

Elkhorn, Walworth county, Wis. His term will expire January 28, or within a day or two of that time. He is the same man who has carried on extensive swindling operations of a similar nature in the east.

Would it not be well to have him 'sent up' as many times as possible? I send you this information, hoping that it may seem wise to you to make his whereabouts known through your widely-circulated columns, and to encourage all interested to make it as warm as possible for this impostor. He very probably assumes other names than those I have given.

He is rather short, of light complexion, has a cynical expression, wears eye-glasses, talks with the greatest freedom of geologists, finding few worthy of recognition or favor. He looks to be thirty years, but represented himself here as forty-six. He told in many places about here, but did not say it here, that he was distributing specimens from the Smithsonian institution. He imposed upon many in that way. He is conversant with geology and geological work, and is certainly well posted on fossil plants.

Prof. N. H. Winchell, Minneapolis; Prof. W. F. Bundy, Whitewater, Wis.; Smith D. Atkins, Freeport, Ill.—are men who know his operations hereabout.

R. D. SALISBURY.

Beloit, Wis., Nov. 2.

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### Recent Proceedings of Societies.

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#### *Academy of natural sciences, Philadelphia.*

Oct. 27. — Mr. John A. Ryder made some remarks on a new theory of the development of limbs and their muscles, which he had elaborated in the course of his embryological studies. These have led him to conclusions very similar to those defended by Prof. A. Dohrn and Dr. Paul Meyer, of Naples, though Mr. Ryder's results have been reached quite independently of the European investigators. The new views assume that great modifications of development have been induced by the presence of yolk and by intra-maternal changes. Somewhat modifying Haeckel's views as to the gastrula mouth, the latter is supposed to have become greatly elongated antero-posteriorly. The muscular segments or myotomes are supposed to have been developed from the edge of such a primitive mouth either directly or indirectly, thus giving rise to metameric segments enclosed by the larval skin or epiblast. The muscular segments then push out processes into pockets or folds of the latter to produce the various types of limbs. A large amount of detail was used in illustration and expansion of these views, in the course of which it was shown that the methods of comparative anatomy alone were no longer capable of dealing with many of the more important morphological problems without help from the science of embryology.—Dr. H. C. Wood gave the results of experiments on the effect of injecting gastric juice into the blood of animals. A plan having been devised for indicating graphically the changes in temperature, it was found that an active fever was quickly produced. It was observed that the heat of the body was inverse to the amount of heat given off, thus indicating that fever is a complex process, depending on the relations of heat production and heat dissipation. The action of the pepsin in such cases is not

clear, but it probably influences the nerve centres.—Mr. Lewis Woolman called attention to a very symmetrical boulder from the neighborhood of Thirty-first street and Haverford avenue, which was quite angular, although associated with rounded pebbles, and which contained on one side impressions of fossils. These were identified by Prof. Heilprin as *Orthis* and *Atrypa spinosa*. They were the first Devonian fossils to which his attention had been drawn in this connection.—Instantaneous microscopic photographs, by Mr. D. S. Holman, of *Amœbæ*, were exhibited. The views show, for the first time, the remarkable changes of form occurring in these organisms in the space of a few seconds.

#### *Natural science association, Staten Island.*

Oct. 10. — Mr. Hollick showed plants of the partridge berry (*Mitchella repens*, L.) bearing peculiar leafy berries, and made the following remarks upon the same: "Last autumn I mentioned finding some of these berries at Tottenville, with green leaves apparently growing out of the top or sides. On first sight these leaves appear like developments of the calyx lobes, but on a close inspection it is seen that the green leaves are growing from expanded petioles, which have tightly clasped the berries to a greater or less extent, and assumed their red color. The line between the berry and its enclosing envelope is not always distinct; but during the winter specimens which had been frozen were examined, and in them the line could be traced far more distinctly, owing to the berry being somewhat shrunken. These berries were kept in water for some time, and, although they and the stem leaves retained their colors perfectly, yet the adventitious leaves soon turned yellow and withered away. During the past summer and present autumn the locality was again searched for fresh specimens, and a number were discovered. In the newly-developed berries, as might be expected, the clasping petioles had not yet assumed the pure red color, many being of a duller red, and some distinctly streaked with green. After having been kept in water for a few days, however, the red became uniform throughout."—Mr. Congdon exhibited a spider covered with a fungoid growth, a species of the genus *Achlya*, and gave an account of its life history. This fungus is frequently found on insects which have fallen into the water, as in the case of this spider. It begins as a microscopic germ. A small thread next grows out from one side, bifurcating as it extends, until by repeated subdivisions it has formed a complete network of delicate threads. It reproduces itself asexually by means of the protoplasm in these threads, which breaks up into little balls, and when ripe is expelled into the water. They swim about for some time by means of ciliæ placed at either end, which finally settle down on the body of the nidus, and in a short time have grown into a plant like the parent.—Mr. W. T. Davis exhibited a deformed specimen of *Danaïd Archippus*, the monarch butterfly. On the 6th of August a full grown caterpillar was collected, and, after having transformed to a chrysalis, was removed from its point of suspension and a pin passed through it. This chrysalis was intended for a cabinet specimen, but it was noted as time went on that it gradually changed color, assuming the tints peculiar to the chrysalis before the butterfly emerges. On the 21st of August the butterfly hatched out, having developed about the

pin. This pin passes through the body at or near the second abdominal segment, being very close to the ventral surface.

*Microscopical society, New York.*

Oct. 2. —G. F. Kunz stated (*Jewellers' circular*) that a necklace was being made by Messrs. Tiffany & Co. of petrified eyes, and that three workmen who were engaged on the necklace had been made suddenly ill, and refused to resume work on such dangerous material. The so-called mummies' eyes are well known, and are, without question, the crystalline lenses of the eyes of a species of cuttlefish (squid). Some of the lenses from the eyes of these cuttlefish measure only 5 mm., but the majority of them are 12 mm. in diameter, and some as much as 18 mm. The color, really only the result of age, is a dark amber yellow, or golden bronze, externally on the convex side. In all cases they are nearly opaque, and have the appearance of an onion-skin or any other sack like concretion. On the flat side, however, the color is much lighter, and a little play of light is noticeable. The surface is rough, as if an exudation had hardened on it. The structure of the lenses is like that of a pearl,—an aggregation of successive enveloping layers, which are marked on the surface by sets of concentric rings. It is also plain, from these rings, that the lenses are sections, constituting only about one half of the original lenses of the fish, the intention undoubtedly being to produce additional luminous effect by this series of hemispherical reflectors. The crystalline lens of a human eye would not be so large as even the medium-sized lens exhibited, and is so exceedingly delicate that it can only be preserved at all by the greatest care. In many fishes, and especially the cuttlefish (squid), the lens of the eye contains so much solid matter that it will dry up in a short time, and with very little contraction, into a hard, transparent mass, which would probably be durable. On the contrary, Prof. Raimondi, the ethnologist of Peru, believes these eyes to be human, and Dr. Tschudi of Vienna is said to support him in this theory. The region where these mummy eyes are found is rainless, and the mummies were dried in a sitting posture on the salty sand or the nitre beds, often thousands of them at one place. This being the case, they must have been exposed to the public gaze, and the embalmers would naturally wish to make the appearance of the dead as attractive as possible. Hence it is probable that the cuttlefish eyes, which were inserted into the empty sockets, were cut into two nearly equal parts, in order to obtain greater lustre, and give a natural brightness to the eyes of their dead. The three workmen who were engaged in polishing these eyes were all affected soon after working on them. The sawing and polishing were done at different times, and in each case the same result followed, so that the workmen are confident that their illness was caused by the inhalation of dust during the sawing. The youngest, a boy of sixteen, was taken sick after working only a few hours. His illness consisted of headache, biliousness, and vomiting, and lasted for one day. Another workman, a strong, hearty Frenchman, about forty-five years of age, and weighing nearly 200 pounds, reported that he was taken sick with nausea, sick headache and vomiting, and noticed a disagreeable metallic taste in his mouth during his entire illness, which lasted four days. The other, a Ger-

man lapidary, about forty years of age, was affected shortly after working at the eyes with an eruption of pimples over his entire body, and when any of the affected parts were rubbed, a swelling immediately arose. This rash was perceptible for over a month. From the fact that these three cases occurred in one workshop, and soon after work was commenced on the eyes, the men very naturally reasoned that the eyes were the cause of their sickness, and expressed a desire not to resume work on them. In response to inquiry, Professor Baird writes that he never heard that poisonous qualities were inherent in the eyes. If they are really poisonous, it surely cannot be from any preparation used to preserve them, for no preservative was necessary, as would have been the case if they were human eyes. It has been observed, however, that, in this case, certain alkaloids may be generated by the decomposition of the organic constituents of the eyes. The United States survey chemists are examining the lenses, to see what alkaloids, if any, are present. As ornaments these eyes are truly beautiful when the exudation on the cut surface has been removed, and they are finely polished. They vary in color from a light yellowish amber tint to a dark yellow, yellowish brown, or rich amber brown, similar to that from Catania, Sicily. In some cases the colors are found in alternated bands, as in the Mexican fire opals from Quertertera. Although the reflections lack the play of colors found in the opal, the tints are warmer and more pleasing. The lustre on the uncut rounded sides is pearly. With a proper gold mounting these eyes would give a very beautiful effect in jewelry, although moisture would be likely to injure the polish.

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**Calendar of Societies.**

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*Biological society, Washington.*

Oct. 31. — Col. Marshall McDonald, Fish-culture a necessity for the maintenance of the shad fishery; Mr. Wm. H. Dall, Deep-sea mollusks and the laws illustrated in their development; Mr. Richard Rathbun, Remarks on the Wood's Holl station of the U. S. fish commission; Mr. Romy Hitchcock, Notes on red snow, with exhibition of specimens.

*Engineers' club, Philadelphia.*

Oct. 17. — Mr. P. F. Brendlinger, A novel and cheap cement testing machine; Mr. John T. Boyd, The 'Coventry' locomotive boiler; Mr. Walter C. Brooke, Appliances for landing mine cars at the top of slope; Mr. A. Marichal, An instrument for at once describing arcs, of any radii from a few inches to infinity, and for determining the radii of arcs already drawn.

*Academy of natural sciences, Philadelphia.*

Oct. 27. — Carl H. Eigenman, A review of the American gasterostiedæ; Carl H. Eigenman and Morton W. Fordice, A catalogue of the fishes of Bean Blossom Creek, Monroe co., Indiana; B. W. Everman and Morton W. Fordice, List of fishes collected in Harvey and Cowley counties, Kansas; B. W. Everman and Seth E. Meek, A revision of the American species of the genus *Gerres*; Seth E. Meek and Robert Newland, A review of the American species of the genus *Scorpaena*.