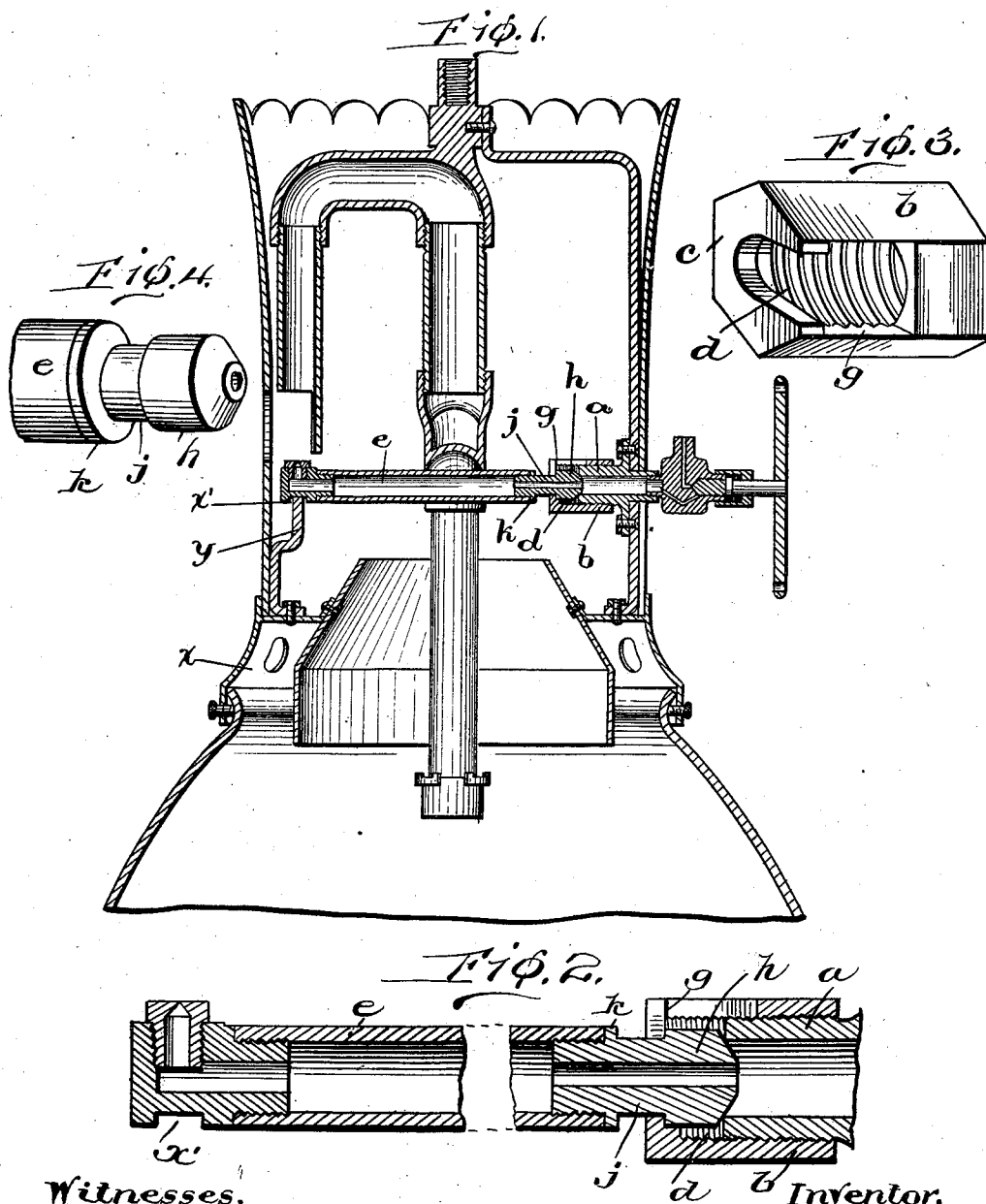


H. A. RICE.
HYDROCARBON GENERATOR.
APPLICATION FILED JUNE 4, 1908.

1,001,077.

Patented Aug. 22, 1911.



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HYDROCARBON-GENERATOR.

1,001,077.

Specification of Letters Patent. Patented Aug. 22, 1911.

Application filed June 4, 1908. Serial No. 436,571.

To all whom it may concern:

Be it known that I, HAROLD ALBERT RICE, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Hydrocarbon-Generators; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a generator for a hydrocarbon lamp, loosely supported at one end by or from some part of the lamp structure and detachably connected at the other end to the feedway, or other lamp part with which the generator has operative relations by a coupling means which will permit of the generator being connected to or disconnected from its supporting parts without disturbing their primal arrangements.

The invention may be carried into practice by the employment of various modifications of the mechanical construction herein-after described, within the scope of the appended claim, without departing from the nature of the invention, but it is found that the most practical means is to provide one end of the generator tube with a male coupling member, the end of which is preferably of a tapering shape, to enter the bore of the feedway upon which a female coupling member is mounted, the female coupling member consisting of a sleeve and an end piece slotted to permit of the entry of the male coupling member into the female coupling member or its removal therefrom, the other end of the generator tube being conveniently supported by an arm extending from the globe holder, or from some other part of the lamp structure in such a manner as to permit of the removal of the generator when the coupling members are released.

For an understanding of the invention reference is to be had to the following description and to the accompanying drawings in which:—

Figure 1, is a longitudinal section showing one end of a generator tube detachably connected to a feedway and the other end supported by a standard extending from the globe holder. Fig. 2, is a sectional view of the generator and coupling means. Fig. 3, is a perspective view of a larger scale than the preceding figures, of the female coupling member, and, Fig. 4, is a view on the same scale as Fig. 3, of the male coupling member.

Like characters of reference refer to like

parts throughout the specification and drawings.

As shown in Fig. 1, of the drawings, the female coupling member is mounted on the feedway *a*, which in this instance consists of an ordinary feed tube or duct for the fuel which may be connected with, or form a part of, the controlling valve. This female coupling member consists of a sleeve *b* the outer surface of which is preferably of a multilateral shape to permit of the coupling member being manually operated, and at one end a plate *c* with a bore *d* axially alined with the bore of the sleeve.

In the sleeve *b* and end plate *c* is a slot *g* of sufficient dimensions laterally and lengthwise to receive the head *h* and neck *j* of the male coupling member. The neck *j* is provided with an annular flange or shoulder *k* to abut against the end of the generator tube *e* and to be engaged by the end plate *c* of the female coupling member when the latter is unscrewed on the feedway *a*. This flange or shoulder *k* is employed for a double purpose, (a) of limiting the movement of the female coupling member, and (b) of receiving the impact of the latter to loosen the head *h* from the feedway.

The end of the generator tube *e* opposite the male coupling member is arranged to be detachably connected to a generator supporting part of the lamp.

In the present instance the globe holder *x* is provided with an arm *y* on which the free end of the generator is seated, the generator having a groove *x'* into which the end of the arm enters, the groove being of greater lateral dimensions than the arm to permit of a limited movement of the generator when being connected to or disconnected from the feedway. This construction securely holds the generator in its supported position and permits of it being removed or replaced without disturbing the primal arrangement of the parts.

In assembling the parts the female coupling member is slackened until the slot or at least sufficient of the latter projects beyond the end of the feedway to permit of the entry of the head *h* and neck of the male coupling member into the bore of the sleeve. The female coupling member is then tightened on the feedway until the end of the head is forcibly drawn into contact with the end of the feedway. To disconnect the generator tube from the feedway the female

coupling member is slackened on the feed-
way *a* until the slot *g* or sufficient of the slot
projects beyond the end of the feedway to
permit of the removal of the head *h* and
5 neck from the bore of the sleeve. The male
coupling member can then be removed from
the female coupling member and the gener-
ator disconnected from the lamp. By this
means it is possible to remove, clean, and
10 replace the generator or substitute another
for it without necessitating the removal of
or interference with any of the generator
supporting parts, and without necessitating
the complete separation of the female cou-
15 pling member from the part to which it is
fitted. It is also possible by making the
coupling means in the manner described to
manually operate the female coupling mem-
ber without the employment of a tool.

Having thus fully described my invention 20
what I claim as new and desire to secure
by Letters Patent is:—

In the hereinbefore described device, a
generator having at one end a groove, to re-
ceive a generator supporting element, and at 25
the other end a male coupling member, com-
prising a body part and a relatively larger
head part, and a female coupling member
comprising an internally threaded sleeve
having at one end a slotted plate to receive 30
the body part of the male coupling member
and engage the head part.

Toronto, May 27th, A. D. 1908.

HAROLD ALBERT RICE.

Signed in the presence of—

N. R. ROBERTSON,

H. L. TRIMBLE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
