are very intimately associated during the whole growth period.

The sex chromosomes of an old world monkey has been studied in spermatogenesis and in the somatic cells of embryos. The Rhesus maccacus males show 48 chromosomes, one of which is a small ball-like element with no mate of like size or shape, just as the writer found in man and a new world monkey.[3] In the first maturation division there are 23 tetrads and one chromosome made up of two very unequal parts, the larger (X) being rod-like and the smaller (Y) dot-like. The X and Y components segregate to opposite poles of the spindle, just as they do in the case of man.

The somatic cells of male Rhesus embryos (amnion) show consistently 48 chromosomes, including the ball-like Y element and the rod-like X element, neither of which have mates of like size or shape. Female embryos (chorion and brain cells) show consistently 48 chromosomes, but no Y is present and the X is paired.

In the three primates studied so far by the writer (man, a new and an old world monkey) the sex chromosomes have all been of the X-Y type, which were very similar both in form and behavior. The evidence for the Rhesus monkey is complete and makes it certain that the sex chromosomes of the other two forms have been correctly identified.

THEOPHILUS S. PAINTER
UNIVERSITY OF TEXAS

SCORPIONS IN NORTH DAKOTA

IT is a well-known fact that scorpions are tropical in their distribution. The receipt in December, 1921, of three immature specimens, sent in by P. C. Arildson from Alexander, McKenzie County, North Dakota, near which point they were found in a lignite mine, was an occurrence of more than usual interest.

The appearance in certain newspapers of an account of the finding of scorpions in the state resulted in the receipt of several letters from persons in western North Dakota, who stated that scorpions had been seen several times previously. All these reports came from that general region known as the "Bad Lands."

Responding to my request for specimens a second instance was reported in the spring of 1922 and a single specimen was sent in from Oakdale, in Dunn County, North Dakota, with the statement that several had been seen near that place during the winter. A third instance of the kind was reported from Golden Valley County, when a single specimen was sent in from Trotters, North Dakota, in November, 1922. Both these localities are on the edge of the "Bad Lands."

All these specimens, except the last, have been referred to Dr. H. E. Ewing, U. S. National Museum at Washington. Dr. Ewing determined the scorpion as *Vejovis boreus* Gir., and wrote that the specimens sent were identical with others of this species from the old Marx collection in the museum, taken from Fort Pierre "Dakota" (South Dakota) years ago. According to Ewing (in litt.), "*Vejovis boreus* is represented in our collection by specimens from Lincoln, Nebraska; Indian Springs, Georgia; Gold Hill, Oregon; Soldier, Idaho; Fort Steele, Wyoming; Arizona; Salt Lake, Utah; and some other specimens with no locality."

Professor J. H. Comstock in his "Spider Book" records 23 species of known scorpions in North America. Of these only one, the species under consideration, is found at all in the northern United States. In the fourth provisional zone map of North America, published by the U. S. Biological Survey, small portions of western North Dakota are indicated as being included in the upper austral zone, the remainder of the state being in the transition zone. From the records at hand it seems likely that this species may belong to the upper austral. There seems to be no previous record in the literature of the occurrence of this order in North Dakota.

R. L. WEBSTER
NORTH DAKOTA AGRICULTURAL COLLEGE

[3] *Journ. Exp. Zool.*, Vol. 37, p. 291, 1923; SCIENCE, Vol. LVI, p. 286, September 8, 1922.

QUOTATIONS

THE PRIESTLEY MEDAL

THE first Priestley Medal of the American Chemical Society has been awarded to Dr. Ira Remsen, President Emeritus of Johns Hopkins University. His achievements in research have been principally within the field of pure science, his discovery of saccharin being little more than an incident among them. Of great importance have been his contributions to the linking of chemistry with medicine. Distinction is also his for his unwearying efforts—and success—in keeping the torch of chemistry alight in this country when the public either could not or would not see that there was illumination in the flame.

Returning from Germany in 1872, he became professor of chemistry at Williams College, where, after earnest pleading, he secured laboratory space eight by ten feet. But in 1876 Johns Hopkins invited him to go to Baltimore as professor, to do his own work in any way he pleased, assured that no one would interfere with him. His organization of the famous department of chemistry in that university has sometimes been referred to as the turning point in the science in the United States. In 1879 he brought out *The American Journal of Chemistry* and edited it

continuously until 1914. His text-book on organic chemistry has been translated into many languages and is in use in many countries.

Greater than any other phase of his work has been his inspiration of the men whom he trained. To the younger students he appeared cold, distant, severe—an impression emphasized by his faultless dress, precise speech, perfect manner and dignified bearing. Later, when they became more familiar with the working of his mind, they perceived that this precision in habit and speech and gesture was, as a former student put it, "the polish of chilled steel and not a coat of varnish on wood." As soon as a student proved his interest in his work and showed a proper comprehension of what it meant he found Professor Remsen richly gifted with the ability to arouse curiosity and enthusiasm. It was then that reverence and affection began to grow together. The erstwhile cold and distant professor would gladly take hours in discussing a student's plans of study with him and count the time well spent.

The Committee on Award has done well to provide that the first Priestley Medal shall go to so great a teacher, so eminent a man of science, and withal so distinguished a gentleman and scholar.—*The New York Times.*

SCIENTIFIC BOOKS

A Comprehensive Treatise on Inorganic and Theoretical Chemistry. By J. W. MELLOR. Vol. I, 1065 pp, H. O; Vol. II, 894 pp, F, Cl, Br, I, Li, Na, K, Rb, Cs; Vol. III, 927 pp, Cu, Ag, Au, Ca, Sr, Ba. New York, Longmans, Green & Company. Price $20.00 per volume.

THE appearance of the first three volumes of this important work which "aims at giving a complete description of all of the compounds known in Inorganic Chemistry, and, where possible, these are discussed in the light of the so-called Physical Chemistry," permits a somewhat better estimate to be made of the value of the series (to contain six or seven volumes when complete) than was possible when only the first volume was available.

So unique a work in English has naturally attracted much attention, as is attested by the numerous reviews of the separate volumes which have appeared in the technical, and even in the popular press.

The first impression is one of admiration and wonder at the courage and industry of the author in attempting so tremendous a task, and the scientific world, particularly the English-speaking world, must be very grateful to Dr. Mellor for this important contribution to chemical literature.

Most large reference books have been written by a number of authors under the editorship of an individual or group; the present work represents a distinct departure from that system. Certain faults are inherent to either method. It is very difficult to bring about unity of treatment, and to avoid overlapping, where different chapters are written by different individuals; on the other hand, in the work of a single author it is almost inevitable that the treatise shall be somewhat colored by the individuality of the writer, and that emphasis shall be given to particular phases of the science in which he may be most interested. It can not be said that the "Comprehensive Treatise" has escaped entirely these latter faults, and they will seem more or less serious according to the individual who uses the book, and the purpose for which it is employed.

The method of treatment departs widely from the usual, the subject matter following almost the identical arrangement employed in the author's earlier text-book, "Modern Inorganic Chemistry," which the author declares in his preface to be an abridgment of the present work. The reviewer has already[1] expressed the opinion that this method of treatment is not a happy one. The elementary text-book, assuming little previous information on the part of the student, must of necessity limit its statements of theory to terms which may be understood by the student at that particular point in his development. This necessitates frequent incomplete treatment, which it is expected will be developed further at a later period. The same method in an advanced reference book leads to obvious disadvantages, for it means that the theoretical treatment will be subdivided and scattered. The first volume particularly of the "Treatise" illustrates this fault, for while entitled "Hydrogen and Oxygen," it really contains a large proportion of general historical and theoretical subject matter. As a characteristic example may be cited the section on "Valency," which gives a rather full discussion of the subject, but does not touch at all on the modern theory with its relation to atomic structure, as this subject is to be treated in a later volume. Similarly "Acids, Bases and Salts" are treated in the chapter on "Oxygen," but since the theory of electrolytic dissociation has not been introduced at this point, the subject is not discussed from this standpoint. "Equilibrium" is treated partially in Volume I but we find it somewhat amplified in Volume II under "Compounds of the Halogene with Hydrogen." "Colloids" are discussed under "Gold" in Volume III, but whether further attention will be paid to them will not be known until later volumes appear.

Numerous other examples may be cited, but these

[1] J. Am. Chem. Soc., 44, 1836 (1922).