S. ISHII.

FIRE KINDLER.

APPLICATION FILED JAN. 6, 1910.

975,868. Patented Nov. 15, 1910.

Fig. 1.

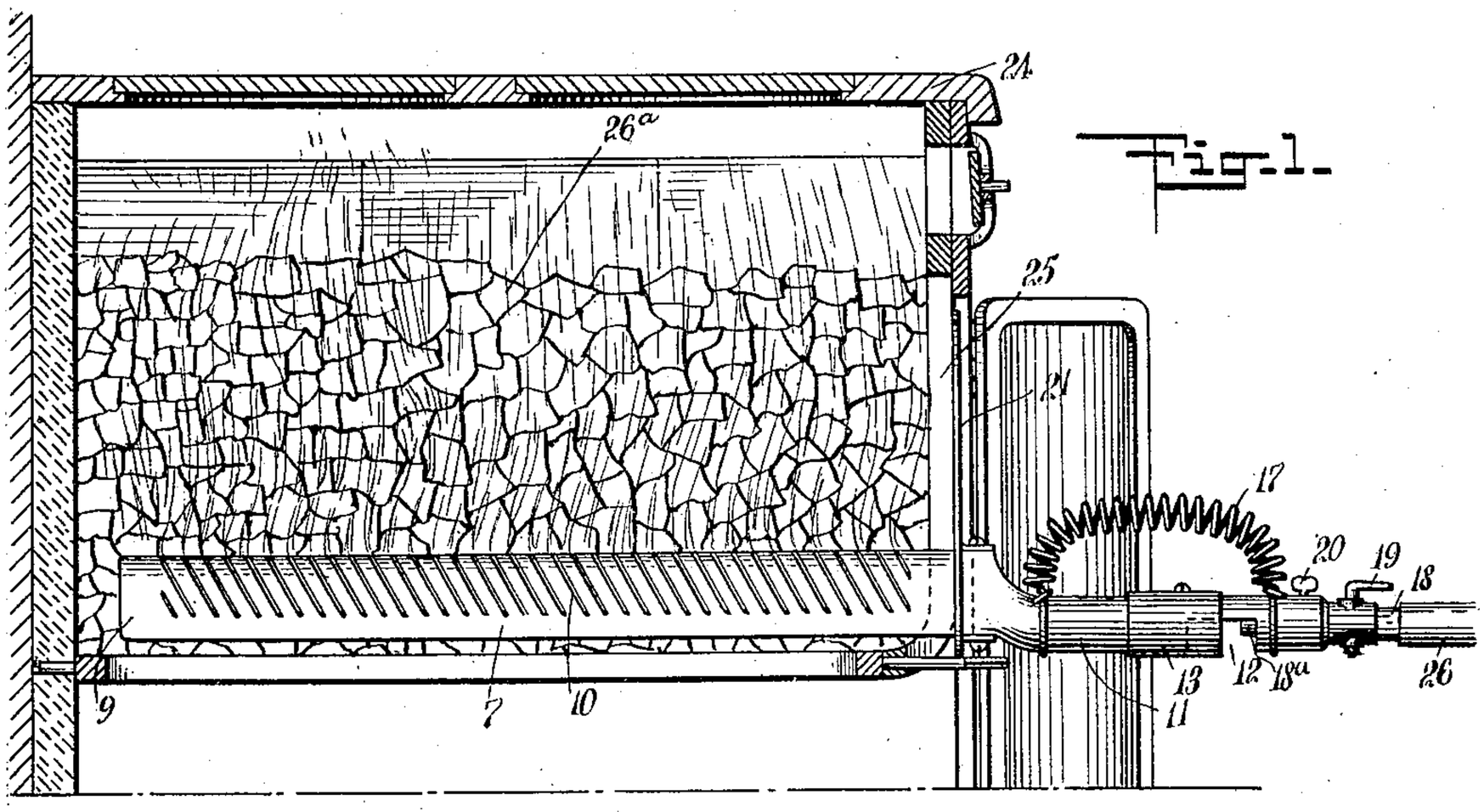


Fig. 2.

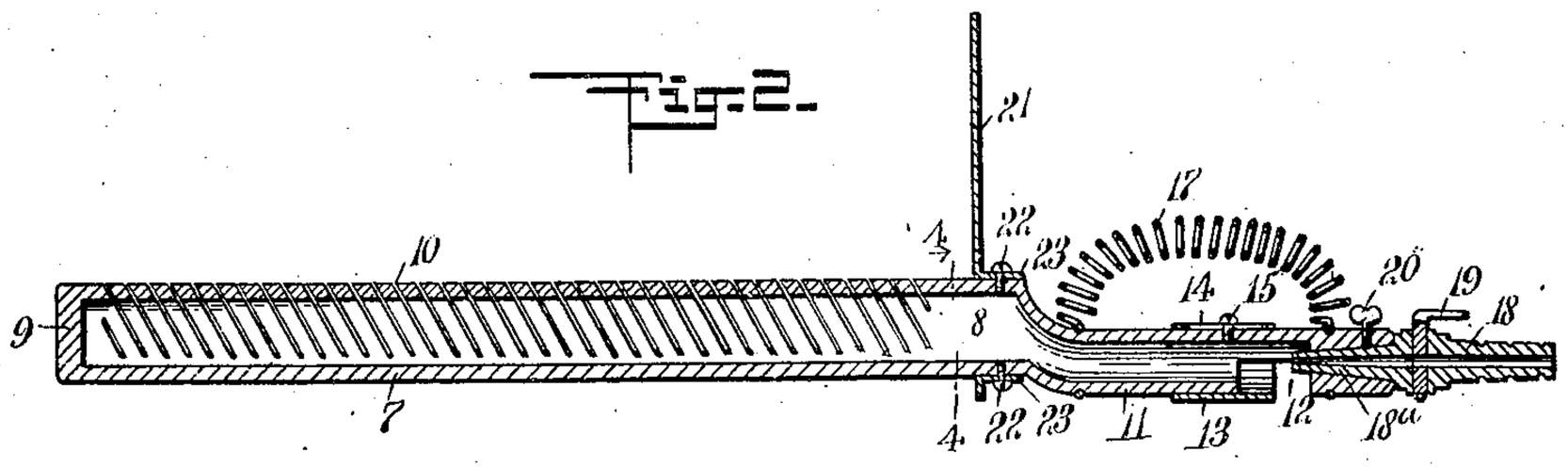


Fig. 3.

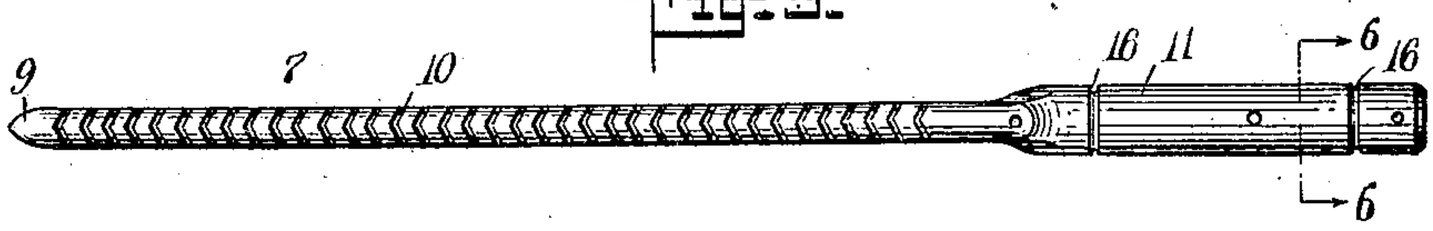


Fig. 6.

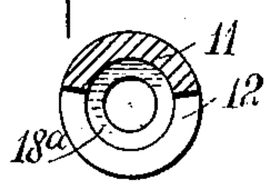


Fig. 4.

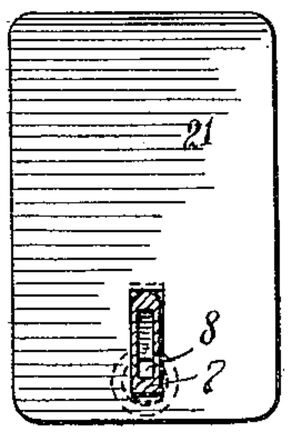
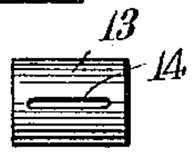


Fig. 5.



WITNESSES:

F. G. Hachenberg

Walton Harrison

INVENTOR

Shozaburo Ishii

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

SHOZABURO ISHII, OF ROSLYN, NEW YORK.

FIRE-KINDLER.

975,868. Specification of Letters Patent. Patented Nov. 15, 1910.

Application filed January 6, 1910. Serial No. 536,694.

To all whom it may concern:

Be it known that I, SHOZABURO ISHII, a subject of the Emperor of Japan, and a resident of Roslyn, in the county of Nassau and State of New York, have invented a new and Improved Fire-Kindler, of which the following is a full, clear, and exact description.

My invention relates to fire kindlers, my more particular purpose being to provide a kindler of this kind having suitable form for attachment to gas fixtures, and provided with apertures through which the gas can escape into and around the fuel in order to facilitate ignition of the same.

More particularly stated, I provide a fire kindler having a general elongated form and provided with a portion serving as a handle, and further provided with slots.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a view partly in section and partly in side elevation, showing my improved fire kindler as thrust into a stove and used for lighting coal; Fig. 2 is a substantially central longitudinal section through the fire kindler, showing it in its normal position ready for lighting a fire; Fig. 3 is a plan view of the kindler with the shield and other parts removed; Fig. 4 is a section on the line 4—4 of Fig. 2, looking in the direction of the arrow and showing the shield; Fig. 5 is a detail showing a sleeve which is mounted upon the kindler and serves as a damper for regulating the inflow of air to mix with the gas; and Fig. 6 is a section on the line 6—6 of Fig. 3, looking in the direction of the arrows.

A massive blade 7 is provided with an elongated compartment 8 and with a closed end 9, the blade 7 being further provided with slots 10 disposed obliquely, as indicated in Fig. 2. The blade is provided with a tubular portion 11 of reduced diameter, this tubular portion having an opening 12. A sleeve 13 encircles the tubular portion 11 and is slidable relatively to the opening 12. The sleeve 13 is provided with a slot 14 through which a screw 15 extends into the substance of the tubular portion 11. The tubular portion 11 is further provided with two annular grooves 16. A spiral winding 17 of stiff wire is connected with the tubular portion 11, the wire being bent around into the annular grooves 16. The spiral wire member 17 is the handle whereby the kindler is manipulated. By giving the handle this form, the heat from the kindler does not travel as easily as would otherwise be the case, and the handle of the kindler is therefore rendered safe and comfortable.

A double-ended plug 18 is provided with a hand valve 19 and with a conical portion 18^a which extends a little way into the end of the tubular portion 11. A screw 20 presses upon the conical portion 18^a and holds the plug 18 securely in position. A shield 21 is fitted directly upon the blade 11 by aid of screws 22. For this purpose the shield is provided with tongues 23 which fit flatly against opposite edges of the blade. At 24 (see Fig. 1) is a stove which is provided with grate bars 25. In order to thrust the blade 7 into the fire or into the fuel contained in the stove, the operator grasps the handle 17, inserts the blade 7 between two grate bars 25, and forces the blade in until the shield 21 lodges directly against the bars.

At 26 is a gas conducting tube which may be fitted over the outer end of the plug 18. When the blade 7 is thrust completely into the stove, as indicated in Fig. 1, so that the shield 21 lodges against the grate bars 25, the flow of air into the stove is slight; that is to say, the air can not flow quite as freely as if the shield 21 were absent. The purpose of this arrangement is to utilize the draft of the stove for facilitating the flow of gas through the kindler. The shield 21 also serves to protect the hand of the operator from the excessive heat of radiation from the stove.

In order to regulate the flow of air into the kindler the sleeve 13 is adjusted relatively to the tubular portion 11. The fuel, in this instance coal, is shown at 26^a.

The operation of my device is as follows: The portion 18^a of the plug 18 being connected with the kindler as above described, and also connected with the tube 26, the sleeve 13 is adjusted by moving it longitudinally in the general direction of the axis of the tubular portion 11. The valve 19 being turned, gas flows directly into the tubular portion 11. Supplemented by a suitable quantity of air through the opening 12, the gas travels onward into the blade 7.

The mixture of gas and air now passes out into the openings 10 and into and around the fuel. This mixture being ignited by a match, the fire is soon kindled. This being done, the operator turns the valve 19 and withdraws the blade from the stove.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

1. In a fire kindler, the combination of an elongated body portion provided with a longitudinal compartment extending lengthwise of the same, and further provided with slots disposed obliquely to the length of said elongated body portion for the purpose of distributing evenly therefrom a flow of combustible gas, means for directing said combustible gas into said elongated body portion, and a handle connected with said elongated body portion for thrusting the same into a body of combustibles.

2. A fire kindler, comprising a hollow blade provided with openings through which a combustible gas may escape, and further provided with a cylindrical portion having grooves upon its exterior, a handle of spring wire having portions bent around said cylindrical portion and lying within said grooves, and means for admitting said combustible gas into said cylindrical portion.

3. In a fire kindler, the combination of a hollow blade provided with openings, and further provided with a substantially cylindrical portion, said substantially cylindrical portion being provided with an opening for admitting air, a sleeve encircling said substantially cylindrical portion and slidable relatively thereto for virtually controlling the size of said opening into said cylindrical portion, a handle of spring wire connected with said cylindrical portion and extending in arcuate form across from one end of said cylindrical portion to the other end thereof, said opening in said cylindrical portion being between the ends of said handle portion, and means for admitting a combustible gas into said substantially cylindrical portion.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SHOZABURO ISHII.

Witnesses:

WALTON HARRISON,

JOHN P. DAVIS.