

## Hepburn & Peterson's Amalgamator.

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The annexed engraving is a representation of HEPBURN & PETERSON'S AMALGAMATOR. The chief object of the inventors of this amalgamating pan has been to devise some means to obviate the inconveniences frequently met with in other pans, and arising from a tendency of the sands to pack when in a certain condition as it becomes necessary to stop the running of the machine. Another desirable object was the production of a pan which would admit of working the sands in a more compact state—that is, by the admixture of less water, whereby the reduction is made to progress much more rapidly. These objects Messrs. Hepburn & Peterson claim to have effected, in an important degree, by the peculiar construction of the bottom of their pan, which, as will be observed by the annexed illustration, is inclined towards the centre, or shaped like an inverted cone—the dies being affixed to this cone-shaped surface and the mullers made to correspond. The pulp being thrown into the pan, and the mullers set in motion, their action is such as to throw that portion of the pulp which finds its way between the grinding surfaces to the circumference, whence, by gravitation, it descends to the centre, and thence again beneath the mullers. A constant and active current is thus established, which cannot be done by the same motion when set in operation on a level surface. It will thus be seen that all necessity for wings or scrapers is obviated, which are oftentimes a hindrance to starting the pan after it has become packed from stopping, especially when it is charged with coarse sands, but slightly advanced towards a pulpy consistency. There are no conditions, in ordinary working, where this pan may not readily be started without removing or thinning down the pulp, by simply elevating the mullers a trifle by a convenient set screw. These pans were first brought out last summer, since which time they have become quite extensively introduced throughout Nevada Territory, California, and Mexico.