A. M. JOHNSON.

REGULATOR FOR GAS STOVES.

APPLICATION FILED DEC. 15, 1908.

940,391.

Patented Nov. 16, 1909.

Fig. 1

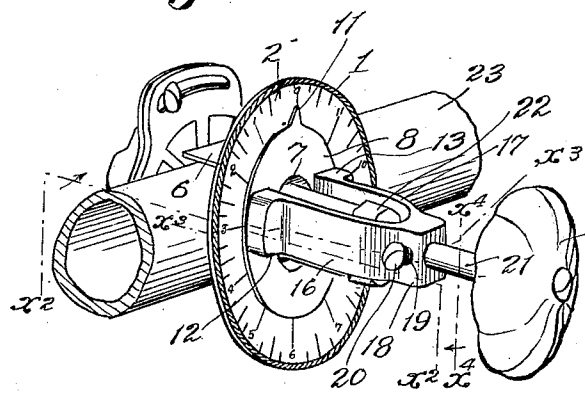


Fig. 3

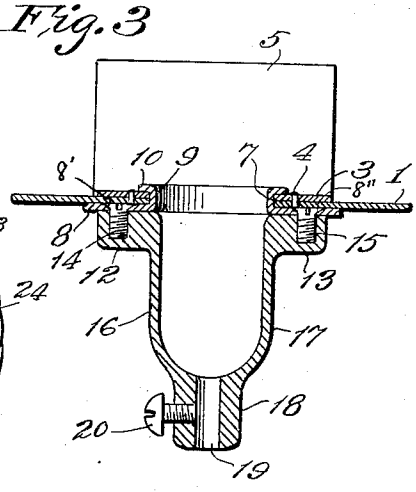


Fig. 2

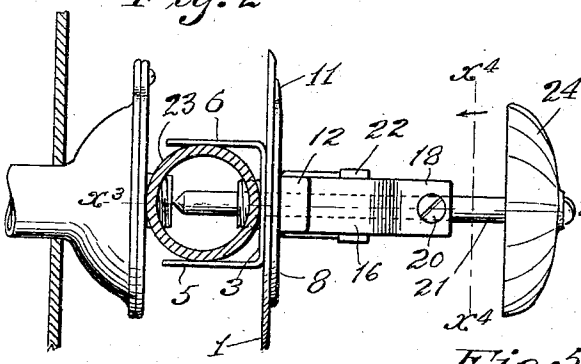


Fig. 4

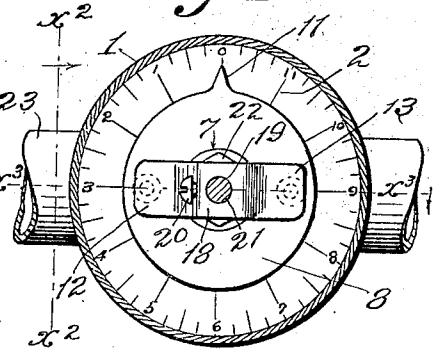


Fig. 5

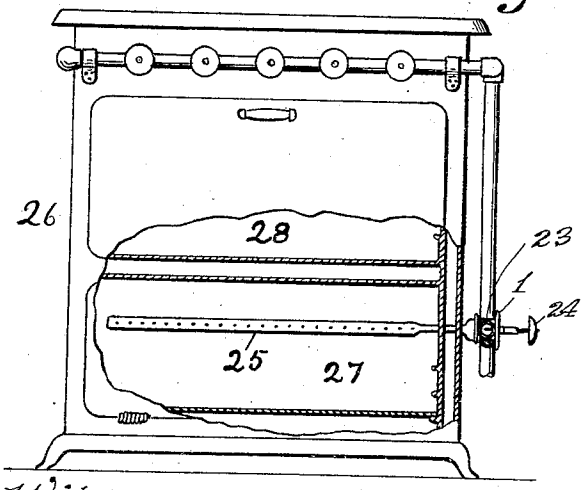
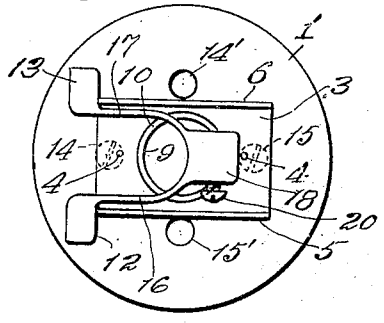


Fig. 6



Witnesses

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UNITED STATES PATENT OFFICE.

ANNA M. JOHNSON, OF EARLY, IOWA.

REGULATOR FOR GAS-STOVES.

940,391. Specification of Letters Patent. Patented Nov. 16, 1909.

Application filed December 15, 1908. Serial No. 467,704.

To all whom it may concern:

Be it known that I, ANNA MATHILDA JOHNSON, a citizen of the United States, residing at Early, in the county of Sac and State of Iowa, have invented new and useful Improvements in Regulators for Gas-Stoves, of which the following is a specification.

An object of the invention is to make an indicator which may readily be attached to the ordinary gas stove burner so that the user of the burner may adjust the burner from the indicator to secure the desired result; and the invention consists of the novel features herein shown, described and claimed.

Another object of the invention is to construct an indicator for gas stoves that may be readily packed in small space for filling mail orders, and which can be readily unpacked and placed on the stove by an unskilled person, and which when so adjusted will enable the housewife or cook to perfectly bake bread, cakes, meats and pastry by rule without danger of over or under cooking the same and without any attention from the time the article has been placed in the oven until it is done.

The accompanying drawings illustrate the invention applied to a gas stove burner.

Figure 1 is a perspective of an indicator embodying the principles of my invention and applied to a gas stove burner, the burner and supply-pipe being broken away. Fig. 2 is a side elevation of the indicator, the supply-pipe and the wall of the stove being shown in section, the section being taken on line x^2, Figs. 1 and 4. Fig. 3 is a horizontal section of the indicator on lines x^3, Figs. 1, 2 and 4, the parts of the burner being omitted. Fig. 4 is a front elevation of the indicator, the valve-stem being shown in section as indicated by line x^4, Figs. 1 and 2. Fig. 5 is a front elevation of a gas stove with my indicator applied, parts being shown in section. Fig. 6 is a plan of the indicator knocked down and assembled for shipping.

The dial-plate 1 is circular and preferably formed of sheet metal and has a dial 2 like a clock-dial, the graduations upon the dial running from zero to any desired number, the dial shown being divided into twelve equal numbered parts and each part being divided into quarters and halves. The supporting-plate 3 is secured to the rear face of the dial-plate 1 by rivets 4, and arms 5 and 6 extend backwardly from the supporting-plate to span and slidably engage the supply-pipe so as to hold the dial-plate from rotation and allow it to move toward and from such pipe.

A central opening 7 is formed through the dial-plate and through the supporting-plate. The pointer-plate 8 is circular and fits within the dial 2 against the face of the dial-plate 1, and the tubular extension 9 extends backwardly from the center of the pointer-plate through the opening 7, and a flange 10 is turned outwardly from the extension to hold the pointer-plate rotatably in position relative to the dial-plate. The pointer-plate is preferably stamped from sheet metal with the extension 9 drawn from the center of the plate and the flange 10 pressed outwardly and backwardly in any suitable way. A pointer 11 extends from the periphery of the pointer-plate toward the graduations upon the dial 2.

The bases 12 and 13 are secured to the pointer-plate 8 by screws 14 and 15 inserted through and having their heads seated in openings 8′, 8″, that are countersunk in the pointer-plate; said screws being screw-seated in the bases. Openings 14′ and 15′ are provided through the dial-plate in such positions as to be registrable with the openings 8′ and 8″ to allow the screws including their heads to be inserted through the pointer-plate and screwed into the bases when the dial-plate is rotated to cause the openings therein to register with the screw-holes 8′, 8″ of the pointer-plate.

The posts 16 and 17 extend forwardly from the bases, and the head 18 connects the forward ends of the posts, said head having a bore 19 to receive the stem of the gas-burner and a set-screw 20 for tightening the head upon the valve stem of the gas-burner; so that as the gas-burner valve is opened and closed the pointer 11 will be moved upon the dial 2.

The indicator thus constructed is placed in position by removing the valve-stem 21 from the burner 25; then placing the indicator in position with the stuffing-box 22 inserted through the opening at the center of the dial into the space between the arms 16 and 17, and with the supporting-arms 5 and 6 upon opposite sides of the supply-pipe 23. Then the valve-stem 21 is inserted through the opening 19 and seated to close the valve and shut off the gas. Then the

pointer 11 is moved to zero with the valve closed, and then the set-screw 20 is tightened upon the valve-stem 21, so that by manipulating the handle 24 of the valve-stem 21 to adjust the valve and control the flow of gas the pointer 11 is moved upon the dial 2.

The indicator is especially useful in connection with oven-burners as it enables the user of the oven to get uniform results by running the burner with the indicator in a certain position for a certain length of time.

In actual practice, for instance, in baking bread, the handle 24 may be operated to move the pointer from zero entirely around to zero and left in this position for say half an hour until the oven is thoroughly heated. Then the bread may be placed in the oven and the pointer 11 moved backwardly, say to the number six, and left in this position for thirty minutes, and the bread should be thoroughly and satisfactorily baked; and if it is found that this gives too much heat the time may be shortened or the flow of gas may be reduced until the desired result is obtained, and then by remembering or making a memorandum of how this result was obtained the same result may be repeated time after time.

For shipping through the mail and otherwise, the part carrying the head 18 is placed between the arms 5 and 6, as shown in Fig. 6, thereby producing a small flat package which may readily be wrapped.

In Fig. 5, 26 designates the stove and 27 the burner-chamber of the oven within which the burner 25 is arranged in the usual way to heat the oven 28.

I claim:—

1. An indicator for gas stoves comprising a dial-plate having a central opening to receive the stuffing-box of the burner, arms extending backwardly from the dial-plate to engage the supply-pipe for engagement with the burner to hold the dial-plate from rotation, a pointer-plate against the front face of the dial-plate, a tubular extension extending backwardly from the pointer-plate through the opening in the dial-plate, a flange upon the rear end of the tubular extension to hold the pointer-plate rotatably in position, a head extending forwardly from the pointer-plate and adapted to be secured to the valve-stem, so that by rotating the valve-stem the pointer-plate will be rotated to move the pointer upon the dial.

2. An indicator for gas stoves comprising a dial-plate having a central opening to receive the stuffing box of the burner, a dial upon the dial-plate, arms extending backwardly from the dial-plate to engage the burner and hold the dial-plate against rotation, a pointer-plate against the front face of the dial-plate, a tubular extension extending from the pointer-plate through the opening in the dial-plate, a flange for holding the extension in the opening, bases removably secured to the pointer-plate, arms extending forwardly from the bases one on each side of the stuffing-box of the burner, a head connecting the forward ends of the arms and having a bore to receive the valve-stem, and a set-screw in the head for engaging the valve-stem.

3. An indicator for gas stoves comprising a dial-plate, a pointer-plate rotatably secured thereto, arms projecting rearwardly from the dial-plate to engage a gas-pipe, and a part fastened to the pointer-plate and adapted to engage a valve-stem to be rotated therewith.

4. An indicator for gas stoves comprising a dial-plate, a pointer-plate rotatably secured thereto, arms projecting rearwardly from the dial-plate to engage a gas-pipe, and a part fastened to the pointer-plate and adapted to engage a valve-stem to be rotated therewith, said part being detachably connected with the pointer-plate and adapted to be accommodated between the arms of the dial-plate to make a compact package for shipment.

5. An indicator for gas stoves comprising a dial-plate having two openings therethrough, a pointer-plate rotatably connected therewith and provided with two openings registrable with and of less diameter than the openings of the dial-plate; a part to engage a valve-stem, and screws, insertible through the openings of the dial-plate and screwed into said part, the openings in the pointer-plate being countersunk to accommodate the heads of said screws.

6. In a gas stove the combination with the supply pipe, a burner and a valve having a valve stem, of two plates one provided with a pointer, means to fix the pointer plate to the valve stem, and means to slidably connect the dial plate with the supply pipe and to hold such plate against rotation.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 9th day of December, 1908.

ANNA M. JOHNSON.

In presence of—

JAMES R. TOWNSEND,

M. BEULAH TOWNSEND.