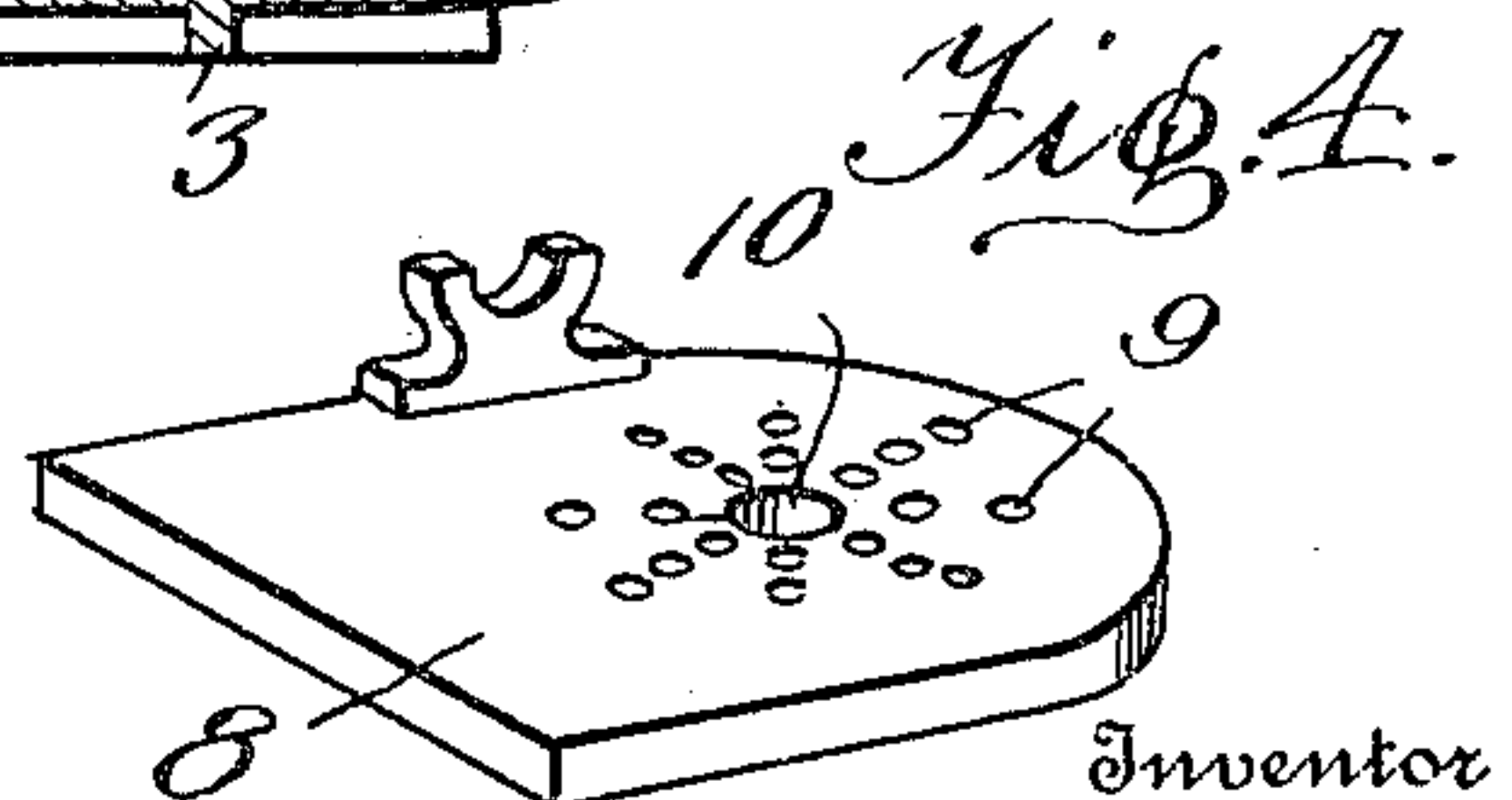
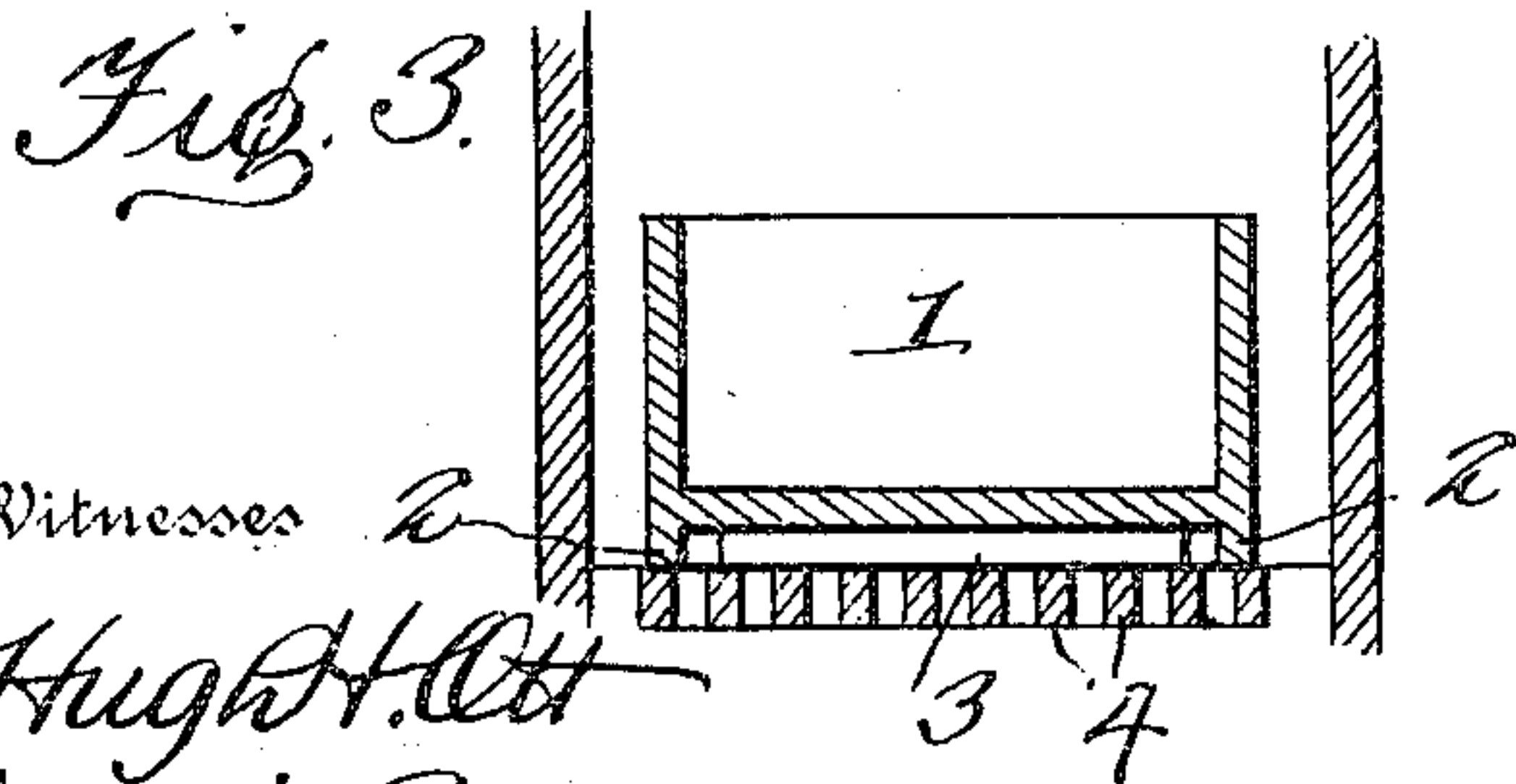
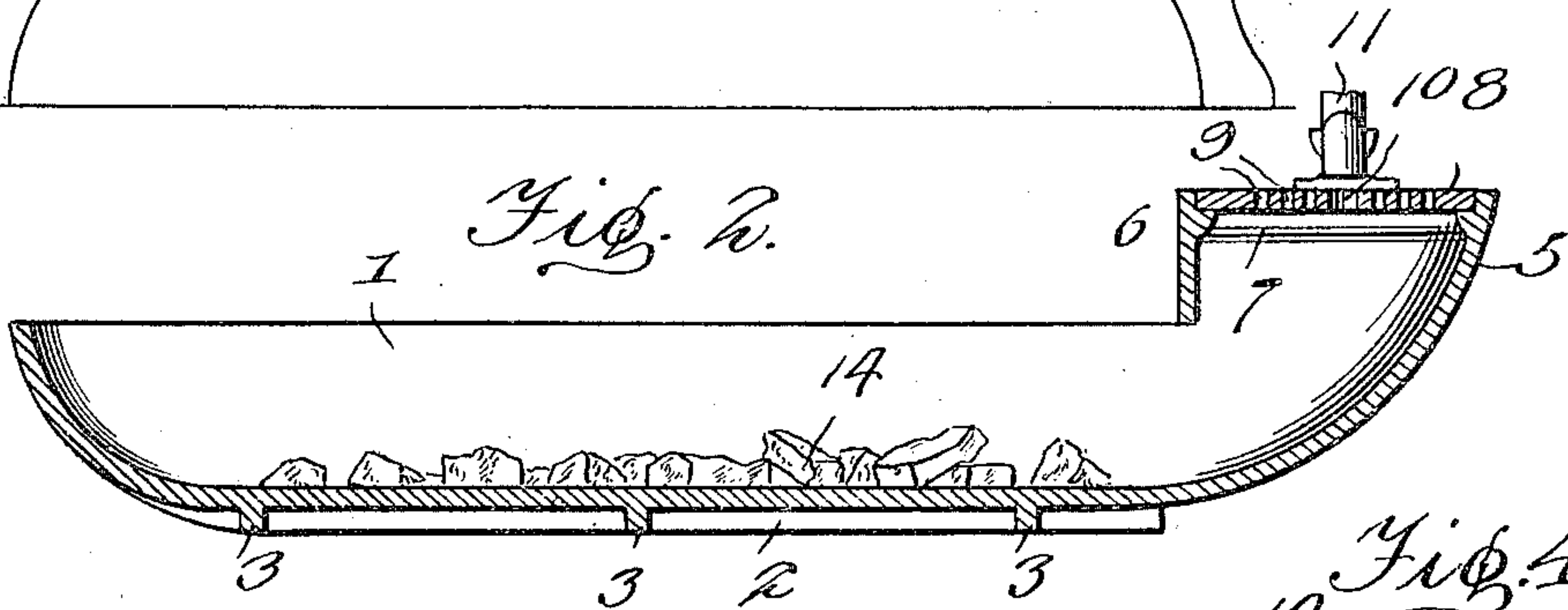
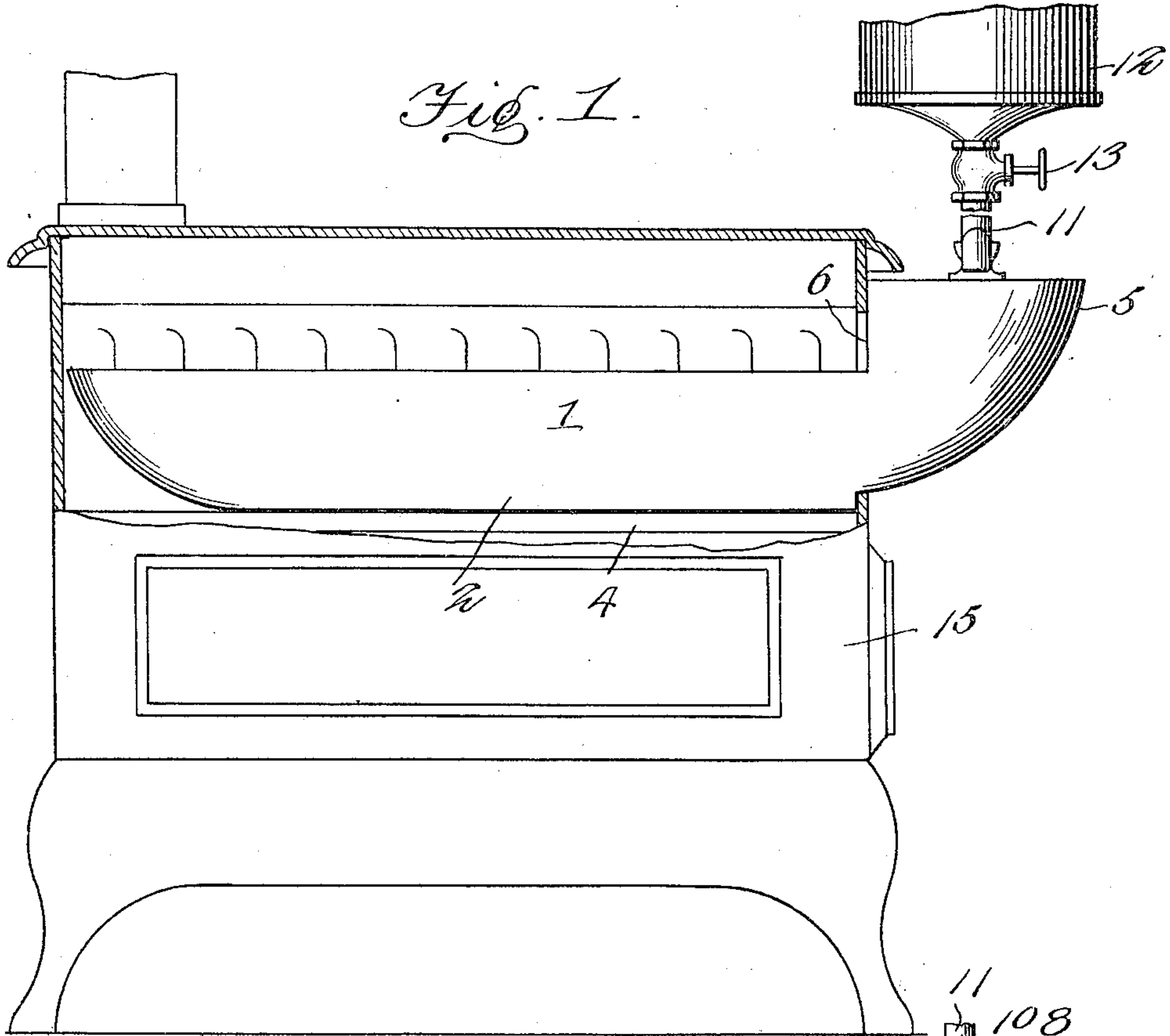


E. F. STANTON.  
CRUDE OIL BURNER.  
APPLICATION FILED FEB. 1, 1910.

964,457.

Patented July 12, 1910.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ERNEST F. STANTON, OF WELLINGTON, TEXAS.

## CRUDE-OIL BURNER.

964,457.

Specification of Letters Patent.

Patented July 12, 1910.

Application filed February 1, 1910. Serial No. 541,334.

*To all whom it may concern:*

Be it known that I, ERNEST F. STANTON, a citizen of the United States of America, residing at Wellington, in the county of Collingsworth and State of Texas, have invented new and useful Improvements in Crude-Oil Burners, of which the following is a specification.

This invention relates to devices for burning crude oil and the like, and it has for its prime object to produce a device of this class which may be used in connection with an ordinary stove and which may be introduced through the door opening of such stove, the feed connection being disposed at a distance from the door opening, and there being no obstruction whatever to the top of the stove, as is the case when an oil burner is introduced through one of the openings in the top plate.

Further objects of the invention are to simplify and improve the general construction and operation of a device of the class outlined above.

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 drawing 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 resorted to when desired.

In the drawing,—Figure 1 is a sectional elevation showing a cook stove to which the improved oil burner has been applied. Fig. 2 is a longitudinal sectional view of the improved oil burner detached. Fig. 3 is a transverse sectional view, showing the oil burner located in the fire box of a cook stove. Fig. 4 is a perspective detail view of the detachable cover used in connection with the device.

Corresponding parts in the several figures are denoted by like characters of reference.

The improved oil burner consists of an elongated trough or casing 1 which may be provided on the underside thereof with longitudinal supporting ribs or flanges 2 and with transverse ribs 3—3, extending part-

way between the longitudinal side flanges so as to assist in supporting the device upon the grate bars of a stove when such grate bars 4 are longitudinally disposed, as will be seen in Figs. 1 and 3. The trough or casing 1 is provided at one end, which may be designated as the outer end, with an upward extension 5, the side portions of which are connected by a transverse breast piece 6, said upward extension and breast piece combining to constitute a neck which is provided near its upper edge with an interiorly disposed annular flange 7 upon which a plate 8 constituting a cover may be detachably supported, said cover plate being provided with draft apertures 9 and with a larger opening 10 for the passage of a feed pipe 11 through which liquid fuel may be conveyed by gravity from a suitably located tank or container 12, the feed being regulated by means of a valve 13 of ordinary construction. Absorbent refractory material, such as mineral wool or broken pieces 14 of fire brick or the like, may be placed in the bottom of the trough or casing.

In the operation of the invention, the casing is introduced into the fire box of an ordinary cook stove 15, where it is supported upon the grate. The front door or the fire door of the stove may be entirely removed for the admission of the device, and the portion of the door opening above the upper edge of the trough proper will be obstructed by the breast plate 6 of the upwardly extending front portion of the trough. To start the burner a small portion of liquid fuel is permitted to pass through the feed pipe into the trough or casing, where it will be absorbed by the material 14, its ignition being thereby facilitated. The absorbent material, as well as the walls of the trough or casing quickly becomes heated, and fuel fed to the burner will thus be vaporized, and the vapor will become commingled with atmospheric air entering through the draft apertures 9 in the top plate 8, thus forming a combustible mixture which will burn with great intensity and develop a high degree of heat.

It will be seen that owing to the improved construction of this device, the top of the stove in connection with which the burner is used, will not be obstructed, but will become intensely heated very quickly and at little expense for fuel.

Having thus described the invention, what is claimed as new, is:—

5 The combination with a cook stove, of a burner supported in the fire box thereof and inserted through the door opening, said burner consisting of an elongated trough having an upward extension forming a neck, the same including a breast plate constituting an obstruction for the upper portion of

the door opening, and a cover engaging said extension and having draft apertures and a feed opening.

In testimony whereof I affix my signature in presence of two witnesses.

ERNEST F. STANTON.

Witnesses:

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