the only American is the case reported by Stiles. Since Blanchard's paper appeared, he has reported one new case at Paris, while one has been reported by Francaviglia for Italy, making a total of sixty-two reported cases. While, therefore, *Dipylidium caninum* can hardly be regarded as a rare parasite of man, Dr. Coville's case is worthy of record as occurring in this country.

From the view-point of the student of the relation of insects to disease, these cases are of interest because the intermediate hosts of this tapeworm are the dog louse, *Trichodectes canis*, and the flea, *Ctenocephalus canis*. Infestation can not take place directly from swallowing the eggs of the parasite, any more than in the case of other typical tapeworms, but only through ingestion of the infested insect. The dog normally becomes infested by biting the flea or louse. Man may accidentally ingest one of the insects and the parasites are able to complete their development in the unusual host.

This accounts for the fact that the great majority of cases reported are of young children, whose association with dogs and cats is more intimate, and who are likely to scrutinize less closely articles of food or drink. From Blanchard's summary, it appears that about 77 per cent. of the reported cases are of children under three years of age. Six are of adults and, counting Dr. Coville's case, three are of children between the ages of nine and twenty years. In the one under consideration, the boy's constant playmate was a bull terrier which was afterwards found to harbor the Dipylidium.

WM. A. RILEY

ANTHROPOLOGY AT THE BOSTON MEETING, WITH PROCEEDINGS OF SECTION H

As was the case a year ago, the American Anthropological Association and the American Folk-Lore Society met in affiliation with Section H of the American Association for the Advancement of Science. The sessions which began on December 27 and lasted till noon on December 30 were held in the Engineering Building of the Massachusetts Institute of Technology. The attendance was better than a year ago and a number of important papers were presented. Professor William H.

Holmes was present as vice-president of Section H and president of the American Anthropological Association, while Dr. John R. Swanton presided over the single session in charge of the American Folk-Lore Society.

SECTION H

Officers for the Boston meeting were nominated as follows: Member of the council, Professor Franz Boas; member of the general committee, Dr. Charles Peabody. Sectional offices were filled by the nomination of Professor Roland B. Dixon, Cambridge, Mass., as vice-president for the ensuing year; and Professor Geo. B. Gordon, member of the sectional committee to serve five years. In accordance with a change in the constitution enlarging the sectional committee, the section recommended to the council that the American Anthropological Association, the American Folk-Lore Society and the American Psychological Association be designated as societies suitable for affiliation with Section H.

Addresses and Papers

The address of Professor R. S. Woodworth, retiring vice-president of Section H, entitled "Racial Differences and Mental Traits," was published in SCIENCE on February 4. It was followed by an important discussion on related topics such as: brain weight in relation to race, intelligence and the finer structure of the brain; and the relative influences of heredity and environment, in which Professors H. H. Donaldson, Frederic Adams Woods, E. E. Southard, Franz Boas and J. McK. Cattell took part. The address of Dr. John R. Swanton, president of the American Folk-Lore Society, on "Some Practical Aspects of the Study of Myths," will be published in the Folk-Lore Journal.

Most of the papers read at the joint meeting are represented in this report by abstracts. These

Some Fundamental Characteristics of the Ute Language: Dr. EDWARD SAPIR.

The Ute language, originally spoken in much of Colorado and Utah, forms the easternmost dialect of the Ute-Chemehuevi subgroup, according to Kroeber's classification, of the plateau branch of the Shoshonean linguistic stock. It is itself spoken in at least two slightly different dialects, which may be termed Uintah and Uncompahgre Ute. The phonetics of Ute are only superficially easy, actually they are characterized by many subtleties. The consonantal system in its original form can, by internal evidence, be re-

duced to the "intermediate" stops p, t, velar q and labialized qw, the sibilant c (really a sound intermediate between s and c), the nasals m, n and ñ and the voiced spirants w and y; in Uncompangre ñ seems normally replaced by nasalization of preceding vowel. These consonants undergo various mechanical changes. Before vowels which, for one reason or another, have become voiceless, the stops become aspirated surds (pc, tc, qc and qcw), while the nasals w and y lose their voice, the voiceless \tilde{n} often, at least in Uncompangre, becoming merely nasalized breath with the vocalic timbre of the reduced vowel. Between vowels the stops become voiced continuants (bilabial v, trilled tongue-tip r, velar spirant γ and γ^{w}). Lastly, if the stops are preceded by a vowel and followed by a voiceless vowel, they become voiceless continuants (voiceless bilabial v, voiceless r, x and xw). Thus, an etymologically original intermediate p may appear in four phonetically distinct forms: p, p^c, v and v; the voiced stops (b, d, g, gw) may also, though not normally, be heard as modifications of original intermediate stops, particularly after nasal consonants. To be carefully distinguished from the simple consonants are the long consonants (pp, tt, qq, qqw, cc, mm and nn) and consonants with immediately following or simultaneous glottal affection (such as me, we, tte). The vowels are perhaps more difficult to classify satisfactorily. As etymologically distinct vowels are probably to be considered a, u, i, weakly rounded ö, and perhaps ü and I (Sweet's high-mixed-unrounded?). The influence of preceding and following vowels and consonants, however, gives these vowels various shades, so that actually a rather considerable number of distinct vowels are found (thus u may become close or open o, i before v is a very different vowel from i before γ , a is often palatilized to open e, and so on). The various vowels, in turn, exercise an important influence on neighboring consonants (thus i palatalizes preceding q to ky, voiceless r has quite different timbres according to the quality of the reduced vowel following it, and so on). As often in English, it is possible to distinguish between slowly pronounced normal forms and allegro forms. Every syllable, in its original form, ends in a vowel or glottal catch; where it seems to end in a consonant, more careful analysis shows that the aspiration following it has a definite vocalic timbre. Words ending in a voiced vowel are invariably followed by a glottal catch or by a marked aspiration.

Nouns are, morphologically speaking, of two

types. The absolute form is either identical with the stem, the final vowel of non-monosyllabic nouns becoming unvoiced (thus pac, "water," and pun qcu, "pet horse," from stems pa and puñqu-), or certain suffixes may be added to the stem to make the absolute form. These suffixes are -ttc (from -ttci) and -n-tc, which are particularly common with nouns denoting animate beings, though often found also with other nouns, and -v1 and -m-pc1, which are often employed to give body-part nouns a generalized significance. In first members of compound nouns, which may be freely formed, these suffixes are lost, but with possessive pronouns -ttci is kept, while -vi and -mpi are lost. Only animate nouns regularly have plurals. Plurals are chiefly of three types: some nouns, particularly person nouns, have reduplicated plurals; others add -w (objective wa) to the stem; still others have a suffix -mc. All nouns with possessive suffixes may form a reduplicated distributive meaning "each one's -. " The possessive relation, when predicative, is generally expressed by the genitive-objective form of the independent person pronoun preceding the noun (thus nín nai möieco, "it is my hand," absolute $m\ddot{o}^{\circ} \ddot{o}' v^{i}$), when attributive, by suffixed pronominal elements (thus möeő-nc, "my hand"). Eight pronominal suffixes are found: first singular, second singular, third singular animate, third singular or plural inanimate, first dual inclusive, first plural inclusive, first dual or plural exclusive and third plural animate. The genitive-objective or non-subjective form of the noun is made by suffixing -a, less commonly -i, to the stem, the possessive pronoun suffixes always following the objective element; as the objective -a often appears as a voiceless vowel, or, owing to sentence phonetics, may be elided altogether, the deceptive appearance is often brought about that the objective differs from the subjective merely in having the unreduced form of the stem (subj. púñqeu from púñqu, obj. puñqúea or puñqú from punqua). A well-developed set of simple and compound postpositions or local suffixes define position and direction with considerable nicety.

Verb stems differ for singular and plural subjects, often also for singular and plural objects, the dual always following the singular stem. In some cases the singular and plural stems are unrelated, in others they are related, but differ in some more or less irregular respects, in still others the plural has a reduplicated form of the stem, and in many cases the plural is differentiated from the singular by the use of a suffix

-qqa (or -kky ä). Reduplication is used to express not only plurality of subject or object, but also repeated activity; some verb stems always appear in reduplicated form. The pronominal elements are the same as in the case of the possessive suffixes; they may either be appended to, not thoroughly incorporated with, the verb as suffixes, the objective elements always standing nearer the stem, or they may be appended as enclitics to a noun or adverb preceding the verb. When pronominal subject and object are both expressed as enclitics they may either appear together in either of the ways just described, or the subject may be attached to a word preceding the verb, while the object is suffixed to the verb; it seems that only third person pronominal enclitic objects can be combined with following enclitic subjects. Ute has both prefixes and suffixes in its verbs, the former being less transparently affixed elements. The most interesting of the prefixes are a set of elements defining body-part instrumentality; some of the ideas expressed by the suffixes are aoristic activity, futurity, intention, momentaneous action, completion and others. An important feature of Ute is the presence of numerous compound verbs, the second stem generally being a verb of going, standing, sitting or lying. Sometimes these second elements of compounds have quasiformal significance (thus "to be engaged in eating" is expressed by "to eat-sit").

On a Remarkable Birch-bark Fragment found in Iowa: Mr. Warren K. Moorehead.

Some thirteen years ago there were found near Fairfield, Iowa, two pieces of oak wood fitted together and covered with gum or wax. The oak had been cut with stone axes, and apparently the wax was of aboriginal origin. There was a slight hollow or cavity in the center of each piece of wood. When the wood was fitted together this cavity would be four inches square and an inch thick. Within this had been folded and placed a strip of birch bark of unknown length. The workmen in digging out this piece of wood struck it with a pick and broke it open. There was a strong wind blowing at the time, and half of the birch bark was blown away and lost. The other fragment was preserved and given to a school teacher. She sent the specimen to Mr. R. S. Peabody, founder of the museum at Andover. The author is convinced of the genuineness of this find. The specimens were submitted for examination and comment, the latter being favorable in respect to their authenticity.

The Condition of the Ojibway of Northern Minnesota: Mr. Warren K. Moorehead.

This paper, while not strictly ethnological in character, is based upon over four months' residence this summer with these Indians at White Earth, Minn., for the Indian Office, Washington. The Indians have abandoned their old-time customs and taken on many of the vices of the whites. The Mid-di-wi-win, or grand medicine society, was not as of old. Day Dodge, a man of eighty-two, is the sole survivor of the Mid-di-wi-win members of the old school, and to his keeping is entrusted the birch-bark records. He has agreed to translate these and present them to the museum at Andover.

These Indians have been cheated out of fully 90 per cent. of the 11,000 allotments of pine timber and farm lands issued to them by the government at Washington. They now live in unsanitary cabins, are crowded together and have lost much of their tribal life.

The Chronic Ill Health of Darwin: Dr. Robert Hessler.

A study of the chronic ill health of Darwin after the manner of the paleontologist, the data in the "Life and Letters" and "More Letters" being studied in the light of the ill health of a number of individuals who seem to have similar ill health. It is largely a study of environmental influences and of interpreting symptoms, not of disease, but of ill health, and showing on what the ill health depended. The paper was illustrated by charts.

Anthropology in the Peale Museum: Mr. Geo. H. PEPPER.

The Peale Museum of Philadelphia was an institution of note in the days when scientific collecting was in its infancy. For many years it has been known that it contained a fair-sized collection of anthropological material, but none could say how much or what the character of the specimens.

Charles Willson Peale was the founder of this interesting institution which began its active career in 1794. The general history and a monograph on the ornithological specimens have been written, but no record of the anthropological material is known to exist. In the archives of the Pennsylvania Historical Society an accession book was found. It gives the accessions from 1805 to 1842 and it is from these entries that the major part of the information presented in this paper was obtained. The most interesting of

these were selected, and among them were the records of specimens obtained by Merriweather Lewis and William Clark, "In their voyage and journey of discovery up the Missouri to its source and to the Pacific Ocean." The rather long list of specimens noted are from the various tribes visited by these early explorers. Among other entries of note were specimens collected by Colonel Pike and other noted travelers.

A general history of the museum with its various homes and the final sale of the material brings the paper to the final disposition and fate of many of the specimens. All that are known to be in existence are now in the Peabody Museum of Harvard University at Cambridge, Mass.

Calf Mountain Mound in Manitoba: Professor HENRY MONTGOMERY.

In September last (1909) Professor Montgomery excavated an ancient artificial mound, which for many years has been known to the residents of southern Manitoba as "Calf Mountain." It is situated on a natural ridge in Manitou County. This mound is about eighty feet in diameter and ten feet in height. Openings had been made in it by other persons some twenty years ago. During the investigation of it about thirty days' work in digging has been expended upon this mound. The excavations brought to light nine burial places within a circular area of thirty-five feet in diameter, and under conditions which point to the mound's having been built in portions at different times. The objects in the burial places are in different conditions as to their preservation, and in addition to this the calcareous layers which covered the burials were found to overlap in such a manner that the more recent layers extended above and over the older ones without a break or interruption.

The objects found consisted of bone armlets with carving upon them, shell ornaments, copper beads, a piece of tanned hide, birch bark baskets, human skeletons and skulls of buffaloes.

Huron Moose Hair Embroidery: Dr. F. G. Speck.

This paper deals objectively with the moose hair appliqués embroidery of the Huron Indians now living at Lorette, P. Q., Canada. The present known distribution of this type of decoration was given, followed by remarks on its antiquity and history. Details of the technique, of which there are six varieties, were treated and illustrated from specimens collected by the author and from those preserved in the collections of various museums. A list of nineteen decorative figures

shows the prominence of flower designs in this art, since all but two of the figures represent either partial or complete flowers or trees. The author described and interpreted the figures found on various embroidered specimens. The paper concluded with a discussion of both the technique and the symbolism of Huron art, and, so far as was possible, a comparison of the designs with those of adjacent tribes. This paper, the material for which was obtained during several visits to Canada in 1908–9, is intended to appear, illustrated with figures and plates, in a new volume of the Anthropological Publications of the University of Pennsylvania Museum.

Assiniboine Folk-lore: Dr. Robert H. Lowie.

The Assiniboine, as a Dakota tribe living for a long time in close contact with the Cree, might naturally be expected to exhibit in their mythology traces of both Siouan and Algonkian influence. As a matter of fact, the trickster-hero cycle presents relatively few homologies with Siouan mythology, but bears the impress of western Algonkian influence. On the other hand, the miscellaneous folk-lore tales, while to a considerable extent shared by the same tribes, do not show the predominance of their influence, because an approximately equal number has also been recorded among the Omaha. From a psychological point of view, it is interesting to note that Inktonmi, who appears in the mythology of the Dakota proper as a pure trickster type, assumes among the Assiniboine some characteristics of the culture-hero. The secondary association of elsewhere distinct motives is also abundantly exemplified.

What is Totemism? Mr. A. A. GOLDENWEISER.

An analysis of the various definitions of totemism discloses a set of phenomena generally covered by that term. In examining the two typical totemic regions—Australia and northern British Columbia—we find them differing in all essential points. If we then follow up the various social and religious phenomena comprised in totemism, in a number of cultural areas we find that each one of these phenomena may and does occur independently, often stands for different psychological facts, and has an independent origin.

In totemism then we must see an association of these several factors. From this point of view totemism becomes the product of a process of convergent evolution, and we are confronted with a number of historical and psychological problems to be investigated. The Myth of Seven Heads: Professor Alexander F. Chamberlain.

Among the "miscellaneous tales" recorded by Dr. Clark Wissler and Mr. D. C. Duvall, in their recent monograph on the "Mythology of the Blackfoot Indians" is "a myth of a sevenheaded person who made a business of devouring young women." He is killed by a man who receives "power" from some animals for whom he settles a quarrel. The conclusion of the tale is as follows: "After this he married a princess. Then the thunder stole her, but he secured her by killing a lion, then an eagle, which flew out of the lion, then a rabbit, which came out of the eagle, then a dove, which came out of the rabbit, etc."

The authors cited comment upon this tale: "This story is believed by the Indians to have been brought in by the French." The conclusion certainly suggests such an origin, with its mention of a "princess," and the succession of animals killed.

But a "tale of Seven-heads" is known from the Kutenai,2 the Arapaho and Sarcee—and probably also the Gros Ventre. So far as the present writer is aware, the only native text of the "tale of Seven-heads" hitherto obtained is the unpublished Kutenai version recorded in 1891 by him from the dictation of a Lower Kutenai In-In the Kutenai version Wistatlatlam (Seven-heads), is defeated and killed by a youth named Sanuktlaent (Bad Shirt), after he has been given "medicine," to make him strong, by a young woman, his wife. Here the tale is thoroughly Indian in aspect; the "princess" is absent; and the story ends by the hero cutting out or pulling out the tongue of his defeated adversary, and carrying it home as evidence of his triumph.

The Kutenai version seems to prove that we have here an original Indian legend, which in the case of the Blackfoot version noted above has been contaminated from European sources, the Kutenai retaining the simpler aboriginal form.

Professor W. H. Holmes, president of the joint meeting of Section H and the American Anthropological Association, read an important paper on "Some Problems of the American Race," which was illustrated by original and instructive diagrams. The paper, being still unfinished, will not

be published at present. Dr. S. A. Barrett's two communications on "The Characteristics and Material Culture of the Cayapa-Indians" and "The Cayapa Spirit World" are extracts from a larger work which will appear shortly as part of a series printed privately and entitled, "Contributions to South American Archeology." The paper by Dr. George Grant MacCurdy, on "The Alligator Motive and Figures with Mixed Attributes in the Ancient Art of Chiriqui," is to appear as a monograph in the Anthropological Publications of the University of Pennsylvania.

Two other papers were read, of which the secretary has no abstracts: "Native American Ballads," by Mr. Phillips Barry; and "A Possible Explanation of Conventionalized Art," by Dr. H. J. Spinden.

The following papers were read by title:

- (a) Rock Inscriptions; (b) Stages of Progress in Parallels of Latitude: Dr. Stephen D. Peet.
- (a) The Incensario; (b) The Distribution of Gray Pottery in the Pueblo Region: Dr. Walter Hough.

Symbolism in a Japanese Marriage: Mrs. Sarah S. James.

Distribution of South American Linguistic Stocks (map): Professor A. F. Chamberlain.

An Introductory Paper on the Tewa Language (printed in this journal): Mr. John P. Har-RINGTON.

Literary Form in Oral Tradition: Professor Franz Boas.

Folk Songs and Music of Cataluna: Mr. A. T. Sinclair.

A Grammatical Sketch of the Coos Language of Northwestern Oregon: Mr. Leo J. Frachten-Berg

One of the particularly attractive features of the week was "Cambridge Day," all members of the joint meeting being guests of the Division of Anthropology of Harvard University. The morning was spent at Peabody Museum, after which luncheon was served at the Colonial Club. Special cars were provided both to and from Cambridge. Many members also took advantage of the special facilities offered by their respective officers to visit the museums of anthropology at Salem and Andover. The social functions included a number of special luncheons and dinners given by local anthropologists and their friends.

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¹ Anthrop. Pap. Amer. Mus. Nat. Hist., 1908, II., 163.

² Chamberlain, Rep. Brit. Assoc., 1892; Kroeber, Anthrop. Pap. Amer. Mus. Nat. Hist., 1907, I., 57.