

know what they have in their mine. This folly has brought many good properties to grief and still a greater multitude of poor stockholders.

I have repeatedly experienced the following:—"The enthusiastic mine owners wrote to a machine works to send a stamp mill which would treat an ore as the accompanying 'representative' specimens." The selection was left to the manufacturer, who of course sends one of the "latest pattern." The mill arrives, is put up, the stamps commence pounding in rythmical clacking, the slimes begin to flow over the amalgamating and concentrating tables, everything works nicely and smoothly, and the manager's face reflects his inner satisfaction of the—success. Also the assayer is present ready to take samples from the battery, the concentrates and tailings. A few hours are passed, the manager's face shows a strange metamorphosis. What has happened? The tailings are too high! Now begins the experiment with the tables; the inclination is lowered, then raised, then lowered again, soon more water is allowed to mingle with the slimes. Several weeks are passed, the ore dump is giving out, the mill is running only half the time, the tailings are as rich as ever, but the company is getting poorer and poorer, and dies at last an unnatural death, but has in dying the satisfaction that its mill forms a wide, shining monument to the country's disgrace.

Now, gentlemen, really is it to be wondered at that so many mill owners are baffled when the expected results are not forthcoming? Surely not when you consider what the stamp has to fulfil as a grinder. From no other machine do we expect the same thing. It is expected to work equally well on a multitude of differently constituted ores, may they carry the gold fine or coarse, in chemical or mechanical combination, heavily or not heavily charged with minerals, slime-producing or not, soft or hard, and almost every vein carries a different ore. But all these considerations would not have such a great effect upon the ultimate result if the stamps would only grind a little more uniformly, and if we had a different apparatus or machines in addition to them. It would also be of not much injurious consequence if we used light or heavy stamps, a high or low discharge (although the latter would be always preferable with our ores); further, it would not make a great difference if they acted not only as grinders, but also as amalgamators, if we had a better amalgamating table in connection with them. But I consider the smooth, and often very narrow apron and sluices or tables in use in our

mills, under no too, unobstructed current over the close and compact particles from

Similarly in connection with the you increase the erably, and this table the right of your building connect hydrate the muddy slime amalgamation, and and from them or as they have minerals, which the vanners who Because, if you more on auriferous amalgamators.

Now I have arise therefrom, iron, so long has by applying suit do not consider relatives, the right the ore carries products," but a specific gravity then they are no minerals mixed grinding—30 m of too much fine carried off with and over—has the ing rocks as our