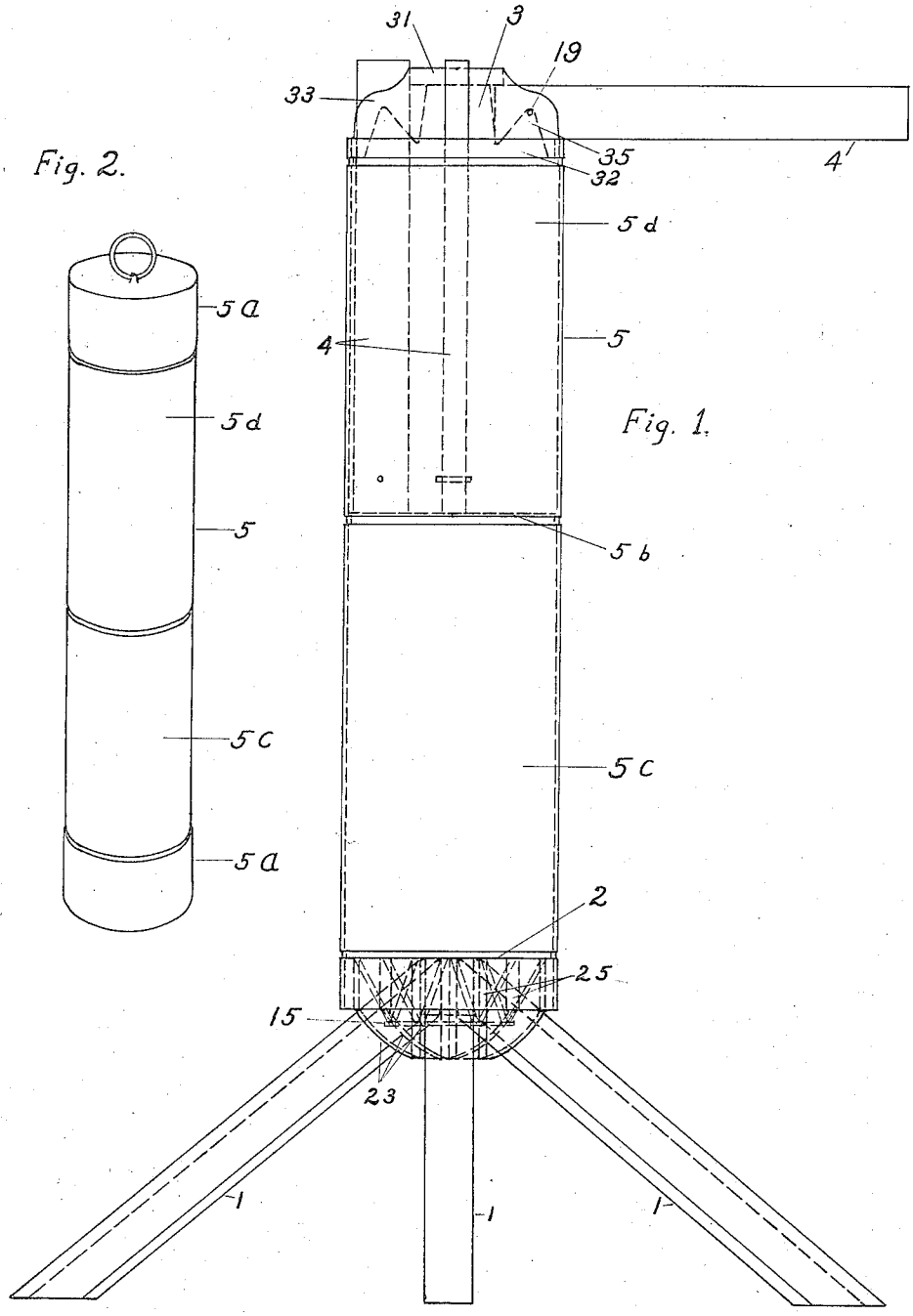


Fig. 1.

Fig. 2.

INVENTOR

Meade J. Brown.

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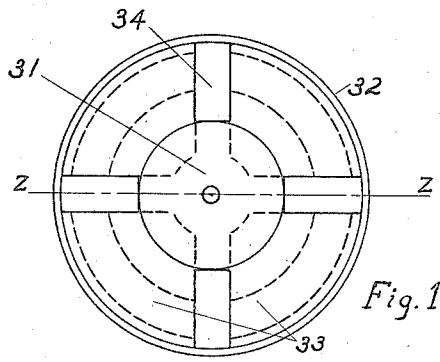


Fig. 10.

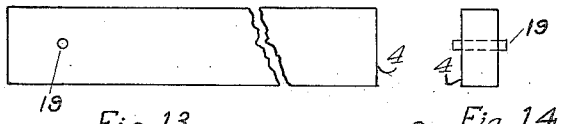


Fig. 13. Fig. 14.

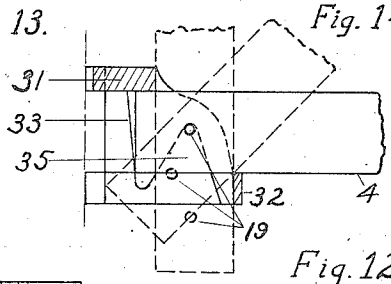


Fig. 12.

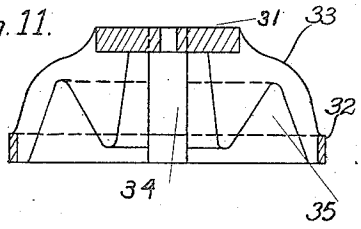


Fig. 11.

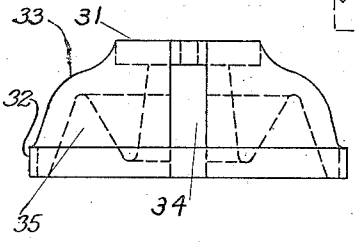


Fig. 9.

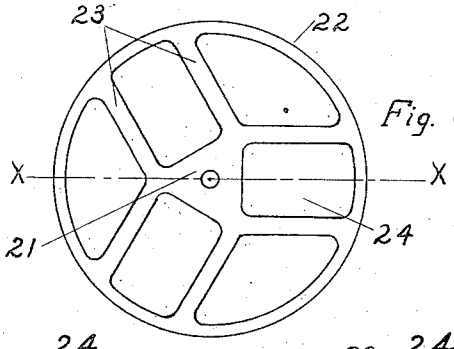


Fig. 6.

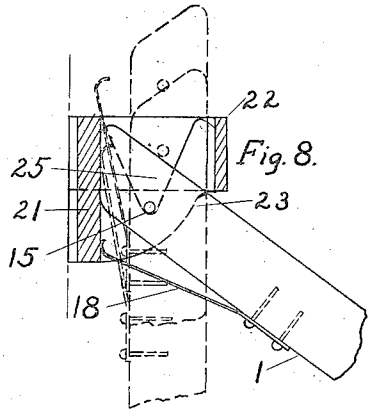


Fig. 8.

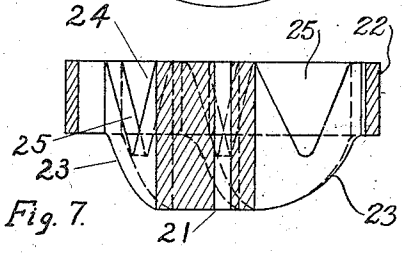


Fig. 7.

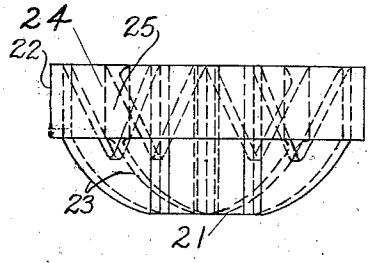


Fig. 5.

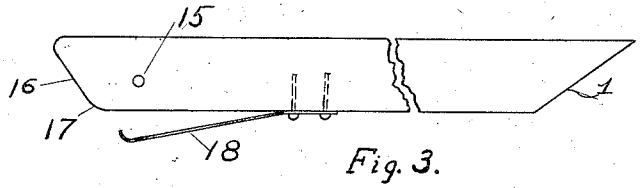


Fig. 3.

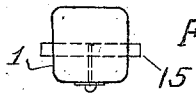


Fig. 4.

INVENTOR

Meade J. Brown

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UNITED STATES PATENT OFFICE

2,016,313

CLOTHESRACK

Meade J. Brown, Greenville, Mich.

Application October 2, 1933, Serial No. 691,772

3 Claims. (Cl. 211—172)

The object of the invention is to provide a device of this character which may be stored in a comparatively limited space and which avoids the unsightly appearance of the ordinary clothes rack when not in use.

With these and other objects in view, the invention consists of the construction and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that in the solution of manufacturing problems arising from the use of either metal castings or stampings, or both such castings and stampings, various changes in the proportion, size, and number of parts and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Of the accompanying drawings forming a part of the specifications: Fig. 1 represents a side view of a clothes rack constructed in accordance with this invention with end covers removed and with all legs and one arm in their extended positions. Fig. 2 represents a perspective view of the invention with all arms and all legs retracted and with the end covers in place. Fig. 3 represents a side view of a leg. Fig. 4 represents an end view of a leg. Fig. 5 represents a plan view of the leg fixture. Fig. 6 represents a top view of the leg fixture. Fig. 7 represents a view of a vertical section of the leg fixture on the line *x—x*, Fig. 6. Fig. 8 represents a view showing the operation of a leg and its accessories in relation to the elements of the leg fixture. Fig. 9 represents a side view of the arm fixture. Fig. 10 represents a top view of the arm fixture. Fig. 11 represents a vertical section of the arm fixture on the line *z—z*, Fig. 10. Fig. 12 represents a view showing the operation of an arm and its accessories in relation to the elements of the arm fixture. Fig. 13 represents a side view of an arm. Fig. 14 represents an end view of an arm.

The same reference characters refer to the same parts in all the figures.

The invention consists mainly, as shown in Figs. 1 and 2, of a tube **5** having removable end covers and divided transversely into two chambers **5c** and **5d** by a disc **5b** suitably fixed inside said tube, a series of legs **1—1**, Fig. 1, slidable and movable to an oblique position in a circular leg fixture **2** suitably fixed in the open end of the chamber **5c**, and a series of arms **4—4** slidable and swingable to a perpendicular position in a circular arm fixture suitably fixed in the open end of chamber **5d**.

The tube **5**, Fig. 2, has removable end covers **5a—5a** and is divided transversely into two chambers **5c** and **5d**, Fig. 1, by a disc **5b** suitably fixed inside said tube. The circular leg fixture **2**, Fig. 1, securely fixed in the open end of the chamber **5c** from which it projects somewhat, is, in the present instance, cast integrally but may be built up from stampings and is considered as composed of a triangular center block **21**, Figs. 5, 6, and 7, a band **22**, and a series of guide plates **23—23**. The plane of the upper edge of the band **22**, Fig. 6, is coincidental with the plane of the upper end of the center block **21**, the center of said band being axially coincidental with the center of said center block. The guide plates **23—23**, Figs. 5, 6, and 7, each having a curved lower edge and a substantially V shaped slot opening upwardly, are so arranged in relation to each other and to the center block **21**, Fig. 6, and the band **22** as to form, in conjunction with said center block and said band, a series of rectangular passages **24—24**, Figs. 5, 6, and 7, in which legs **1—1**, Fig. 1, are slidable and, at the limit of protractive travel, swingable outwardly to an oblique position. The leg, Figs. 3 and 4, has a bevel **16** with a rounded lower margin **17** at its inner end, stop pins **15—15** near said bevel adapted to engage V shaped slots **25—25**, Figs. 5, 7, and 8, and limit protractive and oblique movement of said leg, and a position retaining spring **18**, Fig. 3, having a bent free end adapted to contact center block **21**, Fig. 8, and hold said leg in oblique position if the device is raised from the floor for change of position or for any other reason. The protractive and the oblique movements of the leg **1** are illustrated in Fig. 8, together with the manner in which protractive and oblique movements of said leg are checked by stop pins **15—15** and contacts of said leg with center block **21** and the under edge of band **22**, and the operation of the position retaining spring **18**. The circular arm fixture **3**, Fig. 1, suitably fixed in the open end of the chamber **5d** from which it projects somewhat, is, in the present instance, cast integrally but may be built up from stampings and is considered as composed of a center plate **31**, Figs. 9, 10, and 11, a band **32**, and a series of guide blocks **33—33**, each of said guide blocks having an outer face of a bell-like contour and having a triangular inner portion, extending downwardly between the passages **34—34**, Figs. 10 and 11, with its outer edge forming the inner boundary of the V shaped slot **35**, Fig. 11 and supplying the inner guide for stop pins on arm members, Fig. 12, and with its sides supplying additional guiding surfaces for the arm members, **4—4**, Fig. 1, and preventing side swing

of said arm members and consequent interference of their inner ends and stop pins thereon one with another. The plane of the upper edge of the band **32**, Fig. 11, is substantially the width of the arm **4**, Fig. 1, beneath the plane of the under side of the center plate **31**, Fig. 11, the centers of said center plate and said band being axially coincidental, and the said band having an inside diameter slightly greater than the diameter of said center plate plus twice the width of said arm. The guide blocks **33—33**, Figs. 10 and 11, are so arranged in relation to each other and to the center plate **31** and the band **32** as to form, in conjunction therewith, a series of two-way rectangular passages **34—34** in which arms **4—4**, Fig. 1, are slidable and, at the limit of protractive travel, swingable outwardly to a position perpendicular to the tube **5**. The arm, Figs. 13 and 14, is provided with stop pins **19—19** near its inner end adapted to engage V shaped slots **35—35**, Figs. 11 and 12, and arrest protractive travel of said arm, provide a pivot on which said arm may be swung, and prevent its perpendicular movement. The manner of the travel of the arms **4—4**, Fig. 1, is illustrated in Fig. 12, together with the manner in which perpendicular movement of said arms is prevented by stop pins **19—19** at the tops of V shaped slots **35—35**, and the manner in which said arms are supported in a perpendicular position through contacts with the under side of center plate **31** and the upper edge of band **32**.

Additional arms may be provided for by reducing the width and increasing the number of the guide blocks **33—33**, Fig. 10.

The device having been properly assembled and with all legs and arms in retracted position and the end covers in place as in Fig. 2, its operation is as follows: The end cover of the chamber **5c** is first removed and the legs **1—1**, Fig. 1, are withdrawn from said chamber to a point at which the stop pins **15—15**, Figs. 1 and 8, are at the bottom of V shaped slots **25—25**, then swung outwardly to an oblique position in which position each leg is retained through contact of the bent free end of its position retaining spring **18**, Fig. 8, with the center block **21**. Depression of a position retaining spring will permit reciprocal movement of the leg to which it is attached, Fig. 8. The legs **1—1**, Fig. 1, being in full extended position are now placed on a floor, or other suitable surface, the tube **5** being supported in an upright position. The end cover is then removed from the chamber **5d**, Fig. 2, and the arms **4—4**, Fig. 1, withdrawn from said chamber to a point at which the stop pins **19—19**, Figs. 1 and 12, are at the tops of V shaped slots **35—35** and swung outwardly down to a horizontal position. All movements of said legs and said arms being reciprocative said legs and arms may be returned to their proper chambers and the said end covers replaced, as in Fig. 2.

Having thus particularly illustrated and described my invention and the manner of its use, I claim:

1. In a clothes rack having a tubular standard, a supporting device fixable in the lower end of said tube and projecting somewhat therefrom, comprising a circular leg holder consisting of a center block, a band, and a series of guide plates, each of said guide plates having a curved lower edge and a substantially V shaped slot opening upwardly, so arranged about and attached to said center block, with the upper portions of their outer edges within and attached to said band, as to form, in conjunction with said center block and said band, a series of rectangular passages, and a series of legs slidable in said passages and swingable, at their limit of protractive travel, outwardly to an oblique position, said legs having beveled inner ends with rounded lower edges, stop pins near said inner ends adapted to function in said V shaped slots in said guide plates and limit protractive travel and oblique movement of said legs, and position retaining springs having bent free ends adapted to contact said center block when said legs are in extended oblique position.

2. A clothes rack comprising a tube having removable end covers and divided transversely into two chambers by a disc suitably fixed inside said tube, a circular leg fixture fastened in the outer end of one of said chambers and projecting somewhat therefrom, consisting of a center block, a band, and a series of guide plates, each of said guide plates having a curved lower edge and a substantially V shaped slot opening upwardly, said guide plates being so arranged in relation to each other and to the said center block and the said band and so connected thereto as to form, in conjunction therewith, a series of rectangular passages, a series of legs slidable in said passages and, at the limit of protractive travel, swingable outwardly to an oblique position, said legs having beveled inner ends with rounded lower edges, stop pins adapted to engage V shaped slots in guide plates and limit protractive and oblique movement of said legs, and position retaining springs having bent free ends adapted to contact said center block when said legs are in extended oblique position, a circular arm fixture fastened in the outer end of the other of said chambers and projecting somewhat therefrom, consisting of a center plate, a band, and a series of guide blocks, each of said guide blocks having the upper portion of its outer face bell-like in contour and having a substantially V shaped slot opening downwardly, said guide blocks being so arranged in relation to each other and to the said center plate and the said band and so connected thereto as to form, in conjunction therewith, a series of two-way rectangular passages, and a series of arms slidable in said passages and swingable, at the limit of protractive travel, outwardly to a position substantially perpendicular to the axis of said tube, said arms having stop pins adjacent to their inner ends adapted to engage V shaped slots in guide blocks and limit protractive travel and prevent perpendicular movement of said arms.

3. In combination in a clothes rack, a tubular standard, a circular leg fixture secured in one end of said tubular standard, said leg fixture having passages in which leg members are slidable into and out of said tubular standard, and a circular arm fixture secured in the opposite end of said tubular standard, said arm fixture having passages in which arm members are slidable into and out of said tubular standard and having within a series of triangular portions extending downwardly between said passages as and for the purposes set forth.

MEADE J. BROWN.