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ERRATA :

In "The Development of Language."

Page 96, line 18 ; insert "and" before "issuing."

" 113, line 3 from foot ; for "or" read "and."

" 118, line 6 ; for "*witsaia*" read "*witsaiu*."

" 119, line 23, for "word" read "words."

On Page iii. of Vol. V., for 1887-1888, read 1886-1887.

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## ESKIMO OF HUDSON'S STRAIT.

BY F. F. PAYNE.

MUCH has been written of the Eskimo by navigators and travellers in Arctic and sub-Arctic Regions, and yet we find in almost every writing at least something new to interest us. In a short paper such as this it would be useless attempting to describe all the customs and habits common to the whole race that have so often been described before, I shall, therefore, endeavour to confine myself as much as possible to a description of the more interesting parts of the modes of life of those met with on the shores of Hudson's Strait, and more especially those at Cape Prince of Wales, many of whom had not met white men before, and with whom I lived during a period of thirteen months.

During the winter months the Eskimo, or Inuite as they call themselves, are found occupying the ground at prominent points along the coast. Here the ever changing tides flowing and returning break up the ice and here the seals, on which they mainly subsist, are found. The prevailing winds during these months being from the north-west, snow is drifted to a great depth on the south-eastern sides of the hills. This they take advantage of and soon after building their igloos many of them are completely buried and are thereby well protected from the wind. On visiting a village after a snowstorm I was struck with its resemblance to a lot of mole hills. Nothing could be seen but a little snow thrown up on each side of a hole by which a passage led to the igloo ; on a near approach, however, windows were seen a little below the surface from which the snow had been removed. Upon entering some of those igloos, passage ways were found cut through the drifted snow thereby connecting several of them, making it appear much like an underground village.

In these villages they live as long as possible, and will not leave until they are compelled to do so through scarcity of food ; but at this time, when a report comes in from another part of the coast that seals are plentiful, they will sometimes leave in a body, and where an hour

ago merry laughter could be heard, now you are only greeted with the snarl of a stray dog that keeps well out of your way, or the caw of a raven as it sits on a neighbouring rock watching you suspiciously.

About the month of March, most of the seals leaving the coast, food becomes very scarce and many shifts are made. Hurried expeditions are taken by the men with their dogs along the shore, their family sometimes accompanying them, but they are oftener left behind, and the unhappy look of a father as he returns without success tells plainly how much he feels for those dependent upon him.

As this month advanced at Cape Prince of Wales food became scarcer and now, though at other times helping one another, it was a matter with many of life and death and every man looked out for himself and his family. If he secured a seal it was hidden as quickly as possible. At this time the old and those weakened by starvation and unable to move from place to place were left to their fate, though should a party be so successful as to capture more than would supply their immediate wants they returned at once with food to those they had left behind.

Early in April, the weather becoming milder and the snow well packed sleigh journeys are made to distant parts of the coast and seldom before this time do they undertake long trips. At this time, too, the deer come from inland to the coast and expeditions are made to meet them, though few deer are taken until the end of the month.

The latter part of April, May, and June may be considered the Eskimo's harvest time, for besides the deer large numbers of seals are taken as they appear along the wide cracks that now form in the ice.

Towards the end of May, snow igloos melting away, the women may be seen busily engaged in repairing the seal skin covering of their tupeys which have been cached since the previous summer, and now, while some are inland hunting deer, single families pitch their tupeys at favourable places along the coast where the men spend most of the time watching the ice for seals.

On May 23rd, four families left Cape Prince of Wales for a large lake about one hundred and sixty miles to the southward. Here I was informed they would remain throughout the summer living upon deer, fish, and a kind of berry not found on the coast. This lake, by

their own description, must be about one hundred and fifty miles in length, and twenty-five miles broad, and apparently has never been visited by civilized being.

Early in June all the hunters returned to the coast and immediately commenced laying in a stock of walrus and seal meat, which was cut into strips, sewn up in bags, made of the whole skin of a seal, and cached.

On June 10th the first kyaks of the season were launched at Cape Prince of Wales, and from this time until the end of August a sharp lookout was kept for the white whale which gives a large supply of food.

For the second time in the year the deer season commences about August 20th and lasts a month, during which time some exceedingly hard work is done to secure enough skins for clothing and bedding for the winter.

During the latter part of September and until the sea is once more covered with ice, about the end of November, walrus are hunted. After this date the kyaks are put away, and until the ice is firm the times are very hard; and now the caches are opened and a large hole is soon made in their small winter's stock of provisions. With empty stomachs and leaky wigwams they exist until the latter part of December, when once more they build snow igloos and winter life begins again in earnest.

Besides the walrus, deer, seal and whale we might include all mammals and birds found in this region as comprising the Eskimo's food supply, but as several are only eaten when they are starving we may consider the following as a complete list of articles of food upon which they subsist:—Bear, rabbit, fox, dog and lemming, duck, goose, loon, young birds of all kinds, eggs, three or four species of fish, clams, mussels, shrimps, crayfish, one species of algae, the flowers of two, the roots of two, and the berries of three different plants, besides the bark of the willow, large quantities of which are eaten in the spring. The fox, dog, and lemming are only eaten in cases of extreme hunger, and the hardest to swallow seems to be the former, which even the Eskimo dog would not touch while scraps of dry seal skin were to be found. In eating any vegetable food they usually preferred to dip it into oil before swallowing. Quantities of seaweed are eaten especially during



the winter months when other food is scarce, and this I am inclined to think was the cause of the illness of several children, all of whom were suffering great pain when little else was being eaten.

Cooked food is only partaken of as a change, though it might become more generally used if fuel was plentiful. It was very amusing to see them with old fruit cans boiling small pieces of seal or other meat over a fire of small weeds. It was usually eaten half cooked and thickly coated with ashes.

Apparently only two regular meals are eaten, one upon first rising in the morning and one just before retiring. At these meals they might be seen each with a knife of some kind sitting round a seal with their share, taking first a piece of lean and then a piece of fat as we would eat bread and cheese, and, as might be supposed, their faces did not present a very pretty appearance after these meals.

Much has been said of the Eskimo's improvidence and undoubtedly, like most civilized beings, when food is plentiful they do eat more than usual thereby becoming lazier and less inclined to hunt; but it may be said for the credit of those in Hudson's Strait, excepting a few, they would hunt and kill at almost any time, and not so much as a handful of food was ever wasted.

Of original genius they seemed to possess little for although many of their appliances for hunting and trapping are ingeniously made, these have all been copied from those used by the same race, we may say, centuries ago, and in proof of this statement it may be added that where simple repairs were needed in traps and other implements, and where parts of these had been lost they were quite incapable of employing other means to make them of service until shown by my men or myself.

A marked difference is noticed in the quality of all mechanical work done by the Eskimo of the north and south shores of the Strait, especially in clothes by the women, and hunting implements and carved work made by the men, those on the north shore doing far the neatest and best work. This may be owing to the great demand for these articles by the men of the whalers who are constantly bartering with them; while those to the southward never have a chance of doing so, and are content with more roughly made articles for their own use.

Occasionally one would be found who showed far greater genius than his fellows, and here we might instance a man named Cowktooian, who, by the way, had lived many years on the north shore. With the roughest tools he was seen to make some beautiful joints in wood work, and on one occasion undertook to make the nipple of a gun, his only tool being a file. He first filed a piece of steel to the requisite shape, and then grinding one point of the file to the proper size for a drill made a very neat hole through it. Now, however, he was quite unable to file a rough thread for the necessary screw and was obliged to appeal to one of my men for aid.

The Eskimo cannot be said to excel in the finer arts, and yet we find in them the inborn love of sketching and carving, only in the latter, however, are they at all proficient. Good models of kyaks, animals and birds in ivory are made especially on the north side of the strait, where they seem to delight in vying with one another in trying to make the smallest models. The art of drawing is confined almost altogether to describing figures on the level surface of the snow either with a piece of stick, or, in larger figures, with their feet, and in several instances most correct drawings of their own people were made by slowly moving along with feet close together, raising a low ridge of snow as an outline, and afterwards adding details most dexterously with one foot.

Perspective in drawing was a great mystery, and even those who had been able to look at pictures upon the wall of my house every day for a year could not understand it. Involuntarily their hands would steal up to the picture and slowly passing them over they would feel for the objects that stood out from the background, while others would shift their heads to look behind screens or doors in the picture.

Soon after our arrival at the Observatory a coloured life sized picture of a child was put up just over my bed, directly facing the window. It had not been there long when hearing a great commotion I went to see what was the matter and found half a dozen faces pressed against the window and all were calling "chimo, chimo," which is a kind of welcome, and nothing would persuade them it was not real life until they had been allowed to examine it closely.

I am now reminded of a similar incident with a crying doll, several of which I had brought up as presents for the children. A

few days after my arrival, and while a woman and her child were looking in at the window I brought out one of these dolls, for the first time, and, unseen, dressed it in a towel, and slowly brought it towards the window. At first sight of it the woman's eyes opened very widely as she stood wondering, but when I suddenly made it squeak she did not wonder any more, but turned and fled.

Besides the means commonly employed in the chase by the Eskimo in all parts of the Arctic Regions there are doubtless others only known or practised by those living in certain localities. At Cape Prince of Wales the seals were seldom captured at their holes in the ice, but invariably along wide cracks, or in the water beyond the ice where one man might be often seen scraping with his spear and whistling in a low note while his companion lay at the edge of the ice, and if there were any seals within hearing distance they were always attracted to the spot, when rising quickly the Eskimo would throw his spear with line attached and if quick enough would seldom miss. The seal, however, is very active and often escapes by diving before the harpoon reaches it.

The gun, with which many are supplied, has almost taken the place of the bow and arrow, nevertheless they are still used by a few in deer hunting, and while one takes up a position behind some stones in one of the narrow passes of the hills others drive the deer towards him. By this means a very close shot is obtained and I was informed that often half the length of the arrow is buried in the deer's side.

The fish spear used in Greenland is also found here though seldom used, the most common implement employed being a long handle with an ordinary knife firmly tied near one end making a fork, one prong of which is the end of the rod, the other the blade of the knife its sharpened edge turned inward. With this ugly weapon the salmon are speared or, more properly speaking, are slashed and are often found nearly cut in halves.

The net is also used here in catching fish in the smaller streams, though the most common mode of trapping is by building walls of stones shaped like a bag about six inches above the surface, and then with sticks and stones splashing the water higher up the stream and driving the fish into the trap.

Some ingenuity is shown in setting the common steel fox-trap in winter. A wall of snow about eighteen inches high is built in the shape of half a circle the diameter of which is about two and a half feet. Near the centre from which the arc is drawn, the snow is first well pressed. A hole the shape of the trap is then dug with a knife and the trap being let into it, it is carefully covered with a thin crust of snow so that even if the fox does not actually tread upon the small pan, part of the crust when broken will start the trap. In front, and just under the wall small pieces of bait are placed so that in shifting its position to take each piece of bait the fox is certain to tread upon the trap.

The Eskimo's, amusements are few, and only in one or two do they seem to take much interest. Throwing the harpoon had the greatest attraction for the men, and often they might be seen taking their turns at a mark in the snow. Wrestling and running are occasionally indulged in, but the weaker side soon loses interest and gives in. Mr. Stupart informs me that while he was stationed here a large snow pleasure house was built, supported in its centre by a pillar of snow. The only game noticed, in which they took part in this house, was a kind of tilting, an ivory ring being suspended from the ceiling through which the men tried to put their spears as they walked quickly round the pillar.

During my stay here football was introduced, and in this they appear to take more interest than in any other game. The bladder of a walrus was well blown and then covered with leather making an excellent football, and it was a novel sight to see them playing. Men, women, and children all took part in it, and no quarter was allowed. Here a woman carrying her child on her back might be seen running at full speed after the ball, and the next moment she might be seen lying at full length with her naked child floundering in the snow a few feet beyond her. A minute later the child would be again in its place and nearly choking with laughter she would be seen elbowing her way after the ball again.

Catching trout in the summer in the manner described affords great amusement to the children and wild with excitement they were often seen pursuing a poor unfortunate fish in a shallow stream. The boys also spend a great deal of time in making small spears

and other implements of the chase, and practise with one another in throwing at a mark. Girls have their dolls and as with girls of civilized parents they delight in playing house; nor do they tire of this until they are married, for often groups of girls of all ages might be seen sitting in some sheltered spot in summer each having a house formed only of a ring of stones a few inches in diameter in which some short pieces of stick were lying while other pieces were propped upright. These pieces of stick represented people, and they were made to visit one another's houses while the owner kept up a continuous flow of conversation for them.

Unlike the Indian the Eskimo is nearly always laughing, and even in times of great distress it is not hard to make them smile. On one occasion, with the intention of building a beacon in the shape of a man, I procured the assistance of an Eskimo, and cutting out the shape of a large head in wood I got my assistant to carry it to the hill upon which I proposed to build the beacon. Without asking a question he assisted me to build the man and place head and arms upon it, nor did he understand its meaning when a model of a gun was placed between the arms. Finished it stood about nine feet high and when the last stone was put up I led my assistant about a hundred yards away and then turned him round to look at it. Slowly his eyes opened widely, and then suddenly he burst into such a fit of laughter I was almost afraid of him for he rolled upon the ground. This beacon was built for the guidance of the relief ship.

As we find among civilized beings men much more conversant with nature than their fellows so we find it with the Eskimo, and while some know many of the stars, and other objects in the heavens by name, others can hardly tell one from another. On the whole, however they may be said to be keen observers of nature, for in making collections of the birds, insects, and plants they were of great assistance, and if an insect was shown them they could usually take me where more of the same species might be found.

On the approach of summer they watched with interest its signs, and often would bring to me insects which they believed were the first of the season. The first snow bunting that appeared in the spring was hailed with great joy, and in great haste they came to inform me of its arrival.

Trading with one another and with those at distant parts of the coast is a common practice, the money standard used being a white fox skin. Most of their furs however are sent by one or two trusted traders to Captain Spicer's post on the north side of the strait and to the Hudson's Bay Company's post at Fort Chimo, Ungava Bay, and it is remarkable that, although these traders carry as many as thirty or forty parcels of furs owned by different families, they seemed quite able to remember on their return, to whom the goods they obtained in exchange belonged, apparently the only note made being a few marks with their teeth upon some of the articles.

It is generally supposed that the Indians and the Eskimo are continually at enmity with one another. This may be the case on the most northern coast of America, but it is certainly not so with those living on either the Labrador coast or Hudson's Strait all of whom spoke in the highest terms of the Indian, or Udler, as they call them, and several Eskimo were wearing articles they had purchased from them when visiting Fort Chimo.

As it is the case with all, or most uncivilized races, many of the senses are not well developed in the Eskimo. Pain, for instance, under which we would groan is borne without flinching and in this we had ample means of judging as I was called in to dress several painful wounds. Deep cuts, too, made by the accidental slip of a knife were simply bound up with a piece of sinew and no further notice taken of them.

Their power of hearing is very good and it was often noticed that sounds at a distance unheard by ourselves could be distinctly heard by them.

Although many suffer with weak eyes their sight is wonderfully keen, especially at long distances, as was often noticed by their being able to count the seals upon the ice that appeared to us as small specks seen very indistinctly. As the winter advanced many of them became snow blind and all were affected more or less with the glitter of the sun upon the snow. In one house visited three children were found perfectly blind, and although we did all we could for them, they did not recover their sight for nearly twenty days.

Regarding their sense of taste we need only remark, there was nothing we would eat that they could not relish, and much more we

would not eat they almost wholly subsisted upon. Smoking they dearly love, and the smallest scrap of tobacco is never wasted, even the ash from their pipes is used as snuff, and the idea of expectorating when chewing tobacco is never thought of; and further, disgusting though it is, the straw used in cleaning their pipe is always passed between their lips after each cleaning.

Although the Eskimo are cool under ordinary circumstances they become extremely nervous under excitement, and at times were seen trembling violently. This was noticed more especially when a walrus had been killed, and others were in sight, when playing a game of cards, and when leaving hurriedly for another part of the coast where seals had been reported.

Cleanliness, it may be said, is hardly known to the Eskimo uninfluenced by civilization, for to them apparently everything on earth is clean; nevertheless they would undoubtedly be glad to keep the dirt or dust off their bodies if they possessed such things as soap, towels, and water at a temperature rather higher than the freezing point, or we might say water at any temperature during the winter, for then it is as much as they can do to melt enough snow for drinking. During the warmest weather there was nothing they delighted in more than washing their faces when we would give them soap, and it was amusing to see them returning from a neighbouring stream laughing as they showed their faces to one another.

It is needless to repeat that the Eskimo will steal, for it is a well established fact, yet it is interesting to note some of its effects. Generally speaking all excepting the thief seemed to look upon the act as a great joke when it did not affect themselves, and as far as could be seen it is only fear that keeps them from stealing more from one another. Repeatedly we were asked to guard their goods while they made a journey, and every means possible are used to hide their caches. If during hard times an Eskimo discovers a cache his friends think it a great joke and all join in helping him devour its contents. At the same time the thief stands a chance of being punished by the owner.

During times when food was scarce they seemed to become careless and would then steal anything, and at one time some daring

attempts at a raid upon my storehouse were made. In spite of a watch being kept, and a warning issued to them that those attempting to force an entrance would stand a chance of being shot, while going my rounds about midnight I was startled to see a number rush out of the building with their hands full of provisions. They had pried the door off the hinges as noiselessly as any professional housebreaker, and now they made off as hard as possible. Determined to frighten them I started in hot pursuit, and when a short distance from them fired several shots over their heads. For some time after this they prowled about at night, and Ugaluk my favourite Eskimo strongly advised us to always go out armed as several threats had been made by his people to fire upon us if we thwarted them again. No further attempts, however, were made and I feel confident it was the bold front we showed that induced them to reconsider their threats.

Among those living at Cape Prince of Wales were three desperate characters who, some years ago, attacked part of the shipwrecked crew of a whaler named "Kitty" while they slept in a tent on the shore not far from the observatory. At first they treated them well, often bringing them food, but their blankets and guns were too great a temptation, and with knives they despatched them all, excepting one poor fellow whose feet had been badly frozen. This man, strange to say, they took care of and Ugaluk my informant said he lived with him in his father's igloo during the winter, that both his feet came off, and he died in the following spring. In the fray one Eskimo was shot dead, the rest escaping without a wound.

Either from fear or seeking favour several Eskimo returned stolen goods, but in each case they requested payment and were most indignant when we refused to give them anything. Our best friend in this way was a good looking girl name Checkooaloo who acted as our detective and very often brought back articles stolen by her people.

Physically the Eskimo do not seem as strong as civilized beings for in many trials of strength with my men who were not above the average in muscle development they were quite unable to cope with them.



In speaking of the moral side of the Eskimo's character it is needless to repeat the many disgusting stories that have been told so often. It is sufficient to know that according to our standard of morality they are immoral, but from what we know of other races we must admit that they at least are comparatively virtuous savages. Even our morality in which we boast seems to have the effect of corrupting what little virtue the savage possesses when it comes in contact with him and we may say, nowhere is this so distinctly seen as among the Eskimo. On the north side of the strait where vessels often call on their way to and from Hudson's Bay exchange of wives is sometimes practised, while on the south side, where there is little or no intercourse with these vessels, such a thing was never heard of, and it is well known to those interested that sailors who were allowed to act much as they liked on the north side were met with virtuous scorn by those living on the south shore.

At Cape Prince of Wales a few Eskimo had three wives, several had two, but the greater number by far had only one, and there were several old bachelors.

In nearly all cases the best hunters have the most wives, and a widow who is the strongest and best worker stands the best chance of marrying again if she is so disposed, especially if she has sons, for they are considered a source of strength to a household while daughters are looked upon as a weakness.

Although in most cases a second wife is taken through affection for her, in many instances it is undoubtedly done in charity, and there is one peculiar law or custom among those met with in the Strait that may be worth relating. If a married Eskimo has been considered only worthy of death for some offence the man who undertakes to execute him becomes responsible for his wife and children. The woman becomes the wife of the murderer, and her children are treated with kindness by him. Two instances of this strange custom came under my notice, one of which was that of my favourite Ugaluk who informed me that some years ago there lived a bad Eskimo who would not work, but stole from everybody, and he undertook to do away with him. While in friendly conversation he stabbed him and carrying his body out on his kayak dropped it into the sea. His wife and three children now live with Ugaluk, and although she stands in

his estimation as second to his first wife she appears to be quite happy, and during our stay here gave birth to her third child. A similar instance was met with at Cape Chudleigh, and in each case it seemed to be understood that those who were benefited by the death of these worthless fellows should give the executioner some assistance in supporting his family.

One man who had three wives, I was informed by Ugaluk, would have been content with one, but having no family he had married a second and a third, and now, poor miserable wretch, he was hardly able to support one, and all were childless.

Undoubtedly some of the matches between the sexes are arranged by the parents when their children are very young, nevertheless there was a good deal of love making. This was especially noticeable in the early summer when they were often seen together, and apparently without asking leave of anybody several started their own igloos. Much, however, as we dislike to think of it, it must be said, their love is little more than that of the birds of the air, excepting in constancy. Affection for one another they have, but such a thing as secrecy in any of the many phases of love is hardly thought of.

As far as could be seen no such thing as a marriage ceremony is performed. Girls marry at sixteen and even earlier, and when two are agreed they can be happy together, they either start their own igloo or the bride is received into the house of her husband's family and there they might be seen, husbands and wives, brothers and sisters all living happily together in one room or igloo.

The affection existing between parent and child is of the roughest kind, and is very interesting to watch. Little display is noticeable, and yet there appears to be intense earnestness in looking after the child's welfare, while the child is a pattern of obedience to its parents. The affection between husband and wife is much the same, but rapidly wanes if one becomes useless in the support of the other.

Partly in natural affection and partly from selfish motives all help one another, but it is a mistake to suppose that when a hunter returns with success he immediately shares his catch with his neighbours, for some were always found richer in food and household goods

than others. The men in these wealthy families, as might be supposed, were either physically stronger or better hunters than their fellows.

Very few Eskimo who had become useless by age or accident were met with and those that were seen appeared to be a great burden upon their people, and although they were treated with great kindness while food was plentiful it required no great prophet to predict their death by starvation at any time when food was scarce.

Early in spring, when for many days we had not been visited by an Eskimo, and supposing they had left this part of the coast, I wandered over to a deserted village and entering an igloo was surprised to find an old woman and her son apparently dying from starvation, and from them learned that a crippled man and his child were in the same condition in another igloo near by. Here was a worse case than the first, for with a little strengthening food we were enabled to move the woman and her son to an igloo near the station, but the man was too far gone, nor would he allow his child to be taken from him. Each day food, and a large piece of snow was put by his side, and although unable to use his arms, his child, a little girl three years old, fed him. Days went by and little improvement could be noticed in his condition, and one afternoon when it had been thawing I walked over to the igloo. Calling as usual as I approached, I received no answer, and coming nearer found the roof of the igloo had fallen in, and there he lay with marbled face, his eyes now fixed and turned to space, and his child lay sleeping by him. Wrapped in his bedding we placed the body between a crevice in the rock and covered it with stones, this being the usual mode of burial with the Eskimo. The child was given in charge of the woman and son, and for some time all were dependent upon us for food. Through neglect the child soon died, and this recalls to my mind a sad scene, but it is needless to relate it here.

Eskimo opinions upon theological questions are not easily obtained and undoubtedly their faith in all their beliefs is extremely weak, for when asked to explain they would laugh and would tell you they only performed any of their rites because other Eskimo did so. Another difficulty to contend with is their extreme shyness or fear of being laughed at, for on this point they are most sensitive.

As far as could be learned they believe in a supreme spirit who rules over the earth and sky, and some minor spirits who rule the tides and other changes in nature, with whom their Angekok has power to converse.

Of a future life they believed in a heaven and a hell, the former to be a place where those go who do not lie and are good. This place is southward where the sky and earth meet, where there is no snow, plenty to eat, and no work to be done. Hell is a place where the wicked go especially those who have told lies and have done wrong to their fellows. Here it is always snowing, is very cold, and those that go there have to work as they did upon this earth.

The Angekok is only a man or woman rather shrewder than their fellows who exhorts the spirits to do whatever the people want, for which service they are paid. They are treated with little or no deference by their people excepting at times when they are employed. An Angekok, who often tried to make me believe he was better than his people, was entrapped by the rising tide one day while gathering seaweed, and in spite of his influence with the spirits the tide continued to rise driving him back under a steep ice cliff, and being unable to scale it he perished miserably.

During my stay in the Strait they were never seen praying but Ugaluk who often saw us at our prayers when told to whom we were praying said his people did the same.

One of their most interesting and peculiar religious customs is the offering of food and other things to the spirits. By the graves of many of their dead were found scraps of food, tobacco, powder, shot and other articles and at first it was supposed that these were offered only to those who had died. To my surprise, however, a number of like articles were found upon the beacon we had built in the shape of a man. Still more surprising was the fact that when we found two cannons upon the shore near Cape Prince of Wales, that had undoubtedly been left by some of the early explorers, and standing them on end a quantity of bullets, shot, and other rubbish rolled out. On enquiry as to how this had got there I was informed it had been given as an offering to the spirits.

Amulets though believed in are not much used, and only one Inuit was seen wearing one. This was Cheekooaloo a sister of Ugaluk's who had a small piece of carved wood firmly sewn to her dress, and the only answer we could get from her as to its use was: she would "be no good" if she lost it. A similar piece of wood was found carefully protected with stones by the side of a grave.

Here, as elsewhere, the Eskimo take two days rest after killing a walrus, and become very indignant if asked to do work during this time.

During the walrus season they will not put needle into deer skin and, although often pressed, nothing would induce them to do so. Nor will they sew anything when one of the family is ill.

When a seal is killed a little fresh water is sprinkled over it before it is cut up, this custom, however, they would not always carry out, and if done in our presence would explain with a look of bashfulness that other Inuits always did so.

Walking along the shore near low tide mark with some young Eskimo who were gathering shellfish, I was surprised to find one of the young women would not pick any of them up although I had often seen her do so before. Nothing would induce her to touch them for she said she would be "no good" if she did so for a few days.

The graves of the Eskimo are found everywhere along the coast, some well built over with stones while others only show where the body was laid, the bones being scattered in every direction. The favorite place of burial is an island where the foxes and wolves cannot get at the bodies, and near Cape Prince of Wales an island, about ten acres in area, was seen literally covered with graves; and monuments ten feet high were erected here and there throughout it. These were evidently built for service in common, and like our beacon were covered with scraps of food.

Many other religious customs common to the race were noticed, but as nothing dissimilar was seen in them it is needless to relate them as they have often been told before.

Although Mr. Rink has shewn the Eskimo are rich in legendry, only one legend that was at all connected could be understood by ourselves. This was told by Ugaluk, and ran as follows: Not many years ago there lived a Cubloonack, or whiteman, on the eastern shore of Hudson's Bay where there were lots of Inuite and a few Udlers, or Indians. This Cubloonack was a very bad man, and used to speak to a lot of them, and taught them to sing different songs. One day an Udler came into the village and the Cubloonack caught him and calling all the Inuite about him he tied the Udler to a stake, and piling weeds and brush about it burned him alive. Nearly every day he used to walk up a hill by a circuitous path and as he walked he sang songs, all the Eskimos following in procession and when they reached the top of the hill he would talk to them about the sky. One day when the procession had gone up half way the Inuite refused to go any further so the Cubloonack went on alone, and he was never seen again, but they were sure he went up to the sky.

It is to be regretted that owing to our time being taken up with other matters while in the Strait little can be added to our present knowledge of the language; it may be worth noting, however, that although there is so little communication between the north and south shore of the Strait there is greater similarity in the pronunciation than there is between those living at Cape Prince of Wales and Cape Chudleigh. The chief difference in all cases being the use or disuse of the final sound of k which is one of the main characteristics of the Eskimo language. As for instance at North Bluff the Eskimo say nannoo (bear) whilst at Cape Prince of Wales it is pronounced nannook.

Wonderful though it is that the language remains so intact, it does not seem to be generally known what communication there is between the Eskimo at one place and those at a distant part of the coast. Regarding this I can only instance the case of one man who, with his family, I met at Cape Prince of Wales. This man

not long ago, had lived far up Fox Channel and had crossed the Strait with a number of others in an omiak or large seal skin boat. Another man who lived nearly two hundred miles to the westward made the journey four times in the spring of 1886 traveling nearly eight hundred miles with his wife and child, It is a common thing to run down to Fort Chimo a distance, there and return, of six hundred miles and a brother of my favorite Eskimo Ugaluk returned in ten days as I received a dated letter written on the day he started.

In conclusion we may add that in spite of many revolting customs of the Eskimo, after living with them for some time we are forced to conclude that a civilized being transported to these regions and living under the same circumstances would soon adopt much the same mode of life. Remembering this and considering many fine traits in their character, savages though they are, we cannot help looking upon them as fellow beings in the same race for life, and consequently loving them.

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## THE BLACKFOOT SUN-DANCE.

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BY REV. JOHN M'LEAN, M.A., BLOOD RESERVE, ALBERTA.

The most important sacred festival of the Blackfeet is the Sun-Dance. In the native language it is called Okán, a word whose meaning is now entirely lost. It is known amongst the white people as the Medicine-Dance or Sun-Dance. This arises from the fact that Natos, *the sun*, when combined with other words is also translated *medicine*, referring to the spiritual ceremonies of the medical priesthood. In the native religion of the Indians its true signification is *holy* or *divine*. As examples of these distinctions we have, Natos-aumûqka, medicine-runner, Natoapsínaksín, the divine book, the sun-book, the Bible, Nat.yetelstetkwé, the holy day—the sun-day—the Sabbath.

As these Indians have borrowed some of their ceremonies from the Sioux Indians, and the natives of Yucatan still hold the religious festival of the Sun-Dance, it may have happened that in the dim past they adopted this festival and modified it to suit themselves. A festival of nearly similar import is celebrated amongst the Crees named the Thirst-Dance. The records of tradition state that an old woman had a sick child which she loved tenderly. In her anxiety for its recovery, she prayed incessantly to Natos for help in her distress. One evening as she slept, Natos appeared to her in a dream, and told her that if she would build a Sun-lodge and make sacrifices to him, the child would get well. She awoke, and told her people of the wonderful vision, the lodge was erected, the festival was held, and the child recovered. Since that period, the Sun-Dance has been annually held. The time for the celebration of this festival is when the wild-fruit is ripe, at the end of July or early in August. Seven days is the length of time it is generally held, although this is sometimes shortened. The object of this festival is twofold, namely: military and religious. It is chiefly a sacred assembly, and constitutes a part of their native religious system. A virtuous woman



of the tribe during the year has passed through some trying ordeal, and in accordance with her religious ideas and desires, has prayed to Natos for health for herself or some of her relations, and has vowed to Natos, that if her prayers are answered, she will become responsible for the annual celebration of the Sun-Dance.

The announcement having been made, the young men repair to the woods to procure the necessary materials to build the lodge. When it is cut, lariats are fastened around it, and it is dragged along the ground to its destination by young men on horseback, amid the exultations of their comrades, who as they ride singing and shouting, shoot incessantly with their guns into the logs. A level piece of ground is selected near the middle of the camp and the erection of the lodge is joyfully undertaken. The lodge is circular in form and of various dimensions. Those that I have seen among the Blood Indians were about thirty feet in diameter. In the centre stands the sacred pole from the top of which, heavy ridge poles extend to the sides, which are about five feet in height, strong supports are placed around the sides, the spaces intervening being filled with light brushwood. There is a large main entrance and a lesser one. Opposite the main entrance and against the side of the lodge is the bower for the woman and her husband who have undertaken the celebration of the festival. At the foot of the sacred pole burns the sacred fire. At the left of the bower facing the main entrance a band of young men sit beating on drums as an accompaniment of the ceremonies, in the centre sit the chiefs near the sacred pole, and all around the sides the general assemblage is arranged as participants in the rites or merely as onlookers of a strange scene of a decaying religion and civilization. In the interests of science I have attended four Sun-Dances and taken extensive notes of all I saw, and a description of one of these will illustrate the prevailing ideas of the Indians. As the influences of religion and civilization are slowly undermining the native religious system, in a few years the celebration of this festival will become a thing of the past, and the opportunity for recording these religious customs will be gone.

On a warm day in the latter part of July, I visited the Blood Indian camp, and found the Sun-lodge as already described. There were by actual count one hundred and ninety-eight lodges, comprising about two thousand souls. An old man was riding through the

camp calling upon the people to attend the ceremonies. In a lodge near at hand, a medicine man was decorating the persons who were to undergo the rite of torture. I noticed that in arranging the head-dress, before placing it on the head of each individual he passed his hand around it four times as he prayed. This was peculiarly significant, as it showed that these people in common with the Sioux and many other Indians regard the number four as a sacred number. This can be easily traced through their mythology, religious, social and political customs. In the Sun-lodge the sacred fire was burning, and this was used by the people for lighting their pipes. No child or woman was allowed to supply the fuel, but young men who had performed some valorous deed, especially the stealing of horses from a hostile tribe felt it to be an honor to attend to this duty, and none but the brave were qualified for this work. On the sacred pole was placed in the form of a cross X two bundles of small brushwood taken from the birch-tree. The pole was decorated with sacrifices of clothing and various kinds of Indian goods to Natos. The cross evidently refers to the four winds, from its four points, and is not borrowed from the Christian religion, as these people used this symbol before they came in contact with the white men, or had any knowledge of Christianity, besides being very superstitious about adopting any of the rites or symbols of the religion of the pale-face, and incorporating it with their own. In the bower made of light brushwood sat the woman who organized the lodge, her husband and a medicine man. These persons were fasting and praying, and during the full term of the continuance of the ceremonies, very little food was partaken. In the mornings they were allowed a short smoke, and a little water, and in the evenings a few of their friends brought a small quantity of food hidden under their blankets, and without exposing it to view, it was eaten in silence. The medicine man had a crown of leaves upon his head, his body painted, and without any clothing, save a long strip around his loins. At short intervals he arose and danced keeping time to the motions of his body, with a small bone whistle, which he blew upon incessantly, producing a series of monotonous sounds. In the evening the woman prayed to Natos for good health for the people, protection in danger, good crops and a bountiful harvest of wild fruits. The virgins came in the evening and prayed for a long time for blessings from Natos. During the day, the ceremonies con-

sisted of dramatic representations of heroic adventures by single individuals, and contests with the Crow and Sioux Indians by war-parties. One chief borrowed several guns from his friends, and a large number of Indian war implements and native trinkets. Stepping forward that all the people might see him, amid profound silence, he addressed the assemblage. Holding a gun aloft he told how in a contest with an enemy, he had slain him and taken his gun. The band of musicians beat on their *tom-toms* in token of applause. Each article that he had, represented his various victories, and each had its separate story, which was narrated as the first, and the same routine gone through. When he had finished, the whole assemblage joined the musicians in applauding the speaker. Many warriors during the day related their brave deeds in the same manner.

Sham fights were engaged in, which were representations of actual battles. Five or six warriors appeared as Crow Indians and the same or a less number were the Blood Indian warriors. A single horse represented that they had been on horseback, and this was decked in its war-paint. One of the men, the hero of the battle, acted as instructor of the ceremonies to the others. Four times they entered the lodge, and then the fight began. They fired their guns over the heads of the people, the Crow Indians fell one by one, and when they had been scalped amid the laughter and applause of the audience, the scene was at an end. Berries cooked in fat were brought in by the women in pails and pots, and for a short time eating, smoking and conversation were the duties of the hour. Occasionally some old lady would call out the name of a young man, and declare his noble qualities before the people, and another would urge the young men to emulate the heroic deeds of their fathers and go to war.

Presents of bracelets, finger-rings and ear-rings were made to some of the women. The chief warrior carried in his hand the sacred pipe, which he first held aloft with the stem toward the Sun, that Natos might have the first-fruits of everything, and still holding it, stem toward the chiefs, each was allowed to take a smoke. The pipe was beautifully ornamented, and was used only at the Sun-Dance. Some of these pipes are of great value, the one which I saw costing fifteen of the best horses in the tribe, and these were used for hunting the buffalo. The women have one important ceremony to perform, namely: the preparation of the tongues. In former years when buffalo were

in abundance as many as two thousand buffalo tongues were used at a single Sun-Dance ; now, the Indians have to be contented with two hundred tongues of domestic cattle. These are slightly boiled and dried, cut in slices very carefully, taken in sacks to the Sun-lodge and guarded by two young men. This rite partakes of the nature of a sacrament. None but virtuous women are allowed to go up and take a piece of tongue. After the persons devoted to Natos partake, the tongues are distributed amongst the people, as a religious ceremony.

As I stood outside the lodge, a young Indian friend of mine, went to an old medicine-woman and presented his sacrifice to Natos. During the year he had gone on a horse-stealing expedition and as is customary on such occasions had prayed to Natos for protection and success, offering himself to his god if his prayers were answered. He had been successful and he now presented himself as a sacrifice. The old woman took his hand held it toward the Sun and prayed, then laying a finger on a block of wood she severed it with one blow from a knife and deer's horn scraper. She held the portion of the finger cut off toward the Sun and dedicated that to him as the young man's sacrifice. The chief attraction to the pale-face is what has been ignorantly termed "making braves." I desired very much to see this ceremony *once*, that I might know the facts from personal observation, and draw my own conclusions after conversing with the Indians.

Two young men having their whole bodies painted, wearing the loin-cloth only, and with wreaths of leaves around their heads, ankles and wrists, stepped into the centre of the lodge. A blanket and a pillow were laid on the ground, and one of the young men stretched himself upon them. As he lay, an old man came forward and stood over him and then in an earnest speech told the people of the brave deeds, and noble heart of the young man. In the enumeration of his virtues and noble deeds, after each separate statement the musicians beat applause. When the aged orator ceased, the young man arose, placed his hands upon the old man's shoulders, and drew them downward, as a sign of gratitude for the favorable things said about him. He lay down, and four men held him while a fifth made the incisions in his breast and back. Two places were marked in each breast denoting the position and width of each incision. This being done, the wooden skewers being in readiness, a double edged knife was held in the hand, the point touching the

flesh, a small piece of wood was placed on the under side to receive the point of the knife when it had gone through, and the flesh was drawn out the desired length for the knife to pierce. A quick pressure and the incision was made, the piece of wood was removed, and the skewer inserted from the under-side as the knife was being taken out. When the skewer was properly inserted, it was beaten down with the palm of the hand of the operator, that it might remain firmly in its place. This being done to each breast, with a single skewer for each, strong enough to tear away the flesh, and long enough to hold the lariats fastened to the top of the sacred pole, a double incision was made on the back of the left shoulder, to the skewer of which was fastened an Indian drum. The work being pronounced good by the persons engaged in the operation, the young man arose, and one of the operators fastened the lariats giving them two or three jerks to bring them into position.

The young man went up to the sacred pole, and while his countenance was exceedingly pale, and his frame trembling with emotion, threw his arms around it, and prayed earnestly for strength to pass successfully through the trying ordeal. His prayer ended he moved backward until the flesh was fully extended, and placing a small bone whistle in his mouth, he blew continuously upon it a series of short sharp sounds, while he threw himself backward, and danced until the flesh gave way and he fell. Previous to his tearing himself free from the lariats, he seized the drum with both hands and with a sudden pull tore the flesh on his back, dashing the drum to the ground amid the applause of the people. As he lay on the ground, the operators examined his wounds, cut off the flesh that was hanging loosely, and the ceremony was at an end. In former years the head of a buffalo was fastened by a rope to the back of the person undergoing the feat of self-immolation, but now a drum is used for that purpose.

From two to five persons undergo this torture every Sun-Dance. Its object is military and religious. It admits the young man into the noble band of warriors, whereby he gains the esteem of his fellows, and opens up the path to fortune and fame. But it is chiefly a religious rite. In a time of sickness, or danger, or in starting upon some dangerous expedition, the young man prays to Natos for help, and promises to give himself to Natos if his prayers are answered. Upon his return, when the Annual Sun-Dance is held, he fulfils his

vow, gives himself to his god, and thus performs a twofold duty. Of course the applause of the people and the exhibition of courage are important factors in this rite, but its chief feature is a religious one. Instead of being a time of feasting and pleasure, the Sun-Dance is a military and religious festival, in connection with which there are occasions for joy, and the feast enhances the pleasure.

It is impossible to obtain accurately the interpretation of the Sun-lodge ceremonies without a knowledge of the language, as the speeches made explain much that would otherwise be misunderstood. Oftentimes the entire assemblage will burst forth in songs of thanksgiving, and again a famous warrior will sing aloud the praises of a young man or some brave kinsman who merits the plaudits of his tribe. This is a kind of chant in which the name and noble deeds are spoken of, and a tune accompanies or follows the oration.

Prayer is made to Natos only, and everything in Okán is sacred to him. The influence of this festival upon the hearts of the people is such that it keeps alive their native religion, and excites their passion for military glory.

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## PECULIARITIES AND EXTERNAL RELATIONS OF THE GAELIC LANGUAGE.

BY DAVID SPENCE.

It is remarkable that for more than a thousand years, the Saxon and the Kelt should have lived together in the same islands with scarcely any accurate knowledge of each other's institutions—still less of each other's language. This fact appears still more remarkable when we consider that in some places the races are separated by small mountain ranges only, in some by streams, and in others by imaginary lines, English being spoken on the one side, and Gaelic on the other. Till very recently there has been scarcely an instance of a Saxon whose curiosity has been excited to know something about the language of the people to the north and west of him. It has been generally treated as a mere jargon, unworthy the serious attention of any man of sense. I shall try to shew, as briefly as possible, that it is one of the most important branches of the old Aryan speech, and nearer the old forms than any other European language. It has a great deal in common with English, although this does not appear on the surface. In using the Indo-European forms for comparison, I have drawn largely from Skeat's Etymological Dictionary.

Before proceeding, however, to such comparison, I wish to direct attention to a few peculiarities of the language itself. A difference in the mode of thought has impressed itself upon many of its forms. To an English ear its idioms are often incomprehensible. A Highlander, for instance, may say: *Tha mi pàiteach*, I am thirsty; the ordinary form, however is: *Tha am pathadh orm*, the thirst is on me. Similar forms are used in speaking of hunger, fear, sleep, etc. A young man may say to his sweetheart: *Tha gradh agam ort*, I have love on thee; analysed more closely, it would read. There is love at me on thee.

In describing a man's office or qualities, good or bad, a very singular form is used. In place of saying He is a king, a Highlander

will say, He is in his king, *Tha e 'na rìgh*, or, It is a king that is in him, *Is e rìgh a tha ann*. She is a good woman, is expressed in Gaelic by the phrase : She is in her good woman, or, It is a good woman that is in her ; *Is bean mhath a tha innte*. It is not easy to explain how such a form as this came to be used. Perhaps when the language was in process of formation, the ideas of the people in regard to personal identity may have been unsettled. The doctrine of the transmigration of souls and the facility with which, it was believed, witches and others could transform themselves into hares and other animals, may have led to a belief that bodies were not always possessed by the same spirit. It was a common superstition which is perhaps not yet wholly extinct, that there were "little men" living in the hills, at times invisible, who, after stealing children, would transform themselves into their exact image, so that the mothers would take them for their own and nurse them tenderly at the breast until some *fiosach*, or seer, would shew them that they were nursing some toothless, grey-haired old man from some neighbouring hill or *bruth*. These legends regarding the hill dwellers or fairies, may have a historical basis, and may be a shadowy remembrance in the mind of the Gaelic race of the aborigines of the west of Europe, whom they, on their arrival, displaced. In Gaelic the idea of possession or ownership is expressed by that of proximity. *Tha sgian agam*—the knife is at me. That knife is mine, is in Gaelic, *Is leams an sgian sin*, It is with me that knife is.

In Gaelic, changes may take place either at the beginning or at the end of a word, and the meaning may be much changed by what is called aspiration. For instance, *tog* means lift ; *thog*, lifted. The possessive adjective *a* may be masculine or feminine, but this is determined by the form of the following word, as *a ceann*, her head, *a cheann*, his head. In Welsh, on the other hand, the word after the feminine adjective is aspirated. It is now known that these changes in the old language depended on other causes.

Gaelic and Irish are so nearly alike that, although the two races have been separated for perhaps thirteen hundred years, any intelligent, educated Highlander can read Irish almost as easily as he can his own language. Manx is also the same language written phonetically. Welsh, Cornish, and Breton, form a group distinct from, but closely allied to, Gaelic and Irish.



I shall now take the Gaelic names of some conspicuous and well known natural objects and actions common to the whole Aryan race, and endeavour to shew, by comparing them with other Aryan forms, how accurately they have been preserved by the Gaelic speaking people.

#### WORDS RELATING TO HEAT AND LIGHT.

Heat and light having been known to all the families of the Aryan race, it might be expected that its different branches would carry the original names of these elements with them to their new abodes.

In Sanscrit, *Gharma* (from the Aryan root, *ghar*, *gar*, to shine, to heat) means warm, hot. In Gaelic, *gar* means to warm: *Gar do lamhan*, warm your hands; *ghar e 'lamhan*, he warmed his hands." In Sanscrit, *ghri*, means to shine, to heat; in Gaelic the word for sun is *grìan*, a *ghrìan*, the sun; *grìosach* in Gaelic is hot embers; In Sanscrit, *sura* is the word for sun, the shiner, as *grìan* is the shiner in Gaelic, *sura* being from *swar*, to shine, as *sol*, the sun, is from the cognate *swal*, to shine. Now, the Gaelic word for light is *solus*, evidently connected with *sol*, the sun, and *swal*, to shine. *Soillsich* is one Gaelic word, meaning to shine, connected with *swal*. to shine; *suil* an eye, and *seall*, or *seoll*, to look, are of the same family. *Helios*, the Greek for sun, and *haul*, the Welsh word seem to be connected. Another Gaelic word for shine is *dearsadh*; and *dearbhadh*, which is slightly different in meaning, seems to be the same word, as *r* and *l* easily glide into each other, like *swar* and *swal*; *suir* and *sol*. The pronunciation of *dearbhadh* is peculiar; it is like *djeabradh*: *dealanach*, lightning, is a word of the same group and is pronounced in a similar manner; both being probably from the root *ghar* or *ghal*, to shine.

There is a remarkable similarity between the Gaelic *soi*, a particle used in composition, meaning good or easily done, and the Greek particle *eu*, which, a learned friend connected with this Institute informs me, was originally *seu*. The particle in Gaelic expressive of the reverse of this, is *di* or *do*, like the Greek *dys*. *Soi-sguel* in Gaelic means good tidings; *soilleir* in Gaelic means what can be seen, *leir* meaning to see; *do-leir*, dark, what cannot be seen; *saoidh* means good, brave men; *daoib*, bad, wicked men; perhaps *dorcha*, dark, may be formed in the same manner from *do* and a root *arg*, akin to Aryan

*ruk*, light. *Arguna*, Sanscrit; *argentum*, Latin; *argyros*, Greek, and *airgiòd*, Gaelic, the various names for silver, are cognate forms, the *arg* in each case expressing the idea of shining, so that in these languages silver must have been regarded as the shining metal.

Another Indo-European root signifying to shine is *div* or *div*; Sanscrit, *deva*, a god. This root has also been well preserved in Gaelic. *Dia*, god is evidently from this root and perhaps *deamhan*, devil. Old Gaelic for day was *dìa*, the same as god; modern Gaelic for to-day is *diugh*, and for yesterday, *de*; Welsh has *dyw*, for both day and god. These Keltic words are as near the Aryan forms as *Zeus*, *Deus*, *Theos*. These words may point to a time when the sun, and perhaps light, were objects of worship.

#### WORDS RELATING TO WATER.

The Gaelic *uisge*, again, seems to be more nearly related to Sanscrit *udan*, and to the original root-form *ud*, *us* (to well, to gush) than any of the European forms, *hydor*, *unda*, (wave), *wasser*.

It is possible that *uth*, a cow's udder, (pronounced like *oo* in goose) is connected with *uisge* and with *ud*.

In the word *sruth* (pronounced *sru*) a stream or river, Gaelic has preserved almost intact the original root-form *sru*, which had precisely the same meaning.

In this connection may be mentioned the Aryan verb *snigh*, to wet, to snow, and the form *sneak*, moisture, represented in Gaelic by *snidhe* or *snighe*, meaning a tear, or rain coming through the roof. For example: *Tha snidh air mo shuil*,—the tear is on my eye. The English snow is in Gaelic, *sneachd*.

A most interesting form is that of the Gaelic word *snamh* (pronounced *snav*) meaning to swim, float, bathe. Kindred forms are Sanscrit *nan*, Greek *naus*, Latin *navis*, a ship, all, according to Skeat, from an Aryan root *ka* or *na* which again, is from an older stem, *sna*, to float, to swim, to bathe. It will be here remarked that the initial *s*, which has disappeared in the other Aryan tongues, is in Gaelic retained. Thus, to-day, in the popular speech of the remotest corner of the Hebrides, this venerable form preserves the sound and the meaning which it had, thousands of years ago on the plains of Asia.

## WORDS RELATING TO HEARING AND SPEAKING.

The Aryan roots *kru* and *klu*, to hear, are preserved almost intact in the Gaelic words, *cluas*, ear, *chlain*, hear; *claisteachd*, the sense of hearing, and in *cliu*, renown; the Latin *cluere* and the Greek *klu-ein*, to hear, are nearly the same in both form and sense.

It is remarkable that the two forms of the Aryan root *rak* and *lak*, to speak, and the Sanscrit *lap*, to speak, should both be preserved in Gaelic: *labh-air*, speak; *radh*, saying. "*Is fìor an radh so,*"—this is a true saying.

## NAMES OF VARIOUS OBJECTS.

When Skeat traces the words share, shear, shore, and scores of other words to the Aryan root *skar*, and to the base *ska*, he does not seem to know that *skar* or *sgar*, used in exactly the same sense, is one of the commonest words in the living language of Ireland and the Highlands of Scotland. For example: "*Sgaraidh e iud o cheile anhuil a sgaras buachaill na caoraich o na gabhraibh,*"—"He shall separate them one from another, as a shepherd separateth the sheep from the goats." The base *sga* may be found in hundreds of words, such as *sgap*, scatter; *sgoilt*, split; *sgìreachd*, parish; *sgath*, lop and *sgian*, knife.

Is it a mere accident that thin is *tan-u* in Sanscrit; *tana* in Gaelic; and *ten-uis* in Latin; all apparently from the root *ta* to stretch? Can it be a mere chance that the root *tar* or *thar* and the variant *tra*, to go over or through, and the Sanscrit *tri*, through, should have so many corresponding terms in Gaelic, identical in meaning and form, as *thar*, across (*thar a chuian*, across the ocean) *trid*, through and *tarsuing* across; *tarsnan*, the rung of a ladder or any cross beam?

*Lagh*, *lag*, the Aryan root meaning to lie down. In Gaelic, *laigh* is to lie down; *lagh* is law in Gaelic, i.e., a thing settled or laid down, like the Latin *leg-s*.

The dog must have been domesticated before the Gaelic-speaking people left the original seats of the Aryan race, as his name in Sanscrit is *cvan* or *cuan*; in Greek, *Kuon*; in Gaelic, *cu*; and in Latin *canis*.

The importance of this language for philological purposes cannot be over-estimated. The various branches of the Old Aryan race both in Asia and on the continent of Europe, have been so disturbed and

mixed that the languages must necessarily have been greatly changed and broken up, while the people in the Highlands and in Ireland have been so isolated that their branch of the old language has been, as it were, bottled up, sealed and preserved for the use of the philologist. Words change but little when spoken by the same race, but when pronounced by alien lips they may change so as not to be recognized. The names, *Dumbarton* and *Stirling*, in Scotland, conceal their meaning when pronounced by Englishmen, but when pronounced by the Gael, they are still *Dunbreaton*, the Briton's fort, and *Sruithlia*, the rock stream.

The Gaelic system of orthography is so different from the English, that English scholars have been deterred from studying it. The Germans have been the great pioneers in this as in many other studies. It is to be hoped that, they having cleared the way, British philologists will follow, and take a share of the honour of working this interesting mine so long neglected.

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## THE CAVES AND POTHOLES AT ROCKWOOD, ONTARIO.

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BY PROF. J. HOYES PANTON, M. A., F. G. S.

Some time ago while on a trip to Rockwood, with students of Geology from the Agricultural College, for the purpose of showing them some examples of how water acts upon limestone I was forcibly impressed by a most interesting series of Potholes found in that district, not far from where the somewhat well known caves are seen.

So impressive were these phenomena, that for three consecutive holidays, the students made their way to Rockwood, and on two of the occasions, were accompanied by myself.

A thorough examination of the locality was made, and data collected, which I purpose placing before you this evening, and which should be interesting to a Society that has been established for the purpose of developing the history of our Province whether it be written upon the rocks or pages of a more perishable character.

In treating the subject, the following divisions are naturally presented :—1. The location of the Caves and Potholes ; 2. A description of them ; 3. An explanation of their formation ; 4. Theories concerning the origin of the phenomena, that caused their formation.

### I.—LOCATION.

Rockwood is a small village on the line of the Grand Trunk Railway, situated about 8 miles east of Guelph, and 42 west of Toronto. Leaving the station and proceeding in the direction of the village, you very soon observe that you are in a place well named—Rockwood, from the amount of rock in the vicinity. Along the river, which passes through the village are striking exposures of rock, at some places escarpments 50 to 70 feet high made up largely of massive layers of Magnesian limestone, belonging to the Niagara formation of the Silurian system. Fossils are not numerous, Crinoid stems are by

far the most common; a few shells occur, and some fragments of coral, especially the genus *Favosites*. The fragmentary remains of the *Orthoceras* are seen at some places, but the fossils are neither common enough, nor so well defined as to work up the zeal of young geologists. However, after you have passed over the bridge that leads to some mills and the large quarries and lime kilns near by, you reach localities well suited to arouse enthusiasm in the mind of young students in science. The presence of three large lime kilns demonstrates that this stone produces excellent lime, exceedingly strong and well adapted for building purposes.

As you pass westward, along by the quarries, you obtain a fine view of the escarpment on both sides of the so called river and grand monuments of denudation are before you. In the distance about half a mile is the "Pinnacle" a large isolated piece of high rock, standing midway in the upper part of the mill pond. But at your side on the south side of the road along which you are travelling, your attention is arrested by a great hole at the base of the rocks. This is the entrance to a cave, which on examination proves to be of more than passing interest. In a line almost southeast of this and only a short distance away, but on the top of the bluff, you reach a pothole which rivals some that for years have been a great source of attraction to tourists stopping at Lucerne, Switzerland. Woodcuts of these are scattered in every direction, and no one can say that he has made a proper visit to Lucerne unless he has visited the "Glacier Garden" and observed the seven potholes, that are silent monuments of glacial phenomena long since ended—Yet here at Rockwood we can get a series of potholes larger in some respects and more unique than those at which so many thousands gaze in wonder each passing year. The formation and origin of these we will consider subsequently.

## 2.—DESCRIPTION OF THE CAVES.

The entrance to the main cave is 15 feet high and obstructed by great masses of rock, which have fallen from the roof. From the top of the cave to the summit of the overhanging rock is 40 feet of solid dolomitic limestone. Proceeding into the cavern you observe that the roof is very irregular, sinking at times to 5 feet, then rising to 7 and sinking again. At the mouth it is 29 feet wide and narrows to a width of  $16\frac{1}{2}$  at a distance of 36 feet from the entrance. Here

it is only 5 feet high but on passing this point you reach another chamber, which widens and has at the left side a small chamber eight by six feet, but soon narrowing and dipping down till the cave seems to terminate at a point 30 feet farther than the narrow part and 66 feet from the entrance. This is as much of the cave as most visitors see, but being accompanied by students possessing pluck, endurance and zeal I was successful in securing data which will enable you to form some interesting conclusions about this comparatively unknown spot. Light ends here. A lantern was obtained and entering one by one a passage scarcely large enough for a human being to go through, for 8 feet, they wormed themselves through into another cave, shrouded in Egyptian darkness and gloom. This extends 10 feet to the left and 15 to the right i.e., has a diameter one way of 25 feet and  $13\frac{1}{4}$  the other.

To the left and right they found a pillar not far from where they entered ; these supports seem to have been formed by the rest of the rock which once made up the solid rock being carried away. At the extremity on the right hand side, the floor was very muddy, and two small caves extending still farther, one near the passage by which they entered, the other at the opposite side ; the former three feet by four, the latter three feet at the opening and tapering to a point and dipping downward. Prowling about in this gloomy chamber, not high enough to proceed comfortably, for it was only about five feet in the centre, they saw stalactites and stalagmites, some of them a foot in length and four to five inches in diameter at the thickest place. The floor of this chamber also dips slightly down. Directly across they came upon another pillar-like structure, with a passage on each side, opening into another apartment, where the roof was not over three to four feet high, and gradually narrowed so as to render farther progress difficult.

This extended ten feet across and about the same in width. On the opposite side from the entrance, there is an opening leading still farther, but the passage gradually narrows until farther advancement is stopped. Through this opening one passed, and threaded his way 13 feet, and reached a point  $110\frac{1}{2}$  feet from the entrance to the main cave. The floor of the last chamber inclines slightly, but in this prolongation the elevation is considerable. Sounding this last floor seemed to indicate that it was hollow beneath, and from the fact that

the prolongation of the former chamber, near where this was entered dips downward, it is supposed a passage from it continues and likely passes under this last floor. All through these darkened caverns a good deal of mud was encountered. Water trickling down the sides and dropping from the roof added to the gloom of these darkened recesses, where daylight has never yet penetrated, and whose walls dimly lighted by the flickering light of the lantern, presented a somewhat weird, unattractive appearance. When the explorers emerged from these inner recesses of darkness, their clothes presented quite a changed appearance and indicated that much of their travelling must have been done in a somewhat menial position, and that they had been much associated with mud and water within. A little to the left of the entrance to the main cave there is an opening, which leads to another series of chambers, extending to a distance of 59 feet.

At a point in the vicinity of the first narrow place in the main cave there is a narrow passage leading into this series, in which the apartments are not so complicated, and being dry are much more easily examined. The first is some 25 feet long and 12 wide, narrowing to a passage into the second, 10 feet across, and opening into the main cave.

The general direction of the main cave is E. by S.E., to the narrow portion, then S.E. by S.; this course is maintained till the end is reached.

The roof through the whole series is exceedingly irregular, and the floor in many parts covered with fragments of the rock, which have fallen from the roof. Stalactites and stalagmites are found only in the inner chambers, and the latter seem more common than the former. Some may have formed in the outer, but have likely been carried away by visitors.

The diagrams before you will give a clear idea of the arrangement of these subterranean passages and chambers, and their relative position to each other. The whole series may be termed one cave, consisting of six well defined caverns, and <sup>at</sup> a sort of expansion on the sides of these four small ones.

#### POTHOLES.

Leaving the caves and clambering up the sides of one of the quarries near by, you reach the summit of an apparent peninsula of



solid rock, along each side of which a stream flows at the present time, bordered by precipitous cliffs 50 to 75 feet high. The general direction of this rocky ridge is north and south.

The streams are united about a mile farther to the north, and after passing along the sides of this marked rock elevation, they join in the vicinity of Farrish's mill, and thus forming in reality an island, which terminates at its southern extremity in a limestone cliff.

About 500 yards from the caves, and near the end of the bluff, you suddenly come upon an immense hole in the solid rock; it has an oval form, its longer diameter being 20 feet and the shorter 15; one side is 10 feet higher than the other; it lies in a slight depression in the rock, which terminates at the side of the hole, with an abrupt fall of 22 feet. At the bottom of the hole you perceive an opening 4 feet high and 2 feet wide, but of an irregular outline, this opens into a sort of valley, but it must be remembered this is 40—50 feet above the level where the streams are flowing. This valley has rocks on both sides and forms a beautiful glen, at the present time a popular haunt for boys delighting to revel in the pastimes of youth.

Following in a south-west direction for some 60 yards the rock rises, and a little farther on ends abruptly with a fall of about 50 feet into the valley, through which a very insignificant stream at present passes.

On the opposite side of the valley about 100 yards wide at this place, the escarpment is fully 75 feet high. About the middle of this valley a slight elevation of solid rock some 15 feet high occurs. It occupies a peculiar position and form, appearing as if strong currents had worn away rock material, and left this irregular outlier, as a monument of conditions no longer seen in this place, where a mere creek meanders through a well defined ravine.

In this isolated area of rock on examination you find a most interesting and instructive series of Potholes, six in number, to some extent in a line with the large one already referred to, as located about 150 yards to the N.E.

A more unique series could scarcely be imagined. Calling that already described as No. 1, then here we have:—No. 2, 6 feet by 5 and 7 feet deep; No. 3, 1 foot by 1 and 3 feet deep; No. 4, 6 feet

by 6 and 12 feet deep ; No. 5, 8 feet by  $4\frac{1}{2}$  and 8 feet deep ; No. 6, 6 feet by 6 and 10 feet deep ; No. 7, 12 feet by 6 and 3 feet deep ; No. 1, 20 feet by 15 and  $30\frac{1}{2}$  feet deep, from the highest side to the bottom and 21 from the lowest.

These holes in the rock have usually a greater diameter about half way down. The following measurements of No. 1 will show this :— Four feet from the bottom,  $21\frac{3}{4}$  by 18 feet ; midway,  $23\frac{5}{6}$ ths by  $19\frac{1}{2}$  feet ; six feet from the top, 25 by  $19\frac{1}{2}$  feet. Generally speaking the outline of a vertical section is oval.

Holes 2 and 6 are on the edge of the rock, and consequently are somewhat imperfect ; from 5, which comes near the edge, there is a small hole, which opens into the valley ; this enabled us to empty it and learn the nature of its contents. At first we were desirous to investigate the contents of No. 1, and with that view dug for the first day, and returned to continue the work. Much soil, fragments of rock, etc., were dug up and wheeled away, but we found no trace of rounded stones. After several hours of hard work, it was resolved to proceed to the series in the valley and explore some there.

The facilities for working at the large hole are good, inasmuch as the material could be loaded into the wheelbarrow at the bottom, and wheeled away a short distance and emptied into the ravine a few feet below.

We proceeded to No. 5 and entered upon the work of cleaning it out ; only a few spadefuls of earth were taken out when some stones were found, whose rounded shape had a wonderful inspiring effect upon the workers.

They were very round, and were of an entirely different composition from the solid rock in which the hole had been excavated.

After some two hours digging the bottom was reached and a fine collection, about two pailfuls, of rounded stones was obtained, varying from 6 inches in diameter to half an inch. Many of the small stones were as round as marbles.

These sixteen before you represent some typical forms, and will enable you to form an idea of the interesting nature of these stones, whose very appearance suggest questions as to how they came to be so round, and how they got where they were found ?

We had hoped to have found similar in the large Pothole, whether such will be, remains to be seen. It might possibly be, that they have rolled out through the passage at the bottom of the hole and must be sought elsewhere.

No. 3 being small was emptied and some of the finest specimens of small rounded stones were got from it. Nos. 2, 4, 6, 7, have not been examined, and it is probable that an examination of them will meet with even more gratifying results than those emptied. Having had the pleasure of seeing the Potholes at Lucerne in Switzerland, it does seem to me that at Rockwood there is as interesting a series. Along the river near the quarries 18 more or less defined holes appear, and in this locality under consideration 12 in all are found, and of these the seven more particularly described are exceedingly unique in form, position and structure, and were they near a large city would be a source of great attraction to visitors interested in the works of nature.

### 3.—FORMATION OF THE CAVES AND POTHOLES.

In all districts, where limestone exists, it is not uncommon to find caves, especially if water is near. Water containing carbonic acid (a gas generated in the decomposition of vegetable material and largely present in the atmosphere, from them the respiration of animals; for the air expelled from their lungs is charged with it) has a powerful disintegrating effect upon the carbonates of lime and magnesia, forming from them bi-carbonates, which are soluble in water and as such are carried away; consequently it is only a matter of time before limestone (a carbonate of lime) when acted upon by water containing this gas is completely dissolved. A mere dripping in a crevice will in time effect quite a change and form considerable of a cavity. If the quantity of water is considerable, the change is accomplished in a shorter period. Very forcible examples of this disintegrating effect of water on limestone were observed by me in Derbyshire this summer. There are ravines there which are supposed to have been formed out of the solid rock in ages long receded into the past.

These ravines were once overcapped by limestone, the cave or passage itself dissolved and carried away by water, finally the top fell in and the debris carried seaward, until now all that marks the great

caves are the walls, which form escarpments along the ravine, through which a rivulet passes at the present time. Near by a great cavern (Poole's) explains the process; the entrance is narrow and low, yet 12 feet in, and you reach a much wider passage, and as you proceed immense apartments are entered, so that you pass along a tortuous pathway for several hundred yards. Some of the apartments are 20 by 30 feet high and 40 wide. No running stream is seen to indicate the cause, but the water trickling down the sides explains this great disintegration of the limestone; so here, coming nearer home, at Rockwood, you find caves not so extensive, but as characteristic of the action of waters as those I have been referring to.

The presence of mud in the back part of the inner caverns at Rockwood seems to indicate a connection between them and the surface through fissures in the rock. This mud bears a close resemblance to the soil which covers the rock above, and has likely been brought down by rain through these crevices. This rain charged with carbonic acid in time could easily dissolve out the rock and leave the caverns as we find them now. Frost would assist in breaking off fragments as we find them now scattered along the floor of the cave, while the sides present a very irregular appearance.

The presence of stalactites on the roof and stalagmites on the floor, also shows much dissolving of rock by water, for these structures are merely the precipitated lime from the water, which has carried it down. The water on reaching the roof evaporates, and the lime is left, this goes on adding particles of lime, until a structure is formed not unlike an icicle in form, but composed of carbonate of lime. Sometimes the drops fall upon the floor and form something of the same in form. The stalactites are sometimes hollow but the stalagmites are solid; this is owing to the one being formed on the roof and the other on the floor. In some cases, those from the roof fall and become imbedded in the material on the floor. At Rockwood the stalagmites are more common than the stalactites, seeming to indicate that the water containing lime in solution falls before evaporation takes place, and consequently a tendency for an accumulation of lime on the floor.

#### POTHoles.

The Potholes, too, are no doubt the result of the action of the water, but in this case the action is more mechanical than chemical.

Water must have passed over as a strong current, the place, where the potholes are now but in their first stages only a slight depression was in the rock. In these some hard stones collected and according to the strength of the current, the movement of the stones would depend; the motion produced would soon lead to a wearing away of the rock. Holes would form and deepen, as time rolled on, until a cavity would be produced not unlike a pot in outline. In all the holes examined, the diameter midway down was greater than at any other point. The stones grinding this out being harder than the rock, for you usually find they are pretty much the same as our boulders in the field withstand the wear and tear well, but in the course of time they become rounded and finally succeeded in making a pothole, which will vary in size according to the length of time the grinding has continued, the force of the current and the hardness of the rock acted upon. To-day we see no water near some of these holes, but we find that when the loose soil in the bottom of the holes is dug up it contains innumerable rounded stones of all sizes from a marble to that of a cannon ball.

I have already said the mechanical action of stones and water upon the limestone, in which we find these holes, has effected the condition of things we at present observe. There are two ways in which these currents of water may have acted.

#### 4.—THEORIES OF PHENOMENA.

1. That of a great river, which filled the whole space between the highest banks at Rockwood, a stream bearing along a great body of water, with a strong current. As time rolled on it gradually lessened in volume and formed two streams, running along the valleys in which we find the streams of to-day, but much larger than they. At some period in this great river's existence it flowed across the depression, where you see the largest Pothole, and flowing over the precipice pursued its course along the line in which we find the other Potholes.

2. The water may have been a current under a glacier as we see in some cases at the present time in Alpine districts. A crevasse (crack) may occur miles from the end of a glacier, into this water formed on the surface, as it pushes its way into warmer localities, falls and finally makes its way out under the great stream of ice.

Such an under current getting into a depression in the rock, aided by stones from the glacier would be sure to produce Potholes. This is the origin of those at Lucerne. In such cases you are likely to find, that the stones derived from the glacier that did the work are large, and that the surface of the rock is much abraded illustrating glacial *striae* very impressively.

At Rockwood Potholes we so far have not been able to discover glacial markings, and among the rounded stones none exceeding six inches in diameter, and thus are inclined to think these holes have been worked out by the water of a river rather than that found beneath a glacier. However as further information is secured we may be led to modify the conclusions presented to-night.

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## EXPERIMENTS IN GOVERNING CANADA.

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BY D. A. O'SULLIVAN, D. C. L.

The Canadian Union now in its twenty-first year is, so far as the Old Province of Canada is concerned, the latest of several experiments, for its good government. That Province was a divided Province for fifty years, and subsequently it was a united one for a little over half that period. With some variations in geography, it was the Old Province of Quebec; and within thirty years Quebec existed under what may be considered three forms of government.

The change in 1867 was accordingly the sixth change since the conquest or cession, and since the war commonly called in history the Seven Years War,—the treaty that terminated that war decided the fate of Canada.

Speaking of the fall of Quebec in 1759, and the capitulation of Montreal in the following year, I think the word conquest a perfectly proper one, and if there had been no treaty of union as there has been, Canada would have remained a conquered rather than a ceded portion of the British Empire. I entirely incline to the view that it is a ceded colony.

The period between the capitulation and the treaty covers less than three years. This was the period of martial law—the reign of the soldiery. It was of that uncertain character which is to be expected when the ultimate destiny of the country was in suspense—it was in fact an occupation by the English under the government of the drum-head. The English colonists were not satisfied and the French could not be expected to be satisfied.

\* \* \* \* \*

I do not think that the capitulations of Quebec and Montreal survived after 1763, except in so far as they can be read with the Treaty of that year, and whatever parts of the Treaty are inconsistent with these interim stipulations are superseded by it.

This period ought not strictly to be classed with our experiments in the government of Canada, but Canada was in some wise governed in that time though the subjects or citizens had no voice in the administration.

The Treaty of cession was, after long deliberation, signed in February, 1763. It was an international document signed by the representatives of England, France and Spain, and the signature of a representative from Portugal also testified to the concurrence of his country.

The Treaty provided for no domestic matters except freedom of religion to the new subjects of the British King, and so the municipal government of Canada must be looked for in some other document. The Treaty was the deed of conveyance just as the Treaty of 1803, conveying Louisiana to the United States, or the Treaty of 1819, disposing of Florida.

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The Proclamation of 1763, is an important document historically, but before referring to it a glance at the map will assist very materially in estimating the geographical position of affairs.

In 1763, the old thirteen Colonies were still British—they extended eastward of the Mississippi to the seaboard, and from Acadia in the north to Florida in the south. New France whatever its western limits may have been is very generally associated with the name Canada. The Mississippi was taken to be the boundary after 1763 between France and England; and so, when Canada with all its dependencies was ceded to England, it embraced roughly whatever lay to the east of that river and north of what were then and afterwards British Colonies. By a subsequent clause in the Treaty of 1763, Spain ceded Florida to England, and the latter found herself with two strips of the continent to be dealt with in the Proclamation of government. This territory was divided into four parts of which this country was one; and the only portion of the Proclamation pertinent to our subject is this that “as soon as the state and circumstances of the said colonies will admit thereof, the governors will “summon and call general assemblies, with power to make laws for “the public peace, welfare and good government of the inhabitants “as near as may be agreeable to the laws of England. In the mean-



“time all colonists could confide in the royal protection for the enjoyment of the benefits of the laws of the realm of England.”

This Proclamation with the care of Canada was entrusted to Sir Guy Carleton, and Canada was, during eleven years, governed much as it had been in the preceding three years. It was government very like what obtained in the North-West Territories before any representation was accorded to them. It is needless to say that the inhabitants, after waiting until their patience was exhausted, complained and then petitioned for relief from the intolerable state of things. The information that reached London was of two very different complexions.

There was on the one hand a demand that the British laws and institutions should be declared to be in force in the country. This though coming from a minority trifling in point of numbers was still put forward with great energy and with many advantages on its side.

On the other hand the ancient inhabitants required a continuance of the laws and institutions under which they had flourished for over a century. They numbered 70,000, as against less than 500, of the recent additions to the Province. The ministry in England then passed an Act of government favorable to the ancient subjects, but unfortunately obnoxious to the minority. This was the Quebec Act—a very important charter of government.

The Quebec Act was passed to define the boundaries of the newly acquired territory, and to put beyond doubt the character of the laws in force as well as to determine certain domestic matters within the Treaty of cession. It must be concluded now that it was no easy matter to establish laws that would suit the old and new subjects of the King.

There was one Englishman to every two hundred Frenchmen. The view taken by the English statesmen favored the re-introduction of the old French law in civil matters, leaving the criminal law of England the rule in such cases. The boundaries of the Province were then enlarged as appears by the map, and it would seem that the English had in view the taking in of a French settlement near the junction of the Ohio and the Mississippi. The Old

Province of Quebec included not only the present Province of that name, but also the present Province of Ontario and part of four, five or six States of the American Union. The Quebec Act did not grant a legislative assembly to the people, but an advising council only. This body passed ordinances under which the people were governed for sixteen years, until the next change took place. The extended territory of Quebec did not last so long, for within a little over a year the Thirteen Colonies declared themselves independent, and by the Treaty of 1782, the territory south and east of Lake Erie and Michigan was severed from Quebec. In the census taken by Sir Guy Carleton in 1784, the population was put down at 113,032—subsequently considerable accessions had been made to the numbers of English settlers, so that when a new change of government was granted in 1791, the numbers stood not quite three Frenchmen to one Englishman.

Under this change of what is called the constitutional Act, the two classes of Colonists were still opposed to each other and the result was that the English settlers were very nearly as much disappointed as they were in 1774. They wanted a repeal of the Act—a new constitution for the whole territory. The Quebec Act was not repealed—the Province was divided leaving to the inhabitants of each division the power over their own laws. The Upper Province at once adopted the English laws. In matters of civil proceedings—the boundary at least for part of the way was established between Eastern and Western Canada, and the divided Canadas set out in their separate destinies. For fifty years they existed in this way—the largest period in our history under possibly the most unsuitable form of government. There were two houses for legislative purposes, and an executive Council with a Governor of large independent powers. The Constitutional Act was a misnomer, and after the first one-third of its existence the Provinces were dissatisfied and finally became rebellious.

The agreement of the people with the ruling powers was not an effective instrument until the Provinces were again united in 1841. The powers of the Governors were to be exercised through responsible ministers, and a form of government prevailed for a quarter of a century not very materially different—except as to division of legislative

powers—from what prevails now, with one Parliament—if we may call it such—legislative on all subjects competent to a Colony—for the peace, order, and good government of Canada. A slight change was made in the constitution of the Upper Chamber in 1856, and shortly afterwards the united Canadas cast about them for partners in the formation of a new Dominion. The Union of 1867 was the result, the last of the experiments in governments.

Before discussing this latest form of government, it is well to recollect that the English Government in every instance since the cession, aimed at granting such a form of government as the majority desired. The changes since have been changes of necessity. The Quebec Act was intended to provide for a colony almost entirely composed of one race and one religion, settled in one part of Canada, between Montreal and Quebec. The constitutional Act of 1791 had to deal with an important piece of territory west of Montreal, and for the most part of another race and another religion. Mr. Pitt's Government accordingly divided the original territory, leaving each section to manage its own affairs. One portion retained the French laws under the Quebec Act, the others introduced the laws of England. Had there been any fair grant of representative institutions, this might have subsisted to this day. Indeed it is claimed that now there is somewhat of a return to this ancient form of government. In 1841, when the discontent was too obvious to be overlooked, it was discovered that a change was necessary. The remedy was not so much in a union of the two Provinces as in the right to responsible government. Still a union was not so unlikely, when it was discovered that the two races were all but evenly balanced. A united Canada after the experience of two rebellions was fancied more stable and likely to be respected, than a divided Canada.

It is to be borne in mind, however, that the variations in the forms of government have been due largely to the fact that while the French population increased with the normal rapidity of a people receiving no additions from abroad, the English speaking inhabitants increased from 500 at the cession to 100,000 at the Act of 1791, and half a million at the Act of Union, fifty years later. These circumstances are sometimes overlooked by those who complain of every state of affairs before a change is made in the constitution, and complain equally after each has been made.

In 1867, there was a certain reversion to the Act of 1791, so far as the Canadas are concerned. There was to be a Legislature, one in Toronto and one at Quebec, and though there are such, but with considerably curtailed powers they are with such powers, as Ontario and Quebec desired to have. The praise or blame of confederation, the excellences or defects of the British North America Act of 1867, are to be laid at the charge of these two Provinces. If New Brunswick came unwillingly, or if Prince Edward Island refused to come in after agreeing to do so, the other Provinces carried the Imperial Act; and it is not too much to say that if the Act does not follow the agreement of the Provinces signed in Quebec in 1864, the Canadas thought it best to have an Act carried in the best way they could. Looking at this latest charter of government, it is of course a very great departure from any of the charters that preceded it in Canada. A federated monarchy, or a monarchical federation was, except in the United States, a thing unknown to the English speaking people. There was a division in their powers of governing: one set of officers and machinery to do part of the legislative and executive work, and another set and other machinery to do the other part, leaving it forever a vexed question as to the exact boundary line between their powers, and their duties. The government of the new Canada was let out so to speak on shares, one Legislature to do the home work for each member of the Union, and the other to do the general government for all the members.

The Quebec resolutions set out with considerable diffuseness the different classes of legislative control, but the Act of Union did not exactly sanction that allotment. That may or may not be now a cause for amending the Act—it does not seem to me there is any substantial departure, or if there is that it has worked any great injustice.

To keep the different legislatures within their own limits was of course a very delicate matter to adjust. In the Belgian Union there is no constitutional check, in the United States there is the Supreme Court—all the courts in fact—with us there is as well the veto of the central government. This has become almost a party question, so that it is difficult to say anything of it without seeming to depart from the pure political aspect of the question. I do not hesitate to say that as a veto must come from some quarter, I prefer to have it come from

our own representatives. The members at Ottawa who exercise the power of vetoing provincial legislation, are themselves elected to office by the men of the Provinces, and though they cannot directly be called to account, an attack upon any one Province is an attack upon all. To that general reason I would assign another perhaps as forcible, and that is that the line of demarcation between the powers of central and local governments ought to be better known to the men of Canada than to the ministers of the Crown in Great Britain. That may be some reason for handing over this power to Judges of the Supreme Court, but whatever may be the defects of the judgment of the Cabinet it has the advantage of coming to the public as the decision of one person. The Supreme Court as every other Court gives the individual opinion of each member, and if a Provincial Act were to be upheld because three Judges were in favor of it while three were against it, that would not diminish the dissatisfaction. The Act of Union is largely taken up with Ontario and Quebec—indeed nearly one-half is devoted to these Provinces. The other two came in with their legislatures unimpaired, and the executive power altered only so far as thereafter the Lieutenant Governor was sent from Ottawa and not from England. The carefulness to provide for the Canadas gives rise to the suspicion that those who piloted the Act in 1867, were doubtful if the simple provisions given to New Brunswick and Nova Scotia would suffice for the other provinces. With the United States constitution as a model worthy of being followed, it is rather remarkable that it was altogether departed from in this respect. The United States constitution guarantees a republican form of government to each of the States, and there practically the matter rests.

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## THE ESKIMO RACE AND LANGUAGE.

## THEIR ORIGIN AND RELATIONS.

BY A. F. CHAMBERLAIN, B.A.

Within the confines of the Dominion of Canada, the ethnologist and the philologist can find fit subjects for investigation and research. In our Eastern Provinces we have still feeble remnants of that mighty race, which, as late researches have shown, once occupied the whole country East of the Mississippi, from Florida to Labrador, and whose original seat, Mr. Horatio Hale thinks, was on the borders of our own St. Lawrence, whence they spread in times long past, to the south and south-west. In Manitoba and the adjoining districts of the Territory, some have seen evidences of the sojourn of that wonderful people, the mysterious "Mound-Builders," while in British Columbia and on our far western border, there linger yet tribes whose language yields us evidence of connection, perhaps even kinship, with the named Aztecs of the land of Anahuac. Across the vast plains of our North-West Territories the Cree and the Athapascan have wandered from time immemorial, long ere the white man set foot upon the "new discovered isle." But to the student of America's past, there can be no tribe, no nation, so interesting as that which occupies our sea-coast from Labrador to the borders of Alaska, continuing thence even into the Old World, the *Innuït* or *Eskimo*, as they are commonly designated. To use the language of Dr. Latham, "the *Eskimo* is the only population clearly and indubitably common to the two Worlds, the Old and the New.)\* The habitat of the *Eskimo* stretches from Labrador and Greenland to the shores of the River Anadyr in North-Siberia. From the North-western to the South-eastern point of the *Eskimo* territories is in a straight line

\*Native Races of the Russian Empire, 1854, p. 291.

about 3200 miles. The distance along the coast, which is their natural line of migration is not less than 5000 miles.\* They seldom advance into the interior to a greater distance than 150 miles, and even then the line of progression is generally up a river or water-course. Dr. Rink, has however given some reasons for believing that Eskimo are not so exclusively a coast-people as has commonly been supposed.

As a rule, the Eskimo communities are not very large, although at certain favourable localities, considerable villages are to be found, as at the mouth of the Anadyr, and on the Tchukstchi Promontory in Siberia, at Point Barrow, in Alaska, at the mouths of the Mackenzie, at the mouth of the Churchill, and at various points in Labrador and Greenland. As tribal divisions seem to be absent from Eskimo sociology, (although many writers have seen fit to speak of such), the only method of properly classifying the various Eskimo communities is a geographical one, the peculiarities of dialect, etc., being such as to render this practicable.

A broad division into *Eastern, Northern, Central* and *Western* Eskimo, might be made, and has been proposed, but lacks accuracy and precision, for each of these great divisions is susceptible of being further separated into various smaller sub-divisions. Dr. Rink† divides them generally thus :—(1) *East Greenlanders*, occupying the whole of the coast down to Cape Farewell; (2) *West Greenlanders*, from the Cape to 74° N.L., and further sub-divided into North and South Greenlanders; (3) *Northern Greenlanders*, (or the *Arctic Highlanders* of Sir John Ross) on the west coast, North of Melville Bay; (4) *Labrador Eskimo*; (5) *Eskimo of Middle Regions*, from Baffin's and Hudson's Bay to Barter Island near the Mackenzie River—the most widely-spread of all the divisions occupying an extent of land measuring 2000 miles in length and 800 in breadth; (6) *Western Eskimo*, on the coast from Barter Island to the West and South; (7) *Alaskan Eskimo* (including Aleutians); (8) *Asiatic Eskimo*. O. T. Mason,‡ distinguishes them as follows :—(1) Greenland; (2) Labrador and Ungava; (3) Baffin's Land; (4) Mackenzie River; (5) Pt. Barrow; (6) Kotzebue Sound; (7) Asiatic

\* Rink, *Tales and Traditions of the Eskimo*, 1875, p. 2.

† Loc. cit. p. 3.

‡ Eskimo of Pt. Barrow, *Amer. Naturalist*, Feb. 1886, p. 197.

Eskimo; (8) Norton Sound; (9) Nuniwak; (10) Cape Nome; (11) Bristol Bay; (12) Kadiak and the mainland. For the *Greenland* Eskimo the sub-divisions made by Dr. Rink, into Eastern, Western (Northern and Southern branches), and Northern will probably be sufficient. There would appear to be some differences, in dialect and other matters, between the various settlements of the Labrador Eskimo, at Okkak, Ungava, and Stupart's Bay, a short vocabulary from which latter region has been furnished by Mr. R. F. Stupart.\* The differences between these again and the Eskimo of the Cumberland Sound region are also noticeable. The Eskimo of *Baffin Land* are arranged by Dr. Franz Boas † in seven divisions; distinguished by peculiarities in dress, methods of hunting and fishing, language, etc., thus—Two important tribes possess the north coast of Hudson's Straits, one the peninsula between Frobisher Bay and Cumberland Sound. The remainder of Davis Strait is divided by the Eskimo into three parts, viz., Aggo, Akudnirnan, Oxo, the tribal distinctions being the Aggomiut, Akudnirmiut and Oxomiut. The termination *miut*, which here appears, is not really a tribal name, but simply means, "dwelling," the Aggomiut are those who dwell in Aggo. Some authors, not taking the trouble to investigate the use and meaning of this suffix, have talked about the various tribal divisions of the Eskimo, whereas such distinctions, as are found, are as I have just pointed out, geographical. The Eskimo of the *Churchill River*, ‡ seem to differ considerably in dialect both from the Eastern Eskimo and those of the Mackenzie River, whilst the *Winter Island* Eskimo though resembling those of Labrador in dialect, have nevertheless their distinguishing peculiarities. The Eskimo words collected by Hall, § seem to contain some peculiarities both of the Labrador and of the Alaskan dialect. The nasal *n* which is found in Aleut || as the sign of the Nominative, occurs frequently in Hall's words (Kooming, ooming, etc.), instead of the *k*, which is more general in the Central and Eastern dialects.

Another considerable collection of Eskimo is to be found on *Anderson's River*, but they are not very sharply distinguished

\* Eskimo of Stupart's Bay, Proc. Can. Inst., 3rd. Series, Vol. iv., p. 113-114.

† Die Sagen der Baffinland Eskimos, Verh. der Berl. Gesell. für Anthropol. Ethnol. u. Urgesch., 1885, S. 162.

‡ Petitot, Vocab. Français-Esquim., 1875.

§ With the Esquimaux, 1865.

|| Henry, Grammaire raisonnée de la Langue Aléoute.



from their neighbours on the Mackenzie.\* Of the latter we possess considerable information, which has been collected and published together with a somewhat extensive vocabulary by Father Petitot,† the distinguished missionary to these inhabitants of the far north of our country. Passing the Eskimo of Cape Bathurst, the Innuït population of *Alaska* next engages our attention. *Alaska* having previous to its purchase by the United States, been a Russian province, there necessarily is in Russian archives and in the writings of Russian travellers and explorers a considerable stock of information regarding its inhabitants, but what of this is of greatest value has been extracted by German, French and English writers upon the subject. Waitz‡ divides the *Alaskan Eskimo* (including the Kadiak) into thirteen dialects. The far western Eskimo (including those of N.E. Asia) are arranged by W. H. Dall§ as follows:— I. *Asiatic Eskimo* or *Yuit* (a corruption of Innuït), in the extreme N.E. of Siberia, migrating with the seasons from Cape Olintorsk to East Cape, the most northern village being at the latter point. They are known also as Chuklukmut, Namollo and Tchukchi. At East Cape they are called Nogwunmut. They are divided into the Tchukchi of the Anadyr, and those on the Tchutskoi Nos, or Tchuktchi Promontory. II. *North-Western Innuït*, (1) Kopagmut or Kupungmun, the name of the people of the Mackenzie River as called by the natives at Point Barrow; (2) Kangmaligmut or Kungmudling, of the Colville River; (3) Nuwukmut or Nuwungmun (*i.e.* people of the point), the name of the Eskimo of Point Barrow; (4) Nunatogmut or Nunatanmiun, the people of the River Nunatok; (5) Kuagmut or Kawagmut (including the Selawigmut on Lake Selawik) on the Kuak or Kowak River. III. *The Island Innuït*, (1) the Imahklimut or people of Eig Diomedé Island; (2) Ingulikhmut on Little Diomedé Island; (3) Shiwokugmut or Kikhtogmut on St. Lawrence Island, these number about 150 souls. The Ingulikhmut scarcely number 40 persons. IV. *The Western Innuït*, (1) Kaviagmut (including the Kingigemut of Cape Prince of Wales), inhabiting the peninsula between Kotzebue and Norton Sounds, called by them Kaviak; (2) Mahlemut, occupying the neck of land between Kotzebue Sound and Norton Bay, they

\* McFarlane *Esk. of Anderson's R.* (Hind, Trav. in Interior of Labrador, i., p. 258).

† *Vocab. Français-Esquim.*, 1875.

‡ *Anthropologie* iii., S. 301.

§ Vice-Pres. Address Sect. H. Proc. Am. Ass. Adv. Sci., Aug. 1885, p. 377. See also Dall. On Distrib. of Native Tribes of Alaska, Proc. Am. Ass. Adv. Sci. Salem, Aug. 1869, pp. 263-73.

do not range south of Lake Selawik ; (3) Unalignmut, on the shores of Norton Sound and south on the coast, to the mouth of the Yukon ; (4) Ikogmut or Ekogmut ; (5) Magemut (the Nunwak people on the N. coast call themselves Magemut) ; the Magemut or Mink-people range south-west of the Yukon, between it and Cape Romanzoff ; (6) Kaialigmut, between the northern Magemut and the Kuskwogmut ; (7) Kuskwogmut, at the mouth and on the banks of the Kuskwoquim River, extending inland to the Kolmakoff' redoubt ; (8) Nushagagmut (including the Chingigmut and Togiagmut of the U.S. census map of 1880), on the shores of Bristol Bay, near the mouth of the Nushergak River ; (9) Oglemut or Aglemut, south of the Tinneh and Iliamna Lake, extend south-east approaching the peninsula and range westward at times to Port Nöller ; (10) Kaniagmut, in the south-west of Alaska eastward to the 60th degree of Lat., the island of Kadiak (originally Koniag), and the adjacent small islands of the Kadiak Archipelago ; (11) Chugachigmut, south and east shores of Kenai Peninsula, and shores of Chugach Bay (or Prince William's Sound, ranging from western extreme of Kenai Peninsula to the mouth of the Copper or Atna River and Kayak Island. Besides these Mr. Dall mentioned in 1869, the Kinkhpagmut, in the delta on the Yukon, and some 50 miles up the Kwikhpak, one of the Yukon-mouths, the Kusilvagmut, on the Kusilvak mouth, and the Ugalakmut near Mount Saint Elias. V. *Aleutians* (Unungun), on the western Aleutian islands ; the chief villages being on Atta and Atka islands. They may be distinguished as follows: (1) Unalaskans (on the Fox Islands, principally on Unimak, Unalaska, Umnak and Akhun ; (2) Atkans or Andreanoff Islanders (on Atka, Amlia, Adak and Attu. The number of these Eskimo Mr. Dall estimated as follows:—Northwestern Innuut, 3,100 ; Asiatic Innuut ; Island Innuut 190 ; Western Innuut 14,500 ; Aleutians 2,200.

The tribal nomenclature of the *Baffin Land* Eskimo,<sup>1</sup> partly given above, is fully as follows:—(1) Seikossiularmiut on the extreme South-west ; (2) Akudliarmiut, on the north coast of Hudson's Straits ; (3) Nūgumiut, on the Peninsula between Cumberland Sound and Frobisher Bay ; (4) Okomiut, in the Cumberland Sound region ; (5) Akudniirmiut, on the coast of Davis Strait from Cape Searle to Cape Eglinton ; (6) Aggomiut, on the coast of Prince Regent's Inlet.

1. Die Bewohnsitze u. Wanderungen der Baffinland Eskimos, Deutsche Geogr. Blätter, Heft 1. Band viii., Bremen, 1885. See also Proc. Roy. Geo. Soc., New Series, Vol. vii. 1885, p. 407.

The following is the list of the tribes known to the Tchiglit or Mackenzie River Eskimo, and their Eskimo designations as given by Father Petitot.<sup>1</sup> (1) Piktorméut [the inhabitants of (the country of) powdery snow], a tribe on the other side of Behring's Straits. The locality they inhabit is called Pirktok (la poudrerie); (2) Natervalinèt, the inhabitants of Natérovik, the Russian post at the Mikaelowski redoubt; (3) The Tuyormiyat, or the inhabitants of Behring's Straits. Their country is called Tchikrénelérk; (4) Apkwaméut (the enclosed, sedentary people.) The Tchukatchis of Kotzebue Sound. Their locality is called Kranik (la neige étoilée). From these the Tchiglit of the Mackenzie have obtained the kind of boots called apkwaméortok; (5) Nunatagméut, or those who live at Nunatagmun, towards the strait. This region is also called Tchikreynérk kagvirartchinerk (the sun shows the end of its nose); (6) Nuvungméut, the inhabitants of the Cape; in the region around Cape Lisbon; (7) Akillinerméut, the inhabitants of Akillinerk, between Cape Lisbon and Icy Cape; (8) Taréorméut (the people on the sea), from Herschell Island to Liverpool Bay, and in the mouths of the Mackenzie; (9) Kamalit, or Eskimo of Anderson River; (10) Kragmalivéit, inhabitants of Cape Bathurst; (11) Kravanartat (people of the east); this appellation is rather vague and designates all the Eskimo between Franklin Bay and the Copper River, or even Melville Peninsula; (12) Anénérit or Innuït of the great east; a still more generic name applied to all the Eskimo of Hudson's Bay, Labrador, and Greenland; (13) Krikertalorméut (the people of the isles), under this name are comprised all the Eskimo of the lands in the Polar Sea. Besides these there are the following names of tribes of the Central Eskimo, not known to the Tchiglit, but belonging to the people of Liverpool Bay: (14) Kroleyloréut (the people of the Reindeer Mountains), east of the Mackenzie; (15) Naggiuk-torméut (the people of horns), at the mouth of the Copper River; (16) Kanerméut (the people among the white partridges), to the east of Cape Alexander; (17) Utkutçikialin-méut, (the people who use stone kettles), on the shores of Boothia Gulf; (18) Ahaknañélet (the silly women, les femmelettes), in the region of Repulse Bay.

The best brief classification of the whole Eskimo stock is that of Dr. Rink, which is as follows :

1. Loc. cit., Monographie, p. x-xi.

## Aboriginal Inland Eskimo.

Principal Stem. Eskimo Proper.		Side Branch, Aleutians.	
Eastern.		V. Western.	
III. Mid. Region. Iglulik, Repulse. Bay, Churchill R.	IV. Mackenzie River.	Northern.	Southern.
I. Greenlanders.	II. Labradorians.	1. Pt. Barrow.	6. Tchugazzes.
		2. Kaviagmute.	7. Kadjagians.
		3. Malemute.	8. Kangindlut.
		4. Unaligmute.	
		5. Ekogmute.	
		9. Asiatics.	

With regard to the Greenlanders and Labradorians, as well as the Asiatics,<sup>1</sup> a little more detail might be employed, although not necessary perhaps in a broad general scheme.

The name *Eskimo* or *Esquimaux*, by which these interesting people are commonly designated, is said to be derived from an Algonquin term signifying "eaters of raw flesh." Charlevoix<sup>2</sup> says that the Abenakis of the Gulf of St. Lawrence called the people now known as Eskimo, *Eskimantik* (eaters of raw flesh). Dr. D. G. Brinton<sup>3</sup> states that the word Eskimo comes from an Algonkin word *Eskimantik*, "eaters of raw flesh," and states that the Tuscaroras, in their traditions regarding their arrival on the coast of Virginia, speak of "a race they found there called Tacci, or Dogi, who were eaters of raw flesh, and ignorant of maize." And the general opinion of writers on the subject is that the word *Eskimo* or *Esquimaux*, is of Algonkin origin and conveys the idea of "eaters of raw flesh."

Richardson<sup>4</sup> attempts to derive it from the French words *ceux qui miaux* (*miaulent*), referring to their clamorous outcries on the approach of a ship. Petitot<sup>5</sup> says that at the present day the Crees of Lake Athabasca, call them *Wis-Kimowok* (from *Wiyas* flesh, *aski* raw, and *mowew* to eat), and also *Ayiskimiwok* (i.e., those who act in secret). In Labrador the English sometimes call the Eskimo, *Huskies*<sup>6</sup> and

1. Eskimo Dialects, Journ. Anthr. Instit. Gt. B. and Ire. vol. xv., p. 244. See also Amer. Naturalist, April, 1886, p. 403.

2. Quoted in Petitot, p. ix.

3. Myths of the New World, p. 214.

4. Arctic Searching Expedition, p. 203.

5. Cf. Chambers Encyc. Ed. 1880, vol. iv., p. 165. Article Esquimaux.

6. Loc. cit. p. ix. 7. Chambers Encyc. Article Esquimaux. See Hind. Trav. in Int. of Labr., loc. cit., and Petitot loc. cit. p. ix.

*Suckemos*,<sup>1</sup> and Dall<sup>2</sup> says that in Alaska the Tinneh Indians call them *Uskeeme* (sorcerers). The general appellation of the Eskimo of Greenland, Labrador, Hudson's Bay, etc., is *Innuvit*, (i.e., men, the most frequent tribal name among savage, or primitive peoples.) The Southern (but not the Northern Greenlanders), also call themselves *Karalit* (Kalalek), which has been conjectured by some writers to be a corruption of the name "*Akraellinja*," which the Old Norse discoverers applied to the Eskimo.<sup>3</sup> The Esquimaux of the Mackenzie call themselves *Tchigliit*; those around the Churchill *Akut* or *Agut*; the Aleuts *Tagut*; the Tchukatchis *Tachut*; the Tuski *Tchukchât*, all of which terms signify men (*viri*), as *Innuvit* signifies human beings (*homines*). Designations other than those mentioned above, are simply descriptive, either of locality, or some peculiarity in the manners, customs, etc., of the people specified. The usual termination of these descriptive names is in *miut* (*meut*, *mut*), which Petitot<sup>4</sup> says marks, "residence, possession," and Rink<sup>5</sup> defines as "inhabitant of." Thus the people on the Gr. Fish River are called *Utkahikalung-mëut* (people of the stone-kettles); the Eskimo near Cape Alexander are termed *Kangor-meut* (Snow Goose people); around the Copper mine are the *Naggeuktor-meut* or "deer horn," Eskimo;<sup>6</sup> the Eskimo of Point Barrow are called *Nuwuk-meut*, people of the point or cape. The termination *miut* is found attached indiscriminately to the name of the residence of any locality, no matter how small or how large the community may be. Fifteen or more different tribes (so-called), whose names all end in *miut* are met with in Alaska alone, and the same is the case in the far east of the Eskimo territory.

The general name given by the Eskimo to the European is *Kublunak* (Greenland), *Kuppelunet* (Church Riv. pl.), *Cublunac* (Stupart's Bay), *Krablunvit* (Mack. R.), *Cappélunet* (pl., Church. R.), *Koblunak* (Huds. B. and Cumb. Sd.), *Kablunak* (Labrador). This Petitot<sup>7</sup> translates 'couronnés,' and says it is derived from *krabbut* (eyebrows) or *krablunark* (frontal or coronal bone), and thinks the name was given

1. Richardson, Arctic Searching Expedition, p. 202.

2. Proc. Am. Ass. Adv. Sci. 1869, p. 265.

3. E. B. Tylor, Journ. Anthr. Inst. Gt. Brit. and Irel. xiii., p. 349. Rink, Danish Greenland, p. 404.

4. Petitot, loc. cit. p. x.

5. Loc. cit. p. liv.

6. Tales and Trad., p. 18.

7. Sir John Richardson, The Polar Regions, 1861, p. 340.

8. Loc. cit., p. xi.

by the natives to the Europeans, on account of the latter wearing a cap or hat, covering their foreheads down to the eyebrows. But L. P. Peichel<sup>1</sup> says "the Eskimo of Labrador" designate the rest of mankind as *kablunait*, i. e., inferior beings, calling themselves, *Innuît* (men). Dr. Brinton<sup>2</sup> referring to C. F. Hall<sup>3</sup> says, the first men created were called *Kaudluna* (from the root *kan*, white etc.), and this word seems to be the same as the general appellation bestowed by the Eskimo upon Europeans. Besides the general term of '*Kabluna*,' various descriptive and picturesque epithets are, in different localities, bestowed upon white men by the Eskimo. Thus in Greenland the Danes are termed *Ukissut* (the winterers)<sup>4</sup>; at Pt. Barrow<sup>5</sup> the crew of the 'Plover' were termed "*Shakenatanagmeun*," (people from under the sun), or *emakh-lin* (sea-men), but more frequently *nellung-meun* (unknown people). The Eskimo of the Mackenzie<sup>6</sup> term the Hare Indians, whom they hold in great contempt, *Nonga* (spittle). These Eskimo also call the Indians of the Loucheux Tribe, *ipkrelirk*, plural *irkrelit* (nits, larves de poux), those of the Rocky Mountains they call *Kublun-Kutchin*, and those of the Youkon *irkrelearnit*.<sup>7</sup> The people of Pt. Barrow call the Kutchin Indians *It-Kulling*; the southern Innuît call the Indians *Inkalit*: according to Mr. Murdoch,<sup>8</sup> the Pt. Barrow Eskimo term the Red Indian (who has become a fabulous being) *It-Kulling*, (the *Ingalik* of Norton Sound) meaning "son of a nit," evidently the *erkilek* of "Greenland legend;" all these terms are probably the same as the Tchigliit "*irkrelit*," cited above.

The question of the origin and migration of the Eskimo race has been much discussed, especially of late years. Such is the resemblance thought to exist in physical features, between the Eskimo and Mongol tribes of North-eastern Asia that the majority of writers upon the subject have been content to regard the former as but a comparatively late offshoot of the latter. Such was the opinion advanced by

1. Eskimo of Morav. Missions in Labrador. (In Hind's Exped. into Inter. of Labrador 1863, app. vii., p. 295.)

2. Myths of the New World, p. 195, Note.

3. Arctic Res., p. 556; cp. Crantz, i. 188.

4. Rink, Dan. Greenld. p. 402.

5. Richardson, Polar Reg. p. 300.

6. Hind, loc. cit. p. 258; cp. Richardson, Arctic Se arch. Exped., p. 299.

7. Petitot, loc. cit., p. 43.

8. Amer. Naturalist, Jul 1886, p. 599.

Wrangell,<sup>1</sup> Prichard,<sup>2</sup> Steller,<sup>3</sup> Crantz,<sup>4</sup> Lütke,<sup>5</sup> Morton,<sup>6</sup> McDonald,<sup>7</sup> Mitchell,<sup>8</sup> Sir Daniel Wilson,<sup>9</sup> Fontaine,<sup>10</sup> Palmer,<sup>11</sup> Dawson,<sup>12</sup> Figuier,<sup>13</sup> Ujfalvy de Mezokovezd,<sup>14</sup> Peschel,<sup>15</sup> Petitot,<sup>16</sup> Petroff,<sup>17</sup> Dr. John Rae,<sup>18</sup> Nadaillac,<sup>19</sup> Prof. Flowers,<sup>20</sup> Elliot,<sup>21</sup> Topinard,<sup>22</sup> and many others. Du Ponceau and Gallatin<sup>23</sup> note resemblance between the Red Indian and the Eskimo, which view is also shared by Prichard,<sup>24</sup> Dr. Latham,<sup>25</sup> on account of physical resemblances ally them with the Asiatic Mongols, but at the same time note a certain likeness in language to the American Indians. On the other hand some later writers have concluded that the Eskimo are American aborigines. This is the view taken by Dr. Robt. Brown.<sup>26</sup> Dr. Rink,<sup>27</sup> the eminent Danish scholar, has expressed the opinion that "the Eskimo appear to have been the last wave of an aboriginal American race which has spread over the continent from the more genial regions following principally the rivers and water-courses, and continually yielding to the pressure of the tribes behind them, until at last they have peopled the sea-coast." W. H. Dall,<sup>28</sup> Dr. C. C.

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1. Refd. to in Peschel. loc. cit.
  2. Researches. vol. iv., p. 463.
  3. Kamtschatka. refd. to in Peschel, loc. cit.
  4. Historie von Groenland.
  5. Voy. Autour du Monde, vol. 2, p. 209.
  6. Quoted in Norman's Rambles in Yucatan, p. 251, Cran. Am., p. 260.
  7. Narrative of some Passages in the Life History of Eenoooloapek. Edinb. 1841, p. 18.
  8. Archæolog. Americana, vol. i., p. 344.
  9. Prehistoric Man, 1. Ed., p. 384, and V. Pres. Ad. Am. Ass., Mont., 1882, p. 541. Preh Man. Vol. ii., p. 447, Ed. 1862.
  10. How the Earth was Peopled, p. 244.
  11. Migration from Shinar, 1879, p. 95.
  12. Fossil Men, p. 279.
  13. The Human Race, Eng. Ed., p. 460.
  14. Mélanges Altaïques, p. 153.
  15. Völkerkunde, S. 396.
  16. Vocab. Franç.-Esq., 1876, p. xxx.
  17. Amer. Naturalist, xxi, p. 567-75.
  18. Journ. Anthropol. Inst., Nov., 1886, p. 200.
  19. Prehistoric America, p. 522.
  20. Journ. Anthropol. Inst., Nov., 1886, p. 210.
  21. Our Arctic Province, Alaska and the Seal Islands, 1886.
  22. Anthropologie 2e. ed., Paris, 1877, p. 488, cf. W. H. Gilder, Schwatka's Search, 1881, p. 290.
  23. Arch. Am., Vol. ii., p. 211. Refd. to also in Chamber's Encyc.
  24. Cham. Ency. Article, Esquim. -loc. cit.
  25. Phil. Soc. Lond. Journ. Vol. I. (1848), p. 154-166.
  26. Races of Mankind Vol. I.
  27. On Eskimo Descent. Journ. Anthropol. Inst. iii. p. 104; Danish Greenld. 1877, p. 405, Esk. Tales and Trad. p. 11.
  28. Tribes of Extreme N. West, Contrib. to Am. Ethn. Vol. i. 102.

Abbot,<sup>1</sup> Aurel Krause,<sup>2</sup> and others share this view. Dr. Abbot<sup>3</sup> as a result of an examination of the flint implements found by him in the glacial drift of the Delaware near Trenton, concludes that it is "easy to realize that the Eskimo at one time dwelt as far south as New Jersey." Nathaniel Holmes<sup>4</sup> views the theory with favour, and A. S. Packard<sup>5</sup> after an investigation of the literary and other sources of information upon the subject of the former southward extension of the Eskimo, thinks it "not improbable that the Eskimo, perhaps the remains of the Palaeolithic people of Europe formerly extended as far as a region defined by the edge of the great moraine; and as the climate assumed its present features moved northward. They were also possibly pushed north by the Indians who may have exterminated them from the coast south of the mouth of the St. Lawrence, the race being acclimatized to the Arctic regions." Aug. R. Grote<sup>6</sup> considers that the Eskimo are "the existing representatives of the men of the American glacial epoch." M. le Dr. A. Bordier<sup>7</sup> says "tout porte donc à croire que les Esquimaux sont descendus à une certaine époque jusqu' à Terre-Neuve, et sans doute même beaucoup plus bas."

Something regarding the southward range of the Eskimo in former times might be gained from the accounts of the early Norse voyagers to America, were it not that such great difference of opinion exists as to the direction and extent of their explorations. Rafn who brought together in his great work<sup>8</sup> the various old Norse sources of information, was of opinion that *Helluland* was Newfoundland, *Markland* Nova Scotia, and *Vinland*, somewhere in the region of the present Rhode Island. Some have even claimed that *Vinland* lay as far south as Virginia.<sup>9</sup> A. J. Weise<sup>10</sup> says that all the old maps of Greenland shew *Helluland*, *Markland* and *Vinland* as regions of that country, and in this opinion he thinks

1. Rep. of Peabody Museum II. p. 251.

2. Verh. d. Berl. Ges. f. Anthro. Ethn. u. Urgesch., 1886, p. 529.

3. Peabody Museum Report. ii. 1876-8, p. 253.

4. Distrib. of Hum. Race, Trans. St. Louis Acad. of Sci. March 23, 1873, p. 4.

5. Notes on Labrador Eskimo, Am. Nat. 1885, p. 265, 395.

6. On the Peopling of America, Bull. Buff. Soc. Nat. Sci., 1877, Vol. 3, p. 181.

7. Les Esquim. du Jardin d'Acclimat. à Paris, Mem. Soc. d'Anthr. de Paris, 2e. Serie, vol. ii., p. 430, cp. Rink, Tales and Trad. p. 11, Dan. Gd. p. 13. Cf. R. G. Latham, Colonial Ethnology, 1851, p. 151; and Man and his Migrations, p. 124.

8. Antiquitates Americanae. Hafniae 1837, cp. Richardson, Arctic Search, Exped., p. 210.

9. Cp. Brinton Myths of New World, p. 214.

10. Discoveries of America to 1525, 1884, p. 421, p. 38.



that the so-called "Skraellings" were all Eskimos. R. G. Haliburton<sup>1</sup> reviews the evidence produced by Rafn and others and concludes that *Helluland* was North Labrador, *Markland* South Labrador, and *Vinland*, Western Newfoundland. He is inclined to think that the naming of *Vinland* may have been after the manner in which Eric the Red named the ice-bound region, now known as Greenland, there may have been a little romance in the stories of these old Norsemen. He suggests that besides the Eskimo the Norsemen in Newfoundland may have come across some of the Naskapi Indians. Rafn<sup>2</sup> says "Now is to be told what lies opposite Greenland, out from the bay already mentioned. *Furdustrandir* is the name of a land. There are such hard frosts that it is not habitable as far as known. South of it is *Helluland*, which is called *Skraelling's Land*." If one will compare the description of the scenery of *Helluland*, the flat stones, the action of the tides, the icy hillocks, the low-wooded, sandy shores, with the account of Labrador given by Kohlmeister and Knoch<sup>3</sup>, who especially mention the flat, slaty stones, the retreat of the tide, and the succession of low-wooded coasts to the desert-like shores of the northern region, he cannot fail to have at least a very strong presumption that *Helluland* was the coast of Labrador, and was then as now *Skraelling's Land*, Eskimo-Land. The descriptions of the savages encountered by the Norsemen accord better with the Eskimo than with any others of the North American aborigines. Their outcries, their dress, their boats, their brandishing their spears, etc., have been recorded by the Norsemen, and the descriptions apply with equal force to the Eskimo of to day: so that while we became acquainted with other natives of America less than 400 years ago, the acquaintance of the historical European with the Inuit of Greenland and Labrador must go back nearly five centuries earlier. That there were Eskimo in *Markland* is evident from the relation of Rafn, "Tha er siglthu af *Vinland*, toku their suthryen vethr, ok hitta tha *Markland* ok funnu thar *Skraellingja* 5; ok var einu skeggjadjr; konur voru 2, börn töö; . . . their n-fndu mothu sina vethilldi ok föthur *Uvaege*."<sup>4</sup> Here at once we recognize in *Uvaege* (the man's name), the *Uviga* (my husband) of the present

1. A Search in B. N. Amer. for lost colonies of Northmen, etc. Proc. R. Geog. Soc. 1885, p. 25-3.

2. Antiq. Amer. p. 250.

3. Jour. of a Voy. from Okkak on the coast of Labrador to Ungava Bay, etc. Lond. 1814 pp. 21, 53, 56, 50, 27.

4. Antiq. Amer., p. 161. For *Itibilik* see Amer. Ethnol. Trans., vol. ii, 213.

Greenland dialect, and perhaps other words as well. So that where ever *Markland* was the Norse discoverers found Eskimo there on their arrival. Rafn has also pointed out another Eskimo word brought home by the discoverers of America. In the descriptions of Greenland in the old MSS. occurs the word *Itibiliksfirth*, as the name of a bay or fjord. Now Rafn says that Itibilik is still the Eskimo name for an isthmus, *Itibiliksfirth*, being therefore, the fjord of the isthmus.

Dr. Rink, the advocate of the American origin of the Eskimo, from a study of their myths and legends,<sup>1</sup> comes to the conclusion that the interior of Alaska was the cradle of the race; a further study of Eskimo dialects<sup>2</sup> has strengthened him in this view, and lately he has given additional arguments from an examination into the development of the kayak and the implements and appliances belonging thereto<sup>3</sup>. The course of Eskimo migration was in the opinion of Dr. Rink<sup>4</sup> much as follows: Their original home was in North-west Alaska, and they probably acquired some knowledge of fishing and hunting from the neighbouring Athabaskan tribes, their route thence was across the Alaska Peninsula to the Copper River, where it is to be supposed they met with resistance from the Thlinkit and Athabaskan. But their chief line of migration was to the North and East along the unoccupied sea-coast to Baffin's Bay. From this point a new dispersion seems to have taken place, southward to Labrador, and eastward and northward to Greenland. Dr. Rink is inclined to agree with Captain Holmes, the Danish explorer, that the East Greenlanders (or Angmag-saliks), found their way to their present abode by travelling along the unknown north coast. He also thinks that the West Greenlanders passed from Baffin's Bay directly southwards, while at the extreme southern portion of the Peninsula there was developed a mixed race probably containing Norse elements. Dr. Rink further thinks that the "Aleutians,"<sup>5</sup> had already separated from the main stock, before the latter arrived at the coast," and that perhaps the original Aleutians had visited and reconnoitred the island annually from the American

1. Tales and Trad., p. 11; Danish Gd. p. 405.

2. Eskimo Dialects, etc. Journ. Anthr. Inst. XV. p. 239-45.

3. Migr. of Esk. as shown by Develop. of Kayak Impl., Journ. Anth. Inst., 1887, p.

4. Deutsche geogr. Blatter, Jan. 1887. See also Nature, Jan. 27, 1887.

5. Eskimo Dialects and Tribes, Journ. Anthrop. Inst. xv., p. 241. See Peschel Races of Man, p. 397.

Continent at a certain season before they finally settled upon them. Peschel<sup>1</sup> seems to doubt whether the Aleutians and Eskimo really belong to the same stock, and Keane<sup>2</sup> considers that they profoundly differ in language. Dr. Rink<sup>3</sup> himself terms them an abnormal offshoot. He does not consider it impossible however, that after the passage into Asia of some portion of the primitive Eskimo stock, some tribes may have migrated back again to the American coast. A. H. Markham<sup>4</sup> (who however holds to the theory of Asiatic origin of the Eskimo), thought that a distinct line of migration could be traced from Siberia, along the icy shores and islets of the Polar Sea to Greenland. There is however no great necessity to assume such migration. Lieut. Ray,<sup>5</sup> noting that it is not reasonable to suppose that, had the immigration come from Asia, they would have abandoned the deer upon crossing the straits, sketches the route of Eskimo migration as follows:—"The sea-shore led them along the Labrador and Greenland coasts; Hudson's Bay and its tributary waters carried its quota towards Booth's Land; helped by Back's Great Fish River the Mackenzie carried them to the N.W. coast, and down the Yukon they came to people the shores of Norton Sound, and along the coast to Cape Prince of Wales. They occupied some of the coast to the south of the mouth of the Yukon and a few drifted across Behring's Straits on the ice." Lieut. Ray says, "that the ancestors of the people of Pt. Barrow had made it their home for ages, is conclusively shown by the ruins of ancient villages and winter huts along the sea-shore, and in the interior." The investigations of Dall<sup>6</sup> and others in the Caves of the Aleutian Islands would seem to lead to a similar conclusion. Dr. Aurel Krause,<sup>7</sup> after journeying in the Eskimo territories observes, "Bemerkt man die gegenwärtige Verbreitung der Eskimos in Asien, wird man der Ansicht von Dall und Nordkenskioold beistimmen, dass die asiatischen Eskimos aus Amerika eingewandert sind und nicht, wie Steller und andere vermuthen, zurück-

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1. Races of Man, 1882. N.Y. Ed., p. 397.

2. Nature, Jan. 27, 1887.

3. Vide Nature, Jan. 27, 1887.

4. Orig. and Migr. of Gd. Esk., Jour. Roy. Geog. Soc., vol. xxvi., 1865, pp. 87-99.

5. Rep. of Intern. Polar Exp. to Pt. Barrow, Alaska. Wash. 1885. See also Scott. Geog. Mag May 1886.

6. Prehist. Remains in the Aleut. Is., 1873. See also Alph. Pinart, La Caverne d'Aknanh, de d'Oounga., 1875.

7. Die Bevölkerungsverhältnisse der Tschuktschischen Halbinsel, Verh. der Berl. Gesell. für Anthr. Ethn. u. Urgesch., 1883, p. 529.

gebliebene Reste einer ehemaligen zahlreicheren nach Amerika hinübergezogen Bevölkerung." The number of the Asiatic Eskimo, including those of St. Lawrence and Diomedé Islands was about 2000. The Chukluk or Yuit in his opinion undoubtedly belong to the Eskimo stock and have wandered across the straits from America. They wandered southwards and in 1879 had reached as far as Cape Olintorsk. The sea-coast of the Tchouktchi Peninsula from Point Tchaplín to the Anadyr, as well as parts of the East Coast are peopled by Eskimo, called Namollo by Lütke, Tuski by Hooper and Dall, and by themselves at Ithygane (or Chukluk), Chuklukmut. Dr. Carl Neumann<sup>1</sup> says that the Asiatic Eskimo or Tchouktchis retain a distinct recollection of the fact that their forefathers crossed the Straits from America

Dr. Franz Boas,<sup>2</sup> who for some time resided among the Eskimo of the Cumberland Sound and Baffin's Land region, and had especial opportunities of studying their habits, legends, language, etc., concludes, "Durch diese Thatsachen gewinnen wir den Eindruck, dass die früheren Formen der Sagen sich westlich von Baffin's Bay finden, was auf eine Verbreitung der Eskimos über den Smith-Sund schliessen lässt. Verbinden wir dieses mit dem Umstande, dass die Sagen der Ungava Eskimos stets nach Norden über die Hudson Strasse verlegt werden, dass man in Baffin Land stets über die Fury und Hecla Strasse fort nach Süden als dem Schauplatz alter Sagen hinweist, und, dass die westlichen Eskimos ebenso den Osten als das Land ihrer sagenhaften Helden und Stämme betrachten, so gewinnt die Vermuthung an Wahrscheinlichkeit, dass im Westen des Hudson-Bay Gebietes, die Heimath der weitverbreiteten Stämme ist." In the West, then, of the Hudson's Bay region, was according to Dr. Boas the home of the primitive Eskimo Race; they crossed Fury and Hecla Straits from the South; thence a portion of the migrating tribes turned southwards and peopled Labrador, whilst another journeyed towards the North and reached Greenland. Dr. Boas thinks that after Greeley's discoveries at Lake Hazen, there is no longer room for doubt, that the great extent of territory in that direction was once peopled throughout by Eskimo; he also inclines to the opinion that the East Greenlanders<sup>3</sup> reached their present

1. Dr. C. Neumann's Tchouk. Exped., Transl. by Capt. Clarke, Proc. Roy. Geo. Soc., xxi. p. 217.

2. Die Sagen der Baffin Land Eskimos, Verh. der Berl. Gesell. für Anthrop. Ethnol. u. Urgesch., 1885, S. 166.

3. Cf. Rink—Nature, Jan. 27, 1887.

habitat by migrating around the northern part of the island-continent of Greenland. The migration of the Western Eskimo along the sea-coasts and water-courses to their present positions, is susceptible of reasonable explanation on Dr. Boas' theory. He divides the Eskimo stock, generally as follows: I. Eastern, the Eskimo of Hudson's Bay, Baffin Land, Greenland and Labrador; II. Central, on the north coast from King William's Land to Cape Bathurst; III. Western, from the Mackenzie westwards. The theory of Dr. Boas would go far to explain many things that are left untouched by the theory advanced by Dr. Rink, though both agree in the fundamental idea of American origin for the Eskimo. If we combine the idea of the western Hudson's Bay region, as the seat of the primitive Eskimo stock, with that advanced by Horatio Hale, that "the course of migration of the Huron-Cherokee family has been from the north-east to the south-west, *i.e.*, from Eastern Canada on the Lower St. Lawrence to the mountains of Northern Alabama,"<sup>1</sup> and that consequently their primitive abode must have been in the region of Labrador and the Gulf, we get an interesting situation. South of the primitive Eskimo, and Huron-Cherokee families, lay in all probability the Mound-builders. It is but reasonable to suppose that contact with one another took place, and we have proof of this in the vocabularies of these various stocks.

Elsewhere,<sup>2</sup> I have pointed out a few of the Cree and Algonkin loan-words in the Eskimo dialects of the Churchill and Mackenzie. I have since traced them to the shores of Behring's Straits and into Asia, thus confirming Dr. Boas' view of the position of the cradle-land of the Eskimo, and proving that the far-western Eskimo and those of the Churchill and Mackenzie, as well as those of Labrador (for the loan-words are seen there also), must have lived together in juxtaposition to the Algonkin stock.

Examples of these loan-words are:—

Algonkin, <i>nipiy</i> (water).	Penobscot <i>nipongi</i> (night).
Miami <i>nipanoué</i> (cold).	Mass. <i>nippe</i> (water) Nanticoke <i>nip</i> .
Chippeway <i>nibi</i> (water), Minsi <i>nibi</i> .	Narrag. <i>nepouckttow</i> (to kill).
Miami <i>nepeh</i> , Ottawa <i>nipish</i> .	Chippeway <i>niba</i> (sleep).
Algonk. <i>nipa</i> (die) Cree <i>nipiw</i> (dead).	Mohican <i>nup</i> (die) Narrag. <i>nippitchev</i> .
Algonk. <i>nipouin</i> (death) <i>nipan</i> (sleep).	Penob. <i>neebunst</i> (moon), Montaug <i>neepu</i>
Lenapé <i>nipaoui</i> (by night).	

1. Ind. Migr. as evidenced by Language, p. 11.

2. Science, Sep. 2, 1887.

Mack. River Esk. <i>nipaluk</i> (rain).	Malemute, <i>nipitiya</i> (night).
Labrador, <i>nip'ar-pok</i> (foggy).	Ch. R., <i>nipalukuni</i> (to rain).
Tehuakkak I. <i>nüptschuku</i> (rain).	Mack. R. <i>nipaluktoark</i> (to rain).
Anadyr Tchuktschi, <i>neptschuk</i> (rain).	Cumb. Sound. <i>nepewoke</i> (sunset).
Church. River Esk., <i>nipa</i> (dead).	Mack. River, <i>nipiyork</i> (sunset).
Mack. " " <i>nip'ta-toark</i> (quarter, moon's).	" " <i>nipiyork</i> (to set, of stars).

And doubtless, a more thorough examination, which I have the intention, though not at present the leisure to make, will result in additions to the short list given above. The far western Eskimo seem to have come into contact with Aztec-speaking races, for in their vocabularies we find traces of this, *e.g.* :

Aztec, <i>metzli</i> (moon).	Anadyr Tchuktschi, <i>matschuk</i> (sun).
Tarahamara, <i>mátsaca</i> .	Kotz. Sound, <i>maje</i> (sun).
Cora, <i>matsakere</i> , Cahita, <i>meha</i> .	Kadiak, <i>matsak</i> (star).

Dr. Rink<sup>1</sup> tells of a legend regarding the procuring of Copper by the Eskimo from inland tribes to the south. Now, with the primitive Eskimo stock situated to the west of Hudson's Bay, from what people would the Eskimo be likely to borrow their copper? From the Mound-builders, we may reasonably suppose. Now the word for copper in the various Eskimo dialects is, *Kanooyak* (Hudson Bay), *Kannoyark* (Mack. R.), *Kannujak* (Unalaska), *Kanuju* (Kadiak), *Kanuak*, *Kenujak*, (Tchugaz), and in Mohawk we find the word for copper to be *quennies*, in Iroquois *kanadzia*. May not the ancestors of the Mohawk and Iroquois have borrowed this word from the copper-using people the Mound-builders? and may not the Eskimo have done the same? Perhaps the Eskimo as Mr. Dall<sup>2</sup> once hinted, were related to the Mound-builders. Now in Japanese the word for copper is *aka-gane* (red-metal) and the word for metal is *gane* or *kane*. In the appended comparative vocabulary of Eskimo and Turanian dialects, there are about 100 Japanese words, for which equivalents are to be found in the various Eskimo dialects. And there seems to be some similarity between the Japanese and those American dialects which belong to the region adjacent to the habitat of the Mound-builders, so that it would not be strange if the Japanese in addition to being kinsmen of the Eskimo, were nearly related to the people of the Mounds, or were even their descendants; perhaps the first emigrants from the Mound-builders' land, harassed by less settled and more warlike tribes. The appended list of words common to

1. Tales and Trad. of Eskimo, 1875, p. 103.

2. Proc. Am. Ass. Adv. Sci. 1869.

Eskimo and various Indian dialects gives evidence of ancient and long existing relations between the Eskimo and the more southern tribes of America aborigines.

To return to the theory of an Asiatic origin for the Eskimo. Peschel<sup>1</sup> says, "The identity of their language with that of the Namollo, their skill on the sea, their domestication of the dogs, their use of the sledge, the Mongolian type of their faces, their capacity for higher civilization, are sufficient reason for answering the question whether a migration took place from Asia to America, or inversely from America to Asia in favour of the former alternative." He concludes that this migration took place "much later than the first colonization of the New World from the Old." He further says that in historical times the migrations have been in an easterly direction. The Aleutian he thinks are connected with the Eskimo "only by a number of words common to both, which may, however, have been merely interchanged, in other respects their language is isolated." Topinard,<sup>3</sup> gives his opinion as follows, "La dolichocéphalie et l'extrême hauteur de crâne (du type eskimau) diminuent en se rapprochant du détroit de Behring. Les Aléoutes et les Koloches formeraient le passage entre lui et le type samoyède ou le type mongol." V. Henry,<sup>4</sup> assuming the correctness of the Asiatic theory of Eskimo origins, thinks, "l'Aléoute, serait probablement l'anneau de transition qui allierait ensemble le samoyède et l'Eskimau, langues au premier abord, si dissemblables." A few years before, M. Henry had rejected the theory of the relationship of the Innuït languages with those of the Ural-Altai group as utterly untenable.<sup>5</sup>

A great deal has been made of the so-called "Mongolian aspect" of the Eskimo. Peschel says they are often mistaken for Chinese or Japanese, and Aleuts, Petitot<sup>6</sup> observes "rien ne ressemble plus à un Esquimau et à un Groenlandais qu'un Koriak, un Ostiak, un Samoiède," and Figuiet<sup>7</sup> is of the same opinion. Dr. P. Penhallow<sup>8</sup> compares the Eskimo with the Ainos, and suggests that the latter may have

1. Races of Man, p. 391.

2. Loc. cit. p. 397.

3. Anthropologie, 2e Ed. 1877. p. 488.

4. Esquisse d'une Grammaire raisonnée de la langue aleoute, Paris 1879, p. 3.

5. Esquisse d'une grammaire innok., Rev. de Ling., Nov.-Dec. 1877, p. 224.

6. Loc. cit., p. 391.

7. Voc. Franç. Esquim. 1876, p. xxv.

8. Human Race, p. 243.

reached America. H. W. Elliott<sup>1</sup> detects a striking resemblance between the Aleuts and the Japanese, regarding the former as a connecting link between the latter and the Eskimo. Prof. Flowers<sup>2</sup> discusses the matter in these terms :

“ The special characteristics which distinguish a Japanese from the average of mankind are seen in the Eskimo in an exaggerated degree so that there can be no doubt of their being derived from the same stock.” Claiming that this exaggeration decreases as we progress from east to west in the Eskimo territory, he derives the Eskimo from the Mongols of Asia, represented by the Japanese. A. H. Keane<sup>3</sup> reviewing Dr. Rink’s paper on the Eskimo dialects, referred to above, notices the views advanced by Prof. Flowers and Mr. Elliott. He points out that the Japanese are but comparatively recent intruders into Yesso (having been preceded by the Ainos), and could hardly have had time to throw off a branch which should have developed into so specialized a people as the Eskimo, and inclines to favour the opinion of Dr. Rink. Petroff<sup>4</sup> opposes Dr. Rink’s theory and considers that the Eskimo moved southwards after the invention of the Kayak. Turner criticises Dr. Rink’s general views and his opinion regarding the development of the Kayak implements and their bearing upon Eskimo migrations, but does not advance any very striking arguments. At the present time the Asiatic origin theory first set forth by Crantz, the historian of Greenland, seems to be fast losing ground and the American theory in proportion gaining in popular favor.

A few words as to the Eskimo legends regarding their own migrations. The Asiatic Eskimo are said by Dr. C. Neumann<sup>5</sup> to retain a distinct recollection of the passage of their forefathers from America in times long past. Murdoch<sup>6</sup> comparing the story of *Kokpausina* as told by the Pt. Barrow Eskimo, with that of *Kagssuk* as given by Rink, says “ if *Kokpausina* and *Kagssuk* were real beings, it is probable that they were the same men, and lived not in the locality now pointed out, but in the common home of the prehistoric Eskimo ; before the Greenlander started on the weary journey towards the

1. Our Arctic Province, Alaska and the Seal Islands, p. 173.

2. Presid. Addr. Anthropol. Inst., Jan. 9, 1885.

3. Nature, Jan. 27, 1887.

4. Am. Nat., vol. xxi, p. 567-75, and Smithsonian Report, 1882, p. 646.

5. Proc. Roy. Geog. Soc. xxi. (1876-7), p. 217.

6. A few Legend. Fragm. of Pt. Barrow Esk. Am. Nat., July, 1886, p. 596.



east, and the men of Pt. Barrow on their perhaps longer journey towards the setting sun." <sup>1</sup> Dr. Boas <sup>2</sup> says that the western Eskimo regard the east as the land of their legendary heroes and races. Kohlmeister and Kmoch <sup>3</sup> state that there is a legend to the effect that the Greenlanders were once inhabitants of Labrador, and certain remains there existing have been assigned to them. There is also a legend that the Greenlanders ultimately came from Canada. <sup>4</sup> Ross <sup>5</sup> relates that the south Greenlanders believe that they came from the north, and when Sacheme the interpreter to the expedition, saw the Arctic Highlanders, he exclaimed, "these are the right Esquimaux, these are our fathers." Considering the isolation in which some Eskimo communities live, it is truly wonderful that they should have retained a recollection of their relations, and adventures in the distant past. Ross <sup>6</sup> states that the Arctic Highlanders seem to have thought themselves the only men in the world, and that except their habitat, the whole universe was ice, sea and mountains. M. Hansen-Blangsted <sup>7</sup> says that the majority of the Eskimo of Angmagsalik (in East Greenland) have never visited the western coast. The Eskimo of Greenland and Labrador seem scarcely to have had any intercourse at all. Indeed, Dr. Rink <sup>8</sup> is of opinion that the inhabitants of Cape Farewell and Labrador have had no intercourse with each other for upwards of a thousand years.

Most of the Eskimo communities, like many other primitive races, have a legend regarding an ancient paradise, which their forefathers inhabited in the dim past. Petitot <sup>9</sup> observes respecting this:—  
 "Naterovik est pour les Tchiglit, ce qu' est *Akilinerk* pour les Groenlandais et *Nunatagmun* pour les Esquimaux centraux. Si les Groenlandais ont conservé le souvenir d'*Akilinerk*, c' est que la dernière étape, sinon le berceau de leurs pères fut le détroit de Behring et les rivages compris entre ce parage et le Cap des Glaces." Further investigation is required before the exact import of this legend can be

1. Loc. cit. p. 597.

2. Die Sagen der Baffin Land Esk., Verh. der Berl. Gesell. f. Anthr. Ethn. u. Urgesch., 1855 S. 165.

3. Loc. cit., p. 37.

4. Kohlmeister and Kmoch, Loc. Cit., p. 37.

5. Voy. of Disc. f. purp. of Expl. Baffin Bay, etc., 2nd. Ed. 1819, vol. i., p. 149.

6. Voy. of Disc. for purpose of Expl. Baff. Bay, etc., 2nd. Ed., Lond., 1819, vol. i., p. 166.

7. Soc. de Géog. de Paris, Compt. Rend., 1855, p. 542.

8. Journ. Anthr. Instit., vol. iii. p. 105.

9. Voc. Franç. Esquim., p. xxv.

ascertained, or the question settled, whether the *Akillinek* of the Greenland Eskimo, the *Nunatagmou* of the people of the central regions, and the *Nateroik* of the Tchiglit of the Mackenzie, refer to specific localities, or are mere figments of the savage imagination. Dr. Rink<sup>1</sup> thinks that *Akillinek* is perhaps the Asiatic side of Behring's Straits, to which expeditions from the American shore may have taken place. Murdoch<sup>2</sup> compares with the legend of *Akillinek*, the Pt. Barrow legend of the country of *Iglu-Nuna* discovered by a man who had lost his way when out sledging. I might here remark that *Killinek* is still the Eskimo name for Cape Chudley and the adjacent islands.

In a paper read before the Institute last year,<sup>3</sup> I advanced the view that instead of the Eskimo being derived from the Mongolians of North-Eastern Asia, the latter are on the contrary descended from the Eskimo, or their ancestors, who have from time immemorial inhabited the continent of America. Since then I have been enabled to collect a comparative vocabulary of some 200 words, exhibiting the relationship between the Eskimo dialects and the Turanian languages of Northern Asia and Europe. I am sure the vocabulary could have been greatly extended if I had had more time and more material to work upon. Still I think that a vocabulary of 200 words will seem a sufficient justification for the position I have taken. Together with the list of words will be found some examples of similarity in grammatical structure, between the language-groups considered. The apparent great age of the residence of the so-called "Mongolian" peoples in Asia and in Europe, may at first sight seem adverse to the opinions I have advanced. From language, from craniology and from archæology, I have drawn what seem to me reasonable inferences. H. H. Howarth<sup>4</sup> thinks that "the Finns proper entered Scandinavia in the wake of the Norsemen," and others have remarked that the Finns are among the latest comers from Asia. The true form of the Eskimo skull is *dolichocephalic*<sup>5</sup>; and the dolichocephaly decreases as we proceed from Greenland westwards into Asia. Among the kindred Turanian tribes of Asia and Europe, this type has to a consider-

1. Eskimo Tales and Trad., p. 29.

2. Loc. cit., p. 598.

3. Proc. Can. Inst., 3rd. Ser., vol. v., Fasc. i., Oct. 1887, p. 70.

4. The Finns, Journ. Anthr. Inst., vol. ii., p. 208.

5. Rae, Eskimo Skulls, Journ. Anthr. Inst., Gt. Brit. and Ire., vol. vii. 1879-8, p. 142.

able extent vanished, especially among the Lapps, Wotiaks, Esths, Magyars, etc., perhaps through intermingling with other races. The Ostiaks and Woguls are, however, according to Baer and Dr. Europæus,<sup>1</sup> dolichocephalic, a fact noted before by Humboldt, and since, by A. H. Keane. The migration of the Turanians now in Europe, can with reason, be traced back to the region of the *Altai* in Asia. A. H. Keane<sup>2</sup> remarks, *Lake Baikal* itself seems to have been indicated as a sort of point of dispersion of the Lapp Race. H. H. Howorth,<sup>3</sup> gives the following names in the region of the Obi and Yenesei, as proof of the migration of the Finns:—*Ishma* (river-name; Finnish, *Isoma*), *Tsylma* (river-name, Finnish *Kylma*, with which might be compared *Kolyma* in N. E. Siberia), *Pjoscha* (river-name, Finnish *Pesa*), *Kuloi* (river-name, means fish-river, cf. *Kolyma*). And Ujfalvy de Mezokovezd<sup>4</sup> says, “ Dans les bassins de l’Irtyche, de l’Obi. et du Yenesei, les noms d’origine finnoise abondent,” and he cites as examples the following:—*Kem* (the name given by the Tartars to the Yenesei, cf. the *Kemi* in Finland, the *Kemi* in Olonetz, and the *Kama* in Permia, with which I venture to compare, *Kamanek*, ‘lake’ in Churchill River Eskimo and *Krag-walik*, *Kragmalvik*, the names of the Rivers Anderson and McFarlane in the Tchiglit, or Mackenzie River dialect); *sym* (*symo* in Finland); *ija* [in Finland *oji* and *yoki*, with which compare *kuk* (Gd.), *kuuk* (Ch. R.), *koonk* (Kotz. Sd.), *coke* (Malemute), river]; *Kolou* (fish-river, frequently met with in Finland, Permia, and Archangel, and in *Kolyma*, bordering on the Eskimo region in N. E. Siberia, cf. *khallow* Kotz. Sd., fish); that they should have come over from America in the prehistoric past, seems then a reasonable explanation.

With the Eskimo tribes of North America, it is common to find the designations of local divisions, communities, or tribes so called, ending in *-meut*, *-meut*, *-mio*, *-meork*, which termination Petitot<sup>5</sup> says marks residence or habitation, e.g., *Kuskwoqmute*, a dweller on the Kuskwoquim River, *Chuklukmeut*, an inhabitant of Chukluk. It is interesting to find this suffix in Asia. H. H. Howorth<sup>6</sup> speaks of the root *mard* or *murd*, as in *Mord-win*,

1. *Zeitschrift für Ethnologie*, Berlin, 1876, p. 81-88.

2. *The Lapps, their Origin, etc.*, Journ. Anthr. Inst. xv., p. 217.

3. *The Finns*, Journ. Anthr. Inst., vol. ii., p. 192.

4. *Melanges Altaïques*, p. 51.

5. *Voc. Français-Esquim.* 1876, p. liv., and *Bull. Soc. d’Anthr. de Paris* vii., p. 219.

6. *Bulgarians*, Journ. Anthr. Inst. iii., p. 29.

and *Komi-mort*, both meaning *near*. He says,<sup>1</sup> "the root of *Vot* or *Vod*; the indigenous name is *Udemurt*; the Permians call themselves *Komy-mort* (*i.e.*, dwellers on the *Kama*), and the Siranians living further east also call themselves *Kowy-mort*." With this ethnic or rather locative suffix, may be compared the Samoied word, *muat*, *miat*, house. Taking all the evidence into consideration, it seems to me that the dolichocephalic ancestors of the Eskimo of America were also the ancestors of the Turanians of Northern Asia, and that the course of migration was from America westward along Siberia into Europe; the Eskimo ancestors being probably derived from Europe in early prehistoric times, although much might be said in favor of making America the scene of the development of that peculiar variety of man now represented by the Eskimo, and of considering palæolithic man in Europe an offshoot from this stock. The ocean, which in Pliocene times, probably covered the north of the present continent of Asia, may be sufficient to explain some of the movements of the Asiatic Turanians and their comparatively late intrusion into Europe.

I do not intend to discuss the folklore and mythology of the Turanians in comparison with the Eskimo, and shall, therefore, content myself with pointing out a single remarkable coincidence. Dr. Rink,<sup>2</sup> gives the Eskimo legend of the origin of the white man, as the offspring of a union between a woman and a dog. This is the Greenland tradition according to Egede.<sup>3</sup> A similar story is reported by Mr. Murdoch<sup>4</sup> from Pt. Barrow. Now it is interesting to find that the Japanese account for the origin of their predecessors, the Ainos, in a similar manner.

Baron Nordenskiöld,<sup>5</sup> the eminent Swedish explorer, thinks that "the Eskimo might probably be the *true autochthones of the Polar Regions*, *i.e.*, they had inhabited the same previous to the Glacial Age, at a period when a climate prevailed here equal to that of northern Italy at present, as proved by the fossils found in Spitzbergen and Greenland." Nordenskiöld further states that "if

1. The Finns Journ. Anthr. Inst. vol. ii., p. 217, and p. 211.

2. Esk. Tales and Trad., p. 147.

3. Groenland, p. 195.

4. Loc. cit., p. 531. Cf. the legend of origin of the Tchugazzie in Richardson Arctic Search. Exped. p. 215, 239.

5. Geogr. Soc. of Stockholm. Feb. 20, 1855. Summarized in Pro. Roy. Geog. Soc., New Series vii., 1855. p. 402-3.

it could be proved that the Eskimo descended from a race which inhabited the Polar Regions in the very earliest times, we should be obliged to assume that there was a Northern (Polar) as well as Asiatic cradle of the human race, which would open up new fields of research both to the philologist and to the ethnologist, and probably remnants of the culture and language of the original race might be traced in the present Polar inhabitants of both Europe and Asia." The culture of the Eskimo, according to Nordenskiöld, proved a gradual development through ages whilst they had no contact with other races.

The Eskimo, being "the only population indubitably common to the two worlds, the Old and the New," it may not, therefore, seem strange that some should have seen in them not recent immigrants into America from the neighbouring Asiatic continent, but kinsmen, perhaps, descendants of the hunters of the Caves and River Drift of the Palaeolithic period in Europe, who have left marked traces of their sojourn in Britain, in France and elsewhere in Western Europe. Prof. Boyd Dawkins, in 1866,<sup>1</sup> was the first to suggest a possible connection between the man of the river drift and the Arctic tribes of America. In his subsequent works<sup>2</sup> he has set forth his views at greater length and with considerable force of argument. His views have to a considerable extent been accepted by Sir John Lubbock,<sup>3</sup> Dr. Beddoe,<sup>4</sup> and other European scientists, while the companion theory which (as advanced by Dr. C. C. Abbot<sup>5</sup>) identifies the Eskimo with the palaeolithic man of the Delaware river in New Jersey has been received in America. Dr. Geikie<sup>6</sup> and Robt. Ellis<sup>7</sup> call for further evidence before giving in their adhesion to the theory of Prof. Boyd Dawkins. Prof. Flower<sup>8</sup> (who looks on the Eskimo as a branch of the North Asiatic Mongols) and Dr. Jno. Rae,<sup>9</sup> think they are "in no way related to the ancient cave men." A. H. Keane,<sup>10</sup> noting the difference in skull, type, etc., between the

1. Eskimo in the south of Gaul. *Saturday Review*, Dec. 8, 1866.

2. *Cave Hunting*, 1874, p. 353-9, *Early Man in Europe*, 1880, p. 203.

3. *Prehistoric Times*, 1870, p. 359.

4. *Stature and Bulk of Man in Britain*.

5. *Peab. Mus. Report II.* p. 25. cf. Prof. E. W. Claypole in *Trans. Edinb. Geol. Soc.* Vol. V p. iii. 1887. p. 441.

6. *Prehistoric Europe*, p. 547-9.

7. *Sources of the Basque and Etruscan Languages*, 1886, p. 49, Note.

8. *Journ. Anthr. Inst. Gt. Brit. and Ire.* Nov. 1886, p. 290.

10. *The Lapps*, *Journ. Anthr. Inst.* xv. p. 321.

Eskimo and the Lapps, thinks that "if these peoples were originally one, the Eskimo have remained far truer to the type of the men of the oldest stone age," and that "Prof. Dawkins is so far justified in affiliating or at least comparing the first known inhabitants of Europe, the men of the caves, not with the Lapps, but with the Eskimo." Sir Daniel Wilson<sup>1</sup> is of opinion that "it is impossible to look on casts of the large and finely developed Cro-Magnon skull now in my possession, without being struck with the extreme contrast between them and the Eskimo." And the height of the Cro-magnon man has been held to be an objection to Prof. Dawkins' view. But the Cro-magnon specimen is probably an exaggerated one, just as we find a considerable difference between the Eskimo of the extreme West and East in height and other respects, the truth being most probably as Dr. Mattei<sup>2</sup> observes, "Quant à la taille de ces hommes primitifs, elle était petite ou moyenne, quoique le squelette de Cro-Magnon offre un exemple de taille assez élevée." Rolleston<sup>3</sup> concludes an article on the Prehistoric Crania of Britain in the following words, "There are many reasons for supposing that the Eskimo are a race which still retains and preserves for us, in the structure and grammatical peculiarities of its language, its life history, and physical peculiarities, *the very closest likeness* to what we believe some of the earliest races of mankind must have been." M. Mortillet<sup>4</sup> considers that the Greenlanders are descended from the men whose remains of the palaeolithic epoch are found at La Madeleine in France, agreeing with Prof. Dawkins. Rolleston<sup>5</sup> and Broca<sup>6</sup> have noted the correspondence of the Eskimo nasal index to that of prehistoric European skulls, and Cleland<sup>7</sup> and Rolleston<sup>8</sup> have called attention to the elongation of the basiscranial axis. Prof. E. D. Cope<sup>9</sup> accounts for appearance of tritubercular molars in certain Western European races, by reference to the theory of Prof. H. B. Dawkins, as such dentition

1. Add. of Sir Daniel Wilson, LL.D., Vice-Pres. Sec. H. Am. Ass. Adv. Sci., Montreal, 1882, p. 532. See also "the fancy of an Eskimo pedigree for European Palaeolithic Man," Proc. and Trans. Roy. Assoc. of Canada, Vol. I. (1882-3) p. 57.

2. Les anciens peuples de l'Europe centrale. Mem. de la Soc. d'Anthr. de Paris II. Ser. T. 1.

3. Scientific Papers. (Ed. by Turner, 1884) Vol. I. p. 529. [p. 431.]

4. Les Groenlandais descendants des Magdaleniens. Soc. d'Anthr. de Paris, 1885. pp. 868-870.

5. Loc. cit. p. 11.

6. Revue d'Anthrop. 1873. II. p. 191.

7. Philosophical Transactions, 1870, p. 124.

8. Loc. cit. p. 191.

9. On Lemurine Reversion in Human Dentition. Amer. Nat., Nov. 1886. p. 947.

is very frequent amongst the Eskimo. Samuel Laing<sup>1</sup> compares the skulls of the early stone period in Scandinavia with those of the Eskimo, and Richard Owen,<sup>2</sup> speaking of crania from the Shetland Islands observes that they "combine Teutonic features with the roof-shaped calvarium<sup>3</sup> and supra-nasal depression of the Eskimo." H. G. M. Murray Aynsley thinks that "the race that lived in the Stone-age is represented now by the Finns, the Lapps and the Eskimo." and compares them in regard to colour, eyes, physical appearance, etc., with the aborigines of the Spiti valley in the Himalayas.<sup>4</sup> Broca<sup>5</sup> remarks the resemblance of the dolichocephalism of the race of Canstadt to that of the Eskimo. The correspondence of the weapons of the men of the River-drift to those at present in use amongst the Eskimo has been shown by Professor Dawkins,<sup>6</sup> who has also noted the peculiar aptitude for carving or scratching drawings on bone, which the relics of the Cave-men show them to have possessed, and with which the Eskimo are gifted to a remarkable degree. It seems to me therefore that there is nothing absolutely conclusive against Prof. Dawkins' theory, which enables us to solve many problems otherwise inexplicable.

The exact relation which exists between the Eskimo race and the various other aboriginal stocks of the American continent, has not yet been satisfactorily determined. That the Eskimo and some of the Indian races of North America, have been brought into contact in the remote past, I have, I think reasonably shown; whether they have sprung from the same original stock, remains an open question. The measurements of Eskimo skulls bear a remarkable resemblance to those of prehistoric Crania from California and Brazil. The series of crania from Sta. Barbara Islands and the vicinity, as seen from the following table,<sup>7</sup> approach in some respects, Eskimo skulls very closely:—

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1. *Journal Anthropol. Soc.*, 1865, p. 21.

2. *Ib.*, p. 54.

3. *Asiatic Symbolism, Indian Antiquary*, Bombay, March 1886, p. 61.

4. *Ib.*, p. 63.

5. *Disc. de M. Broca. Pres. de l'Ass. franç. p. Fav. d. l. Sci.*, Havre 1877.

6. *Loc. cit.*

7. *Peabody Mus.*, Rep. ii., 1876-9, p. 568.

LOCALITY.	LENGTH.	BREADTH.	HEIGHT.
Mean of 103 Sta. Barbara Crania .....	175	136	129
“ “ 50 fr. islands near St. B .....	184	133	128
“ “ Esquimaux .....	184	132	138
“ “ Tchuktchi .....	176	135	137
“ “ 6 from Sta. Catalina .....	189	133	130
9 crania from Sta. Clementina I. ....	186	137	131
46 “ “ Cruz I. ....	179	135	125
“ “ “ Barbara .....	178	136	131

The orbital index of the Botocudos according to Canestrini<sup>1</sup> brings them closely in relation with the Eskimo and separates them from the other American tribes. The description given by Ten Kate<sup>2</sup> (who compares them to skulls from Lower California), of the crania of Lagoa Santa in Brazil seems to invite comparison with the Eskimo. A. H. Keane<sup>3</sup> says Augustine St. Hilaire was much impressed by the likeness of the Botocudos to the Chinese, and Peschel<sup>4</sup> and others have discerned a likeness between the latter and the Eskimo. The Botocudo cranium, says Keane,<sup>5</sup> “is distinctly dolichocephalic, with a mean index of 73.30 for males and 74 for females (extremes 71 to 79),” and Peixoto,<sup>6</sup> allies the Botocudo skull to that of the man of Lagoa Santa. The mesorrhine nasal index of the Eskimo approaches them to the skulls from Sta. Cruz Is. (49), Sta. Barbara, mainland (48), Sta. Clementina (47), Sta. Catalina (49), and the Botocudos (46.76). The average contents in cubic centimetres of Eskimo skulls given by Schaffhausen (1391) and by Morton (1410), brings them in relation with the Botocudos (1359), and the Araucanians (1402).<sup>7</sup>

These and other considerations, such as the frequency of the oblique so-called “Mongoloid” eyes among the aborigines of Antioquia<sup>8</sup> (Venezuela), and elsewhere, might lead one to the belief that at a very remote period, the people now represented by the Eskimo, may

1. Atti della Soc. ven. trent. di Sci. Nat. a Padova, 1880, vi. 2.

2. Bull. Soc. d' Anthr. de Paris, Tome. 8, iii. Ser., Fasc. 2, 1885, p. 240.

3. Journ. Anthr. Inst., 1884, p. 204.

4. Races of Man, p. 39.

5. Loc. cit., p. 211.

6. Novos Estudos sobre os Botocudos, Rio Janeiro, 1882.

7. Measurements given by O. T. Mason, Rep. Smithson. Inst. 1885, pt. i., p. 82.

8. See the plates given by Dr. Andre Posado Aranzo—Sur les Aborig. d'Antioquia. Mem. Soc. d' Anthrop. de Paris, ii Ser., Tome i., 1873, p. 231



has also ranged over part at least of the South American continent, being perhaps its earliest inhabitants and allied to the cave-men of Europe. And some of their descendants may yet exist, amongst the Botocudos and other low tribes of Brazil, or even in that still lower race the Fuegians. Dr. Virchow,<sup>1</sup> observes with reference to the discovery in Patagonia of a human skull beside the remains of a Glyptodon, "Ich habe auch schon hin gewiesen, dass die von Herrn Strobel in den Parades von Patagonien gefundenen Schädel, gleichfalls brachycephal waren; sind seine (die des Herrn Roth in der Pampa) Fundangaben richtig, was zu bezweifeln, kein Grund vorliegt, so dürfte mit Sicherheit folgen, dass schon diese älteste Bevölkerung brachycephal war." Considering these facts, it may be, that in South America, as in Europe, we have presented to us in the past the spectacle of an earlier dolichocephalic race, intruded upon and displaced by a contemporary, or rather a later and brachycephalic people. Presupposing this earlier dolichocephalic, Eskimo-like race in North and South America, and admitting the arrival at later intervals of Iberian immigration from Europe and Northern Africa, have we not found a reasonable explanation for many of the facts which meet us in the pre-history of America?

In historic times intercourse and relations with the American Indians, have entirely ceased in some cases, or varied much according to locality, judging from Dr. Rink.<sup>2</sup> "In the extreme West there has been a slight intermingling with the Thlinkits about the Copper River, and with the Athabascans back of Kotzebue Sound, elsewhere the *Innuït* and *Karalik* (West and East Eskimo) have kept entirely aloof, nowhere amalgamating with the Red Indians." Notwithstanding this, Dr. Rink<sup>3</sup> is inclined to think that "The North-West Indians might be considered as forming an intermediate link between the Eskimo and the inland tribes."

With the Greenlanders, the Indians have long ages ago become fabulous beings, and are known in Legend as *Erkilek*. According to Mr. Murdoch<sup>4</sup> the case is the same at Point Barrow, in Alaska. Mr. Dall<sup>5</sup> states that "the Orarians (Eskimo) are known to the

1. Ueber ein mit Glyptodon gefund. mensch. Skelet. aus der Pampa de la Plata. Verh. der Berl. Ges. f. Anthr. Ethn. u. Urg., 1883, S. 467.

2. Nature, Jan. 27, 1887.

3. Eskimo Tales and Traditions, p. 71.

4. Loc. cit., p. 599.

5. Proc. Am. Ass. Adv. Sci. Salem, 1869, p. 266; Ib. p. 272

Northern Tinneh or Chippewyan Indians as Uskeemé or sorcerers, and a belief exists among all the Indian tribes acquainted with them that they are possessed of supernatural powers." He also remarks that "no intercourse between Eskimos and Indians occurs except in the way of trade; they never intermarry, and in trading use a sort of jargon, neither Indian nor Eskimo." In Alaska there are but few words common to the two languages; two of these are *kweenyuk* (pipe), which the Indians borrowed from the Eskimo; and *tenékuh* (moose) which the Eskimo adopted from the Indian. Kohlmeister and Kmoch<sup>1</sup> state that "the Eskimo (of Labrador) are very much afraid of the Indians who are a more nimble and active race." McFarlane<sup>2</sup> says that "the Eskimo of Anderson's River are very friendly with the Bâtard Loucheux Indians; that the Hare Indians<sup>3</sup> hold the Eskimo in great fear, and are despised by them, in return being called *Nouya* (or spittle). Hind<sup>4</sup> states that "the Naskapies like their allies and friends the Montagnais, hate the Eskimo, whom they never fail to attack when opportunity offers." Dr. Brinton<sup>5</sup> observes, "They (Eskimo) are the connecting link between the races of the Old and New Worlds, in physical appearance and mental traits more allied to the former, but in language betraying their nearer kinship to the latter." Dr. Brinton<sup>6</sup> also calls attention to the fact that the "traditions of the Tuscaroras who placed their arrival on the Virginian coast at about 1300, spoke of the race they found there (called Tacci, or Dogi) as eaters of raw flesh and ignorant of maize. Petitot<sup>7</sup> says that the Innok tradition of the creation, disdains mention of the Indians, and upon questioning the narrator of it, he received this answer, "Oh, il ne vaut pas la peine d'en parler. Ils naquirent aussi dans l'ouest, sur l'île du Castor, des la ves de nos poux. C'est pourquoi nous les nommons *Itkréleit*. Ils sont méprisables, mais les *Krablunèt* et les *Innoit* sont frères." Lyon<sup>8</sup> remarks "Of the Indians (Itkaghlie), they (the Eskimo) speak with fear and abhorrence." Richardson<sup>9</sup> says of the Eskimo who dwell to the east of Cape Bathurst, "the reputation of the *Kablunahk* or *Kablunet* (white men) is superior among them to that of the remote

1. Loc. cit., p. 57.

2. In Hind's Labrador, vol. i., p. 259. 3. Ib. p. 258.

4. Loc. Cit., vol. ii., p. 101.

5. Myths of the New World, p. 24. 6. Ib. p. 24.

7. Voc. Français-Esquim. Monog., p. xxv.

8. Private Journal of Capt. G. T. Lyon of H.M.S. Hecla. Dur. Voy. of Disc. under Capt. Parry, New Ed. Lond., 1825, p. 346.

9. Arctic Searching Exped. N. Y. Ed., p. 209.

tribes of their own nation. With the *Allani-a-wok*, as they term the inland Indians, they have no intercourse whatever."

Wilhelm Herzog<sup>1</sup> has endeavoured to establish a connection between the various languages of the Yuma stock and the Aleut and Eskimo. The resemblance of Old Californian skulls to those of the Eskimo lends this theory probability from other than linguistic evidence.

To Eskimo philology and phonology, the same attention has not been paid, as has been given to many of the languages of more southern tribes of American aborigines. Perhaps this is partly owing to the Eskimo having been so long regarded as a mere offshoot of the North Asiatic Turanians. There is considerable material for research in Eskimo philology, but it does not exist in a form which renders it easy of access to the student. I shall therefore endeavour to advance our study of the Eskimo a step, by presenting alphabetically arranged vocabularies in English of a number of Eskimo dialects, which have been recorded by travellers, explorers and missionaries. A few words of preface with regard to the general character of the Eskimo language may be fitly inserted here. Dr. Brinton<sup>2</sup> has said that the language of the Eskimo "betrays its nearer kinship to the races of the New World," and other writers have expressed a similar opinion. Dr. Rink,<sup>3</sup> observes, "with regard to their language the Eskimo also appear akin to the American nations with regard to its decidedly polysynthetic structure. Here, however, on the other hand we meet with some very remarkable resemblances between the Eskimo idiom, and languages of Siberia belonging to the Altaic or Finnic group, first as to the rule of joining the affixes to the end, and not to the beginning of the word, and second, the very characteristic mode of forming the dual by *k*, and the plural by *t*. Peschel<sup>4</sup> says, "Their (Eskimo) words are always formed by means of suffixes, and so far the method is the same as in the Ural-Altaic group, though the important character, the harmony of the vowels, is wanting in the Innuït language. Although the Eskimo language is in no sense incorporative, it will soon be shown that it is a transition between the Ural-Altaic and the American types." Peschel gives

1. Ueber die Verwandsch. des Yumasprst. mit der Sprache der Aleuten u. der Eskimostamme. Zeitschr. f. Ethnologie, Bd. x., S. 449, Berlin, 1878.

2. Myths of the New World, p. 24.

3. Tales and Traditions of Eskimo, p. 74.

4. Races of Man, p. 395.

the following example to illustrate his remark about incorporation. The Eskimo would use but a single word to express the idea "he says that you also are going in haste to buy a beautiful knife":—*savig - ik - sini - ariartok-asuar-omar - y - otit - tog - oy.* knife beautiful to buy go haste will likewise thou also he says. "But it is most important to note," says Peschel, "that this loose combination of roots is not incorporation, for in the American languages the connected syllables are always curtailed of some sounds." I have here inserted for comparison with the example given by Peschel, the following:—In Mexican a priest may be addressed as—*notlazomahuizteopixcatlzin*, a word composed of *no* (my), *tlazontli* (esteemed), *mahuiztic* (revered), *teo-pixqui* (god-keeper), and *tatl* (father).

Gilder<sup>1</sup> makes a remark similar to that of Peschel, that the Eskimo language is agglutinative but not incorporating. This is briefly the distinction between the Eskimo and American Indian tongues. Dr. Latham<sup>2</sup> was of opinion the passage between the western Eskimo dialects and those of the neighbouring Indian tribes was comparatively easy; although Mr. Dal<sup>3</sup> has since stated that the Eskimo tongue does not resemble any of the Indian dialects and has but a very few loan words. Wilhelm Herzog<sup>4</sup> has tried with some success to establish a connection between the western Eskimo dialects and the Yuma stock of California. As I have pointed out, the number of coincidences between the Eskimo and those aboriginal Indian tribes of the region adjoining their primitive habitat seems evidence of the extent of their relations in the prehistoric past.

There is a large amount of material for the prosecution of and researches in Eskimo philology, but a good deal of it is yet in manuscript in the Libraries of the Scientific Institutions of the United States. Mr. J. C. Pilling, of Washington, has lately published a Bibliography of the Eskimo language, which when all the works enumerated shall have been published, cannot but give a desirable impulse to the study of American philology. The number of MSS. in this list is very large and gives reason for great hopes for the future progress of science. Mr. Pilling enumerates some 60 Eskimo communities, or tribes, vocabularies of whose dialects have been recorded; some of them it is true but brief lists, but others like those of Fabri-

1. Schwatka's Search, 1881, p. 299.

2. Man and his Migrations, p. 122-3.

3. Loc. Cit.

4. Loc. Cit.

cius (Greenland) and Petitot (Tchiglit) more properly dictionaries. In his list he enumerates some languages such as the Kamtschatkan and Skitaget, which have not generally been recognised as varieties of Eskimo speech, although in former paper I produced some evidence in favour of the descent of the Kamtschatka tongue from the Eskimo. Mr. Pilling does not mention the short vocabulary of John Davis, from the people of Baffin's Bay, or the short list given by Martin Frobisher of the words of the language of the people of Meta Incognita, perhaps the two earliest records of Eskimo speech.

A short specimen of the language of Hogarth Sound is given by M'Donald,<sup>1</sup> whose work Mr. Pilling does not appear to have noticed. For this reason I reproduce it here. It is in the form of a letter from the young Eskimo Eenooloopik, to Mr. Hogarth, dated August 20th, 1840, on board the ship Neptune.

MR. HOGARTH :

Tenudeackbeek moocput unickpock keimusoomoote Eenooloopik  
ackbee-lik naluk ackbuckaounenguapekivouek vokiackut petackanounne  
takoukshoweekasunga-lara lou-are-bock Eanungite ockpakeluaekput  
Pedluakkpanga Capt. Penny quiluite Innuite umnibook tawane  
tanakvanumane pedluarivanga. EENOOLOOAPIK.

*Translation.*

MR. HOGARTH :

Eenooloopik has arrived in Tenudeackbeek and intends to remain at Keimwokssiok. The Innuite say that for many suns the whales were very numerous, but before the ship came they had all disappeared. They also say that the whales will return when the sun becomes low. Capt. Penny has been very kind to me and to many Innuite, who all thank him. Next to him you were the kindest to me, when I was with you. EENOOLOOAPIK.

M'Donald also gives the following Eskimo words scattered passim ; *angekuk* (sorcerer) ; *ackbuck* (whale) ; *kulloonite* (white man) ; *nookee* flesh ; *meekewick* (tow) ; *quinameek* (expression of gratitude), *shounook* (bone). To give an idea of the importance of the collection of words "scattered passim," in the works of writers upon one subject, it may be noted that the work of Hall<sup>2</sup> contains no less than one hundred such words, and those of other travellers in proportion. Eskimo proper names form an interesting subject of study, and are of the greatest philological importance. It is to be regretted that some

1. Narrative of some Passages in the Life History of Eenooloopik, etc., Edinburgh, 1841, p. 18.

2. With the Esquimaux, 1865.

compilers of Bibliographies of languages have not seen fit to pay attention to the names of persons and of geographical features recorded by the various travellers who have written about the Indians. As these names are as much language as the words in the vocabulary, and peculiarly so in the case of primitive people like the Esquimaux, it is difficult to see why they should not have been taken into account when we come to consider the language. In the work of Kohlmeister and Kmoch (referred to above) there are enumerated about 120 such terms, showing the importance of these as a source of linguistic information.

In the compilation of the accompanying vocabularies considerable care has been exercised and a large extent of ground covered in order to obtain them. For the Greenland vocabulary the authorities are Egede, Cranz, Gallatin, Rink, Ross, (North Greenland) etc. For Hudson's Bay, Gilder and Gallatin; for Labrador, Richardson and R. F. Stupart, whose words from the dialect of Stupart's Bay are marked (S.), besides Gallatin; for the Mackenzie River or Tchigliit dialect the source has been Petitot, from whom also the Churchill River dialect has been extracted and arranged. For the Tchuktschi the sources have been Vater, Klapproth, etc.; for the Aleutian, Buschmann, Henry, etc.; for the Kadiak, Gallatin, Buschmann, etc.; for the Unalaskan, Vater, Buschmann, etc.; for the Tchukakkak, Winter Island, Stuart Island and Nuniwok, Vater, and in the case of Winter Island also Lyon. The Alaskan dialects are from Dall. In the preparation of the comparative Eskimo-Turanian vocabulary, the chief authorities have been, Hepburn's Japanese Dictionary, Oppert's Corean Vocabularies, Batchelor's Ainu Grammar, Scheube's Aino Vocabulary, Klapproth's Sprach-Atlas, Ujfalvy de Mezokovezd M $\acute{e}$ langes Altaïques, Singer's Hungarian Grammar. Turkish, Redhouse, for the Turanian languages. For the Eskimo, the vocabularies contained in the works of Klapproth, Buschmann, Vater, Egede, Cranz, Long, Richardson, Ross, Dall, Whympfer, Markham, Gilder, Rink, Petitot, etc. The spelling of the various authors has been preserved.

In the comparative vocabularies the numerals (1), (2), in the Tchuktchi column denote that the words belong to the dialect of the Anadyr or to that of the Tchuktchi Promontory respectively. In the Aleutian column the figures (1), (2), (3), denote respectively the Lissic, the Aleuto Lisgewic and the Lisgewic-Aleuto, of Busch-

mann. Taken altogether the Eskimo language is one of the most interesting for the philologist and the great extent over which it is spoken and its numerous and isolated dialects make it a subject of the highest importance to linguistic science. When the Eskimo shall have received the same attention at the hands of students of language as have the Semitic, or the Aryan tongues, I trust I am not far wrong in predicting that an important step will have been taken towards the solution of the problem of the origin of language.

The earliest vocabularies of the Eskimo language which we possess are those of Davis ("a few words of the people of Baffin Bay"), and Frobisher ("words of the language of Meta Incognita"), which I here insert alphabetically arranged:—

DAVIS' VOCABULARY.<sup>1</sup>

ENGLISH.	ESKIMO.	ENGLISH.	ESKIMO.
Beard	macuah	Knife, a	sawygmeg
Below	sambah	Leap	conah
Boat, a	ponameg	Live it	unircke
Bracelet, a	sasobneg	Music	madlycoyte
Coat, a	signacoon	Needle, a	panygmah
Come down	gounah	No	nugo
Come hither	icune	Nose, a	uderah
Dart, a	asanock, maccoah	Oar, an	paatoyek
Eat some	kesinyoh	Sea, the	aob
Eye, an	blete	Seal, a	ataneg
Fallen down	ab.	Sealskin	lethicksaneg
Fish	maatnke	Shot	acu
Fog, a	tuctodo	Skin	lechiksah
Give it me	quoysah	Son, my	ugnera
Go, fetch	aginyoh	Stag or Clan	tuckloak
Go to him	cocah	Thread, a	pignagogah
Harm (I mean no)	yliaoute	Tongue	ugnake
Have (will you-this)	macomneg	Wash it	mysacoah
Iron	aoh	Yonder	awennyé
Kiss me	canyglow		

FROBISHER'S VOCABULARY.<sup>2</sup>

ENGLISH.	ESKIMO.	ENGLISH.	ESKIMO.
Breeches, a pair of	callagay	Hand, a	argotteyt
Coat, a	attegay	Head, the	mutchatet
Ear, an	chewat	Knife, a	pollenetagay
Eye, an	arered	Leg, a	comagaye
Finger, foremost	teckkere	Nose, a	cangnawe
“ fourth	mekellacane	Ship, a	accaskay
“ little	yackethron	Thumb, a	coblone
“ middle	ketteckle	Tooth, a	keiotot
Foot, a	atoniagag		

1. Hakl. Soc., Voyages of Ino., Davis. Lond. 1886, p. 20.

2. Voyages in search of N.W. Passage, Cassel's Nat. Lib., vol. i., no. 32., p. 61.

## COMPARATIVE ESKIMO VOCABULARIES.

ENGLISH.	GREENLAND. (From Egede and Rink).	HUDSON'S BAY. (Gilder and Gallatin).	LABRADOR. (Richardson).	MACKENZIE R. (Petitot).	CHURCHILL R. (Petitot).
Arm	tellek	{ teiejakanak ; teloo ; oksektoo	{ tallek	talerk	tailek
Arrow	agdligak (arrow)	{ kakleoie ; kokyoke	{ karsuk	{ krarirrok, katrok, kukkitrok, kiguvak	{ kayerok
Autumn	uktiok (winter)	ooleukshark	ookenrk (S.) tiklak (pick axe)	iyukarktoark	
Axe	allo (knife)	{ oolemow ; ooleenar	{ ulimaut tukkaingaiok	{ tkinayork, ulimaut; tehikfark	{ ulimaut
Back	tunnuk, tunno	{ keemniklook (back bone)	{ tunno	tuno, tunua	kimerlok
Bad	{ keningarsok, ajor-pok,		ayorpok ; assilewok ; puunenakput (S)	{ mamalumulark, ayorp-tork	
Bar	{ asseennarnik, arzerak	amingk (skin)	amek (skin)	amerark	
Bear	{ nano, nanok	nennook, nannook.	{ akhlak ; nannok (S)	{ nannuk	
Beard	tungit	{ ooniitke oomik ;	tuninga umik	{ umrit, umilik	umwit
Belly	{ nak ; akajarok	nongik	{ nek	akudjark	{ ihgain ; akoak (abdomen.)
Berry		{ okpiet (red) panoong (black)	{ paungat (pl.)	{ orpik ; atcidjet paoneret	
Bird	tingivok (flies)	{ kobluk (yellow) tingmoya ; tigmocak	tingniak tingmoyak	{ timiark	
Black	koruertok	{ kerniuk ; muktuk	kerngat ; kernatok	{ krenertork	krenertok



## COMPARATIVE ESKIMO VOCABULARIES—(Continued).

ENGLISH.	GREENLAND. (From Egede and Rink).	HUDSON'S BAY. (Gilder and Gallatin).	LARRABOR. (Richardson).	MACKENZIE R. (Petitot).	CHURCHILL R. (Petitot.)
Blood	auk	{ aoonak ; ovg }	{ auk (pl. aggut) tungoiuktak tungayuktak kaiak ; umiavik ; time, katik kniapigak (back- bone) kamiksoak	awk { tugun-yortok krayark ; umiarak tukroyork (dead b.) katirark teaumerk ataunaak pitsaik nukatperark nutarark ; uyak kralik anayoa ; nuka orpik uluark nutark, iyaye takluak, taklu marak kraulok ulik atige ;	umik-bilik { kiak ; omiak ; nipa (dead b.) kamniak ; ipperautik
Blue		toomooktook			
Boat	kajak ; umiak	{ oomiak ; kyiak kyak ; oomien			
Body	time (chief point)	kotejeuk			
Bone	{ sorktak (whale bone) kingak (shin bone)	heownick sowner (pl.)			
Boots	kamik	kumming			
Bow	{ pisigsarpok (shoot with bow)	pitteek petechee			
Boy	meklitok	nukupeairwenee			
Breast	sactik	sokejuck (b. bone)			
Breeches	karlik	kokahleeng			
Brother	{ augsjuk ; nuka (eld.) (ygr.)	{ aninger, nuryeager (sister) orpik napakto (tree) onlootak mikke ; nooterark	karlik anningna (elder) nukka (younger) nappartook (trees) okpik (birch) uluak nutarak machak koalatak (S)		
Bush	orpik				
Cheek	ulluk				
Child	miluktok				
Clay	tablo				
Clay	marrak				
Cloth		kolloonnarktee			machak awpaluktok (red c.) olik ; kalypak
Coat	manokak (over coat)	{ artee gee ; koollectar ;			

Cold	{ nigllertok, keja ; niglek }	{ ikkee teekeeshariktooktoo }	{ isse ; ikke ; eke (S) kaiwok (he c.) }	uvallark, keekre nigoelanerk tikitoark krayoark kannoyark tallurark kriyavoark pilarctoark niwidjiark pania krauya ; ublurk, tuktu tokkroyuark kreymerk imerktoark ivurark teinu, teintik nuna nerriyoark manik tehigleark	{ kaiyok kayayok nipa (dead) kummek ciun, ciut iniriyok (imp.) aggut }
Come	tikipok	{ kanooyak ; kodnooyer tooloah keeyicyook peluktook pannia ; punne ogloome tooktoo tookc. woke ; takahwuk (dead) kimak, kingme krimeg ; mikkee ; emiltook inmiekpoke (he) meahtuk mitiek seatece ; hecutinga noona nereenutooktoo mannig ; munnik inneeet (pl.) }	{ kannuyak kallugah kanniwok pillakpok ; kippiwok (he c.) panik uvlok tuktu ; tooktoo (S) tokkowik (he dead) toko (S, death) kingmek kemmek inunek (water) mcutak (S) siut nuna noonah (S) nerriwok (he) inuit inhuit (S, pl.) }		
Copper	tuhagak keja				
Crow	kipiva (he cuts it)				
Cry (weep)	panik ; pannia				
Cut	ullit ; tukto				
Daughter					
Day					
Deer (rein)					
Die	toko-wok (dead)				
Dog	kemek				
Drink					
Duck	mittiek				
Dear	siut				
Earth	nuna				
Eat	nerriek				
Egg	mannik				
Eskimo	kalalek				

## COMPARATIVE ESKIMO VOCABULARIES—(Continued).

ENGLISH	GREENLAND. (From Egede and Hink.)	HICUSON'S BAY. (Gilder and Gallatin.)	LABRADOR. (Richardson.)	MACKENZIE R. (Petitot).	CHURCHILL R. (Petitot).
Eye	irse ; irsik	{ eieega ; eyah (pl.) koblloshooktoo (to wink) kenark keniak atata atta ; soolook neeweaksak	isse ; iye ; aiga { kabluk (pl.) kenak attatak	{ iyik, iyirk krablut (pl.) kinark ataatak, apan. tehunark [tebul- uit (pl.)] arnenoerark	{ kimereak { kappelut ataak
Eyebrows	kablo ; kagdlo	{ argite (pl.) teekceur ; ikikote (index f.) (lit. f.)	{ tikkek (fore f.) kerka (middle f.) mikiirak (third f.) erkekak (little f.)	{ krikertkrork (lt. f.) inurark (pl. inukat)	{ ekkaikok (lit. f.)
Face	kinak	kookee { ikkooma, ikkomar ekkalloo ; ikkaluk neerkee issekut	ignik ; ikhoma	uk'ga kaktuk, ilook mikkey	
Father	attatak	{ kowoong kaowga ; terrearneak nuleuksar-weenee attee (imprat.) owllukpoo mamaknut ; mamukpoo	ittigak { keuk, kank teriennak niwiadziak ailerit ayungitok ; ananuk (S)		
Feather	arnak (woman)				
Female					
Finger	{ agsaut (pl.) tikek ; tikkerit pl.)				
Finger-nails	kutek			kukek (pl. kukit)	
Fire	ingnek			ignerk	
Fish	aulisagak			itkraluk	
Flesh	nekke			nerkre	
Foot	isiket ; niuik			itigark	
Forehead	kauk			{ karkroa, krawk-teunark ternennak arnarenark aulaork mamartook nakoyoark	{ kawk tareyaneak niptakkiak
Fox	teriangniak				
Girl	nivarsiarak				
Go	autdlarpok				
Good	{ giksok ajunglak				{ petcaukuni



## COMPARATIVE FSKIMO VOCABULARIES—(Continued).

ENGLISH.	GREENS AND. (From Egede and Rink.)	HUBSON'S BAY. (Gilder and Gallatin).	LABRADOR. (Richardson).	MACKENZIE R. (Petitot).	CHERCHILL R. (Petitot).
Knife	savik ; ullo	pauna	{ anniyo ; tessek	teavik ; ulnaluk	anelrot
Lake	fasek	fussig	{ nit ; nabgukpa kaumarlok	{ tateirk	kamanek ; taerak
Leg	{ okpet (thigh) kannak	{ kuhnok (shin) neyoo ; kannara	{ inuu-wok ; inusek (life)	kranerk ; tehulon	{ koktoak (thigh) kanaak, nixeo
Lightning	kellek (thunder)	kadloomie-ikkooma	ussuk	krawmarklork	
Lip	kartlo	{ koktuweak (upper) kokslu (lower)	{ angut ; innuk ; tukir (S) takkek	kakkiviar (upper) krarklo (lower) innuwoak onaywoark	
Living	umavok ; inuvok	innuwoke (he)	{ uvlakut (in the m.)	angun ; utauk	anghut
Male	{ nukagpiak, angut	{ nukupeak	anenak ; akkaa	{ innok ; anghon	innuk
Man	{ innuk ; angut (homo) (vir.)	angoot	anenak ; akkaa	{ tatkarak	tatkarak
Moon	anningat ; kaunei	anninga ; tatkuk ; tuktuk	{ kuu, kaak ; uvlakut (in the m.)	krakvara	
Morning	ullut (day)	ooblak		{ ananark anava ; amana	{ annaag kinnak
Mother	ananak	amama	kakkak	errark ; kreymitk (hull)	
Mountain	kakkak	{ kingnak, kukkuk kingyi ;	kannerk ; kannek	umiloerok	
Mouth	kannek	{ kangyook tokelooga ; koonwesok	{ kongesek	krunitcirk	
Neck	igiak (throat)	{ oonocak ; oodinnook	{ unuak	unnuark, unnuark, onuark ; unnuak	naaga
Night	unnuak	{ nao ; naka	aukok, naukak ; owkuk (S)	tehuitor ; diunak	
No	nagga	noki ; noker			

Nose	kingak ; kingera(my)	{ keinak ; kingara (my)	{ kingah	krenyark, kraymak	
Oil	orsok	{ okezook (blubber) { istootkooh	ookeluk (S)	orktook	utokak
Old	uvkusik	ooqueezeek (kettle)	{ itawok	anayuklerk	
Otter	kerperluk	{ maktoopoke (it) { mokukto	pammioktok illuterkut	pamioertok utkuteiki (kettle)	
Rain	augpalugtok	{ aopapalook ; { owg	cheilalou (S) sillaluk	{ nipaluk ; teillaluk	nipalukuni (v.)
River	kuk	koog ; koo	aupalluktok	{ awkpalluktork	awpaluktok
Salt	siorak	tarreo	kook, ku, koggut	kurk	kuuk
Sand	inmak	seethwark	siorket (pl.), siorak	{ natatkon-anoyark { fareor (sea.)	} tarayok-illerautit
Sea	{ natsok ; utsuk (fjord s.) (gt. s) { kasigtiak ; puisse	tarreo ; tarreoke	innmak	teivorak	tareyork
Seal	tue ; tuvik (pl.) tuk ; nukarlik (ygr.)	{ ookjook ; { netchuk ; kooshegeer	{ natsok, puese { netchik (S) { kassigi-ak oguk, uksuk, ovogduke (S)	{ natoerk ; ugiuk	nadjek
Shoulder	amek	keesik	mayunga (S)	krateigerk	nateerk
Sister	killak	neiva ; nuryeager	neya, neyango (his)	tuik ; keatcik (s. bone) waya, anoyuma (old.) aka (ygr.)	
Skin	amuk	amingk	kesheke (S) amek	amerk	kaypak, amek
Skip	killak	keilak	killek	kreylark	kailek
Sleep	{ kuktiok ; { mik'issook	{ seenikpoko (he) mikke ; miketookoloo	{ mikkeh ; puok	tehiniktoark	inniktok
Smoke	anigo ; goviokuk	eshik	ahpoot (S)	mikiyork	mikiikuni
Snow		{ kauneukpoko (it) { appoo	kannek ; aput, annio	iteirk apuu ; annio ; kranerik	iteirkwark

## COMPARATIVE, ESKIMO VOCABULARIES—(Continued).

ENGLISH.	GREENLAND. (From Egede and Rink).	Hudson's Bay. (Gilder and Gallatin).	LABRADOR. (Richardson).	MACKENZIE R. (Petitot).	CHURCHILL R. (Petitot).
Son	ernek ; ermerk	{ erkenear erninga ; nuterark (child) okokpo okakpoke (he)	{ ergnek okarlune	nutark ; iyaye	iyait (pl.)
Speak	{ anguvigak, kaput nugfit (bird-spear)			oraktork	uraktok
Spear	aluksant			kapona	
Spoon	upernak	alute	alupaut	aluktcawn	orwewuyak
Spring (season)		{ openra ; oopingyark	{ oopinukchuk (S)	upinoerark	
Squirrel		shiksik		tiksitcorark	
Star		{ ooblooriok oobloobleak	{ ubluriak	ubloriark	ubloreak
Steal		tigleepoo	tiglikpok (he)	tigliktoark	tigliktok
Stone	ujarak	weark ; ooyarra	{ uyarak ; kaertok (rock)	anmark (flint) uyarak	{ uyara ; iknek (flint).
Summer	kiek	owyer ; owyak	{ oopinark (s) auiak	anguyark	alrani (last s.)
Sun	{ ajut ; sekkinek kaumet	neiya ; sukenuk	{ naiya ; sekkinek, chukinuk (S)	{ tehikreynerk	{ illa-uyak sakkainek
Tent	tupek	tupik	{ tuppek, toopik (S)	tuppekr	tuppek
They	okkkoa	{ tukoquar (those) tamaquar (these)	{ okkkoa ; tapkon tonabny (S these)	okkoa ; tapkoa	
Thou	iblit	{ okkkoa ichbin (you)	{ igvit	illuit	illuit
Throat	igiak	ilweet		uyak ; igiark	tukku-eyak
Thumb	kublu	tookooedjik koobloo	kublo	kublu	kupoeluk

Thunder	kallek	{ kalukpuk (it) ovetsaik ; uvlut ooblumie (S)	kalluk	upelumi
To-day	ullume ; vutsiak	{ kaulukpoke (it) kodahlook { ooblomee ; ogloome	{ ublur-krakimna inurark pwotorork (big t) ; krawpan ; ublum-aypa, arkagu okrark	
Toe	ullume (to-day)	potovok (big) { okkagoo cowpert ; okargo	kigut	ukak
Tongue	okak ; ocka	{ okhara ; oogurak { keuteetka ; keutee (pl.)	kiutit	kiutit
Tooth	kigut, kuitit, (pl.)	oko	uterano	uunakum (heat)
Warm	kiek	koblunar	krablunark	kuppelunet
White Man	kablunak	iviek	ayverkr	
Walrus	havik (N. Gd.)	emik ; immek	{ immert, imark uvarut	innmek
Water	immek ; imak	oobahgook, oogut oktbik	arverkr ;	uwanre (I)
We	uague { haphuk (N. Gd.) arbek	{ kowd'ook, koktuktoo, n'oleeanga ; nulleanger	{ kragartork nulleark	kakoktok
White	kakortok	annoway { okeoke ; okeeyook arnow	{ anore okkeork ; ugiork	xenenié (voc.) annowé
Wife	nuliak		annorok	ukiook
Wind	anore			annarak
Winter	ukiook : okiook			
Wolf	annarak			



## COMPARATIVE ESKIMO VOCABULARIES—(Concluded).

ENGLISH.	GREENLAND. (From Eggede and Timk).	Hudson's Bay. (Gilder and Gallatin)	LABRAPOR. (Richardson).	MACKENZIE R. (Petitot).	CHURCHILL R. (Petitot).
Woman	{ arnak ; agna, { arngnak	abdenok arngua ; armelar ; ap.	akva ; angai mingi-yok { kassak ; aheila { ahilah (S) { ikbukchuk (S)	{ arne ; arnark { ih ; ah.	augrenak
Yes	laak	{ ikpokeyuk ; { ippukshur	{ ikbukchuk (S) illipse ; igoete (S)	ikpekciark	ikpakkak
Yesterday	vutsiak (to-day)	{ illeepsee ; ichbin	illipse ; igoete (S)	illipci	ilowit
You	{ illinse (ye) { iblit (thou)	makkoke ; mikke (child)		muratchaluk (young man)	{ innuuk (y. man) atauyak
Young	{ innuquoak (N.Gd.) { piarak	autowzig		ataofoirk	
1	atausek	mikke (child)		{ maloerok ; aypa	malrok
2	arlaek	{ mudelroc ; { moko ;	atousek marruk ; maggok	{ taitamati	
3	pingajuak	pingalsuot	pingasut	{ tallemet, tallimati	
4	sessimat	sectahmut	{ settamut ; sittamut	{ arvenloerit	itamat
5	tellimat	tedelemut	{ talima ; tellimat { arvauget ; pingasuyoktut	{ malloerunik- arvenloerit, arvenloerit- aypak	tallimat
6	arbouek	okbinuk		arvenloerit	arwilliyit
7	arlaek	{ okbinuk mok- { onek	pingasullo sittamello	{ malloerunik- arvenloerit, arvenloerit- aypak	
8	{ arbouek { pinyusut	okbinuk-mok'- asunik	pingainuk ; pingaanuk	arvenloerit- ilaak	pinnamuk arwinilyit
9	kolliniloet	{ okbinuksee- { tahmut	tellimella sitta- mello	{ krolin-illoat	kulin-uyaktuk
10	kollit	koling	tellimna yoktot	{ kralenotot { krolit	{ kavvit

## WESTERN DIALECTS (ALASKA, SIBERIA, AND THE ISLANDS.)

ENGLISH.	TEHUKTEH. (From Klaproth).	ALEUTIAN. (Buschmann).	KOTZEBE SOUND. (Buschmann).	KADIAK.	UNALASKAN.
Arm					
Arrow		{ agidak ; ugdax (1) (3)	{ kadleek ; attsik kakarook, ka- weernik, koo- koogwait ooleemov tehikluk attighinnuk tsunack	{ chok angik pagoona, tagookat tamelok akseecha	alahlak } tanhak } sanhoon } echlok (eagle) } kahchezeek anak
Axe	{ kalchapak (1) kalkalma (2)	anigaschik (1) anichsix (2)			
Bear	akliak (1) ; kainga (2)	{ tangak (1) inglak (1)			
Beard	{ tamijutman (2) aschaegheka (1)	inglakum (2) kilma (1)			
Belly	{ akscheka (2)	kilmach (2)			
Bird		{ tinglak (1) (eagle) tichljax (2, 3) kaktsechiklulli (1)			
Black		{ chachtschach (2) aameyak (1) amaeh (2, 3)	naiyak ; naldjigga ; dirJuek finnearit ; timatrik kangoak, toringmatik aook ; kaoope oomecak ; kaiyak aseet oomeyak kumunuk petik ; petikshia enyoook kokelek	tamechtuk toonhoohalee auk palayak ; kajak	
Blood	auka (1) auku (2)				
Boat	{ chajak (1) kajak (2) hanjak (1) yagnijak (2)	ooluk (1), uljuk (2) kagna (1) chagnach (2)			
Body					
Bone					
Boots	kamgnuk (1)				
Bow	{ tschalaikak (1) olebok (2)	saitteguich (2) ssaigich (2, 3)			
Boy	mitishak (1, child)				
Boy	{ tchaimka (1) tchakygak (2) kalybak (1) kutlek (2)	ssinsin (1, 2)			
Breast					
Breeches					

## WESTERN DIALECTS, Etc.—(Continued).

English.	TENKETSU. (From Klaproth).	ALBERTIAN. (Buschmann).	KORZIBER SOUND. (Buschmann).	KADIAK.	UNALASKAN.
Brother	{ anechhuchek (1) kangojak (2)	uluba (1), uljngach (2) kingariak (1) chinganach (2) kinganagach (3) kalkagiak (1) chalingach (2) chalchigach (2) asskin (1) aschimuk (2) angalik (1) angalich (2, 3)	ouluat kairunga	anaga ooluak njungla kalna <sup>x</sup>	oolloohak kalkahyon
Cheek	{ ninglichatu (1) tschapekunak				
Cold					
Crow					
Daughter	{ panika (1) panika (2) aghruk (1) gannak (2)			ignuk; aganok	anneliak
Day				togodsju (dead) pihuta aikuk	
Deer					
Die	tokok (2)		tooktoo (r. d.)		
Dog		{ aikuk (1) ssagjack (2, 3) anogata (1) kangrakuking (2) tangata (2)	kenma; koonak emng; emnoon	tanha, tanagok	ayhok taangata
Drink	{ emegli (1) magliaga (2)	tshakutshadok	cewark; cewuck tsheedlik; sitiki shudek; chiutik		{ schak; saheedak tootoosak
Duck					
Ear	{ tschiftuchk (1) schittuk (2)	totusak (1) tutussich (2, 3) tschekek (1) tschikieh (2) tanach		tsinjuduk (pl.) tsi-an (sing.) nuna	chekeke
Earth	nuna (1) nunnek (2)	{ kajuhin (1, I eat) chakuching (2) chatga (3)	ashadlook		kada
Eat					

Egg		{ schamlok (1) ssamljax (2)	{ mannik irrik ; erruk	ingalak ataga, adaga } swaanga	isamlokannaholik
Eye	iik (1, 2)	{ atan (1), adax (2, 3) atchon (1)	tegheyr; tamaridreh; teckeri (1st)		athak
Father	{ alhanka (1) taibano (2)	atchuch (2)	shetooe; kooguwek krookeoikta		athoonen
Finger	{ scutunka (1) ischtuk (2)	chafalgi (2)	zunuk khalloo ; khalnikht	stungga kuok ikaljuk	kabelren keynak
Finger-nails	ekmik (1) anuak (2)	kignak (1), chignach (2, 3)	{ iddiguy etscheak ;		} keetok
Fire	{ ikabilik (1) ssaljuk (2)	kakah ; ullu (1), uljuch (2)	{ tammik tammich (2)		
Flesh	kumika (1) naka (2)	kita (1), kitach (2)	{ tammik (2) okotsching (1) ugaging (2) aikaguch (3)		} keetok
Foot		itscha (1) aka	{ kioktoot ; kaiyok iltiwalluk	inuh ; idchuk igngu	
Forehead	kawak (1) kauok (2)	{ tammik (2) tammich (2)	{ mamaypoko necokmuk ; tatteereegak, tutteeleega ebowit		} machheerek
Fox	inuchka (1) ignuk (2)	{ okotsching (1) ugaging (2) aikaguch (3)	{ mukhet ; nooit aishet, argegei		
Go		itscha (1) aka			
Good	{ matschinka (1) itainoktok	tshizhelik (1)		assiktok	
Goose	ertut (1), jachlach (2)	{ llak (1), llajin (3) karnanganun (3)			
Grass	ewuk (1), wik (2)			buut ranguk	
Great	kauguk (2)			nujet	
Hair	niyet (1), niyak (2)	{ emlak (1) imlik (3)		eshet	imleen
Hand		{ tscha (1) tschach (2, 3)			} echanh
Hare	{ ukairnich (1) ulegeeh (2)	hangga (1) kamgeeh (2, 2)			
He	tana (1, 2)	man (1, 2)			

## WESTERN DIALECTS, ETC.--(Continued).

ENGLISH.	ТЪИРЪТЪИ. (from Klapproth).	ALERTIAN. (Buschmann).	КОРЪНЪЕ СЪСЪД. (Buschmann).	KARAK.	USALASKAN.
Head	{ naskok (1) nashiko (2) tschirunok (1) tscheonok	{ kangha (1) kangreh (2, 3)	{ neakon	oknochwachtak oolak ; naa uika, uiga, oonga chui	kanthek oolon } komljahook
Horn	{ ennit (1) mantak	ooladok (1) oljekh ugin (1) thin kteak (1) kdach (2, 3) komlegu (1) chumjaguch (2, 3) tangik (1) tangich (2) aschok (1) assuch (2)	iniak ; quooog wonga	asok tschischkuchka chiskoohka kamelak	aschschko
Hot	wi (1), wanga (2)				
House	{ tehikuta (1) iljehkik (2)				
Husband	{ tachirukka (1) tschischkok tschebija, tseepink	{ kotschun (1) adich (2)	kanuk ; kanaite	hlukha	athek
I	jagut, igauk (2)	taioch (1) tadjaguch (2)	tuak	schuk	tayaho (homo)
Ice	{ uika (1), juk (2) (male)	{ tuglak (1) tugriak (2) tugriach (3)	tadluk	{ yaulook ; toogehda igaluk	} tooheedah
Iron					
Island					
Kettle					
Knee					
Knife					
Leg					
Lip					
Male					
Man					
Meon	irallik (1), tankik (2)				



## WESTERN DIALECTS, ETC.—(Continued).

ENGLISH.	TCHUKCHU. (From Klapproth).	AKUTIAN. (Buschmann).	KOTZEBUE SOUND. (Buschmann).	KADIAK.	UNALASKAN.
Spring (season)	{ anehtoha (1) { pochlachta (2) { iralikatach (1) { igaljitat (2)	{ sstok (1) { sthach (2) { sthan (3)	{ obloaret	{ tshinguluk { madzak	{ stan
Star				yamak kiek	
Stone	wigum (1), wigach (2)	akatak (1)	{ maje ; neiya	agadak	ahhapak
Summer	kegni (1), kuiga (2)	agudach (2, 3)		tugjunagali	
Sun	{ matschak (1) { eschekenak (2) { singlingachta (1) { bulugg (2)				
Thief	{ katluetha (1) { neptschug (2)	shulukshik (1) ssujuch (2, 3)			
Thunder	ullin (1), ulju (2)	{ agnak (1) { agnach (2) { ahulun (1) { kigussich (2) { kigussin (3)	{ uwa ; ukevaa	ulju ; agonok	ahnak
Tongue			{ kutai ; kootay imik		
Tooth	{ wuttinka (1) { gutik (2)			chudyt ; hoodcit	ikeahoozen
Water	emak (1), mok (2)			tangak ; mooe	tanak
Weep	kia (1), konynge (2)			keyya ; keja	
Whale	agobok, abuk (2)			agbok	
White	{ kuschschentuk (1) { kabige (2)	{ komakuk { aayagan (1) { ajagach (2, 3) { matguk (1) { miduch (2)	{ kowlook (cloth)	{ katchtok { katogalee	
Wife					
Wind			{ anougway		kyacek
Winter	{ ukjumi (1) { ukshok (2)				{ ukshok
Wolf	keilunak (1), amma (2)		annaok		





## TSCHUAKAK I.

(From Buschmann).

ENGLISH.	TSCHUAKAK	ENGLISH.	TSCHUAKAK.
Arm	aihanka (hands)	Nose	kanka
Axe	kajugun	Rain	niptschuku
Bird	kawak	River	kjuk
Black	molikhtal	Sand	tschirgat
Clouds	makssliuk	Sea	imak
Day	aganik	Stars	ialktagit
Earth	nuna	Stone	knakjak
Eye	tschichka	Sun	tschekinuk
Father	atanna	Tooth	kehutani
Foot	itiganka	Tongue	uliupa
Fox	kawijaka	Water	mok
Hands	aihanka	Whale	imtuk
Heaven	tschlia	White	kchtschuktak
Ice	tschikuk	Wife	mulechka
Iron	tschawigak	Woman	agnak
Island	kichkagat	One	atawtschigak
Lake	naiwagach	Two	mamosik
Man	juk	Three	piengaju
Moon	takik	Four	staman
Mother	nang-a	Five	tassliman
Mountain	najagat	Ten	ullia
Mouth	kanka	Twenty	juwinak
Night	h.puk		

## WINTER ISLAND.

(From Buschmann and Lyon).

ENGLISH.	WINTER ISLAND.	ENGLISH.	WINTER ISLAND.
Arrow	kakliok	Mother	ánana
Bad	mamaitpok	Mountain	kingnak
Beard	umikh	Mouth	kamira
Boat	kayak	Night	unuk
Dog	kaimeg	Nose	king-ar
Ear	hiutiga	Reindeer	tooktoo
Eatables	nerioka	River	ku
Eclipse	shiekenektoonilikpa	Spirit	imnua
Eye	ai-iga	Sun	naiya
Father	attata	Tattoo	kakkeen
Fire	ikkoma	Tooth	kiutitka
Food	tamooa	Water	imnek
Foot	ittikatka	Whale	hiokkak
Give me	pilletay	White man	kabloona
Gnat	nulikak	Wife	amarok
Great coat	kooillitleuk	Wolf	nuliya
Hand	iyutka	Wolverine	kablie
Hood	amauta	Woman's boat	oomiak
Husband	uinga	One	atawsek
Ice	sikku	Two	ardlek
Iceberg	peekalooyung	Ten	irkitkok
Knee	setkoa		

## STUART ISLAND AND NUNIWOK.

*(From Buschmann).*

ENGLISH.	STUART ISLAND.	NUNIWOK.	ENGLISH.	STUART ISLAND.	NUNIWOK.
Arrow	kehut	kehuput	Mouth	kipich	kapka
Bear	tagukak	cewut-aguka	Nose	knak	knaka
Beard	ugat	talomok	Otter	pamoktat	pamoktat
Bird	tehimiat	tuniammiak	Rain	iwishuk	iwujuk
Black	tangik	} tshumich- } schitok	Tooth	kehutit	kehutet
Dog	kimuchtat	keimuchta	Tongue	uliu	uliuka
Ear	tschiutit	tschuat	Water	mik	mok
Eye	ik	igikka	Whale	agiwgit	agobok
Father	alaka	atakka	White	ikuk	katagali
Fire	knk	kinik	Wolf	kiklungit	kagopik
Fish	ikalinchpit	talechnika	Wife	nulialiaka	nuleaka
Foot	igut	itugomka	Woman	agnak	agnok
Fox	kawssiak	kasijagat	One	atawtschik	atawtschik
Goat	mliingshok	mliumigit	Two	aipa	aipa
Hair	nujat	nucht	Three	pingachwa	pingaju
Hand	talik	aichanka	Four	tschtami	tschtamik
Husband	nugalpiak	nugaspiak	Five	talimi	tasslimik
Iron	tschanik	mmissch gak	Six	agwingu	agwingog
Knee	tschaschkut	tschaschkok	Ten	kulguchtok	kalin
Mother	anaka	annaka	Twenty	juinak	tschuinak

## ALASKAN DIALECTS.

(From Dall).

ENGLISH.	UGALAKMUTE.	CHIGACHOMUTE.	NUSHEROAMUTE.	KUSKWOOMUTE.	EKOOMUTE.	USALOMUTE.
Bad	antondok	anishkak	antoak	knuingnangkuk chakhuk	assectuk! onguk	asectuk onguk
Big				tangialavok	tangowiluk	
Boy						
Chief						
Cold	nglia	apachtok	nglia	packnak	ongluk	ngluk
Fire	knik	knik	k'nik	'knik	mingluktuk	kwitanak
Fish	tchadok	'katimk	nunka	ikalouk	kanuk	'kuk
Girl				nozeachuk	nukut	'kotlewit
Good					asukhtak	puncgub askihtok
He	oum	oum	tkna	taonna		ma
Hot	magakhtok	magakhtok	hwignia	kikhehtak	hwih	kootzunguk
I	roingnia	kooi		hwilika	cheekook	wunga
Ice		tchaguk		chiko	tikostuk	seko
Island					chiwik	kegiktukh
Knife	noshok	nowguchak	kightak	chivichuk	chiwik	chiwik
Land	unna	nouna	nouna	nouna	nunuh	nunneh
Little		mikangoshak		ontouchpak	meeukut	mikuk
Man	akwin	mugulpenk	agium	yugut	yuk	yut
No					peetuk	peetuk
Rain	schliachlook	kitichtouk	chliachlouk	chiakluk	ibizimkhtuk	igesikhtuk
Reindeer		kana-et		tunta	toontook	toontook
Snow		katagak		kanikshak	unyak	siachliktuk
Water	kanichtchak	mik	kanikchak	mik	muk	muk
Wife	mik		'mik	nuliga	mukihuh	muliayka
Woman	agnak	aganak	agnak	agnak	okhanak	oghnanut
Yes					hwokah	wah
You	'lbit	't'pit	'lbit	'l'pit	ikhiut	ik'lepit
1	ataouchik	atchimouk	ataouchik	atauchik	atowchuk	atowtsik
2	aipa	malgook	aipa	malteok	mahbrukh	malanik

3	pinadook	pinanoak	pinaivak	pingion	pingaik
4	seltamik	S'chamit	t'chamik	t'stamen	S'estamat
5	talimik	talmit	talimik	telemut	telemat
6	aghvimik	avimut	akhvinok	agvinulit	ichuksut
7	2 repeated	2 repeated	acnakhvnam	makoodinulit	malooksipnuleet
8	3	3	pinaviakh	pinganulit	pinainusipnuleet
9	4	4	eltamiakvanam	koolinolit	koolinotylit
10	5	koulin	kullnuk	koolinak	kolin

ALASKA, ETC., DIALECTS.  
(*Dall*).

ESQLESH.	UNALASKAN.	ATKAN.	KONIAGMUTE.	MAHLENUTE.	CHUKCHAMUTE.	SCHEGAZZ.
Bad	macheedolikan	macheeshelikan	aseehok	ashuruk	mogiloerak	assitok
Big	aninach	tangoellik	ang'uk	ongyruk		angitschkoktschok
Boy	aneektok	auektok	tanoghak	omaylik		
Chief	tajaghu	toigon	potznatok	allapah		knakeh; kinokh
Cold	kinanach	kinganahik	kuok	iknuik		egachluk
Fire	nignach	kignach	ekachleut	ikobhtewik		achajack
Fish	kach	keach	aggeak'kak	pinuegah	annacehae	assichtok
Girl	achadok	ogegihikin	aziktoak	nakuruk		
Good	macheesalik	chizchelik	oona	tuna	enkan	
He	inan	ikoon	ogtoak	kooshlunguk		magachtok
Hot	akivasehik	akorchehik	chooi	wungu		chui
I	tirn	keen	taligo	seko	goone	tschikok
Ice	kelach	k'thak	kightak	kek'hak	chiggo	kikechtonak
Island	chananak	taan'gik	tkchangielk	chlowik	chawik	
Knife	kamleeh	ungazehisip	noono	muneh	nunna	nuna
Land	tehkitch	chegak	meyvik	mikidturuk		mikuengroschak
Little	anguunadlak	angonolokn	mukadnyak	enyuk	yuk	schuk
Man	taiggaitch	tootch				

ALASKA, ETC., DIALECTS—(Continued).  
(Dall).

ENGLISH.	USALASKAN.	ATHAN.	KONIAMUTE.	MAHELEKUTE.	CHUKLEKUTE.	SCHUGAZZ.
No	kogcho	naselikan	peelok	peceluk	al'eah	kaitak
Rain	chichtach	chiutakik	kidak	sceuhkuk	nepehng	
Reindeer	ihayok	itkayech	toondoo	toontook	koimik	
Snow	kanich	kanecck	anneq	uphun	kaing	anni
Water	tanach	taangak	tangak	imik	ruk	imnak
Wife	agegai	aiyagai	nulya	nuleeka	nulikert	nulijaka
Woman	angaginak	aiyager	aganok	okanok	anak	aganak
Yes	ang	aang	ang	wah	ee	
You	thinn	ingaan	ch'ipit	illewit	goot	
1	atakan	attokan	acheluk	atowsik	atebig	atitschik
2	alach	aluk	malogh	malruk	maelruk	atleha
3	kankannoon	kankoon	pingaten	pinusoot	pinaitig	pingayna
4	sitchin	sitchin	stamen	setemat	stanoch	tschitaami
5	tehann	chang	talaman	talemat	talimaet	talimi
6	atyoon	attoon	agowinigin	aghwinuleet	arringt	achoinlgu
7	talam	olung	malchongun	mahlooditagh- winuleet	} mararvingt	malchomin
8	kanitehin	kantsching	ingugin	pinusoonilag- hwinnuleet	} pingaivingt	ingeljulim
9	sitchinin	sitching	kollengaan	koolhutyuk	stamiluellig	kolungojan
10	atik	masuk	kollen	kooleet	koela	kola

## HUDSON'S STRAITS AND CUMBERLAND SOUND.

*(From Hall).*

ENGLISH.	ESKIMO.	ENGLISH.	ESKIMO.	ENGLISH.	ESKIMO.
Arm	telo	Fire	ikkumer	Skin	} kow (wal-
Axe	oodloo	Flesh	{ krang		{ rus hide)
Bad	peongetoo		{ (whale's)	Sky	selar
	{ artukta(yg)	Foot	issikar (pl.)	Small	micookooloo
Bear	{ ninoo(wh b)	Give	piletay	Sorcerer	angeko
	{ puoagnung	Good	peeuke	Spear	oonar (seal s.)
	{ (blk. b.)	House	igloo	Sun	sukeneir
Berry	{ kiotunguna	Husband	winga	Tent	tupic
	{ (blue berries	Ice	seko	Tide (ebb)	tinne
Bird	{ sikyarung	Iron	sowik	Wait	wichou
	{ (b. like robin)	Island	kikituk	What is	{ kissu
Black	kernuk	Kettle	ookoosin.	this ?	
Blood	oug	Knife	oodloo	Where	noutima
Boat	kia ; oomien	Lamp	koodlin	Whale	ogbig
Boots	kuming	Louse	koomuk	White (man)	kodluna
Breeches	kodling	Man	innu	Wind	{ wongnuk
Child	nutarung	M-	wonga		{ (north w.)
Cold	ikke	Mitten	pauloo	Woman	nuliana (wife)
Come	kiete (c. in)	Much	amasiut	Yes	{ arnelarng
Deer	tuktoo	No	name ; argi		{ noodloo
Die	{ tukawoke	Opening in ice	oukunnier	1	attousen
	{ (it is dead)	Red	oug	2	mukko
Dog	kingok	River	koong	3	pingrsiut
Duck	meituk		{ ekerlooung	4	tessamen
Earth	nuna	Salmon	{ (small)	5	tedlamen
Eskimo	innuit		{ ekerloo(la.)	6	okbinnerpoon
Fat	{ ooksook (blb.)	Sea	tarrio	7	mokkiniuk
	{ (oodnoo (tall.)	Seal	{ ookgook (lg)	8	pingasunik
Father	atata		{ kussegear	9	tessamenik
Finger	teekee			10	koodlin

## NORTH GREENLAND.

*(From Ross).**(Humoke two Dialects N. and S.)*

ENGLISH.	NORTH DIALECT.	SOUTH DIALECT.	ENGLISH.	NORTH DIALECT.	SOUTH DIALECT.
Awk	akpalliarsuk	{ akpulliorsh- usweet	Nose	kinjak	kinjak
Daughter	panni	pani	Sea-horse	havick	havick
Dog	kimuk	kimuk	Seal	pussi	pussi
Eyes	piasiok	piasiok	Shaft (har- poon)	{ ermeinuk	ipporu
Fire	innik	innik	Shirt (duck skin)	{ pinuset	ater
Go away	naakrie-aiplait	naakrie-aiplait	Skin	haminuk	haminuk
Harpoon	tookuk	olooktuk	Sledge	kamoutik	kemoutipalait
Hood	ilpaousuk	okoukak	Son	enra	enra
Hooks (for lamp)	{ kelipsuet	ousiut	Stone	{ okekesuk (blk.lamp)	ouyorak
Ice	licou	licou	Sun	succanuk	succanuk
Iron	so wik	sowik	Traces (for dog)	{ peliulet	{ usintel
Knife	bellaouduk	sowik	Water (fr.)	hemuck	hemuck
Loon	akput	pyealhusweet	Water (sea)	heniok	heniok
Meat (boil.)	olclie	osotoelu	Whale	haphuk	haphuk
Moon	{ anningaak kaimut	anningaak ; pinga	Woman	arnet	arneverset
Mouth	kanneek	kanneek	Young (man)	innusholok	innuquowak
No	naakrie	naakrie			

Numerals the same in both dialects :—One, allausit ; two, ailek ; three, pin-  
gujuk ; four, sissimat ; five, tallemat.

## COMPARATIVE ESKIMO AND INDIAN VOCABULARIES.

*I.—Eskimo and Tribes of British Columbia.**(Indian from Tolmie and Dawson).*

ENGLISH.	ESKIMO.	INDIAN.
Arm	{ tellek (Gd.), tailek (Ch. R) tallek (Kotz.Sd.), talek (Malem)	taloo (Kawitshin) uhthleik (Thlinkit, hand)
Bear	tanhak (Unal.), tangak (Ala.)	tahn (Haida), nanne (Aht)
Beard	{ oomik (Huds. St.), umuit (M. R.) oomich (Kotz. Sd.)	{ imuh (Tshimsian)
Body	aseet (Kotz. Sd.)	oosit (Aht)
Bone	teauner (M. R.), heownik (H. B.)	stzaam (Kaw), hummot (Aht)
Ear	{ tshuat (Stuart I.), teium (M. R.) hintiga (Wint. I.) shudek (K. Sd.)	tahksta (Bilk) geu, keu (Haida)
Father	apan (M. R.), abaga (Kad., gd. f.)	abo (Tshims)
Finger- nails	{ kukek (Gd.), koogwek (K. Sd.) stunga (Kad.), chaelegun (Al.)	kahaku (Thlinkit) slakunge (fingers)
Fire	{ keynak (Un.), ukga (Ch. R.) kinik (Nuniwok), innik (N. Gd.)	kan (Thl), haiuk (Kawitsh) inik (Aht)
Fish	khallukht (K. Sd.), khalloo (K. Sd.)	klo, kluk (Tinné)
Forehead	{ kauok (Tschuk.), kaw (C. R.) kau (Gd.), kawak (Teluk)	{ kakook (Thl)
Heart	umat (Gd.) omut (H. B.) oman (M. R.)	ihumuh (Aht)
House	ooladok (A.), oolak (K.), oolon (Una.)	allal, allun (Kawitsh)
Ice	{ ktak (Al.), teiko (M. R.) chikoo (Lab.), tehikuta (Sch.)	{ tibk (Thl)

## COMPARATIVE ESKIMO, ETC.—(Continued).

ENGLISH.	ESKIMO.	INDIAN.
Knife	{ sauk (Gd.), chowik (Mal.) { sowik (H. B.), chauwik (K. Sd., Ir.)	} skow (Haida)
Land	nuna (Gd., H. B., Mal., Kad., M. R.)	nammao (Aht)
Man	{ innuk (Gd., C. R.), innok (M. R.) { juk (Teh.), ooinga (Kad., husb.)	wins (Sahapt) youh (Thims), enika (Kaw)
Night	nata (M. R., eve'g), oodinook (Cu. Sd.)	uthai (Aht)
Sun	sukkenuk (H. B.), sikenyuk (Mal)	snukum (Selish)
Teeth	{ kigut (Gd., M. R.), kiuteet (C. R.) { kigussich (Al), gutyk (Sch)	kik (Kwakiol) gigeis (Kaw), utit (Sahapt)
Water	{ kuak (K. Sd., river), kuk (Gd.) { kuuk (C. R.), koo (H. B.), koke (Mal.)	} tsuuk (Aht), ko (Niskwali)
Woman	{ achanut (Mal), aganak (Kad.) { ajagach (Al), aganach (Sch)	} akigeluk (Tshinook)
One	attowseak (H. B.), attausek (Gd.)	tsowak (Aht)
Two	ailek (N. Gd.), ardlek (H. B.)	utluh (Aht)
Ten	{ koela (Chukl), kulle (Teh) { knlen (Kad), kullnuk (Kusk)	} klal (Haida)

II.—Eskimo and Waulatpu-Molele, etc.  
(Indian from Hale).

ENGLISH.	ESKIMO.	INDIAN.
Arm	{ tellek (Gd.), tailek (C. R.) { talerk (M. R.), tallek (K. Sd.)	} teilag (Wail)
Arrow	{ kakliok (Wint. I), agdligah (Gd.) { chok (Kad.), chook (Teh)	} watchl (Mol)
Beard	{ tamelok (Kad.) { tamljutuman (Teh)	temeks (W) tememeok-scho (W)
Bird	tinmiark (M. R.), tingmeya (H. B.)	tianiyiwa (Cayuse)
Bone	oaeeyk (K. Sd.)	iaotso (Tchin)
Daughter	panik (Teh), panik (G), punne (C. Sd.)	puena, pena (Mol)
"	{ ashkin (Al) { asskin (Al)	okechan (Wail) asa, ahkan
Dog	piukta (Kad.)	kiuhtan (Tchinook)
"	{ camukta (Mal), kemek (Gd.) { kummek (C. R.), iukuk (Al)	camuch (Tchin) witkui (Mol)
Earth	analq (Al)	ano (W)
Eye	iik (Teh), iyik (M. R.), eigee (H. B.)	egot, hakamush (Cayuse)
Father	ataak (C. R.), atta (H. B.), attata (Gd.)	totscha (W)
Fire	annak (Teh)	hamai (Willamet)
Forehead	kauok (Teh), kaowga (H. B.)	okegwo (M)
Friend	ilipolee (K. Sd.)	elapoint (W)
Go	{ iltiwalluk (Kotz. Sd.) { aulaork (M. R.), attee (H. B.)	whuleok, kuli (Tchin) tatten
Grass	wik (Teh), iwik (Gd.)	qoischt
Great	paluk (M. R., termin.)	pol, pul (Willamet)
Green	okok (Gd., K. Sd.)	yotzyotz
Heart	oman (M. R.)	quamonitchl
House	ooladok (Al), oolak (Ka), oolon (Un)	helim (Molele), alutkh (Skwale)
Husband	{ iniak (K. Sd.) { quaoog (K. Sd.)	inaim (W) qwap (M)
Ice	teiko (M. R.), ktak (Al)	tok (W)
Iron	chawik (K. Sd.)	keweoke (Watlalu)



## ESKIMO AND WAILATPU-MOLELE, ETC.—(Continued).

ENGLISH.	ESKIMO.	INDIAN.
Knife	{ sequetat (K.Sd), chowik (Mal) { teavik (M.R)	sehkt (Cayuse) gaweke (Watl)
Lightning	{ katluchta(Te), schulukshik(AI) { kallek (gd. thunder)	ekelikst tschultoa
Mau	{ innuk (Gd), innak (M.R) { angut (Gd), anghut (C.R)	} anwoeke
Mother	{ annaag (C.R), anaha (Kad) { anaan (AI), anana (M.R)	{ aan (Ruslen)
Mountain	ingrit (Tchuk), kinguak (H.B)	yongint
Nails	{ stunga (Kad) { setunka (Tch)	schingish (Skil) suks
Snow	{ kooguk (K.Sd), annigo (Gd) { annue (Kad), annighu (Tch)	} annoopak (W)
Star	sthak (AI)	kaki (Walla Walla)
Sun	{ akathak (AI), ahhapak (Un) { agakak (Kad)	{ akatchach (Watl)
White	{ kachtschuchtuk (Tch) { katagalee (Kad)	tehlaktehlako (Tshailish) tehlaksch (Mol)
One	atoken (Un), atachan (AI)	eght, echt (Tchin,
Head	{ kamnek (Un), kamgha (Ala) { komak (M.R)	khumukum(Piskaw) khomut (Kowelitsh)
Mouth	{ kanuk (Mal) { kanok (Kad)	kamukh (Skwale) kunikh (Kowelitsh)
Teeth	wutlinka (Tch), hoodleit (Kad)	yeutnes (Tshailish)
Mother	illak (M.R, parents)	ulua (Nsidshaws)
Father	illak (M.R, parents)	ulua (Nsidshaws)
House	oolak (Kad), ooladok (AI)	alutkhl (Skwale)
Foot	talik (Stuart Island, hand)	tailuks (Molele)
Son	iyait (C.R. pl), iyaye (M.R, child)	waiu (Mole e)

## III.—Eskimo and Comanche.

ENGLISH.	ESKIMO.	COMANCHE.
Bear	aoutkliut (Mal), akvik (M.R)	ochzo
Body	aset (K.Sd)	wakhchee
Bone	teaunerik (M.R), wcheonok (Tch)	tsonip
Boy	einyook (K.Sd)	too-anikpee
Breast	tschakyaik (Tch)	toko
Child	iyaye (M.R)	too-achee
Earth	tshekak (AI), chekeke (Un)	chokoo
Evening	amak(Un), amach(AI), unnuk(MR)	jehume
Feet	igugu (Kad)	koegen
Forehead	kawk (C.R), kauk (Gd)	kai
Hatchet	tukinayork (M.R)	tohihowan
He	oona (Mal), oona (Kad), inan (AI)	ennes
I	wounga (Mal), wonga (K.Sd)	na
Knife	teavi (M.R)	habi
Night	{ tak-poke (M.R, it is dark) { taark (M.R)	} tookana
No	naaga (C.R), nago (K.Sd)	neatz
Tent	iteark (M.R)	tozak
Throat	{ tokelooga (H.B, neck) { tukku-eyak (C.R)	} toichk (neck)
Tongue	ukak (C.R), okak, oka (Gd)	ekh
Warm	uterana (M.R)	u-uik
Yes	a, eh (K.Sd), waa (Mal), ah (M.R)	ha

*IV.—Eskimo and Dakota-Hidatsa (Siouan).  
(Siouan from Hole).*

ENGLISH.	ESKIMO.	SIUAN.
Alive	{ inuvok (Gd), innuwoke (H. B)	inima (Tutelo)
	{ inuwook (M. R)	eni, ini (T)
All	orkrot (M. R)	okahok (T)
Arm	{ aishet (K. Sd)	histo (T)
	{ eshet (Kad, hand)	isto (Dakota)
Ashes	olayoyork (M. R, dust)	alapok (T)
Aunt	aya, atca (M. R)	icami, ika (Hidatsa)
Axe	ungachizip (Al)	hisepi (T)
Bad	{ ashuruk (Mal)	icia (H)
	{ kuyork (M. R)	ukayek (T)
Bird	ekashika (Mal)	tsakaka (H)
Bird's nest	tch. te (M. R)	ikica (H)
Bite	chagta (Ala, eat), akwaron (M. R)	yaksa (D)
Blood	itchui-tuark (M. R, bloody)	idi (H)
Blue	tugun-yortork (M. R)	tohi (D)
Boil	gaze (Tch)	hieha (T)
Bone	oacayak (K. Sd)	wahue (T)
Boy	kakooshka (Mal)	kocka (D)
But	ami (M. R)	mi (T)
Cheek	ulujugach (Al)	iyoya (D)
Chop (v.)	kiktertourk (MR), chaggidzu (Kad)	kaksa (D)
Claw	{ chagelgun (Al), kookikka (K. Sd)	tsake (D)
	{ shetohe (K. Sd)	tsakaka (H)
Come	uvunaren (M. R)	hawa (T), uwa (D)
Cry	{ kia (Tch), kayayok (C. R)	{ teyea (D)
	{ keyya (Kad), keja (Gd)	
Dead	{ toko (Gd, S. B, death)	{ teka (T)
	{ tokok (Tch), tukro (M. R)	
Duck	{ mittiek (H. B)	skiska migata (H)
	{ meetuk (S. B)	maghak sitca (D)
Eat	chagta (Al)	yuta (D)
Evening	uata (M. R)	qayetu (D)
Eye	irsich (Gd), shik (H. B), iye (Lab)	ista (D, H)
Father	{ atta (H. B, Tch)	ate (H, D)
	{ ada (Al), attata (Gd)	eta, tat, yat (T)
Finger	{ ekkaikok (C. R, little finger)	{ hak (T)
	{ ekikoke (K. Sd), iikkiak (H. B)	
F. nails	shetooe (K. Sd), chagelgun (Al)	tsutsaka (T), cakiepu (H)
" "	kookee (H. B), koogwek (K. Sd)	cake (D)
Foot	isiket (Gd), ithkeik (H. S)	isi (T), sila (D)
" "	eshet (Kad, hand), etscheak (K. Sd)	itsi (H)
Fox	{ uokeheen (Unal)	{ iqoka (H)
	{ uikaguk (Al), iuchka (Tch)	
Girl	mikishak (Tch, child)	miakaja (H)
Grandfather	atatarik (M. R)	adutaka (H)
Green	okok (C. R, K. Sd)	oto (T)
Hand	{ tsha, tshach (Al)	{ haki (T), saki (H)
	{ akseit (Gd), atchuch (Al. finger)	
He	uma (C. R), oma (H. B, M. R)	im (T)
Heart	kanog (Kad), kanug (Al)	yanti (T), teanti (D)
House	{ itcarik (M. R), tupek (Gd, tent)	{ tipi (D), ati (T, H)
	{ tuppek (C. R), topek (Mal)	
Ice	{ taiko (M. R), siko (Gd), seko (Mal)	{ teaga (D)
	{ sikkoo (H. R)	

## ESKIMO AND DAKOTA-HIDATSA, Etc.—(Continued).

ENGLISH.	ESKIMO.	SIUCAN.
Kettle	asok (Kad), aschok (Al)	yesink
Kill	toko (Gd, death)	kte (J, D)
Leg	{ etscheak (K.Sd, foot) iucha (Tch, foot), nicheo (C.R.)	} yeksa (T)
Man	juk (Tch), jugut (Tch)	yuhkan (D)
Mother	{ anana (MR) annag (CR) anaha (K) annak (Un), anam (Al)	ina, henun (T) ina (D)
Neck	{ takku-eyak (C.R, throat) tokelooga (H.B)	} tahu (D)
Night	unjak (Kad) amgik (Al) unjuk (Tch)	hangyetu (D)
Old	arkro (M.R)	hohka (T)
Sew	kakkiok (Gd), kakio (Tch)	kagheghe (D)
Sister	oonheen (Un), anoyuma (M.R)	inu (H)
Sit	mik-toark (M.R)	amaki (H)
Small	tchikore-ituark (M.R)	teikadan (D)
Speak	{ urak-tok (C.R), oeaktok (Mal) okak-poke (H.B)	} aaklaka (T)
Walk	attee (H.B, go)	yatura (T)
Warm	okko (H.B), uterana (M.R)	akaba (T), ade (H)
Yes	a, eh (K.Sd), ioaa (Mal), ih, ah (M.R)	e (H), aha (T)
Fire	{ ikuma (H.B) ukga (C.R, fire)	auaga (H, burn) aghu (D, burn)

## V.—Eskimo and Cherokee-Choctaw.

ENGLISH.	ESKIMO.	INDIAN.
Axe	kalkalima [Tch], kalchapak [Tch]	gahlungahste [Cher]
Bad	ayortok [M.R], ajorpok [Gd]	ooyohce [Cher]
Black	kangnoak [K.Sd]	kungnaligh [Cher]
Blood	amak [Un], aamyak [Al]	homma [Choc]
Bone	he-wnik [H.B], teannerk [M.R]	fonl [Choc]
Ear	tshiftak [Tch]	istehuchtsko [Choc]
Fish	ikkaloo [H.B], khalloo [K.Sd]	kullo [Cher], agaula [Choc]
Hail	kannik [H.B, Tch]	gahnasookha [Choc]
Hair	naitcak [M.R], nuyakka [H.B]	nutakshish [Choc, beard]
Head	nashko [Tch]	naskubo [Choc]
Heart	oman [M.R], omat [Tch]	oonchee [Cher]
Heaven	{ keliok [Kad], kulak [Tch] keilyak [K.Sd]	} gullungluddee [Cher]
Hot	okko [H.B], uechnachtok [Tch]	ukanawung [Cher]
Night	unjuk [Tch]	ninnok [Choc], nennak [Musk]
River	kiugutt [Tch], kuk [Gd]	hucha [Choc]
Summer	kiuga [Tch], kiek [Gd]	kohkee [Cher]
Throat	igliak [Tch]	ahgelega [Cher]
Thunder	kalluk [M.R], kallek [Gd]	hiloha [Choc]
To-morrow	unak [Tch], annoaga [Kak]	onaha [Choc]
Water	{ imek [Gd], cemik [K.Sd] imnek [H.B]	} ahma [Cher]
Woman	{ achanut [Mal] aganak [Tch, Kad] ajagach [Al]	} ageyung [Cher]

## COMPARATIVE VOCABULARY.

*Eskimo-Turanian.*

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Abandon (v)	hagi-ni [Magyar, Mag]	{ igi-toark [Tchiglit, Mackenzie River, M.R.]
Arm	täl [Vogul, Vog]	{ talek [Churchill River, C.R.]
“	tel [Ostiak, O]	{ teloo [C.Sd.]
“	utte [Sam]	{ tallek [Kotzebue Sound, K.Sd.]
Arrow	{ johota [Samoied, Sam]	{ talerk [M.R.], attsik [K.Sd.]
	{ ok [Turk, T], ok [Jakut, Jak]	{ talek [Malemute, Mal]
Ashes	hai [Japanese, Jap]	{ talik [Stuart Island, S.I.]
Aunt	haja [Kott, K]	{ chok [Kadiak, Kad], chook [Tch-uktehi, Tch], ikkuk [Kuskut], kukki-krark [M.R.], kehut [S.I.]
Autumn	aki [Jap]	{ kok-yoke [Cum. Sound, C.Sd.]
“	chuk [Aino, A]	{ kakarook [K.Sd.]
Axe	galgate [Koriah, Ko]	aria [M.R.], agak [Lab]
“	inggako [Ko], adaganw [Ko]	aaja [M.R.], aianga [Lab]
“	{ tok [Yenesei, Yen], tuk [Yen], tschok [Yen]	{ ooke-ark [Stupart's Bay, S.R.]
“	{ suka [Tungus, Tng], shuka [Kalmuk, Kal]	{ ookeuk-shark [C.Sd.]
“	suke [Mongol, Mng], suga [Karag's]	{ okiok (Greenland, Gd) = ukiok [C.R.] = okheark [M.R.] = okeoke [Hudson's Bay, H.B. = winter]
“	yoki, teyok, ono [Jap]	{ alghatta, kalkalina [Tch]
Baby	yaya [Jap], aia [A]	{ kalhkanak [Kuskut]
Bad	{ ashii, ashiku [Jap]; wasa [Loo-Choo, L.C.]	amgik [Kad], attighimnuk [K.Sd.]
“	aku [Jap]	{ tukina-york [M.R.]
“	achali [Ko]	tchiklark [M.R.]
Bark (of tr.)	kuori [Finn, F], kar [Lapp, L]	tchikluk [K.Sd.]
	ker [Vog], koor [Esthonian, Esth]	sequetat [K.Sd. = knife]
	ker [Mordwin, Mord], kereg [Mag]	anao-tark [M.R. = tomalawik]
Bathe	abi, abiru [Jap]	iyaye [C.R. = child]
Bear	{ utege [Mng]; etego [Kal];	{ ashuruk [Mal], asiuruk [K. Sd.]
(animal)	{ ottngu [Buriat, Bur]	{ Kaviagmutes] assilewok [Lab,
“	ogougouk [Yak]	{ he is bad]
“	aju [U], atik [Uigur, U], keki [Tng]	ajor-pok [Gd], ayor-tork [M.R.]
“	kuma [J], kamui [A], kom [Cor'n, C]	asselrok [Koniagmutes, Kad]
Beard	hige [Jap]	kreyrork [M.R.]
Beautiful	hanayaka [Jap]	iperak-toark [M.R.]
Beaver	chattala [Tung]	{ aoutkliut [M.R.]
Beginning	okori [Jap]	aho k [M.R.], artooktar [C.Sd, cub]
Behind	okee [Jap]	akhlak [Lab]
Belly	ksueh [Kamatchatka, Kam]	tsunak [Kad], kainga [Tch]
“	ikivan [Jap, stomach]	uika [Tch], ugat [Stuart Island]
Berry	ichigo [Jap]	anana-uyoark [M.R.]
		keeyeak [K.Sd], kigiak [Kuskut]
		ako, akugu [M.R. = at the beg.]
		akro [M.R., back of boa.]
		akscheka [Tch], aksiak [Kuskut]
		ihgain [Ch. R.]
		atcidjet [M.R.], asheuk [Mal]

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Bird	gouche [Yak]	kaivak [Teh]
"	gasha [Tng], cicas [Lapp]	kiva [Gd], keewah [C.Sd]
Bite	kuwaye [Jap]	ekashika [Mal]
Black	kytyhalu [Ko]	xachtsha [Al], kachtschik [Al]
"	kad, kathe [Sam], kacth [L]	{ kakshikhuli [Al], kahchehzeek [Unalaskan, Un]
"	kuroi [Jap], chara [Kal, Mong, Bur]	herniuk [H. B.]
"	kara [T], kougourre [Yak]	kernwor [M. R.]
"	kumii [A]	kangnoak [K. Sd], kenertork [C. R.]
Blood	hem [Sam], kem [A]	amak [Un], aameyek [Al], amax [Al]
"	akai [Jap = red]	{ auk, [Gd, K. Sd, Kad] auku [Teh], awk [M. R.]
Blue	genk [T], kuox [Jak], chuku [Mong]	tugun-yortork [M. R.] tchuagat [Ku]
"	koke [Kal], koku [Bur], tuma [Kott]	kaooqliak [K. Sd], toomook-took [CS]
Boat	hajo [Mag = ship]	{ kajak [Gd, Kad, Teh] kaiyak [H. B., K. Sd], kyak [C. Sd]
Body	jessed [T]	aseet [K. Sd]
Bone	czont [Mag], konti [F = femur]	{ teamerk [M. R.] tcheonok [Teh = horn]
"	hone [Jap]	{ heownik [H. B.], xagnax [Al] sowner [C. Sd]
"	kotham [Ka], kotz [Jap]	keateik [M. R. = shoulder-bone]
Bosom	mell, melly [Mag]	milluk [M. R.]
Bow	chiiutsch [Yen], chii [K], jait [Vog]	sacheek [Un]
"	jugut [Ost], jouchs [Mord], jouts [F]	{ ssaigich [Al], tchaikak [Teh] setka [K. Sd]
Bowels	whiuiq [Yen]	erglo [M. R.]
Boy	oongua [L. C.]	einyook [K. Sd]
"	tungpoka [C]	tanoghak [Kad]
Brain	keigane [Yen]	koki-tuk [C. Sd]
Branch	oksa [F], okad [Hung]	akpwit [K. Sd]
"	oks [Esth], uks [Tcheren]	
"	oge [Kott], eag [Yen]	
Breast	mail [Vog], mej [Ost], melly [Mag]	milluk [M. R.] sokedjuck [CS b. bone]
"	tshadji, shadsi [Kal], tegga [Yen]	{ tshaky-jak [Teh] sekki [Gd], tshaguga [K. Sd]
Breeches	khott [K]	kuttik [Teh]
Brilliant	haje [Jap], oluma [Kott, bright]	{ ajut [Gd = sun] alla-ki-wok [Lab, a bright sky]
Brother	aki [Tung, Mong], acha [Mong, Kal]	agituda [Al]
"	achai [Bur], acho [Kal], akihu [A]	{ aka [M. R. = sister] ukana [M. R. = b. in-law]
" (elder)	ani [Jap], aniki, anigo [Jap]	{ anayoa [M. R.], anaga [Kad], annak [Kusk]
"	enimichse [Ko]	annoaga [H. B.], aninger [C. Sd]
"	eninelcha [Ko]	anechluktik [Teh]
"	tshangkuon [Cor]	kamgoyak [Teh]
Burn	yaku, yuku [Jap], akka [L. Ch]	{ ukga [CR] = ikkooma [HB = fire] okko [H. B. = hot]
"	egi [Mag], egni [Mag]	{ ikinerk [M. R. = fire] ikipa [Gd = sets fire to]
But	hanem [Mag]	ami [M. R.]
Buy	hok [A]	joocho [Kad]
Cast (v)	utcharu [Jap]	igitoark [M. R.]

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Cheek	gan [A]	keniak [H. B.=face]
"	kolleden, goleden [Yen]	{ ulloak [Lab], ooluaq [Kad]; { oolook [C. Sd]
"	cholan [K], holan [Yen]	{ oolloohak [Un], uluha [Al] { ouluat [K. Sd]
"	galcha [Kal]	uluak [M. R], ulugach [Al]
Child	yaya [Jap], aia [A], ahai [Cor]	iyaye [M. R]
"	hekazu [A], kuken [Bur], kuk [Mng]	kikooshka [Mal]
"	ogo [Tak], ogul, ogran [T]	eegeelugugaga [K. Sd]
"	uli, aljukan [Tung]	
"	unoka [Mag = grand c.]	einyook [K. S = boy] jernek [G = son]
Chin	uljis [Vog], ali [Mag]	ulloak [Lab], uluah [M. R] = cheek
"	ul [Mordw], tak [Cor]	{ uluha [Al], ooluaq [Ka] = cheek { taklu [M. R]
Cloud	tul [Wog]	tali-guk [cloudy, Kuskut]
Cold	kangiru [Jap], inginikde [Tung]	kinanach [Un], kinganak [Al]
"	koenetsch [Ka]	kamjukukok [Tch]
"	kylma [F], galmes [L], keilm [Esth]	{ allopah [Mal] { allapah [Kaviagmute, Kav]
"	tsar [Cor], szoug [T]	{ tcermik [M. R = ice], { sikko [Gd, H. B], teiko [M. R = ice]
"	kideq [Mag], iyich [Ost]	ekkee [H. E], eke [S. B], ikkee [C. Sd]
"	kai [Sam], kyrs [Syr], kyzem [Tch]	keja [Gd] kairungga [K. Sd, shivering] { kaiyok [Ch. R], kraoark [M. R] { tiki-pok [Gd]
Come	ki, kuru [Jap], tshi [Tung]	cakine [Mal] kiyoe [CS, come here]
"	kokwasitch [Ka]	kai-wok [Lab, he comes]
"		aipak [Gd]
Companion	hobai [Jap]	kanooyak [H. B]
Copper	{ aka-gane [Jap], { gane, kane [Jap = metal]	kannoyark [M. R]
Cord	nawa [Jap]	nuyark [M. R]
Crow	chulac [Ost]	{ kalnak [Kad], kalkahym [Un] { tooloak [K. Sd] { kalkagiak, kalngak [Al], { tooloah [C. Sd], kallugak [Lab] { kolhkaguk [Kusk] { kyrook [K. Sd], keyya [Kad], { keja [Gd, Kad] kia [Tch]
"	xolat [Yen], hollo [Mag]	chaggidzu [Kad]
Cry	kjelem [Ost], jaj [Mag]	
Cut	vag, vag-ni [Mag], szeg-ni [Mag]	kerniuk [H. B], kernwor [M. R = blk]
"	hayashi, kedzru, hatzdru [Jap]	iyaye [M. R = child], punne [C. Sd]
Dark	charanchoi [Mong], charanga [Kal]	{ pannik [Gd], pannika [Tch] { pannia [Gd, H. B]
Daughter	aj, jea [Vog]	puneeguh [Ma, Ka, Unalig'e, Unalg niwertark [M. R], newekik [Tch]
"	pun [Yen], pun [K]	{ achadok [Un] { aggeakak [Koniag = girl]
"	punna [Yen]	
"	niraika [Mong]	ullit [Gd]
"	ukin, ugin [Mong]	illa-ayak [C. R = sun]
Day	hallugg [Ka], halui, halo [Ko]	kowlukpoo [C. Sd = dawn]
"	jalle [Sam], yeld, dialle [Tawgy]	ajut [Gd = sun]
"	chald [Ost = sun], jalakas [L = light]	neiya [H. B, K. Sd = sun]
"	ii [Yen], ig [K], jale [Jurak]	sekkenek [G], tschenazek [T = sun]
"	nichi [Jap], na [x en], nai [Ost]	
"	cheg, chokene [Yen]	

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Day	ekn [Yen]	igniuk [Kuskut]
Deer	yuk [A], tooky [Tung = elk]	tuktu [S. B, K. Sd, M. R, r. d.]
Devil	tschitkjr [Mong], tschilkir [Kalm]	tehiutilik [M. R]
"	chuische [Yen]	{ toko [S. B, and Gd = death]
Die	gokiyo [Jap], hogiyo [Jap]	{ togu [Kad] tokok [Teh]
Dog	kanak [Sam], chin [Jap]	{ tukahionk [C. Sd, dead]
	ken [Chinese], kan [Aino]	{ keimeg (H. B, Winter Isld = W. I)
Door	uba [A], uvi [F]	{ kenma (K. Sd)
Drink	jjäm [Tcher]	{ kemek (Gd), kymyk (Teh)
"	inni [Mag]	{ koonak (K. Sd)
Duck	galle [Ko]	kummek (C. R), camukta (Mal)
Ear	sehen [Tung]	kingme, kimak (C. Sd)
"	kuo, ku, chu [Sam], kai [Cor]	upkuark (M. R)
"	{ tchiki [Mong],	{ immiek-poke (H. B)
"	{ tschekin, tschiken [Kal]	{ imerk-toark (M. R = he drinks)
Earth	tschikin [Bur]	emik-took (C. S), emoon, emug (K. S)
"	na [Tung], ma [Mag, Esth], maa [F]	{ galgalachi (Teh)
"	{ mu [Vog, Ost; Syranian, Syr]	{ olua-ulirk (M. R = goose)
"	{ mon [Sam]	{ schijun (Kad), tchinik (M. R)
"	ttati [Cor]	{ tchintak (Teh)
Eat	sogo [Yen]	ciun (Ch. R), teiun (M. R)
"	ja-mak (T), kuta (Jap)	teitit (M. R), suit (Gd),
"	ideku (Mong, Kal), idyku (Bur)	secatee (C. Sd)
Egg	muni (Sam, Vog), muna (F)	{ tscheutik, shudek (K. Sd), tschuat (S. I)
"	munna (Esth) muuo (Teh) mun (Ost)	muna (Gd, H. B, Mal, Kad, Teh, M. R)
"	muno (Teh) monn (Vog) mony (Mag)	{ nuneh (Kav), nounah (Nush- ergag, Kuskwog, Chugach)
Elbow	hyi (Jap)	tshekak (Al), tchikitch (Un)
Elk	tooky (Tung)	xagata, xaxujing (Al)
Empty	kara (Jap)	kajuhin (Al), kada (Un), naga (Teh)
Enough	aku (Jap)	ashadlook (K. Sd)
Evening	ehtoo (F), iet (Vog), itu (Ost)	manik (Gd, M. R) munnik (C. Sd)
"	ndesi (Mong), udysche (Bur)	maunig (H. B)
"	aathin (Ka), ud (Sam)	mannik (K. Sd)
"	yube (Jap)	ikkuik (C. R), equesik (C. Sd)
Eye	andju (Yuk)	tuktu-oma (M. R)
"	ihsah (Tung), esha (Tung)	tchuar-toark (M. R)
"	hai (Sam), ya (Aino)	axo (C. R)
"	chik, chuki (Aino), chigi (A)	uata (M. R)
"	tesch (Yen)	uavara (M. R)
"	dat (Yen)	{ upuk (Tchuakkak Island, Tchu. I, = night)
		{ enga (K. Sd), ingalak (Kad)
		{ enga (Nort. Sd)
		irsik, irse (Gd)
		{ eieega (H. B), niiga (W. I)
		{ iye (Lab), eyah (C. Sd)
		{ iik (Teh), ik (S. I)
		{ igikka (Nuniwok I, Nun. I)
		{ takchiuk (Tschugaz, Tschug)
		{ shik (H. B)
		thak, dax, tgak (Al)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Face	gan (A = cheek)	{ keniak (H. B), keenyuck (Mal), kinna (K. Sd), kenak (Lab), kinark (M. R), keenark (C. Sd) keenuk (K. Sd)
Fall (v)	ochiru (Jap)	yuka-tork (M. R) eyukar-took (C. S)
Father	tete (Jap), acce, tatta (L)	{ attata (Gd, H. B, W. I) ataga (Kad), ada (Al)
“	atja (Sam), achai (Sojot), jag (Wog)	{ atatak (Gd, M. R), ataaka (Tchng, Kad)
“	ata (Ost, Mordw), atai (Syren)	{ atakka (Nun. I), adaka (S. I), adaga (Kad)
“	atya (Mag), etschia (Yuk)	{ atanna (Tschu. I), atta (H. B, Tch) athak (Un), atti (Kuskutchewak)
“	etschiga (Kal), aga (Turk)	{ ataak (C. R), ataka (Tch) athan, adax (Al)
“	{ ob, ab, op (Yen), apa (Mag), op (K), abe (Mong), api (Cor)	pân (M. R)
“	illegin (Reindeer Tschuktchi, R. Ts)	illaak (M. R = père et mère)
Father-in-law	appi (F), up (Wog), up, op (Ost)	apan (M. R = father) father]
“	oba (Tcher), vuop (L)	abaga (Kad), apaka [Tch = grand- tchunerik (M. R)
Feather	kyna (F)	tchuljuga (Kad)
“	tegöl, tegelin (Ko)	tchully, tchuljuk (Tch)
Female]	onna (Jap)	anrenak (C. R), arne (M. R), agna (Gd)
Fingers	tarka (Sam), tarka (F)	tirkerit (Gd), ekikoke (K. S, lit. fing.)
“	togan (Yen, Kott), tegen (Yen)	tegheya (K. Sd)
“	tok (Yen), tilghuni (Ka)	tikkiek (H. B), teckeueur (CS = ind. f.)
“	tjute (Syrn), tjute (Lapp)	{ atchon, atchuk (Al), agssuit (Gd), kigyuck-thuk (C. Sd, sec. fing.)
“	gyhgek (Ka), keko (Ka), uj (Mag)	ekkaikak (C. R), aiget (Kad = hand)
“	tekbet (A)	taibano (Tch), ikikote (C. Sd = lit. f.)
Fingernails	toukigni (A)	{ tegheya (K. Sd), tikkiek (H. B = fingers), koogay (K. Sd)
“	chada (Sam), kad (Ost), kaeth (L)	{ shctooe (K. Sd), xatalgi (Al), chagelgun (Al)
“	keko (Ka = finger), kadam (Motor)	{ kukek (M. R), kookee (H. B. and C. Sd), kookuikka (K. Sd)
Fire	agoime (Yakut)	{ ikkooma (H. B), ikkoma (W. I) ikoma (Lab)
“	ku (Yen)	ukga (C. R), ikomar (C. Sd)
“	engilo (Yuk)	ingnek (Gd), ignik (K. Sd)
“	ountchi (A)	annak (Tch)
Fish	kalla, kaul (Sam), kala (F)	ekkkaloo (H. B), ikkaluk (C. Sd)
“	kole (Tawgy), kal (Mag), gnolle (F)	khalloo (K. Sd)
“	kul (Wog), hul (Ost), kalla (Esth)	ikaljuk (Kad), ssaljuk (Tch)
“	kal-mach (Suan), kol (Tch), xul (Ost)	ihahluk (Tch) ikalouk (Kuskwogm)
“	kola (Koibal), kele (Motor)	itkraluk (M. R)
“	olla (Tung), olloga (Yuk), ilti (K)	ilook (Ch. R)
“	koki, kuki (Cor), giyo (Jap)	{ kach (Un), koach (Al) tchadak (Ulagakmute)
“	tolgo (Cor)	talechnika (Nun. I)
Flesh	niogo (Ost)	naga (Ma), naka (Tch), neerkee (C. S)
“	niku (Jap)	{ neke (Gd), nikkey (C. R) nerkre (M. R), neerkee (H. R)



## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Flesh	koki, kuki (Cor)	khach (Al)
"	kam (A)	kurnüka (Tch)
Fog	kaasu (Finn), giz (Hung)	iseriak (Lab)
Foot	iyie (Sam), ajak (T)	{ isiket (Gd), ittikeik (H.B)
"	atax (Jak), atak (Uigur)	{ itigark (M.R.), issekut (C.Sd)
"	goutch (A), kok (Syrn)	{ iguk (Kuskut)
"	anin (Yen)	{ iddiguy, etscheak (K.Sd)
"	noigi (Yuk)	{ itiat (Kad), igut (S.I)
"	ashi (Jap), tsja (Cor)	{ igugu (Kad), iguk, uchka (Tch)
"	jalka (F), juolgge (L), jalg (Esth)	{ iug (Kad)
Forehead	kat (Turak)	iniija (Kad)
Forest	hayashi (Jap)	niulik (Gd)
Fox	kettu (F)	etscheak (Nor.Sd), tsha (Al = hand)
Frost	tsar (Cor), cign (Kor, ice)	iltegara (K.Sd)
Girl	ajadkann (Tung)	kaulk (Gd)
"	achanokin (Bur)	kayak (Ch. R), keiyu (K.Sd = wood)
"	akin (Mong), ekin (Kal)	kioktoot (K.Sd), kavhiatchak (Kusk)
"	kangag (A)	{ tcermik (M.R. = ice)
"	puna, pun, (Yen), pun (Kott)	{ keegkeyook (C.Sd, freeze)
Go	{ anuga (Kott), ini (Jap)	ashkin (Al = daughter)
"	{ genigar (Tung)	aganagach (Tch)
God	iku (Jap), utashish (Ka)	{ achadok (Un), aggeakak (Koniag)
Good	etsch (Yen), esch (K)	{ aganak (Kad)
Goose	eju (T)	kangneen (K.Sd)
"	gala, guleu (Mong), galun (Kal & Bur)	puneeguh (Kaviag, Mal)
"	chalacho (Mong)	{ annee (H.B), annee (Mal)
"	tschem, tem (Yen)	icha (Un), itscha (Al)
"	schame (K)	istla (Tch)
Grandchild	unoka (Mag)	azik-toak (Koniag)
"		olua-ulerk (M.R.)
Grandfather	ob, obo, ab, op (Y), aba (Mong = fath)	elajagin (Al), lachlah (Tch)
Grass	ebesu (Mong), ibysu (Mong)	timmiak (C.R.), timairik (K.Sd, bird)
"	ibisun (Kal), ebuhun (Bur)	tigmerk (M.R.), tchimiak (Stuart I)
Gravel	jari (Jap)	anektok (Un), anekthok (Al = boy)
Grease	aki (Jap)	einyook (K.Sd = boy)
Great	oki, woki (Jap), uwchoko (L. & C)	abaga (Kad), apakaka (Tch)
"	okdy (Tung), agge (Sam)	ebout (K.Sd)
"	ent (Ost)	eewu! (Tch), iulik (Gd), eeweek (H.B)
Green	koku (Bur)	siorak (Gd)
"	jukusan (Jap)	ukuk (Ch.R)
Hair	nurikta (Tung)	uguyuk (C.R)
"	nochon (Bur)	kaaguk (Tch)
"	tscherachu (Kam), tchertch (A)	{ ange-woke (H.B), angi-doorak
"	tenge (Yen)	{ (Mal), anguk (Kad)
Hand	ka, kha (Bur), char (Mong)	okok (C.R.), okok (K.Sd)
"	gar (Kalm), khæ (T)	okrork (M.R)
		niyet (K) uuchet (KS), nuyark (MR)
		{ nuyakka (H.B), nuyak (Tch)
		{ newyark (C.Sd)
		krariark (M.R.), kreyerit (M.R)
		tinge (Gd)
		yagatchutuik (Kuskut)
		arge-gei (K.Sd), argut (C.Sd)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Hand	chketch (Kam), giette (L), kete (T)	{ tatchka (Tch), ashigite (Mal) } ashet (Kad)
"	kat (Vog), ket, kot (Ost), kez (Mag)	ashet (K.Sd), aidegit (C.R)
"	kässi (Esth), ked (Mord), ket (Tcher)	
"	tek (A), tag (Mag = limb)	tsha, tshax, dax, tshaq (Al)
"	ude (Jap), udam (Motor) oda (Koib'l)	aidge t (C.R)
"	settoo (Kam), soan (Cor)	chianh (Un)
Hare	kuolbax (Jak)	quelluk (K.Sd)
He	oan, onno, uin (Ko)	oona (Kad), una (C.Sd)
"	unian (Kott = they)	inan (Un) una (Unalig, Mal, Konag)
"	tep, tap (Ost)	tabioma (M.R)
Heart	waima (F)	umat (Gd), oman (M.R), omut (H.B)
"		oomut (C.Sd)
Heat	honoke (Jap), chalchun (Mong)	{ unakuu (C.R), onark (M.R) } kalhtok (Kask)
High	magas (Mag), ura (Tung = mount)	mugwee (K.Sd = mount) arana (MR)
"	togam, togardu (Yen)	taki-york (M.R)
"	taka (Jap), takai (Jap), uiga (Yen)	yukhtuli (Tuskut)
Hold (v)	tomeru (Jap)	tigunearia (M.R)
Hot	honoke = heat (Jap)	unartork (Gd), ooonah (C.Sd)
"	hoteru (Jap), attisa (L.C)	uterana (M.R)
House	uche (Jap), katchi (L.C)	iteark (M.R), kagsse (Gd)
"	zibn, tschap, tshibi (Cor)	{ topek (Mal), tupik (C.Sd, tent) } toopek (K.Sd)
"	ke (Jap), ije (Jap), koutcha (A)	teay-rark (M.R)
Hungry	kogat (Yen), kajagunau (Kott)	kajuhin, xagta (Al = eat)
"	khogat (Kott)	krak-twark (M.R)
Husband	anhai (Cor)	anhut (C.R), anhun (M.R)—male
"	okai (A)	uika (Tch), ugi (Al), quaoog (K.Sd)
"	ukko (Fin), ika (Ost, married man)	uiga (Kad)
I	ware (Jap), mon (L.Vot), mani (Sam)	uwanre (C.R), umana (M.R)
"	ai (Kott), ain (Kott)	huih (Ekogm), goona (T'hukl)
"	abana (Ten)	{ uvana (M.R), oovenir (S.B) } oowungar (C.Sd)
Ice	cigu (Ko), djuko (Tung)	{ tshikuta (Tch), sikko, seko (Gd) } seko (Mal)
"	jagna (F), jeg (Mag), juchi (Mdsch)	{ sikkoo (H.B), teiko (M.R) } chikoo (S.B), seko (C.Sd)
"	sok (Sam), szoug (Turk = cold)	tchiko (Kuskut), siko (Lab)
"	ser (Sam), seren (Sojot = cold)	termerk (M.R), sermek (Gd)
"	jarka (Tuk), tsar (Cor = cold)	quark (T.Sd = frozen)
In	ni (Jap)	né (M.R)
Iron	soi (Cor)	{ souik (H.B), chawik (K.Sd) } sevwick (C.Sd)
Island	sziget (Mag)	kechat (Chu), kigyenuck-teuck (C.S)
Kettle	aschwak (Yen)	asok (Kad), aschok (Al)
"	hisage (Jap)	assuch (Al)
Knife	tchako (A)	{ sequetat (K.Sd) } tchiklark (M.R = hatchet)
"	pohrta (Tungus)	peyartuk (K.Sd)
Lake	tuse (Sam), tudjo (Sam)	tessek (Gd), tateirk (M.R)
"	teu, toux (Ost), to (A), tav (Mag)	touga (Tch), tussig (C.Sd)
"	tur (Vog), turku (Sam)	taerak (Ch.R)
Land	oki (Jap), nane (Lapp, mainland)	{ oki-tork (M.R), nuna (Gd, H.B, } Mal, Kad, M.R)

## FSKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Land	toi (A)	chiut (M.R)
Large	kogo (Tcher), chaegen (Yen)	uguguk (C.R), kaaguk (Tch)
"	jeke (Mong. and Kalm), jike (Bur)	chakliuk (Kuskwogm)
"	chea (Yen), kogo (Tcher)	yukhtuli (Kusk, high)
Laugh	tschakaigan, tschachajia (Yen)	kachkuktak (Mal)
"	tschakag (Kott), adjagen (Yen)	igiar-toark (M.R)
Leave	hanareru (Jap)	anear-tcidjoark (M.R), aniyok (C.R)
Lie (ment'e)	esal (Hung)	seglu-vok (Lab)
Life	inochi (Jap), inni (Tung)	innuk-teark (M.R)
Light (levis)	kine, kannex (Ost)	kamaganak (Kad), kamagluk (Tch)
Light (lux)	walo (F), vilag (Mag)	ullit (Gd = day)
"	jalakas (L)	allakiwok (Lab, bright sky)
Lightning	kjyal (Kor)	kallek (Gd) kalluk (M.R = thunder)
"	silaka (Vol), tschillim (Sam)	shulukshik, ssuljux (Al = thunder)
"	kumylgilat (K)	{ kraumarklork (M.R)
		{ kaomo-woke (H.B = it is light)
Limb	{ jezshen (Tcher), jesen (F),	isiket (Gd = foot), etscheak (M.R)
	{ jos (Vol), ashi (Jap)	eshet (Kad = hand)
Lip	kkovan (Ka)	kakkiviar (M.R), kakkerluk (K.Sd)
"	aodjun (Tung), ajak (Mag)	athek (Un), adix (Al)
"	kuchi-biru (Jap)	{ kotschun (Al), kokslu (C.Sd)
"		{ kokluk (K.Sd)
Living	dudak (Turk), tutkak (Uigur)	tootucka, tootuk (K.Sd, labret)
Long	amidu (Mong, Bur, Kalm)	oma-yoark (M.R)
Love (v)	tate (Jap)	tatuk (Tch)
Low	aiszru (Jap)	ateear-toark (M.R)
"	ala (F), wuole (L), ala (Mag), ul (Syr)	allak (C.R = sole of foot)
"	alo (Mord), ylna (Tch), it (Ost)	oehimi (Kuskut)
Male	yu (Jap)	{ yuk (Tch), yuk (Chukl)
"		{ yut (Unalig = man)
"	osz (Jap), onoko (Jap)	{ uteuk (M.R), innok (M.R)
"		{ innuk (Gd. and C.R)
Man	chu (L.C), chujukutsh (Ko)	{ yuk (Tch), shuk (Kad)
"		{ yugut (Kuskwog), yuk (Ekog)
"	ukko (F), okai (A = husband)	{ agiun (Nusherg), akwin (Yugal)
"		{ uka (Tch)
"	{ ika, ig, ike (Ost)	{ ugi (Un), ugin (Al = husband)
"	{ agg (Mag, married man)	
"	ickkiega (L.Ch)	yuk (Tch, I), yuk (chukluk)
"	ennete (Sam)	innuk (Gd), innuk (C.R), innok (MR)
"	innimene (Esth), ihmene (F)	innueet (pl, H.B)
"	ingerniu (F)	angut (Gd), angoot (C.Sd)
"	ainu (A)	enyuk (Mahl, Kanagm)
"	anhai (Cor = husband)	anhon (M.R), anhut (C.R)
"	chacha (Tung), tschet (Yen)	shuk (Kad), yut (Unaligm)
"	chicham (A), otoko (Jap)	uteuk (M.R)
Many	oi (Jap)	uwit (C.R)
Metal	kane (Jap)	{ kanooyak (H.B)
"		{ k'annoyark (M.R = copper)
"	aka-gane (Jp, copper, i.e. red metal)	{ kannujak (Un), kanuja (Kad)
"		{ kanuak (tchugaz)
Moon	kuli (Koibal), gailgen (Ko)	{ yaalock (Kad)
"	ililo (Sam)	{ igaliuk (Kuskut, month)
		illa-nyak (C.R = sun)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Moon	tangkitti (Ko)	tankuk (Tch)
More	eniu (F), ena, una (Ost), enny (Mag)	aneyo-mun (M. R)
Morning	oglo (Bur), uglja (Mong)	ooblak (HB), oobliaan (M), xilgax (A)
"	ehonohokse (Yen)	kaomowoke (H. B, it is light)
"	cheg (Yen, day)	kauk (Lab)
Mother	ana, ene (Ost), anai (Vot), ana (T)	} annanak (Gd), ananark (M. R) { anana (W. I)
"	anguan (Kam), ani, enie (Tung)	} ananak (Lab), annaag (C. R) { anaha, anaga (Kad)
"	anki (Ost), aingga (Ka), auu (A)	} annak (Un), anaan,anax (Al) { anak (S. I), annak (Nun. I)
"	angnan (Ko), anya (Mg) ouny (Tung)	aingga (Tch), anak (Tch), annaka (Tch)
"	{ ema (F), immi (Ost), em (Magy)	amama (M. R)
"	{ umma (L. C)	ani (Kuskutchewak)
"	am, ama, amma (Yen), ama (Kott)	amama (H. B)
"	ama, amia (Yuk), amma (Sam)	amma (M. R)
"	elle (Kam), illia (Kam), elha (Kor)	illak (M. R = père et mère)
"	eke (Kal, Bur, Mong) omi (Cor)	okooch (Gd)
Mountain	maki (F), moji (Cor), maggi (Esth)	mugwee (K. S), magoo-magoo (KS)
"	hegy (Mag), kai (Yen), megi (Karel)	kakkak (Lab, Gd), xajax (Al)
"	konnon (Yen)	{ kinnak (C. R) kingnak (H B & WI) { kingyarko (C. Sd)
"	naju (Ko)	{ najagat (Tch I), naigak (Tch) { kingyi (C. Sd)
"	gyeigoi (Ko), oka (Jap)	gaiuk (Al), kukkuk (S. B = hill)
"	urra (Tung), hegy (Magy)	kakkak (Lab)
Mouse	gulugana (Mong), gulugai (Bur)	errarkr (M. R), kakkak (Lab, Gd)
	chuluchani (Kalm)	kooblaook (K. Sd)
Mouth	zehylda (Ka), ajax (Tak)	agilga (Al) aheelrek (Un) ekigin (Tc)
"	khan (Yen), angya (Yuk)	kangyook (C. Sd)
"	choby (Yen), kaukasi (F)	{ kannek (Gd), kanneera (H. B) { kainneak (K. Sd), kanuk (Mal) { kipüch (S. I), kapka (Nun. I), { kanik (Kusk), kanerk (Lab), { kanna (Tch), kuckaluk (K. Sd)
Night	jut (Tcher), at (Ost)	uata (M. R = even), oodinnook (C. S)
"	anzkari (A), chona (Yen)	{ unnuak (Gd), oonook (H. B) { unnuak (Lab)
"	kyunnak (Ka), nigyuok (Ko)	{ unjak (Kad), unnjuk (Tch), { onuark (M. R)
"	ehontu (Kott = dark)	{ unuk (Kad), unuk (Tehug) { kuceennah (C. Sd, all night)
"	homaly (Mag = dark)	amak (Un), amach, amgik (Al)
No	uai (Jap)	nao (H. B) noki (C. Sd), naof (K. Sd)
"	naki (Jap)	naukak (Lab)
"	ina (Jap), anir (Cor), nem (Hung)	{ nagga (Gd), naaga (C. P) { nakka (H. B), nago (K. Sd) { ena (K. Sd), aunga (K. Sd) { naume (K. Sd)
"	uinge (Kor), jok (Turk), aku (Mand),	duinak (M. R), kugu (Al), { owkuk (S. B)
Nose	kaunkang (Ka), hong (Yen)	{ kinga, kingak (Gd) { keinak, kingera (H. B. = my n.)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Nose	joonul (Tuk), hana (Jap)	{ kingak, kingar, kingnuk, king- ana (K.Sd), nikh (Kusk)
"	onoktah (Tung), ang (Kott)	{ kinaga (Kad), tlingyak (C.Sd) { nognuuk (K.Sd)
"	enku (Kor)	{ anghosin, angussin (Al) { anhozen (Un)
"	chamar (Mong, Kal)	kaymak (Sl.R)
Ocean	umi (Jap)	imak (Gd, Teh)
Odor	nioi (Jap)	nayak (M.R)
Old	hine (Jap)	anayo (M.R)
Old	aggkor (Mag)	arkro (M.R), iktuar (C.Sd, old man)
Open	akeru (Jap)	okuer-toark (M.R)
"	aku (Jap)	okem (M.R)
Other side	achira (Jap)	alkian (M.R)
Pebble	jari (Jap)	{ ujarak (Gd), uyare (C.R) { ooyarra (H.B), uyarak (M.R)
Penis	odsogi (Mong), osogoi (Bur)	otcook (M.R)
Perhaps	tabun (Jap)	tabliu (M.R)
Pike (fish)	huja (Yen), chuja (Kott)	tchukoak (Kuskut)
Pole	hagini (Kott)	aiye (K.Sd, post)
Quick	zal (Vol), jel-tak (Tatar)	kelu-mik (Un), krilla-mik (M.R)
"	toku (Jap)	tchuke-york (MR), shookully (C.Sd)
Rain	tshukutshi (Ka)	{ tshutakat (Al), chehtak (Un) { kitok (Kusk)
"	azgatch (Ka)	igesikhtuk (Unaligm)
"	ame (Jap)	imak (Gd, Teh = water)
Raise	ageru (Jap)	agar-tork (M.R)
Red	cholachin (Tung), akai (Jap)	{ kawychly (Kad), kakluk (Teh) { owg (C.Sd)
"	ulachan (Mong) ulan (Kal, Bur)	ooluthak (Un) aluthak, olutuk (Al)
River	kawa (Jap), jo (Mag)	koo (H.B), ku (W.I), kurk (M.R)
"	{ joki (F), joga (L), { jogan, jeaga (Ost)	kuk, kook (Gd), kuak (K.Sd)
"	yoha (Sam), djaga (Kness)	kooyk (Kad)
"	kig, kiha (Ka), ky (Sazn), gychi (Ka)	{ kuuk (C), koook (K.Sd) { coke (Mal), koog (C.Sd)
"	chuge (Ost)	kiuk (Kad), kiuk, kuigytt (Teh)
Roast	iru (Jap)	koggut (Lab)
Root	muku (Jap)	irayuk (M.R)
Salute	jigi (Jap)	nakat (C.R), nakate (M.R)
Sand	jari (Jap)	tchiki-yoark (M.R)
"	tchigei (Ko)	siorak (Gd), kaguaiak (Kuskut)
Sea	dagas (Kal)	tshooguk (Al), choohook (Un)
"	alagas (Kalm), ul (Kott = water)	tagaiuk (Mal)
"	umi (Jap), jam (Sam)	{ alaoook (Kad), allaoook (Un), { alagak (Al)
Shoes	ken (F), kom (Syr)	imak (Teh), imak (Gd), imik (K.Sd)
"	kem (Mordw. and Tschér)	kamik (Gd), camook (Mal)
Shoulder	kata (Jap)	kammek (C.R), kamguk (Teh)
Sing	utau (Jap), oota-yoong (L.C)	keatick (M.R = shoulder-blade)
"		{ atuwa (Kad), attoa (Tchug)
Sister (eld)	ane (Jap)	{ atuchtuk (Teh), ator-toark (M.R) { oonheen (Un), angeen (Al) { anoyuma (M.R)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
“	nuy (Syr), ni (Ost), Lapp) = girl	{ naya (M.R), najak (Gd) { neiya (H.B), najahak (Tch)
“ (ygr)	{ oki (Tung), akiu (Mong), { okin (Kal = girl)	{ aka (M.R)
“	hug (Mag), oggug (Ost)	aggeakak (Koniag = girl)
“	nenye (May)	nayunga (S.B)
“ in-law	tschaqudo (Ko = sister)	teakia (M.R)
Skin	nakha (F)	nakka (Tch)
“	kit (Yen), haj (Mag)	katschka (Al), kesheke (S.B)
“	kapu (A)	kaypak (C.R)
“	gamentch (A)	{ amek (Gd), amik (Tch) { amerk (M.R), amingk (C.Sd) { kreylark (M.R), keilyak (K. Sd) { kaillek (C.R)
Sky	kochall (Kam)	ineg (Al), innyak (Un)
“	ame (Jap), hanar (Cor)	wine-rark (M.R)
Sleep	uni (F), on (Syr, Perm)	{ itcir (M.R), eshik (C.Sd) { eshak (K.Sd)
Smoke	utachan (Mong), ura (Kal)	nuektoalut (K.Sd)
Snipe	nokaky (Tungus)	{ uphun (Mal), ahpoot (S.B) { apun (M.R), appoo (H.B)
Snow	upas (A), oubach (A)	{ ktak (Al), tciko (M.R = ice) { appoo (C.Sd)
“	tik, tyg (Yen), tik (Kott)	ser-mek (Gd, ice)
“	char (Sojot), char (Jek), qar (T)	annu(Tch), annju(Kad), anniyo(MR)
“	anighu (Kor)	{ kanneuk (H.B), kanneek (Al) { anigo (Gd)
“		kanik(Ma), kanneek(U), kanich(Al)
Son	hyat (Ten)	iyait (C.R)
“	ochul (Turk), nol (Jakut)	lljax (Al), alaan (Al)
Song	uta (Jap)	auron (C.R)
“	{ kyleku (Mong)	króléartoark (M.R)
Speak	{ kelaku (Kalm, Bur)	kalkhtuik (Kuskut)
Spoil	azareu (Jap)	awteadje (M.R)
Squirrel	sak, sehaga (Yen)	tseyherek (K.Sd), shiksik (C.Sd)
“	sehaga (Kott)	chikirik (Mal)
Star	alak (Yen), alagan (Yen, Kott)	ubloat (Mal), ublo-reark (M.R)
“	kaken (Yen)	sthak (Al)
“	ilkhoi, alagan (Kott)	{ illa-uyak (C.R, sun) { yaalock (Kad, moon)
“	alak, alagar (Yen)	ialktagit (Tchu, I)
Stone	jari (Jap)	uyare (C.R), wearzook (C.Sd, rock)
“	whraugon (Ko)	{ ujarak (Gd. and Lab) { ooyana (H.B), weark (C.Sd)
“	uva (A)	jugach (Tch), uyarak (M.R)
“	hyme (Tung), chuma (A)	yamak (K.Sd), anmark (M.R, flint)
“	kiva (F), kav (Mag), kevi, kew (Ost)	angmak (K.Sk)
“	ki, kev (Mag), kev (Mor), ky (Tcher)	aigach (Tch)
“	kiwin (F), kow (Wog), kock, kug (O)	kooooanak (Kad), kaertok (M.R)
“	guiven, kugun (Ko)	uigum (Tch)
“	{ tscholo (Mong, Bur), { tschulu (Kalm)	krawlork (M.R) kallook-rowrork (K.Sd)
“	kiroi (Esth)	{ tkalkhuk (Kuskut) { kaertok (Lab)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Summer	djoganna (Tung), shak (A)	kuiga (Tch), kyiga (Tch)
"	schega (Yen), schii (Kott)	kiek (Gd, Kad)
Summit	chojo (Jap)	gaiuk (Al, mountain)
Sun	schigun (Tung)	sickunyak (Mal), sukkenuk (H. B)
"	ziguni (Tung), tirgani (Tung, day)	tehikreynerk (M. R), sukenuk (C. S)
"	tykete (Ko)	tschekenak (Tch)
"	schunda (Vot), syunk (Vog)	sakkainek (C. R), sackanach (Gd)
"	schun (Tung)	{ tschinguguk (Kad)
"	naj (Wog), nai (Ost), nar (Cor)	{ tschingochok (Tchug)
"	ega (Kott), ega (Yen)	naiya (W. I), neiya (H. B, K. Sd)
"	hichem (Yen)	ajut (Gd)
"	xat (Ost), hajur, ebaja (Sam)	lakta (Kuskut)
Sweet	amaku (Jap)	agaduk (Al)
Swim	uin (F), joon (Esth)	memak (W. I)
Take	tiru (Jap), ukeru (Jap)	anoarktoark (M. R)
That	au (Jap), uua (Kott)	tiruyok (C. R), akwaron (M. R)
They	unian (Kott), ik (Mag)	igna (M. R), oana (K. Sd), oona (H. B)
This	tarna (F), tan (Iuk)	ina-kun (Al), okkoa (M. R)
"	inu, ina (Kott), ano (Jap)	tamna (H. B), tamāna (M. R)
Thou	ton (Mord), tshi (Mong, Bur)	una, imna, igna (M. R), oona (K. Sd)
"	ton (Lapp), tan (Ost)	txin (Al), thinn (Un)
Throat	{ turkku (F), torok (L)	tschi-tshi (Al)
"	{ tur (Ost, Vog)	tukku-eyak (C. R)
"	{ kurku (F), kurk (Esth)	tokelooga (H. B, neck)
"	{ karges (Tcher)	krakerlut (M. R),
"	kinch (Ka)	tookooedjik (C. Sd)
Thunder	kjyhal (Kor), tshellim (Sam)	uyak (M. R), iaak (Tch)
"	ajak (Kott), aggyd (Tung)	{ kallek (Gd), kallak (M. R),
To-day	ena (Yen), inni (Kott)	{ kodahlook (C. Sd)
"	inagi (Yen), innag (Kott)	kalik (Kuskut)
To-morrow	luommena (F)	nkga (C. R), ikkoomme (H. B = fire)
"	hol-ejt (Wog), hol-val (Hung)	wanni (Tch)
Tongue	lonnior (Iuk), ynije (Tung)	vonnangalik (Al)
"	njouktem (L), jiime (Tcher)	annoaga (Kad), unako, unuok (Tch)
"	{ kieli (F), kial (L),	ullit (Gd, day)
"	{ kiel (Esth), kyl (Syr)	{ ahnak (Un), aghnak (Al),
"	{ kelev (Kalm), kylyn (Bur),	{ ookwaa (F, Sd)
"	{ aljap (Kott)	agonok (Kad), ognark (C. Sd)
"	ulygyl, ul (Ko), alup (Yen)	{ ulju (Kad), alianuk (Kuskut),
"	kele (Mong), iilygyl (Yen)	{ ulliu (Tch), uliupa (Tenu. I)
Tooth	iet (Yen), iti (Kott)	uliu (S. I), uliuka (Nun. I)
"	ykta (Tung), tody (Iuk)	ulu (Kad) ulliu (Tchug)
"	tjiio (Jurak), tji (Yen)	wutinka (Tch), gutyk (Tch)
Tree	ocho (Yen), okse (Yen)	chudyt (Kad), kecutee (C. Sd)
Uncle	acha (A), hai (Kott)	teivorak (M. R), kewklect (K. Sd)
Under	ala (Mag)	okpik (Lab, birch)
Up	kami (Jap)	aka (Gd), aya (M. R, aunt)
Valley	kuki (Jap)	allak (C. R, sole of foot)
Walk	ariki (Jap)	kronmun (M. R)
Warm	kuuma (F)	kuk (Gd)
		arayoark (M. R)
		{ kaomet (Gd = sun),
		{ kaomo (H. B = light)

## ESKIMO-TURANIAN.—(Continued).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
Water	umi (Jap)	{ imek (Gd), immek (C.R, H.B) { emuk(S.B), imik (K.Sd)
"	ame (Jap, rain)	{ imuk (Mal), emak (Tch)
"	mima (Kam)	{ imark(M.R), immek (Lab, W.I)
"	mu (Tung)	mmak (Tchugaz), emik (C.Sd)
What	clono (Jap)	mooe (Kad) tchuna (M.R)
White	{ haku (Jap), attych (Kam) { zagan (Kalm, Mong)	{ kakoktok (C.R), ikuk (S.I) { kaggarkpok (Lab), { kokuktoo(US), kragartork(M.R)
Who	kuk (F), gutte (L), kije (Ost)	kuja(M.R), kaia(Kusk), kia(Lab)
"	{ ki (Mag, Teher) kia (Mord), { kua (Tawgy)	kia (M.R), kiva (M.R), ke (Kusk)
"	{ gidji (Kam), kud, kut (Sam) { joka (F)	{ kina (M.R), keena (Mal) { kena (H.B), kina (C.Sd)
"	{ kuka (F), koje (Ost), { kona (Mag=what)	kitcik (M.R), kikut (M.R)
"	{ kumi (Tawgy), hunjani (Tur) { hibea (Tur)	tchuna(M.R) tchuva(M.R=what)
Wife	kanai (Jap), aji (Tung)	xenenlie (C.R), agegai (Un)
"	heghe (Tung, woman)	aiyagai (Al)
Willow	schakta (Tung)	tchagatuit (Kuskut)
Wind	{ kei (Bur), salki (Mong) { salkin (Kalm)	{ kyeek (Kad), silla (Lab) sulluarnek (Lab)
"	kyttych (Kam), kyteg (Kor)	kycheek (Un)
Winter	sachsachsen (Kam)	ukshioik (Ka)
"	eschuu (Yen)	uktschok (Tch)
Wish	hosshi (Jap), honi (Jap)	itchuma(M.R), uninmartork(M.R)
Wolf	chghahun (Kor)	kagopik (Nun.I)
Woman	alit (Yen), alit (Kott)	ooloa (K.Sd)
"	innago (L.C), onna (Jap)	{ anak(Chuklukm), anrenak(C.R) { oongnak (K.Sd)
"	heghe (Tung)	{ anhanevak (Un), aganok (Kad) { agna (Gd)
"	cheche (Tung)	ajagax, aajagan (Al), okanok (Mal)
World	sekai (Jap)	tshekak (Al)
"	chikui (Jap)	cheke (Un)
Yes	hei (Jap)	eh (Kad), ah (M.R), a (K.Sd)
"	igen (Mag)	aak (Gd)
Yesterday	jaino (Jap), cheenoo (L.C)	jani (Al)
"	khanj (Kott), chondj (Yen)	kingularik. kinuleytork (M.R)
You	ekn (Ten), ti (Mag)	igoete (S.B), txi(Al), ichbin(C.Sd)
One	itik (Syr), egy (Mag), egid (Ost)	{ attakon (Al), atchig (Chukluk) { attauden (K.Sd)
"	ykxi (F), auft (L), aku (Vog)	atcuyak (C.R), atik (Unal, ten) { atousik (S.B), atoken (Un) { atashek, attaglik (Al)
"	uks (Esth), ok (Teher), akte (L)	{ atchimouk (Chugachm) { atackik (Ugalak)
"	ifka (Mord), akva (Wog), yhte (F)	atowsik (Unaligm, Male) { atachik (Kusk, Nusherg)
"	hito (Jap), istsuka (Jap)	{ atawtschik (Nun, W.I) { atowchuk (Ekogm)
"	hutsha (Kott)	{ attausek (Gd), attowseak (H.B) { ataotcirk (M.R)



ESKIMO-TURANIAN.—(*Concluded*).

ENGLISH.	NORTH ASIATIC.	ESKIMO.
One	oker (Ost, Sam)	{ acheluk (Koniag), { autowzig (C.Sd)
Two	malgi-jelokon (Juk, S, <i>i.e.</i> , 2x4)	{ malgook (Chugachm) { malogh (Kad), malkhok (Kusk) millei-tsongnet (K.Sd)
“	malgi-jalon (Juk, 6, <i>i.e.</i> , 2x3)	{ malruk (Mal), mallok (Kad) { malguk (Teh), mallerok (M.R)
Three	jalon(Tuk), ilan(Tung, Mandschu)	illaak (M.R)
Four	tjet, tjet (Jurak)	setemat (Mal), sittamet (Lab)
“	tet, tiet (Ost), thede (Kamass)	sheetimut (S.B), sittamat (H.B)
“	tjata (Lawgy), teto (Jen)	tsetumet (K.Sd), teitamet (M.R)
Five	xa (Syr)	chaan (Un), chang (Al)
“	itsu (Jap)	atyoon (Un), attoon (Al=6)
“	sundza (Mandschu)	tshang (Al)
Six	malgi-jalon (Juk, 2x3)	malgok(Teh),malkhok(Kusk $\gamma$ =2)
“	zorgan (Bur), jirgogan (Mong)	argwenrak(HB),arveneloerit(MR)
Seven	dologan (Mong), dolon (Bur)	talang (Un)
“	xelina (Kott)	olung (Al), ooloon (Un)
Eight	malgi-jelokon (Juk, 2x4)	malgok (Teh), malkhok (Kusk=2)
Nine	uijun (Mong), jagin (Tung)	aghinluk (Teh)
“	tshumnaga (Kott)	{ stamma (Teh) { chtamiakoanan (Kuskwog)
Ten	iel (Corean)	{ ullia (Tchuakak I) { koela (Chukl), kulle (Teh)
“	kunolen (Juk)	{ kulen (Kad), kullnuk(Kuskwog) { kollit (Gd)

## GRAMMATICAL RESEMBLANCES.

Between the Eskimo language, and the Turanian tongues of North Asia, besides the numerous coincidences in vocabulary noticed above, there exist many remarkable resemblances in the general character of grammatical structure which at once strike the student of comparative philology. In Eskimo, grammatical particles are suffixed only, which is the case in several N. Asiatic tongues, although not so absolutely as in Innuit. The suffix of the *dual* number is in Yurak *ha, g, k*; in Ostiak, *g, k*; in Tawgy, *gai*; in Jenesei, *ho, go*; Wogul, *g, Aino, ki, gi* (plural; Lapp., *k, h* plural), Magyar, *k* (plural); and in Innuit, *k*; Aleut., *kek*; Mack. River, *ek, ik, eik, ok, uk, ak*, etc. Jukagir, *g, k, ch* (plural); Corean, *chai* (plural).

The suffix of the plural is in Finnish, *t*, in Vepse, *d*, in Esthonian, *d*, in Mordwin, *t*, in Ostiak, *t, et*, Samoiede-Ostiak, *t*, Mongol, *ut, od*, Mandchu, *ta, te*, Buriat, *ut*, Innuit, *t*, Mack. River, *at, ait*, etc.

In Yurak the suffix of the second person singular is *n*, in Tawgy and Jakut, *ng*, in Tchiglit (Mack. R.), *n, an, in, en*; the suffix of the

third pers. sing. in Yurak is *jea*, in Ostiak-Samoiede, *i*, in Jakut *a*, in Turkish, *i*, in Tchigliit, it is *a*. A suffix of the first pers. sing. is in Ost.-Sam., *k*, in Tchigliit, *ayv*. With regard to possessive suffixes we find, second pers. sing., in Tawgy, *na*, in Jurak, *n*, in Yenceseian, *no*, in Kamass., *nan*, in Ostiak and Wogul *n*, in Jakut and Turkish, *n*, and in Tchigliit, *n*, *an*, *in*, *en*; third pers. sing., in Ost.-Sam., *t*, *d*, in Kamass., *t*, Ostiak, *t*, in Tchigliit, *at*; first person plural, in Ostiak, *et*, Tchigliit, *at*, *ait*, Wogul, *oo*, Ost., *u*, *uch*, Tchigliit, *aiout*. In the verb we find the pronoun, suffix of the first per. sing., in Kott. *n*, *an*, in Tchigliit, *una*, Mordwin, *n*. Third pers. plu., Finn, Mordwin, Tcheremish, Wogul, *t*, *ihl*, Tchigliit, *ut*, *eil*, *oat*, etc.

In the declension of nouns besides the dual and plural already enumerated, the following resemblances are apparent. An accusative ending in Wogul, is *ne*, in Tcheremish, *n*, in Tchigliit, *mik*; a locative in Finnish in *na*, Tchigliit, *ne*; a genitive in Buriat in *um*, Tchigliit, *m*; a locative in Japanese, *ni*, Tchigliit, *ne*, *ni*; genitive in Finnish in *n*, Samoied, *n*, Tchigliit, *m*, etc.

These grammatical resemblances and the large number of words common to the two groups of language, form, I think, a reasonable ground for the advancement of the views I have set forth elsewhere, as well as in this paper, as to the relations which exist between the languages of the Arctic tribes of America and those of the so-called Turanians of Northern Asia.

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THE GEOLOGICAL FORMATION AT PORT COLBORNE,  
AS SHOWN BY DRILLING FOR NATURAL GAS.

BY JOHN C. McRAE, PORT COLBORNE.

Commencing at a spot twelve feet above Lake Erie level, the following strata were penetrated by the drill :—

Corniferous.	{	1 to 12 feet.. Drift.
		12 to 25 " .. Corniferous limestone.
		25 to 32 " .. Onondaga limestone.
Lower Helderberg.	{	32 to 35 " .. Fair cement rock.
Salina.....	{	35 to 52 " .. Shale and cement rock.
		52 to 60 " .. Dark shale.
		60 to 90 " .. Shale and cement rock.
		90 to 100 " .. Gypsum and shale.
		100 to 107 " .. Shale.
		107 to 147 " .. Gypsum and Shale.
		147 to 152 " .. Shale.
		152 to 180 " .. Shaly limestone.
		180 to 186 " .. Drab colored limestone.
		186 to 190 " .. Shaly limestone.
Clinton.....	{	190 to 302 " .. Gypsum and shaly limestone, with transparent particles of <i>se-</i> <i>lenite</i> ?
		302 to 500 " .. Magnesian limestone.
		500 to 700 " .. Shaly limestone.
Medina....	{	700 to 720 " .. Clinton limestone.
		720 to 730 " .. Clinton shale.
Medina....	{	730 to 750 " .. Red shale, soft at first but gradual- ly becoming harder.
		750 to 780 " .. Red sandstone, mottled.
		780 to 833 " .. Sandstone, red and white.
		833 to 1500 " .. Soft red shale, with bands of grey and green.

The corniferous limestone here has a dip of 15 feet to the mile, and at Fredonia, N. Y. State, 40 miles south of Port Colborne, it is not found until the drill has penetrated over 900 feet, so that further south a stronger dip prevails.

The Niagara limestone outcrops  $17\frac{1}{2}$  miles north of Port Colborne, and, I am informed, has a dip of about 50 feet to the mile. Accordingly we should find it at a depth of 875 feet, but we did not, as we had the Medina from 833 feet down to 1500.

Allowing that the dip is too great, it should be found between six and seven hundred feet; but, so far, I have been unable to find limestone which could be definitely assigned to the Niagara, and it was not until the second well was drilled that I obtained any limestone characteristic of the Clinton, to which Mr. E. Orton, State Geologist of Ohio, to whom I am indebted for examining a series of samples, assigns the limestone found at 700 to 720 feet. At first not finding any limestone characteristic of the Niagara or Clinton, I thought that the whole stratum from the Lower Helderberg to 1500 feet was the Salina, and that the red shale was the lower part, but the finding of Clinton limestone shows that this was an error.

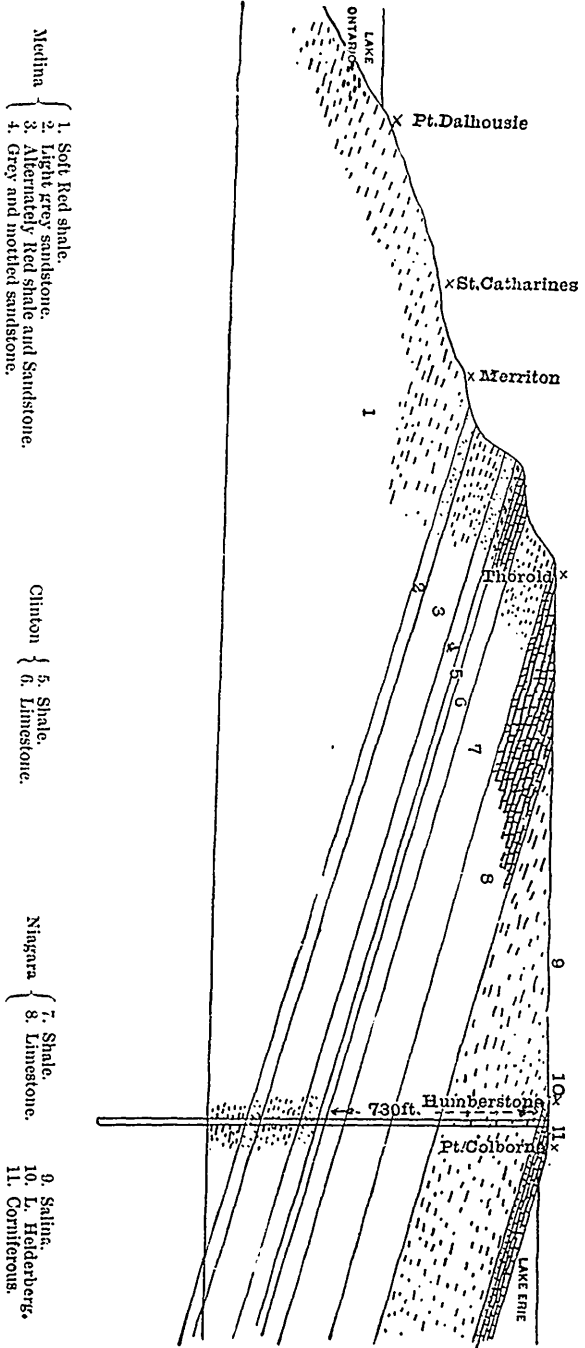
Permanent water was found at 26 feet. Salt water at 452 feet.

A fair flow of gas at 454 feet, with a strong odor of sulphuretted hydrogen.

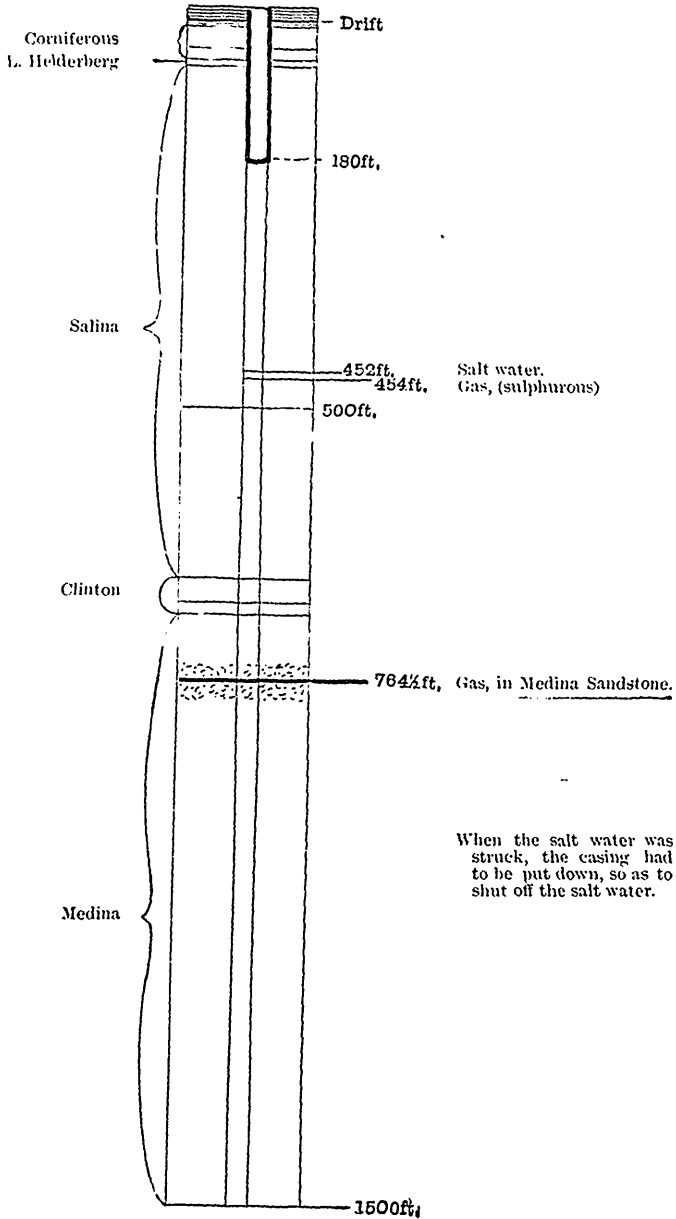
At  $764\frac{1}{2}$  feet the present supply was found, which is almost odorless. The well was drilled to 1500 feet, but there was no increase in the quantity of gas. The accurate flow of the well has not been estimated, but on its being closed for seven hours, the hydraulic gauge registered 275 pounds, and was still going up. The gas is used both for light and fuel, and gives satisfaction.

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NORTH AND SOUTH SECTION THROUGH THE NIAGARA PENINSULA, FROM LAKE ONTARIO TO LAKE ERIE.



SECTION OF No. 1 WELL AT PT. COLBORNE.



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Société Royale des Sciences de.....	“	—6.

## (4.)—DENMARK.

Kongelige Bibliotheket.....	Copenhagen.	
Kongelige Danske Videnskabernes Selskab.....	“	
Kongelige Nordiske Oldskrift Selskab.....	“	
Nordisk Tidsskrift for Filologi.....	“	—4.

## (5.)—FRANCE.

Société Linnéenne du Nord de la France.....	Amiens.	
Société de Géographie Commerciale de Bordeaux.....	Bordeaux.	
Académie Nationale des Sciences, Arts et Belles-Lettres...	Caen.	
Société Nationale des Sciences de Cherbourg.....	Cherbourg.	
Académie des Sciences, Arts et Belles-Lettres de Dijon....	Dijon.	
Union Géographique du Nord de la France.....	Douai.	
Académie de La Rochelle.....	La Rochelle.	
Société Géologique de Normandie.....	Le Havre.	
Société Géologique du Nord.....	Lille.	
Société de Géographie de Lille.....	“	
Société pour l'Étude des Langues Romanes.....	Montpelher.	
Académie des Sciences, Inscriptions et Belles-Lettres.....	Toulouse.	
Annales des Mines.....	Paris.	
Annales des Ponts et Chaussées.....	“	
Société des Ingénieurs Civils.....	“	
Société Nationale des Antiquaires de France.....	“	
Société Géologique de France.....	“	
Société Académique Indo-Chinoise de France.....	“	
Société d'Ethnographie.....	“	
Société Américaine de France.....	“	
Société d'Anthropologie de Paris.....	“	
Bibliothèque Nationale.....	“	
Société de Géographie.....	“	

"Cosmos" .....	Paris.	
"Électricité" .....	"	
Association Française pour l'Avancement des Sciences ....	"	
Journal des Sociétés scientifiques .....	"	
Revue scientifique .....	"	
Revue de Linguistique et de Philologie Comparée .....	"	
Société Zoologique de France .....	"	
Société Mathématique de France .....	"	
Feuille des Jeunes Naturalistes .....	"	
Bulletin d'Histoire Ecclésiastique et d'Archéologie Religieuse des Diocèses de Valence, Gap, Grenoble, et Viviers .....	Romans.	—33.

## (6.)—GERMANY.

Naturforschende Gesellschaft zu Freiburg .....	Baden.
Königliche Preussische Akademie der Wissenschaften ....	Berlin.
Gesellschaft Naturforschender Freunde .....	"
Gesellschaft für Erdkunde .....	"
Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte .....	"
Bibliographie der Staats- und Rechtswissenschaften .....	"
Archiv der Mathematik und Physik .....	"
R. Friedländer und Sohn .....	"
Deutsche Geologische Gesellschaft .....	"
Naturhistorischer Verein für die Preussischen Rheinlande und Westphalen .....	Bonn.
Verein für Naturwissenschaft zu Braunschweig .....	Braunschweig.
Naturwissenschaftlicher Verein .....	Bremen.
Naturforschende Gesellschaft .....	Danzig.
Naturwissenschaftlicher Verein "Isis" .....	Dresden.
Senckenbergische Naturforschende Gesellschaft .....	Frankfurt-am-Main.
Naturwissenschaftlicher Verein .....	Frankfurt-an-der-Oder.
Dr. Ernst Huth .....	"
Oberhessische Gesellschaft für Natur- und Heilkunde .....	Giessen.
Königliche Gesellschaft der Wissenschaften .....	Göttingen.
Naturwissenschaftlicher Verein .....	Hamburg.
Verein für Naturwissenschaftliche Unterhaltung .....	"
Naturhistorisches Museum zu Hamburg .....	"
Geographische Gesellschaft .....	Hanover.
Naturhistorischer Verein für Niedersachsen .....	"
Historischer Verein für Niedersachsen .....	"
Naturhistorisch-Medicinischer Verein .....	Heidelberg.
Verein für Naturkunde .....	Kassel.
Ostpreussische Physikalisch-Oekonomische Gesellschaft. ....	Königsberg.
Naturforschende Gesellschaft zu Leipzig .....	Leipzig.
Königlich Sächsische Gesellschaft der Wissenschaften ....	"
Verein für Erdkunde zu Leipzig .....	"

Verein für Vaterländische Naturkunde in Württemberg . . . . .	Stuttgart.
Naturhistorische Gesellschaft zu Nürnberg . . . . .	Nürnberg
Königlich Baierische Akademie der Wissenschaften . . . . .	München.
Deutsche Gesellschaft für Anthropologie, Ethnologie und Urgeschichte. . . . .	“
Görres Gesellschaft (Historisches Jahrbuch). . . . .	“
Geographische Gesellschaft . . . . .	“
Verein für Naturkunde . . . . .	Offenbach-am-Main.
Zeitschrift für Physiologische Chemie . . . . .	Strassburg.
Nassauischer Verein für Naturkunde. . . . .	Wiesbaden. —40.

## (7.)—ICELAND.

Islenzka Fornleifafélag. . . . .	Reykjavik. —1.
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## (8.)—ITALY.

Società Italiana dei Microscopisti . . . . .	Acireale.
R. Accademia Petrarca di Scienze, Lettere ed Arti . . . . .	Arezzo.
Ateneo di Brescia. . . . .	Brescia.
Società Storica per la Provincia e Antica Diocesi di Como. . . . .	Como.
R. Istituto di Studi Superiori in Firenze . . . . .	Firenze.
Società Italiana di Antropologia, Etnologia, e Psicologia Comparata . . . . .	“
Sezione Fiorentina della Società Africana d'Italia. . . . .	“
Società Entomologica Italiana. . . . .	“
Società di Lettura e Conversazione Scientifiche . . . . .	Genova
R. Accademia di Belle Arti . . . . .	Milano.
R. Istituto Lombardo di Scienze e Lettere . . . . .	“
Società Veneto-Trentina di Scienze Naturali. . . . .	Padova
Società Toscana di Scienze Naturali. . . . .	Pisa.
Gazetta Chimica Italiana . . . . .	Palermo.
Circolo Matematico di Palermo . . . . .	“
Società Siciliana per la Storia Patria . . . . .	“
R. Accademia di Scienze, Lettere, e Belle Arti di Palermo. . . . .	“
Direzione del Giornale del Genio Civile . . . . .	Roma.
Società Geografica Italiana. . . . .	“
R. Comitato Geologico d'Italia . . . . .	“
R. Accademia dei Lincei . . . . .	“
Bullettino di Bibliografia e di Storia delle Scienze Matema- tiche e Fisiche. . . . .	“
“Cosmos” di Guido Cora. . . . .	Torino.
Archivio di Letteratura Biblica ed Orientale. . . . .	“
R. Accademia delle Scienze . . . . .	“
Notarisa Commentarium Phycologicum . . . . .	Venezia. —26.

## (9.)—NETHERLANDS.

Koninklijke Akademie van Wetenschappen. . . . .	Amsterdam.
Koninklijke Zoologisch Genootschap “Natura Artis Magistra” . . . . .	“
Nederlandsch Aardrijkskundig Genootschap. . . . .	“

École Polytechnique de Delft .....	Delft.	
Société Hollandaise des Sciences à Harlem .....	Harlem.	
Fondation de P. Teyler van der Hulst .....	"	
Nederlandsche Botanische Vereeniging.....	Leiden.	
Nederlandsche Dierkundige Vereeniging .....	"	
Recueil des Travaux Chimiques des Pays-Bas .....	"	
Koninklijk Nederlandsch Meteorologisch Instituut.....	Utrecht.	—10.

## (10.)—NORWAY.

Musée de Bergen .....	Bergen.	
Polytekniske Forening.....	Kristiania.	
Forening til Norske Fortidsmindesmørkers Bevaring.....	"	
Videnskabs Selskabet .....	"	
Kongelige Norske Frederiks Universitetet.....	"	
Nyt Magazin for Naturvidenskaberne.....	"	
Norwegische Commission der Europæischen Gradmessung..	"	
Tromsø Museum .....	Tromsø.	—8.

## (11.)—PORTUGAL

Sociedade de Geographia de Lisboa .....	Lisboa.	
Académie Royale des Sciences de Lisbonne .....	"	—2.

## (12.)—RUSSIA.

Société des Naturalistes à l'Université Impériale de .....	Kharkow.	
Société des Naturalistes à l'Université de St. Wladimer..	Kiew.	
Societas Scientiarum Fennica.....	Helsingfors.	
Tifliser Observatorium.....	Tiflis.	
Société Impériale des Naturalistes de Moscou..	Moscow	
Société Physico-chimique Russe à l'Université de .....	St. Petersbourg.	
Comité Géologique.....	St. Petersbourg.	—7.

## (13.)—SPAIN.

"Crónica Científica".....	Barcelona.	
Real Academia de Ciencias Morales y Politicas .....	Madrid.	
Real Academia de la Historia.....	"	
Sociedad Geográfica de Madrid .....	"	—4.

## (14.)—SWEDEN

Kongliga Universitetet.....	Lund.	
Kongliga Fysiografiska Sällskapet.....	"	
Kongliga Svenska Vetenskaps Akademien.....	Stockholm.	
Kongliga Biblioteket.....	"	
Kongliga Universitetet.....	"	
Svenska Sällskapet för Antropologi och Geografi.....	"	
Geologiska Förening i Stockholm .....	"	
Acta Mathematica.....	"	
Kongliga Universitetet.....	Upsala	—9.



## (15.)—SWITZERLAND.

Geographische Gesellschaft von Bern.....	Bern.	
Naturforschende Gesellschaft in Bern .....	“	
Schweizerische Naturforschende Gesellschaft.....	Frauenfeld.	
Société de Physique et d'Historie Naturelle .....	Genève.	
Société de Géographie de Genève .....	“	
Société Neuchateloise de Géographie .....	Neuchatel.	
Naturforschende Gesellschaft in Zurich. ....	Zurich.	—7.

## (16.)—TURKEY.

Sylogue Littéraire Grec de Constantinople .....	Constantinople.	
Institut Météorologique de Roumanie .....	Bucarest.	—2.

## I I I . — A S I A .

## (1.)—INDIA.

Asiatic Society of Bengal.....	Calcutta.	
Geological Survey of India .....	“	
Editor of the “Record” .....	“	
Survey of India Department .....	“	
“Indian Antiquary” .....	Bombay.	
“Orientalist” .....	Kandy, Ceylon.	—6.

## (2.)—STRAITS SETTLEMENTS.

Journal of the Straits Branch of the Royal Asiatic Society..	Singapore.	—1
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## (3.)—JAPAN.

University of Tokio.....	Tokio.	
Asiatic Society of Japan.....	“	
Deutsche Gesellschaft für Natur-und Völkerkunde Ostasiens .	“	
Literature College of Imperial University of Japan.....	“	—4.

## (4.)—JAVA.

Bataviaasch Genootschap van Kunsten en Wetenschappen.	Batavia.	
Nederlandsch-Indische Maatschappij van Nijverheid en Landbouw.....	“	—2.

## (5.)—CHINA.

China Branch of the Royal Asiatic Society .....	Shanghai.	
Observatory of Hong Kong, and Government Publications.	Hong Kong.	—2.

## I V.—A F R I C A .

## (1.)—ALGERIA.

Société Archéologique du Département de .....	Constantine.	
Société de Géographie et d'Archéologie de la Province ....	d'Oran.	
Académie d'Hipponc. ....	Bône,	—3.

## (2.)—CAPE COLONY.

South African Philosophical Society .....	Cape Town.	—1.
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## V.—A U S T R A L A S I A .

## (1.)—AUSTRALIA.

Royal Society of New South Wales .....	Sydney.	
Department of Mines, New South Wales .....	“	
Linnean Society of New South Wales .....	“	
Board of Technical Education .....	“	
Royal Society of Queensland .....	Brisbane.	
Royal Society of Victoria .....	Melbourne.	
Public Library of Victoria .....	“	
Government Statist .....	“	—8.

## (2.)—NEW ZEALAND.

New Zealand Institute .....	Wellington.	—1.
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## (3.)—TASMANIA.

Royal Society of Tasmania .....	Hobarton.	—1.
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#### NOTES :

1.—The First Series has for title, "The Canadian Journal; a Repertory of Industry, Science and Art; and a Record of the Proceedings of the Canadian Institute." The Second Series has for title, "The Canadian Journal of Science, Literature, and History." The title of the Third Series is, "Proceedings of the Canadian Institute." Parts 1 & 2, Third Series, are entitled "The Canadian Journal: Proceedings of the Canadian Institute."

2.—By inadvertence, No. 85 (November 1873) of the "Canadian Journal," 2nd Series (Vol. XIV.) immediately follows No. 79. There is, however, no *lacuna* between these two numbers, as is shown by the fact that the paging is consecutive.

3.—Societies wishing to exchange back numbers of their Proceedings can be supplied with complete sets of the Publications of the Canadian Institute, except Vol. XV., No. 5, Second Series, and Vol. I., Part I, Third Series.

4.—Members having either of the above, Vol. XV., No. 5, Second Series, April, 1877, or Vol. I., Parts 1, 3 & 5; Vol. II., Parts 1 & 2; Vol. III., Part 1, Third Series, and being willing to part with them, will please communicate with the Assistant Secretary.

