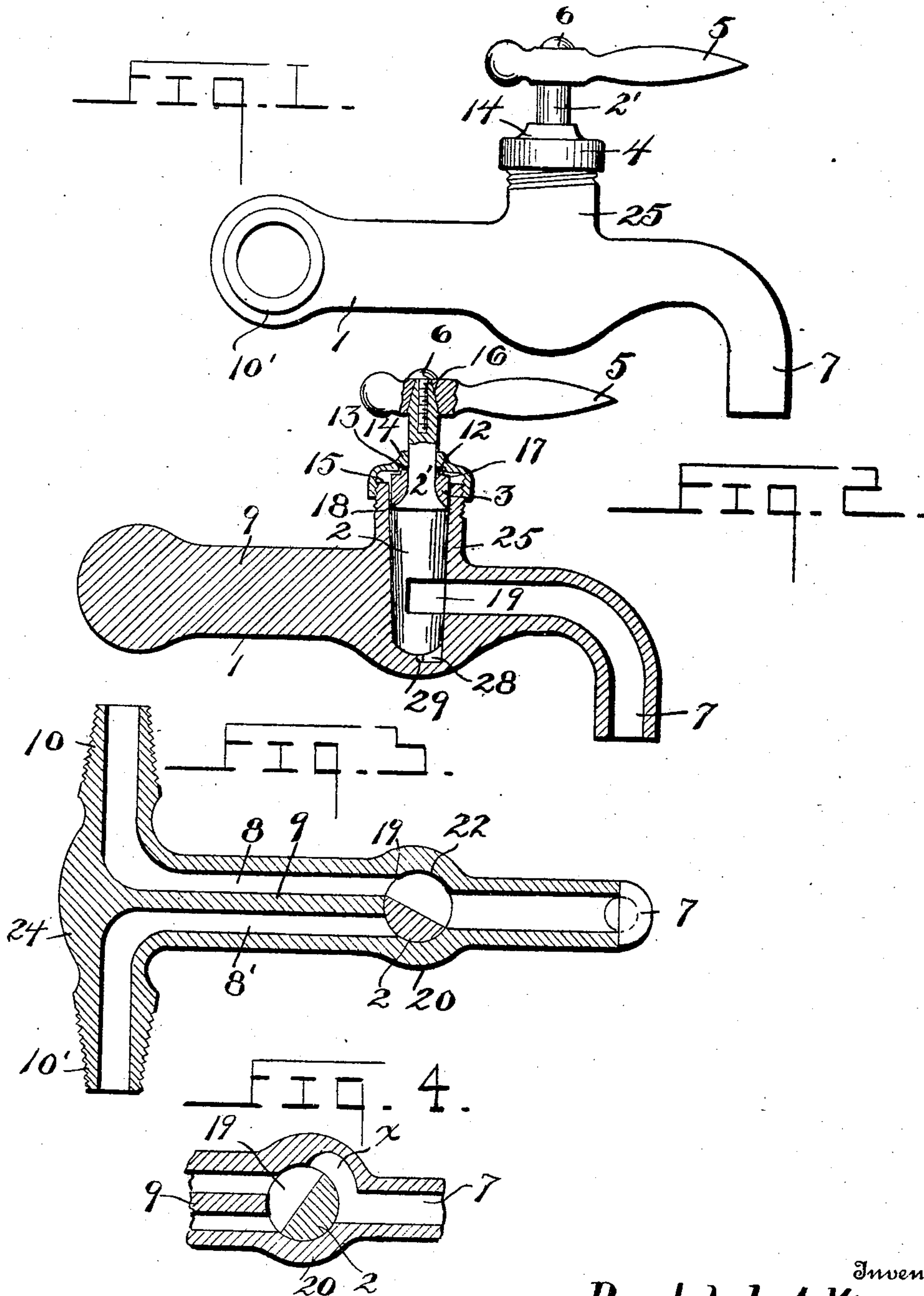


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FAUCET.

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969,108.

Patented Aug. 30, 1910.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## FAUCET.

969,108.

Specification of Letters Patent.

Patented Aug. 30, 1910.

Application filed November 15, 1909. Serial No. 528,208.

*To all whom it may concern:*

Be it known that I, RUDOLPH A. KIENA, a citizen of the United States, residing at Stapleton, in the county of Richmond and State of New York, have invented certain new and useful Improvements in Faucets, of which the following is a specification.

This invention has relation to certain new and useful improvements in faucets.

10 My invention has for its primary object the provision of an improved faucet, which will operate in an efficient manner, as a duplex cock, permitting hot or cold water being drawn therethrough.

15 With the above and other objects in view the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

25 In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 shows a side view of a faucet embodying my invention. Fig. 2 shows a vertical sectional view. Fig. 3 shows a horizontal sectional view. Fig. 4 shows a modification including a bypass.

In the accompanying drawings the numeral 1 designates a tube which is provided with the longitudinally positioned wall 9, to divide the tube into two channels marked 8, 8'. Secured to this tube 1, is a cross head 24, also in the form of a tube, the ends of which are threaded, as shown at 10 and 10'. The wall 9, stops against the inner portion of this cross head forming tube 24, as shown in Fig. 3, the channels 8 and 8' being conducted through this cross head in opposite directions. The tube 1 is provided with the enlargement 20, forming a shell or valve casing having a conical valve seat 22, as shown in Fig. 3, this valve seat being partly contained within the upstanding shell or casing 25. The outer upper end of this casing 25 is threaded, while continued from this casing and communicating with the valve seat 22, is the spout 7. The casing 25 extends in a plane at right angles to the plane of said channels 8 and 8'.

55 Held within the valve seat 22, is the valve 2, having the escape way 19, this valve being

of a length less than the length of the casing 25, as clearly disclosed in Fig. 2.

The upper surface of the valve 2, is slightly dished as shown at 18, and extending from this valve 2 is the spindle 2', the upper end of which is squared as shown at 16 for coaction with the seat formed within the operating handle 5, which is secured to the valve stem by means of the screw 6.

Held upon the valve stem 2', is a washer 3 made of compressed paper or other material capable of slightly expanding when moistened, this washer being provided with the annular rim 12. As shown, this washer is of such a thickness that when placed upon the upper dished end of the valve 2, the same will project beyond the upper end 15, of the casing 25.

Threading upon the casing 25, is the cap 4, having the upwardly directed collar 14, this cap being provided with the annular depression or seat 13, arranged to receive the rim 12, of the washer 3. The under surface of this cap is arranged to contact with the upper surface 17 of the washer to slightly force this washer 3 over the upper end of the casing 25. As this washer in the use of the faucet becomes moistened it slightly expands to insure a water tight union between the cap and stem. The moisture within the washer further acts and serves as a lubricant so that the valve can at all times be readily operated.

A suitable pipe is secured to the end 10 to provide a cold water supply, while another pipe providing the hot water is secured to the end 10'. In its closed position, the valve covers both of the exit openings of the channels 8 and 8'. On turning the valves in one direction at sufficient distance, as shown in Fig. 3, for instance, cold water may be drawn through the faucet, whereas in turning the valve a like distance in an opposite direction, hot water may be drawn from the faucet.

A faucet constructed according to my invention is simple and inexpensive in construction and both durable and efficient in operation, and the use of the expanding washer insures a water tight valve connection.

In order to limit the movement of the valve or plug 2, I provide the same at its lower end, with the pin 29, which is held within the semi-circular depression 28, in the bottom of the valve seat 22.



In the modification shown in Fig. 4, the cock housing has a bypass  $\alpha$ , so that, as shown, hot and cold water can be simultaneously drawn from the faucet in which in-  
 5 stance the escape way will be smaller in area than that shown in Fig. 3 for properly connecting the several channels with the discharge spout 7.

Having thus described my said invention,  
 10 what is claimed is:

1. In combination, a faucet comprising a tube having a longitudinally positioned wall dividing said tube into two channels, a cross head located at one end of said tube,  
 15 said channels being continued through said cross head in opposite directions, a valve casing at the other end of said tube extending transversely thereof, a valve within said casing having a port arranged to register  
 20 with either of said channels, a valve stem extending from the valve and contained partly within said casing, a rim upstanding from the upper end of the valve casing and having its upper end threaded, a washer  
 25 within said upstanding rim surrounding said stem and engaging the upper end of the valve, said washer having an upstanding

annular shoulder, and said washer being of material adapted to expand when moistened, a cap threaded onto said upstanding rim  
 30 and surrounding said stem, and having an annular seat receiving and engaging the upstanding shoulder of said washer, said cap retaining said valve on its seat, and an operating handle connected to the valve stem. 35

2. In combination, a faucet comprising a multiple passage tube, a valve casing disposed transversely thereof and communicating with the passages, a valve in said casing adapted to close said passages and having a  
 40 port adapted to register independently or simultaneously with said passages, a spout opposite said passages communicating with said valve casing and adapted to receive the discharge from either passage through the  
 45 valve port, and a by pass for directing the simultaneous discharge from the passages and through the valve port to the spout.

In testimony whereof I affix my signature, in presence of two witnesses.

RUDOLPH A. KIENA.

Witnesses:

JOHN J. SULLIVAN,  
 CHAS. H. KIENA.