Jan. 2, 1951 A. R. BEECHER ET AL 2,536,253

HOOD HOLDER

Filed April 23, 1948

Fig. 1

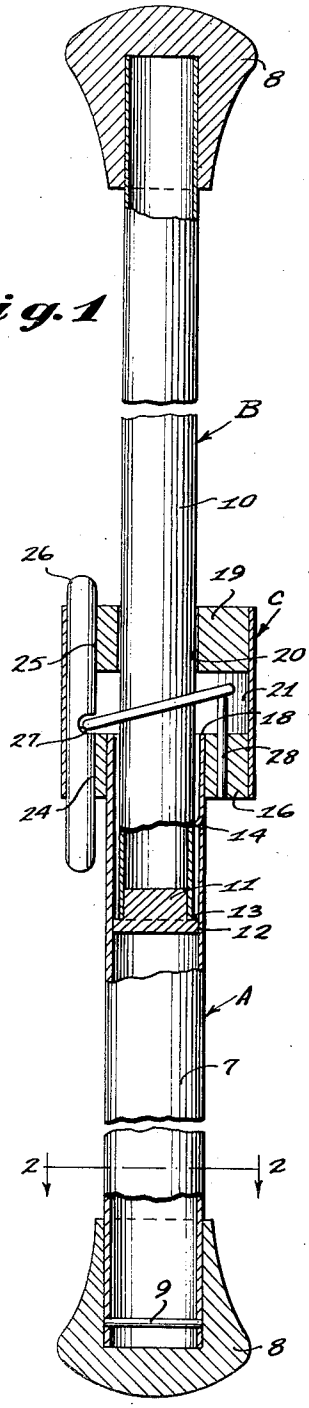


Fig. 2

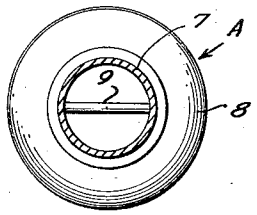


Fig. 3

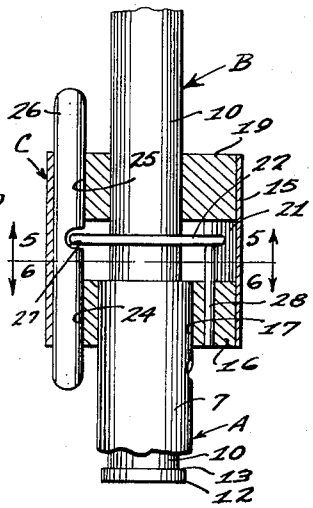


Fig. 4

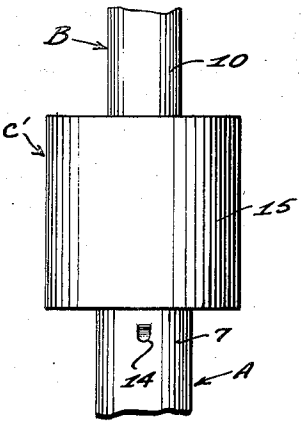


Fig. 5

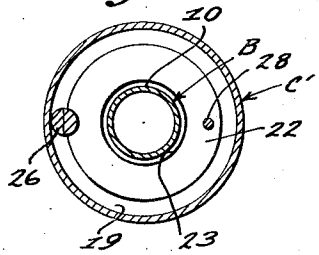
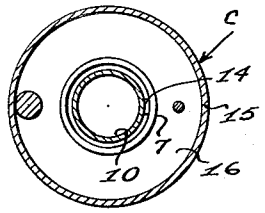


Fig. 6



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2,536,253

HOOD HOLDER

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Application April 23, 1948, Serial No. 22,774

3 Claims. (Cl. 248—351)

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This invention relates to an improved adjustable device for holding the hoods and doors of automobiles in open position, the primary object of the invention being to provide a more practical and efficient device of this kind which adjusts easily and quickly to different lengths and is securely locked in adjusted position.

Another important object of the invention is to provide a device of the above indicated character involving novel and unusually simple means for locking two telescoped components of the device against relative movement in either direction.

Another important object of the invention is to provide a device of the above indicated character which is devoid of projections and other formations which would interfere with the work of the mechanic or injure the automobile.

Another important object of the invention is to provide a device of the above indicated character which can be made in a commercially attractive and mechanically excellent form at relatively low cost.

Other important objects and advantageous features of the invention will be apparent from the following description and accompanying drawings, wherein, merely for purposes of illustration, a specific embodiment of the invention is set forth in detail.

In the drawing:

Figure 1 is a side elevation, partly in longitudinal section, showing the telescoped sections of the device locked in extended relation,

Figure 2 is a transverse section taken on the line 2—2 of Figure 1,

Figure 3 is a fragmentary view similar to Figure 1, but showing the locking means in released or unlocked position,

Figure 4 is a fragmentary side elevation of Figure 3,

Figures 5 and 6 are transverse sections, taken on the lines 5—5 and 6—6, respectively, of Figure 3.

Referring in detail to the drawings, the illustrated device comprises telescoped sections A and B and locking means C. The outer section A is in the form of a straight preferably metal tube 7 closed at its outward end by a rubber cap 8 providing harmless cushioned contact with automobile body parts. Near the cap 8 is fixed a cross pin 9 acting as a stop for the related end of the inner section B.

The inner section B is in the form of a straight preferably metal tube 10 of a diameter to telescope loosely into the tube 7 and is closed at its outward end by a cushion rubber cap 8. The in-

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ward end of the tube 10 is closed by a plug 11 having a head providing a lateral annular flange 12 having a sliding fit within the outer tube 7 and providing a stop shoulder 13 for engaging a limit stop 14 in the form of a tongue punched out of the outer tube 7 for limiting outward relative movement of the inner tube 10.

The locking means C comprises a preferably metal sleeve 15, substantially larger in diameter than the tubes 7 and 10, and having a bushing 16 in one end axially drilled at 17 for a pressed fit on the inward end of the outer tube 7, in which the inward end 18 of the tube 7 is preferably flush with the inward side of the bushing. A bushing 19 in the opposite end of the sleeve 15 is axially drilled at 20 for a sliding fit on the inner tube 10.

The bushings 16 and 19 are axially spaced to define a flat cylindrical chamber 21, in which a flat metal washer 22 is disposed in a generally axial position, with its central opening 23 concentrically spaced from the tube 10 while in inoperative position.

The bushings 16 and 19 have relatively small axially aligned bars 24, 25, respectively, next to the sleeve 15, slidably accommodating an endwise movable pin 26 formed intermediate its ends with a notch 27 into which the peripheral edge of the washer 22 is seated. A positioning pin or stud 28 projects longitudinally inwardly into the chamber 21 diametrically opposite the locking pin 26 against the adjacent side of the washer 22, the arrangement being such that in the intermediate position of the locking pin, shown in Figure 3, the notch 27 and positioning pin 28 hold the washer 22 at right angles to the tube 10, with the edges of the hole 23 in the washer out of binding relation to the tube 10, but in the shifted or locking position of the pin 26, shown in Figure 1, the washer 22 is tilted relative to the tube 10 and the edges of its openings 23 bite into or bind against the tube 10 and hold the tube 10 securely against being moved into the tube 7, thereby preventing collapse of the device in use from any extended position of adjustment.

It will be understood that the desired extension or length of the device is obtained by moving the sections A and B relative to each other while the locking pin 26 is in the neutral position shown in Figure 3, and that the sections are then locked in such adjusted position simply by moving the locking pin 26 to the locking position shown in Figure 1.

What is claimed is:

1. An extensible support comprising a standard, a shell larger in diameter than said stand-

ard and having axially spaced ends, one of said ends being formed with an opening slidably passing said standard, an annulus circumposed on said standard within said shell in the space between said shell ends and spaced from said shell ends, said annulus having a central hole larger in diameter than said standard through which said standard extends, a stationary projection on the other of the shell ends projecting toward said one shell end at one side of said standard, a manual actuating rod extending parallel to said standard at the side thereof opposite said projection, said actuating rod being slidably supported on said shell for endwise movement relative to said shell having ends projecting beyond the shell ends, and means providing operative connection between an intermediate part of said actuating rod and the adjacent edge of said annulus, said actuating rod being arranged to be manually moved to occupy a position in which said annulus is supported by and between said actuating rod and said projection at right angles to the axis of said standard wherein the edges of the hole of the annulus are in non-gripping relation to said standard, and to be manually moved endwise toward said other shell end to occupy another position in which said annulus is tilted on said projection toward said other shell end wherein the edges of the hole in the annulus are in gripping relation to said standard whereby axial movement of said standard relative to said shell is precluded.

2. An extensible support comprising a standard, a shell larger in diameter than said standard and having axially spaced ends, one of said ends being formed with an opening slidably passing said standard, an annulus circumposed on said standard within said shell in the space between said shell ends and spaced from said shell ends, said annulus having a central hole larger in diameter than said standard through which said standard extends, a stationary projection on the other of the shell ends projecting toward said one shell end at one side of said standard, a manual actuating rod extending parallel to said standard at the side thereof opposite said projection, said actuating rod being slidably supported on said shell for endwise movement relative to said shell having ends projecting beyond the shell ends, and means providing operative connection between an intermediate part of said actuating rod and the adjacent edge of said annulus, said actuating rod being arranged to be manually moved to occupy a position in which said annulus is supported by and between said actuating rod and said projection at right angles to the axis of said standard wherein the edges of the hole of the annulus are in non-gripping relation to said standard, and to be manually moved endwise toward said other shell end to occupy another position in which said annulus is tilted on said projection toward said other shell end wherein the edges of the hole in the annulus are in gripping relation to said standard

whereby axial movement of said standard relative to said shell is precluded, and means supporting said actuating rod for endwise movement relative to said shell comprising aligned openings formed in said shell ends through which said actuating rod is slidably positioned and with whose sides said rod is frictionally engageable to hold said rod in either of the said positions.

3. An extensible support comprising a locking collar comprising a shell having axially spaced ends, a pair of telescopically engaged standard sections smaller in diameter than said shell, one of said shell ends being formed with a central hole slidably passing the inner section, the other shell end being formed with a larger central opening receiving the inward end of the outer standard section with the inward end of the inner section extending through said larger opening into the inward end of the outer section, means anchoring the outer section to said shell, a projection on said other shell end at one side of said inner standard section and extending toward and in spaced relation to said one shell end, an annulus loosely arranged in said shell and circumposed on said inner standard section having a center opening larger in diameter than said inner standard section, one side of said annulus bearing upon said projection, a manually actuable rod supported on said shell at the side of said inner standard section opposite said projection for endwise movement relative thereto in a plane parallel to the axis of said inner standard section, and means intermediate the ends of said actuating rod operatively engaging the opposite side of said annulus whereby said annulus can be given a right angular relation to said inner standard section wherein the edges of the center opening of the annulus fail to grip said inner standard section, and said annulus can be given an acute angular relation to said inner standard section wherein the edges of the center opening of the annulus grip said inner standard section and preclude axial movement of said inner standard section relative to said shell and said outer standard section.

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