

W. H. RANSOM.
Sewer-Gas Consumer.

No. 219,761.

Patented Sept. 16, 1879.

Fig. 1.

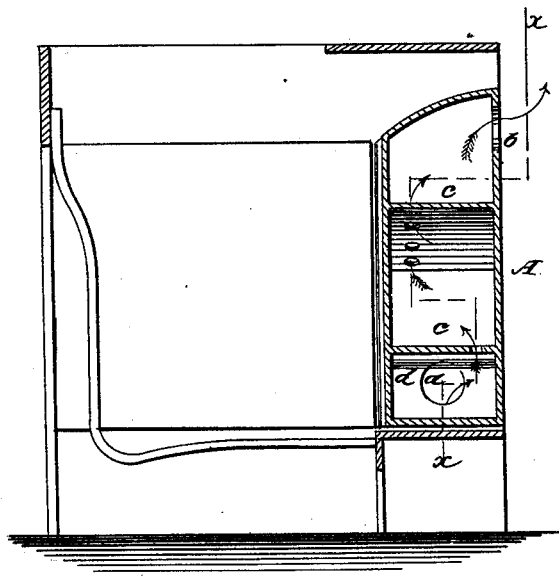
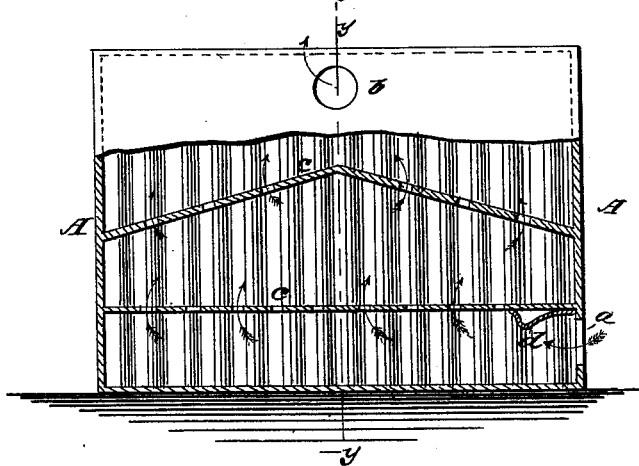


Fig. 2.



WITNESSES:

Francis McArdle.
C. Sedgwick

INVENTOR:

W. H. Ransom
BY *Mum & Co*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM H. RANSOM, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SEWER-GAS CONSUMERS.

Specification forming part of Letters Patent No. **219,761**, dated September 16, 1879; application filed July 19, 1879.

To all whom it may concern:

Be it known that I, WILLIAM H. RANSOM, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Sewer-Gas Consumer, of which the following is a specification.

The object of my invention is to prevent escape of sewer-gas and vitiated air from sewers, cess-pools, and holds of vessels into the house or vessel by leading such gases to a chamber heated sufficiently to kill the virile matters, and afterward discharging the same to a chimney-flue.

The invention consists in a receiving-chamber connected by pipes with the sewer or cess-pool and fitted in a chimney-flue, in connection with an ordinary stove or range, whereby a draft is induced which draws the gas through the chamber, and the chamber is sufficiently heated to consume the poisonous matters or render them harmless.

My invention is shown by the accompanying drawings, wherein Figure 1 is a vertical transverse section of a stove or range fitted with the gas-consumer. Fig. 2 is a rear view of the consumer with the back broken open to show the interior construction.

Similar letters of reference indicate corresponding parts.

A is the chamber in which the gas is consumed. This is made of a size and shape adapted for insertion at the back or side of a stove or range in place of the usual fire-brick, the front plate of chamber A forming the back or side plate of the fire-space.

Where the range is fitted with a water-back and circulating boiler the chamber A will be placed at the side of the fire-space. When log-boilers are used with the range the chamber may be fitted at the back, as shown.

The chamber A is made of cast-iron, in one piece, or in two parts connected together. It is made as a hollow oblong vessel, closed on all sides except at the inlet *a* and outlet *b*, and is formed with perforated horizontal partitions *c c*, which divide the interior space into three compartments that connect only by the perforations in the partitions.

The inlet *a* is to be connected by a pipe with the cess-pool or hold or with the sewer-pipe at a point near where it enters the building, and the outlet *b* is to lead to the chimney-flue, preferably by a pipe entering the flue a short distance.

Near the inlet *a* is a projection, *d*, that turns the gas downward and causes its distribution evenly throughout the lower space. From this space it passes through the perforations to the central and larger space, and from thence to the upper space and outlet. By these partitions the gases are detained in the chamber a sufficient length of time to insure proper action by the heat.

There will be a natural draft through the chamber to the chimney, which will be increased by the heat.

With ranges in ordinary use, a heat between 400° and 500° Fahrenheit will be obtained in the chamber, which is sufficient to consume the virile matters; but even with a heat of 220° Fahrenheit such matters will be killed and the gas or air rendered harmless.

By the use of the described apparatus there can be no danger of the sewer-gas accumulating and escaping into the building, and the apparatus being applied in connection with the cooking stove or range it is inexpensive and always in operation when there is a fire, and no change is required in the stove or range, as the chamber can be adapted for any size or form.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

The chamber A, having inlet *a*, to connect with cess-pool, and outlet *b*, to connect with chimney, and the perforated horizontal partitions *c*, as shown and described, for the purpose specified.

WILLIAM H. RANSOM.

Witnesses:

GEO. D. WALKER,
C. SEDGWICK.