J. PRITCHETT.

Gold Washer.

No. 6,781. Patented Oct. 9, 1849.

Fig. 2

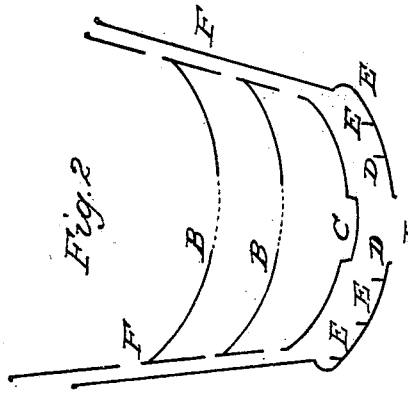


Fig. 3.

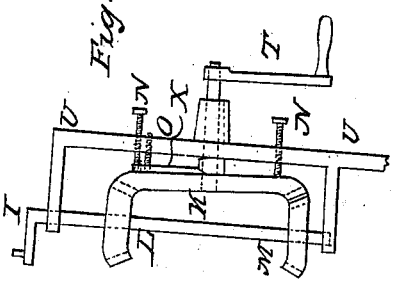
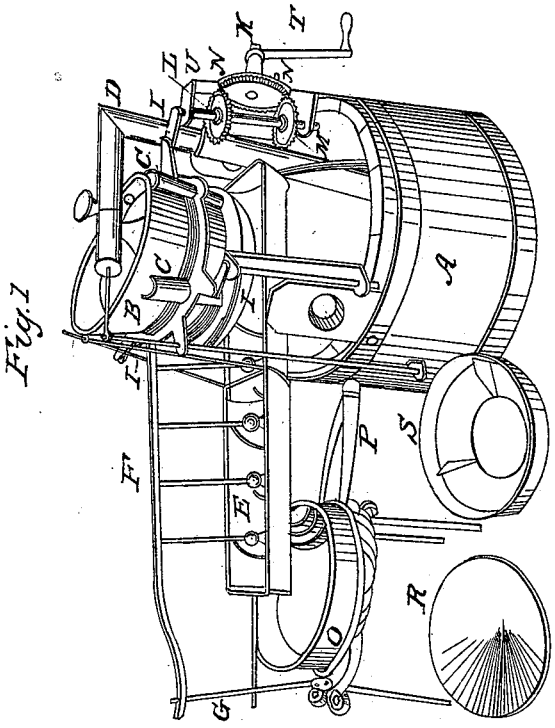


Fig. 1



UNITED STATES PATENT OFFICE.

JACOB PRITCHETT, OF PHILADELPHIA, PENNSYLVANIA.

ORE-WASHER.

Specification of Letters Patent No. 6,781, dated October 9, 1849.

To all whom it may concern:

Be it known that I, JACOB PRITCHETT, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in the Construction of Machines for Washing Gold; and I do hereby declare the following to be a full and exact description thereof.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawings which form a part of this specification; Figure 1 represents a perspective view of the machine ready for use; Fig. 2, a sectional view of the pan and sieves; Fig. 3, a section showing the arrangement of the gearing.

Letter A, Fig. 1, tub or reservoir; B, pan; C, tubes to conduct the water and dirt from the sieves to the bottom of the pan; D, pump; E, rockers; F, rod with fingers which reach near the bottom of the rocker. The rod is connected to the band which supports the pan, and at the opposite end is supported by the upright G which serves to give a reciprocating motion to the rockers E. On the inner surface of E is several curved ribs so arranged as to prevent the gold from passing down toward the lower end of the rocker, and also to contain mercury, which is used for the purpose of collecting the small particles of gold. I cranks of equal sweep which support the pan and serve to give a rotary swinging motion. J piston rod to the pump. K bevel wheel on the crank shaft. L bevel pinion on the upright crank shaft I. M bevel pinion on the lower end of the crank shaft I.

Fig. 3 represents the manner of arranging the gearing. U bracket which is fastened to the tub Fig. 1. K bevel wheel. L, M bevel pinions. N, N, set screws passing through bracket U against wheel K. O, pinion fastened in bracket U and pressing against rib X. X rib which is raised about $\frac{3}{8}$ of an inch and passes half way around the wheel. The shaft to wheel K must have sufficient room to vibrate in the box to allow wheel K to be alternately in gear with L and M. Thus it will be observed that by turning up the lower set screw to the position shown in Fig. 3 the rib X coming in contact with this lower set screw and pin O alterantely the wheel K will be thrown in gear with the pinions L and M each for a half revolution giving the pan a reciprocating swinging motion. When it is desirable to give the pan a regular motion, by turning back the lower set screw N so as to clear the rib X and turning forward the upper set screw the wheel K will be in gear with L only. O, Fig. 1 filterer which can be removed to empty the dirt. P tube passing from the filterer to the tub R cone and S frustum of a cone which may be used in place of the sieves B Fig. 2. Around the aperture in S there is a rim to prevent the gold from passing through. Fig. 2, B sieves. C movable bottom with a cavity at the center for the reception of the gold dust. D, rim passing around the aperture in the bottom of the pan. E spiral rib on the inner surface of the bottom of the pan.

Having thus fully shown the construction of my gold washer, I will proceed to describe its operation.

I fill the tub A, with water and shovel the earth containing the gold into the pan B. Then by turning the crank T it gives the pan a rotary swinging motion, and the rocker a reciprocating and vibrating motion. And as the rod F moves about twice the distance of the rocker, the fingers from F will stir up any dirt, that would otherwise settle in the rockers, the pump being allowed to vibrate, and the piston rod being connected to the pan as represented in Fig. 1, the motion of the pan B, will work the pump thereby keeping a constant supply of water in the pan; the motion of the pan will cause the dirt to pass through the tubes, C, Fig. 1; and F Fig. 2. The large pieces of gold will be retained in the sieves B, and the small particles will be caught at C, D, and E; and if the most minute particles pass here, they will be collected by the mercury in the rocker E.

Having thus fully shown the construction and operation of my gold washer, what I claim as new and my invention and desire to secure by Letters Patent is—

1. The arrangement of the bevel wheel with a rib on the back in combination with

the pin O set screws N and pinions L and M which are for the purpose of giving a reciprocating rotary motion to the pan.

2. The vibrating pump, in combination with the pan.

3. The reciprocating rocker with curved ribs in combination with the shaft F, and its fingers, substantially in the manner and for the purpose set forth.

JACOB PRITCHETT.

Witnesses:
WM. BULLOCK,
I. B. MURPHY.