

(No Model.)

H. A. BAER.  
SLIME SETTLER OR SEPARATOR.

No. 417,802.

Patented Dec. 24, 1889.

Fig. 1.

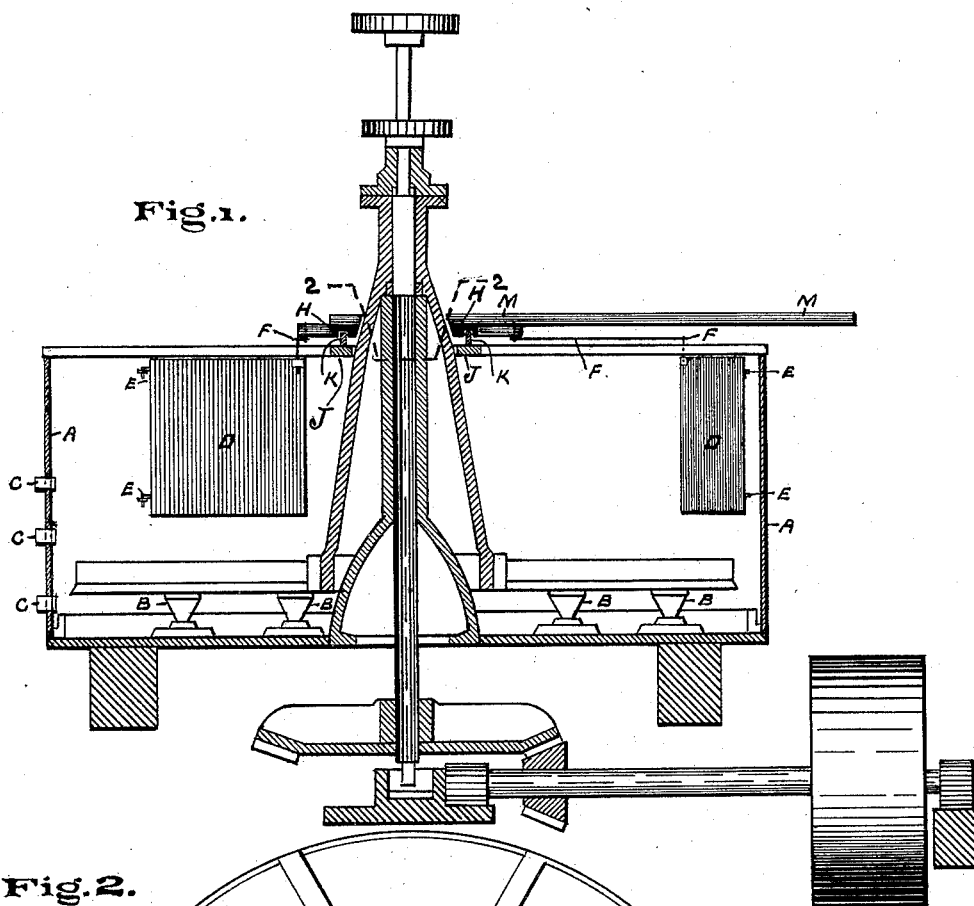
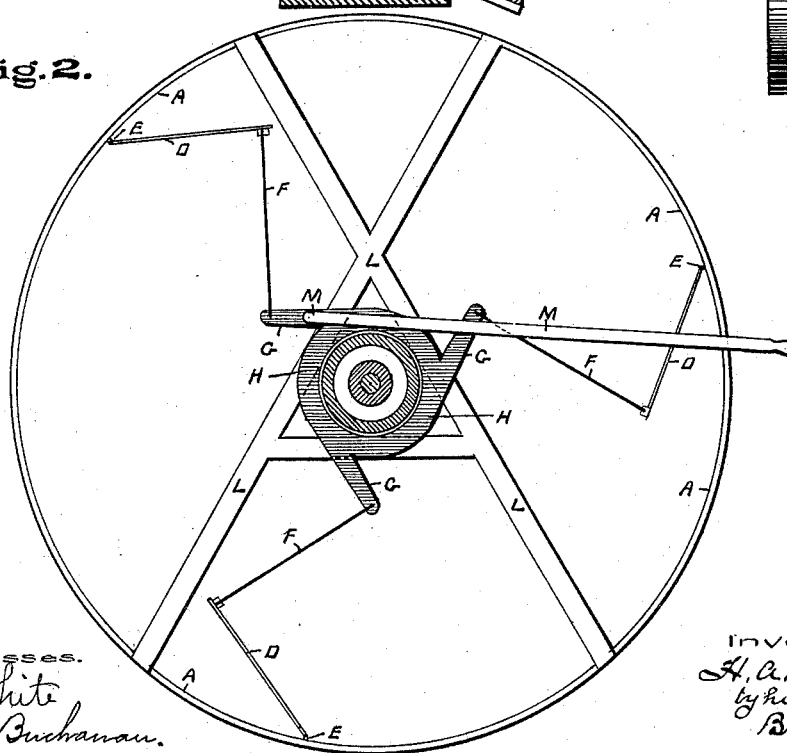


Fig. 2.



Witnesses.

*T. G. White*  
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*by his Attorneys*  
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# UNITED STATES PATENT OFFICE.

HENRY AUGUST BAER, OF JOLIET, ILLINOIS.

## SLIME SETTLER OR SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 417,802, dated December 24, 1889.

Application filed May 2, 1889. Serial No. 309,375. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY AUGUST BAER, temporarily of Hermosillo, State of Sonora, Mexico, but a resident of the city of Joliet, Will county, State of Illinois, have invented certain new and useful Improvements in Slime Settlers or Separators, of which the following is a full, clear, and exact description.

This invention relates to apparatus known in metallurgy as "settlers" or "separators," and used to separate or extract amalgam from the slime of the ore. These apparatus usually have located in the ore tub or tank wings for interrupting the centrifugal or rotary movement or current of the slime within the tank, caused by the travel of the sweeps or stirrers around within the slime, thereby the better to accomplish the deposit of the amalgam or heavier portions at the lower portion of the ore-tank for its discharge, the lighter portions of the slime being drawn off through sluices in the side walls of the tub and located at various heights.

This invention consists in an arrangement of these wings, substantially as hereinafter described, whereby they can be adjusted to the varying nature or character of the ore or slime.

In the drawings forming part of this specification, Figure 1 is a central vertical section of a settler or separator with the improvements of this invention applied thereto. Fig. 2 is a horizontal section, line 2 2, Fig. 1.

In the drawings, A is the tub or tank. B B are the stirrers or sweeps, and C C C are the sluices for the discharge of the lighter portion of the slime, located at different heights of the tub, and all otherwise as well known in ore settler or separator apparatuses, and forming no part of this invention.

D D D are the wings, three in number, and severally located in the tub. The wings are vertical, and each is hung by hinges E at top and bottom on the inside of the side wall of the tank, to be swung open therefrom, and so projected across the tank and to be closed thereon.

F F are rods connecting each wing at its outer edge with separate crank-arms G of a common rotatory annular frame H, which is supported and confined and is free to rotate

upon a bed J, having a guideway K therefor, and both are concentric with the axis of rotation of the sweeps or stirrers. The bed J is supported upon and secured by bolts or otherwise to a triangular frame L, which straddles and rests on the rim of the tank A.

M is a horizontal lever bolted to the frame H, and extended therefrom across and over the rim of the tank. This lever M is for convenience of rotating the frame H, and which rotated, and, as is plain, through the connecting-rods F, connecting it with the wings D, causes a swing of said wings on their respective hinges E, and thereby their adjustment in line or direction of projection or position across the tank from its side toward its center and across the body of the slime. By this means, obviously, the wings D can be most readily adjusted in position, and thus their action against the slime under centrifugal or rotatory movement within the tank from the movement of the stirrers or sweeps can be most readily regulated as from time to time may be required and according as the nature or character of the slime may require, and while the settler is running and without requiring the wings to be removed, the advantages of which are too manifest to require particular mention.

Three wings D are found sufficient; but more or less may be used, and, as particularly described, the several wings are simultaneously moved.

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

The combination, in a slime settler or separator for ores, of a series of hinged wings D, a connecting-rod F for each wing, a common rotatable frame H, connected by said rods to said wings, and a suitable support for said frame and on which it is free to be rotated, substantially as described, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY AUGUST BAER.

Witnesses:

C. C. MOFFATT,  
FRANK WILSON.