## UNITED STATES PATENT OFFICE.

LOUIS MARKS, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN COMPOUNDS FOR PRODUCING ILLUMINATING-GAS.

Specification forming part of Letters Patent No. 199,654, dated January 29, 1878; application filed December 5, 1877.

To all whom it may concern:

Be it known that I, Louis Marks, of the city and county of San Francisco, and State of California, have invented an Improved Gas-Producing Compound; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention relates to an improved gasproducing compound or composition to be used in the manufacture of illuminating-gas; and it consists in combining or uniting the several ingredients hereinafter enumerated into a block or corporate body which can be conveniently handled and transported from place to place.

To make my gas-producing compound I take the following-named ingredients, in proportions specified, basing my calculations upon a block or corporate body of one hundred and twenty pounds' weight: Human excrement, ten (10) pounds; raw limestone, six (6) pounds; pitchpine, twenty-five (25) pounds; sawdust saturated with petroleum and dried in sun, twenty-

five (25) pounds; sewage-matter, thirty-four (34) pounds; Australian shale, twenty (20) pounds. These substances I intermix thoroughly, and then press the resulting compound into a block or solid body.

This compound I then use in the manufacture of illuminating-gas, by placing the blocks in a retort and subjecting them to heat, in the usual way.

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

A gas-producing compound composed of human excrement, raw limestone, pitch-pine, sawdust saturated with petroleum, sewage-matter, and Australian shale, in the proportions above specified.

In witness whereof I have hereunto set my hand and seal.

LOUIS MARKS. [L. s.

Witnesses:

MICHAEL HONIG, JOSEPH MARKS.