

UNITED STATES PATENT OFFICE.

CHARLES F. CARPENTER, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN TREATING ORES.

Specification forming part of Letters Patent No. 55,818, dated June 26, 1866.

To all whom it may concern:

Be it known that I, CHAS. F. CARPENTER, of the city of Louisville, in the county of Jefferson, in the State of Kentucky, have invented a new and improved mode of operating upon ores containing gold or silver for the purpose of facilitating the extraction of said metals; and I do hereby declare that the following is a full and exact description thereof.

The nature of my invention consists in introducing steam of any temperature into a reverberatory furnace between the flame of the furnace and the ores containing gold or silver, which are spread upon the hearth of said furnace.

To enable others skilled in the art to use my invention, I will proceed to describe its operation.

I introduce the steam into a reverberatory furnace through the fire-bridge, (a low wall which separates the fire-place from the hearth of said furnace,) and consequently the steam will pass over the ores containing gold or silver and be-

neath the flame of said furnace—that is, the steam is introduced between the ores containing gold or silver and the flame of a reverberatory furnace.

The steam passing over the heated ores causes certain changes and decompositions which facilitate the extraction of gold and silver by amalgamation.

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

The mode of using steam of any temperature for the purpose of facilitating the process for extracting gold and silver from ores, which consists in introducing said steam into a reverberatory furnace between the flame of said furnace and the ores containing gold or silver, which are spread upon the hearth of said furnace, as herein described, or any other substantially the same.

CHAS. F. CARPENTER.

Witnesses:

T. J. BRONGER,
W. B. TILL.