

the tailings, then again the Frue vanner is not a desired apparatus. In this latter case it is often the practice to connect three and four vanners together, that is, each following receives the slimes from the one in front of it; or the slimes as they come from the amalgamating tables are divided into three or four currents, and fed on as many tables. This will help somewhat, but is not quite efficient, and gold and valuable minerals are lost in the tailings; while a large amount of gangue matter will be found under all circumstances among the concentrates. How annoying all these defects are to the manager, and expensive to the company, necessitating recourse later on to another process to regain this loss, everybody knows, and knows also that we have to handle for this purpose almost the whole bulk of ore over again. As I said above we can remedy these things considerably by using classifiers, but as long as we do not, that is, as long as we pursue the irrational practice and feed the whole muddy slimes and sands as they come from the stamps with their thousand different physical conditions upon these machines, so long have we to expect such poor results, that is, our tailings high in gold and minerals.

These above-mentioned three kinds of apparatus or machines, excluding the crusher, constitute here usually the whole outfit of a dressing work, of which we read in the papers almost every day, "to be the most modern dressing works in the country." Of course, if a country or nation does not adopt any improvement or innovation on an old fashion, a newly made or manufactured object is always modern with them, because they do not know better. This, I think, will be sufficient in supporting and substantiating my assertions in regard to the inefficiency of the outfit in our dressing works.

I come now to the description of a mill as shown on the plan before you.

In adopting this arrangement and the different machines I was led by the following reasons:—

1. The mill should have a capacity of about 40 tons.
2. Mixed with the ore is talcous slate from the walls of the vein, and from little stringers of the same material mixed with the vein stone.
3. The gold in the ore is partly fine, partly coarse.
4. The ore is well mineralized with copper and iron pyrites, blende and galena.

To crush not only will find and consider uniform and at phosphor-bronze will

The mortar for retaining the for the amalgam with the slimes,

To increase better and clear of the former, percussion table added two bud valuable minerals

I had further possible, from the crusher.

The according sufficiently. I is separated from whole structure.

I can also arrangement of this let us follow machine to make as tailings.

The ore after into the crusher in Dresden, position a shoe which gradually forward of the ore coarse into the crusher lated at will, all several crushers separated by the