Nov. 17, 1953 L. W. BOONE 2,659,091

COMMODE TOP COVER HOLDER

Filed Feb. 17, 1950 3 Sheets-Sheet 1

Fig. 1

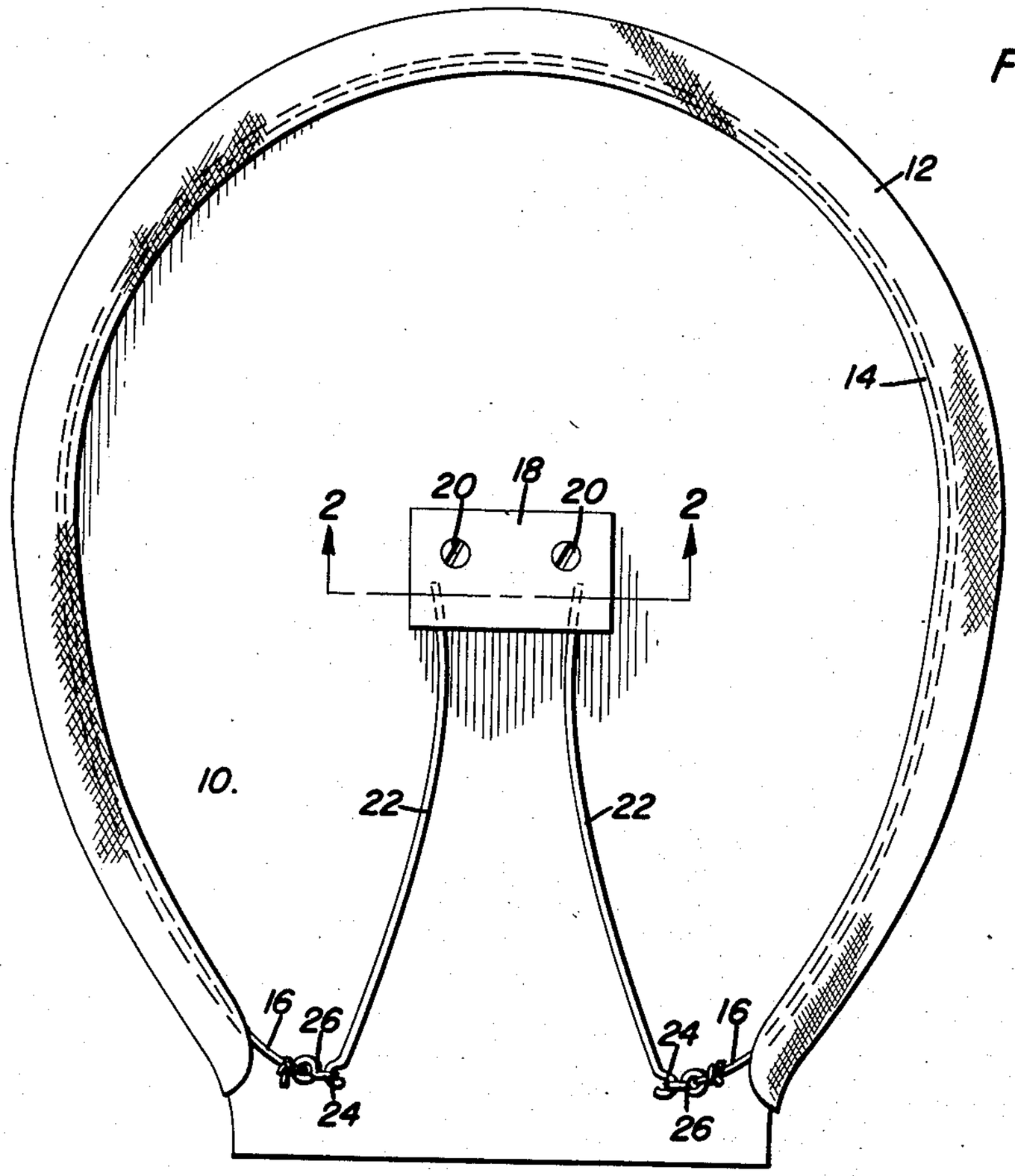


Fig. 3

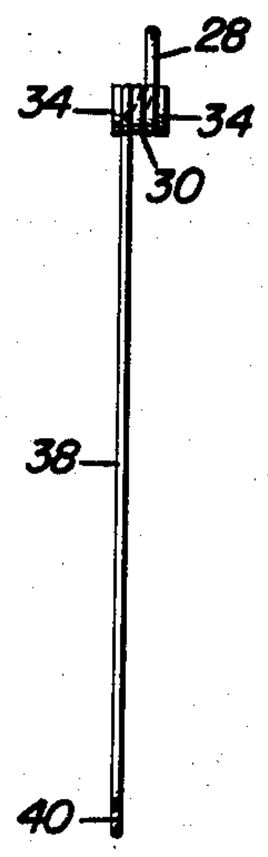


Fig. 2

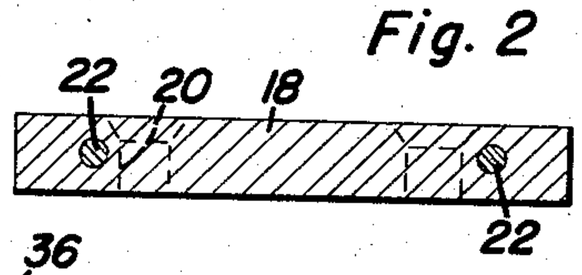


Fig. 4

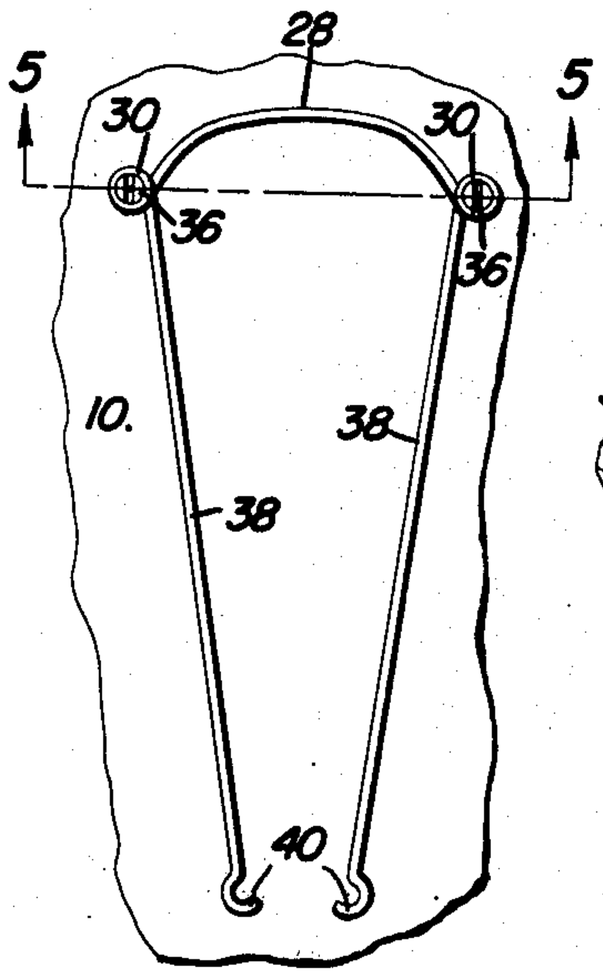
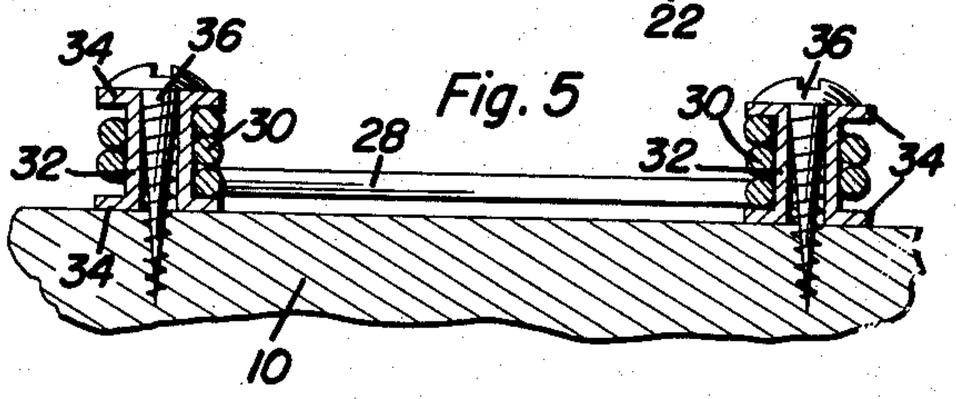


Fig. 5



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2,659,091

COMMODE TOP COVER HOLDER

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Fig. 6

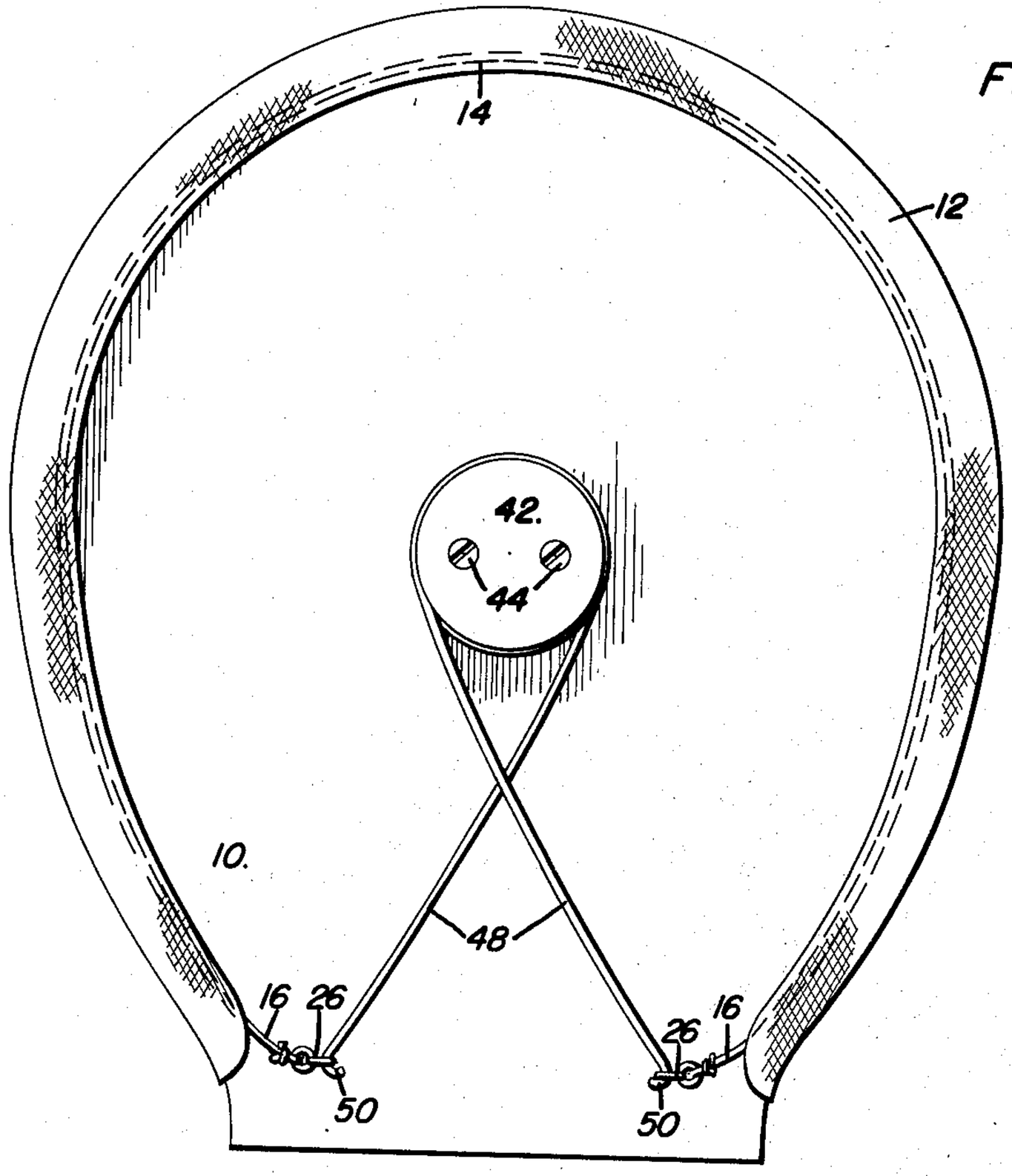
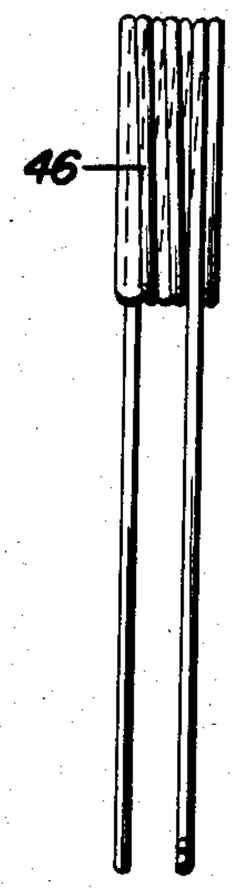


Fig. 7



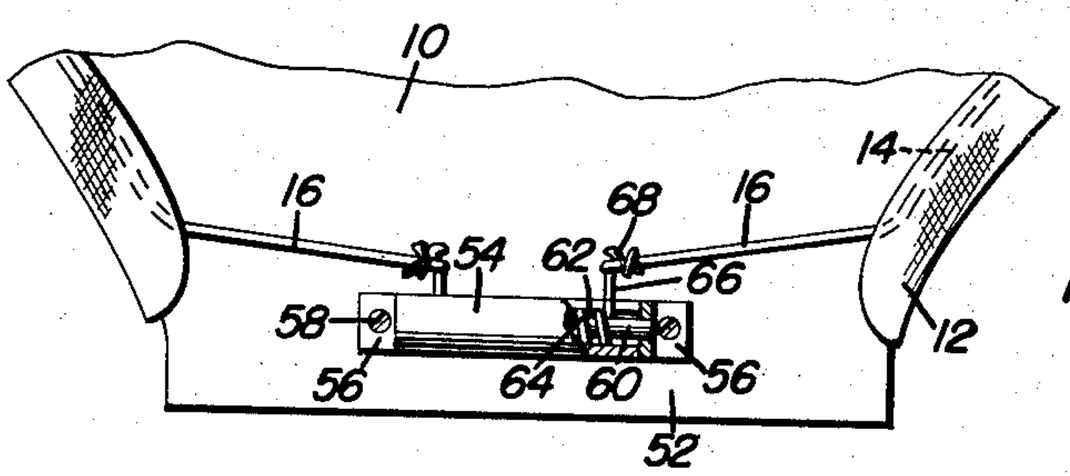


Fig. 8

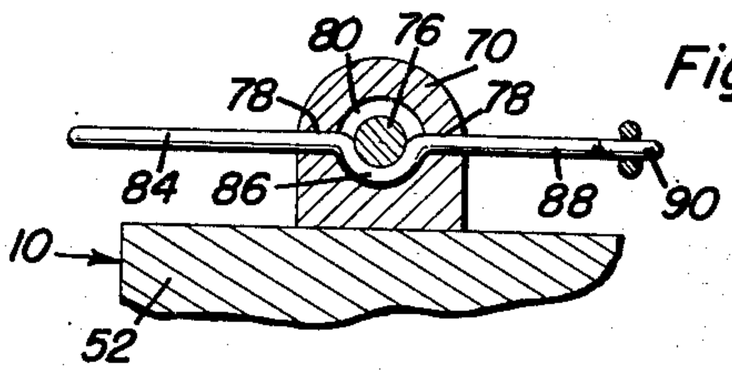


Fig. 10

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Fig. 9

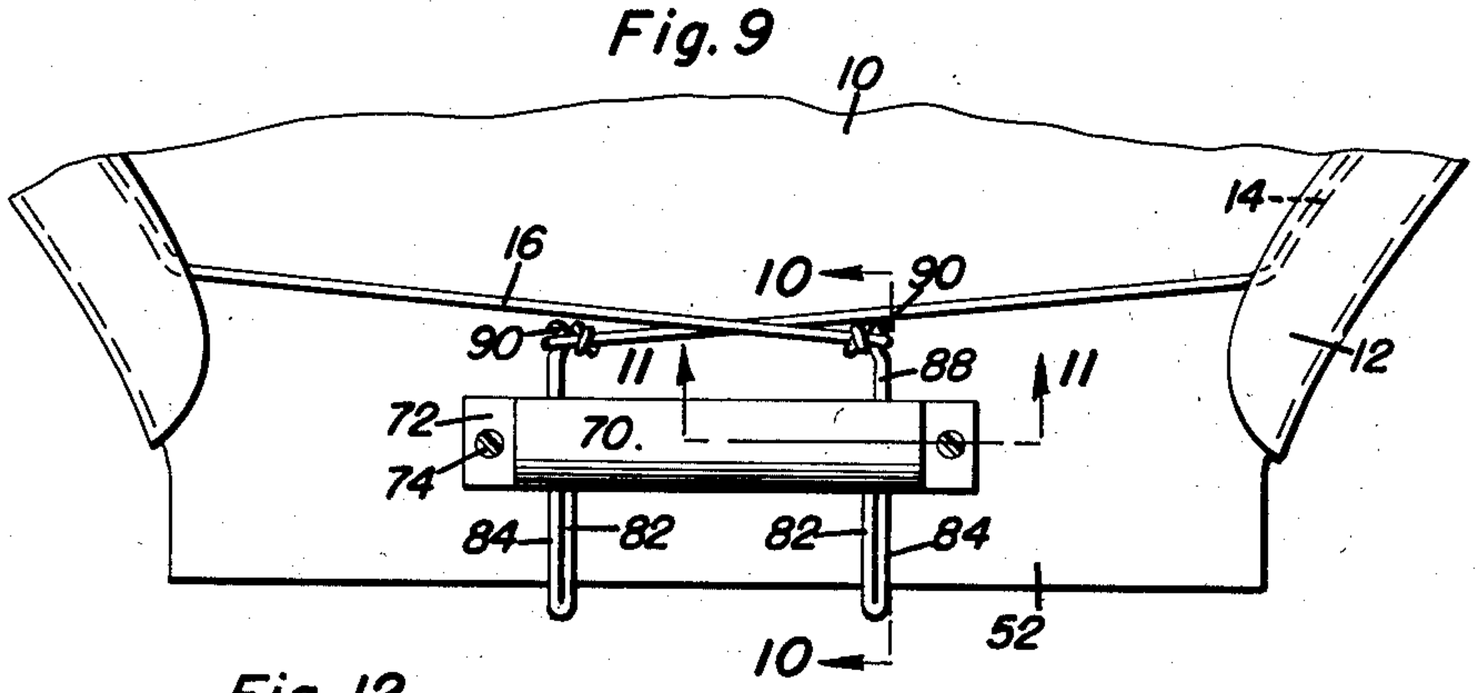


Fig. 12

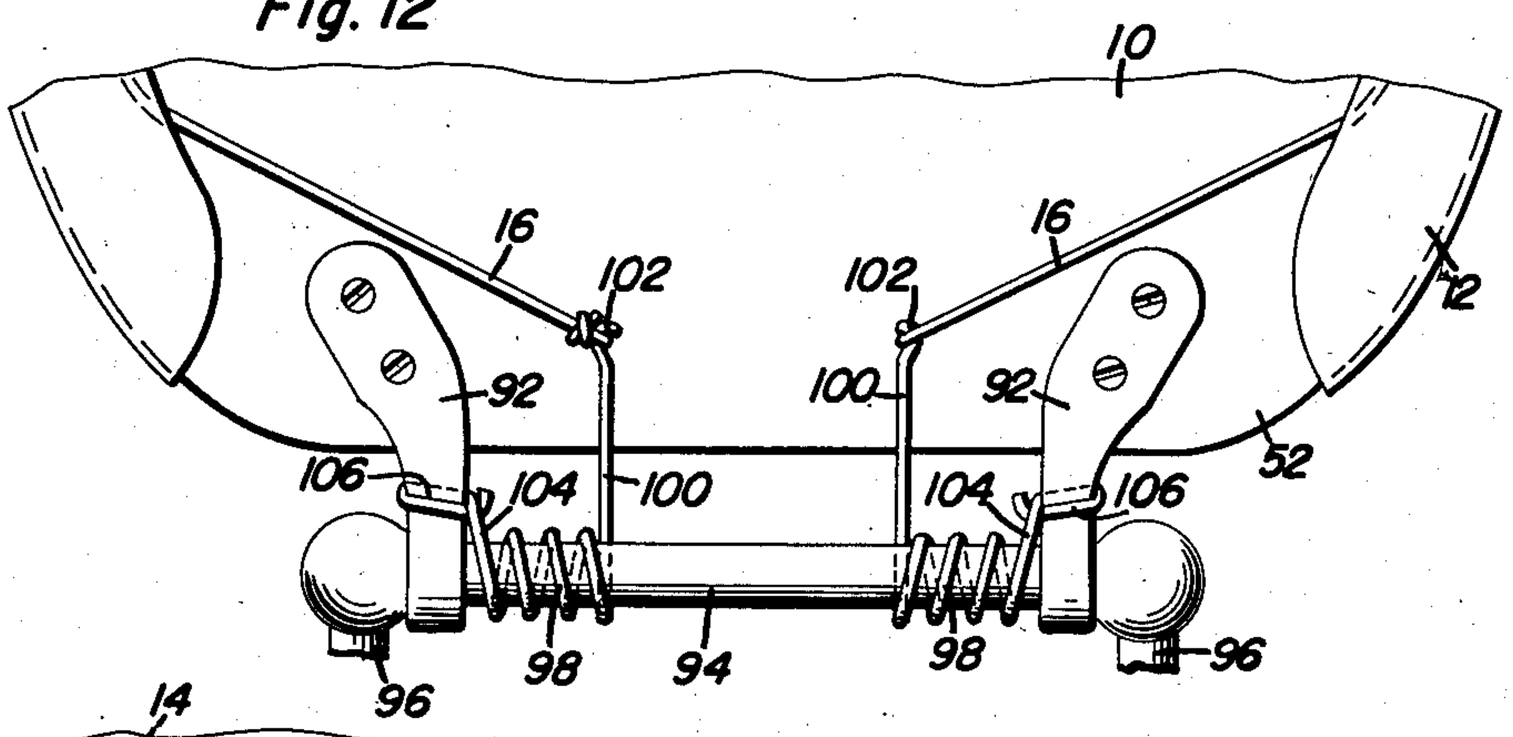


Fig. 13

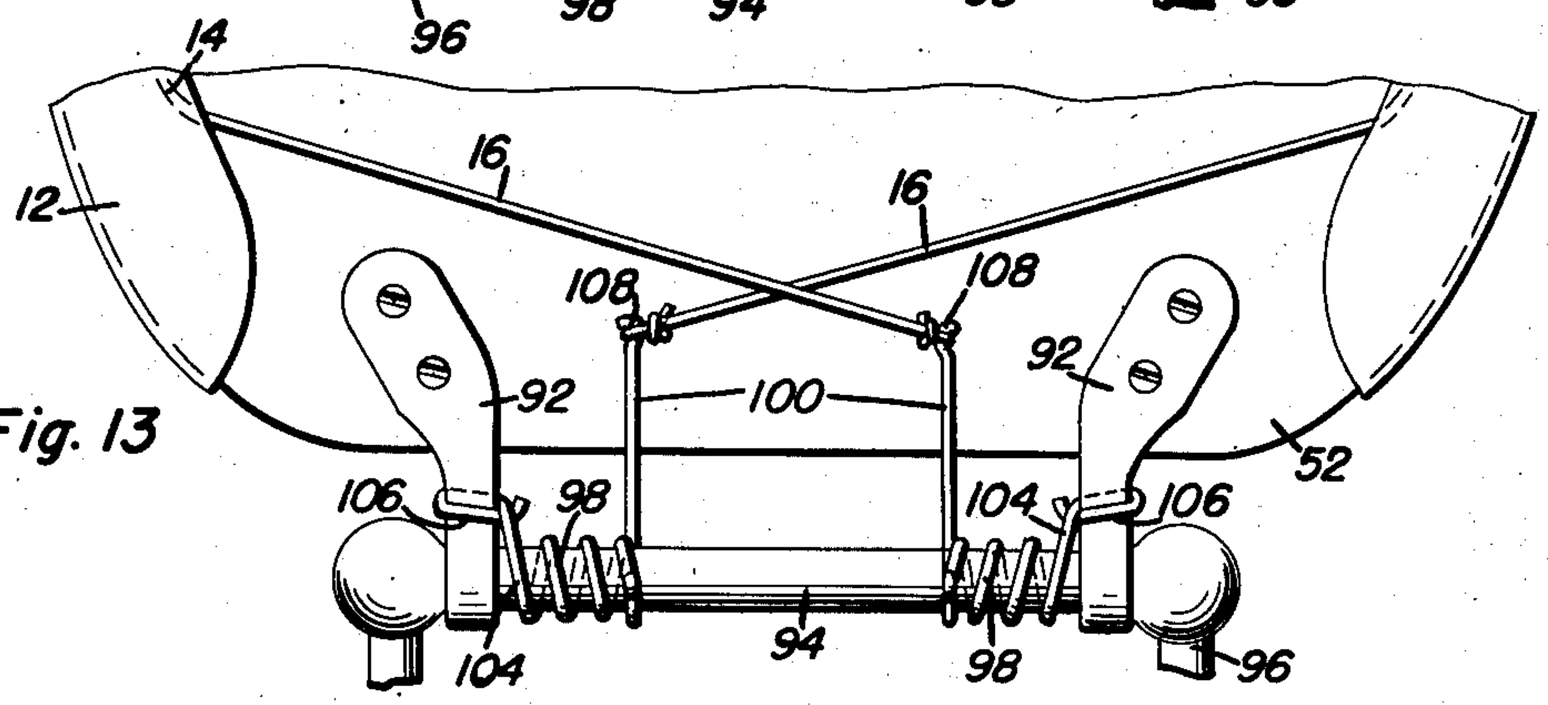
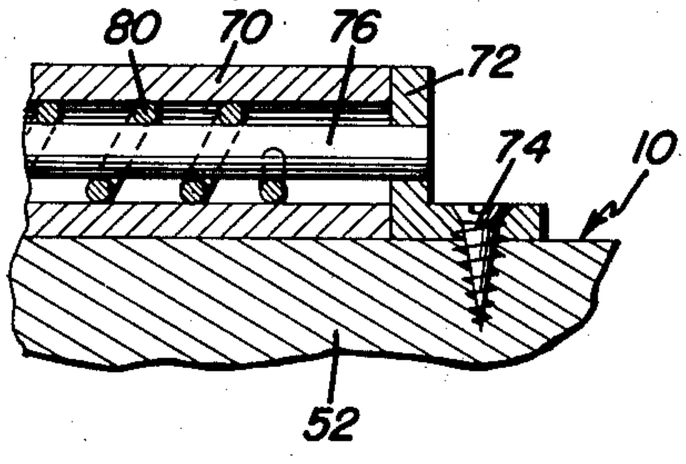


Fig. 11



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Patented Nov. 17, 1953

2,659,091

UNITED STATES PATENT OFFICE

2,659,091

COMMODE TOP COVER HOLDER

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Application March 17, 1950, Serial No. 150,254

4 Claims. (Cl. 4—242)

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This invention comprises novel and useful improvements in a commode top cover holder and more specifically pertains to a novel and improved device for attachment to a commode cover for resiliently and detachably tensioning and securing a commode top cover thereto.

The primary object of this invention is to provide a holding device by means of which conventional commode top covers may be releasably and resiliently held in a taut position and manner upon a commode top.

A further object of the invention is to provide a holder of the character set forth hereinbefore, which may be readily attached to or removed from conventional commode top covers, and which may be readily attached to or disconnected from the flexible rim or string by means of which commode top covers may be detachably secured in place.

These, together with various ancillary features and objects of the invention, which will later become apparent as the following description proceeds, are attained by the present invention, preferred embodiments of which have been illustrated, by way of example only, in the accompanying drawings wherein:

Figure 1 is a bottom plan view of a conventional form of commode top having a commode top covering secured thereto and showing a first embodiment of the invention applied thereto and associated therewith;

Figure 2 is a vertical transverse sectional detail view through the mounting means of the device, the same being taken substantially upon the plane indicated by the section line 2—2 of Figure 1;

Figure 3 is a side elevational view of a modified construction of spring device forming a second embodiment of the invention;

Figure 4 is a fragmentary bottom plan view showing the second embodiment of the invention applied to the under surface of a commode top;

Figure 5 is a vertical transverse sectional view taken substantially upon the plane indicated by the section line 5—5 of Figure 4 and illustrating the manner in which the second embodiment of the invention is secured to the commode top;

Figure 6 is a bottom plan view showing a third modification of the invention secured to the under surface of a commode top in accordance with this invention;

Figure 7 is a side elevational view of the spring device embodied in Figure 6;

Figure 8 is a fragmentary bottom plan view

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showing a fourth embodiment of the invention applied to the hinged extremity of the bottom side of a commode top for securing resiliently a commode top cover thereto in accordance with this invention;

Figure 9 is a view similar to Figure 8 but showing a fifth embodiment of the invention;

Figure 10 is a vertical transverse sectional view taken substantially upon the plane indicated by the section line 10—10 of Figure 9;

Figure 11 is a vertical longitudinal sectional view taken substantially upon the plane indicated by the section line 11—11 of Figure 9;

Figure 12 is a view similar to Figure 8 but showing a sixth embodiment of the invention operatively associated with a commode top hinge pin, and a commode top hinge arms for securing a commode top cover thereto; and

Figure 13 is a view similar to Figure 12 but showing a seventh embodiment of the invention.

Referring now more specifically to the accompanying drawings wherein like numerals designate similar parts throughout the various views, attention is directed first to Figures 1 and 2, wherein the numeral 10 designates a conventional form of commode top to which the present invention is to be applied. Indicated at 12 is a conventional form of commode top cover, which is adapted to cover the upper surface of the commode top and to have its marginal edge inturned under the lower surface, the same being provided with a bead or seam for the reception of a flexible rim 14, which may constitute a wire, a string, elastic, or the like, the same having ends 16 which are customarily tied or secured together in order to retain the cover upon the top. In accordance with the principles of the present invention, these ends 16 are secured to a spring device for resiliently tensioning the same in order to constrict the rim 12 of the cover and yieldingly but detachably secure the cover thereby to the top.

In the first embodiment of the invention shown in Figures 1 and 2, the spring device for effecting this purpose consists of a body 18 which may be of wood, rubber, plastic, or any other suitable material, this block being detachably secured as by screws 20 or the like, or in any other suitable manner, to the under surface of the commode top 10. Preferably, this block is disposed at a substantially mid-portion of the under surface of the top, as shown in Figure 1.

A pair of spring members, which, in this embodiment of the invention, may conveniently comprise a pair of resilient wires or metal strips

22, are disposed in substantially parallel relation and extending from one side of the body 18, in the direction of the hinged extremity of the cover 10, terminate in hooks 24 which are connected by links 26 to the above mentioned end 16 of the flexible rim 14. Conveniently, the links 26 may comprise a single piece of material folded upon itself in a figure 8 shape to provide a pair of eyes whereby the hooks 24 are swivelly connected to the end 16. The opposite extremities of the flexible spring members 22 extend into and are seated in suitable sockets in the body 18, and are preferably embedded or permanently anchored therein in any desired manner. The members 22 are inherently tensioned in such a direction that they are yieldingly urged toward each other, thereby drawing the two extremities 16 toward each other for tensioning the rim 14 and holding the cover 12 tautly upon the top 10.

When it is desired to change or replace the cover, it is merely necessary to disengage the members 26 from the hooks 24 and/or from the end 16 of the rim 14, in order that the cover may be removed and a new cover replaced.

Referring next to Figures 3–5, there is disclosed the second embodiment of this invention, which is likewise associated with the commode top, a portion of which is shown at 10 and the commode top cover 12, not shown, in this form of the drawings, but likewise being of the construction shown in Figure 1. In this embodiment, a second form of spring device is employed, which is mounted upon the commode top in substantially the same position, that is, at about the mid-point of its under surface, but in which a modified spring construction and spring mounting is provided. In this form of the invention, a single spring member is provided, the same having a central portion 28, which, at its extremities, is provided with a pair of helical coils 30 disposed in parallel in respect to each other and vertically or perpendicularly with respect to the under surface of the commode top 10. These helical coils encircle a metal tube or bushing 32 having flanged or headed extremities 34, and a fastening means such as a screw 36 or the like extends through the tubular member 32 for anchoring this spool and the helical coils 30 wound thereon to the under surface of the toilet cover 10.

The wire member forming the spring extends from the other extremity of the helical coils 30 and terminates in a pair of substantially parallel spring arms 38, each provided with a hooked extremity 40 which is adapted to be detachably secured as by the above mentioned swivel link 26 to the extremity 16 of a flexible rim 14 inserted in the seam or bead on the margin of the top cover as in the preceding embodiment.

In this embodiment, it will be seen that a single wire member is provided to form the entire spring assembly, and each of the spring arms is yieldingly urged by the convolutions of the helical coils 30 toward the other arm, to thereby resiliently tension or tighten the rim 14. It will be further noted that the metallic spools or bushings 32 serve to anchor the spring coils, and thereby the entire spring device, and further serve to retain the base member 28 in spaced relation to the under surface of the commode top. The operation of this form of the invention is substantially identical with that previously described in connection with the embodiment of Figures 1 and 2.

A third embodiment of the principles of the invention has been illustrated in Figures 6 and 7.

The same form of commode top previously described, and indicated at 10, is provided in this modification, and the same conventional form of commode top cover having the inturned marginal portion 12 provided with a bead or seam to receive the flexible rim 14.

Likewise, as in the preceding forms, the rim 14 has terminal portions 16 attached to the swivel connections 26 above described. In this embodiment, the spring device is likewise secured to the mid-portion of the under surface of the commode top 10. This device includes a mounting block 42 preferably in the form of a spool of any suitable material, this block being provided with a helical groove upon its cylindrical surface. The block, which may be of any desired and suitable material, is detachably secured as by fastening screws or the like 44 to the under surface of the commode cover 10. The spring device forming a part of this embodiment includes a helical coil 46, whose convolutions are wound about and disposed within the grooves upon the cylindrical surface of the block 42, as shown in Figure 7, this helical coil having its ends crossed, as shown in Figure 6, to provide a pair of arms 48, having hooked extremities 50. These extremities engage in the links 26, and the helical coil 46 serves to yieldingly bias or urge the arms 48 in a direction to draw their hooked portions 50 towards each other, thereby serving to tension the rim 14. The operation of this form of the invention is identical with that previously described.

The three embodiments of the invention previously described in connection with Figures 1 and 2, 3–5, 6 and 7 provide the mounting of the spring device at the mid-portion of the under surface of the commode top 10. However, the present invention contemplates the mounting of the spring device on the under surface of the top 10 but at the hinged end thereof, as shown in the two embodiments of Figures 8, 9–11.

In the embodiment illustrated in Figure 8, the commode top 10 is shown with the substantially straight edge of its hinge end 52. Any suitable hinge construction, such as that shown and described hereinafter in connection with Figures 12 and 13, may be employed, since the hinge construction in itself is of no consequence so far as the principles of the invention disclosed in the embodiments of Figures 8 and 9–11 are concerned, and it has been deemed unnecessary to illustrate the same. However, the conventional top 10 is likewise provided with the conventional cover having the inturned marginal portion 12 and the flexible rim 14 in the marginal bead thereof, this rim having end portions 16 all as above set forth. The rim ends 16 are engaged and tensioned to yieldingly retain the cover upon the top by the spring device illustrated in Figure 8. This spring device includes a casing 54 which is preferably a hollow, substantially tubular casing, the same being provided with terminal mounting brackets 56 which are detachably secured, as by screws 58, to the under surface of the commode top 10. Extending centrally and longitudinally of the casing 54, and secured to the terminal brackets 56 is a guide rod 60. Upon that side of the casing 54 which is opposite the hinged end 52 of the top 10 is provided a longitudinally extending slot or slots 62.

A helical coil tension spring 64 is slidably wound upon the rod 60 and has its extremities provided with laterally extending arms 66 which extend through and are slidably received in the

slot 62, these arms having hooked extremities 68 engageable with the ends 16.

In this modification, the tension of the helical spring yieldingly biases or urges the two arms 66 toward each other, while the slot or slots 62 guide the arms during this movement and permit the same.

This tensioning or biasing action of the spring serves to tighten the ends of the rim 14 and yieldingly and detachably secure the top cover upon the top in the same manner as set forth in connection with the preceding embodiments.

A somewhat similar arrangement to that of Figure 8 is disclosed in the fifth modification of the invention in Figures 8–11. The commode top 10, having the hinged extremity 52, as in Figure 8, is provided with a top cover having an inturned marginal portion 12 provided with a flexible rim 14 having extremities 16. The modified form of tensioning device disclosed in Figures 9–11 comprises a cylindrical or tubular housing 70, having integral or rigidly attached supporting brackets 72 at its extremities, suitable fasteners such as screws 74 serving to detachably secure the brackets and the casing 70 to the under surface of the commode top 10 at the hinged end 52 thereof. Extending longitudinally through the casing 70, and secured to the end bracket 72 as shown clearly in Figure 11 is an axially disposed rod 76, and extending longitudinally of the casing 70 and upon opposite sides of the same are a pair of slots 78. A helical compression spring 80 encircles the rod 76 within the hollow interior of the casing 70 and, as shown in Figure 9, has its opposite ends extended laterally through one of the slots 78, as at 82, this extending portion being folded back upon itself as at 84, being bowed as at 86 to encircle the rod 76 as shown in Figure 10, and then being extended in opposite directions and out of the opposite slot 78 to provide a laterally and oppositely extending arm 88 having a hooked extremity 90. The hooked ends 90 engage the ends 16 of the rim 14, and these ends 16 cross each other as shown in Figure 9. The compressive force of the helical spring 80 serves to urge the arms 88 with their hooked portions 90 away from each other and thereby tension the flexible rim. It will be noted that in this embodiment of the invention, the oppositely extending arm portions 82, 84 and 88 are slidable in and guided in the longitudinally extending slot 78; and that the arms 82, 84 constitute a pair of finger grip portions by means of which the spring may be compressed in order to release or disengage the connection of the hooks 90 with the rim extremity 16. The operation of this form of the invention is substantially identical with that previously set forth and described.

Disclosed in Figures 12 and 13 are sixth and seventh embodiments of this invention in which the spring devices are specifically adapted for mounting upon the conventional commode top hinge pin and hinge arms without the necessity for using screws or the like.

In the sixth embodiment, disclosed in Figure 12, the commode top 10, having the hinged extremity 52, is provided with hinge arms 92 of a conventional and known type, which are pivotally received upon a hinge pin 94 mounted by suitable supporting brackets 96 to a commode bowl, not shown, and in a manner well understood and conventional in the art. In this embodiment, the top cover is likewise provided with a marginal inturned portion 12 having a flexible rim 14 with ends 16. A pair of spring devices are provided

specifically adapted for securing the end 16 in a manner to yieldingly tension the same. Each of these spring devices includes a helical torsion coil spring 98 adapted to loosely encircle the hinge pin 94 adjacent one end thereof, each of these helical coils having one extremity, as at 100, providing a laterally extending arm having a hooked extremity 102 engageable with the rim end 16, while the other end of the coil extends laterally, as at 104, and is looped as at 106 to encircle the hinge arm 92.

It is evident that the springs disclosed in Figure 12 may be readily applied to a conventional commode top hinge pin and the hinge arm thereof, and when so applied the inherent torsional force of the coil 98 will cause the arm 100 to tend to rotate about the longitudinal axis of the hinge pin 92, and thereby tension the ends 16 of the rim 14, holding the cover 12 tautly upon the top 10.

A slight modification of the construction shown in Figure 12, constituting a seventh embodiment of the principles of the invention, has been illustrated in Figure 13 and is identical in every respect with that shown in Figure 13, except that the arms 100 have hooked extremities 108 which face in the opposite direction from the extremities 102 of Figure 12, that is, face oppositely from each other. The spring devices are mounted in the same manner set forth in connection with Figure 12, but as will be seen from Figure 13 the ends 16 of the rim 14 cross each other and are attached to the hooked portions 108. The operation of the springs is the same as set forth in respect to the modification of Figure 12, except that the anchorage of the springs to the rim ends is at a greater distance.

From the foregoing, the construction and operation of the device, together with its many advantages, will be readily apparent and further explanation is believed to be unnecessary. However, since numerous modifications and changes will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not desired to limit the invention to the exact construction shown and described, but all suitable modifications and equivalents may be resorted to, falling within the scope of the appended claims.

Having thus disclosed and described the invention, what is claimed as new is as follows:

1. A commode top cover holder comprising a body forming an anchor, means securing said anchor to the midportion of a commode top, a pair of wire springs having one end of each secured in recesses in said body, the other end of each of said springs having a hook for engaging the ends of a flexible rim of a commode top cover, said wire springs having a resilient bias to cause tightening of said rim and cover on said commode top.

2. In combination, a commode top, a cover of pliable sheet material for said commode top, a spring anchor block secured to the midportion of the underside of the commode top, straight wire spring means carried by said block, said cover having a flexible rim terminating in adjacent spaced ends, said spring means having a pair of hooks engaging said adjacent spaced ends to cause tightening of said rim and cover on said commode top.

3. In combination, a commode top, a cover of pliable sheet material for said commode top, a spring anchor block secured to the midportion of the underside of the commode top, straight wire spring means carried by said block, said cover having a flexible rim terminating in adjacent

spaced ends, said spring means having a pair of hooks engaging said adjacent spaced ends to cause tightening of said rim and cover on said commode top, said spring means comprising a pair of straight wire members.

4. In combination, a commode top, a cover of pliable sheet material for said commode top, a spring anchor block secured to the midportion of the underside of the commode top, straight wire spring means carried by said block, said cover having a flexible rim terminating in adjacent spaced ends, said spring means having a pair of hooks engaging said adjacent spaced ends to cause tightening of said rim and cover on said

commode top, said spring means comprising a pair of straight wire members, said block having recesses, each of said wire members having one end seated in a recess.

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