(No Model.)

# C. C. RUEGER.

## ORE CONCENTRATOR.

No. 382,833. Patented May 15, 1888.

Fig. 1.

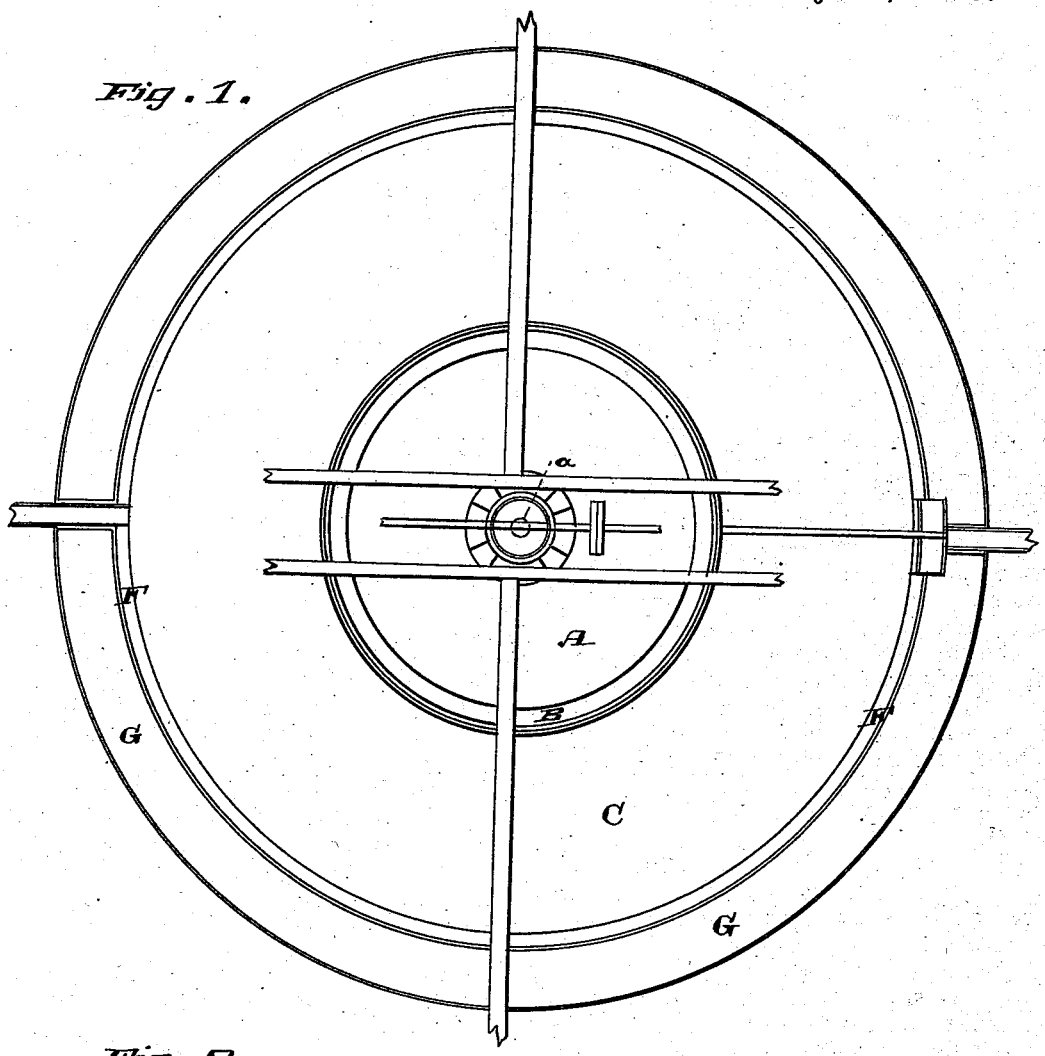
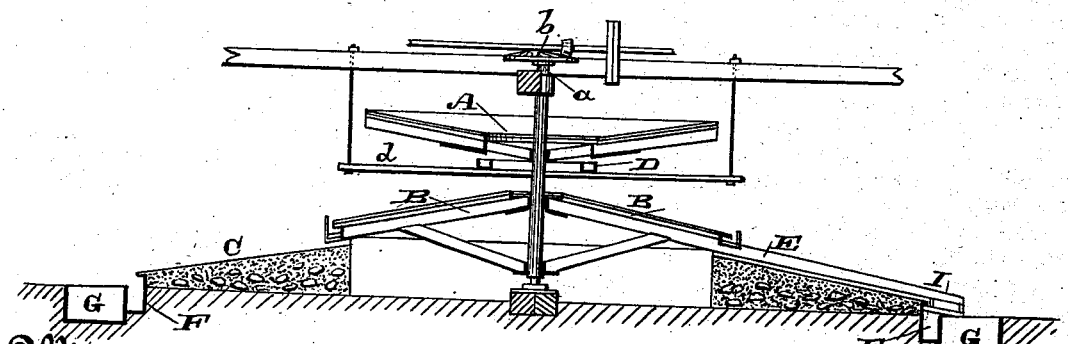



Fig. 2.




Witnesses,
Geo. H. Strong,
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# UNITED STATES PATENT OFFICE.

CHARLES C. RUEGER, OF ANACONDA, MONTANA TERRITORY.

## ORE-CONCENTRATOR.

SPECIFICATION forming part of Letters Patent No. 382,833, dated May 15, 1888.

Application filed May 21, 1887. Serial No. 239,023. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES C. RUEGER, of Anaconda, Deer Lodge county, Montana Territory, have invented an Improvement in Ore-Concentrators; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of concentrators which are used for the treatment of ore, sand, and slimes, and technically known as "buddles" or "round tables."

The object of my invention is to increase the working capacity of such machines, and at the same time improve the quality of their performance and simplify the machinery required for such results. These objects are attained by a combination of old and new parts, shown in the accompanying drawings, in which—

Figure 1 is a plan of the machine. Fig. 2 is a vertical section or sectional elevation through the center of the principal parts.

Many details, not essential to illustrate the invention, are omitted.

A is a concave round table, constructed in any approved manner. B is a convex round table similarly made. Both of these tables are affixed to one vertical shaft, *a*, which is revolved by some suitable driving mechanism, *b*, at the top.

D is the receiver for the various products flowing from the table A, and at the same time it serves as a feeder for such of these products as are to be rewashed on the table B. This trough or receiver D is stationary and rests on a suitable frame, *d*, suspended to beams overhead. The products from the table B pass onto the cone C, which presents to them a very much larger surface, and therefore greatly decreases the force of the currents, so that ore particles which have been swept from the tables A and B will deposit and can be treated under conditions which favor their separation from barren matter. This outside cone, C, therefore, does the finishing or tailings work in a direct and simple manner, without the intervention of more or less complicated mechanism, because the buddles A and B perform the office of feeders, distributers, dead-heads, &c.

As the cone C remains stationary, the point or section of discharge for any assumed product travels around the periphery. For this reason one of the arms E of the table B is extended beyond the periphery of the cone C and carries at the end a trough, I, the purpose of which is to bridge the sluice F, so that the concentrated product from the cone C can be delivered into the tank G. The barren tailings drop into the sluice F.

The arrangements for manipulating the various products from the tables A and B are not fully shown, because immaterial to an understanding of the nature of the invention claimed.

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

1. The concave table, the underlying convex table, and means for rotating said tables, in combination with the stationary receiver D and the stationary cone C, substantially as herein described.

2. A revolving concave upper table and a revolving convex lower table, in combination with a convex stationary cone onto which the ore-pulp is fed by the tables, substantially as described.

In witness whereof I have hereunto set my hand.

CHARLES C. RUEGER.

Witnesses:
WM. READ,
WM. K. SLOAN.