though every room in my cottage was thick with mosquitoes, excepting that of my daughter, there were only two of these insects at any time observed in her room during the whole period of her illness."

W. W. Johnston, M.D., Washington, D.C., says, "In my own family one case of scarlet-fever occurred: other children escaped. In another family of eight children, isolation and disinfection prevented the spread of the disease, but such instances are numerous."

Charles W. Covernton, M.D., Toronto, Can., ex-president Provincial Board of Health, and Peter H. Bryce, M.D., Toronto, Can., secretary of the Provincial Board of Health, relate an instance where each succeeding member of the family took it at intervals of three or four days. At the period when desquamation of the first was beginning, a younger took a mild form of the disease. A few days afterwards conjunctivitis of both eyes appeared, ending rapidly in the destruction of sight. The disease afterward extended to the middle, with perforation, of tympanum, etc. Thereafter the disease attacked the knee and elbow joints, with intense suppuration and inflammation, ending in their destruction. The child died on the twelfth day. There were some four or five children in all. In the family of one of these physicians, a Cambridge student had a book which he was studying at the time of the seizure with scarlatina. After his death, said book, with others that had been open in the sick-chamber, were packed up and sent to the latter's family in London, where they were placed in a garret. Ten years after, a younger brother at Cambridge sent for these works. Shortly after receiving them, he took scarlatina and died. No other exposure to the disease was known.

Dr. Bryce, in speaking of the methods to be adopted in preventing the spread of the fever, refers to an experience he had five years ago, in the following language: "A child in a family in which there were five children was taken with scarlet-fever. It and its mother were put in an upper room, and the lobby cut off by a curtain antisepticized with a solution of corrosive sublimate. The soiled articles of clothing, etc., were placed in the same solution, and the remnants of food were burned in the fireplace of the room. Seclusion was perfect. At conclusion of desquamation every thing was disinfected. No second case occurred in the family. Dr. Bryce thinks the period of infection is not less than forty days.

EXPLORATION AND TRAVEL.

TRANSVAAL. — The railroad from Delagoa Bay to Transvaal, which was mentioned in *Science*, No. 245, has been opened from Lorenço Marques to the boundary of the Portuguese Possessions. It is somewhat difficult to form a correct idea of the state of affairs in that region, as all news comes from English journals, and as the English are in constant fear of an increase of Boer, German, or Portuguese influence in South Africa. The Boers, of course, make strenuous efforts to open a route to the sea independent of the English, who threaten to swallow up the republics. This aim has been achieved by the new railroad, the greater part of which runs through Transvaal, and is in the hands of the Boers, while the part now opened is in the hands of American capitalists. The opening of this railroad, which was represented by English travellers as improbable, will result in a rapid development of the natural resources of the Transvaal. Although a strong influx of Englishmen into those countries may be expected, it is not probable that they will swamp the Boer element, which has so long resisted the incessant attacks of the English.

ZANZIBAR. — The Sultan of Zanzibar, whose territories have been reduced to a narrow strip of coast-line by recent treaties, has leased his rights on the African coast between Wanga, at the mouth of the Umba, and Vitu, to the British East African Association. As he has made a similar contract with the German East African Association, his rule is practically limited to the islands of Zanzibar and Pemba and several parts of the coast that are of little importance. The part of the coast leased to the British Association includes the whole coast-line between the line of demarcation between German and British influence and the German district of Vitu. It is said that vigorous attempts will be made to open a route from the coast to the Victoria Nyanza.

FARINI AND CHAVANNE. — Dr. Hans Schinz, who made a long and interesting journey in South Africa, undertakes to expose Farini, who claimed to have accomplished a long and hazardous journey to Lake Ngami. He gives convincing proof that Farini, who wrote a large volume on his adventures, never entered the Kalahari, and never came into those remote regions in which he claims to have made important explorations. Several passages in his book had excited the suspicion of scientists; and Schinz gives now, in two letters to *Petermann's Mitteilungen*, conclusive proof that his adventures and discoveries are one great fraud. The work of another African traveller, J. Chavanne, has been justly and severely criticised. Chavanne travelled for some time on the Kongo, and published the results of his observations in a magnificent volume, which is now shown to be largely an audacious plagiarism on other publications on the Kongo, particularly Pechuel-Loesche's important work. Part of Chavanne's own observations are shown to be untrustworthy. Dr. von Danckelmann, who criticised Chavanne, and Schinz, must be congratulated for their courage in exposing these scientific impostors. Nothing should be more rigidly demanded from travellers than truth and a strict distinction between their own observations and those of others. Those infringing these rules cannot be too severely criticised.

THE OBANGI. — Captain van Gèle, who attempted to reach the Welle from the falls of the Itimbiri last summer, but gave up his plan on account of the difficulty of obtaining food at that point, left Leopoldville on Oct. 2 on board the 'En Avant.' He proposed to ascend the Obangi, and thus to ascertain its connection with the Welle. It will be remembered that Grenfell succeeded in ascending the rapids of Zongo, which prevented Van Gèle from exploring the upper part of the river. After having passed these rapids, Van Gèle hopes to find navigable water and to reach the Welle. As it is doubtful whether the Obangi receives a large tributary from the east which may be identical with the Welle, he will carefully examine the left bank of the river, and explore important tributaries which he may discover (*Mouv. géogr.*).

MENTAL SCIENCE.

Re-Action Time for Sensations of Temperature.

IN a recent number of *Pflüger's Archiv* of physiology, Vintschgau and Steinach give a preliminary report of a series of experiments upon the time necessary to perceive a sensation of heat, of cold, or of contact with the skin in various parts of the body. The time necessary for the mere feeling of contact on the middle of the forehead was for Vintschgau .119, and for Steinach .107, of a second. The time of feeling a contact upon the right cheek was .119 and .101 of a second respectively; and similar numbers for the volar and dorsal surface of the left hand are .126, .128, and .133 and .111 of a second. The results of their experiments upon the time it takes to perceive a sensation of cold and of warmth are given in the table below:—

	Cold.		Heat.	
	Vintschgau. (2.2°-4.8° C.)	Steinach. (2°-2.8° C.)	Vintschgau. (48°-49° C.)	Steinach. (45°-49° C.)
Right temple	.160	.116	.166	.132
Left temple	.170	.124	.185	.138
Middle of forehead	.143	.116	.144	.128
Right cheek	.143	.114	.154	.117
Left cheek	.151	.116	.158	.146
Volar surface of hand.				
At middle joint of finger	.186	.152	.205	.173
Near the ulna	.206	.186	.208	.206
On ball of thumb	.185	.194	.251	.175
Dorsal surface of hand				
Near the ulnar side	.208	.179	.246	.199
Near radial side	.204	.170	.233	.196