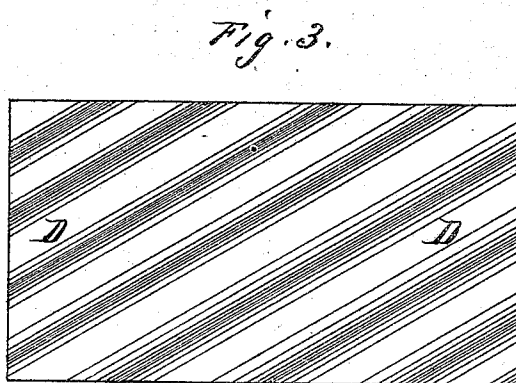
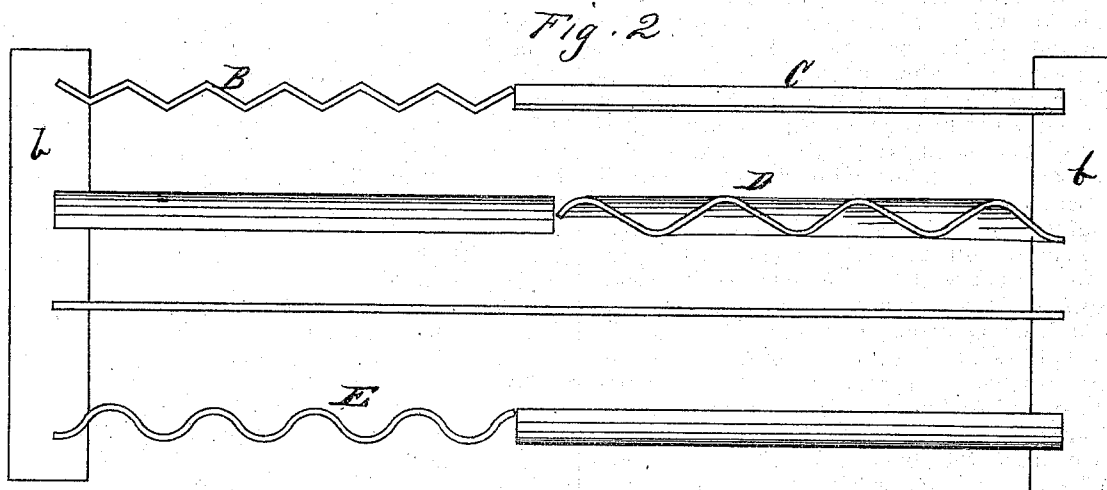
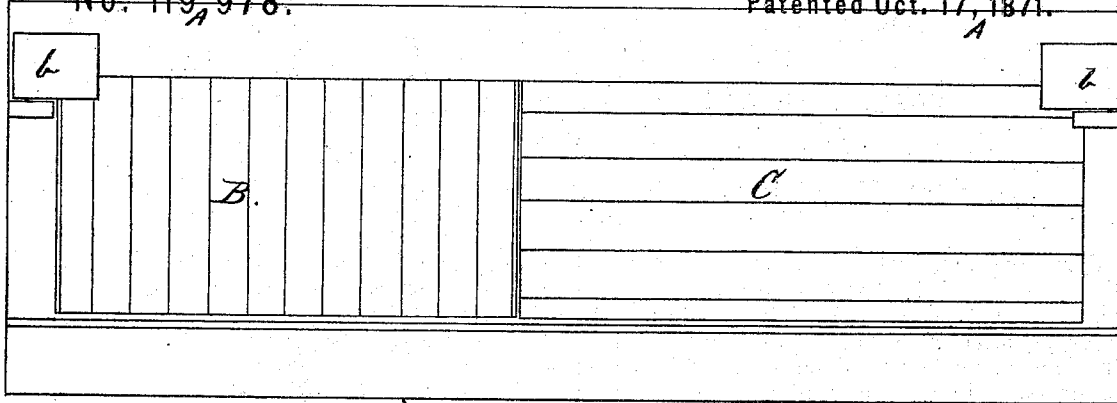


CONVERSE J. GARLAND.

Improvement in Mining Sluice and Riffle.

No. 119,978.

Patented Oct. 17, 1871.



Witnesses

Geo. H. Strong
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Inventor

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UNITED STATES PATENT OFFICE

CONVERSE J. GARLAND, OF GWIN MINE, CALIFORNIA.

IMPROVEMENT IN MINING-SLUICES AND RIFFLES.

Specification forming part of Letters Patent No. 119,978, dated October 17, 1871.

To all whom it may concern:

Be it known that I, CONVERSE J. GARLAND, of Gwin Mine, in the county of Calaveras, State of California, have invented a Mining-Sluice and Riffle; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The object of my invention is to provide an improved sluice or riffle for the purpose of saving precious metals; and it is more particularly applicable to the collection of float-gold and silver, which is ordinarily lost below batteries or amalgamations on account of its extreme fineness and the difficulty experienced in bringing it into contact with the mercury as it passes. This difficulty is overcome by creating an irregular or broken current by means of peculiarly-shaped plates introduced to the sluice, said plates being attached to a frame, by means of which they can be lifted up or lowered into the sluice as desired, and the space between the plates and the bottom of the sluice regulated so as to control the sub or under current.

Referring to the accompanying drawing for a more complete explanation of my invention, Figure 1 is a side sectional elevation. Fig. 2 is a bottom view, showing the formation of the plates. Fig. 3 is a separate view of a single plate.

A is a sluice of any convenient size, the bot-

tom and sides of which may be either corrugated or plain. Within this sluice I place plates B C D E made of suitable metal. These plates are secured to a suitable frame, by which they can be elevated from the sluice at pleasure.

The action is as follows: The current of pulp being admitted to the sluice is allowed to flow through, and is caused to break up and move from side to side so as to throw all the particles into contact with the copper plates, upon which they will become amalgamated, and the work will be greatly assisted by the galvanic action. The form of the plates may either be plain, vertically or longitudinally corrugated, or the corrugations may be made angularly in the plate. The next series below may be made to break joints with or stand between the first set to more effectually break the current.

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

1. The irregular diagonally-corrugated plate D, as and for the purpose described.
2. The frame *b*, in combination with the plates B C D E, all constructed and arranged substantially as and for the purpose set forth.

In witness that the above-described invention is claimed by me, I have hereunto set my hand and seal.

CONVERSE J. GARLAND. [L. S.]

Witnesses:

GEO. H. STRONG,
CHAS. FLANAGAN.

(3)