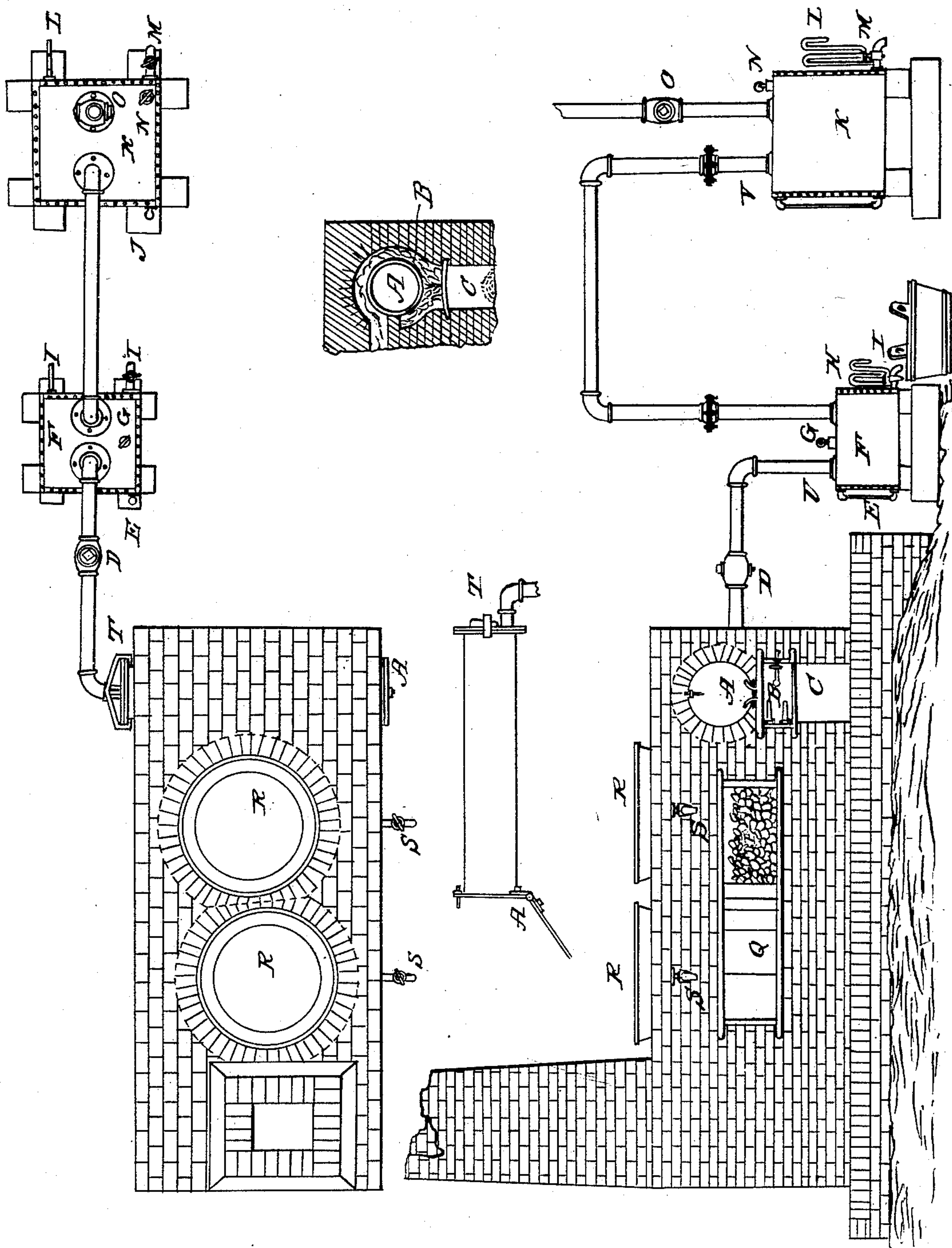


SLOAN, SMITH, HOOVER & BRIGGS.

Gas Retort.

No. 20,375.

Patented May 25, 1858.



UNITED STATES PATENT OFFICE.

I. T. SLOAN, VOLNEY SMITH, MANUEL HOOVER, AND R. M. BRIGGS, OF
JACKSON, CALIFORNIA.

IMPROVEMENT IN GAS-RETORTS.

Specification forming part of Letters Patent No. 20,375, dated May 25, 1858.

To all whom it may concern:

Be it known that we, I. T. SLOAN, VOLNEY SMITH, MANUEL HOOVER, and R. M. BRIGGS, of the town of Jackson, in the county of Amador and State of California, have discovered a variety of the pine in the State of California which we believe to be peculiar to said State, and which we will class as the *Pinus pixiferus Californiensis*, on which we find a large quantity of highly-carbureted hydrogen gas, producing when burned a strong, brilliant light, superior to the gas now in common use, and that we have invented in connection with said discovery a new and useful improvement on apparatus heretofore invented for manufacturing gas-light from wood, and particularly from the *Pinus pixiferus Californiensis* and other wood of California.

The nature of our invention consists in the employment in the manufacture of gas from wood of a cylindrical retort placed horizontally and having a door to close the opening for the reception of material swinging upon hinges and shutting with a staple and eye to receive a wedge, the other end being closed with a clamp and wedge. The horizontal position and mode indicated of closing the aperture for the reception of material greatly facilitates the processes of generating gas and of charging and cleaning out the retort.

For a further description of the construction

and operation of this retort we refer to the drawing accompanying our specification.

A represents retort, six feet long, one foot diameter, and cylindrical, opening in A with hinges and shutting with staple and eye to receive a wedge. We can use several retorts in same furnace, in which case the expense of combustibles is much less.

Our design is intended to represent the apparatus to be employed in villages using not over three hundred lights.

T is other end of retort, shutting with clamp and wedge.

What we claim as our invention, and desire to secure by Letters Patent, is—

The employment in the manufacture of gas from wood of a cylindrical retort placed horizontally and having a door to close the opening for the reception of material swinging upon hinges and shutting with a staple and eye to receive a wedge, the other end being closed with a clamp and wedge.

Jackson, Amador county, State of California, 2d of February, 1857.

I. T. SLOAN.
VOLNEY SMITH.
MANUEL HOOVER.
R. M. BRIGGS.

Witnesses:

H. G. EICHELBERGER,
T. FORNARY.