W. H. JENNISON.

Ore Washer.

No. 6,267. Patented April 3, 1849.

Fig. 3.

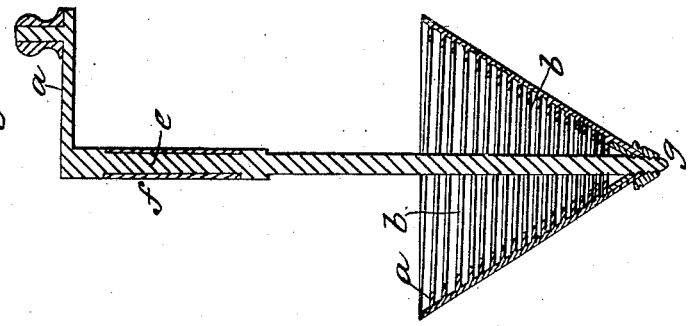



Fig. 2.

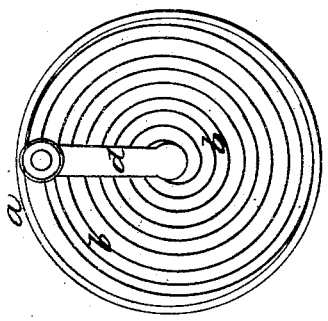
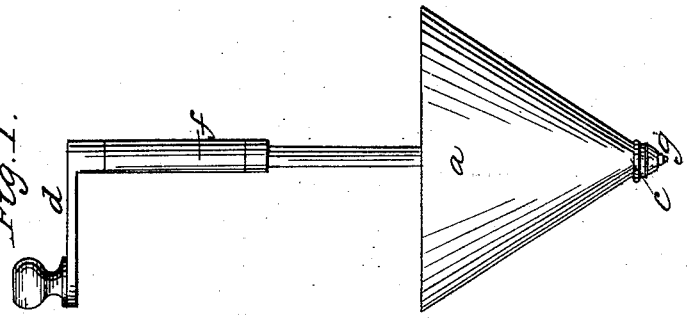



Fig. 1.



# UNITED STATES PATENT OFFICE.

WILLIAM H. JENNISON, OF NEW YORK, N. Y.

## GOLD-WASHER.

Specification of Letters Patent No. 6,267, dated April 3, 1849.

*To all whom it may concern:*

Be it known that I, WILLIAM H. JENNISON, of the city, county, and State of New York, have invented a new and useful Submerged Whirling Pan for Washing or Separating Gold from the Earthy Matter with which it is Found Admixed, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of the said whirling pan; Fig. 2, a plan thereof; Fig. 3, a vertical section.

The same letters indicate like parts in all the figures.

My invention relates to the washing or separating of gold from sand and other earthy or foreign matter, and this I effect by the difference of action of mechanical forces on bodies of different specific gravity. My invention consists of a hollow inverted conical vessel whose inner periphery is provided with a spiral flanch running from the upper edge or near the upper edge to or within a short distance of the bottom, so that when rotated with water and the sand or other earthy matter containing particles of gold within it, the centrifugal force consequent on the rotation shall cause the contained matter to move toward the periphery, and the water and particles of sand or earthy matter to flow or pass over the edge, while the particles of gold by reason of the superior specific gravity will in running toward the periphery descend sufficiently to be caught by the flanch which having its spiral running down in a direction reverse of the rotation, will gradually force them down to the bottom, and as much of the particles of earthy matter, particularly the heaviest will be caught by the flanch with the particles of gold, the constant motion will cause an eddy of water within the pan which will have the effect to wash and separate the earthy matter from the gold, and rise to the surface with the water while the particles of gold continue to descend.

In the accompanying drawings (*a*) represents an inverted conical pan with a flanch (*b*) projecting inward from the inner periphery thereof, and extending from the upper edge to within a short distance of the bottom. To the apex (*c*) of the cone and in the line of the axis is affixed permanently a vertical shaft provided with a winch or crank handle (*d*) with which the pan is to be rotated, and for the purpose of convenience in operating, the shaft is formed with a journal (*e*) near the upper end which turns in a tube (*f*) to be grasped by the operator with one hand while the crank handle is to be operated with the other.

The outer apex of the cone should be provided with a pivot (*g*) that the whole apparatus may rest and turn on any permanent body if desired. The manner of using this pan is as follows: Put into it the desired quantity of sand or other matter containing gold and submerge it in water and give to it a rocking motion similar to the rocking motion given to the common hand pan used for washing gold, and then give it a rapid whirling motion, by means of the crank handle, in the direction indicated by the arrow, and as this operation is continued the earthy matter containing gold may be thrown into the pan at proper intervals, as judgment and experience may dictate, as this will depend on the richness of the deposit and the velocity with which the pan is rotated, when it is supposed that a sufficient quantity of gold has been collected the supply should be discontinued, and the whirling motion continued with occasionally a slight up and down or a rocking motion until it is observed that the water passing over the edge of the pan runs clear, this will indicate that the gold has been entirely separated and cleansed. It will be obvious from the foregoing that the pan may be worked either by being submerged, or by causing a stream of water to run into the pan, but it will be found to operate better when submerged, it will also be obvious that instead of rotating the pan by means of a central shaft other modes may be substituted, the inclination of the sides of the pan and the projection, length and inclination of the spiral flanch may be varied at pleasure.

What I claim as my invention and desire to secure by Letters Patent, is—

The method of separating gold from earthy matter by means of a rotating inverted conical pan provided with an internal spiral flanch, substantially as herein described.

WM. H. JENNISON.

Witnesses:
V. S. MILLS,
THEODORE NIMS.