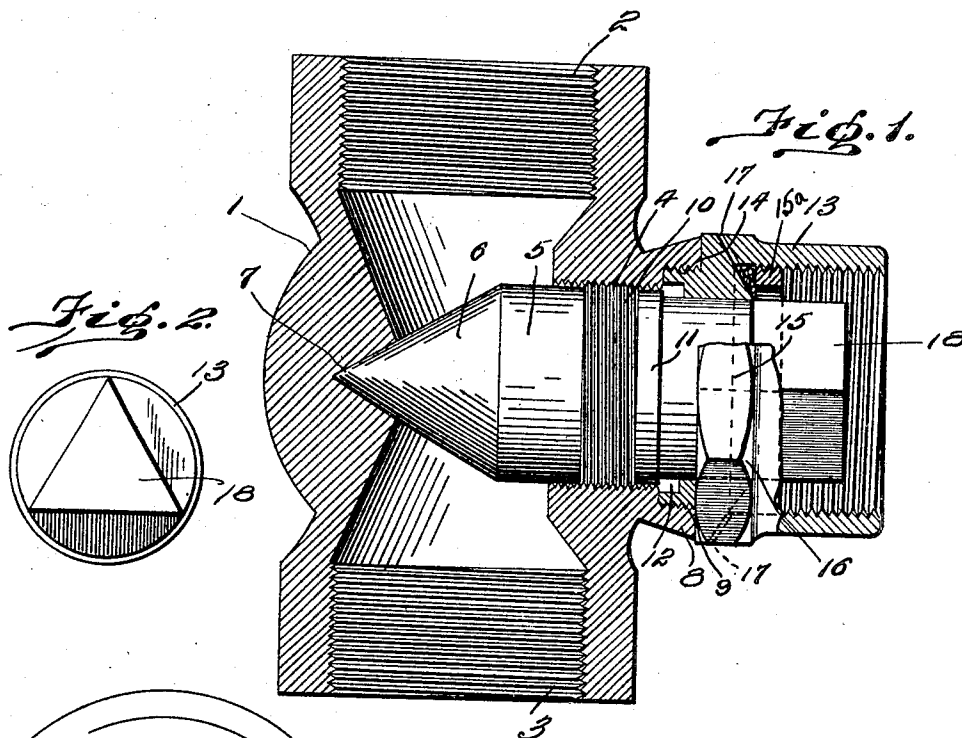
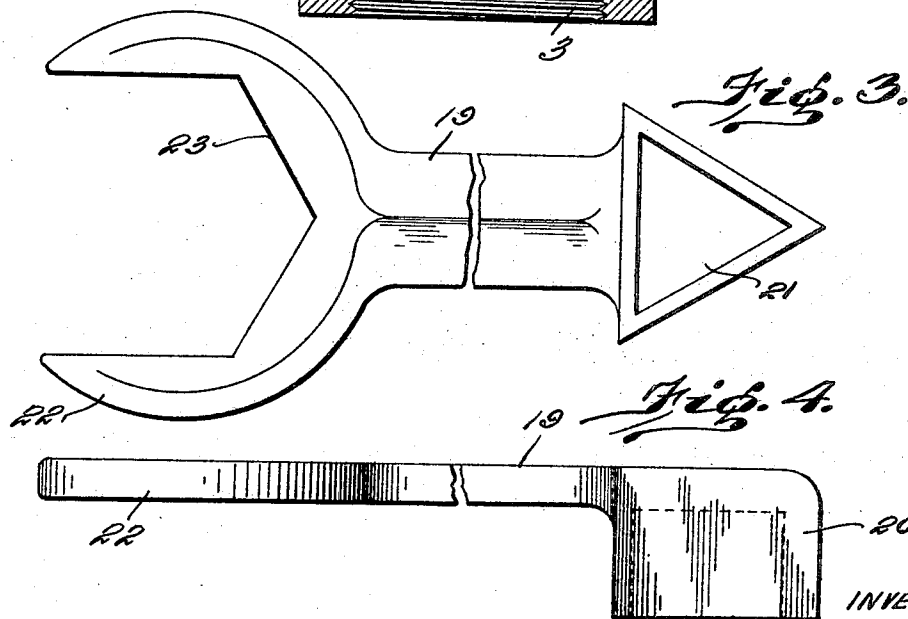


1,417,291.

J. M. ALLEN.
VALVE.
APPLICATION FILED OCT. 20, 1920.

Patented May 23, 1922.



Witness
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UNITED STATES PATENT OFFICE.

JACKSON M. ALLEN, OF GROVE CITY, PENNSYLVANIA.

VALVE.

1,417,291.

Specification of Letters Patent. Patented May 23, 1922.

Application filed October 20, 1920. Serial No. 418,273.

To all whom it may concern:

Be it known that I, JACKSON M. ALLEN, a citizen of the United States, residing at Grove City, in the county of Mercer and State of Pennsylvania, have invented certain new and useful Improvements in Valves, of which the following is a specification.

This invention relates to valves and more particularly to an adjustable valve for steam heating systems.

One of the objects of the invention is the construction of a valve of the above type wherein means are provided for adjusting a cone valve with respect to a threaded pipe whereby the same may be regulated with accuracy and precision in opening and closing the opening.

Another object of the invention resides in the construction of an adjustable valve including means to prevent the valve from blowing out by internal pressure.

A still further object resides in the provision of a drainage duct in the valve to permit the escape of moisture or leakage and also adapted to receive packing when so desired.

With these objects in view and others which will be manifest and suggested as the nature and purpose of the invention are revealed in the following specification and drawing wherein I have shown a practical, yet preferred embodiment thereof.

Figure 1 is a vertical section of the valve, parts being broken away.

Fig. 2 is a plan view of the cone.

Fig. 3 is a plan view of a key for securing the valve in its seat.

Fig. 4 is a side view of the same.

Referring to the drawings wherein like parts are designated by the same reference numerals, I have shown the casing 1 having the usual screw threaded inlet and outlet ports 2, 3 and a transverse screw threaded opening 4 which receives the valve 5, the cone 6 thereof being retained in its seat 7 as clearly shown in Fig. 1 of the drawing. The casing is also provided with an angularly extending boss 8 which is screw threaded as shown at 9 to receive a closure member subsequently to be described.

It will be seen that the valve 5 is screw threaded at 10 so that it may be turned in the threads 4 of the casing and thus lock or release the valve from its seat. A shoulder 11 continuous with the threaded portion is also provided on the valve which permits

it to move outwardly in a clearance 12 so that the cone may be raised until it is entirely open. In its outward movement, the shoulder 11 will strike the clearance 12 and thus locks the cone preventing its raising or blowing out.

The hollow closure 13 is screw threaded as at 14 on the boss 8 and is provided with an integral, polygonal portion 15 which may be engaged by a key to turn the said closure. The raised portion 15 is preferably machined as shown at 16 to permit any moisture or leakage that may occur in the valve to be discharged through the opening 17 and also is adapted to form a seat for a packing ring 15^a. The opposite terminal of the valve seated in the closure is preferably triangular as shown at 18 so that it may be turned by a key constructed for the purpose.

In Figs. 3 and 4 I have shown a preferred form of key particularly adapted and constructed to fit the raised portion 15 of the closure member 13 and also the triangular end of the valve. The key comprises a shank 19 connecting a socket 20 extending at right angles therefrom and provided with a triangular opening 21 therein, the opposite end of the shank being provided with a circular enlarged head 22, having a polygonal opening 23. It will therefore be seen that the same tool may readily accommodate the closure member and the triangular valve and thus remove the parts as is obvious.

From the above description it will be seen that I have provided a novel form of valve which may be adjusted in its valve seat in various positions and means to positively prevent it from being blown out by outward pressure from the pipes. In addition the drainage means provided readily permits moisture or leakage to be discharged and therefor the parts will not rust as in other types of valves.

In the accompanying drawings, I have illustrated my invention embodied in one form by way of example, and which in practice has been found to be highly satisfactory in obtaining the desired results. It will be obvious however that other embodiments may be adopted, and that various changes in the details of construction may be resorted to by those skilled in the art without departing from the spirit and scope of the invention. It is furthermore understood that the invention is not necessarily limited or restricted to the precise elements shown ex-

cept in so far as such limitations are specified in the subject matter being claimed.

What I claim is:

In a valve of the class described, a threaded casing, a cone valve threaded and seated in said casing, a shoulder formed on said valve continuous with the threaded portion thereof, a screw threaded boss formed on said casing, a hollow closure member screw threaded to said boss, said closure and valve being spaced to provide a clearance for the shoulder within the boss, said closure mem-

ber forming an abutment for the shoulder to prevent the valve from being forced outwardly by internal pressure within the casing, a polygonal raised portion on said closure adapted to abut said boss, and a drainage passage and opening therefor machined in said raised portion for the discharge of moisture or leakage in the valve. In testimony whereof, I affix my signature hereto.

JACKSON M. ALLEN.