

From a comparison of the later with the older analyses it will be seen that those of coal from the deeper portions of the seams show lessened amounts of volatile combustible matter, increased percentages of fixed carbon, and diminished amounts of sulphur and ash. Speaking in general terms the coal would appear to have developed more into a steam fuel, the evaporative power being in a general way proportionate to the percentage of fixed carbon.

This would give the coals as at present mined a high calorific power. From analyses by Mason and Matheson in a paper read before the Nova Scotia Mining Society, it would appear that the calorific powers of coals from the Sydney coal fields vary from 7238 to 7623; of Pictou coal (sample from Intercolonial mine) 6963; and of Springhill coal 7898.

As compared with United States coal they should stand nearly in the rank of the best free burning coals of Pennsylvania, Virginia, and Maryland. Those coals hold from 12 to 21 per cent of volatile matter, and from 69 to 76 per cent of fixed carbon. The average contents of the United States coals are from 29 to 35 per cent of volatile matter and from 53 to 67 per cent of fixed carbon. These coals therefore from Springhill should rank for steam purposes next to the class which may be described as the best selected for use on the large ocean passenger vessels.

I have not at hand any proximate analyses of English coals to compare with these under consideration. However, taking the results obtained in the English Admiralty trials of steam coals, and comparing the percentage of fixed carbon found in the trials with the fixed carbon given in these analyses, it will be found that the English and Scotch coals run from 49 to 88 per cent as compared with 68.2 per cent in the Springhill coals.

This would give the Springhill coal about the same relative position to the best Welsh coals as has already been assigned to it in comparison with the best American coals. The evaporative power of the Springhill coals would, from the analyses, stand higher than that of the English and Scotch coals, and rank next