

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.

Calendar of Societies.

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*.