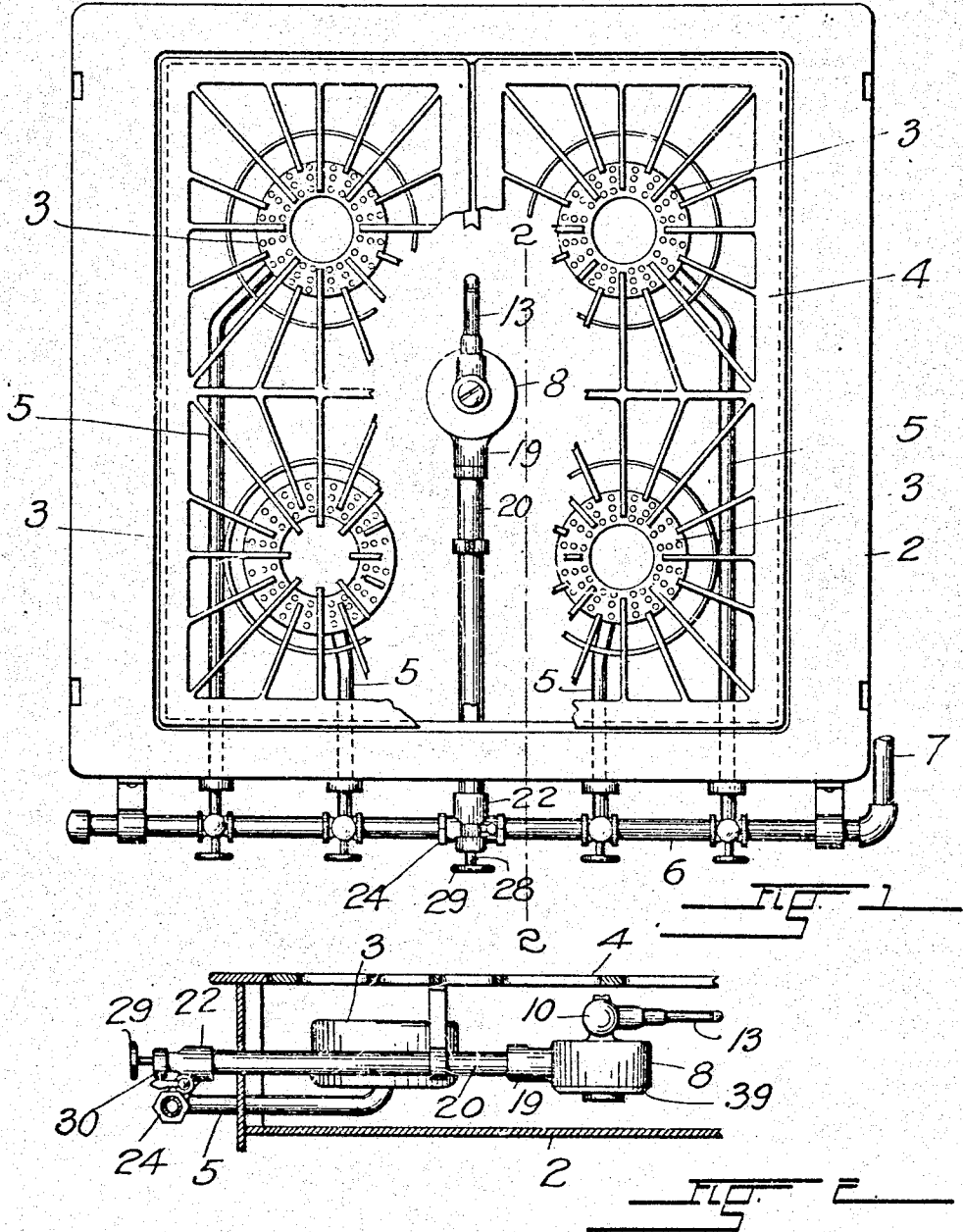


E. R. MAYER & J. G. KEEGAN.
PILOT LIGHT FOR GAS STOVES.
APPLICATION FILED DEC. 22, 1909.

971,769.

Patented Oct. 4, 1910.

2 SHEETS—SHEET 1.



WITNESSES:

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APPLICATION FILED DEC. 22, 1909.

2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

EDWARD R. MAYER AND JOHN G. KEEGAN, OF DENVER, COLORADO, ASSIGNORS OF
ONE-THIRD TO ALBERT E. WILSON, OF DENVER, COLORADO.

PILOT-LIGHT FOR GAS-STOVES.

971,763.

Specification of Letters Patent. → Patented Oct. 4, 1910.

Application filed December 22, 1909. Serial No. 534,527.

To all whom it may concern:

Be it known that we, EDWARD R. MAYER and JOHN G. KEEGAN, citizens of the United States of America, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Pilot-Lights for Gas-Stoves, of which the following is a specification.

This invention relates to certain new and useful improvements in pilot lights for gas-stoves and its object is to provide a device of simple construction which, after one of the burners of a stove has been lighted, will ignite the gas arising from anyone of the others, without the use of matches or other fire-producing means. We employ, to this end, a preferably horizontally disposed torch which, while connected with the gas-supply, may be rotated by manipulation of a conveniently located handle, and which, when lighted, emits a flame of sufficient length to reach the several burners of the stove with which the device is associated so that, after one of the said burners has been lighted, its fire may be communicated to any one of the others by turning the torch with its mouth first toward the lighted burner and subsequently in the direction of a burner from which the gaseous fluid arises prior to its ignition.

An embodiment of our invention is illustrated in the accompanying drawings, in the various views of which like parts are similarly designated and in which—

Figure 1, represents a top-view of a gas-stove with our device in its operative position, Fig. 2, a section taken along the line 2—2 Fig. 1, Fig. 3, a central longitudinal section through the device, drawn to an enlarged scale. Fig. 4, a similar view showing a modified construction and Fig. 5, a fragmentary view showing an elevation of the end-portion of the appliance at which it is connected with the gas supply pipe.

Referring to the drawings, let the reference character 2 designate a gas stove, the burners 3 of which are disposed below the top-plate 4 and separately connected by means of pipes 5 with a header or manifold 6 which connects with the gas-supply pipe 7.

Our appliance consists of a preferably cylindrical housing 8 having a bearing 9 centrally extending from its upper surface into its interior, for the reception and support of a tapered plug 10. The plug 10 is

provided at its upper extremity, with a laterally projecting, exteriorly threaded stud 12 which connects with the correspondingly threaded end of a tubular torch 13 the opposite extremity of which is fitted with a tip 14 through whose aperture the gas is discharged. The plug 10 is furthermore formed with an axial bore 15 which at its upper end, connects with the torch 13 by means of a passage 16 in the stud 12, while its opposite lowermost extremity communicates with one or more transverse channels 17 terminating in an external annular groove in the lower portion of the plug, which register with ports 18 in the surrounding portion of the bearing 9. The torch 13 is thus continuously in communication with the interior of the housing 8, irrespective of the position of the plug 10 which, it will be observed, is rotatable about its vertical, longitudinal axis. A laterally projecting branch 19, formed integral with the housing 8, has an internal thread for the attachment of a conduit 20 which serves to convey the gaseous fluid from the supply into the interior of the housing, and which, to this end, communicates with a by-pass 21 in the branch 19. The opposite extremity of the conduit 20 is connected with a head 22 provided with a downwardly extending hollow branch 23 which terminates in a union 24 by means of which the device is connected with the manifold 6. A plug valve 25 projecting transversely through the passage in the branch 23, serves to control the flow of gas from the supply pipe to the interior of the housing 8. The head 22 is furthermore provided with a bore 26 which is in axial alinement with the tubular conduit 20, and with a bore 27 in the branch 19 of the housing, for the reception of the operating stem 28 which, projecting through the said alined bores, is revolvably mounted in the parts in which they are formed. The outer extremity of the stem 28, which protrudes beyond the head 22, is provided with a hand wheel 29 by manipulation of which the stem is rotated, and it projects through a central aperture in a screw cap 30 which is adjustably associated with the cylindrical portion 22 of the head in which the stem is mounted, to provide an impervious joint in cooperation with an elastic washer 31 placed within the said cap and against the end of the said portion. The opposite end of the stem which

projects into the interior of the housing carries one of a pair of coöperative miter gears 32 and 33, the other one of which is mounted upon an extension 34 of the plug 10, which projects beyond the lower edge of the bearing 9. A coiled spring 35 which engages the beveled gear 33 and the head of a bolt 36 screwed into the end of the extension 34, is provided to take up wear on the plug, and to consequently maintain the two gear-wheels in operative engagement, while washers 37 and 38 of hardened steel placed between the gears and the adjacent surfaces of the head, lessen the amount of wear on the contacting parts. The housing 8 is closed at its lower end by means of a nut 39 and its upper surface is dished for the purpose of collecting greasy substances thrown off by articles of food while they are being prepared over the burners of the stove, and conveying them as a lubricant, to the rotatory plug.

In the modified form shown in Fig. 4 of the drawings, the by-pass 21 in the branch 19 of the housing 8, has been omitted and the operating stem 40 is made tubular for the conveyance of the gases into the interior of the housing 41 from the head 42 with whose interior it communicates by means of an aperture 43 in its wall.

The device when applied to a stove, is preferably placed below the top-plate 4 and as much as possible, in equidistant relation to the various burners 3 as has been shown in Fig. 1.

As the operation of the appliance has been referred to in the beginning of this specification, no further description thereof is considered necessary at this point and we wish it understood, that while we have shown and described the device in the best form now known to us, variations in the arrangement and construction of the parts may be resorted to without departing from the spirit of our invention.

What we claim and desire to secure by Letters Patent is:—

1. A device of the class described comprising a housing, a valve-controlled conduit in communication with the interior thereof, a torch rotatably mounted on said housing, in communication with its interior, an operating stem projecting through the said conduit, and means within said housing for transmitting a rotatory movement of the said stem to the said torch.

2. A device of the class described comprising a housing, a plug rotatably mounted therein and having a bore in communication with the interior thereof, a torch projecting laterally from the said plug in communication with its bore, a head provided

with a pipe-union and having a valve controlled passage, a conduit connecting the said passage with the interior of the said housing, an operating stem rotatably mounted in said head and the said housing, and coöperative transmission means on the said stem and on the said plug.

3. A device of the class described comprising a housing, a plug rotatably mounted therein and having a bore in communication with the interior thereof, a torch projecting laterally from the said plug in communication with its bore, a valve controlled conduit connected with the said housing in communication with its interior, a means for moving the said plug about its axis, and a spring adapted to automatically take up the wear on the said plug by maintaining it resiliently in contact with the part of the housing in which it is mounted.

4. A device of the class described comprising a housing, a plug rotatably mounted therein and having a bore in communication with the interior thereof, a torch projecting laterally from the said plug in communication with its bore, a valve controlled conduit connected with the said housing in communication with its interior, a rotatory operating stem projecting through the said conduit, and coöperative gears on the said stem and on the said plug.

5. A device of the class described comprising a housing having a central inwardly directed bearing, a plug rotatably mounted in said bearing, projecting beyond the upper surface of the said housing and having a bore in communication with the interior thereof, a torch projecting laterally from the upper portion of the said plug in communication with its bore, a valve controlled conduit connected with the said housing in communication with its interior, and means for moving the said plug about its axis of rotation, the upper surface of the said housing being dished to direct matter disposed thereon toward the said bearing.

6. A device of the class described comprising a valve controlled conduit, a torch rotatably mounted in continuous communication therewith, an operating stem projecting through said conduit, and means for converting a movement of said stem into a movement of the torch about its axis of rotation.

In testimony whereof we have affixed our signatures in presence of two witnesses.

EDWARD R. MAYER.
JOHN G. KEEGAN.

Witnesses:

A. E. WILSON,
M. L. GEARY.