

remains. The early investigators were baffled by the complexity of these breakdowns and concentrated their attention on the losses which occurred during a life test of the cable. Mathematical methods which assume that the sheath is homogeneous and that there are no 'voids' in it are only of limited use. In the book under notice, Dr. Robinson shows that visual examination has succeeded where external electrical measurements have failed. The work was carried out in the Research Laboratories of Callender's Cable Co.

The Design of Reinforced Concrete Structures

By Prof. Dean Peabody, Jr. Pp. ix+457. (New York: John Wiley and Sons, Inc.; London: Chapman and Hall, Ltd., 1936.) 20s. net.

THE wider aspects of design are dealt with in detail by Dean Peabody in his book "The Design of Reinforced Concrete Structures". Theory is introduced so far as is necessary to develop the methods of calculation employed and to elucidate the force systems dealt with in the course of his subject, which includes the practical design of slabs, rectangular and tee beams, columns, footings and retaining walls, statically indeterminate structures and concrete arches. The numerous illustrative problems which have been fully worked out will be of especial value to the student.

J. A. C.

Miscellany

The Paradise of Fools:

being an Account, by a Member of the Party, of the Expedition which covered 6,300 Miles of the Libyan Desert by Motor-Car in 1935. By Michael H. Mason. Pp. 282+23 plates. (London: Hodder and Stoughton, Ltd., 1936.) 15s. net.

ALTHOUGH this expedition into the Libyan desert, with Mr. Kennedy Shaw as leader, undertook scientific investigations, its primary function was exploration; and to the author of "The Paradise of Fools", in which it is described, it was mainly "a joyous adventure". The expedition, of which Mr. Shaw gave accounts in *The Times* during August 1935, and later before the Royal Geographical Society, covered by motor-car altogether six thousand three hundred miles, of which some three thousand were in country previously unexplored. Starting from Cairo, the cars travelled along the Nile to Assiut, then south-west to the Gilf Kebir plateau and then by devious ways from oasis to oasis to El Fashir, about four hundred miles west of Khartoum. They returned, mainly westward of their outward route, by way of the Selima oasis, through the Great Sand Sea between Gilf Kebir and Siwa northward to the Mediterranean.

The author's keenest interest lies in the desert, with all its attractions, less apparent perhaps to other travellers, as well as its dangers. The latter have by no means vanished with the coming of the motor-car, although they have changed their nature, and hardships have diminished. As hunter, Mr. Mason, when not engagingly concerned with the desert and incidents by the way, gives his attention mainly to the observa-

tion of animal life, more especially in its relation to water supply. Scientific results, however, are recorded in appendixes and a large-scale map. Of these results, the most noteworthy were archaeological. The expedition secured some remarkable evidence of the activities of early man in the form of rock-drawings, pottery and the like, as well as skeletons of early man himself, of which some details have already appeared in *NATURE* (137, 159; 1936).

American Martyrs to Science through the Roentgen Rays

By Dr. Percy Brown. Pp. xv+276. (Springfield, Ill., and Baltimore, Md.: Charles C. Thomas; London: Baillière, Tindall and Cox, 1936.) 16s.

THIS work contains short and vivid accounts of the life and work of twenty-seven men and one woman—Mrs. Elizabeth Fleischman Ascheim—aged from thirty-five to seventy-seven years at the times of their deaths, who as doctors or technicians in the United States contracted severe X-ray dermatitis and cancer, and died after many years of suffering and operations in the form of skin grafting or amputation.

Among the most eminent of these martyrs were Clarence Madison Dally, who with his brother Charles did valuable work in the development of the various types of X-ray focus tube; Louis Weigel, who introduced an adaptation of the Wheatstone stereoscope, and invented a tube holder; Wolfram Conrad Fuchs, inventor of an electrolytic interrupter; Rome Vernon Wagner, inventor of the mica plate static machine; and his brother Thurman Lester Wagner; Charles Lester Leonard, a pioneer in urinary röntgenology and a prolific writer; Walter James Dodd, who occupies the same place in early American radiology as does Röntgen in the annals of German science; Eugene Wilson Caldwell, inventor of the liquid interrupter and of a stereo-fluoroscopic apparatus as well as of a practical method for examining the accessory sinuses of the nose; Frederick Henry Baetjer, author of important papers on the X-ray diagnosis of aortic aneurism and bone tumours; Francis Le Roy Satterlee, who made valuable contributions to dental radiology; and William Krauss, a pioneer in the therapeutic use of X-rays.

The text is freely interspersed with portraits and illustrations of röntgenological apparatus and accompanied by bibliographical references. A glossary for lay readers is appended.

A Parson in Revolt

By Joseph McCulloch. Pp. 174. (London: Nisbet and Co., Ltd., 1936.) 3s. 6d. net.

MR. McCULLOCH is a young clergyman who delivered a broadcast talk in the "Youth Looks Ahead" series about a year ago. One of the thousand letters received by him as a result of his broadcast is printed in the author's preface to the volume before us. It sheds a clear light on the attitude of many who have a strong desire to satisfy their religious instincts, but do not find the Church of much use to them. "The real difficulty of our time," says Mr. McCulloch, "is in the approach to religion. The modern reaction