

neighbouring wires has been cured by twisting together the direct and the return wire of the telephone; and in this way Mr. Preece has conversed with a friend without difficulty seventy-six miles off, through wires erected on posts which also carried telegraphic wires busily occupied.

The Geographical Section have had a paper from Mr. J. Thomson, who is to lead an expedition which will be sent out under the auspices of the Royal Geographical Society to explore Kilimanjaro and the mountain chain to which it belongs. It contained, however, no thrilling narrative of adventure, but was devoted to the exposition of a geological theory respecting lake Tanganyika. Commander Cameron, who was present, challenged this theory, and a smart discussion ensued between the two explorers.

A prominent place was given to a paper by a foreign traveller, Mr. Tchihatchef, on the deserts of Africa and Asia. His paper, which is reported at great length in the *Times* of the 29th Aug., asserts that the sand deposits of the Sahara are comparatively local phenomena, and that in the greatest part of the desert the subjacent strata are perfectly conspicuous, either by cropping up through the superficial deposits, or by rising as mountains and hills, generally of cretaceous formation. He accepts the view that the climates of Egypt and Syria have very much deteriorated since the times of Egyptian greatness. Another traveller, Mr. O'Donovan, gave an account of his recent explorations at Merv.

The eminent physiologist, Prof. Du Bois-Reymond, of Berlin, has read some papers of a technical character in the Biological Section; and Prof. Clausius, of Bonn, one of the founders of the modern science of thermo-dynamics, has been regular in his attendance at the Physical Section, though not taking much part in the discussions.

One of the most important contributions in the Physical Section was from Prof. Langley, of America. He exhibited two remarkable instruments, namely, his "bolometer," or radiation measurer—an instrument some twenty times more sensitive than the thermopile; and a very large diffraction grating, ruled on concave speculum metal, by Prof. Rowland. By means of these powerful appliances, aided by the position of his observatory at the top of a mountain, he has made startling discoveries as regards the ultra-red portion of the solar spectrum. He has not