tion. Every grain of black sand must be carefully washed away, leaving the grains of gold perfectly clean. The determination of values can be made only by weighing the results of a number of pans or from a definite volume of material, but the number of "colors" to a pan is often used to indicate values. A color is a particle of gold apparent to the naked eye, and as the visible particles vary in size from a pin point upwards, they can have no definite value. Next following the pan is the rocker. This is the panning operation performed continuously in a wooden box mounted on rockers, and fitted with a sieve and shelves below, which serve as sluice boxes for catching the gold. Many wandering miners make a living by rocking out the surface gravel in selected spots along river bars and in favored points in valley bottoms.

Hints On Mining.

Mining is a perfect legitimate business, and when conducted on business principles will give greater returns with less risk than any other investment of the same amount of capital. One of the reasons that so much money has been sunk in mining ventures is that investors, in their haste to posess the Midas' touch, have lost their heads, and in their mining schemes have used methods that, if applied to their everyday business, would inevitably bring ruin; then the crash comes, and mniing is blamed for it.

In fact, it speaks highly for mining as an investment that the failures are not more numerous than they are when we take into account the opportunities that it affords for the exhibition of rascality and gross ignorance.

The sooner our business men cease to look upon a mine as a gambling institution the sooner it will be placed upon a business footing, which will insure bigger returns and surer ones.

In purchasing, we should first of all distinguish between a "mine" and a "prospect." Many prospects are placed upon the market as mines, but this is manifestly unfair; for though a prospect may, upon development, turn into a paying mine, yet it is not invariably the case.

It is here where we have the most urgent need for the skilled mining and geological expert. I use the word "skilled" advisedly, for during all booms a certain class of men will obtrude themselves upon the public notice as experts whose authority is allowed to pass unquestioned, but who have no real claim to the title they have taken to themselves. Secure, then, the services of a skilled expert, and he will give you a good idea of the value of the prospect, and of the probable chance of its developing into a paying mine.

Do not begrudge your expert his fee, for a couple of hundred dollars invested in this way may save you several thousand dollars, or be the means of your making much more.

The prospect having been purchased, the next thing is to do is to develop it, and see whether a mine can be made out of it. Here is a rock upon which many a hopeful company has been wrecked. Nothing should induce a company to expend one dollar on machinery until the existence of a large body of ore has been demonstrated, and if