

UNITED STATES PATENT OFFICE.

WILLIAM E. HARRIS, OF NEW YORK, N. Y.

PROCESS OF EXTRACTING GOLD FROM ORES.

SPECIFICATION forming part of Letters Patent No. 259,141, dated June 6, 1882.

Application filed February 8, 1882. (No specimens.)

To all whom it may concern:

Be it known that I, WM. E. HARRIS, of New York city and State, have invented an Improved Process for Extracting Gold from Sulphuret and Tellurium Ores, of which the following is a specification.

The object of the invention is to assist the separation of gold from its ores by the use of bromide of sodium in the process of amalgamation, as hereinafter described.

The invention is used after the ore has been ground or pulverized so as to pass a No. 60 screen and roasted to remove sulphur, and finally roasted with salt or chlorodized in a suitable manner. The ore is then placed in amalgamating-pans and mixed with bromide of sodium in the proportion of two pounds of bromide to a ton of the ore. To this is then added a sufficiency of water and of quicksilver to produce a proper amalgamation of the metal. After the amalgamator has been run for about three hours the pulp is discharged through separators. By adding the bromide of sodium the sulphates and chlorides are kept from attacking the quicksilver.

I am aware of the common use in the art of amalgamation of the cyanides of potassium, chloride of sodium, and sulphate of copper; but these salts produce injurious effects, which I wish to avoid.

I am also aware of the use of free alkali; but used in amalgamating-pans it forms a black oxide of mercury, and is therefore objectionable.

What I claim as new and of my invention is—

In obtaining precious metals from ores by amalgamation, the process of protecting the mercury from the action of sulphates and chlorides, which consists in adding bromide of sodium to the ore in about the proportions stated, and then mixing the same with mercury and water, as described.

WILLIAM EDWARD HARRIS.

Witnesses:

JAMES T. GRAHAM,
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