

differences between their striation and that of vertebrates should have been explained. Burne has recently shown that a supræesophageal commissure exists in *Hanleyia abyssorum* and probably in other chitons, as well as one (p. 129) below the œsophagus. *Cassidaria* (p. 163) does not belong to the *Toxiglossa*. The jaw, frequently, and the radular teeth always are not, as stated (p. 177), composed of conchioline, but of a special sort of chitine. The basal membrane of the radula (p. 181) is not 'rough' and not formed of conchioline. The transverse rows of the teeth (p. 182) properly counted invariably resemble one another; an alternation of discrepant rows is unknown, except as a blunder in defining the row. The accepted name of the central teeth is rhachidian, and not rhachial. In certain *Toxiglossa* the basal membrane of the radula is represented by two separated very narrow strips. The sucker-like organ on the proboscis of *Natica* is probably an organ of prehension; there is no evidence that it has anything to do with the boring by which the animal penetrates bivalve shells. In the naiades (p. 262) the young are not always developed in the outer gill, but also in the inner or in both, in some cases. The marine *Philobrya* also has a glochidium, while the whole family of *Mutelidæ* are without this commensal stage.

The above inaccuracies are due largely to the habit of anatomists of generalizing too widely on a too slender basis of observation. This might once have been excusable, but fortunately is rapidly becoming no longer so.

W. H. DALL.

Die Bronzezeit in Oberbayern. By VON DR. JULIUS NAUE. 4°, pp. 292. With album of fifty plates. Piloty & Löhle, Munich.

Southwest of Munich, amid the lovely scenery which surrounds the Ammer and Staffel Lakes, a number of sepulchral tumuli were discovered some years ago, which on investigation dated back to the age of bronze, ranging in time from its earlier to its later periods. Fortunately for prehistoric science, they attracted the attention of Dr. Julius Naue, of Munich, and he set about their thorough and accurate examination. For fifteen years he has personally ex-

plored them, spade in hand, surrounding his digging with those numerous precautions which the field archæologist should always respect.

Before his researches, practically nothing was known of the conditions of the peoples of the bronze age in the region indicated. By the opening of more than three hundred burial mounds and the sedulous study of their contents, he is able in the handsome volume named above to offer an almost complete restoration of the culture of that remote epoch.

In the older graves there are abundant utensils, weapons and ornaments of bronze; bowls, jars and plates in earthenware, frequently in artistic forms and decorated externally in lines and spirals; and a quantity of amber. No other metal was exhumed. Only in the later graves very small objects in gold and pearls of glass appear, but iron and silver continue unknown.

The text presents first the notes of each excavation. Then follow detailed descriptions of the weapons exhumed, the tools and utensils, articles of ornament and pottery. Special studies are appended on the material and technique of the objects, their form, style and ornamentation, and the inferences which they enable the student to draw regarding the people who left these memorials of their presence. The conclusions on the last topic are unexpected. We find ourselves in the presence of an industrious and peaceable community, depending on agriculture almost exclusively, cultivating the soil diligently and raising herds of cattle. They wore woollen clothing, with ornamented leather belts and decorated with bronze plates. They were of good stature, the men 1.65-70, the women 1.60-65. They were firm believers in a life after death, and surrounded the corpse with such objects as it was supposed to require in its wanderings in spirit land. Women took a high rank in the community as queens and priestesses. Some of the most elaborate of the interments preserved their remains only.

The culture was a progressive one. It can be traced from the neolithic time through the whole of the bronze age down to the epoch when the Roman forays destroyed it. Slowly but steadily it had increased, and for centuries

a state of comparative peace must have prevailed to permit this uninterrupted growth.

The numerous illustrations in the text and the admirable album of fifty-full page plates present in the most satisfactory manner the results of these important and suggestive excavations.

D. G. BRINTON.

Current Superstitions Collected From the Oral Tradition of English-Speaking Folk. Edited by FANNY D. BERGEN, with Notes and an Introduction by WILLIAM WELLS NEWELL. Pp. 161. Price, \$3.50. Boston, Houghton, Mifflin & Co.

The strange persistency of ancient superstitions in conditions of modern civilization is well illustrated in this volume. Its peculiar value consists in its presentation of beliefs and practices widely prevalent in our own day and country, most of them having been obtained by private correspondence with persons in various parts of the United States.

They are arranged under nineteen headings, such as love, marriage, dreams, luck, money, weather, warts, moon, sun, death omens, and 'projects.' The last mentioned is the term applied among girls in the United States to the ceremonies of divination by which they learn about the man they are to marry. The editor, Mr. Newell, says he cannot offer any explanation of this signification attached to the word. Is it not a direct descendant of the Latin *pro-jicere sortes*, divination by casting on the ground the divining sticks? This seems borne out by the fact that the most widely extended of these 'projects' is to throw a whole apple paring on the floor, where it forms your true love's initial letter.

The introduction and notes, prepared by Mr. Newell with his customary thoroughness and precision, add much to the value of Mrs. Bergen's collection by bringing out the analogies of the customs mentioned with the folk-lore and mythologies of other times and nations.

Among other noteworthy facts thus elicited is the vitality and number of formulas and beliefs still current in reference to the moon. So extended are these that Mr. Newell says they must be regarded as 'Nothing else than a continued worship of the orb, still connected with

material blessings expected from its bounty.' The sun is decidedly less important in popular belief.

Folk medicine is represented by the wearing of amulets and charms, the magical cure of warts, hiccough, toothache, nose bleed and other common ailments. Attention is called by the editor to the fact that in some of these the ancient 'doctrine of signatures' still survives.

Of the incidents of life, the two around which is associated the largest body of living superstition are marriage and death. Mr. Newell explains the latter by the suggestion that "The disinclination to exercise independent thought on a subject so serious leaves the field open for the continuance of ancestral notions," which seems an appropriate solution. He adds some pointed observations on the value of folk-lore to history, comparative mythology and archæology.

The volume is a member of the series issued under the auspices of the American Folk-lore Society. It is to be regretted that it is not furnished with an index, an omission scarcely excusable in a work of the kind.

D. G. BRINTON.

SOCIETIES AND ACADEMIES.

ACADEMY OF NATURAL SCIENCES OF PHILADELPHIA, MAY 19, 1896.

THE collections made by Dr. A. Donaldson Smith in Western Somali Land and the Galla Country, northeastern Africa, in 1894, were presented to the Academy, their value and extent being commented on by Mr. Arthur Erwin Brown on behalf of the curators.

Dr. Donaldson Smith spoke of the physical features of the regions from which the specimens had been collected and gave briefly some facts regarding the habits of the animals observed by him. Somali Land is very arid and barren, yet a greater variety of specimens and more new forms had been secured there and from the 200 miles beyond than from all the rest of the 4,000 miles traversed by him. In illustration it was stated that twenty-three new species of birds had been obtained from the district specially referred to, while but one had been secured elsewhere. Scattered over the