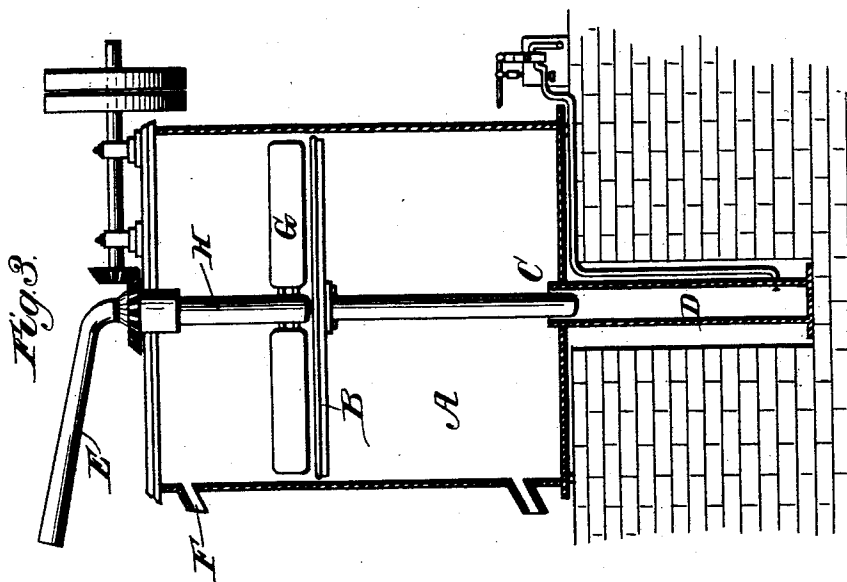
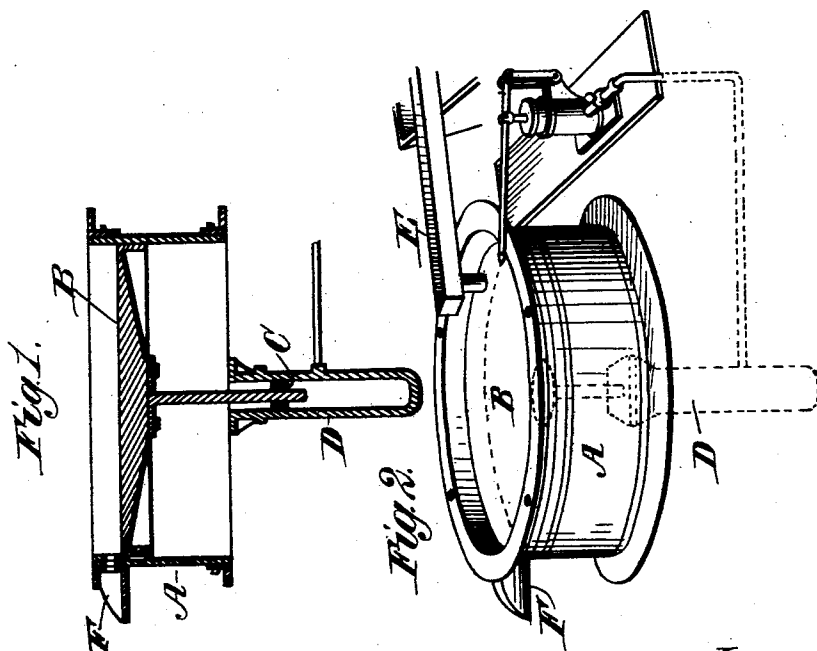


(No Model.)

W. P. WYNNE & T. TREGURTHA.
CONCENTRATING OR SEPARATING MACHINE FOR TREATMENT OF PYRITES.

No. 587,630.

Patented Aug. 3, 1897.



Witnesses.
Robert Emmett.
Dennis Sumby.

Inventors.
Walter P. Wynne.
Thomas Tregurtha.
By *James L. Norris.*
Att'y.

UNITED STATES PATENT OFFICE.

WALTER PALMER WYNNE AND THOMAS TREGURTHA, OF BALLARAT,
VICTORIA.

CONCENTRATING OR SEPARATING MACHINE FOR TREATMENT OF PYRITES.

SPECIFICATION forming part of Letters Patent No. 587,630, dated August 3, 1897.

Application filed March 16, 1897. Serial No. 627,872. (No model.)

To all whom it may concern:

Be it known that we, WALTER PALMER WYNNE, manager, residing at Nos. 33 to 47 Armstrong Street, and THOMAS TREGURTHA, mining manager, residing at the Speedwell Mine, Golden Point, Ballarat, in the British Colony of Victoria, have invented an Improved Concentrating or Separating Machine for the Treatment of Pyrites, of which the following is a specification.

Our main object in devising this invention is to provide a concentrating or separating machine which will enable a larger quantity of material to be treated at each operation without having to clear out its contents than has hitherto been practicable, thus materially lessening the cost of concentrating operations.

The essential feature of our invention consists in the use of an adjustable and imperforate false bottom which is adapted to be gradually and by preference automatically lowered as the deposited material accumulates.

We will describe our invention by reference to the accompanying drawings, wherein—

Figure 1 is a vertical central section, and Fig. 2 is a perspective view, of a concentrating or separating machine constructed according to this invention, while Fig. 3 is a central vertical section of a pyrites-separator having the adjustable false bottom above referred to and fitted with agitating or stirring blades or arms.

The same letters of reference indicate the same or corresponding parts in all the figures.

A represents a pan or vat adapted for concentrating or separating pyrites or other finely-divided auriferous or other metalliferous material, while B represents an imperforate vertically-adjustable false bottom which is made to fit closely around the inside of said pan or vat, a tight joint being made by means of any suitable packing material. This imperforate false bottom is connected to and carried by a piston or plunger C, working within a hy-

draulic cylinder D, the escape from and supply to which can be regulated in any approved manner at a rate determined by the richness or otherwise of the material under treatment. This material may be fed into the pan or vat in any convenient way—as, for instance, by means of a chute or launder E—while the lighter material escapes through a discharge-outlet F on the opposite side.

If found desirable—as, for instance, when treating pyrites—the pan or vat may be fitted with rotating arms or stirrers G, which may be carried by a central hollow rotatable sleeve H, as illustrated in Fig. 3.

A certain space, say about half an inch, should be maintained between the agitating-vanes and the top of the layer of deposited material. To maintain this space in ordinary machines, it is necessary to stop their operation while the vanes are being adjusted, but by our invention we preserve this space by using the adjustable false bottom and lowering it gradually and preferably automatically as the deposited material accumulates.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is—

A concentrating or separating machine composed of a pan or vat having a discharge-outlet at the top and provided with an imperforate vertically-movable false bottom, a hydraulic cylinder provided with a piston to carry the said false bottom, rotatable stirrers mounted in the vat above the said false bottom, and a chute for feeding material into the vat, the false bottom being capable of lowering automatically with accumulations of material thereon, substantially as described.

WALTER PALMER WYNNE.
THOMAS TREGURTHA.

Witnesses:

EDWARD WATERS,
WALTER SMYTHE BAYSTON.