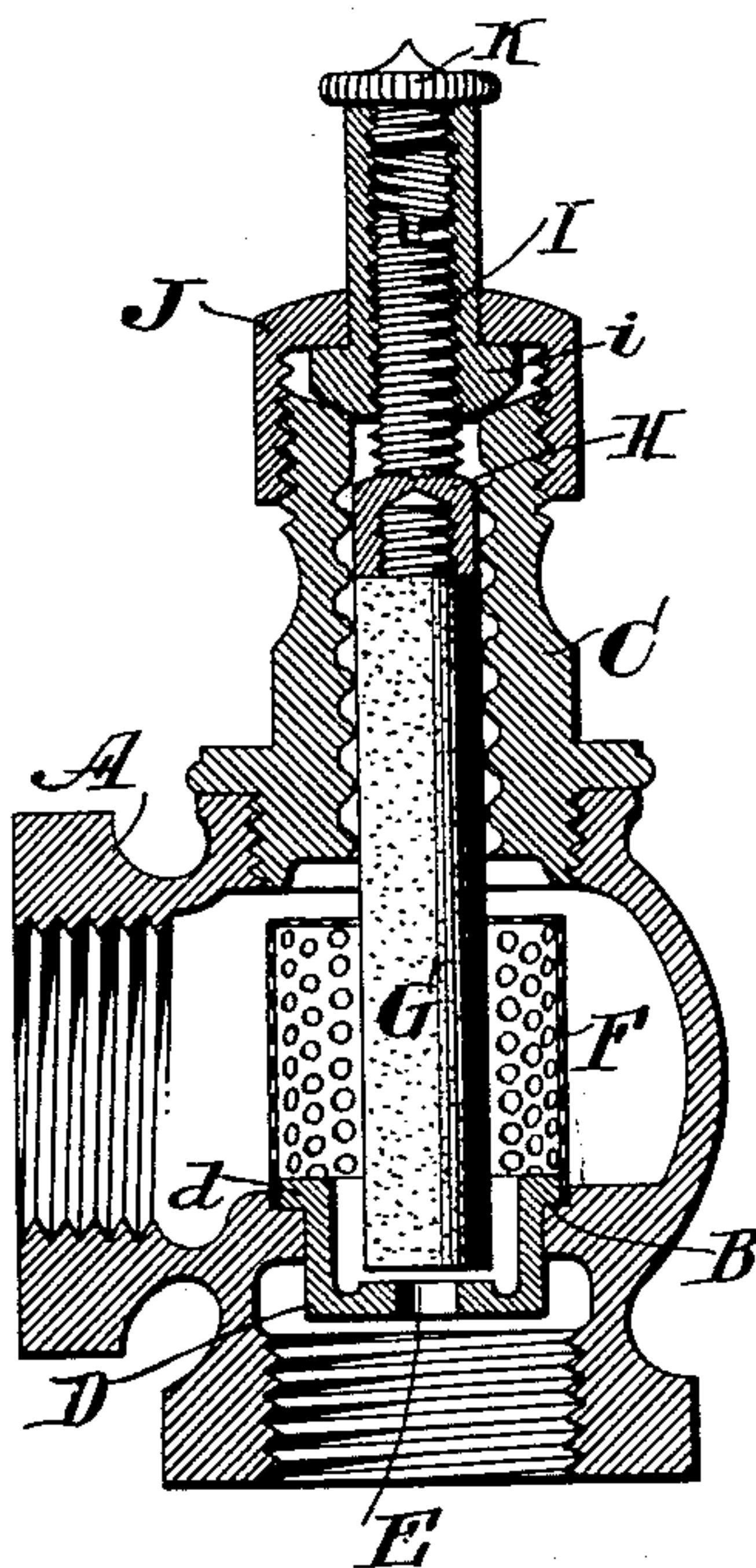


(No Model.)

M. LEITCH.
THERMOSTATIC VALVE.

No. 591,980.

Patented Oct. 19, 1897.



Witnesses.

Harry D. Dwyer
R. M. Kelly,

Inventor.

Meredith Leitch
By J. M. M. M. M.

Attorney.

UNITED STATES PATENT OFFICE.

MEREDITH LEITCH, OF RICHMOND, VIRGINIA, ASSIGNOR TO THE WARREN WEBSTER & COMPANY, OF NEW JERSEY.

THERMOSTATIC VALVE.

SPECIFICATION forming part of Letters Patent No. 591,980, dated October 19, 1897.

Application filed September 15, 1896. Serial No. 605,877. (No model.)

To all whom it may concern:

Be it known that I, MEREDITH LEITCH, of Richmond, Henrico county, Virginia, have invented an Improvement in Thermostatic Valves, of which the following is a specification.

My invention relates to thermostatic valves; and it consists of the improvements which are fully set forth in the following specification and are shown in the accompanying drawing.

It is the object of my invention to provide a cheap and simple construction for a thermostatic valve, particularly adapted for changing an ordinary globe or angle valve into a thermostatic valve at a small expense and with the utilization of as much of the old valve as is possible.

My invention includes an improvement in the means for supporting the expanding piece within the bonnet, so that its occupying a central portion may be insured and that it may be easily adjusted and adapted to valves of different sizes.

The drawing shows a longitudinal sectional view of a thermostatic valve involving my invention.

A is the usual valve-body, shown as an angle-valve, having the usual valve-seat B.

C is the usual valve-bonnet.

D is a small cup-shaped seat-piece to fit upon the usual valve-seat B entirely within the valve-body A and is provided with a valve-seat E for the thermostatic valve. The body of the piece D does not project materially above the seat B, so that the interior of the valve-body above the seat is open and unobstructed.

F is a screen carried by the piece D and projecting up above it to prevent the passage of dirt and particles of solid matter through the valve-seat.

I have shown the seat-piece D provided on its upper edge with a flange *d*, adapted to rest upon the seat B with the body of the piece D projecting below.

G is a thermostatic expanding piece adapted, when expanded by heat, to close on the seat E of the small piece D. In the construction shown this expanding piece is shown as a composition tube carried by an adjustable

plug H, inserted through the tubular passage in the bonnet C and carried by an internally-threaded nut I, which is held on the bonnet C by the usual bonnet-cap J, screwed upon the bonnet and fitting upon a shoulder of the nut. The lower portion of the nut I, which bears upon the top of the bonnet C, is preferably tapered, as at *i*, so as to insure the expanding piece G being brought into a central position and to suit variation in the size of the bonnet.

K is a plug screwed into the end of the nut I. The plug H and expanding piece G, which it carries, may be adjusted through the nut I when the cap K is removed.

In changing an ordinary globe or angle valve to a thermostatic valve the bonnet and cap, valve, valve-stem, stuffing-box, and wheel are removed and the small seat-piece D is inserted upon the old valve-seat B, the bonnet C is then screwed back into place, and the expanding piece and cap are applied.

By employing the small seat-piece D, independent of the parts which fit into the body of the valve, I am able to utilize the ordinary bonnet and bonnet-cap of the old valve, and the seat-pieces D, being small and simple, are inexpensive, so that the cost of the valve when changed from an old hand-valve to a thermostatic valve is reduced to a small amount, and the greatest possible number of the old parts are utilized.

The details of construction may be varied without departing from my invention.

What I claim as new, and desire to secure by Letters Patent, is—

In a thermostatic valve, the combination with the valve-body provided with a valve-seat, a nut I provided with a tapered face *i* resting on the top of the bonnet of the body, the thermostatic expanding piece carried by the nut I, and the cap J fitting over the nut and carried by the bonnet.

In testimony of which invention I have hereunto set my hand.

MEREDITH LEITCH.

Witnesses:

ERNEST HOWARD HUNTER,
WM. L. EVANS.