

led to the adoption of the present form; with the exception of the above mentioned change the process is identical as first practised.

In 1588 Don Juan De Corduba, a Spaniard, applied to the court of Vienna proposing "to extract silver from its ore whether poor or rich by mercury, and in a short space of time." He made several experiments on a small scale on several kinds of ore which succeeded very well, but on attempting with (20) twenty quintals he failed, and one Lazarus Erker, who was employed to give in a report on the process, disapproved of the method and here it dropped. Baron Inigo Born imputed the failure to his ore not being calcined, his not using salt and the weather being cold. A writer of that period adds to an account of this failure that "Corduba could have remedied the last cause of failure, namely, the cold weather," and I believe he could. The Tintin process—as practised in Chili was really a modification of the "streaming for gold" process, and though not generally known was invented by a Franciscan Friar; it was applicable only to ores containing free metal, the apparatus being a stone mortar nine (9") inches deep and 9" wide; the ore being ground along with mercury in it by an iron pestle; the metal contained in the overflow being caught and settled in tanks, afterwards to be treated by the Patio process. This was in use from the sixteenth century in Chili and Peru. The Trapiche and Maray were likewise a modification of the "streaming for gold" process, and some give Barba the credit of having invented them, although I believe he does not claim the honour. The Trapiche is the modern Chilean mill; both have been in use since the sixteenth century.

"The Tina System," or "Sistema de Cooper," as practised in Chili is really a modification of the old abandoned Norwegian process, which I before mentioned, and from about 1825 has been used very extensively and successfully, although only applicable to ores containing free metal. The machinery is greatly improved over the old Norwegian.

Stove amalgamation as practised in Mexico is merely a modification of the Patio, in which the regular process is interrupted in the middle, the ore being conveyed to an estufa or stove, where it is gently heated for two or three days when the Patio process is resumed.

During last century Baron Inigo Du Born succeeded, notwithstanding obstacles thrown in his way, in introducing his amalgamating process at Chemnitz, in Lower Hungary. The process consisted in first stamping the ore dry to a coarse sand (Du Born remarking that "wet stamping would bring on great loss of silver and expensive contrivances to prevent or recover it"). The battery consisted of three stamps to each mortar, the sole or bottom alone being cast iron, each stamp-head weighing