

UNITED STATES PATENT OFFICE.

ISAAC WILLIAM FORBES, OF LA PORTE, INDIANA.

IMPROVEMENT IN CLEANING PULVERIZED ORES SO AS TO AID AMALGAMATION.

Specification forming part of Letters Patent No. 115,294, dated May 30, 1871.

To all whom it may concern:

Be it known that I, ISAAC WILLIAM FORBES, of the city and county of La Porte and State of Indiana, have invented a new and useful Process for Cleaning Pulverized Ores; and I do hereby declare the following to be a clear and exact description of the nature thereof.

It is well known that for cleaning pulverized ores there have been used millstones, erasers, cast-iron pans, barrels, &c.; but the disadvantage of employing such is that they do not sufficiently clean said ores to cause the mercury to adhere to the metal by which the latter is to be separated from the ores, whether wet or dry, pulp or dust. The aforesaid mediums have not cutting surfaces of sufficient degree to properly cut, scour, or clean the metal so that it may be readily taken up by the mercury; hence a great loss sustained in mining operations. The eraser or stone process is the best of the well-known methods, saving a greater per cent. than the others; but I have discovered that by the use of emery as a medium I am enabled to save a much larger per cent. of the metal. This is owing to the hard and

sharp-cutting edges and surfaces of said mineral. When put in motion against the pulverized ore it will readily prepare the same for adhesion to mercury.

In carrying out my invention I may use emery wheels or balls in cases, which cases may be lined with emery, said wheels or balls being solid, or having bodies of other material and coated with emery; and, in fact, the emery may be applied to all places and articles with which the pulverized ore will come in contact while in the operation of cleaning or amalgamating.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The process of cleaning pulverized ores by the employment of emery as a medium, substantially as set forth.

To the above I have signed my name this 30th day of November, 1870.

ISAAC W. FORBES.

Witnesses:

JOHN A. WIEDERSHEIM,
W. G. HENDERSON.