1) Besonders können unter der Cuticula mehrere Noduli (zwei oder viel mehr im Feld einer ectodermalen Epithelmuskelzelle) mit einem rundlichen oder ringförmigen Centraltheil hervortreten, aus welchem zahlreiche Fasern in einer unregelmäßig radiären Richtung ausgehen. Diese verschwinden entweder in dem anliegenden Gewebe, oder wenden sich spiral mit aus anderen Noduli kommenden Fasern um, oder verbinden sich mit den unter No. 4 und 5 bezeichneten Formen, oder sie verjüngen sich und winden sich zwei und noch mehr um einander um starke Schnüre zu bilden. (Diese Noduli habe ich auch bei Tubularia mesembryanthemum in der Ectotheca des Gonophors gefunden).

2) Schnüre in der oben gesagten Weise aus Noduli oder aus Knäueln kommend. Sie haben immer eine spiral umschlingende fibrilläre Struktur; manchmal lösen sie sich ganz in einem Plexus von Nodulis auf.

3) Reiche und complicierte Knäuel von Fasern, die dasselbe Aussehen wie die oben genannten zeigen. Zwischen denselben Fasern habe ich nicht selten mit der Anwendung des Hoyer'schen Picrocarmins Kerne gesehen, die ganz dieselbe Größe und dasselbe Aussehen wie die Kerne der Schneider'schen Ganglienzellen hatten; aus den Knäueln kommen faserige Schnüre (siehe No. 2) heraus.

4) Feine von denselben Fasern gebildete Netze, welche den gewölbten Theil der Epithelmuskelzellen umwinden (selten gesehen).

5) Rigide Faser auf den Nesselzellen. Im Allgemeinen strahlen sie von einem Puncte aus. Ihr Aussehen ist verschieden auf der Macro- und Microcnidenzelle. Auch die Nesselkapseln sind von einem Netze von blauen Rosetten bekleidet.

Ich glaube aus den folgenden Gründen, daß die oben genannten Elemente nervöser Natur seien: 1) die specifische Färbung, 2) die Ähnlichkeit der Knäuelkerne mit Schneider'schen Ganglienzell kernern und 3) die Verbindung mit den Epithelmuskelzellen und den Nesselkapseln.

Es ist nicht ohne Interesse bei diesen so niedrigen Organismen, wo nicht wenige Autoren die ursprüngliche Beschaffenheit des Nervensystems zu finden glaubten, ein besonders in seinem peripherischen Theil so compliciertes Nervensystem zu sehen.

II. Mittheilungen aus Museen, Instituten etc.

1. Linnean Society of New South Wales.
April 27th, 1892. — 1) A viviparous Australian Peripatus. By J. J. Fletcher. This paper is a reply to certain views expressed by Dr. Dendy with regard to the reproduction of the New South Wales Peripatus, which
on the *ipse dixit* of Dr. *Dendy* himself is *P. leuckartii*, Sång.; the questions at issue being not whether or no the Victorian *Peripatus* is oviparous, but whether, firstly, Dr. *Dendy* was justified, on the evidence before him and in the absence of any personal knowledge of the reproduction of the N.S.W. *Peripatus*, in contradicting statements which were quite in order; and secondly, as Dr. *Dendy*’s views were published in September, 1891, and as certain information on the subject was subsequently brought under his notice, whether it is not now nearly time that Dr. *Dendy* took steps to explain that his views apply wholly and solely to the Victorian *Peripatus*, and to withdraw his insinuations respecting, and his erroneous interpretation of, »Mr. Fletcher’s observations«, because already Dr. *Dendy*’s statements are finding their way into the records of zoological literature, and confusion and misapprehension may result therefrom. The New South Wales *Peripatus* is certainly viviparous, and this fact was known, and in course of publication, at a period in the year 1888 when as yet Dr. *Dendy* had never seen a specimen of an Australian *Peripatus*. Of three living specimens of the N.S.W. *Peripatus* exhibited at a meeting of this Society in June, 1888, one was given early in July to Dr. *Haswell*, who was anxious to examine the muscles of *Peripatus* in the fresh condition, and a few days afterwards he reported that she was pregnant or contained embryos; and on the strength of this statement a foot-note, »One of these [three specimens exhibited] was subsequently dissected, and found to be pregnant«, was appended to the notice of the exhibit as it appeared in the Proceedings (Vol. III., 2nd ser., Part II., p. 892 — published September 10th); Dr. *Haswell* mounted one of the embryos, and it has been in the writer’s possession since on or about October 27th, 1888. A second female made good her escape. The third was kept, and in due course she brought forth her young; these were exhibited at a meeting of this Society on October 27th, and as it was known that another female of the same batch, got at the same place and at the same time, had been found, when dissected in July previous, to contain embryos with the full number of developing appendages present, and as nothing was seen of eggs which Dr. *Dendy* says are »easily seen, being fairly large«, or even »very large«, the assertion was made that they were born alive. Before this statement appeared in print a female obtained in November, and drowned early in December, extruded during the process of drowning five embryos much more advanced than those met with by Dr. *Haswell*. Abundant confirmatory evidence has since been obtained and from time to time laid before this Society. Therefore when Dr. *Dendy* says that until he made his discovery nothing was known of the reproduction of *P. leuckartii* (the N.S.W. *Peripatus* included); that »it appears also from Mr. Fletcher’s observations« (which have reference wholly and solely to a viviparous creature), »with which it will be seen that my own« (having reference to a *Peripatus* which Dr. *Dendy* says is not viviparous) »fit in very well so far, that the young are hatched at the end of October«; with other statements of an equally misleading character, one can only express the hope that in his new rôle of our Biological Captain Cook, Dr. *Dendy* will in future emulate his illustrious prototype not only in making many and great discoveries in Eastern Australia, but also in such trivial matters as soundness of judgment and accuracy of statement when the time comes to publish an account of them. — 2) Jottings from the Biological Laboratory of Sydney
University. No. 16. — Note on the occurrence of a Flagellate Infusorian as an intra-cellular Parasite. By Professor Haswell, M.A., D.Sc. The parasites described were found infesting a large number of the unicellular glands of the parenchyma of an undescribed rhodocoele turbellarian from a pond in one of the Sydney Parks; they were present in sufficient numbers to give a dull yellowish-green colour to the hosts; by dint of crushing the turbellarian the infusorians were set free from the interior of the cells and their form and movements more easily studied; within the cells the organisms were rarely at rest, incessantly creeping round and round the interior. — Mr. Hedley exhibited living specimens of *Panda atomatus*, Gray, drawing attention to the marked difference in sculpture between the embryonic and adult shells, a feature of much importance from a systematic standpoint. Also living specimens, lately procured from Scone by Dr. Cox, of an *Helicarion* presumed to be *leucospira*, Pfeiffer, a long lost species which has not been heard of since it was originally described in 1856 as coming from Australia: a specimen of *Cystopelta petterdi*, collected by Mr. J. D. Cox, at Mt. Wilson, the most northerly locality from which this mollusc has yet been obtained: and examples of *Helicarion thomsoni*, Ancel, received from Dr. Thomson of New Bedford, U.S.A., and collected at Geographe Bay, West Australia, by an American whaler, this novelty being interesting as the first of the genus known from that colony. — Mr. Brazier exhibited typical specimens, received from the author, of *Diplomorpha delatouri*, Hartman, and he contrasted them with a new member of this genus, of which he showed specimens, from Siegond Island, Santo Espirito, New Hebrides: also examples of *Pupa fallax* from new Bedford, U.S.A., its distinctness from the Australian *P. pacifica*, Pfr., with which some writers have confounded it, being pointed out. — Mr. Froggett exhibited specimens of a rare sawfly, *Philomastix glaber*, Froggett, and of its larvae, which were found feeding on one of the wild brambles, *Rubus moluccanus*; they were obtained by him recently at Mt. Vincent, Maitland, N.S.W., when on a collecting trip for the Technological Museum, Sydney; the species was originally recorded from the Richmond River. Also a collection of Coleoptera, chiefly lamellicorns, among them some rare species of *Bolboceras*, sent to Mr. H. Maiden by Mr. Chisholm of Torren’s Creek, one of the head waters of the Flinders River, North Queensland. Also two male specimens of a rare fossorial wasp, *Thynnus brenchleyn*, Smith, from the same locality, together with a specimen of the other sex, which may turn out to be the hitherto unknown female of this species, previously recorded only from Champion Bay, W.A., and Narrabri, N.S.W. — Mr. Rainbow showed a spider, in all probability a new species of the endemic and widely distributed genus *Stephananops*, from Bungendore. — Mr. Trebeck exhibited a specimen of a flying fish, *Dactylopterus orientalis*, from Port Jackson.

III. Personal-Notizen.

Dr. J. S. Kingsley, formerly of Lincoln, Nebraska, has been appointed to the Chair of Biology, established at Tufts College, College Hill, Mass. U.S.A.

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