recent shells from which the peculiar forms were excluded.

These remarks are by no means brought forward to discredit the highly important results of M. Deshayes and Mr. Lyell, but to draw attention to the basis on which they rest, and to induce geologists to follow steadily a plan of observation, which may place the principle assumed on such a foundation as to authorise its being used as the origin of deductions, which may have undoubted influence both in theoretical and positive geology.

Professor Rogers, in his Report on the Tertiary and Secondary Rocks of North America, has adopted the nomenclature of Mr. Lyell, and ranked the deposits on the eastern coast chiefly according to their proportionate numbers of recent forms, as eocene, meiocene, and pleiocene. Both the recent and fossil species of America are, however, almost wholly different from those of Europe: of 210 'eocene' species in America, only 6 belong to Europe; of 195 meiocene and pleiocene shells, only 6 belong to Europe; not more than 32 recent testacea and shelly annulosa are stated by Mr. Conrad to be common to the two sides of the Atlantic.

The number of species of other invertebral animals buried in tertiary sediments, is very much too small to justify any general inferences; but we may attend to what M. Agassiz has stated concerning the subject of his successful studies.

"The fishes of the tertiary strata are so nearly related to existing forms, that it is often difficult, considering the enormous number (above 8000) of living species, and the imperfect state of preservation of the fossils, to determine exactly their specific relations. In general, I may say that I have not yet found a single species which was perfectly identical with any marine existing fish, except the little species which is found in nodules of clay, of unknown geological age, in Greenland. The species of the Norfolk crag, of the upper subapennine formation, and of the molasse, are mostly referable to