

TABLE XIII.—Continued.

22. Nitrogen.....	1.3	1.2	1.2 per cent.
23. Oxygen.....	43.3	43.6	43.3 "
24. Fuel ratio, fixed carbon to volatile matter.....	0.47	0.47	0.47
25. Gross calorific value of fuel as fired per lb. (from calorimeter).....	7730	7570	7710 B. Th. U.
26. Net calo: value of fuel as fired per lb. (calculated from gross value).....	7130	6970	7110 "
27. Calorific value of dry fuel per lb. (from calorimeter).....	9560	9470	9550 "
28. Weight of fuel fired.....	1271	1715	2720 lbs.
29. Weight of refuse removed from above the fire bars.....	none	none	none
30. Weight of refuse removed from the ash-pit.....	27	33	76.5 "
31. Combustible matter in total refuse removed.....	4.3	6.6	7.5 per cent.
Average of Air and Flue Gas Observations.			
32. Air pressure in ash-pit.....	—	—	—
33. Air pressure in furnace.....	—	—	—
34. Air pressure in flue leaving boiler.....	-0.11	-0.14	-0.22 ins. of water.
35. Temperature of air in boiler room.....	70	70	68 ° F.
36. Temperature of flue gas leaving boiler.....	690	690	750 ° F.
37. Barometric pressure.....	29.9	29.6	29.8 ins.
Analysis of dry flue gas by volume.			
38. Carbon dioxide.....	10.0	10.5	12.6 per cent.
39. Oxygen.....	9.0	8.2	4.0 "
40. Carbon monoxide.....	1.4	1.5	4.7 "
41. Nitrogen.....	79.6	79.8	78.7 "
Water and Steam.			
42. Average temperature of feed water.....	59	60	54 ° F.
43. Total weight of water fed to the boiler, corrected for inequality of water level.....	4242	5504	7209 lbs.
44. Average boiler steam pressure by gauge.....	95	94	79.5 lbs. per sq. in.
45. Average calorimeter steam pressure by gauge.....	0.44	0.80	0.1 ins. of mercury.
46. Temperature of steam in calorimeter.....	230	232	217 ° F.
47. Moisture content of steam.....	2.9	3.2	3.6 per cent.
Total Quantities.			
48. Duration of trial.....	478	480	478 mins.
49. Weight of fuel as fired.....	1271	1715	2720 lbs.
50. Weight of dry fuel fired.....	1027	1370	2198 "
51. Weight of combustible fired.....	975	1289	2084 "