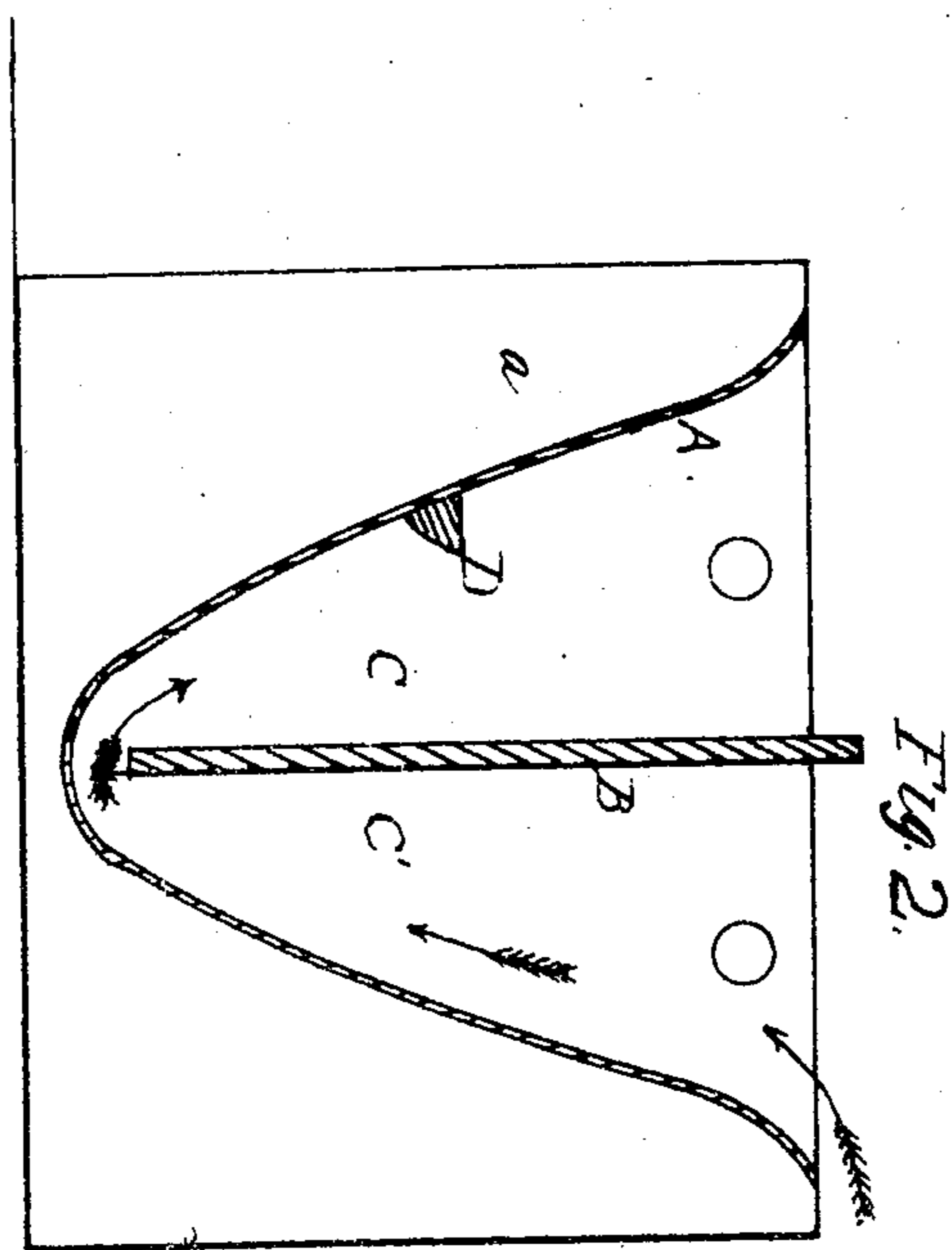
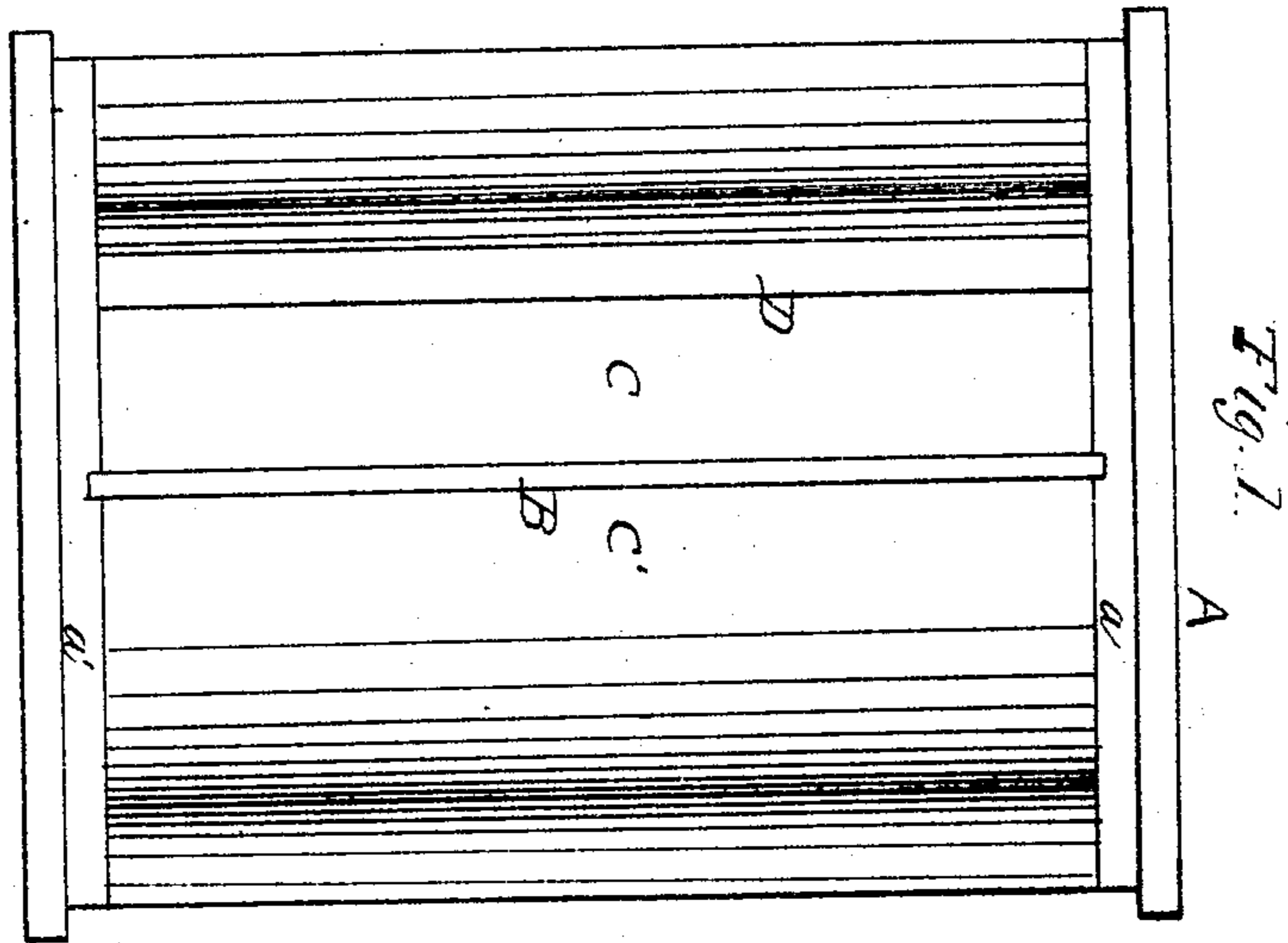


W. C. Knight.

Saving Precious Metal.

N^o 72205

Patented Dec. 17, 1867



Witnesses:
Geo H. Strong
J L Brone

Inventor:
W C Knight
By his Atty
Dewey & Co

United States Patent Office.

WILLIAM CHASE KNIGHT, OF YANKEE JIM'S, CALIFORNIA.

Letters Patent No. 72,205, dated December 17, 1867.

IMPROVED APPARATUS FOR SAVING PRECIOUS METALS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known, that I, W. C. KNIGHT, of Yankee Jim's, county of Placer, State of California, have invented certain new and useful Improvements in Saving Metals; 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 improvements without further invention or experiment.

The nature of my invention is to provide an apparatus for saving precious metals from the pulp of quartz-mills and auriferous cement, as well as the granulated quicksilver which escapes from the sluice-box.

My invention consists in placing at the end of sluice-boxes an apparatus in the form of a letter V, having a movable vertical partition through it, and a cross-bar, placed upon one side of the apparatus, which prevents the escape of the valuable portions of the ore and quicksilver, while the debris and other valueless matter are carried out, by the current of water, into the tail-race.

In order to more fully illustrate and describe my invention, reference is had to the accompanying drawings, of which—

Figure 1 is a plan,

Figure 2 is an end sectional elevation.

A is a box or trunk, in the form of a letter V, having end pieces *a* and *a'*. A vertical movable centre piece or partition, B, divides the box A, forming apartments C C'. Near the bottom of the apartment C is a cross-bar, D, which may serve to retard the progress of the current over the side of the box C, yet this bar I do not deem essential, and it may be used or not, as desired.

The manner in which my invention is desired to work or operate is as follows, to wit: Quicksilver having been placed in the bottom of the vessel, the movable partition is let down as near the surface of the quicksilver as possible, and leave room enough for the gravel or pulp and water to pass through. At first, the action of the current against the cross-bar (in the direction of the arrows) will carry it back again into the quicksilver, and prevent the too rapid discharge of the water and debris out of the machine, thereby returning the heavier particles of metal, until they are taken up by the mercury, and should any particles of the amalgam escape or become dislodged, they will also be returned to the body in the bath, while the water carries over the worthless portions, such as the sand and debris, into the tail-race below. By this means the valuable particles are brought forcibly in contact with the quicksilver and saved.

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

The V-shaped apparatus, with an adjustable partition, B, substantially as and for the purpose described.

In witness whereof, I have hereunto set my hand and seal.

WILLIAM C. KNIGHT. [L. s.]

Witnesses:

W. C. SMITH,

AUGUSTUS MILLER.