April 29, 1952 S. ZOPPELT 2,594,605

ADJUSTABLE SUPPORTING BAR

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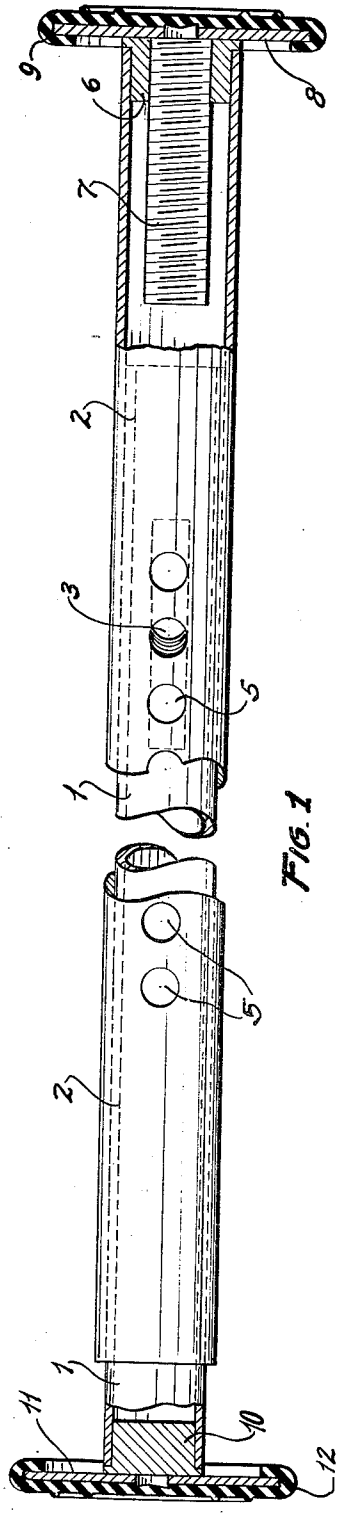


FIG. 1

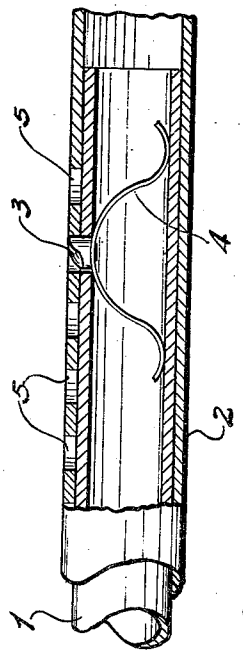


FIG. 3

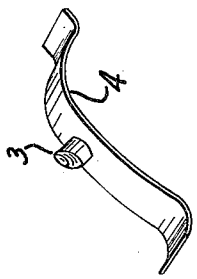


FIG. 4

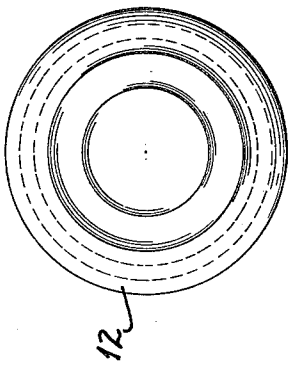


FIG. 2

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ADJUSTABLE SUPPORTING BAR

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2 Claims. (Cl. 211—123)

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This invention is for an improved device which may be placed between the walls of a clothes closet and upon which there may be suspended a number of clothes hangers with clothes thereupon.

As is well known, it has been common practice for years past to place a rod or the like across a clothes closet and between the opposite walls thereof for the purpose of supporting clothes thereupon by means of the familiar clothes hangers. It is of course not convenient for everyone to construct or install such a home-made device, especially in such manner as to be capable of supporting a substantial weight of clothing.

There have been attempts to devise special supports for this purpose with the view of facilitating the placing of the same in position and it is upon such devices that my present form of construction is intended as an improvement.

One object of my present invention is to devise such a clothes-supporting means which may be readily placed in position and which will maintain such position in a dependable manner even under substantial weight.

Another object is to provide a simple form of device which can be readily installed by the average user and can be as readily removed at any time desired.

Another object is to provide such a device that can be manufactured and sold at a comparatively low price so as to be capable of general use by the public.

Other objects will appear from the following description and claims when considered together with the accompanying drawing.

Fig. 1 is a view of my complete device with parts broken away;

Fig. 2 is an end view thereof;

Fig. 3 is a partial view of the device, broken away, this view being at ninety degrees to that of Fig. 1; and

Fig. 4 is a perspective view of the detent.

It is to be understood that the present form of disclosure is merely for the purpose of illustration and that there might be devised various modifications thereof without departing from the spirit of my invention as herein set forth and claimed.

My present form of device comprises an inner hollow tubular member 1 and an outer hollow tubular member 2, these two members having longitudinally adjustable telescoping engagement with each other. The inner member 1, near one end thereof, has a detent 3 fixedly mounted upon the middle of a bowed leaf spring 4 of proper dimensions to fit within the inner tubular member under sufficient tension to force the detent 3 radially outwardly through a hole in the wall of the inner tubular member 1 and

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into effective engagement within one of the series of holes 5 spaced along the outer tubular member 2. The detent 3 has a straight side portion for locking engagement with the correspondingly formed inner surface of one of the holes 5 so as to maintain the adjusted position to which the tubular members 1 and 2 may be set.

From the top of the straight side portion of the detent 3, the surface thereof is curved downwardly in two directions, that is longitudinally and transversely of the device, so as to provide a compound curved beveled surface. The extent of this beveled portion corresponds substantially with the semi-circumference of the edge of the hole 5; so that, when desired, the device may be lengthened by withdrawing the inner member 1 outwardly with respect to the outer member 2. During such lengthening manipulation, the curved beveled surface of the detent 3 will engage and pass beneath the edge of the hole 5 within which the detent might be engaged at that time. With the detent 3 removed out of the path of the holes 5, the lengthwise adjustment between the telescoping members 1 and 2 may be greatly expedited. Then, when the device has been extended to the approximate length desired, the detent 3 will be engaged within the hole 5 which corresponds most nearly with the desired length; and the finer adjustment for the exact length may be obtained by means of the provision now to be described.

One end of the outer member 2 has a screw-threaded nut 6 fixed within the end thereof for co-operation with the screw-threaded bolt 7 which has the disk 8 fixed upon the outer end thereof. The disk 8 may be provided with a rubber covering 9 for protection of the wall to which this end of the device may be applied and also for more effective engagement therewith.

At the other end of this device, there is a plug 10 fixedly mounted within the end of the inner tubular member 1; and the disk 11 is swivelly mounted upon the outer end of this plug 10 so as to be freely rotatable thereupon and about the longitudinal axis of the device. This disk 11 also may be provided with a rubber covering 12 for the same purposes as at the other end of the device.

When the device has been set at the approximate length, it will be held between the walls of the closet, with the disk 8 and its covering against the wall. Then, with the two telescoping members 1 and 2 locked together with the detent 3 engaged within the proper hole 5, as above explained, both members 1 and 2 may be rotated as a unit so as to turn the nut 6 upon the bolt 7 and thus produce additional length required to bring the disk 11 into firm engagement with the wall to be engaged thereby. During such fine adjustment of the device, the en-

gagement of the straight side portion of the detent 3 with the inner edge portion of the hole 5 in which placed, will prevent accidental dislodgement therefrom. Thus the engagement of the detent 3 within its hole 5 may be understood to be a one-way locking effect.

As the finer lengthening adjustment of the device is being completed, in the manner just explained, both of the disks 8 and 11 with their coverings will engage the opposite walls to which the device is being applied, and the continued rotation of the two members 1 and 2 as a unit about the axis of bolt 7, will bring the covered disks 8 and 11 into more firm supporting engagement with their respective walls. Such rotative adjustment of the two members 1 and 2 as a unit is permitted by the swivel connection between the inner member 1 and the disk 11 and the screw-threaded connection between the outer member 2 and the bolt 7 to which the disk 8 is non-rotatably affixed. When the device is placed in position in such manner, there will be effected dependable engagement of the two rubber-covered disks 8 and 11 with the two opposite walls; and the device will then be securely held in position for supporting a substantial weight of clothing.

As will be observed, this device does not require any fixtures to be placed upon the walls in order to receive the ends of the same. Upon the other hand, this device is self-contained and may be applied to the walls and removed therefrom without any particular effort and without the use of any tools or auxiliary appliances.

Although the present device is herein described as a clothes supporting means, yet it is to be understood that it may be employed for various other purposes, as for instance suspending a shower bath curtain without any fixtures upon the walls, temporary support extending between the jambs of a door-way or between the opposite inside walls of an automobile, or elsewhere as it may be applied.

What I claim is:

1. A unitary support comprising only two inner and outer members having telescopic interengagement with each other for relative longitudinal adjustment, the outer of said members having a series a holes through the wall thereof at intervals therealong, a spring associated with said inner member and having a detent extending radially outwardly therefrom and adapted to be held by said spring in one of said holes, said detent having an abrupt shoulder throughout approximately one hundred and eighty degrees circumferentially thereof for outward projection into engagement with the edge of the hole in which engaged, and said detent being beveled throughout the remaining one hundred and eighty degrees circumferentially thereof for cooperation with the corresponding edge portion of the hole in which the detent is engaged so as to permit longitudinal lengthening for coarse adjustment between said members, a disk rotatably mounted upon the outer end of one of said members and about the longitudinal axis thereof, said disk being mounted upon the member end which is farther away from said abrupt shoulder, and a disk at the outer end of the other of said members and having screw-threaded engagement therewith about the longitudinal axis thereof for effecting fine longitudinal adjustment between said members so as to obtain exactly the length desired, said disk with the screw-threaded engagement being

located at the end which is nearer said abrupt shoulder so that the engagement of said abrupt shoulder with the edge of the hole will prevent accidental relative longitudinal shortening movement between said members during and after operation of said screw-threaded engagement for effecting the fine adjustment thereof.

2. A unitary support comprising only two inner and outer tubular members having telescopic interengagement with each other for relative longitudinal adjustment, the outer of said members having a series of holes in the wall thereof at intervals therealong, a bow spring mounted within and with its ends in bearing engagement upon said inner member, a detent carried by said spring at a point midway of the length thereof and extending radially through the wall of said inner member and adapted to be held by said spring within one of said holes, said detent having an abrupt shoulder throughout approximately one hundred and eighty degrees circumferentially thereof for outward projection into engagement with the edge of the hole in which engaged, and said detent being beveled throughout the remaining one hundred and eighty degrees circumferentially thereof for cooperation with the corresponding edge portion of the hole in which said detent is engaged so as to permit relative longitudinal movement between said members for coarse lengthening adjustment of the same, a disk rotatably mounted upon the outer end of one of said members and about the longitudinal axis thereof, said disk being mounted upon the member end which is farther away from said abrupt shoulder, and a disk at the outer end of the other of said members and having screw-threaded engagement therewith about the longitudinal axis thereof for effecting fine longitudinal adjustment between said members so as to obtain exactly the length desired, said disk with the screw-threaded engagement being located at the end which is nearer said abrupt shoulder so that the engagement of said abrupt shoulder with the edge of the hole will prevent accidental relative longitudinal shortening movement between said members during and after operation of said screw-threaded engagement for effecting the fine adjustment thereof.

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