last part of my journey in the dark, I re-ascended the river for a hundred miles, in company with Dr. Locke, a geologist lately engaged in the State survey of Ohio, and who liberally devoted his time to aid me in my inquiries. I was desirous of seeing the rocks corresponding to the Old Red sandstone before mentioned, and with this view we landed at Rockville, about eighteen miles below Portsmouth, and examined the Waverley sandstone at that place. Retaining in my mind a perfect recollection of the aspect of the deposits intervening in the State of New York, between the Coal and the Upper Silurian groups, at the distances of 400 and 500 miles, I was struck with their extraordinary decrease in volume, the absence of some formations, and the complete identity of those sets of strata which remained. I have before alluded to the gradual thinning out of the coarse sedimentary rocks, both in the Silurian and Carboniferous series of the U. S., as we proceed westward, and the increased thickness of many of the calcareous formations. The Waverley sandstone of Rockville has been recognized by Mr. Hall as the representative of the Chemung and Portage groups of the New York Reports. It contains here many ripple-marked flags with partings of shale. The surfaces of the slabs of sandstone display the festoon-shaped fucoid, called here *Fucoides cauda galli*, from its resemblance to a cock's tail. I saw some single individuals of this plant extending through layers eight inches thick. There were no associated shells; but in some of the uppermost strata of the series we found spirifers and other brachiopods, with many encrinites.