P. L. DAUVERGNE.

Ore Washer.

No. 2,783. Patented Sept. 17, 1842.

Fig. 2.

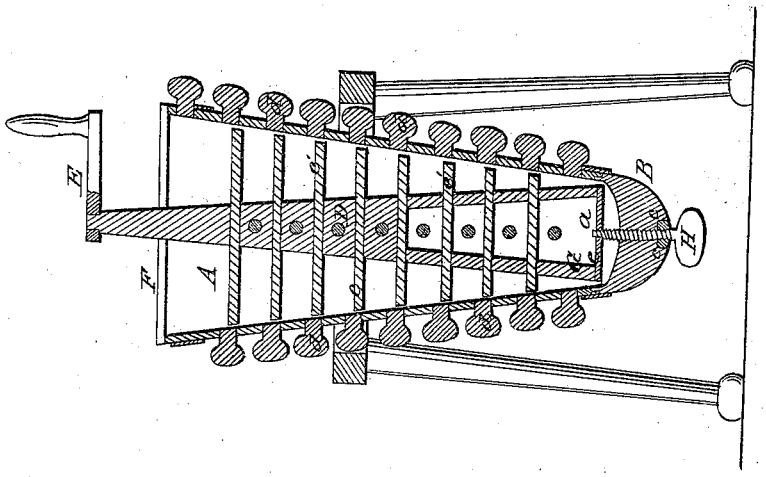
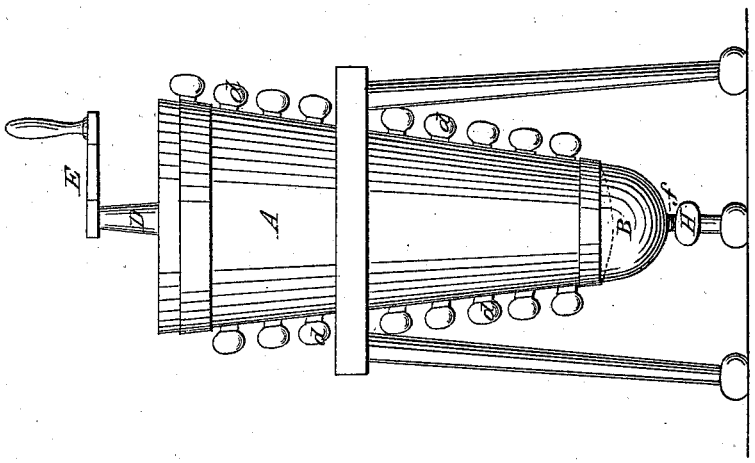


Fig. 1.



UNITED STATES PATENT OFFICE.

PETER L. DAUVERGNE, OF CLARKESVILLE, GEORGIA.

WASHING GOLD.

Specification of Letters Patent No. 2,783, dated September 17, 1842.

To all whom it may concern:

Be it known that I, PETER L. DAUVERGNE, of Clarkesville, in the county of Habersham and State of Georgia, have invented a new and improved mode and machine for washing, collecting, and saving the gold contained in the pulverized ore of vein mines, which I call the "perfect gold washer;" and I hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a view of the outer cone and Fig. 2, of the inner cone.

The machine consists of a hollow cone A with the apex cut off and turned downward, and into the little end thereof is inserted a solid piece of wood B slightly scooped out into a cup with a piece of iron *c c* let in so as to receive a screw H, the little end *a* of which serves as a pivot, on which turns and rests an inner cone D furnished with a number of arms *c'* all working in the hollow cone by means of a crank E on the top. The hollow cone has on each side a number of holes filled with wooden pins *d, d, d, d*. The inner cone is held to its position by the pivot *a* before-mentioned, on which its big end rests and turns, and by a board F with a hole in the center, placed across the top of the outer or hollow cone A, in which the little end of the inner cone D turns and works. The whole is placed in a frame of any kind convenient for working. It can be made of any size. The size convenient for one hand to work, is, for the top diameter of the hollow-cone to be six feet in the clear; the bottom diameter to be three feet in the clear; and the hollow cone to be twelve feet long, exclusive of the solid piece of wood scooped out and fastened on the lower end. The solid piece B is two feet long and made to correspond with the hollow cone, inside and outside so as to fit nicely thereto. The depth of the scoop is eight inches. The hollow cone has on one side ten holes, the topmost hole being six inches in diameter and the bottom one three inches and the intermediate ones gradually diminishing from the top to the bottom hole; and on the opposite side are placed nine holes of similar size so placed as that each one of the nine occupies the intermediate space between two on the opposite side, that is, faces the intermediate space between them, or the pegs may be placed directly opposite each other. The inner cone D is partly hollowed at the big end *g* which end rests upon the said screw by means of an iron bar *e* and is of a size to work freely within the hollow cone, its arms being of sufficient length as nearly to touch the sides of the hollow cone and work freely therein, and of course becoming shorter and shorter as they descend to the lower end. The arms thirty six in number, are placed upon the four sides of the inner cone D and at twelve inches apart and so arranged that in turning it around an arm appears at every six inches.

With a "perfect gold washer" of the size above mentioned, one hand can wash twelve bushels of pulverized ore a day, washing six bushels in the morning and six in the afternoon. The machine being properly fitted up as above described, the hole *f* in the bottom closed with the screw, a quantity of mercury is placed at the bottom of the machine sufficient to take up the gold of the pulverized ore, say about two pounds, then the machine is partly filled with water and the hand begins to turn the inner cone D round and round, and while turning, six bushels of the pulverized ore are gradually poured into the hollow cone, and which with the water already in fills it up completely, and the hand still continuing to turn for about half an hour by means of the crank E, whose arms *c'* stir the pulverized ore and water, so that the gold begins at once to settle toward the bottom, when he pulls out the two top pins of the hollow cone, one on each side and the water and dust &c., pass off the gold having by this time settled below the top holes. He then turns again for another half hour and again pulls out a pin on each side, which lets off the water and dust and so on until he has reached the bottom pins, by which time everything will have escaped but the gold and mercury. Observe that the water is to be kept in constant agitation. He then takes out the screw and receives the amalgam (the gold and mercury having united) through the hole in the bottom. After pulling out the pins each time, it will be necessary to add a small quantity of water. The advantages of "the perfect gold washer," are that all the gold

is saved, and one hand can wash a great deal more than can be done in the common way by pans and rockers, for it saves even the finest particles; so that even a poor vein mine by means of my machine can be worked to profit. Pulverized ore which yields only one grain to the bushel by the present mode of washing will by my machine yield three grains to the bushel. My machine can also be made very cheap, so that vein mines can be worked by very small capitalists, and that to great advantage.

I am aware that machines for various purposes have been made with a vertical shaft having arms or agitators projecting from it and revolving within a casing and therefore I do not claim this as of my invention; but

What I do claim and desire to secure by Letters Patent is—

The combination of the conical shaft with agitators or arms projecting from it in combination with the outer conical case provided with holes and plugs or pins to let out the water as the working progresses; and these thus combined I further claim, in combination the cup at the bottom of the conical case, which receives the mercury for forming the amalgam, the whole being constructed and arranged substantially as herein described.

PETER L. DAUVERGNE.

Witnesses:
WM. L. MITCHELL,
E. L. NEWTON.