cayed wood of dozens of remu stumps and logs was exposed in the all-absorbing search.

Occasionally a specimen would be found under a log which rested well down in the earth but by far the largest proportion of the more than one hundred specimens taken was discovered in decayed wood. In the last log that I examined—a small one at that—six of these velvety-black, slug-like creatures were exposed. Specimens of both sexes and all sizes are included in the lot secured on the above dates.

Mention need not be made here of the structural characteristics of Peripatus since all this and much more has been so admirably done by Hutton, Moseley, Sedgwick and others. However, I should like to say a word concerning my own observations on its activities.

As is well known, Peripatus is nocturnal and shuns the light at all times. As soon as an individual is exposed it moves unerringly though slowly and deliberately toward some crevice or burrow or other hiding place. When irritated, as for example when it is picked up suddenly by the tweezers or squeezed lightly between the fingers, it ejects with some force and to a distance of from four to six inches the contents of the slime glands through the oral papillae. While the force is supplied largely by the sudden contraction of the muscular body wall, the direction and dispersal of the slime threads seems to be effected chiefly by the rapid side-to-side movements of the head and anterior part of the body.

After leaving the oral papillae the clear fluid hardens into a series of viscous strands bearing, at fairly regular intervals, minute droplets. Although harmless it is very sticky coming away easily from the animal itself but adhering tenaciously to other objects including one's fingers. I can not agree with Hutton's statement (*Ann. Mag. Nat. Hist.*, XVIII, 362, 1876) that "This viscid fluid is for offensive and not defensive purposes," for in my experience, it was certainly used in a defensive capacity. And I do not doubt that a spray of this fluid would, to say the least, prove very disconcerting to any enemy such as spiders or predaceous beetles, both of which live in the same situations as Peripatus. In 95 per cent. alcohol the slime collects in the form of a flocculent mass.

Specimens are most satisfactorily killed by immersing in water to which a little 95 per cent. alcohol has been added. They succumb, through suffocation, in a surprisingly short time—four or five minutes—and are best preserved in spirits of the above strength.

The now generally prevalent conviction regarding the affinities of Peripatus was well summed up by Hutton years ago (*l. c.*, 368) when he said in substance that it does not form a direct link between the other tracheate arthropods and the annelids, but is best regarded as an offshoot from the base of the arthropodan stem.

DAYTON STONER
THE STATE UNIVERSITY OF IOWA

THE SECOND PAN-PACIFIC SCIENCE CONGRESS

THE Pan-Pacific Science Congresses have been held on the initiative of the Pan-Pacific Union with headquarters at Honolulu, where the first of such gatherings met August 2–20, 1920. The second has been held August 13 to September 3 of the present year under the special auspices of the Australian National Research Council, with its president, Sir David Orme Masson, president of the congress. A considerable number of "assisted passages" were offered to distinguished scientists in over-seas Pacific countries, and to this inducement were added free railway transportation and housing while in Australia.

In all, between eighty and ninety over-seas delegates attended, the list including Col. Sir Gerald Lenox-Conyngham and Dr. Haddon among others from the British Isles; Drs. Brock, McMurrich and Fraser from Canada; Dr. Sakurai, and Professors Omori, Yamasaki and Oshima in a strong delegation from Japan; Drs. van Romburgh, van Leeuwen, Brouwer, Braak and others from the Netherlands. From New Zealand came Professors Kirk, Marshall, Speight and Benson and Mr. Morgan.

The delegation from the United States was exceptionally large—sixteen from the States, six from the Hawaiian and four from the Philippine Islands. The States delegation was as follows: In agriculture, Babcock, Mead and Stakman; in physics, Benfield, Moore and Wait; in geology, Brooks, Hobbs, Hovey and Vaughan; in geography, Fenneman and Huntington; in zoology, Pillsbry and Ritter; and in hygiene, Sayers. Professor Gregory, the president of the first congress, was in the Hawaiian delegation, and Merrill and Selga in that from the Philippines.

The program was one of exceptional interest to students of Pacific problems. In addition to a number of general sessions to hear important papers of general interest, there were special sections in: I, agriculture; II, anthropology; III, botany; IV, entomology; V, forestry, VI, geodesy and geophysics; VII, geography and oceanography; VIII, geology; IX, hygiene; X, veterinary science, and XI, zoology.

The geologists assembled in unusual strength both from Australia and from overseas, and their programs were contributed to by a considerable number of authorities in special fields. The topics included: The structure of the Pacific region; Post-Mesozoic volcanic activity within it; the distribution of ores, oil and water resources; the correlation of the Tertiary

formations; the Permo-Carboniferous and Permian problem, geological surveys, and a symposium on the origin of coral reefs and atolls. In connection with this symposium Professor Sir Edgeworth David, who presided at the Sydney sessions and who is widely and lovingly known as the grand man of Australia, presented a most important report on the Royal Society's borings at Funafuti. The half-cores from this boring and other illustrative exhibits were displayed.

A dramatic event of the meeting was the arrival at Sydney on the eve of the meeting in that city of the new United States scout cruiser "Milwaukee," equipped with the sonic depth finder and prepared to exhibit a new set of soundings taken on its voyage across the Pacific from Puget Sound. Her commander, Captain W. C. Asserson, came as a delegate to the congress from the United States Navy Department and presented a paper in joint session on the principle of construction and use of the depth finder. On his invitation the Australian Navy Department sent an officer from Melbourne to attend a demonstration, and on like invitation the Ministry of Trade and Customs sent for the same purpose Captain John K. Davis, the commissioner of navigation and widely known as the master of vessels of Antarctic explorers. Each day during the visit of the cruiser parties from the congress were taken on board for demonstrations. A hearty vote of thanks was taken to be presented to the United States Navy Department through Captain Asserson. The friendly visit to Sydney of this modern warship, the first since that of the great fleet under Admiral Sperry, aroused much popular enthusiasm and approval.

Many resolutions of importance were passed. These related to the destruction of insect pests; to measures to prevent the early extinction of the native Pacific races; for cooperation in botanical surveys; for systematic treatment of the tectonic features; for aeroplane and other surveys of coral reef areas, and especially that of the Great Barrier Reef of Australia; for an international bureau of animal health; and for the conservation of the marine mammals of the Pacific.

It was further recommended that there be formed a permanent organization of the scientific institutions and individuals engaged in research on the scientific problems of the Pacific region, and the president of the third congress was requested to take the initial steps for this organization.

Both during and after the congress excursions of great interest were participated in by large groups of delegates, the longest being those to the Broken Hill mining district and to the Great Barrier Reef of Australia, the latter in a government vessel for a period of three weeks at the conclusion of the sessions.

Upon cordial invitation submitted by the Japanese delegation it was decided to hold the third Pan-Pacific Science Congress in Japan in 1926. The invitation had already been accepted by the Council of the congress, but before coming before the general session for action news was received of the terrible devastation and general destruction of Tokyo and Yokohama wrought by earthquake and following seismic sea-wave. In this difficult situation the Japanese delegation decided to stand by its invitation, and the invitation was accepted with full understanding of the situation.

The hospitality of the Australians was most generous and cordial, and the over-seas delegates were warm in their praise of their hosts for their skilful management. As one who has attended many congresses of an international character, the undersigned feels warranted in saying that such generous hospitality has been seldom equaled. The sentiment found frequent expression that nothing could do so much to promote international good-will and so make for the maintenance of peace in the Pacific as meetings of this character. The United States Navy came in for much praise for the ways in which it has contributed to scientific research.

WILLIAM HERBERT HOBBS

SUOA

SCIENTIFIC EVENTS

DELONZA TATE WILSON

THE death of Professor Delonza Tate Wilson, of the department of astronomy of Case School of Applied Science, Cleveland, Ohio, occurred on Friday, October 12, at the Kendall House Sanitarium, Washington, D. C., after a long illness.

A member of the faculty at Case for twenty years, Dr. Wilson did a great deal in building up the department of astronomy as well as in teaching mathematics. When the Warner and Swasey Observatory, dedicated in October 1920, was being planned, he assisted in the designing of the building and its equipment. He made a special study of ballistics and during the war conducted classes in that subject, cooperating with the Government Naval College and the Coast Artillery Division. The special astronomical research to which he gave his attention was the computation of tables of the perturbations of a group of asteroids, printed at Upsala in 1912.

Dr. Wilson was born in Clinton, N. C., soon after the close of the Civil War. He was graduated from the University of North Carolina in 1887, received his M. A. from Vanderbilt University in 1896, and his Ph.D. from the University of Chicago in 1905. He spent a number of years as a computer in the United States Observatory at Washington, then taught for two years, 1901–1903, at the University of Cincinnati,