

will emphasize at once the refinements in distinctions of glacial deposits that have been adopted.

The second paper of the volume is by Lewis Woolman and continues the important records of artesian wells, that the same writer has contributed to earlier reports. A moment's reflection will convince the reader, that the problem of water supply in the towns of the flat country of southern New Jersey is a serious one. The surface relief is slight and natural head is not available. Artesian wells have been developed with marked success, and, thanks to the careful records of Mr. Woolman, the productive horizons are now well identified. There are six in Miocene strata, of which one, the lowest exceeds the others in productiveness. There are four in the Cretaceous, all large producers. The remaining ones are less uniform and embrace Quaternary sands and gravels, Triassic sandstones and even Archean metamorphic rocks. Mr. Woolman discusses the several geographical areas of the state, and gives many sections and lists of fossils from borings, of which those of diatoms are particularly complete. The report contains a great deal of matter important in connection with water supply, but no less valuable as regards general geology.

The next paper is a Report on Forestry, by C. C. Vermeule and John Gifford. This is divided into a final report on the northern portion of the state by Mr. Vermeule and a preliminary one on the southern by Mr. Gifford. Many interesting topics are discussed and a good forestry map is appended. For the general reader the pages of the latter report that deal with the swamp cedar industry and the resurrection of old and buried logs will prove especially interesting.

The usual mineral statistics of iron ore and zinc ore conclude the volume. Of the former there were mined in 1894, 277,483 tons, a falling off of over 75,000 tons from the production of 1893. Despite this fact New Jersey was eighth on the list and outranked New York, whereas with the larger production of 1893, she was only ninth. The zinc ore raised was 55,582 tons, a falling off from 1893 of nearly 22,000 tons.

The report before us approaches very nearly

to what we conceive to be the proper scope of a geological report for one of our older States. It gives, as the reports of New Jersey have given for many years, a large amount of material that the average taxpayer can appreciate and use. At the same time, as much pure science is introduced as may be wise and safe from the administrative point of view.

J. F. KEMP.

Demon Possession, and Allied Themes. By REV. JOHN L. NEVIUS, D. D. With an introduction by REV. F. F. ELLINWOOD, D. D. Second Edition, pp. 520. F. W. Revel Co., New York. 1896.

The late Rev. Dr. Nevius was for many years a missionary to China, and while there had a number of opportunities to witness or to learn about cases of mental disease which, he became convinced, could not be ascribed to natural causes, but were the result of demonic possession, or the entrance into a man of an alien evil spirit.

In this work he describes a number of such instances and then discusses the naturalistic explanations which have been offered, especially the pathological and the psychological theories. Both of these he rejects, and prefers the 'biblical' theory of demonic possession. He argues that no other explanation is either consistent or proper as applied to the cases recorded in the Gospel, and if they are to be literally understood as of supernatural origin there is no reason why those wholly analogous in course and symptoms which he describes should not also be so regarded.

Against this argument little can be said by one who concedes the premise; but modern psychology does not. It explains the phenomena of the human mind by the ascertained laws of the human mind, and does not grant that any other explanation is necessary. Let us apply this reasoning in the present instance.

Facts such as Dr. Nevius brings forward belong to the most common of irregular mental phenomena. Such seizures are extremely frequent in the Shamanistic cults of savage tribes. They are cited by the hundred among Australian blacks, American Indians and African Negroes. Bishop Calloway, formerly of the diocese of Natal, says that nearly all his converts

among the Zulus suffered from them for a few years after conversion. They are identical with the 'ecstasy' and prophetic 'manteia' (*i. e.*, mania) which played such a large part in the orgiastic rites of Greece and, indeed, of the whole ancient world. The human soul was everywhere regarded as a gift of, or akin to, the Divine, and in its nature, prophetic; so that when, in these moments of strange emotion, it spake with tongues and entered into rapt communion with the Spirit, it simply expressed its true nature and noble origin.

Christianity, which taught that 'the gods of the heathen are devils,' changed the meaning of *daimon* from a beneficent guardian to a diabolic imp, and called the inspiration of the Pythoness a 'possession by the devil.'

Psychology, unable to recognize the god as the devil in these attacks, sees in them the emotional outbreaks of the sub-liminal consciousness, examples of pathological psychic automatism, occurring always in weak or weakened minds, excited by auto- or collective suggestion, limited always by the boundaries of the individual mind itself, never in any proved instance exceeding its powers, though sometimes seeming so to do, owing to deficient observation on the part of the observer. The proof of the correctness of this position is that experienced alienists never see a case of demonic possession. Their arrival is as certain to dispel it as is, according to Dr. Nevius and many other good men, the 'sacred name' itself. What the alienist sees is hysteric or epileptoid convulsions, or emotional contagious mania, and the like; and this is all that any one will see who carefully studies such conditions.

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Naual oder die Die Hohe Wissenschaft der Architectonischen und Künstlerischen Composition bei den Maya-Völkern deren Descendenten und Schülern. By A. EICHORN. Berlin. 1896. Pp. 1-126.

It seems the time has not yet come when it will be understood that the treatment of anthropological problems requires as much training and knowledge as work in other branches of science; else a book like the present would

not have been published with any serious pretensions. The scientific method of the author is sufficiently characterized by the naïve etymology of meander from the Maya word *mai*, hand, and *andros*, genitive of *ánhrp*, *i. e.*, a man's hand. His other etymologies are of the same value. The author treats words in the most arbitrary manner, changing the order of sounds and syllables, and fits this material to fanciful theories on a heroic language of the Mexicans, and to no less fanciful interpretations of sculptures. As a scientific contribution the work is of no value.

F. BOAS.

SOCIETIES AND ACADEMIES.

NEW YORK ACADEMY OF SCIENCES, SECTION OF GEOLOGY AND MINERALOGY, OCTOBER 19.

THE first paper of the evening was by Arthur Hollick, entitled 'Geological Notes; Long Island and Block Island.' Previous investigations on Staten Island, Long Island, Martha's Vineyard and Nantucket have proved a unity of geologic conditions throughout, and it was confidently expected that a careful examination of Block Island would show this also to be part of the same general series. During the past summer the island was visited and proofs were obtained of drift phenomena, identical with those of the other localities. A collection of fossils was made which demonstrated the former existence of cretaceous strata on the island. The material collected consisted of plant remains, imperfectly preserved and of mollusks in a good state of preservation. These latter were identified by Prof. R. P. Whitfield and the list numbers ten species, in addition to fragmentary remains of perhaps half a dozen more. They are typical of the lower green-sand marl and were found as drift material in the moraine, under the same conditions in which similar fossils have been found in the other localities mentioned. It was also thought advisable to visit again the eastern end of Long Island in order to ascertain whether more definite fossil remains could be found on Montauk Point, where imperfectly preserved fossils had been discovered on a previous occasion. Here also well preserved mollusks were found, likewise identified by Prof. Whitfield, who has