

conditions out there which would be very interesting. By the way, the Solvay Process Company, I understand, are doing very well out there now, having recently erected a plant under the supervision of our member, Mr. Shattuck, and they are reported to be shipping large quantities of potash from that locality.

The Owens Lake belongs to the same system as the Searles Lake. The Owens Lake is fed by the Owens River and at one time discharged into Searles Lake, but for ages the connection has been broken and while Searles Lake is dry, the Owens Lake contained in 1913, 11 per cent solids of which 2.8 per cent is K and about 36 per cent is sodium carbonate and bicarbonate which is crystallized out as trona. Two companies on the lake have made a start towards recovering the potash from the bitterns or residue from the trona crystallizations. There have been some attempts to obtain potash by burning the unlimited quantities of sage brush in Arizona, and the Government has conducted experiments on destructive distillation of it to produce tar or oils suitable for ore flotation. Perhaps the combination of the destructive distillation for flotation oils and the recovery of potash from the residue may be profitable.

In conclusion I may say that it can be seen that the West is doing its share of chemical engineering on this particular problem.

Mr. EDGAR BARUCH: (Communicated.) The Hercules Powder Company have an enormous plant at San Diego which cost about \$2,500,000 and they are the only people on the coast who to my knowledge are refining their potash products.

Swift & Company, also located at San Diego, merely cut and dry their kelp. The Long Beach and San Pedro plants carry the process further by making a charred ash, which runs from 30 to 40 per cent potash as K_2O , but do not attempt to purify or concentrate the potash salts. Dr. J. W. Turrentine of the U. S. Bureau of Soils is spending \$175,000 of the Government's money on a new plant near Santa Barbara with the idea of attempting to find valuable by-products from the kelp, but which as near as we can determine will merely duplicate much of the work already tried by the old promotion and pioneer plants. There is much talk about still other plants being constructed all along the coast as far north as Seattle.

To my mind, in spite of many predictions to the contrary, it appears that the shortage in kelp, already noticed and felt, will soon prevent further expansion of the industry. Moreover, the costs of production are increasing so rapidly because of the necessity of