

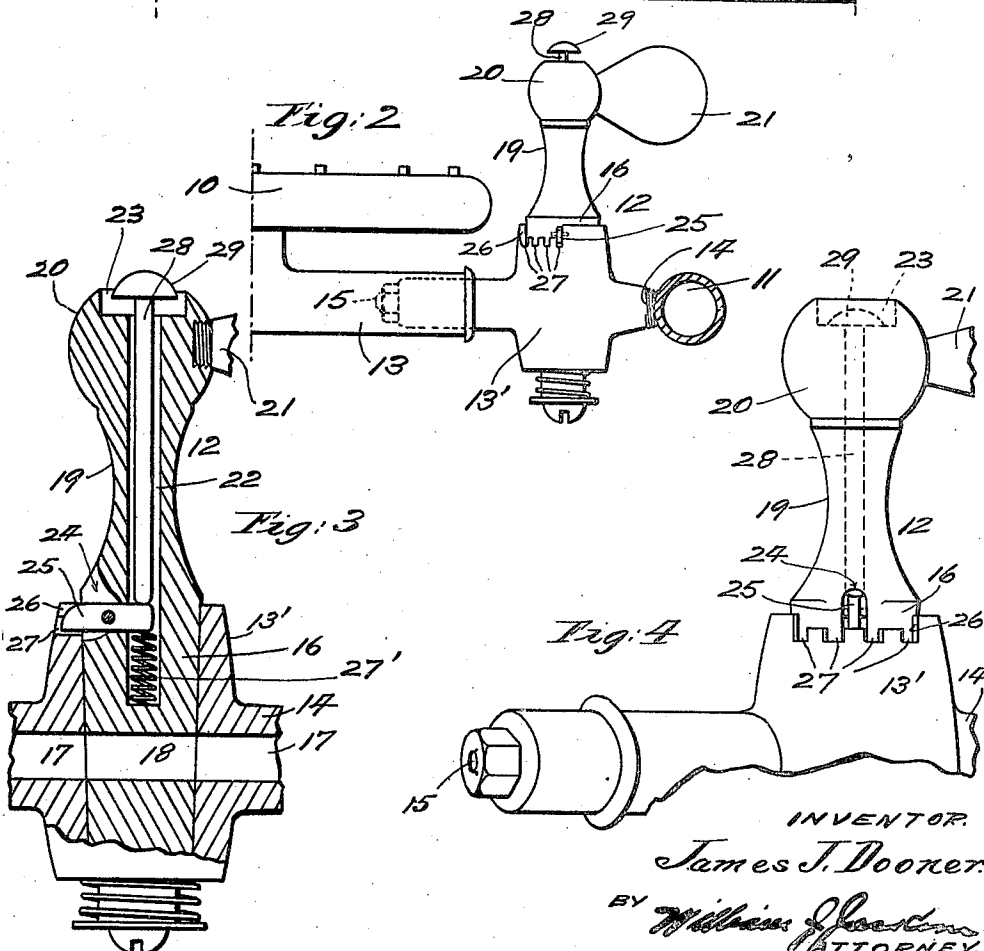
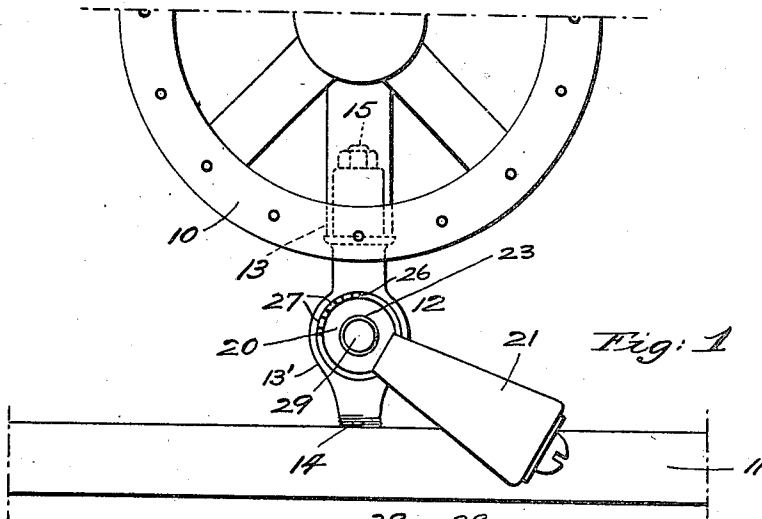
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J. J. DOONER

LOCKING-DEVICE FOR GAS VALVES

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INVENTOR.
James J. Dooner.
BY *William J. Dooner*
ATTORNEY.

UNITED STATES PATENT OFFICE.

JAMES J. DOONER, OF NORRISTOWN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO
JOHN J. FARREN, OF PHILADELPHIA, PENNSYLVANIA.

LOCKING DEVICE FOR GAS VALVES.

Application filed July 2, 1920. Serial No. 394,723.

To all whom it may concern:

Be it known that I, JAMES J. DOONER, a citizen of the United States, residing at Norristown, county of Montgomery, and State of Pennsylvania, have invented a certain new and useful Improved Locking Device for Gas Valves, of which the following is a specification.

This invention relates to means for operating and locking in pre-determined positions, valves for gas stoves, gas heaters and the like.

The primary object of the present invention is to prevent the accidental displacement of a gas valve, as found upon a gas stove, gas heater and the like, thus eliminating possibility of leaking gas with its deleterious results. A further object is to provide means whereby a valve for gas stoves, gas heaters and the like may be locked in "on" or "off" positions and in several intermediate positions so that such valve while possessing the advantage of safety is, nevertheless, capable of general application.

The invention consists of the improvements hereinafter described and finally claimed.

The nature, characteristic features and scope of the invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof, and in which:

Fig. 1, is a fragmentary view in plan view of a conventional type of gas stove burner illustrating a valve embodying features of the invention in application thereto.

Fig. 2, is an elevational view thereof, and

Figs. 3 and 4 are detailed views illustrating valve construction.

For the purpose of illustrating my invention I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of the instrumentalities as herein shown and described.

In the drawings 10 designates a conventional type of burner for a gas stove, 11 the main supply pipe or manifold which is arranged at the front of such a stove and 12 a valve

which is connected between said pipe 11 and the inlet connection 13 of said burner. The casing of the valve is designated 13' and is provided with a threaded extension 14 which engages said manifold 11 and with a flanged extension provided with an orifice fitting 15. These extensions are in alignment, are horizontally disposed and have a gas passage 17 therethrough. The casing is vertically bored to receive a plug 16 apertured, as at 18 for registering with the gas passage 17 when the plug is properly positioned. The plug terminates in a stem 19 having an enlarged generally rounded protuberance 20 at its top. Fixed to and extended horizontally from the stem top is an operating handle 21. The stem is vertically drilled as at 22, the protuberance 20 is countersunk as at 23, and that part of the stem which forms a juncture with the plug is slotted as at 24, which slot communicates with the vertical passage 22.

A detent 25 is pivoted within the slot 24 so that a part thereof projects within passage 22 and a part thereof overhangs the recessed portion 26 of the rim of the valve casing. A coiled spring 27 engages the underside of that part of the detent within said stem and normally causes the opposite end of said detent to seat within one of four or more notches 27 formed in the recessed portion 26 of the casing rim. Within the stem of the valve is located a push rod 28 having a button 29 at its top. Such rod projects through the protuberance of the stem top and is adapted, when depressed, to move the detent around its pivot point for disengaging the detent from a notch 27. In depressed position the button 29 is seated within the countersunk portion 23 of the stem. When the detent is released the plug may be moved to any desired position. In practice it has been found desirable to have a notch symbolic of "on," "off" and two intermediate positions although obviously other intermediate positions may be provided for. Thus a gas burner may be regulated to give off a flame in the same manner as by a conventional valve which obviously is advantageous. Further in all of the positions selected by the operator the valve plug may be interlocked with the casing so that accidental displacement of the plug is prevented. Since the operating handles overhang the manifold accidental displacement of one or more valves while regulating a particular valve

frequently occurs in gas stoves, gas heaters and the like as are now commercially used.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

What I claim is: —

In a device of the character described, the combination of a valve casing, the upper rim of which is recessed and provided with notches designating "on," or "off," and at least two intermediate positions, a plug for said casing having a vertically disposed

passage extending from the top of said plug to a point in a plane well below the plane of said notches, the upper part of said passage being countersunk, a rectangular detent for engaging a selected notch to hold said plug against movement, said detent being pivoted to said casing so as to normally lie in the same horizontal plane with said notches, a spring located in said passage beneath said detent in a plane below said notches, and a push rod located in said passage the bottom of which rod freely rests upon said detent to tilt the detent around its pivot as the rod is depressed, said rod having a knob at its top which is accommodated by the countersunk portion of said passage when the rod is depressed the downward movement of said rod being limited by said countersunk portion.

In witness whereof, I have hereunto signed my name.

JAMES J. DOONER.