June 1st.

The President, DR. HAYS, in the Chair.

Twenty-one members present.

Prof. Cope exhibited some specimens of extinct reptiles of interest. One of these was the cranium, minus a portion of the muzzle of a gavial, from the New Jersey Green Sand, previously described under the name of *Thoracosaurus brevispinus*, but which this specimen demonstrated to belong to another genus, since it did not present the lachrymal foramina of the former. He applied the name Holops to it, and stated that he had evidence that Crocodilus tenebrosus Leidy, and probably C. obscurus L., also belonged to it.

He also exhibited drawings with measurements of portions of the limbs of a very large Dinosaur, in the collection of Dr. Samuel Lockwood, of Keyport, Monmouth County, N. J. It was discovered by this gentleman in the lower cretaceous clays on the shores of Raritan Bay. It consisted of the extremity of the tibia with astragalus and fibula. He said it indicated the second genus of his suborder Symphypoda, and was thus allied to Compsognathus, differing in the remaining indication of suture between astragalus and tibia, which disappeared in Compsognathus. The astragalus thus entirely anchylosed was also confluent with the calcaneum, forming a continuous condyloid surface for the tibia. In an anterior projection externally, the extremity of the fibula reposed by a condyloid extremity, the shaft lapping over the outline of the tibia. This demonstrated what he had already stated, that the fibulæ of Iguanodon and Hadrosaurus had been reversed. The length of the fragment was sixteen inches, the fractured section was a transverse oval, the medullary cavity nearly filled with cancellous tissue. The transverse width of the extremity 12 in.; oblique diameter 14 in. This form he called Ornithotarsus immanis, and placed it between Hadrosaurus and Compsognathus.

He made some observations on a fine fragment of the muzzle of a large Mosasauroid, which pertained to a cranium of near five feet in length. The pterygoid bones were separated from each other, and support nine teeth. A peculiarity of physiognomy was produced by the cylindric prolongation of the premaxillary bone beyond the teeth, and a similar flat prolongation of the extremity of the dentary. He referred the species to Macrosaurus Owen, under the name of M. proriger. The specimen he stated belonged to Prof. Agassiz, who obtained it from Western Kansas, probably from the No. 3 of the Upper Cretaceous of Hayden.

The following paper was presented for publication:

"Description of new Carboniferous Fossils from the United States." By F. B. Meek and A. H. Worthen.

Mr. Jeanes having resigned his position as Auditor, on motion, Dr. Bridges was nominated and elected to fill the vacancy.

June 8th.

The President, DR. HAYS, in the Chair.

Twenty-seven members present.

The following paper was presented for publication:

"On the production of Bracteæ in Larix." By Thos. Meehan.

June 15th.

PROF. FRAZER in the Chair.

Twenty-four members present.

The following paper was presented for publication:

"Description of six new species of Fresh Water Shells." By Isaac Lea.

June 22d.

DR. RUSCHENBERGER, Vice-President, in the Chair.

Twenty-three members present.

The death of Dr. Charles D. Meigs was announced.

The following paper was presented for publication:

"Notice of certain obscurely known species of American Birds, based on specimens in the museum of the Smithsonian Institution." By Robt. Ridgway.

June 29th.

The President, DR. HAYS, in the Chair.

Twenty-five members present.

The report of the Biological and Microscopical Section was presented and referred to the Publication Committee.

On permission being granted, Mr. Warner spoke upon the mathematical representation of organic forms. Such limitations, he said, might serve to narrow the field of research into the physical causes of organic forms, and perhaps furnish the suggestion of a rational theory of these causes. If no other advantage were derivable from imitations of this kind, they might, he thought, be useful for description and classification.

He exhibited a representation of the longitudinal section of an egg by a curve which he called the hyper-ellipse, and of the section of an embryo by another curve which he termed a deformed lemniscate. Of the egg curve, he said that it very closely resembled an ideal section of an egg taken from a standard modern work. Of the curve representing the embryo he said that it not improbably marked the boundary of matter lying within it, in a different state of temperature, density, or tension from the matter lying without. These representations were verified by the members present. The speaker expressed the intention of making these representations the subject of a future paper, in which he would give drawings and formulæ.

The following gentlemen were elected members:

Dr. N. R. Bradner, U. S. N.; Charles B. Nancrede, M. D., and Harry Emlen.

Alexander Carte, of Dublin, was elected a correspondent.

On favorable report of the Committees, the following papers were ordered to be published:

Descriptions of six new species of FRESH WATER SHELLS.

BY ISAAC LEA.

UNIO MACNIELII.—Testa sulcata, oblonga, valde inæquilaterali, antice subrotunda, postice obtuse biangulata; valvulis crassiusculis, antice crassioribus; natibus prominulis; epidermide fusca vel luteola, postice viridi radiata; den-