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O. STRULLER.

SELF IGNITING GAS STOVE.

APPLICATION FILED AUG. 5, 1905. RENEWED OCT. 9, 1907.

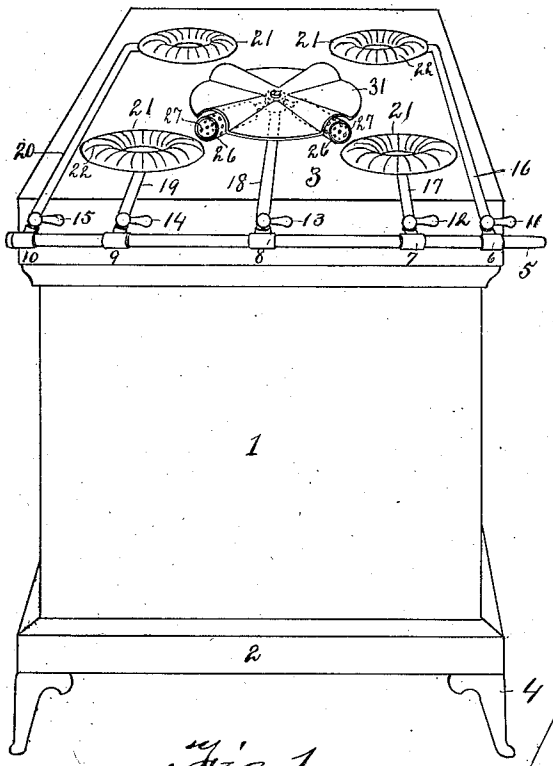


Fig. 1.

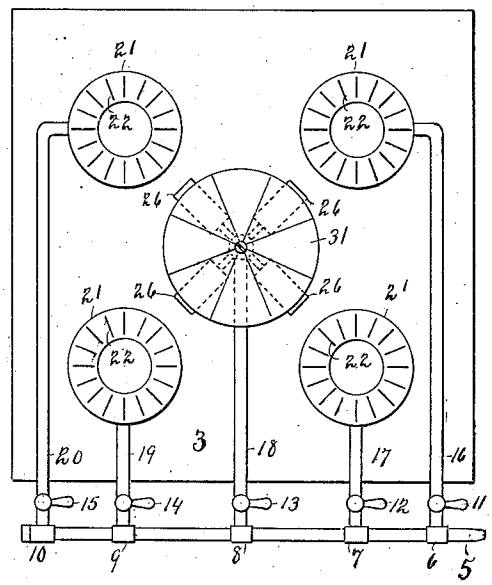


Fig. 2.

Fig. 5.

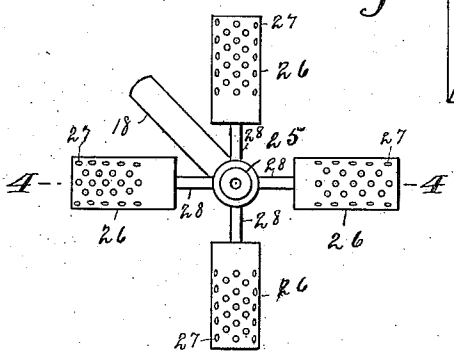


Fig. 3.

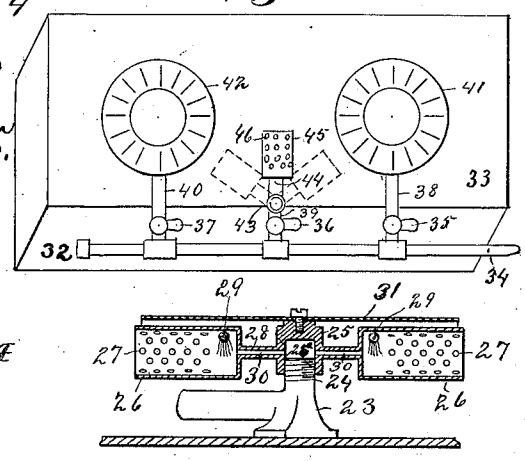


Fig. 4.

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SELF-IGNITING GAS-STOVE.

No. 874,637. Specification of Letters Patent. Patented Dec. 24, 1907.

Application filed August 5, 1905, Serial No. 272,839. Renewed October 9, 1907. Serial No. 396,659.

To all whom it may concern:

Be it known that I, OTTO STRULLER, a citizen of the United States, residing in the borough of the Bronx, city of New York, county of New York, State of New York, have invented a certain new and useful Improvement in Self-Igniting Gas-Stoves, of which the following is a specification.

This invention relates to an improvement in gas stoves, and its principal object is to simplify the means for igniting the gas, particularly with a view to promptness of action.

Heretofore gas-stoves have been ignited by applying an ignited match to the gas-burners after the gas has been turned on. Frequent explosions occur when the gas-stoves are ignited in this manner, and serious accidents result from these explosions; whereas all this danger is overcome by the simplicity of construction and operation of my device.

One of the objects of my invention is therefore to provide means for producing a small flame of gas by simply turning on the gas by means of a cock located in the supply pipe, and automatically igniting the gas as the gas escapes from the gas-burners.

With these objects in view, the invention consists in certain constructions and combinations as will be hereinafter fully described and then specifically pointed out in the claims hereunto appended.

In the drawings forming part of this invention, Figure 1 is a perspective view of a gas-stove embodied with my improvements. Fig. 2 is a plan of same. Fig. 3 is a detail plan of the ignition cylinders. Fig. 4 is a sectional elevation of the ignition cylinders through 4—4 of Fig. 3. Fig. 5 is a modified form of my invention.

In the several views like parts are identified by like signs.

Referring to the drawings 1, designates the body, 2 the base, 3 the top and 4 the legs of a gas-stove constructed in accordance with my invention. A main supply pipe 5, is secured to one side of the top 3, by the ordinary means commonly used by gas-fitters. Connections 6, 7, 8, 9, and 10, having cocks 11, 12, 13, 14, and 15 respectively are mounted on the supply pipe 5, and are adapted to control the supply of gas to the feed pipes 16, 17, 18, 19, and 20.

Secured to the end of each of the feed pipes 16, 17, 19 and 20 are gas-burners 21, which are provided with perforations 22 of a proper size to allow sufficient gas to escape for ignition purposes. The gas-burners are so situated one on each corner of the top of the casing and at an equal distance from each other. A socket 23 provided with an externally threaded end 24, is connected to the feed pipe 18, and to the top 3 of the casing 1. A cap or central portion 25, has an internally threaded end 25ª; adapted to be connected to the externally threaded end 24, which holds the cap or central portion rigidly in position. Ignition cylinders 26, provided with perforations 27 are connected to the projections 28 in angular relation. The ends of the ignition cylinders 26 are equal distance from the gas-burners 21, and point in a horizontal plane to the center and edge of the gas-burners 21. Ignition pills 29 are attached to the inside of the ignition cylinders 26, adjacent to the channels 30 formed in the central portion 25. The ignition pills 29 are so situated that the platinum wires of the ignition pills 29 hang over the channels 30 leading into the ignition cylinders 26, so that the gas passing through the channels 30 leading to the ignition cylinders 26, must come in contact with the platinum wires of the ignition pills 29, and the gas when mixed with the air passing through the perforations 27 in the ignition cylinders 26, causes the ignition pills 29 to become incandescent, thereby igniting the gas as the gas passes through the ignition cylinders 26. A guard 31, secured to the central portion 25 is adapted to protect the ignition cylinders 26, and keep the ignition pills dry.

The operation of igniting the gas-burners is as follows: The gas having been turned on the supply pipe 5, the cock 13 is opened and the gas from the supply pipe 5 passes through the feed pipe 18 to the channel in the socket 23, then up through the channels 30 in the central portion or cap 25, to the ignition cylinders 26. The gas when passing through the channels 30 to the ignition cylinders 26, comes in contact with the air passing through the perforations 27 in the ignition cylinders 26, and mingles freely with the air. The action of the air and gas on the ignition pills 29, causes the platinum wires to become incandescent, thereby igniting the gas passing through the ignition cylinders 26, and a small flame of ignited gas protrudes from the ends of the ignition cylinders 26. The cocks

11, 12, 14 and 15 can now be opened and the gas passing through the feed pipes 16, 17, 19 and 20, to the gas-burners 21 is ignited as it escapes through the perforations 22 in the gas-burners 21, by the small flame of gas protruding from the ends of the ignition cylinders 26. When the gas-burners are ignited, the cock 13 is closed and the flame in the ignition cylinders 26 is extinguished. It is obvious that all the gas-burners can be ignited at the same time, and that one or all of the gas-burners can be used at the same time.

In the modified form of my invention, as shown in Fig. 5, 32 designates the casing, 33 the top of the casing and 34 the supply pipe attached to one side of the casing. Supply cocks 35, 36 and 37 are arranged on the supply pipe 34 in relation to feed pipes 38, 39 and 40, which are connected to gas-burners 41 and 42 mounted on the top 33 of the casing 32. A swivel joint 43, connected to the feed pipe 39, has a hollow connection 44 on which is mounted an ignition cylinder 45, secured to said swivel joint 43, and is adapted to rotate the ignition cylinder 45 from one gas-burner to the other.

An ignition pill is attached to the inside of the ignition cylinder 45, adjacent to the channel in the connection 44. The ignition cylinder 45 is provided with air holes 46 to facilitate the ignition of the gas passing through the ignition cylinder.

Having thus described my invention, I claim:

1. A self igniting gas stove, having a burner, an ignition cylinder with one end adjacent to the burner, said end of the cylinder being open and the sides of the cylinder being perforated, a gas supply tube, a cap communicating therewith, a tubular channel connecting said cap with the second or remaining end of the ignition cylinder and an ignition pill located within the ignition cylinder adjacent to said second end thereof.

2. A self igniting gas stove, having a plurality of burners, a gas supply pipe located approximately equidistant from the burners, a plurality of ignition cylinders having open ends respectively juxtaposed to the burners, the sides of the cylinders being perforated and the opposite end of the cylinders being adjacent to the gas supply pipe, means establishing communication between the said pipe and the second named ends of the cylinders, an ignition pill located in each ignition cylinder adjacent to the gas supply end thereof, and a cover plate arranged over the ignition cylinders and the said gas supply means.

3. A self igniting gas stove, comprising a plurality of burners, a gas supply pipe located approximately equidistant from said burners, a cap secured to the discharge end of said pipe, a series of tubular channels communicating with the cap ignition cylinders projected respectively toward the burners and having open ends adjacent thereto, the sides of the cylinders being perforated and an adjacent pill located at each ignition cylinder adjacent to the gas supply end thereof.

4. A self igniting gas stove comprising a plurality of burners, a gas supply pipe located approximately equidistant from said burners, a cap secured to the discharge end of said pipe, a series of tubular channels communicating with the cap ignition cylinders projected respectively toward the burners and having open ends adjacent thereto, the sides of the cylinders being perforated, an ignition pill located in each ignition cylinder adjacent to the gas supply end thereof, and a cover plate fastened to the said cap and protecting the ignition device and the gas connections thereto.

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