

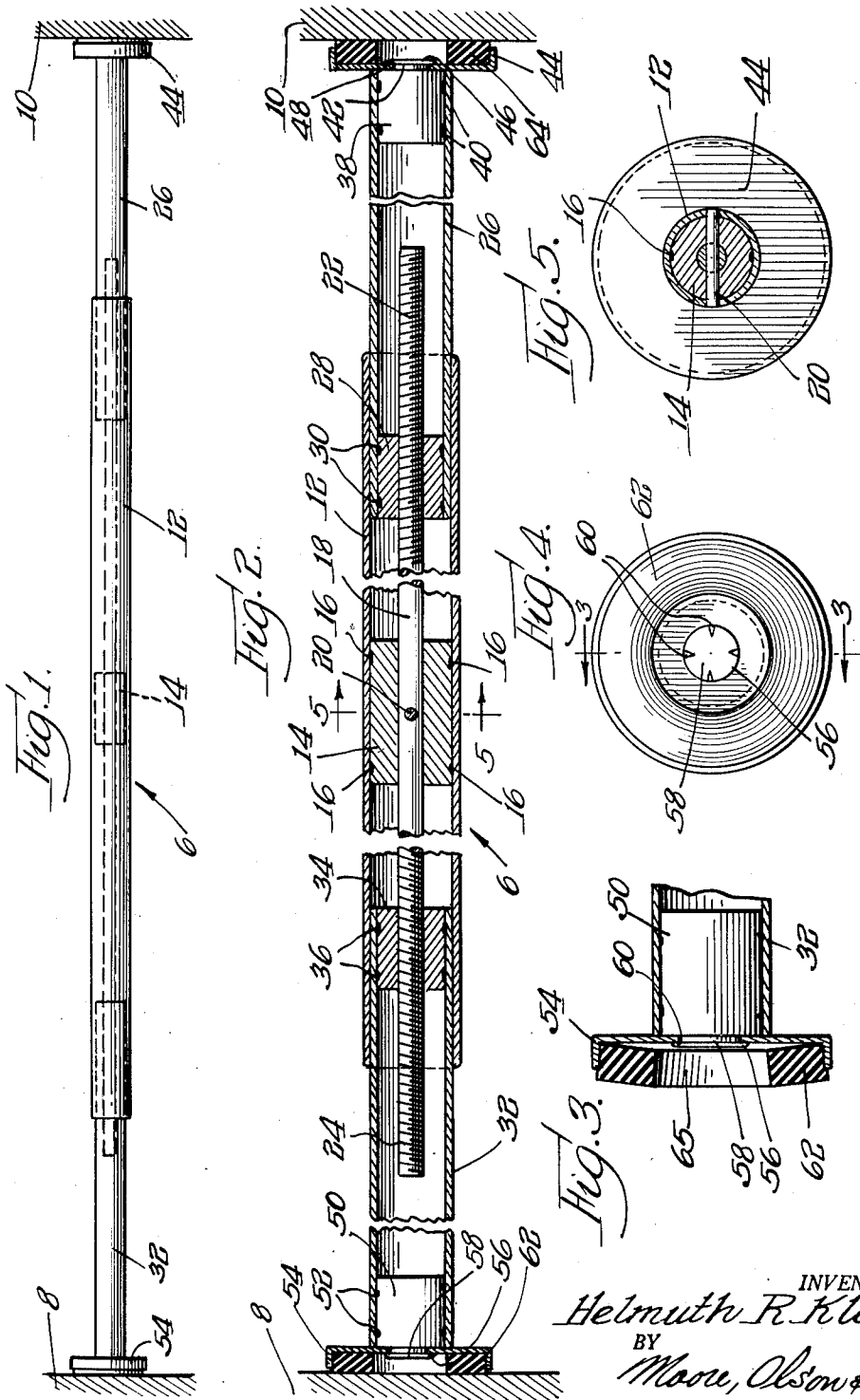
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H. R. KLAUDT

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EXERCISE BAR

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INVENTOR.
Helmuth R. Klaudt
BY *Moore, Olson & Trefler*
Attys.

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EXERCISE BAR

Helmuth R. Klaudt, Menno, S. Dak.

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1 Claim. (Cl. 272-62)

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This invention relates to an exercise or gym bar and particularly to such a bar which is adapted for temporary insertion in a doorway and is adjustable to fit doorways of varying sizes.

The benefits of stretching exercises are well known to most people. Such exercises are best carried on with the aid of exercise or gym bars. Unfortunately, most people do not have access to gymnasiums where such stretching bars are available and such bars have been heretofore unavailable in homes except as unsightly built in devices occupying room generally needed for other purposes. This invention contemplates the provision of a doorway exercise bar which is insertable in a doorway or the like without the use of nails, screws or tools simply by relatively rotating part of the bar to lengthen the bar and wedge it in place.

The doorway exercise bar comprises a substantially centralized portion or tube having extensible end portions projecting therefrom and interconnected with the centralized portions by screw threads, one of which is a right hand thread and one of which is a left hand thread, so that rotation of the centralized portion relative to the extensible end portions increases or decreases the length of the bar as needed to place it in position or to remove it.

An object of this invention is the provision of an exercise bar having a centralized portion of uniform outer diameter and end portions projecting from said centralized portion, the exercise bar being securable in a doorway by rotating the centralized portion relative to the end portions to force the end portions against the opposed edges of a door jamb and thus securely wedge the exercise bar in position.

A further object of this invention is the provision of an exercise bar having a substantially centralized portion with extensible end portions projecting therefrom and in screw threaded relation therewith, one of the screw threads being a right hand thread and the other being a left hand thread whereby rotation of the centralized portion relative to the extensible end portions extends or retracts the ends of the bars simultaneously.

Normally the hands of a person utilizing my exercise bar will contact only the centralized portion of the bar. By having this portion of uniform diameter, the bar will be comfortable to the touch, will not in any way damage the hands, and provides a feeling of sureness which is not possible when the hands grasp portions or supports of non-uniform diameter.

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Substantially cup shaped end members are secured to the ends of the extending portions and carry rubber inserts therein. The cup shaped members are secured to the extending portions by means of hubs extending from the extending portions through apertures in the cup shaped end members and peened over. The periphery of each peened over portion is punched at spaced positions to provide cooperating indents in the peened over portions and the cup shaped end members to prevent rotation of the end members relative to the extending portions of the exercise bar.

The rubber inserts carried in the cup shaped end members are essentially circular discs having central circular apertures, thus resembling flattened doughnuts. The outer diameter of each rubber insert is normally slightly greater than that of the inside diameter of the cup shaped member in which it fits and each insert extends axially from the cup shaped member so that each insert is forced outwardly near its central aperture. This allows the length of the exercise bar to be adjusted approximately to the width of a doorway or the like and then readily inserted in place. Each insert is forced toward a fully seated position and affords a relatively light frictional engagement with the door jamb so that the centralized portion of the bar may be rotated without otherwise securing the extending portions.

As the portion of each rubber insert adjacent the central aperture therethrough tends to extend outwardly away from the bar, any tendency of the bar to slip causes the upper portion of the insert adjacent its central aperture to tend to roll up and wedge the bar into more firmly seated position.

An object of this invention is the provision of an exercise bar wherein securing members at each end of the bar are secured by peened over hubs extending from the bar through the securing members with cooperating indents provided in the peened over portions and the securing members to prevent relative rotation of the securing members and the bar adjacent said securing members.

A further object of this invention is the provision of an exercise bar securable in a doorway or the like by extension of the bar wherein door frame contacting inserts of rubber of the like are sprung outwardly somewhat from the ends of the bar to facilitate insertion of the bar in the doorway and to provide an increased wedging action with any tendency of the bar to slip.

Other and further objects and advantages of

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the present invention will be apparent from the following description when taken in connection with the accompanying drawings in which:

Fig. 1 is an elevation of an exercise or gym bar embodying the principles of my invention;

Fig. 2 is an enlarged longitudinal sectional view of the same apparatus;

Fig. 3 is a fragmentary sectional view of one end of the bar as taken along the line 3—3 of Fig. 4;

Fig. 4 is an end view of the bar; and

Fig. 5 is a cross sectional view taken along the line 5—5 of Fig. 2.

An exercise or gym bar generally designated as 6 is illustrated in Figs. 1 and 2 as firmly positioned within the side frame members 8 and 10 of a doorway or the like. The exercise bar 6 comprises a centralized portion 12 in the form of a hollow tube. A plug or cylinder 14 is secured at the center of the centralized portion by a plurality of spotwelds 16. A rod 18 fits through a central bore in the cylinder or plug 14 and is secured therein by a transverse pin 20 extending completely through the tube of the centralized portion 12, the plug 14, and the rod 18. The rod 18 extends beyond the ends of the centralized portion 12 and the right end is provided with right hand threads 22 while the left end of the rod is provided with left hand threads 24. The threads extend from each end of the rod nearly to the central plug or cylinder 14.

A right extensible end portion 26 comprises a hollow tube fitting snugly within the centralized portion 12. The left end of the right extensible end portion 26 is provided with a circular nut 28 having right hand threads and secured within the portion 26 by spotwelds 30. A left extensible end portion 32 fits snugly within the left end of the centralized portion 12 and similarly carries a circular nut 34 secured by means of spotwelds 36. The nut 34 is provided with left hand threads cooperable with the left hand threads 24 of the rod 18.

A plug 38 is secured within the outer end of the right extensible end portion 26 by means of spotwelds 40 and has an axially extending hub 42 extending through the central aperture of a substantially cup shaped securing or end member 44 and peened over as at 46 to secure the end member 44 to the right extensible end portion 26. Indents 48 are provided at spaced positions about the peened over portion 46 and also in the portion of the end member 44 cooperable therewith by punching the peened over portion. The cooperating indents prevent rotation of the end member relative to the right extensible end portion 26.

The left extensible end portion 32 is similarly provided with a plug 50 secured therein by spotwelds 52. A securing or end member 54 similar to the member 44 is secured by a peened over portion 56 on a hub 58 extending from the plug 50. The peened over portion and end member are provided with cooperating indents 60 as disclosed heretofore to prevent relative rotation of the cap and the extensible end member 32.

The securing or end member 54 is provided with an insert 62 of rubber or the like and the right end member 44 is provided with a similar insert 64. As the inserts are similar only the left insert 62 will be described in detail. Referring to Fig. 3 wherein the left end of the bar is shown before engagement with the frame members of a door or the like, the insert may be

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seen to be a flat disc having a central aperture 65 and thus resembling a flattened doughnut. The outer diameter of the insert 62 is normally slightly greater than the inner diameter of the cup shaped end member 54 and the axial dimension of the insert is slightly greater than that of the end member so that the insert is normally flexed somewhat outwardly away from the end of the bar. Consequently when the bar is adjusted to a length not quite equal to a width of a doorway or the like, it may be placed lightly and frictionally across the doorway between the side frame members thereof by compressing the inserts just slightly to seat them in the end members. When each end of the bar is thus lightly frictionally engaged with the said frame member 8 and 10 of a doorway, rotation of the substantially centralized portion 12 forces both extensible end portions outwardly against the door frame members. The rubber inserts 62 and 64 are forced into fully seated position in the end members. The bar is firmly held in position due to the pressure which its ends exert on the frame members of the doorway and due to the tendency of the rubber inserts to flex out of the end members, any tendency of the bar to slip causes the inserts to tend to roll up directly above their central apertures and thus more firmly wedge the bar in position. This rolling action is greatly facilitated by reason of the fact that the surfaces defining the apertures are disposed so that they extend substantially normally from the outer doorway engaging surface of the insert, as is clearly shown in Fig. 3. This structure presents a relatively sharp edge of the insert against the door frame, which edge easily catches the frame and tends to roll whenever there is any tendency for the bar to slip. The peripheral surfaces of the inserts likewise extend substantially normally from the doorway engaging surface to provide outer peripheral edges which increase the effectiveness of the insert in preventing slippage.

As may be seen, the exercise or gym bar herein presented may be installed temporarily in doorways of widely varying lengths. The double screw thread forces the extensible end portions uniformly outwardly from the centralized portion to facilitate installation of the bar and to provide a centralized portion of uniform diameter.

Although a particular embodiment of this invention has been shown and described, it is apparent that this is for illustrative purposes only and it is my desire that this invention is to be limited only by the spirit and scope of the appended claims.

I claim:

An exercise bar for temporary horizontal insertion in a doorway or the like, comprising a substantially centralized portion of uniform outside diameter, a pair of extensible end portions extending from said centralized portion, axially outwardly facing generally cup-like insert securing members mounted to the outer ends of said extensible end portions, screw thread means interconnecting said centralized portion and said extensible end portions, one of said screw thread means having righthand threads, and the other of said screw thread means having lefthand threads to extend or retract said extensible end portions equally upon rotation of said centralized portion to install or remove said exercise bar while maintaining said centralized portion substantially centrally disposed, and an axially ap-

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5 tured resilient annular insert disposed within each of said cup-like members, each said insert having a substantially uniform thickness greater than the depth of its associated cup-like member, the central portion of each annular insert projecting outwardly beyond the outer margin thereof and spaced outwardly from the adjacent central surface of the associated cup-like member to provide a readily flexible central portion facilitating initial positioning and adjustment of the exercise bar in a doorway or the like, and said central portion of each insert being urged inwardly to contact the adjacent central surface of the cup-like member as the centralized portion

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is rotated to positively fix the exercise bar in adjusted position.

HELMUTH R. KLAUDT.

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