

The general elevation of the great plain does not exceed a hundred feet, although sometimes considerably higher. Its width in the middle and southern states is very commonly from 100 to 150 miles. The tide, except in the more southern states, flows entirely across it, and the rivers intersecting it form large estuaries, which may have been due to the facility with which the incoherent materials of the cliffs were undermined and swept away, a process of waste which is still going on.

Throughout the greater part of the Atlantic plain, the cretaceous rocks, if present, are concealed by the overlying tertiary deposits, which consist chiefly of Miocene strata, extending from Delaware bay to the Cape Fear river, and occupying portions of Delaware, Maryland, Virginia, and North Carolina, an area about 400 miles long from north to south, and varying in breadth from 10 to 70 miles. There are, besides, some patches of the Miocene formation in South Carolina and Georgia, where the Eocene or older tertiary deposits predominate almost exclusively.

I began my examination of these tertiary strata in the suburbs of Richmond, Virginia, where I saw in Shockoe creek some Eocene marls with characteristic shells, on which reposed Miocene red clay and sand. Between the two formations a remarkable bed of yellow siliceous clay intervenes, from twelve to twenty-five feet thick, marked on the surface by a band of meagre vegetation. This clay was found by Professor W. B. Rogers to be entirely composed of the siliceous cases of Infusoriæ, so minute as only to be detected by a powerful microscope, and yet exhibiting distinct spe-