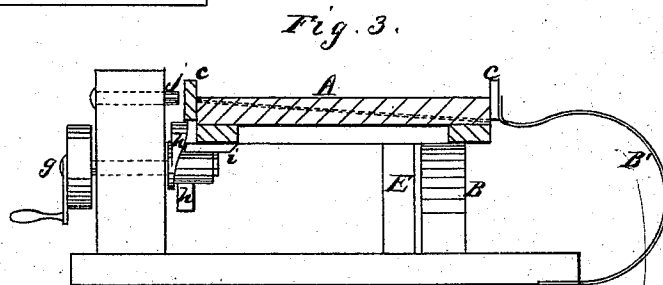
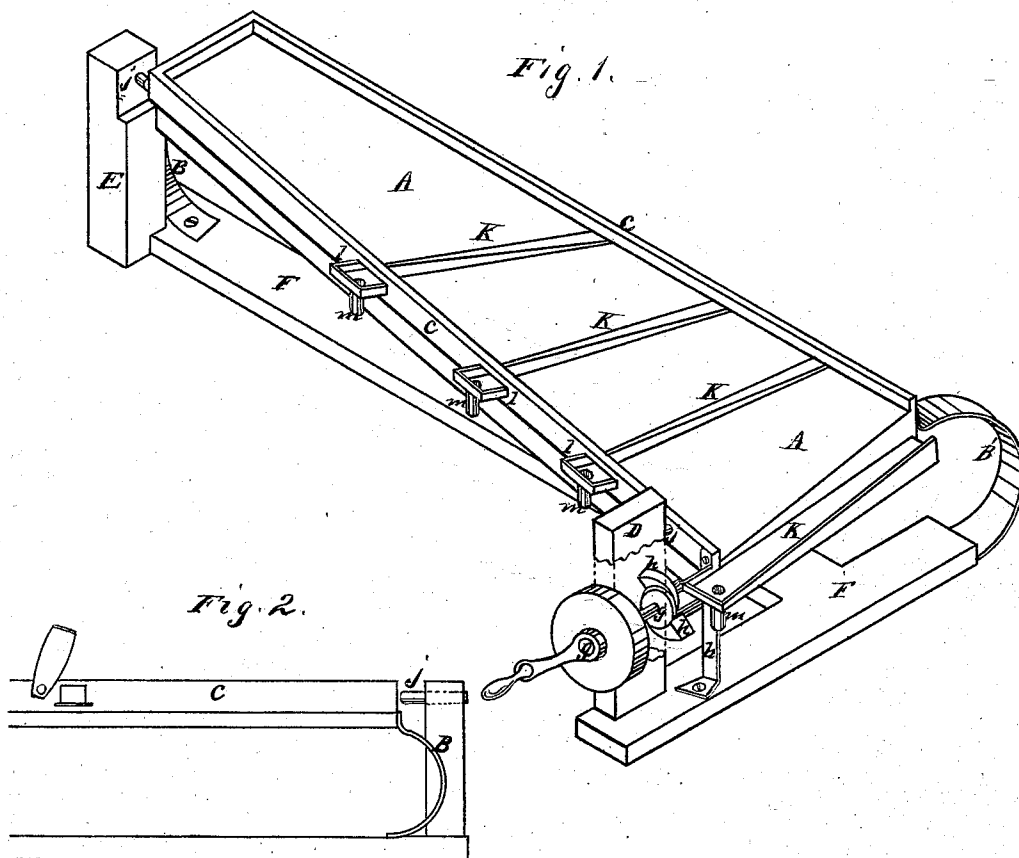


J. B. WILDER.

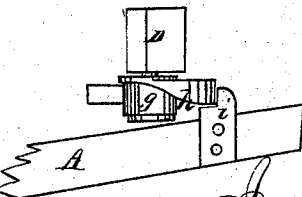
Ore-Concentrators and Washers.

No. 149,622.

Patented April 14, 1874.



Witnesses
John L. Borne
C. Milton Richardson



Donas B. Wilder
by Dewey & Co.
Attys

UNITED STATES PATENT OFFICE.

JONAS BROOKS WILDER, OF SONORA, CALIFORNIA.

IMPROVEMENT IN ORE CONCENTRATORS AND WASHERS.

Specification forming part of Letters Patent No. **149,622**, dated April 14, 1874; application filed December 23, 1873.

To all whom it may concern:

Beit known that I, J. B. WILDER, of Sonora, Tuolumne county, State of California, have invented an Improved Concentrator; and I do hereby declare the following description and accompanying drawings 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 improvement without further invention or experiment.

My invention relates to an improved table or sluice section for concentrating the heavy portions of pulp or pulverized ore by the wet process.

My improvement consists in mounting the table or sluice section upon springs, and then imparting to it a forward and side motion by a cam, so that when it is released from the cam the springs will force it back against two abutments, by which a compound jar will result. These abutments are so arranged that the direction of the combined concussion will be in a line diagonally across both the face of the table and the course of the moving pulp, so that the sulphurets and heavy particles of metal will be forced in a line with the line of concussion, while the lighter portions are carried off by the water.

In order to more fully illustrate and explain my invention, reference is had to the drawings accompanying this specification, in which—

Figure 1 is a perspective view of my invention. Fig. 2 is a side view near one end. Fig. 3 is an end view.

A represents a table or sluice section, which is mounted upon the C-springs B B'. One of these springs, B', supports the rear end of the table, while the other, B, supports one corner of the forward end, as shown. An ordinary spring-leg, *b*, supports the opposite forward corner. The table has side boards *c*, in the manner of constructing an ordinary sluice. A post, D, is secured to the base or foundation timber, E on the side of the table opposite the spring B', while another post, F, is secured at its rear end. A shaft, *g*, passes through the post D, and carries, at its inner end, and directly below the table, a double cam, *h*. The arms of this cam are made bey-

eling on the inside, so that when they are revolved so as to strike the tappet *i*, on the under side of the table, it will give both a forward and side motion to the table, the curved face of the cam forcing the table forward, while the side bevel forces it to one side. Abutting points *j j* are secured to the posts E D, so that when the table is released from the cam the springs will drive it back against them simultaneously, and thus give a compound jar or thump to the table. As will be readily seen, the concussion produced by this compound jar will be in a line diagonal to the length of the table, the angle of concussion becoming greater toward the rear end of the table. Across the face of the table I make two or more inclined channels, K K, the shallow portion being at the discharge side of the table. An opening through the side of the trough, at the lower end of each channel, permits the water and lighter portions to escape, while a similar opening through the opposite side allows the sulphurets to pass out into a pan, *l*, from which they will be conveyed by a pipe, *m*, to any receptacle prepared for them. The concentrating-table can be set at any desired angle. The pulp is fed upon the upper end of the table, and flowing down it is arrested by the channels K K. The compound jar then causes the sulphurets and heavy portions of the pulp to travel up the channels into the discharging pan and spout, while the water will carry off the gangue and lighter portions through the opposite side.

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

The concentrating table or sluice section A, provided with inclined diagonal grooves or channels K K, and mounted upon springs B B' *b*, in combination with the double inclined cam *h* and abutments *j j*, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

JONAS BROOKS WILDER. [L. S.]

Witnesses:

EDWIN A. RODGERS,
H. B. McNEIL.