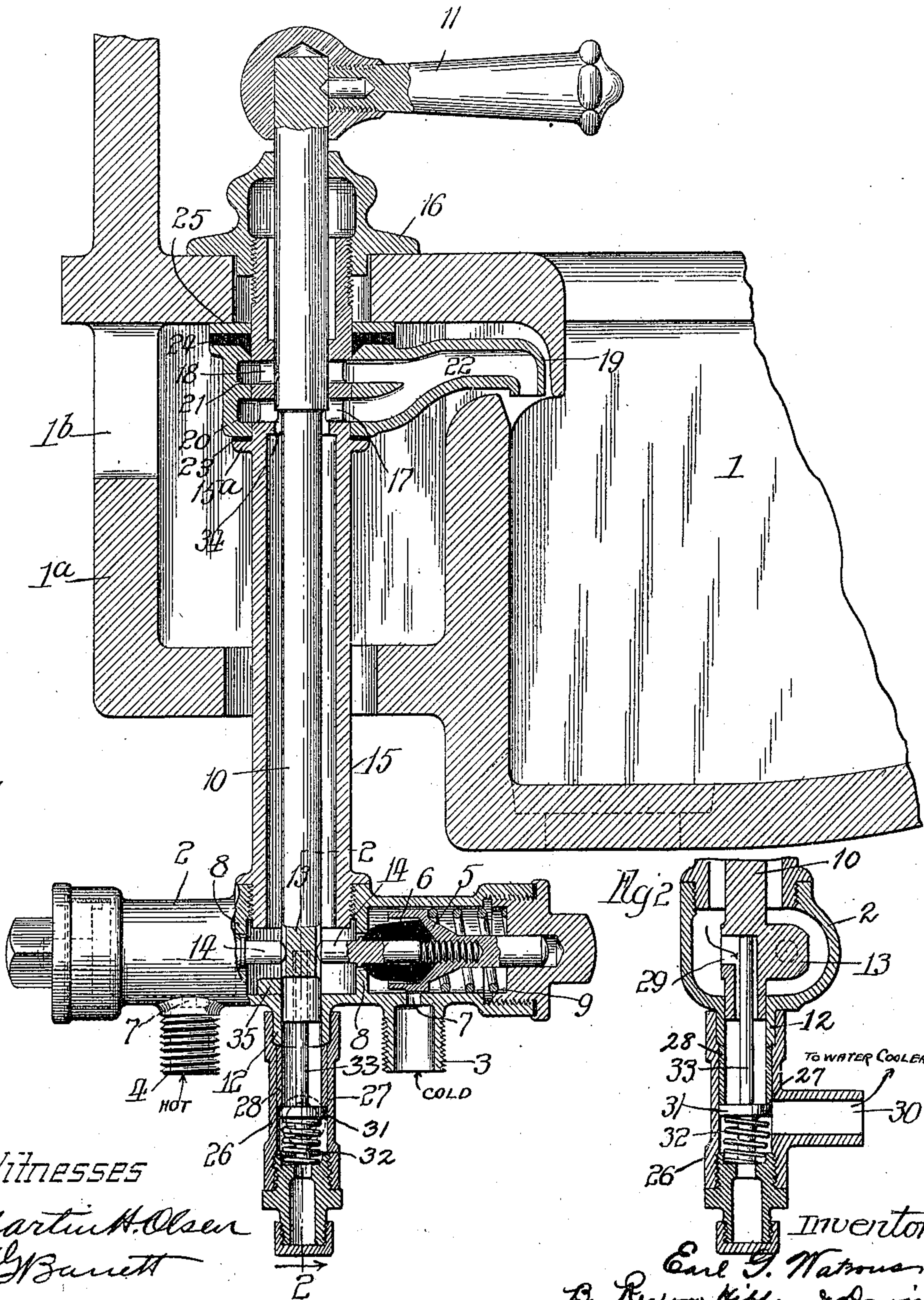


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LAVATORY FIXTURE.
APPLICATION FILED DEC. 4, 1906.

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Patented Nov. 15, 1910.

Fig. 1



Witnesses
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UNITED STATES PATENT OFFICE.

EARL G. WATROUS, OF CHICAGO, ILLINOIS.

LAVATORY-FIXTURE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, EARL G. WATROUS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Lavatory-Fixtures, of which the following is a specification:

My invention relates to lavatory fixtures generally and the object thereof is to provide a simple and efficient device of this character capable of controlling both hot and cold water by means of a single operating device or handle and particularly, though not necessarily, adapted for use in connection with lavatories of sleeping cars and the like, in which special features of construction and arrangement are required.

In the present and preferred embodiment of my lavatory fixture, I provide the same with means whereby the water cooler, such as used in sleeping cars, may be supplied with water by proper manipulation of the same handle or operating device which controls the valves for admitting hot and cold water to the wash bowl or basin.

The various features of advantage and utility of my construction of lavatory fixture will be apparent from the description hereinafter given.

In the accompanying drawing, Figure 1 is a sectional elevation of a lavatory fixture embodying my invention; and Fig. 2 a section taken on the line 2—2 of Fig. 1.

Referring to the present and preferred construction of my lavatory fixture, and as shown in its particular application, that is in connection with a suitable form of wash basin or bowl 1, as used in a sleeping car, the fixture comprises a valve casing 2 having a cold water connection 3 and a hot water connection 4, whose inlets, respectively, into the interior of the valve casing are controlled by two similar cylindrical valves 5 and Fuller balls 6. The cylindrical valves 5 directly govern the inlets 7, into the end chambers in the valve casing 2, while the Fuller balls 6 control the passage of the water from one or the other of the end chambers into a central or outlet chamber formed by the two partitions 8. These partitions are provided with outlet openings, against which said Fuller balls are arranged to seat. I do not herein claim the construction of the valve casing and valve mechanism therein, as above described, but have made the

same the subject matter of a prior application. The sets of valves 5 and 6 normally are held closed by springs 9, but the same are adapted to be opened against the tension of such springs, one set of valves at a time, by means of an operating rod 10 which passes upwardly through an extension 1^a of the wash basin and which is provided at its upper end with a suitable operating handle 11. The lower end of this operating rod 10 has its bearing in a tubular extension 12 of the valve casing 2 and such operating rod is provided near such lower end with a lateral extension or lug 13, which is positioned between the stems 14 of the valves. It will be understood that one set or other of these valves will thereby be operated accordingly as the operating handle is turned in one direction or the other and consequently hot or cold water, as the case may be, will be admitted to the central or outlet chamber of the valve casing. The operating rod 10 extends upwardly through a tube or pipe 15 secured at its lower end to the valve casing 2 and in position to communicate at all times with the inlet chamber thereof. The upper end of this pipe is screw-threaded and adapted to engage a clamping nut 16, through which the operating rod 10 passes and which is arranged to bear against the upper surface of the wash basin or bowl. Intermediate its length and toward its upper end this pipe 15 is provided with two sets of openings 17 and 18, the lower set being the outlet openings and the upper set being drain openings for draining away any water that may have leaked past the operating rod 10 which is somewhat enlarged at this point and which is intended to have a bearing in the upper end of the pipe 15. The outlet openings 17 are arranged to communicate with a spout 19 which at its rear end encircles the pipe 15 and is provided with a circumferential groove 20 communicating with the outlet 17 and with a second circumferential groove 21 communicating with the drain openings 18. Both of these grooves communicate with an outlet passage 22 in the spout 19. In the present instance this spout is arranged to be clamped between a flange 15^a on the pipe 15 and the underside of the top wall of the extension 1^a of the bowl.

In practice, in assembling the parts described, the faucet is inserted through the opening 1^b in the rear wall of the extension

1^a and the pipe 15 and the operating rod 10 therewithin are then passed upwardly through the spout, after which the parts are clamped in position by screwing down the
 5 clamping nut 16. By preference, I employ gaskets 23 and 24 and also a washer 25, the latter bearing directly against the underside of the top wall of the extension 1^a. In the particular construction now being described
 10 the spout 19 is of the concealed type, as required or found desirable for the particular use mentioned.

The described construction of supply or outlet pipe 15 and spout 19 and the means
 15 for clamping said parts together is advantageous, not only because of the convenience afforded in assembling said parts, but also because it enables the valve casing to be turned or located in any angular position
 20 found most convenient or desirable for making the proper water connections, such proper positioning angularly being irrespective of the spout which has, of course, only one position. In practice, the proper
 25 position of the valve casing is ascertained and the clamping nut 16 is thereupon tightened, with the result that the parts will be clamped securely with the valve casing in the required position. It will be under-
 30 stood that in case any water shall leak past the operating rod 10 at a point beyond the outlets 17, such water will be drained by the openings 18 and will be delivered through the spout 19.

35 The fixture, as above described, constitutes a complete and operative structure, but if desired the same may be provided with means for admitting cold water from the valve casing to the water cooler, as usu-
 40 ally employed in sleeping cars and the like and to this end I have provided said fixture with an attachment and have slightly modified the lower end of the operating rod to accomplish said object. This attachment
 45 consists of a tubular casing 26 secured to the extension 12 of the valve casing 2 and provided intermediate its length with an annular valve seat 27 which, in the present in-
 50 stance, is formed by the lower end of a bushing or sleeve 28, inserted within said casing 26. The interior of said casing is arranged to communicate with the outlet chamber of the valve casing 2 through an opening 29
 55 extending a short distance axially of the lower end of the operating rod 10 and communicating with said outlet chamber through a lateral passage. Thus the outlet chamber of the valve casing 2 is always in communication with the chamber in the
 60 upper end of the auxiliary casing 26, but the communication from such latter chamber to the water cooler through the connection 30 is normally closed by means of a valve 31 arranged to seat upon the seat 27 and nor-
 65 mally held seated thereon by means of the

coiled spring 32. This valve 31 is provided with an upwardly extending stem 33 which fits loosely within the passage 29 and con-
 70 tacts the operating rod 10 at the upper end of said passage. Under normal conditions and also when the handle 11 is operated in one direction or the other for admitting
 75 either hot or cold water, the valve 31 remains seated, but when such handle and the operating rod 10 are depressed slightly, the valve 31 is forced from its seat against the tension of its spring 32, so that when the
 80 handle 11 is thereupon turned for the purpose of admitting the cold water, such water will find passage from the outlet chamber of the valve casing 2, through the tubular casing 26 and through the outlet 30 to the
 85 water cooler or tank. It will be understood that while the operating rod 10 is in its depressed condition, the outlet to the spout 19 is closed, inasmuch as the enlarged portion of the operating rod will at this time fit within the annular shoulder 34 at the upper
 90 end of the annular passage between the outlet pipe 15 and said rod 10.

It is intended to admit cold water only to the water cooler and in order to prevent the
 95 actuation of the valve mechanism governing the hot water connection and to compel a movement of the operating handle in one direction only and that in the direction for
 100 opening the cold water port and passage, I provide suitable means arranged to cooperate with the operating rod and adapted to limit the degree of rotary movement of the rod and permit its movement only in the
 105 direction for the opening of the cold water valve. In the present instance, such means consists of a lug or projection 35, here formed as a part of the valve casing 2 and
 110 arranged in the path of movement of the extension 13 of the operating rod so as to prevent a rotary movement of the rod in one direction. This lug or projection 35 is of
 115 such height as not to interfere with the rotary movement of the operating rod necessary for the operation of both the hot and cold water valves, at which time such operating rod is in its upward position, so that
 120 the extension 13 will swing freely and will clear the top of the lug or projection 25. When, however, the operating rod is depressed in the act of supplying water to the water cooler, the lug or projection 35 constitutes an interference to the movement of
 125 the operating rod in a direction which would open the hot water valve.

I claim:

1. In a lavatory fixture, the combination, with valve mechanism for controlling the
 130 admission of water, of a water supply tube or pipe supporting and communicating with such valve mechanism, an operating rod extending through said tube for operating the valve mechanism, a water spout connected

with said pipe and adjustable angularly with respect thereto to any predetermined position, and means for securing said pipe and spout in any such adjusted position.

2. In a lavatory fixture, the combination, with valve mechanism for controlling the admission of water, of a water supply tube or pipe supporting and communicating with such valve mechanism, an operating rod extending through said tube for operating the valve mechanism, a water spout connected with said pipe and adjustable angularly with respect thereto, said spout having a portion encircling and communicating with said pipe, and means for clamping said pipe and spout together.

3. In a lavatory fixture, the combination, with valve mechanism for controlling the admission of water, of a water supply tube or pipe supporting and communicating with such valve mechanism, an operating rod extending through said tube for operating the valve mechanism, a water spout connected with said pipe and adjustable angularly with respect thereto, said pipe being screw threaded at its upper end, and a clamping nut for clamping the pipe and spout together and also clamping the pipe in position.

4. In combination with the basin and with valve mechanism for controlling the admission of water, a water supply tube or pipe communicating with said mechanism and passing through an opening in the basin, said pipe having a flange intermediate its length, an operating rod extending through said tube for operating the valve mechanism, a water spout encircling said pipe and bearing on said flange, and a clamping nut engaging said pipe and arranged to clamp the pipe and spout together and to the basin.

5. In combination with the basin and with valve mechanism for controlling the admission of water, a water supply tube or pipe communicating with said mechanism and passing through an opening in the basin, said pipe having a flange intermediate its length, a water spout encircling said pipe and bearing on said flange, a clamping nut engaging said pipe and arranged to clamp the pipe and spout together and to the basin, and a valve operating rod extending centrally through said nut and pipe to the valve mechanism.

6. In combination with the basin 1 having an extension or chamber 1^a provided with registering openings, valve mechanism for admitting the water, a pipe 15 communicating with the valve mechanism and extending through said openings, such pipe being screw threaded at its upper end and having a flange 15^a intermediate its length and also lateral openings 17, a water spout 19 having one end encircling said pipe and communicating with said openings 17, and a nut 16

engaging said screw-threaded end of the pipe and adapted to clamp said spout to the pipe and to said extension 1^a.

7. Valve mechanism for controlling the admission of hot and cold water and having a single operating means for supplying either hot or cold water to a basin or the like or cold water only to a water cooler or the like at the will of the operator.

8. Valve mechanism for controlling the admission of water and having an operating handle normally in position to admit, when operated, the water to a basin or the like but arranged to be depressed to admit the water to a water cooler or the like.

9. Valve mechanism for controlling the admission of hot and cold water and having a single operating means for supplying either kind of water to a basin or the like, or cold water only to another place, such as a water cooler.

10. Valve mechanism for controlling the admission of hot and cold water and having a single operating means for supplying either kind of water to a basin or the like, or cold water only to another place, such as a water cooler, said means consisting of an operating handle normally in position to admit either kind of water to the basin when operated and arranged to be depressed to admit cold water only to the water cooler.

11. In combination with valve mechanism for controlling the admission of either hot or cold water to a basin or the like and having a casing provided with a port leading to a water cooler or the like, and an operating means normally arranged to control said valve mechanism but arranged, at the will of the operator, to be positioned to supply cold water only through said port.

12. In combination with valve mechanism for controlling the admission of water to a basin or the like and having a casing provided with a port leading to a water cooler or the like, a valve normally closing said port and supplemental to said valve mechanism, and an operating means normally arranged to control said valve mechanism but adapted to be positioned to open said valve to supply water through said port.

13. In combination with valve mechanism for controlling the admission of water to a basin or the like and having a casing provided with a port leading to a water cooler or the like, a valve normally closing said port and supplemental to said valve mechanism, an operating rod normally in position to admit water to the basin when operated but adapted to be positioned to open said valve, and means for preventing the flow of water to the basin when such valve is open.

14. In combination with valve mechanism for controlling the admission of hot or cold water to a basin or the like, a valve for controlling cold water only therefrom to an-

other place, such as a water cooler, and an operating means normally arranged to admit either hot or cold water to the basin but adapted to be positioned at the will of the operator for operation to open said valve for the supply of cold water only.

15. In combination with valve mechanism for controlling the admission of hot or cold water to a basin or the like, a valve for controlling cold water only therefrom to another place, such as a water cooler, an operating device arranged to admit either hot or cold water to the basin but adapted to admit cold water to the cooler at the will of the operator, and means cooperating with said device to prevent that operation of the valve mechanism which admits hot water and compelling that operation thereof which admits cold water when it is desired to admit water to the cooler.

16. In combination with valve mechanism for controlling the admission of hot or cold water to a basin or the like, a valve for controlling cold water only therefrom to another place, such as a water cooler, an operating means normally arranged to admit either hot or cold water to the basin but adapted to be positioned at the will of the operator for operation to open said valve for the supply of cold water, said operating means consisting of a rod having an extension for controlling said valve mechanism for admitting either hot or cold water, and means for limiting the degree of movement of such rod and permitting such movement thereof which operates the valve to admit cold water when such rod is operated for the purpose of supplying the water cooler.

17. Valve mechanism for controlling the admission of hot and cold water and having a single operating means for supplying either kind of water to a basin or the like, or cold water only to another place, such as a water cooler, said means consisting of an operating handle normally in position to admit either kind of water to the basin when operated and arranged to be depressed to admit cold water only to the water cooler, and means for limiting the degree of movement of the handle when depressed and compelling actuation of the valve mechanism for supplying cold water and preventing the actuation thereof which supplies hot water.

18. In combination with valve mechanism for controlling the admission of hot or cold water to a basin or the like, a valve for controlling cold water only therefrom to another place, such as a water cooler, an operating means normally arranged to admit either hot or cold water to the basin but adapted to be positioned at the will of the operator for operation to open said valve for the supply of cold water, said operating means consisting of a rod having an extension for controlling said valve mechanism

for admitting either hot or cold water, said rod being normally in position to actuate the valve mechanism for supplying either hot or cold water but arranged to be longitudinally moved to an inoperative position as respects the operation of the valve mechanism for admitting hot water, and a projection arranged to render the rod inoperative in said respect when so moved.

19. In combination with valve mechanism for controlling the admission of hot or cold water to a basin or the like, a valve for controlling cold water only therefrom to another place, such as a water cooler, and an operating means normally arranged to admit either hot or cold water to the basin but adapted to be positioned at the will of the operator for operation to open said valve for the supply of cold water, said operating means consisting of a rod having an extension for controlling said valve mechanism for admitting either hot or cold water, and a projection arranged adjacent said extension and adapted to be contacted by the latter when the rod is positioned to open said valve whereby the rod is prevented from rotation except to admit cold water.

20. In combination with a casing having hot and cold water connections and a port or connection to a water cooler or the like and also a connection with a basin or the like, valve mechanism in said casing for governing said hot and cold water connections, a normally closed valve governing said port, an operating rod normally in position to control said valve mechanism for supplying either hot or cold water to the basin but arranged to be longitudinally moved to open the valve governing said port, and means for rendering said rod inoperative except to admit cold water when so moved.

21. In combination with a casing having hot and cold water connections and a port or connection to a water cooler or the like and also a connection with a basin or the like, valve mechanism in said casing for governing said hot and cold water connections, a normally closed valve governing said port, an operating rod normally in position to control said valve mechanism for supplying either hot or cold water to the basin, but arranged to be longitudinally moved, said normally closed valve having a stem projecting into the path of the rod which has a bore at its lower end to receive such stem whereby said valve is opened when the rod is so moved, and means for rendering said rod inoperative except to admit cold water when so moved.

22. In combination with a casing having hot and cold water connections and a port or connection to a water cooler or the like and also a connection with a basin or the like, valve mechanism in said casing for governing said hot and cold water connec-

tions, a normally closed valve governing said port, an operating rod normally in position to control said valve mechanism for supplying either hot or cold water to the
5 basin but arranged to be longitudinally moved to open the valve governing said port, and means for rendering said rod inoperative except to admit cold water when so moved, said basin connection having an interior annular shoulder 34 and the operating
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rod being of greater diameter at its upper end so as to fit closely within such annular shoulder when such rod is longitudinally moved and thereby, at such time, prevent flow of water to the basin.

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Witnesses:

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