

OCTOBER 14th, 1907.

The monthly meeting of the Royal Society was held at the Museum last evening. His Excellency the Governor, Sir Gerald Strickland, presided.

The following were elected members:—Rev. F. H. Baring, M.A., F.R.G.S., Dr. Lindsay Miller, Mr. M. Mason, and Alderman H. T. Gould.

#### Tasmanian Emus.

The Secretary (Mrs. C. E. Morton) read an extract from "Nature," in reference to some bones of the small emu which were sent to Professor Giglioli, of the Royal Zoological Museum, Florence, they having been found by Mr. R. M. Johnston and the late Mr. Alex. Morton on King Island. Professor Giglioli stated that the bones were absolutely identical with the corresponding bones of Peron's specimen from Kangaroo Island. The same professor said:—"We possess two authentic skeletons and two mounted specimens of *Dromæus ater* (Peron), which, in the first years of last century, was abundant on Kangaroo Island; two of these four specimens are in Paris, one is in Florence, and one in Liverpool. Mine is a skeleton, and is one of the three brought alive to France by Peron in 1803 from Kangaroo Island. The Liverpool specimen is, I think, not located; it is, undoubtedly, *D. ater*, but might hail from King Island, or even from Tasmania; it may be the 'lesser emu' of the Rullock Museum, dispersed in 1819."

#### Electricity and Matter.

"Electricity and Matter" was the subject of a paper read by Mr. H. J. Spencer. He remarked upon the progress that had been made in the practical application of electricity, some thirty years ago there being no electrical industries in existence. In 1831, Faraday discovered the principle of the dynamo, but nearly forty years elapsed before that great discovery bore fruit. After referring to some of the uses of electricity, Mr. Spencer briefly touched upon the work of the earlier investigators, and described the

phenomenon which led up to the electronic theory. Having taken his hearers step by step up to the problem of structure, he said, having reached the conclusion that electricity, like matter, was atomic in structure, were they prepared for the question, "Is electricity identical with matter?" He proceeded to discuss the subject, and concluded by pointing out that the free motion of electrons in a conductor created what was called an electric current; their vibration gave rise to ether waves or radiation, whether it be light or heat. The ether could only be moved by electrons, hence the electron appeared to be the source of all physical phenomena, and when they understood better how to control its motions, they might be able to produce light without heat; nay, further, perhaps to marshal these invisible servants without the aid of cumbersome machinery, and train them to do our will by far simpler and more efficient methods than we at present use. To substantiate the theory, it must be made to explain all the facts of chemical combination and volency as well, but to go into that would involve much more time than was at his disposal. The lecture was illustrated with several interesting experiments.

Mr. Spencer was asked several questions appertaining to the question by His Excellency, and made interesting replies.

Dr. J. S. C. Elkington spoke of the therapeutic value of electricity, and said they must all concur that Mr. Spencer had given them a most excellent and interesting address.

His Excellency, in proposing a vote of thanks to Mr. Spencer, said he had furnished them with a very rapid, useful, and concise demonstration of several of the recent commercial successes in the application of electricity. He had enabled them in a few minutes to realise what they could not understand from hours, and, perhaps, weeks, of book reading. He had enjoyed the evening's entertainment very much, and on behalf of himself and Fellows he tendered Mr. Spencer their cordial thanks. (Applause.)