The puddled water, or that holding the copper and sand in suspension, is run into the distributor B, which is partitioned so that this water can be kept separate from the clear water.

The puddled water, being in one side of the distributor B' (Fig. 2), runs through the holes at its base, and is distributed equally over the stationary circular plate C, and run on the rotating table D in a thin sheet.

The table D, revolving in the direction of the arrow (Fig. 2), carries the sand with it into contact with the clear water that is distributed equally over the stationary cam-shaped plate E from the other half of the distributor.

By this means the light sand, etc., is washed off the table D into the trough T. What is here caught constitutes the tailings, which theoretically should contain no copper. The richest ore remains on the upper part of the table D, being shielded by the projection of the cam-shaped plate E, Fig. 2, from the action of the clear water.

The poorer grades of ore are, through the action of the clear water, washed about half-way down the rotating table D; then they come in contact with the diagonal perforated pipe P (Fig. 2), and are rewashed by a succession of small jets from the perforation of this pipe. The poorest ore is washed into the apartment X (Fig. 2). These constitute the "middlings."

The ore passing between the jets is carried around until it comes in contact with the strong jet of water from pipe R. This pipe, placed as it is, washes everything, the richest ore as well as that last mentioned, into the apartment Y (Fig. 2).

What is here caught is the concentrated ore. Now, as to our work and experience. The first ore tried was the copper tailings from the Calumet and Hecla mine.

This was worked by Mr. Faunce for his thesis. The tailings, running 4.5\% per cent of copper, were stamped and washed through a thirty-mesh sieve. The water holding the copper and sand in suspension passed through a spitzlutte, and then directly to the tables. This gave a poor result, for considerable copper went into the tailings.

Starting again, the water, etc., was allowed to run through three settling pans. Obviously, the bulk would settle in the first pan. What did settle here was shovelled out and run through a trough combining the spitzkasten and spitzlutten principles. By this means the coarser of both sand and cop was taken out. That alone which floated over the pointed noses went on the tables. This, fed at the rate of 1.2 kilos per minute, was handled very well. A difficulty was experienced, however, by the banking up of the ore and water on the sharp edge of the sheet-iron covering. This