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Bell et al.

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[54] **THERMOSENSITIVE FLOW CONTROL DEVICE**

[75] Inventors: **Edward H. Bell; John R. Bell,** both of Monogahela, Pa.

[73] Assignee: **American Standard Inc.,** New York, N.Y.

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[52] **U.S. Cl.** **239/75,** 137/468

[51] **Int. Cl.** **A62c 37/00,** A62c 37/34

[58] **Field of Search** 239/67, 75, 456, 460; 137/468; 236/93

[56] **References Cited**

UNITED STATES PATENTS

1,930,227	10/1933	Donohue	239/75 X
2,647,017	7/1953	Couilliette	239/75
3,621,951	11/1971	Schmid	137/468

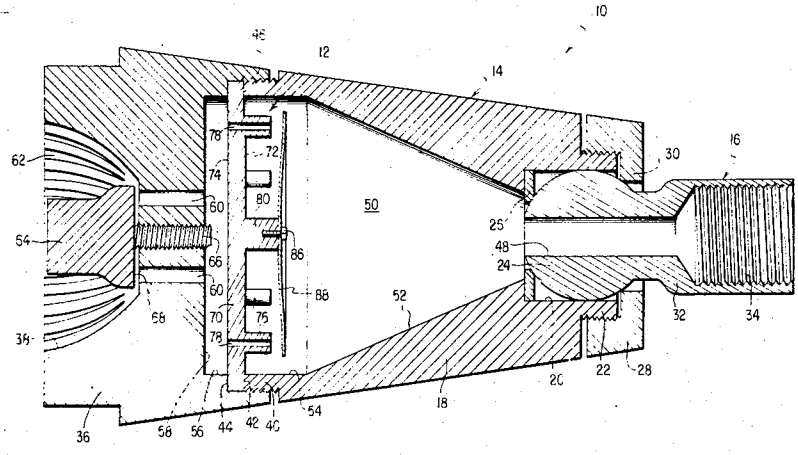
Primary Examiner—Lloyd L. King

Attorney, Agent, or Firm—James J. Salerno, Jr.; Robert G. Crooks

[57] **ABSTRACT**

A thermosensitive flow control device, which can advantageously be used in a water spray head, includes a bimetallic snap disc flexurally movable relative to flow port means in the spray head. Normally, the snap disc is flexed away from the port means so that water discharges from the head as a spray; however, when the water temperature rises above a predetermined magnitude, the snap disc is flexed toward the port means to retard and diminish, but not eliminate, the flow therethrough. The water thus discharges from the head as a dribble until the temperature drops to a predetermined level, whereupon the disc automatically flexes away from the port means and the water once again discharges from the head as a spray.

15 Claims, 6 Drawing Figures



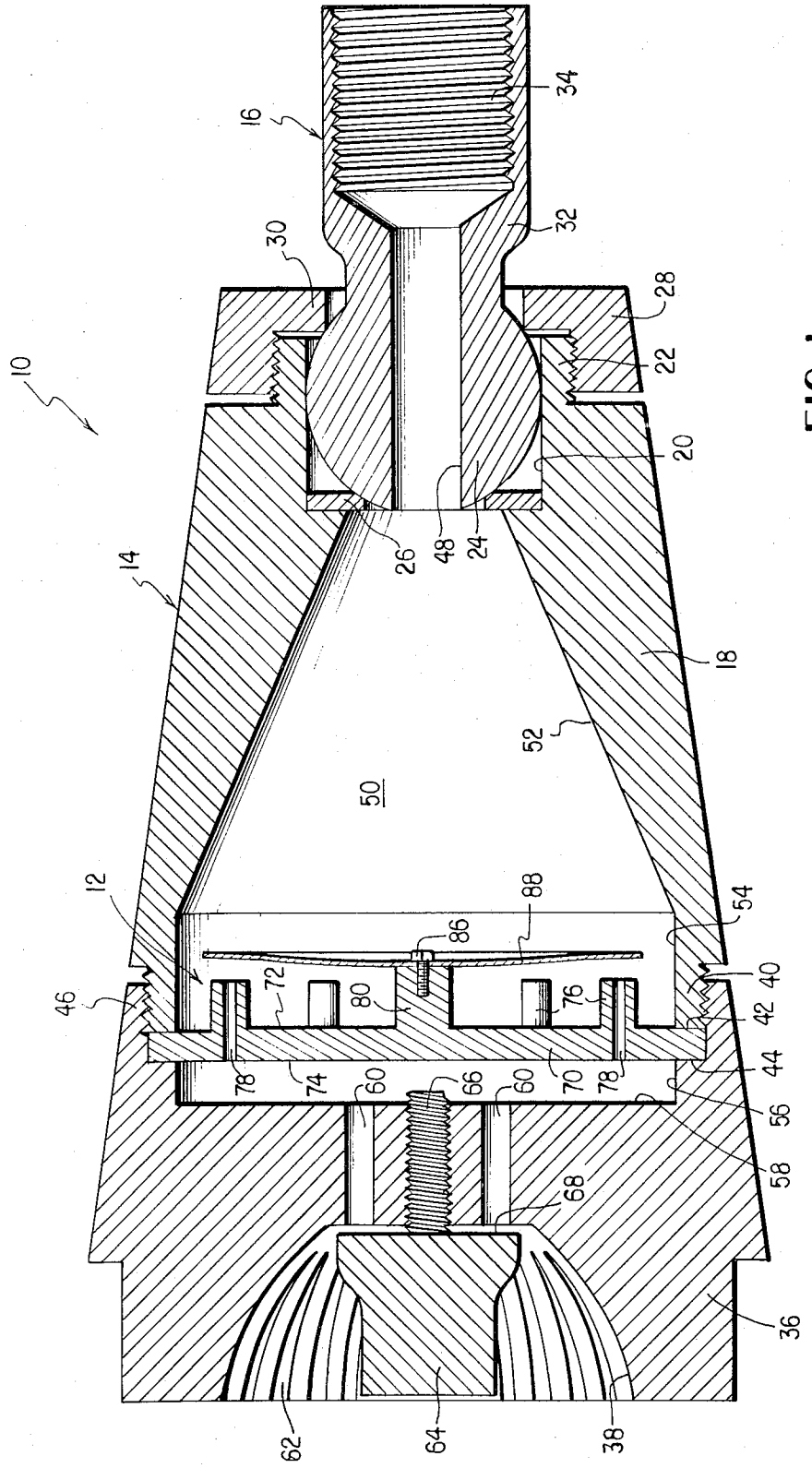

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FIG. 1

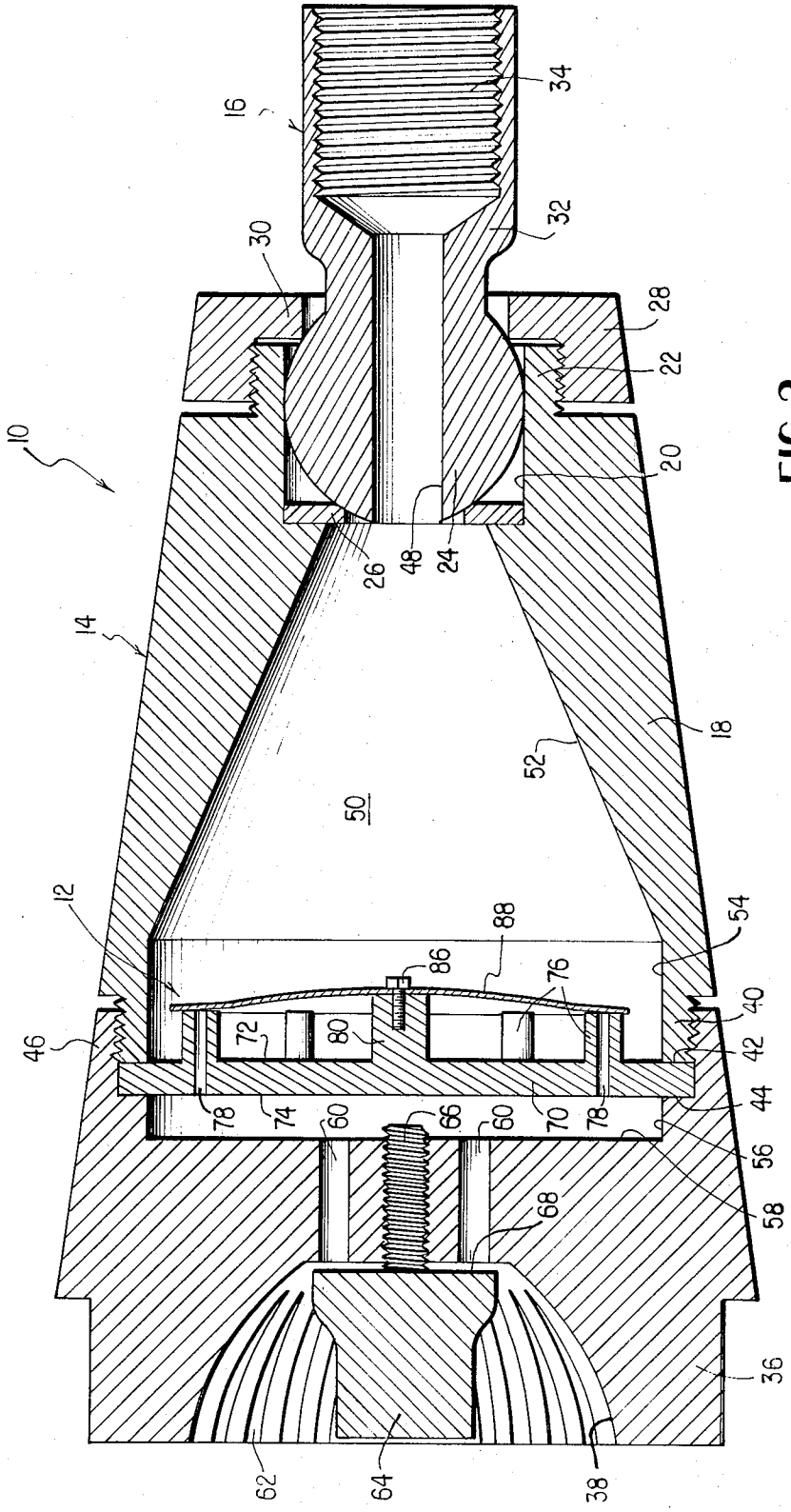

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FIG. 2

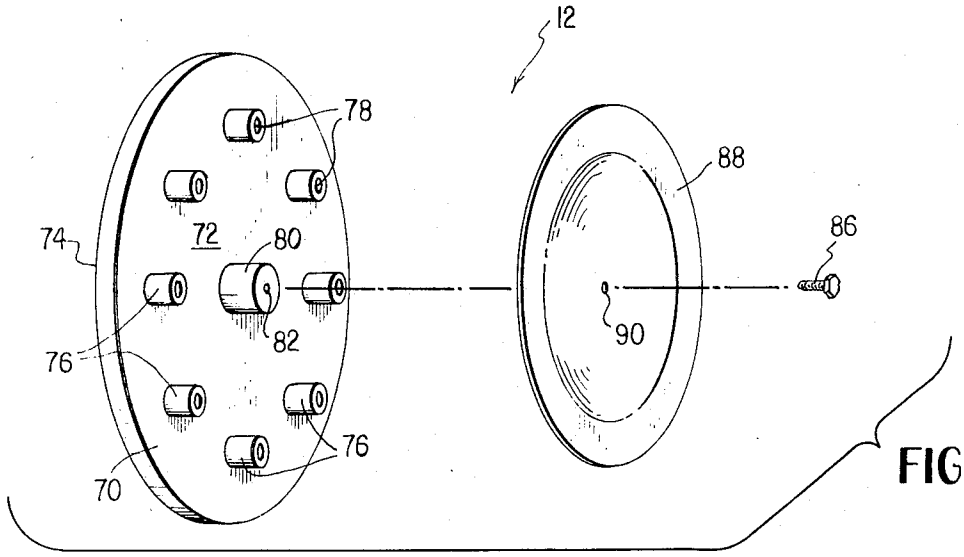


FIG. 3

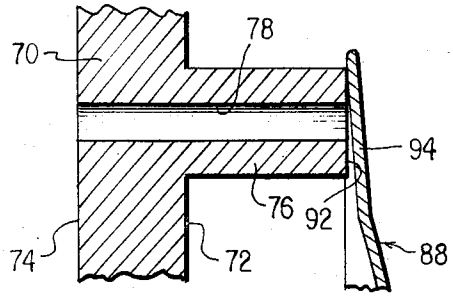


FIG. 4

FIG. 5

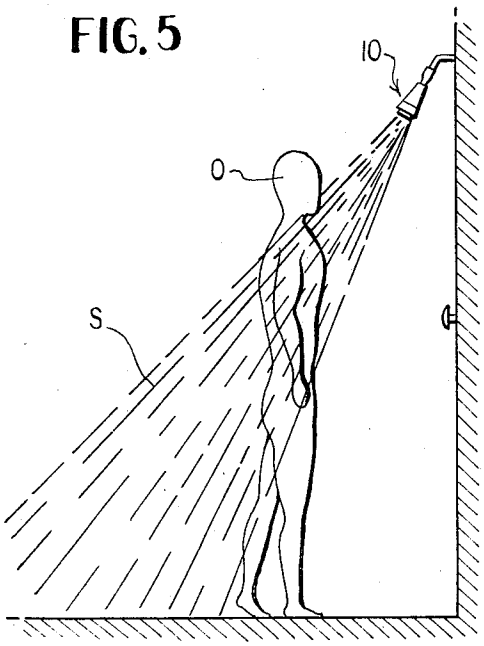
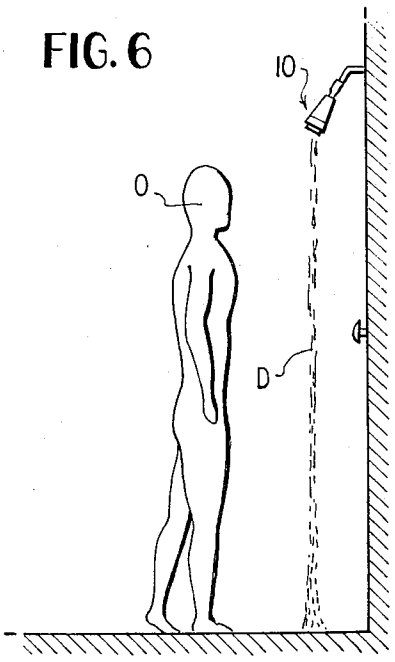


FIG. 6



THERMOSENSITIVE FLOW CONTROL DEVICE

This invention relates to a thermosensitive flow control device and in particular it relates to a flow control device which retards or diminishes flow of a liquid stream when the stream temperature exceeds a predetermined first temperature and which restores full flow when the stream temperature drops to or below a predetermined second and lower temperature.

The present invention finds particular utility when used in connection with a water distribution system wherein a mix of cold water and heated water is delivered and dispensed through a spray head, such as a shower head. A serious problem exists if the water temperature of a shower spray should, for any reason, exceed the scalding temperature. In such an event, the occupant of the shower might receive a burn from the scalding water, or at the least, will experience serious discomfort. Moreover, there is the potential hazard which could occur if the shower occupant falls and injures himself while trying to avoid a flow of excessively hot water. In institutions, such as hospitals, there is the possibility that a shower occupant could experience cardiac problems due to the shock of excessively hot water from a shower.

There are various ways in which the water temperature in a water distribution system, such as a shower, might suddenly change from a proper temperature to an excessively hot or scalding temperature. In institutional facilities such as hospitals or in buildings such as hotels, motels and the like, it is a common practise to use a piping arrangement wherein several different rooms are connected to the same flow lines. Thus, it is not an uncommon occurrence for the water temperature in a shower being operated in one room to sharply increase, in a sudden manner, when a toilet is flushed in an adjoining room or when cold water is turned on in the sink or shower of an adjoining room. In such event, the occupant standing in the shower might suddenly and unexpectedly be subjected to a sudden water temperature change wherein the shower spray suddenly becomes excessively hot or scalding.

There are other situations in which the water temperature in a shower might suddenly increase, thus causing a danger to the occupant of the shower. There is the possibility that the occupant of a shower might inadvertently bump against the water control knobs and turn off the cold water supply. This is particularly true in instances where a single lever control is used with the position of the lever determining the water temperature. Another possibility for sudden change in water temperature could be through mere horseplay of children in their own shower or in a camp shower, through mischief of students in dormitories, and the like.

There have in the past been certain proposals for preventing injury in the event of a sudden water temperature increase in a water distribution system for showers or the like, but these proposals have not been altogether satisfactory or practical. For example, it has been proposed to attach a shield or deflector to a shower head so that if the water temperature at the shower head becomes excessive, the shield will swing across the front of the shower to interrupt the spray from the shower head. An arrangement of this type would present an unsightly and unattractive appearance for the shower head, and additionally, would require various swinging arms and moving members to be exposed where they might possibly be bent or otherwise misaligned so that the deflector might not operate properly when needed. Another proposal has been to provide a thermostatically controlled valve in the shower system to close off all flow through the shower head when the water temperature becomes excessively hot. However, in such an arrangement, it then becomes necessary to entirely shut off both the hot and the cold water in order to let the valve reset and to then start the shower again with the water properly adjusted. Naturally, an arrangement of this type would be undesirable since, in the event the shower is being used in a motel or like institution, the occupant of the shower might have to turn the water on and off two or three times in order to complete a single bathing in the shower.

Under these circumstances, it is an object of the present invention to provide a temperature sensitive arrangement for use in a water distribution system, such as a shower, wherein the water flow will be diminished or retarded in the event that the temperature thereof becomes too hot, and wherein the water flow will automatically resume once the water temperature returns to its preset conditions.

Another object of the present invention is to provide an improved form of flow valve which can advantageously be used in a water distribution system such as a shower to prevent scalding of the occupant of the shower in the event that the water temperature should suddenly increase, but which does not require any resetting or other manual control by the occupant of the shower.

Another object of the present invention is to provide an anti-scald spray head, particularly useful for showers to prevent the occupant of the shower from becoming scalded or otherwise injured through a sudden temperature increase in the shower water.

Further objects of the present invention include the provision of a flow control device to temporarily interrupt the flow of water in a water distribution system until the temperature thereof drops below a predetermined level, which device is simple yet efficient in operation, which is corrosion resistant and which does not clog or otherwise interfere with the flow of water in the system, which is quiet in operation, which responds quickly to changes in water temperature, which is relatively inexpensive to produce and install, and which can be installed in existing plumbing configurations and fixtures without the need for breaking out walls, changing piping arrangements, or the like.

Other objects, advantages and salient features of the present invention will become apparent from the following detailed description which, taken in conjunction with the annexed drawings, discloses a preferred embodiment thereof.

The foregoing objects are attained generally by providing a flow control device which includes a bimetallic snap disc mounted in juxtaposition to a plate member having a series of flow ports therein. The snap disc and the plate member can be advantageously mounted within a spray head, such as a shower head, with the snap disc being oriented in the upstream direction. Ordinarily, the snap disc is flexed away from the port means in the plate member so that the flow of water through the spray head will traverse around the snap disc and through the port means and will discharge from the head in the form of a spray. However, when the water temperature reaches a predetermined magni-

tude, the snap disc automatically and rapidly flexes in the opposite direction and toward the port means to retard and diminish, but not eliminate the water flow through the port means. The water flow from the shower head will at this point be reduced to a dribble which would not ordinarily contact against the body of an occupant of the shower. The excessively hot water can continue to dribble from the shower head until the temperature of the water reaching the snap disc drops to a predetermined second and lower temperature, whereupon the snap disc will automatically flex away from the port means and the water will once again discharge from the shower head as a spray.

Referring now to the drawings, which form a part of this original disclosure:

FIG. **1** is a longitudinal sectional view of a spray head incorporating a thermosensitive flow control device in accordance with the principles of the present invention, with such flow control device being in its normal open position to permit the water to discharge from the head in the form of a spray;

FIG. **2** is a longitudinal sectional view, similar to FIG. **1,** but with the thermosensitive flow control device being positioned to retard and diminish flow because the water temperature being delivered through the head is excessive, and in the arrangement shown in FIG. **2,** the water is discharged from the head in the form of a dribble;

FIG. **3** is an exploded perspective view showing the details of the flow control device or valve;

FIG. **4** is an enlarged fragmentary sectional view showing the manner in which the flow is diminished or retarded when the parts are in the position of FIG. **2**;

FIG. **5** is a diagrammatic view showing the manner in which the water discharges in the form of a spray when the flow control device is in the configuration shown in FIG. **1**; and

FIG. **6** is a diagrammatic view showing the manner in which the water discharges as a dribble when the flow control device is in the position shown in FIG. **2.**

Since the device of the present invention finds particular utility when used in connection with a shower head, the following detailed description will be directed to a shower head with a thermosensitive flow control device therein. It will, however, be understood that the principles of the present invention are by no means limited to the control of water flow through a shower head, and indeed, the liquid stream controlled by the flow control device need not even be water and the flow head need not be a shower head. The terms "thermosensitive" and "temperature responsive" and "thermally responsive" may be used interchangeably hereinafter for the purpose of indicating that the flow control device of the present invention operates in response to changes in temperature of the liquid stream passing across the flow control device.

Referring now to the present invention in further detail, attention is directed to FIGS. **1** and **2** wherein there is disclosed a flow head or spray head generally designated **10** having therein a thermosensitive flow control device generally designated **12.** The flow head **10** is, as aforementioned, advantageously a shower head, but it can also be a faucet, a sprinkler head or the like. As such, the flow head **10** includes a body means generally designated **14** which is adapted to be connected to a liquid stream, such as a water supply, by means of a connector generally designated **16.**

The body means **14** includes a first body member **18** having an inlet end with an opening or socket **20** formed therein and a threaded neck **22** forming a projection. The connector **16** includes a ball head **24** adapted to fit within the socket **20** and to abut against a washer **26** therein. A collar **28** is threaded on to the neck **22** of the body portion **18** and the collar includes an inwardly directed flange **30** which abuts against the ball **24** to maintain the same in the socket **20.** In this manner, the body means is mounted to and universally movable with respect to the ball head **24.** The connector **16** also includes an extending tubular portion **32** which projects beyond the ball head **24** and beyond the collar **28** for attachment to a water supply pipe by means of internal screw threads **34.**

The body member **18** includes a second or forward portion **36** which is provided with a shaped discharge opening defined by curved walls **38** which provide the opening with a generally frusto-hemispherical or frusto-ogival configuration.

The body portion **18** has at its forward end, a reduced diameter externally threaded neck **40** which terminates in a flat forward surface **42.** The body portion **36** is provided at its rear end with a flat internal shoulder **44** and with an internally threaded projecting portion **46** extending beyond the shoulder to thread on to the neck **40** of the body portion **18.** The thermosensitive flow control device **12** is clamped between the surfaces **42** and **44** in a manner to be described herinafter.

In order to provide the flow head **10** with an attractive and streamlined appearance, the external surfaces of the collar **28,** the body portion **18** and at least a part of the body portion **36** are formed so that such surfaces are generally coincident, having an outwardly and forwardly tapering relationship to provide the head **10** with a generally frusto-conical configuration.

A central bore or flow passage **48** extends through the connector **16** to permit water to be introduced into the interior of the flow head **10** through its inlet end. It will, of course, be understood that the piping system by which the water is delivered contains a cold water pipe and a hot water pipe, each of which is provided with a flow control valve which can be manually operated to adjust the temperature of the water. The cold water and the hot water are mixied together and are delivered through a common pipe to the connector **16** and hence into the flow head **10.** An internal chamber **50** is provided in the body means **14** with such chamber being defined and circumscribed by a frusto-conical wall portion **52** which enlarges forwardly from the inlet end and which merges into a cylindrical wall portion **54.** The body portion **36** includes a continuing cylindrical sidewall portion **56,** which can be coincident with the sidewall portion **54** in the body portion **18,** and the internal chamber **50** terminates in a forward wall **58.** A series of flow passages **60** extend longitudinally forward from the wall **58** to provide flow passages for the water to discharge from the internal chamber **50** to the discharge opening **38.** A series of shaped grooves or vanes **62** are formed along the walls of the opening **38** to cause the water to be discharged in a series of separate streams. A water spreader **64** is centrally positioned within the shaped discharge opening **38** and is connected to the central portion between the flow passages **60** by means of an elongated threaded stud **66.** The

water spreader **64** includes a flat surface **68** positioned immediately adjacent the separate flow passages **60** so that the water discharging from such flow passages impinges upon the surface **68** and is spread outwardly to pass along the shaped grooves or vanes **62** in the walls of the shaped surface **38** and to discharge forwardly therefrom in the form of a spray. Adjustment of the water spreader **64** can move the surface **68** toward or away from the flow passages **60** to cause a concomitant adjustment in the flow characteristics of the spray.

That portion of the spray head thus far described can be considered generally conventional and does not form any part of the present invention, except as an environment into which the thermosensitive flow control device **12** can be installed and attached. For a consideration of the details of the thermosensitive flow control device **12,** attention is directed to FIG. **3** wherein it can be seen that the flow control device **12** includes a plate member **70** having a first surface **72** intended to be disposed in an upstream direction and an opposed and parallel second surface **74** intended to be disposed in a downstream direction. The plate member **70** is provided with a series of forwardly extending post members **76,** each of which is perpendicular to the plate surfaces **72** and **74.** The post members **76** are arranged in a generally circular pattern, and although eight such post members are shown in FIG. **3,** the number of such post members is not considered critical so long as a plurality of post members are provided. The circular series of post members are set inwardly a sufficient distance from the marginal edge of the plate member **70** to permit such marginal edge to be clamped between the flat surface **42** of the body portion **18** and the flat shoulder **44** of the body portion **36,** as shown in FIGS. **1** and **2.** Naturally, a suitable sealing medium, such as one or more O-rings, can be utilized to prevent any water leakage from occurring around the plate member **70.** Also, the posst members **76** are set inwardly a sufficient distance from the side walls **54** and **56** which form the sides at the forward portion of the internal chamber **50** in the body means.

A bore **78** extends through each of the post members **76** and through the plate member **70,** as best illustrated in FIGS. **1** and **2.** As a result, it can be seen that eight separate bores **78** are provided and the water passing through the internal chamber **50** of the body means must pass through these eight separate bores and then through the flow passages **60** to discharge from the body means at the forward or dispensing end thereof.

The plate member **70** also includes a central projection **80** having a threaded aperture **82** formed therein. A threaded bolt **86** is provided for the purpose of attaching a thermosensitive bimetallic snap disc **88** to the plate member by passing through an aperture **90** in the snap disc and threading into the threaded bore **82** in the projection **80.** The snap disc **88** has a slightly dished configuration, making it slightly convex on one side and slightly concave on the other. The disc can be formed of any suitable bimetallic alloy and the disc is adapted to snap or flex over center when the temperature reaches a particular predetermined magnitude. Thus, if the disc ordinarily has a convex configuration, it will when subjected to temperature of a predetermined magnitude snap over center to achieve a concave configuration. Stated another way, if the disc is ordinarily dished forwardly, it will, when subject to temperature of a predetermined magnitude, snap over center to be dished rearwardly. The diameter of the thermosensitive snap disc **88** is somewhat greater than the diameter of the circle formed by the post members **76,** but is somewhat less than the diameter of the plate member **70** or of the internal diameter defined by the walls **54** of the internal chamber.

While the temperatures at which the disc **88** operates or snaps can be varied as desires, through a control of the material from which the disc is fabricated, the thickness of the disc and like engineering parametere an advantageous disc construction for a shower is one which will snap over when the temperature reaches 130°F and which will snap back when the temperature of the surrounding water drops to 120°F.

Referring again to FIG. **1,** the disc **88** is shown in its normal position where it is dished toward the inlet end of the body means and away from the discharge end thereof. Stated another way, in FIG. **1,** the snap disc **88** is concave on its upstream side and convex on its downstream side. In such an arrangement, the water will enter through the flow passage **48** into the internal chamber **50,** will flow around the disc **88,** through the bores or flow ports **78** through the flow passages **60** and will discharge along grooves or vanes **62** along the dispensing wall **38** in the form of a spray, as designated S in FIG. **5.** So long as the water temperature remains below the preselected value, which, as aforementioned, can advantageously be 130°F, the snap disc **88** will remain in the orientation shown in FIG. **1** and the water will be discharged in the form of the spray S. However, as soon as the water temperature exceeds the maximum predetermined magnitude, which as aforementioned can be 130°F, the disc **88** will snap over from its position of FIG. **1** to its position of FIG. **2.** In such position, the disc is dished away from the inlet end and toward the outlet end of the flow head. Stated another way, the disc is convex on its upstream side and concave on its downstream side. The entire disc **88** need not be uniformly dished, and instead, it can be formed in the nature of a cymbal where the peripheral margin portion is somewhat flatter than the central portion.

Even though the central portion of the disc **88** is retained by mounting the same against the projection **80** from the plate member, such a mounting arrangement will not prevent the disc from snapping from its position of FIG. **1** to its position of FIG. **2.** In any event, it will be apparent that at least the peripheral margin portion of the disc is free for flexural movement between its FIG. **1** position and its FIG. **2** position. Moreover, when the disc **88** snaps over from its FIG. **1** position to its FIG. **2** position, it abuts against the post members **76.** This can be most clearly seen from the enlarged illustration in FIG. **4** wherein the post member **76** is shown as having a flat forward surface **92** which is parallel to the surfaces **72** and **74** of the plate member **70.** The peripheral margin portion of the snap disc **88** is designated **94** and at some point along the underside of this peripheral margin portion, the disc member **88** will contact and abut against the sharp corner formed by the intersection of the side walls of the post members **76** and the forward walls **92** thereof. When this occurs, it will be apparent that the disc member partially but not entirely covers the flow ports formed by the posts **76** and their bores **78.** Flow of water through the device will thus be retarded or diminished or impeded. This occurs because the water is no longer free to flow di-

rectly through the open bores **78,** but instead, must flow between the post members, around the edges of the snap disc **88** and between the underside of the peripheral margin portion **94** of the snap disc and the forward wall **92** of the post members. Because of this partial blocking of the individual flow ports through the post member **76,** the quantity of water discharging from the flow head will be diminished and the water will no longer discharge as a spray, but instead, will discharge in the form of a dribble as shown in FIG. **6** where it is designated D.

It is important to note that in its FIG. **2** position, the snap disc does not eliminate or totally block the water flow through the spray head, and there are two reasons for this. First, if the flow were entirely blocked, the hot water would be unable to discharge from the head. It is often the case that the excessively hot or scalding water is a mere slug of water which passes in a few seconds, and accordingly, this slug of hot water is able to discharge from the spray head in the form of a dribble D which should not contact the occupant of the shower. Second, and of equal importance, if the snap disc were to completely block flow through the device, then the buildup of the water pressure on the upstream side of the snap disc could be great enough to cause an excessive buildup of pressure in the upstream piping of the shower system. This excessive pressure could cause leaks in the shower wall. Also, completely closing the shower head rapidly could cause severe water hammer problems that could lead to broken pipes and mounts.

Therefore, by using the arrangement described herein wherein the water flow is diminished but not stopped, the water pressure on opposed sides of the snap disc **88** will remain about the same and the disc will be able to snap back to its original position of FIG. **1** after the water temperature has dropped by a predetermined amount to a second and lower temperature which, as aforementioned, can advantageously be 120°F.

The occupant of the shower is shown in phantom lines in FIGS. **5** and **6** and is designated O. Ordinarily, this occupant is standing in the shower in a position where the spray S will contact against his or her body for bathing purposes. If for any reason the temperature of the water discharging from the flow head **10** should suddenly rise above the predetermined maximum of 130°F or whatever other maximum temperature is selected, the disc **88** will snap or flex from its position shown in FIG. **1** to its position of FIG. **2** in a rapid manner. Once the disc **88** reaches the position of FIG. **2,** the water discharging from the flow head **10** will change to the dribble D as shown in FIG. **6** which will not contact the occupant and which will not cause any injury to him or her. This excessively hot water will continue to discharge from the flow head in the form of the dribble D until the water temperature within the internal chamber **50** surrounding the snap disc **88** drops to a second and lower temperature, which can be the 120°F previously mentioned, or whatever other low end temperature is selected. At that point in time, the disc **88** will rapidly snap back from its FIG. **2** position to its FIG. **1** position and the water will then discharge once again in the form of spray S. Thus, the occupant of the shower need not touch or adjust any of the temperature controls for the shower nor need he do anything except wait for a few moments until the excessively hot water discharges from the flow head in the form of the dribble D.

While one advantageous form of the present invention has been described herein, it will be apparent to those of ordinary skill in the art that various changes and modifications may be made, and that the invention may be adapted for other purposes, without departing from the spirit and scope of the inventive concept as set forth in the appended claims.

What is claimed is:

1. A flow control device which retards flow of a liquid stream when the stream temperature exceeds a predetermined first temperature and which restores full flow when the stream temperature drops to or below a predetermined second and lower temperature, said device comprising:

a flow head connected to said liquid stream;

flow port means in said head through which said liquid stream flows;

a temperature responsive disc connected to said flow port means and positioned a preselected distance therefrom when said stream temperature is less than said predetermined first temperature, to permit full stream flow through said flow port means;

said disc having at least a portion thereof free for flexural movement toward and away from said flow port means with such flexural movement occurring in response to temperature variations in said liquid stream;

said disc arranged and constructed to be flexed toward said flow port means when said stream temperature exceeds said predetermined first temperature, to partially close said flow port means to provide a controlled reduced stream flow through said flow port means;

said disc portion arranged and constructed to be flexed away from said flow port means and returned to its predetermined spacing at said preselected distance from said flow port means when said stream temperature drops to or below said predetermined second and lower temperature, whereupon full stream flow through said port means is restored.

2. A flow control device as defined in claim **1** wherein said flow head is a shower head and wherein said liquid stream is water.

3. A flow control device as defined in claim **2** wherein said flow port means includes a plurality of individual flow ports spaced from each other.

4. A flow control device as defined in claim **3** wherein said portion of said disc which is free for flexural movement comprises the peripheral margin thereof and wherein said peripheral margin, when flexed toward said flow port means, partially covers said individual flow ports.

5. A flow control device as defined in claim **2** wherein said temperature responsive metallic disc is a unitary bimetallic snap disc.

6. An improvement as defined in claim **1** wherein said disc includes a central portion and a peripheral margin portion and wherein mounting means connect with said disc central portion to position said disc within said spray head.

7. An improvement as defined in claim **1** wherein said flow port means includes a plurality of post members, each of which has a bore formed therein for pas-

sage of water, and wherein said peripheral margin portion abuts against said post members when said flexural displacement occurs.

8. A flow valve for use in a water distribution system to diminish but not eliminate water flow when the water temperature rises about a predetermined magnitude, said flow valve comprising:

a plate member having a first surface adapted to be disposed in the upstream direction and an opposed second surface adapted to be disposed in the downstream direction;

a plurality of post members projecting outwardly from said first surface of said plate member;

means forming a plurality of bores, one extending through each of the post members and through said plate member to form a plurality of flow ports by which water from said upstream direction can flow through said posts and said plate member to pass to said downstream direction;

a thermosensitive bimetallic snap disc;

means connecting the center of said snap disc with said first surface of said plate member;

said snap disc being flexural in response to temperature variations and hence movable from a first or full flow permitting position to a second or flow diminishing position;

said snap disc having a peripheral margin spaced from said post members in said first position and abutted against said post members in said second position;

said snap disc normally being disposed in said first position to permit full flow around said disc and through said bores;

said snap disc being flexed when said water temperature rises above said predetermined magnitude to said disc to move to said second position and to cause said peripheral margin to abut against said post members to diminish flow through said bores;

said snap disc being flexed back to its first position when the water temperature drops by a sufficient amount, whereupon full flow through said bores can resume.

9. A flow valve as defined in claim **8** wherein said snap disc is circular and wherein said post members and hence said bores are arranged in a circular pattern.

10. A flow valve as defined in claim **9** wherein the diameter of said snap disc exceeds the diameter of said circular arrangement of post members whereby said peripheral margin abuts against the outermost edge of said post members.

11. A flow valve as defined in claim **8** wherein said plate member is circular and wherein the diameter of said plate member exceeds that of said snap disc to permit water flow around the exterior edge of said snap disc in either snap disc position.

12. A flow valve as defined in claim **11** wherein said means connecting said center of said snap disc with said first surface of said plate member includes a central projection extending in an upstream direction from the center of said plate member and a fastener projecting through an aperture in the center of said snap disc.

13. An improved shower head comprising:

a body means having an inlet end adapted to be connected to a water supply and having an opposed discharge end;

said body means having an internal chamber into which water flows from said inlet end;

said body means having a shaped opening at the discharge end thereof;

a water spreader disposed within said shaped opening to spread the water outwardly and along the walls defining said shaped opening, so the water discharges from said body means as a spray;

a plate member extending across said internal chamber;

said plate member having a plurality of flow ports therethrough;

a thermosensitive snap disc centrally connected with said plate member on the side thereof closest to said inlet end;

said snap disc having at least its peripheral margin portion flexurally movable between a first position flexed away from said plate member and a second position flexed toward said plate member;

said snap disc peripheral margin portion normally being disposed in said first position whereby water from said inlet flows into said internal chamber, around said snap disc, through said flow ports, to impinge upon said water spreader and discharge as a spray;

said snap disc peripheral margin portion being displaced to said second position when the temperature of said water exceeds a predetermined magnitude, said peripheral margin portion in said second position partially blocking said flow ports whereby the quantity of water passing through said flow ports and impinging upon said water spreader is materially reduced, so the water discharges from said body means as a dribble;

said snap disc peripheral margin portion being returned to said first position when the water temperature in said internal chamber is reduced to a preselected value whereupon the water will again discharge from said body means as a spray.

14. An improved shower head as defined in claim **13** wherein said plate member includes a plurality of post members extending toward said inlet end and wherein said flow ports are bores passing through said post members and said plate member, said snap disc peripheral margin portion abutting atainst said post members when said peripheral margin is displaced to said second position.

15. An improved shower head as defined in claim **13** wherein said snap disc is fabricated of a bimetallic alloy.

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