

W. PURVINE.
Amalgamator.

No. 203,075.

Patented April 30, 1878.

Fig. 1.

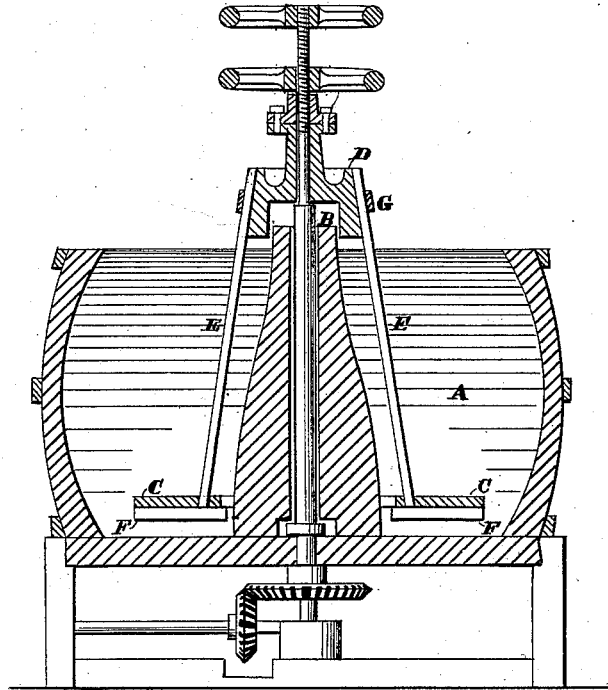
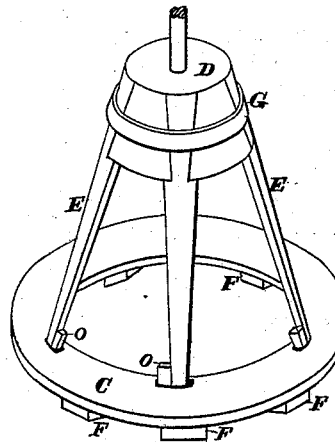


Fig. 2



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM PURVINE, OF BUTTE, MONTANA TERRITORY.

IMPROVEMENT IN AMALGAMATORS.

Specification forming part of Letters Patent No. **203,075**, dated April 30, 1878; application filed December 5, 1877.

To all whom it may concern:

Be it known that I, WILLIAM PURVINE, of Butte, county of Deer Lodge, Montana Territory, have invented an Improved Amalgamator and Settler; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention has reference to an improvement in the construction of amalgamating tubs or vessels, and the mullers which are used in connection with said vessels for stirring, grinding, and agitating the pulp which is undergoing treatment.

I have for the purpose of this application represented my improvement in connection with a wooden amalgamator, to which they are especially adapted; but they could also be applied to such amalgamating-vessels as are made of metal.

My improvement consists in a novel construction of the muller, as hereinafter more fully described.

Referring to the accompanying drawings, Figure 1 is a sectional division of my amalgamator. Fig. 2 is a perspective view of the muller.

Let A represent the amalgamating tub or vessel, which may be made of wood or metal. The inside wall of this vessel I make concave, as represented, so as to form a chamber inside of it, which is of larger diameter at the middle height of the vessel than at the top or bottom. B is the central boss, upon which the muller is supported.

My object in making the inside wall of the vessel concave or bulging at the middle of its height is to give a reflex action to the pulp as

it is thrown outward by the rotation of the muller, thus enabling me to dispense with wings or guides.

The muller consists of a ring, C, to the under side of which the grinding-shoes F are attached, and which is connected with the conical hub D, which rests upon the central boss B, by the connecting braces or bars E E E.

In a wooden amalgamator the ring C, shoes F, and arms E are made of wood, while the conical hub D is made of metal.

To attach the bars or spokes to the hub, I make a tapering groove in the hub for the upper end of each bar. This groove is widest at its upper end, and the end of the bar is made to fit in it. After the bars have all been fitted in their grooves, I press a ring, G, down around the conical hub, and fasten it by screws, bolts, or nails, thus permanently fastening the bars in place. The lower end of each bar enters a hole in the ring, and a key, O, is driven down beside it, so as to secure them to the ring.

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

The improvement in the construction of mullers for amalgamation, consisting in the upper ends of the bars E, attached to the conical hub D in dovetail or tapering grooves, and the hub provided with a band or ring, G, substantially as above specified.

In witness whereof I hereunto set my hand and seal.

WILLIAM PURVINE. [L. S.]

Witnesses:

JOHN F. FORBIS,
LEE MANTLE.