

RESULTS OF TRIALS 83, 84, and 85.

TABLE IX.

Trial.	Moisture per cent in peat.	Gross calor- ific value, B.Th.U. per lb.	Equivalent evaporation per hour, lbs.	Peat fired per sq. ft. of grate per hour, lbs.	Draft in stack, inches.	Equivalent evaporation from and at 212° F. per lb. of peat. lbs.
83	19.2	7730	621	17.7	0.11	3.89
84	20.1	7570	802	23.8	0.14	3.74
85	19.2	7710	1054	37.9	0.22	3.09

Quality of Peat.—It will be seen by this table, that there was little variation in the quality of the peat.

Change of Rate of Working.—The rate of evaporation was changed for each trial, and the increased rate of firing was accompanied by an increase in the draft, and decrease in the evaporation per pound of fuel.

Change of Regulation of Air Supply.—For the supply of air over the bars, small holes in the fire door were provided by the makers of the boiler. So high, however, was the carbon monoxide content of the flue gas—in spite of an extremely thin fuel bed—that during trials 83 and 84 the fire door was opened a little to admit air, in order to burn this gas more completely. During trial 85, it was found impossible to carry the load with an open fire door, so during that trial the fire door itself was kept closed, and air admitted above the bars only through the small holes in the door.