

A paper on 'Experiments with X-Rays on the Blind' was read by Dr. H. L. Hilgartner, oculist to the State Institution for the Blind. This contribution is the joint production of Dr. Hilgartner and Professor E. F. Northrup, of the chair of physics in the University. As the authors state, the experiments were stimulated by the extraordinary claims made by Dr. Louis Bell in a letter to the editor of the *Electric World* (December 12, 1896), in which it was maintained that a man totally blind from paralysis of the optic nerve was able to distinguish the flickering of a Crook's tube. This the authors wished to verify or disprove. As to their apparatus they say: "The outfit employed in our test is of the best. A double focus tube is excited by a Tesla coil capable of giving an eight-inch discharge. The X-Rays produced will show a shadow of the hand upon the fluorescent screen at a distance of twenty-five or thirty feet." Of the eleven persons experimented upon, seven had no light perception; they were suffering from atrophy of the optic nerve. Of the four having some light perception, three were blind from affections of the cornea and lens, and one from atrophy of the optic nerve. After describing their experiments the authors give as their conclusion "that the X-Rays themselves have no power whatever of exciting vision or even light perception in any kind of an eye, diseased or normal. Of course, these results regarding the blind apply only to the eleven subjects experimented upon, and it would be unscientific to say that no subject can ever be found in whom the X-Rays will excite light sensations. None of the blind subjects could see anything by looking into the fluoroscope, even those having some light perception getting no sensation, and our experiments gave us no hint that the X-Rays, or any other kind of rays, proceeding from the Crook's tube are able to give any light perception to those who are totally blind from any cause whatever." * * * * *

"We should not have thought the above negative results worthy of record if the matter had not been taken up by scientists of eminence and the newspapers filled with trashy and misleading myths."

Mr. J. R. Bailey gave an account of his in-

vestigations of the Hydrazine Derivatives of Propionic Acid, being a continuation of his studies begun more than a year ago in the laboratory of Professor Thiele at Munich.

A paper by Mr. M. B. Porter, now of Harvard University, 'On the Roots of Bessel's Functions,' was announced by title.

FREDERIC W. SIMONDS.

UNIVERSITY OF TEXAS.

THE ACADEMY OF SCIENCE OF ST. LOUIS.

At the meeting of the Academy of Science of St. Louis, held on the 19th of April, 1897, twenty-one persons present. Dr. C. Barck delivered an address on Helmholtz—his life and work; and Dr. C. R. Keyes, the State Geologist of Missouri, presented papers on the relations of the Devonian and Carboniferous systems of the upper Mississippi basin and the distribution of Missouri coals.

WILLIAM TRELEASE,
Secretary.

NEW BOOKS.

The Ancient Volcanoes of Great Britain. SIR ARCHIBALD GEIKIE. London and New York, the Macmillan Co. 1897. Vol. I., pp. xxiv + 477, Vol. II., pp. xv + 492. \$11.25.

The Theory of Electricity and Magnetism. ARTHUR GORDON WEBSTER. London and New York, the Macmillan Co. Pp. x + 576. \$350.

Elements of Astronomy. SIR ROBERT STAWELL BALL. London, New York and Bombay, Longmans, Green & Co. 1896. Pp. xvi + 469.

Numerical Problems in Plane Geometry with Metric and Logarithmic Tables. J. C. ESTELL. New York, London and Bombay, Longmans, Green & Co. 1897. Pp. vii + 144.

Topics and References in American History, with Numerous Search Questions. GEORGE A. WILLIAMS. Syracuse, N. Y., C. W. Bardeen. 1897. Pp. viii + 176. \$1.00.

ERRATA: P. 591, col. 1, line 42 and col. 2, lines 14 and 29 for *Puppis* read ζ *Puppis*. P. 592, col. 2, line 36 for March 19th read March 26th.