April 20, 1948. D. J. LIPSKI 2,439,854

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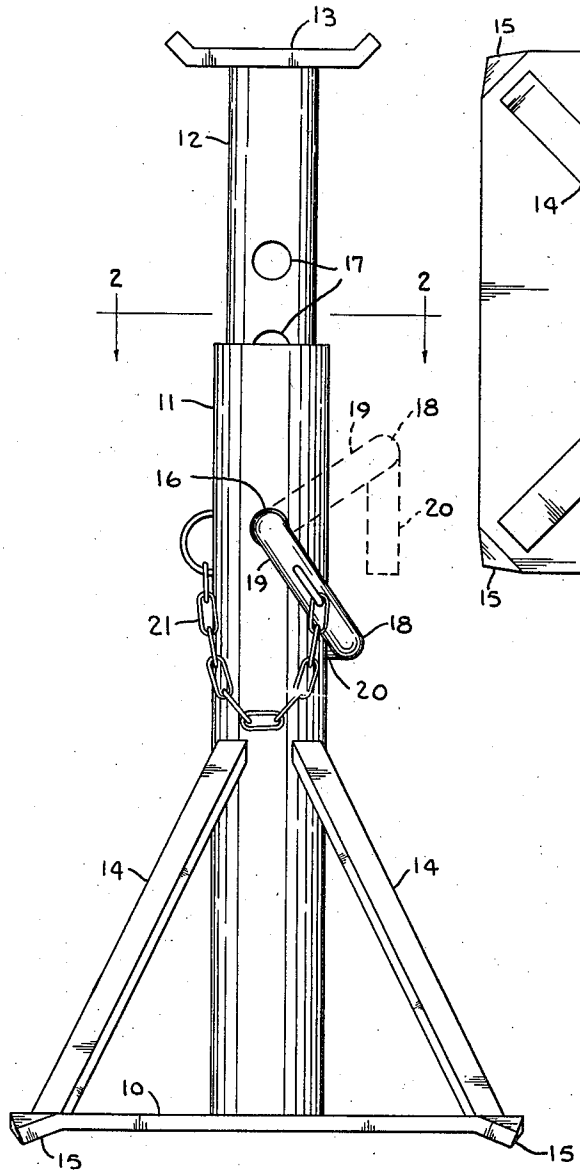


FIG. 1

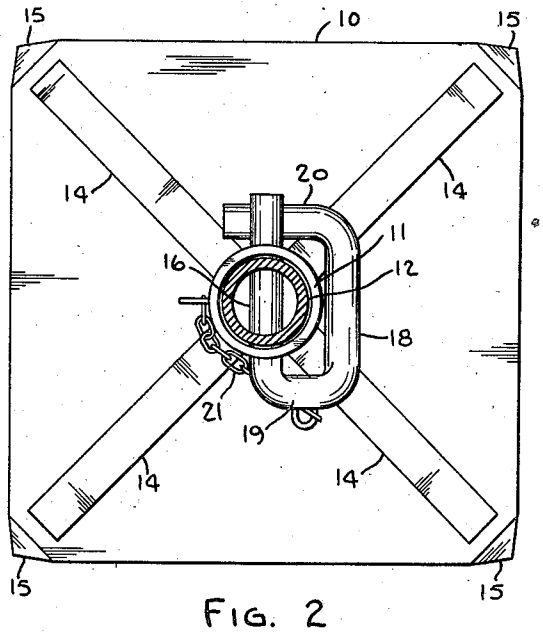


FIG. 2

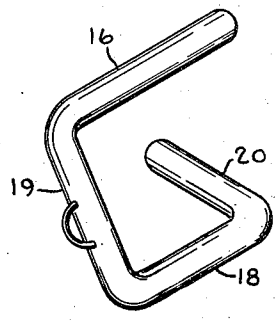


FIG. 3

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3 Claims. (Cl. 248—352)

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This invention relates to adjustable supports for motor vehicles and the like.

One object of the present invention is to provide a vertically adjustable support having a self-locking pin for securely retaining the same in any selected position of adjustment.

Other more specific objects and advantages will appear, expressed or implied, from the following description of an illustrative embodiment of this invention.

In the accompanying drawing:

Figure 1 is a view in elevation of a support constructed in accordance with the present invention.

Fig. 2 is a horizontal sectional view taken along the line 2—2 of Fig. 1.

Fig. 3 is a perspective view of the locking pin shown in the other views.

The support selected for illustration comprises a telescopic standard mounted on a suitable base 10. In this instance the standard includes a tubular portion 11 welded or otherwise fixed to the base plate 10 and a cooperating plunger 12 guided for free lengthwise adjustment in the tubular portion. A saddle 13 fixed to the upper end of the plunger 12 provides a convenient seat for the vehicle or other part to be supported thereby.

The standard is rigidly sustained in upright position by suitable braces 14 welded thereto and to the base plate 10. The several corners of the base plate 10 are preferably bent downwardly, as at 15, to provide a secure non-skid engagement with the surface on which it rests.

The plunger 12 is releasably retained in various positions of vertical adjustment in the tubular portion 11 by a pin 16 adapted to extend through the tubular portion and through any of the longitudinal series of transverse holes 17 in the plunger 12, suitable means being provided for automatically locking the pin 16 against accidental displacement. A simple and effective means for this purpose will now be described.

In this instance the pin 16 is shown equipped with an offset angular formation 18 adapted to swing by gravity into a position where it at least partially embraces the standard 11 when the pin 16 has been projected through the standard 11. The formation 18 includes at one end a supporting arm 19, which extends laterally from one end of the pin 16, and also includes at its other end an angularly disposed finger 20 permanently offset laterally from the other end of the pin 16. This formation 18 is preferably formed integral with the pin 16 and swingable about the axis of the pin.

The arrangement is such that with the formation 18 swung into the dotted line position shown in Fig. 1, with the locking finger 20 elevated to clear the standard 11, the pin 16 may be readily

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inserted and projected through the standard and plunger 12 to position the latter therein. Thereafter, the formation 18 may swing by gravity into the full line position shown, thereby causing the finger 20 to automatically assume a position behind the standard 11 where it coacts with the standard to prevent accidental withdrawal of the pin. It will also be noted that, since the formation 18 and pin 20 cannot assume this lower locking position unless and until the pin 16 has been projected completely through the standard 11, it serves as a visual check by which accidental partial entry of the pin may be avoided.

In order to avoid loss the pin 16 is preferably permanently connected to the support by suitable means such as a chain 21.

Various changes may be made in the support hereinabove specifically described without departing from or sacrificing the advantages of the invention as defined in the appended claims.

I claim:

1. A locking pin for supports of a type having a vertically adjustable telescopic standard, said pin having a body portion projectable through the standard to secure the same in various positions of adjustment, and a gravity urged angular formation carried by said pin and swingable about the axis of the latter into interlocking relation with the standard to retain said pin against accidental withdrawal.

2. A locking pin for supports of a type having a vertically adjustable telescopic standard, said pin having a body portion projectable through the standard to secure the same in various positions of adjustment, and an angular formation for embracing the standard to retain said pin against accidental withdrawl, said formation being connected to one end of said pin and terminating in a finger extending transversely of said pin and laterally spaced from the other end of said pin.

3. A locking pin for supports of a type having a vertically adjustable telescopic standard, said pin having a body portion projectable through the standard to secure the same in various positions of adjustment, and a pin retainer structure rigidly connected to one end of said pin and swingable by gravity into pin retaining position, said structure terminating in a finger disposed cross-wise of said pin spaced from but adjacent the opposite end of said pin.

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REFERENCES CITED

The following references are of record in the file of this patent:

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