

O. KELSEY.
AIR VENT FOR STEAM RADIATORS.
APPLICATION FILED JAN. 31, 1911.

1,014,229.

Patented Jan. 9, 1912.

FIG. 1.

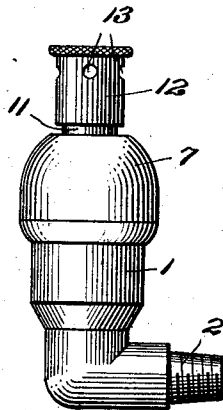


FIG. 2.

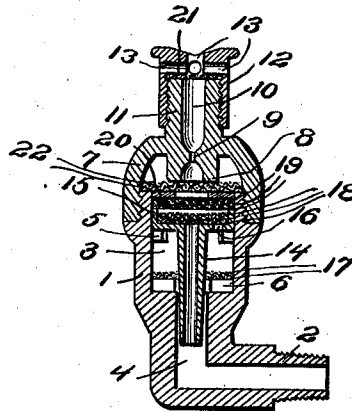


FIG. 3.

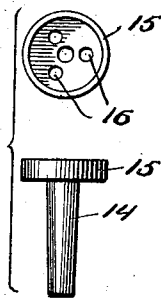


FIG. 4.

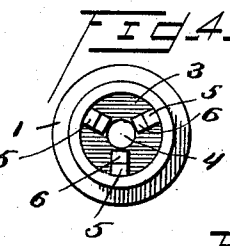


FIG. 5.

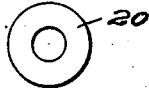
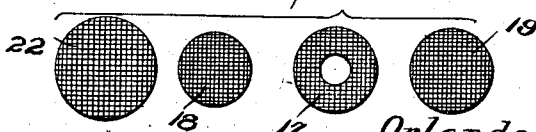


FIG. 6.



Witnesses

H. Strauss
R. H. Krenkel

Inventor

Orlando Kelsey

By *Joshua R. Potts*
Attorney

UNITED STATES PATENT OFFICE.

ORLANDO KELSEY, OF BLACKWOOD, NEW JERSEY.

AIR-VENT FOR STEAM-RADIATORS.

1,014,229.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed January 31, 1911. Serial No. 605,800.

To all whom it may concern:

Be it known that I, ORLANDO KELSEY, a citizen of the United States, residing at Blackwood, in the county of Camden and State of New Jersey, have invented certain new and useful Improvements in Air-Vents for Steam-Radiators, of which the following is a specification.

My invention relates to improvements in air vents for steam radiators, the object of the invention being to provide an improved device of this character which will allow the air to be forced out maintaining the radiator free of air, and yet which will act as a check preventing the escape of steam.

A further object is to provide an attachment of this character of extremely simple inexpensive construction, which may be attached to any ordinary radiator, which will require practically no attention after being installed, which will insure a proper circulation of the steam, and will prevent any accumulation of air in the radiators, thus utilizing in the heating system the maximum of heat units in the steam.

With these and other objects in view, the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described and pointed out in the claims.

In the accompanying drawings: Figure 1, is a view in side elevation illustrating my improvements. Fig. 2, is a view in longitudinal section. Fig. 3, is a plan and side elevation of the removable member 14. Fig. 4, is a top plan view of the casing with the cap 7 and member 14 removed. Fig. 5, is a view of the ring 20, and Fig. 6, illustrates the various forms of screens employed.

1, represents the casing of my improved vent provided with a tubular screw-threaded inlet nipple 2 adapted to be screwed into any ordinary steam radiator, and be self supporting in a vertical position. Casing 1 is cast with an enlarged chamber 3 which communicates at its lower end with the entrance passage 4, discharging centrally into the bottom of the chamber. In this chamber, two sets or series of radially projecting lugs 5 and 6 respectively are located, the lugs 5 being approximately midway the ends of the chamber 3, and the lugs 6 in the lower end of the chamber. The upper end of casing 3 is externally screw-threaded for the

reception of an internally screw-threaded cap 7. This cap 7 is made with a central depending tubular post 8, the upper internal portion of which is contracted forming a very small opening 9, which registers with a larger passage 10 in an upwardly projecting integral externally screw-threaded post 11 on the cap. An internally screw-threaded cover 12 is positioned on the post 10, and is provided with openings 13 in its top and sides for the escape of air which finds its way through the opening 9.

In the chamber 3 is located my improved removable member 14 which has a cup-like head 15 supported on the lugs 5, said head being integral with a tubular stem which is preferably slightly conical in form, and extends into the passage 4, and is of appreciably smaller diameter than the passage 4, so as not to close the same but allow a passage of air around the outside of the member as well as up through the same. The head 15, in addition to its central opening where it communicates with the tubular extension, is provided with a series of openings through which communication may be had with the compartments above.

In assembling my improved device, screen washers 17 are positioned on the lower lugs 6, and these washers have central openings of a size to fit the tubular member 14. Inside of the head 15, small screens 18 are positioned and on top of the head larger screens 19 are located and are held in position by means of a metal ring 20, upon which larger screens 22 are located, and they are engaged by the depending post 8 in cap 7. A small screen 21 is located on top of post 11, so as to exclude dust and dirt from the device.

While the air in the radiator is permitted a free escape so as to allow free circulation of the steam in the radiator, the screens and the member 14 within the casing 1 so baffle the steam as to prevent any escape of steam under ordinary pressure.

The screens are preferably of copper wire mesh very fine and they may be readily removed and replaced as occasion may require.

Various slight changes might be made in the general form and arrangement of parts described without departing from my invention, and hence I do not limit myself to the precise details set forth, but consider

myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A device of the character described, comprising a casing having a chamber therein having an inlet passage in its lower end, a removable member in said chamber comprising a head, and a tubular extension communicating with and integral with the head, and of a diameter less than the diameter of the passage communicating with said chamber screens around said tubular extension and in said head, and a cap on said casing having a restricted opening therein, substantially as described.

2. A device of the character described, comprising a casing having a chamber therein having an inlet passage in its lower end, a removable member in said chamber comprising a head, and a tubular extension communicating with and integral with the head, and of a diameter less than the diameter of the passage communicating with said chamber, screens around said tubular extension and in said head, a ring on said screens in the head, and a cap screwed onto said casing having a restricted opening therein, and holding said ring on the screens, substantially as described.

3. A device of the character described, comprising a casing having a chamber therein having an inlet passage in its lower end, a removable member in said chamber comprising a head, and a tubular extension communicating with and integral with the head, and of a diameter less than the diameter of the passage communicating with said chamber, screens around said tubular extension and in said head, screens on the head, a ring on said last-mentioned screens, other screens on the ring, a cap screwed onto said casing, a post in said cap bearing on the screens above the ring, and a restricted opening through said post, substantially as described.

4. A device of the character described, comprising a casing having a chamber therein having an inlet passage in its lower end, a removable member in said chamber comprising a head, and a tubular extension communicating with and integral with the head, and of a diameter less than the diameter of the passage communicating with said chamber, screens around said tubular extension and in said head, screens on the head, a ring on said last-mentioned screens, other

screens on the ring, a cap screwed onto said casing, a post in said cap bearing on the screens above the ring, a restricted opening through said post, an upwardly projecting externally screw-threaded tubular post on said cap, and a cover screwed onto said last-mentioned post and having openings therein, substantially as described.

5. A device of the character described, comprising a casing, having an enlarged chamber in its upper portion and an inlet passage communicating with the center of the bottom of said chamber, inwardly projecting lugs in the bottom of said chamber, inwardly projecting lugs between the ends of said chamber, a removable member comprising a head adapted to fit on said upper set of lugs, and a tubular extension integral with the head and projecting through said chamber and into the inlet passage, and of a diameter smaller than said passage, said head having openings therein, screens in said head, screens on said head, screens on said lower lugs around the tubular extension, and a cap screwed onto said casing confining the screens and the removable member and having a restricted opening therein, substantially as described.

6. A device of the character described, comprising a casing, having an enlarged chamber in its upper portion and an inlet passage communicating with the center of the bottom of said chamber, inwardly projecting lugs in the bottom of said chamber, inwardly projecting lugs between the ends of said chamber, a removable member comprising a head adapted to fit on said upper set of lugs, and a tubular extension integral with the head and projecting through said chamber and into the inlet passage, and of a diameter smaller than said passage, said head having openings therein, screens in said head, screens on said head, screens on said lower lugs around the tubular extension, a cap screwed onto said casing confining the screens and the removable member and having a restricted opening therein, a ring on said screens on the head, other screens above the ring and a tubular post integral with the cap and bearing on the screens above the ring, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ORLANDO KELSEY.

Witnesses:

R. H. KRENKEL,
C. E. POTTS.