

youth upon the lower culture steps. He broaches a very ingenious theory, which seeks to include infanticide and all sorts of torture and ordeals in a common category of helping the survival of the fittest. In savagery, intimates the author, two children are as many as the parents can raise: they knock the surplus on the head. They subject their sons and daughters to frequent vigils, fastings, fatigues, and pains, mourning for them meanwhile as dead. Indeed, many die under the treatment, but the fittest survive. Very many scraps of information, gathered here and there, are brought within the range of the author's theory. In this connection, one should not fail to consult Ploss: 'Das kind in brauch und sitte der völker.' — Mr. Aurelius Krause read a paper upon the relationships existing among the peoples of the Chukchi peninsula. Are the coast Chukchi and the reindeer Chukchi the same people? — In speaking of the 'footsteps of Buda,' — a gigantic track found in the ruins of the most hallowed shrine of Buddhism at Gaya, in southern Bihar, — M. Grünwedel calls to mind, that in every part of the world are to be found, in solid rock, impressions made by the feet of gods and heroes. — Gen. von Erckert sends to the society from Petroosk measurements of the weight, length of body, and length of limbs, taken from Russian peoples, — Wotjaks, Great Russians, Little Russians, Volga Tartars, Meshtsheraks, Poles, Bashkirs, Tscheremis, and Jews. — (*Zeitschr. f. ethnol.*, xv. pt. 4.) J. W. P. [539]

The London anthropological institute. — The unlimited resources of British anthropologists lead one always to expect something good from the journal of the institute. The first paper in the current number is by F. Bonney, on some customs of the aborigines of the River Darling, New South Wales. Mr. Bonney resided on a sheep-range from 1865 to 1880, and therefore knew the Bungyarlee and Parkungi tribes 'before they were spoilt by civilization.' The aboriginal population, owing to periodic droughts of great severity, could never have exceeded 100 on an area of 2,000 \square m. Epidemics also have told upon the people. There is a typical similarity among all Australian aborigines; but, to a close observer, each tribe has its own peculiarities. The oft-repeated statement that they are the lowest type of humanity is a libel. Mr. Bonney describes their parturition customs, system-

atic infanticide, child-rearing, initiation of youth, class-marriage, courtesy, charms, sucking-cure, diseases, blood-cure, burials, and mourning. — Mr. Tremlett writes of stone circles in Brittany, by which is meant two concentric rings of rude stone masonry, covered by a mound. One, called Nignol, was undoubtedly a cremation mound; since, exterior to the outer circle, cinerary urns were found, as well as between the walls. The inner circle consisted almost entirely of ashes and charcoal. Two others were similarly constructed, — one at Coët-a-touse, the other at Kerbascat. — The subject of group-marriage is reviewed by Mr. C. S. Wake, and an attempt made to show its origin. The author assumes two fundamental rights, — the individual, or sexual; and the tribal, or self-protective. The origin of the Australian four-class division is to be sought in the separation of the original marrying group into two grades, a parent and a child grade. — Major H. W. Fielden exhibited a series of South African stone implements. — The Rev. James Sibree, following up the investigations of Col. Garrick Mallery, U.S.A., reports a number of gestures from Madagascar as a contribution to the study of comparative sign-language. — Mr. A. W. Howitt reports some Australian beliefs, commencing with a delightful paragraph or two on synonymy, which we should like to quote. The superstitions described relate to the physical universe, the human individual here and hereafter, and Ghost-land. — On the 19th of June a special meeting was held at the Piccadilly hall, by invitation of Mr. C. Ribeiro, who exhibited five Botocudo Indians and a collection of implements. — Mr. A. H. Keane read a paper on the Botocudos. Their home is the province of Espiritu Santo, in Brazil; their name, probably from the Portuguese *botoque* (a barrel-plug), alluding to their labrets. The Tembeitera, or lip ornament, and the immense ear-plugs, give rise to an extended notice of the geographical distribution of these objects. The Botocudos are of Guarani stock physically, although of non-Guarani speech. Their physical characteristics are elaborately set forth by Mr. Keane, and extended references made to their culture, sexual relations, dwellings, industries, tribal organization, burials, religion, and language. — (*Journ. anthrop. inst.*, xiii. no. ii.) J. W. P. [540]

INTELLIGENCE FROM AMERICAN SCIENTIFIC STATIONS.

GOVERNMENT ORGANIZATIONS.

Geological survey.

Geology. — Mr. J. S. Diller, an assistant of Capt. C. E. Dutton, who has charge of the investigation of the volcanic rocks in the division of the Pacific, made a geological reconnaissance of the Cascade Range, during the early part of the season, in exploring the eastern side of the range; going as far north as the Dalles, and thence to Portland, finally coming down

on the west side to Red Bluff, California. He and his party travelled some twenty-five hundred miles. They were unable to do any topographical work on account of the smoke, which also interfered with the work of Mr. Gilbert Thompson (chief topographer of the California division) in the neighborhood of Mount Shasta.

Paleontology. — During the past season Mr. Charles D. Walcott received at the office, for the use of the National museum collections, a series of

typical specimens, representing seventy-eight species described by Mr. U. P. James, from the Hudson River group in southern Ohio. These are the gift of Mr. James, and have been recorded. Mr. Walcott has also received, from Cornell university, for study and illustration, the type specimens used by Prof. C. F. Hartt, in Dawson's 'Acadian geology,' in his descriptions of the fossils of St. John, N.B. All the species described by Professor Hartt will therefore now be illustrated for the first time.

Prof. O. C. Marsh, in charge of vertebrate paleontology for the survey, has had parties working in Wyoming during the past season, and also in the Jurassic of Colorado, and reports to the director that they have made large additions to the collections, and very important discoveries, the results of which will be reported later.

Chemistry.—The chemical division of the survey will hereafter occupy the laboratory of the U. S. national museum, where work will be begun at once on material that has been accumulating in the hands of the chief chemist, Prof. F. W. Clarke.

Professor Clarke has been appointed honorary curator of mineralogy in the U. S. national museum. At the New Haven laboratory, Dr. Carl Barus and Dr. William Hallock are conducting thermo-electric investigations. They find that thermo-electric couples containing nickel behave anomalously at temperatures above 400° C., but that couples of platinum, with palladium or iridium, are available for the measurement of high temperatures. With such couples, temperatures as high as 1200° may be measured as exactly as with the air-thermometer.

Fresh-water shells from the paleozoic rocks of Nevada.—The bed of calcareo-argillaceous strata containing this unusual fauna is situated near the base of the great lower belt of carboniferous limestone of the Eureka mining district, Nevada. The argillaceous layers pass into calcareous strata above, that contain a few plates of crinoidal columns, and fragments of brachiopods, and besides these a fauna of forty or more species that is purely marine, and closely related to that of the lower carboniferous fauna of the Mississippi valley.

Although there is now a large collection of material from the band containing the fresh-water shells that was collected subsequent to the geologic field-work, during which the specimens now to be mentioned were collected, it will not be studied until after the publication of the report on the Eureka district. This brief notice is to call attention to the occurrence of fresh-water shells in the paleozoic rocks, and also to state that more is to be presented when the paleontologic collections shall have been thoroughly worked over and studied.

The first species discovered was a *Physa*,—a form of the genus so characteristic that there is no need of making any other generic reference; judging, of course, from the shell, and not presupposing that any variation existed in the animal inhabiting it. For this species I have proposed the name *Physa prisca* (fig. 2). The second is a species so *Ampullaria*-like that a reference is made to that genus (fig. 3). The oper-

culum is shelly, calcareous, concentric (fig. 3a). If not generically identical with *Ampullaria*, it certainly belongs to the group in a closely allied genus. The name *Ampullaria? Powellii* is proposed for it. The third species is a pulmonate shell that appears to be

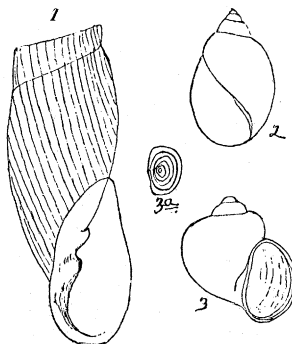


FIG. 1.—*Zptychius carbonaria* × 5. FIG. 2.—*Physa prisca* × 2. FIG. 3.—*Ampullaria? Powellii* × 2. FIG. 3a.—Operculum of *A.?* Powellii.

closely related to *Auricula*, and for which the name *Zptychius carbonaria* (nov. gen. et sp.) is proposed.

A small lamelli-branchiate shell that may be a *Nucula*, *Corbicula*, or *Cyrena*, probably one of the two latter, is associated with the above, and also fragments of twigs and small cones that may be referred to the *Corniferae*. The land-shells thus far described

from the paleozoic series are all referable to the sub-order *Geophila* or terrestrial pulmonates, and comprise six species; viz., *Pupa vetusta*, P. Bigsbyi Dawson, *P. vermillionensis*, *Dawsonella Meeki* Bradley, *Zonites* (*Conulus*) *prisca* Carpenter, *Anthraco-pupa ohioensis* Whitfield (from the horizon of the coal-measures), and one species (*Strophites grandaeva* Dawson) from the Erian plant-beds of St. John, N.B. To these we now add two species of the *Limnophila* (*Physa prisca* and *Zptychius carbonaria*), and one species of an operculated fresh-water shell (*Ampullaria? Powellii*). It may be said of these species, as Principal Dawson has said of *Pupa vetusta*, they are remarkable not only for their great antiquity, but also because they are separated by such a vast interval of time from other known species of their race.

CHARLES D. WALCOTT.

PUBLIC AND PRIVATE INSTITUTIONS.

Williams college, Williamstown, Mass.

The natural-history department.—Through the liberality of friends, the college has secured a permanent table, with the necessary facilities for its use, in the museum of the U. S. fish-commission at Wood's Holl. The table will be occupied every summer by the department. The college has also leased for a series of years a table at Professor Dohrn's international zoölogical station at Naples, from the use of which it is hoped that permanent benefits will inure to this department. The conditions of the gift of the late Dr. William J. Walker make provision for a scientific expedition every fourth year.

NOTES AND NEWS.

THE extensive collections of American *Coleoptera* made by the late Dr. J. L. LeConte, containing an immense number of original types, become the prop-