

gash veins, and irregular deposits of ore, generally thin out and disappear at a not inconsiderable depth. Pay chimneys are usually large and regular, and are either vertical or have a slight dip to the north.

Feldspar, carbonates of lime and tellurets—When one of these metals is found there is a certainty of the presence of the others at a short distance, and whenever these metals are met with, the speedy appearance of ore may be relied upon. (NOTE—Telluride of gold must be subjected to roasting before amalgamation; iron and arsenical pyrities containing gold are subject to the same conditions.—Kustel.

HARD FACTS.

Sulphurets constitute the main reliance for the future, and the working of any mill that cannot extract the gold from them will not be permanently profitable. The dark reddish appearance of croppings is caused by the oxidation of the iron pyrities encased in the quartz. It is a maxim that "general rules guard against loss in mining, while particular rules increase the profits." It is infinitely cheaper to pay for sorting ore than to send it indiscriminately to mill for crushing.

One of the fundamental errors in mining is to make a false estimate of the value of the mine, the amount and richness of the ores, and the cost of extracting them.

EXTENT OF VEINS.

The thickness of a vein cannot be known until it has been opened to a considerable depth and traced on the surface for the length of the claim, or as far as it can be followed. Tracing on the surface is more cheaply done than sinking, and more likely to intersect any "chimneys" of ore that may exist in the veins. The extent at the surface is commonly in ratio of depth.