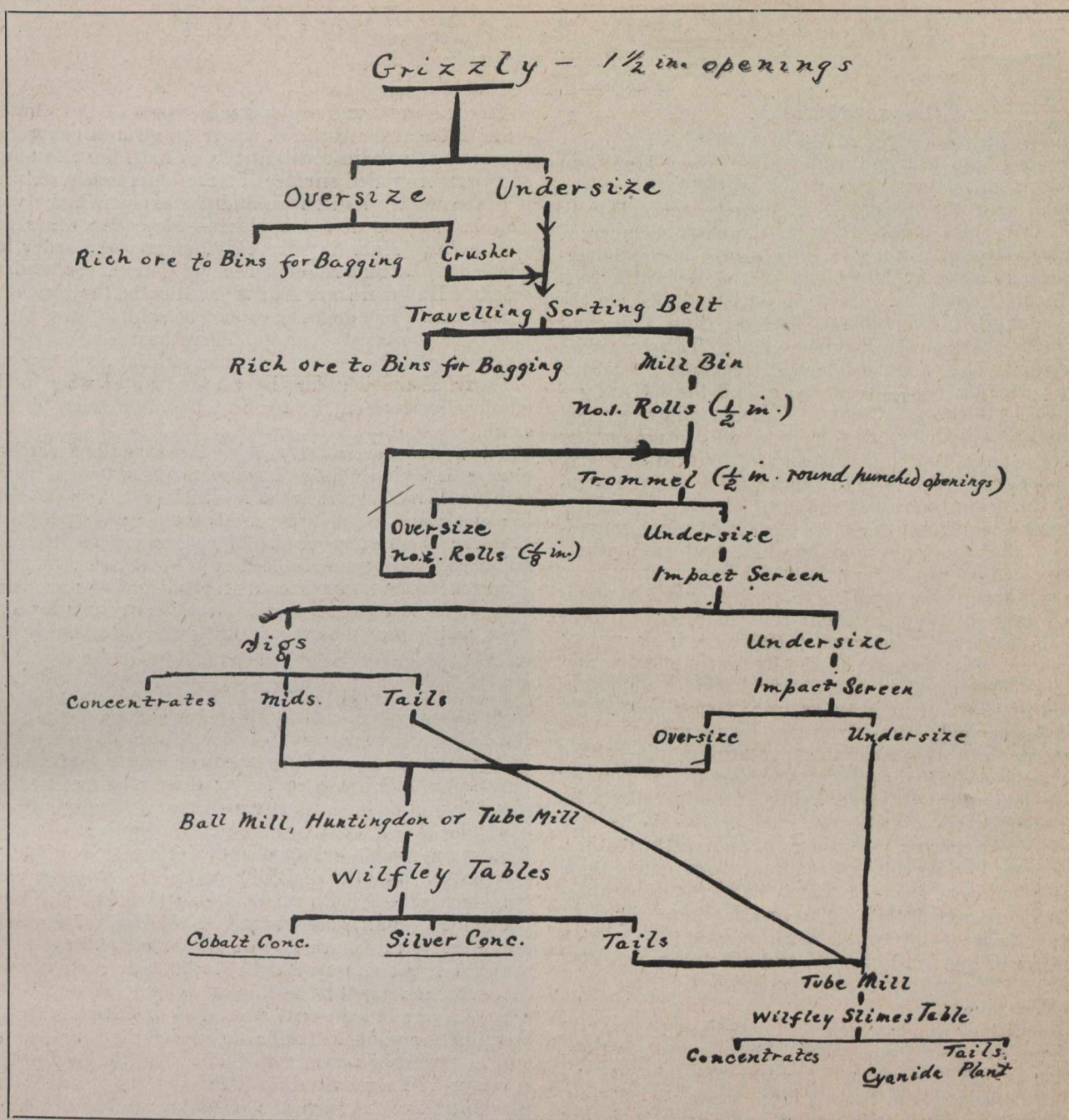




COBALT ORE TREATMENT.

This flow sheet is gotten out to indicate the method which appears to the writer to be the most economical for handling the ores of Cobalt. In practice probably some of the mines would find it more advantageous to use several sets of jigs, in which case I would advocate single compartment jigs for No. 1, the tails being crushed in No. 2. Rolls and undersize from No. 1 trommel elevated back to the mill bin.

No. 1 tails and undersize from No. 1 impact screen through No. 2 rolls to No. 2 impact screen. Oversize to No. 2 jigs. Undersize either to table mill with tails or to No. 3 rolls—if a further set of jigs is found profitable. In such case No. 3 jigs would probably be of the four compartment type, giving separate concentrates of silver and cobalt. Mids to mill for tables and tails to tube mill for cyanide.

Such a system would have impact screens and jigs to handle products from 1-2 to 1-4, 1-4 to 1-8 and 1-8 to

1-16. The table mill should crush to 16 to 20 mesh, and the tube mill from 40 mesh up, the fineness being best determined after experiment with the ore handled. Tails would go to either tables or cyanide, depending on the cobalt and copper contents. Sliming the tails and using hot solutions and hot air agitation promotes the efficiency of the cyanide plant, and I believe that the multiplication of the jigs, which will decrease the capacity of the plant, will in most cases be unnecessary.

H. G. V. Adler.

Mr. W. A. Carlyle, of 62 London Wall, London, E.C., has been appointed consulting engineer to Le Roi Mining Company. Until last summer Mr. Carlyle was general manager of Rio Tinto Mining Company. Prior to this he was resident engineer at Rossland of Le Roi mine. Mr. Carlyle is a graduate of McGill University.