

UNITED STATES PATENT OFFICE.

JULIUS KIRCHER, OF NEW YORK, N. Y.

IMPROVEMENT IN OBTAINING BISULPHIDE OF CARBON FROM GAS-LIME, &c.

Specification forming part of Letters Patent No. **138,504**, dated May 6, 1873; application filed October 19, 1872.

To all whom it may concern:

Be it known that I, JULIUS KIRCHER, of the State, county, and city of New York, have invented a certain Process of Obtaining, cheaply, Bisulphide of Carbon from the Refuse Lime, Iron, or other materials which have been used to cleanse and purify coal gas in gas-manufactories, of which the following is a specification:

My method of doing the same is as follows: I take the refuse lime, iron, or other material which has been used in gas-factories to cleanse coal gas, and place such lime, iron, or other material in an iron or other suitable retort and heat it, adding an equal quantity of clay, loam, or sand, if lime is used; or if the gas-iron or other material, except gas-lime, is used, without the above addition. This produces vapor of sulphur, which is conducted over charred or other coal which has been heated to a light-red

heat, and vapors of bisulphide of carbon are produced.

The gas-lime, gas-iron, or other material can also be mixed with from one-tenth to one-quarter of its weight of pulverized, charred, or other coal; then quickly heated until it is raised to a light-red heat, and thus forms in a vaporous condition the bisulphide of carbon. This vapor is received into a suitable receptacle, and cooled by ice-water or in the other ordinary modes of condensation.

What I claim is—

The production of bisulphide of carbon, in the manner and by the process above described, from the waste material used in the manufacture of coal gas.

JULIUS KIRCHER.

Witnesses:

E. W. TYLER,
LEWIS S. THOMAS.

250
march