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B. E. SHAW

2,262,342

HUMIDOSTAT

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Fig. 1

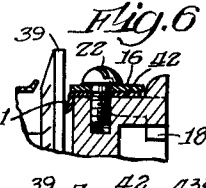
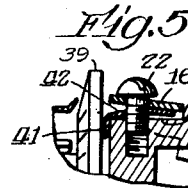
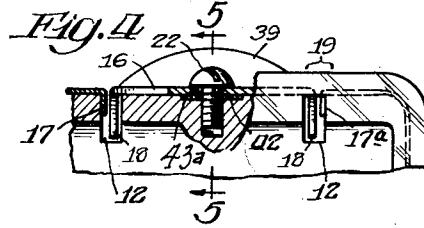
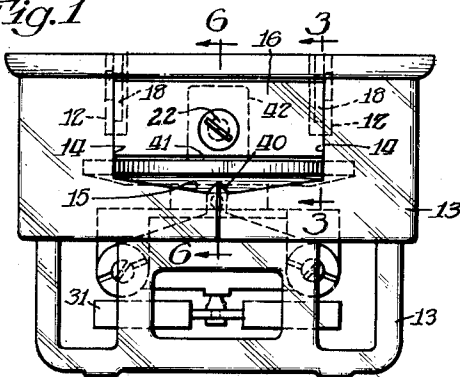


Fig. 2

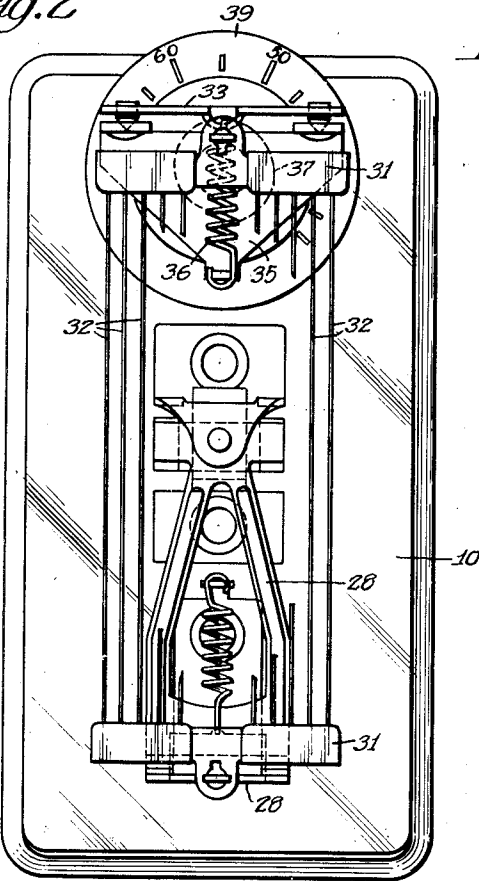


Fig. 3

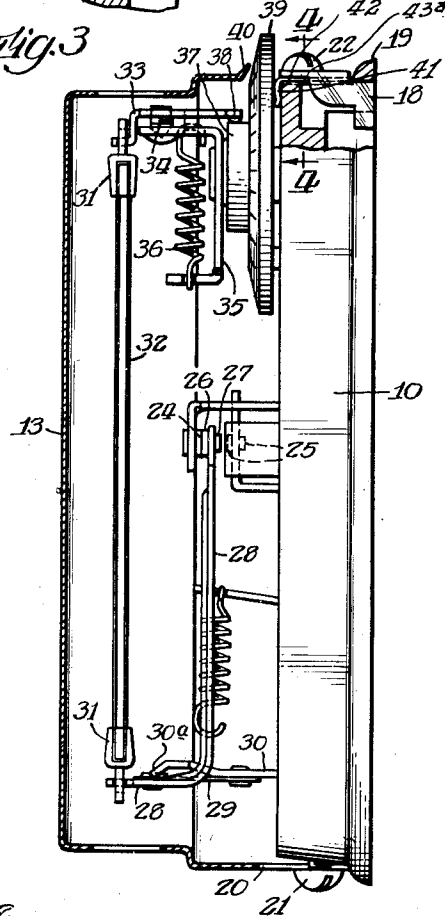


Fig. 7

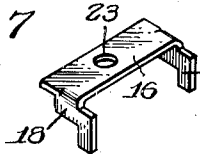
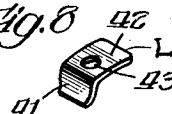


Fig. 8



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## UNITED STATES PATENT OFFICE

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## HUMIDOSTAT

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Application May 22, 1939, Serial No. 275,062

5 Claims. (Cl. 297—1)

An object of my present invention is to provide a humidostat or other control device in which means is operable to lock the adjusting mechanism of the control device against unauthorized readjustment.

A further object is to provide a simple means to lock the adjusting member of a humidostat or any control device against unauthorized tampering therewith, particularly when such devices are mounted in public places such as stores and the like.

A further object is to conceal the lock means and give it the appearance of being an ordinary part of the structure so that it may be readily operated, as with a screwdriver, but to those that do not know the construction of the device its operation is not obvious.

More particularly, it is my object to provide a control structure including a casing having a cutaway part and a filler that is provided to fill in the space of the cutaway part, which filler is retained in position by a screw or the like and so coacts with the lock element for the adjusting means of the control device that this screw serves both as a means to retain the filler in position and as a means to lock and unlock the lock element.

With the foregoing and other contemplated as well as obvious objects in view, the invention comprises the combination of elements and arrangement of parts so combined as to coact and cooperate with each other in the performance of the functions and the accomplishment of the results herein contemplated, and comprises in one of its adaptations the species or preferred form illustrated in the accompanying drawing, wherein

Figure 1 is a plan view of a humidostat embodying my invention;

Figure 2 is a front elevation thereof with the casing removed;

Figure 3 is a side elevation with the casing shown in section and a portion of the base shown in section on the line 3—3 of Figure 1;

Figure 4 is a sectional view on the line 4—4 of Figure 3;

Figure 5 is a sectional view on the line 5—5 of Figure 4 showing the parts in unlocked position;

Figure 6 is a similar sectional view showing the parts in locked position;

Figure 7 is a perspective view of a filler member used in connection with my structure, and

Figure 8 is a perspective view of a lock element thereof.

On the accompanying drawing, I have used the reference numeral 10 to indicate a base. The base 10 is provided with recesses 12 (see Figures 1 and 4).

A casing 13 is provided which is substantially rectangular in outline and has a cutaway part, the side edges of which are indicated at 14 and the front edge of which is indicated at 15. The casing 13 has a pair of hooks 17 depending from the cutaway edges 14 and entering the recesses 12. The filler 16 has a pair of lugs 18. The lugs 18 also enter the recesses 12 and engage under a crosspiece 19 of the base 10.

The casing 13 is placed in position on the base 10 by engaging the hooks 17 in the recesses 12 and then swinging the lower end of the casing into position. This lower end is provided with a slot 20 (see Figure 3), with which a screw 21 coacts to retain the casing in position after it is swung against the base and the screw 21 then tightened.

The filler 16 serves to span the space left by the cutaway portion of the casing 13 and is retained in position by hooking the lugs 18 under the crosspieces 19 and then inserting a screw 22 through a perforation 23 of the filler 16 and tightening the screw down.

Within the casing 13 and mounted on the base 10 are switch contacts 24 and 25. Movable contacts 26 and 27 are adapted to coact therewith and are carried by a switch arm 28. The switch arm 28 is held in position by a leaf spring 29 secured to a bracket 30. The bracket 30 has a pair of its corners at 31 engaging the switch arm 28 to act as a fulcrum for the switch arm.

A pair of clamp bars 31 are adapted to support a condition responsive element such as a plurality of hairs 32 in the manner fully disclosed in my copending application Serial No. 194,303, filed March 7, 1938, now Patent No. 2,198,131, dated April 23, 1940. One of the clamp bars is hooked to the switch arm 28 and the other to an anchorage member 33. The member 33 has a pair of pivot screws 34 seated in a stationary bracket 35. A spring 36 tends to keep them seated and adjustment is secured for the member 33 in the form of a cam 37. The cam 37 engages a projection 38 of the anchorage member 33.

The cam 37 may have formed thereon an adjusting disc 39 having a portion of its periphery projecting from the casing 13 so that it can be manually engaged. The casing is provided with a pointer 40 to indicate the setting of the adjusting disc 39.

To prevent unauthorized readjustment of the

disc 39, I provide a lock member L preferably formed of leaf spring material. It has a pair of legs 41 and 42 and is perforated at 43. The base 10 is countersunk as at 43a (see Figure 4) to receive the leg 42, and the perforation 43 receives the filler plate screw 22 when the lock element L is placed between the filler and the base during assembly of the structure.

Since the lugs 18 of the filler engage under the crosspieces 19, the initial positions of the parts are as shown in Figure 5. The leg 42 of the lock element L is bowed upwardly at its center so that when the screw 22 is tightened to the final position of Figure 6, the lock element L is so tensioned that its leg 41 engages the back of the adjusting disc 39 with the desired tension to lock it against undesired manual adjustment thereafter. Sufficient locking tension may be secured, prior to the screw being fully tightened as in Figure 6, in which case it need not be screwed into the base to its limit.

My arrangement provides for operating the locking device and at the same time partially concealing it under the filler 16, which filler then acts both as a means to operate the lock element as well as to serve as a filler for the cutout part of the casing. The owner of the store or the attendant for any given installation of control device can, when desired, readjust the controller by manipulating the screw 22 with a screwdriver to loosen the lock element, and then again tighten it after adjustment is made; whereas the usual run of customers in the store would not know of the adjustment lock and would not have a screwdriver available to operate it. Thus I eliminate the hazard of a casual adjustment of the controller by the general public.

Having described one specific embodiment of my invention together with the operation thereof, I desire it to be understood that this form is selected merely for the purpose of facilitating disclosure of the invention rather than for the purpose of limiting the number of forms which it may assume. It is to be further understood that various modifications, adaptations and alterations may be applied to the specific form disclosed to meet the requirements of practice without in any manner departing from the spirit and scope of the present invention except as set forth in the claims appended hereto.

I claim as my invention and desire to secure by Letters Patent of the United States:

1. In a control device, a base having recesses therein, a casing for said base, said casing having a cutout part provided with hooks on the edges thereof coacting with said recesses, a screw for said casing and operable in conjunction with said hooks to retain the casing assembled on said base, a filler for the cutout part of said casing, said filler spanning the distance between said hooks and having lugs engaged in said recesses, a screw for mounting said filler on said base, condition responsive means on said base within said casing, a movable adjusting member for adjust-

ing the range of operation of said condition responsive means and a lock element for said adjusting member located between said filler and base and held in locked position by the filler upon tightening the filler screw.

2. In a control device, a base, a casing for said base, said casing having a cutout part, a filler for the cutout part of said casing, a screw for mounting said filler on said base, condition responsive means, a movable adjusting member adjacent said filler for adjusting the range of operation of said condition responsive means and a lock element for said adjusting member located between said base and said filler, said screw extending through said lock element and effecting locking thereof upon pressure applied to said filler by said screw.

3. In a control device, a base, a casing for said base having a cutout part, a filler for the cutout part of said casing, means for mounting said filler on said base, condition responsive means on said base within said casing, a movable adjusting member for adjusting the range of operation of said condition responsive means and a lock element for said adjusting member located between said base and said filler and operated by said means for mounting said filler on said base.

4. In a control device, a base having recesses therein, a casing for said base, said casing having a cutout part provided with hooks coacting with said recesses, a screw for said casing and operable in conjunction with said hooks to retain the casing assembled on said base, a filler for the cutout part of said casing, a screw for mounting said filler on said base, condition responsive means on said base within said casing, a movable adjusting member for adjusting the range of operation of said condition responsive means and a lock element for said adjusting member located between said base and filler and held in locked position by the filler upon tightening the filler screw, said lock element comprising a leaf spring having one part to engage said adjusting member and a bowed part between said filler and base, said first part being effective to engage said adjusting member with greater pressure as said filler is tightened by its screw extending through the bowed part of said lock element and tending to straighten said bowed part.

5. In a control device, a base, a casing for said base having a cutout part, a filler for said cutout part of said casing, a screw for mounting said filler on said base, condition responsive means, a movable adjusting member for adjusting the range of operation of said condition responsive means and a lock element for said adjusting member, said lock element comprising one part to engage said adjusting member and another part between said filler and base, said first part engaging said adjusting member with increased pressure as said filler is drawn toward said base by its screw.

BURTON E. SHAW.