

UNITED STATES PATENT OFFICE.

J. B. HYDE, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN THE MANUFACTURE OF ILLUMINATING-GAS FROM PEAT.

Specification forming part of Letters Patent No. 43,585, dated July 19, 1864; antedated July 18, 1864.

To all whom it may concern:

Be it known that I, J. B. HYDE, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in the Manufacture of Illuminating-Gas from Peat and Certain Carbonaceous or Oily Matters; and I do hereby declare the following to be a full and exact description thereof.

The nature of my invention consists in distilling dried peaty matters with coal-oil, petroleum, or mineral oil by mixing or combining the same previous to placing them in the retorts, or by distilling the peat and fluid simultaneously, but separately placed in the retort.

Many varieties of peaty material will (when thoroughly dried) yield, on proper distillation, good illuminating-gas; but such drying requires artificial heat, and the process is slow. Besides, dried peat will rapidly absorb moisture from the air. Hence gas from peat usually contains an excess of hydrogen, and of varying quality, unless great care is observed in selecting and treating the peat. I therefore enrich this gas by the addition of the mineral oil, which, in the process of distillation, will combine its gas with the excess of hydrogen from the peat, and result in increased quality

and quantity of gas. I dry the peat as thoroughly as possible in the air, and then grind or otherwise reduce it to proper fineness, to facilitate its admixture with the fluid carbon and to induce rapid and uniform distillation. I then mix the fluid carbon thoroughly with this pulverized peat and in proportions according to the quality of the peat, when I place the mixture in a sheet-iron case made to fit the inside of the retort, and provided with a cover to close the contents (when the case is withdrawn from the retort) from the air, and thus preserve the carbon; or the peaty matter may be placed separately from the oil in the retort, and the oil placed in the retort in a proper vessel, or allowed to enter the retort gradually from an outside vessel.

I claim—

Preparing, treating, and distilling dried peaty matter with hydrocarbon oils for the manufacture of illuminating-gas, substantially as described.

J. B. HYDE.

Witnesses:

C. C. HYDE,

I. I. MACDONALD.