

CUPELS, SCORIFIERS, AND CRUCIBLES

Mining for gold or silver is hard work. Digging, blasting and clearing rocks in a mine is difficult. Shoveling sand into a sluice box is exhausting. Sometimes, miners can work all day and find nothing. They need to know how much gold or silver is in their dirt or sand. The person who can tell them that is called an "assayer."

An assayer takes a sample of a miner's dirt, mixes it with lead and puts it into a cupel, a cup-sized container. The cupel is then baked in an oven at a high temperature. The lead and dirt burn off and a "button" of gold or silver is left in the cupel. The assayer weighs the button to find out how much gold is in the mine or the river.

An assayer uses a cupel to work with small samples. A scorifier is used for larger samples. Today, assayers use a crucible for almost all testing. A crucible is usually made of fired clay covered with enamel. A crucible can be any size.