UNITED STATES PATENT OFFICE.

MORRIS B. EATON, OF LE ROY, ASSIGNOR OF ONE-HALF HIS RIGHT TO LEWIS H. ROGERS, OF AVON, NEW YORK.

IMPROVEMENT IN COMPOUNDS FOR TREATING COAL PREPARATORY TO BURNING.

Specification forming part of Letters Patent No. 208,011, dated September 17, 1878; application filed February 22, 1877.

To all whom it may concern:

Be it known that I, Morris B. Eaton, of Le Roy, in the county of Genesee and State of New York, have invented a certain new and useful Improvement in Compounds for Treating Coal Preparatory to Burning; and I do hereby declare that the following is a full, clear, and exact description of the same.

The object of this invention is the same as that in my patent of October 3, 1876-viz., to produce a composition which, when sprinkled or applied on coal and ignited, will consume the gases of the coal as they are evolved, and prevent their loss.

In my aforesaid patent the composition consists of a combination of dry materials, which are mixed with the coal.

My object in the present invention is to produce a liquid composition which will thoroughly dissolve, and which, in this form, is more easily applied, and when applied will adhere better to the coal.

To this end my present invention consists of a composition of sulphate of soda, chloride of sodium, muriate of ammonia, and water, mixed and applied as hereinafter more fully set forth.

I prefer the following proportions, but they may be varied as desired: Sulphate of soda, (by measure,) two parts; chloride of sodium, (by measure,) three parts; muriate of ammonia, (by measure,) one part. These parts, in a pulverized state, are mixed together, and ap-

plied in the proportion of one and a half pounds of the mixture to one and a half gallons of water, which is sufficient for one ton of coal. These materials thoroughly dissolve in the water, the whole producing a liquid which is sprinkled upon the coal and adheres to the lumps without the loss which occurs when applied in a dry state.

If desired, carbon, in the form of finely-pulverized coal, may be added to the liquid; but it is considered unnecessary under ordinary circumstances.

This composition differs from ordinary artificial fuels, inasmuch as it is intended only to treat coal preparatory to burning, in order to consume the gases, whereas ordinary artificial fuels are intended to take the place of coal and form the substance of the combustible material.

What I claim as new is— The compound herein described, consisting of sulphate of soda, chloride of sodium, muriate of ammonia, and water, for the purpose of treating coal preparatory to burning by sprinkling thereon, as specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MORRIS B. EATON.

Witnesses:

F. C. LATHROP, S. F. COMSTOCK.