

year a large corps of trained men into the higher practical pursuits connected with science, but also an important centre of discovery and original investigation, further materials for which are being constantly accumulated. More especially in geology, mineralogy, palæontology, zoology and chemistry, are such men as Dana, Silliman, Marsh, Brush and Verrill adding to the stock of knowledge for the whole world, as well as training their students. And this one of the results in all cases of a well appointed and efficient school of science.

Crossing the dark harbour of New York, cumbered with cakes of ice; and rapidly rolling over flat New Jersey, interesting for its curious deposits of the green-sand of the old Cretaceous Sea, now quarried as a manure, and to be seen in heaps green almost as grass, by the roadside, we reach pleasant, quiet Philadelphia, in which among chief objects of interest to a scientific traveller, are the collections of its old and useful Academy of Sciences, a scientific workshop as vigorous in its age as any of its more youthful rivals, though sadly in want of enlarged apartments for its collections. Hawkins had just been setting up here the skeleton of the Hadrosaurus of the New Jersey green-sand, one of the most portentous of those old reptiles of that Mesozoic age, when the giant "tanninim" were the lords of creation. It must have been a creature four-fifths reptile and the rest bird, standing upright twenty feet in height, on two enormous legs with three-toed feet, and an immense pillar-like tail, while its small fore feet were used as hands to aid it in obtaining the fruits or other vegetable substances on which it fed. It might be described as a gigantic reptilian kangaroo with the toes of a bird; and were it not for the actual bones proving that it had existed, a zoologist would scarcely have the hardihood to imagine such a creature in his dreams. We stand amazed beside the skeleton of the Mastodon or the Megatherium, but not with the feeling almost of disbelief in our senses excited by the strange combination of characters in this wonderful animal, which among other things shows how the apparent bird-tracks of the Mesozoic rocks, or some of them, may have been made by biped reptiles, strange and gigantic anticipations of the attitude of man himself. As a companion, or rather a formidable enemy, to this animal, Mr. Cope, who is studying these remains, showed me portions of the skeleton of a gigantic carnivorous reptile of the same age, with formidable teeth like those of *Megalosaurus*, and