

and figures of almost all (270) are given. It is expected that the work will be completed in three volumes. An extended notice may be expected on the completion.

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SCIENTIFIC JOURNALS AND ARTICLES

The Journal of Experimental Zoology, Vol. VI., No. 3 (June, 1909) contains the following articles: "Studies on the Physiology of Reproduction in the Domestic Fowl—I., Regulation in the Morphogenetic Activity of the Oviduct," by Raymond Pearl. This paper describes a case in which a regulatory change in the shape of eggs successively laid by the same hen occurred, the change in shape following a logarithmic law. "The Physiology of Nematocysts," by O. C. Glaser and C. M. Sparrow. Experiments made on living nematocyst-bearing tissues as well as on artificially isolated netting organs show that a rise in internal pressure brings about the discharge of the stinging thread; that osmotic pressure is responsible for the explosions of nematocysts in Eolids; that this may explain the similar processes among Cœlenterates; and finally that the netting threads, contrary opinions notwithstanding, are capable of penetrating the tissues of other animals. "Observations on the Life History of *Tillina magna*," by L. H. Gregory. A study of the morphology, physiology and methods of reproduction of the organisms, and its reactions to stimulations during different periods in the life history, with especial reference to the questions of artificial rejuvenescence and the inter-relations of nucleus and cytoplasm. "Studies of Tissue Growth—II., Functional Activity, Form Regulation, Level of the Cut and Degree of Injury as Factors in Determining the Rate of Regeneration—The Reaction of Regenerating Tissue on the Old Body," by Charles R. Stockard. The rate of regeneration in the medusa, *Cassiopea*, is independent of functional activity; form regulation inhibits growth; and the level of the cut determines the rate of regeneration in many species. The degree of injury does not exert the same influence over the rate of regeneration in all species; the new tissue has an excessive ca-

capacity for the absorption of nutriment even to the detriment of the old body.

SPECIAL ARTICLES

ON THE RESTORATION OF SKELETONS OF FOSSIL VERTEBRATES

IN a paper published last October¹ the writer, in referring to the mounted carnivorous dinosaur in the American Museum of Natural History supposed to be *Allosaurus* or *Creosaurus*, compared its hands with those of Marsh's restoration of *Allosaurus*. Inasmuch as the hands of the New York specimen are wholly artificial and those of Marsh's figure mostly or wholly so, it will be seen that the comparison was of something less than no value at all. A serious error on the part of the writer must therefore be confessed. How it came to be committed will probably be of interest to nobody.

Although the quite complete hind leg of *Allosaurus* on which Marsh based his restoration² is in the U. S. National Museum, the materials belonging to the fore leg, restored by Marsh on the plate cited, are not in that museum and I therefore do not know just what parts were in Marsh's possession. From his language we have the right to suppose that he had at least the scapula, the coracoid, the humerus and some claws.³ These parts, then, ought to be available in making comparisons with corresponding parts of related dinosaurs. Further differences between *Allosaurus* and *Creosaurus* are said by Marsh⁴ to be found in the elongated sacral vertebræ of the latter genus and the transverse processes, which are placed higher up on the centra than in *Allosaurus*.

It appears to the writer that some animadversions may justly be made on the methods of preparing restorations of fossil animals, both as shown in the scientific journals and as displayed in our museums. It seems incontestable that the public has a right to know on what materials all reconstructions, as well as

¹ *Proc. U. S. Nat. Museum*, XXXV., pp. 351-66.

² "Dinosaurs of North America," Pl. XII., fig. 2.

³ *Amer. Jour. Sci.*, XXVII., 1884, p. 334, Pl. XII., fig. 1.

⁴ *Amer. Jour. Sci.*, XVII., 1879, p. 91.