

The item of power and steam covers the complete departmental power house expense including labour, superintendence, depreciation, etc., which accounts for its being so large. Malt sprouts and molasses were used in the preparation and manufacture of yeast.

The figures given above must, of course, be considered in relation to the very low average capacity and poor yield which was obtained in order to properly appreciate their significance, owing to the very large proportion represented by fixed charges, as well as labour, which for the same reason was inefficiently employed. Thus it was estimated by qualified experts that if a monthly capacity of 100,000 gallons was reached and maintained, together with the yield of 20 gallons per dry ton, that a similar cost not exceeding 21 cents per gallon would result. Since the maximum yield which was recorded in 1913 amounted to 22.6 gallons per dry ton and the maximum quantity of sawdust processed in any one day was 330 cords, equivalent to 207.9 dry tons, the attainment of such a result seemed by no means beyond the realm of reasonable expectation. Furthermore it was convincingly represented that the contemporary and equivalent cost of producing alcohol from grain in the largest American distilleries, running at full capacity, exceeded 30 cents per gallon.

The very low capacity which was obtained during these early months was largely owing to the fact that no market for the output had been developed and it was only towards the end of June that this condition was adjusted and a real increase in capacity could be considered. In face, however, of the noticeable and seemingly reasonable improvement which results were indicating operations were unfortunately completely suspended July 18, 1913. This step was taken owing to the fact that working capital which had been largely dissipated was seemingly insufficient to carry the project further. Since then, but under different management, the plant was operated for a few months in 1914 and since the summer of 1916 has been running, as I understand, continuously taking advantage of the high price for alcohol which has since prevailed.

Regarding the quality of the alcohol which was made at Fullerton the following report covering a sample taken from bulk is representative of several independent examinations which were made. "The sample was found to contain 94.7 per cent of ethyl alcohol by volume. It is practically neutral, contains no acetone, no formic or other esters, no furfural, only traces of aldehyde (which is always present in alcohol and soon forms again after being removed) and so little of higher alcohol (fusel oil) that their quantity could not be determined colorimetrically. In all I consider this as one of the purest Cologne spirits that have come under my observation."