summers than in wet years. The present is a most unusually dry season, and there is much more water in the creek than there was last year. The Sturt is called 'a river,' but, like most Australian rivers, it is at times only a series of water holes; the water really running under the bed of the river. One can walk across the bed of the river, dryshod, except where the deep holes are. We cannot account for there being a greater body of water, that is, that the springs are stronger during drought than at other times. There are bad accounts from the northern areas. There is no water. The crops, about six inches high, yielding four bushels to the acre. Water is obliged to be carted by rail to some districts, and at the mines on the Peninsula, they are obliged to set the stills to work. In the far north, the new settlers are in fearful straits for want of water, even for drinking. The weather has been more tolerable lately; but hot in the sun, very cold wind in the evening, when a fire is agreeable."

Variable Cygni (Birmingham) 1881

UNDER the above heading, in the *Astr. Nachrichten*, No. 2421 (March 7), Dr. Schmidt, of Athens, gives the results of his observations of this star, which became invisible to him on November 22, and remained so up to his last search for it on December 24. It must have been from rather superior telescopic power—scarcely from a better *atmosphere*—that I was able not alone to see it on December 21, but to recognise its deep crimson colour when no more than 12 mag., and probably less. I used a power of 53 on a $4\frac{1}{2}$ inch object-glass.

Millbrook, Tuam, March 11

J. BIRMINGHAM

A Strange Phenomenon

THE letter under the above heading in *NATURE*, vol. xxv. p. 410, does not describe a phenomenon altogether unique. A good many years ago a clergyman, well known to me, was passing over a low hill in this parish; while doing so, he encountered a sharp shower of hail, and on approaching the highest point of the ground, he was astonished to find an electrical display similar to that described by Mr. Moir, an elevated walking-stick behaving like a pointed rod on the prime conductor of an electrical machine. I understood that when the clergyman left the summit of the rising ground, the phenomenon disappeared, and that on at once retracing his steps it was again visible. Mr. Moir does not state his position with regard to the contour of the ground, but I strongly suspect that he occupied a position similar to that described above, and that he witnessed a natural display of the common class experiment of presenting a pointed metallic rod to the charged conductor of an electric machine. B.

Fyvie, March 13

STENO¹

IN the galaxy of genius that glowed in the still dark sky of the seventeenth century some spots shone forth more bright than others, and the keener vision and greater knowledge of later times has detected there stars of surpassing brilliancy. It was a period of great intellectual activity, and there was much independence of thought and freedom of research. In natural science this was quickly felt, and in Italy—elastic Italy!—that first rebounds to every movement, the results were soon made visible. It is not always in the heaving mass itself we first detect it; a foreign body resting on the surface sometimes more clearly indicates the motion. So in the country of Frascatoro, Scilla, Cardano, Cesalpino, Imperati, Aldrovandi, it was a Dane who first put geological Science into shape.

¹ *Phil. Trans.*, vol. ii. p. 225.

Fabroni.—"Vita Italorum," vol. iii. p. 7.

Manni.—"Vita del Litteratissimo Mgr. Stenone," Florentiæ, 1775.

Pilla.—"E dissertatione N. Stenonis, 'de solido intra solidum naturaliter contento excerpta in quibus doctrinas geologicas quæ hodie sunt in honore facile est reperire,'" Florentiæ, 1842.

A. G. S..—"Biographie Universelle," Paris, 1825.

Lyell.—"Principles of Geology," vol. i. 1830.

Ramsay.—"Passages in the History of Geology." Inaugural Lecture, Univ. Coll. Lond., 1848, p. 10.

Capellini.—"Di Nicola Stenone e dei suoi studii geologici in Italia," Inaugural Lecture, University of Bologna, 1869.

Huxley.—"Discourse at York meeting, Brit. Assoc., 1881, revised by the Author (*NATURE*, vol. xxiv. p. 452)

But a very remarkable man was this Dane, Nicholas Steno, and a curious history his. Born at Copenhagen in 1638, the son of a goldsmith in the service of Christian IV., he was brought up in the strictest principles of the Lutheran faith. Instead of following the calling of his father, he was educated for the medical profession, studied under Thos. Bartholin, and attended the lectures of Borrichius and of Simon Paul. Hence the work that first brought him into notice was human and comparative anatomy. Soon after he had obtained the degree of doctor at Copenhagen, he went to Leyden, attracted by the fame of Francis Sylvius, Van Horn, and others. Here he made the acquaintance of Gerard Blasius, to whom without any distrust or reserve he showed his recent discoveries of the parotid gland, and associated ducts, one of which is named after him *Ductus Stenonianus*; but Blasius seems to have dealt unjustly by him in this matter, and to have put forward as his own the discoveries communicated to him by Steno. It was soon, however, apparent that Blasius did not know enough about it to avail himself of the information he had thus gained and unfairly tried to make use of. Steno worked on, tracing by observation and experiment the relations between the salivary and mucous secretions and the blood.

He next turned his attention to the organs of vision and of smell, and in his comparison of the human body with that of the lower animals he may be considered one of the founders of the science of comparative anatomy.

About the year 1657 he published the results of his experiments on the eye of a calf, but he assumed too hastily an exact correspondence between that and the eye of other animals, especially man. In his work on the heart, too, he did not himself arrive at satisfactory results, but he did much to set others on the right line of inquiry, and we do not know how much Lower and other later writers were indebted to the earlier investigations of Steno on this subject. It will be seen that his chief work was that on the glands and various secretions, but it also was incomplete, and it remained for Richard Hall (*Phil. Trans.* vi. p. 3) to make out the true relations of the sub-maxillary glands.

In 1664 he published some embryological researches in a letter "On the manner in which the chick is nourished in the egg," which, with a letter "On the anatomy of the ray," is appended to his essay entitled "*Observationum Anatomicarum de Musculis et Glandulis Specimen*" (Copenhagen, 1664, 4to). On embryology he seems to have adopted the views of Marcello Malpighi.

While engaged in these various studies at Amsterdam he heard of the death of his mother, and returned to Copenhagen. After a short stay there he went for a tour through Italy and France, and in 1664 arrived at Paris with a view of carrying on his anatomical researches, now especially devoting himself to the investigation of the brain. In Paris he became intimate with Thevenot, and here also he made the acquaintance of Bossuet. The eloquence and earnestness of that remarkable prelate had such an effect upon Steno, that in 1667 he went over to the Catholics, which perhaps helped somewhat to secure for him the warm reception accorded to him by the Grand-Duke Ferdinand II. and his brother Leopold. He explains the reasons which had induced him to take this step, in a letter published by Fabroni ("*Lettere inedite di uomini illustri*," vol. ii.). Steno, after leaving Paris and making a tour through the chief towns of Italy, settled at Florence in 1666, where he met Carlo Dati, Francesco Redi, Vincenzo Viviani, and Lorenzo Magalotti. They, in spite of the jealous opposition of Jean Alphonse Borelli, who had had a controversy with Steno respecting the action of the muscles, all agreed in doing him honour, and invited him to become a member of the *Accademia del Cimento*. He was appointed Physician to the Grand-Duke Ferdinand II. de' Medici, and under his protection and patronage had great opportunities of pro-