May 10, 1927. W. E. WILLIAMS 1,628,566

TRY COCK

Filed Oct. 27, 1926

Fig. 1.

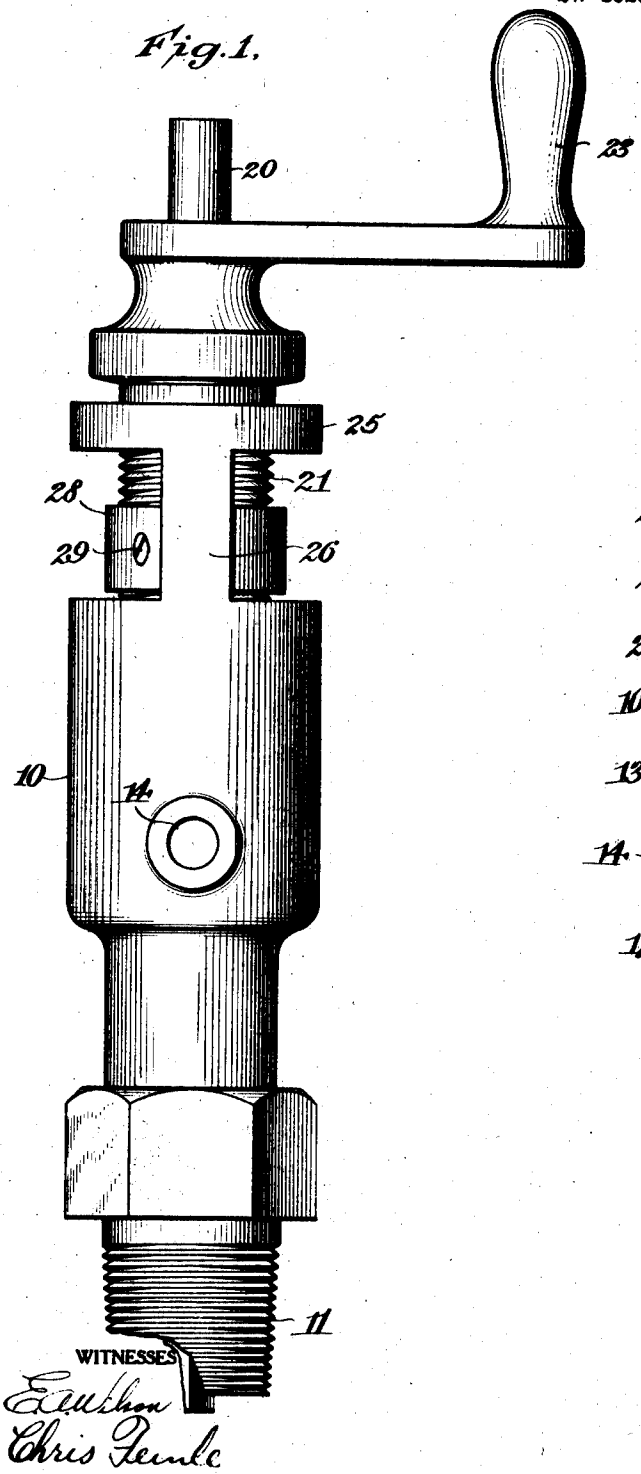
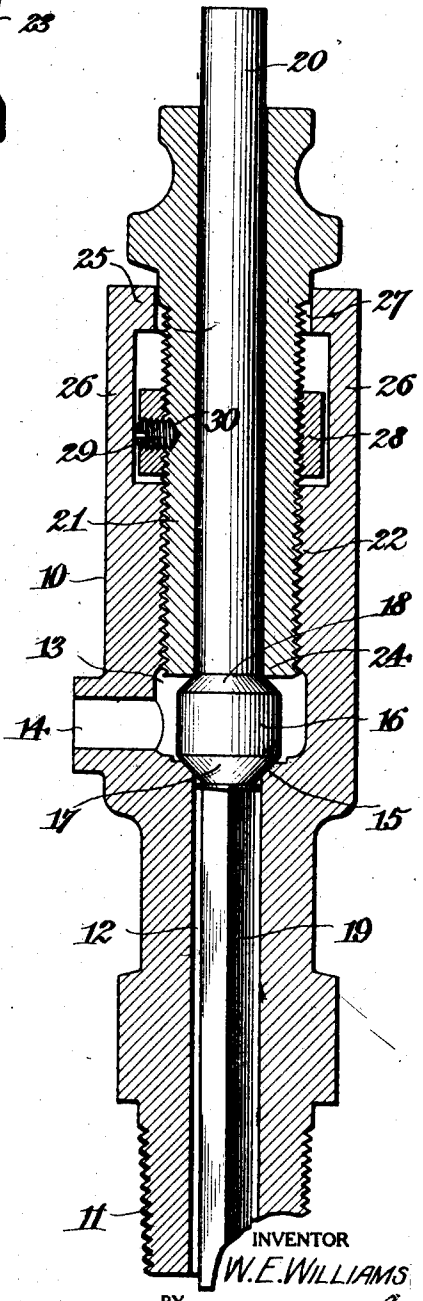


Fig. 2.



WITNESSES

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TRY COCK.

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This invention relates to the class of cocks and valves, and has especial reference to try cocks.

A try cock is one used in connection with a boiler for ascertaining whether or not the water in the boiler is up to the level of the cock. If the water is up to that level, it will be apparent upon opening of the cock by out rush of water through it. Due to lack of suitable means on ordinary boiler try cocks, when they are manipulated, the valve member which controls the inlet and outlet of the cock might be accidentally turned too far, so as to be unscrewed out of the casing, or the same result might be caused when the valve member works loose under action of pressure causing trouble and injuries from scalding.

Therefore, it is the principal object of the present invention to combine means with the appurtenances of a cock of the indicated character preventing unintentional or accidental separation of the valve control member and parts connected thereto.

The nature of the invention and its distinguishing features and advantages will appear when the following specification is read in connection with the accompanying drawing, in which:

Figure 1 is a side elevation of a try cock embodying the present invention.

Figure 2 is a central vertical sectional view through the try cock.

Referring now more particularly to the views of the drawing, it will be apparent that, the try cock essentially includes a casing 10 having a threaded end 11 for effecting the connection of the casing, an inlet passage 12 in communication with a bore 13, and an outlet 14 also in communication with the bore 13. At the point where the inlet passage 12 communicates with the bore 13, there is a seat 15. The inlet passage 12 and the outlet 14 is controlled by a valve member 16 having conical ends 17 and 18. The valve member 16 is arranged between a stem 19 and a stem 20. The stem 19 is cross-sectionally triangular and extends in the inlet passage 12, it allows steam to pass upwardly through the inlet passage 12, and it acts as a guide. The stem 20 is cross-sectionally round and extends in a central bore in an adjustable controlling sleeve 21. The bore 13 hereinbefore referred to, is threaded as at 22 for a portion of its length, whereas, the sleeve 21 has external threads complemental to the threads of the bore 22 by virtue of which the sleeve 21 is adjustably associated with the casing 10. The upper end of the sleeve 21 is provided with a handle 23 for manipulating the sleeve 21. When the sleeve 21 is in the position shown in Figure 2, the valve member 16 will be held against movement with its conical portion 17 on the seat 15, and its conical portion 18 against a seat 24 on the lower end of the sleeve 21. In this position of the valve member 16, the inlet passage 12 will be closed thus preventing escape of water through the outlet 14.

In order to prevent the sleeve 21, and therefore the valve member with its stems 19 and 20 from working out of the casing 10 there is provided a suitable means, in the present instance, consisting of an annular member 25 formed integral with the casing 10 by virtue of diametrically opposed members 26. The sleeve 21 is adapted to be extended through the opening 27 in the member 25. A collar 28 constituting a stop is threaded on the sleeve 21, and said collar is held in place by a set screw 29. The set screw 29 threads in a bore in the collar 28 and the inner end enters a recess 30 in the sleeve 21 to thus securely hold the collar 28 in place on the sleeve 21. It will now be apparent that when the sleeve 21 is turned so as to move upwardly, there comes a time when the collar 28 will engage the annular member 25. The sleeve 21 is thus prevented from being separated from the casing 10. By manipulating the handle 23 the sleeve 21 may be moved upwardly to permit the valve member 16 to be elevated under the action of pressure entering the inlet passage 12, and as a consequence any water present in the boiler to which the cock is connected will pass through the outlet 14. The valve member 16 may then be turned to the closed position. These opening and closing opera-

tions may be carried out frequently without any danger of separation of the controlling parts of the cock.

I claim:

A try cock including a casing having an inlet, an outlet and a seat between the inlet and outlet; a stem, a valve member on the stem, a sleeve surrounding the stem and adjustably associated with said casing, said sleeve having a seat, said valve member adapted to be moved into and out of engagement with said seats, and means limiting the adjustment of said sleeve.

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