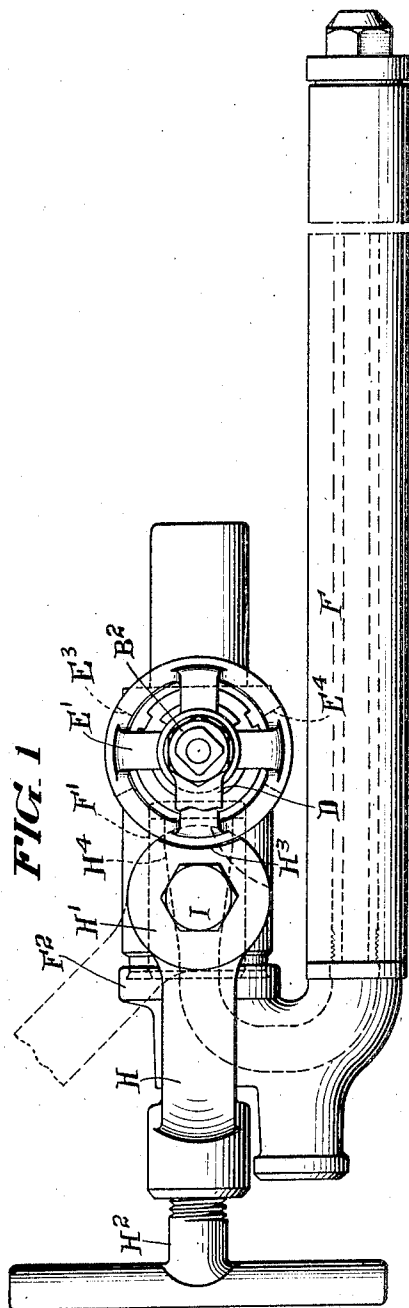


P. W. KNAUF.
OIL BURNER.
APPLICATION FILED MAY 14, 1912.

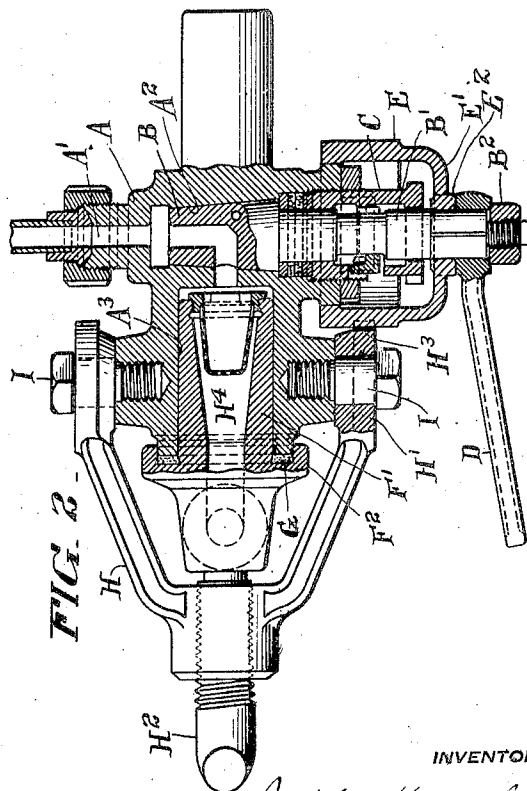
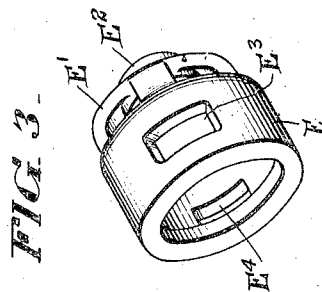
1,070,700.

Patented Aug. 19, 1913.



WITNESSES

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UNITED STATES PATENT OFFICE.

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OIL-BURNER.

1,070,700.

Specification of Letters Patent.

Patented Aug. 19, 1913.

Application filed May 14, 1912. Serial No. 687,128.

To all whom it may concern:

Be it known that I, PAUL W. KNAUF, a citizen of the United States of America, residing in Cynwyd and county of Montgomery, in the State of Pennsylvania, have invented a certain new and useful Improvement in Oil-Burners, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My present invention relates to oil burners and particularly to oil burners of the type in which a burner body containing a cut off valve has a burner nozzle piece connected thereto, and the object of the present invention is to provide simple and effective means for interlocking the cut off valve in the burner body with provisions for detachably securing the nozzle member in place so that the nozzle member cannot be detached from the burner body when the cut off valve is open.

The various features of novelty which characterize my invention are pointed out with particularity in the claims annexed to and forming a part of this specification. For a better understanding of the invention however, and the objects accomplished thereby, reference should be had to the accompanying drawings and descriptive matter in which I have illustrated and described forms in which my invention may be embodied.

Of the drawings: Figure 1 is an elevation of a burner body constructed in accordance with my present invention. Fig. 2 is a plan of a portion of the burner shown in Fig. 1 taken partly in section on the line 2-2 of Fig. 1 and, Fig. 3 is a perspective view of the interlocking part attached to the cut off valve.

In the drawings, A represents the burner body which, as shown, is formed with an inlet passage A', a conical valve chamber A² in line therewith, and an outlet passage A³ opening laterally from the valve chamber A². Communication between the inlet and outlet passages A' and A³ is controlled by a cut off-valve B in the form of a rotary cock, the stem B' of which passes out of the burner body through the stuffing box C. An operating handle D is secured to the outer end of the plug cock stem B' as by the nut B², which also secures an interlocking member E to the stem B'. This interlocking member comprises a hub

tion E², arms E' and a cylindrical body E coaxial with the valve B. The outer end of the outlet passage A³ of the burner body receives the back turned end F' of the burner nozzle F. The portion F' of the nozzle body fits snugly in the enlarged portion of the outlet passage A³ and at the outer end of said portion, the nozzle body is formed with a flange F² channeled out to receive a packing washer G. The nozzle body is detachably secured to the burner body by means of a clamping yoke H having hubs H' journaled on trunnion screws I secured to the burner body and having their common axis parallel to the axis of the plug cock B. At its outer end the yoke H is provided with a threaded socket receiving the clamping screw H². One of the hubs H' of the yoke H is formed with a concavity H³ snugly receiving the interlocking member E when the parts are assembled as shown in full lines in Figs. 1 and 2. In this condition of the apparatus the valve may be turned in either direction to cut off communication between the passages A' and A³, but while the valve is in its open position, the clamping yoke cannot be turned out of the position shown in full lines in Figs. 1 and 2. To permit the clamping yoke to be swung out of the position shown in the full line position into the dotted line position of Fig. 1, the body E is cut away to form apertures or sockets E³ and E⁴ so located that when the valve is turned to cut off communication between the passages A' and A³, one or the other of these apertures will be in position to receive the interlocking portion H³ of the yoke which must intersect the cylindrical outline of the interlocking body E when the yoke is turned into the dotted line position shown in Fig. 1. It will be apparent of course, that either of the two apertures E³ and E⁴ may be omitted if desired, and that the only difference made by the omission of one of these apertures is that there would then be only one, and not two closed positions of the valve in which the clamping yoke H could be swung out of its normal clamping position.

While in accordance with the provisions of the statutes I have illustrated and described the best form of my invention now known to me, it will be apparent to those skilled in the art that changes may be made in the form of apparatus disclosed without departing from the spirit of my invention.

and that in certain cases some features of the mechanism may be used with advantage without a corresponding use of other features.

5 Having now described my invention, what I claim as new and desire to secure by Letters Patent is,

1. In an oil burner, the combination with
a support and a detachable nozzle member
10 each formed with a passage registering with the passage of the other; of a rotary valve mounted in said support and controlling the passage thereof, and means for detach-
ably securing said body and nozzle members
15 together, comprising a clamping yoke pivotally connected to said support to turn into and out of its clamping position about an axis parallel to the axis of rotation of said
valve, said clamping yoke being formed with
20 a concavity and said valve being provided with a cylindrical portion entering said concavity and holding said yoke in its clamping position when said valve is in the open position, and passing out of said con-
cavity to permit the yoke to turn out of its
25 clamping position when said valve is in its closed position.

2. In an oil burner, the combination with
a support and a detachable nozzle member
each formed with a passage registering with
30 the passage of the other, of a rotary valve mounted in said support and controlling the passage thereof, and means for detachably
securing said body and nozzle members to-
35 gether comprising a clamping yoke pivotally connected to said support to turn into and out of its clamping position about an
axis parallel to the axis of rotation of said
valve, said clamping yoke having an inter-
locking portion and said valve being pro-
40 vided with a cylindrical bearing surface engaging said interlocking portion and thereby holding the yoke in its clamping position
when said valve is in the open position, said
surface being formed with a recess adapted
45 to receive said interlocking portion and permit said yoke to turn out of its clamping position when said valve is in its closed position.

PAUL W. KNAUF.

Witnesses:

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SIMON W. SNYDER.