bing biology of its histology. To this the histologists have strenuously objected: the extreme of feeling was, perhaps, reached by one of these gentlemen, who declined the nomination to the presidency of the section on the ground that the establishment of the section was a disgrace to the association! However this may be exaggerated, it indicates the general sentiment among histologists, that their investigations are morphological or biological, and not 'microscopical.'

We have pointed out on previous occasions that microscopy does not constitute a natural division of science, but is a compound of fragments taken from many distinct sciences, and patched together by the arbitrary association with a single instrument. In the American association, the sections are distinguished according to natural lines of division in the domain of science, all except that of microscropy, which existed by encroachment on every one of its neighbors. Its trespasses will, we trust, now find posthumous forgiveness. On the other hand, there are many technical processes which are of interest to the majority of those who habitually use the microscope, but not to others; and these processes are essential to many investigations: it is to be hoped that Dr. Minot's suggestion, of forming a microscopical club within the association, will be carried out to insure the cultivation of technique among the members interested. In conclusion, we may mention another cause of the failure of section G; namely, the prosperity of the American society of microscopists, which has withdrawn many from the association who might otherwise have made the section successful. We fear that some of the microscopists may feel themselves to have been slighted; but surely such has not been the intention, for it must not be forgotten that the change was made at the request of the section itself.

The address of the president of the section was admirable. It was well received, and in itself the most valuable communication presented to the section. For the rest, the attendance was very small, and there were only four papers presented. In fact, the section exhibited too plainly its moribund condition.

Mr. W. H. Walmsley read a paper which will be of much value to photo-micrographers, as it gives exact directions for lantern-slides with gelatine plates. Mr. Walmsley described the methods which his own extended experience has led him to prefer, and added accounts of several manipulations and ingenious devices of his own. The utility of the paper is mainly practical. We have understood that it will appear in full in the proceedings.

Prof. T. J. Burrill reports that Dr. H. J. Detmers has obtained good photographs of Amphipleura pellucida by the use of a common coal-oil lamp. Still better results than with balsam preparations may be obtained with imbedding media of higher index. He says, further, "At my suggestion, Mr. S. W. Stratton designed and constructed a new heliostat of simple mechanism, which answers the purpose required in photo-micrography as well as the more elaborate and more expensive instruments, and which is far more readily managed. For those who need to have the sun's rays constantly thrown in any given direction for one day only without resetting, the apparatus is all that may be desired."

Mr. C. P. Hart described a clever manner of making a microscope into a microtome by using the tube to carry the imbedded object, and the movable stage to carry the razor: the object to be cut is moved by the fine adjustment.

THE NATIVE TRIBES OF ALASKA.[1]

THE first half of Capt. Dall's address was devoted to the history of investigations into the anthropology of Alaska, which he divided into three periods. The first began with the expedition of Bering and Chirikoff, and continued during the remainder of the eighteenth century. The second began with the establishment of the Russian American company, and the third with the expedition of Mr. Robert Kennicott. The remainder of the address was taken up with an account of the native tribes of the region concerned, and closed with an attempt to classify the various tribes of the far north-west. We give almost without abbreviation that portion of the body of the address which deals with the Innuit.

Most of the Arctic Innuit are not separated into tribes in the same sense that the Indians of the United States, east of the Mississippi, were at the time of their discovery, nor even to the same extent as those Innuit south from Kotzebue Sound on the north-west coast. Terms are used to indicate the groups of Innuit geographically separated from each other by a stretch of unoccupied coast; and, for convenience, these terms are referred to as tribes. This is practically their own fashion. The people are all known as Innuit: those from a certain quarter have a special name, and those from each village in that district, or each river, have a still more special name. But there are no chiefs, no tribal relations in the strict sense; and the only distinction used among the people referred to is based on their locality of origin: they freely migrate from village to village, or district, and are not regarded as foreigners, though the obligation of free hospitality is not felt to be binding in regard to strangers from a distance long domiciled in another than their native village. We have no new information from the Kopagmut, nor from the people of the Colville River, except a few notes derived from the Point Barrow people by Prof.

[1] Abstract of an address delivered before the section of anthropology of the American association for the advancement of science, at Ann Arbor, Sept. 1, by Mr. W. H. DALL of Washington, vice-president of the section.

John Murdoch during his sojourn at Cape Smythe, as a member of Lieut. Ray's party on duty at the International polar station known as Uglāāini. In the course of his admirable ethnological investigations he found that the Point Barrow people have the habit of using the plural rather than the collective form of the designation for a particular people, and call those of the Mackenzie River district by the term Kŭpŭng'-mi-ūn (Kopagmūt), and those of the Colville Kŭng-mŭd'-ling (Kŭng-mālĭgmūt).

For the people of Point Barrow, Mr. Murdoch and the other members of Lieut. Ray's party obtained rich ethnological data, which are in course of publication. Some interesting facts have also been gathered by Capt. Hooper of the U. S. revenue cutter Corwin during several visits to Point Barrow. As a whole, we shall soon be in possession of very full information in regard to this isolated band.

Of the Nūnātăkmūt we have nothing since 1877; and of the Kū-ăgmūt only a few facts collected by Lieut. J. C. Cautwell of the U. S. revenue marine, during his exploration of the river in 1884. He reports that the local name of the river is Kū-ăk, not Kowak, as generally adopted on the charts. From Lieut Stoney who followed him, and who has since returned to the region to carry on a more extensive exploration, a large addition to our knowledge of these Innuit may be expected in the near future.

Of the Innuit from Kotzebue Sound around to Norton Sound, little bearing on their classification or language has been gathered since 1877. The observations of Nordenskiöld and the Vega party at Port Clarence in 1879, and of the speaker in charge of the U. S. coast-survey party in 1880, at Port Clarence and the Diomedes, as well as Kotzebue Sound and the Asiatic coast near by; of Hooper in the Corwin, 1878–80; of the Jeannette expedition in 1879, — have added numerous facts, but little bearing on their distribution or classification which was not already known.

The most interesting people of the region adjacent to Bering Strait are the Asiatic dwellers on the coast, part of whom belong to the Korăk race, and part to the Orarian group of people. In no other ethnic group of the region has research been better rewarded since 1877. We have the admirable observations of the Vega party, the arduous explorations of Arthur and Aurel Krause, and some observations of my own, all of which, taken together, have done much to clear up one of the most knotty ethnological puzzles of the northern regions. I give the results in brief, as my time is not sufficient to go into details. The Asiatic coast presents us with the Tsaū-yū (plural Tsau-yūat) or Tsau-chū, a people of Korak extraction, commonly known as sedentary Chukchi, who have lost their reindeer and settled upon the coast, adopting from their Innuit neighbors much of their peculiar culture, but not their language. These people bear about the same relation to the wandering or reindeer Chukchi that the fishing or farming Lapps do to the mountain Lapps of Lapland. Among them, with their little villages sometimes side by side, are to be found the Asiatic Innuit, who call themselves Yūit (by local corruption of the race name), and who present essentially the features of the western Innuit of America, with some local differences. They migrate with the seasons from Cape Olintorsk to East Cape; their most northern permanent village, as far as known, is at the latter point. The Tsau-chū extend along the northern coast of Siberia much farther north and west. The two races are friendly; there is some intermingling of blood by marriage; and a jargon containing words of both dialects is used in communications between them. In my opinion, however, it is very necessary to keep in view that the culture of Tsau-chū, so far as it differs from that of the wandering Chukchi, is distinctly a derivative from that older culture of the Innuit race, though the arctic people of both hemispheres and all races have much in common, due to their environment. The word Chukchi has been so misused that it is almost meaningless; but, in the strict and accurate meaning of the word, there are no Chukchi on the American coast, as has been asserted. That error arose from the confusion between the Innuit and Yūit on the one hand, and the Tsau-chū on the other.

Of the Innuit people on the American coast at Norton Sound and southward to the peninsula of Alaska, not much additional information has been made public since 1877 bearing on their classification. That in the report on Alaska, comprised in the publications of the U. S. census of 1880, is retrograde in many particulars rather than an advance, being the work of a person unqualified for the task. Magnificent collections bearing on the culture of these people have been made by Turner, E. W. Nelson, W. J. Fisher, C. H. Mackay, and others, and have been received by the U. S. national museum. But the unfortunate ill health of Mr. Nelson and other circumstances have delayed the publication of his rich and valuable observations. A good deal has also been done in the way of collections on the island of St. Lawrence by Hooper and Nelson, and in the Aleutian Islands by Turner, Dall, and others.

With regard to the tribal limits of the western Innuit, geographically considered, they are very mutable, and, especially in recent years, are constantly changing in small details. This arises from the fact, that the geographical group, which we have called a tribe among the Innuit, and for which in some cases they have a special designation, is not a political organization headed by a chief or chiefs, but simply a geographical aggregation of people who have by possession obtained certain *de facto* rights of hunting, fishing, etc., over a certain area. The jealousy of adjacent groups keeps the imaginary boundary-line pretty well defined through fear of reprisals should it be violated. When the whites came in with trade, and established posts all over the region, they also used their power to put down any conflicts, which are always injurious to trade. The boundaries, now violable with impunity, fall into oblivion, and the more energetic hunters and trappers go where they choose. In this manner the geographical group names I have described are ceasing to have any serious significance, and every new ethnographical visitor will find himself unable to make the ancient boundaries

correspond to the distribution of the moment. Nevertheless, in a general way, the old maps, such as that of 1877, still indicate the focus of the former group or tribe, and doubtless will long continue to do so. The Innuit tribes on the Kuskokwin have been found by Nelson to extend farther up the river than was supposed in 1877, reaching nearly or quite to Kolmakoff's trading-post. The advance up the Yukon, shown on the census map, is recent, if authentic. The St. Lawrence Island people are more nearly related to the Innuit of the American coast than to those of Asia, though their commerce is with the latter and with their Korak neighbors. As regards the Innuit of the region between the Koyukuk River and the Selawik River, the miscegenation indicated by the census map has no foundation in fact. The error doubtless arose from the permission accorded by the Innuit to special parties of Tinneh to come into and through the territory of the former for purposes of trade. The north shore of the peninsula east of Port Möller is represented by the census map as occupied by the Aleuts or Unŭngŭn. The region is really not inhabited, except for a few temporary hunting-stations, except by typical Innuit. Notwithstanding these and many other errors in this compilation, it is probably correct in extending the area of Tinneh about Selawik Lake, which is a useful addition to our knowledge. In 1880, while visiting Cook's Inlet, I was enabled to determine the essential identity of the native Innuit of Kenai with those of Prince William Sound, though among them were many Konia'gmūt, brought there for purposes of trade in hunting the sea-otter.

With regard to the Aleuts, the degree of civilization to which they have attained is very promising. The people are not scattered over the archipelago except in their hunting-parties. In the western Aleutian Islands the only permanent villages are at Attu and Atka Islands. The division into groups is rather a matter of tradition than of actuality: practically they are as much one people as those of two adjacent English counties.

The easternmost of the Innuit people are the Chūgăchîgmūt of Prince William Sound. At their eastern limit, there has long been a confusion, which I supposed I had cleared up in 1874, but which has only been finally regulated by information received from the brothers Krause, and obtained by myself in 1880. The census agent who visited them in 1881 was frightened by some boisterous demonstrations, and departed in the night in a small canoe, abandoning his equipage after a stay of some forty-eight hours. Consequently very little information was obtained by him, and that of an uncertain character.

Three stocks approximate to each other at this point, — the Chūgăchîgmūt Innuit, the Tinneh of Copper River, and the Chilkaht tribe of Tlinkit. The latter have a precarious traffic coastwise, a few canoes annually reaching the Chilkaht village (sometimes called Chilkhaak) at Controller Bay by the dangerous voyage from Yakutat. But another path lies open to them, at least at times. One of Dr. Krause's Indian guides informed him that he had descended the Altsekh River (a branch of the Atna, or Copper River), which heads near the Chilkat River at the head of Lynn Canal, to a village of his own tribe at its mouth on the seacoast. Of the visits of the Ah-tenā tribe of the Tinneh I have had personal observation; and that the Chūgăchîgmūt pass by them to the Kayak Island in summer, all authorities are agreed. This information explains the confusion of previous evidence, and shows why the vocabularies have sometimes afforded testimony in favor of one view, and sometimes of another. A jargon is probably in use in communications between the Tlinkit and the Innuit. That any ethnic intermingling of blood has taken place, I regard as too improbable to be worth consideration, having had personal evidence of the fear and hate existing between the two peoples. There is some distrust between the Tinneh and the Innuit, as elsewhere; but the bold and aggressive Tlinkit have committed so many outrages upon the timid and peaceable Chūgăchîgmūt, that the feeling there is of a much more bitter character.

I have elsewhere stated my reasons for believing that the Innuit formerly extended much farther to the south and east. Nothing has since been discovered which materially affects the grounds of this belief of mine, and the subject is an interesting one for future investigation.

PROCEEDINGS OF THE SECTION OF ANTHROPOLOGY.

The meetings of this section were held with great regularity. The papers were all read on the days indicated, and were most of them of great interest and value, the hall assigned to the meetings being always filled with an interested audience.

The first paper, by Rev. Mr. Dorsey, gave an account of a visit to the Siletz agency. The author had spent several months at this agency, engaged chiefly in linguistic studies. The agency is located near the coast of Oregon, not far from the Columbia River. The Indians at the agency are all of them more or less civilized, and some of them take newspapers. In complexion they are lighter than most Indians, and are very short. The adult women, especially the older ones, have the face disfigured by tattooed lines. In many respects, both men and women resemble the Ainos. In their treatment of strangers, the Siletz Indians are very polite. The population of the agency is made up by the consolidation of over twenty tribes, none of whom are the original Siletz. Because of this, the language spoken is a jargon. The greater part of the paper consisted of a very methodical and scholarly account of the peculiarities of this language. A few only of the characteristics mentioned can be given. The verb varies with the position of the object. They cannot say 'that man,' but must say 'that man walking,' or sitting, or standing, etc. There are three sets of cardinal numbers, human, inhuman, and inanimate. Possessive endings are found in many words. All