subject in my recent lecture at the Royal Institution, and which was reprinted in your columns of the 9th inst. Mr. Warington complains that I have attributed to Winogradsky, and not to himself, the separation of the nitric ferment; I think, however, that Mr. Warington does not correctly understand the sense in which I employ the word "separate," or rather "isolate" (that is the exact word which I did use), for it does not appear to me that Mr. Warington has ever claimed to have isolated this ferment; thus, on referring again to his most recent publication on this subject, I read, "An attempt to isolate the nitric organism by the dilution method failed, but apparently only one other organism—a stout bacillus, growing on gelatin—was present in some of the cultures" (Chem. Soc. Journ., July 1891). In an exhaustive memoir, due reference to the above attempt of Mr. Warington's would, of course, have been made; but in the impressionist sketch, which is alone possible in a Friday evening discourse at the Royal Institution, I take it that a lecturer must be allowed to use his own discretion as to what does and what does not fit into the small frame of sixty minutes without laying himself open to the imputation of having unjustly neglected or emphasized the work of individual investigators.

before, though I do not recollect to have seen any account of it. I have been noticing the great contrast between the aspect of a large elder-tree in full blossom, visible from my study window, presented yesterday and to-day. To-day, which is warm and sunny, every inflorescence is in its normal position, with the flat surface nearly horizontal, so as to get as much sun as possible. Yesterday was cold and very wet, and in every one of the inflorescences the upper part of the stalk was so curved as to bring, as far as the foliage would permit, the surface of the inflorescence to an angle of very nearly 90° with the horizon, so that the rain ran off, and scarcely any of it reached the interior of the flowers.

June 24.

ALFRED W. BENNETT.

THE TOTAL SOLAR ECLIPSE, APRIL 15-16, 1893.

THE total eclipse of the sun, which will take place during the month of April next year, will most probably be very widely observed, not only because the

FIG. 1.—Showing the general trend of the line of totality.

Mr. Warington's name is so indissolubly connected with the subject of nitrification that it is the more surprising to me that he should have taken exception to the passage in question of my lecture.

PERCY F. FRANKLAND.

University College, Dundee, June 21.

Protection against Rain in the Elder.

It is quite possible that the mode in which the flowers of the elder protect themselves against the rain has been described

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shadow of the moon passes over such a great stretch of land, but because the phenomenon occurs at the period when a sun-spot maximum is approaching, at which time, of course, the disturbed state of the atmosphere of the sun is on the increase. The maximum time of totality is also in this case considerable, amounting to as much as 4m. 46s.

Path of Shadow.—The general trend of the path of the shadow will be gathered from the accompanying diagram (Fig. 1). This track cuts through Chili, passes to the