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PETCOCK.

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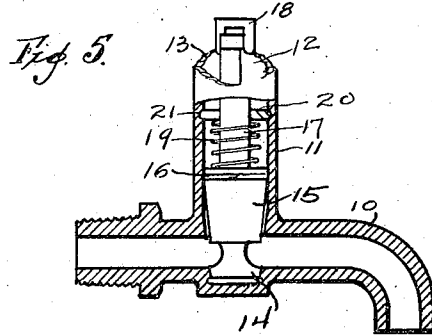
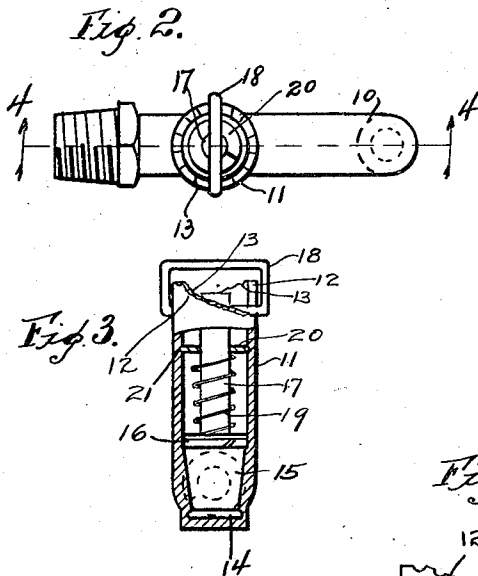
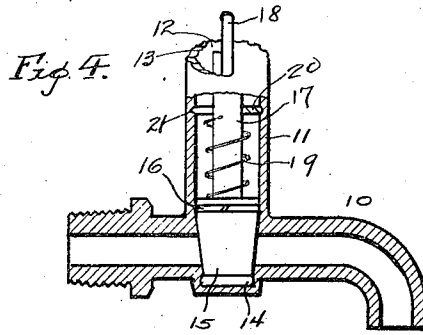
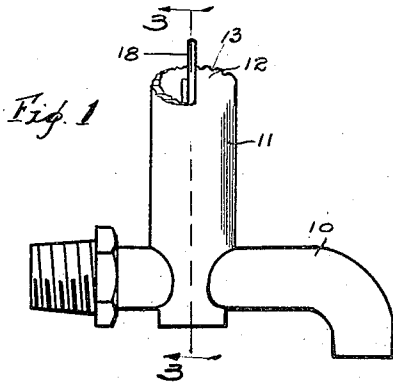


Fig. 6.

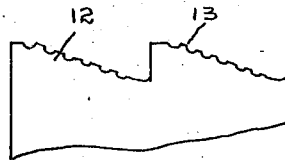
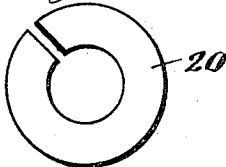


Fig. 7.



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UNITED STATES PATENT OFFICE.

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PETCOCK.

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To all whom it may concern:

Be it known that we, FLOYD E. SNYDER and LEGRAND B. COTTERMAN, citizens of the United States and residents of Indianapolis, county of Marion and State of Indiana, have invented a certain new and useful Petcock; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

This invention relates to petcocks for valves especially adapted to be used on radiators for draining the water therefrom, or otherwise used on pipes and boilers for draining purposes, or gas pipes and the like.

The principal feature of this invention is to construct a petcock which will be absolutely water or gas tight, so that in the course of its use and wear it will not become defective and leak, as is often the case in the common type of petcocks now in use. The operation of the petcock herein described does not depend entirely upon a spring for holding it in closed position, so that in case of a weak or worn spring the petcock will not become inoperative or defective.

Another important feature of this invention is the construction of the petcock shown herein which enables it to be very cheaply made as compared with the petcock of ordinary construction, as will readily appear from the fact that very few machining operations are necessary, both of the parts being formed principally of casting or bar stock. This construction enables the valve to be more firmly seated than the ordinary type and nothing can open it excepting manual force, whereas the common type of valve may be opened and a large amount of damage done by something coming in contact and turning the valve handle.

Another feature of the invention is the fact that the petcock is self cleaning due to the rotary movement of the cock in its seat.

The full nature of the invention will be understood from the accompanying drawings and the following description and claims.

Figure 1 is a side elevation of the petcock showing the valve in closed position. Fig. 2 is a plan view looking down on the petcock. Fig. 3 is a cross section taken on the line 3—3 of Fig. 1. Fig. 4 is a cross section taken on the line 4—4 of Fig. 2. Fig. 5

is the same as Fig. 4 showing the valve in open position. Fig. 6 shows an outlay of the cammed portion of the upright tube member. Fig. 7 is a plan view of a split washer used in connection with the petcock.

There is shown in the drawings a petcock having a petcock body 10 which is provided with screw threads on one end adapted to be screwed into the article to be drained. Integral with the petcock body and extending upwardly therefrom there is a tube 11 which is provided on its upper end with two cams 12 having a plurality of notches 13 in their upper surface, for adjusting the petcock in open and closed position.

In the petcock body there is a cut away portion which is a continuation of the upright tube 11 and tapered downwardly to form a seat 14 for the cock 15. The cock 15 is adapted to seat in the cutaway portion as shown in Fig. 4 so as to entirely close the passage through the petcock body. When in this position the cock entirely prevents the passage of any liquid or gas through said petcock. Surrounding the upper periphery of the cock there is a packing ring 16 adapted to engage the inner wall of the upright tube and prevent any leakage there-through. Rigidly mounted on or integral with the cock there is a stem 17 which extends vertically upward through the tube 11 and out through the top upon which is secured a handle 18 for both turning and lifting the cock out of its seat. The handle 18 is adapted to span the tube 11 and rest on and engage the cams 12 so that when said handle is turned it will be forced upwardly by said cams and may be retained in its set position by the notches 13. It is obvious that the upward movement of the handle 18 will cause the cock 15 to be turned and lifted out of its seat to the position shown in Fig. 5 whereby the passage through the petcock body will be opened and the liquid or gas permitted to pass therethrough.

For causing the cock to seat in the petcock body and close the passageway there-through when the handle 18 is turned to the position shown in Fig. 4 there is provided a spring 19 adapted to surround the stem and be engaged between the upper surface of the cock and a split washer 20. The split washer is such that it may be squeezed or pinched into the tube 11 until it engages a peripheral notch 21 therein, in which it will expand and be engaged.

It is, therefore, obvious from the foregoing that a valve constructed in this manner will eliminate all danger of the handle or valve being turned accidentally, as the handle which operates the cock shown herein must be lifted and turned at the same time in order to open the petcock. From the manner in which the cock is seated in the petcock body, and by the use of the packing ring in the upper portion thereof, it will be seen that no leakage can occur through the wearing or constant use of the petcock while at the same time the manufacture thereof may be cheapened for the various reasons which will appear from the above to those familiar in the art.

The invention claimed is:

1. In a petcock including a petcock body having a cock seat, an upright tube mounted on said body, opposed cam surfaces on the upper end of said tube, a cock having a closed peripheral surface adapted to seat snugly in said cock seat for closing the passage through said petcock body, a washer above said cock, said tube having a groove in which said washer seats, means connected with said cock for engaging said cam surfaces so that when turned said cock will be lifted out of said seat for opening the passage through said petcock and means between said cock and washer for returning the cock to closed position.

2. In a petcock including a petcock body having a cock seat therein, an upright tube mounted on said body, opposed cams on said tube, a cock having a solid peripheral sur-

face adapted to seat snugly in said cock seat for closing the passage through said petcock body, a stem secured on said cock, a handle on said stem extending transversely across the upper end of said tube and adapted to engage said cams so as to be raised when turned, whereby said cock will be lifted from said cock seat for freeing the passage of said petcock, a split washer above said cock in stationary relation with said tube and means between the cock and washer for causing said cock to return to its seat when said handle is turned to its lower position relative to said cam.

3. In a petcock including a petcock body having a cock seat therein, an upright tube mounted on said body, cams oppositely mounted on said tube, a plurality of notches in said cams, a cock having a closed peripheral surface adapted to seat snugly in said cock seat for closing the passage through said petcock body, a packing ring in said cock adapted to engage said tube, a stem on said cock adapted to extend upwardly through said tube, a split washer adapted to seat in a groove in said tube, a compression spring mounted between said cock and washer, and a handle secured to the end of said stem in position to engage said notches for lifting said cock and adjustably opening said petcock.

In witness whereof we have hereunto affixed our signatures.

FLOYD E. SNYDER.
LEGRAND B. COTTERMAN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."