

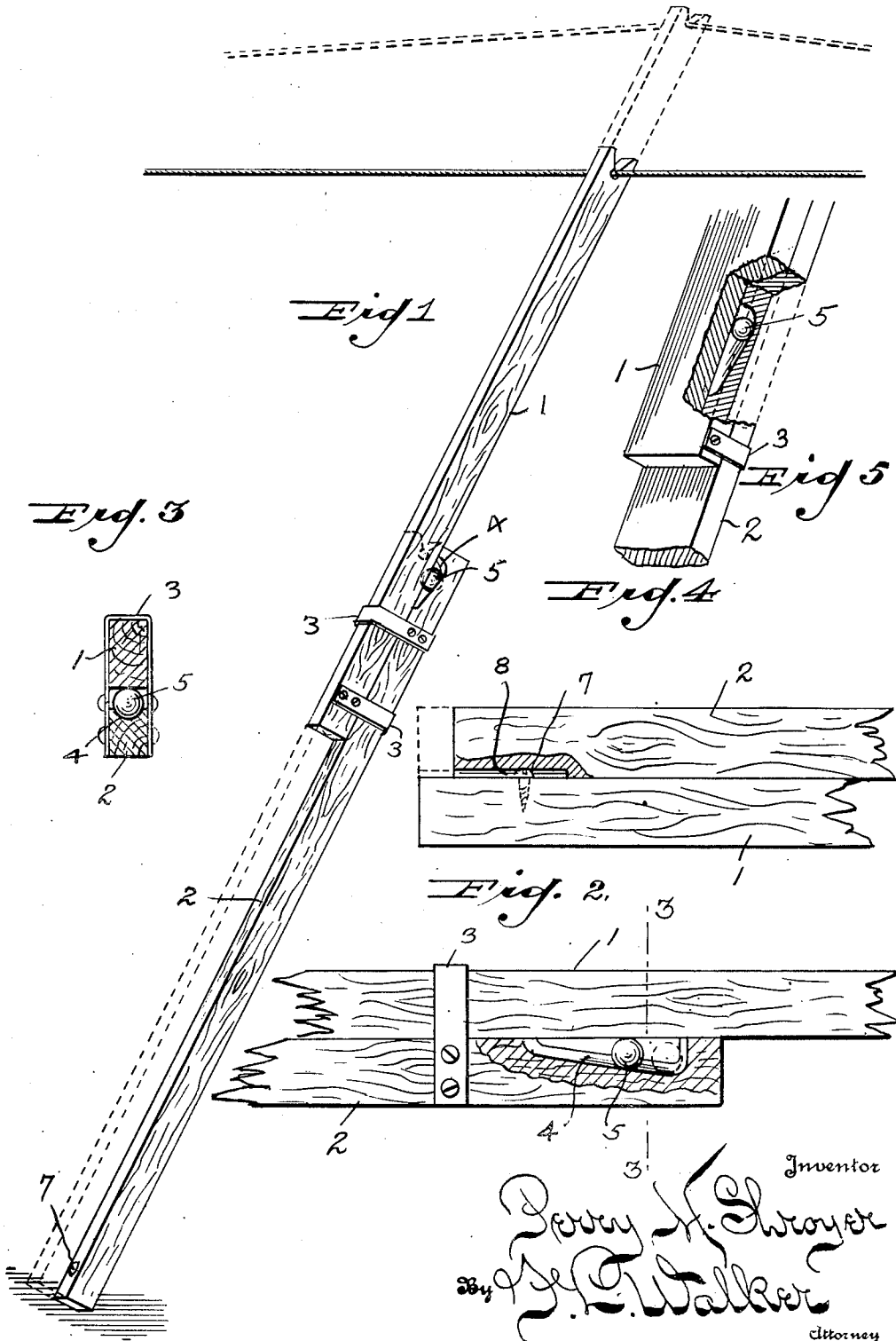
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ADJUSTABLE CLOTHESLINE PROP

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## UNITED STATES PATENT OFFICE

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## ADJUSTABLE CLOTHESLINE PROP

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My invention relates to supports and struts and more particularly to an adjustable strut for use as a clothesline prop or for analogous purposes.

5 In the present invention there is contemplated a strut or prop comprising relatively reciprocatory sections slidably mounted, one upon the other, and provided with an automatic clutch means which permits the free  
10 adjustment of the sections longitudinally into extended relation but which will automatically lock the sections against retractive movement.

The object of the invention is to simplify  
15 the structure as well as the means and mode of operation of such devices, whereby they will not only be cheapened in construction, but will be more efficient in use, capable of being adjusted to different extent, adapted  
20 to be automatically locked against retraction, of strong and durable construction and unlikely to get out of order.

A further object of the invention is to provide an improved form of automatic clutch  
25 or locking device for the relatively sliding members operative in one direction.

A further object of the invention is to provide a cheap but simple form of strut or prop capable of being easily and quickly extended.

30 With the above primary and other incidental objects in view, as will more fully appear in the specification, the invention consists of the features of construction, the parts and combinations thereof and the mode of operation or their equivalents as hereinafter described and set forth in the claims.

Referring to the accompanying drawings wherein is shown the preferred but obviously not necessarily the only form of embodiment  
40 of the invention, Fig. 1 is a perspective view of an adjustable clothesline prop embodying the present invention.

Fig. 2 is a side elevation partly in section of a portion of the relatively adjustable sections illustrating the automatic interlocking  
45 clutch.

Fig. 3 is a transverse sectional view on line 3—3 of Fig. 2.

50 Fig. 4 is a side elevation partly in section of the adjustable members illustrating the

stop for limiting their adjustment in one direction.

Fig. 5 is a detail sectional view of a modification.

Like parts are indicated by similar characters of reference throughout the several  
55 views.

While the present invention is herein shown and described in its application as a clothesline prop, it is to be understood that  
60 it is not limited to such use but by thrusting one end into the ground, it may be employed as an adjustable strut or standard for securing growing plants, or it may be employed as an adjustable brace in building construction or the like. As illustrated in the  
65 drawing, the adjustable strut or clothesline prop comprises two longitudinally adjustable bars 1 and 2 slidably connected with each other by means of keeper loops 3. Each  
70 bar 1 and 2 carries one of the keeper loops 3 which encloses the complementary bar. One of the relatively adjustable bars is provided, adjacent to one end thereof, with an inclined groove 4 located in the face of the bar con-  
75 tiguous to the complementary bar. Located within this inclined groove and confined by the overlapping portion of the companion bar is a ball 5 which may be a steel bearing ball of suitable size or in practice a glass  
80 marble has been found quite satisfactory. As the strut or top is extended by an upward sliding movement of the bar 1 of the drawing, the frictional contact with the ball 5 tends to carry such ball toward the deeper  
85 portion of the inclined groove 4 and the adjustment is quite freely effected. However, upon a retrograde movement of the bar 1, the engagement of the locking ball 5 with the adjacent face of the bar 1 tends to carry the  
90 ball into the more shallow portion of the inclined groove thereby causing the ball to wedge between the inclined surface of one bar and the adjacent face of the complementary bar. This locking engagement is  
95 further facilitated by gravity since the converging end of the inclined groove 4 is positioned downwardly. Thus the tendency is for the ball 5 to roll toward such contracted end of the groove by gravity. To unlock the  
100

engaged bars, it is only necessary to advance one bar relative to the other a slight degree sufficient to loosen the ball, whereupon it may be moved with the finger into the deeper portion of the groove or the device may be turned to a reverse inclined position, thus allowing the locking ball to move into the deeper portion of the groove by gravity, whereupon the bars 1 and 2 may be freely retracted into overlapping relation.

To limit such retractive movement and to prevent the withdrawal of the bar 1 sufficiently to permit the escape of the locking ball 5 from its inclined groove 4, one of the reciprocatory members is provided with a stop screw 7, while the other member is provided with a registering groove 8 in its contiguous face whereby the bar is permitted to ride over the stop member 7 for a limited distance until the stop member 7 engages the inner end of such groove 8. The movement of the bars in the opposite direction is limited by the interengagement of the keeper loops 3, one with the other.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute the invention has been described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific details shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect and the invention is, therefore, claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described my invention, I claim:

1. In a clothes line prop or the like, two bars arranged in parallel contacting relation, keeper bands carried by each bar and enclosing the other for relative longitudinal sliding motion, one of the bars having an inclined notch in its face contiguous to the other bar the inclined surface of such notch being longitudinally grooved, and a ball having rolling movement in the inclined groove into and out of wedging engagement with the other of said bars, said ball being accessible through the open sides of the notch above the groove for disengagement from its wedging position said ball acting to lock the bars against retractive movement but permitting the extension by relative longitudinal sliding adjustment.

2. In an adjustable support of the charac-

ter described, two relatively reciprocatory sections slidably connected with each other, one of the sections having a longitudinally disposed inclined notch in its contiguous face, and a movable locking body confined within said notch and wholly within the space between the lateral faces of the notched section whereby no portion of said movable locking member projects beyond the face thereof, said movable locking member being accessible through the open sides of the notch for manual manipulation and movable by gravity into wedging contact with the other section upon relative movement of the sections in one direction to lock said sections against further relative adjustment in the same direction, said sections being freely movable in the opposite direction.

3. In a device of the character described, two bars interengaged for longitudinal sliding motion relative to each other, one of the bars having a longitudinally disposed inclined notch in its face abutting the other bar the inclined face of such notch being longitudinally grooved, and a ball rolling in said groove into and out of wedging engagement between the bars to lock the bars against longitudinal movement in one direction, said ball being confined wholly between the lateral faces of the bar and accessible through the open sides of the notch above the groove for disengagement from its wedging position.

4. In a device of the character described, two bars interengaged for longitudinal sliding motion relative to each other, clutch means interlocking the bars against relative movement in one direction but permitting relative movement in the opposite direction, and stop means positioned upon the adjacent faces of the respective bars and each overlapped by the opposite bar when retracted, said stop means interengaging to limit the relative retraction of the bars when the ends of the respective bars are substantially in registry.

5. In a device of the character described, two bars interengaged for longitudinal sliding motion relative to each other, clutch means interlocking the bars against relative movement in one direction but permitting relative movement in the opposite direction, a stop carried by one bar adjacent its end in the face thereof contiguous to the other bar, the other bar having in its contiguous face a longitudinal groove registering with the stop and over-riding the stop, said stop being engageable with the end of the longitudinal groove to limit the relative movement of the bars in one direction.

In testimony whereof, I have hereunto set my hand this 17th day of Sept. A. D. 1929.

PERRY H. SHROYER.