## CHAPTER IX.

## DISCOVERY OF THE PROGRAMME.

THE reader will have observed that the primal or Potsdam sandstone has been traced all around the circuit of the central United States. There is no doubt that it underlies all the region embraced within the circumference of its outcrop. Indeed, at Columbus, Ohio, an artesian boring has probed the crust 2000 feet and more, and found this sandstone in its proper place. At Lafayette, in Indiana, Louisville, in Kentucky, St. Louis, in Missouri, and Chicago, in Illinois, similar deep borings have been executed, and the succession of strata, as far as the borings extend, has been exactly such as geology expected; and there can not be a doubt, that wherever exploration should be made throughout the wide extent of the area indicated, the Potsdam sandstone would be found occupying its proper position at the bottom of the Silurian series of strata. the same formation has been upheaved, at intervals, along the whole distance to the Rocky Mountains, geologists have arrived at the conclusion that the entire area of the United States and Territories was, during the Lower Silurian Age, the bed of a comparatively shallow sea.

This conclusion leads to a generalization of the highest interest. How came the central area of the North American continent a basin of shallow water? We can only infer that, at this early period, the Alleghanies on the east, and the Rocky Mountains on the west, had already begun to be lifted above the general floor of the ocean. The United States were an immense continental lagoon—a subma-