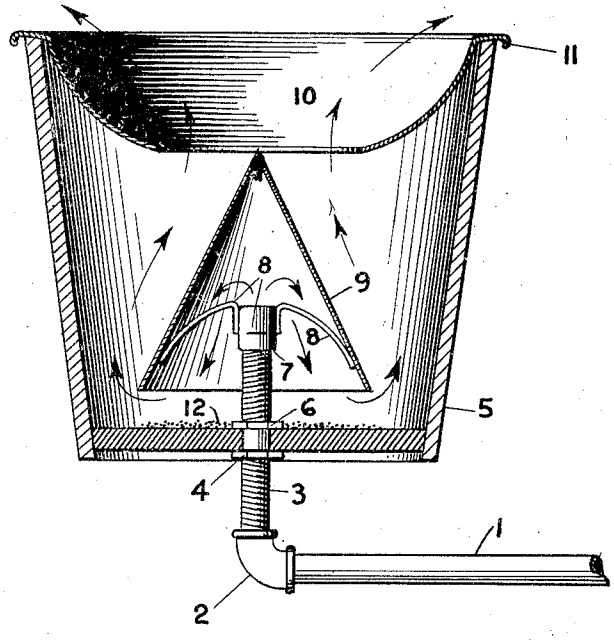
C. A. PERRY.

ART OF EXTRACTING GOLD.

APPLICATION FILED MAY 27, 1918.

1,361,489. Patented Dec. 7, 1920.

FIG. 1.



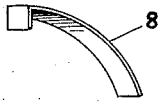


FIG. 2.

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ART OF EXTRACTING GOLD.

1,361,489. Specification of Letters Patent. Patented Dec. 7, 1920.

Application filed May 27, 1918. Serial No. 236,908.

To all whom it may concern:

Be it known that I, CHARLES A. PERRY, citizen of the United States, residing at Berkeley, in the county of Alameda and State of California, have invented certain new and useful Improvements in the Art of Extracting Gold, of which the following is a specification.

This invention is an improvement in the art of extracting gold from fine sand.

It is a well known fact that in gold producing districts, in placer mining and on gold beaches, much free gold is lost in fine particles, which escape the usual processes for the recovery of gold. Any device which will save these particles of gold bearing sand will result in a material gain in the recovery of the precious metal in new districts and make it possible to profitably rework old diggings. The principal object of the invention is to provide a method and means for the recovery of fine black or gold bearing sands, which are lost under present methods, or recovered with great difficulty and indifferent success by quicksilver or other expensive methods. Another object is to provide a device simple and inexpensive of manufacture, which will operate with a minimum amount of water pressure, making it available wherever placer mining is possible.

These objects are accomplished by the novel structure described in the following specification and illustrated in the accompanying drawings; in which,

Figure 1 is a vertical central section of my improved device. Fig. 2 is a perspective view of a detail.

Referring to the drawings, 1 indicates a water pipe of usual construction, connected with any available source of water pressure. The pipe 1 is threaded into one end of an elbow 2 into the opposite end of which is projected an externally threaded discharge nipple 3. On the lower end of said nipple 3 is a locknut 4, to form a support for the bottom of a bucket 5, through a hole in which extends the nipple 3. A locknut 6 working on the nipple 3 is then screwed downwardly until it rests against the inside of the bottom of the bucket. Thus the bucket is rigidly supported in position. On the upper end of the nipple 3 is attached a threaded supporting sleeve 7, to which are soldered or otherwise secured, the end of a suitable number of similar brace arms 8, four being shown, the opposite ends of which are bent outwardly and downwardly and secured to the internal walls of a sheet metal separator cone 9, closed at its apex and open at its base. The apex of the cone is in the center of the bucket 5, and is surrounded by the lower open end of an annular hopper 10, which has a rounded down turned edge 11, for engaging the top edge of the bucket 5.

In operation my process is as follows:— Sand suspected of containing free gold or gold bearing particles, is shoveled into the hopper 10 while water is flowing through the pipe, and in and out of the cone 9, and through the hopper 10, traversing the course shown by the series of arrows. The action of the water under pressure and by reason of this devious course causes the dirt and light sand to be agitated and dissolved or carried away with the water while the gold, sulfites and black sand settle to the bottom as indicated at 12, for future recovery.

Having thus explained the nature of the invention, and described an operative manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made, or all of the forms of its use, what is claimed is:—

1. An improvement in the art of separating minerals comprising a water supply pipe having a discharge nipple, a receptacle into which said nipple projects, a separator cone supported by said nipple within said receptacle said cone inclosing the discharge end of said nipple and being mounted concentric therewith.

2. An improvement in the art of separating minerals comprising a water supply pipe having a discharge nipple, a receptacle into which said nipple projects, a supporting sleeve detachably mounted on the discharge end of said nipple, and a separator cone supported by said sleeve and having its base inclosing said nipple.

3. An improvement in the art of separating mineals comprising a water supply pipe having a discharge nipple, a receptacle into which said nipple projects, and a separator cone within said receptacle inclosing the discharge end of said nipple and concentric therewith, and a hopper-like cover engaging the top of the receptacle and having an opening concentric with said cone.

4. An improvement in the art of separating minerals comprising a water pipe hav-

ing a discharge nipple, a receptacle concentrically supported by said nipple, a separator cone supported by said nipple concentric with said receptacle and inclosing a portion of the nipple, and a hopper supported by the receptacle and having an opening concentric with said cone.

5. In combination, a bucket, a threaded nipple projecting through the bottom of said bucket, nuts screwing on said nipple against both sides of the bottom of said bucket, a hollow cone detachably mounted on the inner end of said nipple, and a cover detachably mounted on the top of said bucket and provided with an opening directly over said cone.

In testimony whereof I affix my signature.

CHARLES A. PERRY.