## CANADIAN COALS—THEIR COMPOSITION AND USES.

## BY EDWIN GILPIN, M.A., F.G.S.

The writer having been engaged during the past year in an extensive investigation into the properties of the chief Nova Scotian coals, thought that a brief description of the more typical scams would not be without interest to the members of the Institute; and as there is but little known of the coal deposits of the rest of the Dominion beyond the reports of the officers of the Geological Survey, the writer has added a brief notice of the more modern coals of the North West Territory and British Columbia, showing the value of the coal interests of a portion of the Dominion which is gradually becoming appreciated as a suitable field for emigration.

The writer takes this opportunity of acknowledging his obligations to Mr. Selwyn, Director of the Geological Survey, for information about the British Columbia coals, to the managers of several of the Cape Breton Collieries, and to Mr. E. G. Millidge, the gentleman in charge of the Public Works in Cape Breton.

The chief available information relative to the composition of the Nova Scotian coals is found in the reports of the geological survey and scattered analyses made by various chemists. Unfortunately the value of these reports for comparison is materially affected by the various methods of analysis employed, by it being frequently left in doubt as to whether the coals were coked by a slow or fast application of heat, and by the fact that in many cases samples of the best portions of the seams were analysed, and the results given as averages of the whole hed. In the following set of analyses the samples were averages selected either from the pit heaps, from cargoes, or from the working face.

The writer would not presume to claim any greater accuracy for his own analyses, but considers this their chief value, that as the same method of analysis was applied to all, a better comparison can be made not only between individual seams but also between those of various districts.