

Nov. 25, 1947.

J. S. ROBBINS

2,431,423

ADJUSTABLE SHOE RACK

Filed March 27, 1946

2 Sheets-Sheet 1

Fig. 1

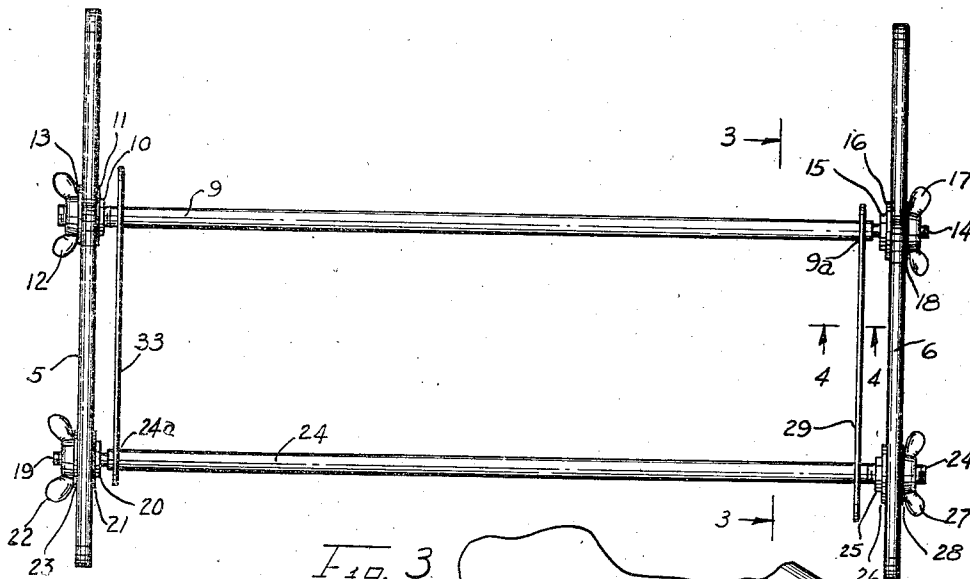


Fig. 3

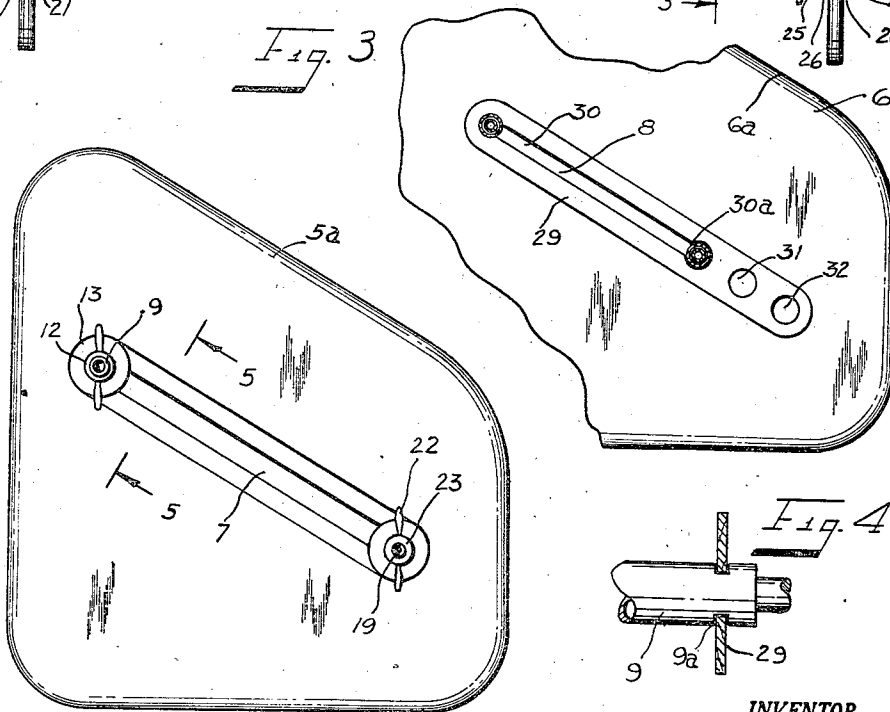
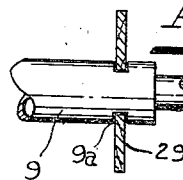


Fig. 2

Fig. 4



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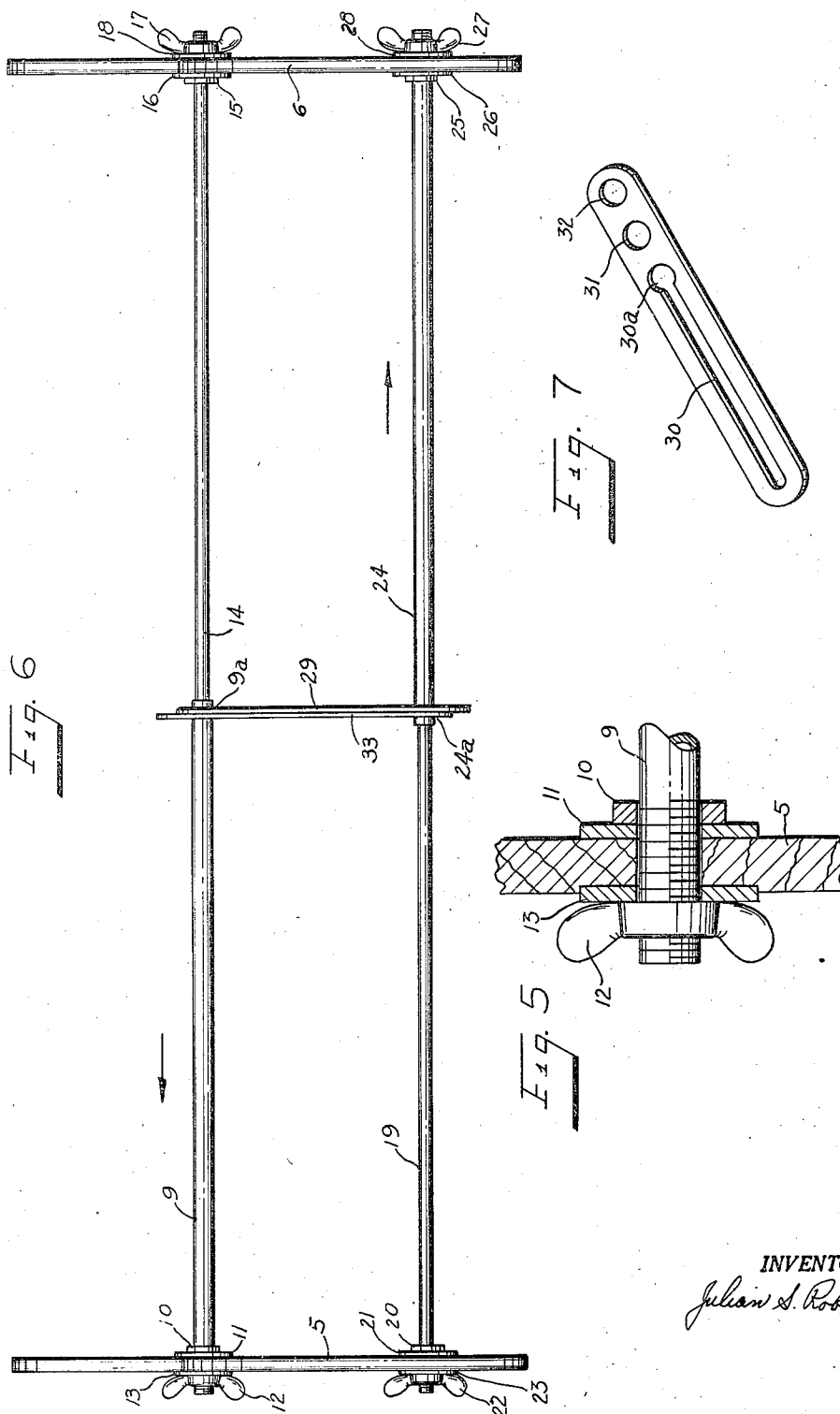
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2 Sheets-Sheet 2



UNITED STATES PATENT OFFICE

2,431,423

ADJUSTABLE SHOE RACK

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Application March 27, 1946, Serial No. 657,447

3 Claims. (Cl. 211—37)

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This invention relates to an improved shoe rack and one of its objects is to provide a shoe rack which may be longitudinally adjusted to increase or reduce its capacity, and laterally adjusted to adapt it for holding children's, ladies' and men's shoes.

Another object of the invention is the provision of a shoe rack comprising end supporting frames and telescoping tubes, so arranged that the tubes may be extended upon each other by shifting the end supporting frames outwardly, or collapsed upon each other by shifting the end frames inwardly, and may be shifted laterally upon the end frames, to vary the spacing between the sides of the telescoping tubes.

A further object of the invention is the provision of a shoe rack comprising a pair of telescoping tubes providing extension shoe rack bars, sliding connections on the bars arranged to provide intermediate supports for the bars and their load, and connections between the ends of the bars and supporting end frames, by means of which the bars may be adjusted endwise by shifting the end frames inwardly or outwardly of each other.

With the above and other objects in view, the invention comprises certain new and useful constructions, combinations, and arrangements of parts, clearly described in the following specification, and fully illustrated in the drawings, in which:

Fig. 1 is a front elevation, showing the telescopic tubes in their collapsed position, to provide minimum shoe holding capacity for the shoe rack.

Fig. 2 is an end elevation of one of the end supporting frames.

Fig. 3 is a sectional view, taken on line 3—3 of Fig. 1, looking in the direction of the arrows.

Fig. 4 is a detail sectional view, taken on line 4—4 of Fig. 1, looking in the direction of the arrows.

Fig. 5 is a detail sectional view, taken on line 5—5 of Fig. 2, looking in the direction of the arrows.

Fig. 6 is a front elevation showing the telescopic tubular bars extended.

Fig. 7 is a detail perspective view of one of the sliding stops.

Referring to the accompanying drawings, which illustrate the practical embodiment of the invention, 5 designates an end frame for one end of the shoe rack, and 6 a companion end frame for the other end of the shoe rack. The frames 5 and 6 may be constructed of metal, wood, plastic, or

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composition, and are preferably made decorative, with sloping upper edges 5a and 6a. The end frame 5 is formed with a slot 7 which is disposed at an inclination of the horizontal bottom edge of the support. The end support 6 is also formed with an inclined slot 8.

A large diameter tube 9 is fitted through the slot 7 of the end support 5, and clamped in place by means of the lock nut 10, threaded on the tube against the washer 11, and by the wing nut 12, threaded on the tube against the washer 13. The washer 11 engages the inner side of the end support and the washer 13 engages the outer side of the end support, and by tightening the wing nut 12 the end support 5 will be clamped against the lock nut 10 and washer 11. The tube 9 is located near one end of the slot 7, and the opposite end of the tube 9 telescopes over a small diameter tube 14. This tube 14 is clamped in the slot 8 of the end support 6 by the lock nut 15, washer 16, wing nut 17 and washer 18. Once made these connections remain fixed.

A small diameter tube or rod 19 slides in the tube 24, and the outer end of this small diameter tube is clamped in the slot 7 of the end support 5, by means of the lock nut 20, washer 21, wing nut 22 and washer 23. A large diameter or outside tube 24 telescopes on the inner or small diameter tube 19, and its outer end is clamped in the slot 8 of the end frame 6, by means of the lock nut 25, washer 26, wing nut 27 and washer 28.

From this it will be seen that one outside tube and one inside tube is clamped positively to the end supporting frame 5, and one outside tube and one inside tube is clamped positively to the end supporting frame 6, to provide two tubular telescopic shoe supporting bars.

The inner end of the outside tube 9 is provided with a circumscribing slot or groove 9a, which is engaged by the stop link bar 29. This bar is constructed as is shown in Fig. 7, with a longitudinal slot 30, having parallel sides, but provided with a circular enlargement 30a at one end only, which is large enough to freely receive the end of the outside tube 9. By sliding this tube along the groove 9a the link bar 29 will be effectively interlocked to this bar. This link bar is formed with circular holes or openings 31 and 32, which are spaced longitudinally from the enlarged end portion 30a of the slot 30.

The inner end of the outside tube 24 is also provided with a circumscribing groove 24a, which is engaged by the link bar 33, which is of identical construction to that shown in Fig. 3. The

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assembly is also identical. The bar 33 is also provided with end holes similarly arranged.

The link bar 29 is locked to the outside tube 9, but freely slides on the outside tube 24, while the link bar 33 is locked to the outside tube 24 and freely slides on the outside tube 9.

When the twin telescopic tubular bars are fully collapsed or telescoped on each other, the end link 29 will occupy a position close to the end frame 6, and the link 33 will occupy a position close to the end frame 5. When the tubular bars are extended outwardly to the limit of their travel on each other, the link bar 29 will engage the side of the link bar 33, thereby limiting further relative movement.

When the shoe rack is adjusted for holding children's shoes, the large diameter tubes will engage the ends of the longitudinal slots of the link bars 29 and 33, as indicated in Fig. 3. When the rack is adapted for supporting ladies' shoes the outside tube 24 will be placed in engagement with the holes 31 of the link bars 29 and 33. When the rack is adapted for supporting men's shoes the outside tube 24 will be placed in engagement with the holes 32 of the link bars 29 and 33. At the same time the position of the outside tube 24 in the slot of its end frame 6, and the position of the inside tube 14 will be adjusted in the slot of the end frame 5.

The link bars 29 and 33 are elongated so that they provide intermediate supports for the tubular rack bars and any shoes placed thereon.

It is apparent that I have provided a shoe rack which can be adapted for supporting the shoes of men or women or of children, and which may be extended and contracted, without the use of any tools.

It is understood that various changes in the details of construction, their combination and arrangement may be made, within the scope of the invention, as defined by the claims hereof.

Having described the invention, I claim as new and patentable:

1. A shoe rack comprising end supporting frames; an outside tube and an inside tube

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clamped to each end frame in parallel relation to each other, the inside tube of each end frame telescoping in the outside tube of the other end frame, and a stop carried by the inner end of each outside tube and slidable on the other outside tube and arranged to limit the extension of the telescoping tubes with respect to each other.

2. A shoe rack comprising end supporting frames having inclined slots, an outside tube and an inside tube clamped in the slot of each end frame for adjustment and in parallel relation to each other, the inside tube of each end frame sliding in the outside tube of the other end frame, and a link bar having interlocking connection with the inner end of each outside tube and arranged to slide on the other outside tube, said link bars being adapted to have side engagement with each other to limit the extension of the telescoping tubes with respect to each other.

3. The construction set forth in claim 2, each link bar having a longitudinal slot provided with an enlargement at one end thereof and holes spaced outwardly of said enlargement, and the inner end of each outside tube having a circum-scribing groove which interlocks with the side edges of said slot.

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