tion to probably "a Coptic priest for the books he used were writings that were accepted by the Coptic Church" (p. VIII).

The "'Kebra Nagast,' *i.e.*, The Glory of the Kings [of Ethiopia] has been held," says Budge, "in peculiar honour in Abyssinia for several centuries and throughout that country it has been, and still is, venerated by the people as containing the final proof of their descent from the Hebrew Patriarchs, and of the kinship of their kings of the Solomonic line with Christ, the Son of God." The book is "a great storehouse of legends and traditions, some historical and some of a purely folklore character, derived from the Old Testament and the late Rabbinic writings, and from Egyptian (both pagan and Christian), Arabian and Ethiopian sources" (pp. VII–VIII).

The reference to an airship follows the well-known incident of the visit of the Queen of Sheba to King Solomon, who, on the departure of the queen to her own country, gave her, among other fabulously valuable gifts, "a vessel wherein one could travel over the sea and a vessel wherein one could traverse the air (or winds) which Solomon had made by the wisdom that God had given him" (pp. 36–37), thereby, as Budge has pointed out, anticipating "the motor boat and the airship." As ordinary sailing vessels were certainly in use by the time of Solomon it is hardly probable that a vessel of either the galley type or of the sail type would be regarded as of any especially marvelous character. Budge apparently does not note the possible fact that King Solomon understood the construction of artificial lights suggesting modern incandescence, inasmuch as his (Solomon's) house "was illumined as by day, for in his wisdom he had made shining pearls which were like unto the sun, and moon and stars [and had set them] in the roof of his house" (p. 34). All of which would seem to indicate that life in the Solomonic days, save for a certain laxity in morals, was as comfortable and convenient as in the present.

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A FOURTH CAPTURE IN FLORIDA WATERS OF THE WHALE SHARK

ABOUT 11 o'clock on the morning of June 9, 1923, as Mr. Claude Nolan, of Jacksonville, Florida, was cruising with a party of friends in the Florida Keys near Marathon, sixteen miles below Long Key, a gigantic shark was seen. This was secured by two harpoons by Captain Newton Knowles, who later fired into it fifty or sixty shots from a 30–30 rifle. The giant fish did not offer much resistance and by the afternoon it was so far subdued that it was towed by a house-boat and two guide-boats to Long Key, where it was tied up to the dock about 11 P. M. The fish remained alive until some time the second day, following, about fifty-four hours after it was harpooned.

Mr. L. L. Mowbray of the New York Aquarium by great good fortune was in Florida at this time. He had gone to Nassau, Bahamas, to install an aquarium there, but, finding the water in the harbor fouled by the dredging going on, left for Miami, where he arrived on the morning of June 9. Early the next day, hearing of the capture of a "huge monster" at Marathon, he took the first train for Long Key, and at once identified the fish as the whale shark, *Rhineodon typus*.

Mr. Nolan with great generosity presented this giant shark to the American Museum, and Mr. Mowbray at once wired the authorities. A member of our department of preparation left at once for southern Florida with orders to save the skin and all the hard parts possible. In the meantime Mr. Mowbray had advised that there were no facilities for handling the shark at Long Key and urged that it be towed to Key West. This was accordingly done, the start being made June 13, and the fish arriving at Key West at 4:30 P. M., June 14, much mauled by the attacks of tiger sharks on the way.

Unfortunately a wave of unprecedented hot weather struck southern Florida at this time, and the water in Key West harbor reached the unheard-of temperature of 91.4° F. This, aided by the fact that some of the fins had been torn off and the abdomen badly lacerated by sharks, produced rapid decomposition. The outer skin sloughed off, the internal organs were thoroughly macerated, and even the solid masses of thick, muscular tissue were in such condition as to call for immediate action. It was impossible to save the skin, but various hard parts were preserved in brine and brought to New York. We have parts of a tooth band, the cartilages of both jaws, the occipital part of the skull, a number of vertebrae, and parts of the claspers, and, in addition, sections of the skin.

Mr. Mowbray fortunately made a sketch of the shark and a set of careful measurements, and wrote out an exact description, noting position, size and shape of fins, coloration, etc. From these data a 63-inch model is now being constructed by our department of preparation. This will be molded and colored in accordance with Mr. Mowbray's notes, and can serve as a basis for building a life-sized model for our new hall of fishes. The fish was 31.5 feet long, 23 feet in greatest girth, and had a vertical spread of caudal fin of 12 feet. Mr. Mowbray and the writer plan to write for the *Bulletin* of the American Museum a fuller article on this specimen, illustrated by photographs of the fish and of the completed model.

This is the fourth specimen of Rhineodon recorded from the Florida coast, and the fifth in the Atlantic

Ocean. The first specimen, 18 feet in length, came ashore on Ormond Beach in 1902. The second, a 38-foot specimen, was taken by Captain Charles Thompson of Miami and Mr. Charles T. Brooks of Cleveland, Ohio, in May, 1912. The third (31 feet long) was captured by Dr. H. Schlegel and others in the Bay of Florida, June 10, 1919, and the fourth (31.5 feet between perpendiculars) is the present specimen. The fifth record for the Atlantic is the specimen (about 30 feet long) rammed by the steamship *American Legion* in May, 1922, near the Abrolhos Light off the coast of Brazil, and noted by me in SCIENCE, 1922, Vol. 66, pp. 251–252, and in *Natural History*, 1923, Vol. 23, pp. 62–63.

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QUOTATIONS

MEDICAL RESEARCH

SIR,—In your issue of the 7th a patient points out in a very vivid letter the benefits, dangers and costliness of insulin in his own case of diabetes. He shows clearly that it is impossible to continue its use indefinitely, and when discontinued that the diabetes returns with death as the unavoidable result. This demonstrates conclusively the need for one thing—the discovery of the real cause of diabetes, and this can only be attained by experimental research.

The key to the discovery of insulin was Minkowski's demonstration in 1905 that every dog from which the pancreas (the sweetbread of our dinner table) was removed died of diabetes. Evidently there was something in the pancreas which prevented the disease. Banting and Best discovered that something. But that discovery still leaves us in the dark as to what is the disturbance of nutrition—the metabolism of the body—which prevents the burning up of the sugar in the blood. This accumulation of sugar inevitably causes death, slowly in most adults, swiftly in children.

It is perfectly evident to any open-minded person that the discovery of the cause of this disturbance of the nutrition in the body cannot be made simply by clinical observation on man. It can only be obtained by experimental research on animals. This is a duty imposed upon our research workers. Any obstacle put in their way is deliberate cruelty to human beings, and not to a small number of human beings, but to a very large number, especially of children.

When the alternative of experimenting on animals or of allowing multitudes of human beings to die of diabetes is presented to any unprejudiced mind, there can be but one answer. The lives of human beings are of infinitely more value than those of animals. Moreover, once the cause is discovered, the lives and happiness of human beings and their families are conserved for all future time. The sacrifice of a relatively few dogs sinks into insignificance in comparison with the lives and happiness of multitudes of human beings.—*W. W. Keen, in the London Times.*

SCIENTIFIC BOOKS

A classification of fishes including families and genera so far as known. By DAVID STARR JORDAN, Chancellor Emeritus of Stanford University. Stanford Univ. Publ. (Biol. Sci.), Vol. 3, No. 2, 1923, pp. 79–243, i-x.

UNTIL the appearance of the work cited, ichthyologists had long waited for a comprehensive classification of all the known genera and families of fishes. Not since the publication of Günther's *"Catalogue of the fishes of the British Museum* (1859 to 1870)" had any one attempted to supply this need. The work of Günther had been a long and tedious one, having required for its completion a considerable part of the lifetime of one of the most laborious of systematic zoologists. Furthermore, the knowledge of ichthyology had since that time been greatly widened in many ways.

The task of preparing a new classification year by year had thus become increasingly large and difficult: so much so, in fact, that Dr. Jordan alone among living workers possessed a knowledge of the literature of ichthyology which was sufficiently comprehensive and an acquaintance with the fishes of the whole world intimate enough to permit of the preparation of such a work.

In this latest classification, fishes, living and extinct, are arranged under six classes: Leptocardii, Marsipobranchii, Ostracophori, Arthrodira, Elasmobranchii and Pisces. The "true fishes" are further divided into three subclasses: Crossopterygii, Dipneusta (Dipnoi) and Actinopteri. The Actinopteri are made to include the superorders Ganoidei, Teleostei and Acanthopterygii (the author, however, certainly did not intend to remove the group last named from nor to coordinate it with the Teleostei). The teleost fishes are divided into no fewer than 39 orders, the increase being largely accomplished by the elevation of various groups, largely the serranoid derivatives, from subordinal to ordinal rank.

Space will not permit of the discussion, or even an outline, of the limits and positions assigned to these various groups. As a whole Dr. Jordan has followed recent suggestions regarding the status of the major groups of fishes.

There is widely used throughout the work, particularly among the "higher" fishes, a group termed the *series*. Usually but not consistently the names of series are formed by adding the suffix *-iformes* to the root of the typical genus of the group. In most cases