

208-211), and, at the request of the Earth Tremors Committee of the British Association, he wrote an admirable summary of his results up to the middle of 1893. As this is readily accessible, it is unnecessary to enlarge upon his achievements here. I will merely add that since that date he has written several papers on earthquake-pulsations in Petermann's *Mittheilungen* and the *Astronomische Nachrichten*. His last memoir, and one of the most valuable, has just been published in Gerland's *Beiträge zur Geophysik*.

For several months before his death, von Rebeur-Paschwitz was occupied with a scheme for the organised study of earthquake-pulsations all over the globe. The suitability of his horizontal pendulum for this purpose had received ample proof, and nothing but the want of health seemed likely to prevent the fulfilment of his plans. These, no doubt, will be carried out by other, if less skilful, hands; but to him will belong a great part of the credit for any results that may be attained. Dying at thirty-four, he had done work which most men of twice the age might regard with satisfaction as the fruits of a well-spent life. CHARLES DAVISON.

CHARLES V. RILEY.

CHARLES V. RILEY, M.A., Ph.D., whose death on the 14th ult., in consequence of injuries received in a fall from a bicycle in the streets of Washington, was announced in these columns on October 3, was an Englishman, born at Walton-on-Thames in 1843. He emigrated to the United States at the age of seventeen, and settled, as we learn from the *Garden and Forest*, on a farm in Illinois. Like so many other Americans, who have since made a reputation in science, he served as a soldier in the civil war. Subsequently, after some experience as a journalist, he was appointed State Entomologist of Missouri, a position he occupied nearly ten years. During this period he did excellent work in the investigation of the life-histories of insects injurious to plants, and experiments to discover the most effectual means of destroying them. But one of his earliest papers was on a new genus (*Pronubia*) of the Tineidæ, and the part it plays in the fertilisation of *Yucca*.¹ This was an important and interesting contribution to biological science. In 1878 he accepted the post of Entomologist to the United States Department of Agriculture at Washington, where, in the words of the authority cited above, he practically supervised all the entomological work of the Government until his resignation last year. The valuable results of the investigations and experiments conducted by him and his staff, were in part published in occasional bulletins, of which thirty-two appeared between 1883 and 1894, and partly in the now familiar periodical entitled *Insect Life*, which was established in 1888. Six volumes appeared under his editorship. Dr. Riley was an indefatigable worker, and his organising and administrative abilities were well exemplified in the department which he so successfully developed. W. B. H.

NOTES.

It is stated that in order to enable the Berlin Academy of Sciences to issue a complete edition of Kant's works, the Government of Russia has consented to place at its disposal for a time the philosopher's manuscripts belonging to the University of Dorpat.

ACCORDING to the *British Medical Journal*, the New York Pasteur Institute has purchased thirty-five acres of land near Tuxedo Park, on which an experiment station is to be established. The station will be stocked with cows, horses, sheep, and goats, which will be used for the production of diphtheria

¹ *Transactions of the Academy of Science of St. Louis* iii. (1875) p. 55.

and cancer antitoxins. The situation is healthy, and in the grounds there will be a house in which some of the patients of the Institute will be treated. A new station, to be known as the Pasteur Station, will be established on the Eric Railroad, close at hand.

WE regret to notice the following announcement in *Science* :— "Prof. Ernst Ritter, whose appointment as assistant professor of mathematics in Cornell University was recently announced, died on September 23, of typhoid fever, on his arrival in America from Germany. Ernst Ritter was born at Waltershausen, Germany, on January 9, 1867. He spent twelve years at the Gymnasium at Gotha, and afterwards studied mathematics and natural science under Thomas, at Jena, and under Klein and Schwartz, at Göttingen. In 1890 he passed the Government teacher's examination with the highest distinction, after two years of pedagogical work at Cassel, and at the Wöhlerschule in Frankfurt. He took the degree of Ph.D., *summa cum laude*, at Göttingen in 1892. In 1893 he was appointed assistant to Prof. Klein, and began to devote his entire time to mathematics, contributing regularly to mathematical periodicals. Last year he lectured on geometry and the theory of automorphic functions, in which he was an authority. He was appointed to his Cornell professorship last June."

WE learn from the *Journal* of the Franklin Institute that the German Hygienic Association offers a prize of 1200 dols. for a research essay on the efficiency of electric heaters. The programme is as follows: "The heat given out in heating installations by heaters in their various forms and modes of use is to be ascertained. The investigations are to be described in detail in respect to the arrangement of the heaters, the nature of the heating agents, and the observations made; and they are to be illustrated by drawings. The heating values obtained are to be stated in units of heat given off per hour per unit of surface. In the case of heat given out to air, the investigations must be conducted with currents of air at speeds as different as possible. The heaters are to be described in detail as regards form and measurement, and the relation of their heating efficiency to their weight is also to be ascertained." Essays are to be written in German, and sent, with a motto and sealed envelope, to Prof. Konrad Hartmann, Charlottenburg, Fasanstrasse 18, before July 1, 1896. The essay will remain the property of the successful competitor, but he is required to publish it within six months, and to give the prize offerers gratuitously 300 copies. The offerers reserve the right to divide or withhold the prize.

THE display of horseless carriages, held at Tunbridge Wells on Tuesday, under the superintendence of Sir David Salomons, will do something towards the introduction of self-propelling light vehicles in England. Two carriages, fitted with Daimler motors, were shown in operation. One of these, that belonging to Sir David Salomons, weighs 13 cwt., and will run nearly two hundred miles without recharging. The motor has a horsepower of 3½, and a speed of fifteen miles an hour can be attained on a level road, while on a gradient of one in ten a speed of four miles an hour is reached. A mechanical tricycle, worked by a petroleum motor with electric spark ignition, was shown by MM. de Dion and Bouton, of Paris. The tricycle can run at a rate of fourteen miles an hour, and only needs a fresh supply of benzine after about six hours' work. The exhibition proved the capabilities of auto-mobile carriages to a large number of spectators, and it will probably do something to bring about a change in the present vexatious Highways and Locomotives Act, which at present limits the rate of speed of self-propelled carriages to two miles an hour, and makes it necessary for a man carrying a red flag to precede the carriage as a warning of approaching danger!