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APPARATUS FOR CARBURETING GAS.

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UNITED STATES PATENT OFFICE.
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To all whom it may concern:

Be it known that I, LEWIS C. PARKER, a citizen of the United States, residing at St.
Joseph, in the county of Buchanan and State
of Missouri, have invented certain new and
useful Improvements in Apparatus for Car-
burating Gas, of which the following is a speci-
fication.

The invention relates to apparatus for car-
burating gas; and it consists, essentially, of
the construction and arrangement of certain
novel devices for carbureting the gas as it
comes from either the generator or from a
supply-tank after being washed, said devices
being readily adaptable to any of the well-
known gas producers or generators now in use.

In carrying out my invention I propose to
employ a plurality of pipes running at right
angles to each other horizontally through the
wall of the producer and to arrange said
pipes in such close proximity to the combus-
tion-chamber of the producer that the amount of heat necessary to effect the car-
burization of the oil-enriched gas as it passes
through said pipes will be furnished.

In the drawings, Figure 1 is a horizontal
sectional view of a gas-producer, showing my
improved carbureting device applied thereto;
and Fig. 2, a vertical sectional view of the
same, a portion of the wall being broken
away to show a part of the carbureting de-
vice in side elevation.

In the several views, the numeral 1 indicates
a gas-producer of the ordinary type, having its
wall provided at a suitable distance above
the coal-level with channels 2 and 3, running
at right angles to each other. Placed in
these channels are carbureting-pipes 4 and 5,
respectively, the ends of the pipes at their
point of juncture being connected by a coup-
ing 6, consisting of a plate provided with
two channels 7 and 8, arranged at right
angles to each other to receive the respective
ends of said pipes, each channel having its
outer end internally screw-threaded to re-
cieve a screw-threaded plug 9. The couple-
ing is secured to the outer wall of the pro-
ducer by any suitable means, and a packing
10 is placed between said coupling and wall
to prevent the escape of the gas.

The intake end of the carbureting-pipe 4
extends through a bracket 11, secured to the
outer wall of the producer and through a
stuffing-box 12. The extreme end of the
pipe 4 is provided with a flange 13, and bolted
to said flange is a packing-nut 14, through
which passes a gas-pipe 15, having a regulat-
ing-valve 16. The gas-pipe is provided with
an internally-screw-threaded boss 17, into
which is screwed an oil-pipe 18, passing
through a hole in the pipe 4. The oil-pipe is
provided with a suitable valve 19 for regulating
the flow of the oil, which is furnished
from a suitable source of supply (not shown)
through the pipe 20. The outer or exit end
of the pipe 5 extends through a bracket 21
and a stuffing-box 22, similar to bracket 11
and stuffing-box 12 and is provided with a
regulating-valve 23. A suitable packing 24
is placed between each of the brackets and the
wall of the producer to insure against leakage
of the gas.

The gas to be carbureted may be taken
directly from the producer or from a tank
in which it is stored after being washed, the
latter being preferred. The gas entering
through the pipe 15 and the oil through the
pipe 18, is partially atomized as it passes
into the carbureting-pipe 4, in which pipe and
pipe 5 the carbureting takes place, the car-
bureted gas passing out through the exit end
of pipe 5, to any suitable storage-tank. (Not
shown.)

While I have shown and described only
2 carbureting-pipes, it will be evident that
a third pipe may be employed arranged at
right angles to pipe 5 and a coupling similar
to coupling 6, used to connect the ends to-
gether at their point of juncture.

Having thus fully described my invention,
what I claim, and desire to secure by Letters
Patent, is:

1. In an apparatus for enriching gas, the
combination with the walls of the producer,
of a carbureting-pipe arranged in said walls,
in such close proximity to the combustion-
chamber as will provide the required amount
of heat necessary to effect the carburization
and fixing of the gas, a pipe arranged in the
inlet end of the carbureting-pipe for supply-
ing the produced gas, an oil-pipe communi-
cating with the gas-supply pipe, means for
controlling the supply of gas, and means for
controlling the supply of oil.

2. In an apparatus for enriching gas, the
combination with the walls of the producer,
of a carbureting-pipe arranged in said walls,
in such close proximity to the combustion-
chamber as will provide the required amount
of heat necessary to effect the carburization
and fixing of the gas, said carbureting-pipe
having its outlet end constructed to be connected with a suitable storage-holder, a pipe arranged in the inlet end of the carbureting pipe for supplying the produced gas, an oil pipe communicating with the gas supply pipe, a valve for controlling the supply of gas, and a valve for controlling the supply of oil.

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

LEWIS C. PARKER.

Witnesses:
E. P. Snowden,
Warren C. Hill.