

United States Patent Office.

HENRY WURTZ, OF NEW YORK, N. Y., ASIGNOR TO JAMES LORIMER GRAHAM, OF SAME PLACE.

Letters Patent No. 99,740, dated February 8, 1870.

IMPROVEMENT IN PREPARING ANHYDROUS GRAHAMITE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HENRY WURTZ, of New York, in the county of New York, in the State of New York, have invented a new and improved Mode of Treating the Mineral from Ritchie county, West Virginia, called, by me, "Grahamite;" and I do hereby declare that the following is a full and exact description thereof.

Description.

The nature of my invention consists in heating Grahamite in a vessel, closed nearly, but not quite, tight, up to the point of incipient decomposition, in such manner as to conjoin the action of heat upon the Grahamite with a low pressure, by which method I have discovered that the Grahamite undergoes a semi-fusion, acquiring a tarry consistence, and giving off the water which is naturally combined with it, together with some other volatile products, and affording as a residuum, when cold, a product which is better adapted for certain uses than raw Grahamite.

Such prepared Grahamite is capable, from its anhydrous condition, of forming more perfectly and intimately such combinations with oils, animal, vegetable, and mineral, as I have described in previous patents, and other publications.

I prefer to effect the dehydration and semi-fusion of Grahamite in ordinary horizontal iron retorts, such as are commonly used in the manufacture of gas and coal-

oil. From such a retort, the tarry, semi-fused Grahamite readily flows out, or may be drawn out by suitable tools, when the lid is removed, (particularly if the retort be set inclined, toward the front, at a small angle,) and a fresh charge of the raw material is then readily introduced.

It is obvious, however, that any vessel may be used which admits of being covered, so as to leave but a slight aperture, sufficient only for the exit of the aqueous vapor and other volatile distillates, the tension of these volatile matters in vapor serving to engender the small additional pressure (above that of the atmosphere) required to render Grahamite fusible.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

The method, substantially above set forth, of heating Grahamite in a vessel, partially closed, until its combined water has been expelled, and it has undergone semi-fusion.

In testimony whereof, I have hereunto set my name, in presence of two witnesses, in the city of New York, on this 28th day of September, 1867.

HENRY WURTZ.

Witnesses:

CHARLES A. SEELY,
MICHAEL J. HAVILAND.