May 26, 1925. 1,538,907

A. P. RITTER

HEATED SANITARY DEVICE

Filed Sept. 26, 1921 2 Sheets-Sheet 1

Fig. 1

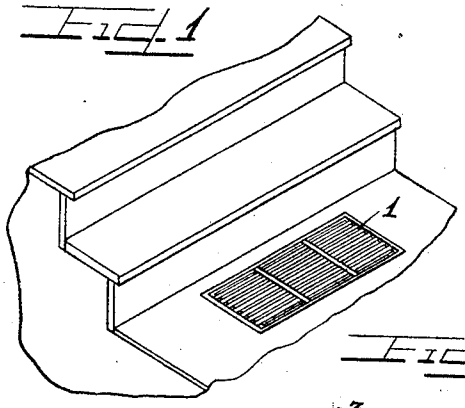


Fig. 3

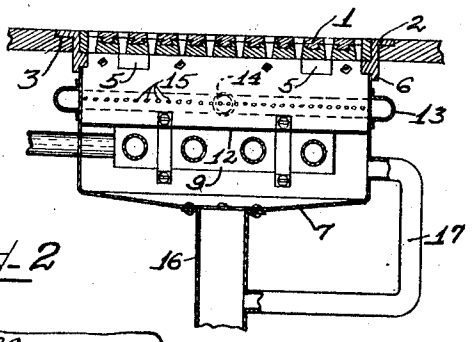


Fig. 2

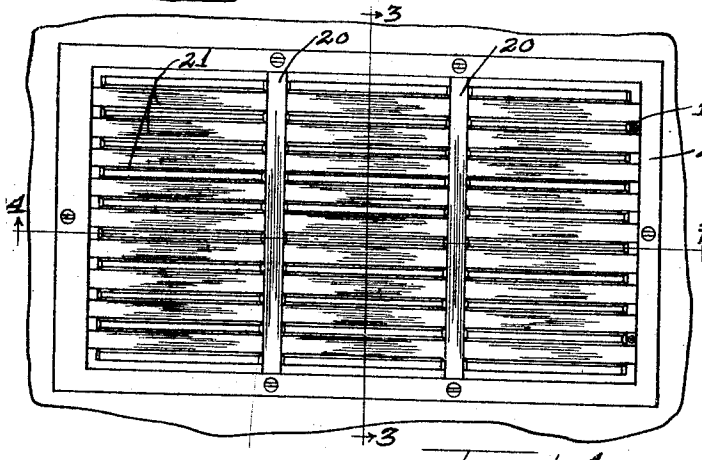


Fig. 5

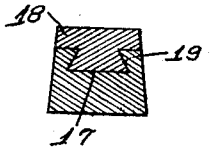
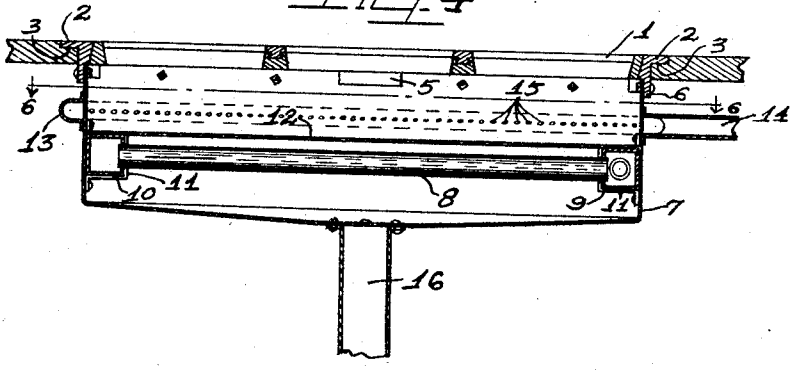


Fig. 4



Witnesses

Rudolph J. Berg.

Charles Hill Jr.

By

Inventor

ADOLPH P. RITTER.

Atty.

May 26, 1925

1,538,907

A. P. RITTER

HEATED SANITARY DEVICE

Filed Sept. 26, 1921

2 Sheets-Sheet 2

Fig. 6

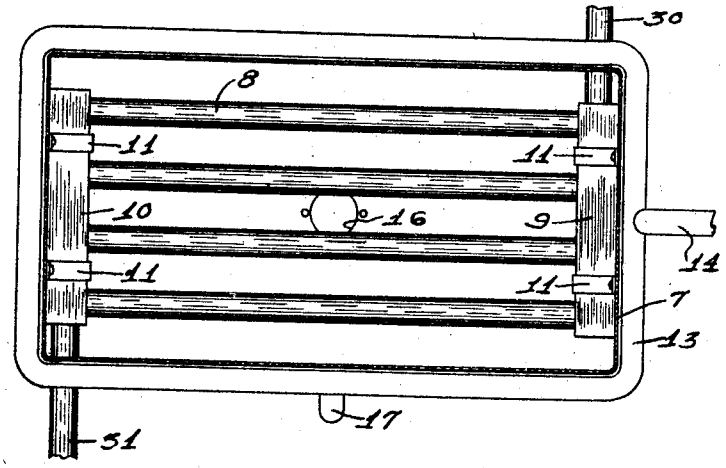
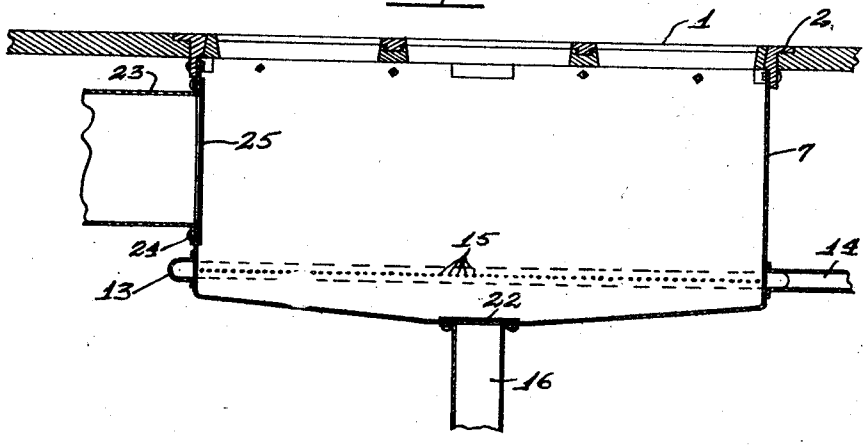


Fig. 7



Fig. 8



Witnesses

Rudolph T. Berg.

Charles Stiles Jr.

Inventor

Adolph P. Ritter.

By

Atty.

Patented May 26, 1925. 1,538,907

UNITED STATES PATENT OFFICE.

ADOLPH P. RITTER, OF CHICAGO, ILLINOIS.

HEATED SANITARY DEVICE.

Application filed September 26, 1921. Serial No. 503,466.

To all whom it may concern:

Be it known that I, ADOLPH P. RITTER, a former subject of the Czar of Russia (who has declared his intention of becoming a citizen of the United States, and now is a resident of the city of Chicago, in the county of Cook and State of Illinois), have invented certain new and useful Improvements in a Heated Sanitary Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings and to the numerals of reference marked thereon.

This invention is related to devices for cleaning shoes such as are frequently placed at the entrances of buildings, as has been described in my Patent No. 1,467,814, September 11, 1923.

It is an object of this invention to provide the grating of such a device with means whereby the finished or upper surface thereof may be of felt, rubber, lead, tile or any other material that the architect may desire.

It is a further object of this invention to support a radiator in the box beneath said grating for the purpose of keeping the box heated.

Other and further important objects of this invention will be apparent from the disclosures in the drawings and the specification.

The invention (in a preferred form) is illustrated in the drawings and hereinafter more fully described.

On the drawings:

Figure 1 is a perspective view of a flight of steps showing my invention applied thereto.

Figure 2 is a top plan view of my invention.

Figure 3 is a section upon the line 3—3 of Figure 2.

Figure 4 is a section upon the line 4—4 of Figure 2.

Figure 5 is a section through one of the bars of the grating.

Figure 6 is a section on the line 6—6 of Figure 4.

Figure 7 is an edge view of the grating.

Figure 8 is a section showing a modification.

As shown on the drawings:

The device includes a grating 1 set in the tread of one of the steps of a building. It may, however, be set in a platform, or in the floor of the vestibule or in any other desired place. The grating is surrounded by a frame 2 which has a flange 3 flush with the surface of the tread or floor.

As illustrated in Figure 4, one side of the frame is beveled and the opposite side has an overhang for conveniently inserting and removing the grating. The frame is supplied with a series of lugs 5 upon which the grating rests. The frame extends downward past these lugs as shown at 6 and the walls of a box 7 preferably of sheet metal, are bolted, riveted or otherwise secured to the depending part 6 of the frame.

The lower part of the box 7 is occupied by a radiator 8 consisting of the usual set of pipes connected by two headers 9 and 10. A pipe 30 brings steam to one header and a pipe 31 takes it away from the other. The radiator is supported within the box by straps 11 which pass around the headers 9 and 10 and are secured to the walls of the box by bolts or rivets, or in any other desired manner. Immediately above the grating is a screen 12 which prevents any large articles such as may be dropped through the grating from passing beyond the screen. The screen is supported by resting upon the two headers 9 and 10.

Above the screen the box is surrounded by a conduit 13 connected with a water supply pipe 14 and along the line of this conduit, the walls 7 are perforated as indicated at 15 so that when water is supplied to the conduit 14, it sprays into the box through the perforations 15 and washes whatever dirt may be upon the screen 12 down into the bottom of the box. The bot-

tom of the box is sloped toward the center and at the center is connected to the pipe 16 by which the water and dirt are led away. The usual provision for overflow is made by means of a by-pass 17.

Each bar of the grating 1 is formed with a dove-tail groove in its upper surface as shown at 17 in Figure 5. Strips of surfacing material 18 are provided with dove-tail tongues 19 which fit the grooves 17. The grating consists of a series of cross-pieces 20 of which two are shown in Figure 2, and a series of longitudinal bars 21. In assembling the casing, the left-hand bar 20 is first supplied with its filler strip 18 by sliding the same in from one end. The several longitudinal bars 21 to the left of 20 are then filled by sliding a bar of filler material into each bar from the left-hand edge of the grating. The section of grating next to the right of the left hand bar 20 is then filled by sliding strips of filler material into the grooves in the bars 21 immediately at the right of the strip 20. The right-hand bar 20 then receives its strip of filler material in the same way. This secures the strips in bars 21 in place. The longitudinal bars 21 at the right of the right-hand bars 20 are then supplied with strips of filler material by sliding the same in from the right-hand edge of the grating. It is obvious that the same method might have been reversed and the right-hand bar 20 have received its filler strip before the left-hand bar 20, but the method to be used in placing the filler strips into the bars is explained by the foregoing description. The transverse filler strips prevent the middle set of longitudinal filler strips from being removed and the other longitudinal filler strips can not be removed because at one end they are stopped by cross strips and at the other end by the frame 2.

The strips of filler material may be felt, or wood, or tile, or either hard or soft rubber, or may be of some metal different from the metal of the bars in the grating, for example brass or lead in an iron grating, or they may be some other material if the architect so desires. The purpose of using filler strips is to give a surface which can be made to correspond with the surface in which the device is placed, or to give a surface which can be frequently changed for the sake of cleaning the same.

In the use of the device, the person who is about to enter the house scrapes his feet upon the grating 1. The surface material 18 may be of a character which will remove the dirt from the shoes more readily than the bars of the grating itself would do. The dirt removed from the shoes falls through the spaces between the bars and rests upon the screen 12. Water emerging from the conduit 13 through the perforations 15 washes the dirt from this screen into the lower part of the box and from there into the pipe 16 where it passes away. If the substance removed from the shoes includes snow, the heat from the radiator 8, by melting the snow, assists in the rapid removal of the same by the spray of water from the conduit 13.

In the modification shown in Figure 8, the box 7 is supported from the frame 2 which holds the grating 1 in the same way as before. There is no radiator in this modification. Consequently, the screen 12 is omitted and instead, a screen 22 is used which covers only the mouth of the pipe 16. To supply the heat, instead of using the radiator, a pipe 23 is furnished, which leads from the hot air heating plant of the building, or from any other convenient supply of hot air. As illustrated, this pipe is supplied with a flange 24 which is riveted to the side wall of the box 7. The illustrated pipe may however, instead of being continuous with the pipe from the furnace, be merely a stub upon the box 7 to which the pipe from the furnace is readily attached. Preferably, the mouth of the pipe 23 is covered by a screen 25, which may be held in place by the same fastenings that unite the flange 24 to the box 7. The operation of this modification is like that already described, the only additional comment needed being that the spray from the perforations 15 being below the pipe 23 there is no danger of water entering this pipe.

I am aware that numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. In a grating, longitudinal bars and cross-bars, each of said bars having a dovetail groove in the upper face thereof, strips of filler material slid into the grooves in said longitudinal and cross bars, the cross filler strips extending across the ends of the grooves in said longitudinal bars, a frame surrounding said grating whereby the cross strips and frame hold the filler strips in place in the longitudinal bars and the frame holds the cross strips in place.

2. A grating comprising a frame, a removable grid adapted to fit within said frame having both longitudinal and transverse bars, filler strips above said bars having dovetail slidable engagement with said bars, the filler strips having their upper surface substantially flush with the upper surface of said frame whereby the frame prevents detachment of the filler strips from said bars.

3. A grating comprising a frame, a removable grid adapted to fit within said

frame having a series of bars, filler strips above said bars having dovetail slidable engagement with said bars, the filler strips having their upper surface substantially flush with the upper surface of said frame whereby the frame prevents detachment of the filler strips from said bars.

4. A grating comprising a frame, a removable grid adapted to fit within said frame having a series of bars and filler strips above said bars, having dovetail slidable engagement with said bars, the lower portions of the filler strips being below the upper edge of said frame whereby the latter prevents detachment of the filler strips from said bars.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

ADOLPH P. RITTER.

Witnesses:
CHARLES HILLS, Jr.,
JAMES M. O'BRIEN.