No. 805,654. PATENTED NOV. 28, 1905.

L. P. LOWE.

SIGHT COCK FOR GAS FURNACES.

APPLICATION FILED JUNE 17, 1903.

FIG. 1

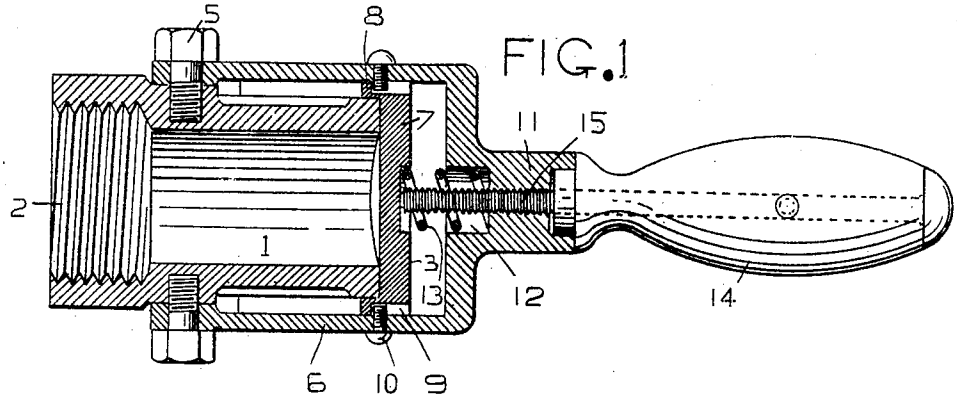


FIG. 2

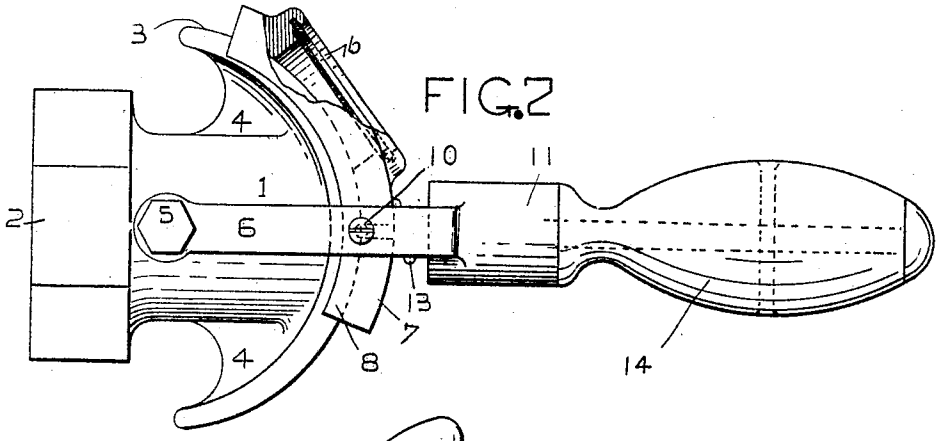


FIG. 3

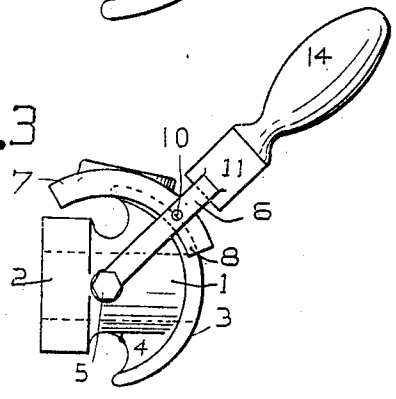
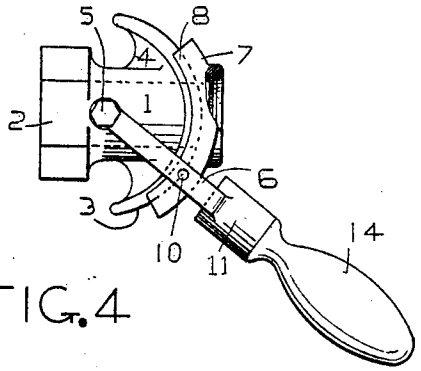


FIG. 4



WITNESSES:

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SIGHT-COCK FOR GAS-FURNACES.

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Application filed June 17, 1903. Serial No 161,791.

To all whom it may concern:

Be it known that I, LEON P. LOWE, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Sight-Cocks for Gas-Furnaces and the Like, of which the following is a specification.

My invention relates to improvements in sight-cocks for gas-furnaces and the like, the object of my invention being to provide a device of this character which will enable the condition of the furnace to be readily inspected at any time without requiring the glass pane to be constantly exposed to the action of the gases of the furnace and to the deposition of carbon, which will also allow of using the same aperture through the wall of the furnace as a vent-hole when desired, and which can be locked to prevent the accidental opening of said aperture when the furnace is in operation, which might cause the flames to shoot out with possible injury to the passer-by.

My invention therefore resides in the novel construction, combination, and arrangement of parts for the above ends, hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a longitudinal section of the device. Fig. 2 is a side view thereof, part being broken away. Fig. 3 is a similar view on a smaller scale, showing the device when used to obtain a vent-hole. Fig. 4 is a similar view showing the device in use as a sight-cock.

Referring to the drawings, 1 represents a tubular casting having an internally-screw-threaded end 2 adapted to be screwed onto the end of a pipe (not shown) let into the wall of the furnace and having at the other end a cylindrical seat 3, connected with the tubular portion by webs 4. On the axis of said cylinder are pivoted, by means of screws 5, the arms of a yoke 6 for operating a shutter 7. Said shutter is also cylindrical in form, having the same axis as the seat, and sits snugly on the seat 3. It has flanges 8, which extend over the sides of the seat 3 and form guides for said shutter in moving over said seat, and its sides are formed with radial grooves 9, into which extend the ends of pins 10. The head 11 of the yoke is recessed, as shown at 12, and within said recess there is a spiral spring 13, which bears down upon the shutter and presses the same against the cylindrical seat. Within said head 11 is secured the butt-end of a handle 14, having mounted therein a screw 15, which passes through the yoke-head and also through the center of the spring 13 and bears against the upper surface of the shutter. When said screw is screwed in to its utmost extent, it binds said shutter firmly down upon its seat, securely clamping the same thereon, the necessary slight movement being permitted to the shutter by reason of the grooves 9 in the sides thereof and the pins 10 engaging said grooves. On one side of said shutter is cast a circular frame 16 for a small circular pane of glass.

In use the shutter is maintained in the position shown in Fig. 2, in which the handle is in alinement with the opening in the furnace. When it is desired to ascertain the condition of the furnace, the handle is shifted to one side, as shown in Fig. 4, so that the pane of glass comes into alinement with the tubular portion of the casting, so that a clear way is provided for inspection of the contents of the furnace. When it is desired to use the aperture as a vent-hole, the handle is shifted in the other direction, as shown in Fig. 3, so that the shutter is completely withdrawn from the front of the aperture in the casting. After using the device the handle will be replaced in the position shown in Fig. 2 and will be turned so as to screw the screw 15 tight against the shutter, thereby firmly clamping the same upon its seat, so that should a person in passing accidentally strike the handle he would not displace it from the position of closure.

I claim—

1. In a device of the character described, a tubular member having a seat curved in a surface of revolution, a shutter on said seat similarly curved and having a sight-hole therein, a handle for operating said shutter, having its pivot on the axis of the surface of revolution, and a spring between the handle and shutter, substantially as described.

2. In a device of the character described, a tubular member having a convex seat curved in a surface of revolution, a shutter on said convex seat similarly curved and having a sight-hole therein and having flanges overlapping the sides of the convex seat, and a handle for operating said shutter, having its pivot on the axis of the surface of revolution, substantially as described.

3. In a device of the character described, a tubular member having a convex seat curved in a surface of revolution, a shutter on said

convex seat similarly curved and having a sight-hole therein, a handle for operating said shutter, having its pivot on the axis of the surface of the revolution, and means for positively clamping the shutter onto its convex seat at any desired position thereof, substantially as described.

4. In a device of the character described, a tubular member having a convex seat curved in a surface of revolution, a shutter on said convex seat similarly curved and having a sight-hole therein, said convex seat being sufficiently extended to permit the shutter to rest thereon wholly at one side of the aperture, whereby the latter can act as a vent-hole, and a handle for operating said shutter, having its pivot on the axis of the surface of revolution, substantially as described.

5. In a device of the character described, the combination of a tubular element having a seat, a shutter moving on said seat, and having an opening closed by suitable transparent material, a spring for pressing said shutter against said seat, and means for moving said shutter to and fro on its seat, substantially as described.

6. In a device of the character described, the combination of a tubular element having a seat, a shutter moving on said seat, and having an opening closed by suitable transparent material, a spring for pressing said shutter against said seat, means for moving said shutter to and fro on its seat, and means for clamping the shutter to its seat at any desired position thereof, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

L. P. LOWE.

Witnesses:
FRANCIS M. WRIGHT,
M. STEWART.