

paid our respects at the office and were extremely impressed by the kindness and courtesy accorded us by everyone with whom we came in contact. We could not help but admire the neatness that everywhere pervaded the place. The office buildings and tool shops, all painted white and green, and each bearing its respective sign, lined one side of a short street or quadrangle, while the furnace buildings bulked just across the way. Between these the vivid green of a well-kept grass plot added a touch unusual to the environment of most furnaces. The furnace being an objective point of our interest, we made for it first of all. It was roughly square about 30x40 and perhaps 50 feet high, and built of brick. Following this were several sections of condensers. Either iron or earthen ware piping about 18 inches in diameter and set in bases of brick and concrete. Water was flowing over some of these and we were told that when the furnace was completed entirely, would be arranged to flow over all. The ore is fed in at the top of the furnace and zigzags its way down over a series of grates, alternately arranged, the edge of one being just above the apex of the one beneath. At the side of the ore compartment is another for wood, which is also fed in at the top, the draft being drawn downward by means of a fan at the end of the condensing system. The principle of counter currents is preserved in part, although there is a hot zone both at the bottom and top of the roaster. The product as it comes from the condensers is a rich, velvety-brown mud which must be slowly dried before the "quick" or mercury separates out. The ore is crushed to a size somewhat smaller than one's fist and the surface moisture is driven off by an ingenious arrangement similar in principle to the roaster. No flux is used, heat alone sufficing to drive off the mercury. The furnace, as it stands, is a modification of an older furnace, but conserves substantially the design of the new Dennis furnace, of which the manager of the mine, Mr. W. B. Dennis, is the designer and patentee. The tunnels were about 1200 feet above the furnace the first day we climbed the switchback trail and the ore is brought down by a gravity tram whose buckets hold about 100 pounds of ore. The tunnels were about 12,000 feet above the furnace the last day we went up and the fervency of our regret that the tram was not adapted to passenger service, passeth understanding. There were four main levels and several intermediates at the mine, but as the company were operating but one, we had a clear field for