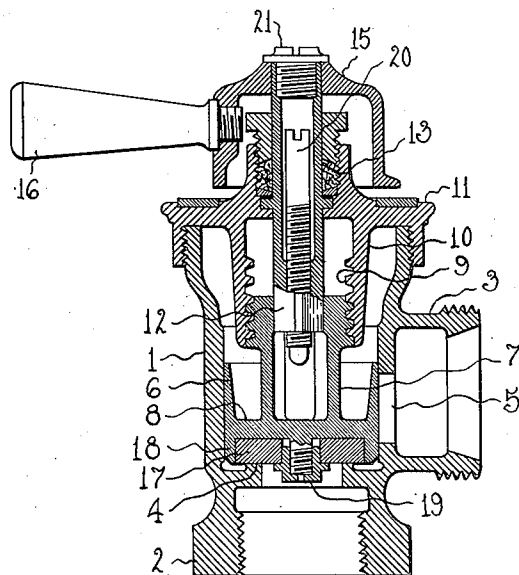


C. S. KELLUM.
ADJUSTABLE VALVE.

APPLICATION FILED OCT. 8, 1915. RENEWED JUNE 18, 1919.

1,324,196.

Patented Dec. 9, 1919.



Witnesses
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UNITED STATES PATENT OFFICE.

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ADJUSTABLE VALVE.

1,324,196.

Specification of Letters Patent.

Patented Dec. 9, 1919.

Application filed October 8, 1915, Serial No. 54,758. Renewed June 18, 1919. Serial No. 305,182.

To all whom it may concern:

Be it known that I, CHARLES S. KELLUM, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Adjustable Valves, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to valves suitable for radiators or the like where it is desirable to regulate the capacity of the valve to meet the particular requirement of service where a particular valve is installed, combined with features which make the valve tight when closed.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

The drawing is a view in longitudinal section taken through a valve that embodies features of the invention.

Referring to the drawing, a casing 1 has an inlet nipple 2 whereby it may be connected to any pipe or the like, and has an outlet nipple 3, properly arranged for a discharge connection. Between the two nipples there is an annular valve seat 4. A port 5 in the side of the casing 1 that opens into the discharge nipple 3 is controlled by a cylindrical barrel closure or sleeve 6 that closely fits the interior of the casing 1 so as to be rotatable and longitudinally reciprocable therein. A hollow stem 7 extending upwardly from the lower head 8 of the sleeve, is exteriorly screwthreaded to engage the interior threads 9 of a depending sleeve 10 that is carried by a cap 11 fitted removably on the upper end of the casing 1. The bore of the stem 7 is squared, polygonal or splined to non-rotatably engage a depending post 12 that extends through a suitable packing gland indicated generally at 13 and non-rotatably engages in a hood or bonnet 15 from which a handle 16 extends.

A disk closure 17 is retained as by a cap screw 19 or the like against the under side of the head 8 to close on the seat 4 and seal it, an outer flange 18 aiding in holding it.

Upward movement of the sleeve 6 past the port 5 is defined by an adjustable screw 20 in the hollow post 12 of the handle, a

guard screw 21 concealing the same and preventing it from being tampered with unnecessarily.

As a result of this construction, a valve is obtained that may be adjusted to open by one revolution or part revolution of the handle 16, (a suitable stop being provided), so as to uncover any desired portion of the port into the discharge outlet. Therefore the valve is readily regulated to suit any particular size of radiator or the like. At the same time when the valve is closed, it has all the advantages of a disk type of seal and does not require the close machining of a valve that must be tight where the sleeve passes the port with the sliding motion of an ordinary valve.

Obviously, changes in the details of construction may be made without departing from the spirit of my invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim is:—

1. A valve, comprising a casing having an inlet and outlet at right angles to each other and a valve seat below the outlet and having an annular space around the same, a tubular valve fitting snugly in the casing and having a downwardly projecting annular flange in which a seat member is mounted, and an upwardly projecting hollow and externally threaded member, a bonnet secured to the casing, and having a downwardly projecting hollow and internally threaded member engaging the threaded member of the valve, a shaft mounted to turn but not to slide in the bonnet and having its outer end extending through the same, the inner end of the shaft extending into the tubular member of the valve and connected therewith to permit the said member to slide but not to turn thereon, and adjustable means for limiting the opening movement of the valve.

2. A valve, comprising a casing having an inlet and outlet, a tubular valve fitting snugly in the casing and having an upwardly projecting hollow and externally threaded member, a bonnet secured to the casing and having a downwardly projecting hollow and internally threaded member engaging the threaded member of the valve, a hollow shaft mounted to turn but not to slide in the bonnet and having its outer end

projecting through the same, the inner end of the shaft being internally threaded and mounted in the threaded member of the valve so that the said member can slide thereon
5 but will be turned thereby, an adjusting screw in the hollow shaft and terminating short of the upper end thereof, the inner threaded end of the screw engaging the inner threaded end of the shaft, and a flanged
10 cap screwing into the upper end of the hollow shaft.

3. A valve, comprising a casing having an inlet and outlet at right angles to each other, and a valve seat below the outlet, and having an annular space around the same, a
15 tubular valve fitting snugly in the casing and having a downwardly projecting annular flange in which a seat member is mounted, and an upwardly projecting hollow and
20 externally threaded member, a bonnet secured to the casing and having a socket member on its outer face receiving a packing member and on its inner face a downwardly projecting hollow and internally threaded
25 member engaging the threaded member of the valve, a shaft mounted to turn but not to slide in the bonnet and having its outer end extending through the same, the inner end of the shaft extending into the tubular
30 member of the valve and connected therewith to permit the said member to slide but not to turn thereon, a projecting hood secured to the projecting end of the shaft and surrounding the socket and packing members
35 of the bonnet, said hood being provided with

a handle, and adjustable means for limiting the opening movement of the valve.

4. A valve, comprising a casing having an inlet and outlet, a tubular valve fitting snugly in the casing and having an upwardly
40 projecting hollow and externally threaded member, a bonnet secured to the casing and having on its outer face a socket member receiving a packing member and on its inner face a downwardly projecting hollow and internally threaded member engaging the
45 threaded member of the valve, a hollow shaft mounted to turn but not to slide in the bonnet and having its outer end projecting through the same, the inner end of the shaft
50 being internally threaded and mounted in the threaded member of the valve so that the said member can slide thereon but will be turned thereby, a protecting hood secured to the upper end of the hollow shaft and
55 surrounding the socket and packing member of the bonnet, said hood being provided with a handle, an adjusting screw in the hollow shaft and terminating short of the upper end thereof, the inner threaded end of
60 the screw engaging the inner threaded end of the shaft, and a flanged cap screwing into the upper end of the hollow shaft with its flange engaging the hood.

In testimony whereof I affix my signature 65 in presence of two witnesses.

CHARLES S. KELLUM.

Witnesses:

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C. R. STICKNEY.