

is by J. S. Kingsley and is devoted to the 'As-tacoid and Thalassinoid Crustacea.' The balance of the number is devoted to Reviews and News. The very useful list of appointments to various scientific positions here and abroad is unusually full.

SOCIETIES AND ACADEMIES.

BIOLOGICAL SOCIETY OF WASHINGTON 310TH MEETING, SATURDAY, OCTOBER 21ST.

F. A. LUCAS made some remarks on the flightless Harris' Cormorant, stating that the keel of the sternum was lacking save the anterior point to which the furcula was attached, that the pelvic girdle was very robust, though not quite equal in this respect to the larger Pallas' cormorant. The nearest relative was *Phalacrocorax penicillatus*.

O. P. Hay presented 'A Census of North American Fossil Vertebrates,' giving the number of genera and species in each order. Special attention was called to the great number of selachians represented in the Sub-Carboniferous and their apparent scarcity in the succeeding formations.

V. K. Chesnut presented some 'Notes on a Preliminary Catalogue of Plants Poisonous to Stock,' saying that some plants were not in themselves poisonous but acted by clogging the intestines, perforating and inflaming the tissues of the eyes, nose or intestinal tract, or by the evolution of gases which distended the stomach and intestines to such an extent that the lungs and heart could not properly perform their work. Corn smut was deleterious from the expansion of the dry powdery spores, while some molds whose spores will germinate and grow in the body apparently produce a poisonous compound concomitantly with their growth. It was noted that some plants vary greatly in virulence at different seasons, and that others which were useful in small quantities were injurious when fed continuously.

H. J. Webber spoke on 'Polyembryony in Orange Hybrids,' calling attention to the curious results obtained in hybridizing the Trifoliolate orange (*Citrus trifoliata*) with the Sweet orange (*Citrus aurantium*). In a number of instances two totally different seedlings were produced from the same hybrid seed. Of the

numerous embryos produced in a single orange seed, one apparently develops normally from the fecundated egg cell and the other from certain cells of the nucellus near the upper part of the embryo sac, which become specialized, divide rapidly, and pushing out into the embryo sac form embryos. Usually several of these adventive embryos are developed in each seed. In hybridization the embryo developed from the egg cell is naturally the only one which shows any influence of the male parent. The adventive embryos which spring from the nucellar tissue of the mother parent could not be expected to show any effect of the cross. In crosses of the Sweet orange with pollen of the Trifoliolate orange several seeds have developed more than one seedling, of which one has trifoliolate leaves similar to the pollen parent and the other, or others, unifoliolate leaves like the sweet orange mother parent. In such cases the speaker thought there can be no doubt that the trifoliolate seedling develops from the egg cell and is the only one affected by the hybridization, while the unifoliolate seedlings develop from adventive embryos and are not affected by the cross.

Albert F. Woods gave some 'Additional Notes on Spot Disease of Carnations,' stating that as the result of long experimentation he was able to positively confirm his former statements that the disease was not produced by bacteria, but was caused by the punctures of Aphids and Thrips. The curious device by which the slender bill of the aphid was enabled to be inserted between the plant cells was also described.

O. F. Cook,
Secretary.

SECTION OF ANTHROPOLOGY AND PSYCHOLOGY OF THE NEW YORK ACADEMY OF SCIENCES.

THE regular meeting of the Section was held on October 23d. Dr. E. L. Thorndike reported some experiments on mental fatigue. The general plan of this investigation has already been described in SCIENCE of May 19th. The experiments reported confirm the earlier conclusion that there is no decrease in amount, speed or accuracy of work in the evenings of days of hard mental work over mornings or in

periods immediately following prolonged mental work over periods preceding it.

Dr. Livingston Farrand read a paper on 'Basketry Designs of the Salish Indians.' The paper was a contribution to the solution of the problem of the evolution of decorative art and particularly of the question of development of geometric patterns from realistic portrayals of natural objects. Attention was confined to the basketry designs of the Salish Indians of British Columbia and western Washington, which exhibit certain peculiarities marking them off rather sharply from the designs used by neighboring stocks. It was shown that while the adjacent tribes in the Northwest make use almost exclusively of animal designs, and their conventionalism is of a unique nature and not geometric, the tendency of the Salish decorations, on the other hand, is entirely in the direction of extreme geometric conventionalization and the use of animal motives is not predominant. The questions of variants and of convergent evolution in designs were discussed, and the points made were illustrated by the exhibition of a large number of designs taken from the baskets collected by the Jesup North Pacific Expedition from the region under discussion.

C. H. Judd read a paper on 'Movement and Consciousness.' Reference was made to the recent psychological discussions which have emphasized the importance of movement and motor nervous processes as conditions of consciousness. It was pointed out that just as psychology must look for the conditions of sensation elements in non-psychical processes, so a careful analysis of the facts of perception force us to look for the represented factors and for the synthetic activities in non-psychical conditions. In support of this position examples were cited in which the representative factors were not capable of conscious revival even with concentrated attention, and it was shown that synthetic activities become progressively less conscious the more complete and immediate the process of perception becomes. Finally, the attempt was made to discover in the facts of movement and in the nervous processes which follow the reception of sensory stimulations, the conditions of perceptual synthesis and the con-

ditions which make possible present effects of past experience without complete or even partial revival of any sensory factors, either as revived sensations or as repeated sensory stimulations in the nervous system.

CHARLES H. JUDD,
Secretary.

DISCUSSION AND CORRESPONDENCE.

RECENT WORK ON COCCIDÆ.

THE writer was away from his office and without access to current literature for most of the summer just passed, and only recently has seen in *SCIENCE* for July 21st (pp. 86-88), the reply of Professor Cockerell to the article entitled 'Sources of Error in Recent Work on *Coccidæ*' (*SCIENCE*, June 16, 1899, pp. 835-837). The article last cited was written with no other intent than to point out, with the hope of benefiting the future literature on the subject, certain sources of error which were being rather emphasized by some of the more recent work on scale insects. To avoid personal features, the enumeration of examples was reduced to a minimum and the chief offenders were not pointedly indicated. That some check of this sort was needed is evident enough to any one familiar with the literature, and is further shown by the writer's having received, since the publication of the article cited, letters thanking him for his action from several of the leading entomologists of this country and oral thanks from a good many others, not to mention such editorial approval as that in the *American Naturalist* for September, 1899.

Professor Cockerell's reply serves two very useful purposes. First, it does what the writer, through a perhaps ill-advised sense of courtesy, failed to do, namely, indicates the real and chief offender, who now comes to the front and courageously announces, 'I am the man!' In the second place, it enables him to point out definitely the character of work which had previously been referred to in very general terms out of consideration for the persons concerned whose work in the main it was not wished to disparage.

The opening remarks of Professor Cockerell, relative to his eight years experience in *Coccidæ*, are rather regrettable in view of some of the