

No. 846,930.

PATENTED MAR. 12, 1907.

A. J. MEYERS.
GAS BURNER.

APPLICATION FILED JAN. 12, 1906.

Fig. 1.

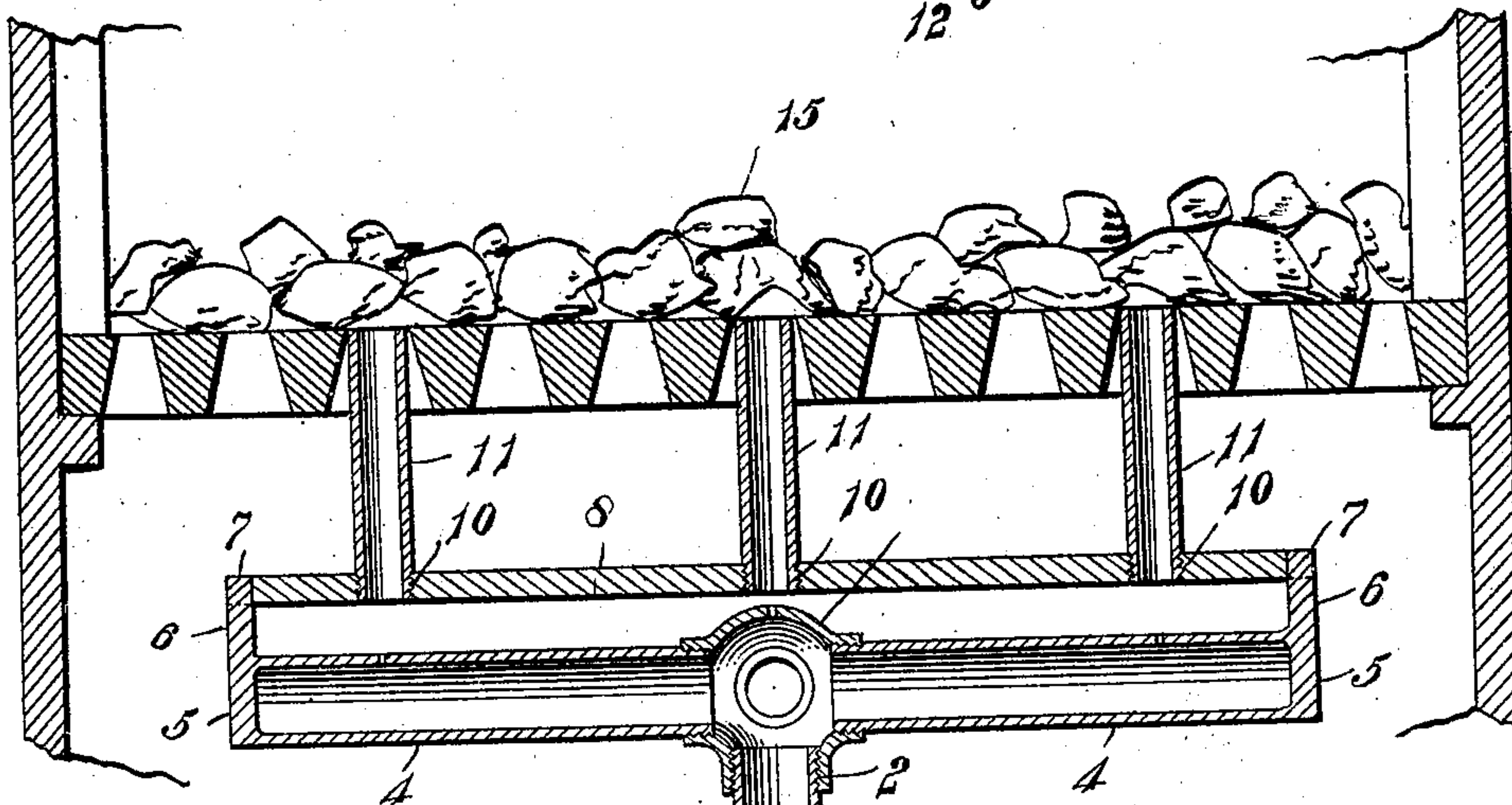
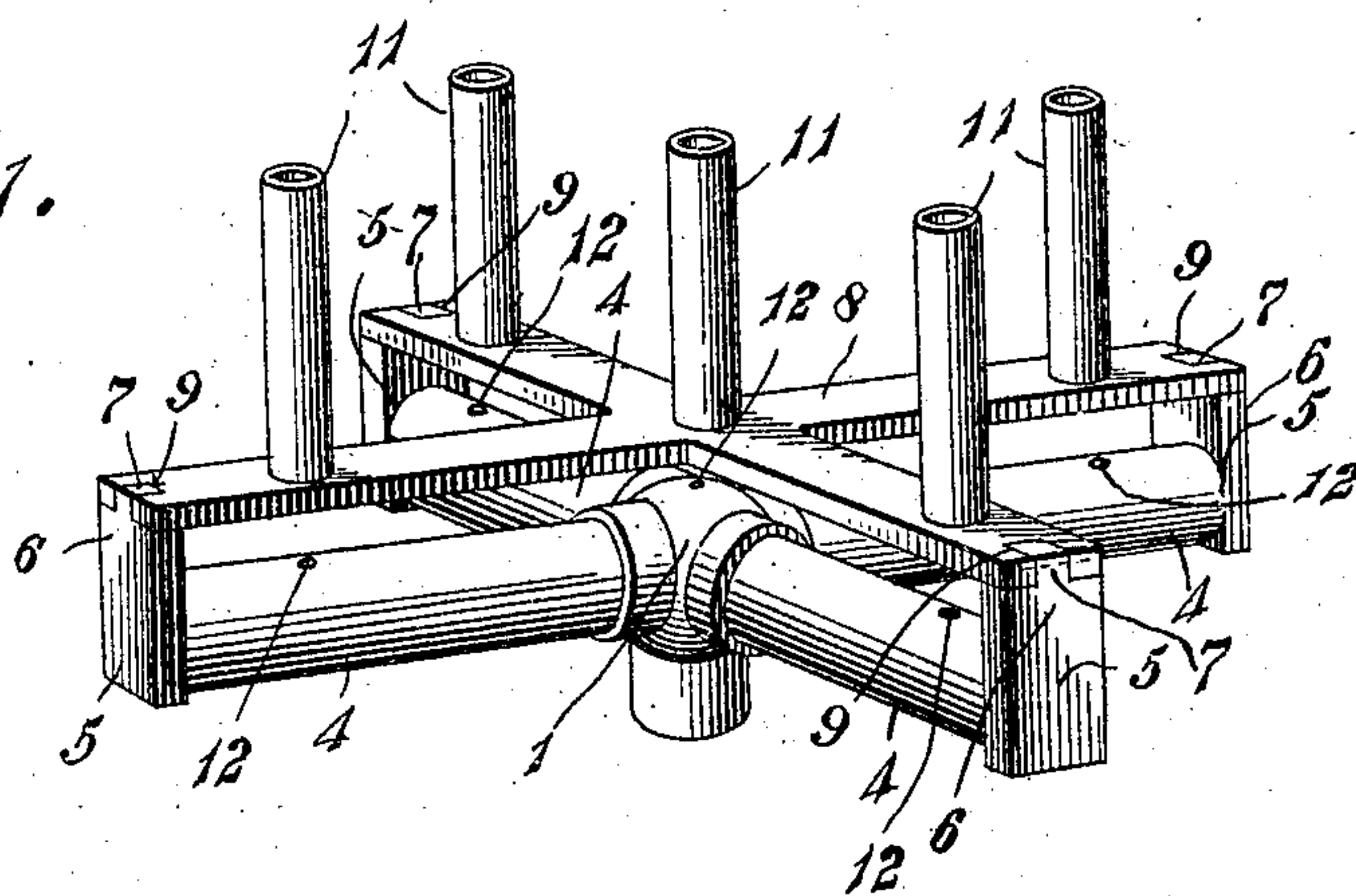
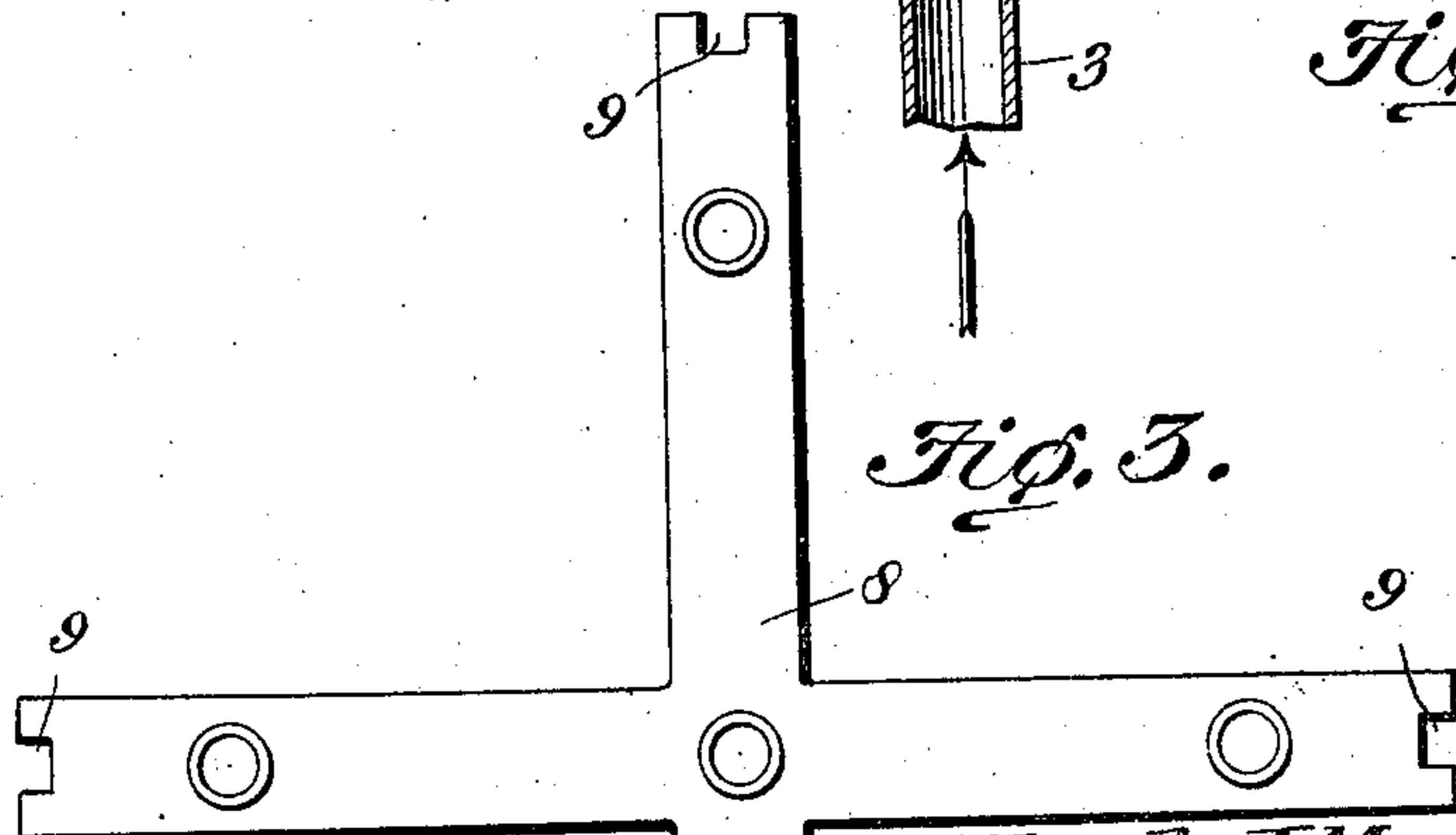


Fig. 2.

Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALBERT J. MEYERS, OF KANSAS CITY, KANSAS.

GAS-BURNER.

No. 846,930.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed January 12, 1906. Serial No. 295,761.

To all whom it may concern:

Be it known that I, ALBERT J. MEYERS, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented a new and useful Gas-Burner, of which the following is a specification.

This invention relates to gas-burners of that class which are used mainly in connection with the fireplaces of stoves and furnaces for the consumption of natural gas; and it has for its object to simplify and improve the construction and operation of this class of burners.

With these and other ends in view, which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts, which will be hereinafter fully described, and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations, and modifications within the scope of the invention may be made when desired.

In the drawings, Figure 1 is a perspective view of a gas-burner constructed in accordance with the principles of the invention. Fig. 2 is a vertical sectional view of the burner, showing the same arranged in a fire-box of a stove or furnace in position for operation. Fig. 3 is a detail plan view showing the top of the burner detached.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

In the construction of the improved burner there is employed a central header or member which has been shown as consisting of a side-outlet cross 1, having in the bottom thereof an inlet-opening 2, into which is threaded the supply-pipe 3, upon which the member 1 is supported. Into the side outlets of the member 1 are threaded the radial tubular arms 4 4, which are provided with end walls or closures 5, that are extended upwardly to form brackets 6, having terminal lugs 7.

The burner-top is composed of a cruciform casting 8, the arms of which are provided with notches 9 at their outer extremities, adapted to engage the lugs 7 at the upper

ends of the brackets 6, upon which the arms of the cross or casting 8 may thus be detachably supported. The casting 8 is provided with threaded apertures 10, into which tubes 11 are securely screwed. One of these tubes may be disposed at the intersection of the arms of the cross and one or more in each of the arms.

The member 1 and each of the members 4 are provided with small apertures, as 12, which are disposed directly beneath the several tubes 11.

In the operation of this improved burner the latter is preferably supported in any suitable manner beneath the grate of a stove or furnace in such a manner that the tubes 11 will barely project above the grate-bars. Broken fire-brick or other suitable refractory material, as 15, is then piled upon the grate in such a manner as to diffuse the gas over a large area. When gas is permitted to pass through the burner by opening a suitable controlling-valve, the gas will project it forcibly through the apertures 12 and the tubes 11, and a considerable portion of atmospheric air will thus be siphoned through said tubes, forming in combination with the gas a highly inflammable mixture which may be readily ignited as it escapes through the tubes 11. The flames will be diffused by the fire-brick or other refractory material, which will soon become intensely heated.

This improved burner, as will be seen, is extremely simple in construction, and it may be manufactured at a very moderate expense. The top of the burner being supported detachably may at any time be readily removed for the repair of possible injury caused by overheating. Such repairs may be effected at a very trifling cost, inasmuch as they will affect only the tubes 11.

In burners for the consumption of gas in stoves and furnaces as ordinarily constructed and where the gas is ignited at the point where it leaves the discharge-aperture of the burner a serious objection resides in the fact that the discharge-apertures will soon become carbonized by the heat and clogged, thus rendering the burner useless after a short time of service. The improved burner constructed in accordance with the principles of the present invention overcomes this obstacle, since the gas is not ignited until it leaves the mixing-tubes 11, which are of such size as to prevent clogging being caused by carbonization. The small discharge-orifices

12 are so far removed from the heat that they will not be injuriously affected thereby.

Having thus described the invention, what is claimed is—

5 In a gas-burner, a central member having a plurality of threaded openings and a gas-discharging aperture; a plurality of tubular apertured arms radially disposed about the said member each arm comprising a casting
10 having a terminal threaded portion for engaging in one of the openings of the member and formed with a closed outer end, and a bracket adjacent the closed end of each arm, said arms being assembled on the central
15 member with their brackets extending in the

same direction; a plate having arms arranged with their extremities loosely engaging the said brackets; and short pieces of pipe having threaded engagement in the said plate and disposed in line with the discharging-ap- 20
ertures, one of the pipes being arranged at the center of the said plate and the others on the arms thereof.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 25
the presence of two witnesses.

ALBERT J. MEYERS.

Witnesses:

F. L. ELLIS,
FRED CARPENTER.